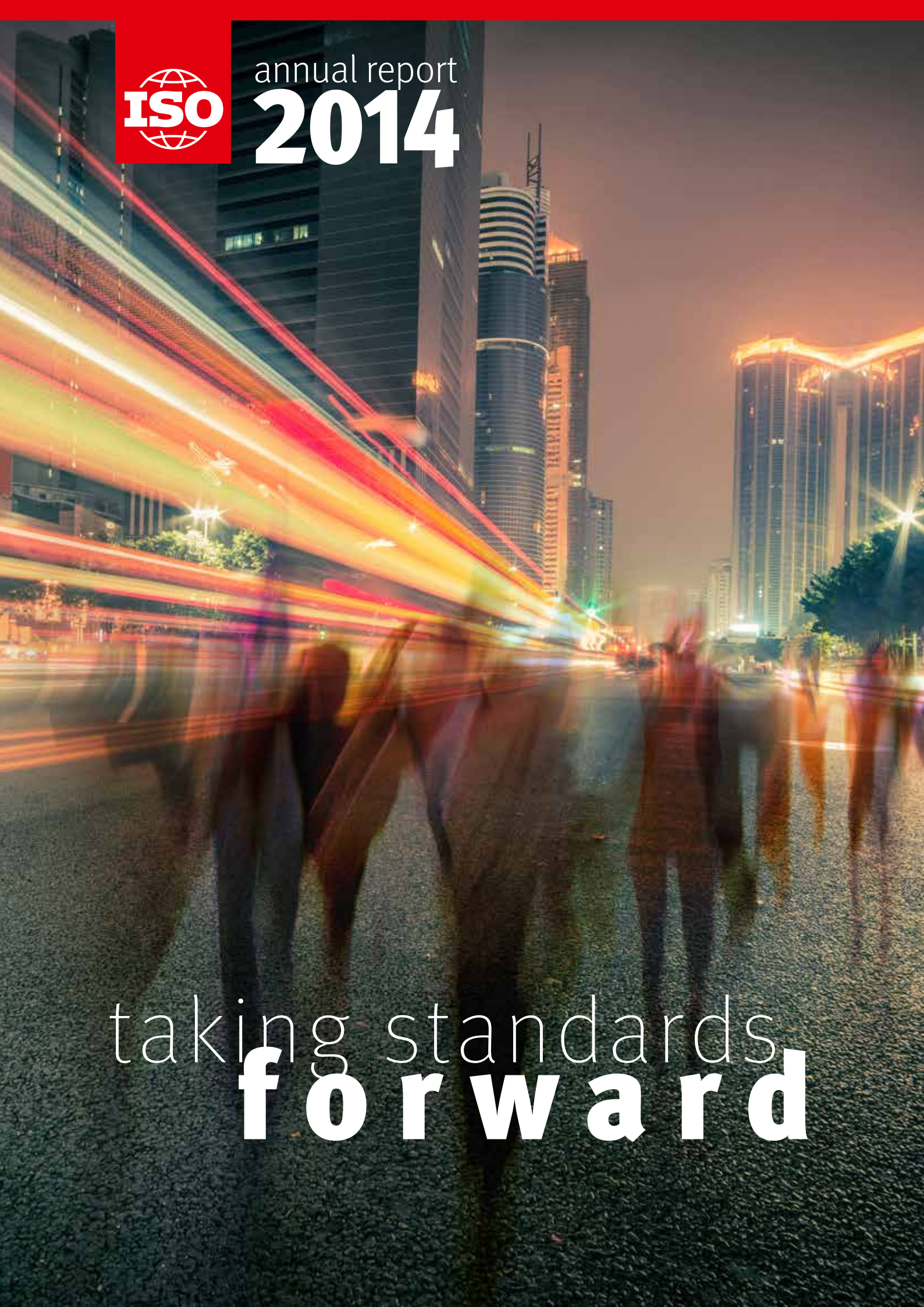

annual report
2014
taking standards
forward

# ISO contents



## ISO IN BRIEF

**Great things happen when the world agrees.**

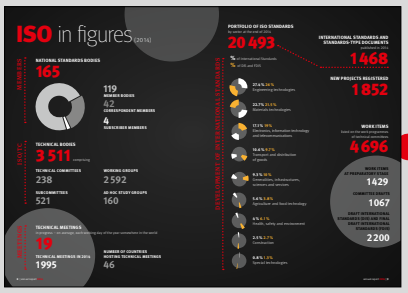
ISO is the International Organization for Standardization and the world's largest developer of voluntary International Standards. Thanks to our membership, a global network of 165 national standards bodies, and the thousands of experts we work with every day, we have a portfolio of more than 20 000 standards that impact everyone, everywhere.

At ISO, we bring together the best of international experience, expertise and knowledge from industry, academia, government and standardization to provide real solutions to global challenges. It is this global consensus that creates confidence in what we do, and in the standards we produce.

Standards make things work. By giving internationally agreed specifications for products, services and systems, they help to ensure quality, efficiency and safety, and are instrumental in facilitating international trade. What's more, they offer confidence to organizations and their customers.

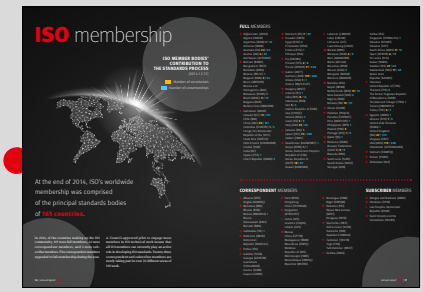
Our wide-ranging portfolio of standards spans virtually every sector, including agriculture, construction, engineering, manufacturing, healthcare, transport, and information technologies.

# AT A GLANCE



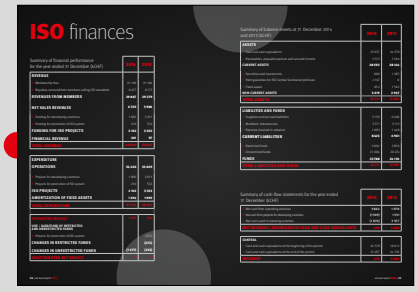

page 8 – ISO in figures

## 10 *Highlights*
## *In 2014, we were busy...*


page 16 – ISO membership

## 14 *ISO technical committees*


page 28 – ISO finances

## 30 *Message of the ISO President from 2015, Dr. Zhang Xiaogang*


2015

# taking fo

The world today is a place of rapid change and constant uncertainty. As part of the ISO family, we know that standards can provide guidance in changing situations, whilst enabling innovation and facilitating agreement on difficult issues. This knowledge affords us not only the opportunity, but also the responsibility, to ensure that standards play an ever greater role in shaping our future.

# standards rward

Much of our work in 2014 focused on preparing the organization and its members for these new challenges – for this is where the strength of our system really lies. For example, we expanded the systems, tools and training available to support members in activities related to standards development, promotion and sales. These now cover the full life cycle of a standard. We also continued our programme of training sessions and events to build member capacity in standardization around the world.

In addition, we worked hard to promote standardization and its benefits worldwide, holding a number of events on communication and promotional activities.

Furthermore, we have made changes to our working environment here, at the Central Secretariat, in response to evolving business requirements. Our new office space provides a more interactive way of working and greater flexibility, encouraging collaboration and innovation.

Our members have supported new areas such as smart cities and online reputation, and many new technical groups were established to respond to the global issues and needs identified by ISO members and their stakeholders.

Thanks to our members, technical committees and all our stakeholders, we published nearly 1500 standards and standards-type documents during the year, bringing our total portfolio to 20 493. What's more, we have 1 852 new registered projects in the pipeline.

Strengthening partnerships with other international organizations and helping our members connect with their stakeholders was also a key focus in 2014, recognizing that collaboration is at the heart of standardization and that great things really do happen when the world agrees.

**ROB STEELE**
***ISO Secretary-General***

# ISO governance

## PRINCIPAL OFFICERS

### TERRY HILL
***ISO President***

Terry Hill was elected ISO President for a two-year term starting on 1 January 2013. British and a civil engineer, Terry has global experience creating and implementing infrastructure and transport projects that bring benefit to communities all around the world. Between 2004 and 2009, he was Chairman of Arup Group, an 11 000-staff independent firm of engineers, planners and technology consultants, and is now Chairman of its owning Trusts.

### ZHANG XIAOGANG
***ISO President-elect***

Dr. Zhang Xiaogang was President-elect in 2014 and started his term as President of ISO in 2015. He is currently President of Ansteel Group Corporation, which ranks amongst the world's top 500 corporations. During a career that spans 35 years, he has distinguished himself in various high-level leadership positions for several related iron and steel corporations. An active member of the iron and steel industry, Dr. Zhang holds a doctorate in metal material and heat treatment.

### JOHN WALTER
***ISO Vice-President (policy)***

In 2013, John Walter was appointed ISO Vice-President (policy) until the end of 2015. Since 2009, John has been Chief Executive Officer of the Standards Council of Canada (SCC). During his career, he has also worked with standards in both an industry and a regulatory setting, including serving as Assistant Deputy Minister at the Ministry of Consumer and Commercial Relations in Ontario.

## ISO GOVERNANCE STRUCTURE

**The Secretary-General is a member of the President's Committee, reports to the President and to Council and receives advice from the policy and advisory groups (who also advise Council). The Central Secretariat is responsible for supporting the governance and policy and advisory structure and the operations of ISO.**

## ELISABETH STAMPFL-BLAHA

***ISO Vice-President (technical management)***

In 2014, Dr. Elisabeth Stampfl-Blaha was reappointed ISO Vice-President (technical management) until the end of 2016. She has been Chief Executive Officer of the Austrian Standards Institute (ASI) and Austrian Standards plus GmbH (a sister company of ASI) since 1 February 2013. Prior to this, as Manager, International Relations, Legal and Organizational Affairs at ASI, she was responsible for several organizational and business development projects.

## OLIVIER PEYRAT

***ISO Vice-President (finance)***

In 2014, Olivier Peyrat was reappointed ISO Vice-President (finance) until the end of 2016. Director-General of AFNOR Group since 2003, he started his professional career in 1984 in the Regional Administration of Industry and Research of Ile de France before holding several management positions related to quality and certification in public administration.

## MIGUEL PAYRÓ

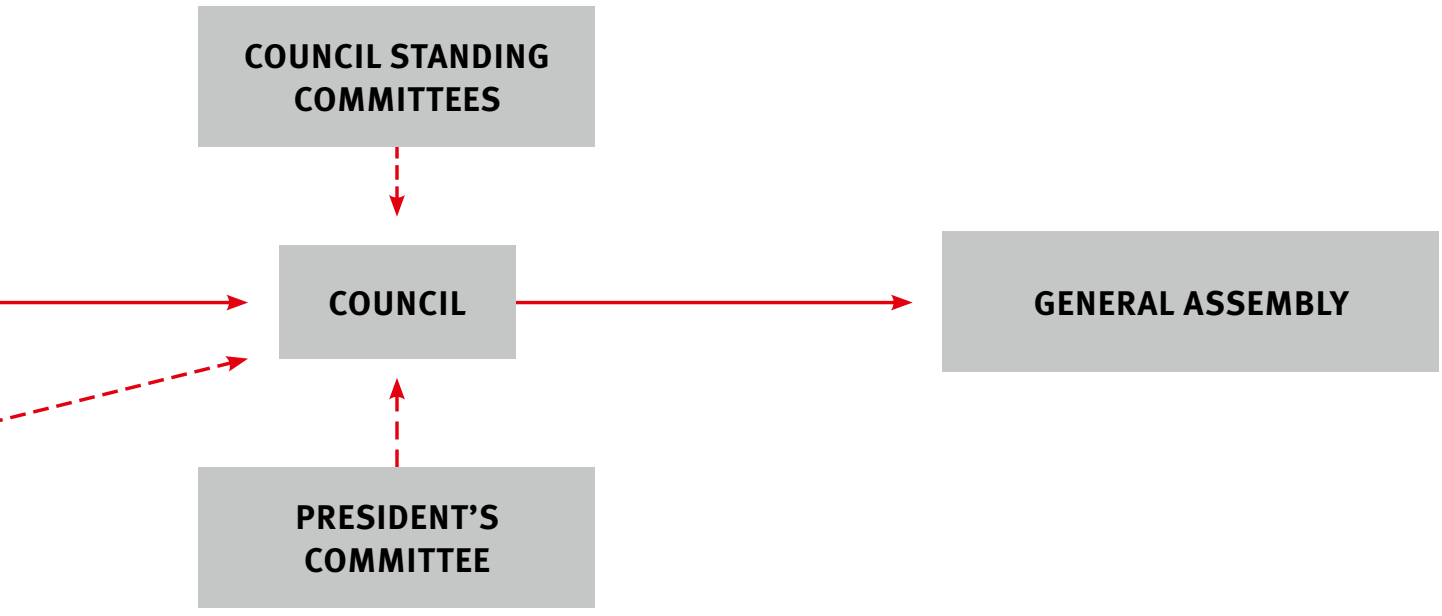
***ISO Treasurer***

Miguel Payró has been appointed ISO Treasurer until the end of 2015. Since 2003, he has been Chief Financial Officer at Groupe Franck Muller, one of the world's leading luxury watch groups. During his career, Mr. Payró has gained in-depth knowledge of mergers and acquisitions, structured financing and the management of bank investment portfolios.

## ROB STEELE

***ISO Secretary-General***

ISO Secretary-General since 1 January 2009, Rob Steele was previously the Chief Executive Officer of Standards New Zealand (SNZ) and is a Chartered Accountant, a member of the New Zealand Institute of Directors, and a Fellow of the New Zealand Institute of Management. In his career, Rob has worked in the private sector in New Zealand and Canada in many roles.



# ISO in figures (2014)

## MEMBERS

**NATIONAL STANDARDS BODIES**

**165**

**119**
**MEMBER BODIES**

**42**
**CORRESPONDENT MEMBERS**

**4**
**SUBSCRIBER MEMBERS**

## ISO/TC

**TECHNICAL BODIES**

**3 511** comprising

**TECHNICAL COMMITTEES**
**238**

**WORKING GROUPS**
**2 592**

**SUBCOMMITTEES**
**521**

**AD HOC STUDY GROUPS**
**160**

## MEETINGS

**TECHNICAL MEETINGS**
in progress – on average, each working day of the year somewhere in the world

**19**

**TECHNICAL MEETINGS IN 2014**
**1995**

**NUMBER OF COUNTRIES HOSTING TECHNICAL MEETINGS**
**46**

# DEVELOPMENT OF INTERNATIONAL STANDARDS

## PORTFOLIO OF ISO STANDARDS

by sector at the end of 2014

**20 493**

% of International Standards

% of DIS and FDIS

**27.4 % 26 %**
Engineering technologies

**22.7 % 21.5 %**
Materials technologies

**17.1 % 19 %**
Electronics, information technology and telecommunications

**10.6 % 9.7 %**
Transport and distribution of goods

**9.3 % 10 %**
Generalities, infrastructures, sciences and services

**5.6 % 3.8 %**
Agriculture and food technology

**4 % 6.1 %**
Health, safety and environment

**2.5 % 2.7 %**
Construction

**0.8 % 1.3 %**
Special technologies

## INTERNATIONAL STANDARDS AND STANDARDS-TYPE DOCUMENTS

published in 2014

**1 468**

## NEW PROJECTS REGISTERED

**1 852**

## WORK ITEMS

listed on the work programmes of technical committees

**4 696**

### WORK ITEMS AT PREPARATORY STAGE

**1 429**

### COMMITTEE DRAFTS

**1 067**

### DRAFT INTERNATIONAL STANDARDS (DIS) AND FINAL DRAFT INTERNATIONAL STANDARDS (FDIS)

**2 200**

IN 2014, WE WERE BUSY...

# SUPPORTING STAKEHOLDER ENGAGEMENT

## USING ISO STANDARDS TO SUPPORT PUBLIC POLICY

International Standards can be very useful tools in a policy maker's toolkit. Some potential advantages include offering ready-made solutions that already have international buy-in, and meeting the obligations of World Trade Organization (WTO) members to reduce technical barriers to trade.

To help policy makers achieve the many benefits of using standards, ISO joined forces with the International Electrotechnical Commission (IEC) to publish a new Website (**www.iso.org/policy**) and brochure detailing how to reference International Standards in public policy decisions and regulations.

Similarly, ISO's Committee on conformity assessment (CASCO) launched a Website (**www.iso.org/cascoregulators**) to help policy makers use conformity assessment tools in regulation.

Promoting the engagement of policy makers in International Standards development is a priority for ISO and a workshop with policy makers is planned for late 2015.

# PROMOTING STANDARDIZATION

## SUPPORTING INFRASTRUCTURE

Improving infrastructure promotes development and economic recovery, so standards play an important role in making this sector as effective as possible. To highlight this relationship and help promote standardization in the area, ISO hosted two conferences in London and Singapore in partnership with its members for the United Kingdom (BSI) and Singapore (SPRING SG) respectively. Entitled "A vision for infrastructure", the event covered issues such as the sustainability of communities, transport planning, public housing and preparing for disasters like floods and earthquakes.

ISO 37120:2014, *Sustainable development of communities*, and ISO 37150:2014, *Smart community infrastructure*, were other hot topics at the event, focusing on the technical aspects of community infrastructures such as energy, water, transportation and waste.

ISO technical committee ISO/TC 268, which developed the standards, is also involved in other infrastructure-related work such as smart community infrastructure metrics.

The event provided the opportunity to hear global leaders in regulation and city management to exchange views on the challenges in this sector and to promote the fundamental importance of standards as drivers of GDP growth and quality of life, particularly in developing countries.

## DRIVING INNOVATION AT CERN

Standards are a key driver of innovation, helping to turn ideas into real-life products and processes. This relationship, however, is often misunderstood, with some believing that standardizing actually hinders the innovative process. For this reason, underlining the vital relationship between innovation and standardization was a priority in 2014, resulting in ISO's International Conference on Standardization and Innovation, which took place in November.

Held at CERN, the European Organization for Nuclear Research, the two-day event brought together the cream of experts and academics from a range of subject areas to discuss how standardization and innovation are inextricably linked and how one can drive the other.

The programme featured some of the celebrities of the innovation world including Prof. Didier Pittet, Director, Infection Control Programme, at the University of Geneva Hospitals and Faculty of Medicine, and consultant to the WHO, who is the man behind the widespread use of antibacterial gel in hospitals. Also present were key experts from CERN, ISO Secretary-General Rob Steele and numerous other academics and leaders in their fields from industry sectors as diverse as nanotechnology, public health and economics.

## SUPPORTING SOCIAL RESPONSIBILITY ACROSS THE WORLD

2014 saw the completion of a two-year project on the uptake and use of social responsibility standard ISO 26000 in the East Africa Region. Throughout the project, more than 60 people were trained in Kenya, Tanzania, Uganda, Rwanda and Burundi and 26 pilot organizations developed action plans on integrating social responsibility in their activities.

In addition, a number of regional workshops were set up for national experts and pilot organizations to share their experiences and learnings from the project. The ISO members in these countries also organized a number of national events around ISO 26000 to increase awareness of the standard's benefits, reaching out to around 830 participants.

The project was funded by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, on behalf of BMZ, Germany's Federal Ministry of Economic Cooperation and Development.

A similar project, funded by the Swedish International Development Cooperation Agency (Sida), is under implementation in the Middle East and North Africa region and will be closed in 2015.


## PROMOTING ACCESSIBILITY WITH ONE VOICE

In December, the whole ISO community got together for its first global social media campaign. The aim was to leverage the power of the extended ISO family, including members, partner organizations and experts, to jointly maximize our impact using a common voice.

For a week, the ISO Central Secretariat, ISO members, international organizations, regional standards bodies and other stakeholders used a common hashtag (**#access4all**) to talk about accessibility. The results were impressive and together we reached over 650 000 unique social media users and made over 2 million impressions (number of times our combined posts were seen). A number of other campaigns in partnership with members will be launched during 2015.

# IMPROVING PROCESSES

## MORE MEMBERS BENEFIT FROM ISOLUTIONS

ISOlutions allows ISO members to benefit from IT services for developing, promoting and selling standards at the national level. In 2014, 28 new members started using at least one of these services, bringing the total to 45 overall.

During the year, the ISOlutions Web Store capability was upgraded to allow members to offer ISO standards in their local currency and with local pricing, making it easier for customers to buy International Standards and promote awareness of the ISO brand. This, in turn, helped increase member revenues and reduce copyright infringements by making standards more accessible.


## ISO/CS'S NEW PREMISES ARE FIT FOR THE FUTURE

Today, working patterns, business requirements and customer needs are evolving at a fast pace. For the ISO Central Secretariat, this means a greater demand for interactive and interdisciplinary collaboration and innovative work.

So with the lease on our premises due to expire, we seized the opportunity to relocate to a more effective and efficient environment that helps us better meet our members' needs. The result: a more modern and dynamic office space that offers better facilities for members and a better working environment for staff.

Conveniently situated near Geneva Airport, ISO's new premises are actually smaller in size but offer bigger and more functional conference facilities and a much better use of working space. Designed around the concept of an activity-based workplace, they give staff greater flexibility in the way they work, encouraging collaboration and innovation, which is more consistent with our culture and values.

It is great for the environment, too, as the new premises have been designed to reduce energy consumption, featuring an automatically adjusted ventilation and heating system. Add to that some very smart printers, a focus on a paperless environment and an intentionally reduced storage area, and our paper consumption should decline as well.

## IMPROVED CAPABILITIES FOR STANDARDS DEVELOPMENT

In 2014, a number of changes improved the standards development process, especially around the way in which experts can elaborate draft standards. The publishing technology now takes care of formatting tasks automatically, allowing experts to focus specifically on content – timely and efficient!

In addition, committee chairs and secretaries are now able to see the full content of standards created in their technical committee on the Online Browsing Platform to help with coordination and avoid redundant work.

# BUILDING THE CAPACITY OF OUR MEMBERS

## BUILDING ASIA MEMBERS' COMMUNICATIONS EXPERTISE AT THE ISO FORUM

More than 80 member representatives from the Asia region joined external experts at the Marketing, Communication and IT Forum in Singapore in November 2014 to learn about marketing and communications developments in ISO, and the IT solutions that support them.

The event was aimed at CEOs as well as marketing, communication and IT directors within ISO members. It was designed to help members in the region take full advantage of the services and technology provided by the Central Secretariat and help us adjust these services to better meet their needs.

The focus was on digital marketing and developing the right products for today and tomorrow's customers, ensuring the region is truly taking advantage of what standards can offer. A number of ISO members shared best practice on promoting and marketing standards and communication campaigns.

## FOSTERING REGIONAL COOPERATION

Leaders from around 40 members took part in two editions of the CEO Forum, an event designed to foster regional cooperation and strengthen ties between CEOs of ISO members. Chief executive officers and directors of over 20 African members met in Ghana in April and the leadership of 19 members from Central and Eastern Europe and Central Asia gathered in Kazakhstan in August.

These forums are an opportunity to exchange experiences and best practice and discuss challenges faced by national standards bodies in the region, with a focus on defining and implementing strategies for standardization that support the country's economy and drive GDP growth.

# IMPROVING PRODUCTS

## REDLINES AND COLOURS ADD TO EASE OF USE OF STANDARDS

The publishing technology in place at the ISO Central Secretariat now allows the publication of standards in various formats and the exploitation of their content, giving standards users added value and ISO members a greater range of products and services to offer their customers.

As an example, the redline format helps standards users understand at a glance the fundamental differences between two versions of the same standard. In addition, some of our standards are now available in a new, user-friendly colour format. ISO standards are also systematically published as ePubs so they can be read easily from any mobile device, such as smartphones or tablets.

Our range of online subscription products – updated in real time and accessible from anywhere – was expanded with ten new collections of standards covering areas such as country codes, construction procurement, IT management, and freight containers – so members can offer their customers well-targeted products.


ISO
RIO
awards


# ISO technical committees

Technical committees are the groups of experts that develop standards. They consist of representatives from industry, NGOs, government and other stakeholders, who are put forward by ISO's members.

ISO encompasses 238 technical committees, each dealing in a different field. And every year, one of them is granted the Lawrence D. Eicher Award in recognition of its outstanding work in creative and innovative standards development.

In 2014, this distinction was awarded to ISO technical committee ISO/TC 45/SC 2, *Rubber and rubber products – Testing and analysis*, for its openness to new and innovative approaches, its excellent internal and external communication, its efficient meetings and the continual development of experts, namely through training sessions.

ISO/TC 45/SC 2 works on the standardization of methods for the physical testing and chemical analysis of rubbers and thermoplastic elastomers, materials and products, including the application of statistical methods, and is a leader in quality test method standards.

The committee has also developed a well-documented and efficient system for organizing systematic inter-laboratory testing to validate and produce high-quality and high-value test methods.

In presenting the award, ISO President Terry Hill said: "The work performed by this subcommittee helps improve the safety and resistance of rubber-based products. Increasingly, work is focusing on the health impacts of certain trace chemicals that may be found in such products."

ISO established the Lawrence D. Eicher Leadership Award in 2002 as a tribute to ISO's late Secretary-General who served from 1986 to 2002.

# ISO membership

**ISO MEMBER BODIES' CONTRIBUTION TO THE STANDARDS PROCESS**
(2014-12-31)

: Number of secretariats

: Number of convenorships

At the end of 2014, ISO's worldwide membership was comprised of the principal standards bodies of **165 countries**.

In 2014, of the countries making up the ISO community, 119 were full members, 42 were correspondent members, and 4 were subscriber members. Five correspondent members upgraded to full membership during the year.

A Council-approved pilot to engage more members in ISO technical work means that all ISO members can currently play an active role in developing ISO standards. Twenty-three correspondent and subscriber members are newly taking part in over 30 different areas of ISO work.

## **FULL** MEMBERS

**A** Afghanistan (ANSA)
Algeria (IANOR)
Argentina (IRAM) **1** / **10**
Armenia (SARM)
Australia (SA) **22** / **62**
Austria (ASI) **4** / **25**
Azerbaijan (AZSTAND)

**B** Bahrain (BSMD)
Bangladesh (BSTI)
Barbados (BNSI)
Belarus (BELST) **1**
Belgium (NBN) **3** / **34**
Benin (ABENOR)
Bosnia and Herzegovina (BAS)
Botswana (BOBS) **1**
Brazil (ABNT) **11** / **19**
Bulgaria (BDS)
Burkina Faso (ABNORM)

**C** Cameroon (ANOR)
Canada (SCC) **15** / **101**
Chile (INN)
China (SAC) **60** / **101**
Colombia (ICONTEC) **1** / **3**
Congo, the Democratic Republic of the (OCC)
Costa Rica (INTECO)
Côte d'Ivoire (CODINORM)
Croatia (HZN)
Cuba (NC)
Cyprus (CYS) **1**
Czech Republic (UNMZ) **3**

**D** Denmark (DS) **7** / **33**

**E** Ecuador (INEN)
Egypt (EOS) **3**
El Salvador (OSN)
Estonia (EVS) **1**
Ethiopia (ESA)

**F** Fiji (DNTMS)
Finland (SFS) **2** / **8**
France (AFNOR) **71** / **224**

**G** Gabon (ANTT)
Germany (DIN) **139** / **406**
Ghana (GSA) **1** / **1**
Greece (NQIS-ELOT)

**H** Hungary (MSZT)

**I** Iceland (IST) **1**
India (BIS) **8** / **14**
Indonesia (BSN)
Iran **5** / **4**
Islamic Republic of (ISIRI)
Iraq (COSQC)
Ireland (NSAI) **2**
Israel (SII) **3** / **9**
Italy (UNI) **23** / **43**

**J** Jamaica (BSJ) **1**
Japan (JISC) **72** / **208**
Jordan (JSMO)

**K** Kazakhstan (KAZMEMST) **1**
Kenya (KEBS) **1** / **1**
Korea, Democratic People's Republic of (CSK)
Korea, Republic of (KATS) **18** / **92**
Kuwait (KOWSMD)

**L** Lebanon (LIBNOR)
Libya (LNCSM)
Lithuania (LST)
Luxembourg (ILNAS)

**M** Malawi (MBS)
Malaysia (DSM) **4** / **9**
Mali (AMANORM)
Malta (MCCAA)
Mauritius (MSB)
Mexico (DGN) **3**
Mongolia (MASM)
Morocco (IMANOR)

**N** Namibia (NSI)
Nepal (NBSM)
Netherlands (NEN) **19** / **91**
New Zealand (SNZ) **4**
Nigeria (SON)
Norway (SN) **10** / **37**

**O** Oman (DGSM)

**P** Pakistan (PSQCA)
Panama (COPANIT)
Peru (INDECOPI) **1**
Philippines (BPS) **1**
Poland (PKN) **3**
Portugal (IPQ) **1** / **9**

**Q** Qatar (QS) **1**

**R** Romania (ASRO)
Russian Federation (GOST R) **9** / **9**
Rwanda (RBS)

**S** Saint Lucia (SLBS)
Saudi Arabia (SASO)
Senegal (ASN)
Serbia (ISS)
Singapore (SPRING SG) **1**
Slovakia (SOSMT)
Slovenia (SIST)
South Africa (SABS) **9** / **15**
Spain (AENOR) **6** / **19**
Sri Lanka (SLSI)
Sudan (SSMO)
Sweden (SIS) **27** / **69**
Switzerland (SNV) **17** / **45**
Syrian Arab Republic (SASMO)

**T** Tanzania United Republic of (TBS)
Thailand (TISI) **6**
The former Yugoslav Republic of Macedonia (ISRM)
Trinidad and Tobago (TTBS) **1**
Tunisia (INNORPI) **1**
Turkey (TSE) **3** / **2**

**U** Uganda (UNBS) **1**
Ukraine (DTR) **1** / **3**
United Arab Emirates (ESMA) **1**
United Kingdom (BSI) **67** / **312**
Uruguay (UNIT)
USA (ANSI) **119** / **528**
Uzbekistan (UZSTANDARD)

**V** Vietnam (STAMEQ)

**Y** Yemen (YSMO)

**Z** Zimbabwe (SAZ)

## **CORRESPONDENT** MEMBERS

**A** Albania (DPS)
Angola (IANORQ)

**B** Bahamas (BBS)
Bhutan (BSB)
Bolivia (IBNORCA) **1**
Brunei Darussalam (ABCI)
Burundi (BBN)

**C** Cambodia (ISC) **1**

**D** Dominica (DBOS)
Dominican Republic (INDOCAL)

**E** Eritrea (ESI)

**G** Gambia (TGSB)
Georgia (GEOSTM)
Guatemala (COGUANOR)
Guinea (IGNM)
Guyana (GNBS)

**H** Haiti (BHN)
Hong Kong China (ITCHKSAR)

**K** Kyrgyzstan (KYRGYZST)

**L** Latvia (LVS)
Lesotho (LSQAS)
Liberia (LDS)

**M** Macau China (CPTTM)
Madagascar (BNM)
Mauritania (DNPQ)
Moldova Republic of (INS)
Montenegro (ISME)
Mozambique (INNOQ)
Myanmar (MSTRD)

**N** Nicaragua (DNM)
Niger (DNPQM)

**P** Palestine (PSI)
Papua New Guinea (NISIT)
Paraguay (INTN)

**S** Seychelles (SBS)
Sierra Leone (SLSB)
Suriname (SSB)
Swaziland (SWASA)

**T** Tajikistan (TJKSTN)
Togo (CSN)
Turkmenistan (MSST)

**Z** Zambia (ZABS)

## **SUBSCRIBER** MEMBERS

**A** Antigua and Barbuda (ABBS)

**H** Honduras (OHN)

**L** Lao People's Democratic Republic (DISM)

**S** Saint Vincent and the Grenadines (SVGBS)


ISO International Standards touch everyone, everywhere.

Virtually every product, service and system that you use has a standard at its core. Because standards **make things work**.

In 2014, ISO's 3 511 technical bodies developed 1 468 standards-related documents covering a diverse and varied range of industries and sectors. Following is a snapshot of just some of the areas we worked in throughout the year.

## UNIFORMITY IN PACKAGING MATERIALS

The transfer of correct information is fundamental across a range of industries and sectors, and is a key benefit of International Standards. ISO 13106:2014 on packaging materials for liquid foodstuffs provides the requirements of polypropylene resins intended for use in blow-moulded round containers with capacities up to, and including, two litres, intended for the packaging of liquids for human consumption. It also provides tolerances on mass, dimensions, methods of sampling, testing, and performance requirements.

## ONE STEP FURTHER IN ENSURING ACCURACY IN THE EXCHANGE OF PRODUCT DATA

The ISO 10303 series, *Industrial automation systems and integration – Product data representation and exchange*, grew significantly in 2014 with the publication of three new standards and over 250 new data modules.

ISO 10303 – commonly known as STEP (the standard for the exchange of product data) – provides a common data backbone for linking systems that create or use product information throughout the product life cycle. It is suitable not only for complete and accurate file exchange, but also as a basis for implementing and sharing product databases and archiving. The STEP standards and data modules help generate consistent product information models through the entire range of products covered by ISO, from engineering and aerospace to furniture and process plants for the oil, gas and chemical industries.

The latest additions to the STEP family are ISO 10303-209 on the multidisciplinary analysis and design of complex parts, ISO 10303-210 on electronic assembly, interconnect and packaging design, and ISO 10303-242 on model-based three-dimensional engineering.



## BUILDING CONFIDENCE IN SECOND-HAND TRADING

With a growing focus on tightening belts and saving the planet, so the trade of second-hand goods is on the rise – not just within countries, but all around the world.

Now, thanks to a new ISO technical specification, consumers can buy confidently, with measurable criteria that can be used by importing or exporting parties or governments for in-transit and port-of-entry screening of second-hand goods.

ISO/TS 20245:2014, *Cross-border trade of second-hand goods*, establishes minimum screening criteria and specifies how to evaluate and classify products according to a ranking based on their condition.

While there are numerous national standards, laws and guidelines designed to protect consumers, this is the first set of universally applicable guidelines for second-hand goods, destined to ensure that both consumers and the environment are protected.

## RECYCLING RUBBER

Reclaimed rubber can be compounded, processed and vulcanized to manufacture new products such as mats, artificial grounds, weights, tyres, automobile and military parts, belts and beltings, and sheeting.

Two new technical specifications – ISO/TS 16095:2014 and ISO/TS 16096:2014 – dealing with reclaimed rubber for eco-friendly products define procedures for the assessment of chemical and physical properties of reclaimed rubber to make sure it is suitable and safe for use in the production of new products.

## ENVIRONMENTALLY FRIENDLY PLASTICS

Traditionally manufactured from wood or concrete, railway sleepers must be able to endure a variety of environmental and weather-related conditions as well as sustain significant loads.

ISO 12856:2014, *Plastics – Plastic railway sleepers for railway applications (railroad ties)*, aims to produce innovative and eco-friendly plastics for railway applications. The standard defines the general characteristics of materials used in the manufacture of plastic/composite sleepers in order to specify their performance.

## MEASURING OUR WATER FOOTPRINT

Water is one of the world's most precious – and lucrative – resources, and now preserving our "blue gold" is easier thanks to a new International Standard.

ISO 14046:2014, *Environmental management – Water footprint – Principles, requirements and guidelines*, enables all kinds of organizations, from industry to government and NGOs, to measure their "water footprint", i.e. their potential environmental impact from water use and pollution.

Developed by experts from all over the world, the standard is based on a life-cycle assessment and can help evaluate the magnitude of potential environmental impacts related to water as well as identify ways to reduce those impacts.

In addition, it includes geographical and temporal dimensions and identifies the quantity of water used and changes in water quality.

Sustainability is a key priority for governments and businesses alike, and the ability to accurately assess a water footprint is a vital step in the right direction.

## KEEPING ENERGY MANAGEMENT SYSTEMS UP TO SCRATCH

An effective energy management system is an essential business ingredient and having it certified to a recognized standard can bring a number of benefits. Now, the certification process is even better with a new standard for auditors and certification bodies who certify to ISO's energy management system standards.

ISO 50003:2014, *Energy management systems – Requirements for bodies providing audit and certification of energy management systems*, lays down the requirements for competence, consistency and impartiality in the auditing and certification process. It covers the audit planning process, the initial certification audit, conducting the on-site audit, and ensuring the people conducting the audit have the right skills to do so. The new standard is intended to be used with ISO/IEC 17021 on conformity assessment.

It is the latest in the energy management family of standards, which includes ISO 50001 for the development of an energy management system and ISO 50002 that sets out the basic principles and requirements for carrying out energy audits.

## PERSONAL CARE ROBOTS

No longer just characters in sci-fi films, robots are now everywhere, fulfilling a number of uses such as in manufacturing, the medical field and, more recently, providing personal care.

Capable of understanding our voice and gestures and reacting to touch, they can also connect to our nervous system and "read our minds" by tapping into brain wave activity. Unbelievable, but true! They are now at work helping the injured, the infirm and even those with dementia, reminding them to eat or take their medication.

The new ISO 13482:2014, *Robots and robotic devices – Safety requirements for personal care robots*, specifies requirements and guidelines for the inherently safe design, protective measures, and information for use of personal care robots.

This is ground-breaking for the industry as it will pave the way for a whole new set of innovators and investors by providing reassurance in terms of safety requirements.

## BREAKING BARRIERS TO ACCESSIBILITY

Over a billion people are estimated to live with some form of disability, according to the World Health Organization. This corresponds to about 15 % of the world's population.

But accessibility is not just about disabilities. It impacts the elderly, parents with small children and even those with minor injuries.

ISO standards are an important tool because they give manufacturers, service providers, designers and policy makers the specifications and guidelines on how to design products and services that are accessible to all.

Which is why ISO joined forces with the International Electrotechnical Commission (IEC) and the International Telecommunication Union (ITU) to publish a new guide that advises standards developers on how to make sure their standards take full account of the accessibility needs of users from all walks of life, and in particular of persons with disabilities, children and older persons.

ISO/IEC Guide 71, *Guide for addressing accessibility in standards*, will help those involved in the standards development process to consider accessibility issues when developing or revising standards, particularly in areas where they have not been addressed before.

It will help designers, manufacturers and educators gain a better understanding of the accessibility requirements of our growing population and increase the number of standards containing accessibility considerations or that focus specifically on accessibility.

ISO/IEC Guide 71 is accompanied by a new joint policy statement by IEC, ISO and ITU on standardization and accessibility.

FUTURE-PROOF COMMUNITIES

## SMARTENING UP CITIES

With cities expected to house up to 70 % of the world's population by 2050, investing in their future sustainability is a key priority for governments everywhere. A new ISO standard – the first of its kind – is designed to lend a hand.

ISO 37120:2014, *Sustainable development of communities – Indicators for city services and quality of life*, will help city leaders, politicians, researchers, planners and other professionals assess their city's performance and measure progress over time, with the ultimate goal of improving quality of life and sustainability.

The standard's uniform approach will enable cities to seamlessly compare where they stand in relation to other cities. This information can in turn be used to identify best practice and learn from one another.

ISO 37120:2014 can be used by any municipality or local government wishing to measure its performance in a comparable and verifiable manner, irrespective of size and location or level of development.

## EFFECTIVE MAINTENANCE OF BUILDINGS

Having the right systems in place to keep a building sufficiently maintained is a fundamental requirement for the safety, durability and legal compliance of any structure. The ISO 16311:2014 series lays down the framework and general principles for maintenance and repair of all kinds of existing concrete structures, including unreinforced and reinforced concrete, pre-stressed concrete and steel-concrete composite structures, or their structural members.

It covers important areas such as maintenance planning for existing structures, the assessment of the structure, planning and designing of repair in case of damage, deterioration or wear, and the execution of repairs including preparation, storage of materials, health and safety, and quality control.

## CONSISTENCY IN COATINGS AND COLOURS

The newly revised ISO 4618:2014 defines the basic terminology used in the field of coating materials such as paints and varnishes. This newly revised and comprehensive edition ensures there is no confusion when it comes to specific applications and properties and what they really mean.

More specifically, with regard to the colour yellow, the "yellow index" helps evaluate the changes in colour of clear, translucent or opaque plastics, and is often used to gauge the effects of the environment, e.g. heat, UV exposure, etc., on colour stability. The new ISO 17223:2014, *Plastics – Determination of yellowness index and change in yellowness index*, specifies an instrumental method for the determination of both these important optical properties of plastic.

## KEEPING COOL WITH REFRIGERANTS

When it comes to refrigerants – the substance or mixture used in a heat pump and refrigeration cycle – manufacturers are moving towards making them safer and more environmentally friendly. So it makes sense that they should assess what safe really means.

New ISO 817:2014, *Refrigerants – Designation and safety classification*, now provides an unambiguous system for assigning designations to refrigerants and awarding a safety classification based on toxicity and flammability data, while providing a means of determining the refrigerant concentration limit.

ISO 5149:2014, *Refrigerating systems and heat pumps – Safety and environmental requirements*, specifies the requirements for the safety of persons and property, provides guidance for environmental protection and establishes procedures for the operation, maintenance and repair of refrigerating systems and the recovery of refrigerants.

It covers refrigerating systems, secondary cooling or heating systems, the location of refrigerating systems, as well as replaced parts and added components.

TECHNOLOGY

## BIC CODE GETS REVIEWED

From wiring money to far-flung places down to everyday financial transactions, the humble BIC code is a vital tool to ensure banking messages get sent to the right place. Now the standard used to define it has had a revamp, making it even more robust and fit for the future.

Used by more than 108 000 organizations in 233 countries, ISO 9362, *Banking – Banking telecommunication messages – Business identifier code (BIC)*, is one of the most popular standards in the financial world. It helps identify banks and financial or related institutions and facilitate the automated processing of information for financial services.

Amongst the key changes is the introduction of the BIC data record which allows for better identification of the counterparties in the financial industry.


HEALTH

## INFORMATION SHARING MADE EASIER FOR HEALTH PROFESSIONALS

In order to assess the performance of a device such as a pacemaker, it is necessary to collect the right data. But with different patient privacy laws in different countries, manufacturers often have to apply alternative methods to calculate things like survival probability.

At the same time, physicians and clinicians are encouraged to notify their complaints and return associated explanted devices to the device manufacturers to support the accuracy of product performance reports.

ISO 5841-2:2014, *Implants for surgery – Cardiac pacemakers – Part 2 : Reporting of clinical performance of populations of pulse generators or leads*, is designed to describe the reporting responsibilities in sharing clinical performance information for patient management.

## WORKING IN COLLABORATION FOR A SAFER WORLD

Improving safety in a wide range of areas is a key benefit of many ISO standards and publications, and in 2014 ISO worked closely with the International Electrotechnical Commission (IEC) to revise two guides that do just that.

With more than 800 000 children dying needlessly each year from preventable injuries, ISO/IEC Guide 50:2014, *Safety aspects – Guidelines for child safety in standards and other specifications*, helps reduce the risks and bring those numbers down.

Aimed at standards developers, it describes an extensive list of hazards that children might encounter, beyond the usual child-designed products or environments, and proposes strategies to avoid them – a useful tool not just for standards developers, but for government agencies, manufacturers and consumer associations too.

ISO/IEC Guide 51:2014, *Safety aspects – Guidelines for their inclusion in standards*, sets an overall framework for helping standards writers and other interested parties, such as manufacturers and service providers, to assess and reduce risk in the design of products, processes, services and systems.

Revised in 2014, the new guide considers the complete life cycle of a product or system and aims to achieve tolerable risk for people, property and the environment. It is applicable to the drafting of all new standards as well as existing standards that come up for revision.

## KEEPING OUR FEET SAFE WITH A NEW STANDARD FOR FOOT PROTECTION

A new standard specifying the requirements for protective footwear helps ensure our feet are shielded against the many dangers that might cross their path.

ISO 20346:2014, *Foot protection*, specifies basic and additional (optional) requirements for general-purpose protective footwear, including mechanical risks, slip resistance, thermal risks, and ergonomic behaviour.

Special risks are covered by complementary job-related standards (e.g. footwear for firefighters, electrical insulating footwear, protection against chain saw injuries, protection against chemicals and molten metal splash, protection for motorcycle riders).

## COLLECTING DATA ON NATIONAL FIRE STATISTICS PRACTICES

Definitions of many things vary widely across countries – a tall building is different in France and in China, for example. So when it comes to data related to fire safety, these differences make it difficult to compare programmes or designs across the world.

ISO's new technical report ISO/TR 17755, *Fire safety – Overview of national fire statistics practices*, is a collection of data on national fire statistics practice that enables users to better run the mathematical models described in other fire safety standards and compare results from different countries.

Such calculations are essential for evaluating alternative fire safety programmes, particularly as many terms, such as "residential building" and "public establishment", take on different meanings in different countries.

The ultimate aim is that more and more countries will start collecting the same data in the same way, ensuring a more effective result for all.

# ISO finances

| Summary of financial performance for the year ended 31 December (kCHF) | 2014 | 2013 |
|---|---|---|
| **REVENUE** | | |
| • Membership fees | 21 190 | 21 104 |
| • Royalties received from members selling ISO standards | 8 677 | 8 175 |
| **REVENUES FROM MEMBERS** | **29 867** | **29 279** |
| **NET SALES REVENUES** | **6 739** | **5 908** |
| • Funding for developing countries | 1 892 | 3 011 |
| • Funding for promotion of ISO system | 210 | 552 |
| **FUNDING FOR ISO PROJECTS** | **2 102** | **3 563** |
| **FINANCIAL REVENUE** | **201** | **97** |
| **TOTAL REVENUE** | **38 909** | **38 847** |

| | | |
|---|---|---|
| **EXPENDITURE** | | |
| **OPERATIONS** | **34 226** | **33 669** |
| • Projects for developing countries | 1 892 | 3 011 |
| • Projects for promotion of ISO system | 210 | 552 |
| **ISO PROJECTS** | **2 102** | **3 563** |
| **AMORTIZATION OF FIXED ASSETS** | **1 204** | **1 090** |
| **TOTAL EXPENDITURE** | **37 532** | **38 322** |

| | | |
|---|---|---|
| **OPERATING RESULT** | **1 377** | **525** |
| **USE / (ADDITION) OF RESTRICTED AND UNRESTRICTED FUNDS** | | |
| • Projects for promotion of ISO system | | (272) |
| **CHANGES IN RESTRICTED FUNDS** | | **(272)** |
| **CHANGES IN UNRESTRICTED FUNDS** | **(1 377)** | **(253)** |
| **UNATTRIBUTED NET RESULT** | **0** | **0** |

## Summary of balance sheets at 31 December 2014 and 2013 (kCHF)

| | 2014 | 2013 |
|---|---|---|
| **ASSETS** | | |
| • Cash and cash equivalents | 25 057 | 24 578 |
| • Receivables, prepaid expenses and accrued income | 3 535 | 3 566 |
| **CURRENT ASSETS** | **28 592** | **28 144** |
| • Securities and investments | 600 | 1 385 |
| • Rent guarantee for ISO Central Secretariat premises | 2 167 | 0 |
| • Fixed assets | 852 | 1 562 |
| **NON-CURRENT ASSETS** | **3 619** | **2 947** |
| **TOTAL ASSETS** | **32 211** | **31 091** |

| | | |
|---|---|---|
| **LIABILITIES AND FUNDS** | | |
| • Suppliers and accrued liabilities | 3 159 | 2 400 |
| • Members' retrocessions | 3 571 | 3 113 |
| • Revenue received in advance | 1 693 | 1 448 |
| **CURRENT LIABILITIES** | **8423** | **6 961** |
| • Restricted funds | 2 094 | 3 856 |
| • Unrestricted funds | 21 694 | 20 274 |
| **FUNDS** | **23 788** | **24 130** |
| **TOTAL LIABILITIES AND FUNDS** | **32 211** | **31 091** |

## Summary of cash flow statements for the year ended 31 December (kCHF)

| | 2014 | 2013 |
|---|---|---|
| • Net cash from operating activities | **3 864** | **1 078** |
| • Net cash from projects for developing countries | **(1 509)** | **1 531** |
| • Net cash used in investing activities | **(1 876)** | **3 357** |
| **NET INCREASE / (DECREASE) IN CASH AND CASH EQUIVALENTS** | **479** | **5 966** |

| | | |
|---|---|---|
| **CONTROL** | | |
| • Cash and cash equivalents at the beginning of the period | 24 578 | 18 612 |
| • Cash and cash equivalents at the end of the period | 25 057 | 24 578 |
| **INCREASE** | **479** | **5 966** |

# The future is STAND

Looking back over ISO's history, we can be proud of what we have achieved. Over 20 000 International Standards and the work of over 3 500 technical bodies is no mean feat. But when we look ahead to the next 50 years, we can see that our world will evolve at an ever faster rate and we need to prepare for that.

**Dr. ZHANG XIAOGANG**
***ISO President from 2015***

# ARDS

We know that standards can make an important contribution to a nation's GDP through opening up new markets. They can also promote innovation in business, improve safety and be a strong partner for good regulatory practice. It is therefore crucial that we further improve the tools and capabilities of our members and build new strategic partnerships with relevant industries, NGOs, academia and other standards development organizations. But there are also many emerging global issues facing our leaders today, such as security, governance and the resilience of our world against natural and man-made disasters, not to mention environmental sustainability. Standards can help to address these challenges, as evidenced by the recently launched documents on water footprinting and data security in the Cloud.

This is why it is so important to continue to expand our portfolio of committees. In 2014, new committees were established in such diverse areas as brand evaluation, feed machinery and gas cooking appliances, with others in the pipeline such as forensic sciences and asset management. We also witnessed the establishment of an international advisory group on smart cities and a working group to determine the gaps and opportunities for standards in relation to the Internet of Things – the increasing number of interconnected and networked "smart objects" that are present in our everyday lives.

We rely on these communities to provide us with the guidelines and best practice that this new world will need and I look forward to seeing these ideas develop over the next few years.

As I start my tenure as ISO President, which will continue into 2017, I am more convinced than ever that standards help to make the world a better place. But, in particular, I look forward to creating a better future.

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