



**Asia-Pacific
Economic Cooperation**

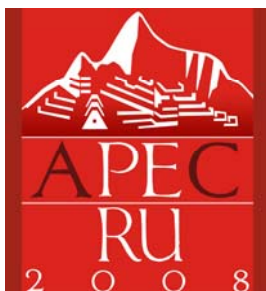
2008/SOM1/SCSC/PAG/003a

Agenda Item: 3.2

National Strategy on Standards Education

Purpose: Information

Submitted by: Korea



**3rd Project Advisory Group on Education
Meeting
Lima, Peru
24 February 2008**

Annex B

National Strategy on Standards Education – relevant full/summary text -

B1. Canada (surveyed/researched)

In the Canadian Standards Strategy 2005-2008:

5. Represent fully the range of standardization stakeholders
 - 5.1 Support the further development of the SCC Member Program
 - f) Research and make recommendations on the development and application of a “Standards & Conformity Assessment Education Module” for use by technical colleges and universities.

6. Communicate effectively the role and benefits of standardization and conformity assessment practices

B2. Chile (surveyed)

We don't have a “text” about this or a text where we give the importance of education activities. But, we know the importance and we promote it through meetings with Regulatory Bodies (specially through our National Commission on Technical Barriers to Trade) and business, and we give information about the importance of TBT's matters through capacity building activities.

B3. China (surveyed)

Establish and improve the training system on standardization education.

B4. Hong Kong China (surveyed)

The Product Standards Information Bureau (PSIB) of the Innovation and Technology Commission (ITC) of the Government of HKSAR (HKSARG) provides a comprehensive range of standards-related services to promote general awareness of standards and in particular to local enterprises, provide them with the latest information on local and overseas standards and technical regulations, and assist them to comply with these requirements in their manufacturing, exports and provision of services and to enhance quality and competitiveness.

In terms of school education, standards and conformity does not form a separate subject in our curriculum for primary and secondary education. General concepts

of the importance and benefits of international standards compliance would be infiltrated across subjects (e.g. Primary General Studies, Liberal Studies in senior secondary) as integrated general knowledge in primary and secondary education. More in-depth and explicit information on standards and conformance would be involved in specific disciplines where necessary in higher education. It is up to individual education institutes to decide at tertiary level.

B5. Japan (surveyed)

“Long Term Strategic Guidelines Innovation 25 ”
<http://www.kantei.go.jp/jp/innovation/index.html>

B6. Korea (surveyed)

National Standards Master Plan (2006~2010) - The 56 page plan spends two pages for education activities

4-3. Training Standards Experts and building Experts Network

- Establishing department of standardization in universities in order to build education infrastructure
- Operating professional education for businesses
- Initiating private certification scheme for standardization experts
- Utilizing IT & web technology to build manage standards experts

4-4. Increasing Awareness about Standardization and Strengthening Promotion/Education Activities

- Developing/Operating more centralized national standards information network
- Spreading out standardization-mind among for Secondary school students (teenagers)
- Extending standardization program in universities
- Conducting research and survey projects to estimate the level of awareness and have feedback about standardization policy
- Preparing systematic incentive systems for standardization activities.

B7. Malaysia (surveyed)

National Standards Strategy and Action Plan (NSSAP)

Strategy 5:

Greater awareness and usage of Malaysian Standards by the Government, private sector and the consumers in procurement, trade, production, manufacturing and provision of services

B8. Singapore (surveyed)

Taken from Element 7 of the Singapore Standardisation Strategy:

'Building awareness and understanding of the values of standardisation to all stakeholders and the general public will be vital for the long-term success of Singapore' standardisation efforts and goals. Communication and education initiatives including exploring web-based training in which modules on topics of standardisation are made available online, publishing a book on the basics of standardisation to increase general awareness in Singapore, and promotional and training seminars for new and upcoming standards.

B9. Chinese Taipei (surveyed)

From BSMI

The national strategy for standards and conformance (Strategy for National Standard Development) is composed of seven strategic objectives and two of which are the plans for education and training on the relationship between standards and the daily life of the general public as well as on building the capacity and expertise for specialists and professionals in different domains.

Aside from education/training itself, one of the seven strategic objectives is to utilize information and communications technology to facilitate education/training

From NCC

Article 10

For the purpose of promoting the development of telecommunications enterprises, the competent authority may, in consultation with the Ministry of Education, establish telecommunications schools, or additional relevant departments and/ or graduate schools, in senior high or vocational schools, colleges and universities so as to develop telecommunications specialists; and may request a telecommunications enterprise to allocate a proportionate amount of its turnover for research and development.

B10. Thailand (surveyed)

- The Project on Integrating Standardization in Education
- The Project on Promotion of Industrial Standards, Enhancement of Quality of Life, Protection of Consumers' Right
- Project on Increasing Manufacturers' Capacity of Production and Management System to International Standards Level

B11. UK (researched)

UK National Standardization Strategic Framework (NSSF):

– NSSF represents six pillars: Business, Government, Infrastructure, International, Awareness

In the Awareness Pillar, NSSF describes as follows:

Establish an awareness of standardization, an understanding of what it is and does; develop appropriate skills to use standards effectively and embed standardization in the skills and science base

- Increase the awareness of standards and standardization in order to enhance the use of standardization as a strategic tool for businesses and government, communicating to decision makers the role and benefits of standards and how to take advantage of standardization.
- Promote access to and understanding of standardization activities and processes to current and future participants, minimising duplication across the infrastructure by establishing a first point of contact for standardization needs
- Integrate knowledge of standards into the policy of raising the skills base for business, and embed the concept of standardization in formal education curricula to ensure appropriate levels of understanding in future generations of users, developers of standards and consumers.

B12. USA (surveyed)

Excerpt from the *United States Standards Strategy* (published 12-05)

– Establish standards education as a high priority within the United States private, public and academic sectors

Education programs covering the development and implementation of standards need to become a high priority within the United States. These programs must focus on the needs of leaders and top executives, those who participate in the development of standards, university and college students, and other interested parties. Tactical initiatives for all stakeholders, including *standards developers, ANSI, government, and academia* include:

- Develop new or significantly enhance existing standards education programs that address the significance and value of standards to the well-being of the United States and global economies.
- Develop or significantly enhance standards education programs that address the needs of specific groups within the United States. These programs must reflect the multidisciplinary environment in which standards development takes place and address national and international standards development procedures; the relationship between private and public sector standards; the environment, health, safety, sustainability, international trade, public policy, competition, legal, economic benefits, and strategic considerations; and how to balance the interests of stakeholders.
- Develop a national database of standardization case histories. The database should be jointly managed by the American National Standards Institute and the U.S. Department of Commerce.
- Encourage universities and colleges within the United States to create standardization education programs in fields of study such as engineering, science, technology, government and public policy, business, economics and law.
- Facilitate and enhance the creation of a communications network for standardization education programs among all interested parties in the private, public and academic sectors. Utilize Internet technology to the fullest extent possible to facilitate the development of e-learning and standardization education programs.

B13. Vietnam – Draft National Quality Policy (surveyed)

Note: This is unofficial translation.

1. Excerpts from Draft National Quality Policy of Vietnam (STAMEQ)

IV. MAIN SOLUTIONS AND POLICIES

4) Developing human resources in SMTQ

Enhancing education and training in SMTQ; establishing a regular and modern training institute in SMTQ; including SMTQ knowledge in the curricula of universities and technical colleges and schools; integrating quality awareness into curricula at high schools

Expanding and strengthening consultancy, training, workshop activities in order to popularize advanced methods and best practices of quality management to everybody in every area.

Improving skills of human resources in SMTQ area through in-country and abroad training courses.

...

Responsible for Implementation

c) Ministry of Education and Training (MoET) shall coordinate with Ministry of Science and Technology (MoST) in developing of the curricula on SMTQ for using in universities, colleges, technical schools and providing in high schools' curricula on quality awareness ".

2. Excerpts from Draft Strategy for development of Vietnam's Standardization activities to the year of 2015 (Prepared by STAMEQ)

Strategic Orientation 8:

Strengthening education and training activities to intensively promote greater awareness, knowledge on standardization and improve professional skills in standards development

❖ Goal:

Improve public awareness and knowledge on standardization and technical regulating, especially for those working in governmental agencies and businesses. Develop continuously high-skilled human resources for future standardization work by means of education and training.

❖ Action plans:

- a) Prepare and use standardized curricula and teaching materials on standards and conformance for different education/training levels and target groups including: Executives/Managers, working-level staff, newcomers, etc.;
- b) Set up and implement appropriate education/training programmes on standards and conformance in academic and professional institutions such as: universities, colleges, vocational/technical schools, etc;
- c) Encourage and promote involvement and support of different circles of society and interested parties in standards and conformance education/training;
- d) Set up and implement distance education/training and e-learning programmes through mass media like television and broadcasting.

B14. APEC (researched)

➤ **APEC Joint Ministerial Statement (Nov 2006, Hanoi)**

Ministers recognized the importance of standards education and encouraged members to develop reference curricula and materials to address the significance of standards and conformance to trade facilitation in the region. The Project on Integrating Standardization in Education

➤ **APEC CTI/SCSC resolution (Feb 2006, Hanoi)**

The APEC SCSC agreed to take actions, to promote the inclusion of Standards and Conformity Assessment and related activities in the curricula of schools and universities in the APEC region.

Where relevant, this would be done in conjunction with relevant APEC fora with responsibility for educational matters.

B15. UNECE WP6 (researched)

**UNECE Recommendation “I”.
METHODOLOGICAL STUDIES AND EDUCATION (1970)**

Working Party on Technical Harmonization and Standardization Policies has agreed to recommend that:

I.1 ECE Governments should, in collaboration with appropriate intergovernmental and other organizations and taking into account the activities of the International Organization for Standardization (ISO) and the International Electro-technical Commission (IEC), consider the possibility of encouraging:

- the introduction of the subject of standardization into the scientific and technological curricula of educational establishments;
- the education and training of specialists in standardization;
- the further study in depth of the methodology of standardization supported by international collaboration.

Annex C

Summary List of 118 Standards Education Practices

(Based on Survey and Research)

[Sorted first by the column of target groups, and second by Economy]

- No.001 ~ No.010: Primary and Secondary Education
- No.011 ~ No.037: Higher Education (Undergraduate and Graduate)
- No.038 ~ No.102: Professional Education (non-formal or training)
- No.103~ No.118: General activities (mainly by international organizations)

No	Target groups	Economy Org.	Operator (website)	Title	Note	Method F.Sheet#
1	F1) Primary F2) Secondary	Japan	METI (http://www.meti.go.jp/) JSA (http://www.jsa.or.jp)	Standards Education Delivery Service (Lectures on Demand)	45-100 minutes	Survey Annex D1
2	F1) Primary F2) Secondary Camping/Contest	Korea	KSA (www.ksa.or.kr)	Standards Olympiad	2 days of event	Survey Annex D2
3	F2) Secondary	Korea	KSA (www.ksa.or.kr)	Textbook Sub-chapter Development for Secondary School Students	Textbook is under development (by 2010) 2 workshops held for Teacher's training	Survey
4	F2) Secondary	Philippines	BPS (www.bps.dti.gov.ph)	Standards Blitz – Standards in the Curricula of Secondary and Alternative Learning Education	a. F2 - Secondary School teachers and students b. F2 – Instructional managers and Mobile teachers: secondary level c. F2 - Mobile learners: secondary level	Survey Annex D3
5	F2) Secondary (including Teacher)	Philippines	BPS (www.bps.dti.gov.ph)	Standards Blitz – Standards' Essay Writing Contest		Survey Annex D4
6	F2) Secondary (including teachers)	Thailand	TISI (www.tisi.go.th)	The Project on Integrating Standardization in Education	Various activities	Survey Annex D5
7	F2) Secondary	Turkey	TSE	Standardization and Quality	Textbook is available for one single subject	Research Annex D6
8	F1) Primary (Age 7-11) Online Information	UK	BSI (www.bsi.education.org)	BSI's Education Programme	Topic Areas: Bridges and tunnels, Food packaging, Shoes, Sustainability * Online Game	Research Annex D7
9	F2) Secondary (Age 11-14) Online Information	UK	BSI (www.bsi.education.org)	BSI's Education Programme	Topic Areas: Bridges and tunnels, Food packaging, Playgrounds, Sustainability, Textiles	Research Annex D8

Annex D

Detailed Fact Sheets of 88 Standards Education Practices

<Annex D1 to D9>

**Detailed Fact Sheets for
for Primary/Secondary Education Practices**

D1. Japan – METI - Standards Education Delivery Service (Annex.B #1)

Title (weblink)	Standards Education Delivery Service (Lectures on Demand) (http://www.jsa.or.jp/lectures/default.asp)	
Operator (website)	METI (Ministry of Trade, Economy and Industry) (http://www.meti.go.jp/) JSA (Japanese Standards Association) (http://www.jsa.or.jp)	
Type (Target Groups)	F1, F2 This program target elementary school, secondary school, high school and technical college students.	
Learning Objectives	<u>In this program, the audience (students) learn :</u> ✓ How standards used in daily life ✓ What type of standards is effective for social life ✓ Why standardization is important in our society	
Year (with number of participants)	✓ 2006 (1,351 students in 25 schools; 4 elementary schools, 4 secondary schools, 12 high schools and 5 technical colleges)	
Operation Summary	✓ Term; Sep. 2006 – Feb. 2007 ✓ Hours; 45-100 minutes/school (In case of elementary school and secondary school, one class is 45-50 minutes/school. 90-100 minutes classes were provided for high schools and technical colleges) ✓ Teachers; METI official staffs, JSA official staffs, Specialist from Private Manufactures ✓ Text book; power point files basically made by METI staffs	
Textbook Summary (if applicable)	Title	Standards Education Class <i>(language : Japanese)</i>
	Authors, Publisher, Year	Not published (power point files)

	Table of contents	<Elementary school> Ch1. Examples of standardization in daily life Ch2. Function of Standard Ch3. Communication using picture writing <Secondary school> Ch1. Over view of standards and standardization Ch2. Examples of standardized things and not standardized things Ch3. Standardization in future <High school and Technical school> Ch1. Overview of standards Ch2. Japanese standards (JIS, JAS et al.) Ch3. Importance of standardization Ch4. Importance of international standardization Ch5. International standardization activities in each countries Ch6. Main points of standardization
	Weblink	Not available

*** Submitted by (please contact following person for further information):**

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D2.Korea - KSA – Standards Olympiad (Annex.B #2)

Title	KSA – Standards Olympiad
Operator (website)	KSA (Korean Standards Association) (website: www.ksa.or.kr)
Type (Target Groups)	F1. Primary School F2. Lower Secondary School
Learning Objectives	In this program, the audience (students) learn : <ul style="list-style-type: none"> ✓ Importance of standardization ✓ How standards solve problems or improve efficiency
Year (with number of participants)	2006 – Initiated as a ‘Students Camp’ Program 2007 – Changed to ‘Standards Olympiad’ Program
Operation Summary	<p>Advertisement</p> <ul style="list-style-type: none"> ◇ Online Advertising in KSA and KOFETS website ◇ Poster Advertising for all primary and lower secondary schools <p>One hundred teams to be selected for Competition</p> <ul style="list-style-type: none"> ◇ A task for the olympiad to be posted online for open competition ◇ Any students can apply for the olympiad with a few pages of idea proposal on the task for preliminary competition ◇ An evaluation committee will select 100 Teams (300 students – 3 students/team) for main competition ◇ Main competition will be for three days with the selected 100 teams <p>Awards</p> <ul style="list-style-type: none"> ◇ Awards to be given six teams for primary school students and 10 teams for lower secondary school students. The awards will be given under the name of Minister of MOCIE and presidents of KSA and KOFETS

			<Opening Ceremony>
			<Competition Task>
Textbook Summary (if applicable)	Title (<i>language</i>)	<i>N/A</i>	
	Authors, Publisher, Year	Mr. Kang, Ey Goo and 4 co-authors Far East University Press, 2007	
	Table of contents		
	Weblink	Not available	

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D5. Thailand – Integrating Standardization in Education (Annex.B #6)

Title 1	The Project on Integrating Standardization in Education	
Operator (website)	Thai Industrial Standards Institute (website: www.tisi.go.th)	
Type (Target Groups)	F2 Secondary School (Teachers & students)	
Learning Objectives	<ul style="list-style-type: none"> ✓ To give teachers knowledge and understanding of standardization to educate their students ✓ To raise students' awareness of the importance of standardization to apply to their daily lives ✓ To use students as a center to promote standardization 	
Year (with number of participants)	<ul style="list-style-type: none"> ✓ 2003 (610 teachers in 595 schools) ✓ 2004 (693 teachers in 680 schools) ✓ 2005 (622 teachers in 620 schools) ✓ 2006 (389 teachers in 307 schools) 	
Operation Summary	<ul style="list-style-type: none"> ✓ Development of training courses for integrating standardization in living, occupation and technology ✓ Preparation of manuals for teachers & students and training materials ✓ Training of selected teachers ✓ Supervision of the trained teachers ✓ Exhibitions and recreations had been organized in schools around the country ✓ Several contests had been launched i.e. painting, costume, slogan model of industrial products 	
Textbook(Syllabus) or Curriculum Summary	Title	Manual for Integrating Standardization in living, occupation and Technology (<i>language : Thai</i>)
	Authors, Publisher, Year	Educational supervisors, teachers, TISI 2003-2006


	Table of contents (curriculum or Syllabus)	Unit I Standardization Unit II Integration of standardization into education Unit III Learning design Unit IV Technological process to develop a project for living and occupation
	Weblink	Not available

*** Submitted by (please contact following person for further information):**

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D6. Turkey - TSE Textbook for Secondary School (Annex.B #7)

Title (website)	Textbook of Standardization and Quality for Turkish secondary schools	
Operator (website)	TSE(Turkish Standards Institution) and Secondary Schools (www.tse.org.tr)	
Type (Target Groups)	F2) Secondary Schools	
Learning Objectives	✓ To learn basics about standardization and quality	
Year	✓ N/A	
Operation Summary		
Textbook(Syllabus) or Curriculum Summary	Title:	Standardization and Quality (in Turkish)
	Authors, Publisher, Year	TSE, 2003
	Table of contents (curriculum or Syllabus)	Chapter 1 Notions of Quality Chapter 2 Quality Control Chapter 3 Control of Resources Chapter 4 Control of Manufacturers Chapter 5 Quality Control related to Management Chapter 6 Methods of Quality Control Chapter 7 Notions of Standards Chapter 8 Classification of Standards Chapter 9 Relevance of Standards and Production

		
	Weblink	

*** Researched and Prepared by the Project Editor**

*** Mr. Alpay E İGREK kindly provided the Textbook via mail to the Editor.**

*** (Please contact following person for further information):**

Economy	Turkey
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D7. UK-BSI'S Online Education Information (Age 7-11) (Annex.B #8)

Title (weblink)	BSI'S Education Programme (Age 7-11) (weblink: www. Bsieducation.org)	
Operator (website)	BSI (www.bsi-global.com)	
Type (Target Groups)	F1 Primary School (Age 7-11)	
Learning Objectives	BSI raises awareness about important standards	
Year (with number of participants)		
Operation Summary		
Textbook(Syllabus) or Curriculum Summary	Title	Age 7-11
	Authors, Publisher, Year	
	Table of contents (curriculum or Syllabus)	<p>Bridges and tunnels There are many different designs of bridges built for specific purposes. Bridges have to maintain Standards by fulfilling design, function and safety in construction.</p> <p>Food packaging Packaging exists in many different forms for many different purposes. Thinking about the content of a package helps determine what the packaging should be. All types of packaging need to reach certain Standards for safety and suitability.</p> <p>Shoes Many different types of shoes exist from Wellington boots to ballet shoes. All are deigned for a particular purpose and are suitable for different users. Many areas of shoe design, such as appearance and safety, require Standards to be applied to them.</p> <p>Sustainability There is a lot we can to do to provide for our needs without damaging resources and the environment. Standards can help up when planning an event large</p>

		or small, such as the Olympics or just a birthday party.
		*Online Game: Bridge Builder game
	Weblink	http://www.bsieducation.org/Education/7-11/default.shtml

** Researched and Prepared by the Project Editor*

** Based on BSI website and information provided by Kim Edmondson (BSI)*

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Annex E

Surveyed Lessons Learned from Standards Education Practices

E1. Japan – METI Standards Education Delivery Service (Annex.B #1)

Lesson Title	<Category: Operation> Standards Education Delivery Service (Lectures on Demand)
Date	(09/2006-02/2007)
Context (guide: 1~2 paragraphs)	Students can learn importance of standards through examples of commodities and industrial products for which standards are used in their daily life. They also discuss about what kind of standards will be effective in society and needed in future.
Lesson Learned (guide: 0.5 ~1.5 pages)	<ul style="list-style-type: none"> ✓ Quiz and group works and actual sample of commodities/products are effective to attract students. ✓ If the teacher use quiz or group work, 45-50 minutes are not enough to teach all of textbook contents. When having 45-50 lectures, teachers should focus their teaching contents to one main theme. ✓ When teachers lecture technical college students, they should take into account the students' special knowledge.
Source Reference	Teachers questionnaire (n = 42)

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E2. Philippines – BPS in DTI (Annex.B #4)

Lesson Title	The youth are a strong influence to the purchasing decisions of their families, peers, schools, and communities. Educating them on the concepts and significance of standards on products and services and having them involved in purchasing decisions at a young age would mold them into vigilant consumers and responsible citizens of the country.
Date	13, 14 & 18 December 2006: DTI(BPS)-DepEd(BALS)-PPSQF Validation Of Draft Modules On Standards For Prioritized Products 20-22 March 2007: DTI(BPS)-DepEd(BSE)-PPSQF Validation Of Draft Lesson Plans On Standards For Prioritized Products
Context (guide: 1~2 paragraphs)	The Filipino youth's awareness on product quality and safety is low. The BPS' scarce resources limit the conduct of promotional activities and publication materials on standards to inform the youth as consumers. Thus, the BPS designed a program that would hopefully properly educate the youth through the country's education system. BPS identified the need to include the concepts and significance of standards in the curricula of the secondary and alternative education through modules and lesson plans on standards. These modules and lesson plans are teaching materials for the secondary teachers and IMs/ mobile teachers to assist them in making the youth realize that standards are indeed significant for the performance of the product and its safe use.
Lesson Learned (guide: 0.5 ~1.5 pages)	<p>Although the BPS has an existing program for the undergraduate students to appreciate the significance of standards in their everyday lives, the BPS felt that the impact of making the students aware has not been achieved.</p> <p>Thus, the BPS identified the high school or secondary level students to be its voice in spreading the use and relevance of standards. The modules and lesson plans on standards that were prepared by the BPS in cooperation with the Department of Education were designed to be easy to read, situational and interactive.</p> <p>These modules and lesson plans were finalized according to the students' needs. Definitions, concepts, examples, exercises, experiments, materials, stories, photographs, and images were used for the students to understand easily.</p> <p>To verify if these materials are easily understood, a series of validation activities were conducted in several mobile centers and schools. The instructional managers and high school teachers were requested to use the modules and lesson plans in their classes. The BPS and its partners were present to observe the demonstration. Right after, the IMs and teachers were further requested to comment on the teaching materials that they used for improvements.</p> <p>Through the validation activities, the teachers and students realized that indeed, standards are part of their everyday lives; that each one of them is responsible in making sure that they are using products and services that comply with standards; that products are inspected for their</p>

	<p>expected performance and safety.</p> <p>The comments gathered were discussed and eventually incorporated in the final copies of the modules and lesson plans.</p>
Source Reference	

** Submitted by (please contact following person for further information):*

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E3. Thailand – TISI (Annex.B #6)

Lesson Title	Integrating Standardization in Livings, Occupation and Technology
Date	(01-2003)
Context (guide: 1~2 paragraphs)	<p>Standardization is considered as a significant factor to develop industry and increase the quality of life as it enhances the quality of products and ensures consumer safety.</p> <p>Thai Industrial Standards Institute has been promoting the significance of standardization to different groups of stakeholders. We realize that school teachers have vital roles to educate the importance of standardization to our youth so that they are able to apply what they have learnt to their occupation and their daily lives.</p>
Lesson Learned (guide: 0.5 ~1.5 pages)	<p>Training on the integration of standardization in livings, occupation and technology begins with giving general knowledge on standardizations such as its definition and principle, process of standard development and standard using to teachers so that they will gain adequate knowledge and understanding to educate their students.</p> <p>Then, the teachers learn the process of integrating standardization in livings, occupation and technology. The teachers are divided into groups to do some exercises on developing teaching and learning plans to integrate standardization in livings, occupation and technology therefore they can put them into practice.</p>
Source Reference	

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E4. France – ZFIB (Annex.B #20)

Lesson Title	Teaching in Simulation, Examples of real life, Multi-disciplinary
Date	
Context (guide: 1~2 paragraphs)	Engineer Schools Questions : standards not always the best technological solution (as it has to be a consensus)- Standardization versus innovation
Lesson Learned (guide: 0.5 ~1.5 pages)	<p>Business cases are essential, mainly when built and developed by the students</p> <p>A simulation tool to simulate the debates and have the consensus issue well understood should be a good idea. When the course is theoretical it is not well received- the students want examples of the real life</p> <p>The level of interest and knowledge about standardization is very poor at the start point of the cycles. Standardization has to be taught as a discipline integrated in economic, legal , technological and social life of a company. It has to be shown as an element of the business intelligence.</p>
Source Reference	

* **Submitted by (please contact following person for further information):**

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E5. Korea – KSA – UEPS program (Annex.B #27) (includes 8 lessons)

Lesson #1	Planning - Cooperate with them and have a leader and a coordinator
Date	2004-2007 in KSA-UEPS Program
Context	Driving a program with out a coordinator and a leader? No way!
Lesson Learned (guide: 0.5 ~1.5 pages)	For driving the program, there must be a leader and a coordinator to handle this. Standards related organization like a case of Korea, is the best suitable for organizing such education program. Therefore, use standards related organizations as much as possible,
Lesson #2	Planning: Have clear objectives.
Date	2004-2007 in KSA-UEPS Program
Context (guide: 1~2 paragraphs)	The framework of the program must be differentiated according to objectives. “Increasing awareness of importance of standards” and “Nurturing standards experts” are very different education objectives.
Lesson Learned (guide: 0.5 ~1.5 pages)	With unclear objectives, education program might go different ways. If the objectives are mixed with “exposing students to standard itself” and “train students for making specialists”, the curriculum would be messed up as well as students get confused. Have clear objectives, then it would be much easier to make further plans.
Lesson #3	Make consensus of education on standardization among industry, academia, government and standards related organizations.
Date	2004-2007 in KSA-UEPS Program
Context (guide: 1~2 paragraphs)	‘Education on Standardization’ is a complicated subject to teach. It is impossible for academia to handle it. From the beginning it should be a triangle(academia-industry-government must including standards related organization) cooperated program.
Lesson Learned (guide: 0.5 ~1.5 pages)	Different from other courses, the subject ‘standards’ is not just an academic thing. It is related with technology, legal systems and government policies. This kind of education program needs a vivid voice of field experts, academic base, financial and administrative supports. From the planning, if the consensus of the importance of education on standardization is not made among academia-industry-government, it would be hard to even start it. Like a case of Korea, from the very beginning, make consensus of education on standardization by getting financial support from government, by gathering participating universities and by obtaining participating lecturers from industries..
Lesson #4	Harmonize students’ needs with teachers’ needs - Attract students attention(One picture is worth a thousand words)
Date	2004-2007 in KSA-UEPS Program
Context (guide: 1~2 paragraphs)	For teachers, there are must-teach contents while students want to learn easy and fun things. ‘Standard’ is a difficult subject for students to find it easy and fun, however, only customizing students’ taste doesn’t make sense. Harmony is the key! Students are MTV generation. They are accustomed to visualized education materials. Also they want more than academic things.
Lesson	Standards include procedures, legal systems, etc which seems to be

Annex F

Contact Information for Standards Education

<Annex F1>

**Contact in General
for standards Education**

Economy: Canada

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Economy: Chile

Organization /Ministry	Name:	Ministry of Economy (Foreign Trade Department)
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Economy: Chinsse Taipei(1_BSMI)

Organization /Ministry	Name:	National Information Infrastructure Enterprise Promotion Association
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Economy: Chinese Taipei (2_NCC)

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<Annex F2>

**Contact of Education Committee
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- Chair and Secretariat -

Canada

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Economy: Taipei(1_BSMI)

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	Authorized by:	Ministry of Economic Affairs
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Economy: Japan

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Economy: Malaysia

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Economy: Korea

Committee	Name:	KSA-University Standardization Education Committee
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Economy: USA (1_ANSI)

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Economy: Vietnam

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<Annex F3>

**Contact of Contributors
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Economy	Chinese Taipei
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