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C/1915A/INF

2015-10-16

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**COUNCIL**

**SUBJECT**

**Agenda item 5.1**

Activity Report by the General Secretary – Full report

*This version includes an amendment in the sections A1 (Trade media) and C1 (Cenelec).*

**BACKGROUND**

The General Secretary is pleased to provide the complete Activity Report for Council, which focuses on the Commission's activities **from 1 July 2014 to 30 June 2015**.

Under Agenda item 5.1 of the Council Statutory Session, the General Secretary will present highlights of the IEC's activities in the last 12 months.

*Attachment*



**Activity Report**

# IEC General Secretary's Activity Report July 2014-June 2015

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The IEC is the world leading platform for the development of globally relevant International Standards in electrotechnology and is the only organization to support all forms of conformity assessment, while offering a standardized approach to certification through its four Conformity Assessment (CA) Systems. The IEC vision and mission is to stimulate broad use and preference for IEC work so as to enable global trade and enhance stakeholder value in the fields of electricity, electronics and all associated technologies.

The [IEC Masterplan](#) outlines a series of key objectives and actions linked to individual stakeholder groups that the IEC community has been asked to embark on in order to realize its vision and mission.

The present report provides insights into key activities that have been undertaken by the IEC Central Office (CO) in the timeframe of July 2014 to June 2015. The document follows the structure of the IEC Masterplan, linking relevant activities to fixed objectives.

For ease of reading, the financial and sales overview is provided at the beginning and technical statistics can be found at the end of the document.

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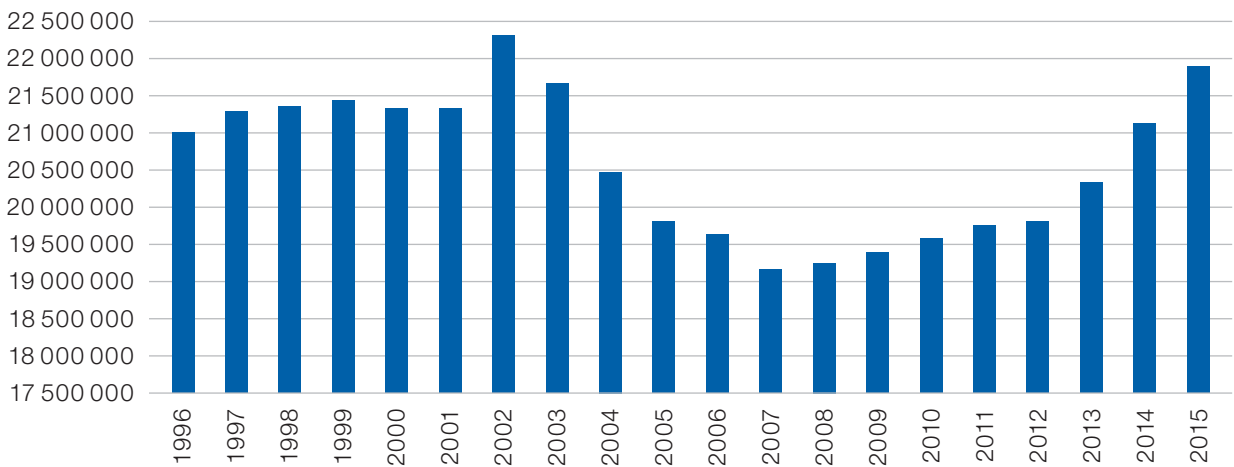
**Financial overview**

**IEC financial performance**

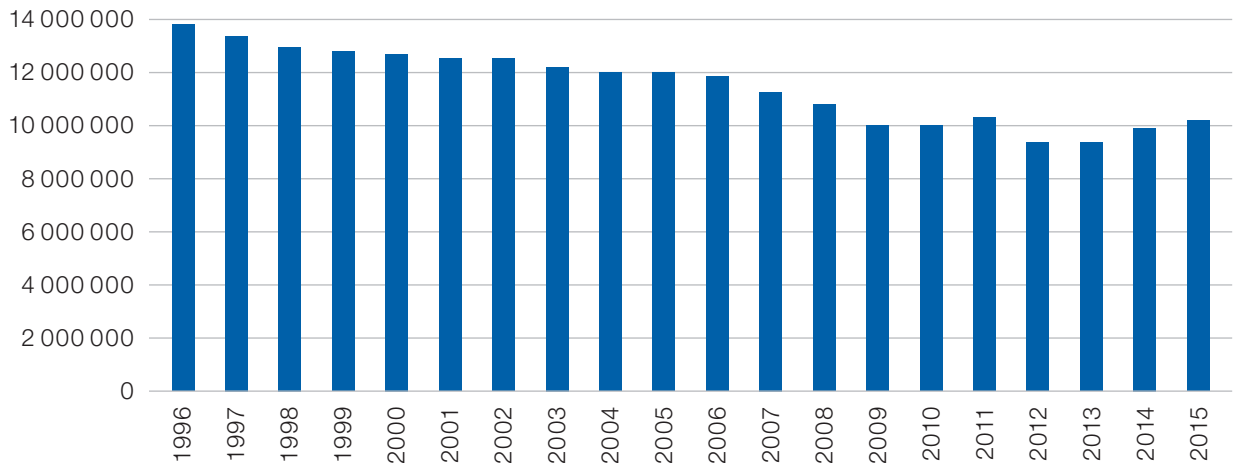
**Budget and dues**

The three graphs below give an overview of the IEC total budget, dues and royalties paid to National Committees (NCs) from 1996 to 2015.

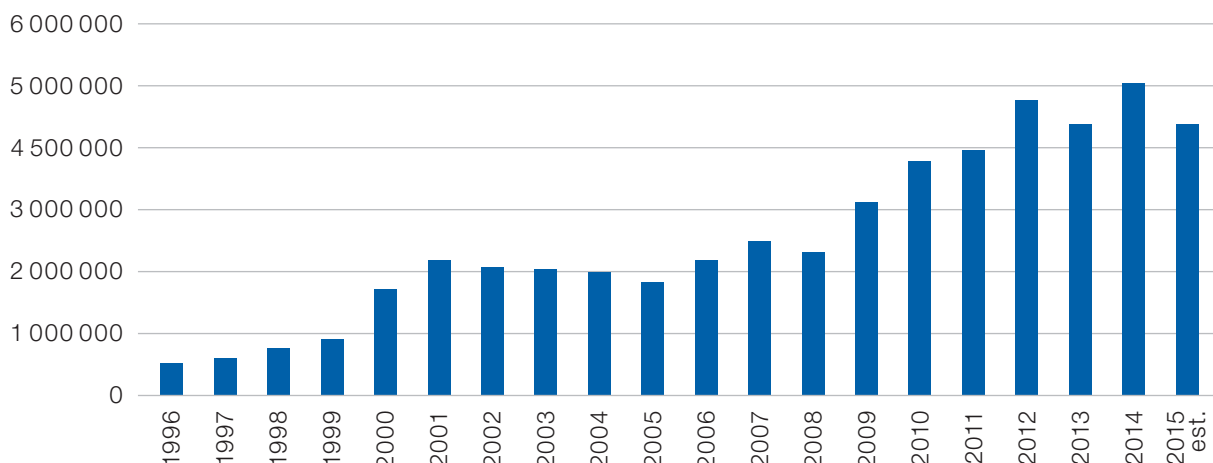
Figure 3 gives an overview of the royalties paid to NCs on sales made by IEC Central Office (CO) and authorized sales outlets (SOs) in their respective countries. Royalties in 2015 may be down from 2014 due to the change in royalty rates from 62% to 60%



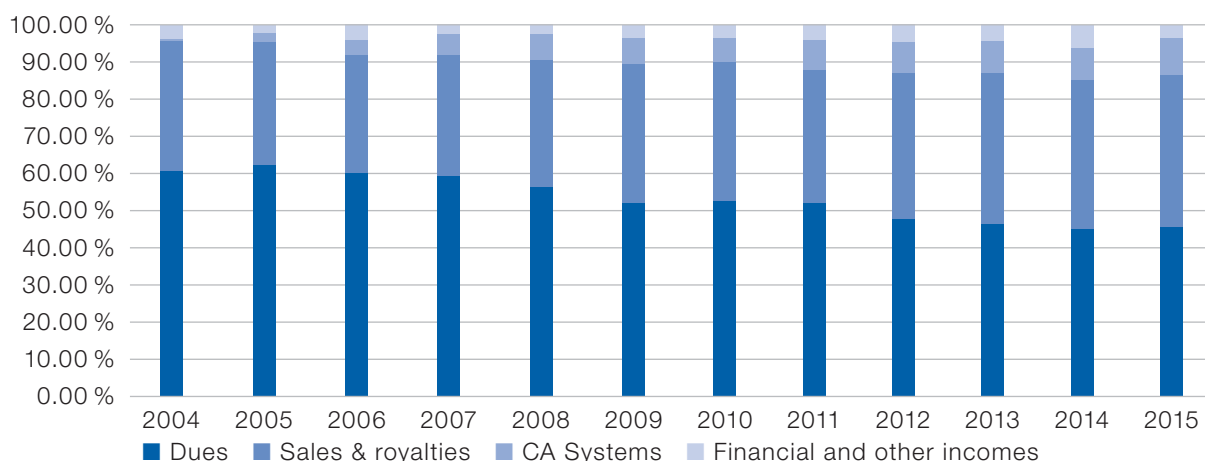
**Figure 1 | Total budget**



**Figure 2 | Total dues**



**Figure 3 | Royalties paid to NCs on IEC CO and SO sales**



**Figure 4 | Percentage of total income budgeted**

**Percentage of total income budgeted**

From 2012 to 2015, dues represented less than 50% of the total budgeted income at 47,73%, 46,03%, 45,09% and 45,59% respectively.

**Royalties collected from NCs and SOs**

Gross royalties from NCs were up 9,3% in 2014 compared to 2013, and for the first quarter of 2015 they are showing an impressive +26,2% compared to the same period in the previous year. Royalties from sales outlets (SOs) were up 14,3% in 2014 and for the first quarter of 2015 they were down 5,4%.

**Total royalties collected (net)**

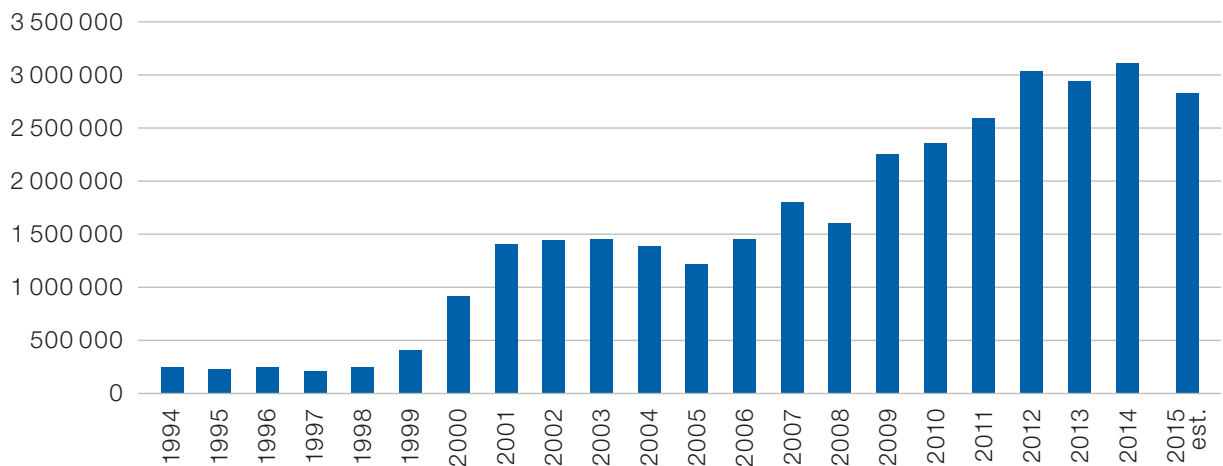
Royalties collected from NCs and SOs on the sale of IEC publications in their respective countries:

<b>Q3 2014-Q2 2015</b>	Q3 2013-Q2 2014
<b>CHF 8 551 834</b>	CHF 7 317 704
(+16,9%)	

**Royalties collected from NCs**

Royalties collected, from NCs only, on the sale of IEC publications in their respective countries:

<b>Q3 2014-Q2 2015</b>	Q3 2012-Q2 2013
<b>CHF 4 804 616</b>	CHF 3 824 062
(+25,6%)	



**Figure 5 | Royalties to NCs on IEC CO sales**

**Royalties to NCs on IEC CO sales only**

Figure 5 gives an overview of the royalties paid to NCs on IEC CO sales since 1994.

**Sales results, distribution and events**

**Sales of IEC International Standards**

Sales in 2014 were exceptional with a 11,6% increase compared to 2013. The total market for 2014 was CHF 30,9 million with an impressive overall sales increase of 21,5% compared to 2013.

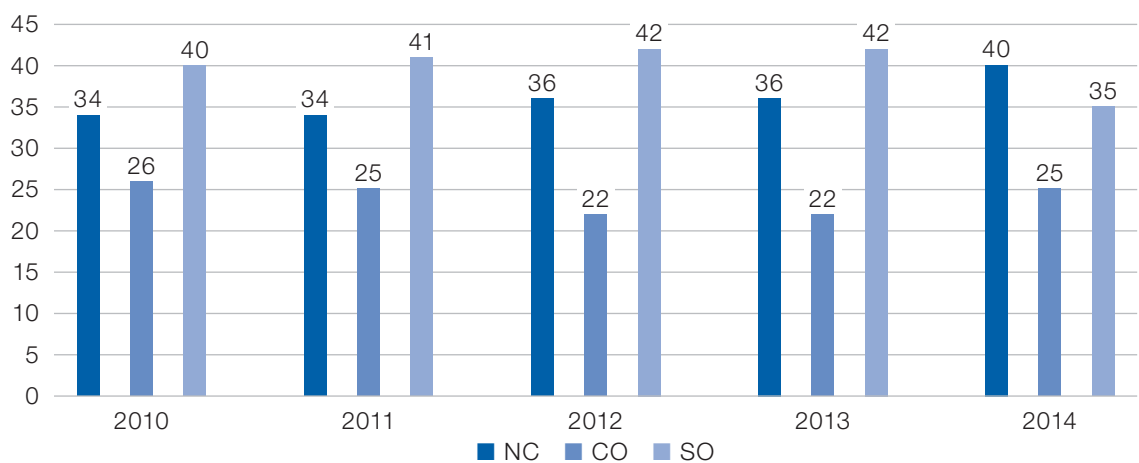
For the first half of 2015 IEC CO sales were also up 3,3% compared to same period last year.

**Split between points of sale**

Sales of IEC International Standards are split between IEC CO, NCs and SOs. Figure 6 gives an overview of the split between the different points of sale for the 2010-2014 period.

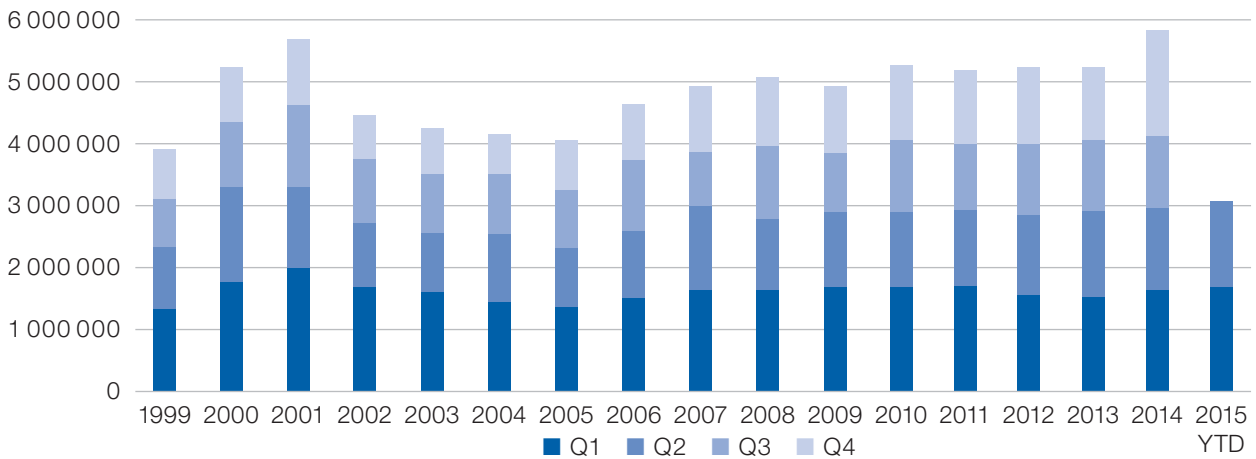
**IEC CO total sales**

Figure 7 shows that IEC CO sales, which were stable from 2010 to 2013, increased in 2014.



**Figure 6 | Split between points of sale 2010-2014**





**Figure 7 | IEC CO total sales**

**IEC Webstore sales**

The vast majority of publications sold through the IEC Webstore consists of electronic copies in PDF. Only a very small amount of hard copies is still requested by customers.

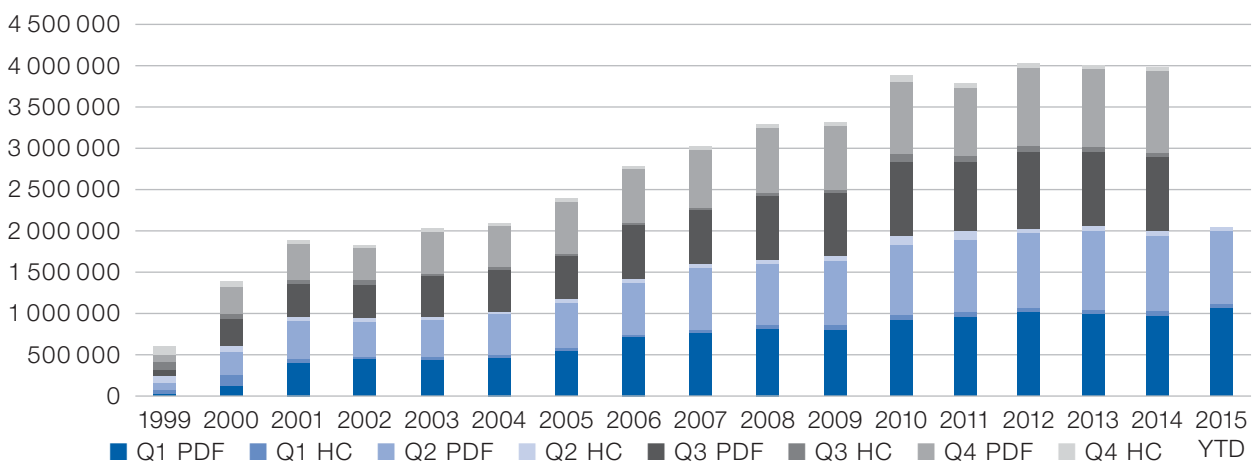
of publications sold during the period July 2014 to June 2015.

**Best-selling publications**

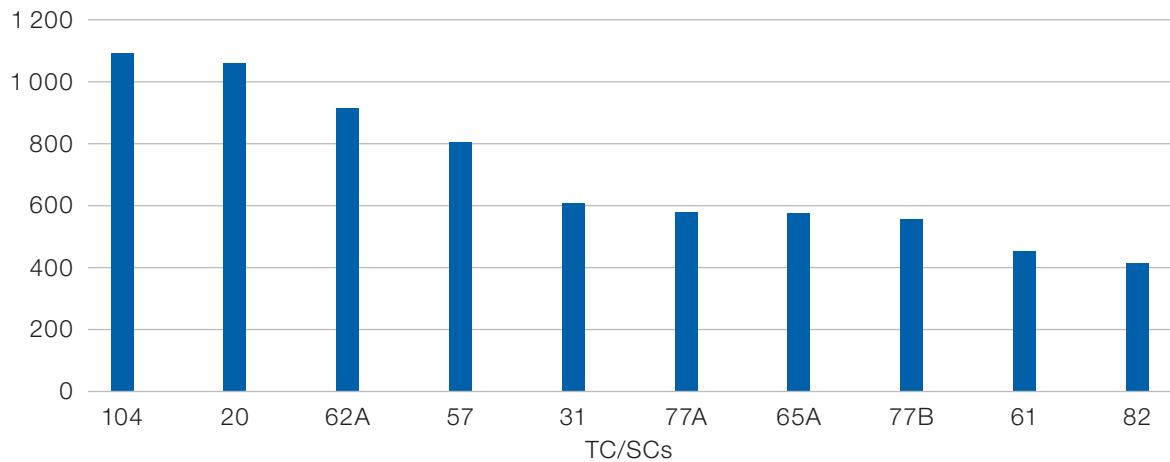
Figure 10 shows the 10 best-selling publications from July 2014 to June 2015.

**IEC CO sales by TC/SCs**

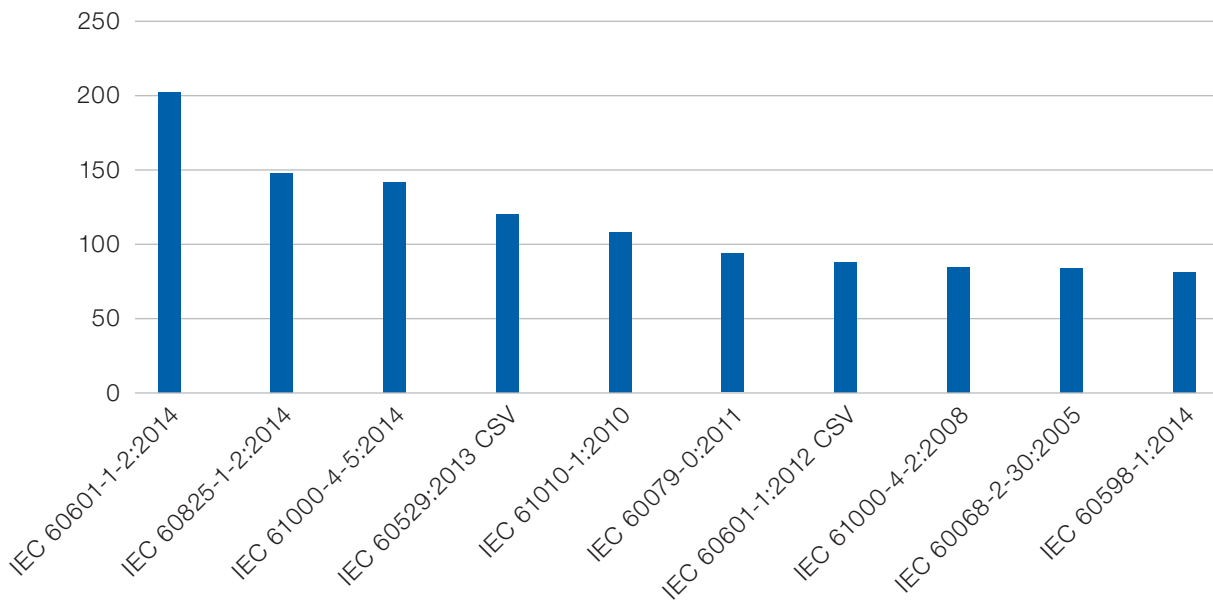
Figure 9 shows the Technical Committee/ Subcommittees (TC/SCs) with the highest number



**Figure 8 | IEC Webstore sales**



**Figure 9 | IEC CO sales by TC/SCs**



**Figure 10 | Best-selling IEC International Standards**

**New IEC Webstore and Online Collections**

Two major developments in support of IEC sales activities were completed in 2015 – a new IEC Webstore and the IEC Online Collections.

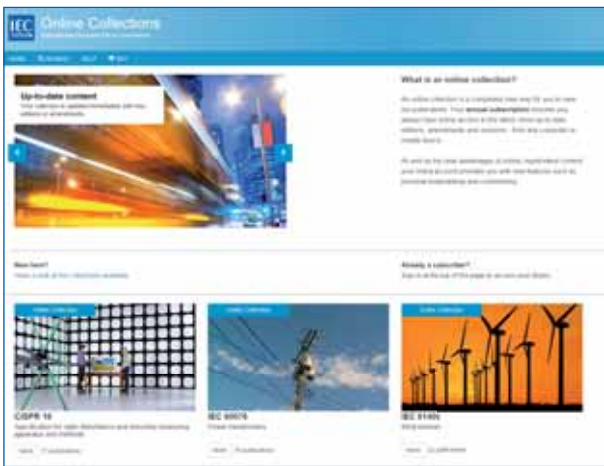
**IEC Webstore**

The new [IEC Webstore](#) was launched in April. The site includes features that many of the customers asked for, including greatly improved search capabilities, a streamlined ordering process, and full compatibility with iOS and Android mobile devices.



## Online collections

A new site called [IEC Online Collections](#) was launched in conjunction with the Webstore. It offers a completely different way to view IEC publications. Customers buy an annual subscription ensuring they always have online access to the most up-to-date editions, amendments and revisions, from any computer or mobile device. As well as the clear advantages of online viewing and hyperlinked content, the account provides innovative features such as personal bookmarking and commenting.



The first sets of collections available:

- [IEC 60076](#), *Power transformers*
- [IEC 61400](#), *Wind turbines*
- [CISPR 16](#), *Specification for radio disturbance and immunity measuring apparatus and methods*

NCs and SOs can use the Subscription Database Management to create subscriptions for their customers.

## Events

To obtain feedback from local sales and marketing teams and remain in close relation with the NCs, the IEC organized “sales roadshows” in Germany, India and the United Arab Emirates (UAE). In India and UAE, meetings were also organized with local sales outlets and end-users.



In March 2015, the IEC attended the Global Electronics Forum & Global Semiconductor Forum in Shanghai, China. It was an opportunity for high-ranking semiconductor developers and top electronics device and application manufacturers to present, discuss and collaborate on innovation, strategy, challenges and opportunities within the market.

The Internet of Things (IoT) was one of the topics of focus in 2015. Dr Kang Lee, one of the main contributors to the IEC White Paper [Internet of Things: Wireless Sensor Networks](#), gave a presentation on the topic.

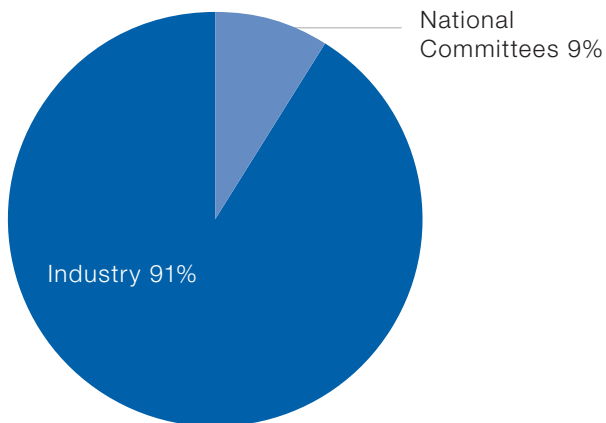
In June the IEC took part in the VIII Annual International Seminar on Standardization in St. Petersburg, where more than 200 participants attended the event. The IEC has over 1 000 publications translated into Russian.



**A1: IEC the “home of industry”**

**Stakeholder influence**

More than any other group, private and public sector industries make the greatest investment in and contribution to IEC work. Indeed, not only does industry supply the vast majority of technical experts who develop IEC International Standards, but it is also the biggest customer for these Standards and widely uses the IEC Conformity Assessment (CA) Systems.



**Figure 11 | TC/SC Officers' affiliation**

**Enhance IEC visibility within industry sectors**

In line with the Masterplan implementation Programme C, following discussions with numerous National Committee (NC) Presidents and key industry players, a number of industry sectors were identified as strategically important to the IEC. The concept of assigning IEC “champions” to enhance the visibility of the IEC within these sectors was approved by the Executive Committee (ExCo) in October 2013.

The teams established to date are in the process of identifying gaps in terms of stakeholder groups and key players’ participation as well as opportunities to participate in high-level forums or events. Specific actions will subsequently be

identified with the goal of addressing those gaps and opportunities. The ExCo receives regular progress reports.

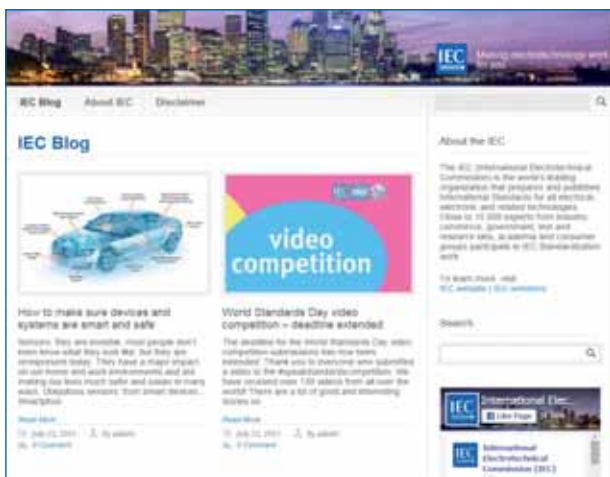
**Develop IEC brand and protect IEC trademark**

The IEC Marketing strategy is three-fold. It aims to:

1. deepen the understanding of the fundamental impact of IEC work on corporate efficiency as well as quality and risk management global stakeholders. These include experts and managers of companies which already participate in the IEC. The aim is to ensure they maintain active participation: “this is the right decision” and make it easier for experts to get funding.
2. inform experts and managers who might end up working in one of the companies actively participating in IEC work about the importance of this strategy: “this is a great decision, don’t change anything”.
3. expand awareness among start-ups and innovators: “this is the best way to bring your technology to the world”.

In support of this strategy, all IEC marketing and communication activities are geared towards promoting the role of the IEC globally as the leading world-wide platform for international electrotechnical standardization and related CA matters. IEC Central Office (CO) develops stories around the benefits stakeholders derive from using and participating in IEC work. To disseminate these stories, it uses all available communication channels including, but not limited to, the IEC website, media relations, news releases, event participation and endorsements, engagement via social media (LinkedIn, Twitter, Facebook, Pinterest, Vimeo, YouTube, etc.), a dedicated IEC blog, *e-tech* magazine, brochures, mini-videos, posters, IEC Global Visions web zone

and mailings. The IEC also prepares high-quality presentations and speeches that are used by IEC Officers, IEC staff and experts to share these messages.



### IEC underlying role in energy and Smart Cities

A long-term ongoing project involves marketing the ubiquitous underlying role of the IEC in smart energy, including for sustainable, Smart Cities. As part of this, IEC CO develops stories that link IEC work from the generation of electricity to its transmission, distribution and consumption in homes, offices, buildings, public spaces, transportation, manufacturing and cities, and the billions of devices, parts and components that are part of this cycle.

Some of these stories can be found here:

- [Special and continuously updated web zone](#) dedicated to energy
- [Energy brochure](#)
- Mini-films on [energy](#), [Smart Cities](#), [Smart Grid](#)
- [Article](#) on Smart Cities in *Climate Change 2015* magazine accompanied by extensive social media outreach. The *Climate Change 2015* magazine was distributed to G7 participants at Schloss Elmau, Germany, 7-8 June 2015. The magazine is also distributed to world leaders at the COP20 summit in Peru; all ministers

of the environment; MPs and senators of G20 countries; leading NGOs; mayors of 40 capital cities; the World Bank, IMF, IFC, ECB, EBRD; Chairs, Presidents, CEOs of major corporations (FTSE 100 & Fortune 500); United Nations (UN) agencies including UNDP, UNEP and UNCTAD; major universities, schools, colleges and libraries, etc.  
Total readership: 80 000.

- Articles, all IEC social media platforms (LinkedIn, Twitter, Facebook, Google+, etc.), presentations, speeches, during events, and more.



### Reporting on IEC work

The IEC regularly researches and develops a multitude of stories that promote the IEC brand globally. The communications strategy in place aims to illustrate how IEC work in standardization and conformity assessment fits into the bigger picture. How we help address global challenges such as universal energy access, energy efficiency, smart transportation, sustainable cities and economies and contribute to the broad roll-out-of relevant technologies. These stories are used in *e-tech* articles, shared with media, promoted through all IEC social media channels and used as a basis for presentations and speeches. Some of these topics are also published in specialized trade media and taken up by NCs in their own newsletters and web content.



Over the period in question, we promoted IEC work in the following technology areas:

- [Energy storage](#) and [one more](#)
- [Energy harvesting](#) and [one more](#)
- [Smart Cities](#) and [one more](#)
- [3D printing](#) and [one more](#)
- [Electric motors](#)
- [Cybersecurity](#) and [one more](#)
- [MEMS](#) (microelectromechanical systems)
- [Cloud](#)
- [Industrial automation](#) and [one more](#)
- [Printed electronics](#)
- [Electrical safety](#)

- [Big data](#) and [one more](#) and [more](#)
- [Safety](#) and [one more](#)
- [LED](#)
- [Dependability](#) and [one more](#)
- [Medical devices](#)
- [Optical fibre sensing](#)
- [High-tech innovations](#)
- [Radio transmitters](#)
- [Enclosures](#)
- [Nuclear](#)
- [Power systems management](#)

[Water management](#)

[Drones](#)

[Conveyor belts](#)

[Disaster avoidance and recovery](#)

[EVs](#) and [one more](#)

[Robots](#)

[Electroheating](#)

[Railways, transportation, public transport](#)

[Driverless car](#)

[Nanotechnologies](#) (printed electronics)

[Medical ultrasonics](#)

[Medical imaging](#)

[Robotics](#)

[Universal charger](#)

[EMC](#) (electromagnetic effects) and [another](#)

[Renewable energies](#)

[Supercapacitors](#)

[Piezoelectrics](#)

[Batteries](#)

[Optical circuit boards](#)

[Hydro](#)

[Power capacitors](#)

[Wearables](#) and [one more](#) and [one more](#)

[Multimedia](#) and [one more](#) and [one more](#)

[Wireless charging](#)

[Virtual reality](#)

[Electronic displays](#)

[Power tools](#) and [appliances](#) and [one more](#)

[Electrostatic discharge](#)

[Year of Light](#) and [more](#)

[Cable cars](#)

[EVs in aviation](#)

[Connected car](#)

[Two and three wheel EVs](#)

[IoT](#) and [one more](#)

[Fibre optics](#)

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## Trade media

Hereafter an extract of independent, often important coverage about the IEC and its work in trade media:

- Energy World – December 2014 – *CSP moving into the mainstream* – pages 24-26
- POWERAhead – December 2014 – *A hot product for cold storage*
- TCS Marketcalls – *Printed electronics*
- Gizmodo – 10 March 2015 – [These legendary UI icons are now hanging in a museum](#)
- Click Green – 30 January 2015 – [Orchestrating the future infrastructure for sustainable Smart Cities](#)
- COPANT website – March 2015 – [El diablo está en el núcleo](#)
- COPANT website – 31 December 2014 – *Imágenes y sonidos mejores y más nítidos*



- [Bioenergy & Small Hydro Newsletter](#) – February 2015
- Dronelife.com – 16 May 2015 – [Can drones replace satellites?](#)
- The lowdownblog – 18 May 2015 – [Can drones replace satellites?](#)

- CSP Energy World – December 2014 – *CSP moving into the mainstream*
- HZN E (NC of Croatia) – February 2015 – World Health Day article (republished)
- HZN E (NC of Croatia) – April 2015 – *Full steam ahead article* (republished)
- IHS Engineering 360 – 28 April 2015 – [Electrifying aviation from the ground up](#)
- IHS Engineering 360 – 21 May 2015 – [Keeping the world's maritime industry plugged in via Standards](#)
- IHS Engineering 360 – 2 June 2015 – [Using Standards to ease risks posed by radioactive materials](#)
- Ingeniería Eléctrica – April 2015 – *Mar, sol y tierra : normalización y certificación para fuentes renovables*
- IRAM Newsletter – December 2014 – [Mar, sol y tierra](#)
- Wn.com – February 2015 – [Lights, sensors, game on](#)
- International Broadcast News – June 2015 – [Wearing it well](#)

Increasingly NCs take up IEC *e-tech* articles and publish them in their own newsletters. This possibility is offered to all IEC Members and Affiliates. IEC articles are custom written by a team of journalists. NCs and Affiliates are able to reuse them as long as the source is provided (*e-tech* month, year and [www.iec.ch](http://www.iec.ch)). In the period in question we have found articles in publications from Argentina, Finland, Poland, Slovenia, Sweden, the US, but there are probably others we missed (we would be grateful to hear back if you have found IEC articles useful: [communications@iec.ch](mailto:communications@iec.ch)).

## Other communication vehicles

### IHS Engineering 360

The IEC has put in place collaboration with a new web resource for engineers: [www.engineering360.com](http://www.engineering360.com)

The site provides information to half of the world's engineers [sic]; a community of 7,5 million engineers, scientists and technicians. Under the agreement, [Engineering 360](#) promotes the full catalogue of IEC International Standards and features up to 25 new publications and up to 36 news alerts.

The editorial teams of Engineering 360 and of the IEC regularly exchange and republish each other's articles (see three examples under *Trade media*).

### e-tech new website

In addition to the *e-tech* off-line mobile application of *e-tech* (downloadable via [iTunes](#) (for iOS devices) and [Google Play](#) (for Android devices), the IEC also launched a new *e-tech* site at the end of June 2015: <http://www.iecetech.org>. The aim is to facilitate publishing work and improve findability via search engines.





### **New brochures**

A number of brochures have been updated and are available for download on the [IEC website](#) and printed copies can be ordered.

A new *Welcome to the IEC* is now available in English, Russian and Spanish. Several languages are currently being prepared. The brochure explains in simple terms the impact IEC work has on quality and risk management, overall safety, interoperability, corporate efficiency, world trade and economic development.



### **Mini-films**

The IEC has developed a series of mini-films on [energy](#), [Smart Cities](#), [Smart Grids](#), [manufacturing](#), [electronics](#) and [automotive](#), which can be viewed via YouTube and can be [downloaded](#). These films are available for use by all IEC NCs and Affiliates in presentations or during events.

### **Trademark protection**

#### ***New corporate design and Brand Book***

During the period in question, IEC CO has updated brochures and other communication materials to a more vibrant, modern look. The previous design is nearly 10 years old.

As part of this effort, IEC Communications has developed a Brand Book that provides guidelines to graphic designers and IEC staff, to increase the consistency of the use of the IEC trademark and IEC corporate look and feel throughout all marketing and communication materials.



## A2: Leadership in emerging markets and technologies

### Identify market trends

#### Market Strategy Board

As part of its continuous technology and market watch, the Market Strategy Board ([MSB](#)) identifies future technologies and trends of interest to the IEC, notably through the publication of White Papers. Two White Papers were launched at the Tokyo General Meeting in November 2014: *Orchestrating infrastructure for sustainable Smart Cities* and *Internet of Things: Wireless Sensor Networks*.



The purpose of the White Papers is to ensure that IEC International Standards and Conformity Assessment services continue to contribute to solving global issues in electrotechnology.

#### Conformity Assessment Board

The Conformity Assessment Board ([CAB](#)) Special Task Force (STF) on Council Board recommendations is studying ways to better anticipate conformity assessment (CA) market needs and will propose processes for that goal. One suggestion is to establish a master

list of potential CA business opportunities by mapping the available Standards across sectors, creating links to the IEC Technical Committees/ Subcommittees (TC/SCs) of greatest interest and then measuring and tracking the expressed needs for global CA services. This process should allow a “heat map” to be produced showing what is cold and what is hot. It should also allow gaps in Standards to be identified and provide feedback to the TC/SCs concerned for the prioritization of their Standards development work. In this way CA and standardization will work closely together anticipating and satisfying market needs in a timely way.

#### Close watch on technology developments

The IEC communications department keeps a close watch on technology developments found via research reports at events and in the media, sharing relevant information with IEC TC/SCs as well as IEC management.

#### Reach out to more stakeholders

##### 2015 International CES

The IEC continues to participate in the World Electronics Forum and in their bi-annual meetings, sharing IEC work with the presidents and chairs of over 70 electronics manufacturers associations. During the Consumer Electronics Show, [CES](#) 2015, the IEC gave a presentation on the new IECQ LED Scheme.



### **CAB Working Group – Promotions**

At the GM in Tokyo, CAB re-established its Working Group (WG) 14 – Promotions. The terms of reference for this group are to identify and profile target audiences, propose a common and consistent message focused for each target audience matched with each IEC CA service, identify the forums, organizations, consortiums events, etc., that are most used by the target audiences profiled, and then create a communication and marketing plan (with the help of the IEC CO Communications). This working group has met twice since Tokyo.

### **Systems approach**

#### **Systems work in Standards development**

At the end of June 2015, the IEC had four System Evaluation Groups (SEGs):

- [SEG 1](#): Smart Cities;
- [SEG 4](#): Low Voltage Direct Current (LVDC) Applications, Distribution and Safety for use in Developed and Developing Economies;
- [SEG 5](#): Electrotechnology for mobility;
- [SEG 6](#): Non-traditional Distribution Networks / Microgrids.

And two Systems Committees (SyCs):

[SyC AAL](#) – Active Assisted Living

[SyC Smart Energy](#)

### **Systems approach in Conformity Assessment**

CAB and the Standardization Management Board ([SMB](#)) worked on the integration of conformity assessment needs into the development process of International Systems Standards. The IEC CA activities are market-driven and if the market needs a global CA service for which no standards yet exist, then it is also clear that Standards development priorities should be adapted appropriately. These issues were discussed and a proposal was documented and sent to the Directives Maintenance Team (DMT) for review and possible inclusion into the systems standardization process.

At its meeting in June 2015, CAB approved a process to deal with the development of new activities in a systems approach to CA that was submitted by CAB WG 16. The CAB Special Task Force (STF) on the Council Board recommendations is also studying how new CA services can be established quickly and efficiently using a toolbox approach to CA scheme rules and operational documents. This STF initiative will integrate well with the systems approach to CA process developed by WG 16.

## A3: Expanding audiences

### Regulators and intergovernmental organizations

#### APEC and ASEAN – Dialogue at regional level

The IEC regularly participates in Asia-Pacific Economic Cooperation ([APEC](#)) and Association of Southeast Asian Nations ([ASEAN](#)) standards, conformance and regulator fora with the objective to update key stakeholders and regulators on the latest developments in the IEC, and encourage the harmonization of technical regulations based on IEC International Standards.

#### UNISDR

In December 2014, the IEC was invited to participate in the preparation of the UN 2015 framework for disaster risk reduction, organized by the United Nations Office for Disaster Risk Reduction ([UNISDR](#)). IEC contributions focused in particular on how Standards increase the resilience of cities and infrastructure and help speed up post-disaster recovery. The IEC was also invited to give a presentation on relevant IEC and ISO standardization work during the World Congress on

Disaster Risk Reduction ([WCDRR](#)) in March 2015, in Sendai, Japan. Leading up to this congress, the IEC contributed extensively to the programme of the event, increasing awareness of its work.

Furthermore the IEC continues to participate in the Standards for DRR group that is led by the UN Economic commission for Europe ([UNECE](#)) and brings together many standards development organizations, including the International Organization for Standardization ([ISO](#)).

#### IRENA

In the context of the ongoing collaboration, the International Renewable Energy Agency ([IRENA](#)) invited IEC to its 5<sup>th</sup> General Assembly in Abu Dhabi, last January, where IEC presented the benefits of using IEC International Standards for policymakers in the renewable energies sector. IEC further participated in an IRENA workshop during the United Nations Framework Convention on Climate Change ([UNFCCC](#)) conference in Bonn in June and shared how international electrotechnical standards strengthen renewable energy markets.

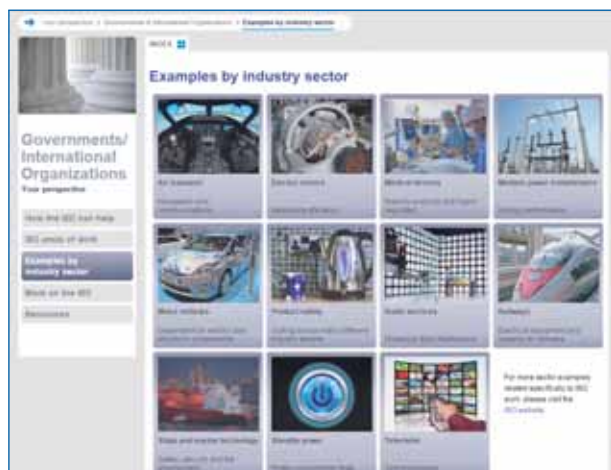


### Updated IEC/ISO brochure for policymakers

We recently updated the [IEC/ISO brochure](#) on using and referencing IEC and ISO Standards to support public policy. An IEC, ISO, UNECE conference is now being planned for November 2015, to bring together policymakers and standardizers to build awareness about how International Standards can support public policy.

### Dedicated web area to demonstrate successful collaboration with policymakers

In parallel the [IEC web area for policymakers](#) was updated to provide additional information, including sector specific examples of successful collaboration between public policy makers and the standardization community.



Examples are provided for the following sectors:

- [Air transport](#)
- [Electric motors](#)
- [Medical devices](#)
- [Medium power transformers](#)
- [Motor vehicles](#)
- [Product safety](#)
- [Radio services](#)
- [Railways](#)
- [Ships and marine technologies](#)
- [Standby power](#)
- [Television](#)

### IEC partners

A consolidated list of all [IEC partner organizations](#) (international, regional and TC/SC liaisons) was added to the IEC website, with direct links to associated cooperation agreements and Memorandums of Understanding (MoU) to enhance transparency.

### Developing countries

#### ***ASEAN-ARISE workshops in Lao PDR and Myanmar***

In cooperation with the Association of Southeast Asian Nations ([ASEAN](#)) Regional Integration Support from Europe ([ARISE](#)), the IEC-APRC Regional Director Dennis Chew participated in a workshop in Vientiane, Lao PDR on 27-28 October 2014. It was the opportunity to meet with stakeholders in the country and present how Lao PDR could leverage the IEC Affiliate Country Programme to implement the ASEAN Harmonized Electrical and Electronic Equipment Regulatory Regime (AHEEERR) and the ASEAN Mutual Recognition Agreement for Electrical and Electronic Equipment (ASEAN EE MRA).

A similar workshop was attended by regulators, government bodies and industry in Myanmar on 10-12 March 2015.

#### ***ASEAN ACCSQ stakeholder workshop in Myanmar***

Back to back with the 42<sup>nd</sup> ASEAN ACCSQ (Consultative Committee on Standards and Quality) meeting in Rangoon, IEC President Junji Nomura visited Myanmar, accompanied by Dennis Chew, on 22-23 September. The ACCSQ meeting was officially opened by Dr Ko Ko Oo, Union Minister of Science and Technology. Myanmar is a key emerging economy with a population of more than 50 million people. It has recently opened its doors to international trade and investment. It is therefore important for the country to engage in the Affiliate Country Programme to make use of IEC International

Standards and benefit from IEC Conformity Assessment Systems. The ACCSQ meeting was followed by a stakeholder workshop, attended by about 60 people. It gave the IEC delegation an opportunity to meet senior business leaders from the industry and to introduce them to the IEC.

***PTB-IEC workshop in Ulaanbaatar, Mongolia, 20 November 2014***

Following the General Meeting in Tokyo, Japan, IEC Asia-Pacific Regional Director flew to [Mongolia](#), accompanied by the IEC Affiliate Country Programme Executive Secretary. The first objective of their visit was a joint workshop with [PTB](#), the German national metrology institute that provides capacity building to developing countries. The workshop focused on IEC International Standards and Conformity Assessment Systems in the field of renewable energies. The second objective was to assist the country in establishing its National Electrotechnical Committee (NEC) under the terms of the Affiliate Country Programme.



A meeting, held at the Mongolian Agency for Standardization and Metrology ([MASM](#)) headquarters, brought together stakeholders from small and medium enterprises, the Chamber of Commerce, the telecommunications sector, laboratories, the administrative City Council of Ulaanbaatar, the university, the college of electrical engineering and of course MASM. Since November, Mongolia has established its National Electrotechnical Committee (NEC), become an Affiliate Plus, signed the Affiliate Conformity

Assessment Status (ACAS) Pledge for training in CA and applied for mentoring.

***WTO Workshop – Chinese Taipei, 2-4 December 2014***

IEC was invited by the World Trade Organization ([WTO](#)) to participate in the event at the request of Chinese Taipei. The workshop addressed some 40 government officials relating to trade and Technical Barriers to Trade (TBT) and provided an overview of the [TBT Agreement](#). The IEC presentation complemented the topics relating to the TBT Agreement and gave the participants, who use IEC International Standards, a good background of the IEC.

**International liaisons**

***WTO TBT Committee***

The IEC attended the WTO TBT Committee meeting in March in Geneva, presented its [March report](#) and spoke at the Advanced Course on the TBT Agreement, sharing expertise on International Standardization and Conformity Assessment. IEC also participated actively in the following WTO workshops:

***WTO TBT National Workshop, Peru***

Amaury Santos, IEC-LARC Regional Director, presented IEC activities and country participation in the region whereas Rosario Uría, IEC Affiliate Leader, presented the benefits of the Affiliate Country Programme and how her country, Peru, was fully engaged as an Affiliate Plus.



**WTO National Workshop, Mexico**

IEC was represented by Luis Iván Hernández, Director of Standardization at ANCE, the Mexican national association for standardization and certification. He shared his experience as a Member of the IEC Standardization Management Board (SMB) and of the IECEE

**WTO Regional Workshop for IGAD Countries, Kenya**

Evah Oduor, IEC Coordinator for Africa, represented the IEC at the WTO workshop for Intergovernmental Authority on Development (IGAD) Member States held in Nairobi, Kenya. She participated in a panel discussion on the challenges related to International Standards in developing countries.

Back to back with the 14<sup>th</sup> annual meeting of the DCMAS Network, the Network on Metrology, Accreditation, Conformity Assessment and Standardization for Developing Countries, the IEC Coordinator for Africa participated in a Regional Trade Capacity Building Course for Least Developed Countries, organized jointly by [UNIDO](#) and ISO, in Maputo, Mozambique. It was the occasion to share IEC International Standardization and Conformity Assessment activities in Africa.

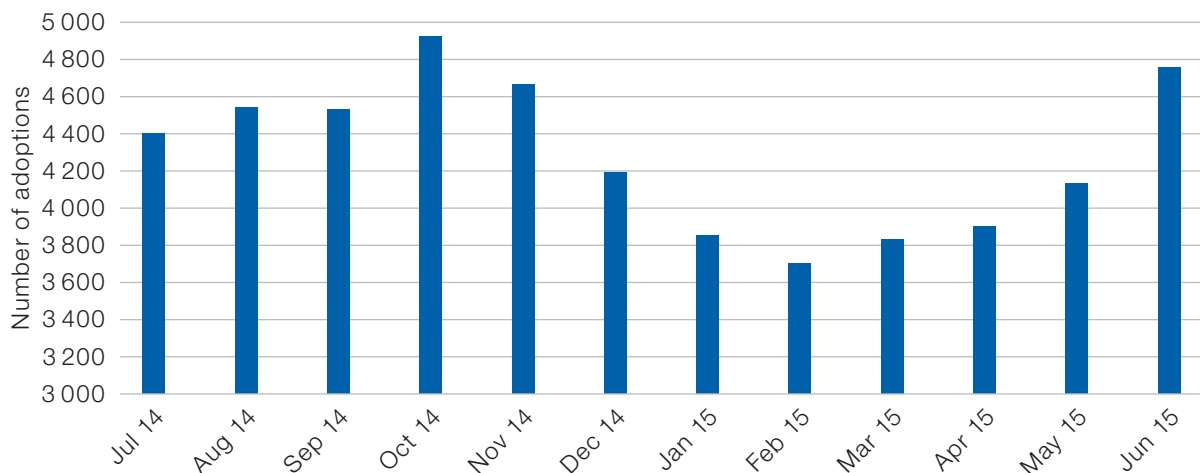
**Affiliate Country Programme**

**National adoptions**

Nine Affiliate Countries declared national adoptions of IEC International Standards: Afghanistan, Barbados, Bhutan, Cameroon, Costa Rica, Ethiopia, Ghana, Malawi and Mongolia. Since the launch of the Affiliate Country Programme in 2001, 44 developing countries have declared national adoptions of over 4 400 IEC International Standards. Five of these 44 countries have become IEC Members.

**New IEC Affiliate Leader**

Rosario Uría, Director of Standardization at the new Peru National Quality Institute (INACAL), took over from Phuntsho Wangdi (Bhutan) on 1 January 2015. Uría will put her 24 years of experience and practical knowledge in national and international standardization to the service of the Affiliate community for a period of two years. Uría contributed to the establishment of a NEC in her country in 2010 which allowed Peru to achieve the Affiliate Plus status. As one of the Affiliate countries that uses its right to comment, Peru has already submitted technical and editorial comments during the development of IEC International Standards. At the previous



**Figure 12 | Affiliate country adoptions from July 2014 to June 2015**

IEC General Meeting in Tokyo, Rosario Uría learnt from Phuntsho Wangdi about her new role and met the Affiliate delegations and the other Affiliate Team members.



### **ACAS e-learning**

Recognizing the need to raise awareness and provide a better understanding of the specific requirements linked to conformity assessment activities, the IEC Affiliate Country Programme Secretariat launched the new Affiliate Conformity Assessment Status (ACAS) in August 2013.

As part of ACAS, the IEC provides e-learning modules to further the Affiliate Country participants' understanding of and involvement in IEC CA activities. The first release of ACAS e-learning modules are online to train developing countries on the IECEE and its CB Scheme, including how it operates, and how developing countries can get involved.

These modules are split into three levels, with progress to more advanced levels determined by a short test on previously covered knowledge. The IEC intends for developing countries to use this new resource, in conjunction with regional ACAS seminars, in order to familiarize themselves with IEC Conformity Assessment procedures.

The ACAS e-learning modules are also open to IEC Members. Using the IEC general login automatically grants access to the introductory modules. Access to the intermediate and advanced modules will be granted on request by emailing: [affiliates@iec.ch](mailto:affiliates@iec.ch)

Find out more on the ACAS zone of the Affiliate website section: <http://www.iec.ch/affiliates/acas/e-learning/iecee>



## A4: Raising the market profile

### Direct communication with industry, business and government leaders

#### IEC Officer visits to NCs

Several visits by IEC Officers to National Committees (NCs) have taken place to promote stakeholder involvement:

- Indonesia industry session, August 2014
- Brazil industry round table, September 2014
- Vietnam seminar, September 2014
- Russia visit, December 2014
- Brazil visit, April 2015
- Colombia visit, April 2015
- Chile visit, April 2015
- Mexico visit, April 2015
- India industry round table, May 2015

#### Participation in GSEP

Immediate Past President Wucherer represented the IEC at the Global Sustainable Electricity Partnership ([GSEP](#)) 2015 Summit, raising the profile of the IEC with executives from the world leading electric utilities to underline the benefits of participating in IEC work.

### IEC Medical Equipment Forum

An IEC International Medical Equipment Standards Forum was held at China's largest medical equipment event, the China International Medical Equipment Fair, in May 2015 to promote awareness of IEC International Standards and encourage more active participation from industry. Led by the Chair of [SC 62B](#), speakers at the event included the Secretary of [TC 62](#) (including [SC 62C](#) and 62B), Convenor of [SC 62A/JWG9](#), IEC-APRC and senior Chinese representatives.

### IEC President's visit to Southeast Asia

In September 2014, IEC President Junji Nomura also gave keynote addresses at seminars in Indonesia, Myanmar and Vietnam to promote awareness of the IEC and encourage active participation from stakeholders, such as industry leaders and government officials. He also had meetings with the Minister of Science and Technology in both Myanmar and Vietnam.

### Academia

Under the auspices of the World Standards Cooperation ([WSC](#)), the IEC led the organization of a roundtable which took place at the Law School of the University of Washington, Seattle,



USA, in January 2015. The recommendations from the roundtable included:

- Create demand – if academia recognizes a need, they will fill it
- Embed teaching about standardization in other courses
- Take a broader holistic approach to the subject and do not limit to engineering and business

A further roundtable should be organized in the Asia-Pacific region in 2016.

## Increasing visibility

### IEC Global Visions interviews

The IEC has continued to develop [IEC Global Visions](#) interviews with industry leaders. The interviews are part of a multi-level marketing programme comprising mailings to CEOs of companies who do not yet actively participate in IEC work, to NCs and CEOs of companies who send experts to the IEC, as well as to experts who participate in the IEC General Meeting. Extracts are also used in presentations and can be found on [MNet](#). The videos are located on the redesigned Global Visions section of the IEC website and are available on the [IEC YouTube channel](#). DVDs are sent to CEOs at targeted companies to increase industry participation.



From July 2014 to June 2015, four interviews were issued:

- Dr Shu, CEO, State Grid Corporation of China (SGCC)
- Dr Sone, President & CEO, Azbil Corporation
- Masami Yamamoto, President & CEO, Fujitsu
- Dr Akira Sudo<sup>1</sup>, Representative Executive Officer, Toshiba

In order to ensure the future of this important programme, the IEC is appealing to NCs to put forward new CEO candidates of global firms.

### Promotion of MSB White Papers

The IEC actively promotes Market Strategy Board ([MSB](#)) White Papers throughout the year, for example during events, via media releases, articles, through mailings to technical universities, via international organizations and as part of presentations at symposia, workshops and roundtables.

All White Papers have been relooked in line with the new corporate identity and are [available electronically](#) on the IEC website.



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1 in June 2014

During the period in question, the White Papers were distributed to participants of events such as the Energy Storage World Forum in Rome; Energy Storage 2015 Summit in Hamburg; India Smart Grid Week in New Delhi.

The MSB White Papers on Smart Cities and Wireless Sensor Networks were launched at the November General Meeting in Tokyo and promoted through media releases and sent to technical universities around the world.

The White Paper *Orchestrating Infrastructure for Smart Cities* was actively promoted at and around the official launch event that was held at the Centre for European Policy Studies in Brussels.

Both the Smart Cities and Microgrids White Papers were submitted to the UN in the context of the UN World Conference on Disaster Risk Reduction (WCDRR) in Sendai, Japan, in March 2015. They are now available via the UN prevention web:

- [Orchestrating infrastructure for sustainable smart cities](#)
- [Microgrids for disaster preparedness and recovery](#)

Both papers were also shared with United Nations Economic Commission for Africa ([UNECA](#)) in May 2015.

## B1: Anticipating market needs

### LVDC

At the November IEC General Meeting, the Standardization Management Board ([SMB](#)) established Systems Evaluation Group 4 ([SEG 4](#)) to evaluate the status of standardization in the field of Low Voltage Direct Current (LVDC) focusing on applications, distribution and safety for use in developed and developing economies. This technology has the potential to bring improved efficiency to existing installations but more particularly to supply power to the large portion of the world which has no access to electricity today. The ever increasing number of appliances making use of LVDC as a source of power and the dropping costs of photovoltaic solar panels, as well as energy storage, will drive the development of LVDC.

### Market Strategy Board

In addition to the six White Papers and one Technology Report already published, two new White Papers are underway:

#### ***White Paper on Factory of the Future***

For *Factories of the Future*, the main objectives of this proposed project are to assess potential worldwide needs and benefits for the factory of the future, both light and heavy industrial, including personnel, while identifying the trends in related technologies and markets.



A review and assessment of the associated technologies is considered so that an evaluation of the Standards needed to support widespread commercialization of these technologies can be recommended. The paper is due for publication in October 2015.

#### ***White Paper on Strategic Asset Management of Power Networks***

There is ever-increasing regulatory and funding pressure being placed on electricity network businesses to justify their management actions and expenditure decisions. This White Paper explores this issue in depth, examining the practice of asset management in the electricity power network sector, and identifying areas of asset management practice that could benefit from International Standards. It will deal not only with equipment, e.g. transformers, but also power networks as a system. The paper is due for publication in October 2015.

#### **Smart manufacturing; Industry 4.0**

The second meeting of SG 8: Smart Manufacturing; Industry 4.0, was held in São Paulo, Brazil, in March 2015. SG 8 continues its work to provide recommendations for an IEC strategy encompassing manufacturing automation that will focus on real time needs of the manufacturing enterprise. It will also pursue an architecture for smart manufacturing that will enable it to be its own smart application within an Internet of Things (IoT) environment; and to leverage current and next generation technologies in building safe and secure factories. Liaisons with ISO/TC184, JTC1/WG 10 and IEEE P2413 (Standard for an Architectural Framework for the Internet of Things) have been established.

## B2: Systems and sectoral approach

The [Smart Grid Standards Mapping Tool](#) continues to allow users to easily and instantly identify the Standards that are needed for any part of the Smart Grid. With this tool anybody is able to immediately identify any given Standard in relation to its role within the Smart Grid. New Standards are added regularly.

### Systems Committees

#### SyC Smart Energy

Since it was established, the Systems Committee (SyC) Smart Energy has had a large number of bilateral meetings with the TCs engaged in Smart Grids. SyC Smart Energy developed the concepts and processes for the TC collaboration platform. It had its first plenary meeting in June 2015 in Beijing, China, where the structure of the SyC was approved and four Working Groups were established. The SyC Smart Energy will engage with IEC TCs to continue the development of interoperable Standards for transmission, distribution, metering, connecting consumers and cybersecurity.



Its primary activities include:

- Advance metering and substation & distribution automation;
- Connecting the consumer, smart appliances;

- Smart Energy, microgrids and active distribution networks;
- Interactions with heat/cold and gas;
- Cybersecurity;
- Privacy;
- Infrastructure modernization or new deployments;
- Plugin hybrid electric vehicles.

In the coming months, it will work to provide systems-level standardization, coordination and guidance in the areas of Smart Grid and Smart Energy, including interaction/integration in the areas of heat and gas.

#### SyC AAL, Active Assisted Living

SyC Active Assisted Living (AAL) had its first meeting in March 2015 in Frankfurt, Germany, and agreed a comprehensive work programme. The internal structure of the SyC was approved as well as a list of TCs and consortia to be part of the platform. The operation is now effective and a first project for a new AAL chapter of the IEV is ongoing.



SyC AAL set up four working groups:

- WG 1: AAL user focus;
- WG 2: AAL architecture and interoperability;
- WG 3: AAL quality and conformity assessment;
- WG 4: AAL regulatory matters.

### Systems Evaluation Groups

IEC has four Systems Evaluation Groups (SEGs). The concept of open groups with online registration is a success. In SEG 4: LVDC, 46% of the 91 members are new to the IEC. In SEG 1: Smart Cities, this figure is 31% out of 181 members.

#### SEG 1: Smart Cities

IEC will be organizing a workshop on Smart Cities to be held in Singapore in July 2016. In principle SEG 1 will have terminated its work by the SMB meeting in October and propose the setting up of a new Systems Committee.

#### SEG 6: Microgrids

SEG 6 met in June 2015. It established a work plan and three internal task groups. Microgrids can cover from a single room in a building to homes, commercial or office buildings up to a complete geographical area. The improvement of power supply reliability is the main driving factor, followed by energy efficiency.



There is no major overlap between SEG 4 and SEG 6. Both groups will collaborate, and bring valuable contributions to identify future needs in standardization.

#### SEG 4 – LVDC

Low voltage direct current (LVDC) is one of the most important key activities undertaken by the IEC in recent years. The need is really pushed by two drivers. In developing countries to supply electricity to those where it is currently not available, LVDC provides an affordable, easily implementable solution, making the best possible use of renewable energies. For existing installations, it is a new alternative for power distribution for the increasing number of low-voltage appliances, including lighting found in homes and offices.

The LVDC market evaluation work done in SEG 4 led to the conclusion that the industry is expecting some basic standards before heavily investigating LVDC product developments. These standards should address the DC voltages, plugs and sockets, and wiring rules for buildings. In order to reach out to a wider stakeholder base, IEC and the Bureau of Indian Standards (BIS) will jointly host the very first [International Conference on LVDC](#) in New Delhi, India, on 26-27 October 2015.

### Strategic Groups

At the end of June 2015, IEC had three operational Strategic Groups (SGs):

- [SG 8](#): Industry 4.0 – Smart Manufacturing
- [SG 9](#): Communication Technologies
- [SG 10](#): Wearable Smart Devices

In addition to SG 8, created in early 2014, the SMB has established two new SGs:

SG 9 was set up by the SMB to coordinate activities in the telecommunications sector in IEC. It will create an inventory of work and activities, provide directions on future trends, interact



with other organizations, identify cross-cutting technologies and promote interoperability.

SG 10 was set up by SMB with the task of reviewing existing activities in a number of technical committees and ensuring coordination of activities.

### Advisory Committees

#### Data Security and data privacy

The IEC Advisory Committee on Security (ACSEC) held its first meeting in May 2015 and agreed on a

work programme which included the development of a Guide on the Implementation of Information Security and Data Privacy in IEC publications. It will also develop a mapping of existing standards activities as well as activities in other organizations.

#### Robot technologies

The SMB set up the Advisory Committee on Electrotechnical Applications of Robot Technologies (ACART). Its tasks include the coordination of common aspects of robot technology, guidelines for critical aspects and the promotion of collaboration.

#### Processes/tools

The SMB established a Systems Resource Group (SRG) to guide the development and use of specialized tools and software applications for systems and encourage the use of the tools and sharing of best practices within Systems Committees.



## C1: Global collaboration

### Cooperation with international and regional organizations

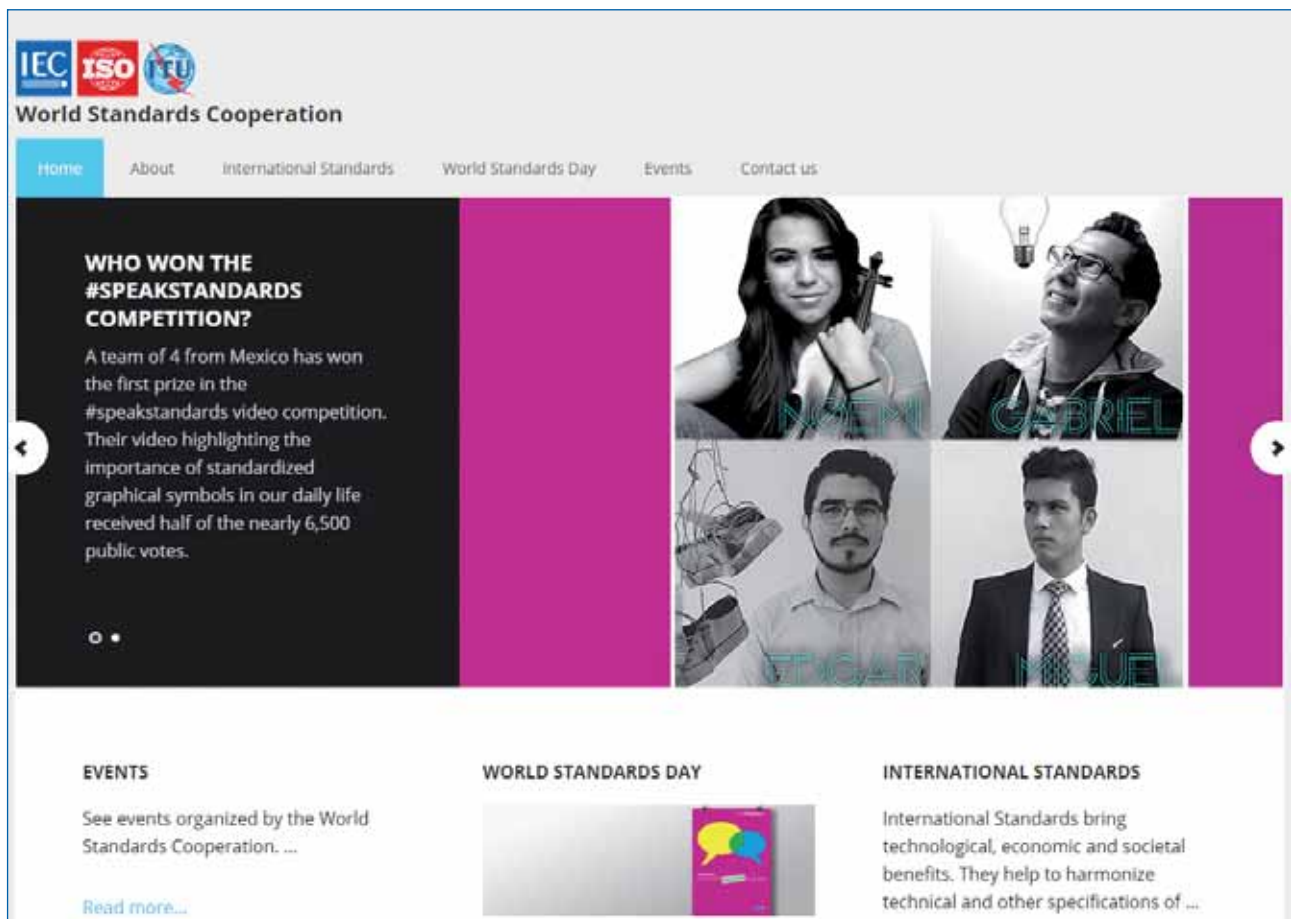
#### World Standards Cooperation

Under the auspices of the World Standards Cooperation (WSC), the IEC, ISO and the International Telecommunication Union (ITU) join forces to promote and increase awareness of International Standards and related CA matters and strengthen the voluntary consensus-based International Standards system that its members represent.

The following WSC activities took place:

- 2014 World Standards Day poster competition, on the theme of “International Standards level the playing field”, which attracted nearly 200 entries. The winner was Damar Panji Wijaya of Indonesia.

- 2015 World Standards Day [video competition](#) under the lead of ISO, on the theme of “Standards. The world’s common language” is in full swing. This time it is taking the form of a video competition, which was launched on 29 May 2015: The 2015 poster has been created and is currently being distributed.
- The 2015 Academia Roundtable was organized in Seattle, WA, USA, on 22-23 January 2015, bringing together academics from leading world management schools and executives from foremost standardization organizations, as well as industry, entrepreneurs, and government leaders.
- The three organizations jointly published [ISO/IEC Guide 71](#), addressing accessibility in International Standards.





- Under the lead of the IEC, the [WSC website](#) was revamped.

A WSC workshop on Conformity Assessment is currently being prepared and will take place on 1-2 December 2015. Details on the following website: <http://www.wsccaworkshop.com>

### **CENELEC**

Since the signing of the Dresden Agreement in 1996, cooperation between IEC and the European Committee for Electrotechnical Standardization (CENELEC) has been very successful. The IEC is regularly represented at the CENELEC General Assembly – in June 2015 in Riga, Latvia – as well as in bilateral meetings. IEC and CENELEC are currently reviewing the implementation of the Dresden Agreement to improve processes and increase the synergy between the two organizations in terms of standards development.

### **Alliance for Rural Electrification (ARE)**

As is the IEC, ARE is a partner of the United Nation Sustainable Energy for All ([SE4ALL](#)) initiative and has signed a collaboration pledge with the IEC through its Affiliate Country Programme to share information and expertise for the benefits of developing countries. In the framework of this collaboration, IEC was invited to speak at an ARE Energy Access Workshop in Madrid in January. Thomas Robertson, Affiliate Secretariat, and Vicente Salas, Co-Convenor of IEC TC 82/WG 6 took part in a roundtable in Madrid on how IEC International Standards and Conformity Assessment Systems facilitate rural electrification in developing countries.

### **Southern African Development Community (SADC)**

IEC Coordinator for Africa attended SADC 30<sup>th</sup> annual meetings in March and gave a feedback on the Tokyo IEC General Meeting. She also presented the benefits for Affiliates to be granted the Affiliate Conformity Assessment Status (ACAS) and went on with the mentoring

programme that aims to reinforce Affiliate National Electrotechnical Committees (NECs), establishing mirror committees with the objective of increasing their participation in IEC work. She explained that the ultimate phase of the mentoring approach is to twin experts as it is the case for Norway and Uruguay. It was also an opportunity to review participation in IEC and set priorities for each of the 14 SADC members, of which only one is an IEC member, all others being Affiliates.

### **Cooperation in the Americas**

By strengthening its collaboration with regional bodies such as the Forum of the IEC National Committees of Americas (FINCA) and the Pan American Standards Commission ([COPANT](#)), IEC helps them organize their participation in the IEC international standardization process and its CA Systems. As part of this collaboration IEC participates in their General Assemblies and/or Annual Meetings, reporting on all IEC global and regional activities. The IEC also supports FINCA in the publication of a newsletter that will carry information about IEC activities in the region to all Members and Affiliates.

### **Pacific Area Standards Congress (PASC)**

IEC attends the Pacific Area Standards Congress ([PASC](#)) annual meetings following the signing of a cooperation agreement in 2007. In addition to providing updates on the latest IEC developments, the IEC is also given the opportunity to engage and participate in the full meeting agenda. At the recent PASC meeting in New Delhi, India, in May, the IEC participated in a discussion on services standardization and the important role that international standards play in helping reduce technical barriers to trade. PASC is a regional organization that groups the National Standards Bodies (NSBs) of 24 countries.

## C2: IT tools and capabilities

### Vertically integrated IT tools – A-Z approach

#### IT organization

Following the retirement of Alan Maislisch, Peter Godwin took over as Head of IT Strategy and Operations in January 2015. During the first half of 2015, a major focus was put on enhancing the organizational effectiveness of the team – this included integration of the TISS and web teams within the IT department, as well as putting in place new processes and tools for project management and IT support.

#### NCs and developing countries – new tools and services

##### *Updated resources for NCs*

A revised NC Resource Area was developed to provide new and existing NCs with a one-stop-shop for information on the structure of the IEC and the roles and responsibilities of an NC. The Resource Area now offers improved navigation and numerous quick links to tools.

##### *Tools for developing countries and Affiliates*

In support of the IEC Affiliate Country Programme's Affiliate Conformity Assessment Status (ACAS), and to further the Affiliate Country participants' understanding and involvement in IEC CA activities, the first of a series of online e-learning modules was developed and published

on the IEC web site. The first module addresses IECEE activities, further modules will address IECEx, IECQ and IECRE.

#### Training

##### *Workshops*

In cooperation with IEC Regional Centres, 18 training workshops on standardization strategy, participation, processes and tools were delivered, tailored to the needs of the respective National Committees and stakeholders. More than 1 300 people participated in workshops in 15 countries: Argentina, Australia, Belarus, Brazil, Canada, Chile, China, Finland, Japan, Malaysia, Mexico, New Zealand, Singapore, Switzerland and the US.

These workshops promote the use of IEC standardization explaining the strategic advantages of active participation and how to participate, followed by detailed training on standardization procedures and tools. Individual and group training sessions were also conducted for new TC/SC Officers and WG convenors.

#### Websites, apps and social media

##### *New IEC Webstore and Online Collections*

Two major developments in support of IEC sales activities were completed in 2015: the new IEC Webstore and the IEC Online Collections (see Financial overview).



**IECEX mobile applications**

In the area of Conformity Assessment, two new mobile applications were developed for the IECEX Certified Person Scheme and IECEX Certified Facility Scheme. They complement the first application for the IECEX Certified Equipment Scheme. A new IECEX meeting registration tool was also put in place.

**Social media**

IEC Communications has put in place and regularly uses the most important social media platforms to promote IEC work. IEC social media channels include:

[LinkedIn](#)

16 500 members (from 11 300 in January 2014 => +46%)

[Facebook](#)

4 751 followers from 3 157 followers in January 2014 => +50% (highest reach 68 000)

[Twitter](#)

3 733 followers 2 510 in January 2014 => +49%)

[Google+](#)

520 followers

[YouTube](#)

246 followers from 140 => +76% and  
39 570 views



## D1: National Committee representation and operations

### NC participation

#### NC report template

A mechanism and template report was approved by Council in September 2014 as a programme for monitoring National Committee (NC) structure, representation and sustainable operations. The goal was to provide NCs with measurable parameters to assist them in improving their service to the market. The General Secretary will use the information to identify areas where additional support is required for NCs and to determine best practices that could be shared among NCs.

#### Council Discussion session on engaging stakeholders and enhancing participation

At the session, National Committees were encouraged to share best practices and concerns regarding outreach to stakeholders. Participants also discussed how to explain the return on investment to leaders in their country. There was common agreement that face-to-face exchanges were most effective and that messages should be tailored to the relevant audience and businesses. CEOs responded best to success stories that demonstrate impact on the bottom line and to examples of their competition successfully participating in standardization work. Participants also confirmed that regulators need to hear about the successful use of International Standards in the regulatory environment (examples were subsequently posted on the website as explained [here](#)).

#### Updated resources for NCs

##### NC Resource Area

A revised [NC Resource Area](#) has been developed to provide guidance and support to NCs in their IEC activities. The new Resource Area has facilitated navigation and provides numerous quick links to tools.



The intention is to provide new and existing NCs with a one-stop-shop for information on the structure of the IEC, the roles and responsibilities of an NC and the various official positions, such as NC President and NC Secretary. It also explains NC involvement in standards development and conformity assessment work and provides details about publication management (sales, national adoptions and standards library). There are further sections on the tools and services available to NCs, as well as details regarding training and mentoring opportunities and information about who to contact in the Central Office for specific questions.

#### Regulators toolkit

The toolkit of material to support National Committees in outreach activities to regulators has been updated. It contains presentations, video clips, brochures and leaflets. National Committees have been encouraged to share materials with Central Office for inclusion in the toolkit.

## D2: Conformity assessment governance

### CA governance

In line with Masterplan implementation programme N, a proposal for a new governance structure for IEC Conformity Assessment (CA) was developed by the Council Board, following discussions with representatives from the Conformity Assessment Board (CAB), IEC CA Systems and with end-users of the IEC CA services.

The objectives of the proposal were to:

- establish a proper balance between the operational authority of the CA Systems and legal and financial responsibility of the IEC
- secure balanced stakeholder representation in CA decision-making processes at national and international levels
- create a management structure that has the mechanisms to anticipate and effectively respond to CA needs for emerging technologies, products and markets
- facilitate the use of schemes across current and new CA Systems to efficiently and effectively respond to market needs, and
- continue to apply best business practices and seek to add value for all stakeholders

The resulting proposed amendments to the IEC Statutes and Rules of Procedure were approved by Council in Tokyo and again by correspondence (in accordance with the IEC Statutes). In January 2015, following the approval of the amendments, the CAB was increased from 12 to 15 Members. At the CAB meeting in Tokyo a Special Task Force (STF) was established under the convenorship of the incoming CAB Chairman, to discuss the recommendations and create a plan for their implementation. Three meetings have so far been held, in February, March and June of 2015.

In order to facilitate the fast introduction of new CA services, when market needs are identified,

the STF will propose to introduce a toolbox approach for CA services. The toolbox would contain ready to use schemes and processes for any new standalone scheme or CA System. The STF will also propose an incubator concept to help any new CA service get from the initial stage of identification through to becoming a fully operational scheme. Finally, for the earliest stages of identification, the STF will propose to establish a master list of potential CA business opportunities by mapping the available standards across sectors, creating links to the TC/SCs of greatest interest and then measuring and tracking the expressed needs for global CA services. This process should allow a “heat map” to be produced showing what is cold and what is hot. It should also allow gaps in standards to be identified and advice to be fed back to the TC/SCs concerned for the prioritization of their standards development work. In this way CA and standardization will work closely together anticipating and satisfying market needs in a timely way.

### Conformity Assessment Board activities

#### Masterplan implementation

CAB WG 10 on CAB Policy and Strategy, has, for some time, been working on three important subjects. Firstly, the Masterplan implementation plan, secondly a compilation of all CAB policy documents into one Consolidated CAB Policy Document and thirdly the Risk Management Grid. A final version of the Masterplan implementation plan was submitted to CAB at the Tokyo meeting where it was approved. The implementation plan delegated tasks to itself and to the other CAB working groups and also called for the re-establishment of the WG 14: Promotion.

The terms of reference for WG 14 are to identify and profile target audiences, propose

a common and consistent message focused for each target audience matched with each IEC CA service, identify the forums, organizations, consortiums events, etc., that are most used by the target audiences profiled, and then create a communication and marketing plan (with the help of the IEC CO Communications). This WG has met twice since Tokyo.

### **CA policy**

In Tokyo, WG 10 submitted a consolidated policy document that contained already approved policy but in a modified format. The next step was to review new additional policy that had been proposed, based on information given in the Masterplan and other sources. This document was finalized and approved at the CAB meeting in June. Because it is a living document, over time, any new CAB decisions with a policy impact will be systematically added to the end of the document. Then every few years the entire document will follow a process of updating and reconsolidation.

### **CA Risk Management Grid**

An updated version of the Risk Management Grid (RMG) was submitted by WG 10, in an uncompleted form, and endorsed by CAB in Tokyo, with the recognition that additional work was required for its completion. WG 10 submitted a final version of the RMG to CAB in June, where it was approved.

### **Harmonization of Basic Rules**

Following the submission of proposed harmonized Basic Rules (HBR) for the existing CA Systems, by WG 11, to CAB at its meeting in Tokyo, those HBR were sent to the CA Systems for their review and reporting at the CAB meeting in Minsk. At its June 2015 meeting, CAB received a proposal for standardized Basic Rules of a Standalone Scheme. WG 11 was tasked with reviewing these proposed rules.

### **Affiliate Country Programme**

The first series of e-learning modules for the Affiliate Conformity Assessment Status (ACAS) programme went live at the beginning of June. This first series concerned the IECEE and a second series concerning the IECEx is expected to be available by the end of September. These modules will enhance knowledge and understanding of IEC CA activities throughout the Affiliate Countries and will also be made available for use by a wider audience.

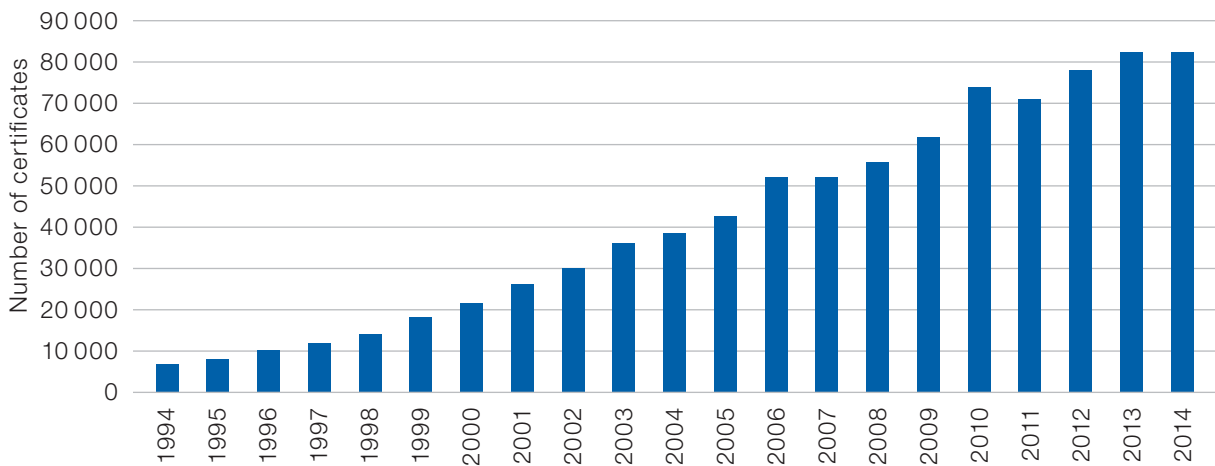
### **Cybersecurity**

At the CAB meeting in June 2014, a new working group, WG 17 on Cybersecurity, was established. There has been market demand from different sectors expressing the common need for personnel competence certification in the IT security domain and from the industrial automation sector, the data privacy sector and so on. As evidence of the market need, since the establishment of this WG, the number of requests for membership has topped all records. This WG held meetings in August 2014 and in February 2015 and another is planned for September or October 2015. At the June 2015 CAB meeting the scope of this working group was refined to include home automation, smart devices (such as smart meters) and medical devices.

### **IECEE**

#### **GMEE programme**

Motor manufacturers are producing and selling electric motors across many countries. As test standards, efficiency levels and certification schemes vary from country to country, and in response to the needs of manufacturers, [IECEE](#) has finalized a Global Motor Energy Efficiency (GMEE) programme. The programme has one recognized test method (IEC 60034-2-1), one test report format, and one certification process acceptable in all participating countries. Thus, each motor will have an “international



**Figure 13 | IECEE CB Test Certificates issued 1994-2014**

passport”: once certified for one particular level of energy efficiency in one country, that certification would be recognized in another (participating) country as well. This facilitates international cooperation among different countries as it relates to the enforcement of regulations.



**Cybersecurity**

Under the Industrial Automation (INDA) category, the IECEE is pursuing CA solutions related to cybersecurity, in close cooperation with the CAB efforts in this same area. To this effect, a working group has been created in the Policy & Strategy Committee and is pursuing the development of the details by which participating certification



bodies and testing laboratories will provide certifications.

**IEC-ILAC-IAF**

The [IEC-ILAC-IAF Steering Committee](#) has developed revised guidelines to further enhance the existing procedures for unified assessments of participating certification bodies and testing laboratories.

**Mentoring**

The IECEE Peer Assessment Mentorship (PAM) group has developed a comprehensive training programme which will be the basis for the Lead Assessor and Technical Assessor training programme to be held in Argentina in 2015.

### **Statistics:**

- 54 participating countries
- 77 National Certification Bodies
- 479 Testing Laboratories
- Over 1 600 Client Testing Facilities (formerly Manufacturer's Testing Laboratories)
- CB Test Certificates issued is on pace to exceed 80 000 in 2015

## **IECEX**

### **The CA System and its Schemes**

The CA System operates industry-specific Schemes

- IECEX Certified Equipment Scheme
- IECEX Certified Service Facilities Scheme
- IECEX Scheme for Certification of Personnel Competence

The [IECEX](#) Conformity Mark Licensing System operates in association with the IECEX Certified Equipment Scheme.

### **Stakeholders**

Representatives from industry and regulators now form the majority of the IECEX Management Committee (MC). New stakeholder groups represent Ex repairers, installers and Ex training organizations and educators.

### **Extension of the IECEX Certified Services Scheme**

The IECEX Certified Service Facility Scheme now provides for the assessment and certification of organizations offering a range of services to industry such as:

- Ex Repair and Overhaul to IEC 60079-19 (existing)
- Ex Selection and Installation + Initial Inspection to IEC 60079-14

- Ex Inspection to IEC 60079-17
- Area Classification to IEC 60079-10 series

### **IECEX Certificates**

IECEX operates the only global online certificate system dedicated to the Ex sector. Given that most consumers of Ex products are well aware of the issues pertaining to that field, the IECEX online system provides instant verification of claims of compliance, providing the one single location where certificates issued by more than 70 IECEX Certification Bodies can be found with full public access.

In addition, the IECEX application for smart phones and tablets allows for instant verification of IECEX-issued certificates both online and offline.

One key aspect of IECEX is that the IECEX Certificate reference number must be included on product labels for clear traceability purposes.

### **Training**

In support of the IECEX Certified Persons Scheme, IECEX responded to industry requests to provide a qualification programme that identifies Ex training organizations whose training would likely assist a candidate to be better prepared for undertaking the IECEX Personal Certification Scheme assessment process, and launched the new IECEX Recognized Training Provider (RTP) Programme during May 2015. The first two RTP Bodies have now been listed on the IECEX website with a further 6 training bodies lodging their application at the time of this report.

### **International IECEX Conference**

The conference, which took place in Gdansk, Poland, on 22-23 April 2015, was a huge success. Organized by IECEX, together with Urząd Dozoru Technicznego (UDT) and in conjunction with UNECE, it attracted delegates,



including presenters and dignitaries, from across the region. It provided attendees with the opportunity to learn more about IECEx and recent developments in [IEC TC 31](#) International Standards and their role in regulations. A segment was dedicated to the practical applications of standards and the pitfalls when dealing with installations where flammable and combustible materials may be present.



It was evident from the huge attendance and active participation of attendees that the industry is using or is interested in using IECEx as a tool to verify compliance with IEC International Standards.

### Special industry meeting at GCC GSO

The IECEx Chairman and Executive Secretary both attended a special industry workshop in Riyadh, Saudi Arabia, in March 2015 to present IECEx as part of a GSO initiative to promote IECEx in the Gulf Region. GSO is the Gulf Cooperation Council (GCC) Standardization Organization.

The IEC General Secretary and CEO made a video address to the workshop which was well received.

The outcome of the workshop was a commitment from Saudi Arabia to join IECEx and to hold a larger Gulf-wide two-day International Conference to promote the awareness and understanding of IECEx.

### IECEX at PCIC

The IECEx Secretariat attended various key industry events, namely:

- Petroleum and Chemical Industry Committee (PCIC) Europe
- PCIC North America
- PCIC Middle East

### Statistics

Member Countries:	33
IECEX Certification Bodies:	83 (all Schemes)
IECEX Test Laboratories:	56
Number of IECEx Certificates + Reports:	More than 50 000

### IECQ

2015 saw [IECQ](#) enter its 5<sup>th</sup> year since the major re-engineering of the entire IECQ System that occurred in 2010-11 and addressed all aspects of IECQ: rationalizing of its Schemes, complete review of the IECQ documentation, alignment of the IECQ Basic Rules with the Basic Rules of the other IEC CA Systems and IECQ On-line Certificate System.

The final chapter of this major overhaul of the IECQ was the new [IECQ website](#). It has been a major project in itself, spanning the past few years, and is new from the bottom up, utilizing the impressive talents of the IEC communications department, the IT department and the IECQ secretariat.

### IECQ Schemes

IECQ, the IEC Quality Assessment System for Electronic Components, operates industry specific Certification Schemes:

- [IECQ AP](#) (Approved Process)
  - [IECQ AP-CAP](#) (Counterfeit Avoidance Programme)

- [IECQ AC](#) (Approved Component)
  - IECQ AC-TC (Technology Certification)
  - [IECQ AC-AQP](#) (Automotive Qualification Programme)
- [IECQ Avionics](#)
- [IECQ HSPM](#) (Hazardous Substances Process Management)
- [IECQ ITL](#) (Independent Testing Laboratory)

### Automotive

During the past year the newly formed IECQ Automotive Qualification Programme (AQP) issued its first certification. The AQP provides the automotive industry with a cost effective way to ensure that the components they are buying meet expected quality, safety and reliability requirements.



IECQ AQP gives the automotive industry a standardized way of testing the components to ensure their reliability. This way, automotive manufacturers know how the performances of components compare. IECQ AQP will help automotive manufacturers avoid multiple second party assessments and tests and related costs.

### LED initiative

In line with the approved scope of IECQ, the IECQ AC Scheme can be used to certify manufacturers and suppliers of electronic components and assemblies used in the production of LED lamps, luminaires and associated LED ballasts/drivers. To facilitate a standardized approach for testing and assessing components associated with LED

lamps and drivers, IECQ have formed a special Working Group (WG) to facilitate application of the IECQ AC Scheme noting that various parts are also covered under the IECEE CB Scheme for safety and performance.



IECQ WG LED presented the following documents for approval by the IECQ Management Committee, in order to facilitate this new LED Scheme:

- Rules of Procedure for the new Scheme
- Operational Document covering the standardized process to be used by all IECQ Certification Bodies
- Operational Document covering the quality system requirements applicable to manufacturers of components and assemblies used in the LED lighting systems, that are over and above the base requirements of ISO 9001

### Reaching out to industry

IECQ reached out to industry through participation at several international events in the past 12 months, including:

- Taitronics in Taiwan
- Autotronics
- IECQ Training sessions in Russia
- IECQ Auditor training in China and Chinese Taipei

### Certificates

The IECQ On-line Certificate System is the repository of all certificates issued by IECQ. Accessing the database provides industry with instant verification of any claims of compliance.

### Statistics

Member Countries:	14
IECQ Certification Bodies:	21
IECQ Certification Body branches:	50
Number of IECQ Company Certificates:	6 223 to date, covering companies in 38 countries

### IECRE

The 4<sup>th</sup> IEC CA System, IEC System for Certification to Standards Relating to Equipment for Use in Renewable Energy Applications ([IECRE](#)), has become operational with the election of Officers and appointment by CAB.

The IECRE CA System currently includes three renewable energy sectors: Marine Energy, Photovoltaic (PV) Solar Energy, and Wind Energy, each having an Operational Management Committee (OMC) under the main management committee of the IECRE. These OMCs are drafting the Rules of Procedure (RoP) for their industries, by which the Certification Bodies and Testing Laboratories will be able to provide certification. Currently, there are 18 countries participating in the IECRE, with at least three others in the process of applying for membership.



## E1: Continuity in the quality and availability of IEC experts and leaders

### Young Professionals programme

IEC Young Professionals are the future leaders of the IEC and are potential ambassadors for National Committees and the IEC as a whole.



The [IEC Young Professionals](#) drive the development of the programme and, through their elected YP Leaders, develop material to support the increased involvement of young professionals in IEC work. Materials developed by the IEC YPs since 2010:

- YP manual, providing a comprehensive overview of the IEC as well as tips for newcomers
- Web discussions, providing IEC YPs with updates on specific technical topics or advice about how to get ahead in the IEC
- Reports on the business case for standardization, based on a survey conducted with IEC leaders and experts
- PowerPoint presentation templates, to present the business case for participating in IEC work (at national and international levels)
- Guidelines for national mentoring programmes, to support NCs in the establishment of tools to strengthen their experts
- Proposals on how to engage with academia, to develop the visibility of the IEC in the academic world

- Newsletters to share the success stories of former IEC YPs as they increase their involvement in IEC work

This year the IEC YPs are working on the following projects:

- Case studies to demonstrate how companies derive benefits from being involved in IEC work
- Awareness building with academia – YPs are acting as ambassadors on behalf of the IEC and their NC by presenting their respective activities to students in universities
- Development of a new session for the IEC YP workshop in Minsk: participants will have to develop a mock standard for an electronic baby robot
- Development of a mentoring programme for YPs for use by NCs
- Continuation of the newsletters to share the success stories of former IEC YPs as they increase their involvement in IEC work

### Outcomes so far

- 274 participants from 42 NCs

From 2010 – 2014:

- 62% maintained or increased involvement
- 50% have contacted their NC regarding an equivalent national programme
- 90% shared knowledge with their workplace

### National YP programmes

The IEC YP programme provides National Committees with a vital tool to prepare its future experts and leaders for their involvement in national and international standardization and conformity assessment activities.

To achieve the maximum benefits from the IEC programme, National Committees are being encouraged to develop national IEC YP

programmes, with support from Central Office at various levels, including provision of material, speakers (whenever possible) and guidance on administration and promotional aspects of a YP programme.

In this respect, the NC Presidents' Forum at the Tokyo General Meeting focused on IEC national YP programmes to allow National Committees to share best practices. At the request of the NC Presidents, the best practices have been made available to all NC Secretaries via collaboration tools.

### 2014 workshop

The 5<sup>th</sup> IEC YP workshop gathered 67 participants selected by 33 NCs. As in the past, previously elected YP Leaders set and ran parts of the agenda.

IEC 2014 YPs had the opportunity to observe the SMB or CAB meeting, a technical meeting and to participate in numerous breakout and interactive sessions. All YPs found the workshop valuable (100%), almost everyone's expectations were fulfilled (99%) and nearly all the YPs plan to get more involved in IEC work (97%).



An e-training module was developed and completed by all YPs in 2014, in advance of the workshop with the objective of ensuring that participants had the same basic knowledge on IEC structure and operations. This responded to YP feedback from previous years and meant that more time could be spent on interactive

sessions over one-sided presentations during the workshop to make better use of the time.

The 2014 YPs were invited by the Japanese National Committee to attend an industry visit together with the participants of the Japanese national equivalent YP programme. This provided a unique opportunity for the exchange of experiences between the participants from the national and international programmes.



The IEC YP workshop results are shared directly with Council in the General Secretary's report and National Committees receive a more detailed report after the General Meeting. In addition, relevant reports/recommendations from IEC YP activities are fed directly to the Chairman and Secretary of the appropriate management body. A recent example includes the IEC YP recommendations about how the IEC could enhance its ties with academia, including R&D institutions, which the SMB secretariat shared with the SMB *ad hoc* Group (ahG) on new technologies.

### Tools for experts

IEC Communications updated promotional material, including postcards, a brochure, a PowerPoint presentation and a mini-film about the many benefits the IEC has to offer industry <http://www.iec.ch/about/brochures/promotionalmaterial.htm>.

The SMB published a Code of conduct for experts and delegates, which gives general

guidance on a number of issues, including conduct in meetings, use of social networks, copyright issues and patent rights declarations.

### **Training for IEC TC/SC Officers**

The IEC CO, in Geneva, and Regional Centres conducted 10 individual or group training sessions for new TC/SC Officers and WG convenors, providing them with a good overview of the rules and procedures for the technical work as well as support to the use of IT Tools and website. Several specific training sessions on IT Tools were also given to NC, TC and SC Officers at IEC CO.

## **Community building**

### **LinkedIn group**

With the Electrotechnical Standards Group on LinkedIn, the IEC has been developing a platform that promotes dialogue and exchanges within the electrotechnical community. The group, created in 2010 has now more than 20 000 members and keeps growing. The IEC has also put in place several sub-groups. Those include for example EMC, IEC 61508 on Functional Safety, IECEx Explosive Atmospheres Group, IECEE and a closed discussion group dedicated to National Committees.

## F1: Financial stability and the IEC business model

### Financials

See first section on financial overview and sales results

### New revenue streams

Following the special task force report, recommendations are implemented. The first step is the launch of the Online Collections platform. Other innovative products will be evaluated and prototypes will be created for example: smart publications with dynamic formulas.

### Copyright and trademark protection

The IEC Device (logo) is registered in 72 countries and applications are pending in four countries (Iraq, Saudi Arabia, South Africa and United Arab Emirates).

The words “INTERNATIONAL ELECTROTECHNICAL COMMISSION” are registered in 50 countries and applications are pending in four countries as well (Brazil, Iraq, Saudi Arabia and United Arab Emirates).

### Protection of intellectual property

We have strengthened collaboration and communication with ISO and CEN-CENELEC concerning copyright protection and illegal distribution of standards and have aligned our policies. Additionally we are exchanging information with our NCs on illegal websites. This communication and collaboration is key to avoid potential loss in revenue. Thanks to this joint effort against pirated standards material, we were able to sign a preferential deal with a company that is specialized in tracking down and removing illicit copies, as well as shutting down illegal distributors.

Existing agreements are under review with our legal advisor in order to strengthen IEC IP protection and ensure full recognition of copyright ownership.

During the IEC General Meeting a session on “Protecting copyright and IP” was organized. Participants discussed the following topics: review of the current copyright situation, challenges faced by the standardization community, action plan and collaboration. Copyright infringements and commercial piracy were increasing and there was a strong need for education and coordinated action against infringers. Participants recommended that Central Office develop a guide to explain the copyright rules to the IEC community.

Participants also discussed the various ways by which National Committees dealt with the transfer of copyright from the experts developing the Standards to the IEC, which held the copyright for all of its publications. They recommended that all National Committees collaborate with Central Office to develop a comprehensive solution. It would also be important to communicate with major stakeholders and their legal departments.

## F2: Technologies and processes for efficiency

### Standards development support

In line with the discussions held during the IEC 2014 Round Tables and IEC GM, significant resources were dedicated to streamlining the back-office systems managing the standardization development process. Completion of this on-going activity being an essential prerequisite before addressing the development of innovative tools and processes in support of online standards development and publishing,

### Public Commenting

In order to involve more stakeholders in the standards development process, and to increase public engagement in the draft review process, a new Public Commenting system was developed, allowing anyone to comment on a CDV and for these comments to be shared with NCs.

### Operational issues

After issuing guidelines on how such participation should occur, the SMB allowed remote participation in TC/SC meetings. A full review of the guidelines will take place in 2016 after further experience has been gathered.

### IT support and planning

In addition to the ongoing support provided to the IEC Standards development and publishing processes, special attention was given to the specific needs of NCs and/or TCs, resulting in several enhancements to the two core systems, Expert Management System (EMS) and Meeting Registration System (MRS). The new features underway will include:

- Full integration of new IEC Systems Committees: Systems Committee (SyC) and System Evaluation Group (SEG)

- The National Committee administrators will be able to manage the participation of national experts in these committees (currently these are managed only by IEC Central Office)
- Systems Committees meetings will also be completely managed within MRS

### New Normative References interface

To answer the request made by the IEC community, a prototype was developed to retrieve specific metadata from IEC Standards and make it available on a web interface in a structured way listing the following items:

- Abstract;
- Table of content;
- Scope;
- Normative References;
- Reference By (other publications that reference the selected Standard)

This application will represent a substantial improvement in searching IEC Standards, and related information, on the IEC website.



## F3: Development of the IEC family

### Affiliate Country Mentoring Programme

The Mentoring Programme has expanded with three new partnerships since the beginning of 2015. A mentoring agreement was signed between Germany and Mongolia in February, shortly after the IEC visit to Ulanbaatar and a workshop organized in collaboration with the [PTB](#), the German National Metrology Institute. The agreement aims at reinforcing the existing NEC, establishing and running a mirror committee (mirroring international work, definition of working programme and scope) and the formulation of NEC procedures.



In May, Mexico agreed to mentor Peru, in order to help Peru establish and run mirror committees, and in June the Swedish NC signed a mentoring agreement with Bhutan with a focus on reaching out to stakeholders to reinforce the existing new NEC, increasing national adoptions of IEC International Standards, structuring the NEC to establish and run mirror committees, but also learn to network with other IEC Members and provide guidance on exchange of international activities.

These partnerships add to those previously established within the Affiliate Country Programme between Afghanistan-Malaysia, Côte D'Ivoire-France, DR Congo-France, Ethiopia-

Germany, Norway-Uruguay, Rwanda-Austria, and Zambia-Austria.

### Seminars

#### JISC/IEC/APSG HRD Seminar, Jakarta, Indonesia, 28 January 2015

The seminar was organized in collaboration with the Japanese Industrial Standards Committee (JISC) and hosted by the National Committee of Indonesia. Apart from providing the latest updates on IEC CA, it also covered both Standards and conformity assessment relating to safety and EMC for Information Technology Equipment (ITE) Multi-Functional-Peripheral/Printer/Product and use of the IECEE CB Scheme in Japan, Malaysia and Singapore. Participants were also given the opportunity to discuss on how to be more engaged in standardization.

#### ACAS-IECEE Seminar – Singapore

On 8 June 2015, IEC-APRC organized an IEC Regional ACAS Seminar on Conformity Assessment and Trade focusing on understanding and benefiting from the IECEE CB Scheme. The event, held back to back with a meeting of regulators in the Southeast Asia region, brought together 43 participants from seven IEC Members (Indonesia, Japan, Malaysia, Philippines, Singapore, Thailand, and Vietnam) and four Affiliate Countries (Brunei Darussalam, Cambodia, Lao PDR and Myanmar). Apart from introducing the IEC CA Systems and IECEE in particular, there were presentations on the experience of regulators in Malaysia and Singapore in using the IECEE CB Scheme and on what to look out for when reviewing a test certificate. For the Affiliates the event included a webinar with the Affiliate Secretariat in Geneva about the newly launched ACAS e-learning modules on IECEE and answering questions on what IEC Affiliates need to know when adopting IEC International Standards at national level.

## Standards production

### Overview

A total of 574 publications were produced from July 2014 to June 2015. In the first half of 2015, 310 publications were issued. Of the total, 56% were updates or maintenance, 44% were new projects.

The total number of IEC publications in catalogue was 6 955. The average production time for the development of IEC publications was 34,5 months, with 62% of all publications produced in less than three years and 34% in three to five years.

A total of 236 New Projects (NPs) were initiated by TC Secretariats and NCs during the period 1 July 2014 to 30 June 2015. TC Secretariats led the way in proposing new work items (72), followed by USA (31), Germany (29), the Republic of Korea (28), Japan (27) and China (14).

In 2014, the average time (in months) to prepare a Final Draft International Standard (FDIS) for

circulation to Members for final voting was just above two months while for the first six months of 2015, the average time was down to 1,75 months.

The average time (in months) from approval of the FDIS to publication as an International Standard was just above one month in 2014. For the first half of 2015, the average time decreased to 0.89 month.

In terms of the number of IEC International Standards produced, IEC TC 65: Industrial-process measurement, control and automation, led the way with 94 publications, followed by IEC TC 86: Fibre optics, with 39 publications, and IEC TC 34: Lamps and related equipment, with 30 publications. Twelve other IEC TCs produced 10 or more publications.

### Development time for publications

The average development time of IEC publications was stable at 34,5 months (Q3 2014-Q2 2015).

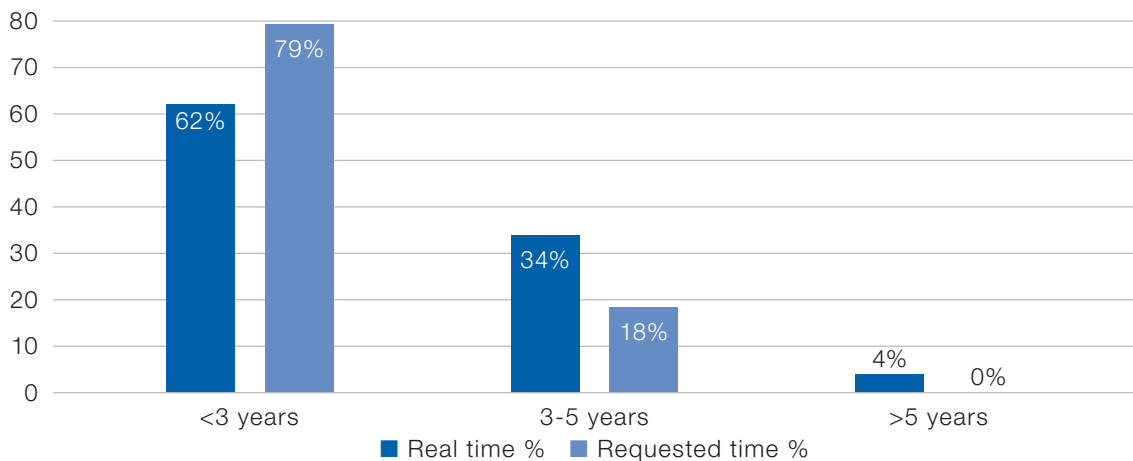
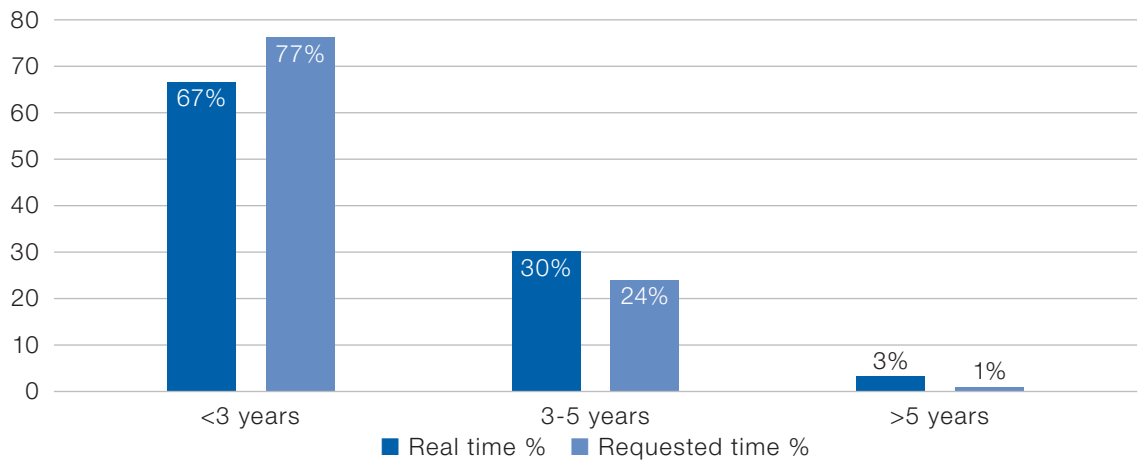
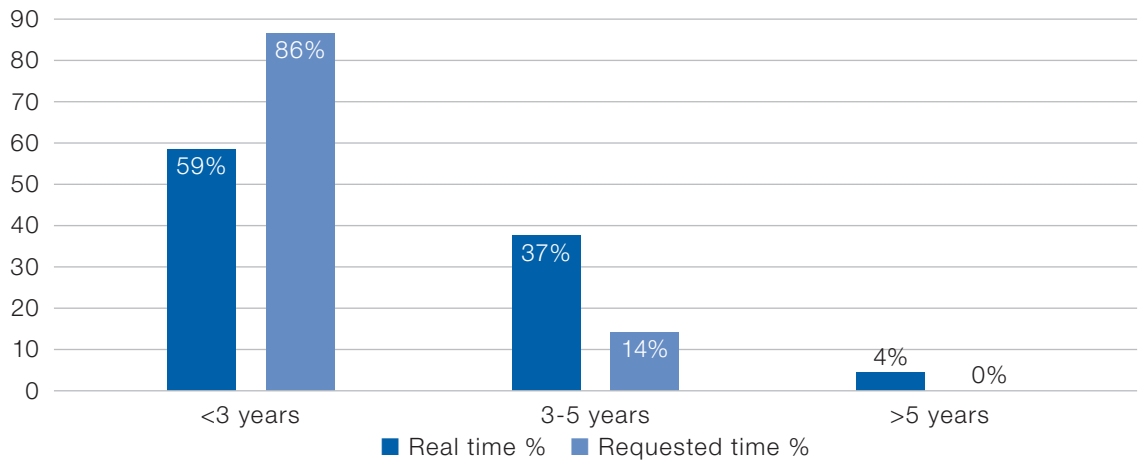


Figure 14 | Average development time for all industry sectors

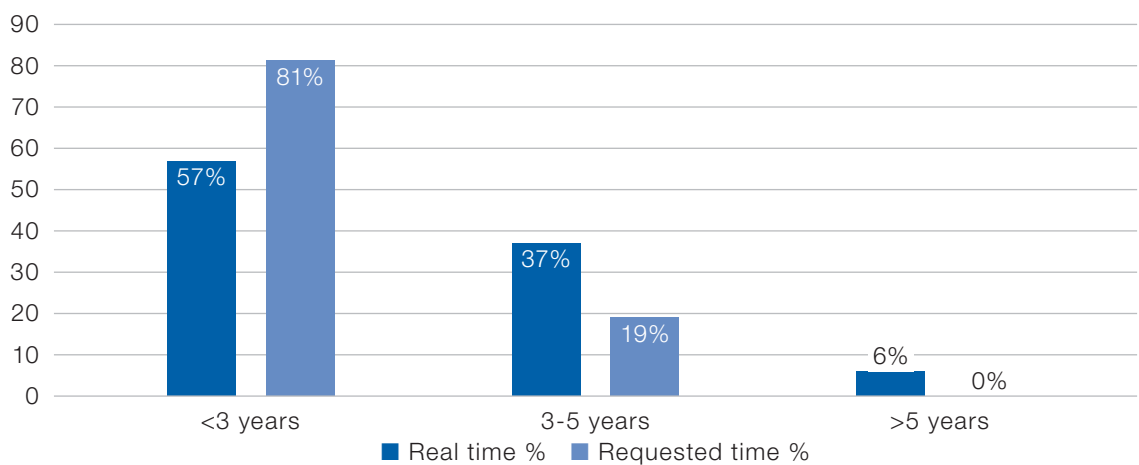
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**Figure 15 | Average development time – General electrotechnology**



**Figure 16 | Average development time – Electronics**

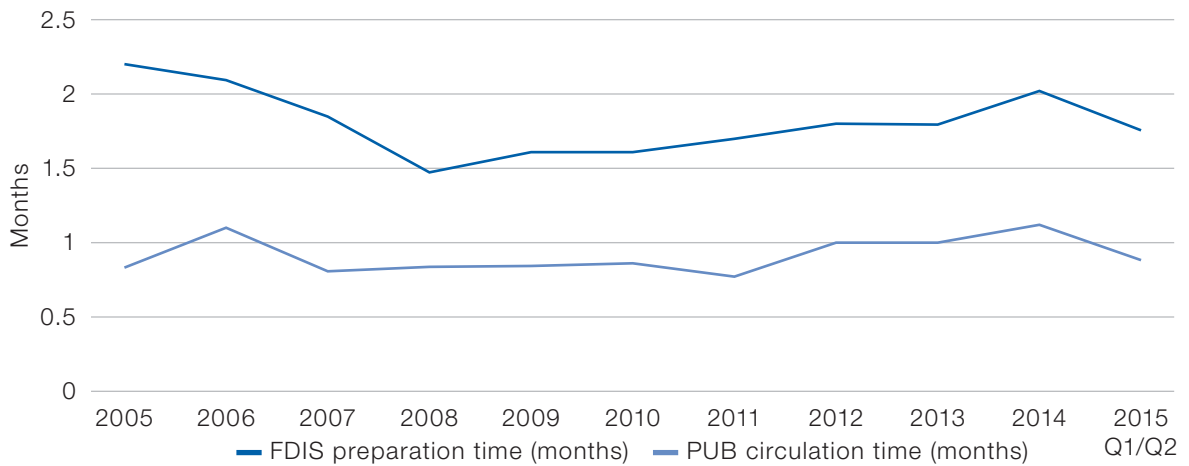


**Figure 17 | Average development time – Safety, measurement and consumer goods**

**Average development time**

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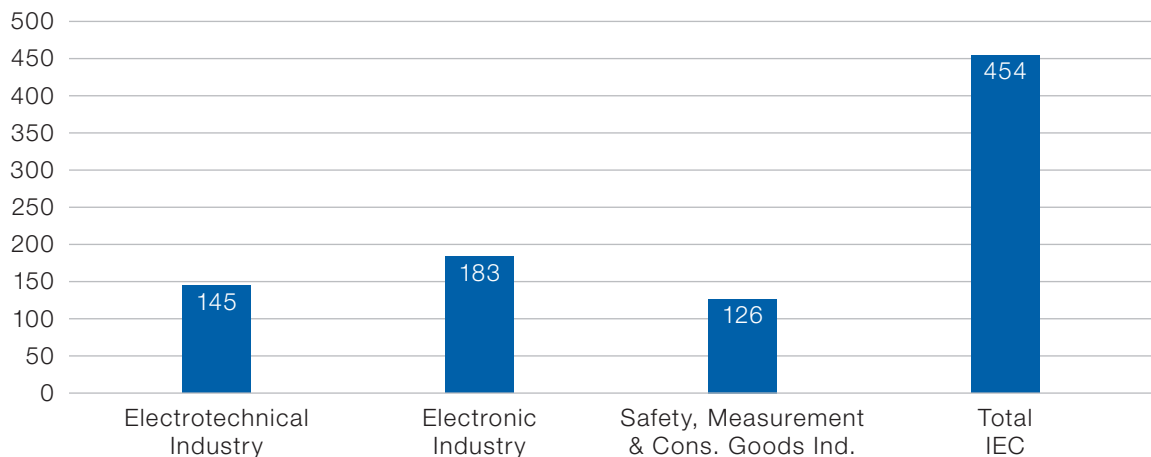
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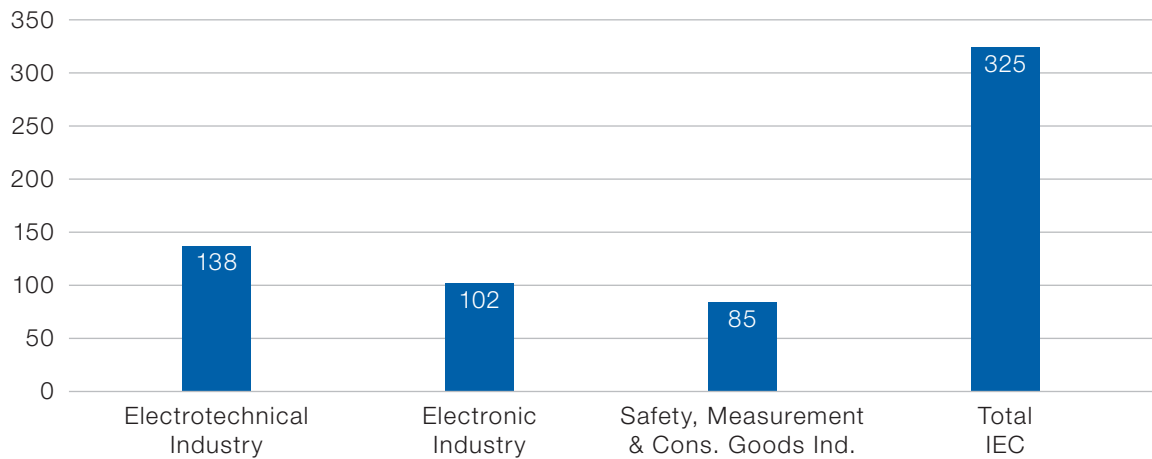
**Figure 18 | Average time in months for FDIS and IS (2005-2015 Q1/Q2)**

**Number of circulated CDVs and FDISs**

From 1 July 2014 to 30 June 2015, the IEC circulated to its NCs 454 Committee Drafts for Vote (CDVs) documents and a total of 325 Final Draft International Standards (FDISs).



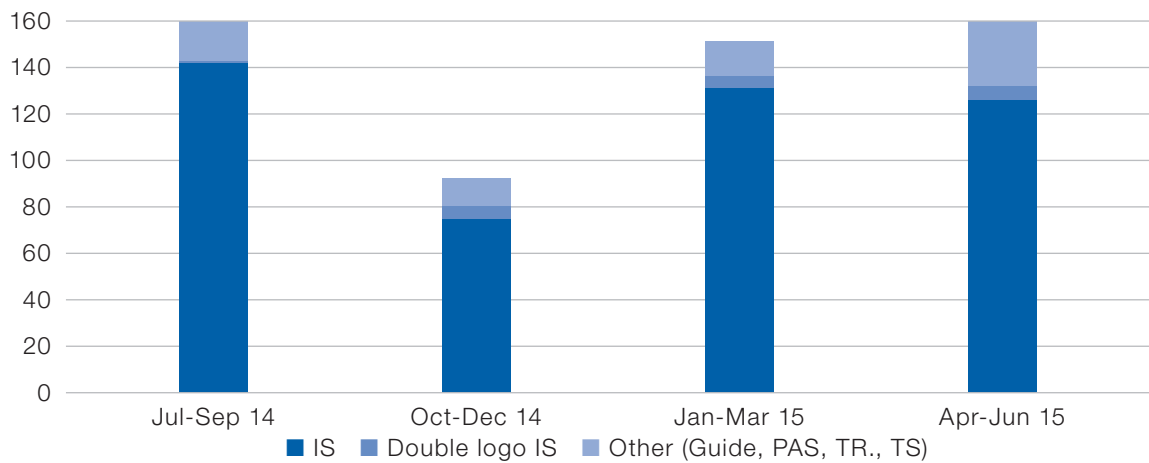
**Figure 19 | Circulated CDVs**



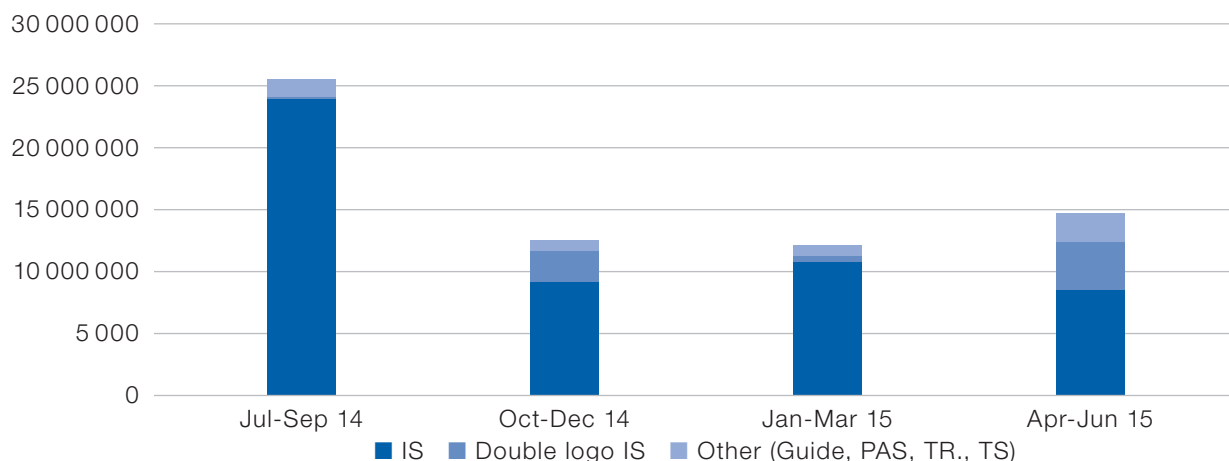
**Figure 20 | Circulated FDISs**

**Production of publications**

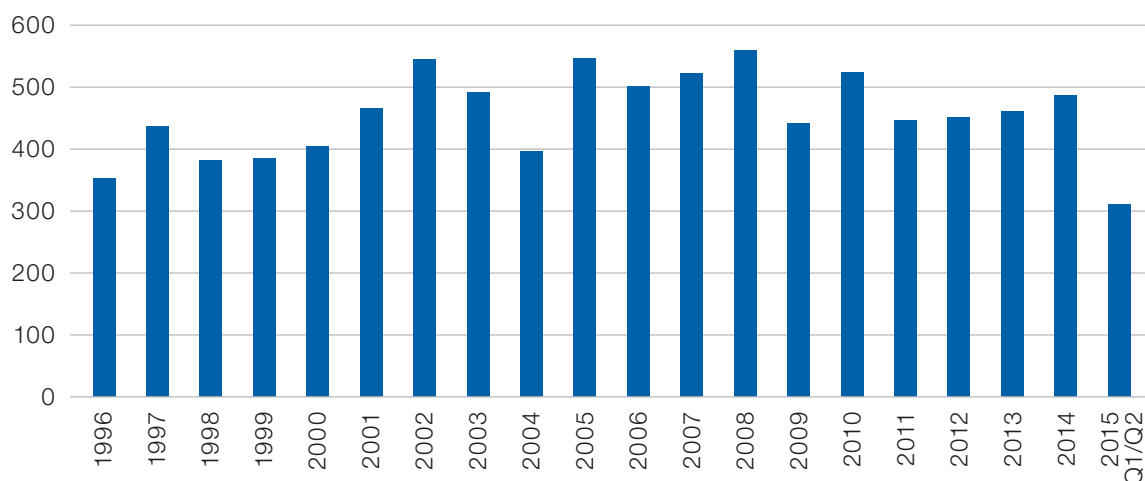
The total number of publications issued in 2014 was 487. From 1 January to 30 June 2015, 310 publications were issued.



**Figure 21 | Number of documents published (Q3 2014-Q2 2015)**



**Figure 22 | Number of pages issued (Q3 2014-Q2 2015)**



**Figure 23 | Number of publications 1996-2015**

**Production of publications by TCs**

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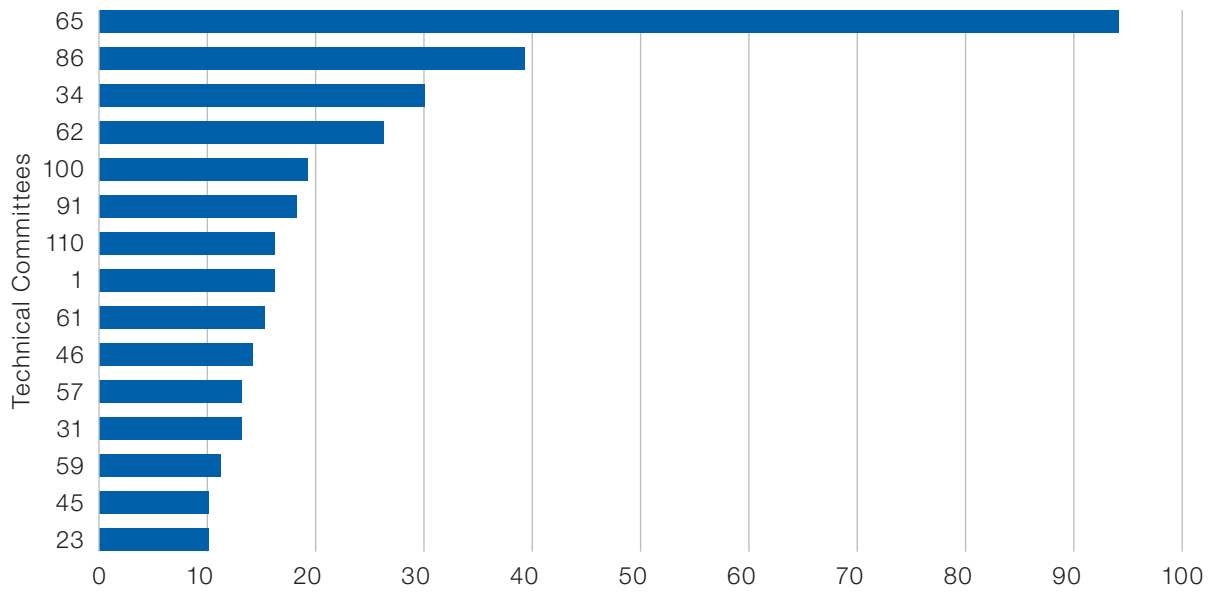


Figure 24 | Number of publications issued by TCs

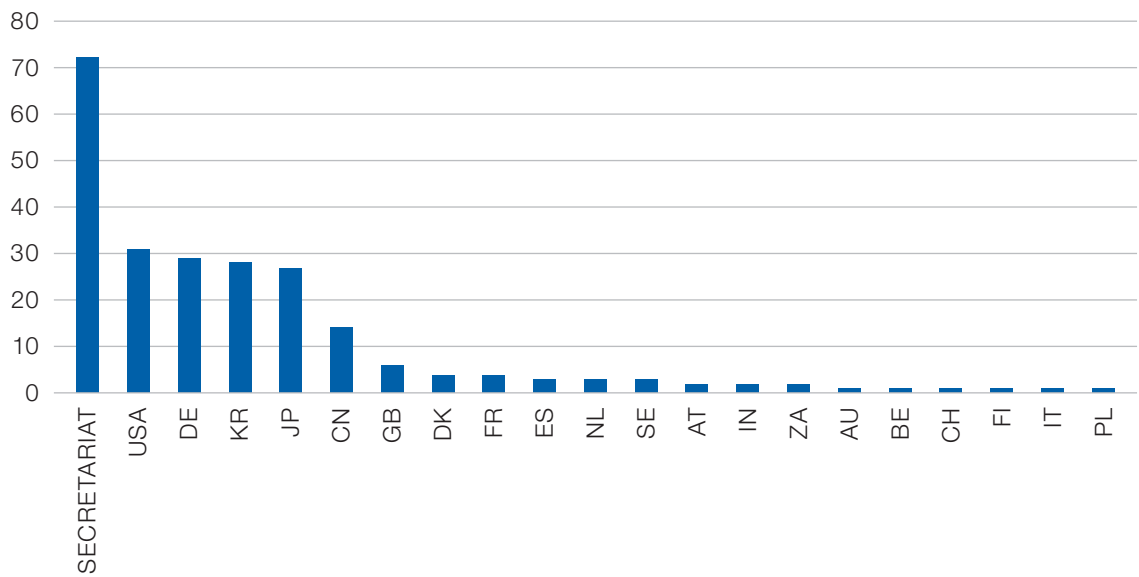


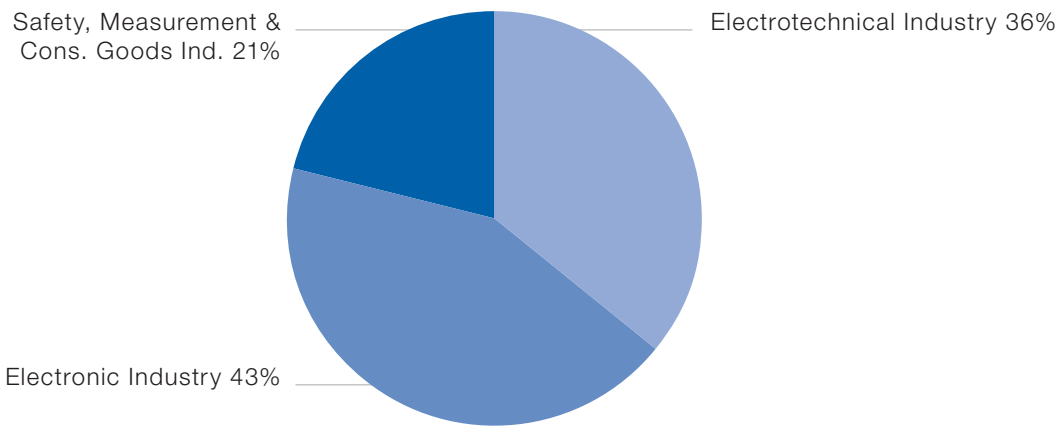
Figure 25 | NPs by proposers (TC Secretariats and NCs)

**New work items by industry sector**

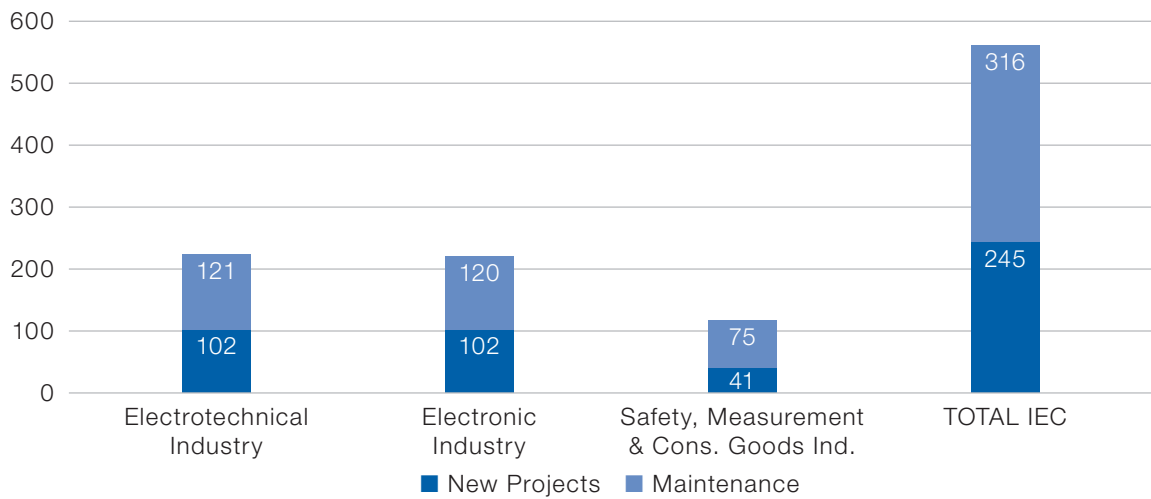
There were 243 new work items by industry sector for the period 1 July 2014 to 30 June 2015. They included proposals by partner standardization organizations (CENELEC, ISO, etc.) or TC/SC liaisons.

**New projects vs maintenance**

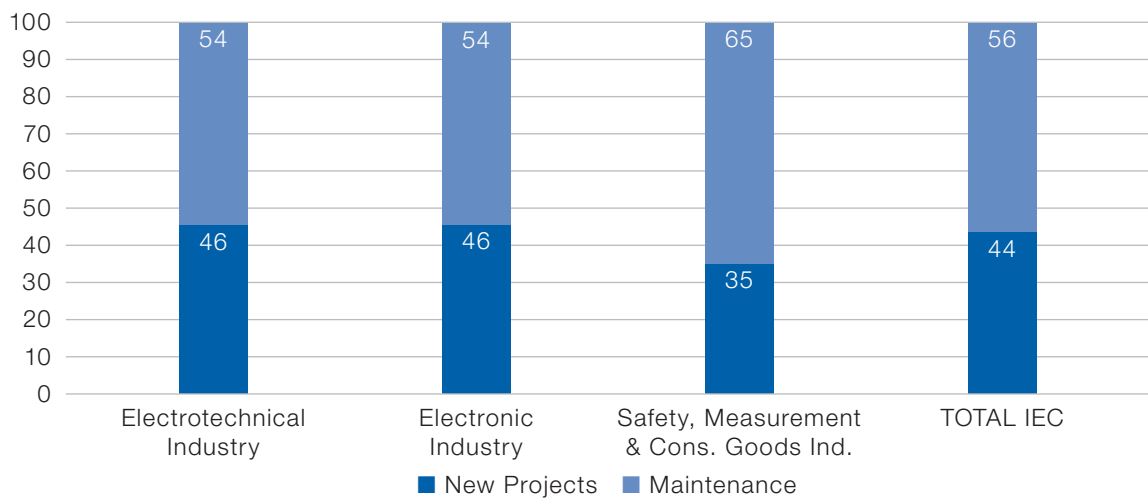
From July 2014 to June 2015, the maintenance of existing Standards was larger than the development of new projects.



**Figure 26 | New proposals for Standards by industry sector**



**Figure 27 | Development of new projects compared to maintenance of existing publications (Q3 2014-Q2 2015)**



**Figure 28 | Development of new projects compared to maintenance of existing publications in percent (Q3 2014-Q2 2015)**

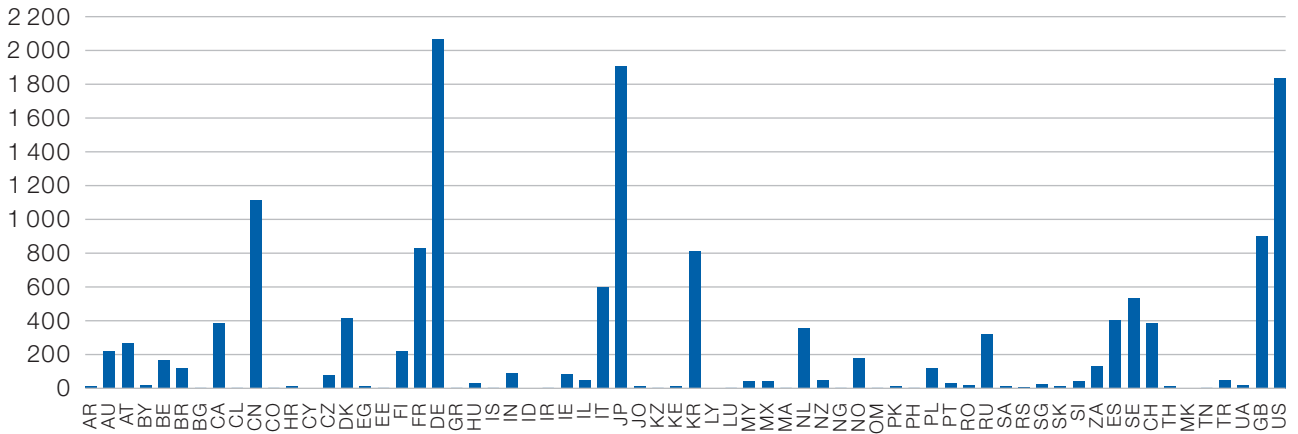


**Technical experts**

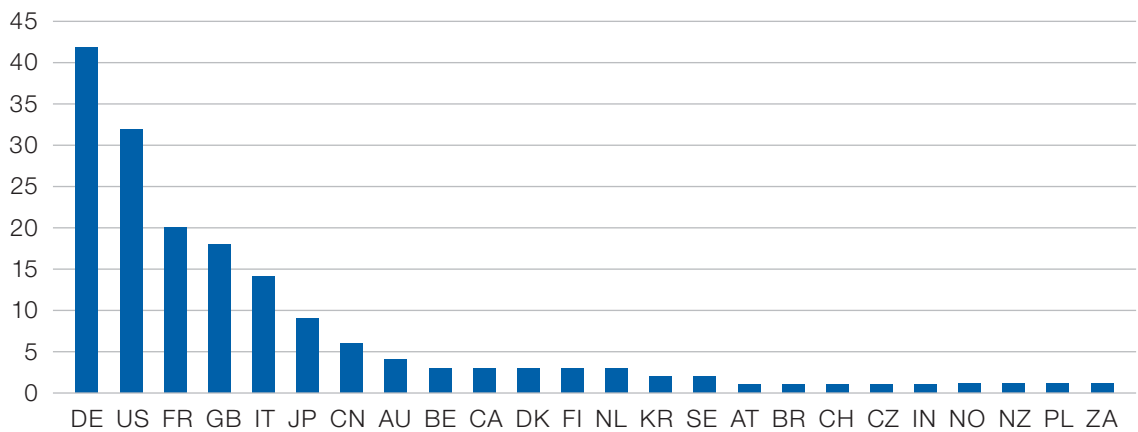
Close to 15 000 technical experts work for the IEC. Four countries send more than 1 000 experts each to IEC Technical Committees: Germany (2 063), followed by the US (1 833), Japan (1 904) and China (1 115).

**TC Chairs and Secretariats**

Germany takes the lead in the number of TC/SC Chairs (42), followed by the US (32), France (20), the UK (18) and Italy (14).



**Figure 29 | Participation of experts in IEC work**

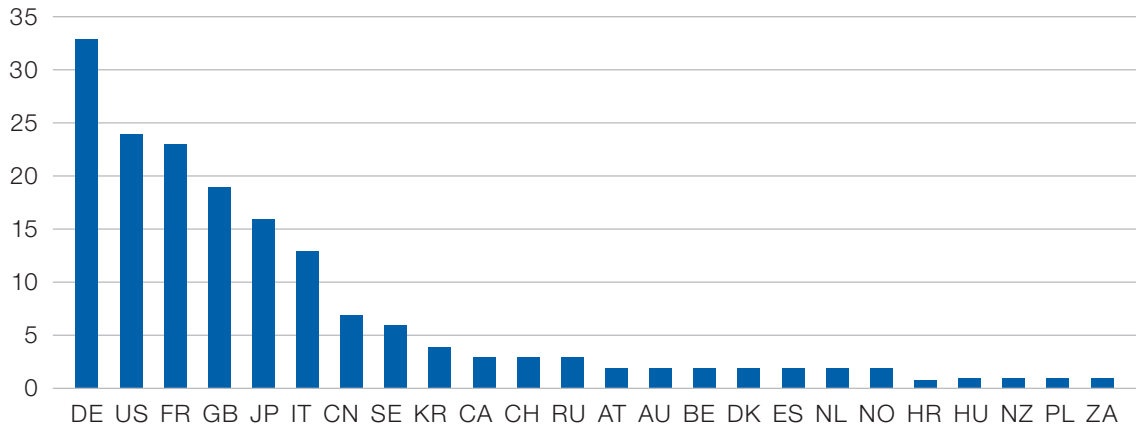


**Figure 30 | Distribution of TC/SC Chairs**

Germany also has the highest number of TC/SC Secretariats (33). France comes second (24), followed by the US (23), the UK (19), Japan (16) and Italy (13).

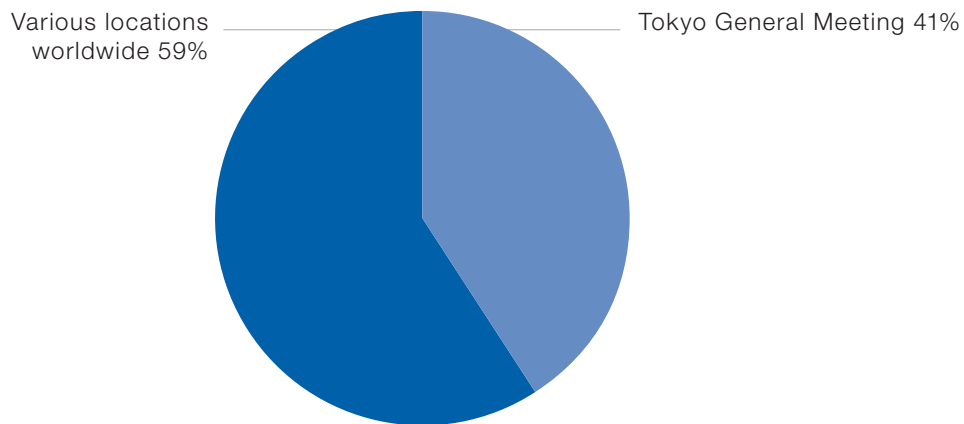
**TC/SC meetings**

IEC TCs and Subcommittees held a total of 169 meetings from 1 July 2014 to 30 June 2015. Of those, 70 were hosted at the IEC General Meeting in Tokyo, Japan.



**Figure 31 | Distribution of TC/SC Secretariats**

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**Figure 32 | TC/SC meetings**

.....

## Annex 1 – IEC Members

List of IEC Member countries (83) at 30 June 2015

Albania (AM)	Hungary	Oman
Algeria	Iceland (AM)	Pakistan
Argentina	India	Philippines, Rep. of the
Australia	Indonesia	Poland
Austria	Iran	Portugal
Bahrain (AM)	Iraq	Qatar
Belarus	Ireland	Romania
Belgium	Israel	Russian Federation
Bosnia-Herzegovina (AM)	Italy	Saudi Arabia
Brazil	Japan	Serbia
Bulgaria	Jordan (AM)	Singapore
Canada	Kazakhstan (AM)	Slovakia
Chile	Kenya (AM)	Slovenia
China	Korea, Rep. of	South Africa
Colombia	Latvia (AM)	Spain
Croatia	Libya	Sri Lanka (AM)
Cuba (AM)	Lithuania (AM)	Sweden
Cyprus (AM)	Luxembourg	Switzerland
Czech Republic	Malaysia	Thailand
Dem. People's Rep. of Korea (AM)	Malta (AM)	The FYR of Macedonia (AM)
Denmark	Mexico	Tunisia (AM)
Egypt	Moldova (AM)	Turkey
Estonia (AM)	Montenegro	Ukraine
Finland	Morocco (AM)	United Arab Emirates
France	Netherlands	United Kingdom
Georgia (AM)	New Zealand	United States of America
Germany	Nigeria (AM)	Vietnam (AM)
Greece	Norway	

AM = Associate Member

## Annex 2 – IEC Affiliates

List of IEC Affiliate countries (83) at 2015-06-30

<u>Afghanistan (+)</u>	<u>El Salvador</u>	Nepal
Angola	Eritrea	<u>Niger</u>
Antigua and Barbuda	<u>Ethiopia (+)</u>	<u>Palestine (+)</u>
Armenia	Fiji	Panama
Azerbaijan	<u>Gabon</u>	Papua New Guinea
Bahamas	<u>Gambia</u>	Paraguay
<u>Bangladesh (+)</u>	<u>Ghana (+)</u>	<u>Peru (+)</u>
<u>Barbados</u>	Grenada	<u>Rwanda (+)</u>
Belize	Guatemala	Saint Kitts and Nevis
Benin	<u>Guinea</u>	Saint Lucia
<u>Bhutan (+)</u>	Guinea Bissau	Saint Vincent and the Grenadines
<u>Bolivia</u>	<u>Guyana (+)</u>	<u>Senegal</u>
<u>Botswana (+)</u>	<u>Haiti</u>	Seychelles
<u>Brunei Darussalam (+)</u>	<u>Honduras</u>	<u>Sierra Leone</u>
<u>Burkina Faso</u>	Jamaica	South Sudan, the Rep. of
<u>Burundi</u>	Kyrgyzstan	<u>Sudan (+)</u>
<u>Cambodia</u>	<u>Lao PDR (+)</u>	<u>Suriname</u>
<u>Cameroon</u>	<u>Lebanon (+)</u>	Swaziland
Central African Republic	Lesotho	Tanzania
Chad	Madagascar	Togo
Comoros	<u>Malawi (+)</u>	<u>Trinidad and Tobago</u>
Congo	Mali	Turkmenistan
<u>Costa Rica (+)</u>	Mauritania	<u>Uganda (+)</u>
<u>Côte d'Ivoire (+)</u>	<u>Mauritius</u>	<u>Uruguay (+)</u>
<u>Dem.Rep. of the Congo (+)</u>	<u>Mongolia (+)</u>	Yemen
<u>Dominica</u>	<u>Mozambique</u>	<u>Zambia (+)</u>
<u>Dominican Republic</u>	Myanmar	<u>Zimbabwe (+)</u>
<u>Ecuador (+)</u>	<u>Namibia</u>	

\* (+) = Affiliate Plus countries / underlined: Affiliate countries with NECs

Adoptions of IEC publications: Over 4 000

Affiliate Plus: 24

NECs: 46

Experts: 139

## Annex 3 – IEC-APRC

The [Asia-Pacific Regional Centre](#) covers both promotional and technical activities. It consists of a Regional Director, 2 Technical Officers, 1 Editor and 3 Administrative Assistants.

### Technical activities

IEC-APRC supports 54 TC/SCs and holds the Secretariat of the Advisory Committee on Electricity Transmission and Distribution (ACTAD) and the Advisory Committee on Energy Efficiency (ACEE).

Trainings were conducted for the following TC/SC Officers:

- TC 49 Secretary, on 27-28 November 2014;
- SC 23A Secretary, on 9-10 February 2015;
- TC 40 and TC 91 Chairs, on 11-12 May 2015.

### Hosting of events

- TC 57/WG 21 and PC 118/WG 1 and WG 2 meetings on 29-31 Oct 2014;
- SG 8 Industry 4.0 Smart Manufacturing meeting on 17-18 Nov 2014

- CIS/I and CIS/H WG meetings on 12-16 January 2015
- SC 23B MT4 – Ad hoc Working Group Load Profiles (LP) meeting on 11-13 February 2015
- SC 65C/WG 17 meeting on 3-5 March 2015
- IECQ 2015 Annual Meeting on 27 April – 1 May 2015
- TC 91 Working Groups meetings on 12-15 May 2015
- SC 47E WG1, WG2 & WG8 and SC 47F WG1, 2 & 3 meetings and SC 47F MEMS Standardization Workshop, 9 – 12 June 2015

### Participation and support at events in the region

IEC-APRC presented at and/or supported 20 meetings, seminars, conferences and workshops in the region, with a total of about 1639 participants, with some of the activities organized in collaboration with regional bodies and organizations as well as internally.

Date	Location	Mission	Meeting	Seminar/ Conference/ Workshop	Estimated number of participants
July 14	French Polynesia	23 <sup>rd</sup> Pacific Power Association Conference and Trade Exhibition		1	120
Aug 14	China	APEC Subcommittee on Standards and Conformance i) Workshop on ICT Energy Efficiency ii) Workshop on Standards professionals iii) APEC SCSC Joint Regulatory Advisory Committee (JRAC) on electrical and electronic equipment meeting	1	2	150

<b>Date</b>	<b>Location</b>	<b>Mission</b>	<b>Meeting</b>	<b>Seminar/ Conference/ Workshop</b>	<b>Estimated number of participants</b>
Sep 14	Indonesia	President's visit – Forum of Electricity Standardization Stakeholders		1	100
Sep 14	Myanmar	ACCSQ (ASEAN Consultative Committee on Standards and Quality) meeting	1		60
Sep 14	Myanmar	President's visit – Stakeholders' workshop and meeting with Myanmar's Minister of Science and Technology		1	60
Sep 14	Vietnam	President's visit – Seminar on "Vietnam's participation in IEC: current situation & prospects" and meeting with Vietnam's Minister of Science and Technology	1	1	40
Sep 14	China	Training in Harbin, Nanjing and Xiamen (with TISS)		1	280
Oct 14	Hong Kong, China	10 <sup>th</sup> Asian Electronics Forum	1	1	80
Oct 14	Lao PDR	Workshop on development of safety regulation for electrical and electronic equipment (with ASEAN Regional Integration Support from the EU) (ARISE)		1	30
Nov 14	Mongolia	IEC-PTB workshop and meeting with stakeholders (with Affiliate Secretariat)	1	1	80
Dec 14	Bangladesh	3 <sup>rd</sup> SARSO (South Asian Governing Board (GB) and 2 <sup>nd</sup> SARSO Technical Management Board (TMB) meetings		1	25
Jan 15	Indonesia	JISC/IEC/APSG HRD seminar		1	50
Feb 15	Thailand	IHS Product Design Channel Partners meeting	1	1	50

<b>Date</b>	<b>Location</b>	<b>Mission</b>	<b>Meeting</b>	<b>Seminar/ Conference/ Workshop</b>	<b>Estimated number of participants</b>
Mar 15	Myanmar	Workshop for Myanmar on development of safety regulation for electrical & electronic equipment and meeting with stakeholders at MSTRD	1	1	40
Apr 15	Philippines	ACCSQ (ASEAN Consultative Committee on Standards and Quality) meeting	1		50
May 15	India	PASC meeting	1		60
May 15	India	IEC-BIS-IEEMA CEOs round table	1		25
May 15	China	IEC International Medical Equipment Standard Forum @ CMEF (China International Medical Equipment Fair)		1	100
May 15	Hong Kong, China	Seminar on the World Metrology Day (WMD), the World Accreditation Day (WAD) and the World Standards Day (WSD) 2015		1	200
June 15	Singapore	IEC Regional ACAS seminar on IECEE		1	39

## Annex 4 – IEC-LARC

### 2015 IEC-LARC Activities Report

The Latin America Regional Centre ([IEC-LARC](#)) is responsible for all promotional activities in the Latin America and Caribbean Region. One Regional Director and one Administrative Assistant are in charge of all related tasks.

2015 began with some National Committees in Latin America reporting their difficulties to add or even keep active stakeholders. In general this has been a result of macro-economic difficulties leading to a reduction in the area of industrial activity. Because of this, LARC has strengthened its approach activities with local and international stakeholders together with their NCs, increasing their level of knowledge concerning the importance of the IEC for new technological challenges and the global market.

On several occasions, in regional events, round tables and meetings with public and private stakeholders, and in the presence of IEC President Junji Nomura and Vice-President Jim Matthews III, IEC-LARC has supported and helped raise awareness to enhance the NCs'

activities. Participation in these events gives the IEC more visibility in the region and increases the requests for information on how to use and adopt IEC International Standards.

On the other hand, Affiliate Countries have shown interest in standardization activities of the IEC, geared to keep up to date in terms of developing their internal or regional standardization. They are also increasingly interested in the IEC Conformity Assessment Systems, which they can currently access through the Affiliate Conformity Assessment Status (ACAS).

In all meetings, seminars or workshops that we promote or attend, the IEC Conformity Assessment Systems are a topic of interest that raises questions or requests for further details.

### Participation and support at events in the region

IEC LARC has participated in 10 meetings and 8 Seminars, conferences and workshops with about 870 attendees.

Date	Country	Mission	Meetings	Seminar/ Conference/ Workshop	Estimated number of participants	Presentations
Feb 15	Peru	WTO National Workshop	1	YES	80	YES
Feb 15	Costa Rica	2015 CANENA General Assembly (with Jim Matthews III)	1	YES	70	YES
Mar 15	Brazil	ABINEETEC – Brazil Electrical Industries Fair and Seminar (with Peter Lanctot – Secretary of SG8)	1	YES	100	YES



<b>Date</b>	<b>Country</b>	<b>Mission</b>	<b>Meetings</b>	<b>Seminar/ Conference/ Workshop</b>	<b>Estimated number of participants</b>	<b>Presentations</b>
Apr 15	Brazil	Brazil NC Stakeholders round table (with Dr. Junji Nomura)	1		20	
Apr 14	Chile	Chile NC Stakeholders round table and meetings with government authorities (with Dr. Junji Nomura)	1		50	
Apr 15	Colombia	Colombia NC Stakeholders round table and meetings with government authorities (with Dr. Junji Nomura)	1	YES	80	YES
Apr 15	Mexico	COPANT General Assembly (with Dr. Junji Nomura and Jim Matthews III)	1	YES	120	YES
Jun 15	Colombia	IEC Standardization and IT Tools Training Course	1	YES	35	YES
Jun 15	Mexico	IEC Standardization and IT Tools Training Course (with Jim Matthews III)	1	YES	65	YES
Jun 15	Mexico	COMENOR National Standardization Forum (with Jim Matthews III)	1	YES	250	YES

## Annex 5 – IEC-ReCNA

The Regional Centre for North America ([IEC-ReCNA](#)) which provides additional technical support for technical committees is comprised of 2 Technical Officers, 2 Administrative Assistants and the MSB Secretary. IEC-ReCNA provides support for 38 TC/SCs, SMB SEG 1, SyC Smart Energy, SG 7, SG 8, ahG 53, ahG 54, ahG 55, and the MSB.

From July 2014 to June 2015, IEC-ReCNA provided training for the Chairs of the following Technical Committees:

- TC 86: Fibre optics
- TC 32: Fuses
- SC 37A: Low-voltage surge protective devices
- TC 31: Equipment for explosive atmospheres
- SC 31J: Classification of hazardous areas and installation requirements



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