



focus

#111

Your gateway to International Standards

when
disasters
strike





Photo : Yucum Village Committee



#111



ISO focus

July-August 2015

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Photo : Rory Hunter, AusAID



Photo : Asian Development Bank

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Photo : MSB

38-39 Mauritius Standards Bureau celebrates 40 years
ANSI's eco-labelling pilot programme takes off



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Being prepared for **THE UNPREPARED**



*Thomas Idermark, CEO,
SIS, Swedish Standards Institute.*

Knowing that even the improbable may actually happen is a valuable lesson for anyone working in safety and risk management. This is what makes identifying, evaluating and managing the different risks in an organization or society so important – and standards play a crucial role in this process. Thus was born, at the turn of the year, ISO/TC 292 for security and resilience. Chaired by Åsa Kyrk Gere from the Swedish Civil Contingencies Agency, the new ISO committee is run under the auspices of SIS, Swedish Standards Institute, which holds the secretariat. With representatives from 45 countries to date – and counting – the committee’s objective is to draw up global standards and guidelines to help build more secure and resilient societies. This frequently involves enhancing our ability to manage difficulties, whether they are borne by natural disaster or deficient protection of key public services.

We firmly believe that standards can make a considerable difference in systematizing this work. Increasingly, organizations, both in the private and public sectors, are discovering that standards make the task of compiling a risk inventory – and identifying and addressing any shortcomings – much easier.

At SIS, we see great advantage in international cooperation, especially in areas that affect security and risk management in various ways – a concern that has taken on global proportions in today’s world. IT security is one of these areas, and one in which Sweden is working very intensively.

With a population of 9.7 million, Sweden is a relatively small country. Nonetheless, we are an export-dependent nation with long-standing experience and involvement in standardization issues and international activities. As an example, SIS is currently leading 170 international secretariats and working groups within ISO and CEN.

On a national level, we also largely consider ourselves an information organization and regularly offer courses, educational programmes and seminars promoting the benefits of standards and standardization. A recent all-day event on information security management and its flagship ISO/IEC 27000 series was well attended by the heads of public agencies and business leaders. We also host a two-day “Risk Management in Practice” course on a regular basis, where participants learn a structured approach to identifying risks at the earliest possible stage, making their organizations less vulnerable.

Risk management is a subject that concerns all managers, not just security and quality managers. The challenge is often to link quality, environmental and risk management together in a natural way in day-to-day activities. This is why we feel that the increased focus on risk, to be adopted in all of ISO’s management system standards from now on, is such a positive development. Meanwhile, ISO 31000, which offers a more in-depth treatment of risk management, is currently under revision.

Creating a “risk list” is an important part of all risk management. An organization subsequently uses this as a basis for assessing, evaluating and managing its risks. In this regard, a useful piece of advice is to ensure that the working group consists of a good mix of different backgrounds, genders, ages and professions, for instance bringing together sociologists and engineers in the same group. Otherwise, everyone would approach the discussion with the same reasoning.

Thomas Idermark

Leaders who tweet

Two-thirds of world leaders are on Twitter! That was the announcement made in 2012 by Twiplomacy, a first-of-its-kind study on how leaders and politicians use social media. Three years on, Twitter is firmly established as the social media channel of choice for ministers and heads of state, providing an essential communication tool to make their diplomatic voices heard.

Top of the class

In a recent article, Matthias Luefkens, the man behind Twiplomacy, selected his Top 20 Twitterati leaders. Here are my 10 favourites:

Read the full study:
Twiplomacy.com

Most popular

No surprise, **@BarackObama** is the most followed and listed, yet his account is run by the Organizing for Action staff. He recently made breaking news by announcing “Hello, Twitter! It’s Barack. Really! Six years in, they’re finally giving me my own account.” Indeed, all tweets from the new and rapidly growing **@POTUS** handle (President of the United States) come directly from him.

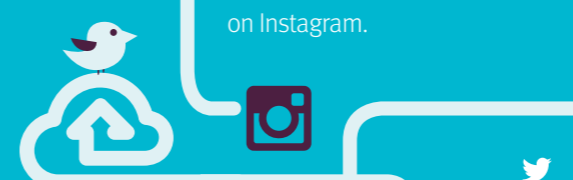


@Pontifex (the Pope) claims second place as the most followed world leader, with 19 million fans across his nine Twitter accounts.

Venezuela’s **@NicolasMaduro** is one of the most prolific and retweeted “tweaders”, averaging nearly 3 200 retweets a tweet.

Most trigger-happy

@MedvedevRussia was the first Russian president on Twitter. He has since made sure that the entire government joins the channel... Yet for this amateur photographer, his heart (and most of his social media time) is on Instagram.



Most conversational

If you want a straight talk with someone who is not afraid to say what’s on his mind, then Rwanda Prime Minister **@PaulKagame** is your prolific tweet partner. The second most conversational leader is Norway’s **@Erna_Solberg**, who tweets personally despite her dyslexia, and chats about everything from women’s empowerment to sports.



Most photogenic

Today’s inescapable selfies are not reserved for our Facebook friends. An early adopter of the infamous stick is Prime Minister of Malaysia **@NajibRazak**, now famous for photos with the likes of Barack Obama, François Hollande and Erdogan, to name a few. Singapore’s Prime Minister **@LeeHsienLoong** is also putting the fun back in selfie, with his **#guesswhere** cityscapes and selfies.



Most memorable

Namibian leader **@HageGeingob** made a memorable start on Twitter by stating: “Be a leader, not a follower LOL.”



Most daring

But in my mind, nothing beats Latvian Prime Minister **@edgarrinkevics** when he tweeted: “I proudly announce I am gay... good luck to all of you...”

Mainstreaming disaster management

Disasters often strike without warning and leave a trail of destruction in their wake. Yet armed with the right tools, the chances of getting through the toughest circumstances are improved. Here, we look at some of the deadly hazards we've been exposed to, and how standards can help us to prepare for, and react in, many of life's most unpredictable scenarios.

Photo: Asian Development Bank

The South Asian tsunami that hit the coast of Indonesia on 26 December 2004 left a trail of desolation behind it.



Disaster statistics

Counting the costs and impact

Data and statistics are important in understanding the impacts and costs of disasters. Systematic disaster data collection and analysis can be used to inform policy decisions to help reduce disaster risks and build resilience.



Source: UNISDR

Reducing vulnerability
is becoming a matter
of urgency.

After the Indian Ocean devastation, the international community came together to develop a ten-year plan for reducing disaster risk in what came to be known as the Hyogo Framework for Action. This framework helped guide development efforts to ensure that communities were more resilient to shocks from natural disasters. While much has been accomplished in the last decade, disaster losses and exposure to risk continue to grow, pressing governments to think ahead. At the Third World Conference on Disaster Risk Reduction (WCDRR) held in Sendai, Japan, in March 2015, delegates adopted the Sendai Framework for Disaster Risk Reduction with seven targets and four priorities for action over the next 15 years. These four strategic priorities are focused on “a better understanding of risk, strengthened disaster risk governance and, crucially, more investment. A fourth priority calls for more effective disaster preparedness and embedding the build back better” principle into recovery, rehabilitation and reconstruction, to which climate services are particularly relevant.

Quality of life in cities

The UN Office for Disaster Risk Reduction (UNISDR), which served as the coordinating body for the WCDRR and facilitated the process of reviewing the existing Hyogo Framework, has entered into an agreement with the World Council on City Data (WCCD), led by President and CEO Dr. Patricia McCarney, to implement a new ISO standard – ISO 37120 – in 45 cities already participating in the UNISDR “Making Cities Resilient” campaign.

Lives can be turned upside down by natural disasters, from earthquakes and fires to hurricanes and tornadoes, as well as attacks and other human-caused disasters. Such catastrophes also hamper economic growth, deepen poverty levels and cause tremendous suffering in the communities affected.

What’s more, with drivers like population growth, rapid urbanization and climate change, this trend shows no sign of abating, threatening the world’s most vulnerable countries. As people continue to flock to the cities in droves and businesses invest locally, more lives and assets concentrate in disaster-prone areas. Reducing the vulnerability and adaptability of these communities is therefore becoming a matter of urgency – having a plan and knowing the steps to take if disaster strikes is by far the best defence.

Counting the cost

Global economic losses from natural disasters have averaged almost USD 200 billion over the past decade – up from just USD 50 billion in the 1980s, according to the World Bank. Natural disasters often lead to lower economic growth and a worsening in fiscal and external balances. They can also have a significant impact on poverty and social welfare. In this regard, developing countries, and their most vulnerable populations, are especially at risk.

In 2004, one of the largest earthquakes ever recorded struck off the coast of Indonesia, triggering a tsunami that swept away entire communities around the Indian Ocean. More than 230 000 people were killed as a result of the 9.1 magnitude quake and the giant waves that slammed into the coastlines. To add to these staggering numbers, economic losses there amounted to USD 14 billion in today’s prices, and would have fetched a far higher figure were it not for the low property and land values in the affected areas.

Help for the most vulnerable

Economically strong countries are able to manage potentially disastrous events with little disruption to their socio-economic development. The same cannot, however, be said for the majority of developing countries. Arguing their plight, Kevin Knight, Chair of technical committee ISO/TC 262 on risk management, explains, “The vast majority of developing countries find themselves ground further into poverty and economic ruin by every disaster as they have little, if any, financial or social resilience with which to manage the disaster, let alone survive economically unscathed. Many countries are still struggling with reestablishment from one disaster when the next one strikes.”



Photo: Asian Development Bank

The UNISDR's "Making Cities Resilient" campaign has 2 500 participating cities and towns with a combined population of some 700 million people.



Photo: Claire McGeechan, AusAID

A boy is rescued as part of an emergency simulation on Manila Bay, the Philippines.

The WCCD is leading the global implementation of ISO 37120, *Sustainable development of communities – Indicators for city services and quality of life*, the first ISO standard for sustainable and resilient cities. It is based on 100 indicators that steer and measure the performance of city services and quality of life. “ISO 37120 informs the way that cities are able to look at sustainability,” states Patricia. “In the face of global environmental shifts, rapid urbanization and ageing city infrastructure, cities require a consistent methodology to prepare for these challenges. The WCCD is proud to have taken the lead in ensuring that ISO standards around cities become essential city tools throughout the developing and developed world.”

In May, the WCCD launched its “WCCD Open City Data Portal”, accessible at www.dataforcities.org. This innovative tool allows everyone from city leaders to academics to interested members of the public to access the data collected using ISO 37120 and reported by the WCCD Foundation Cities, which include, amongst others: London, Toronto, Boston, Shanghai, Los Angeles, Boston, and Dubai. The WCCD is in the process of welcoming its next 100 cities, significantly augmenting the already compelling comparative data available on the portal.

The UNISDR's “Making Cities Resilient” campaign, launched four years ago now, has 2 500 participating cities and towns with a combined population of some 700 million people. “We have 45 role model cities that are ready to implement the new ISO 37120 standard for resilient and sustainable cities. We will work together with the WCCD to further build the family of ISO standards for cities,” stated Margareta Wahlström, Head of UNISDR.

In addition to the development of ISO 37120, working group WG 2 of ISO/TC 268 (led by the same Patricia McCarney) is developing a new family of ISO standards to complement ISO 37120. This work includes future ISO 37121, a technical report on resilience frameworks and indicators, and the recently approved project on developing a new standard on smart cities.

A key goal of the collaboration between UNISDR and WCCD is to ensure that the Ten Essentials for the “Making Cities Resilient” campaign will be incorporated into ISO's work on resilient cities. The need for ISO standards to



At the Third World Conference on Disaster Risk Reduction (WCDRR) held in Sendai, Japan, in March 2015, delegates adopted the Sendai Framework for Disaster Risk Reduction with seven targets and four priorities for action over the next 15 years.

build indicators on resilient cities will become increasingly important with respect to major environmental events such as the earthquake in Nepal, or Hurricane Sandy. These have implications both for cities and their ability to prepare for these events, but also to leverage funding from national governments and international bodies, as well as ramifications for city insurance rates. “This work on developing standards in cities is a very exciting prospect, of enormous benefit to improving the quality of life in cities throughout the world,” says Patricia.

Investing in resilience

Many local governments today are building resilient capabilities to prepare for expected and unexpected situations, with most of the discussion revolving around the physical infrastructure. There is a push to climate-proof our cities – from building sea walls and laying water-resistant power lines to introducing stricter building codes.

According to Kevin Knight, prevention is key. “Disaster risk prevention requires a government to make the conscious decision to invest in stronger and higher bridges; better road design and drainage; flood mitigation works; and other related civil engineering that results in more resilience to damage by disasters. It is about spending money up front on infrastructure rather than spending money cleaning up and restoring infrastructure after each disaster.”

So what can be done? A good example, says Kevin, is replacing low-level railway bridges with stronger high-level bridges. Disruption to traffic and affected communities is much shorter as no reconstruction is required, but there is the year-round benefit of being able to run heavier trains, which provides a significant productivity improvement to the national economy.

Beyond individual building issues, Åsa Kyrk Gere, the Chair of new technical committee ISO/TC 292, *Security*, advocates a holistic approach: “I believe that a more holistic approach needs to be taken by us all, not only by the government. Everybody needs to be involved: governments, business, organizations and individuals must work together, in collaboration, to build a resilient and secure society where everybody is engaged and takes responsibility. That is also why standards are needed.” (For more from Åsa, see interview on page 14).

Social infrastructure

Roger Estall, one of the principal authors of the Australian/New Zealand standard on managing disruption-related risk, also believes that the social infrastructure of a community is an important element that saves lives.

Between September 2010 and December 2011, a series of powerful earthquakes wreaked devastation in New Zealand's Canterbury region, particularly in Christchurch.

Although 185 people died in the catastrophe, making it the second deadliest natural disaster in New Zealand history, casualties were far fewer than in any developing country. So how did the region prepare?

Scientific investigations in the late 1900s meant that the risk was generally understood. Government policy was accordingly “toughened up” so that most modern buildings and infrastructure survived the shaking and many older buildings with critical or historic value were strengthened. More importantly, the focus was on educating the population to let New Zealanders know the steps to take in order to remain safe. In 2005, the New Zealand Ministry of Civil Defence and Emergency Management developed a resource to feed the emergency management message into the national curriculum, centering chiefly on primary school children aged 8 to 12.

Yet despite all the advance planning, much of the solidarity and emergency aid came out of the community, Roger recalls. “In Christchurch, most rescues of trapped people were made by citizens on the spot – not by specialist urban search and rescue teams. A single student used social media to quickly build a well-organized army of people to help anyone without services or food and to clear tonnes of liquefaction debris from their homes.”

A comprehensive strategy

So exactly how much can ISO standards help? Quite a lot, actually. Standards are playing a major role in building an increased comprehensive strategy against disasters. ISO standards can assist the effective management of disaster-related risk significantly by providing a common language and process to, and amongst, local, provincial, national and regional levels of government. “Standards not only offer guidance for understanding risk associated with natural hazards but also finding and implementing the best mix of responses, both before and after events occur.” Developed by ISO/TC 262, ISO 31000, *Risk management – Principles and guidelines*, (currently under revision) is used by many countries to understand and modify disaster-related risk by developing management structures, reducing vulnerability to disruption and making proactive and reactive plans to deal with natural and man-made events. ISO/TC 292, on the other hand, is also responsible for a whole array of International Standards for security and continuity management that support the work of organizations in preparing for disturbing events and disasters.

In other words, ISO/TC 292 is developing standards in all phases before, during and after events and disasters,

covering a wide array of topics such as emergency management, incident response, conducting exercises and issuing public warnings. Its work also focuses on organizational resilience and continuity management that support the efforts of organizations in identifying and reducing their risks, preventing the consequences as well as building their ability to prepare and respond to events and disasters.

Of this rush to prepare, Åsa Kyrk Gere says, “Today, and more so in the future, all organizations will have to take greater responsibility for preventing and mitigating their risks as well as protecting themselves from all types of risks and threats. All organizations play a part in building a more secure and resilient society. At the moment, we are working on a broad range of standards covering terminology, continuity and resilience, emergency management, fraud and counterfeiting measures and controls, public and community resilience as well as standards for private security”.

Post-2015 agenda

Without significant action, the extent and impact of economic and social damage associated with disasters will only get worse over the next 20 years, largely as a result of the growing exposure of people and assets. This has the potential to reverse development progress in hard-hit areas.

“Disasters, many of which are exacerbated by climate change and (are) increasing in frequency and intensity, significantly impede progress toward sustainable development,” the Sendai Framework says. “It is urgent and critical to anticipate, plan for and reduce disaster risk in order to more effectively protect persons, communities and countries... and thus strengthen their resilience.”

Åsa captures it nicely: “No one can succeed alone, we all have to work together. Here, clear regulations, guidance and standards are vital in the reconstruction phase in order to rebuild better. This means that major engagement is needed by the relevant organizations and authorities in the development of regulations, guidance and standards to actively prevent new risks and mitigate risks that remain. This is a long-term commitment.”

So have we found the silver bullet? Perhaps not quite. But while standards may not decrease the frequency and intensity of disasters, they can certainly reduce the financial burden and social consequences that result from them. If nothing else, they provide a cost-effective solution for countries all around the world to ramp up their security and resilience. ELIZABETH GASIOROWSKI-DENIS



Photo: Jim Holmes, AusAID

At the Jana Bikash Secondary School in Matatirtha, Nepal, children are taught how to take shelter beneath their desks in case of an earthquake.



All organizations have to deal with security-related issues.

Charting the road to resilience

Photo: Neryl Lewis, RRT

The extensive flooding caused by Cyclone Nargis is evident from the air. Rice paddy fields that would normally be under cultivation for the monsoon rice crop lie submerged, with flooded nearby villages abandoned.

Man-made or naturally caused, disruptions and disasters are one of humanity's biggest concerns today, destroying entire communities in their wake. But fear not – new ISO/TC 292 is on a mission to create a more secure and resilient world.

Cyclones, earthquakes, floods... you name it, all manner of catastrophes fill our news space with unnerving regularity. Today, all organizations have to deal with security-related issues on a smaller or larger scale in order to stave off potential risks, deal with disruptions, and, ultimately, secure their operations.

Disasters wreak havoc in poor and vulnerable communities across the globe, hamper business continuity, and cost billions in recovery and aid funding. Yet despite an abundance of scientific and technical information, they continue to produce ever-increasing human, environmental and economic losses, with the latter estimated at USD 100 billion per year globally, according to United Nations (UN) statistics.

Alongside potential environmental hazards, society now also faces human-induced threats in the form of fraud, cybercrime and terrorist attacks, which call for reinforced travel/border security, information protection, better fraud detection and powerful counter-messaging.

So what's the solution? To ensure that we remain secure and resilient within this setting, it is vital that organizations increase their risk awareness, undertake risk reduction strategies, and become resilient to the constantly evolving threats by developing foolproof ways of rapidly and effectively responding to these challenges. And International Standards based on global cooperation are part of this answer. We caught up with Åsa Kyrk Gere, the new Chair of ISO/TC 292, *Security*, whose secretariat is held by SIS, the ISO member for Sweden, to find out the plan for a more resilient future.

ISOfocus: To set the record straight, is it just media hype or are security threats really on the rise?

Åsa Kyrk Gere: Security threats are definitely on the rise. For one thing, climate change and natural disasters have noticeably intensified from prior decades, to the point where their effects have been diagnosed as the number one security challenge by most countries today.

As humanity interferes increasingly with the earth's natural systems, driving climate change, disasters have escalated in frequency and severity, putting more and more stress on the ability of society – and the organizations within it – to build up resilience and adapt to these evolving risks and threats. By this I mean finding ways of preventing and mitigating risks, and enhancing our preparedness and our capability to respond.

Global engagement around this issue is evidenced by the United Nations World Conference on Disaster Risk Reduction (WCDRR), which took place in Sendai, Japan, in March of 2015. There, 187 countries met to negotiate the new Sendai Framework for Disaster Risk Reduction that sets the pace for disaster mitigation over the next 15 years.

One session focused on how standards might enhance and support the implementation of this new framework. The conclusion was unequivocal: standards are a vital and important tool that can complement the UN's work in preparing us for disaster and increasing our community resilience.

What, in your view, are the most important security challenges facing society today?

The challenges for a safer, more secure and more resilient society are similar all around the world. They can be broken down into four main points:

- **Inadequate response to natural disasters.** On a local and regional level, our ability to deal with, and respond to, today's disasters is proving woefully inadequate, and countries are now working overtime to make their emergency preparedness leaner and more efficient. As a result, some are struggling with the lack of redundancy of their emergency services to face up to these new challenges. But individual organizations also need to take into consideration the impending threats of climate change and many other risks, taking extra steps to focus on their security management, continuity management and, potentially, their emergency response.
- **Large-scale urbanization.** A soaring population and rapid urbanization means much larger cities. According to the UN, the trend is so severe that by 2050, as much as 66% of the world's population will live in urban areas. To make matters worse, several of these "megacities" are situated on flood- or earthquake-prone territory. This presents endless challenges to a society's security and resilience to sustain its critical infrastructure and vital societal functions – the essential assets, services and systems that are necessary for our society to operate. Many of these services and functions are managed by a mix of private and public organizations that depend on the same systems to function. Their security and continuity management as well as their resilient ability to deal with disruption and disaster is therefore vital.
- **Cybercrime and fraud.** Another of today's great challenges is keeping these critical societal functions secure since they play a vital role for society as a whole. Examples of services and systems that must function are our financial systems, water and sewage, energy and electricity, electronic communications, and various types of control systems such as dams, public transportation, border/port security, and so forth. Additional societal functions include the protection of information, intellectual property and identity from fraud and theft, which incur enormous financial losses for organizations.
- **World instability.** We live in an increasingly volatile world where the parameters of political, economic and social stability have shifted. This calls for greater focus on societal security issues, from border security at air, land and sea checkpoints, to violent forms of home-grown extremism and terrorism, and counter-messaging that promotes a narrative of tolerance.



Åsa Kyrk Gere, the new Chair of ISO/TC 292, Security, whose secretariat is held by SIS, the ISO member for Sweden.



Villages have adapted the design of houses to protect people from rising flood waters and small boats are used to transport people and food to sustain livelihoods.

Taking stock of the grim reality, most organizations are forced to use a multidisciplinary approach. From our deficiencies we learn that society needs to become more coordinated and streamlined in order to build the safe, secure and resilient world we seek. Standards, unsurprisingly, are a big part of this picture. ISO/TC 292, *Security*, can make a major difference for organizations – both within and across sectors – by fulfilling their need for security standards that enhance the safety and resilience of society.

As the newly appointed Chair of ISO/TC 292, what opportunities do you see for the committee?

There are plenty of opportunities for ISO/TC 292 to do good work. A variety of standards are needed to help organizations and communities build up their resilience for a safer tomorrow. Today, we have to shoulder our common responsibility and embrace a holistic, multidisciplinary approach towards a more secure and resilient future. This also means complementing each other's work on every level – locally, nationally, regionally and globally – as well as acting in all phases – before, during and after an event. Standards play a vital role, both in contributing to this streamlining and as a complement to existing sector-specific standards. ISO also has an exciting opportunity to support the UN's globally accepted frameworks. These are based on the consensus of over 180 countries, many of which have identified standards as an

United against disaster

With the heightened probability of disaster threatening our security and happiness, the world is fighting back. And, in doing so, it is using International Standards to increase its preparedness. Rising to the challenge, ISO has merged several committees under the umbrella of technical committee ISO/TC 292, *Security*, to streamline and consolidate existing work in the field. The purpose of the exercise is to facilitate multistakeholder engagement and work to an "all-hazards" holistic approach to address the security challenges of tomorrow. ISO/TC 292's goal is to establish a structure that will meet communities' future needs and demands for standards in this area, contributing to a safer, more secure and more resilient society.



Photo: Jason Brown/AIFDR

Community members from the Mentawai Islands in Indonesia read about earthquake and tsunami risks in educational comic books.

There are plenty
of opportunities
for ISO/TC 292
to do good work.

essential tool for enhancing and strengthening the implementation of the frameworks. I have made a personal commitment to facilitate cooperation between ISO and the UN. In addition, ISO/TC 292 has decided to establish a task force on cooperation with UN agencies to investigate how present and future standards can reinforce the UN's work and help implement the frameworks. Finally, from an ISO perspective, this is also a great opportunity to enhance cooperation and coordination with other ISO technical committees whose work is closely related to ours. I speak, in particular, of ISO/TC 268 for sustainable development in communities, ISO/TC 262 on risk management, and ISO/IEC JTC 1/SC 27 that deals with IT security techniques. Together, we can make a major contribution to a more secure society.

A world of opportunities, but some great challenges too...

Yes. In fact, our greatest stumbling block is combining the different sectors within our extensive scope and finding a common strategy. Breaking through existing “silos” and creating a reliable set of security standards that do not overlap and cause market confusion is a sizeable challenge.

Optimizing stakeholder engagement is no mean feat either, but we are striving for an all-round, representative participation from public administrations and authorities, NGOs and SMEs. This means attracting high-calibre experts from a wide range of sectors and fostering an open, contributing dialogue that will eventually lead to high-quality standards in this field.

Yet another challenge is encouraging countries from the southern hemisphere to participate in our work. They are the hardest hit by the consequences of climate change and are struggling with urbanization. Our ambition, in ISO/TC 292, is to create and facilitate an active group of developing countries that will be instrumental in developing the standards that they need. This is why we invite them to get on board so that, together, we can achieve a good regional balance within the committee and, most importantly, develop standards of global relevance.

How do you perceive the demand for standards that contribute to a safer, more secure and resilient society around the world?

Security risks to society are growing, which means that organizations need to develop the capacity to identify,

understand, prepare and deal with multidisciplinary threats. Be they public or private, and regardless of size, all must work towards building up their resilient capability today. Many are lagging behind and need to step up their efforts in this area. Together, we can make a change, and including standards in this journey is crucial. Society will not get stronger than its weakest link.

What areas remain in greatest need of International Standards?

All areas. International Standards are still very much underutilized in the realm of societal security. I have outlined four important challenges to building a secure and resilient society. Why limit ourselves? I believe there is a great need and great scope for developing standards that address all four of these key challenges. When it comes to security standards, the world's our oyster!



Photo: United Nations Development Programme

Haitians set up impromptu tent cities through the capital after an earthquake measuring 7 plus on the Richter scale rocked Port-au-Prince in January 2010.

Disasters... **be prepared!**

Emergency management and incident response – **ISO 22320**, **ISO 22325*** (capability), **ISO 22322*** (public warning), **ISO 22319*** (volunteer involvement), **ISO 22324*** (colour-coded alert)

Nuclear emergency preparedness and response – **ISO 11320**

Audible evacuation signal – **ISO 8201**

Water safety signs/ beach safety flags – **ISO 20712**

Safety colours and signs – **ISO 7010**
Escape and evacuation plan signs – **ISO 23601**

Transport communication networks for disaster relief and emergencies – **ISO 18317***

Crisis management of water utilities – **ISO 24518***

Public transport emergency evacuation and disaster response – **ISO 19083***

Mass evacuation – **ISO 22315**

Fire hoses – **ISO 14557**

Protective clothing – **ISO 11613**

* under development



The River Sava almost broke its banks at the Serbian town of Sremska Mitrovica, near Belgrade. Army, police, firefighters, as well as thousands of volunteers from all over the country, worked hard to keep the community safe.

Crisis management without borders

We see it time and again – disasters know no borders. That’s why our response to them requires tight-knit regional coordination and cooperation. To address this global predicament, UNECE has put together a comprehensive toolkit that includes... International Standards.

Prosperity can only be built on a solid foundation of security and stability, which can be wiped away in minutes by natural and man-made hazards. All countries in the world, including the most developed, are vulnerable to such hazards. In the European Union alone, almost EUR 100 billion were lost to disasters over the past decade.

The United Nations Economic Commission for Europe (UNECE) is working hard to bring these numbers down. It plays a crucial role in disaster preparedness in the region through its recommendations, treaties and best practices, and advocates the use of International Standards as part of its disaster management toolkit. Indeed, its Recommendation on “Crisis Management in Regulatory Systems” urges governments to integrate best practice from standards in their management of emergencies and crises.

In March 2015 – which sadly coincided with Cyclone Pam hitting Vanuatu – the world came together in Japan to adopt the Sendai Framework for Disaster Risk Reduction, which sets specific priorities for action to reduce disasters and the devastation that ensues. Here, Christian Friis Bach, UN Under-Secretary-General and Executive Secretary of UNECE, tells us more.

ISOfocus: The contributions of International Standards to disaster risk reduction (DRR) are referenced in the Sendai Framework approved at the Third UN World Conference on Disaster Risk Reduction (WCDRR). How can International Standards help address some of the global challenges highlighted at the Third WCDRR?

Christian Friis Bach: No matter how well prepared we may be, when disasters hit, communities and business will suffer, and will suffer that much more if basic infrastructure and services are not restored quickly. I believe that standards – like standards on continuity management and emergency management – can play an important role, not just for companies but for administrations as well. The logic behind these standards is at the heart of the United Nations Economic Commission for Europe (UNECE) Recommendation on “Crisis Management” that encourages governments to have a crisis management function as part of their regulatory frameworks in all economic sectors. Regional coordination in disaster response is also ever so important. Disasters such as floods know no borders, so effective response requires transboundary and regional coordination. The UNECE environmental conventions on

Possible risk treatment strategies for flood risks



RISK AVOIDANCE

- Decide not to build a factory on a flood-prone river basin (management)
- Ban construction in the flood-prone area (regulatory authority)
- Source critical intermediate products from nearby producers, avoiding dependence on locations exposed to high flood risks (management)



RISK REDUCTION

- Support initiatives to reduce global warming
- Implement/encourage uptake of voluntary standards to reduce the environmental impact of production plants



RISK MITIGATION

- Purchase sandbags, place sensitive electrotechnical equipment above ground level, arrange for record storage at offsite locations
- Prepare/enact disaster plans on a periodic basis



RISK TRANSFER/SHARING

- Subscribe to insurance plans that specifically cover flooding (management)
- Contribute to/plan for joint initiatives for societal stakeholders and local business in case of flooding (management & authorities)



RISK ACCEPTANCE

- Decide that the facility is far enough from the predicted storm surge and take no further action (management)
- Decide that the risk of floods for a municipality does not warrant intervention

transboundary cooperation are a key resource in this area as they help countries better cooperate with their neighbours. Standards are also an important resource; they ensure that emergency equipment, for example, can be used anywhere in the world.

Many more standards have a potential to be used much further for managing the risks of disasters, both by business and by policy makers. Specifically, ISO 31000, *Risk management – Principles and guidelines*, allows for managing the different risks confronting any organization. We have worked closely with ISO in developing UNECE's recommendation and publication on "Risk Management in Regulatory Frameworks", which are intricately linked to risk management standards. We would like to work further together to promote this idea and help regulators and companies make better choices, in other words, choices that are "risk informed". The box illustrates these thoughts.

And finally, of course, the Framework agreed in Sendai is also a building block of the United Nations' engagement for sustainable development. Standards – like those produced by UNECE and by ISO – contribute to sustainable development in many ways. For example, ISO 14000 and ISO 50001 help monitor, respectively, emissions and energy use during an organization's operations. In my view, they should be part of the policy mix that we need to change our patterns of production and consumption, and to reduce the scale of weather-related disasters.

How do you see countries around the world benefitting from the Sendai Framework in general, and ISO standards in particular?

The Sendai Framework sets out four areas of priority: improved understanding of disaster risk; strengthened disaster risk governance; increased resilience to disaster risk; and enhanced preparedness for response. I am proud that my organization, UNECE, is making relevant contributions in all four of these areas.

What's more, the UNECE Conference of European Statisticians is pioneering work on some of the fundamental challenges in DRR statistics. Having better harmonized data on disasters and disaster risk will allow for better decision making at all levels. As regards disaster risk governance, the UNECE International Centre of Excellence on Public-Private Partnerships (PPPs) is also developing standards and guidelines, like the "Principles on Zero Tolerance to Corruption in PPP Procurement". These deliverables really help governments build on the resources and knowledge of the business sector to meet development challenges, including disaster risks. Likewise, many ISO standards help decision makers increase transparency and accountability in their decision making and are critical in making investments risk-informed.

UNECE and ISO deliverables are complementary.



Christian Friis Bach, UN Under-Secretary-General and Executive Secretary of UNECE.

A lot of what we do at UNECE helps make our region more resilient. Let's just think, for example, of the continuous deforestation in recent decades, which has impacted our territories' resilience to natural disasters. Our programme on forestry and timber, which we run jointly with the United Nations Food and Agriculture Organization (FAO), monitors the state of forests in the UNECE region and develops guidelines for sustainable forest management. This contributes to healthy, growing forests, which also protect our society from disaster risks. The same is true of standards developed by ISO, IEC and other organizations: they make organizations more efficient as well as more resilient.

As for the fourth priority – enhanced preparedness for disaster response – I will quote just one example: the UNECE Industrial Accidents Convention, where parties work to prevent, prepare for, and respond to industrial accidents, especially those with transboundary consequences. This translates into very concrete actions: countries set up early warning systems, mandate operators of large industrial installations to take precautionary measures, and prepare contingency plans for immediate response, both at the national and regional level. ISO standards – such as ISO 22320 on emergency management and ISO 22301 on business continuity management systems – also have

the potential to be used much more widely to enhance preparedness for disaster response. UNECE and ISO deliverables really are complementary, and I trust we will continue to work closely to enhance the visibility of all these useful tools in the context of the implementation of the Sendai Framework.

ISO and the UN have a long-standing collaboration through many ISO technical committees. What does the Sendai Framework mean for UN agencies? What further opportunities does it create?

UN agencies are involved in many ISO technical committees, and give their contribution to the development of ISO standards in a number of areas. In some key sectors, the same national experts take part both in the work carried out in UNECE and in the work of ISO. This helps ensure that efforts are not duplicated and that the specific mandates and expertise of the two organizations in their respective fields are honoured and are complementary.

The adoption of the Sendai Framework brings new awareness of the importance of disaster risk for sustainability and development, and new potential to strengthen cooperation between the UN, ISO and other standards organizations in this field. During the Sendai Conference,

We aim to continue
to work with ISO
to strengthen the
capacity of countries.



Rescue workers survey damage while searching for survivors after an earthquake of magnitude 7.2 hit Erciş, Turkey, in 2011, killing at least 600 people.

the UN Office for Disaster Risk Reduction (UNISDR) agreed to help pioneer the implementation of a new ISO standard for resilient and sustainable cities (ISO 37120) in 45 model cities. Also in Sendai, the UNECE Working Party on Regulatory Cooperation and Standardization Policies, which acts like a bridge between the standards community, on the one hand, and UN agencies and national regulators on the other, organized a very successful event entitled “Standards for DRR”.

At this event, participating organizations – in particular ISO, IEC and UNECE – committed to:

- Continue and enhance the collaborative initiative between member states, UN agencies and international standards organizations to develop a strategy for the effective use of International Standards for disaster risk reduction and building resilience
- Initiate a collaborative global mapping exercise to identify existing best practice codes and standards applications and compliance strategies
- Support and establish indicators to monitor progress in compliance strategies and identify best practices

The Working Party is in an excellent position to help identify new areas in which ISO and other standards organizations can cooperate to fulfil mandates in specific areas of

the Sendai Framework, as well as in the implementation of the Sustainable Development Goals.

Cooperation between UNECE and ISO in the area of housing is also starting up, and can bring benefits in the area of DRR. The built environment is still the single most important cause of death in natural disasters, especially in poorer countries, and our programme on “Housing and Land Management” will help integrate and mainstream DRR into relevant policies and building codes.

**What areas of collaboration do you see in the future?
How can we strengthen this collaboration together?**

To honour the commitments we have taken in Sendai, we plan, first of all, to continue showcasing standards as an asset for DRR and as a transformational part of the development strategies for resilience.

This role of standards has been recognized explicitly, both in the Sendai Framework and in the seminal UN Global Assessment 2015 (GAR15) report. Standards can help involve new stakeholders in disaster risk reduction, because they use a language and a process that business and communities understand. The implementation of standards – by administrations, businesses and other organizations – can, in some cases, also be certified and this may represent an added incentive for implementation by organizations. Also,

standards provide simple and agreed metrics to help measure progress in the implementation of the Sendai Framework.

We will continue to work together with ISO, other standards organizations and, of course, our member states in a coherent effort to build increased awareness about standards and regulations; facilitate access to relevant standards by SMEs and NGOs; encourage education on DRR-related standards in universities and vocational institutions; and involve the standardization community more aggressively in DRR consultations and platforms. It is also essential that increased funding be made available for national quality infrastructure in order to ensure that the implementation of standards and regulations can be properly measured and monitored. I hope that we will also reinforce our cooperation to encourage governments to embed risk management best practices in regulatory frameworks in sectors that are relevant to DRR and, in particular, in housing, electromechanical equipment, industrial plants and the management of ecosystems. Standards and certification also have a role to play in ensuring better accountability for decision making and sharing the responsibility for disasters fairly. A key reference in this area is the UNECE Aarhus Convention, which sets out provisions to make decision making more responsive to the demands of the people concerned.

What would you say are some of the biggest lessons learnt since the recent disasters experienced around the world, and what other ISO standards could be developed or implemented to further this cause?

One important lesson is that even when single entities are individually resilient to natural and man-made disasters, disruptions of common resources such as energy, water, transportation and communications reduce their capacity to get back to business. We need to break out of our silos and work together cohesively to prepare for and manage disasters. I hope that ISO and UNECE – together with other UN agencies and standards organizations – can unite to increase continuity, not just of single entities but also of complex systems.

Recent disasters have also changed the perception that disaster risk reduction is a sunk cost. Business is now increasingly seeing DRR as a valuable investment, and valuable not just once in fifty, a hundred or a thousand years, depending upon the statistical probability of a disaster. But these probabilities shouldn't let us forget that once in a thousand years may be tomorrow! Really, I think business realizes that investment needs to be risk-informed in order to yield good returns, because resilience is vital for operating in global supply chains.

Is there anything else you would like our readers to know about UNECE's work in this area?

I would conclude by saying that resilience is not all about building thicker and higher seawalls. It is also, and very importantly, about strong institutional and policy mechanisms. This is essentially what the implantation of our recommendations, conventions and standards helps bring about.

“Sustainability starts in Sendai”. In other words, without disaster risk reduction, we cannot have sustainable development because disasters exacerbate poverty, have a devastating impact upon ecosystems, destroy schools and hospitals, and strain the very fabric of society. But when disasters are well managed, they may be an opportunity to “build back better” and make communities more cohesive.

UNECE works in diverse sectors – housing, environment, transport, energy – to ensure that social and economic progress go hand in hand with better disaster risk management. We aim to continue to work with ISO to strengthen the capacity of countries to deliver services in normal times, and to build the resilience that will enable them to cope with, and recover from, disasters when they do occur.



Microsoft gives users confidence to move to the cloud

Earlier this year, Microsoft announced its certification to ISO/IEC 27018 for cloud privacy. Here, Erick Stephens, Chief Technology Officer (CTO), Asia-Pacific, Public Sector, Microsoft, explains why the company made the move, and how the standard promises to not only store data safely, but protect the privacy of business and consumer data.

ISO/IEC 27018
can serve as a template
for regulators and
customers alike.

This year marks a major milestone as Microsoft becomes the first leading cloud provider to adopt the world's pioneering International Standard for cloud privacy. It's known as ISO/IEC 27018, and it was developed to establish a uniform, international approach to protecting privacy for personal data stored in the cloud. Fact is, privacy in the cloud is not just a technology and engineering problem. Information security and data protection can certainly be addressed with tools and processes, but privacy is a social issue with impacts well beyond the data stored and managed by cloud services. This requires that governments, enterprises, academia and consumers reflect on the wider issues of harms and risks and, in particular, the consequences of decisions taken in their deployments of cloud services. ISO/IEC 27018 helps make that whole process clearer for all involved.

Global baseline for cloud services

Before ISO/IEC 27018, there wasn't a robust, internationally recognized benchmark for protecting personally identifiable information (PII) stored in the cloud. There was, however, ISO/IEC 27001:2013, a well-established standard that provided a flexible system for identifying information security risks and choosing controls to address them. Building on that foundation, ISO/IEC 27018 now offers specific guidance to help Cloud Service Providers (CSPs) assess the risks and implement state-of-the-art controls for the protection of PII stored in the cloud.



Compliance with ISO/IEC 27018 guarantees a systematic approach to data protection and means a CSP can demonstrate that it is a “good citizen” in the cloud ecosystem. In an environment hampered by many national cloud privacy and security requirements, this certification can be viewed as a global baseline requirement for cloud services.

Microsoft, and other CSPs, must operate under six key principles of ISO/IEC 27018:

1. **Consent:** CSPs must not use the personal data they receive for advertising and marketing unless expressly instructed to do so by the customer. Moreover, a customer must be able to use the service without submitting to such use of its private information
2. **Control:** Customers have explicit control of how their personal data is used
3. **Transparency:** CSPs must inform customers where their personal data resides and make clear commitments as to how that data is handled
4. **Accountability:** ISO/IEC 27018 asserts that any breach of information security should trigger a review by the service provider to determine if there was any loss, disclosure, or alteration of personal data
5. **Communication:** In case of a breach, CSPs should notify customers, and keep clear records of the incident and the response to it
6. **Independent and yearly audit:** A successful third-party audit of a CSP’s compliance documents the service’s conformance with the standard, and can then be relied upon by the customer to support their own regulatory obligations. To remain compliant, a CSP must subject itself to yearly third-party reviews

All of these commitments are even more important in the current legal environment, in which enterprise customers increasingly have their own privacy compliance obligations. We’re optimistic that ISO/IEC 27018 can serve as a template for regulators and customers alike as they seek to ensure strong privacy protection across geographies and vertical industry sectors.

Privacy protection

The adoption of ISO/IEC 27018 is part of a broader commitment from Microsoft to provide enterprise cloud services that can be trusted. Why does this matter?

Compliance with ISO/IEC 27018 is a testament to our trustworthiness.

Using ISO/IEC 27018 strengthens an organization’s overall information security governance.



The reasons are multiple. Adherence to ISO/IEC 27018 assures enterprise customers that their privacy will be protected in several distinct ways. With us, they:

- Will always know where their data is stored and who is processing that data
- Will not need to worry about their data being used for marketing and advertising purposes without their consent. The choice is always theirs
- Can be confident that we will be transparent about our ability to return, transfer, or securely dispose of any personal data at their request
- Can rely on us to help handle access, correction or deletion requests. Certain data protection laws (e.g. EU data protection law) impose specific requirements on CSPs, such as allowing individuals to access their personal information, correct it, and even delete it. We help customers meet these obligations
- Can rely on our ability to deliver notifications in the event of a security incident resulting in unauthorized disclosure of personal data, to help them comply with their notification obligations
- Can be confident that we will only comply with legally binding requests for the disclosure of customers’ personal data
- Can rely on independent third-party verification of the above principles. To claim compliance with ISO/IEC 27018, we must undergo a rigorous ISO/IEC 27001 certification process by an accredited independent certification body

These are among the many reasons consumers can move to the Microsoft cloud with confidence.

Backed by consumer demand

Trust is increasingly important to customers leveraging the cloud, particularly when they are considering letting a third-party handle and manage their most sensitive data. In such a scenario, even contractual commitments may not be sufficient.

Customers increasingly want verification that the promised practices are implemented. Microsoft understands these concerns and the importance of being transparent, which is why we were the first major CSP to adopt the stringent privacy principles outlined in ISO/IEC 27018 and submit our cloud services to an independent audit of those controls.

Compliance with ISO/IEC 27018 is a testament to our trustworthiness and provides a clear signal that Microsoft will handle personal data securely and only use it for purposes approved explicitly by its owner. We’ve made it our pledge to protect the privacy of our customers online. With the Microsoft cloud, you’re in control. ERICK STEPHENS



High standards for Anji County



China's rapid economic growth has not crossed into its countryside, causing uneven distributions of wealth and a deep urban-rural divide. Now, the country's new roadmap of urbanization is on being more ecologically focused.

With rolling tea plantations and terraced rice fields, there's no denying China is a beautiful country. Yet despite two decades of stellar economic growth – its GDP peaked at an estimated USD 10 355.35 billion in 2014 – the gap between the rich and the poor is widening across rural-urban boundaries. This means that although cities are becoming more modernized, people living in rural areas are not reaping the benefits of China's flourishing economy and still lack basic facilities and social services.

In 2012, to treat this imbalance, Chinese leadership announced a new vision to build “beautiful China”, marking a profound shift from a development approach that relied on industrialization and export to a new strategy that enhances the quality of life. To realize this dream, the division between urban and rural areas must be broken down.

Standards are believed to be key in balancing out the urban-rural chasm, raising the bar for a better quality of life as well as levelling

the playing field economically, socially and ecologically. Anji County in China's eastern Zhejiang Province has been busy implementing its own Rural Development Programme to beautify its countryside and improve the lives of the farmers living there. The gamble has paid off and the region was awarded the UN Habitat Scroll of Honor for its efforts to make Anji a better place for humans to live.

The beauty of “eco”

Why do we need “beautiful villages”? Because they are more pleasant to live in, for one thing, but ultimately to protect our planet and its people and ensure ourselves a sustainable future. Back in the 1980s, in an attempt to shake off poverty fast, Anji County erected scores of highly polluting, resource-consuming factories. In the short-term, the local economy boomed... But becoming the world's factory came at a cost: endemic environmental pollution and resource shortages.



Photo: Market Supervision and Administration Bureau of Anji

Manufacturing bamboo steamer baskets in a local factory.

As is often the case, this painful experience had its silver lining. It forced the government of Anji County to sit up and seriously reflect on the shortcomings of the old developmental pattern of “treatment after pollution”, exploring new routes to a more sustainable economy. The new pattern of development now relies on the region’s indigenous assets, which comprise four industries (bamboo crafts; swivel-chair manufactures; electric power; painting and calligraphy) and four special products (bamboo, tea, mulberry leaf and tobacco leaf). The eco-economy was born.

Programme perspectives

In China’s “earth-bound” society, rural villages refer to settlements mostly occupied by farmers. Over time, state-led industrialization has meant that rural society was often left out of formal welfare provision and public services, leaving destitute farmers to live in dilapidated conditions.

The plan was to improve production, ecological and living conditions for farmers in rural areas by placing more emphasis on basic infrastructure and facilities, including hygiene issues, waste collection and transfer, safe drinking water and the recycling of animal manure – to make villages both “liveable” and “healthier”. Equally important, rural village improvements needed to be carried out while at the same time preserving the architectural heritage, the historical and cultural legacy and maintaining existing social network structures and spatial patterns. All this was instrumental to China’s modernization and development on the world stage.

The standards of rural development

There was just one problem. Nobody in China had ever done this before. So without any precedent to lean on, Anji got to work. Drawing on similar practices in developed economies, it set out to build a place with a “beautiful environment, energetic business, harmonious society, and happy people”.

This was easier said than done. The system included nearly 280 laws and regulations, standards and norms covering rural infrastructure, environmental upgrading, service assurance, industrial management and public service. This sprawling resource became the guiding principle for creating the standards that would be used

The gap between the rich and the poor is widening across rural-urban boundaries.

in the programme. The result? Almost 20 local standards and norms were developed in 2012, including construction standards, requirements for setup, management and maintenance of public service facilities, and many more.

To ensure these benchmarks were comprehensive and relevant, local authorities conducted a province-wide social survey, which helped determine 36 specific indicators for the making of “beautiful villages”, on which basis the aforementioned standards were developed.

The standard *Construction of Beautiful Villages*, for example, involved countless field visits, opinion polls and expert reviews to nail the final definition of a “beautiful village” as “a livable and sustainable village incorporating scientific planning layout, environmental beauty, and a prosperous and contented rural civilization where ecology, economy, culture and social governances are harmoniously coordinated”.



Aerial photo of public recreational space in Yucun Village, Anji.

Photo: Yucun Village Committee

A way with standards

The rural reform has been a historic turning point for Anji County, bringing amazing change in all areas of life: prosperity, comfort, hygiene, and happiness... How they did it? Here's introducing the practices of the rural revolution.

Keep your country tidy – Domestic waste treatment is a big problem in rural environments due to deficient transport facilities. Drawing on a local standard for the classified treatment of domestic waste, local residents were instructed to separate their household refuse into recyclable, unrecyclable and compostable kitchen waste. By the end of 2013, 100 % of the province's domestic waste was being collected and treated.

Wastewater ebb-and-flow – Anji is ensconced in the hills where no large piece of land is available for the construction of wastewater treatment facilities. Playing savvy, local authorities experimented with advanced technologies from the US for the treatment of rural domestic sewage, where pipe networks are deployed between closely grouped rural residences to gather and centrally dispose of domestic waste. The local standard *Technical Specification for Rural Domestic Sewage Treatment* ensured the effluent quality was compliant for farm irrigation or discharge into natural waters. Eight years on, treatment rates for rural domestic sewage have reached 100 %.

A decent living – In Anji County, the *Job Specification for Labour and Social Protection* and other rural public service standards were developed to ensure a fair and consistent delivery of basic public services to match urban public services. This ensures a minimum living wage, endowment insurance and a new rural medical cooperative, which has

been joined by 96.78 % of farmers. Using standards for public facilities in rural communities, 90 % of villages countywide were also served with brand-new recreational facilities, including farmer squares, village stages, basketball courts and workout paths.

Crafting landscapes – Drawing on the local standard *General Requirements for the Environment and Public Health in Villages and Communities*, "dead corners" were cleaned up in local villages in favour of public green spaces, buildings and city walls were given a facelift and street lights were installed, while preserving the local architectural features for a more harmonious charm.

Culture for all – With help from the *Specification for the Construction and Service of Rural Exhibition Halls*, Zhejiang Province's first eco-museum was upgraded with additional exhibition pavilions, promoting a cultural renaissance among the local community. This improvement carries forward the province's unique cultural values including filial piety, painting and calligraphy, bamboo, and the art of white tea.

Touting for tourism – Specific indicators were developed to give the rural tourism industry some long-awaited standards for the quality of infrastructure and service, providing local tourism with a much needed boost.

Determined to make its vision a success, China has very recently released GB/T 32000-2015, *Guidance for the Construction of Beautiful Villages*, its first national standard on beautiful rural constructions. This is a milestone for the country, and an expression of the government's growing attention to rural environment and its people.



Photo: Zhiyang Liu

A press conference for the launch of the Chinese standard on construction of beautiful villages was held at SAC, ISO member for China, in May 2015.



Drifting experience in Yucun Village, Anji.

The good life

The difference is night and day. The village improvement programme has significantly boosted the regional infrastructure in rural areas, providing an integrated system of urban-rural water supply, waste disposal, sewage treatment and an extension of the urban bus system and services to the villages. Of equal importance, the programme has also done wonders with the rural landscape. Not only has it preserved the traditional living environment graced with quaint streets, small bridges over flowing streams, rural houses and fields, it has also enhanced the tranquil quality of rural life.

While landscaping may not bring immediate economic benefit, it improves the rural village's attractiveness, both as livable home and a tourist and recreation destination, restoring a sense of belonging and community attachment. Ultimately, the hope is also that a more pleasant environment will attract more people to settle down there.

A beautiful conclusion

Seen only as a source of cheap labour for state industrialization and land for export-oriented production, rural areas in China have been neglected for a long time. Building up these backward communities was therefore fraught with complexities. Standards have facilitated this process, helping to translate state policies for rural development into operable measures and practices, closing the gap on this ambitious goal.

Anji County's village improvement programme is an experiment to revitalize rural society. It emphasizes the protection of the rural environment, improving living conditions in villages and enhancing rural landscapes, to create a land where Chinese farmers can live – a land that is a fitting testament to China's rise.

DONG LI, Deputy-Mayor of Anji County
XINYU HUA, Market Supervision and Administration Bureau of Anji

Anji County's village improvement programme is an experiment to revitalize rural society.

MAURITIUS STANDARDS BUREAU CELEBRATES 40 YEARS

The cakes and candles are out this year to mark the Mauritius Standards Bureau's 40 years in existence, half of which as an ISO member.

Initially established as a department of the Ministry of Commerce and Industry under the Standards Act 1975, the Mauritius Standards Bureau was governed by the Standards Council, a board consisting of ten members from various economic sectors.

The Bureau started its operations on a modest scale, but with basic testing capabilities and for expertise to hand, the development of standards was a slower process than today and, often, the staff involved in their development were also responsible for testing and certification.

In 1993, the Mauritius Standards Bureau Act was passed, changing the organization from a government to a corporate body, which gave it more administrative and financial autonomy. The change resulted in a complete restructure and relocation, and its capacity and range of services was expanded.



(From left to right) **Tamanah Appadu** and **Ashit Kumar Gungah**, respectively Permanent Secretary and Honorable Minister of the Ministry of Industry, Commerce and Consumer Protection, and **Rashida Nanhuck**, Acting Director of the Mauritius Standards Bureau at the 2015 World Metrology Day celebrations.

ANSI'S ECO-LABELLING PILOT PROGRAMME TAKES OFF

The American National Standards Institute (ANSI), ISO member for the USA, has announced its first accreditations under two pilot programmes launched last year to address eco-labelling and environmental declarations.

ISO International Standards define four different types of environmental labels, of which the pilot programme focuses on two: Type 1, environmental labelling scheme owners and the competence of eco-labelling certification bodies; and Type III, environmental labels and declarations.

"Eco-labelling initiatives have grown steadily in recent years, as consumers and manufacturers alike look to protect the environment. However, 'greenwashing' and false declarations have been a real concern as the demand for sustainability grows," said Reinaldo Figueiredo, ANSI Senior Program Director for product and process accreditation.

"ANSI sponsored an independently conducted market analysis to examine the use of the ISO environmental labels, specifically Types I and III. That study confirmed a growing demand for an ANSI-led accreditation effort that would add value, rigour, and accountability to the process."

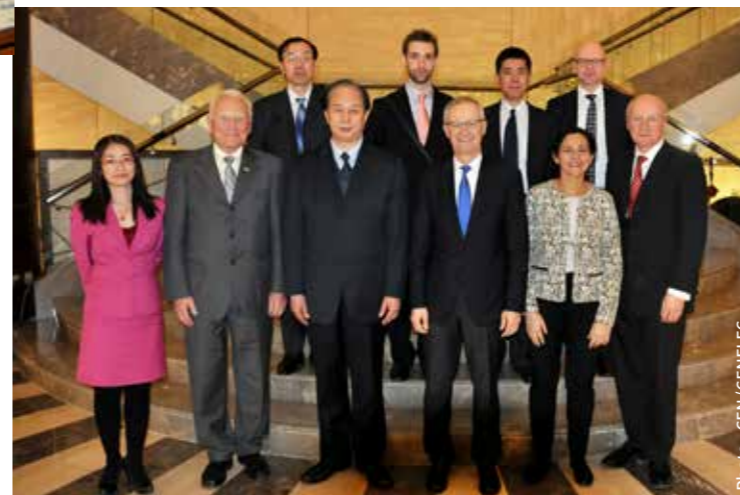
ISO CENTRAL SECRETARIAT TALKS MANAGEMENT CHANGES

ISO Secretary-General Rob Steele has announced his departure from his position, effective 31 July 2015. Kevin McKinley (currently ISO Deputy Secretary-General) has been appointed Acting Secretary-General as of 1 August 2015.

In making the announcement, Rob said that it had been a privilege to work for ISO. "Working in ISO has given me the opportunity to help the organization and its members respond to global needs for standardization, particularly in promoting standards and responding to the needs in emerging economies," he said. "It has been an honour to serve ISO, a place where those involved in ISO's work can truly say each day 'I helped the World get that little bit better'." Rob thanked all the ISO members who had supported him during his time as Secretary-General, as well as the many friends and amazing organizations he had been involved with around the world.

Kevin McKinley will act as the Secretary-General of ISO, with its Central Secretariat based in Geneva, Switzerland, until the process for selecting and appointing a new Secretary-General is completed. Kevin, who is Canadian, joined ISO in 2003 as Deputy Secretary-General and has been responsible for ISO's core standards development work and ISO's strategy and policy activities.

ISO PRESIDENT MEETS CEN/CENELEC IN BEIJING



Sharing ideas and solutions to key challenges was a primary feature of a recent exchange between ISO President Dr. Zhang Xiaogang and a visiting CEN/CENELEC delegation in Beijing, China.

CEN/CENELEC's Director-General, Elena Santiago Gid, presented the European standardization model and future plan, while Dr. Xu Bin, the Seconded European Standardization Expert for China, outlined some of the shared projects between CEN/CENELEC and SAC.

The meeting was an opportunity for Dr. Zhang Xiaogang to share information about the development process of the *ISO Strategic Plan 2016-2020*, and express his gratitude to CEN for its valuable comments and feedback.

The ISO President said he had gained much from the meeting, and was pleased to see that the CEN/CENELEC plan is strongly aligned with supporting ISO. He also felt there was much that ISO could learn from the two organizations' rich experience of standardization to further its work.



THE AMERICAS GET TOGETHER AT THE COPANT GA

Planning for the future was high on the agenda at the COPANT General Assembly held in Mexico City earlier this year. COPANT – which stands for Pan American Standards Commission – brought together 31 of its 44 national standards bodies (NSBs) to brainstorm over its strategic plan for 2016-2020.

Hosted by the Dirección General de Normas, COPANT's member for Mexico, the week-long meeting defined objectives and activities to achieve compliance with the four Strategic Priorities of COPANT which are: building capacities, led by Mexico and Argentina; increasing international participation in targeted areas, led by Brazil and the USA; promoting effective conformity assessment services, led

by Chile and Colombia; and strengthening regional collaboration and cooperation, led by Costa Rica and Trinidad & Tobago.

A workshop entitled "Perspectives of Standardization and Conformity Assessment for Leaders of the NSBs" was also conducted at the event. Organized by the Mexican Accreditation Agency (EMA), it featured speakers from Canada and the USA who shared the structure and functioning of their national quality systems.

Other meetings included those of the COPANT Focal Group on Tourism Services, led by Mexico, and the Spanish Translation Management Board of ISO, whose secretariat is with AENOR (Spain).



Protecting digital consumers

Streams of data flowing through and among devices, the Internet and the cloud... welcome to the hyper-connected community! Yet as consumers move more of their lives to digital channels, they are wary about how companies handle their personal data.

Back in 2012, the Girls Around Me app made headlines when women's personal profiles, shared willingly to keep touch with their girlfriends, started appearing in an app used by strangers on their smartphones.

Such incidents sparked off the "creep factor", a new phenomenon describing the feeling consumers report after experiencing an infringement on their privacy. At the heart of the matter is the "surprise" consumers feel when personal information shared in one context pops up unexpectedly in another.

People are increasingly going online for work and play, social life and shopping. Placing an order on an e-commerce Website or booking a taxi via your smartphone on a community platform have become commonplace these days. Meanwhile, increased monetization of personal data has led some operators to massively collect data on individuals. Every time we connect to the Internet, we leave our footprints in the form of private information. Such data is collected, segmented, sold and used, allegedly to enhance our quality of life and better meet our needs, but more truthfully for commercial purposes that are often beyond our control.

Online trust has hit an all-time low with up to 89% of UK Internet users – and a staggering 92% in the USA – worrying about their privacy online, according to a 2014 study by global data privacy company TRUSTe.

Obligation to disclose

Consumers are often oblivious to the data being collected about them and what happens to this information. Providing personal data is a necessary evil for the convenience of accessing goods and services online, explains Norma McCormick, past Chair of the Consumer and Public Interest Committee at the Standards Council of Canada, the ISO member for the country. Consumers must automatically consent to requests for information and cannot always fully restrict the type of details they hand over.

"Once the information is provided," she warns, "the consumer has more limited, and sometimes no control, on how it is used". Consumers can, however, reduce the risk of misuse or abuse of their personal data by looking for verification schemes, which can increase confidence in the recipient of the information.

When it comes to dealing with companies online, individuals are faced with the organization's privacy and the settings it has determined. "No surprise then that research shows the median time users spend on licence agreements is only six seconds; and no more than 8% of users read the licence agreement in full," says Richard Bates, Head of Digital Initiatives at Consumers International, a world federation of consumer groups.

Big bucks for big data

With Internet users worldwide nearing the three billion mark (42% of the world's population), according to the International Telecommunication Union (ITU), the mind boggles as to the amount of digital personal data stored on the Web. What's more, an estimated 90% of that data has been collected over the past two years. With this rapid growth, regulators must be proactive about putting frameworks in place to harness the social benefits of this enormous data pool while protecting legitimate consumer concerns.

Any data circulating on the Web are by definition "highly vulnerable". Once captured, they are saved, analysed, processed and sometimes transmitted to other databases. Information is often stored in regions with a cold climate, because doing

so is cheaper as a result of energy savings. Also, a data item might be routed through numerous networks before it reaches its destination.

Personal data have a high monetary value and are thus subject to market pressures, but also to all kinds of malicious and criminal behaviour. Incredibly, a date of birth fetches two dollars apiece, according to the Organisation for Economic Cooperation and Development (OECD), meaning people's birthdays have a potential market value of USD 6 billion. This necessarily raises questions of data security and jurisdiction.

The laws of the land

Cases of online data being stolen have grown over the years. That's because many privacy elements can be captured and digitized through an Internet connection, but also via a wide variety of intrusive connected devices. In a number of countries, "digitized privacy elements" are classified under personal data or personally identifiable information (PII), explains Dr. Kernaghan Webb, Associate Professor, Law and Business Department, at Ryerson University, Toronto, Canada. "However," he deplures, "a unified international definition of 'digitized privacy elements' is not yet available."

Airbnb, Uber and Facebook are examples of a particularly data-rich form of online multi-actor marketplace

interaction mechanisms (OMAMIMs). They raise significant questions about the accountability of consumers, businesses and governments in the digital marketplace in terms of who can do what, and how. "Understanding the distinctive features of these OMAMIMs is an important first step to determining the appropriate roles and approaches of all parties in protecting consumers while encouraging the creation of innovative products and services," explains Dr. Webb.

Beyond government dictates, which are overly restrictive and prescriptive, self-regulation can be an effective strategy for protecting customer privacy. This is already happening as most companies now have privacy policies and internal processes to regulate data collection, usage and customer choice. These let consumers know how and what personal data is being collected and used, and allow them to opt out of the marketing process. It makes pragmatic sense, as most businesses want to do right by their customers to avoid losing them and protect their brand.

Consumer empowerment

Although industry players must show willing by safeguarding consumers' rights and fighting misleading advertising, connected customers have their own role to play, with its specific responsibilities. And regulators must take a new look at ways to empower and protect them.

42 %
of the world's
population are
Internet users

Source : International Telecommunication Union (ITU)

89 %
of Internet
users in the UK
and **92 %**
in the US worry
about online
privacy

Source : TRUSTe study



For more information about consumer issues in the digital age, see presentations from the ISO/COPOLCO Workshop held in May 2015 in Geneva, Switzerland.

To be fully accountable, consumers need access to valid, complete and documented information on online products and services, highlighting their advantages and disadvantages. "Finding a more meaningful solution to this problem requires developing mechanisms that enable consumers to express their terms ; and move beyond a one-size-fits-all model of consent," emphasizes Bates.

So what are the tools and services that could empower consumers to better manage their data ? A new market for personal data management services is already emerging that can help individuals assert more control over how their data is collected. Such services take on many forms from browser plugins that block tracking applications to government initiatives prompting companies to return the data they hold to their rightful owners.

Planning privacy

Fragmentary country-specific privacy laws burden companies and do not protect consumers. There has been considerable pressure in some countries to ease restrictions on the handling of personal data, yet relying solely on self-regulatory programmes and customer acumen is problematic in the absence of widely recognized and accredited standards. Standardization seems to be a good solution to strike the balance between governance, business and consumer.

"International Standards, I suspect, can support interoperability between and across the different tools and systems that will constitute this ecosystem of data-empowering services. And they have a role in defining and promoting what a consumer-centric approach to terms and conditions should look like," says Bates. Global standards addressing issues of transparency, data protection and dispute resolution mechanisms can provide the overarching framework that facilitates transborder data flows, with appropriate obligations attached.

That said, ISO standards are voluntary. They are not a replacement for conventional regulation but a supplement that enhances the regulators' ability to raise a cohesive cross-border response built on the self-regulatory capabilities of private-sector platforms and the joint accountability of buyers and sellers. A robust process that should begin to narrow the issues dividing nations on data protection law. SANDRINE TRANCHARD

Social responsibility

in Middle East and North Africa

A project to facilitate the use of ISO's standard for social responsibility gives developing countries the tools and know-how to make an impact that lasts.

In a fast-changing, globalized world, being socially responsible is no longer just a nice-to-have, but a strategic necessity. It is increasingly a key business requirement as organizations become aware of their need to balance their impact on society with the fruits of their activity in order to last.

Society itself is driving that requirement, with socially responsible behaviour having a significant influence on an organization's reputation and competitiveness, affecting their relationships with a number of stakeholders, namely suppliers, government and the communities in which they operate.

ISO 26000, *Social responsibility*, is an internationally recognized tool in this area, providing guidance on how businesses and organizations can operate in a socially responsible way. It has recently been included in the Corporate Reporting Landscape Map, an online tool of world-leading corporate reporting initiatives.

Committed to capacity building

With the *ISO Action Plan for Developing Countries*, ISO has long been committed to increasing the capacity of standardization in developing countries, a number of



A group of women and girls walk home after collecting water from a rainwater pool in Gayo Village, Ethiopia. The water is purified with tablets before drinking.

whom are in the Middle East and North Africa (MENA) region, where the opportunity – and business requirement – for organizations to benefit from social responsibility (SR) initiatives is enormous. The region has been hard hit by prolonged conflict and political instability in some countries, which has spilled over into neighbouring ones, with the threat of rising unemployment and poverty, according to the World Bank.

Progress in social development has been made in this region over the last 20 years, but a number of challenges remain, not least the inclusion of minority groups and government accountability.

Recognizing these challenges, and the opportunities that ISO 26000 provides, ISO, with the support of the Swedish International Development Cooperation Agency (Sida), implemented for the first time a four-year project (2011 to 2014) for ISO members in the MENA region aimed at increasing the uptake of the standard. This helped contribute to the region's sustainable development whilst building national capacity in standardization at the same time. The objective was to create a pool of national experts that could support pilot organizations in their application of social responsibility principles using ISO 26000, with the ISO member (national standards body) as the key driver.

The project covered seven pilot countries – Algeria, Egypt, Iraq, Jordan, Lebanon, Morocco, Tunisia – with 109 national experts trained on ISO 26000 and its application. A total of 91 organizations coming from a wide range of sectors including NGOs, hospitals, government departments, manufacturers, banks and hotels have been encouraged/ advised by the national experts to apply ISO 26000.

The experts trained were then continuously mentored by external trainers and specialists through country visits, feedback workshops and remote support offered via e-mail and telephone.

In order to increase the national awareness of social responsibility in the “project countries”, nearly 50 national seminars were held by the ISO members and the national experts across the region, reaching 4 304 people from various stakeholder groups, including specific groups such as women's associations and female entrepreneurs

Benefits for members

Experiences and lessons learned from the project were shared during two regional workshops held in Morocco for national experts, who were also able to exchange information via a Web-based platform.

The impact of the project was far and wide, with all countries involved reporting a positive result. Overseeing 17 pilot organizations, IANOR, the ISO member for Algeria, noted that the project had huge benefits for the country, increasing awareness of the challenge of being socially responsible.

Equally enthusiastic, the Egyptian Organization for Standardization and Quality Control (EOS), the ISO member for Egypt, also found it of great value: “The SR MENA project on ISO 26000 has been very effective for Egypt. We achieved all our objectives and even went beyond them to achieve geographic and sectorial diversity of SR activities,” said EOS Chairman Dr. Eng. Hassan Abdel-Magied. “Our overall objective is to integrate SR principles and issues in the National Sustainable Development Strategy through contribution to the process of drafting and revising relevant laws and policies.” The project has also resulted in ISO 26000 being referenced in the new Constitution of Tunisia and the signing of a Memorandum of Understanding of Social Responsibility and Governance between INNORPI, the ISO member for Tunisia, and many of its main stakeholders such as labour and human rights organizations.

It also gave INNORPI the opportunity to promote the standard in a wide range of organizations, establishing effective relationships with experts and industry, and further plans are underway to continue this collaboration.

Dr. Haydar Al Zaben, Director General of JSMO, the ISO member for Jordan, said the project brought marked improvements in the way selected organizations performed towards society and the environment.

“The SR MENA project on ISO 26000 resulted in profound competencies on ISO 26000 and led to improved relationships with the organizations and their stakeholders, and society as a whole. In addition, JSMO used the steering committee meetings, visits to organizations, training and awareness sessions to exchange knowledge and experience, solve problems and monitor the project. Collaboration will carry on through the work of technical committees relevant to sustainability.”

Abderrahim Taibi, Director of IMANOR, the ISO member for Morocco, said the project allowed them to promote more widely the principles of social responsibility and underline the importance of a standard approach in the political and economic arena.



Collaboration will carry
on through the work
of technical committees
relevant to sustainability.

“The collaboration between us, the national experts and participating organizations, has grown as a result of the confidence established between the parties from this project, bringing with it greater transparency and an understanding of the efforts required to have this standard in place.”

Sustaining the momentum

While the project is now complete, each country has come away with a continuation plan to build on the opportunities presented and capitalize on the awareness that it brought.

This project was facilitated by the ISO Academy¹⁾ project management office for capacity building as part of ISO’s *Action Plan for Developing Countries 2011-2015*. Ismail Albaidhani, Director, ISO Academy, and Secretary of the ISO Committee on developing country matters (DEVCO)²⁾ commented that, “To sustain the excellent work we have achieved as part of this project, Sida has agreed to launch a new project with ISO for the region named ‘MENA STAR’ that aims at upgrading the regions’ trade quality infrastructure and sustainable development, focusing on areas such as energy, environment and water”. He added “DEVCO is in the process of developing the next *Action Plan for Developing Countries 2016-2020* with a clear focus on creating a lasting impact for members in emerging economies. Sustainable development, including the important learnings from the MENA Social Responsibility Project, is also being integrated in this strategic work for members worldwide.” CLARE NADEN

- 1) The ISO Academy is responsible for facilitating capacity building, technical assistance, and research and development projects for ISO members worldwide.
- 2) DEVCO is the ISO policy group that looks after developing country matters, including the implementation of the Action Plan for Developing Countries (APDC). www.iso.org/iso/devco



Participants at the completion of the four-year SR MENA Project.

The Republic of Korea welcomes the ISO family



Si-Heon Seong, Administrator of the Korean Agency for Technology and Standards (KATS), offers insights on the preparations underway for the 38th ISO General Assembly in Seoul, the Republic of Korea, from 16 to 18 September 2015.



Si-Heon Seong, Administrator of the Korean Agency for Technology and Standards (KATS).

As ISO member for the Republic of Korea, the Korean Agency for Technology and Standards (KATS) is proud to serve as host of the 38th ISO General Assembly on 16-18 September 2015. The event will bring together more than 500 delegates and accompanying persons invited from ISO's 163 member countries. These standards professionals will participate in interactive discussions that will shape the direction of ISO's future products, services, and systems.

While ISO and KATS ramp up their preparations for the global event, KATS administrator Si-Heon Seong provides us with a few thoughts on the importance of the event and Korean participation.

ISOfocus: Before we turn our attention to the ISO General Assembly, could you briefly describe the mission of KATS?

Si-Heon Seong: As a national standards body for ISO, the Korean Agency for Technology and Standards (KATS) is mainly focused on national standards, product safety, conformity assessment and the World Trade Organization's Technical Barriers to Trade (WTO TBT) Agreement.

KATS has contributed to international standardization with the following objectives:

- Strengthen industrial competitiveness through standardization in products and the service sector
- Enforce product safety for national health and safety
- Implement policy on conformity assessment to ensure reliability of industrial products
- Promote free trade of enterprises by addressing technical barriers to trade

What motivated you to propose Seoul as the venue for the ISO General Assembly in 2015?

Over the last five decades, Korea has achieved export-oriented growth by improving the quality of its goods using a top-down approach to industrialization and standardization. While the country has been growing as a “fast follower”, we now intend to take steps to become a “first mover” in the global market. In order to do so, a new bottom-up approach is needed. In other words, Korean industry must not only innovate, but also actively participate in the standards development process. For the first time in Korea's history, KATS will host the upcoming ISO General Assembly in its capital, Seoul. We hope the event will attract greater interest in standards, and, at the same time, encourage the country's enterprises to participate in their development.

KATS has provided international leadership to many ISO technical committees and subcommittees. What added value has this given to Korean industries?

International standardization activities have become an essential factor in terms of facilitating our businesses' entry into the global market and, in so doing, boosting exports. Take, for instance, the mid-sized Korean enterprise, HCT, that develops the Inhalation Toxicity Testing System. Thanks to the company's active participation in nanotechnology standards such as ISO 10801 and ISO 10808, HCT has opened up markets never seen before.

This is just one example of how International Standards set the stage for securing new markets, particularly when a technology results in new product development. In addition, in cases where a new product replaces earlier models, standards can serve as a tool to compare and evaluate their quality or technological capabilities. By doing so, standards ultimately create values needed to strengthen competition in Korean industries.

The Republic of Korea continues to show strong export-oriented growth – an evolution that has spanned almost 60 years. How do ISO standards contribute to the country's exports and its success in international trade?

Korea has strived to improve the quality of its domestic goods through standardization. The country's economy has been reaping the rewards by growing exponentially from exporting those products.

In the global market, we need to adhere to the WTO TBT Agreement for exports in order to promote free trade. To hold a dominant position in trade, standardization plays a key role by lowering technical barriers. It also serves to apply an overarching framework when used in technical regulations.

What would you like to see coming out of the General Assembly? Are there things in particular that you would like ISO members to take home with them?

We look forward to the Open Session on “Participation Makes Better Standards and a Better World” to be held during the General Assembly week. The open session is being specifically designed to encourage dynamic discussions among participants, which will feature major Korean industries. Moreover, attendees will experience first-hand the inner workings of Korean technologies by visiting leading enterprises in the fields of electronics, energy and engineering, automobiles, and cosmetics. The event will also provide an opportunity to have a one-on-one discussion with company management and staff.

We are proud to introduce Korean technologies at this year's Open Session, and hope participants will go home with lots of great impressions.

We intend to take steps to become a “first mover” in the global market.

