

ISO Focus♀

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Gaining ground



- DuPont CEO: standards are essential to business
- ISO 22000 in the retail industry



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Dare the difference!

Getting the best talent on board

Considerable research demonstrates the benefits of gender diversity in terms of economic growth and sustainability, better governance, transparency and decision making. Yet women only make up 3% to 4% of CEOs and chairs in Europe and the USA. The problem is not so much the low numbers of women in high positions, but the sluggish progress being made to improve the situation. Despite the increasing rhetoric promoting gender equality, implementation is lagging behind.

The business of standardization can never be more inclusive than the world around us. If there are no female engineers, there will be none in standardization; if there are no female directors in middle management, there will be no female CEOs; and if there are no female CEOs, there will be no women on supervisory boards.

I joined the standards business in 1988 and have since been part of a number of exciting developments in the field. Although standardization was – and partly still is – “a man's world”, mainly because of its close link to technical, scientific and mathematical subjects traditionally dominated by men, I must pay tribute to all the male colleagues I have worked with during this time. In professional relations, I never felt I was treated differently because I was a woman.

And let's face it, women do not want to take on leadership posts with a footnote next to their names. As all the women featured in this issue confirm, our goal is simply to do our jobs to the best of our ability. That said, over the years I have met several female colleagues who have impressed me with their joined-up thinking, commitment and pragmatism, often going the extra mile to get their jobs done.

More often than not, however, women doubt their ability to cope with the demands of the job. And it is no surprise, as many of us are told from an early age what we “can” and “cannot” do. Women are taught to fear a dangerous world. And sadly, the world can be more dangerous for women. In some places, simply taking public

transport can put them at risk of attack and prevent them from working. Fortunately, some forward-thinking companies, perhaps recognizing women's economic potential, have been known to provide secure travel for their female employees.

Stereotypes and implicit biases keep women out of top leadership positions.

In addition to the most serious challenges faced by women in many countries, such as low access to education and health, forced marriages, violence, etc., stereotypes and implicit biases have been identified as one of the barriers keeping them out of top leadership positions. These are often so ingrained in our cultures that we don't even realize they are there. The European Commission published a teaser video last year for a campaign aiming to attract more women into science. Despite its good intentions, the video was heavily criticized as it was laden with images of fashion, glamour and lipstick, and very little science!

As Christine Lagarde, Managing Director of the International Monetary Fund, said at the World Economic Forum Annual Meeting in Davos earlier this year, while women and men should strive to free themselves from stereotypes, we should accept and embrace our differences. Drew Gilpin Faust, President of Harvard University, agreed that, as

women, we bring a distinctive approach to our interaction, perhaps due to our particular upbringing, and this diversity is one of our greatest assets.

Difference challenges the way we perceive and do things. It lies at the heart of originality, creativity, innovation and progress. Why only stick to square, when round can bring interesting opportunities? Diversity in all senses is enriching, and organizations have much to gain from it.

At ISO we understand this value. Our community brings together people from around the world, experts from all backgrounds, to work together and seek consensus. Great ideas for positive change have come out of this inclusive environment, like the ISO 26000 standard on social responsibility.

The world has some tough challenges ahead: climate change, sustainability, economic growth. To address these, we need the finest talent humanity has to offer. The goal is not to put a woman or two in high positions to “meet numbers”, but to create effective leadership by getting the best talent on board – and women, as this issue of ISO Focus+ shows, are part of the best. ■



Elisabeth Stampfl-Blaha
ISO Vice-President (technical management).



The observance of World Water Day is a United Nations initiative. This year, it highlights the importance of water cooperation, a cross-cutting issue that demands attention at all levels and across sectors. World Water Day 2013 aims to raise awareness of both the potential for increased cooperation and the challenges facing water management in the context of greater demand for water access, allocation, and services.

ISO's standards provide practical tools for developing a common understanding and cooperation between countries on aspects such as water quality and measurement, and the management of water supply services, including under crisis conditions.

Water cooperation will be a cornerstone to achieving the Millennium Development Goals, and ensuring water security and a sustainable future. Consequently, the 2013 International Year on Water Cooperation calls on leaders to bring water to centre stage, acting as the basis on which to establish stronger ties between nations, states and communities. The International Year and World Water Day therefore attempts to build a consensus around the understanding of water cooperation and needed actions.

Water cooperation

ISO's portfolio of more than 19 500 International Standards includes at least 500 which directly or indirectly support the objectives of this year's World Water Day on 22 March, based on the theme "Water, water everywhere, only if we share".

Standards at the 2013 Oscars

As millions of people around the world tuned in to see who took home the "Oscars" at the 85th annual Academy Awards, voluntary consensus standards have been hard at work

behind the scenes, playing an essential supporting role in the film industry.

This year, Academy Award best-picture nominees *Life of Pi* and *Zero Dark Thirty* were both shot predominantly on digital video, while others, including best-picture winner *Argo*, used digital cameras to complement footage shot on traditional film cameras.

Supporting the film industry, ISO/IEC 13818-2:2000, *Information technology – generic coding of moving pictures and associated audio information: Video*, aids film makers by specifying the coded representation of picture information for digital storage media and digital video communication, as well as for the decoding process. The standard was developed by ISO/IEC Joint Technical Committee JTC 1, which focuses on aspects of information technology.

Another standard, ISO 26431-1:2008, *Digital cinema (D-cinema) quality – Part 1: Screen luminance level, chromaticity and uniformity*, developed by ISO/TC 36, *Cinematography*, provides guidance connected with another recent innovation in the movie world, namely the use of digital projectors in movie theaters around the globe.

High marks for learning services

IT Training Academy, an information technology training centre based in Geneva, Switzerland, uses International Standard ISO 29990 to offer a higher level of service to its clients.

The company was awarded the ISO 29990 certification in February 2013. Valérie Ravinet, IT Training Academy's Managing Director, comments, "With over 300 courses and 400 clients, it was important to us that our clients understood that our main priority is guaranteeing training quality and efficiency".

ISO 29990:2010, *Learning services for non-formal education and training – Basic requirements for service providers*, helps training institutions delivering quality services to stand out in the marketplace. It aims to improve the quality of the offer on the thriving global market for non-formal education and training, which includes vocational training, life-long learning and in-company training. It also ensures greater transparency and provides better criteria for benchmarking learning service providers in an international market.

No limit for social responsibility

The Pernod Ricard Group, a co-leader in the wines and spirits sector worldwide, says it has been "committed to a corporate social responsibility (CSR) process since it was first founded". In 2010, the Group revised its strategy around one fundamental principle, the respect for its stakeholders, and four priorities:

- Promotion of responsible consumption
- Respect of the environment
- Promotion of an entrepreneurial spirit
- Sharing of cultures

"In 2012, two years after this new policy was rolled out, the Group was eager to assess its quality and relevance." To achieve this, the Group says it "had the credibility of its CSR approach assessed in light of ISO 26000:2010, *Guidance on social responsibility*". Pernod Ricard was selected by a panel of independent experts to be the first company to pilot the new French experimental standard, XP X 30-027, on ensuring the credibility of a social responsibility approach based on ISO 26000.

In order to draft a credibility report, "the group of experts compared the CSR strategy and initiatives deployed by Pernod Ricard with the industry's current position and stakeholder expectations. This data was scrutinized using the criteria of ISO 26000".

This approach was supported by senior management, as Pierre Pringuet, Pernod Ricard's Chief Executive Officer, emphasizes: "For almost 40 years, with our 'commitment to responsibility', we have followed in the footsteps of the founders, Paul Ricard and Jean Hémard. Our aspirations remain the same: there are no leaders without exemplary social behaviour. The CSR must be seen as central to these aspirations. We need to be at the forefront of this process".

Ellen Kullman

Chair of the Board & CEO, DuPont

Ellen Kullman, has been Chair of the Board and Chief Executive Officer (CEO) of DuPont since 2009.

As CEO, Ellen has championed market-driven science to promote innovation across the company's businesses. Under her leadership, decision making has moved closer to customers around the world, resulting in greater partnering, collaboration, and solutions attuned to local needs.

Ellen began her career at DuPont in 1988. In 2006, she was named Executive Vice-President with responsibility for three business platforms and several functions including Marketing and Sales. In 2008, she was chosen to lead the company's focus on growth in emerging international markets.

Ellen is a member of the board of directors of United Technologies Corp. She is also on the board of trustees of Tufts University and serves on the board of overseers at Tufts University School of Engineering. Ellen became a member of the board of Change the Equation, a national coalition of more than 100 CEOs committed to improving science, technology, engineering and mathematics learning for US Pre K-12 students.



Photo: DuPont Image

ISO Focus+: Standards were once mainly perceived as tools solving problems for engineers. Today, as the CEO of one of the world's largest multinational companies, how do you view their importance?

Ellen Kullman: Standards have become an essential part of daily business, not just in terms of quality but also in terms of occupational safety, environmental management and other disciplines.

International Standards enable operational excellence and standardization across our complex global company. They are also key to our relationships with partner companies since they build a foundation for mutual trust and common understanding based on clear specifications and performance expectations.

ISO Focus+: With products like nylon and Teflon® revolutionizing industry,

innovation is a key priority for DuPont. Do standards help or hinder innovation – and how?

Ellen Kullman: The innovation process is complex and can vary by product and market. At DuPont we strongly believe that the power of innovation resides in collaboration with our partners. International Standards help create more seamless collaboration across borders, thus further enabling the process of innovation.

DuPont participates in, and contributes to, standards development and committees around the world. This is important for new product technologies and helps ensure strong product stewardship.

Standards have become an essential part of daily business.



Photo: DuPont Image
DuPont biologists **Hong Wang** (left) and **Natalie Weber** (right) work to extract polymeric materials from plants.



Photo: DuPont Image
DuPont research scientists at work in a biobutanol molecular biology lab. From left to right: microbiologist **Dr. Lori Maggio-Hall**, biochemist **Annette Howard** and molecular biologist **Joseph Tuminello**.

About DuPont

DuPont (NYSE: DD) has been bringing world-class science and engineering to the global marketplace in the form of innovative products, materials, and services since 1802. The company believes that, by collaborating with customers, governments, NGOs, and thought leaders, we can help find solutions to such global challenges as providing enough healthy food for people everywhere, decreasing dependence on fossil fuels, and protecting life and the environment. For additional information about DuPont and its commitment to inclusive innovation, please visit <http://www.dupont.com>.

ISO Focus+: Some 20 years ago, DuPont was among the first multinationals to take up the ISO 9000 approach to quality management. What is the extent of DuPont's implementation of ISO 9001 and other ISO management system standards today? What contribution have they made and are they still making to the company? What would you like to see in the next revision of ISO 9001 in 2015?

Ellen Kullman: The development of ISO 9001 has helped us to considerably improve our processes, both for our customers and our full value chain. We also use the requirements of ISO 9001 to develop our own control processes, including appropriate key performance indicators which help us stay focused in daily business activities. The DuPont Production System in place at our global operating sites incorporates all aspects of manufacturing and continual improvement in a holistic, standards-driven



Photo: DuPont Image
DuPont scientist **Paul Viitanen** develops biocatalysts for the DuPont Danisco Cellulosic Ethanol efforts.

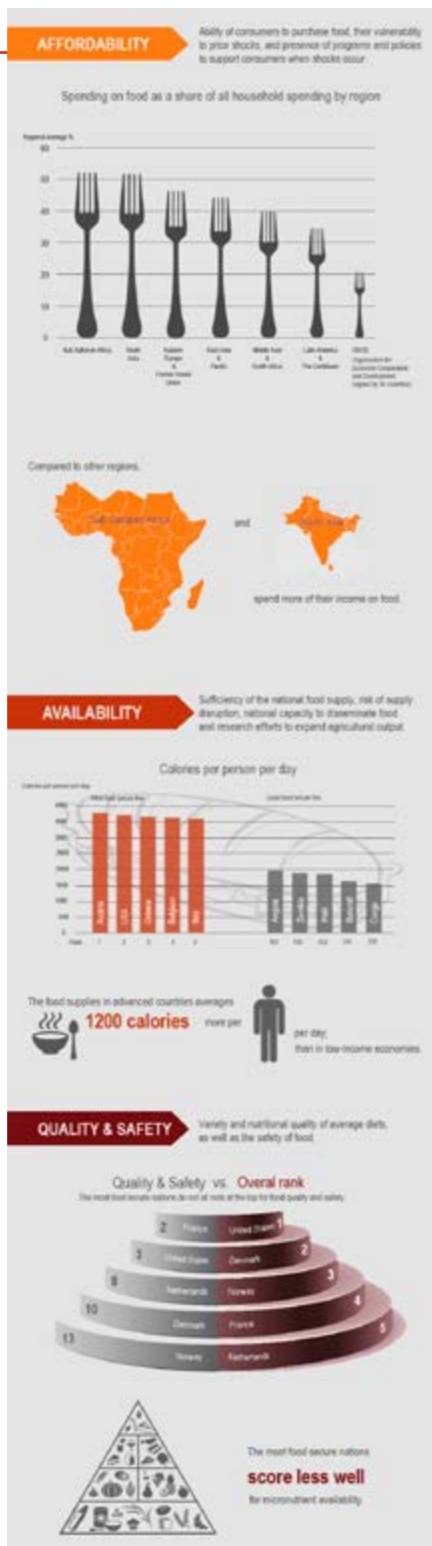


Photo: DuPont Image
DuPont™ Kevlar® was the first high-performance fibre to be used in bullet-resistant vests and continues to protect law enforcement officers around the world. Since 1987, body armour has helped more than 3 000 officers survive life-threatening injuries.

approach to operational excellence. We utilize the ISO 14001 system as part of our global environmental management system, and we take a standards-based approach to the management of occupational safety. This disciplined process has led to a trend of continued long-term improvement.

ISO Focus+: DuPont experts participate in 10 or more ISO technical committees developing standards on subjects as diverse as nanotechnologies, road vehicles, fire safety and agricultural machinery. What's the return on investment for this engagement?

Ellen Kullman: DuPont is a 21st century science company with global markets and opportunities. By working together we can find new and better ways to solve global challenges and provide for the food, energy, and protection needs of the world's growing population. Collaborating with



ISO Focus+: DuPont is focusing on the challenges of food security, protecting a growing population and energy as key areas where it can help make a difference. Can you briefly tell us about these initiatives?

Ellen Kullman: Throughout the company's history, DuPont has created solutions through science that have solved big challenges, and we continue that tradition today. Our science is the engine that drives DuPont. Together with our partners, we are working with more people in more places than ever before to create transformative products and services that will help ensure a more secure food supply, find new energy sources and protect people where they work and live.

Our efforts are not restricted to the high-performance products, technologies and services that we offer, but extend to efforts to engage a common dialogue on these important issues. For example, we have worked with *The Economist Intelligence Unit* to create a Food Security Index that offers a uniform definition for the root causes of food insecurity and, in doing so, aligns all stakeholders to be able to address these challenges together.

International Standards enable operational excellence.

I served as a member of the Bipartisan Policy Center Energy Board, a group that studied America's energy resurgence and made recommendations on American energy policy.

These are just a few of the efforts we are working on today.

ISO Focus+: Today we are living in a fast-paced, constantly evolving world. ISO's portfolio of 19 500 standards on everything from nanotechnology to social responsibility reflect this. Do you ever think: "I wish there was a standard on that!" – if so, could you share some ideas?

Ellen Kullman: DuPont believes that in order to encourage innovation and investment and foster sustainable global economic growth, increased consistency of standards is critical. If the same standards are similarly recognized by regulatory bodies around the world, then new products and technologies will develop and commercialize more rapidly to help us meet the challenges of a growing world population. ■

equality so important to the company and how do you achieve it?

Ellen Kullman: Respect for people is a key DuPont core value and sets the tone for how we operate around the globe. We strive to ensure that all of our employees are valued, valued for their knowledge, talents and unique perspectives. The strength and capability of each individual at DuPont is a significant asset to the company. We strive to hire, train and retain the best possible talent from around the world. To do this, we must foster an environment of diversity across all of our businesses and functions.

other companies, stakeholders and innovators through the work on ISO technical committees is just one example of what we mean by Inclusive Innovation – no one organization alone can solve these complex issues.

ISO Focus+: We are dedicating this issue of ISO Focus+ to women in standardization to celebrate International Women's Day. DuPont has been named among the Top 100 Best Places to Work for Working Mothers (2011) and Top 50 Companies for Executive Women (2012). Why is gender

DuPont's new Innovation Center for global collaboration

ISO Secretary-General Rob Steele took part in a discussion forum organized during the opening of the second DuPont Innovation Center for Europe, the Middle East and Africa in January 2013. The new centre is housed in the European Technical Center, in Meyrin, Switzerland, which has been spearheading research and technical innovation for over 20 years. Customers, academics and research

partners as well as representatives from major international companies also attended the ceremony, alongside Mark Vergnano, DuPont's Executive Vice-President. This is the 10th Innovation Center worldwide and the second to be launched at an existing DuPont research site. The global network of centres provides a unique space where strategic partners from industry, academia and government can connect and pool their

knowledge, on site or via remote video conferencing.

So, is innovation on the right track? "I believe innovation is on the right track," said Mark Vergnano. "For example, I believe we are just starting to understand the power that biotechnology will have in transforming and creating new advanced materials."

Panellists agreed on the importance of innovation to remain competitive and respond to market trends. However, International Standards are crucial to making these ideas a reality, said the ISO Secretary-General. They enable interoperability, and facilitate economies of scale, increasing the market potential of new products.

ISO Secretary-General Rob Steele at the inauguration of the DuPont Geneva Innovation Center.

DuPont's new Innovation Center.



Photo: DuPont Image



Photo: DuPont Image

Inspirational women

Leading the way for change

by Maria Lazarte

The statistics speak for themselves. Women represent 3% to 4% of CEOs in the USA and Europe. They make up between 14% and 16% of board members in the developed world, but in many European countries numbers do not even reach 5%.

Extensive academic research confirms that gender parity is linked to global competitiveness and economic performance. Panellists at a session of the 2013 annual meeting of the World Economic Forum (WEF) in Davos spelled it out: although real gains have been made in the number of women in top economic decision-making positions, progress is slow and we are still far from closing the gender gap.

Today, 60% of university graduates are women who are entering the workforce in equal proportion to men. But the higher you look on the organizational scale, the thinner their numbers get. WEF panellists called this the mid-career “cliff”, a very real barrier which is keeping women from securing senior positions. Surveys of business schools show that, although women are getting the best MBAs, they do the worst after graduation. What is needed, panellists agreed, is better governance to promote diversity on management boards. In turn, by bringing more diverse talent into the company, efficiency and governance will improve.

ISO has made significant strides over time as more and more women join its ranks. They now represent an important portion of the staff at the ISO Central Secretariat (55%), as in many national standards bodies. Hundreds, if not thousands, are experts and leaders in technical committees, working on subjects ranging from information technology to nanotechnologies.

The principles of diversity and equality lie at the very heart of standardization and are fundamental to its success. At ISO, we know that the more voices get heard during the development of a standard – be it from industry, government, academia, NGOs,

consumers – the more representative and influential the resulting document will be.

Standards level the playing field, giving everyone equal opportunities. They are also powerful tools for disseminating best practice – and this includes gender diversity, which is addressed in ISO 26000 on social responsibility. And there are many other standards that contribute to the well-being and safety of both men and women.

Coinciding with this year’s International Women’s Day (IWD), observed annually on 8 March, this issue of *ISO Focus+* celebrates the accomplishments, talents and expertise of women in standardization.

“We have to talk about gender openly and honestly,” said Sheryl Sandberg, Chief Operating Officer and Member of the Board of Facebook, at the WEF session. Because the first step to closing the gender gap is awareness.

In this issue of *ISO Focus+*, women in leadership consider the progress made, and how being a female in standardization poses no particular challenge. We hope these success stories will be the catalyst for further sustainable change in the workplace. A lot more needs to be done. The International Labour Organization recently announced that women and girls are in danger of being shut out of careers in science and technology, such as engineering, computer science and the physical sciences. And violence against women, the United Nations’ theme for this year’s IWD, is still rampant in many parts of the world.

We hope the experiences and stories of these remarkable female leaders will inspire new generations of women to join the world of standards.

Maria Lazarte is Assistant Editor, *ISO Focus+*



Marie Curie, Noble Prize for Physics and Chemistry, she pioneered research in radioactivity.



Gertrude B. Elion, Nobel Prize in Medicine, she discovered drugs to treat leukemia and other diseases.



Lillian Moller Gilbreth, industrial engineer and pioneer in industrial psychology.



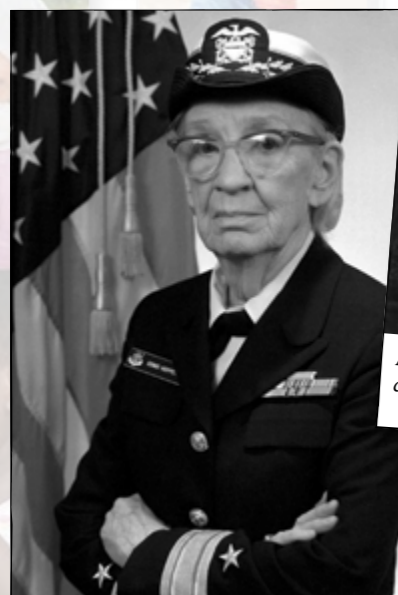
Jane Goodall, Primatologist, the world’s foremost expert on chimpanzees.



Augusta Ada Lovelace, the world’s first computer programmer.



Stephanie Kwolek, inventor of Kevlar®, a material resistant to wear, corrosion and flames.



Grace Murray Hopper, lead developer of COBOL, the first modern programming language.



Ada E. Yonath, Nobel prize in Chemistry for her work on the structure of the ribosome.

```
with Ada.Text_IO;

procedure Hello_ISO is
begin
  Ada.Text_IO.Put_Line("Hello, ISO!");
end Hello_ISO;
while a /= b loop
  Ada.Text_IO.Put_Line ("Waiting");
end loop;

if a > b then
  Ada.Text_IO.Put_Line ("Condition met");
else
  Ada.Text_IO.Put_Line ("Condition not met");
end if;
for i in 1 .. 10 loop
```

In Ada's footsteps

Decoding the non-gender gap

Information technology (IT) is not only innovative for its cutting-edge designs and for making people's daily lives healthier, more comfortable, safer and richer, it is also one of the few industry sectors where gender equality is (almost) a reality.

Despite the commonly held belief that IT is a man's world, women have made contributions

to the sector from the earliest times. Ada Lovelace, a mathematician from the 1800s, is widely regarded as the first computer programmer, whose pioneering work in the IT field has made a significant and lasting impact. In honour of her contribution, a computer language (and ISO standard!) was named after her, Ada, almost two hundred years later!

In Ada's footsteps, women's participation in the IT sector is on the increase, with more and more girls choosing to study IT in college/university than ever before. Below are a remarkable group of women who tell us how their experience in the world of IT standardization has brought fulfilment, friendship, challenges and some great stories.

Karen Higginbottom – Modern times

I have been struggling a bit over why it is "politically correct" to have an article on the women in ISO/IEC's joint technical committee JTC 1, *Information technology*. Having often sought to be treated no differently "just because I'm female", this seemed almost like a dichotomy. But, as I attended the 100th meeting of the MPEG (Moving Picture Experts Group) working group of ISO/IEC JTC 1, subcommittee 29, *Coding of audio, picture, multimedia and hypermedia information*, in May 2012, there it was staring me in the face. There were more than just a few women in attendance. Women were even being acknowledged on stage as speakers and leaders, both within the standards activities and within their companies, universities or organizations.

It was a revelation for me – sometime, almost overnight, women had reached a tipping point.

Perhaps this is best understood against the backdrop of my 25 years in standards and consortia. I started in telecom standards in the US where I was the only woman in the management body. When I joined Ecma International, I was the first woman ever in attendance. At the consortium entitled Corporation for Open Systems, of which I was the Steering Committee Chair, Judy Brown was the only other woman there – an experience so unique that she and I have remained lifelong friends. And when I later went to work at HP, I was thrilled to collaborate with Josée Auber who has always been technically strong and an effective leader in standardization activities, now the President of Ecma International. In short, two decades of meetings with so few women in information and communication technology (ICT) standardization that I could count them on one hand!

But the MPEG meeting made it clear: whatever unique obstacles or challenges somehow limited the participation of women, they are now key contributors to the ICT standards process. So much so, in fact, that it seems fitting to acknowledge some of them here.

Karen Higginbottom is Chair of joint technical committee ISO/IEC JTC 1, *Information technology*.



Ada programming language for greater reliability and security

Often used in air traffic control, banking and other high-risk industries because of its reliability, the Ada programming language has become even more flexible and secure with the third edition of ISO/IEC 8652:2012, *Information technology – Programming languages – Ada*.

Among other improvements, the latest version of Ada offers a feature commonly referred to as "contract-based programming". Found in very few other languages, it significantly strengthens programmes against bugs and malicious use.

Ada was originally designed with three broad goals:

- Programme reliability and maintenance
- Programming as a human activity
- Efficiency

Since then, the language has been ameliorated to increase flexibility and extensibility, and give more control and wider support. The 2012 version further enhances its capability and expressiveness, as well as the dependability, safety and security of programmes using the language.

The revision responds to real user needs, for example by improving portability, interfacing to other languages, adding formal support for contract-based programming, and continuing to improve object-oriented and real-time capabilities.

"By publishing Ada as an International Standard, users know that any updates will be accessible to developers around the world, and have confidence on the stability of the updates," says Dr. Joyce Tokar, Convenor of the working group that developed the standard.

This is critical as Ada is often used in industries where security and dependability are crucial. Examples include aviation and air traffic control, satellites, medical and banking sectors, railway and subway systems, and the military, to name a few.

The language was originally commissioned by the US Department of Defense to consolidate programming languages in the military, and it was published as an ISO standard in 1987. It is named after Ada Lovelace, considered to be the world's first computer programmer.



Kate Grant – A mother's tale

I began working on industrial communications standards when my first four children had got to a stage where they could be left for a week at home. At my second international meeting, I was once again pregnant and, every time the convenor raised his voice, the baby kicked hard. That autumn, at three months, she attended her first meeting in Germany and slept peacefully as delegates discussed time-critical communications.

A meeting in China nine months later presented more of a challenge. In 1990 flights were infrequent, so a one-week meeting meant 10 days away. My eldest daughter came and babysat. Between meetings, the United Kingdom (UK) delegation and nine-month-old Alice visited major tourist attractions, and during meetings, my baby girl explored the area around our hotel.

As an editor of the standard, I needed to attend the meetings and, the following autumn, my second daughter babysat Alice when we went to Michigan. During this time, I visited the General Motors Technical Center.

The company I worked for cooperated with a UK university to provide a tutorial on the emerging Manufacturing Message Specification. It was important to closely involve the activities of technical committee ISO/TC 184, *Automation systems and integration*, to ensure it correctly reflected the standard.

Two years later, my youngest daughter began her career in standards at only five weeks old. We travelled to Carlsbad, California, where I worked with joint technical committee ISO/IEC JTC 1 on time-critical communications. This was followed by two trips to Japan before her first birthday to pursue both this and additional industrial communications standardization. My eldest

daughter developed a liking for Japanese beer, made friends with a Yokohama family with teenagers of a similar age and helped me to navigate Tokyo trains with the pushchair.

Looking back, it was unusual to continue working in international standardization with such young children, but it allowed me to stay involved and contributing.

As my work began to include more developments related to video compression, metadata and communications, the pace increased to the four meetings per year that MPEG (Moving Picture Experts Group) typically holds. For several years, I attended all these meetings, contributing to UK positions and specific standards such as those related to aspects of video surveillance.

Occasionally, the children came along for the travel experience and I can remember taking three of them to a meeting in San Francisco followed by a week in Shanghai. While I worked, they enjoyed cycling over the Golden Gate Bridge, visiting Alcatraz and exploring the different faces of ancient and modern China.

Working with experts from around the world has given me insights into different

ways of life. The emergence of global communications and IT – and specifically my laptop – means that it is no longer necessary to carry a case bulging with papers onto the plane (pretending it is as light as a feather).

Having suffered the onset of a permanent disability, I am now deeply involved in accessibility-related standardization, especially as it can target those people with no clearly focused pressure groups. At times, my children have accompanied me to places as contrasting as Hong Kong and Sheffield to push my wheelchair and enable me to remain engaged with standardization.

Those of us with limited mobility and manual dexterity may look the same as everyone else, but we can struggle to cope, have to plan trips around hospital treatment and must ensure we travel with medication. We also need enough extra medication to cope with unexpected traumas such as flight cancellations following a volcanic ash disruption... so that we can “keep calm and carry on”.

Dr. Kate Grant is a Consultant at Nine Tiles, United Kingdom.



Baby goes to Japan! Delegates at a 1993 meeting of JTC 1/SC 21 in Yokohama, Japan, posing with Kate's baby.

Marina Bosi – Conceiving MP3

I vividly remember my first MPEG (Moving Picture Experts Group) meeting, which took place in Paris in 1991. I had just joined Dolby Laboratories as the first female engineer in the R&D department and was working on Dolby's proprietary codecs. I was asked to represent Dolby in the International Standards arena and the Paris MPEG meeting would be my first foray into that activity. It was with both excitement and trepidation that I boarded the flight to Paris.

I ended up meeting people who became long-lasting professional collaborators and some of my closest personal friends.

At the time, my colleagues and I were working on stereo audio coding techniques similar to the ones being considered by the ISO/IEC MPEG audio group. We were also branching out to multichannel extensions with AC-3 (later known as Dolby Digital).

The Dolby and MPEG audio coding technologies addressed the same market needs

and were in competition, so I felt a bit of an outsider and scrutinized as a representative of Dolby Labs. I was also the only woman in a room full of male engineers, which didn't help, and, in Paris, my first instinct was to stay quietly hidden behind a desk.

I was travelling with my boss's boss at the time and, upon arrival, he bluntly ordered: “Marina, you must now go around the room and introduce yourself to everyone.” This was the last thing I wanted to do, and the most difficult task that had been asked of me in my budding career! Fortunately though, I ended up meeting people who became long-lasting professional collaborators and some of my closest personal friends.

The 1991 MPEG meeting in Paris, as it turns out, was a particularly significant meeting, not just personally (I doubt anyone took much notice of my first attendance), but also historically. In the MPEG audio group, we lay down a major building block, the hybrid filterbank, the backbone of what later became the MP3 format. These days everyone is familiar with MP3 but, at the time, it was a stab in the dark and an effort most people considered doomed from the start.

My work within ISO/IEC continued through the years and, thanks to the incredible friends and colleagues I met through MPEG, I enjoyed a number of successes,



including leading the development of the then newly conceived MPEG advanced audio coding, which today is widely used in Apple's iTunes and iPod-based products. ISO/IEC has had, and continues to have, a major role in the development of media technology and I feel fortunate to be a part of this community.

Dr. Marina Bosi is a Consulting Professor at Stanford University's Center for Computer Research in Music and Acoustics, California, USA.



Josée Auber – No beards about it

I came to standardization from standards-based software engineering. At that time, in the early 1990s, open systems interconnection still shined, but Internet protocol-based

networking and hypertext transfer protocol (http) were fast catching up.

Being active in joint technical committee ISO/IEC JTC 1 and in key standard bodies in the industry, I was honoured to become part of a small group that invented the JTC 1 Publicly Available Specification (PAS) process. This enabled me, in JTC 1, to keep bringing together the best standards, whatever their origin.

Perhaps I just felt at ease in JTC 1, a place that has never lacked women in lead roles!

Looking back, if standards and technologies come and go, the lessons learned from people I met in various committees remain

vivid memories. The first lesson came after a horrendous technical battle when my staunch opponent told me: “We've had a good fight today – let's go and have a beer together!” This has happened many times, whether ending with drinks, dinner or a cup of tea, and our fierce debates have never prevented me from getting to know people with different views and backgrounds.

Being a woman in standardization, and working in France for a Californian-spirited company, has not brought particular challenges. It has brought amusement though, like when I was told that, in order to convince a particular person, I would need to be German with a loud voice and a beard. But perhaps I just felt at ease in JTC 1, a place that has never lacked women in leading roles!

Josée Auber is Director of Standards Europe at Hewlett Packard.

Catherine Tilton –
Roll up your sleeves



Firstly, let me say that it's great to be considered one of the "Women of JTC 1" and I feel I am in good company!

Joining in 2002 as a relative novice, I feel that my experiences over the past 10 years have been personally rewarding and provided many opportunities for growth. I have also greatly enjoyed the diversity of people I have worked with and have come to appreciate their talents, contributions and perspectives.

Although this appreciation has been mainly mutual, there is one incident that sticks in my mind. JTC 1 subcommittee SC 37, *Biometrics*, was formed in 2002, with 17 countries initially coming together to organize and begin work on standards related to biometrics.

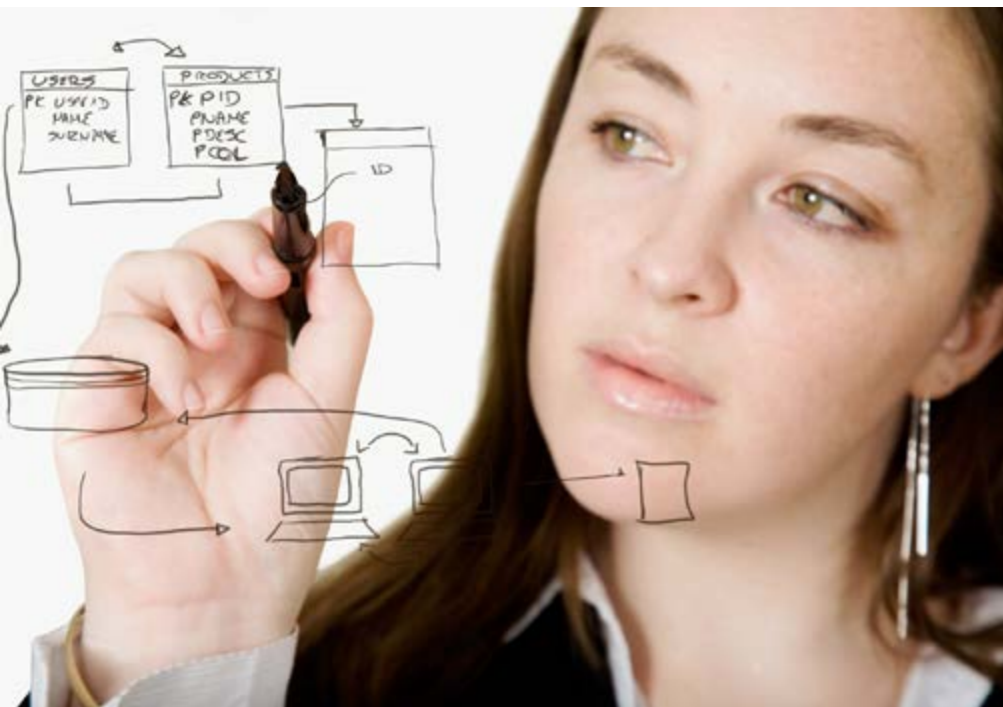
Watching this unfold was interesting, as the many agendas collided and compromises were made. Serving as head of the US delegation, it was a challenge to herd our 25 delegates and negotiate with other national bodies, but as a group we were successful.

Months later, one of the US delegates mentioned that a foreign delegate had asked why the US had a woman as its head of department. He retorted that perhaps she was the best-qualified person. I hope to have proven myself since then!

My advice to those interested in joining in is to "roll up their sleeves", get to work and be prepared to compromise!

Progressing the work of the committee requires active contribution, review and debate. Many participants, like myself, have day jobs, with their standards work being an "additional duty", often performed after hours. This is why you have to love it and it's certainly not for everyone. It takes a unique combination of technical competence and people skills. My advice to those interested in joining in is to "roll up their sleeves", get to work and be prepared to compromise!

Catherine Tilton is Vice-President, Standards and Technology, at Daon. She is also US Head of Department of joint technical committee ISO/IEC JTC 1, *Information technology*, subcommittee SC 37, *Biometrics*.



Jaeyeon Song –
Overcoming prejudice

As a woman IT engineer and as a woman working in standardization, I feel my life has special meaning.

There are few women in IT standards meetings and, in my 10 years in this field, I have usually been the only female participant. But I have experienced only warmth and kindness and feel the world of standardization is welcoming to women.

IT standards meetings require the right measure of technology, persuasiveness and good social relationships since the standardized solution must be based on consensus and the best technology. Good technology alone does not make a standard.

Despite the warm welcome and rapid recognition, a woman's technical contribution will not always be readily accepted in an environment that is still very much a male preserve.

For me, the answer is to have confidence in my technology and to prove my ability as a professional engineer, not as a female participant. Sometimes this involves overcoming prejudice.

Standards work is challenging and interesting. Like life itself, it has high's and low's and is full of surprises. And it's a life I love! ■

Jaeyeon Song is a Director of multimedia standardization and a Senior Engineer at Samsung Electronics.



Why "I still love my job!"

Elena Ordozgoiti is Head of Food and Services at AENOR, the Spanish Association for Standardization and Certification. Here she reveals some of the changes she has witnessed, the pro's and con's of her career to date, and why she still loves her job.

When we were children, we used to say things like, "I want to be a nurse", or, "I want to be an actress". But one thing's for sure, none of us ever said we wanted to be a "female standardizer".

I began working in this unknown field in 1994, completely by chance. At the time, the Spanish Association for Standardization and Certification (AENOR) was little known in the agri-food and services sectors; in fact, it was little known in Spain, except perhaps in industry.

In the 1990s, I played my part in strengthening and developing AENOR, before it became the prestigious and renowned organization it is today.



Throughout this journey, I have learned a lot and evolved, both as a person and as a woman. There have been many challenges along the way, some relatively straightforward and others demanding a more personal commitment.

A high percentage of the staff I know in standardization bodies are women. Fortunately, there are also men! What is certain, however, is that in standardization forums attended by experts and professionals, there are generally more men than women representing their companies or organizations.

In the variety of fields I have engaged in so far, being a woman has been neither positive nor negative from a professional point of view. And this is true at the national, European and international levels.

Working in a foreign language is a constant challenge and sometimes great effort is needed to express a complex idea in English. Some people do this with a definite accent while others have very fluent English, even if it is not their mother tongue!

Leaving home and the family to travel for several days, a week or even longer, requires strict organization and planning. As a woman, I have never had to overcome travel-related obstacles and I can always rely on the support of understanding relatives.

My mother worked outside the home at a time when it was still unusual. Nowadays, it is quite common and I am pleased that my son can grow up in a world where it is considered normal.

All the projects in which I have been involved have enriched my experience. Topics have varied greatly, ranging from saffron and equal opportunities to packing and wrapping. These days, I am increasingly involved in the services field, where each standardization committee is like a window on the economy and society.

More than anything, my standardization activities have enabled me to work with, and experience, a wide diversity of people and cultures. Some people have proved interesting and educated while others have been more difficult, but all have taught me a lot and shown me that cultural differences are not a myth. Across the world, people live, work and think in different ways, and it is not always true that "we" do everything right and that "the others" should change.

I am fortunate enough to say that my work is as interesting and enjoyable as ever. And 18 years after joining AENOR, I still love my job! ■



“Come and join us!”

Embarking on new adventures

Sophie Clivio is the new Secretary of ISO's Technical Management Board (TMB). As the first woman to take on this key role, she explains why she loves her job and why the fascinating world of standardization offers opportunities for all.

ISO Focus+: How has your career in standardization developed?

Sophie Clivio: I started at the ISO Central Secretariat 20 years ago as a technical programme manager and, a few years later, became a technical group manager. I took up my current duties as TMB Secretary and Head of Technical Policy in September 2011. I enjoy my new role as it combines the technical and political aspects of standardization, which are both interesting and challenging. The TMB's mandate is a broad and important one, and I appreciate that my job allows me to use a wide range of experiences and skills.

ISO Focus+: Have women's roles in standardization changed?

Sophie Clivio: It never occurred to me that I might be the first woman to take on this job, although it is true that standardization has historically been a male-dominated environment. Many product standards were, and still are, developed by male technical experts and engineers, but we also have new areas where women are participating as experts and/or leaders in technical committees and subcommittees.

ISO Focus+: What are the challenges of being a woman in standardization?

Sophie Clivio: The challenges facing women in standardization are not unique to standardization.

ISO Focus+: Can you tell us more about your mainly female team?

Sophie Clivio: There are three other members in my team, two of them women. This, combined with the fact that the TMB Chair and ISO Vice-President (technical management), Elisabeth Stampfl-Blaha, is also a woman, does make the TMB stand out.

We are better served when employers are blind to gender and focus on who will do the best job.

However, creating a “women-run” team was never the intention. Elisabeth is highly accomplished and brings a wealth of experience and knowledge to her role. As for my team, I believe in hiring the best person for the job, regardless of gender. Hiring a woman because she is a woman helps no one, least of all women. We are better served when employers are blind to gender and focus on who will do the best job.

ISO Focus+: How would you describe the team's dynamics?

Sophie Clivio: They're based on mutual respect for each individual's strengths.

ISO Focus+: How does participation in standardization empower you as a woman?

Sophie Clivio: I'm not sure I feel empowered! Yet the chance to participate in many different areas through standardization has broadened my mind and awoken the urge to embark on new adventures.

ISO Focus+: What advice would you give to young women considering a career in standardization?

Sophie Clivio: Having a solid background is essential, as is hard work. Probably the most important thing at the beginning is to be perceived as credible. This credibility is built up through showing, constantly and consistently, that you really understand the field and can respond to issues as they arise. This is not difficult when you like your job, no matter your gender!

During my time as a technical programme manager, I gained a knowledge and understanding of procedures (our role is to be experts in procedures and processes), which have helped me to establish my credibility. I also thoroughly enjoyed my job.

But, although standardization has always been the province of men, both the world of standards and the wider world are constantly evolving, and we are certainly seeing more and more women in this field.

The work is rewarding, different and, above all, fascinating. Come and join us! ■

Attention, ladies and gentlemen!

Why it pays to participate in standards



Norma McCormick is Chair of ISO's Committee on consumer policy (ISO/COPOLCO). Here she explains why the more consumers participate in developing standards, the more likely it is that products and services meet their needs. The win-win result benefits consumers and suppliers alike.

Consumers play an important and evolving role in standards development, both nationally through the national standards bodies (NSBs) and internationally through participation in ISO advisory, governance and technical committees.

Freely devoting their time and talents, the consumers involved in standardization activities are mainly volunteers. They do this because they recognize that standards boost consumer protection, societies and economies.

Consumers have historically been seen as important stakeholders in the standards

system. They are valued for their advice and participation, including in the high-profile ISO advisory committees on sustainability, energy and security.

Our rich history

I am very proud of the long history of women's contributions to issues of consumer concern and of their achievements in standardization.

ISO/COPOLCO, which provides ISO with advice from a consumer viewpoint on current and potential standardization



and conformity assessment work, has a strong record of female participation and leadership. In its almost 35-year history, there have been nine chairs, five of which were women!

Even in 1978, at our initial plenary, a large percentage of the 40 delegates present from 17 countries, were women. And today, many women are participating in national and international technical work.

As a member of three Canadian and three ISO technical committees, I am pleased to observe that, increasingly, women are coming forward to contribute their expertise.

Consumer expertise

In the past, technical committee experts were primarily representatives of manufacturers and industry groups interested in the technical area concerned.

Increasingly though, consumers are being recognized as experts. Their input is now acknowledged as essential to the technical committees that develop consumer-related standards.

NSBs are being encouraged to support the participation of consumer representatives on technical committees. To measure their growing involvement, the ISO Technical Management Board has adopted seven categories to classify experts nominated to working groups. Member bodies must apply these categories when registering experts on the Global Directory. Category C identifies consumers as “national, regional and international consumer representation bodies, independent of any organization that would fall into the ‘industry and commerce’ category, or individual experts engaged from a consumer perspective”.

Interested and informed consumer representatives can make a valuable contribution to the work of technical committees. The perspectives and views of end users,

or those affected by standards, are seen as important.

ISO/COPOLCO recommendations have led to many important ISO standards. But we have also supported or developed guides for standards writers and users.

Working for you

ISO/COPOLCO is increasingly seeking and seizing opportunities to reflect consumer views in standards development.

Our initiatives will expand the pool of committed and informed consumers.

Consumers are well placed to define the desired characteristics of products and services. Their involvement – as both stakeholders and technical experts – can help to ensure that the product or service to which the standard applies is market-relevant and fit for purpose.

More specifically, consumers can:

- Influence the scope of a standard, providing hazard and injury data

- Address concerns related to the safety, convenience and durability of products
- Provide information on how products are used in practice, and the potential for their unintended use or misuse
- Ensure the suitability of marks and instructions
- Offer a perspective on the reliability of test methods and performance specifications to achieve the intended results

ISO/COPOLCO has identified ways to support ISO’s strategic goals, meet the needs of our members and strengthen consumer participation in standards development. Our priority is to bolster our members’ efforts to raise public awareness of standardization and the consumer-protection benefits brought about by standards.

We are building our capacity through tutorials, Web-based learning and on-site training, by increasing our use of social media and, in particular, by reaching out to our members through an e-newsletter, a blog and Facebook.

Our initiatives will expand the pool of committed and informed consumers and enhance our skills, resulting in stronger, more active and more confident participation. ■



Mohana Priya from the Malaysian Association of Standards Users participates at the 2012 workshop on counterfeiting and fraud organized by the ISO Consumer policy committee (ISO/COPOLCO) in Fiji.

Event sustainability



A young woman's vision

ISO 20121:2012, *Event sustainability management systems – Requirements with guidance for use*, was launched in June 2012, in time to be used at the London 2012 Olympics. **Fiona Pelham**, Chair of the ISO technical committee responsible for its development, explains how she kept everything and everyone on track.

ISO Focus+: How did you get involved in standardization?

Fiona Pelham: In 2004 I set up an event management company to deliver events in a way that was both good for the local community and environment, and financially viable. Through my work, I met the Institute of Environmental Management and Assessment’s event manager, who suggested I attend a meeting for the creation of a British standard, BS 8901.

Despite being a 28-year-old with no experience of standardization, it was clear to me, after sitting through my first meeting for BS 8901, that this standard represented everything I was passionate about – creating a sustainable event industry.

ISO Focus+: What inspired you to take a leading role?

Fiona Pelham: From the very first meeting, I understood what difference this standard

could make: it has the potential to change the entire way the international event industry works. The vision of a sustainable event industry continues to be my main inspiration for being involved with ISO 20121.

ISO Focus+: What did you do to ensure you were a successful chair?

Fiona Pelham: The event industry is a predominantly female industry and contains many small to medium-sized businesses. Against this background, I felt confident that I was a fair representation of the industry this standard was being created for.

I quickly understood that being the best chair possible meant testing the standard and understanding how its words translated into practical action. Throughout the development of BS 8901, and then ISO 20121, the team at Sustainable Events Ltd. constantly



trials the standard at events held at Manchester International Festival, Old Trafford Manchester United and Reed Exhibitions, and in our working methods in our small office of eight.

This practical understanding of how the standard worked made up for any lack of experience I had in the standard creation process. I worked closely with José Alcorta and Leonardo Matin, the joint secretariats from the United Kingdom (UK) and Brazil, and they provided fantastic support in helping me to increase my competence in standard terminology and the time frames for standard development.

My final step was to put in the time and effort to build relationships with the committee's members. For example, when new members joined, I would hold a pre-meeting conference call to supply them with relevant background information. Most committee members working on ISO 20121 came from the event industry with limited experience in standard creation, so I tried to take an open, honest and collaborative approach.

ISO Focus+: *What challenges did you face as a young female chair, and how did you overcome them?*

Fiona Pelham: I didn't realize how few young female chairs there were until I was told that I was probably the youngest female ISO chair.

With the core members of the ISO 20121 committee (the secretariats and the regular meeting attendees), I never experienced any resistance to my role. I felt confident

I would be a good chair as I knew I was putting in the effort and time to implement the standard and get to know the committee.

The committee members also trialed the standard and took a collaborative approach so their contribution made a huge difference. We all worked as one team with a shared vision: the creation of a sustainable event industry.

This standard represented everything I was passionate about.

Although a voluntary chair's work is demanding in terms of time and energy, I think it is a challenge any chair – of any age or gender – would accept. The main challenge I faced came from those committee members with significant standards experience and what I perceived to be limited interest in the vision of a sustainable event industry. In certain situations, I had to alter my chairing style from collaborative to more forceful to stay on schedule, but I always tried to maintain a personal approach. One committee member told me I kept everyone on track and focused in a "killing with kindness" style, which I took as a compliment!

ISO Focus+: *How has your role with ISO 20121 influenced your wider career?*

Fiona Pelham: I'm proud to be a young female ISO chair as I strongly believe that

age and gender should not be a barrier to making a difference in the world. I hope I can be a good example for other young women who are keen to use standards to make a difference!

I have been proactive in promoting ISO 20121. The standard was created principally by, and for, members of the event industry, and I think my role as chair is proof of that. It makes sense that the chair of an ISO committee should provide good representation for their industry and make the effort to explain the standard's relevance.

Communicating to the global event industry about the creation and implementation of ISO 20121 has brought some great experiences. These include presenting at the International Olympic Committee Sport and Environment Conference in Doha in 2011, and to chapters of Meeting Professionals International around the world.

ISO Focus+: *What would you say to other young women interested in chairing a standard?*

Fiona Pelham: If the standard supports something you are passionate about, get involved whatever your age or gender. If you implement the standard, even in its trial version, you will have something relevant to share. ■

Fiona Pelham is also Managing Director of Sustainable Events Ltd. and Positive Impact, both based in Manchester.

Fight for consumer rights

Sadie Homer is Senior Policy Advisor at Consumers International, an organization working to protect and empower consumers everywhere. Sadie was one of over 400 participants in the development of ISO 26000:2010, *Guidance on social responsibility*, and here she tells us about her experience.



When I started working in standards in the mid-1990s, I was usually the only consumer advocate at the meeting – and the only woman. This was juxtaposed to working within the consumer movement where women have a strong presence, and often lead the way.

Consumers International's executive council is 40% female, it has a female Director General, and women hold four of the nine senior management positions.

The global consumer rights movement has long recognized the importance of women's voices in stakeholder advocacy. On 15 March 2013, we once again pushed for better consumer protection for under-represented groups, including women, as part of the World Consumer Rights Day.

Consumers International advocates for consumers to be acknowledged as key stakeholders in standards development, and for processes that enable under-represented groups to be heard.

So, when a standard on social responsibility was first put forward in the ISO Committee

The hard climb to ISO 26000



on consumer policy (ISO/COPOLCO), we saw this as an opportunity to work towards this goal. We also wanted to bring much needed clarity to organizations' responsibilities towards consumers, as well as to the rights and responsibilities of the consumers themselves.

Representation is an inherent principle of social responsibility.

From the first meeting of the ISO Working group on social responsibility (WG SR), it was clear that this would be a long and complex journey, and that it would involve a steep learning curve. Multi-stakeholder standardization had never tried to operate on this level before, encompassing gender as well as economic and cultural diversity.

As representation is an inherent principle of social responsibility, the number of women participating in the development of ISO 26000 was crucial. Women are natural organizers and communicators and, if ever these skills were needed for a successful outcome, it was in this forum!

Although it may not be possible to replicate the process and passion that ISO/WG SR created to deliver ISO 26000, much can certainly be learnt about the value of ensuring a balanced input from stakeholder groups. This includes positively seeking the less well resourced, or the less able, to ensure their voices are heard.

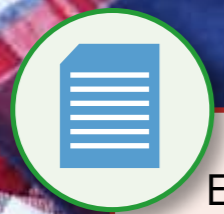
It is fantastic to see this type of approach playing an increasingly central role in standards development.

For me, success has been seeing an efficient and effective consumer movement working together to put the rights of women and consumers at the heart of social responsibility. ■

Social responsibility

How to eliminate bias and promote gender equality

A positive link exists between gender parity and economic and social development. That is why gender equality is one of the UN's Millennium Development Goals. Inversely, discrimination has a negative impact on individuals, families, communities and societies, limiting their potential. According to ISO 26000 (social responsibility), gender equality is a cornerstone of social responsibility. To eliminate bias and promote parity, organizations must therefore ensure:



Equal remuneration for work of equal value



Equal benefits from advocacy and community development projects, with particular emphasis on redressing areas where gender equality is lacking



A good mix of men and women in governing structures and management



Equal consideration of the different needs of men and women in the workplace and in aspects of community safety and health



Equal treatment in recruitment, job assignment, training, opportunities, compensation



Equal consideration of the needs of both men and women in decisions and activities (for example by reviewing how company communications portray gender)

CEOs speak out

Why it pays to work in standards!

Some 26 CEOs of ISO's national bodies are women. Here, six of them talk about their careers to date, life at the top and the role of women in standardization.

From village to VIP

Malaysia's Fadilah Baharin



Growing up in a village in Malaysia, otherwise known as a “kampong”, civil servants were considered the great maharajas, the “chosen ones” with extraordinary powers. Civil servants lived in a world of their own, doing whatever they wanted, whenever they wanted. This, of course, was in stark contrast to village people, who were making their daily living by running small businesses.

This reminds me of a childhood memory of my mother walking all the way to the local tax office at midday, only to be told to come back at 14:00. Lunchtime was at 13:00. As a common villager, she didn't complain and did as she was told.

Upon completing my studies at a university in England, I was summoned back to enter the Malaysian civil service. Although my mother's experiences with the civil service were enough to scare me off, she convinced me that I could help change the culture.

Now, many years later, in my current position as Director General of the Department of Standards Malaysia (DSM), I would like to think that my efforts have been contributing to the cause.

I have found my calling in standardization because it encompasses everything I love.

Confucius once said, “Choose a job you love, and you will never have to work a day in your life.” And that describes exactly where I am now. I have found my calling in standardization because it encompasses everything I love, including meeting people and international travel.

For some, standards are little more than sheets of paper. For me, standards are a service. Standards exist because people need them.

But we must stay relevant. To do this, I have to interact with people, listen and understand their needs and continue to meet their expectations. Furthermore, as part of an interconnected network, I need to travel and meet with peers and DSM stakeholders in order to ensure the timely delivery of our standards.

I am proud to say that Malaysia is heading in the right direction, towards a “quality culture”. In 2011, we had the honour to hear our Prime Minister, Dato' Sri Mohammad Najib Tun Razak, announce that standards

are among the six strategic reform initiatives in the Government's economic transformation programme. This plan aims to make Malaysia a high-income country by 2020 and, at the DSM, I will do my part to make this happen.

Is being a woman relevant in all this? Well, by default, I was born a woman. Has it given me any perks? Well, I can choose to wear colours in “serious” meetings, and I'm often allowed to express my views – first!

Fadilah Baharin is Director General of the Department of Standards Malaysia.

Raising awareness

Colombia's María Zulema Vélez Jara



As the CEO of Colombia's standards body, ICONTEC International, allow me to share with you some ideas.

For a start, it is interesting to be part of an organization that shares knowledge. It is also interesting to see the interactions in technical committees which involve a mix of knowledge management and human behaviour. In these meetings, it is important to work with – and not against – people with different backgrounds, personalities and views.

It is rewarding to work in an activity that helps society. Companies can gain certificates to standards, which is of course excellent, but the standards involved really benefit the market and people's everyday lives.

How can we attract more women to standardization? I have the feeling that it is not a matter of gender, but of lack of information. Most people, at least in Colombia, are not aware of the work carried out in standardization. Certainly, before I joined ICONTEC, if you had asked me what a person does in standardization, I really would not have known the answer.

It is rewarding to work in an activity that helps society.

Although standardization is present in all fields, there is a stronger presence where experts or people involved are linked to male-dominated professions.

To attract more women to standardization, therefore, we need to:

- Provide more information on work in standardization
- Apply standardization increasingly to new technologies
- Change the way people see standards (which remains “boring job, boring standards”)

We also need to answer people's questions: where standardization can be learned, what experience and skills are needed, what standardization is trying to achieve, and what can be expected in terms of career progression.

We must also change the idea that standardization is just a logistics job. It is more than that, so we need to highlight broader project management.

María Zulema Vélez Jara is Executive Director of ICONTEC International, the Colombian Institute of Technical Standards and Certification.

A level playing field

Kenya's Evah Adegga Oduor



Standardization is a broad field with a wide scope, and yet it is very specific. It has broadened my work from understanding products and services, and the environment, to newer subjects such as climate change and energy efficiency.

My job in standardization gives me the opportunity to interact with experts and professionals from around the world and from all walks of life. I like the world of standards, which makes the world a better place.

When there is a level playing field, women can run just as fast as men – and sometimes faster!

All our staff in the Kenya Bureau of Standards is highly motivated and focused on results. On occasions though, I have asked myself if a female employee has had to work extra hard to rise up through the ranks.

With consistency, perseverance and professionalism, any member of staff should be able to progress. Gender should be irrelevant. I know I have what it takes, and I deliver. When there is an equal, level playing field, women can run just as fast as men – and sometimes faster!

Evah Adegga Oduor is Managing Director of the Kenya Bureau of Standards.

All for the good cause

New Zealand's Debbie Chin



As Chief Executive of Standards New Zealand (SNZ), there is a lot I like about my job. The best part is the realization that the standards we develop – through our expert committees – have such a positive impact on New Zealand and New Zealanders.

It is satisfying to lead an organization that provides products that keep homes, buildings, playgrounds and health services safe, and help to prevent accidents and injuries; that minimize the impact of potential disasters; that improve the quality of goods and services; that help to protect the environment; and that boost economic growth and trade.

To women thinking of a career in standardization, I say, "Go for it"!

I enjoy working with our stakeholders – committee members, funders, nominating organizations and industry – who share my appreciation of standards and their benefits. Our expert committee members really do devote huge amounts of time, dedication and enthusiasm to the development of National and International Standards.

It also gives me great pleasure to lead a team of 40 committed staff. Their strong belief in standards is reflected in the high quality of their work.

My role in the international arena also gives me great satisfaction. I learn so much from my counterparts and others at events such as

the ISO General Assembly, the Pacific Area Standards Congress and the International Electrotechnology Commission's General Meeting. They too are always interested to hear of developments in New Zealand.

Of course, SNZ has a special relationship with Standards Australia, with whom we develop many joint standards.

To women thinking of a career in standardization, I say, "Go for it"! Working in this field is always varied, sometimes challenging, and very rewarding. Your chosen career will enable you to have a significant and positive impact on people, organizations and society.

Standards are constantly expanding in terms of depth and breadth. They underpin technological progress and economic growth, and are affected by them. Nothing stands still in standards, which gives us a dynamic and stimulating environment in which to work.

You will meet, and work with, people from many industries. Once you become immersed in this world and become more aware of the value of standards, you will become a firm proponent too.

Because standards are everywhere and often "hidden", people can take them for granted. So it's important to do what you can to convey the benefits of standards as widely as possible.

Whichever path you take in your standards career, you will find it worthwhile, satisfying (at least most of the time) and always interesting.

Debbie Chin is Chief Executive of Standards New Zealand.



Wanted: Female standardizers

Norway's Trine Tveter



In my role as the Managing Director of Standards Norway, I enjoy what I do predominantly because working in standardization has such a big and important impact on our society. What would the world be like today without standards?

I also like the idea of the international standardization system as one of the world's best examples of well-functioning, widespread, cross-border interaction and cooperation. Others have described it as a mini-UN, but I think it's even more efficient and inclusive.

I regard standardization as a unique arena for experts and stakeholders from all parts of the world to meet and participate on equal grounds. It's a forum where they can discuss topics of mutual interest to create joint solutions. I have been a part of the international standardization family for years now, and I feel tempted to describe it as a project contributing to international peace in an important and successful way.

There should be increased public awareness of the true significance of standards. This is a challenge but I enjoy bringing this message to decision makers and the market.

We should seek to encourage women to apply for a career in standardization.

More specifically, I want to bring the world of standards into education. In Norway, we are involved in some projects to include standards and standardization in curriculums at certain universities and colleges. And the timing is crucial. Including a standards curriculum will help demystify the long-held belief that standardization is of interest predominantly to older people.

Standardization is evolving into new areas such as sustainable events, where women are better represented. As a result, I think and hope that standardization will become less male-oriented than it traditionally has been.

Recruiting women is important to me. As a female leader, I think we should seek to encourage women to apply for a career in standardization, both as employees and as chairs and members of standardization committees. I want to broaden perspectives and look for female "standardizers" in areas that historically have been dominated by men.

I would like to welcome all women to the world of standardization. We need your skills and I'm sure your contribution will enable us to make better standards for all.

Trine Tveter is Managing Director of Standards Norway.

Empowering young women

South Africa's Boni Mehlomakulu



There should be programmes and caring mentors of both genders to help women succeed in leadership positions. I have been fortunate to benefit from both at a young age.

I have been driving significant assignments for around 10 years. I want to keep my promises to my country and ensure that my children grow up in a better place.

My role puts me in a position where I can help to empower women. In most developing countries, including South Africa, girls would not customarily choose science as a field of study. Women have not been encouraged to pursue careers in the sciences, so I take pleasure in hosting small groups of girl pupils (grades 11 and 12) in my office throughout the year. These young women get exposure to the work of SABS, learn about standardization and see at first hand the level of responsibility that comes with my position as CEO.

Inspired by my passion for girls' education, SABS has recently established a trust fund for rural girls' tertiary education in maths and science as part of the social corporate responsibility programme. With the first enrolment having started in January 2013, I hope these young women will be ready to start their careers with SABS in 2016.

Women should play a meaningful role in all the sectors of the economy.

As a woman, I look at our economy and think how I can make other women's lives easier. One answer relates to the key role of standards in stimulating innovation and economic growth in developing countries.

Take, for example, Africa's large but informal sector of traditional medicine. In South Africa, around 70% of the population still depends on traditional medicine for primary health care. This sector is estimated to be worth ZAR 2,9 billion per year, has 27 million consumers and employs 133 000 people, mostly rural women. Since traditional medicine is based mainly on plants, the 771 species harvested from the wild is a threat to sustainability. The subsequent frequent informal packaging of remedies in juice and drink bottles has led to many deaths. Standards could save lives and help this sector to become more predictable in its practices.

Dr. Boni Mehlomakulu is CEO of the South African Bureau of Standards.

Uganda becomes full ISO member

The ISO member for Uganda (UNBS) has been upgraded to full ISO member starting January 2013. Here Dr. Ben Manyindo, Executive Director of UNBS, explains why full membership in ISO is important to Uganda and how it benefits the country, both nationally and internationally.

ISO Focus+: Why has UNBS decided to upgrade its membership in ISO?

Dr. Manyindo: The need for Uganda to fully participate and influence the International Standards development and strategy has been the key driver for UNBS to upgrade to full membership. Uganda, through UNBS, had been an associate member for a long time. We noted that we were missing out on many benefits that accrue to full members in the ISO family. In addition, as a member of the East Africa Community, most of our partner states had acquired full membership in ISO.

ISO Focus+: What role does UNBS play in the national economy?

Dr. Manyindo: The mission of UNBS is to enhance national socio-economic development through the application of standards for trade, industry and consumer protection. The benefits of ISO membership, such as training, sharing of knowledge and experiences at international level, and capacity-building opportunities for ISO members, will contribute to its mission.

ISO Focus+: What is UNBS' long-term vision as a full member of ISO?

Dr. Manyindo: UNBS' vision is to be a leading institution of international repute in the provision of sustainable standardization services. Uganda vision is being able to advocate for policy and strategy reforms to allow effective participation of developing countries in the standardization process. ■

How green is green? ISO standards can help!

Leading experts from ISO technical committee ISO/TC 207, *Environmental management*, have authored a new brochure proclaiming the benefits of the ISO 14020 family of standards on environmental labelling. The free brochure, entitled *Environmental labels and declarations – How ISO standards can help*, gives a clear and concise presentation of the series and is intended to help manufacturers decide whether the standards can help them fulfil their goal of informing consumers in an accurate and understandable way.

In their introduction to the brochure, the ISO/TC 207 experts explain that “the environmental benefits of a company's products, such as recyclability of packaging, are part of its overall marketing strategy.”

The ISO 14020 series provides businesses with a globally recognized and credible set of international benchmarks that help them prepare the environmental labelling used on their products and in advertising. ■



Environmental checklist in ePub

ISO has just launched an ePub edition of one of its most successful publications, *ISO 14001, Environmental management systems. An easy-to-use checklist for small business. Are you ready?*



The guide is designed to help small and medium-sized enterprises achieve the benefits of implementing an environmental management system based on ISO 14001. Working methodically through the step-by-step checklist will enable managers of an organization to determine its present environmental performance and identify areas for improvement.

The versatile new ePub edition is all at once:

- Mobile – can be read on most tablets
- Reflowable – adapts well to variously sized displays and devices
- User friendly
- Easy to read, even on small screens ■

ISO in figures

Do you know how many ISO standards were published in 2012? The yearly publication *ISO in figures 2012* has all the answers. You will learn that ISO comprises 164 members worldwide, 3 368 technical bodies, 154 full-time staff operating from its Central Secretariat in Geneva, and that it has published a total of 1 280 International Standards and standards-type documents in 2012, totalling some 77 326 pages in English and French. But that's not the end of it! There are also 1 583 new work items in progress, ready to become the International Standards of tomorrow.

Some of these easy-to-read statistics will form part of the organization's Annual Report 2012, a review of the year's highlights and innovations, soon to be accessible online. Find out more on the ISO Website at www.iso.org. ■

Product safety

Opportunities and challenges of innovation



by Dana Kissinger-Matray

Consumer product safety has greatly improved over the past 40 years thanks to increased consumer awareness and engagement, standardization and better regulatory controls. However, innovations such as Internet-based purchasing, new technologies, global supply chains, and the proliferation of claims and labels, have added a new dimension to product safety concerns.

ISO/COPOLCO will consider how these factors affect product safety at its next annual workshop on innovation and consumer safety, scheduled to take place on 21 May 2013. Hosted by the Malta Competition and Consumer Affairs Authority, the workshop will run concurrently with the ISO/COPOLCO plenary and other meetings at the Grand Hotel Excelsior, near Valletta, during the week of 20-24 May 2013.

New technologies provide some clear benefits for product safety. The Internet has made product traceability and comparing product attributes and prices easy. Warnings about unsafe products reach consumers and regulators much more quickly, and new technologies such as Radio Frequency Identification allow more reliable sourcing for suppliers. Online rating services, international online databases on recalled products, and secure payment systems are other examples of automated systems that support consumer product safety.

Dana Kissinger-Matray,
ISO/COPOLCO Secretary.

Supporting stakeholder engagement

by Sophie Clivio and Geoff Visser

There are several things that set standards apart from other publications such as academic papers or textbooks, but the most striking is probably the fact that standards have been developed within a process that takes into account the needs of the very people who are affected by them. By getting people involved from the outset, we can develop standards that are relevant to those who will be using them and have a manageable impact on those who will be affected by them.

As standards developers, this means we need to engage the affected parties, otherwise known as stakeholders. The success of a standard is measured in terms of the time and effort needed to reach consensus on its content and the final market relevance after publication. And this will be largely determined by how well we, the standards developers, engage our stakeholders in the project.

As a leader in the development of International Standards, ISO has recognized that it not only needs to engage more of its members when creating internationally relevant standards, but that it also needs to ensure that the members themselves invite all the relevant parties within their area to participate in standards development projects.

A series of workshops and training material have been developed to enhance the skills that will help ISO member bodies identify relevant stakeholders and encourage them to get involved in the development of standards and to participate in areas of standardization that are of particular interest to their country.

The first of these training workshops was held on the beautiful island of Mauritius in October 2012 and was open to representatives of standards bodies in the African region. Departing from the conventional procedure for such courses, both the National Standards Body (NSB) and a stakeholder representative from each country were invited to attend the workshop.

Senior personnel from countries such as Botswana, Burundi, Ethiopia, Ghana,



Participants at a training workshop on stakeholder engagement in Mauritius in October 2012.

Kenya, Mauritius, Namibia, Nigeria, Rwanda, Seychelles, South Africa, Sudan, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe attended, as well as representatives of industry, academia, consumer associations, government and NGOs: a homogeneous mix of standards professionals and people likely to be affected by standards.

This diversity proved to be a great success as the groups learned from one another about the initiatives employed by standards bodies and how they are perceived by the people they are intended to assist. In many cases, the perception was quite different from what was expected but, helped by a frank, open dialogue, the delegates learned a lot from the process. The material was presented over three days and included several round-table workshops to find solutions to the problems of stakeholder engagement in the African region.

A self-assessment tool also enabled NSB staff to work with one or two targeted stakeholders to assess for themselves which systems or areas needed improving in order to enhance levels of engagement.

More information on this course and other training and development programmes run by ISO can be obtained at dev@iso.org.

Sophie Clivio, ISO Technical Management Board Secretary and Head of Technical Policy, ISO Central Secretariat, and **Geoff Visser**, Standardization Expert, South African Bureau of Standards.

Training for ISO chairs and convenors

by Glenn Bosmans

The need to train up ISO chairs and convenors was highlighted at the fifth ISO Chairs Conference in June 2011 and via the ISO Living Lab project, both of which revealed that the leadership and consensus-building skills of ISO chairs and convenors are a driving force in international standardization and, as such, vital to the success of ISO projects.



Participants at the first training course for ISO chairs and convenors in Singapore in October 2012.

As a result, the ISO Technical Management Board (TMB) asked the ISO Central Secretariat to develop a training course for ISO chairs and convenors. A regional pilot of this workshop, aptly entitled Effective ISO Meetings, was organized by the ISO Development and Training Services (ISO DEVT) in October 2012 in Singapore. It was hosted by the Singapore Standards, Productivity and Innovation Board (SPRING SG) and financed under the *ISO Action Plan for Developing Countries 2011-2015*.

The workshop was facilitated by Graham Holloway, an International Standards expert, and Sophie Clivio, TMB Secretary and Head of Technical Policy at the ISO Central Secretariat. The highly interactive event included case studies and role-playing exercises and touched on such topics as the role of the chair and convenor as leaders, running ISO meetings, ISO procedures and policy issues affecting chairs and convenors, and negotiation and consensus-building skills.

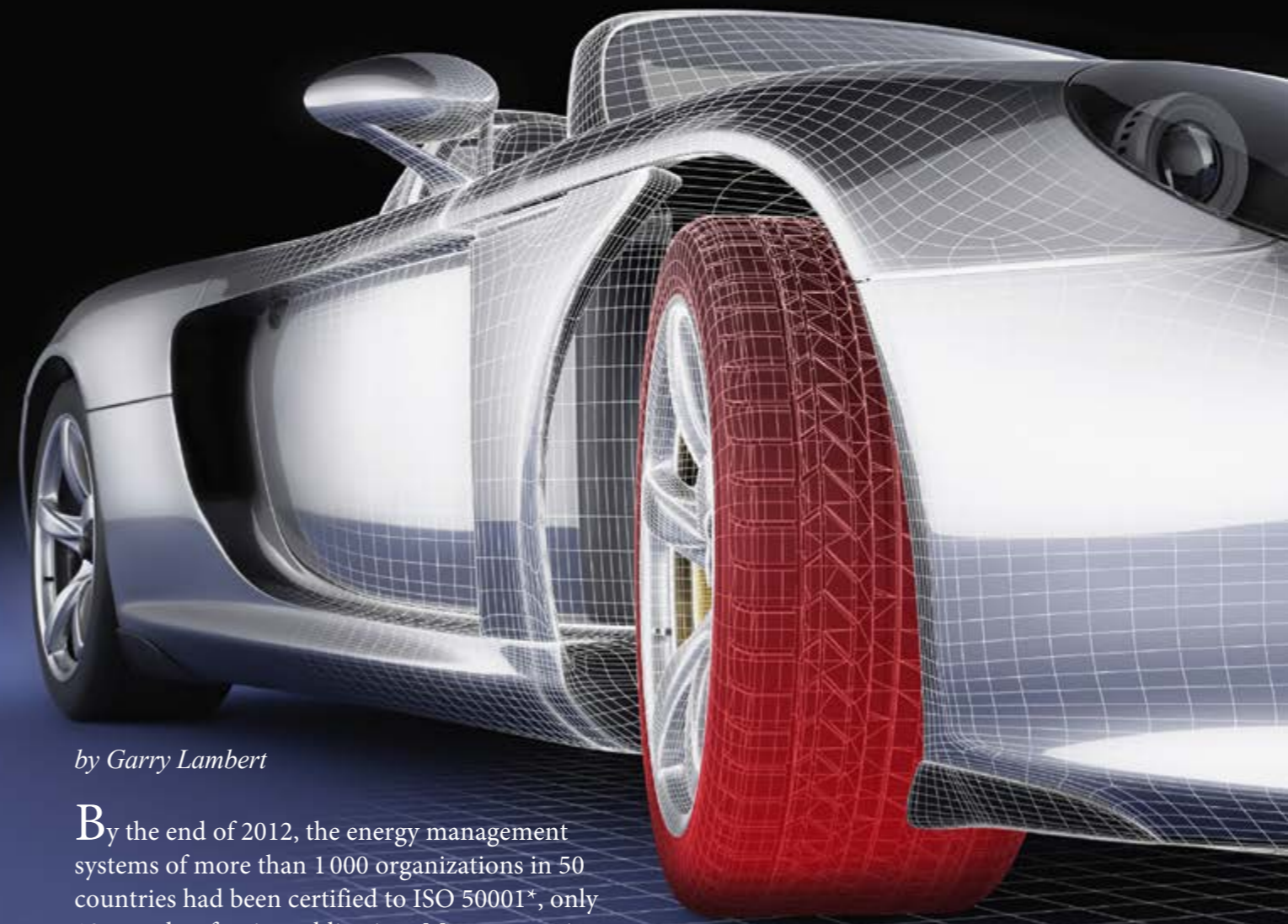
The course was open to anyone working as chair of an ISO technical committee or subcommittee or as convenor of a working group in the region. Also attending were a number chairs and convenors of ISO member national committees. In addition to Singaporeans, there were representatives from Fiji, India, Japan, Malaysia, Mongolia, the Philippines, Thailand and Vietnam. Participants from developing countries were sponsored by ISO DEVT.

ISO/DEVT organized an additional customized two-day version of the workshop for SPRING SG national chairs and convenors in November 2012. ■

Glenn Bosmans, Programme Manager, Participation in ISO technical work, Development and Training Services, ISO Central Secretariat.

Never tire of saving energy!

ISO 50001 is a win-win for Bridgestone



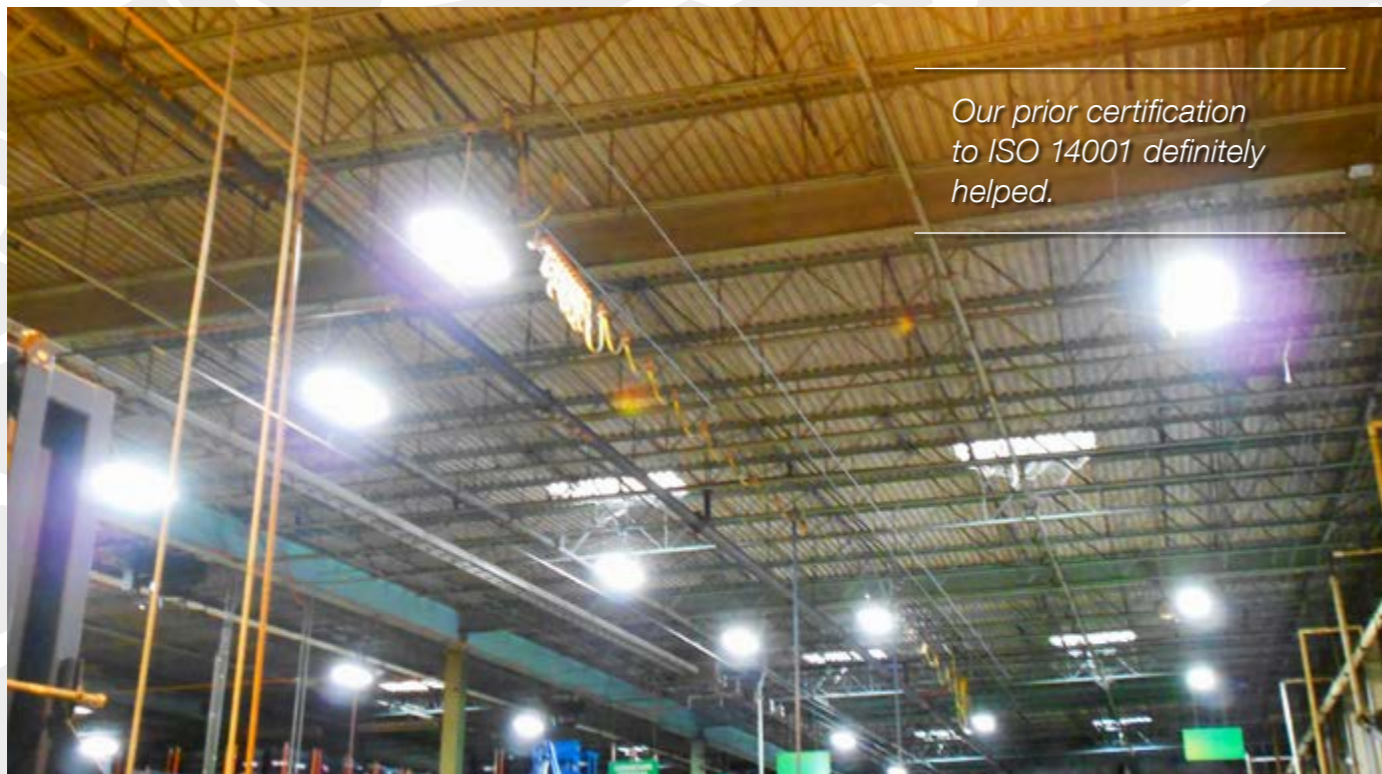
by Garry Lambert

By the end of 2012, the energy management systems of more than 1 000 organizations in 50 countries had been certified to ISO 50001*, only 18 months after its publication. Many are major global enterprises seeking to achieve continual improvement in energy performance, including enhanced energy efficiency, and reduced energy use and consumption.

*According to ISO 5001 certification statistics at end December 2012, compiled by Reinhard Peglau, Senior Scientific Officer on Environmental Management, German Federal Environment Agency.



The ISO 50001 implementation team at Bridgestone Americas' Wilson Plant. From left: **Gwen Brinson**, Implementation Coordinator, **Charles Boswell**, Energy Management Systems Representative, **Letha Barnes**, Project Manager, Dekra Auditor I (automotive industry testing, inspection and certification provider), Dekra Auditor II, and **Gary Williamson**, Plant Manager.



Our prior certification to ISO 14001 definitely helped.

By replacing some 1 600 light fixtures with new low-energy lamps, Bridgestone's Wilson County plant expects to save at least 180 kW and 1 532 768 kWh of electrical energy in one year.

One of the latest companies to have gained ISO 50001 certification is the Bridgestone Americas Tire Operations (BATO) manufacturing facility at Wilson County, N.C., USA. BATO is part of the Bridgestone Corporation, which became the world's largest tyre producer with the acquisition of the Firestone Tire & Rubber Company in 1988. Bridgestone also requires all its manufacturing facilities to obtain the ISO 14001 environmental management certification, and, to date, 52 US sites have done so.

A win-win situation

"Our company has long been focused on reducing the use of natural resources and instituting sustainable manufacturing practices, so while earning this certification is a great honour, I'm happy to say it's also business as usual for our plant," said Gary Williamson, BATO Plant Manager. "Energy saving isn't just good for our environment, it's also good for our bottom line, so this is truly a win-win situation."

Bridgestone's Wilson County plant cites several recent energy-saving projects that helped contribute to the ISO 50001 certification, including switching the primary fuel source to natural gas in its boilers, shutting down equipment when not in operation, promptly repairing steam and air leaks, insulating piping and executing several lighting optimization projects.

ISO Focus+ asked Letha Barnes, a Bridgestone electrical engineer and project manager for ISO 50001 and Superior Energy Performance** implementation and certification, to comment on the process and the benefits to the company.

ISO Focus+: What was your involvement in the implementation/certification process?

Letha Barnes: With assistance from my colleagues, I was responsible for developing the energy baseline, identifying energy sources, modifying and creating new procedures and forms, gathering energy data, communicating information with the plant, creating the schedule for certification, and implementing other requirements of the standard.

**Superior Energy Performance is sponsored by the US Council for Energy-Efficient Manufacturing and, via its Mature Energy Pathway, encourages companies to implement more than 50 "best energy practices". The programme requires a 15% reduction in energy use over the previous 10 years to receive recognition.



Letha Barnes posting an energy reduction suggestion in the company energy ideas box provided at the Bridgestone plant to stimulate energy awareness and involvement among all employees.

ISO Focus+: Following ISO 50001 certification, how do you think implementation of the standard will change or influence Bridgestone's approach to energy management?

Letha Barnes: We believe implementation of ISO 50001 will bring a new awareness to energy conservation and management. From identifying new opportunities for reducing energy consumption to designing and purchasing more energy-efficient products and services, every BATO team-mate can contribute to energy management. The standard requires us to identify operations that have a significant impact on energy. Communication and training on how our

jobs impact energy will reiterate the influence we have on energy management and keep it fresh in our minds.

ISO Focus+: What is the scope of certification – does it extend beyond Bridgestone Americas?

Letha Barnes: The scope of our certification includes the entire Wilson Plant. We also communicate to our vendors that purchases will be evaluated on their energy performance. While there is a policy in place to implement energy management systems across the company, there is not necessarily a directive that ISO 50001 must be obtained.



Monthly energy training is an important part of raising energy awareness at Bridgestone. Here, Letha Barnes reviews electricity and fuel use statistics with colleagues as part of the company's ISO 50001-certified energy management system.

ISO Focus+: Did you find the implementation process straightforward, and did you integrate it with other ISO-based management systems such as ISO 9001 and ISO 14001?

Letha Barnes: Once we understood the requirements of the standard, implementation was straightforward. We felt we could comply with the standard. Our prior certification to ISO 14001 definitely helped with implementation. We were able to modify existing documentation and practices to ISO 50001.

ISO Focus+: Did you need to adapt any requirements of the standard or its interpretation to suit Bridgestone's operating practices and policies?

Letha Barnes: BATO-Wilson has been in operation for over 38 years and we still have some of the original plant metering. We had to assess our metering capabilities to ensure we could monitor and measure our energy sources as required by the standard. For areas that had less metering, we were able to determine energy consumption through gathered data.

ISO Focus+: What energy-saving measures and initiatives do you expect to put in place as a result of certification?

Letha Barnes: We are now being more proactive with considering energy in engineering designs and purchases. We are also adding emphasis to daily equipment checks. We expect to continue with energy audits and implementing energy reduction projects.

Since implementation of ISO 50001, team-mates have been more conscious of how they can impact energy, and more proactive with submitting energy reduction ideas. As an example, we are fitting new T5 fixtures (including lamps and ballast) using approximately 217 W electricity each compared to the old 465 W fixtures.

That is a saving of 248 W in one year for one fixture. Part of the upgrade includes changing some T12 lamps to T8 lamps. By the end of 2012, we should have upgraded 1 600 fixtures. We estimate to save at least 180 kW and 1 532 768 kWh in one year. We are also planning to upgrade additional space in 2013, and the goal for the year is to achieve at least the same amount of savings as in 2012. ■

Garry Lambert is a British freelance journalist based in Switzerland.



Bridgestone Americas Headquarters and Support Center in Nashville, Tennessee, USA.



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Datuk Aishah Ahmad

Malaysian Automotive Association

Since 2000, Datuk Aishah Ahmad has served as President of the Malaysian Automotive Association (MAA).

Ms. Aishah is also Chairman of the Automotive Federation Malaysia, Vice-President of the ASEAN Automotive Federation, Director Corporate Affairs (Motor Group) at Sime Darby, and a past board member of the *Malaysian National Standards and Accreditation Council*. She is an industry representative of Land Rover Malaysia, and a member of the Malaysian National Standards Committee (MyNSC).

In 2002, Ms. Aishah became a director of Associated Motor Industries, a subsidiary of Ford Malaysia and the assembly plant for Ford, BMW, Mazda, Scania and Land Rover vehicles in Malaysia.

Ms. Aishah has over 30 years' motor trade experience, particularly in sales, marketing, and corporate and government affairs, including tenures at Inchcape, Ford Malaysia and Tractors Malaysia.

Among her many other roles, past and present, she was also Chairman of the Kuala Lumpur International Motor Show in 1994, 2000, 2003, 2006 and 2010.



Photo: Datuk Aishah Ahmad MAA



Photo: Datuk Aishah Ahmad MAA

MAA President **Datuk Aishah Ahmad** meets with the Malaysian Minister of Transport, **Dr. M. Tun**, and other car industry stakeholders.

ISO Focus+: *What is MAA's mission and who participates?*

Datuk Aishah: MAA promotes and protects the interests of the automotive industry and its stakeholders in Malaysia. Its key functions are monitoring legislation or measures that affect its members' interests, making representations to the government to further or safeguard the interests of the automotive industry, and collecting, compiling and disseminating vehicle sales and production statistics to members.

We have three classes of membership: ordinary, for automotive companies such as vehicle manufacturers, assemblers, franchise holders and sole distributors dealing with completely knocked-down ("CKD") and/or completely built-up ("CBU") operations; associate, for companies or individuals engaged as dealers or agents to sell vehicles; and subscriber, for companies, associations or individuals in businesses related to the automotive industry in Malaysia.

ISO Focus+: *What do you think is the strategic importance of International Standards for the automotive industry?*

Datuk Aishah: International Standards are important in a number of areas. Given that Malaysia has a significant automotive industry, local automotive companies must keep up with present and future international regulations and standards that affect the industry.

A good knowledge and understanding of these regulations and standards ensures that Malaysian companies make products that meet consumers' expectation in terms of quality, safety, health and the environment. This knowledge and understanding also enhances Malaysian companies' competitiveness in exporting vehicles and automotive components globally.

As a responsible global citizen, Malaysia must also ensure its products comply with internationally recognized and approved standards and practices.

Understanding the importance of international regulations and standards, the Malaysian government acceded to the "World Forum for Harmonization of Vehicle Regulation" (better known as WP.29) in April 2006. This agreement sets down the basic rules that vehicles and their components must meet in order to be sold internationally.

At the end of 2012, Malaysia had adopted and published 55 of the United Nations Economic Commission for Europe (UNECE) regulations on vehicle safety. It will implement a further 24 in 2015. For the local automotive industry, most of the standards adopted by Malaysia will follow the UNECE regulations.

If there is no UNECE regulation, companies can choose to comply with any internationally recognized and approved standards. ISO standards would then serve as a useful platform for companies to follow on product specifications and quality management.

About the Malaysian Automotive Association

The MAA, formerly known as the Malaysian Motor Traders Association, was established in 1960. It aims to support the development and protect the interests of motor traders in Malaysia, and make representations to government bodies on key issues affecting the automotive industry.

Its activities include monthly council meetings, twice-yearly press conferences, motor shows, raising issues with the relevant governmental agencies and resolving problems, and collecting and analysing sales and production data, to be distributed to members.

In addition to liaising with government agencies and international organizations, the MAA regularly communicates industry opinions, positions and objectives to the media.

The association has 253 members comprising 49 full members who are franchise holders and assemblers, four associate members nominated by franchise holders, and 200 subscriber members from various institutions and associations (including banks, stockbrokers and component manufacturers) with an interest in the automotive industry.

Photo: Datuk Aishah Ahmad MAA



Datuk Aishah Ahmad (centre) at the MAA's General Meeting in 2011.

By implementing these International Standards, it is hoped that local players will constantly increase the quality and safety of their products.

ISO Focus+: *ISO recently published ISO 39001, Road traffic safety (RTS) management systems – Requirements with guidance for use. What is your view on this standard, and how can it help to make our roads safer?*

Datuk Aishah: Malaysia has a comparatively high number of road traffic fatalities – more than 6000 deaths a year. In 2010 this also cost the country over MYR 9 billion.

Like other member countries of ISO, Malaysia has participated in the development of standards in road traffic safety management.

In June 2008, a national mirror committee to technical committee ISO/TC 241 on road

traffic safety management was formed to discuss and oversee standards preparations in Malaysia. The committee was chaired by the Malaysian Institute of Road Safety Research and included representatives from relevant organizations.

As all relevant stakeholders have been involved in the development of ISO 39001, this standard can assist governmental and private-sector organizations by providing a tool for a structured and systematic approach to road traffic safety management.

I hope this will increase awareness and everyone's commitment to instill a road safety culture with better safety practices in Malaysia. With such concerted effort from all parties, we believe we will see fewer deaths on our roads.

ISO Focus+: *What is your involvement in MyNSC, and what is the benefit of*

participating in the development of International Standards?

Datuk Aishah: As the leading automotive association in the country, the MAA is represented in three committees. These are the Committee on Mandatory Industrial Standards, the Industry Standards Committee on Road Vehicles (ISC L) and the Industry Standards Committee on Petroleum & Gas (ISC H).

As President of the MAA, I have been nominated to represent the association in the MyNSC since 2010.

In the ISC-related committees, the MAA is represented by the MAA technical committee chair and relevant members in the respective industrial standards committee.

The association works closely with relevant government agencies such as the Department of Standards, the research and technology organization SIRIM, and the Ministry of Malaysia International Trade and Industry. We therefore contribute in one way or another to standardization development and activities in Malaysia.

Participating in these committees enables us to provide feedback on policies and highlight issues faced by our members on standards, technical regulations and government procedures.

Our participation brings two further benefits: we can recommend appropriate measures, solutions and strategies that correspond to the automotive industry's interests and needs, and we can obtain the latest news on the development of international regulations and standards affecting the industry.

ISO Focus+: *What are the benefits for the automotive industry of ISO standards such as ISO/TS 16949:2009, Quality management systems – Particular requirements for the application of ISO 9001:2008 for automotive production and relevant service part organizations, or those developed by ISO/TC 22, Road vehicles, and ISO/TC 204, Intelligent transport systems?*

Datuk Aishah: Standards are important in ensuring that companies carry out business in a safe, healthy, fair and responsible manner.

By using standards, companies can improve the quality and consistency of their goods and services, increase efficiency, reduce waste and costs, and boost customer loyalty and international export.

In particular, ISO standards enable the automotive industry to make products that meet customers' requirements with regard



to quality, reliability, safety, technology and environmental issues.

Given all the benefits derived from adopting standards, it is important that standardization activities continue to receive strong support from the industry.

ISO Focus+: *As a female president in a male-dominated industry, how does gender diversity affect business, what challenges do women face and what advice would you give to women considering a career in the industry?*

Datuk Aishah: The Malaysian automotive industry faces many challenges, especially following market liberalization. The industry needs to improve its capabilities and competitiveness to survive in the long term.

Automotive companies in Malaysia are now looking beyond the domestic market and exploring partnerships with foreign car manufacturers to penetrate global markets.

Under its revised National Automotive Policy, the Government provides car manufacturers with new and improved incentives, such as tax exemption on the value of increased exports of vehicles and parts/components. Local players have to convince their principals of the attractiveness of this form of partnership.

Yes, the local automotive industry is still dominated by men. But, as President of the MAA, I have encountered no problems working with many of my male colleagues.

Once you prove your ability, overcome people's doubts and work together as a team – and are accepted as the leader –, there really are no issues.

I don't think there is a gender issue any longer. What is more important is experience, commitment, dedication and an interest in serving the association.

Safety-related regulations are a continuing priority.

There are tremendous opportunities for women who are keen to consider a career in the Malaysian automotive industry.

Women work in many areas of the Malaysian economy and represent about 36% of the workforce. The Government has acknowledged women's capabilities in appointing female ministers and top civil servants.

In the 10th Malaysia Plan (2011-2015), the Government has given priority to the empowerment of women so as to enhance their economic contributions. Through various programmes, the plan aims to increase women's participation in the workforce, particularly in decision-making roles.

The Government has announced that companies must have at least 30% female representation in boardrooms within five years (the figure is currently only 10%).

The greatest challenge for Malaysian women is their family commitment, which includes caring for children and elderly parents. The lack of quality childcare is one of the main obstacles preventing more women from joining the workforce.

ISO Focus+: *With rapid technological advances and environmental concerns, what are the most important standardization priorities for the Malaysian automotive industry?*

Datuk Aishah: Safety-related regulations are a continuing priority. Working in consultation with the industry, the Government has already implemented a number of safety-related regulations. Among them are regulations on rear seat belts, safety helmets and the protection of occupants in the event of a frontal or side collision.

Another priority, and challenge, is embracing the latest International Standards while maintaining industry competitiveness. To gain access to new technology, Malaysia's automotive industry must keep abreast of the latest international developments. However, adopting and implementing more stringent and up-to-date regulations and standards can be costly, particularly for smaller companies. Industry players need to conduct a proper study of this issue.

A third priority is attaining internationally recognized certification as it is important in raising the image and acceptance of companies' products in the marketplace. ■

ISO 22000 in the retail industry

A matter of integration

by Achraf Tiouali

Several publications have highlighted how ISO 22000 on food safety management stands out from other International Standards on the subject in terms of the advances it has brought to hazard analysis.

Indeed, the identification of critical control points and operational prerequisite programmes is the key issue discussed in this standard. The management dimension, however, is still underestimated despite being given considerable importance in the standard. Its importance is more acute in large enterprise with a highly complex organizational structure. Such companies have a large number of divisions and departments, causing a dilution of the activities that have an impact on food safety. Management is crucial here for coordinating activities, both at a vertical and horizontal level, in order to achieve the ultimate goal: supplying safe products.

In the retail industry, ISO 22000 provides an actual opportunity to advance professionalism in food safety control.

The managerial dimension

This is precisely why the management dimension needs to be taken seriously when implementing ISO 22000:2005, *Food safety management systems – Requirements for any organization in the food chain*, not only

at quality management level but throughout the company. In fact, large-scale retail provides a perfect example of the complexities of food safety control and, ultimately, of the difficulty in implementing ISO 22000.

Food safety in the retail industry involves several divisions, units and departments which are coordinated by the quality department. At the horizontal level, these entities include, among others, the food purchasing department, the human resources department, the technical services department, the marketing department and the finance department. And at the vertical level, they naturally include the sales department, which oversees the regional offices, themselves made up of several stores.

A role for each managerial function

It is essential, when designing and implementing a food safety management system, to understand the role of each corporate department and its link with food safety. So, for example, it is the purchasing department's

responsibility, among other things, to look after the business relationship with suppliers and introduce new product references. This implies working in collaboration with the quality department, which, in turn, must implement a process for selecting, evaluating and monitoring its suppliers to ensure full control of the safety of food products delivered by suppliers and displayed on store shelves. This is unfortunately not always the case, and, in the absence of proper supplier control, products unknown to the quality department are sometimes sold in stores.

The technical department, on the other hand, is responsible for purchasing the refrigerating equipment, deciding where it will be installed in the stores and ensuring its maintenance. To this end, and in order to comply with good hygiene practice for store facilities and equipment, the technical manager must work hand in hand with the quality manager, especially regarding the intended use of the refrigeration equipment and the planning and execution of technical maintenance activities. For instance, refrigerated shelves with a 0-4 °C temperature range cannot be used for meat products, in particular mincemeat (0-2 °C). Yet it is not unusual to find refrigerating systems that are unfit for their intended use in the store.

Management commitment

Effective implementation of a food safety management system in large-scale retail begins with a commitment from senior management. Here, the quality manager plays significant role since he/she must convince top management of the merits of the approach and demonstrate the added value of the system. Aligning the project with the company's strategy is fundamental to obtaining success. In order to gain management's trust and support, the system implementation project must be seen as a translation of the company's overall strategy.

For example, a company-focused strategy based on efficiency is not really compatible with the implementation of an ISO 22000 system, which is, by nature, focused on customer satisfaction.

The implementation of ISO 22000 should take the managerial dimension seriously.

Conversely, a strategy based on satisfying the needs of existing and future customers, which enables the company to gain an edge over the competition, might find in the food safety management system the perfect operational and continual improvement tool. Having committed itself to implementing the system, senior management must then ensure the information is disseminated throughout the company. This is critical for preparing staff to get involved in the process.

Effective communication

Horizontal and vertical integration, backed by senior management, is facilitated by effective internal communication. The relevant parties dealing with food safety control within the company must be identified and communication flows established. For example, effective communication between the marketing department and the quality department would help avoid plant schematics that are likely to affect food safety (for example cross-contamination by allergens from shelves reserved for non-food products). Vertical communication, in particular between the quality department and the store, is crucial in that it helps the system design process and enables the quality department to establish the procedures and tools that are best suited to the actual store, without losing sight of the commercial purpose.

Perfect coordination

Food safety is an implicit requirement for the sale of foodstuffs. In the retail industry, food safety management is the province of the quality management department, which has the necessary competencies in the field. Converting such management activities into a proper management system requires perfect coordination throughout the retail company of the activities impacting on food safety.

This type of coordination is referred to above as "horizontal and vertical integration" and, as such, requires an extra set of skills, in addition to the technical competencies, in order to implement a food safety management system. Leadership skills, for instance, are essential since the ability to convince and influence internal stakeholders, in particular senior management, is a prerequisite for the system's efficiency. Marketing and communication skills are also important as they help the people involved engage in the process.

Besides, an in-depth knowledge and understanding of the company's strategy helps to achieve company-wide integration of the food safety policy. Other competencies in human resources, operational management and finance can also be added. All these disciplines give food safety control a true management dimension, which is particularly emphasized in ISO 22000. As a result, this standard provides the retail industry with a real opportunity to make food safety control more professional and expand it to other disciplines that are vital in order to succeed in today's business world. ■

About the author



Achraf Tiouali, Doctor of Veterinary Medicine and Consulting Manager at Mérieux NutriSciences, helps large retailers improve food safety management

through the implementation of ISO 22000. With over 10 years' experience in food safety, he has gained expertise above all in the managerial dimension of food safety control. He also holds an Executive MBA from the Rotterdam School of Management in the Netherlands.



Your voice matters

Engaging consumers in standards

by Dana Kissinger-Matray

With its network of 164 members and thousands of committees, subcommittees and working groups, ISO forms an impressive group of dedicated professionals. Its work has been proven to benefit business and improve our daily lives. But when you mention “ISO” or “standards” to a random sample of people you know, how many pairs of eyes will light up in recognition? Chances are that, for many, standards are an abstract concept, and ISO, just a three-letter word.

Standards may seem far removed from everyday life and normal priorities, yet they affect most of the goods and services consumers use daily, whether or not we are aware of this. But consumers need to know that – with proper orientation – they can get involved in technical groups that develop or comment on standards, and have a positive influence on the goods and services that are produced according to these standards.

First, a few examples

What would we do if bank cards and credit cards were all different shapes and sizes? We can use these cards all over the world thanks to ISO/IEC 7810:2003, *Identification cards – Physical characteristics*, which makes dimensions uniform and therefore convenient to use. The standard contains

requirements that help manufacturers of cards and terminals/card readers to comply with the basic dimensions and properties of identification cards used in the global marketplace.

And how do we guarantee our online business transfers are safe? ISO has recently developed a number of standards to ensure the security of financial transactions, including ISO 9564-1:2011, *Financial services – Personal Identification Number (PIN) management and security – Part 1: Basic principles and requirements for PINs in card-based systems*.

Finally, how can we trust the lighters we use? We have more confidence in our lighters thanks to ISO 22702:2003, *Utility lighters – General consumer-safety requirements*, a specification covering all flame-producing consumer products commonly



known as utility lighters (but also known as grill lighters, fireplace lighters, lighting rods or gas matches), and similar devices.

What is a “consumer” and how do we begin?

When the ISO Committee on consumer policy (ISO/COPOLCO) was established in 1978, one of the first things it did was to define the word “consumer”, which it described as “an individual member of the general public, purchasing or using property, products or services for private purposes”. This definition has changed little over time.

In each country, the national ISO member is the gateway into the world of national and international standards. And that goes for consumers too! Members of the public or consumer associations who are concerned with how standards affect consumer protection can contact the ISO member in their country to find out more about its standardization priorities and work programme. They should then “pick their battles” and concentrate on one or a few issues that matter most to them. This might be food safety, children’s car seats, fire extinguishers, hospitality services or any other area.

Consumers can participate in standards and policy development within a national standards body (NSB) on a regular basis,

either by joining a consumer association that is already involved or by contacting the NSB directly. Often, an NSB will seek consumer engagement through public consultation or by inviting a consumer group to comment on a specific issue. Consumers International (www.consumersinternational.org), the representative international organization for consumers, which has members in 120 countries, also participates in selected areas of standardization.

Consumers’ views make a difference

Experts involved in the technical committees that develop standards are drawn primarily from manufacturing and industry groups relevant to the technical field. However, the views of the end user and those impacted by the standard are just as important if the final product is to be market-relevant and fit for purpose. So it is vital that interested and informed consumer representatives get involved in the work of technical committees.

ISO has known this for a long time, which is why it established ISO/COPOLCO as a means to channelling consumers’ views into standards and policy development, and why it continues to encourage the participation of all stakeholder groups in technical work.

Consumer engagement helps ISO break new ground

ISO/COPOLCO is the international forum for consumers in standardization. It does not develop International Standards itself, but proposes ideas for new standards and policies for further development in ISO.

One recent example is ISO 14452, *Network services billing – Requirements*, published in July 2012, which provides international guidance on transparent billing practices for all types of network services. It deals with billing formats and procedures, collection, effective systems of redress and inquiry, vulnerable customers, and interruption of service.

ISO members play a critical role.

But perhaps the best known of ISO/COPOLCO’s past proposals is ISO 26000, *Guidance on social responsibility*. This non-certifiable standard provides terms, definitions and concepts relating to social responsibility, and gives advice on how to implement best practices on social responsibility within the organization and communicate them effectively to the outside.

Finally, ISO 10002, *Quality management – Customer satisfaction – Guidelines*

for complaints handling in organizations, outlines a process destined to achieve a fair result in the marketplace and gives business the capacity to recognize and deal with consumer problems.

More consumer-driven standards in the pipeline

Two other International Standards inspired by ISO/COPOLCO will be published in April 2013. The first, ISO 10393, *Consumer product recall – Guidelines for suppliers*, gives advice on recalling a defective product traded across borders, the jurisdictions involved, managing legal risks, and building customer loyalty. The second, ISO 10377, *Consumer product safety – Guidelines for suppliers*, empowers manufacturers to assess the risk of a consumer product throughout its life cycle.

Current and future challenges

Consumers can, and do, make a valuable contribution to standardization at the national, regional and international levels. But they could do a great deal more to drive the “demand side” if they were more actively engaged.

ISO members play a critical role in raising awareness of the benefits of standards for consumer protection, and the ISO system as a whole will need to continue promoting its role in the wider world as a provider of solutions to such problems as trade barriers, climate change and the sustainable management of resources. But ultimately, truly meaningful and relevant standards that address these challenges need the commitment of an informed and engaged customer base.

Let’s get started!

Visit the *ISO and consumers* section on *ISO Online* (www.iso.org) for resources on how to get involved as a consumer in standards development.

An introductory module offers distance learning opportunities on consumer interest participation (see www.iso.org/sites/consumersStandards/index.htm).

Information about priority areas and consumer participation in these areas can be found on the *ISO Directory of consumer interest participation* (see www.iso.org/isoconsumerdirectory). ■

Dana Kissinger-Matray is Secretary of the ISO Committee on consumer policy (ISO/COPOLCO).

Out of harm's way

New brochure reveals how ISO standards keep you safe



by Elizabeth Gasiorowski-Denis

ISO safety standards help protect at work, at play and in the home. An overview of ISO's substantial portfolio of safety standards is now available in a new brochure, *ISO & safety – Working together for a safer world*.

The four-page brochure, designed for busy people, provides a snapshot into the range of ISO International Standards for safety and the benefits they provide for business, government and society:

“From safety in buildings – emergency, fire and alarm systems – to standards that protect car drivers and passengers (child restraint systems, anti-locking braking systems and airbags), to food safety, quality and machinery, ISO helps to make the world a safer place,” states the brochure.

In a concise and easy-to-follow format, the publication lays out comprehensive and practical information about the various sectors in which ISO supports safety:

- Product safety

- Food safety
- Machine (industrial) safety
- Buildings and structural safety
- Road safety
- Child safety
- Elderly people and persons with disabilities

The brochure further asserts: “Globalization has pushed the need for International Standards and has broadened the concern for safety – reflected in the increasing scope of safety standardization.

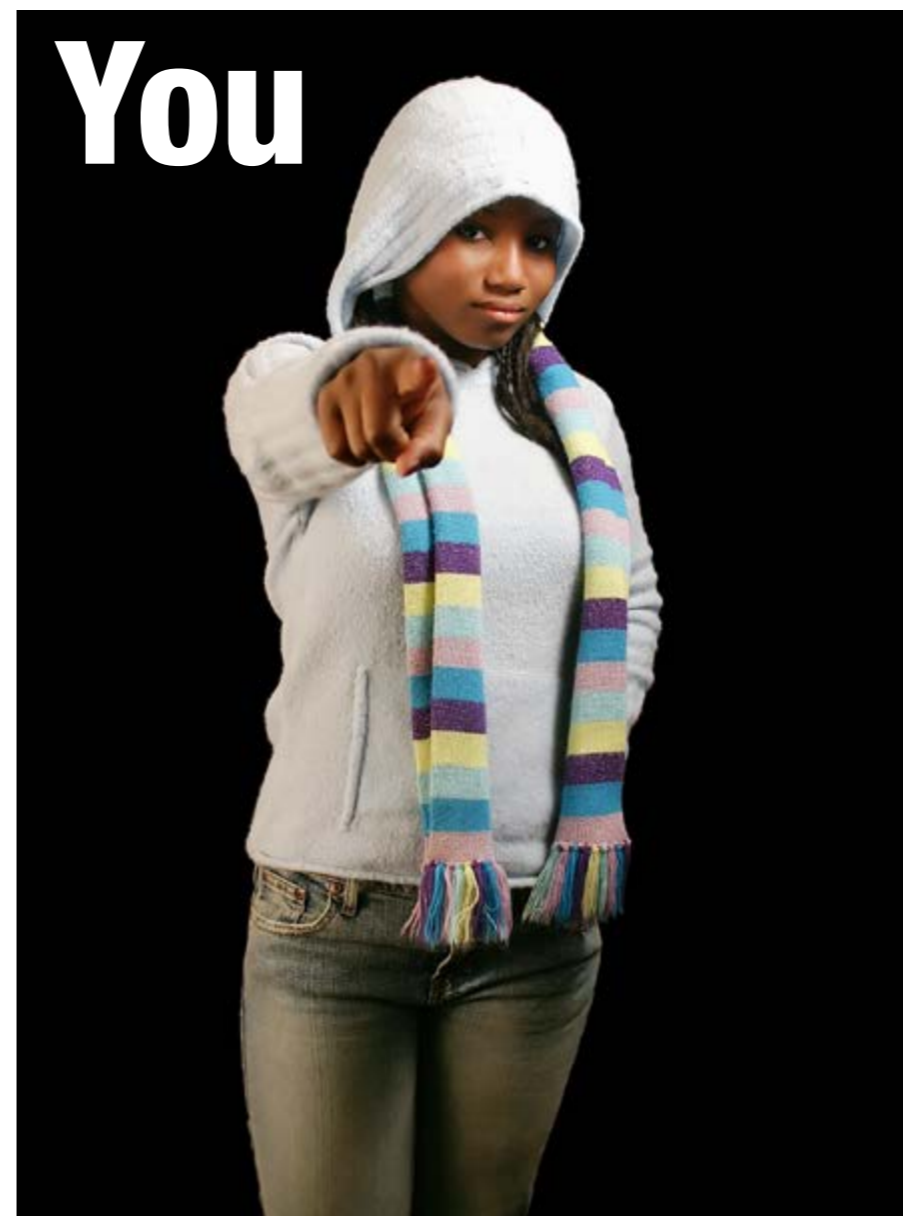
“An extensive array of safety-related standards are under way on issues as varied as risk management, product recall,

consumer product safety, cross-border trade of second-hand goods, anti-counterfeiting tools, fraud countermeasures and controls as well as the safety of amusement park rides and toys.”

The brochure, *ISO & safety – Working together for a safer world*, published in English and French, is available free of charge from the ISO Central Secretariat through the ISO Store (www.iso.org) or by contacting the Marketing, Communication & Information department (sale@iso.org). It can also be obtained from ISO national member institutes. ■

Elizabeth Gasiorowski-Denis is Editor in Chief, *ISO Focus+*

You



Do you keep your watch on while swimming, confident it is water-resistant? Do you apply your skin moisturizer, certain it will not cause adverse reactions? Although you may not be aware of them, behind the scenes of these and other routine activities, ISO standards are hard at work to ensure your comfort and safety.

You, like me, and everyone else for that matter, benefit from standards. It is only when these standards are lacking that we realize their importance. The April 2013 issue of *ISO Focus+* puts the spotlight on the most commonplace standards that accompany us in our daily lives.

In this issue, you will find out why standards are needed for cosmetics, eye wear or even clothing care labels! Just imagine the health and safety issues, not to mention the financial burden, of a world where standards did not exist. How could

you ever be sure that your contact lenses will not harm your eyes or that you will understand public safety symbols in another country. These standards also make it easier for manufacturers to access more markets and therefore become more competitive. The bottom line? International Standards benefit industry, the economy, and of course, you – the user!

Did you know there are ISO standards for mental workload, public warning and personal financial planning? The next issue of *ISO Focus+* will open your eyes to a world of standards you might not have known existed. The issue also introduces some exciting projects in the making, such as the future standards for fireworks and adventure tourism.

Prepare to be surprised, amused and intrigued by the standards featured in this unique issue designed especially for you. ■

Arçelik plugs into ISO 50001

Turkish home appliances manufacturer Arçelik A.Ş. shares its experience of integrating ISO 50001:2011, *Energy management systems – Requirements with guidance for use*. The company, a member of the “Fortune Global 500”-ranked Koc Group, the largest conglomerate in Turkey, has already implemented management standards ISO 9001 (quality), ISO 14001 (environment) and ISO/IEC 17025 (competence of testing and calibration laboratories). ISO 50001 will help it improve its existing energy management approach in a more systematic manner. According to Fatih Özkadi, Energy and Environment Manager of Arçelik, “New ISO management system standards are easy and straightforward to integrate into our current system.” Learn more in the next issue of *ISO Focus+*!


ISO Focus+

The electronic edition (PDF file) of *ISO Focus+* is accessible free of charge on the ISO Website www.iso.org/isofocus+. In addition, the entire collection of previous issues of *ISO Focus+* editions, plus *ISO Focus* (2004-2009), plus *ISO Management Systems* magazine (2001-2009) is also available free of charge as electronic files.

ISO Update

The *ISO Update*, a monthly supplement to *ISO Focus+* is available electronically (PDF) in both English www.iso.org/isoupdate and French www.iso.org/fr/isoupdate.

The *ISO Update* informs readers about the latest developments in the ISO world, including ISO member bodies' CEO and address changes, draft standards under circulation, as well as newly published, confirmed or withdrawn standards. It also includes a list of upcoming technical committee plenary meetings.

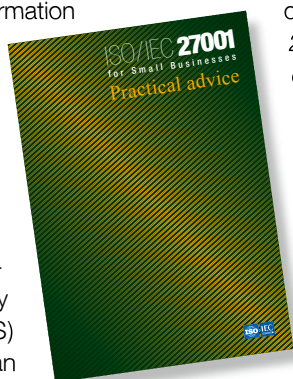


**Worried
you've forgotten
something really
important?**

Photo : © Lionel Egger

ISO/IEC 27001 for Small Businesses

Neglecting to take adequate care of your organization's information assets is definitely cause for worry. Information may concern the organization's products, processes or markets. It may be sensitive information entrusted by customers, suppliers or stakeholders. Failure to protect that information can ruin the organization. Implementing an information security management system (ISMS) based on ISO/IEC 27001 is an



effective way to protect information assets. And it's not just for large organizations. *ISO/IEC 27001 for Small Businesses – Practical advice* takes the mystery out of information security and presents a practical, clearly explained step-by-step approach for SMEs to implement an ISMS. The best remedy to worry is taking action to remove the cause.

Available from ISO national member institutes (listed with contact details on the ISO Website at www.iso.org) and from the ISO Central Secretariat Webstore at www.iso.org/isostore or e-mail to sales@iso.org.

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