



CONFERENCE REPORT

'Strategic importance of education about standardization: a dialogue with academia and industry'

29 June 2012

Context

The event 'Strategic importance of education about standardization: a dialogue with academia and industry', was the first event organised by the CEN CENELEC ETSI Joint Working Group on Education about Standardization. It took place on 29 June 2012 at the CEN CENELEC Management Centre. The agenda is attached in annex.

It aimed at:

- informing key stakeholders about the importance of education about standardization for the competitiveness of the European economy
- presenting the draft Master Plan CEN, CENELEC and ETSI are developing on how to bring the topic of standardization into education
- gathering feedback on this plan

Nearly ninety people attended the event, with 10 more participating 'on-line' via web-conference. In the audience there were 19 representatives of academia, 21 representatives of business and 42 from the CEN and CENELEC community.

Summary

Note: by clicking on the name of the speaker you can download her/his slides if she/he used slides.

[Laurent Oberlé](#), Chairman of the JWG-EaS, opened the meeting and presented the objectives of the meeting. He presented the issue of education about standardization and what is needed: enhance knowledge and skills, engage academia and enterprises, informing and inspiring students and teachers.

[Elena Santiago](#), CEN CENELEC Director General, set the scene on behalf of the 3 European Standards Organisations, CEN, CENELEC and ETSI. She explained that standardization is needed to develop standards for your business, prepare market uptake, be kept about technical evolutions in a specific sector, and meet people in a given sector. She also emphasized that in the context of crisis, standardization is very important as it fosters growth.

[Renate Weissenhorn](#), Head of Unit 'Standardisation' at the Directorate General Enterprise and Industry, European Commission, explained that standardization can be a bridge

between research and the market. That is why we need experienced academics in order to translate research results in tangible documents. For her, we need to educate schools, universities, (especially technical universities), companies. Education about Standardization has the full support of DG Enterprise and Industry, which is going to work with DG Education and Culture. We should convince Member States to include standardization in curricula of secondary schools.

Michael Vanselow, Senior Expert Strategic Standardization at Daimler, presented how standardization is addressed by Daimler. Daimler is having a close look to standardization. There are different decision making factors in order to choose between standardization and patenting. General employee requirements: 40 years ago, most employee requirements were clearly established and people had a job for life. Today people don't stay in the same job but they are expected to have soft and hard skills, such as standardization. Engineers need not only to know how to apply standards but also to be able to contribute to the development of new standards to foster market penetration, quality/cost optimization and global availability. Daimler AG promotes standardization through teaching to Bachelor's and Master's programs at Pforzheim University.

Dr Donggeun Choi, Chief Manager, International Standards Team at the Korean Standards Association (KSA), explained that Korea is increasingly active in the field of education about standardization. The KSA's Roadmap for Lifelong Standardization Education goes addresses primary school, secondary school, higher education. There are more and more activities on education about standardization in Asia and these actions are especially top-down. The Asia-Pacific Economic Cooperation (APEC) launched in 2008 a 3-year programme on education about standardization with the involvement of Korea, China, Indonesia, Japan, Singapore, Thailand, Peru, USA, Vietnam.

Jean-Pierre Collignon, Inspector General of the French National Education, presented how standardisation is promoted in education's programmes in France. Education is one of the major objectives of the French Strategy for Standardisation (2006-2010 & 2011-2015). Three main actions have been implemented: partnerships have been developed with the main actors of the education system, a national network of trainers has been developed, tools to teach standardisation according to the different targets have been developed. There is still progress to be made. The main message is that education about standardization has to be promoted by showing its various benefits.

Sander Van der Toorn, student at the Erasmus University Rotterdam, explained that when he started to work he realized that he needed standards. He considers that standardization can bring new job opportunities for students. For him, the challenges are to have more courses in education programmes, to raise awareness among companies about benefits of standardization, and to combine theory and practice of standardization.

Lars Espersen, senior consultant at "Educations of Industries" (Industriens Uddannelser), showed that for every sector, standards are addressed in a different way. For example for aircraft technicians: EU standards are present all along the education, whereas for Data technician: Market standards in parts of the education. The content of curricula has to be defined by the market, especially in vocational training. Training materials have to be prepared and teachers have to be trained. All these actions have a cost.

Ruggero Lenzi, Director External relations, new business and innovation at UNI, began by presenting the [policy](#) of the CEN CENELEC ETSI Joint working Group on education about standardization, whose one of the objectives was to develop elements of a [model curriculum](#) on standardization for higher education, which is now ready for implementation. Then Mr Lenzi explained how UNI is implementing this strand of the policy. UNI has focussed on the Module 3 of this curriculum for engineering, business administration and law degrees. Difficulties have been encountered especially for the law degrees.

Dr Karlhanns Gindele, Director Innovation at DIN, presented the set of actions which DIN is running in the field of education. DIN is very active giving many lectures to universities. Via its 'Studiforum' initiative, DIN has been holding a series of events for students and young graduates in various fields. It also organised national conferences addressing Standardization and Education. With the 'DIN-Akademie' initiative, DIN developed a range of courses for (new) experts, employees and other interested parties. Young people are also addressed via the DIN-Award 'Young Science' for student thesis, while the research community is addressed within the Association for the Promotion of Research on Standardization. One of the conclusions was that it is important to explain the use and benefits of standardization and standards in innovative fields in order to raise interest and create incentives to increase the number of participating experts.

Issues raised during the discussion about education about standardization:

- It is important to set-up actions at European level while bearing in mind that the national level is key
- Teachers should be educated to standardization as well
- Education about standardization should cover the importance of standards, how to use standards, the importance of standardization, how to contribute to standardization
- If there is not more education about standardization, there is a risk that Europe will be less and less represented at international level
- People who have competence on standardization should be valued (certificates, diploma on standardization)
- Research about standardization could foster education about standardization
- Case studies to show real benefit of standards and interactive way of teaching are important

Doede Bakker, CENELEC Vice-President, presented the Master Plan on education about standardization. The bigger challenge is to get academia and industry to respond, and to achieve a better inclusion of standardization as part of learning. This will require a significant scaling up of the activities about education. A core activity of the future Master Plan will be engagement of targets. A group of key stakeholders will be put into place in order to give guidance and support for the implementation of the future activities. An important action will be the encouragement to set-up national structures on education about standardization.

Henk de Vries Associate Professor Standardization Rotterdam School of Management at the Erasmus University, moderated the discussion about the future Master Plan on education about standardization

The discussion started with a vote. Participants were asked to answer to the following questions. To all of them, the answer was in majority 'Yes':

- Standardization is of strategic importance for competitiveness, innovation and sustainability, not only for individual companies but for Europe as a whole.
- More education in the field of standardization is needed, to :
 - o increase awareness of the importance of standardization
 - o prepare people for doing a better job related to standardization.
- This should be a combination of formal education and (post-formal) training
- Research about standardization is needed to underpin education
- Education is primarily a national activity but it may be supported at the European level.

These questions fostered the discussion among participants. The following issues were raised.

- Standards not only help business but also society
- In order not to "boil the ocean", we should focus on high-impact measures
- Informal communication is needed to get young people interested
- Get in direct contact with students/researchers
- Standardization research can be done in parallel

- Create interest and harness curiosity by stimulating research about standardization
- We should identify drivers of education at national level
- Action at EU level is important in order to coordinate at national level
- National systems should be aligned following the Bologna process
- Not only ministries, but also funding bodies should be addressed
- We need to raise visibility for our actions
- Training about standardization should be offered to unemployed people
- Many companies train their new employees when they join. A training on standardization could also be proposed to CEOs of all big companies
- Our ambitious actions will be costly and we should find external funding sources

Ralf Christian, Chief Executive Officer Siemens Infrastructure & Cities Sector's Low and Medium Voltage Division -President of T&D Europe, concluded the meeting with a perspective from business. He explained that companies need standards as standards mean certainty. There is a need for good examples of standards making the difference for companies. The presentation of Dr Choi as a "wake-up call" to Europe. In order to catch-up, we need to act very quickly and not lose time. It is crucial if we want to secure our industrial base. We need the support of all other stakeholders to further improve education about standardisation. Education is the key to keep and broaden the knowledge about standardisation

For more information please get in touch with [Ségolène Martin](#) from the CEN-CENELEC Management Centre

Annex: List of Participants per category

Academia

ANTONARAS Alexandros – University of Nicosia CYS delegation
BERGHOLZ Werner – Jacobs University (*via web conference*)
COSTEA Ioan – University Of Medicine from Iasi
CUTTING–DECELLE Anne–Francoise – Ecole Centrale de Lille
DE VRIES Henk – Rotterdam School of Management, Erasmus University
DEJONCKHEERE Kris – UNICA network
EGYEDI Tineke – Delft University of Technology
FERTIN Andreas – Vienna University of Technology
FOSTER David – University College Dublin Career Development Centre
HESSER Wilfried – Universität der Bundeswehr Hamburg
JAKOBS Kai – RWTH Aachen University
JEGOU Roger – European Space Agency
LAPINA Inga – Riga Technical University
MAZAIS Janis – Riga Technical University
MULVEY Michael – Dublin Institute of Technology
SARUPICIUTE Julija – Vilnius University
VAN DEN BOSSCHE Peter – Vrije Universiteit Brussel
VAN DER TOORN Sander – Erasmus University, Rotterdam
VICHEVA Milka – Technical University of Sofia

Standard Bodies

ALGAN Fatma Müge – TSE
ARANDA Miguel Angel – AENOR (*via web conference*)
BAKKER Doede – CENELEC Vice–President Policy
BERGH ANDERSEN Katrine – DS
BOGH Signe Annette – DS
BRAND Hermann – ETSI
BRATKRAJC Malgorzata – CEN and CENELEC Management Centre
CESARI Fabrice – AFNOR
CHABERT Laurent – Centre de Normalisation de Défense
CAMP Sabrina – ITU Telecommunication Standardization Bureau (*via web conference*)
COUVIDAT Aurélie – ILNAS
COX Kieran – NSAI
DE BROUWER Jody – NEN
DE POORTER Marc – NBN
DONGGEUN Choi – Korean Standards Association
ENGELT Alexandra – DIN
FELICIANO Sandra – IPQ (*via web conference*)
GANESH Ashok – CEN and CENELEC Management Centre
GINDELE Karlhanns – DIN
HAMM Stephan – DKE
HAMPSON–JONES Newell – BSI
HOLM Hanne – EFTA
HOSEGGEN Tom – SN
KOSTIAINEN Anu – SFS
KRUPOVNICKAS Algirdas – LST
LANDWEHR Andreas – VDE (*via web conference*)
LENSI Ruggero – UNI
MAGLIARDITI Alessia – ITU Telecommunication Standardization Bureau (*via web conference*)
MARTIN Ségolène– CEN and CENELEC Management Centre
MAUPIN Valérie – AFNOR
METZ Rard – NEN (*via web conference*)
MIENVILLE Pascale – AFNOR
MURPHY Anna – NSAI

SANTIAGO CID Elena – CEN and CENELEC Director General
SCHREMSER Roman – ASI
SCHUT Kai – NEN
SIMEONI Alberto – UNI
TEN WOLDE Ineke – NEN (*via web conference*)
TOPIC Bogdan – SIST
TRONDVOLD Tore – CENELEC President Elect
TVETER Trine – SN
VAN DER FEEN Ed – NEN
VAN'T HOOGT Rowan – NEN
VIDAL Solenn – ILNAS
WEBER Joerg – Electrosuisse
WEISSINGER Reinhardt – ISO
WENDT Rüdiger – DIN
WHELAN Martin – NSAI

Business

CHRISTIAN Ralf – CEO Siemens Infrastructure & Cities Sector's Low and Medium Voltage Division
DANELON Agnese – Community of European Railway and Infrastructure Companies (CER)
DE MOOR Dirk – AGORIA
DE ZWART Teus – Echelon
DEWITT Roland – ACCIPIS
DUMONT Luc – VIG-FIV
ESPERSEN Lars – Industriens Uddannelser
HUHLE Haimo – ZVEI
KLEPFISCH Georges – Belgian Building Research Institute
LANDERS Terry – Microsoft
LANGENKAMP Anke – TÜV Rheinland
LINGSCHIEDT Simon – IBF (*via web conference*)
OBERLE Laurent – SOCOMEC/ACANOR
PORTALIER Philippe – ORGALIME
RAITH Burkhard – ThyssenKrupp
SERESIA Greta – IBE-BVI
VANSELOW Michael – Daimler
VEHRING Stefanie – Federal Institute for Materials Research and Testing
VON WALLEMBERG Lara – DEKRA
WALSH Peter – CaSServ
PRICE Maria – European Rail Infrastructure Managers

Public authorities

COLLIGNON Jean-Pierre – French national education
DE BAERE Danny – SPF
DUMONT Hugues SPF Economie
VEUGEN Frank – Ministerie van SZW
RONTELTAP Eelco – Ministry of Economic Affairs, Agriculture and Innovation (*via web conference*)
WEISSENHORN Renate – European Commission
KOUZMINE Serguei – UNECE

Other

DROESBEKE Benny – Belgian Welding Institute
FREERICKS Carla – German Research Center for Artificial Intelligence (DFKI)
NOLAN Martin – Accountancy and Professional Studies
ZWAMA Rik – Institute4Safety

Annex: Agenda of the conference



Education about standardization:

a dialogue with academia and industry
29 June 2012



Strategic importance of education about standardization A dialogue with academia and industry

CEN-CENELEC Meeting Centre, Avenue Marnix 17, 1000 Brussels

- 9.30-9.45 **Welcome coffee and registration**
- 9.45-9.55 **Welcome and introduction: strategic importance of education about standardization for stakeholders**
Mr Laurent Oberlé, Chairman of the CEN-CENELEC-ETSI Joint Working-Group on Education about Standardization
- 9.55-10.25 **Keynote speeches**
- Setting the scene: European Standards Organisations perspective and policy**
Mrs Elena Santiago Cid, CEN and CENELEC Director-General
- The view from the European Commission**
Ms Renate Weissenhorn, Head of Unit "Standardisation", DG Enterprise and Industry
- The importance of education and training on standardization for industry**
Mr Michael Vanselow, Senior Expert Strategic Standardization, Daimler AG
- 10.25-10.45 **Education about Standardization: how is it dealt with outside Europe?**
Dr Donggeun Choi, Chief Manager, International Standards Team, Korean Standards Association
- 10.45-11.10 **Tea and coffee break**

- 11.10-12.45 **Perspectives on education/training about standardization in Europe**
- A **national Ministry of Education**
Mr Jean-Pierre Collignon, Inspector General of the French National Education
 - A **student**
Mr Sander van der Toorn, Masters student in Management of Innovation from the Rotterdam School of Management, Erasmus University
 - An organisation specialising in **vocational education**
Mr Lars Espersen: Senior Consultant, Industriens Uddannelse
 - A National Standards Body involved in **academic and vocational model curricula**
Mr Ruggero Lensi, Director of External Relations, Development and Innovation, UNI
 - A National Standards Body involved in **support tools**
Dr Karlhanns Gindele, Director Innovation, DIN
- 12.45-13.15 **Questions and answers**
- 13.15-14.15 **Networking lunch**
- 14.15-14.35 **Masterplan to improve education about standardization: the challenges ahead**
Mr Doede Bakker, CENELEC Vice-President
- 14.35-15.35 **Panel discussion about collaborative actions to be taken in Europe**
Moderated by Mr Henk de Vries, Associate Professor Standardization Rotterdam School of Management, Erasmus University
- 15.35-15.50 **Conclusion**
Mr Ralf Christian, Chief Executive Officer Siemens Infrastructure & Cities Sector's Low and Medium Voltage Division - President of T&D Europe
- 15.50-16.30 **Closing drink**