

IEC-Young Professionals Programme 2014

I. International Electrotechnical Standard (IEC)

1.1 Presentation

Founded in 1906, the IEC (International Electro technical Commission) is the most important organization which prepares and publishes the International Standard in the area of electro technical and related technologies.

About 166 countries (83 members and 83 affiliates) and about nearly 12000 experts from industry, commerce, government, test and research laboratories, consumers groups participate to the creation and development of international standards needed for the application of related electro technical technologies.

1.2 Management structure

The IEC internal structure is shown in the organigram below

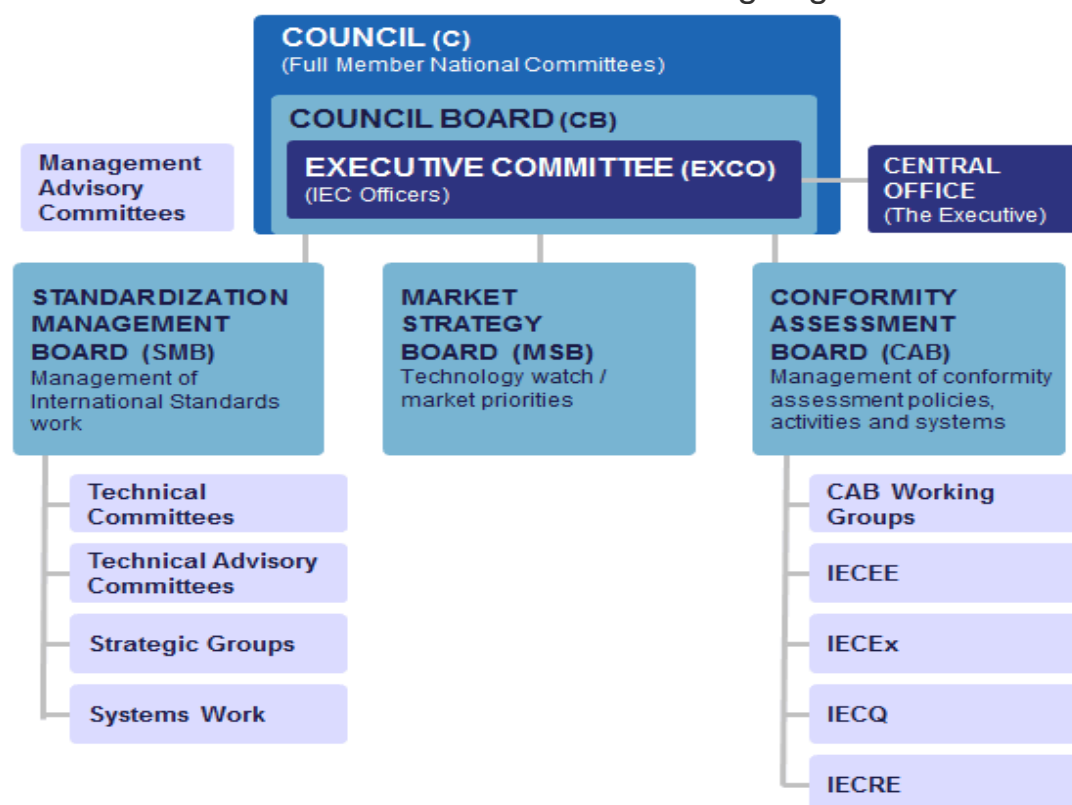


Figure 1: IEC organigramme

- The IEC Council is responsible of the long term strategical and financial objectives.

- The Council Board (CB) implements the Council policy but also makes the policy recommendation to the council. It also receives the report from the Standard Management Board (SMB), Market Strategic Board (MSB) and Conformity Assessment Board (CAB) whose directives are given by the council.
- The SMB is the body responsible for the IEC's standard the followings entities report to SMB :
 - o Technical committees (TC's), TC's prepare technical documents on specific subjects within their scope. A Tc can create a Subcommittee (SC) if the TC scope is too wide.
 - o The Technical advisory Committee advises, guides and coordinates the IEC technical work.
 - o The strategic groups provide strategic guidance and roadmaps on specific areas of Technical activity that requires coordination both for new initiatives and ongoing work
 - o The role of the system work composed of the System Evaluation Group (SEG), Systems committees (SyC) is to define and strengthen the system approach throughout the technical community to ensure that complex sectors can be properly addressed and supported.
- The Market Strategic Board (MSB) identifies the principal technological trends and market needs to set strategies and priorities for the technical and conformity assessment work of the IEC.
- The Conformity Assessment Board is responsible for setting the IEC's conformity assessment policy and activities. In the domain of Conformity of Electro technical Equipment and Components (IECEE), Certifications of Equipment for uses in Explosive Atmospheres (IECEX), Quality Assessment for Electronic Components (IECQ) and Certification to standards relating to Equipment for Use in Renewable Energy Application (IECRE).

1.3 IEC General Meeting



Every year the IEC's standardization and conformity assessment work leads to the organization of the IEC General Meeting. At this event the IEC members come together in an international setting to decide on current issues and future directions and strategies for the IEC. The General Meeting has a unique format, combining management and technical meetings and bringing all the key player together on one stage.

In Tokyo from the 4th to the 15th of November 2014 took place the 78th General meeting. About 50 Technical committees (TC's) and Subcommittees (SC's) including their 150 working groups (WG's) composed of experts from all around the world participated to this event. This 78th general meeting was held under the theme: «Integration towards a smarter world».

II. Young Professional Programme

In parallel of the IEC General Meeting was held another event: The Young Professional Programme (YPP). The YPP was created in 2008 for the managers, engineers, technicians who are between 20 and mid 30 years old. The objective was to develop the awareness of the IEC's work and organization, to enhance networking opportunities between professionals from all over the world and to encourage them to be more involved with the IEC. This Workshop took place from the 10th to the 12th of November.

Before the workshop beginning on Monday 10th, we had on Sunday evening a welcoming reception. This event gave us the opportunity to meet and to discuss not only with the participants to this programme but also some important members of the IEC organization such as Mr Nomura Junji the new IEC President or Mr Vreeswijk Frans the IEC General secretary and CEO. It was really interesting to see that the participants were coming from all over the world and diverse areas (utility, manufacturers, R&D, research labs...).

The first day of the workshop started on the 10th of November at the Tokyo International Forum (TIF), an impressive modern building :



We were welcomed by a speech from Mr Nomura, Mr Vreeswijk and Ms Fraga (respectively IEC president, CEO and Head of Governance and Global Strategy). They made a presentation about IEC, about the general meeting whose theme was Smart grid and the importance for the standardization to follow the related technologies and of course about the Young Professional Workshop, the stakes and objectives. It was important to understand that the Young Professional Workshop was a mutual benefit between the participants who got to know better IEC (organization, process...) and IEC itself which stay in contact with the young professionals who will be (or are already for some) the experts in the industry needed by the organization.

This welcome message was followed by a presentation called « standardization, necessary evil or strategic advantage ». This presentation underlined the fact that standardization (taking the risk maybe then to reduce the « creativity ») can clearly provide an advantage to the companies which participate.



In the afternoon we assisted partly to a SMB meeting. During this moment the SMB discussed various topics: the results of the different SEG and Ad Hoc group (AhG), their propositions or the creation of new AhG or SEG but as well some other issues like the submission of documents during august vacation. One interesting topic was the discussion about the AhG 41 which had to deal with the new technologies. This was interesting because new technologies is a crucial topic for an organization like the IEC and more particularly for the SMB, indeed the new technologies move fast and the standardization is rather a slow process. This AhG was then created to make proposals in order to deal with this problematic, they proposed solutions like the creation of a system award for researchers or a web site dedicated to the new technologies. This AhG was closed but any decisions were differed due to financial impact of these proposals. « This example shows us how difficult it is to take decision » said later the Mr Sheldon the Strategy manager of the IEC standardization during the explanatory session the day after.

After the SMB meeting we had a Break Out session, the YP were divided into 5-6 groups where we had to think about questions such as « How the YP workshop can help to develop your network » or « How to introduce IEC standards to a company which does not know it ». This was an exciting brainstorming experience and exchange with other Young Professionals.

In the evening we saw the IEC General Meeting Opening Ceremony, introduced by the Japanese Minister of industry. The President of Panasonic Mr Tsuga presented his company's initiative for the new technologies related to smart grid.

The second day started with a breakfast with two members from Electrosuisse included the Electrosuisse President: Mr Burger Markus It was the opportunity to get to know important members from the Swiss organization.

We had then some explanations about the SMB meeting which was held the day before. This was really important to help us to understand the part of the session we participated.

We assisted then to the Technical Meeting of the TC14 « Power Transformers ».

In the afternoon we started with a presentation by the IEC CAB secretary Mr D. Hanlon. This presentation was interactive and shows, with an example, the importance of the standardization and conformity assessment and their impact on the market. He took the example of two fridges from two different brands, one very famous (fridge A) and the other one (fridge B) from an unknown brand but far cheaper as the first one. Both have the IEC certified, a quick vote shows that most of the people in the room would have bought the fridge B thanks to the certification. As Said Mr Hanlon « Trust is good but control is better ».

After this presentation we had the final session of the Break out session and the presentation from these sessions for the different groups.

The day finished with a last presentation about « How international standards influence world trade ». This was about legal aspect of the standardization and how reduces impediments to trade which results from differences between national regulations and standards.

On the third day after a breakfast with the Chairman from the TC14, we had an interactive session on the topic « Smart Energy » with Mr R. Schomberg VP of Smart Energy Standard, EDF group. During this session we had a presentation on the smart grid and the process to standardize the smart grid technologies.

In the afternoon we went to visit Sumitomo Electric. After about 30mn bus travel from Tokyo, we arrived at the company site located at Yokohama.

An engineer introduces the company. We learnt that Sumitomo Electric Which was founded at the end of the 19th Century started first as a copper wire manufacturer. They diversified their business in the early years based on technology to produce electric wires and cables. Sumitomo Electric is now developing following 5 main businesses area: Automotive, Electronics , Environment and Energy, Information and Communication and Industrial Materials.

After the introduction a tour of their demonstration site of Factory Energy Management System (FEMS) was given. This demonstration site is a Power Generation and Storage System based on Concentrated Photovoltaic system and cogeneration for the power generation and Reduction Flow Battery for the storage.

We finished our Sumitomo Electric visit with a last break out session and presentation on the theme « To pave the way for further promotion of innovations and healthy development of technologies and industries, what is the standardization to realize the preferable situation for Flow Battery ».

III. Conclusion

These 3 days to the YP workshop were really interesting and exciting. It somehow changed our vision about IEC by showing us the standardization work and the important role it plays in the industry world and the global trade. It was also the opportunity, thanks to the different interactive break out session, to meet and work with young engineers from all over the world and see how they think and maybe to have the opportunity to stay in contacts with some of them. This workshop motivates us to be more active within my NC and maybe as well later to an international level.

