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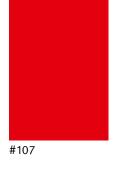
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ISO focus November-December 2014







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a 800d reputation important **Pop quiz:** What takes 20 years to build and five minutes to ruin? **Answer?** Reputation, at least according to Warren Buffet, one of the richest men in the world.

corporate

Many organizations consider their greatest asset to be their good name or reputation. Thus, they work actively to build the "bank of goodwill" towards them.

The main benefits of a healthy corporate reputation can be found in:

- Customer preference in doing business with you
- Stakeholder support for your organization in times of controversy
- Your organization's value in the financial marketplace

Here's the thing. Although reputation is an intangible concept, research universally shows that a good reputation demonstrably increases corporate worth and provides sustained competitive advantage. A business can achieve its objectives more easily if it fosters trust among its stakeholders, especially key players such as its largest customers, opinion leaders in the business community, suppliers, and current and potential employees.

That said, reputation is very fragile and it only takes one small slip to cause irreparable damage to a company's image. A recent corporate survey reported in *Insurance Journal* suggests that reputation is the hardest risk to manage. The study indicates that 81% of companies see their brand identity as their most significant asset but are challenged in knowing how to protect it.

From Malaysian Airlines to McDonald's, long-established brands are seriously having their reputation tarnished. And those problems are compounded when you add social media to the mix. Just ask US Airways about their picture incident earlier this year – which *Entrepreneur* dubbed the "worst brand tweet of all

time "– for proof that digital media can spark and spread a crisis in seconds.

And it's not just offensive images trending on social media (as in the US Airways case) that can spiral a company's image out of control. Accusations of bribery and corruption – real or perceived – can also destroy a company. What's significant about these scandals is the damage they do to the corporate image.

As one reads this issue of *ISOfocus*, it is tempting to consider: How might standards help? What would occur if standards were used more widely? The answer is clear: a lot. Quite a lot would be different.

Anti-bribery and online reputation are two new subjects that are now taking actual, practical shape in ISO. The future ISO 37001 standard will take account of internationally recognized good anti-bribery practice. It will apply to all organizations, regardless of type, size and nature of activity, and whether in the public, private or voluntary not-for-profit sectors.

Equally anticipated, a standard on online reputation is in the pipeline (stewarded by new technical committee ISO/TC 290) to help companies manage the pitfalls of online mud slinging, be it from other businesses, serial complainers, ex-employees, or quite simply dissatisfied customers. If you can't beat them, join them, as many companies learn to use customer feedback, both positive and negative, to their advantage.

Don't get me wrong, Warren Buffett's famous quip was probably right. I say "probably" because with all due respect to Mr. Buffett, he wasn't thinking about the potential of standards when he said it. EUZABETH GASIOROWSKI-DENIS





@MariaLazarte
ISO Social Media Manager
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your Google Hangouts

More and more people are exploring the use of Google Hangouts to host workshops, informal chats, Q&As and all sorts of online gatherings.

The popular video platform is easy to use and accessible to all – virtually anyone with an Internet connection can join in. Perhaps the most exciting feature for us at ISO is the "On Air" version, which allows us to broadcast our Hangouts live on YouTube. And anyone who missed a Hangout can watch it later thanks to the automatic recordings made available post-event.

If you are convinced and would like to try out a Google Hangout, here's a handy checklist I use to make sure everything is covered. It will help even the most inexperienced!

Did you miss our latest Hangouts?

Sustainable events

ISO 14001 revision





MY TO DOS – FIRST STEPS

V	Create and schedule a "Hangout on Air" on Google+ well in advance
	An event page is automatically generated: add a photo, a description and a trailer
	Share the event link with as many people as possible
	Do mock Hangouts with each speaker several days beforehand to ensure everything is OK!
	Make sure to tell speakers what is expected of them
	Ask speakers to join the Hangout half an hour before going live for a last- minute discussion and checks

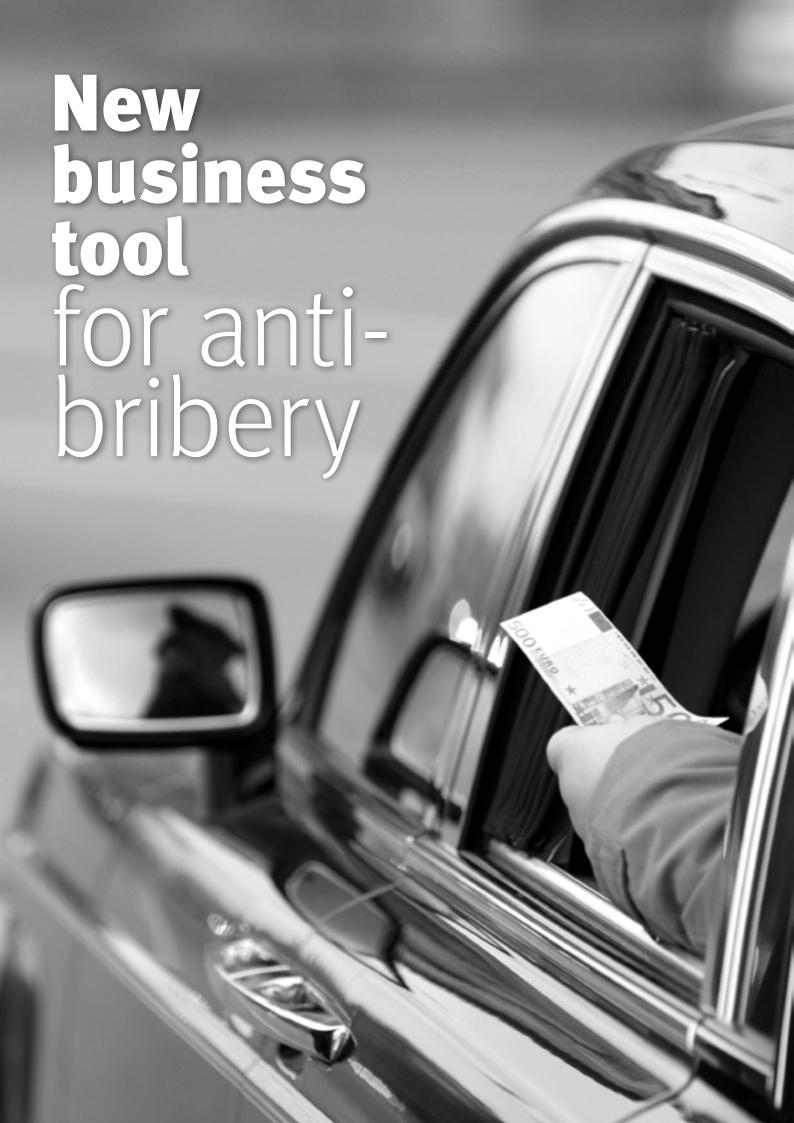
MY PARTICIPANTS' (A.K.A. SPEAKERS) TO DOS – FIRST STEPS

	Create or log into your Google+ account: plus.google.com
	Add the Hangout host (me) to your circles (e.g. go to <i>google.com/+iso</i> and click "Follow")
\Box	Confirm your participation on the event

page

ALL OF US

IMPORTANT GEAR		
A good-quality Webcam		
Headsets with microphone (to avoid echo)		
Broadband (WiFi can slow the video or break the connection)		
Fast computer (the video won't play well on a sluggish computer; try closing all programmes to speed it up)		
TECHNICAL REQUIREMENTS		
Download and install the latest version of the plugin <i>tools.google.com/</i> dlpage/hangoutplugin		
Test the Webcam, headsets and microphones		
LOCATION		
Choose a quiet room		
Make sure there are no windows or light sources behind you (or you will appear too dark)		
If you have a light source/lamp, place it behind your camera facing you to improve video quality		
White walls make boring backgrounds, so don't forget to add something interesting behind you		



Bribery is a significant business risk in many countries and sectors. It can be as petty as paying off a police officer for a speeding ticket or as profound as paying to win a major contract. Systemic bribery lowers economic growth and discourages investment. It goes hand in hand with poverty and social inequality. And, most importantly, it is very difficult to eradicate.

ribery takes place under the table, and many people are reluctant to talk openly about what they are doing, with whom and how often, but in much of the world, corruption is commonplace. There are many locations where it is part of normal practice to bribe another, particularly people in a position of power or authority. We've all heard of the expression "everyone has their price". While some bribes may be offered voluntarily, in many cases businesses have felt compelled to bribe due to corrupt pressures put on them by government officials. If they do not bribe, they will not receive the contract or permit. The playing field is therefore in many locations not level for ethical business.

In the big leagues

Earlier this year, a computing multinational was sentenced to pay US regulators USD 108 million to settle a corruption scandal involving employees at subsidiaries in three countries, who were charged with bribing government officials to win and retain lucrative public contracts. The corruption was uncovered in relation to contracts worth USD 40 million to install IT equipment in national police headquarters, government legal systems, and in stateowned petroleum companies.

This case is the latest in a string of high-profile cases that are changing attitudes about corruption. But much work remains. Alain Casanovas, partner at KPMG Spain, one of the biggest global audit, tax and advisory firms, is uncertain about the impact of these cases. After all, he said, governments and the business community are still fighting to eradicate the blemish of bribery, and additional efforts are needed to reduce it progressively.

This legal affair, however, raises broader questions about how multinational companies conduct business in foreign countries. Is this sort of bribery more typical of multinational behaviour than many would like to admit? Is the practice of bribing ever inconsequential? And apart from several international conventions and national anti-bribery legislation, what are some of the other possible solutions to combating bribery?

"Small" or "petty" bribes

There is a fairly universal view that bribery is an immoral practice, yet as the World Bank estimates, more than USD 1 trillion (or 3% of the world GDP) is paid annually in bribes. In many cases, it is tolerated as a necessary part of "getting business done" or "circumventing bureaucratic red tape".

What's more, it's easy to see how giving in to bribery might be competitively advantageous. In fact, research by the Harvard Business School found that firms that launch anti-corruption efforts grow their businesses more slowly than firms that don't, especially where bribery is the expected norm.

One thing that didn't seem to matter: the size of the bribe. Thirty-five percent of the bribes reported in Harvard's survey fell under USD 100 000, and they had just as much of an effect on competitiveness factors as the 16% involving more than USD 500 000.

Growing numbers

Despite a growing number of prosecutions of companies and individuals, bribery of public officials remains an all too common practice in many countries around the world, according to the most recent annual report by Transparency International (TI). The organization's Corruption Perceptions Index 2013 highlights that many governments in Asia, Latin America and the Middle East still fail to protect their citizens from the abuse of public resources, bribery and secretive decision making. The ten countries where bribery and other forms of corruption were most frequent include Somalia, North Korea, and Afghanistan.

Economic evil

Covering up the evidence is not a viable option for fixing the problem and maintaining the public's trust when economic costs are involved. According to a TI study, 27% of the 3000 business people who were surveyed reported that they had lost business due to bribery by their competitors. What's more, damage caused by bribery to countries, organizations and individuals:

- Lowers economic growth
- Discourages investment
- Marginalizes and restricts global markets
- Erodes support for economic aid
- Puts a heavy economic burden on the poor
- Lowers the standard of living of the people

Have these business risks led to effective action to prevent bribery? The answer is: yes. Have they gone far enough? Probably not as far as they could or should.

Call to combat

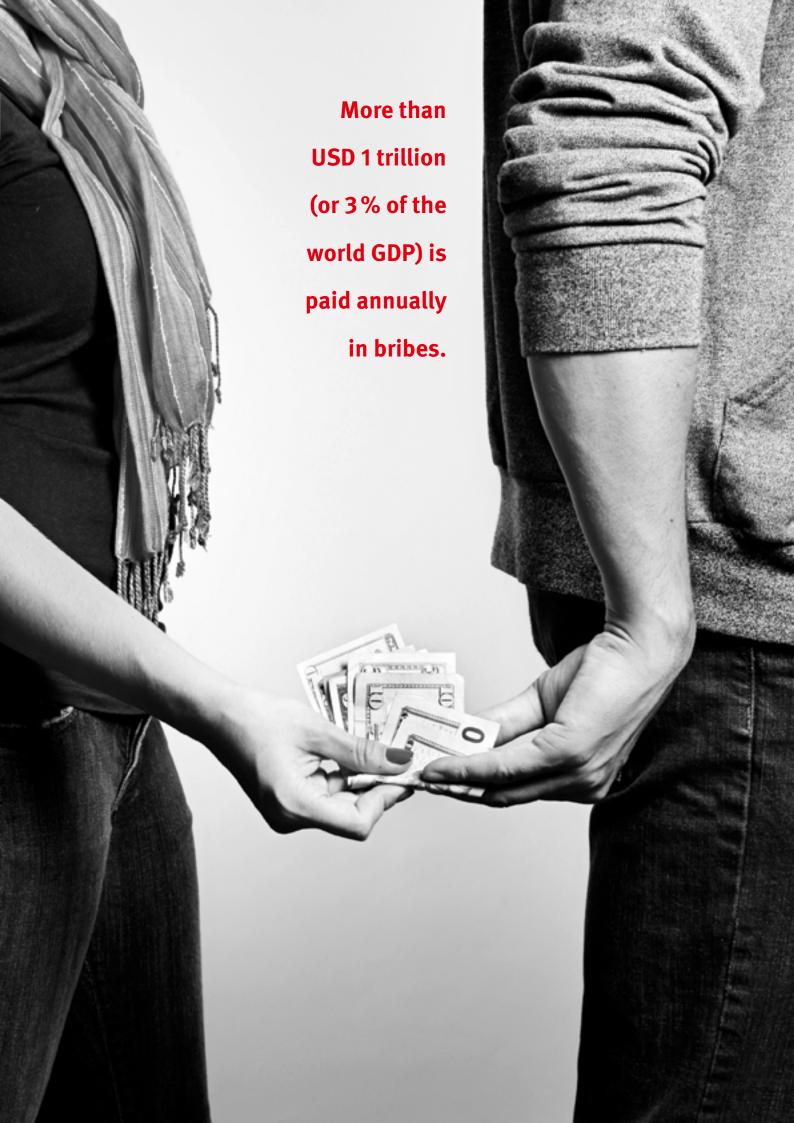
Transparency International, an international non-profit based in Berlin, Germany, with more than 100 chapters around the world, has been working with companies and business associations to promote more robust anti-corruption behaviour. Susan Côté-Freeman from TI's Business Integrity Programme explains: "Through our Business Principles for Countering Bribery and other tools, we try to set the standard for the development and implementation of anti-corruption programmes.

"We advocate for greater transparency in the corporate sector by producing a transparency ranking of the world's largest global



with
no difference
on
competitiveness

Source: Harvard Business School survey



Only time
will decide
how the
future ISO
standard
turns out.

companies which assesses their performance in public reporting on three dimensions (anti-corruption programmes, organizational transparency and country-by-country reporting). This will enable citizens, investors, employees and other stakeholders to hold companies accountable for their activities."

On the legal spectrum, several international conventions have been passed which require signatory countries to criminalize bribery and take effective steps to prevent and deal with it. Of particular international significance are the United Nations Convention against Corruption, and the Organization for Economic Co-operation and Development (OECD) Convention on the Bribery of Foreign Public Officials in International Business Transactions.

Most countries have introduced or strengthened anti-bribery legislation which makes it an offence for organizations and individuals to pay or receive bribes. All OECD countries have made it an offence for organizations and individuals from those countries to pay bribes to public officials in other countries.

Liability for individuals can include imprisonment, fines and dismissal from employment, while for organizations, it entails fines, debarment and termination of contracts. Prosecution agencies worldwide are now starting to investigate and prosecute companies and individuals for bribery.

Ethical business

Are these anti-bribery efforts making a difference to business practices? It is premature to speculate, but in many countries, businesses do look as though they are responding to the changing ethical environment by incorporating ethics as one of their core values. According to Neill Stansbury, Chair of ISO project committee ISO/PC 278 on anti-bribery management systems, it is not sufficient merely to have good laws and prosecutions, bribery is increasingly seen as a vital management issue. "Good management in government, in companies and on projects can materially reduce bribery. It should be treated in a similar manner to quality and safety management."

Stansbury says that many companies are showing interest in the new trend. "A significant number of businesses internationally have responded to the changing legal and ethical environment by implementing anti-bribery management systems within their organizations, partly because it is the right thing to do, and partly to ensure that the organization and its employees do not fall foul of anti-bribery laws."

It's not sufficient for a business to implement controls only within its own organization. Ethical businesses, he adds, also need to ensure that their partners and supply chain adopt anti-bribery measures.

Anti-bribery management system

This is where an international anti-bribery management system standard comes into its own. It is a new subject that is now taking actual, practical shape in ISO. The future ISO 37001 standard will take account of internationally recognized good anti-bribery practice. It will apply to all organizations, regardless of their type, size and nature of business or activity, and whether in the public, private or voluntary not-for-profit sectors. The standard will help establish that the organization has implemented reasonable and proportionate measures designed to prevent bribery. These measures include leadership from the top, training, risk assessment, due diligence, financial and commercial controls, reporting, audit and investigation. The future ISO 37001 is being developed in a similar format to other management systems standards such as ISO 9001 and ISO 14001. The hope is for the standard to be easily recognized by many companies and implemented in much the same way as the other successful management systems.

"This is a significant step in fighting bribery at a global level," says Alain Casanovas. "Today's current anti-bribery framework will be significantly strengthened by the first real international requirements standard for establishing a complete anti-bribery management system. Once the future ISO 37001 is in place, as a compilation of international best practice in anti-bribery, companies will be able to apply uniform measures to prevent and detect bribery, irrespective of the countries in which they operate."

Will compliance provide assurance that no bribery has occurred? The answer is that it cannot provide absolute assurance, just as a safety management system cannot provide absolute assurance that there will not be an accident. However, as Stansbury explained, compliance with the proposed new standard will help ethical organizations ensure that they have appropriate measures in place designed to prevent bribery by, on behalf of, or against the organization.

So are we anywhere closer than we were before? Perhaps or perhaps not. Only time will decide how the future ISO standard turns out and whether companies will welcome and implement it. Yet if the development of the standard tells us anything, it is that the practice of bribery as a normal business practice is no longer acceptable. ELIZABETH GASIOROWSKI-DENIS

International Anti-Corruption Day

Attitudes on corruption are changing. As recently as ten years ago, corruption was only whispered about. Today, there are signs of growing intolerance towards it as more and more politicians and business managers are being tried and convicted.

International Anti-Corruption Day, held on 9 December 2014, is an opportunity for the United Nations to keep the momentum on anti-corruption going, particularly by raising awareness, bringing various stakeholders together to commemorate the day, and engaging in national dialogue and consultations. The event has been observed annually since the passage of the United Nations Convention against Corruption on 31 October 2003.

Governments, the private sector, non-governmental organizations, the media and citizens around the world are joining forces to fight this crime. Isn't it time your company joined in these efforts?



ENTER THE DRIVERLESS CAR!

Enter your destination and let the journey begin! Google Inc. recently announced it has begun work on plans to construct a hundred self-driving electric cars as part of an ongoing programme to support innovative intelligent transport systems.

With this new generation of revolutionary vehicles remotely piloted by computer, human passengers will no longer have a role to play in the operation of their car.

To ensure the vehicles have access to accurate information about location and the best routes to follow, Google's engineers can turn to ISO 14825:2011, Intelligent transport systems — Geographic Data Files (GDF).

Developed by technical committee ISO/TC 204 for intelligent transport systems, the standard provides specifications for the conceptual and logical data model, and physical encoding formats for geographic databases. Rest up, the driverless future is here!



GET A KICK OUT

OF ENERGY AUDITS

The cost of energy is high for most businesses, so improving their energy efficiency can be key to remaining competitive.

Companies and organizations that have already integrated an energy management system to reduce consumption can now go a step further with the new ISO 50002:2014, which gives requirements and guidance on how best to carry out their energy audits.

"Energy audits are a tool to reduce energy consumption and find a long-term solution," explains Kit Oung, the project leader who developed the standard. "They help identify and

prioritize opportunities to improve energy performance, reduce energy waste and obtain related environmental benefits."

Audit outputs include essential information on current energy use and performance, and provide recommendations for improvements in a wide range of areas, including operational controls, maintenance controls, modifications and capital projects. So now companies can improve their energy performance as well as drive financial benefits.





OBJECTIVE MOON

"One small step for man, one giant leap for mankind." That sentence, uttered by Neil Armstrong from the surface of the moon 45 years ago, signalled the dawn of a new age. It was 1969.

In 2014, the silver star has lost none of its appeal. Last July marked the

45th anniversary of the epic Apollo 11 flight that landed the first humans on the moon and safely returned them to Earth. And though there have been subsequent flights, no human has touched down on the moon since. Coinciding with this anniversary, ISO has recently published ISO 10788:2014, *Space systems – Lunar simulants*. Developed by technical committee ISO/TC 20, *Aircraft and space vehicles*, subcommittee SC 14, *Space systems and operations*, it provides lunar systems developers and operators with a specific quantitative measure for lunar regolith simulants (read "artificial moon dust") in comparison to other simulants and with relation to sampled lunar materials from Apollo and Lunakhod missions. A step towards man's next lunar trip?



HAPPY BIRTHDAY, BAR CODES!

The innovation that revolutionized retail sales celebrates its 40th birthday in 2014. Though automated check-out had been proposed as far back as 1932, and a symbol reader was patented in 1949, it was only in 1974 that George Laurer invented the bar code as we know it today. That was the year that the American grocery industry's leading trade associations established a standard numeric system for identifying products – the basis for the Universal Product Code (UPC).

The UPC got off to a slow start due to standardssetting and high adoption costs, but its use spread to many other tasks that are now generically referred to as automatic identification and data capture (AIDC).

As ever, ISO has had a role to play in this revolution. For who verifies the bar-code verifiers? ISO of course. Bar-code verifiers must comply with ISO/IEC 15416:2000 on the print quality of linear bar codes, and ISO/IEC 15426-2:2005 on conformance specifications for multi-row bar-code symbols, which ensure our bar codes are fit for purpose.

MOURNING THE LOSS OF **CRAIG K. HARMON**

We were very saddened to learn of the unexpected passing on 3 July 2014 of Craig K. Harmon, the President and CEO of Q.E.C. Systems, Inc. and a long-time standards professional.

A brilliant man, Craig played an essential role in the development of standards associated with bar-code and radio-frequency identification (RFID) technologies, and was a significant figure in the automatic identification of data capture (AIDC) industry.

Known for his enthusiasm and wisdom, he was a founding member and driving force of ISO/IEC joint technical committee JTC 1, *Information technology*, subcommittee SC 31, *Automatic identification and data capture techniques*, where he collaborated on some of the industry's most technically rigorous standards. He was also behind most of the initiatives of ISO/TC 122 for the use of AIDC in packaging.

With his indefectible commitment to "make things happen", Craig set up, at his own expense, the Website **autoid.org**, which proved an invaluable source of information among the AIDC community. He was also the author of *Reading between the lines*, an authoritative work on bar codes.

The ISO Central Secretariat and its staff extend their most sincere condolences to Mr. Harmon's family and colleagues. He shall be greatly missed.



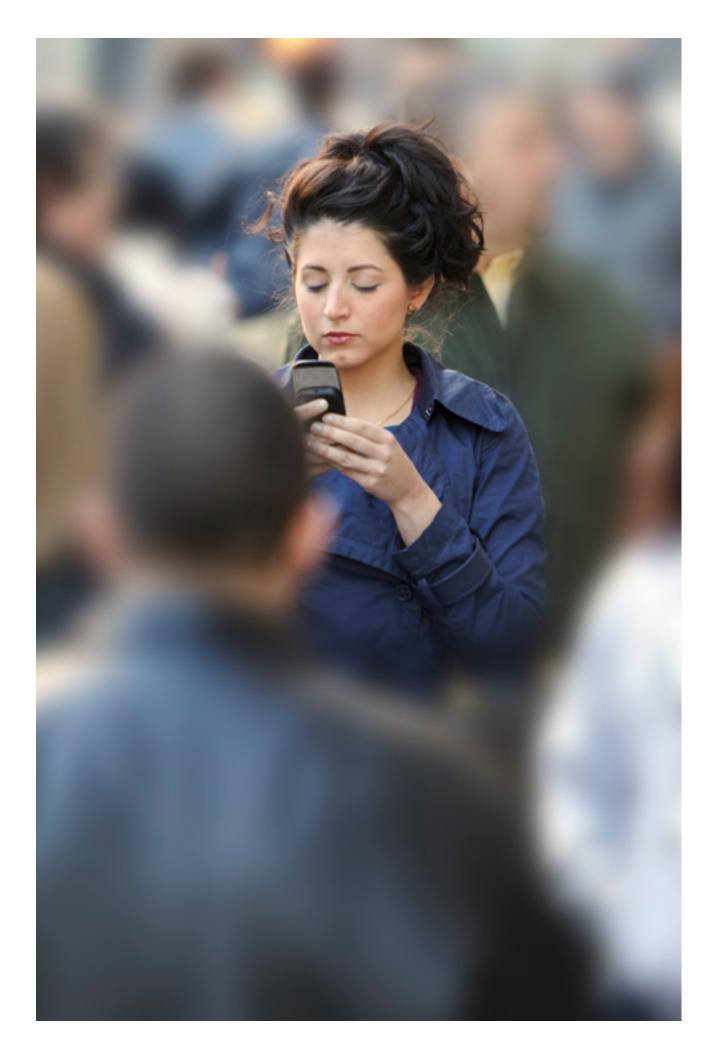
Proceed with .

Ever wondered what the world would be like without social media? For companies marketing their products and services online, these networking sites are a boon for engaging with customers and building a strong brand. But keeping a blemish-free online reputation is no small feat.

There's no denying that the Internet is vital to our everyday lives. While some people sell products and services online, rent their holiday home or book tickets for a show, others use it to up their profile, polish their image or enhance their visibility.

With endless blogs, discussion forums, social networks and consumer review platforms, the Web, in its version 2.0, is not just a wonderful showcase, a tool for self-expression, it is also an extraordinary channel for creating a buzz that can make or break a reputation. For businesses, managing their online reputation has become a full-time job, which is spent tracking rumours, defending and controlling their image, and monitoring their popularity.

Consumers, on the other hand, are wary of this collaborative economy and focus both on the positive and negative reviews posted on e-commerce Websites before sealing a deal. These days, the success or failure of a business depends as much on these reviews as on the services offered. So what's the alternative? Are both parties condemned to coexist in mutual distrust? Quite the contrary: the solution lies in building confidence by putting certain safeguards in place.





71%

of people read consumer reviews before making a purchase.



91%

of US consumers say they would feel more comfortable with online reviews if they were captured, monitored and displayed by a neutral and credible third party.

Source: Survey conducted by Newlio on behalf of Bazaarvoice in 2013

A matter of trust

Once based solely on word of mouth, a company's reputation is now traceable on the Web. How a business and its customers are affected by online reputation is tied to the level of consumer trust it has created through social channels. A confidence crisis can strike at any time when doing business over the Internet, whether it's in business-to-consumer transactions or between private parties when selling second-hand goods, organizing a car pool, or renting a flat.

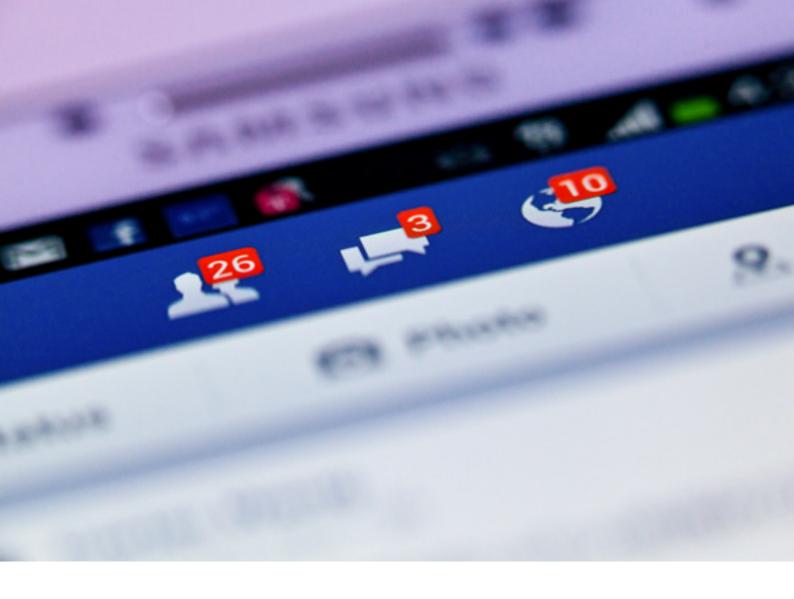
The truth is, the Internet has revolutionized the way we consume. Our relationship to businesses and products has changed. Consumers increasingly shop online and no longer visit retail outlets in person to make their purchase. How, then, can they make an informed purchase decision to buy and choose between different brands in this virtual marketplace? Word of mouth still works, of course, but a new trend has also emerged: a penchant for reading the online comments and opinions of complete strangers. The question is: can these reviews be trusted?

A case study, carried out in 2013 by Bazaarvoice, a commercial network connecting brands, retailers and consumers, and the marketing research firm Newlio found that seven out of ten consumers dispute the authenticity of these reviews. Such comments are obviously critical in the decision-making process and the percentage of online visits that actually lead to a sale (the "browse-to-buy" conversion rate) is closely scrutinized by e-businesses. The fact is, online reviews do steer the decision to purchase. Aurélien Dubot, Product Strategist, EMEA, at Bazaarvoice substantiates this claim: "On average, consumers who read the reviews on online product pages will convert 104% more often than those who don't read them."

A new breed of consumer

Clearly, this is a new way of doing business, and of consuming too. Evidence shows that the role of consumers has changed dramatically since e-commerce has become mainstream, and seeking the opinion and experience of fellow customers is now a key part of many decision-making journeys – whether you are selecting travel accommodation or a health-care provider.

Matthias Lüfkens, Practice Leader, Digital, EMEA, at leading PR and communications agency Burson-Marsteller, confirms the trend: "More and more consumers tend to check user comments online and seek the opinions of their friends before making a purchasing decision.



Seven out of ten consumers question the authenticity of these reviews.

These informed customers are no longer receptive to banner ads or other pop-ups."

While the nature of interactions with vendors has undergone unprecedented transformations with the Internet, these have generally been for the better, with consumers gaining greater choice, greater voice and much more convenience.

For Richard Bates, Global Programme Manager, Consumers in the Digital Age, at Consumers International, a federation of consumer groups with members in over 100 countries, this is a positive development. "It is one of the most vivid ways in which consumers have used the Web to go from passive recipients to active participants in the marketplace."

e-Reputation: danger or opportunity?

To sum things up, positive reviews are the linchpin of successful business. But what of negative comments, which can destroy a company's reputation in seconds? Should they be ignored or deleted from your Website? There's no denying that misleading claims proved a serious issue with first-generation review platforms. Alongside fake reviews, there have been instances of deliberately malicious feedback from consumers themselves or, worse still, from competitors "masquerading" as consumers.

Fortunately, the market reacted promptly to these dubious practices and second-generation platforms now only publish reviews from verified purchasers. A model which has been snapped up by many brands, sold on the

value of consumer feedback to help instil a climate of trust. Bazaarvoice, for one, notes that the volume, authenticity and quality of the reviews are the most important factors. That is to say, a product with an average score of 3.5/5 and 50 reviews will convert to a sale more often than a product with an average score of 5/5 but only two reviews. At last, something you can bank on.

In practice, however, things are more complex. All comments – negative or positive – are beneficial to companies, says Dubot. That's why it is important that brands encourage all customers to give feedback online, and that they themselves respond to criticism to provide context.

Consumer reviews offer a wealth of information which companies can draw on to improve the quality of their products and services as well as their customer relations. Showing brand sensitivity by giving customers a channel through which to air their views is essential if a company hopes to maintain a competitive edge. As Dubot explains: "There are three main steps that go into building and upholding a reputation of excellence: encouraging customers to share their experiences and join in conversations by responding to comments; leveraging these conversations by harnessing the customer's voice as a hallmark of quality through all communication channels; and, finally, using the voice of customers within the company itself, ensuring that each and every employee is involved and monitored on the basis of his or her customer satisfaction."

A call for transparency

But what happens to values such as honesty and transparency in this marketing game? For Bazaarvoice, the risks are negligible: "There is less and less room for misleading practices. These days, every consumer has a voice and a great many channels through which to get heard. Brands that mislead their customers will not last the distance, because the joint voices of consumers will soon speak louder than those of the brands."

Instead, companies need to reassure their customers by guaranteeing the reliability of online reviews. Bazaarvoice encourages customers to send a strong signal to potential buyers by stipulating that the reviews posted on their Website comply with an authenticity policy, are non-biased and not "steered" by the company in any way.

Establishing safeguards

The consumer's role is undergoing profound changes in this collaborative economy, partly due to online community platforms such as eBay or Airbnb, which allow anybody to participate in the demand or supply side of a market, or both.



is to ensure that consumers end up being as well protected in the collaborative economy as they are in the conventional economy.



Case studies

Two companies have turned negative consumer reviews into opportunities.

Castorama

To keep its review volume high, French DIY retailer Castorama implemented in 2009 a successful programme for customer ratings. As a result, between January 2011 and January 2012, the number of reviews increased by 170%.

Read more: www.bazaarvoice.com/fr/industries/Castorama-renforce-sa-plate-forme-ecommerce.html

Boulanger

France's leading multimedia, leisure and consumer electronics retailer, Boulanger established a strong online presence. The company's product catalogue is constantly evolving based on customer feedback.

Read more: www.bazaarvoice.com/fr/industries/boulanger.html

Yet while this disruptive innovation gives rise to a host of benefits in terms of choice, value and opportunities, a number of sensitive issues are still calling for attention. In the conventional economy, there is a legal framework for settling disputes that arise from business transactions, and it is tempting to apply the old rulebook to this virtual marketplace. A quick fix? Indeed, but one which is doomed to failure. The shift brought about by the collaborative economy opens up opportunities but could also create loopholes encouraging some enterprises to sidestep existing regulations at the expense of consumer safety and protection. These aspects are as complex as they are pressing and there is a need to extend the protection enjoyed by consumers in the conventional economy.

Bates is optimistic: "The proposed introduction of a pan-European Online Dispute Resolution platform in 2016 represents a notable development in this respect, which Consumers International will be watching with interest, as does the development of an International Standard on online reputation. This would represent an important step that could help assure consumers that reviews are genuine and impartial."

Fighting fakes

In order to combat fake reviews, it is essential that companies cultivate a relationship of trust with their potential customers, based on transparency. An international benchmark, in the form of a standard, would force companies to pay more attention to consumer reviews. But it would also provide an invaluable source of information to improve the design and reliability of products and services sold online.

The goal, ultimately, is to ensure that consumers end up being as well protected in the collaborative economy as they are in the conventional economy. But how to achieve this? The onus is on ISO/TC 290, the newly created technical committee dealing with online reputation, to explore the different avenues for improving Internet and social media practices, making sure all stakeholders in the value chain are involved, and building an element of trust in these new technologies and media.

A daunting task to be sure, for the resulting standard will need to ensure the reliability and transparency of the three steps involved in processing online reviews – collection, moderation and faithful delivery. SANDRINE TRANCHARD

Whenaccessis

denied



At seven years old, I loved playing dress up. It was all about nice frocks and looking pretty.

Twenty-nine-year-old Rania Python knows what it's like to live in a world of barriers. Visually impaired from birth, Rania sits down with us to share her challenges, struggles, and how standards have the potential to improve the quality of life – for her and everyone else.



With my two labradors: Shanon, who guides me on daily basis, and Jenny, who has officially retired from her duties. I love them both!

etting around in the physical world is something most of us may take for granted. For those of us with disabilities or restricted mobility, however, a curb or a few stairs can be large obstacles. In other words, features that ordinary able-bodied people don't think twice about can present serious problems for people with "different" abilities, mostly because their needs haven't been considered in designing those features.

Twenty-nine-year-old Rania Python knows this only too well. Visually impaired from birth, she still manages to live an active life as a freelance translator for Italian, English and German into French from her base in Chavannes, Switzerland. And this year, she took on a new challenge by running for "Miss Handicap", a beauty contest held annually in Switzerland for people with disabilities. By making herself a contestant, Rania hopes to serve as an ambassador dedicated to empowering people with disabilities. But, above all, she aspires to change public perception by ensuring that people with disabilities are given the opportunity to succeed and become full members of society.

We met with Rania to discuss her challenges, her struggles, and how standards can help remove these everyday barriers and improve quality of life. *ISOfocus*: As a person with a visual disability, what does accessibility mean to you? What do you find the most frustrating when places and things are not accessible?

Rania: Accessibility to me spells freedom. The most frustrating when access is denied is that I cannot do things or go places on my own. I often have to ask family or friends to come with me or, even worse, beg for help from a complete stranger, which is really challenging. When I'm out and about by myself, it can be hard to find an obliging person who is willing to assist and I end up wasting a lot of time. It's very dispiriting as time is so precious!

Which areas of society do you consider the most advanced in terms of accessibility? How do you benefit?

Computing and multimedia, definitely. Thanks to specialized technologies, I was able to follow mainstream education and I can write, read and access the Internet. In fact, the Internet provides lots of valuable information. For instance, no need to scan recipe books, I can find a lot of ideas online allowing me to cook delicious meals.

The mobile phone industry has wised up enormously to accessibility, particularly when it comes to smartphones. A voice synthesizer cleverly concealed in my iPhone (Apple's VoiceOver feature for the visually impaired) helps me access many useful applications such as train timetables, maps and GPS data.

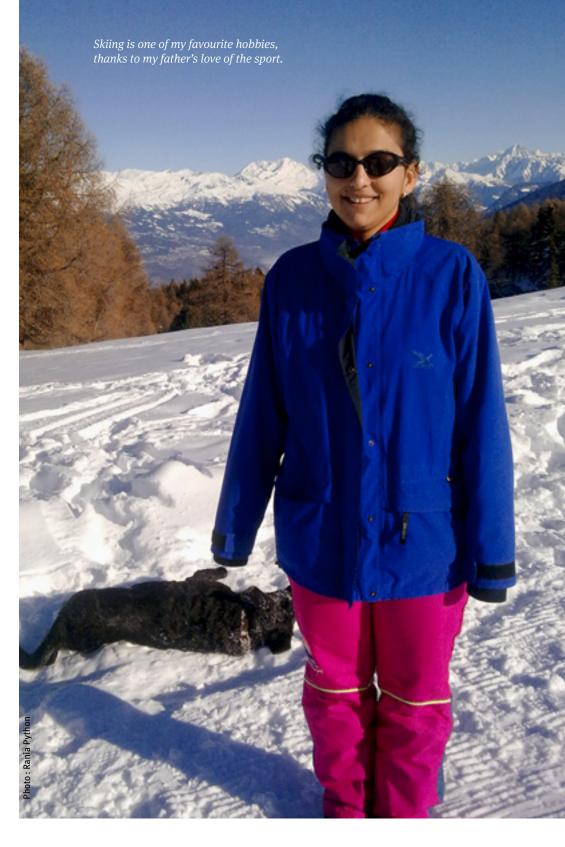
On the flip side, in terms of work integration, society offers little access, and more's the pity! With equal qualifications, everyone should be able to find a job and put their skills to good use.

People are often oblivious to the trials and tribulations of persons with disabilities. How can we educate them to be more tolerant?

First of all, behave naturally when interacting with a disabled person. Some people desperately avoid using the words "you see" when talking to me, which just makes me laugh! Of course I see things my way, but at the end of the day, I still see them.

Some people feel the need to be told how to interact with a disabled person, otherwise they feel lost. What we need is more awareness campaigns. There should be more discussion groups in schools and the workplace so that people can ask questions and find out about our "different" way of life. Asking questions is the best way to be informed; that's why I don't mind when people are inquisitive about the way I live, as long as they are polite and don't treat me like a child.

True, people with a visual handicap cannot see, but they can still lead a normal, fulfilling life. The most difficult is finding our way around in a foreign environment. Luckily, I've had a guide-dog since I was 17, which helps tremendously. But life would be a lot easier if people were more forthcoming. Please don't hesitate to help – it usually is much appreciated.



Accessibility to me spells freedom.

Are there any standards you would like to see developed to improve the quality of life for the visually impaired?

I would say IT standards. I often find I cannot use a Website, online shopping or online banking because it is not accessible with my voice synthesizer and braille display system. Since the aim of technology is to make people more independent, I think it's important to make it accessible to everybody, without exception. Another field would be GPS applications to help the visually impaired move around more easily. For example, voice guidance in large shopping malls and railway stations would enable us to get around safely by ourselves. Conquering such hurdles on your own is hugely rewarding, but without a helping hand, these kinds of spaces are very hard to get to know. This is especially true of shops where items are moved around all the time. Progress is being made, however, and some iPhone apps now give you the content of certain products simply by scanning the bar code.

Why did you decide to take part in the Miss Handicap beauty contest? As someone with a visual disability, what does "beauty" mean to you?

This contest was a fabulous opportunity for me to act in favour of better integration at work. I completed my master's in translation in June 2011 but I struggle to find a job. I would jump at the chance to work in my field because I really love translating and don't want to lose my skills. With this contest, my hope was to be able to change mentalities and give disabled people better working opportunities.

Miss Handicap is not about beauty per se, it's about the candidates and their motivation to make things better for people with disabilities. It is a communication vehicle to show society that, despite our handicap, we are as fashion-conscious and concerned about our appearance as the rest. Personally, I don't attach much importance to physical beauty. Scents, voices, behaviour and ideas hold much more appeal to me. A beautiful person is someone respectful, pleasant and willing to help others. And that makes most people beautiful, doesn't it? ELIZABETH GASIOROWSKI-DENIS

Life would be a lot easier if people were more forthcoming.

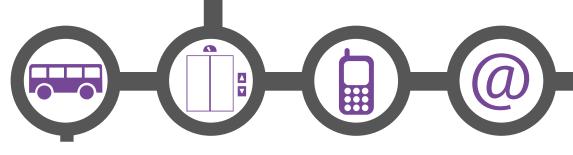


My computer and braille display that help me read and write, just like everyone else.

Almost all of us will face a disability at some point in our lives.

How will we cope?

Bringing down barriers



- People with disabilities can have
- difficulty accessing buildings,
 - **transportation** and even the most
- basic services of information andcommunication technology like
 - telephones, television and the Internet.

ISO Standards

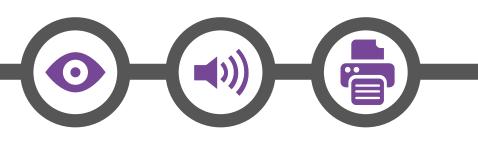
- IT assistive technology (ISO/IEC TR 13066)
- Web content (ISO/IEC 40500)
- IT accessibility and ergonomics (ISO 9241)
- User interfaces (ISO/IEC 24786)
- e-learning, education and training (ISO/IEC 24751)
- Accessibility considerations for people with disabilities (ISO/IEC TR 29138)
- Office equipment (ISO/IEC 10779)

In the USA lack of accessible transportation was the **2nd most**

frequent reason people with disabilities were discouraged from seeking work.

ISO Standards

 Wheelchair containment and occupant retention systems for accessible transport vehicles (ISO 10865)



About 314 million people around the world have impaired vision.

They need access to braille, audio and large-print materials, screen readers and magnification equipment.

ISO Standards

- Tactile dots and bars on consumer products (ISO 24503)
- Communication aids for blind persons (ISO/TR 11548)
- Tactile danger warnings on packaging (ISO 11683)
- Application of braille on signage, equipment and appliances (ISO 17049)
- Tactile walking surface indicators (ISO 23599)
- Acoustic and tactile signals for pedestrian traffic lights (ISO 23600)

The 2 greatest
disabling barriers are
the failure to enforce standards
and policies and the lack of
accessibility in many built
environments, transport systems
and information.

ISO Standards

 Accessibility and usability of the built environment (ISO 21542)

In a survey of 114 countries,



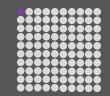
reported no accessibility standards for outdoor environments and streets



had none for public buildings



had none for schools, health facilities and other public service buildings



In new constructions, compliance with all requirements of accessibility standards is generally feasible at

1% of the total cost.

Source: World report on disability www.who.int/disabilities/world_report

Opening the doors on accessibility

Unhindered access to facilities and ease of use of products and services are often taken for granted. Normally, we only realize how important they are when we fail in using something. But standards can help! ISO has just published a new guide that advises standards developers on how to make sure their standards take full account of the accessibility needs of users from all walks of life, and in particular of persons with disabilities, children and people of higher age.





ore often than not, when people think about accessibility, they think of wheelchair access. In fact, accessibility benefits all members of society including older people, children and persons with disabilities. Accessibility also has an impact on a wide range of standards spanning a broad spectrum, from packaging, information and communication technology, product design, to buildings, signage, information, washing machines, design of displays on machinery, fire safety, materials and services... to name but a few.

Accessibility is often understood as the ease of use of products, services and environments. Standards are used in design, in the assessment of products and services, or in defining procurement requirements, and need to take accessibility into account. To this end, standards developers must recognize that no two people are the same, each having a different set of abilities and characteristics.

Over a billion people are estimated to live with some form of disability, according to the World Health Organization. This corresponds to about 15% of the world's population. Between 110 million (2.2%) and 190 million (3.8%) people of 15 years and older have significant difficulties in functioning. Furthermore, the number of persons living with a disability is increasing, due in part to ageing populations and a rise in chronic health conditions. There is a wide-ranging portfolio of standards on accessibility, which aims to improve safety and quality of life for all. With the recent publication of ISO/IEC Guide 71, *Guide for addressing accessibility in standards*, ISO is taking another step in this direction. We spoke to the group of experts charged with developing the new guide to find out more. Here's what they had to say.

ISOfocus: Why is accessibility so important in today's world?

For one thing, accessibility is not just a disability issue. The accessibility and usability of products, services and environments have become increasingly critical for everybody, regardless of age or ability. Unprecedented population growth has meant that more people than ever before have diverse and special requirements – and that includes the elderly, children, and persons with disabilities. The prevalence of digital technology in many facets of life is a clear example of the necessity to ensure accessibility for as many people as possible.

The new edition of ISO/IEC Guide 71 for addressing accessibility in standards has recently been published. Could you please give us some more details?

The new guide will help those involved in the standards development process to tackle accessibility issues when developing or revising standards, particularly in areas where this has not been addressed before. The guide provides resources, backed by practical examples and strategies, to help them better understand and work through the process of incorporating such accessibility features. Essentially, its aim is to increase awareness of the importance and significance of accessibility among standards developers. Having said that, it will also be useful for manufacturers, designers, service providers, and educators with a special interest in accessibility. Intended as a guidance document, its broad scope means it can be used by anyone anywhere, both in developed and developing countries.

Could you give us a brief overview of the content?

This new edition of Guide 71 reaches far beyond the scope of its predecessor, which focused mainly on ergonomics. It sums up the fundamental issues to be taken into account when addressing accessibility aspects in standards in the form of two complementary approaches:

- A set of Accessibility Goals focusing on the relationship between individuals and the products and services they may need. These goals are designed to help identify user accessibility needs.
- Descriptions of human abilities and characteristics, mapped to the International Classification of Functioning, Disability and Health (ICF), a widely used classification system devised by the World Health Organization. These descriptions lead to recommendations for design considerations.

In addition, it proposes a number of strategies, which can be applied to both approaches, to help translate these user accessibility needs and design considerations into standard-specific accessibility requirements and recommendations.

What do you hope the guide will achieve?

Essentially, three things. First, it will help designers, manufacturers and educators gain a better understanding of the accessibility requirements of our increasing population. Second, it is hoped that more standards will contain accessibility considerations, with perhaps a greater number focusing specifically on accessibility. But above all, the objective is that accessibility features will be integrated into standards – and product or service design – from the outset, and not as an afterthought or retrofit. This should help devise internationally harmonized, accessible products and services.



Standards developers must recognize that no two people are the same.



Between 110 million (2.2%) and 190 million (3.8%) people of 15 years and older have significant difficulties in functioning.

What is ISO doing to raise awareness of accessibility?

ISO is working together with its partner organizations, the International Electrotechnical Commission (IEC) and the International Telecommunication Union (ITU), to raise awareness of accessibility solutions. Guide 71 is the first ISO/IEC guide to have also been adopted by the ITU. Its publication is accompanied by a new joint policy statement by IEC, ISO and ITU on standardization and accessibility (see page 30).

But there's more that can be done to give accessibility a voice. ISO, IEC and ITU might start by reviewing their own standards development processes, using Clause 4 of the guide, and revisiting existing standards. They could also roll out training programmes to support its use; it might be interesting to develop domain-specific guidance where a need is identified.

Above all, ISO and its partner organizations need to ensure that persons with disabilities can fully engage in the standardization process and that appropriate assistance is provided where necessary. Not only will they themselves benefit, but so will society as a whole, paving the way for greater participation. It's a win-win situation. ELIZABETH GASIOROWSKI-DENIS

DISABLING DISABILITY

Each year on 3 December, the United Nations devotes a special day to the lives of people with disabilities. Coordinated by the association UN Enable, the International Day of Persons with Disabilities works to support the rights and dignity of the disabled, highlighting the challenges they face on a daily basis, from practical concerns about limited access, to more serious problems of prejudice and even bigotry.

ISO has long been sensitive to the plight of people with limited mobility and/or physical disabilities, promoting life-changing solutions through technical committees such as ISO/TC 173, Assistive products for persons with disability, ISO/TC 159, Ergonomics, and ISO/IEC JTC 1, Information technology.

Acting as a trailblazer in the field, ISO/IEC Guide 71:2001*, *Guidelines* for standards developers to address the needs of older persons and persons with disabilities, marked the beginning of ISO's commitment to helping persons with disabilities. Today, the organization's extensive catalogue on this issue goes some way toward removing the obstacles that blight the lives of society's most vulnerable members, giving them unfettered access to the world.



* This guide has been superseded by ISO/IEC Guide 71:2014, *Guide for addressing* accessibility in standards.

ISO SURVEY SHOWS HOW MANAGEMENT SYSTEMS HELP TACKLE GLOBAL CHALLENGES

Getting certified to ISO management systems is still very much a priority. This conclusion comes courtesy of the latest ISO Survey of Certification, which records a grand total of 1541 983 certificates issued worldwide at December 2013 – a 4% increase on last year.

This annual survey, now entering its third decade, continues to provide a pragmatic picture of certifications to ISO's management system standards across the globe. Two sectors reflect the world's growing preoccupation with sustainability, including soaring energy shortages and a cleaner environment. Most notably, energy management standard ISO 50001 remains in high demand with a progression of 116%, while ISO 14001 for environmental management records a 20% increase in several regions.

A sign of the times? Undoubtedly. And certification is expected to rise further in these areas over the next few years, confirming, once again, that ISO management systems not only fulfil a need in the world economy but respond to the urgency of global concerns.

DESIGNING AN ACCESSIBLE WORLD

Around 15% of the world's population live with some form of disability, according to estimates from the World Report on Disability, produced jointly by the World Health Organization (WHO) and the World Bank. That's more than one billion people, a number to be reckoned with since this



Armed with this conclusion, ISO, the International Electrotechnical Commission (IEC) and the International Telecommunication Union (ITU) have joined forces on a common accessibility policy. The new resolution emphasizes a number of key points such as the importance of accessible or universal design, engaging older persons and persons with disabilities in standards development in order to safeguard their particular interests, and calling on standards developers, through awareness training programmes, to incorporate accessibility features into the standards. And by planning disability needs from the ground up, the likelihood for expensive retrofitting later on is greatly reduced. What's not to like!



POLAND TOASTS **90 YEARS**

This was the year George Mallory made his final attempt at Everest, the car company Mercedes-Benz was created and the first Caesar Salad was made... It was also the year that Poland's national standards body (PKN) was born.

Since its very first committee meeting in 1924, PKN has been an active contributor to the development of international standardization, both as a member of the International Electrotechnical Commission (IEC) and as a charter member of ISO. But 2014 also marks the standards body's 10th year as a member of the European standardization organizations CEN and CENELEC.

Celebrating its 90th anniversary to coincide with the Polish Standardization Day on 20th May, PKN remained focused on tomorrow with a conference entitled "Standardization — How to rise to challenges of the future?" The event, which featured presentations of what standardization might look like in years to come, was an enormous success, gathering a wide range of stakeholders including state administration representatives, consumers and entrepreneurs.

THE WORLD GAINS PERSPECTIVE IN CANADA

Standards are a catalyst for international trade. This is the unanimous statement to come out of the *Global Perspectives on Standard*-



ization: Lessons from the European Union, the United States and Australia, a 17-page report published by the Standards Council of Canada (SCC).

The document is the result of a two-day strategic exchange, which took place in Ottawa, Canada, in the second quarter of 2014. Hosted by the SCC, the event welcomed four distinguished leaders of the international standards community, including Canada's John Walter, Chief Executive Officer and Vice-President (Policy) for ISO.

Important lessons were learned on the importance of harmonized standards as a means of supporting regional and international trade — a key message repeated by all four experts in attendance. *Global Perspectives* gives an insight into different standardization business models and the value of international cooperation in advancing government and industry objectives.



CEO FORUM IN KAZAKHSTAN

Twenty CEOs and executives from 16 different Eastern European and Central Asian countries gathered in Astana, Kazakhstan, last summer for a new edition of ISO's popular CEO Forum.

After a review of the various country rankings compiled by organizations such as the World Economic Forum (WEF) and the World Intellectual Property Organization (WIPO), discussions centred on how standards could be effective in expanding the wider economies of countries in the region.

A stimulating debate ensued about best practice and good governance in national standards bodies, which allowed participants to express their hopes and expectations for the forthcoming *ISO Strategic Plan 2016—2020*. The outcome was a number of proposals focusing on processes, customers and financing of the ISO system as well as future training opportunities.

Taking the opportunity of this event, ISO Secretary-General Rob Steele signed a Memorandum of Understanding with KAZMEMST, ISO member for the country, for a three-year training programme destined to foster greater participation of the region's members in ISO work.





Sometimes the most epic of splits results when we work together to make this world a better place for all.

International organizations are a place for countries to get together and solve the issues they cannot address alone.

Their very existence stems out of a desire to cooperate and find solutions. As leaders of their organizations, acting Director-General Michael Møller of the United Nations Office in Geneva (UNOG), and ISO Secretary-General Rob Steele, recognize that it is by working together that we can make a stronger impact.

Here they reveal their inspirations, the greatest challenges of today's world, and their boundless commitment to making a difference.

"Two roads diverged in a yellow wood," said the poet Robert Frost. What made you take the path you did?

Michael: I wanted to make the world a better place and give back to those less fortunate than myself. I started by working with refugees, an experience that confirmed this aspiration. I stayed with the UN because, in a global organization that deals with the world's greatest challenges, there is always room to grow and new projects to lead!

Rob: I have always been curious about the world we live in and how it works. Standardization took hold of my curiosity at the right moment, and I soon realized that this was a place where I could make a difference. Every day I feel lucky that, in my profession, I am part of an organization of 165 countries that are making a pragmatic, positive difference to the state of the world.

Elevator pitch, start now...

Michael: Every 24 hours, the lives of people around the world are touched by the work we do in Geneva. I am spearheading a global effort to turn the substance, relevance and impact of our activities into common knowledge. We need people to better understand how we are collectively working for peace, rights and well-being and how our endeavours make a tangible difference in their lives.

Rob: Great things happen when the world agrees, and that's what ISO is all about. We bring together experts to share knowledge and agree on solutions to global challenges. Our goal is to be the best at building open and connected communities worldwide to efficiently develop standards that are accessible and trusted by all.

How can we put this information to good use?

Michael: I would like the average person on the street, as well as the policy and decision makers out there, to use this information to make better-informed decisions. Whether this means following global health recommendations to vaccinate children, understanding and exercising basic human rights, protecting the environment, electing leaders, defining policy priorities or even creating the right space for dialogue and debate on key issues. If we all understand their value, we can better invest in the organizations that make them possible.

Rob: My hope is for more people and organizations to get involved in the development of ISO standards in their area of expertise. I would also encourage



Michael Møller, acting Director-General, UN Office, Geneva.

"A lot of people know me as a UN diplomat of Danish extraction. In reality, I am close to many cultures, including French, from my mother, Polish, from my grandmother, and Greece, where I have spent many years of my life. This is also my home outside Geneva. Outside work, I am passionate about art, especially contemporary art and music."

@UNOG_DG

everyone to check out which ISO standards can help their business or organization, so they don't lose time reinventing the wheel.

What are the greatest challenges facing the world today?

Michael: I would say climate change, because if we don't address it, we simply won't have a planet left to live on!

Another critical issue is managing our global resources. For example, it is not enough to give the underprivileged access to clean water or food, we must also put in place sustainable solutions. We need to strike the right balance between lifting developing regions out of poverty and onto the road to development without compromising other resources in the process.

Rob: We live in a world where our only constant is ever-accelerating change. Our greatest challenge is to manage the risks associated with these changes, while seizing the opportunities.

I agree with the top five risks highlighted by the World Economic Forum in their 2014 report: fiscal crises in key economies; structurally high unemployment/underemployment; water crises; severe income disparity; failure of climate change mitigation and adaptation. Rather than working in isolation, governments, business and international organizations need to come together to find holistic, proactive and imaginative solutions.

How are international organizations like yours helping to solve these challenges?

Michael: The United Nations is at the forefront of all global challenges, responding to urgent needs through humanitarian assistance, public health interventions, peacekeeping operations and refugee protection – to name a few.

We also bring the world together today to find solutions to many of tomorrow's challenges, such as climate change, disarmament of lethal autonomous weapons – also known as killer robots – and pressing governance issues like transboundary rights agreements, Internet privacy, global health issues, and so on.

More specifically, the UN in Geneva is a key operational centre working concertedly with many other international organizations – including ISO – to make a tangible improvement in people's lives.

Rob: Our standards represent global consensus on how best to address a particular problem or issue,

"Before getting into the standards world, I started as an accountant in my home country, New Zealand. Less scary things about me include my passion for photography, cooking and travel!"

@ISOSecGen



Rob Steele, Secretary-General, ISO.

such as reducing our environmental impact and facilitating global trade. ISO today represents 165 countries. It is our responsibility to act now so that we are not caught out by the risks generated by change, and we can only do that by being practical and relevant.

What do you think the world would be like if these organizations didn't exist?

Michael: Quite a lot more chaotic than it is now!

Rob: International organizations, operating on the principles of inclusion and openness, are vital in today's world. If ISO did not exist, trade would be much more restricted as industry would have to contend with different national requirements and less guidance on safe operating procedures for workers and consumers. A lot of resources would be wasted on reinventing the wheel everywhere, and innovation would be more cumbersome.

What is #GenevaImpact?

Michael: #GenevaImpact is an initiative led by UNOG to raise awareness about the impact and relevance of Geneva's international organizations in the world.

Why is it important that Geneva remains a hub for international organizations?

Michael: International Geneva has become a global cluster for international development, not only because of its organizations, but also because of its people. The city holds a unique pool of professional and technical expertise and has become a well-recognized knowledge hub with a tremendous impact on individual lives worldwide.

The health sector is a case in point. All the main global health actors are in Geneva. From the policy development, research and production of life-saving medicines to the funding and distribution of medication, bed nets and medical assistance, the work and synergies that take place in Geneva reach not only the poorest corners of the world but also benefit the rich. It is crucial to nurture this operational hub so it can continue to serve the world.

Rob: The UN has taken a great initiative by providing a forum where leaders of UN agencies and other international organizations in Geneva can learn about each other's work and leverage on that.

Having 160+ international organizations in one city makes communication and discussion easier. That said, we need to use this as an opportunity to



"We would now like to nominate YOU to do the 'save water' challenge." The UN in Geneva is a key operational centre working concertedly with many other international organizations.



complement each other in our work to make the world a better place.

For ISO, a concrete example can be seen in the way we collaborate with our two key partners, the International Electrotechnical Commission (IEC) and the International Telecommunication Union (ITU). This three-way partnership is the basis for a number of standards-awareness initiatives and events, and being in Geneva means the CEOs of the three organizations can get together at any time.

Can social media help change the world?

Michael: Social media holds tremendous potential as a platform for communication and change. I suspect we will move into a new media landscape as people become more familiar with how to use social channels to catalyse action and participate on the global decision-making table. I would like to rally people around peace, rights and well-being by linking the work we do in Geneva to their daily lives. We are pushing to showcase what #GenevaImpact does over social networks, and I would love to hear examples of what #GenevaMeans to people around the world.

Rob: Social media has a unique potential to mobilize people in ways that were not possible before because of barriers like distance and time. Anyone in the world with access to the Internet can get together, connect and engage. But using social media for positive change is up to each of us. We have the choice between surrounding ourselves with what we are already comfortable with or taking a peek into other things the world has to offer to challenge our preconceptions and embrace new ideas. For us, social media is a wonderful opportunity for our members to connect with the world, listen to what the world wants, and get more people on board. MARIA LAZARTE



gets its message straight with ISO 20022

As the financial sector worldwide becomes ever more automated, standardizing messages across financial institutions and banks has never been more important. Fortunately, ISO 20022 comes to the rescue, providing ease of transaction and peace of mind to many companies, not least the world-renowned Singapore Exchange Limited.



Lai Kok Leong, Vice-President of Post Trade Services at SGX.

The slightest error

n order to conduct their business, financial institutions must exchange colossal amounts of data with their customers and among themselves. Such transactions only work if the sender and receiver of a message have a common understanding of how to interpret this information. This is all the more important that financial services is a high-risk sector, where the slightest error can cost millions.

Happily, the ISO 20022 series of standards for financial services that codify the exchange of financial messages provides clarity and consistency to a highly complex industry. In fact, such is the furore surrounding the new standard that the Singapore Exchange (SGX) has mandated its usage by brokers, custodian banks and other stakeholders.

Dubbed the Asian Gateway, SGX is an investment holding company that connects investors worldwide with corporate issuers in search of global capital. By implementing clear, standardized messaging services, the company allowed its partners to automate their processing, thereby reducing the likelihood of error. Lai Kok Leong, Vice-President of Post Trade Services at SGX, knows the value of talking straight.

The challenge

Our services reach out to different segments of the financial industry. We interact on a daily basis with brokers and custodian banks that are members of SGX. They, in turn, reach out to their clients, so it is vital we provide standardized messaging services that cascade to the different downstream customers, directly or indirectly, using our services and through different IT systems.

With our existing systems, deployed in the 1980s, data messages were based on proprietary instant messaging protocols, which made them incompatible with other networks. In practice, this meant that SGX's trading members were forced to translate the data into SWIFT MT messages in their own systems for processing and onward communications with their customers – a time-consuming job and a source of error.

The solution

Security and speed are of the essence in high finance. For high-value transactions, the slightest error can result in significant loss of time and money. That's why, in an attempt to risk-proof our business, SGX turned to the ISO 20022 family of standards for encoding financial messages.

Developed with financial services in mind, the standard provides an industry-wide messaging system that helps all actors in the trade manage the soaring volumes and increasingly complex events.

At SGX, we believe ISO 20022 can bring profound benefits to the entire financial services industry because it delivers end-to-end processing across domains and geographies that currently use vastly different standards and information formats. The industry is crying out for interoperability so it can run its business processes seamlessly across organizational boundaries. And ISO 20022 helps us do just that.

The benefits

Based on Extensible Markup Language (XML), which encodes documents in a format that is readable by both humans and machines, the ISO 20022 messages make it easier for our members to understand, develop and process SGX financial messages. Another appealing advantage is the improved straight-through processing – in layman's terms, the automatic processing of an order without human intervention. Everyone benefits because the entire chain uses a uniform format that facilitates system-to-system communications, reducing processing times and improving financial flows, while mitigating the risk of human error.

ISO 20022 is also a particularly transparent format, which makes it easier for our members to understand the messaging protocol. And because it is human-readable, tracing and solving errors is much simpler, which ultimately has positive effects on maintenance costs.

The next step

Inspired by its success, SGX now hopes to deploy the standard to other business sectors such as corporate actions, reference data, payments and collateral management.

ISO 20022 aligns well with our forthcoming developments. It is a tool that will help us future-proof our messaging, providing a consistent data structure across all our services and to all our different customer segments. VIVIENNE ROJAS AND CLARE NADEN





ISO climate solutions for post-Kyoto era

As International Chair of ISO/TC 207/SC 7 on greenhouse gas management and related activities, Tom Baumann is a firm believer that international cooperation to solve climate change needs a robust standardization system powered by collaborative information and communication technologies.

y love for the environment has its roots in childhood. I have always enjoyed being out in nature, and still do to this day. These days, however, I sometimes work in polluted areas where I can barely see the other side of the street because the air pollution is so thick. That's enough to remind me how precious clean air, clean water and clean landscapes are, how quickly they can be lost, and what a challenge they are to maintain. And if we don't work harder now to make things better, it will be an even bigger challenge for future generations.

In the field

I firmly believe a robust standardization system is essential for climate change solutions to achieve their full potential, which is why I began working in the ISO system in 2003. Ten years on, I am International Chair of ISO/TC 207/SC 7, the committee dealing with greenhouse gas management. Collaborating with climate professionals from around the globe to develop International Standards is an enriching experience, as well challenging.

But I am also a user of ISO standards, helping organizations and stakeholders around the world to develop solutions in the face of increasingly severe environmental pressures. One such initiative is the Farming 4R Future¹⁾ and 4R Nutrient Stewardship initiative, utilizing an ISO 14064-2-based protocol to help Canadian farmers mitigate nitrous oxide emissions – 310 times more potent than carbon dioxide – from fertilizer usage. Such beneficial management practices, BMPs, go a long way to enhancing productivity and sustainability.

Low-carbon shift

With expected population growth over the coming years combined with increasing levels of consumption, the average GHG emissions per capita are likely to rise. For example, in 2014 China surpassed the EU in per capita GHG emissions – 7.2 versus

¹⁾ www.farming4rfuture.ca





Canada would need to reduce emissions by about 90% – a mammoth task.



6.8 tonnes CO_2 e (per capita per annum), respectively²⁾. To counter this trend and remain within the carbon budget limiting a temperature increase of 2 °C by 2050, some developed countries, such as Canada, would need to reduce emissions by about 90 % – a mammoth task. Meeting this target will require a major shift towards advanced very-low-carbon and energy efficiency technologies, not to mention major process improvements to limit non- CO_2 emissions.

The US military echoes these concerns ³⁾, warning of the impending security risks brought about by extreme weather events and shortage of food and water, leading to unprecedented numbers of environmental refugees. The way I see it, society and business should use the currently available freedom of options to minimize the worst scenarios of climate change, instead of stalling until crisis management has to rely on the military to safeguard the ecosystem services that support our livelihoods.

The silver lining

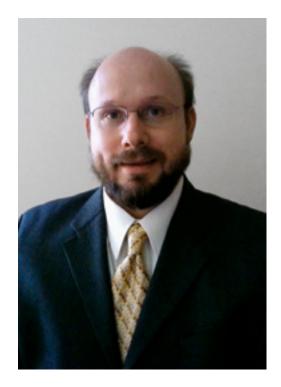
The good news is that it is possible to act now. In fact, in 2014 the province of Ontario, which is the most populated and industrialized in Canada, closed down its last coal power plant. Sure, it means that, to keep the Earth habitable, many people must consume less to balance the needs of everyone on the planet within defined planetary boundaries.

A recent article by former US Vice-President Al Gore⁴⁾ brings hope for the future. There has been a lot of progress in the development of clean technologies. For instance, renewable energy costs much less now and there's more and more of it. There is interesting research into technologies utilizing CO₂ emissions to create energy and materials.

www.theguardian.com/environment/2014/sep/21/ record-co2-emissions-committing-world-to-dangerous-climate-change

www.whitehouse.gov/blog/2014/10/13/defense-departmentmust-plan-national-security-implications-climate-change

www.rollingstone.com/politics/news/ the-turning-point-new-hope-for-the-climate-20140618



Tom Baumann,Chair of ISO/TC 207/SC 7 on greenhouse gas management and related activities.

Modern solutions

My first encounter with standardization was within a climate change technology fund. In 2001, there was no standard for planning, measuring and reporting greenhouse gas (GHG) emissions from innovative GHG technology projects. I was also engaged in other GHG standards initiatives at the time. That's when I realized the magnitude of the climate change challenge would require a massive effort to develop a standardization system that included more qualified GHG professionals and a range of tools to support new environmental markets.

I am fortunate that my career coincided with the evolution of the Internet, which provides unprecedented opportunities to collaborate and deploy solutions quickly, with global reach and a smaller environmental footprint.

Harnessing these benefits, I helped launch in 2007 the GHG Management Institute (GHGMI)⁵⁾, which offers rigorous online training to GHG professionals in several areas of climate change. The e-learning portal utilizes a spectrum of online tools to support knowledge sharing and networking among members.

I also launched Interactive Leader and Collaborase⁶⁾, a Web platform for collaboration and knowledge management that is helping experts to participate more effectively and save time and money in the development of several sustainability standards.

A new dawn for standards

The road ahead will be challenging, but new information and communication technologies (ICTs) will enable new solutions⁷⁾. Having worked with many organizations over the last ten years that develop and use GHG standards, I think the time has come for the standardization system⁸⁾ to reinvent itself.

Standards have a "life cycle" from research, collaboration and development, to application and the sharing of lessons learned, to assessment and maintenance to ensure that the quality and value of the standard continues to meet user needs.

This "standards ecosystem", in combination with the array of ICTs available, enables standards to become "living documents" that are much more dynamic because they integrate more interactive knowledge management. How does this impact my GHG work, you may ask. Well, ISO is launching new online tools and ISO/TC 207/SC 7 has initiated a strategic planning process to help focus our resources on areas of highest priority for standardization. I am convinced that a robust and adaptable GHG standardization system, bolstered by knowledge management systems that effectively engage stakeholders, will help develop standards that generate economic, social and environmental benefits to help solve the climate change crisis. MARIA LAZARTE

⁵⁾ www.ghgmi.org

⁶⁾ www.collaborase.com

⁷⁾ http://gsnetworks.org/addressing-the-climate-crisis/

⁸⁾ www.iso.org/iso/ghg_climate-change.pdf, Chapter 8



The ISO Week in

The ISO Week in Brazil was held from 8 to 12 September 2014 in Rio de Janeiro. This year's agenda included the 37th ISO General Assembly, a seminar on SMEs, a session focusing on sustainability and a day devoted to developing countries. The week-long event was hosted by ABNT, ISO's member in Brazil. Here's a recap of the week's highlights.





Brazil!

Monday, 8 September

The ISO Week in Brazil got off to a roaring start with the Sebrae workshop on standardization and small business, which gathered over 180 local entrepreneurs and business people.

According to Sebrae's Technical Director, Carlos Alberto dos Santos, promoting small businesses means promoting a large number of companies. And in Brazil the numbers are bigger than big.

Brazil is home to some eight million micro- and small enterprises representing 99% of all business in the country. Sebrae supports the development of these companies, working closely with ABNT, ISO's Brazilian member, to help them get the most out of standards.

Speaking enthusiastically of the endeavour, Dos Santos explains, "We leverage and promote the competitiveness of small businesses, and create opportunities for them to participate in standards activities that encourage global market access." Among the case studies featured at the SME seminar were adventure tourism and the beauty industry.

Tuesday, 9 September

"Standards and sustainable development" was the subject of the keynote speech made by Haroldo Mattos de Lemos, President of ABNT Technical Council and President of Instituto Brasil PNUMA (UNEP), at the ISO Committee for developing country matters (ISO/DEVCO). The meeting drew more than 340 delegates from 106 developing country members of ISO.

Mattos de Lemos emphasized the important contribution that standards make to business and their vital role in tackling the challenges facing the world community, such as the environment and sustainability. He said heavy demands are being placed on SMEs to prove the environmental performance of their production processes, due to the increasing attention focused on the supply chain of larger companies. Thankfully, ISO developed ISO 14005 to help SMEs use a phased implementation of environmental management systems.

He concluded by underlining the beginning of a new era. "The era of abundance is over. We are entering the era of scarcity," he said.



Julio Bueno, Secretariat of Rio de Janeiro State of Economic Development, Energy, Industries and Services, showcases Brazil's thriving economy during his opening address at the ISO General Assembly.

From left: Masami Aoki, Secretary of ISO/TC 45/SC 2, with ISO President Terry Hill and ISO Vice President Elisabeth Stampfl-Blaha (technical management).

Wednesday, 10 September

Over 400 delegates met for the 37th remarks on Brazil and its complex economy.

cooperate.

ISO General Assembly, which brought together representatives from more than 120 ISO member countries to discuss International Standards and their impact on business, society and the global economy. In his opening address, Julio Bueno, Secretary of Economic Development, Energy, Industries and Services for the State of Rio de Janeiro, provided thought-provoking

"The most important economic sector for us is the oil industry and the state of Rio accounts for 80 % of this," Bueno explained, highlighting that capacity building in this sector was a big challenge for the country today.

Additional viewpoints from the aviation industry were shared by the Executive Vice-President of Embraer, Mauro Kern, as keynote speaker. Kern shared his views on the pillars required to help industry move towards a more sustainable future, stressing the need to adapt, innovate and, above all,

"Cooperation is key," he asserted. "The problems we are facing today are too big for any single institution, company or individual to deal with alone."

Thursday, 11 September

The General Assembly continued with a celebration of excellence, highlighted by the presentation of two important awards. And this year's winners are...

The Japanese-led ISO subcommittee that develops International Standards for the testing and analysis of rubber and rubber products was presented with the prestigious Lawrence D. Eicher Leadership Award.

Granted annually since 2003, the distinction recognizes ISO technical committees and subcommittee for their outstanding work in creative and innovative standards development. ISO President Terry Hill presented the honour to ISO subcommittee SC 2, Testing and analysis, of ISO technical committee ISO/TC 45, Rubber and rubber products.

Ester Williams from the Jamaica Bureau of Standards was the winning entry in the ISO/DIN contest for young professionals in developing countries.

The ISO-organized contest, which is sponsored by DIN, the German Institute for Standardization, aims to challenge and give an opportunity to young professionals in developing countries and economies in transition.

Participants in the 2014 edition were asked to write an essay answering the question "Sustainable energy future – How can standards help meet the challenge?", in which they presented their personal views based on their country's experience.

To learn more about this event and watch videos, see our storify:



Thank you to all the members of the ISO family for making the ISO Week in Brazil such a tremendous success!

Friday, 12 September

Sustainability was the theme addressed by high-level panels of experts participating in an open session held on the last day at the Maracanã Stadium, the venue for the 2014 World Cup and 2016 Olympics. Presentations were made by Sebrae, Sindipeças (Brazilian Autoparts Sindicate), Instituto Brasil PNUMA, Embraer, and Suzano Papel e Celulose, a Brazilian pulp and paper company. The discussions revolved around the current issues of the environment and sustainable development, what is being done and what needs to be done better, and how standards could assist.

In his address, ISO Secretary-General Rob Steele underlined that standards provide the indispensable practical details needed to leverage solutions in the fields of environment and sustainability.

Thank you to all the members of the ISO family for making the ISO Week in Brazil such a tremendous success. And a special mention to our hosts, ABNT, for a job well done! ELIZABETH GASIOROWSKI-DENIS



Dr. Torsten Bahke (DIN) announces this year's winner of the ISO/DIN contest for young professionals in developing countries. Congratulations go out to Ester Williams from the Jamaica Bureau of Standards.



Executive Vice-President of Embraer, **Mauro Kern**, highlights the pillars needed to help industry move towards a more sustainable future during his keynote speech at the ISO General Assembly.



ISO Secretary-General **Rob Steele** opens the open session on sustainability held at the Maracanã Stadium, the venue for the 2014 World Cup and 2016 Olympics.



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