



# focus

#101

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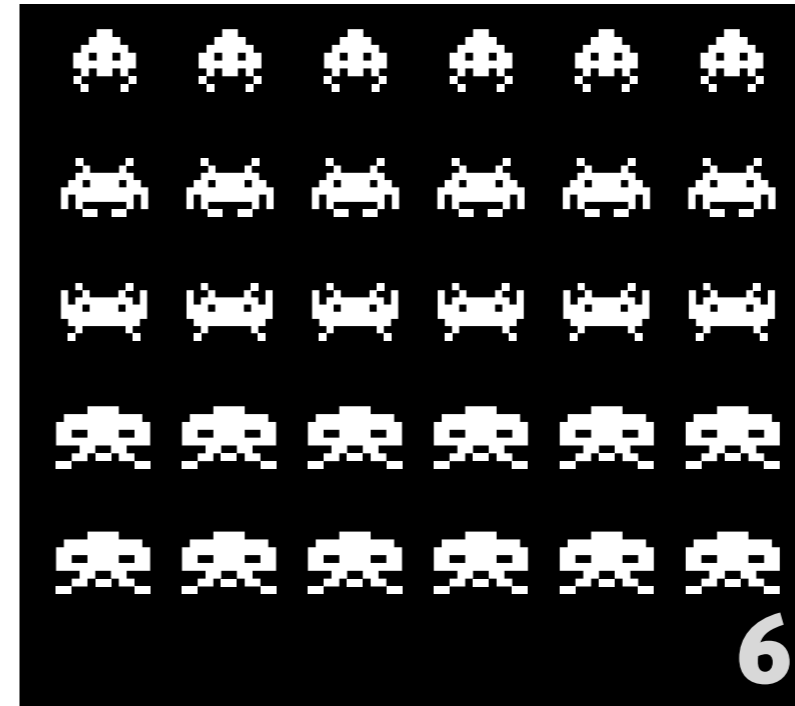
#101

# ISO focus

November-December 2013



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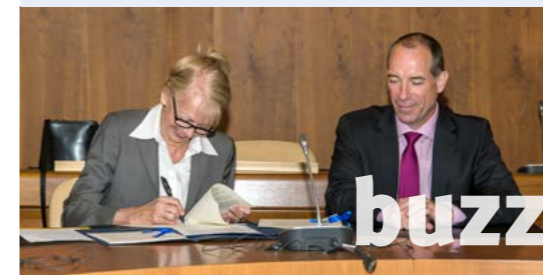
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# The WORLD WICKED of cyberspace

Hackers targeting babies – could yours be next? A couple in Houston recently discovered that a man had hacked into their baby monitor and was shouting profanity at their sleeping daughter. The moral of this story isn't that your baby monitor could be hacked. The moral is that pretty much every "smart" everything can be hacked.



Elizabeth Gasiorowski-Denis  
Editor-in-Chief of *ISOfocus*

The so-called Internet of Things – digitally connected devices like appliances, cars and medical equipment – promises to make life easier for consumers. But it comes with a price. The more computerized and dependent on wireless communication we become, the more vulnerable we are to hacking. The late security expert Barnaby Jack exposed weaknesses in pacemakers, insulin pumps and ATMs, showing how everyday objects not commonly thought of as targets can be taken over by malicious third parties.

By 2020, researchers believe that there will be 50 billion networked devices on the Internet. As we speak, many homes contain dozens of networked devices. This includes computers, cell phones and tablets, but also many traditional home products such as refrigerators, televisions, and security systems.

So what does this mean for the future? How alarmed should we be, with all these smart products attached to the Internet? The answer is very. And we don't have

to wait until 2020 to experience security vulnerabilities. These weaknesses are already here, and found in webcams and cameras of all sorts – not to mention yachts, ATM machines, industrial control systems and military drones.

With all of these things "hackable", here is my "red line". It's one thing to usurp my identity and make unauthorized charges on my credit card. But it's quite another to go after my newborn baby via its monitor or my insulin-dependent father on his glucose meter.

Protecting against unwarranted access of software and cyber-attacks, needs to be a priority for both government and business. Bearing all this in mind then, how safe are the businesses that produce our goods and services? In this *ISOfocus* issue, Prof. Edward Humphreys explores some of the ways in which businesses can prevent their information and IT from being compromised. He highlights how the recently published ISO/IEC 27001 on information management systems, now in its second edition, can help

build a comprehensive security programme in today's environment. The article highlights what steps to take and what questions to answer, when the inevitable data breach does occur, so the damage is kept to a minimum.

So here's the bottom line: whether we like it or not, information has become one of the critical commodities in today's fast-moving interconnected world. Safeguarding our cyberspace is an urgent business issue and one that needs immediate and ongoing attention. In a number of cases, the right security measures can discourage expert hackers and beat opportunists. And ISO/IEC 27001 is your first line of defense. But standards are only good in as far as they are used.

So the next time you purchase a baby monitor or any other networked devices, ask yourselves this: Did the manufacturer consider the possibility of hacking? Did the company implement ISO/IEC 27001? If the answer to both questions is no, then maybe you should think twice. Ignorance is no excuse.

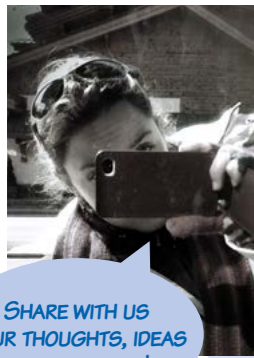




**Facebook photo contest**

The rules were simple: take a photo inspired by any standard you like. Our top 10 favorites received a surprise prize.

# Social feed



SHARE WITH US YOUR THOUGHTS, IDEAS AND FEEDBACK!

@MariaLazarte  
ISO Social Media Manager

**20 000 fans and other good things**

These past few months have seen some exciting milestones for ISO's social media. Our Facebook page, I am proud to say, has reached more than 20 000 fans. This shows that people are eager to connect with ISO, and share what they learn with their friends and family.

To celebrate and thank our followers, we organized a photo contest which resulted in some very creative entries. It was an exercise to get people thinking about standards and how they impact their daily life, but also a way for us to connect with their world.

Another milestone for ISO was our first Google Hangout. A hangout is like an informal online panel or webinar, broadcasted live for anyone to see. We brought together four experts on ISO 50001 (energy management) and invited the public to ask questions. For the more curious, there were about 30 people who watched it live, and another 100 who followed it on playback on the day itself. This number more than tripled within the next few days, a sure sign that other hangouts will be coming soon!

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**Twitter chat**

**@ISOstandards:** Sunglasses are not just for looks with new ISO standards

**@Harehraichura:** Are there ISO standards for toothbrushes?

**@isostandards:** Yes, we do have standards for toothbrushes!

**@Harehraichura:** Great. We must strengthen -> Standards

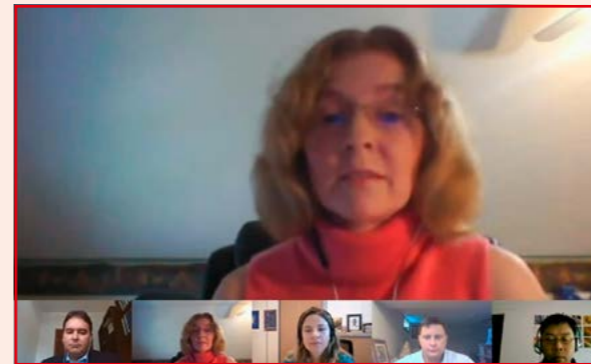
**@Harehraichura:** Are there ISO standards for a POLITICIAN?"

**@isostandards:** No, but there are many standards they'll find helpful. Like the one for local government

*To his followers:* **@Harehraichura:** Follow @isostandards and also encourage many more government bodies and semi-government bodies to come on Twitter

**@Shmyak13:** Certainly will follow @isostandards if it can prepare "standards" for all our four pillars of democracy. India needs it.

**Our first ISO Google Hangout**  
Your questions on ISO 50001



An informal 30 minute question and answer session with experts Deann Dessai (USA), Alberto Fossa (Brazil), Jason Knopes (USA) and Kit Oung (United Kingdom).

Well done on what was an excellent and well run event on Google+. I have watched the recording and it has been very informative.

Well done ISO, the hangout was great yesterday!

**Julie Wells, Senior Communication Practitioner, National Cleaner Production Centre of South Africa (CSIR) via LinkedIn**

**Mike Brogan, Founder and COO, Enerit Ltd. via LinkedIn**



**What YOU are saying**  
 **@SES\_Standards Hitchcock:** Standards are tools that every engineer will use regardless of industry, discipline, or job.

**@LauraAsialaCSR2:** @cookstoves @isostandards Congrats in making real progress on the fundamentals to clean, healthy environment for women around the world!

**@renebolier:** The bitterness of poor quality remains long after the sweetness of low price is forgotten.

**@ProSolveLtd:** So great to see @isostandards is on Twitter. We follow these standards in all our work. Look forward to the tweets and info.

**@skframe:** Bad dental hygiene linked to Alzheimer's. @isostandards focusing on dentistry help ensure good oral health!



Companies have no choice but to protect themselves.

# The new cyber war- fare

Cyber threats continue to plague governments and businesses around the world. These threats are on the rise as cyber criminals increase their focus and know-how. The problem demands an international solution. ISO/IEC 27001 provides a management framework for assessing and treating risks, whether cyber-oriented or otherwise, that can damage business, governments, and even the fabric of a country's national infrastructure.



Information security incidents are on the rise as cyber criminals increase their focus on both large and small businesses. An in-depth study of the state of information security by the Department for Business, Innovation & Skills has highlighted the scale of information security threats in the UK. The study – *The 2013 Information Security Breaches Survey* – reveals that attacks against small businesses have increased by 10% in the past year, costing up to 6% of their turnover.

Surprised? Don't be. The threat landscape of mobile security is moving at a very rapid pace. Mobile hackers are on the prowl, cooperating with cyber criminals to pass on stolen private and business information. What's more, threats in the mobile landscape are becoming smarter and targeting mobile devices. According to reports from CNN Hong Kong and NQ Mobile, the dramatic growth in mobile malware is intensifying, estimated to be up by 163%. An astounding figure by no measure.

Identity thieves have also regained the upper hand, suggests a 2013 survey released by fraud research firm Javelin Strategy & Research.

The firm's annual survey reports that, in 2012, identity fraud incidents increased by more than one million victims and fraudsters stole more than USD 21 billion, the highest amount since 2009.

More and more organizations are embracing online opportunities to promote their business and solidify their position in the marketplace through the use of mobile devices and apps, not to mention social networking sites. In so doing, these companies are



**Attacks  
against small  
businesses  
increased  
by 10% in the  
past year,  
costing up  
to 6% of their  
turnover.**

Source: The 2013 Information Security Breaches Survey

magnifying the number and sophistication of threats targeted at them. Today's companies have no choice but to protect themselves by implementing the ISO/IEC 27001 standard.

Used internationally since 2005, ISO/IEC 27001 has helped thousands of organizations boost their information security. The popular management system standard has recently been updated and is now available in a new and improved version – ISO/IEC 27001:2013. This second edition takes account of past user experiences, improvements in security controls apt for today's IT environment, namely identity theft, risks related to mobile devices and other online vulnerabilities, and aligns with other management systems.

#### **Business boom and bust**

Cyber security is not just an IT challenge, it is critical to the running of any business.

According to Prinya Hom-anek, President of ACIS, Thailand, the benefits of using a framework for managing cyber risks cannot be overstated: "To tackle the cyber problem, we not only need more robust technical solutions, we need management solutions to improve the business processes to handle the risks to confidentiality, integrity and availability of information and, very importantly, to improve the awareness and skills of staff and users to achieve this protection." He also notes: "ISO/IEC 27001 [...] has helped us to improve our defences against cyber-attacks and, in turn, enabled us to offer better security in the services we provide our customers. As a result, our customers have greater trust and confidence in us as a secure business partner."

Cyber risks cause much harm to online markets by compromising electronic transactions and inflicting costly damage. For José Renato Hopf of GetNet, one of the suppliers of managed technology solutions and business services for electronic transactions



# In 2012, identity fraud incidents increased by more than one million victims (the highest amount since 2009).

Source: Javelin Strategy & Research

in Latin America, it is important for companies to stay ahead of the cyber security game: “GetNet decided to implement an effective Information Security Management System (ISMS), based on ISO 27001:2013, to protect its Data Centre located in Campo Bom, Rio Grande do Sul (Brazil), against threats and vulnerabilities, and to preserve the confidentiality, integrity and availability of its information. In addition to the adoption of the best information security practices [...] ISO 27001:2013 will increase the confidence of our clients, partners and others interested parties.”

## Service and security combined

Establishing and maintaining customer confidence is key to all successful businesses. Organizations such as CINDA, one of the big-four asset management companies representing the financial industry in China, have benefited commercially from building customer confidence through the combined use of an information security management system based on ISO/IEC 27001 with an IT service management system based on ISO/IEC 20000-1.

Jioa Yuan, General Manager at CINDA’s IT Department, comments: “In the financial sector, CINDA was the first company to gain the two management standards certifications from both domestic and international certification bodies. Our ISMS has been improved continually to meet business development and to adapt to the corporate culture. With the establishment and operation of the ISMS, the company has been constantly improving its corporate information management security, and helping to win the confidence of customers and regulators.”

The broad applicability and usefulness of ISO/IEC 27001 provides unlimited business opportunities for managing risks and building customer confidence. According to Brendan Smith, Chief Information Security Officer at Fujitsu, the benefits of using integrated management systems makes for a win-win situation: “Fujitsu

The threat landscape of mobile security is moving at a very rapid pace.

Australia uses ISO/IEC 27001 for internal security management, as well as integrating it with ISO/IEC 20000 to provide secure services to our managed clients. We appreciate having a framework that can cover both scenarios, and enable a single management overview of the state of our security implementation.”

“As a global organization, we deliver services from diverse locations. A key benefit of using an internationally recognized standard such as ISO/IEC 27001 is that it gives our clients the assurance that we have implemented security management to a common level.” And there’s more. Fujitsu builds communities of security professionals at executive and management levels within a common framework defined by ISO/IEC 27001. In the long term, Fujitsu Australia will continue to improve the implementation and use of ISO/IEC 27001 (and related standards) throughout its business areas including information services and cloud computing.

## Market enabler

Organizations that manage their information security risks through ISO/IEC 27001 certification are well recognized by the marketplace. Tony Plummer of Stralfors UK explains how ISO/IEC 27001 establishes credibility and allows the company to differentiate itself from competitors.

“ISO/IEC 27001 certification has come to be regarded as a prerequisite for the vast majority of existing and prospective clients. Simply put, our qualification to ISO/IEC 27001 provides us with a ‘ticket to the game’. This may be evidenced by the fact that certification is mandatory for organizations like Stralfors that wish to print or personalize cheques. There is no doubt that compliance to ISO/IEC 27001 has seen us improve our own approach to all aspects of information security and physical security. In addition to this, particular benefits have been seen in colleague awareness and supplier selection and management.”

## Weapon of choice

ISO/IEC 27001 has become synonymous with information security. It has been an outstanding success in the business community, reaching out to provide protection and benefits to organizations across all sectors, regardless of size and nature of business.

The businesses questioned above are just the “tip of the iceberg”. Thousands of organizations around the world use ISO/IEC 27001 to manage their information security risks. And in a world increasingly plagued by cyber-attacks and other threats, anything else would be unthinkable. E|H

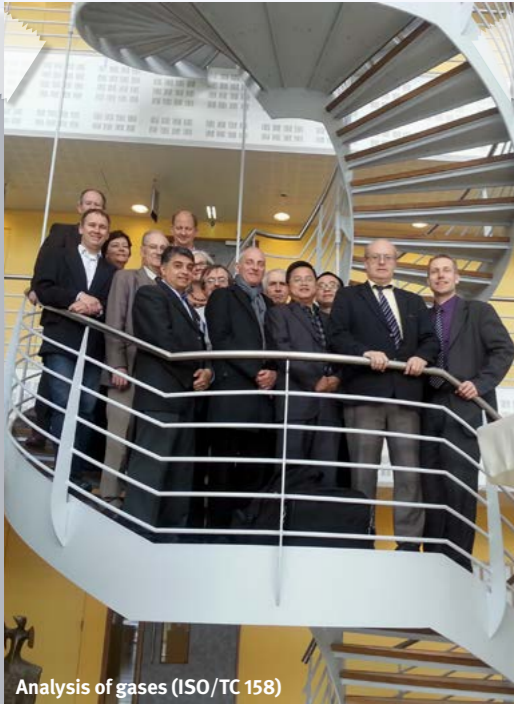
Read more about ISO/IEC 27001:2013 on [iso.org](http://iso.org)





# Experts in action

Here are a few snapshots from the recently held plenary meetings of ISO technical committees.



Analysis of gases (ISO/TC 158)



Sustainable purchasing (ISO/TC 277)



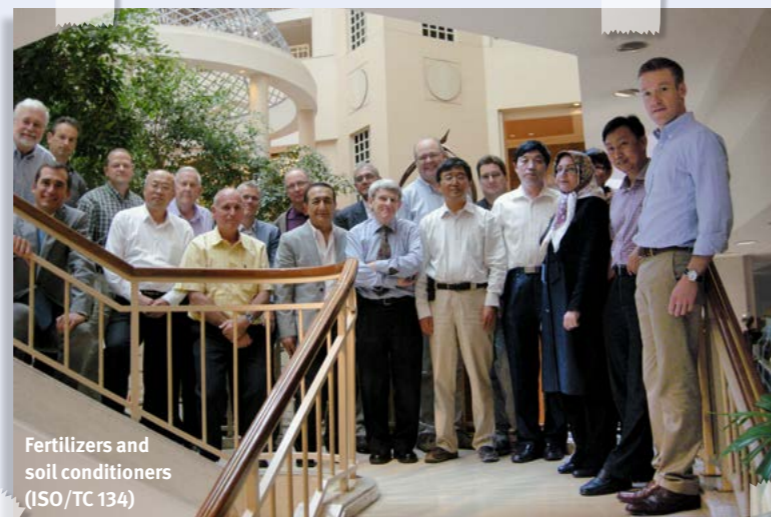
Photography (ISO/TC 42)



Surface active agents (ISO/TC 91)



Clothing sizing systems – Size designation, size measurement methods and digital fittings (ISO/TC 133)



Fertilizers and soil conditioners (ISO/TC 134)

## Personality of the Year 2013

ISO's own Dr. Anne-Marie Warris, an internationally respected expert in the fields of sustainable shipping, climate change and environmental management, has been chosen as Personality of the Year 2013 by WISTA-UK, part of the Women's International Shipping & Trading Association.

For ISO, Dr. Warris drafted its climate change strategy and its submission to the 15<sup>th</sup> Conference of the Parties to the United Nations Framework Convention on Climate Change, on the potential for a management system standard to support nationally appropriate mitigation actions for monitoring, reporting and verification. She is Chair of the ISO subcommittee responsible for environmental management systems, and of ISO's joint task coordination group for management systems.



Dr. Anne-Marie Warris has been chosen as Personality of the Year 2013 by WISTA-UK, part of the Women's International Shipping & Trading Association.

## Thumbs up to work health and safety

Safety should be a priority in any workplace. According to the International Labour Organization, 6 300 people die every day as a result of occupational accidents or work-related diseases – more than 2.3 million deaths per year. A further 317 million accidents occur on the job annually, often resulting in extended absences from work.



Every day, 6 300 people die as a result of occupational accidents or work-related diseases.

Accidents can be prevented, and a future ISO standard will provide, for the first time, an international framework for occupational health and safety best practice, thereby reducing work-related accidents, injuries and diseases worldwide.

The much awaited ISO standard will be overseen by a newly created ISO project committee ISO/PC 283, *Occupational health and safety management systems – Requirements*, which held its kick-off meeting in October 2013 in London, United Kingdom. ISO/PC 283 will be tasked with transforming OHSAS 18001 (the OH&S management system requirements) into an ISO standard.

## Latest ISO Survey confirms boost in management systems

The numbers are in. Getting certified to ISO management systems is on the rise, according to their uptake tallied in the ISO Survey of Certification.

The annual survey, now in its 20<sup>th</sup> edition, gives a worldwide panorama of certification to ISO's management system standards. The latest edition reveals a healthy growth across the board for all certifications at the end of 2012, exhibiting a worldwide total of 1 504 213 certificates across 191 countries.

With a record increase in the number of certificates issued, the survey also underscores the market relevance of ISO management systems in the global economy. All seven ISO management system standards are showing an increase compared to 2011.

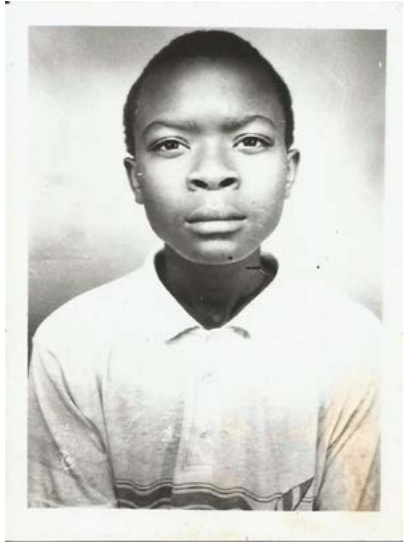
Here's just one example. Only in its second year, ISO 50001 on energy management has shown impressive growth (332%), generating special enthusiasm in Europe and South-East Asia. Certification in this area is expected to rise over the next few years as the short-term benefits of energy efficiency become noticeable.

Overall, Asia comes up trumps once again in this year's survey. Spurred by continued economic growth and important industrial and manufacturing production, China remains in the top 10 countries for six out of the seven standards covered in this survey.

Visit [iso.org](http://iso.org) for the Executive Summary.







# Making it

Amwayi Omukhweso William came from a humble background in rural Kenya. With much hard work and determination, he beat the odds and rose to the top on his own terms. Today, at the young age of 30, William is a Quality Assurance Officer at the Kenya Bureau of Standards (KEBS), and the winning author of the ISO/DIN contest for young standardizers in developing countries. Here, William shares his story.



When William greets me for an informal meeting in my office, he's friendly, seemingly unguarded, and brings along his iPad. He's dressed for success in what appears to be tailor-made dress pants and a long-sleeve, button-down shirt – very appropriate for his role as Quality Assurance Officer at the Kenya Bureau of Standards (KEBS), ISO member for the country. William tells me that he's immensely proud to contribute to the country's economy. "I draw satisfaction from the fact that Kenyan manufacturers do appreciate the importance of standards in the current marketplace as a way of making their products competitive, not only in the local market but also at the international level."

William is the winner of the 2012 ISO/DIN contest for young standardizers in developing countries. His essay on the role of standards in the Kenyan economy, according to DIN Chairman Dr. Torsten Bahke, very nicely linked the development objectives of his country, as contained in the national economic blueprint dubbed "Vision 2030", to the need to apply International Standards in the sectors that are expected to lead growth, with an emphasis on export markets.

As we delve deeper into our discussion, often spattered with references to his childhood, William is poised and articulate. Amwayi Omukhweso William was born on 6 February 1983 in Western Kenya. William learns the value of work at an early age. His mother was a home maker and his father was an elementary school teacher. The family's home town of Khwisero was known to be an extremely poor neighbourhood. According to the Society for International Development's Inequality Report, 64% of Khwisero's population live below the poverty line. The area residents are mainly subsistence farmers, growing crops like maize, beans and bananas for food. Just making a living can be a problem. Even people who have "day jobs" often need to go home and travel far in the evenings to support their families. William was one of the fortunate ones.

Adolescence was an interesting time for William. He often collided with his Mother whom he considered a little too dictatorial. At

school, the high academic requirements and strict discipline also created a certain amount of stress. Understandably, it was a time of mixed feelings, fraught with excitement and anxiety, a time of happiness and troubles, of discovery and disorientation, of breaks with the past and links to the future.

I ask William to imagine that he is a young child again, and to give himself advice. With no hesitation, he replies “making excellence a habit (to borrow the British Standards Institution’s motto), and the value of hard work. It is said that hard work is the yeast that raises the dough.” At the young age of 30, William feels emotionally grounded. He gives credit to his mother and father for their support, and even their “tough love” attitude that prevailed throughout his childhood. He tells me that the values imparted by his parents were ones of responsibility and accountability, and being able to work with others. And so, thanks to their support, William persisted and eventually his tireless work ethic paid off. His graduation from university in 2007 marked a new beginning. From there, William took his chance. Doors began to open and standards soon came calling.

When I ask William why he joined standards, he clasps his hands and laughs. “Sheer coincidence!” he exclaims. “After graduating from university, KEBS advertised for an Animal Production Specialist. I applied, got an interview and I was offered the job. By then I had a vague picture about standards.”

Today, William is a young man passionate about standards. He explains how standards help businesses work more efficiently, increase productivity and access new markets. He goes on to describe how the food we eat must meet certain standards; the drugs we take must comply with standards; the vehicles we drive, like cars and bikes, use standardized and therefore interchangeable parts; the phones we use must conform to standard interfaces. “You name it,” says William, “even the bed linen we sleep on has to be standardized in order to fit on the mattresses we use.”

As we wind down our interview, I ask William about his future ambitions: Are standards just a stepping stone to another career? Or are they an end in themselves?

“Goals are part of life,” says William. “To live without them is like shooting in darkness. I am passionate about standards. In developing countries, standards generally go unnoticed, viewed mostly as quiet, unseen forces. How standards come about is a mystery to most people.”

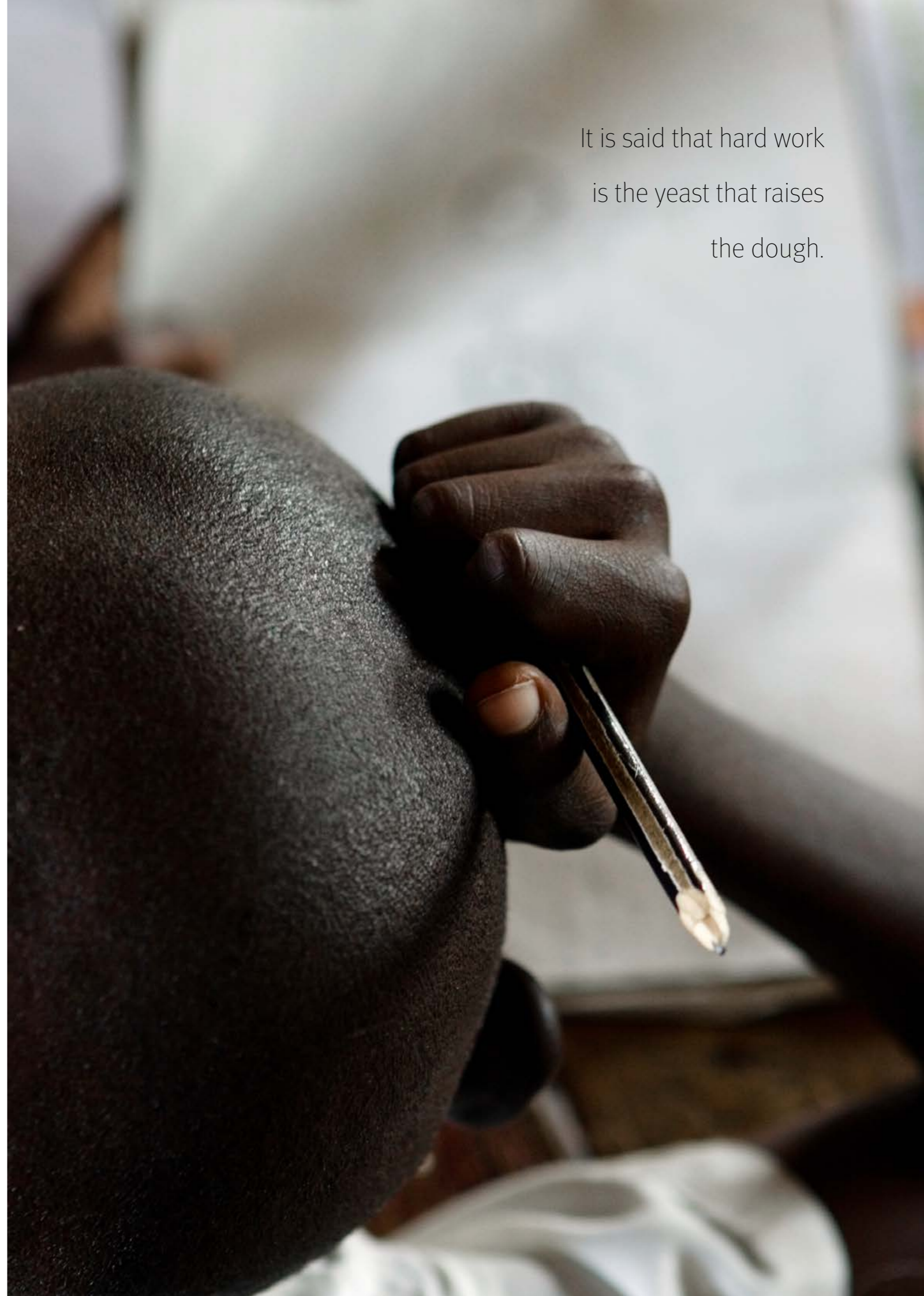
Before the age of 40, William would like to have made a significant mark on the world of standards, with the sole purpose of making the clarion call loud, insistent, consistent and clear. For the young Kenyan, developing countries should not only take a leading role in setting International Standards, they must also assume greater responsibility when it comes to influencing the standardization process. “There is a lot that standards can offer,” says William, “it is the only sector that can accommodate any individual regardless of profession. I would encourage young people to dive in at the deep end into the big wide world of standards. It is a plunge they will never regret.”

I ask William to name the key to his success. He pauses and stares for a moment into the window overlooking my desk. “Success cannot be ‘in the blood’. You need to earn it. One of my favorite quotes from Thomas Edison says it all: ‘Success is one per cent inspiration, 99% perspiration.’ It is the little things one does right every day that add up and will result in success.”

Which brings us back to William’s first paycheck: Did he splurge the money on something frivolous? Or did he use it wisely, such as to pay back his debts? William’s answer is quite surprising, and yet another testament to his hard, yet humble upbringing. “We have an interesting tradition in our lineage,” says William, “the first paycheck goes to the parents!”

I want to ask William to expand, but refrain knowing far too well that a little discretion, at the right moments, goes a long way. And as we shake hands, William leans in and looks at me, smiling. He wants to say something, but stops. EGD

It is said that hard work  
is the yeast that raises  
the dough.





# Clearing the air on cookstoves

Nearly half the world population relies on stoves emitting toxic fumes and open fires to cook their meals each day, resulting in four million deaths annually. But thanks to the creation of a new ISO technical committee developing standards for cookstoves, millions of families will soon be able to adopt life-saving, eco-friendly cooking appliances.

About **3 billion people**

regularly use open fires and leaky stoves, burning biomass fuels



This produces harmful smoke that deposits large quantities of health-damaging pollutants, such as small soot particles, into their homes and into their lungs...

up to **100 times** the acceptable level

Diseases caused by cookstoves are mostly respiratory illnesses such as pneumonia and lung cancer

Around the world, these diseases kill nearly

**1 person every 8 seconds**



Sources:  
[www.airfilters.com](http://www.airfilters.com)  
[www.worldpneumoniaday.org](http://www.worldpneumoniaday.org)  
US Department of State: [www.state.gov](http://www.state.gov)

Some of the poorest populations in the world are the most severely impacted, such as China, India, and Sub-Saharan African countries

**100 million households**

to adopt clean cookstoves by 2020

Using a clean cookstove results in a **50% reduction** in a child's risk of contracting pneumonia

**CO ≤ 0.42 mg/min**  
**PM < 2 mg/min**

Reduction in emissions to reach WHO Indoor Air Quality Guidelines





A high-speed train platform with a blurred train and a person waiting. The platform has a yellow and white striped pattern on the floor and a white perforated ceiling. The train is blurred, suggesting motion. A person is standing on the platform, looking towards the train. The overall scene is brightly lit with warm tones.

# The reason for rail

High-speed rail offers the option to travel at fast speeds across hundreds of miles between downtowns in many of the world's largest metropolitan regions. The bullet trains that zoom through France and Japan, for instance, have been in operation for more than 30 years and provided billions of rides.



Bullet trains whisk passengers between city centres at speeds of 200 miles per hour or more. And their speed capabilities are only getting faster. This year's devastating crash of a high-speed train in Spain, which left nearly 80 dead, has drawn renewed attention to rail safety. It was preceded by another high-profile rail crash in Canada when an unmanned runaway train killed 40 people.

How do these recent rail crashes impact the industry? What does this mean for the future of rail? Can International Standards contribute to rail's safety record and global growth? *ISOfocus* sits down with Dr. Yuji Nishie, the Chair of the new ISO technical committee on railroad applications (ISO/TC 269), to discuss the latest issues surrounding safety, the priorities for the rail industry and the most pressing challenges for standards.

***ISOfocus*: With high-speed bullet trains and densely packed urban lines, Japan has one of the busiest railway systems on the planet. Why do we need standards for railroads? And why now?**

**Dr. Yuji Nishie**: Japanese railway systems, including the Shinkansen high-speed train network, regional/urban railways, subways, monorails and so on, carry 23 billion passengers a year. In the Tokyo metropolitan area, railway systems transport an annual 13 billion commuters, equating to 58% of the passenger demand. The Shinkansen bullet train departs from Tokyo station a staggering 14 times per hour, ferrying 292 million travellers a year across the country. Remarkably, it boasts a zero-fatality record in its 50-year history of high-speed rail services.

Despite the recent rail crashes in Canada and Spain, rail is the best mode of transport for both passengers and goods. Its strong safety record and minimal environmental impact secures rail's future in the coming decades. Its technologies have been developed and refined to fulfil local needs, producing successful and proven railway systems worldwide.

Reaching a common understanding of the world's railway systems through International Standards will be extremely beneficial. These future standards will provide industry best practice and know-how based on the world's most efficient rail systems, and will be used in the development of new railways or in the improvement of existing ones.



*Dr. Yuji Nishie, Chair of the new ISO technical committee on railroad applications (ISO/TC 269).*



# Japanese railway systems carry 23 billion passengers a year.

**What are your ambitions in terms of International Standards? Where do you see the benefits and challenges for rail?**

Since the railway industry began its commercial operation in the early 19<sup>th</sup> century, railways have been enriching people's lives and contributing to the development of societies and economies. In recent years, however, the advantages of trains, including their environmental benefits, have been re-evaluated in the light of today's battle against climate change.

Fifty years since the opening of the Japanese Shinkansen – considered the dawn of high-speed rail – we can witness a number of networks quickly expanding around the world. In developing countries, for example, the rapid mass transportation capacity of railways has attracted more and more attention as a boost for economic development. Many railway construction projects, including high-speed rails, urban transit systems and freight railways, are currently being planned around the globe.

But there are challenges. Many developing countries have yet to benefit from the high level of safety, environmental sustainability, convenience, and cost efficiency of railway systems. Therefore, in order to spread rail systems quickly and efficiently around the world, and for all countries to benefit from well-managed rail services, international standardization of the rail field is absolutely essential. We must address the growing need to globalize railways through our standardization work, by making vast scopes of railway technologies more comprehensive and coherent.



International standardization of the rail field is absolutely essential.



**Japan has an excellent railroad safety record. How might International Standards be applied to enhance safety worldwide?**

Railway safety should be secured throughout the entire life cycle, from planning, design and manufacturing, to construction, operation and maintenance, through to renewal and disposal. Although practical measures to achieve railway safety differ in every country or region, for scientific reasons, the fundamental policy is comparable.

A railway's safety strategy should be established according to background and environment, by taking into consideration the transfer density and frequency required, the need for dedicated or mixed operation, natural or man-made disasters, as well as social, economic and environmental factors. Applying International Standards to every stage of the railway's life cycle will help to enhance safety in each country or region.

**How did your interest in railroads develop? What motivates you to get involved in this work?**

I have always had a keen interest in transportation system technologies, such as railways, automobiles, ships and aircrafts, but finally decided on rail and joined the former Japanese National Railways (JNR) in 1979.

At that time, JNR was operating under terrible conditions including a growing debt, frequent strikes, and a strenuous relationship between management and labour unions. Nevertheless, Shinkansen trains were operated safely with no delay.

When I first began my professional career, my aim was to innovate Japan's railway systems – and perhaps to some extent help “fix” some of JNR's problems. After JNR's privatization and separation into the Japan Railways (JR) group in 1987, the conditions of each JR group company improved dramatically.

Today, my primary goal is to work together with an international group of colleagues and experts to provide the rail industry with a harmonized set of International Standards. I would like to fully dedicate myself to the activities of ISO/TC 269 so that we can meet the expectations of all stakeholders, from railway operators and infrastructure managers to manufacturing and construction companies, and last but not least governmental authorities. EGD

**Shinkansen facts**

**Revenue**

The Shinkansen has an operation revenue of USD19 billion a year

**Safety**

There have been no fatalities since the Shinkansen went into operation in 1964

**Passengers carried**

The total number of passengers from 1964 to 2009 was approximately 9.2 billion people

**Average delays**

The average delay time per trip is under one minute, including weather-related delays

Series E6 " Super KOMACHI ". Copyright: JR East





# From Russia *with Love...*



From left: ISO Secretary-General Rob Steele, ISO President Terry Hill, Russian Deputy Minister of Trade Gleb Nikitin, President of GOST R Grigory Elkin.

“Participation in ISO is vital. Otherwise it’s like giving a pen to your competitor and asking him to write the rules.” **ISO Secretary-General Rob Steele**



Mikhailovsky Theatre

“Standards can be thought of as a sort of ‘lobbying’ on the international level in the interests of national industry.” **GOST-R President Grigory Elkin**



Baltika Breweries

“My first love is beer, my second is quality.” **Baltika Breweries CEO Isaac Sheps**

Missed the ISO General Assembly in St. Petersburg? Don’t worry, here are the top 6 highlights.

- 1 “Non-compliance with standards might put lives at risk,” wrote Russia’s Prime Minister, Dmitry Medvedev, in a letter read by the Deputy Minister of Trade, Gleb Nikitin, at the opening of the event. Indeed, now that Russia has joined the World Trade Organization (WTO), International Standards are gaining momentum in the country.
- 2 The importance of standards was highlighted at a press conference in the lavish Mikhailovsky Theatre. Delegates then enjoyed a beautiful ballet performance.
- 3 ISO/TC 68, *Financial services*, won this year’s LDE award for excellence in standards development. As Chair Karla McKenna said, “Without standards, effectively monitoring the global financial markets will be extremely difficult.”
- 4 For the first time in ISO history, the open session offered the chance to visit some of the country’s most important organizations to see standards in action: from a water utility to a brewery and a university! One of Europe’s largest breweries, Baltika, announced that savings resulting from the use of standards amounted to 3.4% of the annual sales revenue.
- 5 We celebrated the upgrade of five ISO members including Rwanda and El Salvador.
- 6 WTO’s Devin McDaniels said that its members were relying on us, during a panel discussion on collaboration featuring ISO, IEC and ITU representatives. ML



From left: ISO Vice-President (technical management) Elisabeth Stampfl-Blaha, ISO/TC 68 Secretary Cindy Fuller, ISO/TC 68 Chair Karla McKenna, ISO President Terry Hill.

“Planning upfront, trusting each other and recognizing our respective capabilities is key to us solving problems for the marketplace.”

**IEC General Secretary Frans Vreeswijk**

“Being a full member of ISO will help us to realize our 2020 vision: to be a middle-income economy.” **Mark Bagabe, Director General, Rwanda Bureau of Standards**

“We want to empower our country and help the region become a leader in quality.” **Yanira Colindres, Technical Director, Organismo Salvadoreño de Normalización**

*More?*

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







Former ISO President **Boris Aleshin** presents the inaugural ISO Prize to **Hulda Oliveira Giesbrecht** at the ISO General Assembly in St. Petersburg.

### About the ISO Prize

The ISO Prize was created to honour individuals who promote the use and understanding of ISO standards.

The new award has a unique characteristic that sets it apart from other distinctions: it is designed specifically for people who don't work within ISO, a member body or a technical committee.

The idea was suggested by former ISO President Dr. Boris Aleshin as a way of saying thank you to those who help champion the cause of standards, but who, being outside the ISO system, do not always get the recognition they deserve.

# And the winner is...

## Hulda Oliveira Giesbrecht

The first ISO Prize, which rewards individuals outside the ISO community for their contribution to standards, went to Hulda Oliveira for her extraordinary work.

She works as a technical analyst in Sebrae, whose mission is to help small businesses compete on an equal footing and foster entrepreneurship. It aims to strengthen the national economy, where micro- and small businesses (MSEs) make up an astounding 99% of all Brazilian enterprises and contribute to 25% of the country's GDP. The non-profit organization provides support on many levels, such as information technology and finances. More specifically, the project Hulda has been leading over the past few years concentrates on ways to access innovation and technology through standards.

### Accessing technical knowledge

For Hulda, accessing technical knowledge is one of the biggest challenges for MSEs in Brazil, and this is where she believes standards can help. "Standards represent the cutting edge of technical knowledge. If MSEs can have access to these documents and know how to use them, they can bring this knowledge into their business," she explained to me after the awards ceremony. But, she admitted, standards do not always address the sector-specific needs of MSEs, and small-business entrepreneurs find it difficult to get involved in the process in order to shape it. This is why, five years ago, Sebrae (in collaboration with ISO's Brazilian member, ABNT) set up a project to help MSEs better understand the benefits of using standards, identify their standardization needs and take part in their development. New areas of work were defined as a result, and 10 new project committees were established within ABNT to develop standards that address the sector-specific needs of MSEs.

"For example," said Hulda, "we started talking to people in the bee-keeping sector and we saw that they had a lot of questions about how to make beehives, which type of wood to use, and the size and shape of the hives," she told me. "Working together, we were able to define the most efficient way of making these hives, and this knowledge is now available to bee-keepers around the country, in the form of a standard. We have seen the honey yield go up significantly since introducing this standard," she added.

### Supporting implementation

In addition, Hulda has been looking into ways of helping MSEs get to grips with standards, as she believes their implementation can be challenging for small companies. "At the moment, we are working with the hospitality sector to help them put in place food safety management systems in preparation for the 2014 World Cup which will be held in Brazil," she said. "ISO 22000 can be difficult for very small enterprises to implement. So we are working with hotels, bars and restaurants to help them, making the standard more accessible."

### Onto the international stage

As part of the award, Hulda will receive 20 000 Swiss francs with which to finance a future project for small businesses. Within this project, she hopes to take the benefits of her work with Sebrae in Brazil onto the international stage. Over the coming year, she will research similar initiatives in other countries with the aim of establishing guidelines to support small businesses in developing and using standards. The results will be presented at next year's General Assembly in Rio de Janeiro, Brazil. KB





**ISO and ILO increase cooperation**



ISO Deputy Secretary-General **Kevin McKinley** and ILO's Deputy Director-General for Policy **Sandra Polaski**, sign an MoU to increase cooperation.

ISO and the International Labour Organization (ILO), a United Nations agency based in Geneva which deals with labour issues, have signed a Memorandum of Understanding (MoU) to increase their cooperation. This MoU was signed by Kevin McKinley, ISO Deputy Secretary-General, and Sandra Polaski, Deputy Director-General for Policy at the ILO.

To date, the organizations have cooperated on a case-by-case basis, such as through the MoU on social responsibility in the context of the development of ISO 26000, as well as through liaison arrangements with ISO committees.

Under the new agreement, the ILO and ISO will consult and coordinate when either organization identifies a proposed ISO International Standard or field of work within ISO relating to ILO issues in order to avoid that these contradict or conflict with ILO labour standards. The two organizations will exchange information and documents and participate in each other's work on matters of common interest. For further information about the agreement, please contact the Technical Policy group (TECH/POL) at the ISO Central Secretariat ([tmb@iso.org](mailto:tmb@iso.org)).



The late **Fabio Tobón Londoño** (1944-2013).

**Farewell to Fabio Tobón Londoño**

ISO and its members have learned with great sadness that Fabio Tobón Londoño, recently retired Executive Director of ISO's member for Colombia (ICONTEC), has passed away.

Fabio helped build Colombia into a strong force in international standardization and, for 20 years, represented the country at ISO, the International Electrotechnical Commission (IEC), the Pan American Standards Commission (COPANT), the Pacific Area Standards Congress (PASC) and the International Certification Network (IQNet).

He was particularly inspirational in his work with ISO's Committee for developing country matters (ISO/DEVCO).

But Fabio will also be remembered as a charismatic man, with much energy, passion and kindness, and a good sense of humour. The entire ISO community is missing a friend, and our thoughts go out to his family at this difficult time.

**Open for business in Singapore**

The ISO Central Secretariat has set up a regional office in Singapore for an initial two-year pilot. This will be the organization's first office outside its Geneva headquarters.

The office will aim to enhance support for ISO members in the region and boost ISO's links to key stakeholders throughout Asia.

ISO Secretary-General Rob Steele commented: "Singapore's excellent infrastructure and regional connectivity, its economic and political stability, and its ready talent pool were strong pull factors." He also added: "The presence of multinational corporations, other international organizations and relevant regional organizations also contributed to the decision."

The announcement was made by S. Iswaran, Minister in the Prime Minister's Office – who is also Second Minister for Home Affairs, and Trade & Industry – at the Standards eXchange on Resource Efficiency conference in July 2013.

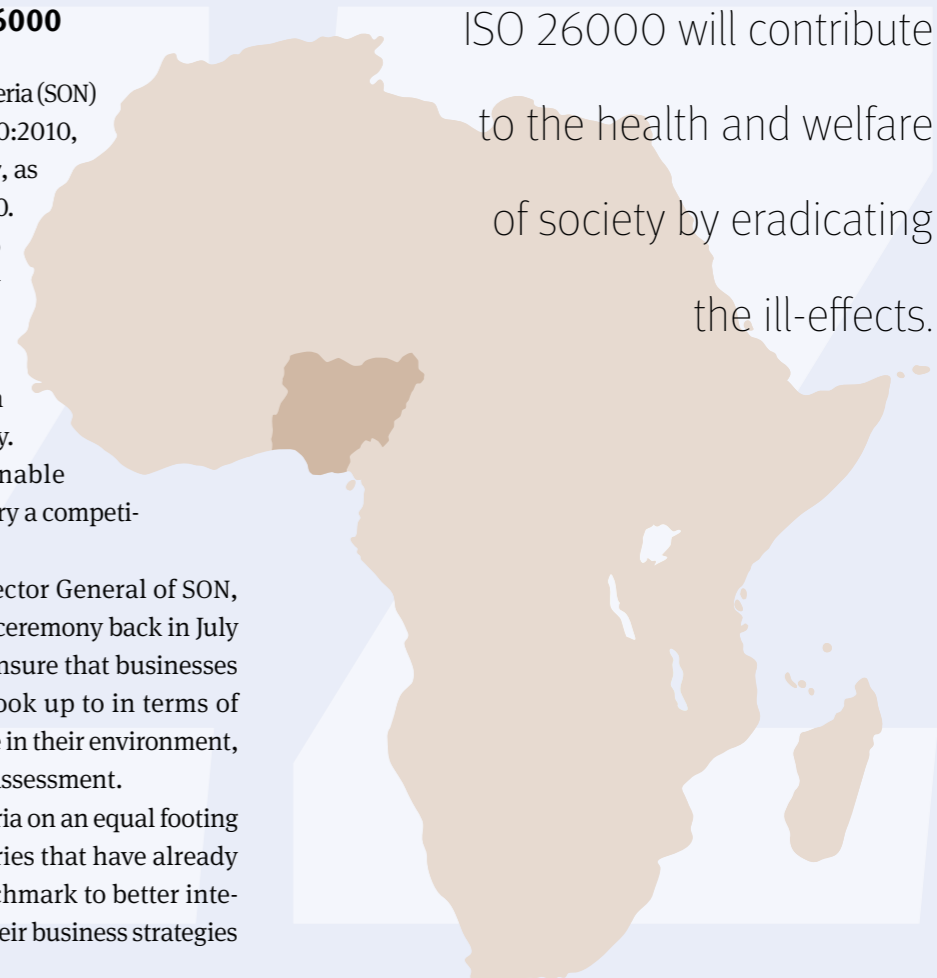
**Nigeria makes own ISO 26000**

The Standards Organisation of Nigeria (SON) has recently adopted ISO 26000:2010, *Guidance on social responsibility*, as a national standard, NIS:ISO 26000.

The standard will contribute to the health and welfare of society by eradicating the ill-effects that environmental pollution and poverty are currently having on communities all over the country. It also aims to support sustainable development and give the country a competitive edge in business.

As Dr. Joseph I. Odumodu, Director General of SON, explained at the official launch ceremony back in July 2013: "The new standard will ensure that businesses have standards that one can look up to in terms of engaging the people that operate in their environment, and also [help] monitor impact assessment."

This milestone launch puts Nigeria on an equal footing with many other African countries that have already adopted the standard as a benchmark to better integrate social responsibility into their business strategies and operations.



ISO 26000 will contribute to the health and welfare of society by eradicating the ill-effects.

**Rwanda opts for ISO**

ISO welcomes the Rwanda Bureau of Standards (RBS) into the family from July 2013. Rwanda's new status means it can now play an influential role in standards development and strategy by participating – and voting – at technical and policy meetings.

The East-African country is eligible to cash in on the economic and social benefits offered by the international standardization system, giving a boost to its budding economy. In this way, it hopes to stimulate the competitiveness of local industries, especially SMEs which form the basis of the Rwandan economic fabric.

For Rwanda has a vision. The country has set itself an ambitious target to become a knowledge-based economy by 2020. And this cannot be done without adopting International Standards across all sectors of industry, from food and agriculture to construction, engineering and health care, through information technology and the environment.

Already present on two technical committees – environmental management (ISO/TC 207) and bioenergy (ISO/TC 248) – RBS looks forward to taking part in more committee work in the future.



**Mark Bagabe**, Director General of the Rwanda Bureau of Standards.

Why be a standards taker when you can be a standards maker?







# IT training competes for quality

A number of learning services providers use quality to distinguish themselves in the marketplace. One of these is IT Training Academy, a provider of information technology learning solutions based in Switzerland. The company turned to ISO 29990:2010 to make sustained improvements in the quality of its services and meet the needs of its customers.

In today's fast-changing business world and volatile labour markets, lifelong learning to update your professional knowledge and business practices is proving more essential than ever. This is especially true in the field of information technology where computer hardware and software evolve so rapidly.

Yet, finding a learning services provider that fits the bill in terms of requirements and expectations can be daunting for a human resources department, a company CEO or, indeed, any member of staff.

*ISOfocus* met with Valérie Ravinet, Managing Director, and Philippe Brunet, Business and Operations Manager, of IT Training Academy, who share their experience with ISO 29990.

## **ISOfocus : What was your primary motivation for implementing ISO 29990 ?**

**IT Training Academy :** We were already certified to EduQua\*, which is the reference in Switzerland for adult training. But it lacked substance, which is why we set our sights on an International Standard that was more in line with our field of activity: training. ISO 29990 came closest to meeting our needs.

We also wanted to stand out from the competition and include the whole staff in the certification process. Unlike other learning services companies, our employees have permanent contracts and are therefore directly involved in the standard's implementation. The company-oriented standard helped us reinforce the team's commitment, securing employee buy-in to all the processes we were putting in place.

## **Public and private organizations and companies must be more efficient than ever. Does using this standard form part of a broader quality-driven policy? If so, how does it fit in ?**

ISO 29990 came in support of our initial quality process. In our line of business, each area of technology is accredited, forcing us to guarantee the quality of our services and meet specific criteria. ISO 29990 gives customers the assurance that the service provider has indeed implemented certain quality criteria. The standard enabled us to strengthen our organization and carry out some projects internally. For example, it helped us define the way our senior management and training team hold their work meetings.

### **ISO 29990 – Overview**

#### **Full title**

*ISO 29990:2010, Learning services for non-formal education and training – Basic requirements for service providers*

#### **Objective**

It aims to help organizations and individuals select a learning service provider that will meet their needs and expectations of competence and capacity development.

#### **Publication date**

2010

\*EduQua is a label specially designed for adult learning services in Switzerland.



## 85% of classes are given by IT Training Academy trainers



### How did you apply ISO 29990?

We set ourselves initial targets and sought the help of a recognized certification body, SQS. We then kept religiously to the timetable we had agreed with them. What is interesting about this standard is that it gives you the freedom to achieve these objectives in different ways. Through consensus-driven meetings and a fruitful, open exchange, we were able to validate the standard's requirements.

### Did you encounter any particular challenges?

No, we did not really face any major difficulties because we already had a solid base to work on and had prepared the transition between EduQua and ISO 29990 ahead of time. We simply completed the procedures already in place within the company. The standard was a pleasure to implement!

### After several months, what are the benefits? Has certification changed your relationship with your customers?

For our customers, ISO 29990 is a hallmark of performance. It gives us an advantage over the competition; we can now say we are certified. Achieving certification has had a positive impact in terms of the trust our partners and customers have manifested towards our company. It has mainly affected our relationship with the public sector, and we have not, as yet, noticed any significant repercussions in the private sector.

For our customers,  
ISO 29990  
is a hallmark  
of performance.



*Valérie Ravinet, Managing Director, and Philippe Brunet, Business and Operations Manager, of IT Training Academy.*

### Does implementing the standard have an economic impact on your training activity? Do the benefits outweigh the costs?

Not for the time being. We are not yet able to observe a significant economic impact. We are going through an economic crisis and ISO 29990 is a very "young" standard. The Swiss market is not receptive to it yet, but we believe that our current investment will enable us to be ready when the market becomes more active.

### Could you explain in a few words what challenges a training services provider faces when it comes to embedding quality into its processes?

There is essentially one major challenge which is combining expertise, technical knowledge of the product and teaching skills. Imparting knowledge and making sure you have strong pedagogical skills is a complex undertaking at the best of times.

### Why are International Standards important in the learning services sector?

By using International Standards, we ensure multinationals – our clients – receive quality services based on recognized international criteria. Standards allow us to communicate with international economic players by speaking their language. The Swiss French-speaking market is microscopic. There is a word-of-mouth effect and if our certification to this standard can provide an incentive, so much the better.

### What advice would you give to other learning services providers who are thinking of using the standard?

First of all, you need to enlist the support of a certification body. Do not go it alone! We received plenty of support throughout the certification process. It is essential to assess very carefully what you mean to achieve and to have a clear idea of why you want to implement the standard. And it should not be about getting an official stamp. *sr*

### IT Training Academy in figures

- Leader in information technology training in the French-speaking part of Switzerland
- 2 sites in Switzerland: Geneva and Lausanne
- 310 courses
- 12 training rooms
- 400 customers
- 60% of trainers have over 10 years' experience



# A day in the life of Rob Steele

**Name:** Robert (Rob) Steele

**Profession:** Secretary-General of ISO

**Nationality:** New Zealander / Canadian

**Marital status:** Married for 34 years to Susie

with son Allan (26) and daughter Alex (25)

Photos: Lionel Egger

**5:45** | Driving to work is time for me. It's a time when I can listen to my favourite music, Pink Floyd or Eric Clapton, or catch up on the latest news. I've been told that the early bird catches the worm, but after years of trying, I still haven't caught any.

**6:30** | At the office, I check my e-mail and place a few calls (particularly to ISO members in other time zones). This is also the best time to write my speeches and presentations. Schedule permitting, I try to take a tour of the office and say good morning to all the other early birds.

**8:15** | It's now time for a breakfast meeting with staff. Every two weeks, I try to meet with five members of the ISO Central Secretariat to exchange ideas and to answer directly any and all questions. It's also an opportunity for me to get to know my team better and to understand their jobs, expectations and concerns.

**9:30** | In addition to breakfast meetings, I've set up quarterly meetings in order to bring all staff up to speed about how the organization is functioning. This enables them to get a better picture of "where we are at", where we are headed, and therefore what needs to be done and where the focus and priorities are.

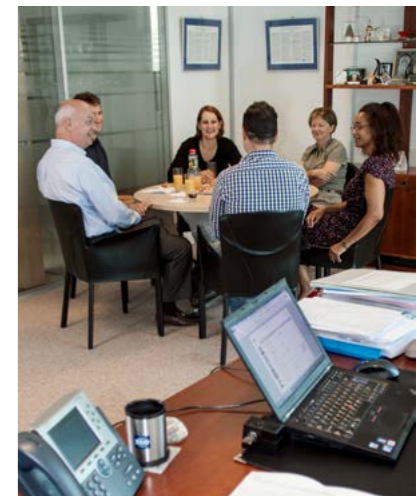
**10:30** | Meeting with the General Secretary of the International Electrotechnical Commission (IEC), Frans Vreeswijk, to discuss cooperation between our two organizations – a regular occurrence which has helped build the good working relationship we enjoy today. Of course, Elisabeth Stampfl-Blaha, our Vice-President (technical management), and the TMB secretariat, look after the relationships between technical committees.

**12:00** | I take part in a WebEx (teleconference) meeting of the IT Advisory Group (ITAG) where we discuss the excellent progress made in implementing ISolutions, a series of software modules that help members develop, vote on and sell standards. The XML project to digitize the ISO Catalogue is also performing well. This is a markup language that gives ISO and its members the opportunity to share information in ISO standards with standards users in new and more convenient ways. These projects were a team effort made possible by the ISO/CS management leaders of IT, publishing and marketing.

**14:00** | At least two or three times a day (or more depending on the number of meetings), I touch base with my assistants, Carole and Constance. These updates allow me to better plan my schedule, particularly as concerns my busy travel itinerary. I don't know what I would do without them sometimes (sorry Susie)!

**15:00** | Then it's usually back-to-back meetings in the afternoon, often running very late into the evening. Today, I'm going through the final preparations for the ISO General Assembly in St. Petersburg, Russia, in September 2013 with José, our Head of Governance.

**19:00** | It's now boarding time for my flight to India. I'll be meeting with the new Director General of the Bureau of Indian Standards (BIS), the ISO member for the country. This visit, like all visits, is a great opportunity for me to take the pulse on how we (the staff at the ISO Central Secretariat) are doing and what more can be accomplished in order to meet the needs and expectations of our members.





# Bridging the disability divide

**53%**

of disabled men and 20% of disabled women are employed, compared to non-disabled men (65%) and non-disabled women (30%).

**1 billion people**

(about 15% of the world's population) have some form of disability.

**70 million people**

require wheelchairs worldwide, yet only 5%-15% of people have access.

**50%**

of disabled people cannot afford health care, compared to a third of non-disabled people.

**4x**

Children with disabilities are almost four times more likely to experience violence than non-disabled children.

## The International Day of Persons with Disabilities

Many ISO standards support the objectives of the International Day of Persons with Disabilities, held every year on 3 December by the United Nations. The day aims to increase awareness and understanding of disability issues and trends, and to mobilize support for practical action at all levels by, with and for persons with disabilities.

## Convention on the Rights of Persons with Disabilities

This year marks the fifth anniversary of the Convention on the Rights of Persons with Disabilities (CRPD). The CRPD recognizes that the existence of barriers constitutes a central component of disability. ISO standards can help us break down those barriers by giving manufacturers and service providers the guidelines on how to design products accessible for all.

## Why ISO standards matter

The wide-ranging portfolio of ISO standards on accessibility aims to improve safety and quality of life for all. It includes standards relating to the physical environment or information and communication technology as well as specific product standards related to wheelchairs or other devices to improve mobility.

ISO/IEC Guide 71:2001, *Guidelines for standards developers to address the needs of older persons and persons with disabilities*, helps ensure that standards take into account the various needs of persons with disabilities. A new edition will be available by the end of 2014.

## Why standards need to address accessibility

- **Global developments in demographics:** The number and percentage of persons worldwide in higher age groups are increasing and will do so over the coming decades.
- **Disability is dynamic:** Disability applies to ever wider segments of the population in the course or during periods of their lives, including to persons who did not have a disability at earlier stages.
- **Improvements in product design:** Demands towards the usability of products have increased, resulting in improvements in the ease of interaction between a user and a product, system or environment.
- **Public policies and regulations:** Procurement policies of public agencies emphasize more and more the accessibility of products and services and stipulate accessibility requirements as a condition for success in public bids.
- **Cost considerations:** Costs for the inclusion of accessibility aspects in the design of products, systems and environments from the outset are significantly lower than retrofitting them later to meet such requirements. For example, it is estimated that ensuring full compliance with accessibility standards in new public buildings adds generally only 1% to the cost, which is significantly cheaper than adapting existing buildings later on.





**From**  
mother

**to son**

Pedram Honari lost his mother to International Standards at a very early age. It was only when he needed to investigate the field for a research paper at school that Pedram was finally reconciled with the importance of standardization.

I was three years old when my mother, Mojdeh Rowshan Tabari, started work as Secretary of ISO technical committee ISO/TC 217, which lays down standards for the cosmetics industry. She was serious and hard-working, often out of the country to attend ISO meetings. I was just a baby back then. I yearned for my mother's presence, but could not see her for several days. I often asked where she was but was told matter-of-factly: "She is abroad for an ISO meeting." ISO and standards were among the first words I ever heard and I will never forget them.

Even before I started school, I was able to identify the ISO and ISIRI logos as there was a lot of letterhead paper lying around at our house. I asked about them and learned. I remember how impressed and surprised the family was when I explained what these logos meant.



## A quirk of fate

By an odd set of circumstances, in 2008, when I was 12 years old, our school organized a science conference, seizing on a suggestion my mother had made. The organizers drew up a list of 23 topics, which included new energies, environmental pollution, colloids, vitamins, the Institut Pasteur of Iran, the application of science to local government and the Institute of Standard and Industrial Research of Iran (ISIRI), Iran's national standardization body and the ISO member for the country. I chose to concentrate on ISIRI for my research paper, because I was so curious about standards. I wanted to know more about them. I wanted to understand what they were about and what it was that made my mother so passionate about them that she devoted all her time and energy to them.

My parents helped me locate the ISIRI Website, which provided ample information for my paper. I also came across the World Standards Day 2007 message, penned by the leaders of the three principal international standardization organizations, ISO, the International Electrotechnical Commission (IEC) and the International Telecommunication Union (ITU). Being that it was about standards and citizens, it was of interest to everybody.

## Linking the dots

As I delved deeper into my research for this paper, a whole new world opened up and I learned so much about standards, about ISIRI and ISO. I understood at last why they were so important to my mother and so essential to all of us. The message encapsulated the most significant aspects of standardization and I weaved a lot of sentences from it into my lecture. I used them to demonstrate that “A world without standards would soon grind to a halt. Transport and trade would seize up. The Internet would simply not function. Hundreds of thousands of systems dependent on information and communication technologies would falter or fail [...]”. In my lecture, I painted the broad strokes of standardization, explaining its reason for being and the fundamental need for national and International Standards. I showed my fellow students the Iranian National Standard Mark, our country's hallmark for certified products, and encouraged them to buy and use only products bearing this label. Finally, I concluded my presentation on a proposal.



Even before I started school, I was able to identify the ISO and ISIRI logos.



## An original proposal

At the end of my lecture, I threw up the idea of creating a “student standards committee” to inform pupils of the importance of standards and the National Standard Mark and encourage them to develop and implement their own standards for the protection of health and safety in schools. The committee, I argued, would shape the knowledgeable standards experts that society so badly needed in the future.

During the conference, 28 lectures were given and 38 posters presented. My paper and those presented by some of my colleagues caused quite a stir among our school managers who were quick to encourage us. Allameh Tabatabaee Middle School has since staged its sixth Student Conference on Science, and I am happy to say that our school managers approved the creation of a “student standards committee”. They also agreed to hold a first-ever conference on standards in 2014 as standards are related to so many scientific disciplines and play a fundamental role in our lives. I take this opportunity to thank our school managers and all those who have made it possible for us. I hope my schools' experience will encourage other schools all over the world to follow suit.

## Looking for mentors

I am now 17 years old and am set to start university next year. I would like to expand on my idea of establishing cooperation with standards experts in both schools and universities with the help of my mother. I firmly believe students are both the standards makers and standards users of tomorrow, which is why they need access today to valuable information about standards. But I will need help and would be grateful for any advice on how I might fulfil my goal. ML/VR



# Are you a #standards geek?

Have you ever been told that you are a bit “too” passionate about standards?

Whether they are part of your work or you simply believe they are a great idea, here are nine signs that you, or your friends, may be standards geeks.

## Think you are a standards expert?

Then test your knowledge on this quiz created by @ISOConsumers <http://fb.me/WPX8GW4j>

### Loud and proud!

When we posted this on social media, many of you proudly shared your love of standards. So are you a standards geek?

#### Joel Saldanha:

Quite close to becoming one.... shortly...

Paulo Ramos: Not a geek...but a lover! Why not?!

#### Maria Christina

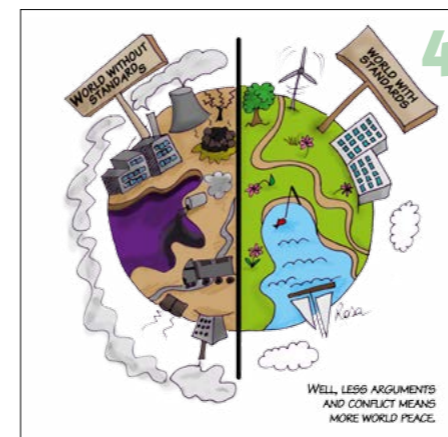
Rousson: 9001 Geekette all the way!

#### Carl-Magnus

Fahlcrantz: Can't deny it. Thought of quitting it, but my heart just ain't gonna buy it.

#### Donna Bromfield:

When asked to share your views you respond with the appropriate (ISO Standard) clause number!



## 9 signs you may be a standards geek

- 1 Your friends have heard you say way too many times: “Did you know there is a standard for that?!”
- 2 You find yourself speaking in numbers.
- 3 People look at you oddly when, unable to resist, you ask what standards they are using.
- 4 You believe the world would be a much better place if everyone used standards.
- 5 You have a million ideas for new standards that you are convinced the world needs.
- 6 You know what TC stands for, and can distinguish between a CD and a DIS (ISO internal jargon!).
- 7 You get excited by news that a new edition of ISO 9001 is coming up.
- 8 You feel the urge to explain their importance to anyone who stares at you with vacant eyes when you say you work with standards.
- 9 You actually have a favourite standard.





# Energy *booooooost* for Costa Coffee

When Costa Coffee, the UK's largest coffee chain, applied ISO 50001 (energy management systems) to their most energy-intensive site – Lambeth, south London – not only did they cut their energy use by 16 %, but they were able to increase production and output.



From coffee bean roasters to packaging equipment, and even the kettle in the staff room, ISO 50001 helped Costa to seize all energy-saving opportunities and make a significant impact. Here Oliver Rosevear, Costa's Environment and Energy Manager, shares with us the whys, hows and what's behind their success story.

## Why ISO 50001?

Our roastery production has increased significantly over the past few years (trebling since 2009). As the availability of gas and electricity is limited in London, we felt that there was a real need to expand the operation without increasing our energy usage. ISO 50001 gave us a structure in which to roll out our energy reduction programme.

## Initiatives taken

- The addition of a new, more modern roaster
- The upgrade of air compressors to more efficient models
- The re-lamping of the site to LED on a “replace when its breaks” basis
- The implementation of an employee engagement programme
- A review of the roastery process to identify efficiency savings

## Challenges and solutions

Our main challenge was embedding a culture of energy efficiency at the site. Initial results demonstrated to the senior team the benefit of implementing the programme. By taking this “top-down” approach, we secured true buy-in throughout the operation.

A further challenge was ensuring that the paperwork was maintained in line with the ISO requirements. Luckily, our Quality Manager, who had experience with ISO quality management standards, helped us fulfil all the ISO criteria.

## Staff requirements

The ISO system is owned by the Quality Manager and Maintenance Manager on site. However, additional assistance was sought from the head office Energy and Environment team. The Roastery Management team also committed to participating in the management review, and ensuring changes were implemented in a timely manner.

## Principal results

- 32% reduction in energy used to roast a tonne of coffee compared to 2009
- Independent audit of Costa's energy reduction programme
- Avoiding the cost of upgrading the local substation
- Eliminating the need to shift some production out of London and away from Costa's heritage

## Tips and advice

- Ensure you have buy-in right from the top of the organization.
- Appoint the right people to deliver and maintain the programme on a daily basis.
- Recognize the role team members play in reducing energy used within operations.

And remember, it is easier and cheaper to change your behaviour than your equipment. [ML](#)

ISO 50001 gave us a structure in which to roll out our energy reduction programme.



**The next frontier**

If many consider the planet Mars as the “next frontier”, another frontier has been exceeded in space. NASA recently announced that its spacecraft, Voyager 1, humankind’s most distant object, broke through to interstellar space.

It took 36 years (from 1977 to 2013) for Voyager 1 to reach the edge of interstellar space – a place more than 17 billion kilometres away from our sun. To manage such long-lasting projects and launch such resistant spacecrafts, NASA uses many ISO standards, from ISO 9001 (quality management) to ISO 14001 (environmental management) as well as industry-specific ISO standards in areas such as calibration and space debris mitigation.

International Standards are essential to ensure such programmes can be reliably integrated in a cost-effective manner, and NASA’s experts are actively involved in ISO standards development, in particular through ISO technical committee ISO/TC 20, *Aircraft and space vehicles*.

The international demand for cooperation in outer space exploration and research, with the development of telecommunication capacity, weather forecasting, navigation, etc., is fostering an expanding commercial “space marketplace”, resulting in an international customer base for aerospace products. It is important that the industry sector, governments, users, public interest groups, suppliers, manufacturers and other stakeholders contribute to International Standards to facilitate this global market.

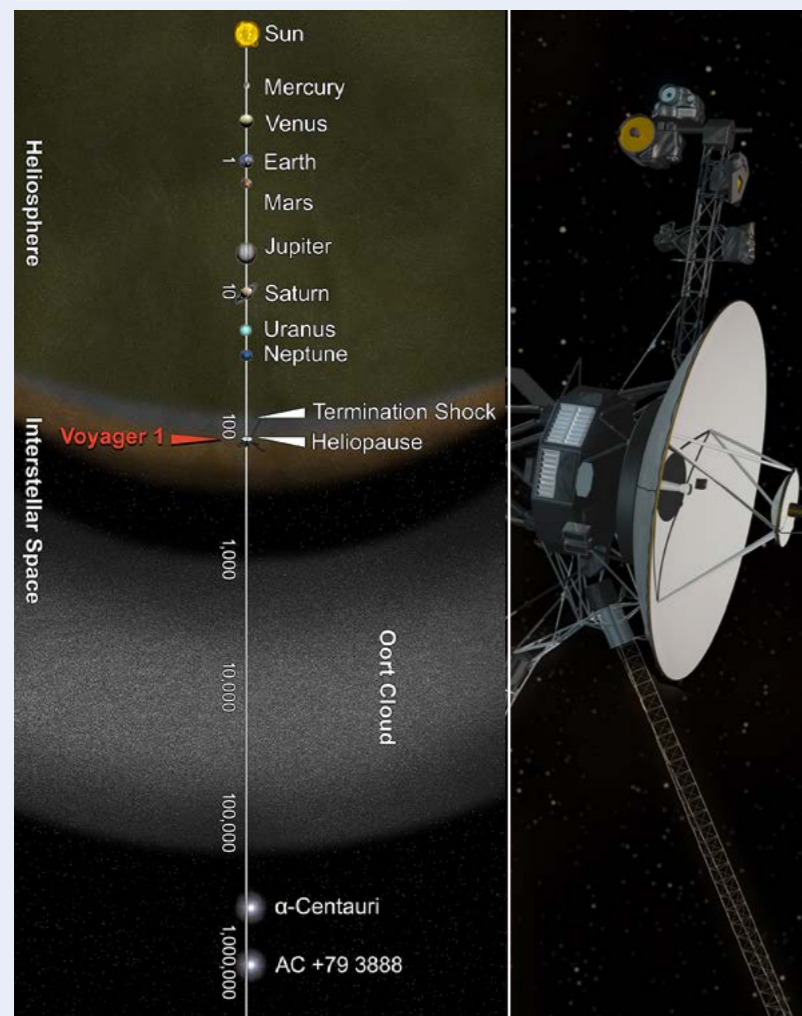


**Accuracy for millions of dairy products**

Joint work between ISO and the International Dairy Federation (IDF) has resulted in an important update of a key analytical standard for the global dairy sector.

ISO 9622|IDF 141 contains guidelines for the testing of milk and milk products with mid-infrared instruments. These instruments are extensively used in laboratories and dairy plants worldwide. The new version now also fully covers the use of Fourier Transform InfraRed (FTIR) technology, which improves the routine compositional analysis of milk, according to Paul Sauvé, an expert at the IDF.

“FTIR analysers measure the full mid-infrared spectrum whereas the description in the old standard was limited to traditional wavelengths,” he explained. “This means we can be more accurate with fat and protein measurements and test for more components such as urea and added water.”



Source : NASA/JPL-Caltech

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is the answer