Asia-Pacific
Economic Cooperation

7th Conference on Standards and Conformance

August 10-11, 2008
Cusco, Peru

Sub-committee on Standards and Conformance

APEC Committee on Trade and Investment

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CTI 21/2008T

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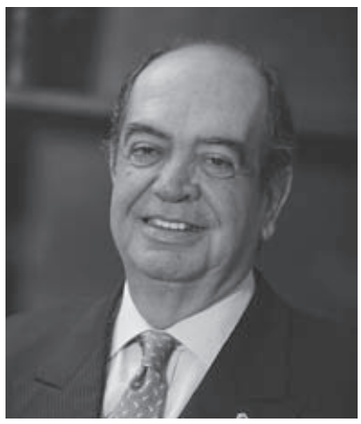

Foreword

Jaime Thorne
Chairman of the Board
National Institute for the Defense of Competition and the Protection of Intellectual Property - INDECOPI

In name of the National Institute for the Defense of Competition and the Protection of Intellectual Property, INDECOPI, I would like to express our deep gratitude to all who have made possible the 7th Conference on Standards and Conformance, which took place on 10 and 11 August 2008, in the city of Cusco, Peru.

In particular, my appreciation goes to the Sub-Committee on Standards and Conformance, for trusting us with the hosting of this important bi-annual Conference, to our co-sponsors, Chile, Japan, the United States of America, and Vietnam for their support, as well as to all speakers for making this event of the highest technical level.

I would like to specially thank our Project Overseer, Ms. Rosario Uria, INDECOPI's Standards Coordinator, and her team, for successfully undertaking the task of putting together this Conference, where over 25 speakers participated. We believe that this year's Conference has provided an important forum to share and learn from each other on trade related standards and conformance issues.

The Conference has allowed for the discussion of important topics that are of special interest to APEC member economies, such as trade facilitation and education and has shown the positive development of standards and conformance in our region. I thank you all who participated in the 7th Conference on Standards and Conformance, and trust that the outcomes of this event will contribute to provide guidance to the actions and activities of APEC's Sub-Committee on Standards and Conformance.

I am sure the presentations of the speakers and panelists contained in this Compendium will encourage a more critical look at the opportunities around APEC today and will prompt us to join efforts towards making the APEC region a stable market place without technical restrictions to trade.

Preface

Since 1996, the Sub-Committee on Standards and Conformance has held the Conference on Standards and Conformance every two years, to provide a space where representatives from government and non government institutions, academia, the private sector and the business community may exchange knowledge, practices and experiences on matters related to Standards and Conformance which are of interest to APEC member economies and which will promote trade facilitation.

This year, the 7th Conference on Standards and Conformance was organized by Peru, as APEC's host economy, with the support of the Trade and Investment Liberalization and Facilitation Fund (TILF), under project CTI 21/2008T. The project was undertaken by the National Institute for the Defense of Competition and the Protection of Intellectual Property – INDECOPI, which embodies the Peruvian Standardization and Accreditation authorities.

This Compendium of the 7th Conference on Standards and Conformance, held in the City Council Convention Center in Cusco, Peru on 10 and 11 August 2008, contains all papers and presentations of the event. It also presents the outcomes and recommendations for future work drawn from the four sessions which make up the Conference, namely (i) Standards and Conformity Assessment – Specialist Regional Bodies and International Organizations; (ii) Standards and Conformance Education – Challenges for contents in textbook development and network cooperation in APEC region; (iii) Trade Facilitation; and (iv) The Dialogue SCSC – ABAC and Business.

The Conference was attended by over 110 participants, coming from 19 member economies: 56 % from the public sector, 27 % from private sector and the remaining 17 % came from different organizations. There were 27 experts invited to participate as speakers at the Conference, 22 came from member economies, and 5 were non-member speakers (ISO, IEC, EURAS, ICES and OGP/SC). A short presentation of each one of them may be found in this Compendium.

The organization of this Conference has been a very rewarding experience and an opportunity to meet and interact with exceptional professionals who have made a decisive contribution to the outcomes of the Conference. In particular, I would like to express my sincere appreciation to speakers, session coordinators, and INDECOPI's technical support team for their involvement and commitment to the success of the Conference. Also, my gratitude and appreciation go to APEC Secretariat, CEAN (Peru's APEC 2008 Commission), and INDECOPI for their support and close cooperation in the administrative and logistical matters of the Conference.

Lima, 1st September 2008

Rosario Uría Toro
Project Overseer
Standardization and non tariff barriers Surveillance Commission
National Institute for the Defense of Competition and
the Protection of Intellectual Property of Peru
INDECOPI

Asia-Pacific Economic Cooperation

Final Agenda

7th Conference on Standards and Conformance

10-11 August

Cusco City Council Convention Center

Cusco, Peru

Sunday 10 August		
09:00: 09:10	Introduction and welcome	Mr. Augusto Mello, SCSC Chair
Session 1	**Standards and conformity Assessment - Specialist regional Bodies and International organizations**	
Time	Topic	Speaker
09:10 - 09:20	Introduction to specialist Regional Bodies and their roles	Ms Rosario Uría, Project Overseer, INDECOPI, Peru
09:20 - 09:40	Pacific Accreditation Cooperation (PAC) and Import Safety	Mr David Shortall, Pacific Accreditation Cooperation (PAC)
09:40 – 10:00	Standardization in the field of Energy Management and Implementation of a measurement scheme	Mr Gary Kushnier , Pacific Area Standards Conference (PASC) Ms Ding Zhuyin, Asia Pacific Legal Metrology Forum (APLMF)
10:00 – 10:20	Measurement role in the development of national initiatives on food safety	Dr Laurie Besley, Member Executive Committee-Asia Pacific Metrology Programme (APMP)
10:20 – 10:40	Pathology laboratory testing in the health sector	Ms Karen Hitchinier on behalf of Dr Helen Liddy, Asia Pacific Laboratory Accreditation Cooperation (APLAC) Secretary
10:40 – 11:00	Questions and answers	
11:00 – 11:30	Morning break	
11:30 -11:40	Introduction to International organizations and their roles in facilitating international trade	Ms Rosario Uría, Project Overseer, INDECOPI, Peru
11:40 – 12:00	IECEE CB Scheme – Taking Conformity Assessment Further	Mr Pierre Ruvo, Executive Secretary IECEE
12:00 -12:20	Responding to the Global and Related Challenges of Climate Change, Energy, Water and Nutrition	Mr Alan Bryden, ISO Secretary-General
12:20 – 12:40	Questions and answers	
12:40 – 14:00	Lunch	

Session 2	Standards and Conformance Education- Challenges for contents in textbook development and network cooperation in APEC region	
Panel 1	What to teach about Standardization?	
Time	Topic	Speaker
14:00 – 14:10	Issue Briefing: What to Develop and Why/How to Cooperate in APEC?	Mr Teo Nam Kuan (moderator), Group Director, SPRING, Singapore Mr Donggeun Choi, Senior Standards Analyst, Korea
14:10 – 14:25	The economic Impact of Standards	Mr John Tucker, CEO, Standards Australia
14:25 – 14:40	The Economic Value of Standardization in Canada	Mr Stephen Head, Senior Policy Analyst, Standards Council of Canada
14:40 – 14:55	Economic and Social Effects of Standardization	Mr Shigekazu Fukunaga Deputy Director Technical Regulations, Standards and Conformity Assessment Policy Unit Ministry of Economy, Trade and Industry
14:55 – 15:15	Questions and answers	
15:15 – 15:45	Afternoon break	
15:45 – 16:00	The Value of Standards and Standards Education	Ms Erin Grossi, Underwriter Laboratories
16:00 –16:15	Introducing standardization as an Input for Innovation in high level education in Peru	Mr Augusto Mellado, President, National Council of Science, Technology and Technological Innovation- CONCYTEC, Peru
16:15 – 16:30	Standards Education	Mr John Hill, Chief Standardization Strategy Officer, Sun Microsystems (ICES)
16:30 – 16:45	European Academy for Standardization	Ms Francoise Bousquet
16:45 – 17:05	Questions and answers / Final Conclusions (Mr Donggeun Choi, Korea)	
Monday 11 August		
Session 3	**Trade facilitation**	
Time	Topic	Speaker
09:00 – 09:10	Introduction to the TFTF seminar impact of environmental regulations, standards on trade facilitation in APEC	Ms Julia Doherty, TFTF Co Chair, USA
09:10 – 09:30	EU RoHS Directive - Next Revision	Ms Beth A Hulse, Global Regulatory Manager, GE Healthcare, Environmental Products & RoHS
09:30 – 09:50	Singapore's initiatives to support industries for RoHS and REACH.	Ms Rachel Choy, Manager Quality Assurance Services Spring, Singapore
09:50 – 10:10	The EuP Directive and Implementing measure	Mr Takao Sato on behalf of Mr. Kun-Mo Lee, TFTF Co Chair, Korea
10:10 – 10:30	Morning break	
10:30 – 10:50	Preparations and actions being taken in Japan for EU Environmental Regulation, REACH	Mr Takao Sato, Ricoh Company Ltd, Japan

10:50 – 11:10	U.S. Industries Experience with REACH	Mr Jim De Lisi, Fanwood Chemical Inc, USA
11:10 – 11:30	Thailand response to the EuP	Mr Charuek Hengrasmee, President, Electrical and Electronic Institute
11:30 – 12:00	Questions and Answers / Closing (Ms Julia Doherty, USA)	
12:00 – 14:00	Lunch	
Session 4	**The Dialogue SCSC - ABAC and Business**	
Time	Topic	Speaker
14:00 – 14:10	Importance of the ABAC - SCSC Dialogue: encouraging future cooperation on standardization and conformance in APEC economies according to the needs of business	Mr Augusto Mello, SCSC Chair
14:10 – 14:30	ABAC Standards Agenda – APEC Food System	Mr Geoffrey Brennan, ABAC Australia
14:30 – 14:50	Benefits of accreditation and conformity assessment for business	Ms Karen Hitchiner on behalf of Dr. Helen Liddy, Asia Pacific Laboratory Accreditation Cooperation (APLAC) Secretary
14:50 – 15:10	Report of ABAC initiative project on Critical Infrastructure and Support Systems Standardization	Ms Karen Hitchiner, Standards Australia
15:10 – 15:40	Questions and Answers	
15:40 – 16:10	Afternoon break	
16:10–16:30	International Standardization for the Petroleum and Natural Gas Industry / Possible Cooperation of APEC Members With OGP/SC and ISO/TC-67.	Mr Wilson Barbosa, International Association of Oil and Gas Producers/ Standards Committee (OGP/SC)
16:30 –16:50	Chilean Standard of Energy Efficiency: bases for regulations and its impact in the national industry	Ms Claudia Cerda, Chilean Standards Body INN
16:50 – 17:10	The use of standards and its impact in the agribusiness sector: the Peruvian experience	Mr Augusto Mello, Head, Peruvian Standards Body- INDECOPI
Time	Topic	Speaker
17:10 – 17:25	Questions and Answers	
17:25 – 17:35	Conclusions Dialogue SCSC – ABAC and business	Mr Teo Nam Kuan, SCSC Vice Chair
17:35 – 17:45	7th Conference on Standards and conformance conclusions	Ms Rosario Uría, Project Overseer, INDECOPI, Peru
17:35 – 17:45	Closing	Mr Jaime Thorne, Chairman, INDECOPI, Peru

Opening Speech
7TH Conference on Standards and Conformance
Mr Augusto Mello – SCSC Chair

SCSC Delegates, Speakers, Ladies and Gentlemen

It is my pleasure to welcome all of you to the Seventh Conference on Standards and Conformance. As many of you know, this Conference is held every two years and it represents an opportunity to further explore the role of SCSC in promoting work in standards and conformance, in accordance to the needs and expectations of Business in the APEC region.

Standardization and conformity assessment facilitate international trade by helping to reduce or remove technical barriers to trade. Thus, standards and conformity assessment support achievement of the APEC Bogor goal of free and open trade in the region (i) through the reduction of business transaction costs; and (ii) by promoting knowledge and expertise transfer from developed to developing economies.

However, achieving this Bogor goal lies not only on the will of APEC leaders, but more so on the commitment of three main agents: Business, Government and Consumers.

- Business, through their active participation in international standardization and conformity activities to harmonize technical and procedural criteria, and to take part and contribute in the process of promulgating mandatory requirements;

- Government, by setting sound policies in each economy that allow for and promote the use of international standards and internationally accepted conformance practices to meet trade and regulatory needs; and

- Consumers, by increasing their demand for safe, high quality products and by participating in the development of standards.

It is the objective of this Seventh Conference on Standards and Conformance to encourage stakeholders to actively contribute to trade facilitation through their involvement and commitment.

To achieve this, the two-day conference has been divided into four sessions which will raise issues of great interest for the APEC region: the first session will deal with the contribution of Specialist Regional Bodies and International Organizations to facilitating international trade and supporting a multilateral trading system for APEC economies.

This afternoon, the second session will discuss the importance of education on standards and conformance, focusing on the economic and social value of standardization and on networking and cooperation in the APEC region.

Session 3 will discuss Trade Facilitation, focusing on the impact of environmental standards, product related environmental regulations and conformity assessment procedures in order to enhance technical cooperation and promote trade facilitation.

Tomorrow afternoon, the fourth session will be held: The Dialogue with Business and ABAC (the APEC Business Advisory Council), which is aimed at encouraging future cooperation on standardization and conformance in APEC economies, according to the needs and expectations of Business in the region.

I am sure this two-day conference will prove to be beneficial to all of us and I hope that the discussions will provide a new drive for further APEC work in standards and conformance.

I wish you all a rewarding stay in Cusco, capital of the Inca Empire, which holds many enchanting sites that I hope you have a chance to visit and explore.

Have a good day, thank you.

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Document Classification List
7th Conference on Standards and Conformance
Submitted by: APEC Secretariat

Document No.	Title	Submitted By
2008/SOM3/SCSC/CONF/ 001	Document Classification List	APEC Secretariat
2008/SOM3/SCSC/CONF/ 002	Final Annotated Agenda	Peru
2008/SOM3/SCSC/CONF/ 004	Introduction to Specialist Regional Bodies and their roles	Peru
2008/SOM3/SCSC/CONF/ 005	Pacific Accreditation Cooperation (PAC) and Import Safety	PAC
2008/SOM3/SCSC/CONF/ 006	ISO Project Committee 242 Enegry	PASC
2008/SOM3/SCSC/CONF/ 007	Role of metrology in Energy Conservation	APLMF
2008/SOM3/SCSC/CONF/ 008	Measurement Role in the Development of National Initiatives on Food Safety	APMP
2008/SOM3/SCSC/CONF/ 009	Pathology Laboratory Testing in the Health Sector	APLAC Secretary
2008/SOM3/SCSC/ CONF/010	Introduction to International Organizations and their roles in facilitating International Trade	Peru
2008/SOM3/SCSC/CONF/ 011	IECEE CB Scheme – Taking Conformity Assessment Further	IECEE
2008/SOM3/SCSC/ CONF/012	Responding to the Global and Related Challenges of Climate Change, Energy, Water and Nutrition	ISO
2008/SOM3/SCSC/CONF/ 013	APEC SCSC Education Initiative: Raising Issues – Where should we go?	Korea
2008/SOM3/SCSC/CONF/014	The Economic Impact of Standards	Australia
2008/SOM3/SCSC/CONF/015	The Economic Value of Standardization in Canada	Canada
2008/SOM3/SCSC/CONF/016	Economic and Social Effects of Standardization	Japan
2008/SOM3/SCSC/CONF/017	The Value of Standards and Standards Education	USA
2008/SOM3/SCSC/CONF/018	Introducing standardization as an Input for Innovation in high level education in Peru	Peru
2008/SOM3/SCSC/CONF/020	Standards Education	ICES
2008/SOM3/SCSC/CONF/021	European Academy for Standardization	EURAS
2008/SOM3/SCSC/CONF/022	Introduction to the TFTF Seminar impact of Environmental Regulations, Standards on Trade Facilitation in APEC	Korea
2008/SOM3/SCSC/CONF/023	EU RoHS Directive	GE Healthcare
2008/SOM3/SCSC/CONF/024	Singapore's Initiatives to Support Industries for RoHS and REACH	Singapore
2008/SOM3/SCSC/CONF/025	The EuP Directive and Implementing Measure	Korea
2008/SOM3/SCSC/CONF/026	Preparations and Actions Being Taken in Japan for EU Environmental Regulations, REACH	Japan
2008/SOM3/SCSC/CONF/027	US Industries Experiences with REACH	USA
2008/SOM3/SCSC/CONF/028	Thailand Response to the EuP	Thailand
2008/SOM3/SCSC/CONF/030	ABAC Standards Agenda	ABAC

Document No.	Title	Submitted By
2008/SOM3/SCSC/CONF/032	Benefits of Accreditation and Conformity Assessment for Business	APLAC Secretary
2008/SOM3/SCSC/CONF/033	Report of ABAC Initiative Project on Critical Infrastructure and Support Systems Standardizations	Australia
2008/SOM3/SCSC/CONF/034	International Standardization for the Petroleum and Natural Gas Industry/ Possible Cooperation of APEC Members with OGP and ISO/TC-67	OGP/SC
2008/SOM3/SCSC/CONF/035	Chilean Standard of Energy Efficiency: bases for regulations and its impact in the national industry	Chile
2008/SOM3/SCSC/CONF/036	The use of standards and its impact in the agribusiness sector: The Peruvian experience	Peru

Session I:

Standards and conformity assessment – Specialist Regional Bodies and International Organizations

Overview Session I: Standards and conformity assessment – Specialist Regional Bodies and International Organizations

In the first session the focus was on standards and conformity assessment activities within the Specialist Regional Bodies (SRBs) and international standards development organizations. The session commenced with presentations from each of the five SRBs on key initiatives within their scopes, including topics such as energy management, the role of metrology in energy conservation, import safety, food safety and laboratory testing in the health sector. Following the SRB presentations, ISO and IEC, two international standards developing organizations, provided presentations on standards development for the global environmental challenges of energy, climate change, water and nutrition; and on the IECEE CB Scheme, respectively.

The first session stressed the importance of coordination between the APEC SCSC, SRBs and international organizations in order to more efficiently meet mutual goals and objectives. Through practical examples of high-priority initiatives within SRBs and international organizations, the session provided practical information to support increased APEC member economy involvement in the various forums. This session was moderated by Mr. Gary Kushnier, from PASC.

The presentations for this session were:

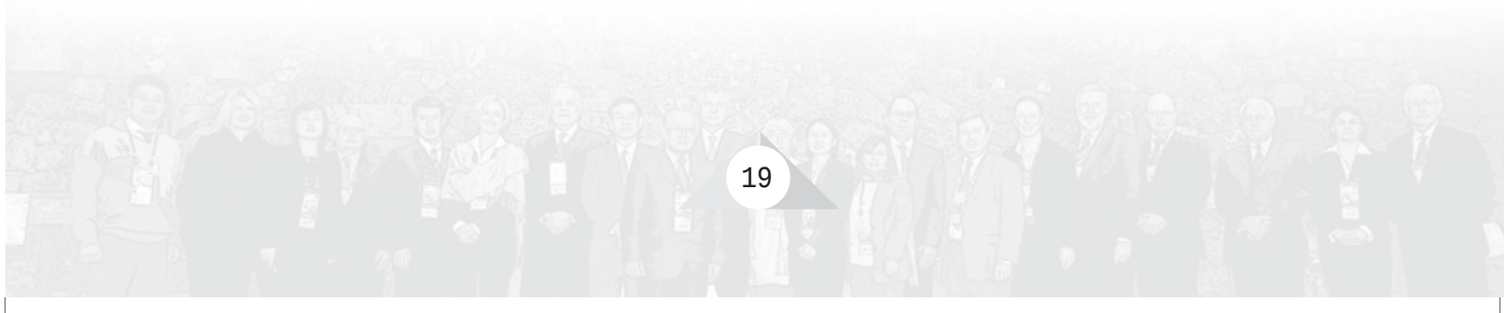
- Introduction to specialist Regional Bodies and their roles, Ms. Rosario Uría, Project Overseer, INDECOPI, Peru.
- Pacific Accreditation Cooperation (PAC) and Import Safety, Mr. David Shortall, Pacific Accreditation Cooperation (PAC).
- ISO Project Committee 242 Energy Management, Mr. Gary Kushnier, Pacific Area Standards Congress (PASC)
- The role of metrology in energy conservation, Ms. Ding Zhuyin, Asia Pacific Legal Metrology Forum (APLMF).
- Measurement role in the development of national initiatives on food safety, Dr. Laurie Besley, Asia Pacific Metrology Programme (APMP).
- Pathology laboratory testing in the health sector; Ms. Karen Hitchiner on behalf of Dr. Helen Liddy, Asia Pacific Laboratory Accreditation Cooperation (APLAC)
- Introduction to International organizations and their roles in facilitating international trade, Ms. Rosario Uría, Project Overseer, INDECOPI, Peru.
- IECEE CB Scheme – Taking Conformity Assessment Further, Mr. Pierre De Ruvo, Executive Secretary General, IECEE.
- Responding to the global and related challenges of climate change, energy, water and nutrition, Mr. Alan Bryden, ISO Secretary - General

Session I provided an opportunity to:

- Gain better knowledge on the activities of the five SRBs (APLAC, APMP, APLMF, PAC and PASC), not only on how they work amongst themselves, but also with international organizations in the fields of standardization, metrology, and accreditation that assist APEC Member Economies in meeting their international obligations under the WTO TBT Agreement and their commitment under the APEC Bogor Declaration.
- Have a better understanding of the work that is conducted in international standardization bodies, in particular the IECEE in its CB Scheme, and ISO with regard to global and related challenges of climate change, energy, and nutrition.

The recommendations in this session were:

- Member economies become more active, as needed, in the regional and international organizations, particularly in areas where work is just beginning, for example, the new ISO Project Committee 242 on Energy Management.
- Member economies develop their technical infrastructure on standards and conformance related to measurement and testing areas, as needed, to achieve a successful harmonization of standards.
- To reach active participation of developing members in the international standardization process, developed members could provide assistance while governments gain greater awareness and provide support. The SRB strategic plan was noted as being very helpful towards this action.



Speakers Session I

In order of final agenda

1. Ms Rosario Uría, Project Overseer, 7th Conference on Standards and Conformance / Coordinator, National Standards Body (INDECOPI), Peru

Mrs Uria is the Peruvian Standards Body Coordinator. She is a microbiologist and post graduate studies in Environmental Engineering, with fifteen years of experience and practical knowledge in the implementation of quality management systems in several sectors of industry, with specialization courses abroad. She is an expert in sanitary quality systems HACCP, and has experience on the application of ISO quality standards, and of models of excellence in total management (Malcolm Baldridge), with international registration as Lead Auditor ISO 9000.

2. Mr David Shortall, Pacific Accreditation Cooperation

Mr Shortall is a consultant in the area of standardization, trade and regulatory policy. He acts as an advisor to the Standards Council of Canada and is a member of Canada's delegation to the World Trade Organization-Technical Barriers to Trade Committee (WTO/TBT). Mr. Shortall served as convenor of ISO/CASCO Working Group 22. In his previous career he served as Canada's delegate to the TBT Committee and to APEC.

3. Mr Gary Kushnie, Executive Committee Chair, Pacific Area Standards Conference (PASC)

Mr Kushnie is Vice President of International Policy, of the American National Standards Institute (ANSI). He is responsible for overall liaison and policy coordination of ANSI's activities with international and regional organizations, for example, the International Organization for Standardization (ISO), the International Electrotechnical Commission (IEC), the three European Standards Organizations, the Pacific Area Standards Congress (PASC), and the Panamerican Standards Commission (COPANT), as well as their national member bodies.

4. Dr Laurie Besley, Member Executive Committee, Asia Pacific Metrology Programme

Dr Laurie Besley is the Chief Executive and Chief Metrologist in the National Measurement Institute, Australia. Dr. Besley's scientific and management career has spanned a diversity of fields including, for the last ten years, metrology in chemistry. He has a publication list of some 75 journal publications in a variety of different fields of metrology. He is active in a number of international forums and member of the editorial boards of the international journals "Metrologia", "IET Science Measurement & Technology", and "Accreditation and Quality Assurance".

5. Ms Karen Hitchiner, Manager for International Development, Standards Australia

Ms Hitchiner started with Standards Australia in the structures group with responsibility for facilitating the development of national and international standards in this area. Her involvement continued in the Asia Pacific by delivering seminars in a number of Asian Countries to promote the involvement and also delivering training courses. She was appointed to the joint position of manager for international development for Standards Australia and Standards New Zealand and has been actively involved in assisting them with their ISO, IEC, PASC and APEC activities over this period.

6. Mr Pierre De Ruvo, Executive Secretary General, International Electrotechnical Commission System for Conformity testing and Certification of Electrotechnical Equipment and Components (IECEE)

Mr De Ruvo graduated as an Electrical Engineer and pursued further post graduate studies in Automation and Business Administration. He joined the new French National Certification Body and Testing Laboratory, where in addition to the various responsibilities at national and international levels, Mr. De Ruvo was elected Chairman of the IECEE Committee of Testing Laboratory. After more than twenty years in the field of Conformity Assessment Programmes he was elected and appointed Executive Secretary of the IECEE and joined the International Electrotechnical Commission in Geneva.

7. Mr Alan Bryden, Secretary-General, International Standardization Organization (ISO)

Mr Bryden is the Chief Executive Officer of the Organization which has its headquarters in Geneva. Before joining ISO, he was General Director of the French National Standards Body (AFNOR) and was the General Director of the French National Testing Laboratory. During that period, he founded Eurolab (European Federation of Measurement, Testing and Analytical Laboratories) and presided it. He also chaired the Laboratories Committee of the International Laboratory Accreditation Cooperation (ILAC); and was Vice-President of the first Committee on Technical Barriers to Trade in GATT (now World Trade Organization).

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2008/SOM3/SCSC/CONF/004

Introduction to Specialist Regional Bodies and their roles

Submitted by: Rosario Uría
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Sub-Committee on Standards & Conformance
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SRBs in APEC

There are five Specialist Regional Bodies (SRBs) in the Asia Pacific that are recognized by APEC as having specialized expertise in the areas of:

Standardization

Pacific Area Standards Congress (PASC)

Accreditation

Pacific Accreditation Cooperation (PAC)

Asia Pacific Laboratory Accreditation Cooperation (APLAC)

Metrology

Asia-Pacific Legal Metrology Forum (APMLF)

Asia-Pacific Metrology Programme (APMP)

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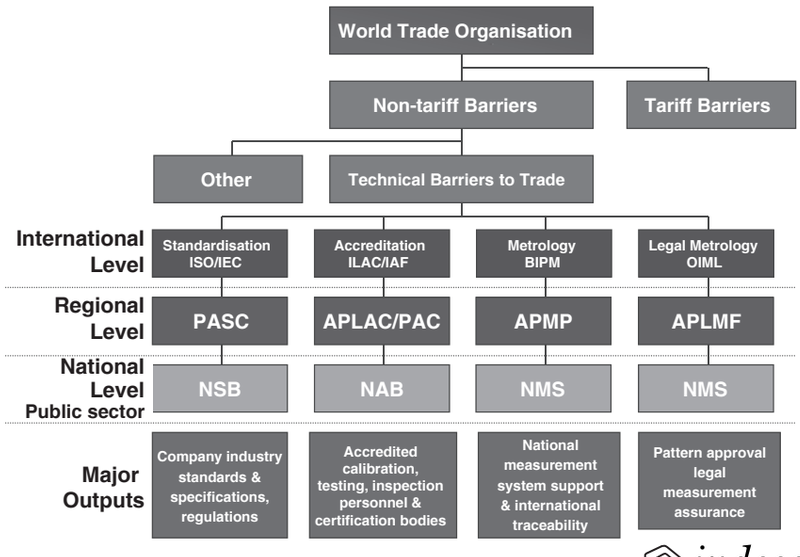
International & Regional Linkages of SRBs



Source: AJ Russell, Past Chair, APLAC

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APLAC Objectives

- Forum for exchange of information
- Facilitate cooperation amongst members (seminars, exchange of personnel etc)
- Provide assistance in training, proficiency testing, harmonisation of practices and criteria
- Publish papers and reports
- Develop guidance documents
- Organise interlaboratory comparisons in the region and between regions
- Build mutual confidence in technical competence and further develop the APLAC Mutual Recognition Arrangement (MRA)
- Promote the APLAC MRA between members and others
- Promote international acceptance of reports from bodies accredited by MRA signatories
- Encourage members to assist ABs in the region to meet MRA requirements
- Cooperate with other regions and international bodies

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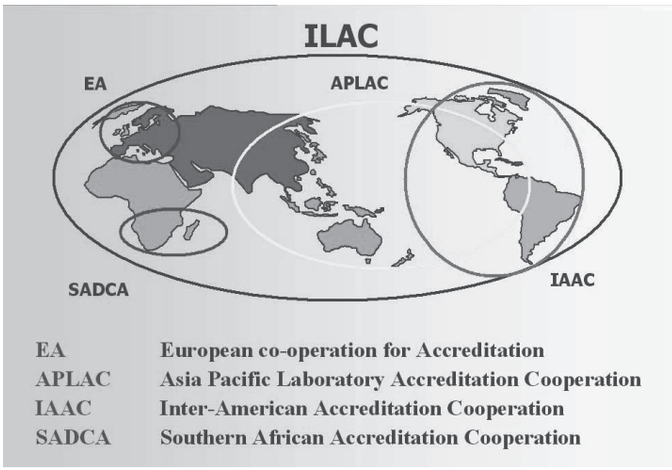
Global Outreach of Laboratory Accreditation Regional Bodies



EA	European co-operation for Accreditation
APLAC	Asia Pacific Laboratory Accreditation Cooperation
IAAC	Inter-American Accreditation Cooperation
SADCA	Southern African Accreditation Cooperation

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Source: AJ Russell, Past Chair, APLAC

APMP Objectives

- To develop and maintain collaborative networks that allow members to share strategic initiatives for informing stakeholders and improving regional measurement policies and investment decisions.
- To improve the capabilities and effectiveness of member NMIs, particularly in developing economies, through awareness raising, training and coordination of aid donors.
- To improve the provision of traceability to all users within economies.
- To ensure that all NMI standards in the region are traceable to the SI.
- To support scientific collaboration on measurements for new technologies. and to contribute to the ongoing development of the SI through the Metre Convention.

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APMP

- Collaboration among National Metrology Institutes.
- To promote and support a measurement infrastructure in the Asia Pacific region that
  - facilitates international trade
  - improves industrial efficiency and competitiveness
  - ensures sustainability
  - ensures equity in the marketplace
  - enhances the quality of life and the environment
- Keith Jones, Chairperson AIMP

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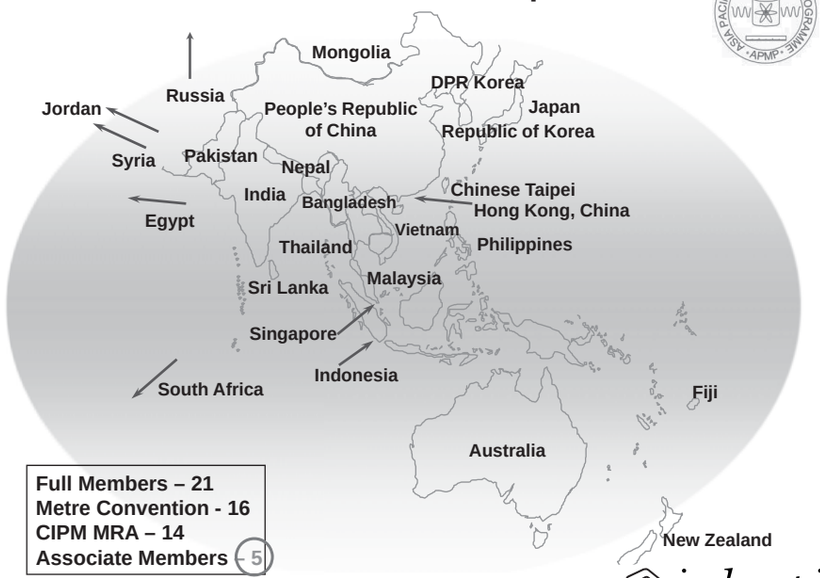
APMP Membership



Full Members – 21
Metre Convention - 16
CIPM MRA – 14
Associate Members - 5

Source: AJ Russell, Past Chair, APLAC

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APLMF

- APLMF is a grouping of legal metrology * authorities from both APEC (Asia-Pacific Economic Cooperation) economies and other economies on the Pacific Rim .
- As one of the RLMOs (Regional Legal Metrology Organizations) working closely with the OIML (International Organization of Legal Metrology), APLMF seeks harmonization in legal metrology.

* Legal metrology is the entirety of the legislative, administrative and technical procedures (…..) in order to specify and to ensure the appropriate quality and credibility of measurements related to official controls, trade, health, safety and the environment. (OIML definition)

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APLMF Objectives

- To identify and promote the removal of technical or administrative barriers to trade in legal metrology.
- To develop and maintain mutual confidence in measurement among legal metrology authorities in the region.
- To promote mutual recognition arrangements among members and with other regional groups and individual economies.
- To provide a forum for exchange of information among legal metrology authorities.

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PASC Objectives

- Strengthen international standardization programmes of the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC) and to improve the ability of Pacific Rim standards organizations to participate in these programmes effectively.
- Improve the quality and capacity of standardization in economies of the region.
- Support free trade within the region and with economies in other regions.
- Support improvement of economic efficiency and development of the region through the promotion of standardization.
- Interact with other bodies that represent elements of the standardization technical infrastructure, industry, consumers and government.

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PAC Objectives

PAC is an association of Accreditation Bodies of APEC economies, accreditation bodies from other non APEC economies, interested stakeholders such as Certification Bodies, Industry Groups and / or Associations, and Government Regulators.

Its main objectives are:

- To create an internationally accepted Multilateral Arrangement (MLA) of mutual recognition of certification systems through accreditation.
- To facilitate global trade with Conformity Assessment Certificates issued by bodies accredited by MLA Members.
- To enhance the acceptability of one certification, one accreditation, accepted everywhere in the world.
- To facilitate use of accreditation for building confidence in Conformity Assessment activities.
- To support technically the establishment of emerging accreditation programs.

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International Standardization System & Accreditation System

International Level — IAF

Regional Level — EA, IAAC, PAC, SADCA

Country Level — SCC (CA) | JAB (JP) | SAC (SG) | JAS-ANZ (AU/NZ)

Accredited Registration/Certification Bodies

ULI | BSI | KPMB | CGSB | BVQI | CSA | TUV | QMI

Certified Organizations

Concord | Hewlett Packard | Kodak Canada | Globotek Inc.

Source: AJ Russell, Past Chair, APLAC

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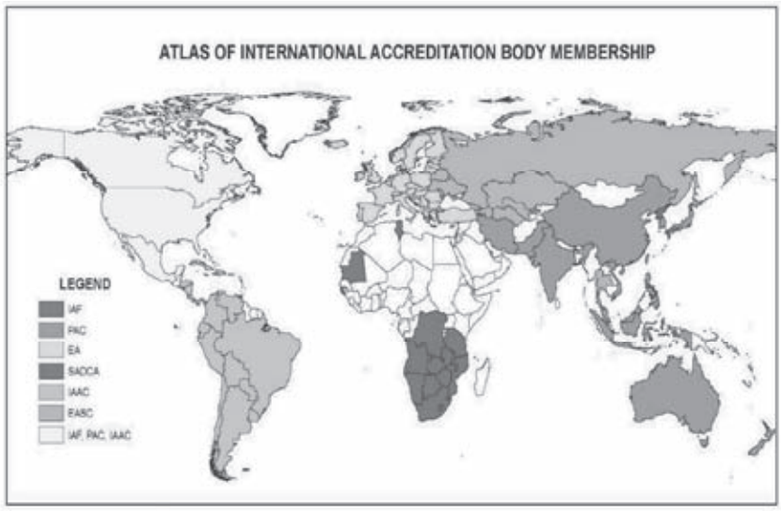
International Accreditation Membership



Source: AJ Russell, Past Chair, APLAC

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Members of PAC MLA

Product Currently has 4 signatories	QMS Currently has 14 members	EMS Currently has 10 signatories
JAZ-ANZ (Australia and New Zealand) SCC (Canada) EMA (Mexico) SAC (Singapore)	JAS-ANZ (Australia & New Zealand) SCC (Canada) CNAS (PR China) HKAS (Hong Kong, China) NABCB (India) KAN (Indonesia) JAB (Japan) KAB (Korea) Standards Malaysia (Malaysia) ema (Mexico) PAO (Philippines) SAC (Singapore) NAC (Thailand) TAF (Chinese Taipei)	JAS-ANZ (Australia and New Zealand) SCC (Canada) CNAS (PR China) KAN (Indonesia) JAB (Japan) KAB (Korea) Standards Malaysia (Malaysia) EMA (Mexico) NAC (Thailand) TAF (Chinese Taipei)

Source: AJ Russell, Past Chair, APLAC

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Asia-Pacific
Economic Cooperation

APEC AND SRBs

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SRBs Objective within SCSC

To work with APEC SCSC to facilitate the development of a standards and conformance infrastructure in each member economy to help achieve the APEC goals of free and open trade in the Asia Pacific Region

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SCSC-APEC and SRBs

- The Subcommittee on Standards and Conformance - SCSC assists the Committee for Trade and Investment - CTI to achieve the standards and conformance related components of APEC's trade and investment liberalization and facilitation agenda
- The support of SRBs to SCSC is essential to achieve trade facilitation, specifically through technical infrastructure development.
- SRBs and the SCSC are working closely with the APEC Business Advisory Council (ABAC) to provide critical infrastructure in the Asia Pacific region in the area of standards and conformance .
- SRBs provide assistance to APEC economies through capacity building activities, such as improving capacity to participate in international standardization activities and in metrology standardization; implementation of the WTO TBT Agreement ; providing assistance to accreditation and certification bodies to draw up schemes according to international guidelines; among others.

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Future Collaboration & Focus of the SRBs Relevant to APEC

The SRB Strategic Plan

(April 2007)

↓

Summarises past 5 years' support by SRBs of APEC's Bogor Goals for Standards & Conformance

↓

Highlights major, relevant achievements of each SRB

↓

Proposes a process & activities for future assistance & support to the APEC SCSC

APEC
Asia-Pacific Economic Cooperation

Source: AJ Russell, Past Chair, APLAC

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The SRB Strategic Plan

In the framework of their Strategic Plan, SRBs are working on the following fields:

- Cooperative Solutions
- Support a Multilateral trading system
- Reduce Barriers to trade
- Knowledge Sharing

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SRBs Activities in APEC

- Provide practical and expert advice on standards and conformance issues.
- Contribute to achievement of relevant APEC action agenda objectives.
- Contribute to capacity building of standards and conformity assessment in various APEC Member Economies.
- Establish and extend voluntary sector Mutual Recognition Arrangements in the region.
- Raise awareness of S&C practices, standards and international developments amongst APEC members.

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Economic Cooperation

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APEC Economies	Specialist Regional Body (SRB)				
	APLMF	APMP	PASC	PAC	APLAC
Australia	NMIA	NMIA,ARPA NSA. ANSTO	SA	JAS-ANZ	NATA
Brunei Darussalam	Min of Dev.		CPRN		Min of Dev.
Canada	Meas. Cmt.		SCC	SCC	SCC
Chile	Min of Ecn.				
PR of China	ACCSQ	NIM	SAC	CNAS	CNAS
Hong Kong, China	C&ED	HKSCL, GL	ITCHSKAR	HKAS	HKAS
Indonesia	DOM	KIM-LIPI	BSN	KAN	KAN
Japan	NMIJ	NMIJ/AIST, NICT. CERI	JISC	JAB, JASC	JAB, IAJAPAN, JCLA, VLAC
Republic of Korea	KATS	KRISS	KATS	KAB, KAS	KOLAS
Malaysia	Min of Trd, SIRIM	SIRIM- Berhad, MINT	DSM	DSM	SM
Mexico	DGN, CENAM		DGN	EMA	EMA
New Zealand	MAPSS	MSL, IR	SNZ		IANZ
Papua New Guinea	NISIT		NISIT		NISIT
Peru	INDECOPI		INDECOPI		
Philippines	ITDI	ITDI	BPS	PAO	PAB
Russian Federation	VNIIM	VNIIM	GOST R		
Singapore	SPRING	SPRING	SPRING	SAC	SAC
Chinese Taipei	BSMI	CMS, ITRI, INER		TAF	TAF
Thailand	CBWM	NIMT, DSS,TISTR	TISI	NAC	BLA-DSSITISI
United States	NIST, NCWM		ANSI	ANSI	A2LA, ACLASS, IAS, NVLAP, PJL, L-A-B
Viet Nam	STAMEQ	VMI	STAMEQ	STAMEQ	BOA

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Economies	Specialist Regional Body (SRB)				
	APLMF	APMP	PASC	PAC	APLAC
OTHER ECOOMIES INVOLVED IN VARIOUS SRBs					
Bangladesh		BSTI			
Cambodia	DOM				
Colombia	SIC		ICONTEC		
Egypt		NIS			
Fiji		DTCI	FTSQCO		
India		NPLI, BARC		NABCB	NABL
Iran				IAS	
Jordan		JNMI			
DPR of Korea	SAQM	CIQM			
Laos	DISM				
Mongolia	MASM	MASM	MASM		MASM
Myanmar					
Nepal		NBSM			
Pakistan		NPSL		PNAC	PNAC
South Africa		NML/CSIR	SABS		
Sri Lanka		MUSSD			SLABCA
Syria		NSCL			

Legend	
	Member
	Associate Member
	Not a Member

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APLAC Activities 2008-2012
(Laboratory, inspection body and reference material producer accreditation)

Cooperative Solutions	-Funding support for regional proficienc y testing programs with emphasis on areas of importance to trade in the APEC region (Telecoms, food safety) -Annual General Assembly and associated meetings of APLAC Committee
Support a Multilateral trading system	-Participation in APEC TEL MRA task force -Information Seminar for Regulations in the economy hosting APLAC meeting
Reduce Barriers to trade	-Enhancement of MRA in existing discip lines including expansion of MRA for inspection. -Development of the MRA to cover other disciplines beneficial to reduction of barriers to trade and deepen the acceptance of the MRA in voluntary and mandatory sector. -Working to extend the MRA to cover accr editation proficiency testing providers
Knowledge Sharing	-Production of various guidance documen ts on technical issues related to accreditation of laboratories, inspections bodies and reference material producers and on the conduct of prof iciency testing programs. -APLAC Web site -Training Courses on topics identified by APLAC -Train the trainer course for technical assessors for reference material producers -Workshops on accreditation of inspection bodies -Continue to work with APMP and PA C on the implementation of MOUs with both bodies .

Source: Proposed Action Plan SRB 2008-2012 - 2008/SOM 1/SCSC/028

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APMP Activities 2008-2012
Measurement Standards

Cooperative Solutions	-Annual APMP General Assembly and related meetings -Develop further cooperative activities with APMLMF and APLAC -Participate in relevant APEC SCSC activities -Initiate and develop cooperative SRB activities
Support a Multilateral trading system	-Provide input to and participate in relevant APEC and other SRB activities to improve dialogue with regional regulatory bodies.
Reduce Barriers to trade	-Undertake capacity building activities th rough seminars, workshops and training attachments -Initiate and develop activities to ensure effective participation by APMP member economies in the CIPM MRA -Ongoing participation in JCRB enabling representation ofthe Asia Pacific in the development and implementation of the CIPM MRA -Task Force to quantify the impact of metrology on member economies
Knowledge Sharing	-Undertake capacity building activities th rough seminars, workshops and training attachments - Initiate regional APMP netw orks for knowledge sharing and research and training development -Establish database of calibration capab ilities in primary measurement standards Expansion of guide for metrology in chemistry for developing economies

Source: Proposed Action Plan SRB 2008-2012 - 2008/SOM 1/SCSC/028

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APLMF Activities 2008-2012
Legal Metrology

Cooperative Solutions	-Hold APLMF and WG meetings - Attend APEC SRB workshop meeting
Support a Multilateral trading system	-Hold WG on MAA -Conduct a training course on Flow Meters that will be an MAA focused technical area -Try to cover new areas as traffic safety ,energy conserving.
Reduce Barriers to trade	-Conduct training courses, seminars and workshop -Continue surveying needs from member economies (2009) -Try to focus on legal metrology in economic development (2010-2012)
Knowledge Sharing	-Make progress in APMLF web site -Publish handbooks and reports of all the conducted training courses, seminars and workshops

Source: Proposed Action Plan SRB 2008-2012 - 2008/SOM 1/SCSC/028

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PASC Activities 2008-2012
Standardization

Cooperative Solutions	-Annual PASC and standing committee meetings -Meet annually and coordinate consistently with the others SRB's -Participate in relevant APEC SCSC activities -Meet and communicate with APEC Bussines Advisory Council (ABAC) to address Asia Pacific Bussines priorities
Support a Multilateral trading system	-Facilitate APEC informal network meetings among experts in various fields: Safety of household and similar electrical appliances, Environmental standardization for electrical and electronic products and systems, Food products, Societal Security and others. Identify further areas where there aregaps in the international standards.
Reduce Barriers to trade	-Encourage the involvement within the Asia Pacific region in the development, adoption, and use of international standards over regional standards. -Encourage regulators in the Asia Pacific region to use harmonized voluntary standards as a basis for technical regulator over developing country specific technical regulations -Encourage businesses in the Asia Pacific region to develop and use harmonized voluntary standards which can be used by regulators inthe region as a basis for technical regulations -Use the proposed mechanism for identifying a sector or economy requiring capacity building for standardization and deliver seminars and workshops
Knowledge Sharing	-Continue to expand the transparency of standards used in each PASC/APEC economy to facilitate trade and market access -Share information, presentations and communication materials on PASC website of best practices in international standardization, regulator and for bussinesuse of voluntary standards to achieve effective regulator compliance with minimmunnegative impact on trade

Source: Proposed Action Plan SRB 2008-2012 - 2008/SOM 1/SCSC/028

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PAC Activities 2008-2012
Accreditation of certification bodies

Cooperative Solutions	-Annual PAC meetings -Attend APEC SCSC and SRB workshops and meetings. -Attend APEC SCSC and joint SCSC -SRB -Work with APLAC to impl ement the PAC/APLAC MoU.
Support a Multilateral trading system	-Encourage more PAC member to join the existing PAC MLAS (QMS,EMS and product) -Identify further areas where there is a need for MLAs which would assist trade for Asia- Pacific economies.
Reduce Barriers to trade	-Continue to review need for other MLAs and the status of existing MLAs -Continue to implement MoUs with APLAC and IAAC -Investigate MoU with SADCA
Knowledge Sharing	-Providing training courses and implement training recommendation -PAC website and CD continously updated -PAC Newsletter published -Provide reports to ot her SRBs and APEC SCSC -Hold Open Forum/ Industry Seminar in conjuction with plenary -Work with IAAC to impl ement the PAC /IAAC MoU

Source: Proposed Action Plan SRB 2008-2012 - 2008/SOM 1/SCSC/028

Asia-Pacific
Economic Cooperation

2008/SOM3/SCSC/CONF/005

Pacific Accreditation Cooperation (PAC) and Import Safety

Submitted by: PAC
David Shortall

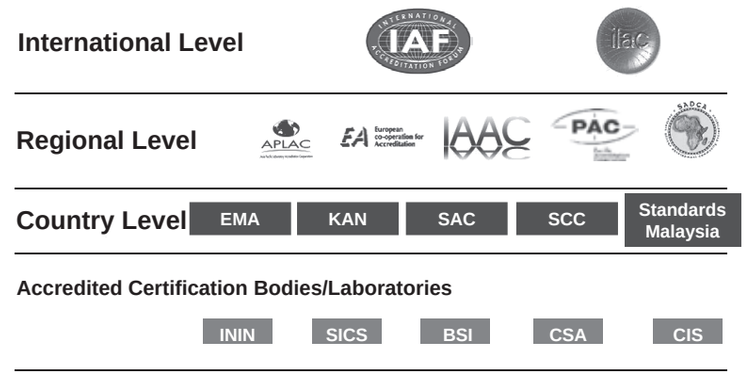
david.shortall@sympatico.ca

7th Conference on Standards and Conformance
Sub-Committee on Standards & Conformance
Cusco, Peru
10-11 August 2008

Overview

1. Global Accreditation Network
2. About PAC
3. MLAs = Assuring Import Safety
4. MLAs and the Regulatory Regime
5. Product MLA

Global Accreditation Network



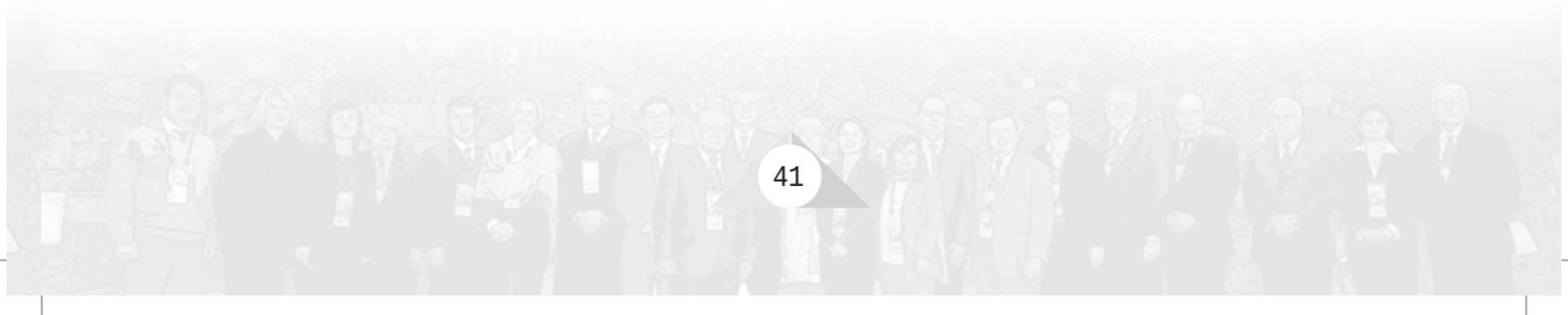
About PAC

- Formed in 1995.
- An association of Accreditation Bodies (ABs) and other interested parties.
- 1 of 4 Special Recognition Regional Groups of IAF.
- 1 of 5 Specialist Regional Bodies (SRBs) of APEC.

About PAC

MISSION:

To represent the interests of Asia-Pacific economies nationally, regionally and internationally in the area of certification body accreditation and related activities, in support of APEC, IAF and WTO/TBT aims and objectives.



About PAC

OBJECTIVES:

- ✓ facilitate trade and commerce among economies in the Asia-Pacific Region.
- ✓ cooperate in the establishment of a global system that grants international recognition of certification of management systems, products, services, personnel and other programs of conformity assessment.

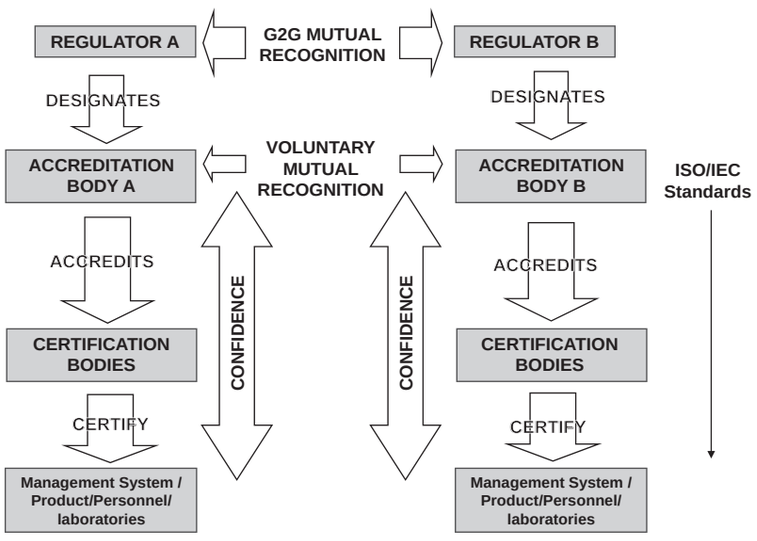
MLAs = Assuring Import Safety

Multilateral Recognition Arrangements (MLAS):

- formal voluntary arrangements.
- based on the equivalence of accreditation programs, verified through peer assessment.
- provide worldwide recognition of ABs that are signatories to the MLAs, and accordingly assurance that CBs operate to the same standards.

Import Product Safety Requirements

MLAs = Assuring Import Safety



MLAs = Assuring Import Safety

MLAs contribute to ensuring the safety of imported products by:

1) Providing a link to a global accreditation network.
2) Providing a chain of confidence (traceability).
3) Obligating Signatories to promote the international acceptance of certificates issued by certification bodies accredited by Accreditation Body Members that are signatories to the PAC MLA.

"Tested / Certified Once – Accepted Everywhere"

MLAs = Assuring Import Safety

1- MLAs contribute to ensuring the safety of imported products by providing a link to the global accreditation network:

- PAC has been accepted into IAF MLA for QMS, EMS and Product as a Regional Accreditation Group.
- PAC offers QMS, EMS and Product MLA programs.
- AB members of PAC who satisfy the requirements of the PAC MLA and are members of IAF may be accepted into the IAF MLA.

MLAs = Assuring Import Safety

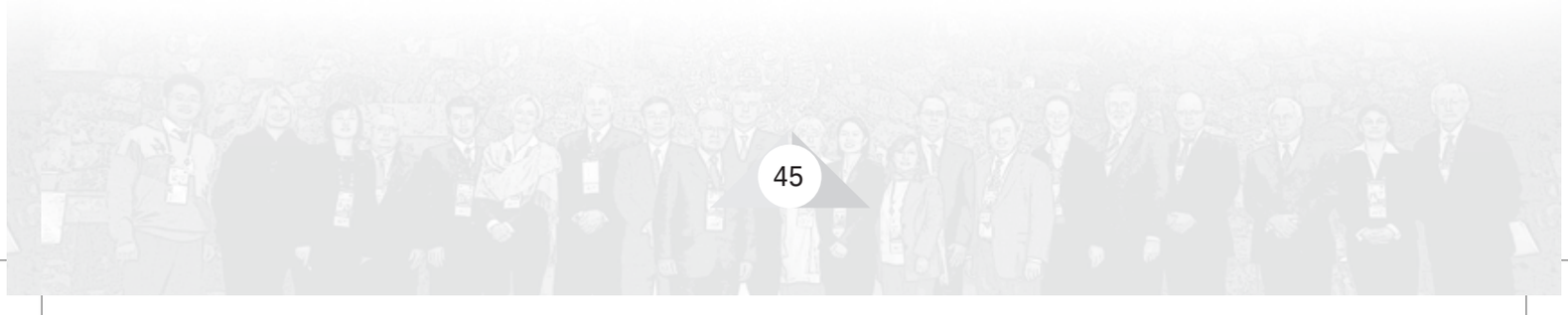
2- MLAs contribute to ensuring the safety of imported products by providing a chain of confidence (traceability):

- MLAs are based on the results of rigorous, transparent and ongoing peer evaluations to international standards, guides, and IAF guidance documents.
- Qualified peer evaluators are selected based on their knowledge, technical background, and assessment experience.

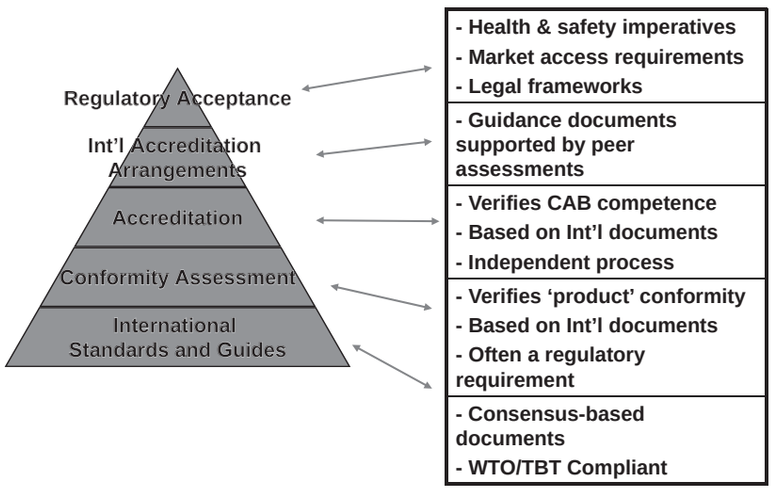
MLAs = Assuring Import Safety

3- MLAs contribute to ensuring the safety of imported products by obligating Signatories to promote the concept "Tested / Certified Once = Accepted Everywhere":

- Signatories to the MLA are required to promote with major stakeholders including regulators the mutual confidence / recognition of certificates of conformity issued by CBs accredited by other signatories to the Arrangement.



MLAs and the Regulatory Regime



MLAs and the Regulatory Regime

To help address regulatory requirements, consumer safety concerns and market demand, national ABs work closely with government regulators, industry, and consumers + represent these interests at the international level.

e.g., Standards Council of Canada (SCC)

Product MLA

MLA	International standard for accreditation & assessment (ABs)	International standards / guides for CBs
Product Certification	**ISO/IEC 17011**	**ISO/IEC Guide 65**

Product MLA

Singapore (PAC Product MLA signatory):

" Singapore companies exporting products to the Asia-Pacific region can now save on certification costs. This is thanks to the PAC MLA for Product Certification, that the Singapore Accreditation Council (SAC) will sign on 12 July 2007".

[Press Release, 10 July 2007]

Product MLA

STANDARDS MALAYSIA (applicant to PAC MLA for Product):

"Malaysia's acceptance into the PAC MLAs will allow its accredited CBs to be recognized as equivalent among member countries, thus contributing to the efficiency of the international trading system as well as National economic growth . This acceptance also will reduce the possibility of goods being denied access on basis of inadequate conformity assessment. The entry into the PAC MLA also signifies full-fledged international endorsement of confidence on the competence and integrity of accreditation provided by STANDARDS MALAYSIA ."

[Press Release, 26 June 2008]

For more information…

PAC: www.apec-pac.org

IAAC: www.iaac.org.mx/

IAF: www.iaf.nu

Asia-Pacific Economic Cooperation

2008/SOM3/SCSC/CONF/006

ISO Project Committee 242 Energy Management

Submitted by: PASC
Gary Kushnier
Chair –Executive Committee

gkushnie@ansi.org

7th Conference on Standards and Conformance
Sub-Committee on Standards & Conformance
Cusco, Peru
10-11 August 2008

Who started this?

Resolution of the March 21-22, 2007 UNIDO Expert Group Meeting on Industrial Energy Efficiency and Energy Management Standards:

"Currently, four countries have standards for Energy Management (Denmark, Sweden, Ireland, and the United States) and two have standards under development (China, and Spain). In addition, two other energy management specifications are already in use (Netherlands, Germany), and in some countries, such as Brazil, companies are developing their own energy efficiency standards. Moreover, harmonization efforts within the European Union have begun under the auspices of the European Committee for Standardization (CEN).

"For these reasons, the meeting participants request that the International Organization for Standardization (ISO), as the appropriate international entity for global harmonization of standards, consider initiating development of an ISO Energy Management standard at the earliest possible opportunity."

The ISO CSC/Strat Task Force on energy efficiency & renewable energy sources recommendation

The five fields considered of highest priority for the development and promotion of International Standards are listed below. These have been selected on the basis of their potential contribution to energy savings and reduction of greenhouse gas (GHG) emissions and the possibility to develop them in the short term:

Calculation methods, Biofuels, Retrofitting and Refurbishing, Buildings and

Energy management standards could:

- **be applied to help all types of organizations to take a systematic approach to the continual improvement of energy performance**
- **encourage more efficient and more sustainable use of energy, irrespective of the type of energy and facilitate reporting and validation.**
- **address energy supply, procurement practices for energy using equipment and systems, energy use, and any use-related disposal issues.**

National energy management standards have been developed and are in use in various countries, resulting already in significant savings in energy consumption and reductions in GHG emissions. Regional and national standards development is underway in Europe, China, USA and other countries. The increasing interest in this field, and the explicit requests received by ISO, have led the TMB to already address the matter and the Task Force recommends that ISO moves forward expeditiously.

2Q, 3Q and 4Q 2007 — Developments within ANSI and ISO

- **ANSI is approached by US parties engaged in the UNIDO Expert Group to discuss how to move the resolution forward within ISO (April 2007).**
- **ANSI works with these US parties to develop a draft proposal for ISO on this subject, with the appropriate MSS justification study (April/May 2007).**
- **Initial draft of the ANSI proposal is shared with ISO Technical Management Board (ISO/TMB) for suggestions for improvement (June/July 2007).**
- **Via broad consultations facilitated by ANSI, the USA approves submitting the proposal to ISO (September 2007).**
- **ISO/TMB subgroup reviews and approves the MSS justification study (September/October 2007).**
- **ANSI and ABNT agree to partner on this proposal (October 2007). Discussions also occur with BSI and SAC to pursue cooperative leadership arrangements.**
- **ISO issues the proposal to its members for voting (early November 2007 through early February 2008).**

The ANSI/ABNT proposal scope statement

Standardization in the field of energy management, including: energy supply, procurement practices for energy using equipment and systems, energy use, and any use-related disposal issues. The standard will also address measurement of current energy usage, and implementation of a measurement system to document, report, and validate continuous improvement in the area of energy management.

A combined ISO specification and guidance document intended to be applicable to all organizations, regardless of type and size.

The Standard will build on the framework of existing standards and will support the continual improvement plan-do-check-act approach utilized in ISO 9001 and ISO 14001 to provide compatibility and integration opportunities.

The ANSI/ABNT proposal purpose and justification

The energy management standard will address strategic management of energy to include: energy supply, procurement practices for energy using equipment and systems, energy use, and any use-related disposal issues.

The standard will also address measurement of current energy usage, and implementation of a measurement system to document, report and validate continuous improvement in the area of energy management.

The energy management Specification will provide a practical approach to improving energy efficiencies, reducing costs and improvements in the environmental footprint of the implementing organizations by combining both the technical aspects of energy management and the strategic management aspects

The ANSI/ABNT proposal benefits

- Provide organizations and companies (utilities, manufacturers, commerce, buildings, transportation, both private and public) with a well-recognized framework for integrating energy efficiency into their management practices.
- Offer organizations with operations in more than one country a single, harmonized standard for implementation across the organization.
- Provide a logical and consistent methodology for identifying and implementing improvements that may contribute to a continual increase in energy efficiency across facilities.
- Assist organizations to better utilize existing energy consuming assets, thus reducing costs and/or expanding capacity.
- Offer guidance on benchmarking, measuring, documenting, and reporting and their projected impact on reductions in greenhouse gas (GHG) emissions.
- Create energy intensity improvements transparency and promote energy management best practices, thus reinforcing the value of good energy management behaviors.
- Assist facilities in evaluating and prioritizing the implementation of new energy-efficient technologies.
- Provide a framework for organizations to encourage suppliers to better manage their energy, thus promoting energy efficiency throughout the supply chain, and
- Facilitate the use of energy management as a component of GHG emission reduction projects.

The ANSI/ABNT proposal survey of existing relevant work

- Denmark - DS 2403:2001 and DS/INF 136:2001
- Ireland - IS 393:2005 and IS 393:2005
- Sweden - SS 627750:2003
- United States - ANSI/MSE 2000:2005 and ANSI/IEEE 739:1995
- China - China Management System for Energy
- CEN – prEN 16001
- Australia - AS3595-1990 and AS 3596-1992
- Canada - PLUS 1140:1995
- China - GB/T 15587:1995
- Germany - VDI 4602
- Japan - JIS Z 9211 (1982-02-01) and JIS Z 9212 (1983-01-01)
- Korea - B 0071 (1985)
- Netherlands – June 2004 publication of SenterNovem
- United Kingdom - BIP 2011:2003, HB 10190:2001, HB 1091:2002, PASS 55-1:2003 and PASS 55-2:2003
- UNIDO issues paper on energy management and outcomes of 21-22 March 2007 Experts Group Meeting

The ANSI/ABNT proposal potential international liaisons

- UNIDO
- Renewable Energy and Energy Efficiency Programme
- World Bank
- World Resources Institute
- International Energy Agency
- United Nations Development Programme
- United Nations Environmental Programme
- Association of Southeast Asian Nations (ASEAN) Consultative Committee on Standards and Quality
- APEC
- Asia Pacific Partnership
- CEN
- European Commission
- Asian Development Bank
- African Development Bank
- Inter-American Development Bank
- Pan American Standards Commission
- World Energy Council
- World Energy Efficiency Association
- ISO internal liaisons:
  - TC 207 Environmental management
  - TC 176 Quality management and quality assurance
  - TC 203 Technical energy systems
  - TC 193 Natural gas
  - TC 146 Air quality
  - TC 147 Water quality
  - ISO CASCO
- International Electrotechnical Commission (IEC)

The ANSI/ABNT proposal results of voting

- Approved by the ISO Membership!
- 25 countries in favor, no opposed, no abstaining!
- Based on these voting results, ISO/TMB in February 2008:
  - Approves the formation of ISO Project Committee 242 (Energy Management);
  - Assigns the committee secretariat to the partnership of ANSI and ABNT;
  - Notes the interest of BSI (UK) and SAC (China) to be engaged in the PC leadership.

ISO/PC 242 (Energy Management) Chairman

Edwin Piñero

- **More than 28 years experience in earth and environmental sciences in industry, as a consultant, and in government including: environmental management systems implementation and auditing, environmental assessments, pollution prevention projects, compliance audits and consulting, and investigative and corrective action.**
- **Currently Director of the Pollution Prevention Institute at the Golisano Institute for Sustainability, Rochester Institute of Technology.**
- **In 2004, was appointed by President Bush to serve as the White House Federal Environmental Executive .**
- **Former Director of the Bureau of Environmental Sustainability in the Pennsylvania Department of Environmental Protection, as well as the State Energy Director.**
- **Serves as a member of the ANSI mirror committee to ISO/TC 207 (Environmental Management) and has served as an ANSI expert to various ISO working groups (14001, 14004, 14010, 14011, 14012), as well as the JWG that produced 19011.**
- **Strong knowledge of and positive attitude toward ISO standards development and ISO management system standards and related conformity assessment activities.**

ISO/PC 242 (Energy Management) Member Countries

Participating Countries

- Argentina
- Australia
- Brazil
- Canada
- China
- Denmark
- Finland
- France
- Germany
- Japan
- Korea
- Netherlands
- Poland
- Portugal

Participating Countries

- Singapore
- South Africa
- Spain
- Sweden
- United Kingdom
- United States of America

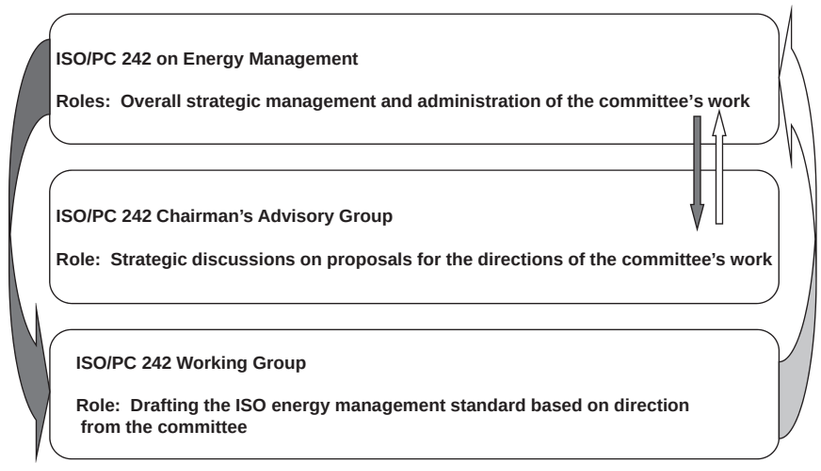
Observer Countries

- Czech Republic
- Italy
- Morocco
- Switzerland
- Thailand

ISO/PC 242 (Energy Management) Standard development schedule

- **Week of September 8, 2008** - First meeting of ISO/PC 242 (Washington, DC, USA).
- **September 2008 to March 2009** - Development of working drafts.
- **April 2009 to June 2009** - Voting on Committee Draft (CD)
- **July 2009 to November 2009** - Preparation of Draft International Standards (DISs) text based on CD voting results.
- **December 2009 to April 2010** - Voting on DIS.
- **May 2010 to August 2010** - Preparation of Final Draft International Standards (FDIS) text based on DIS voting results.
- **September 2010 to October 2010** - Voting on FDIS.
- **By end of 2010** - Publication of ISO Standard.

ISO/PC 242 Energy Management ANSI/ABNT Structural proposal



ISO/PC 242 (Energy Management) Key coordination initiatives

- CEN
- ISO MSS (ISO/TC 176 and ISO/TC 207)
- UNIDO

1st ISO/PC 242 Meeting

- Date: September 8-10, 2008
- Location: Arlington VA, USA
- Hotel Name: Doubletree Hotel Crystal City
  300 Army Navy Drive
  Arlington VA 22202

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Asia-Pacific Economic Cooperation

2008/SOM3/SCSC/CONF/007

Role of Metrology in Energy Conservation

Submitted by: APLMF -Secretariat
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7th Conference on Standards and Conformance
Sub-Committee on Standards & Conformance
Cusco, Peru
10-11 August 2008

Metrology

- Metrology is the science of Measurement.
- Metrology includes all aspects both theoretical and practical with reference to measurements.
- Metrology is the reliable activity for unified values and traceability.
- Metrology is the important technical base for social, economic, and science and technology advancement.

Characteristics of Metrology

- Accuracy
- Consistency
- Traceability
- Legal binding (in trade, health, environment aspects)

Energy Conservation

- Energy and resources are the substantive basis for sustainable economic and social development.
- Improvement in living conditions generates growing demand for energy and resources.
- Energy conservation is an important issue for all economies

Energy Measurement in Relation to Energy Conservation

- Energy measurement refers to the testing, measuring, calculating and statistical analysis of all parameters (quantity, quality, performance, etc) occurring during the process of energy utilization.
- Energy measurement is the basis of assessing energy users for their performance of minimizing energy consumption.

Significance of Energy Measurement

- Reduction of energy consumption
- Environment protection
- Cost reduction
- Profit benefits

Importance of Strengthening Energy Measurement within Industrial Enterprises

- As major energy consumers, industrial enterprises play an important part in pursuit of energy conservation by optimizing energy utilization through energy measurement.
- The establishment of the monitoring and management system over energy measurement in industrial enterprises helps to reduce energy consumption and protect the environment, as well as reduce production cost and thus improve product quality.

Approaches for Industrial Enterprises to Strengthen Energy Measurement for Energy Conservation

- Upgrade and adapt measuring instruments and facilities for energy measurement, so as to measurement accuracy and deliver reliable measurement data for industrial enterprises to optimize energy utilization.
- Raise the awareness and capability of measurement staff to save energy by introducing evaluation system and conducting relevant training.

Approaches for Industrial Enterprises to Strengthen Energy Measurement for Energy Conservation (cont)

- Advance energy measurement technology in order to improve accuracy and provide technical assurance for energy conservation.
- Strengthen re-utilization of energy on the basis of analyzing measurement statistics, in order to decrease demand for energy.

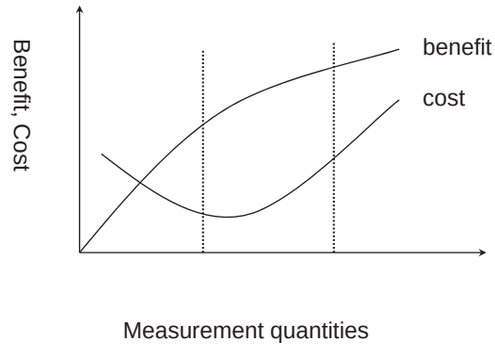
Approaches for Industrial Enterprises to Strengthen Energy Measurement for Energy Conservation (cont)

- Establish complete and scientific measurement system.
- Use measurement technology to analyze energy consumption, therefore to ascertain the direction of technical improvement in pursuit of energy conservation.

Cost benefit analysis

- Benefits: underpin R&D; increase productivity; improve product quality; reduce loss; reduce production cost; save energy and material; protect environment.
- Cost: infrastructure building; facility cost; human resources; energy and material.

Cost benefit analysis



Asia-Pacific Economic Cooperation

2008/SOM3/SCSC/CONF/008

Measurement Role in the Development of National Initiatives on Food Safety

Submitted by: APMP
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7th Conference on Standards and Conformance
Sub-Committee on Standards & Conformance
Cusco, Peru
10-11 August 2008

Discussion

Two issues involved:

- Protection of food consumers in one's own country – public health
- Acceptance by international markets of the nation's export products in food - trade

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National Food Safety Issues: The Role of Chemistry/Biology

The usual question society asks, and science answers, to discover if food is safe:

Is a particular substance or organism in the food at levels that imperil the health of anyone that eats it?

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Food Safety: The Measurement Questions

- Does food contain material that is known to be harmful to human health?
- If so, what is the level of concentration of that harmful component?
- At that measured level, how do we decide whether that component presents a risk that requires action?

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Who Asks These Questions?

Generally, some organisation given the responsibility by government to ensure the safety of the food supply

- National
- Provincial
- Local

In other words, “the Regulator”

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Who Answers These Questions?

Generally, some organisation that provides commercial services in analytical chemistry or biology

- Provincial government laboratory
- National government laboratory
- Private sector laboratory

In other words, “the Laboratory”

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Food Safety: The Measurement Requirements

- Ability to detect and quantify contaminants
  - Microbiological
  - Inorganic chemical
  - Organic chemical
- Ability to make judgements on detected levels
  - comparison with regulations (national, international)
  - use of measurement uncertainty

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Measurement Accuracy

- If we are to make good decisions, it is essential that we know:

  1. that our measurement results are not biased
  2. just what level of accuracy they represent, or
  3. just what level of measurement uncertainty is associated with them

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Who Ensures that the Answers to these Questions are Correct?

A combination of organisations:

- national metrology institute

- international standards setting bodies
- technical accreditation bodies

In other words, “the National Measurement Infrastructure”

NATIONAL MEASUREMENT INSTITUTE

But surely most measurements are accurate enough already?

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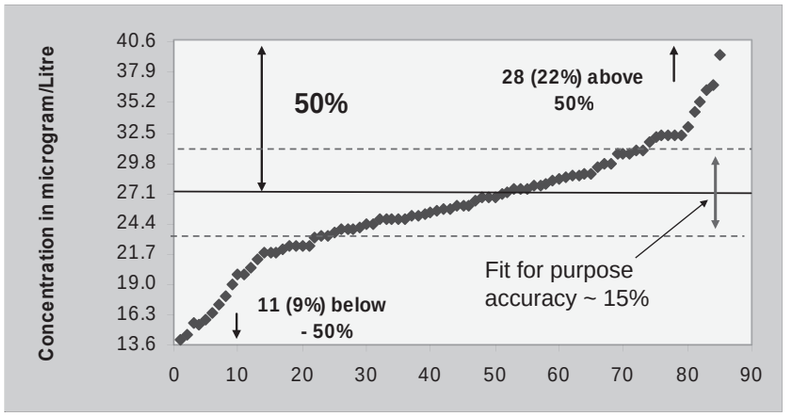
NO !

European Study of 129 Laboratories : Lead in wine (Year 2000)



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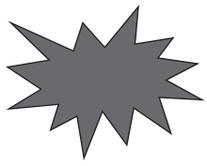
Unfortunately, Many Laboratories Can Give Bad Results !

- In this study 131 laboratories submitted results
- Only 34 (26%) agreed with the true value within their stated uncertainty
- Some 56 (43%) were more than 25% wrong
- Some 39 (30%) were more than 50% wrong

The number of laboratories that were more than 50% wrong exceeded the number that gave the correct result

National Measurement Institute, Australia

So, What's Missing ?



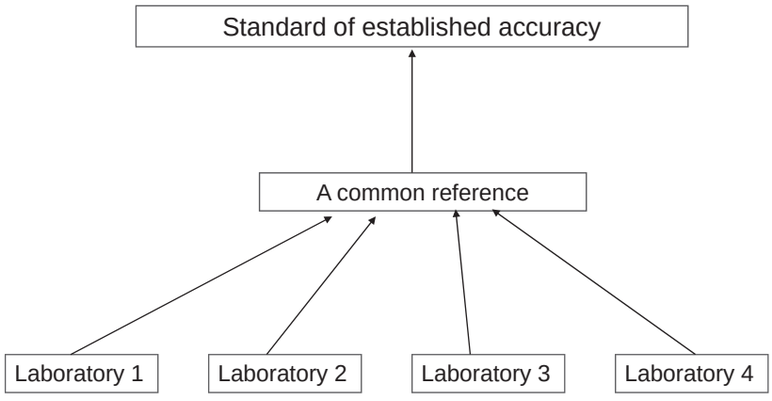
Traceability !!

Measurement result can be connected to some accessible reference of known accuracy

Accuracy is thereby transferred to the measurement result

National Measurement Institute, Australia

Common References Deliver Traceability



Now all four labs have measurement results of known accuracy that they can compare reliably

National Measurement Institute, Australia

What's Happening on the International Food Scene?

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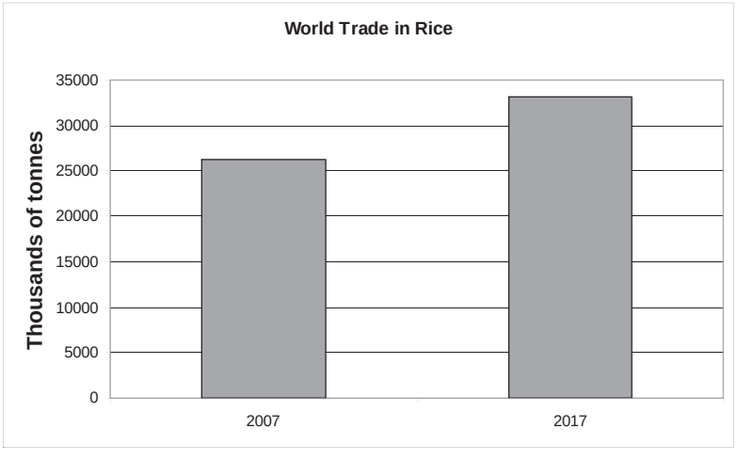
Greater Volumes



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More Demanding Specifications

International requirements have become more demanding:

For example, EU requirements for minimum detection levels of substances for which there is “zero tolerance”

- 1987 10 parts per billion (ppb)
- 1990 5 ppb
- 1995 2 to 5 ppb
- 2002 0.3 to 2 ppb

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Greater Level of Scrutiny

An example:

Japan Vows Better Screening of Chinese Food (DJ)
Source: Dow Jones Newswires

Tokyo, Feb. 4, 2008 - Japan Monday pledged to step up screening of food imports from China amid a nationwide scare over Chinese-made dumplings that left hundreds complaining of illness.

Ten people were diagnosed with pesticide poisoning after eating the frozen meat dumplings, prompting major foodmakers to recall food products manufactured at the same factory in China.

As Chinese experts held a second day of closed-door talks with Japanese officials, Prime Minister Yasuo Fukuda vowed to strengthen scrutiny of imports.

"This is actually a matter of national security if it is linked to the Japanese people's lives," Fukuda told a parliamentary committee.

"Considering the current situation in Japan in which exports and imports are increasing - which is essential for Japan in maintaining growth momentum - it's extremely important to have a system of checking the flow of people and goods at the borders," he said.

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Greater Level of Scrutiny

A second example:

Rules would establish 'high risk' list of imported foods
Food Navigator website 02-Mar-2007

Proposed rules on imported foods and feeds of non-animal origin would establish a list of products deemed to need higher regulatory scrutiny at the EU's borders.

Food and drink processors, among others, would face increased costs and time when importing such "high risk" foods.

They would be required to give advance notice when bringing such foods into the EU, and would have to provide more documentation to regulators. They would also have to pay fees for the extra regulatory work.

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Conclusion

- Every economy faces increased requirements for the accurate monitoring of food quality:
  - trade
  - public health
- Need for better national measurement infrastructures
- Need for greater international linkage of measurement standards

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Economic Cooperation

2008/SOM3/SCSC/CONF/009

Pathology Laboratory Testing in the Health Sector

Submitted by: APLAC Secretary
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7th Conference on Standards and Conformance
Sub-Committee on Standards & Conformance
Cusco, Peru
10-11 August 2008

Overview

- Importance of pathology testing – international perspective.
- Quality in the pathology laboratory.
- Implementation.
- Accreditation and APLAC MRA.
- Veterinary testing – the other half of the equation.

Quality in Health Care

- Critical to public health.
- Need for accurate and timely diagnostic laboratory testing
  - Increased transnational mobility of persons
  - Timely response to public health risks
- WHO International Health Regulations 2005.

WHO International Health Regulations 2005

All economies must have capacity to assess, detect and report to the WHO any potential health risk of international concern.

Supported by accurate and reliable laboratory test results not just clinical observations.

To ensure timely and effective response.

Role of Pathology Laboratory

- Accurate and timely test results ensure
  - Correct diagnosis and treatment
  - Timely diagnosis
  - Optimisation of response
  - Optimisation of resources

Quality in the Pathology Laboratory

- Application of agreed international Standard (ISO 15189).
- Participation in appropriate proficiency testing programs (QAPs).
- Accreditation as independent demonstration of a level of technical competence.

ISO 15189

- Medical laboratories – Particular requirements for quality and competence.
- Developed by ISO/TC 212, based on ISO/IEC 17025, the standard for the general requirements for competence of laboratories.
- Covers management requirements and technical requirements.

ISO 15189 – Management Requirements

- Documented quality system – the normal elements in any quality system.
- Effective procedures for evaluating and selecting referral laboratories, and consultants who provide second opinions, e.g. for histopathology.

ISO 15189 – Technical Requirements

- Personnel
- Accommodation & environmental conditions
- Laboratory equipment
- Pre- & post- testing procedures
- Testing procedures
- Assuring the quality of testing results
- Reporting results

Key Issues in Implementing ISO 15189 on a National Basis

- “Buy in” by the professional bodies for pathologists and medical scientists.
- Peer review process for assessment of laboratories.
- Access to comprehensive proficiency testing programs (QAPs).
- Emphasis on on-going education.

Accreditation

- Assessment of laboratory performance against international criteria (ISO/IEC 17025; ISO 15189).
- Means of determining competence of laboratories to perform specific measurements, calibrations or tests competently.
- Formal recognition of that competence.

Accreditation

- 3rd party attestation related to a conformity assessment body (laboratory) conveying formal demonstration of its competence to carry out specific conformity assessment tasks (ISO/IEC 17000).
- Key phrases
  - competence
  - specific…. tasks

Accreditation – Demonstrated Competence

- Specific tests
- Defined measurements
- Types of calibrations
- Particular testing techniques

Accreditation of Pathology Laboratories in APEC Region

- First accreditation program developed in mid-1980s in Australia.
- Many accreditation bodies in the region now have or are developing accreditation programs for pathology laboratories.

Accreditation of Pathology Laboratories in APEC Region

- APLAC Mutual Recognition Arrangement (MRA) for accreditation of pathology laboratories to ISO 15189: currently 9 signatories.
- APLAC MRA signatories evaluated for compliance with ISO/IEC 17011.

APLAC Support for Accreditation of Pathology Laboratories

- Training courses and workshops for accreditation bodies developing accreditation programs to ISO 15189.
- APLAC Technical Committee has established standing sub-committee on Medical Laboratories.

Veterinary Pathology Testing -The Other Part of the Equation

OIE Manual of Diagnostic Tests and Vaccines for Terrestrial Animals, chapter I.1.2

Valid laboratory results are essential for diagnosis, surveillance and trade. Such results may be achieved by the use of good management technique, quality control, and quality assurance, all working together within a quality system. A quality management programme should enable the laboratory to demonstrate that it…is technically competent, and is able to generate technically valid results.

Veterinary Testing – OIE Manual…..

- Refers to ISO/IEC 17025 as an essential standard for accreditation.
- Refers to ILAC and some individual accreditation bodies, including some in the APEC region as sources of information.
- Emphasises *competence* as a significant element.

Veterinary Testing in the APEC Region

- Some accreditation bodies in the region have developed accreditation programs for veterinary testing laboratories.
- Others are developing them.
- Based on ISO/IEC 17025.
- Covered by APLAC MRA for testing.

Summary

- Pathology testing critical for human health.
- Veterinary pathology testing critical for health and trade.
- Accreditation as independent means of demonstration of competence.
  - Supported by WHO
  - Supported by OIE

Asia-Pacific
Economic Cooperation

2008/SOM3/SCSC/CONF/010

Introduction to International Organizations and their roles in facilitating International Trade

Submitted by: Rosario Uría
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7th Conference on Standards and Conformance
Sub-Committee on Standards & Conformance
Cusco, Peru
10-11 August 2008

International organizations related to standardization

- Develop international standards which are voluntary but could be the basis of technical regulation.
- Government or non government depending on their members.

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International organizations
Positive contribution to globalization

- The use and referencing of standards forms part of good regulatory practice and public governance.
- The 151 signatories to the WTO are committed to using international standards in order not to create unnecessary technical barriers to trade through non- harmonized regulations and conformity assessment requirements.
- Positive contribution of International standards:
  - Facilitating international trade
  - Spreading knowledge, transferring technology and good management and conformity assessment practices
  - Promoting safety and security
  - Assisting in environmental and health protection
  - Deploying advances in information technology and new technologies; and
  - Contributing to good public governance

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International organizations

In the scope of intergovernmental organizations which publish documents as international standards are:

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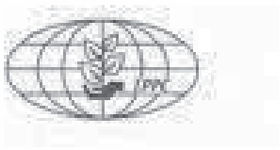
International organizations

In the scope of WTO agreement on sanitary and phytosanitary measures (SPS),

the work of the following organizations is very important for trade:



IPPC - International Plant Protection Convention

OIE - World Organization for Animal Health

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International organizations related to standardization

The most important non government organizations are:

IEC

ISO International Organization for Standardization

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ISO International Organization for Standardization

The International Organization for Standardization (ISO) was established in 1947 as a means of coordinating, developing, and unifying industrial and technical standards. The organization seeks to improve the compatibility, safety, simplicity, quality, and economic viability of products for many industries.

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International Standards Organization
Global vision

1. Developing a consistent and multi-sector collection of globally relevant International Standards.
2. Ensuring the involvement of stakeholders.
3. Raising the awareness and capacity of developing countries.
4. Being open to partnerships
5. Promoting the use of voluntary standards as an alternative or as a support to technical regulations.
6. Being the recognized provider of International Standards and guides relating to conformity assessment.
7. Providing efficient procedures and tools for the development of a coherent and complete range of deliverables.

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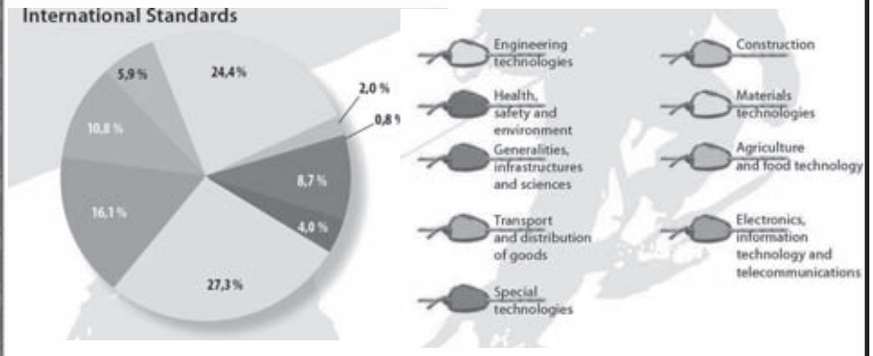
Scope ISO Standards 2007



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International Electrotechnical Commission

- The IEC was established in 1906
- Is the leading global organization that prepares and publishes international standards for all electrical, electronic and related technologies.
- Promotes international cooperation.
- Assessment of conformity to standards, in the fields of electricity, electronics and related technologies.
- The IEC charter embraces all electrotechnologies including electronics, magnetics and electromagnetics, electroacoustics, multimedia, telecommunication, and energy production and distribution.

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IEC: Conformity assessment systems

Worldwide System for Conformity Testing and Certification of Electrotechnical Equipment and Components (IECEE)

- Intended to reduce obstacles to international trade which arise from having to meet different national certification / approval criteria.
- Participation of the various NCBs within the Scheme is intended to facilitate certification or approval according to IEC standards.

International Electrotechnical Commission Scheme for Certification to standards relating to equipment for use in explosive atmospheres (IECEx Scheme)

- The objective is to facilitate international trade in equipment and services for use in explosive atmospheres, while maintaining the required level of safety.

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IEC: Conformity assessment systems

International Electrotechnical Commission Quality Assessment System for Electronic Components (IECQ)

- 20 years' experience as IEC's certification programme for electronic components, processes and related materials
- IECQ provides visibility and independent verification that electronic components and related materials and processes, including those below the user's level of specification in the supply chain, are compliant to appropriate standards, specifications or other documents.

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International Organizations and APEC

- The SCSC encourages member economies to actively participate in the standardization activities of international standardization bodies (ISO & IEC)
- The SCSC increased level of participation of member economies in standardization activities of international standardization bodies.
- The SCSC actively participated in international standardization activities to project Asia-Pacific views to international standardization.

21/21 APEC member economies are member of ISO
15/21 APEC member economies are member of IEC

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Asia-Pacific Economic Cooperation

2008/SOM3/SCSC/CONF/011

IECEE CB Scheme -Taking Conformity Assessment Further

Submitted by: IECEE
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7th Conference on Standards and Conformance
Sub-Committee on Standards & Conformance
Cusco, Peru
10-11 August 2008

IECEE. Taking Conformity Assessment Further

Connecting people and economies through trade, investment and technology.

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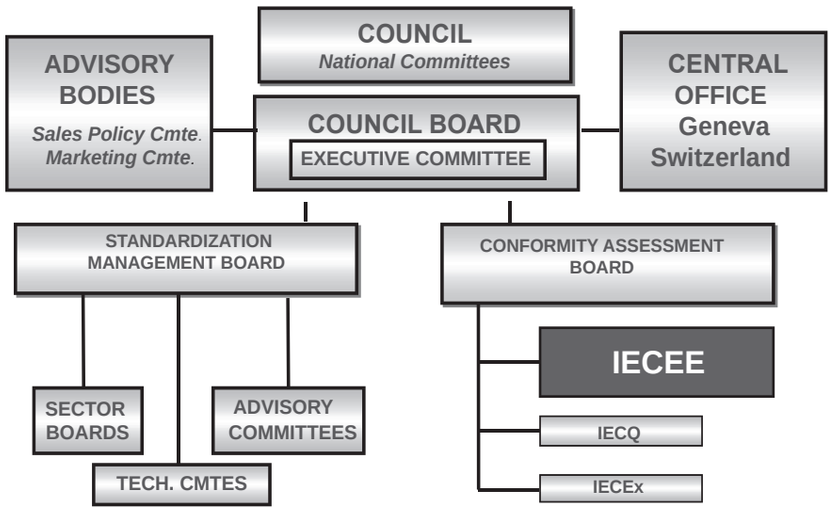

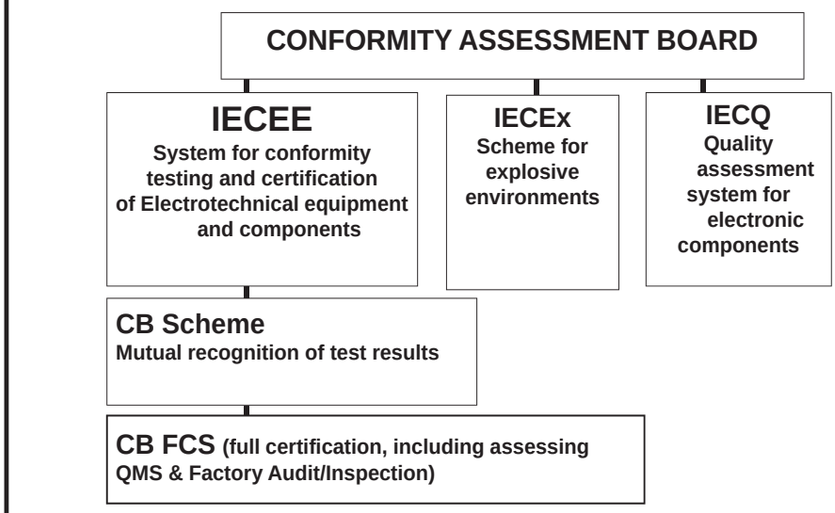

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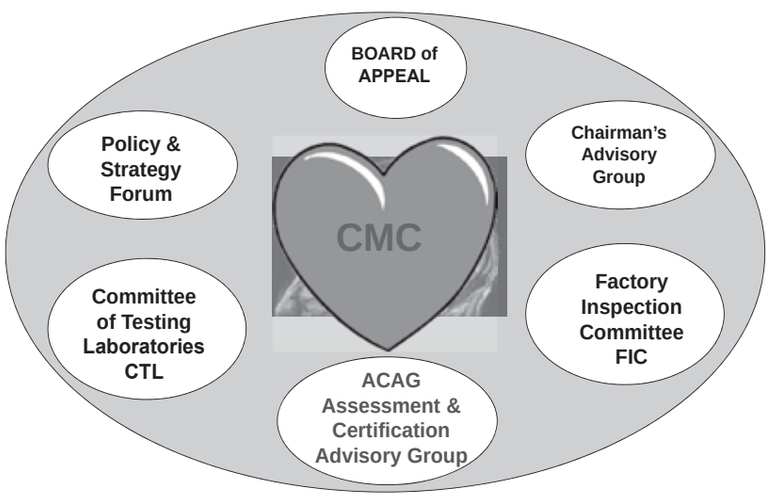

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2008-08-10
APEC 7th Conference on Standards and Conformance – Standards and Conformity Assessment – Specialist Regional Bodies and International Organisations, Cuzco Peru

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ACAG – Assessment & Certification Advisory Group

TERMS OF REFERENCE

- To monitor the Peer Assessment and Re-assessment
- To determine common understanding and approach on ISO/IEC Guide 65 and ISO/IEC 17025
- To evaluate the Assessment Reports of candidate NCBs and CBTLs and make recommendations to the IECEE-CMC

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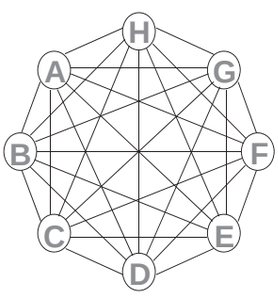
«Bilateral recognition»

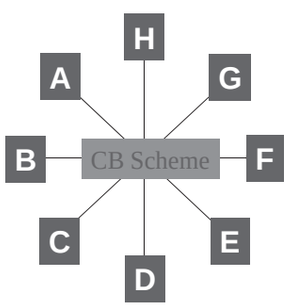


n(n-1)/2 relations

n = 57

1596 audits
798 agreements

Peer assessment Multilateral



n relations 57 NCBs

57 audits
1 agreement

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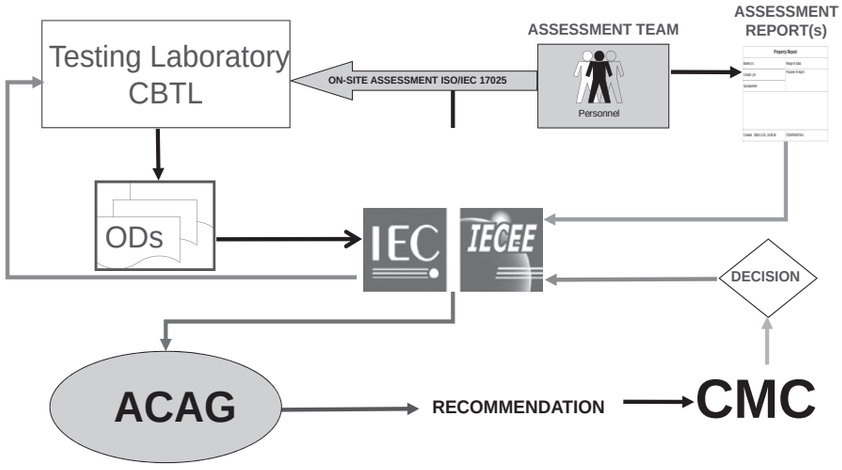

IECEE. Taking Conformity Assessment Further

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CTL - Committee of Testing Laboratories

Joe GRYN
CTL Chairman

John M. Thompson
CTL Secretary

The CTL is the Technical branch of the IECEE and plays an essential role to build confidence.

The CTL is composed of experts from 229 Testing Laboratories and 62 Certification Bodies.

2008-08-10
APEC 7th Conference on Standards and Conformance – Standards and Conformity Assessment – Specialist Regional Bodies and International Organisations, Cuzco Peru

CTL - Committee of Testing Laboratories

The main tasks of the CTL are to:

•detail the way in which the tests related to the IECEE have to be carried out so as to achieve the necessary reproducibility of test results.

•harmonize the design and use of the test equipment referred to in standards and to make recommendations to the relevant technical committee or subcommittee of the IEC for improvements of those standards.

•provide testing laboratories with a forum in which practical testing problems can be demonstrated and discussed

IECEE. Taking Conformity Assessment Further

Connecting people and economies through trade, investment and technology.

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CTL - Committee of Testing Laboratories

The task of the CTL is to:

•Organize Proficiency Testing Programmes under the auspices of the IECEE CMC.

•Organize Workshops to analyze the results of PT programmes and subsequent test methodology to achieve consistent test results.

•Carry out other technical work as directed by the CMC.

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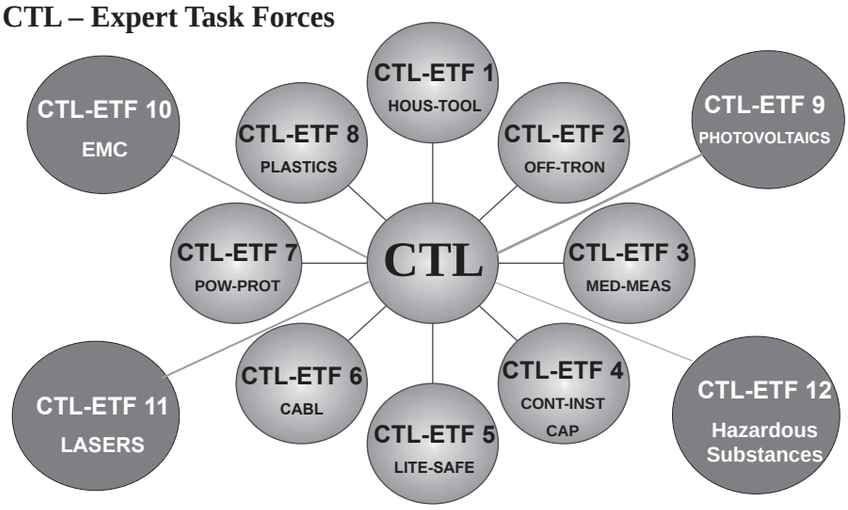
CTL – Expert Task Forces



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FIC - Factory Inspection Committee

Dr. Wolfgang Kreinberg

FIC Chairman

Dieter Fitz

FIC Secretary

The FIC is the Factory Inspection Committee tasked to develop Procedures and Audit/Inspection Forms to be used as either a stand alone service or as part of the CB Full Certification Scheme.

The FIC is composed by experts in Factory Audits, Inspections, Follow up services.

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FACTORY AUDIT/INSPECTION

To provide services related to Factory Audit/Inspection as a stand alone element of the Conformity Assessment Programme.

This Service can be used either as an element of the Supplier Declaration of Conformity SDoC or to upgrade a Certification System 1 into a Certification System 5

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FACTORY AUDIT/INSPECTION

System 5 Testing, Initial and FuS, certification mark

+

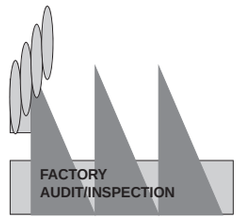
Upgrades into CB-FCS

+

Factory Audit/Inspection

+

System 1 Type Test Certificate



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Asia-Pacific Economic Cooperation

LEVELS OF MEMBERSHIP

	MEMBER BODY	NCB(s) NATIONAL CERTIFICATION BODY	CBTL(s) TESTING LABORATORY	MANUFACTURER's TESTING LABORATORIES
Level 3 ***	Full Rights	Issuing and Recognizing	Associated with the NCB	Under the Responsibility of the NCB
Level 2 **	Full Rights	Recognizing only		
Level 1 *	Full Rights			

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IECEE participating countries

- Argentina
- Australia
- Austria
- Belarus
- Belgium
- Brazil
- Bulgaria
- Canada
- China
- Croatia
- Czech Rep.
- Denmark
- Finland
- France
- Germany
- Greece
- Hungary
- India
- Indonesia
- Ireland
- Israel
- Italy
- Japan
- Kenya
- Korea Rep. of
- Malaysia
- Mexico
- Netherlands
- New Zealand
- Norway
- Poland
- Portugal
- Romania
- Russia
- Saudia Arabia
- Serbia
- Singapore
- Slovakia
- Slovenia
- South Africa
- Spain
- Sweden
- Switzerland
- Thailand
- Turkey
- Ukraine
- United Arab Emirates
- United Kingdom
- United States
- Uruguay

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	Countries	NCBs	CBTLs	ACTLs
2001	41	53	129	0
2002	42	56	141	0
2003	43	58	150	0
2004	43	58	170	0
2005	44	58	195	0
2006	46	59	216	0
2007	50	62	234	10
2008 (so far....)	50	66	247	18

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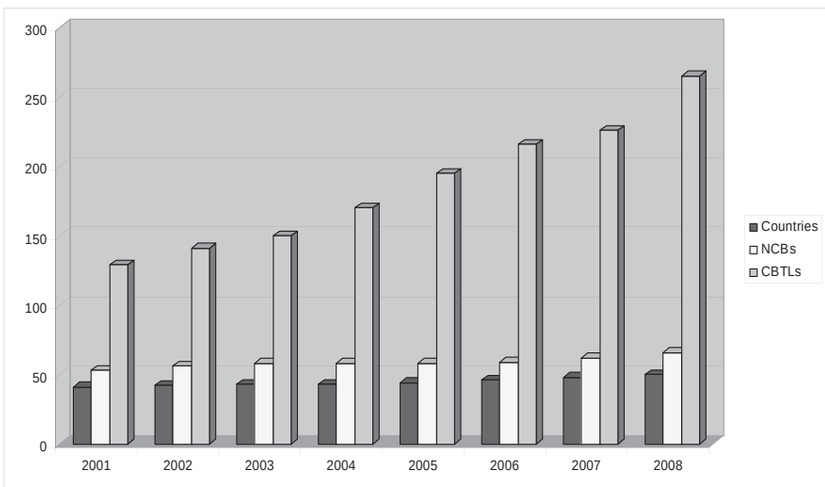

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CB CERTIFICATES STATISTICS

With 50.392 Certificate, 2007 has resulted in another great year with a consolidation of Issued CB Test Certificates.

It has to be noted that a significant number of CB Test Certificates are directly recognized by Buyers, Retailers and Regulatory Authorities to provide direct access to the global markets.

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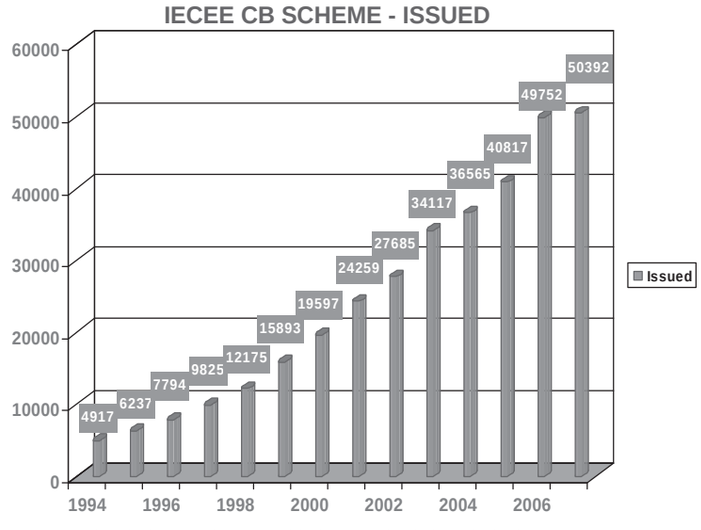

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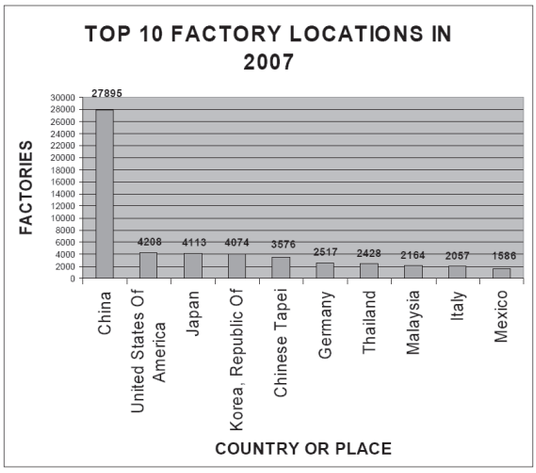
Top 10 Countries – Factory Location



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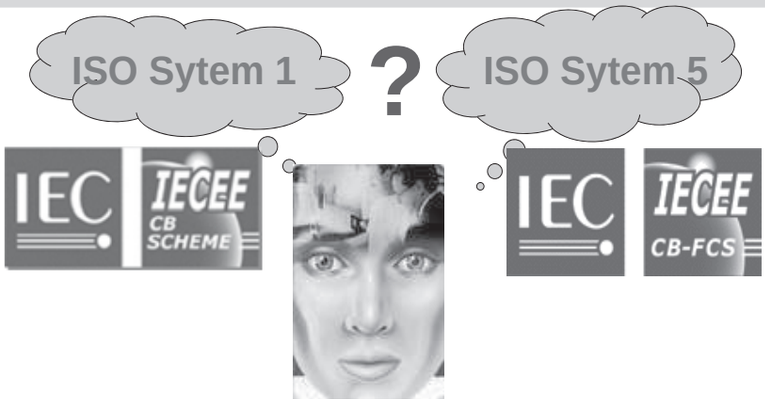

Which Scheme suits my needs?

The Manufacturer decides the most appropriate «vehicle» to be used for marketing his products in the market place.

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The CB Scheme => ISO System 1

The CB Scheme is the only Global recognized scheme for the safety of electrical equipment used in homes, offices, workshops and similar locations.

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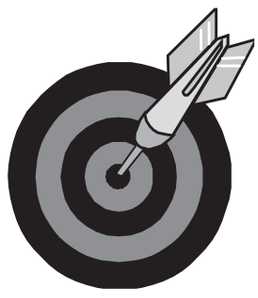
The ideal target

One test

One certification



One mark

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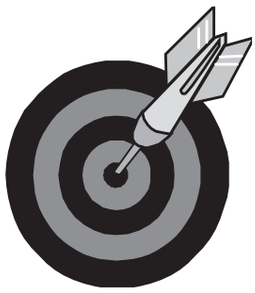
Today's IECEE achieved target



One test

One international certificate

One or more marks as needed

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CB Scheme

This system includes testing; samples of the product are assessed for conformity. The sampling is representative of the entire product's family. A certificate of conformity is granted (CB Test Certificate) to each product represented by the sample.

This certification system includes the following:

a) sample(s) requested by the Certification Body - NCB;

b) determination of characteristics through testing the samples by the Testing Laboratory - CBTL ;

c) evaluation of the Test Report;

d) Decision by the Certification Body - NCB;

e) CB Test Certificate.

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Scope

19 product categories ranging from Batteries, Cables and Cords, Capacitors as components, Switches for appliances and automatic controls for electrical household appliances, Electromagnetic Compatibility, Household and similar equipment, Installation accessories and connection devices, Lighting, Measuring instruments, Electrical equipment for medical use, Miscellaneous, IT and office equipment, Low voltage, high power switching equipment, Installation protective equipment, Photovoltaics, Safety transformers and similar equipment, Portable tools, Electric Toys and Electronics, entertainment … representing more than 1000 standards

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Highlights

- Products are tested to IEC standards with provision for supplementary testing for national differences.
- Reciprocal recognition of test results among all participating Certification Bodies simplifies the granting of certification or approval at national levels.
- CB Test Certificates and associated Test Reports facilitate obtaining secondary certifications.

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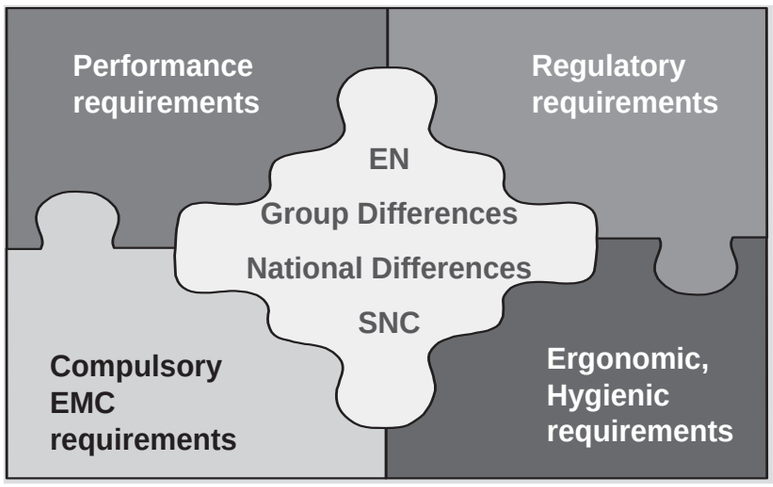
CB Scheme



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CONSUMER BEHAVIOR

Advantages of CB Scheme

- More rapid testing and certification
- More universal product recognition
- Acceleration of Product Acceptance
- Direct acceptance by the Regulators & Authorities in many countries
- Direct acceptance by the Retailers and Buyers
- Expanded markets
- Faster product movement from plants to markets

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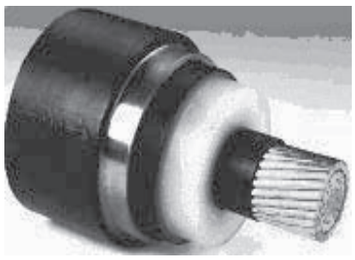
BATT – Batteries:

IEC 60086, IEC 60099, IEC 61982…

CABL – Cables and Cords:

IEC 60227, IEC 60245, IEC 60502…



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CAP – Capacitors as Components:

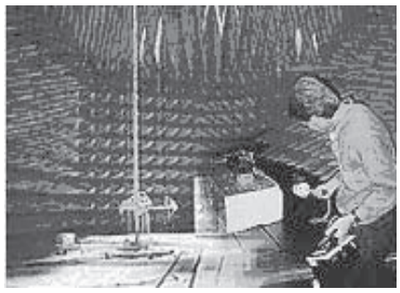
IEC 60252, IEC 60384, IEC 61048…

CONT - Switches for appliances and automatic controls for electrical household appliances:

IEC 60730, IEC 61058, IEC 61810…

EMC – Electromagnetic Compatibility:

CISPR11, IEC 61000, IEC 62236…



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HOUS – Household and similar equipment:

IEC 60335, IEC 60704, IEC 61770…

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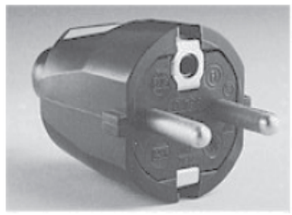
INST – Installation accessories and connection devices:

IEC 60609, IEC 60320, IEC 60998…



LITE – Luminaires:

IEC 60598, IEC 60928, IEC 61347…

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MEAS – Measuring Instruments:

IEC 61010, IEC 60414, IEC 61557…

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MED – Electrical equipment for medical use:

IEC 60601, IEC 61223…

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MISC – Miscellaneous:

IEC 60077, IEC 60747, IEC 60938…

OFF – IT and Office Equipment:

IEC 60950, IEC 60825, IEC 62040…

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POW – Low voltage, high power switching equipment:

IEC 60947, IEC 62019, IEC 62271…

PROT – Installation protective equipment:

IEC 60127, IEC 60269, IEC 61643…

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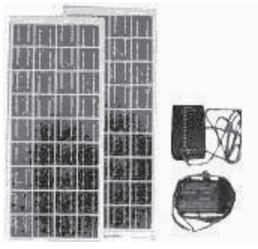
PV – Photovoltaics:

IEC 60904, IEC 61215, PVRS6…



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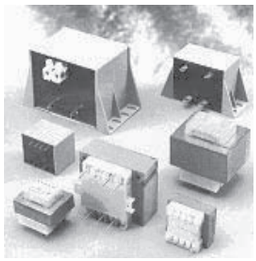
SAFE – Safety transformers and similar equipment:

IEC 60044, IEC 60742, IEC 61558…



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TOOL – Portable Tools:

IEC 60745, IEC 61029, IEC 61939…

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TOYS – Electronic Toys:

IEC 62115…

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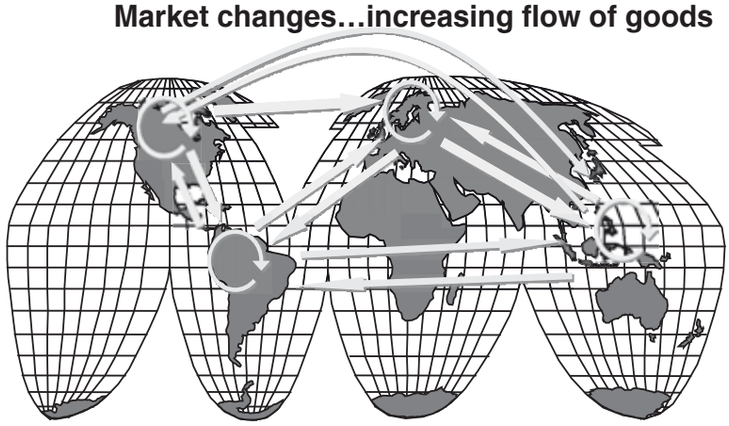
TRON – Electronics Entertainment:

IEC 60065, IEC 61965, IEC 62103…

Market changes…increasing flow of goods



- GLOBAL MARKETS
- INCREASING HARMONIZATION OF PRODUCT SPECIFICATIONS
- WORLDWIDE ACCEPTANCE OF TEST RESULTS

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Time to Market is essential

- In Manufacturing and Trade every day counts
- Buyers, Users and Governments need assurance of compliance

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IECEE CB Test Certificate

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE)

SYSTEME CEI D'ACCEPTATION MUTUELLE DE CERTIFICATS D'ESSAIS DES EQUIPEMENTS ELECTRIQUES (IECEE)

CB TEST CERTIFICATE

CERTIFICAT D'ESSAI OC

Product
Produit

Name and address of the applicant
Nom et adresse du demandeur

Name and address of the manufacturer
Nom et adresse du fabricant

Name and address of the factory
Nom et adresse de l'usine

Note: Whenever there are factories, please report on page 2
Note: Lorsque il y a plus d'une usine, veuillez utiliser la 2ème page

Ratings and principal characteristics
Valeurs nominales et caractéristiques principales

Trademark (if any)
Marque de fabrique (si elle existe)

Model / Type Ref.
Ref. Du type

Additional information (if necessary may also be reported on page 2)
Les informations complémentaires (si nécessaire, peuvent être indiquée sur la 2ème page

A sample of the product was tested and found to be in conformity with
Un échantillon de ce produit a été essayé et a été considéré conforme à la

As shown in the Test Report Ref. No. which forms part of this Certificate
Comme indiqué dans le Rapport d'essais numéro de référence qui constitue partie de ce Certificat

☐ Additional Information on page 2

☐ Additional Information on page 3

This CB Test Certificate is issued by the National Certification Body
Ce Certificat d'essai OC est établi par l'Organisme National de Certification

Date:

Signature:

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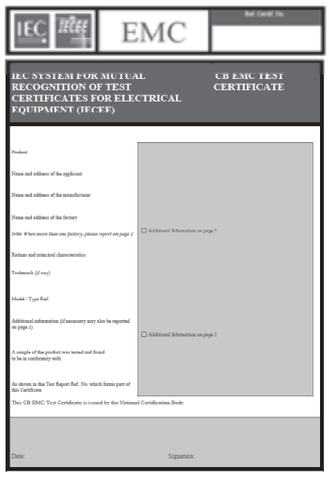
IECEE EMC CB Test Certificate



IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE)

CB EMC TEST CERTIFICATE

Product

Name and address of the applicant

Name and address of the manufacturer

Name and address of the factory

Note: When more than one factory, please report on page 2

Ratings and principal characteristics

Trademark (if any)

Model / Type Ref.

Additional information (if necessary may also be reported on page 2)

A sample of the product was tested and found to be in conformity with

As shown in the Test Report Ref. No. which forms part of this Certificate

This CB EMC Test Certificate is issued by the National Certification Body

☐ Additional Information on page 3

☐ Additional Information on page 2

Date:

Signature:

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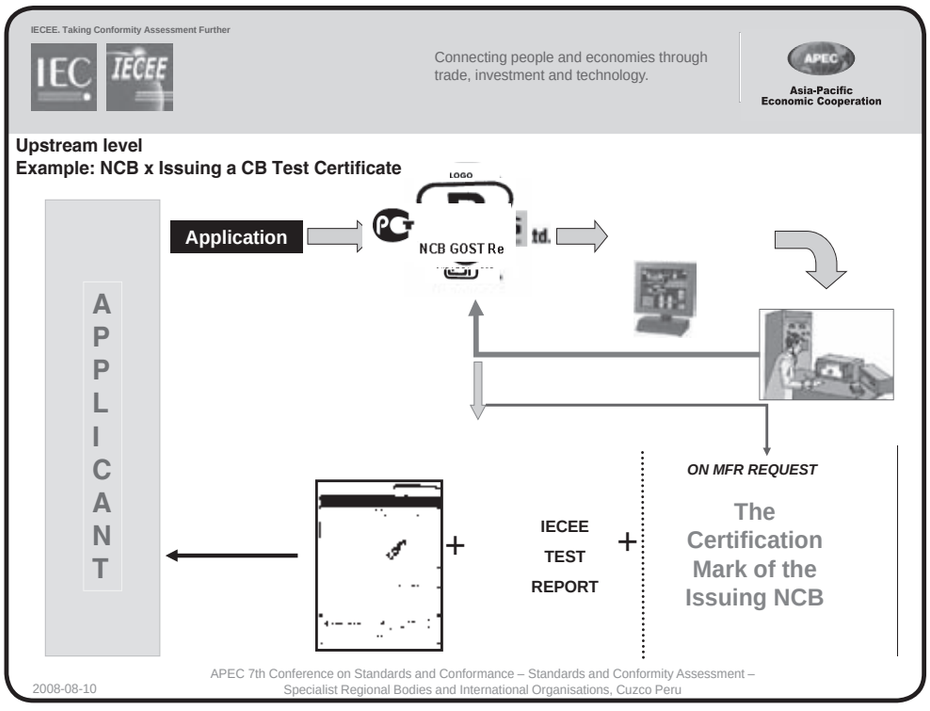
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Upstream level
Example: NCB x Issuing a CB Test Certificate
APPLICANT
Application
NCB GOST Re
ON MFR REQUEST
IECEE TEST REPORT
The Certification Mark of the Issuing NCB
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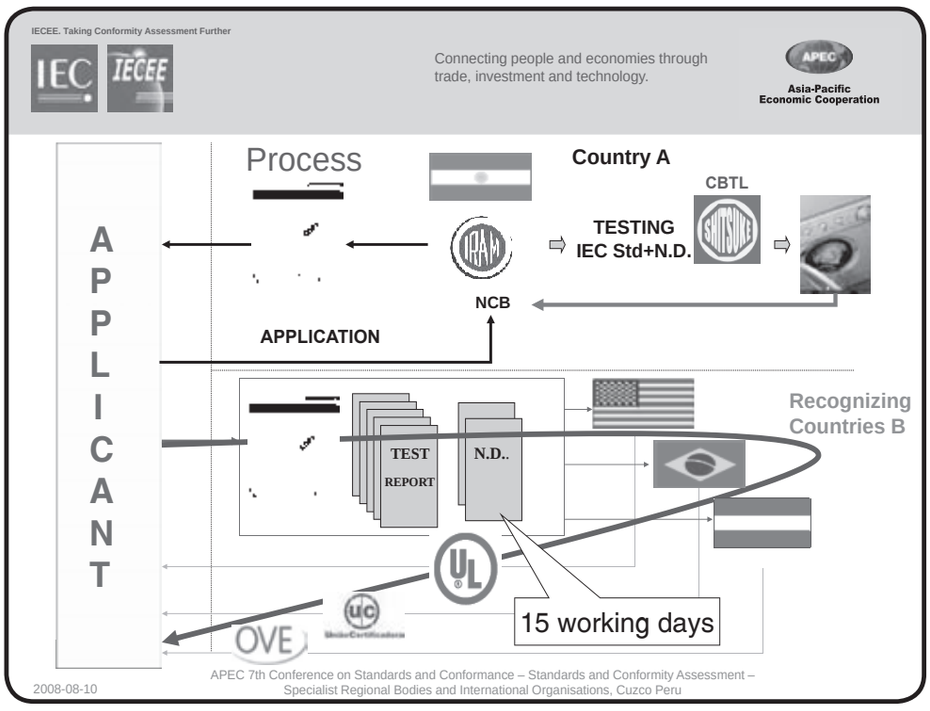
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APPLICANT
Process
Country A
CBTL
TESTING IEC Std+N.D.
NCB
APPLICATION
TEST REPORT
N.D..
Recognizing Countries B
15 working days
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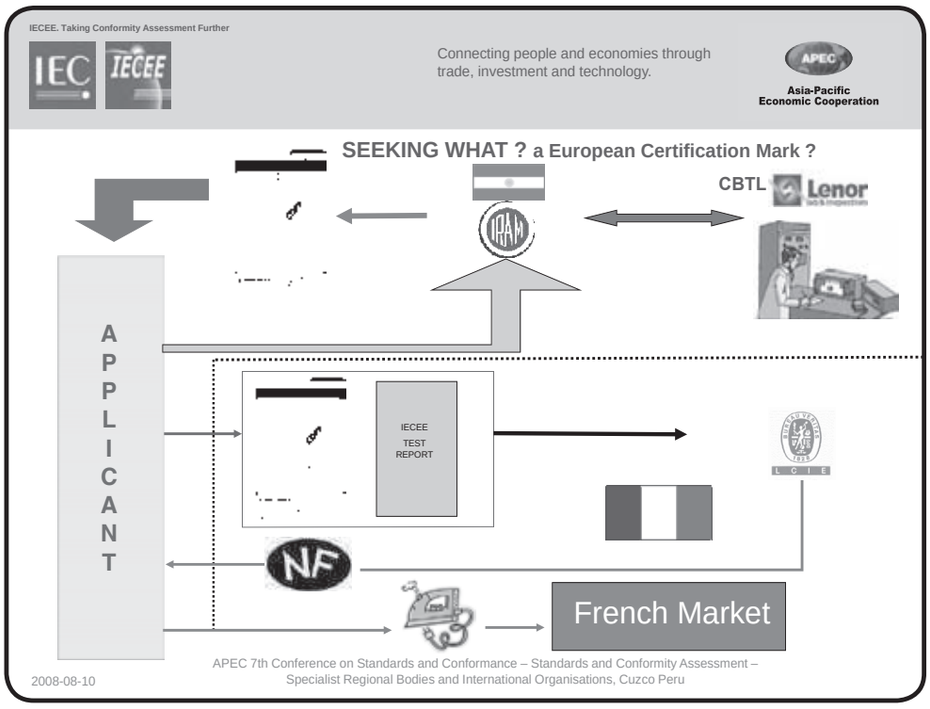
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IEC
IECEE
Connecting people and economies through trade, investment and technology.
APEC
Asia-Pacific Economic Cooperation
SEEKING WHAT ? a European Certification Mark ?
CBTL
Lenor
IRAM
APPLICANT
IECEE TEST REPORT
NF
French Market
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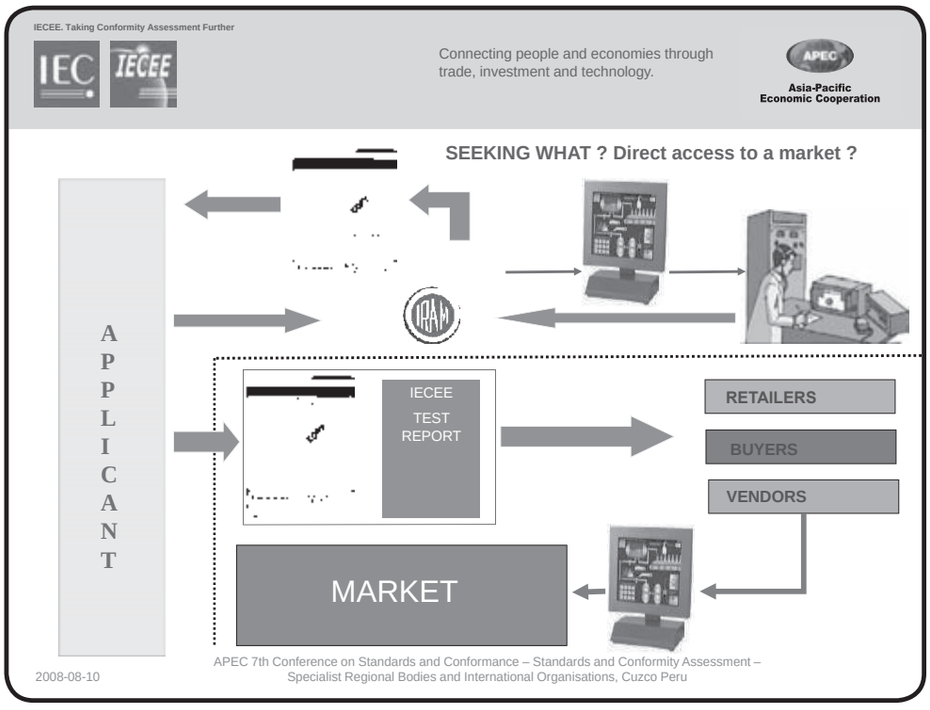
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IEC
IECEE
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APEC
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SEEKING WHAT ? Direct access to a market ?
IRAM
APPLICANT
IECEE TEST REPORT
RETAILERS
BUYERS
VENDORS
MARKET
2008-08-10
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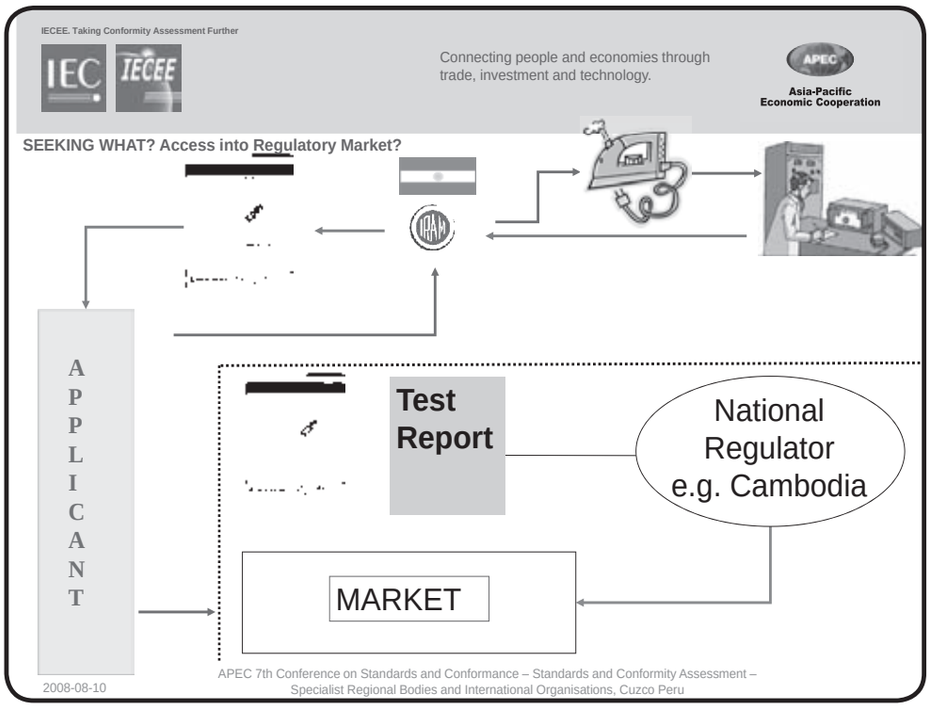
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SEEKING WHAT? Access into Regulatory Market?
APPLICANT
Test Report
National Regulator e.g. Cambodia
MARKET
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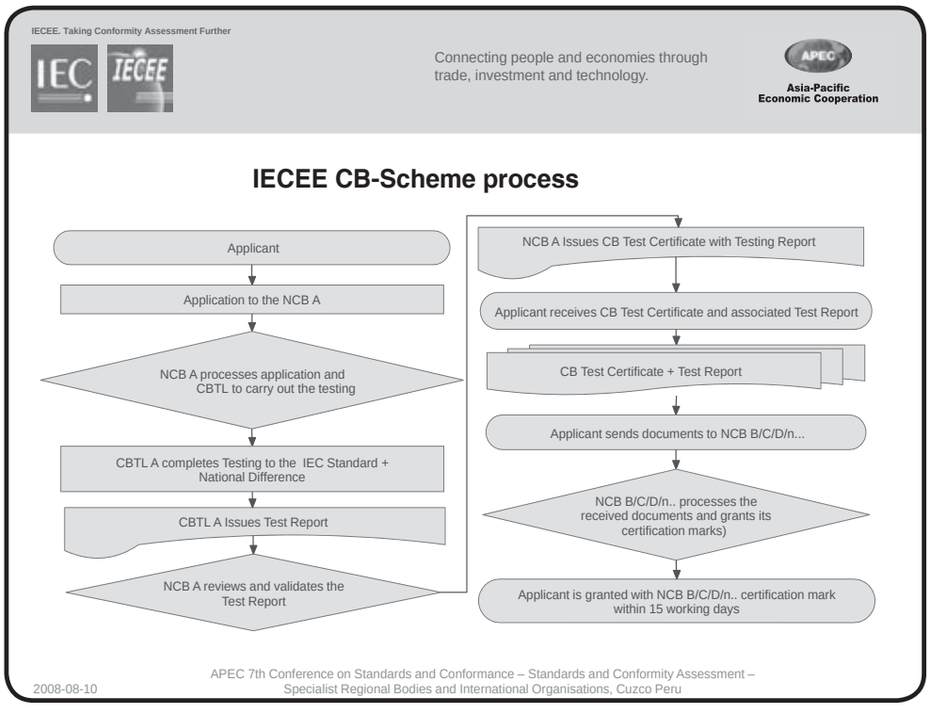
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IECEE CB-Scheme process
Applicant
Application to the NCB A
NCB A processes application and CBTL to carry out the testing
CBTL A completes Testing to the IEC Standard + National Difference
CBTL A Issues Test Report
NCB A reviews and validates the Test Report
NCB A Issues CB Test Certificate with Testing Report
Applicant receives CB Test Certificate and associated Test Report
CB Test Certificate + Test Report
Applicant sends documents to NCB B/C/D/n...
NCB B/C/D/n.. processes the received documents and grants its certification marks)
Applicant is granted with NCB B/C/D/n.. certification mark within 15 working days
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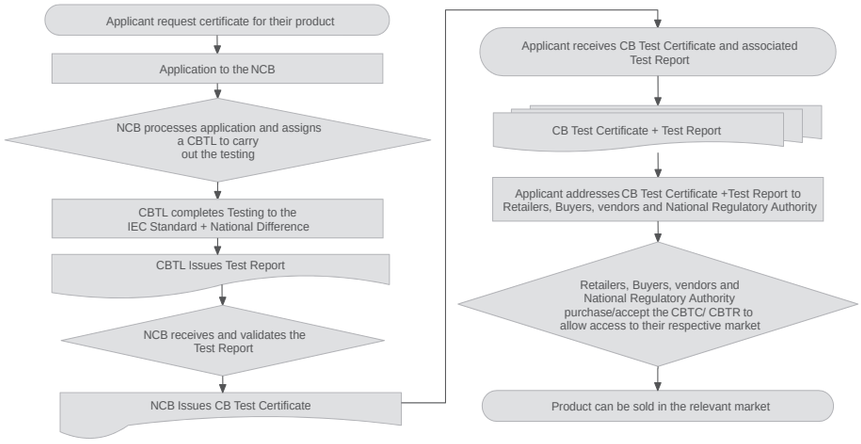
CB-Scheme Direct acceptance by the market place



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IECEE CB Scheme benefits

- Leads to safer products on domestic market
- Needs to become even more efficient to provide fast time-to-market to suppliers

  and will make the world's products available to your domestic professional buyer and consumer

LG Electronics, 法國特福 TEFAL, Alline, SIEMENS, GE, defond, Carrefour, ABB, PHILIPS, Miele, SONY, TOSHIBA

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The CB Scheme=> ISO System 5

The CB FULL CERTIFICATION SCHEME “CB-FCS” is the Global recognized scheme for the safety of electrical equipment used in homes, offices, workshops and similar locations.

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The IECEE-CB-FCS Scheme

- Most comprehensive global product certification scheme
- Extension of the CB scheme
- A full certification scheme ISO/IEC System 5
- Assessment of QA system, surveillance and type testing
- Accommodates national differences
- Mutual agreement on on-going surveillance
- 17 participants
- Multilateral agreement

The IECEE-FCS Scheme

This system includes testing and assessment of the quality management system involved. Surveillance of the quality system is conducted and samples of the product may be taken from either the market or the site of production, or both, and are assessed for ongoing conformity.

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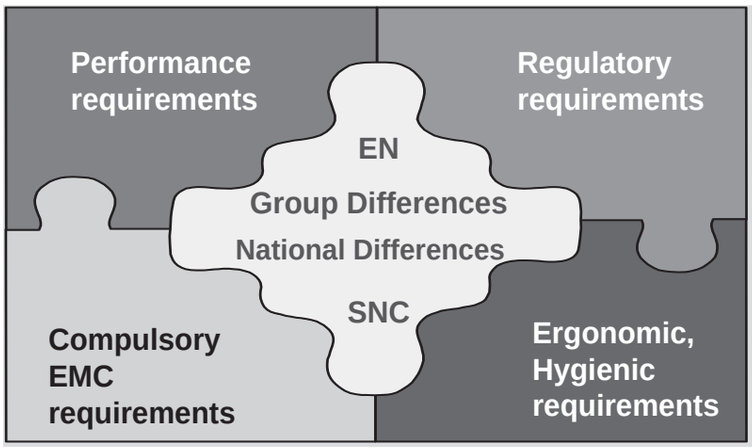
ACCURATE CUSTOMER SERVICE



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Elements

a) sample(s) requested by the certification body;
b) determination of characteristics by testing;
c) initial assessment of the production process & the quality system;
d) evaluation of the Conformity Assessment Report (CAR) & and Initial Factory Audit/Inspection reports;
e) Decision by the NCB;
f) Conformity Assessment Certificate (CAC);
g) surveillance of the production process & the quality system;
h) surveillance by testing or inspection of samples from the factory or the open market, or both.

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Operation of the FCS

- The FCS scheme is based on mutual recognition of the Conformity Assessment Certificates (CACs) issued by its members as the basis for the certification of electrical products at the national and international level.
- The FCS goes far beyond type testing and includes
  - Testing for national differences
  - Limitations on additional testing and requests for samples
  - Recognition of the Manufacturer's Quality System, including the surveillance methods at the factories producing the certified products.
  - A Follow-up Program, which can ensure consistency of design and construction

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IEC – IECEE CB-FCS
FULL CERTIFICATION SCHEME

CERTIFICATE NUMBER
US-UL-04-0001-PV

CONFORMITY ASSESSMENT CERTIFICATE PHOTOVOLTAICS

Product(s)	Crystalline silicon terrestrial photovoltaic (PV) modules
Model / Type Ref.	BP3160, BP3130, and BP3140
Name and address of the manufacturer	BP Solar 630 Solarex Court, Frederick, MD 21703, USA
Name and address of the factory	1. BP Solar, 630 Solarex Ct., Frederick, MD, 21703, USA 2. Tata BP Solar India Ltd., Electronic City Phase I, Plot #3 (P), Hosur Rd., Bangalore Dist 560 100, India 3. BP Solar Espana S.A., Ave De Fuentemayor 12, Alcobendas, Polygono Industrial Tres Cantos Km Los Hitos, 28100 Madrid, Spain 4. Be-Gin Electronics, Yu Wu District, Pu Chieng, Dongguan Guangdong, China 5. BP Solar, 2 Australia Ave., Homebush Bay, New South Wales 2127, Australia
Ratings and principal characteristics	The Range of the certified values and characteristics are available in the Conformity Assessment Report Ref. N° 10011081
Trademark (if any)	bpsolar
Expiration date of this Certificate	24 May 2007
Base of certification	PUBLICATION/STANDARD: IEC 61215, ISO 9001 — EDITION: 1993, 2000
Conformity Assessment Report Ref. N°	E140754-V1-01-20040517-CAR
Factory Audit Report Ref. N°	Included in E140754-V1-01-20040517-CAR Report.

THE SAMPLE(S) OF THE PRODUCT(S) LISTED IN THIS C.A.C. WAS (WAVE) SEEN FOUND TO BE IN CONFORMITY WITH THE APPLICABLE REQUIREMENT OF THE PRODUCT'S STANDARD(S) LISTED ABOVE.

THE QUALITY MANAGEMENT SYSTEM AT THE ABOVE PLACE HAS BEEN FOUND TO COMPLY WITH THE REQUIREMENTS OF THE IECEE RULES OF PROCEDURE IECEE 02 AND ISO 9001:2000 IN RESPECT OF THE MANUFACTURING PROCESS OF THE PRODUCT(S) LISTED IN THIS C.A.C.

This Conformity Assessment Certificate is issued by the National Certification Body:
Underwriters Laboratories Inc.

Underwriters Laboratories Inc.
333 Pfingsten Road, Northbrook, IL 60062-2096, USA
TEL: INT' + 1-847-272-8800
email: joanna.h.smolinska@us.ul.com

Date: 24 May 2004
Signature:

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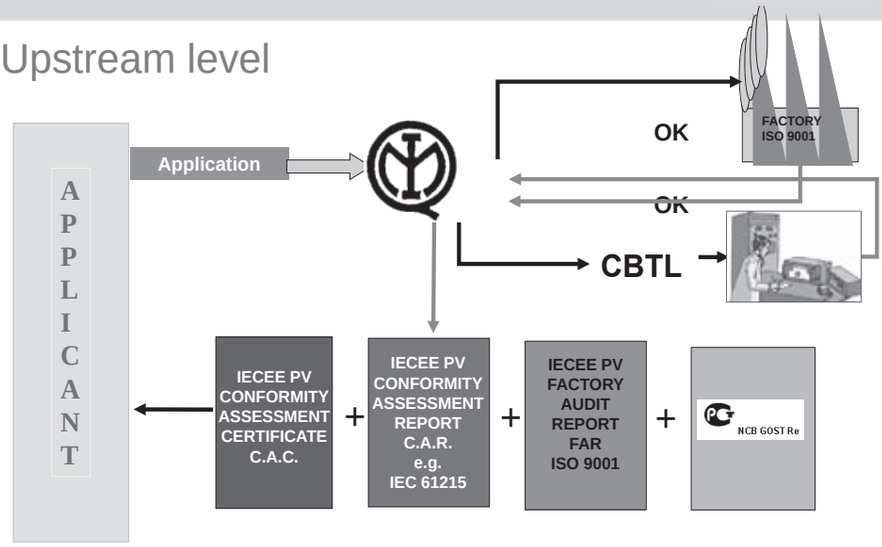
Upstream level



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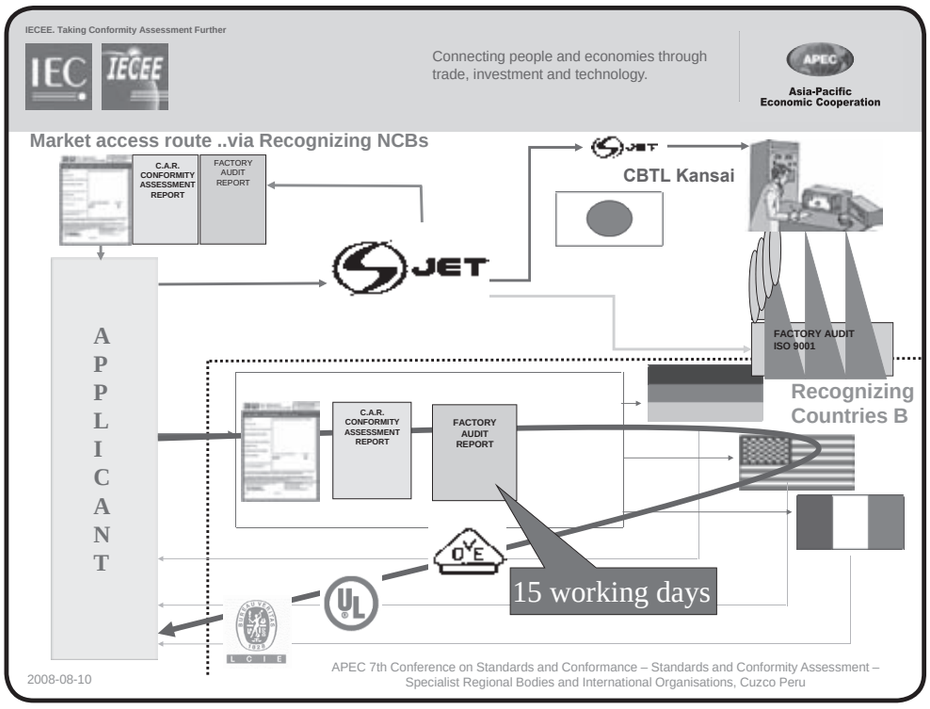
IECEE. Taking Conformity Assessment Further
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Asia-Pacific Economic Cooperation
Market access route ..via Recognizing NCBs
C.A.R. CONFORMITY ASSESSMENT REPORT
FACTORY AUDIT REPORT
JET
CBTL Kansai
FACTORY AUDIT ISO 9001
Recognizing Countries B
APPLICANT
C.A.R. CONFORMITY ASSESSMENT REPORT
FACTORY AUDIT REPORT
15 working days
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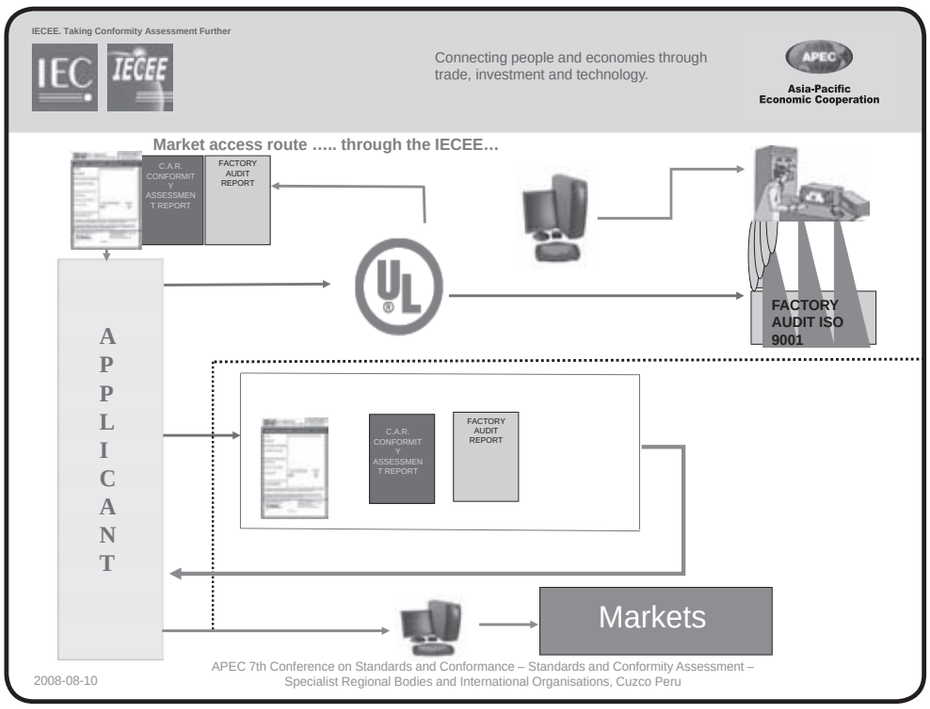
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APEC
Asia-Pacific Economic Cooperation
Market access route ….. through the IECEE…
C.A.R. CONFORMITY ASSESSMENT REPORT
FACTORY AUDIT REPORT
FACTORY AUDIT ISO 9001
APPLICANT
C.A.R. CONFORMITY ASSESSMENT REPORT
FACTORY AUDIT REPORT
Markets
2008-08-10
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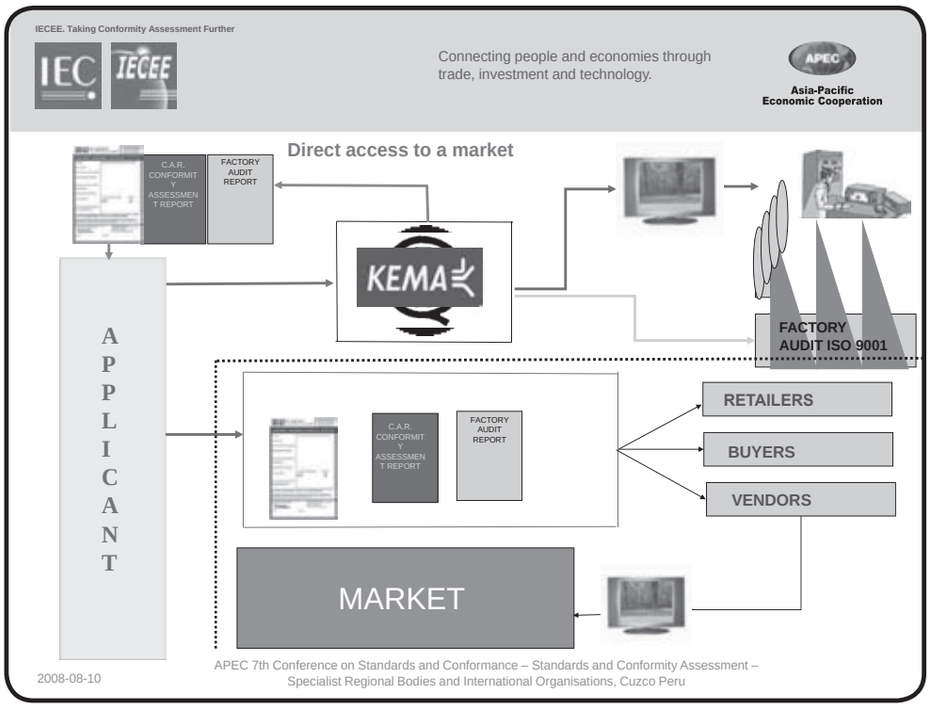
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Direct access to a market
C.A.R. CONFORMITY ASSESSMENT REPORT
FACTORY AUDIT REPORT
KEMA
FACTORY AUDIT ISO 9001
APPLICANT
RETAILERS
BUYERS
VENDORS
MARKET
2008-08-10
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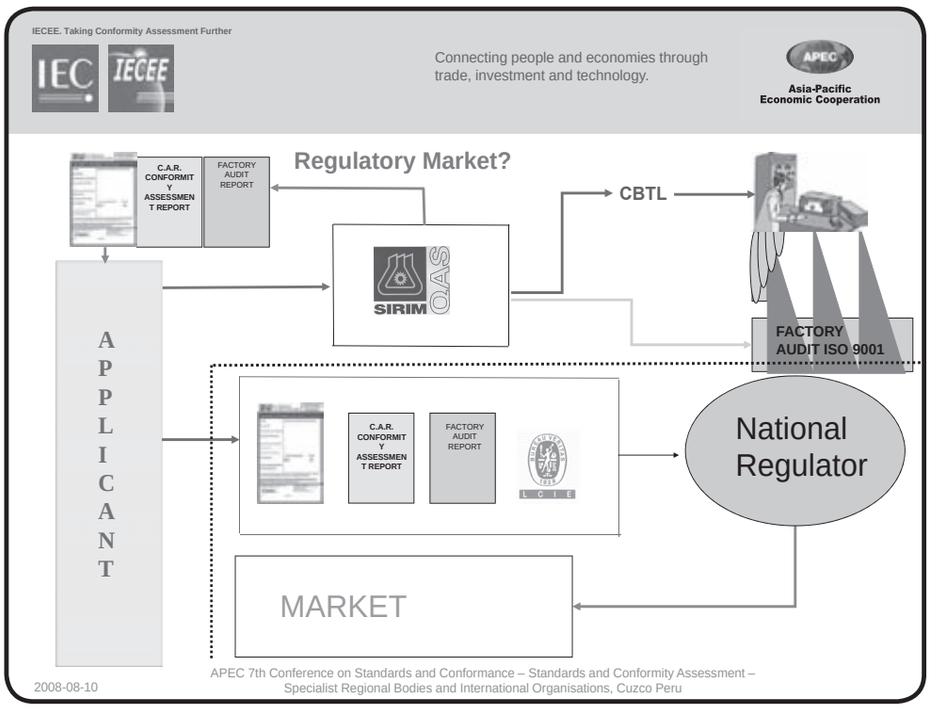
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APEC
Asia-Pacific Economic Cooperation
Regulatory Market?
C.A.R. CONFORMITY ASSESSMENT REPORT
FACTORY AUDIT REPORT
CBTL
SIRIM QAS
FACTORY AUDIT ISO 9001
APPLICANT
National Regulator
MARKET
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NCB — MANUFACTURER TESTING LABORATORIES — National Certification Body

SMT — Supervised Manufacturer Testing

TMP — Testing at Manufacturer Premises

WMT — Witness Manufacturer Testing

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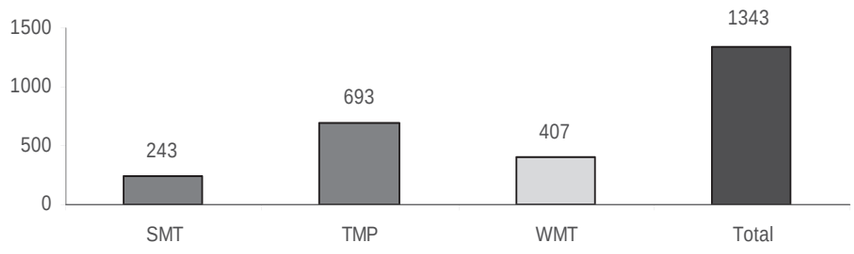
IECEE Registered MTLs



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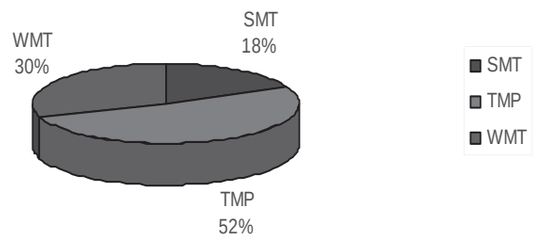
IECEE Registered MTLs



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BENEFITS for Countries

Protecting the Domestic Market from non-conforming products by importing safe electrical products, equipment and components

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BENEFITS for Countries

Joining the worldwide Conformity Assessment community and playing a Key role in the IECEE Management Committee

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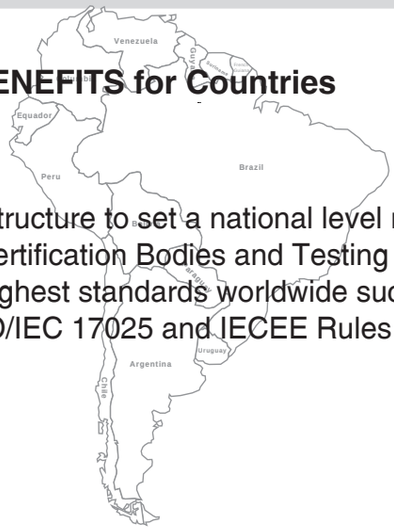
BENEFITS for Countries



Building the structure to set a national level reputable and recognized Certification Bodies and Testing Laboratories fulfilling the highest standards worldwide such as ISO/IEC Guide 65, ISO/IEC 17025 and IECEE Rules

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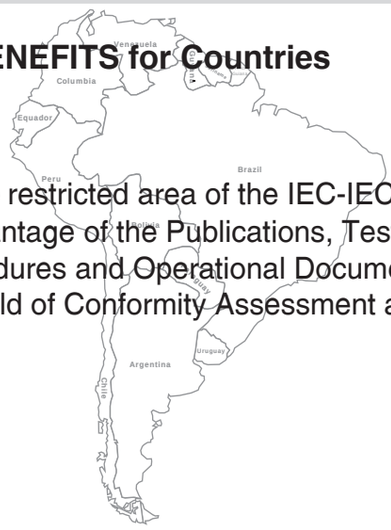
BENEFITS for Countries



Accessing the restricted area of the IEC-IECEE Web Site and take advantage of the Publications, Test Report Forms, Procedures and Operational Documents that are used in the field of Conformity Assessment activities

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BENEFITS for Countries

Attending the World Committee of Testing Laboratories, Forums and Workshops thus sharing and exchanging with the best experts in Certification and Testing activities

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BENEFITS for local Industry

Opening up the worldwide Global Market

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BENEFITS for local Industry

Optimization of certification costs

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BENEFITS for local Industry

Expanded development of technologies within the Country

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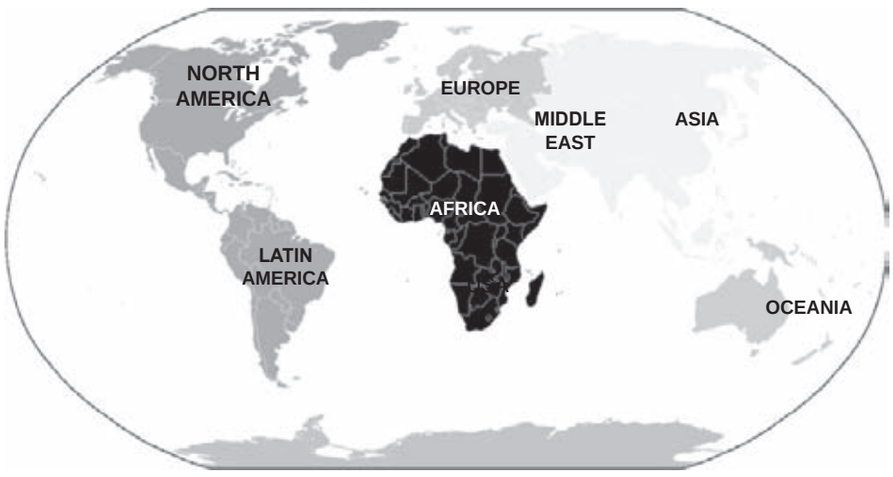

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The right Passport to access worldwide market

Because Globalization and competition are leading to rapid changes, technical barriers to trade remain a serious problem and the industry is anxious about time to market, the shortening life cycle of products and the need to reduce costs…

The CB Scheme offers de facto the true “passport” to market electrical goods worldwide

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The right Passport to access worldwide market

The CB Scheme answers de facto the market needs to have a Test Certificate tailored to be recognized worldwide.

The CB Scheme, in its fullest extent, proves de facto that certification and testing costs can be reduced through the use of...

1 stop testing.

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Welcome to joining…the IECEE

The IECEE opens the door to welcome **LATIN AMERICAN COUNTRIES** … **to join the Most Efficient Transportable Model of Conformity Assessment Worldwide.**

IECEE Website:

www.iecee.org

Asia-Pacific Economic Cooperation

2008/SOM3/SCSC/CONF/012

Responding to the Global and Related Challenges of Climate Change, Energy, Water and Nutrition

Submitted by: ISO
Alan Bryden
ISO Secretary - General

bryden@iso.org
www.iso.org

7th Conference on Standards and Conformance
Sub-Committee on Standards & Conformance
Cusco, Peru
10-11 August 2008

Outline of presentation

- The ISO system
- Climate change
- Energy efficiency
- Water
- Nutrition
- ISO's related international netwroking

The ISO system

157 national members

98% of the world economy
97% of the world population

At February 2008

Collection of 17 041 ISO Standards

1 105 standards produced in 2007

- IT tools
- Standards development procedures
- Consensus building
- Dissemination

186 active TCs

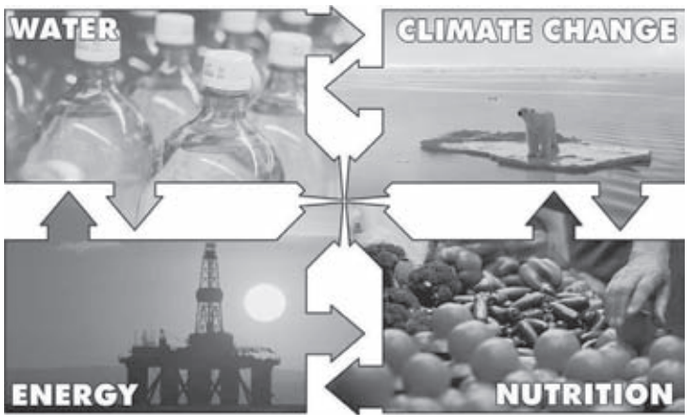
3 000 technical bodies

50 000 experts

Central Secretariat in Geneva

153 staff

Intertwined Challenges



Climate change: nr 1 on the world agenda

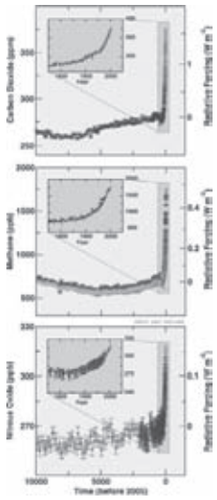
- World Economic Forum – Davos 2008
- Extreme weather across globe (South Asia monsoons, heavy rains in northern Europe, unusual snowfall in South Africa, South America)
- 2007 Nobel Peace Prize to *Al Gore* and the *UN Intergovernmental Panel on Climate Change (IPCC)*
- "Bali Roadmap" - two-year process to finalize an agreement and to address concerns regarding "adaptation", deforestation and clean technologies
- Oil prices from low of USD 50 at start of 2007 – peak at 150 USD and now around USD 120/barrel
- G8 meetings: from Gleneagles (UK) to Toyako (Japan)

Climate change is unequivocal!

CO_2

CH_4

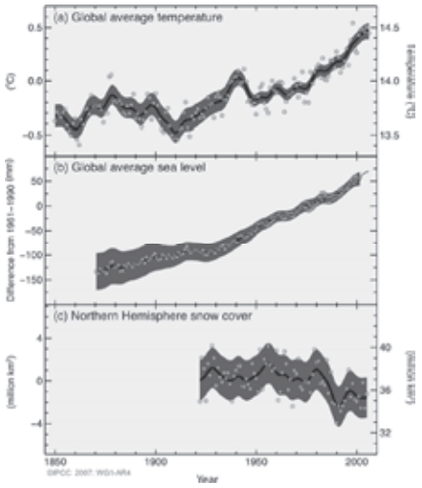
N_20



Temp

Sea levels

Snow cover



ISO
and the response to climate change

Consensus based International Standards to:

- Monitor the phenomenon
- Quantify and communicate GHG impact and carbon footprint
- Promote good environmental management, practices and design
- Open world markets for green and energy efficient technologies, and sustainable energy sources

Climate change: monitoring the phenomenon

- ISO/TC 211 on *geographic information and geomatics*
- Work currently initiated with FAO/WMO with TC 211 to help track “essential climate variables”
- ISO/TC 146/SC 5 on *air quality, meteorology*
  - Collaboration with the UN Food and Agriculture Organization (FAO) on satellite mapping and data acquisition and processing – *formal cooperation agreement underway*
  - Collaboration with World Meteorological Organization (WMO) on meteorological, climatological data and related standards – *formal cooperation agreement underway*

Climate change: quantifying and communicating environmental and GHG impact (“carbon footprint”)

- ISO 14020 - Environmental ***labels and declarations***
- ISO 14063 - Environmental ***communication***
- ISO 21930 - Environmental **declaration of building products**
- ISO 14064 and 14065: GHG emissions accounting and verification
- future work on “carbon footprint” in new ISO/TC 207 Subcommittee

ISO 14064/065: who has done the work?

ISO TC 207 – Environmental Management
SCC (Canada)

Working Group 5 (ISO 14064) – Climate Change
Managed by SCC (Canada) & DSM (Malaysia)

- **Started work in late 2002.**
- **175 experts, 45 countries.**
- **Liaisons/observers include:**
  - **World Business Council on Sustainable Development (WBCSD)**
  - **World Resources Institute (WRI)**
  - **World Bank**
  - **Intergovernmental Panel on Climate Change (IPCC)**
  - **United Nations Framework Convention on Climate Change (UNFCCC)**

Working Group 6 (ISO 14065) – Recognition of GHG V/V Bodies
Managed by SCC (Canada) & SSA (South Africa)

- **Started work in late 2004.**
- **75 experts, 30 countries.**
- **Liaisons/observers include:**
  - **International Accreditation Forum**
  - **United Nations Framework Convention on Climate Change (UNFCCC)**
  - **International Emissions Trading Association (IETA)**

ISO 14064/65: a basic tool box

- **ISO 14064-1**: Greenhouse gases -- Part 1: Specification with guidance at the ***organization level*** for quantification and reporting of GHG emissions and removals
- **ISO 14064-2**: Greenhouse gases -- Part 2: Specification with guidance at the ***project level*** for quantification, monitoring and reporting of GHG emission reductions or removal enhancements
- **ISO 14064-3**: Greenhouse gases -- Part 3: Specification with guidance for the ***validation and verification*** of GHG assertions
- **ISO 14065**: Greenhouse gases -- Requirements for greenhouse gas validation and verification bodies ***for use in accreditation*** or other forms of recognition

ISO 14064/65 Objectives

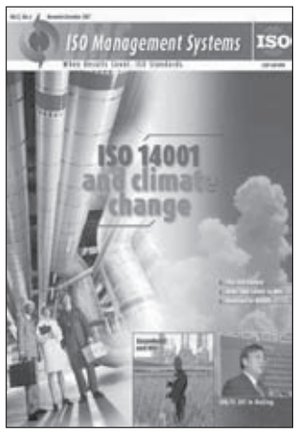
- Develop flexible, regime-neutral tools for use in voluntary or regulatory GHG schemes
- Promote and harmonize best practices
- Support the comparability and environmental integrity of GHG assertions
- Assist organizations to manage GHG-related opportunities and risks
- Support the development of GHG reduction programmes and emission credits trading markets.

ISO and linkages with other GHG accounting approaches

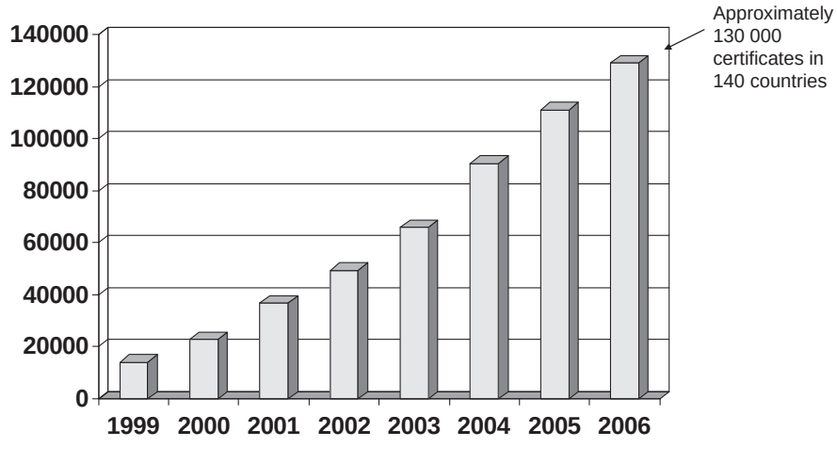
- M.o.U. with WRI/WBSCD addressing technical cooperation, promotion and training: complementary between ISO 14064 - providing *"What"*- and the GHG Protocol providing *"How"*
- M.o.U with the "Voluntary Carbon Standard" (VCS) using ISO 14064 as framework and referencing ISO 14065
- UNFCCC in active liaison with ISO TC/207

Promoting good environmental design and management practices

- ISO 14040:2000 - Principles and framework for ***life cycle analysis***
- ISO 14001:2004 - ***Environmental management system requirements*** with guidance for use
- ISO 14004:2004 - ***Environmental management system guidelines***

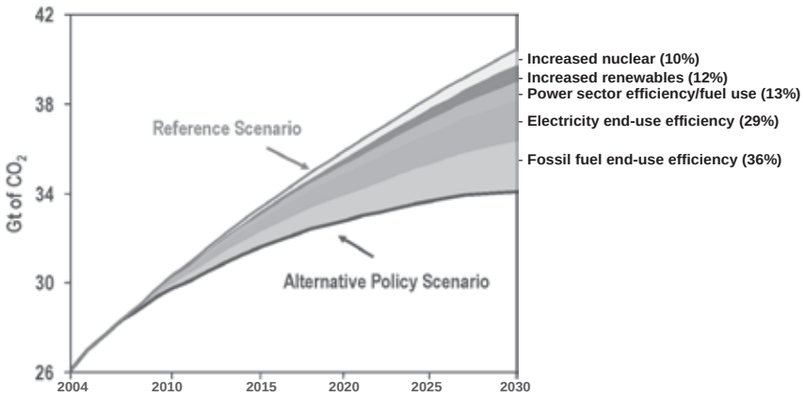


One indicator of global take-up: 3rd party certificates to ISO 14001



Energy efficiency + renewable sources
Future key to cutting/reducing CO_2

International Energy Agency (IEA) 'Alternative Policy Scenario'



Energy efficiency:
a *necessary 'first point of attack'*

- Powerful and cost-effective tool for achieving a sustainable energy future
- Reduce need for investment in energy infrastructure, cut fuel costs and increase competitiveness
- Reduce impact on environment and contribute substantially to lower GHG emissions

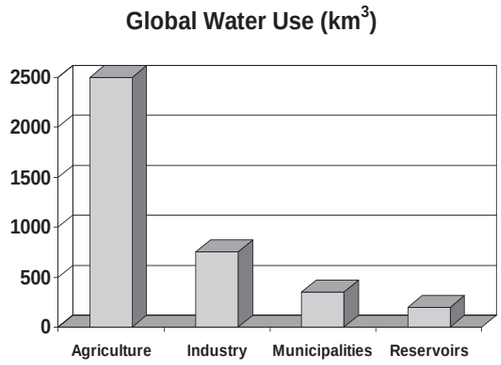
End-Use

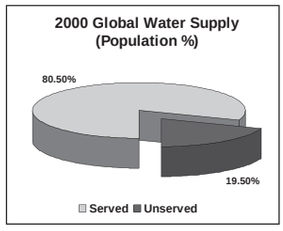
Power Generation

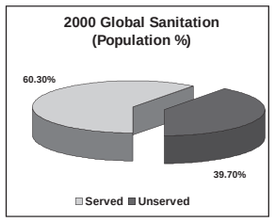
Energy efficiency – ISO's response

- 18 ISO Technical Committees involved in aspects of energy efficiency
- Sustainability in construction and energy efficiency of buildings
- Intelligent transport systems
- Energy weighting, aggregation and calculation methods (energyware)
- NEW ISO SAG on Energy efficiency and renewable sources
- NEW activity - Energy Management, systems approach to energy performance
- NEW SC on biofuels to first establish specs for biodiesel and bioethanol quality
- Cooperation with IEA, WEC, IEC and UNIDO

Water
A stressed renewable resource







The water challenge – ISO's response

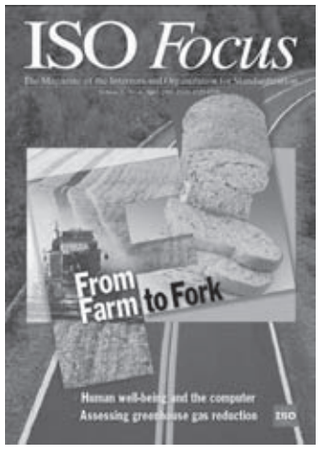
- ISO/TC 30 : increasingly important work on "water metering" in closed conduits
- ISO/TC 113 on Hydrometry: open channels & groundwater: assessment of water resources possible only by its proper measurement
- ISO/TC 147 on water quality – 238 published standards: sampling and measurement of water characteristics
- ISO/TC 224 - Water treatment and drinking water – quality of services – providing confidence in areas of public/private transition

Global nutrition challenge
Impacting those least able to respond

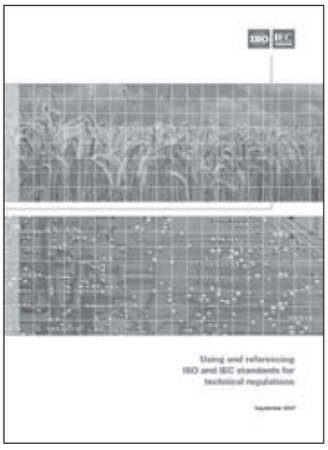
- Current acute food crisis – low stocks, high prices, aggravated by climate change effects such as extreme weather and water scarcity.
- Biofuel debate: common standards and sustainability considerations to support sound public policy
- Food safety, use of GMOs, value-adding aspects related to food production, processing and distribution (fair-trade, low carbon footprint, organic food…)

Food, agriculture and nutrition – ISO's response

- ISO/TC 34, Food products
  - 720 standards
  - Food safety (ISO 22000 series)
  - Detection of GMOs
  - Food traceability systems
  - Irradiation of food
  - Many test methods for seeds, fruits and vegetables, cereals, milk, meat and poultry, spices, coffee, tea ..
- ISO/TC 93 on starch – established test methods
- ISO/TC 234 on fisheries and aquaculture – ensuring sound 'farmed fish' production
- Relations with WHO/FAO (Codex) + WTO/SPS+ Retailers (GFSI)



Using and referencing ISO/IEC standards in technical regulations (information document)



ISO's related global networking

- WTO: TBT, SPS, Committee on Environment and Trade
- UN and UN agencies: CODEX, FAO, UN-DESA, UNEP, UN-FCCC and IPCC, UNIDO, WHO, WMO, WTO-Tourism
- G8
- OECD: Transports Forum, IEA
- International Biofuels Forum
- Links with seven regional standardization bodies (ACCSQ, AIDMO, ARSO, CEN, COPANT, EASC, PASC)
- Economic actors: Accreditation: IAF and ILAC, Consumers International, World Economic Forum, World Energy Council, World Petroleum Congress, WRI, IISD, etc…
- World Standards Cooperation: IEC-ISO-ITU

Session II:

Standards and Conformance Education - Challenges for contents in textbook development and network cooperation in APEC region

Overview Session II: Standards and Conformance Education- Challenges for contents in textbook development and network cooperation in APEC region

The focus of the second session was on the importance of Education about standards and conformance and the achievements in APEC Economies. This session discussed the importance of education on standards and conformance, specially on the economic and social value of standardization and on networking and cooperation in the APEC region. This session was moderated by Mr Teo Nam Kuan, SPRING from Singapore and Mr Donggeun Choi, from Korea.

The presentations for this session were:

- APEC SCSC Education Initiative: Raising issues – Where should we go?, Mr Donggeun Choi, Korea.
- The economic Impact of Standards, Mr John Tucker, Standards Australia.
- The Economic Value of Standardization in Canada, Mr Stephen Head, Standards Council of Canada.
- Economic and Social Effects of Standardization, Mr Shigekazu Fukunaga, Technical Regulations, Standards and Conformity Assessment Policy Unit Ministry of Economy, Trade and Industry of Japan.
- The Value of Standards and Standards Education, Ms Erin Grossi, Underwriter Laboratories, USA.
- Introducing standardization as an Input for Innovation in high level education in Peru, Mr Augusto Mellado, National Council of Science, Technology and Technological Innovation, Peru.
- Standards Education, Mr John Hill, Vice Chair of ICES.
- European Academy for Standardization, Ms Francoise Bousquet, Vice President of EURAS.

Session II provided an opportunity to:

- Be acquainted with successful business experiences in APEC economies in the use of standards and its positive impact on the economy, which may be used as a reference in standards education.
- Gain awareness regarding contents for textbook, cases, national plan and networking of standards education organization.

The recommendations in this session were:

- APEC SCSC encourages member economies to more actively participate in SCSC education initiative to increase awareness and knowledge to address the significance of standards and conformance in the region.
- APEC member economies acknowledge the importance of contents development and networking:
    - o Members are recommended to develop theoretical and case studies based contents to describe the socio-economic impacts of standardization.
    - o Members are recommended to strengthen its networking of relevant academia, professionals, and educators within and outside of APEC.

Speakers Session II

In order of final agenda

1. Mr Teo Nam Kuan, Vice Chair, Sub Committee on Standards and Conformance / Group Director, Quality and Standards, SPRING, Singapore

Mr Teo Nam Kuan, has been involved in standardization work since 1985 when he was in charge of standardization and certification programmes. He represents SPRING Singapore in international meetings at ISO, IEC and regional standardization forums such as the Asian Consultative Committee on Standards and Quality (ACCSQ), Pacific Area Standards Congress (PASC), and the APEC Sub-Committee on Standards and Conformance (SCSC). He has also participated actively in MRA negotiations and currently he is Vice Chair of Sub Committee on Standards and Conformance.

2. Mr Donggeun Choi, Senior Standards Analyst, Korean Standards Association

Mr Choi has worked in the Korean delegation to ISO TC204, APEC Transportation Working Group and APEC Sub-Committee on Standards and Conformance (SCSC). He serves as liaison officer between ISO TC204 and APEC Transportation Working Group (TPTWG). He is the project editor of ISO TR 28682, which is the very first joint project between APEC and ISO. In APEC SCSC, among others, he has worked for APEC SCSC Education Initiative. He is the project proponent and project editor of that initiative. He has a Master's Degree in Transportation Management from Seoul National University, and now is a PhD candidate in Management of Technology

3. Mr John Tucker, Chief Executive Officer (CEO), Standards Australia

Mr Tucker is an experienced company director, having formerly held statutory appointments in the fields of health, Occupational Health and Safety (OHS) and workers' compensation, including memberships of Australia's National OHS Commission and the New South Wales (NSW) Health Minister's Quality Reference Group; and directorships of the NSW Work Cover Authority, Coal Mines Insurance Pty. Ltd. and the NSW Mines Rescue Service. In Standards Australia he has had a diverse career path traversing public and private sectors, political advising and has held CEO positions in the fields of injury management, OHS risk management, and industry association management.

4. Mr Stephen Head, Senior Policy Analyst, Standards Council of Canada

Mr Head is a Senior Policy Analyst in the Intergovernmental Affairs and Trade Branch of the Standards Council of Canada (SCC). He has a Bachelor of Arts and a Master of Arts degree in political science. His current responsibilities for the SCC include monitoring the files of the World Trade Organization-Technical Barriers to Trade Committee (WTO/TBT) and the APEC Sub-Committee on Standards and Conformance (APEC/SCSC). He provides policy advice and analysis on the international, national and regional implications of a broad range of regulatory, trade and standardization policies, initiatives, programs and practices. His research interests are international trade policy and regulatory cooperation.

5. Mr Shigekazu Fukunaga, Deputy Director, Technical Regulations, Standards and Conformity Assessment Policy Unit, Ministry of Economy, Trade and Industry (METI) of Japan

In METI Mr Fukunaga is in charge of international cooperation matters in the field of international standardization and conformity assessment activities. He is also responsible for and participates in international meetings and conferences in the same fields, such as the World Trade Organization - Technical Barriers to Trade Committee (WTO/TBT), ISO, and APEC Sub-Committee on Standards and Conformance (APEC/SCSC) as a Japanese delegate. He has made his career in METI in the field of energy policy and car recycling policy.

6. Ms Erin Grossi, Manager of International Affairs, Underwriters Laboratories Inc, United States

Ms Grossi is the Manager of International Affairs in the Government Affairs office for Underwriters Laboratories Inc. (UL). In this position, she is responsible for planning and executing UL's trade policy objectives, in close coordination with the US Trade Representative's Office, the US Commerce Department, and other domestic and international agencies. She also supports the business and policy objectives of UL's 26 international affiliates. She holds a Bachelor's Degree in International Economics and Spanish from Marquette University and a Master's Degree in International Relations from Georgetown University. She is currently working on a Doctorate in International Relations with a trade focus, also at Georgetown.

7. Mr Augusto Mellado, President, National Council of Science, Technology and Technological Innovation, Peru

Mr Mellado is graduated from National University of Engineering. He also studied courses in North Carolina University and has a specialization in Nuclear Engineering in Argonne Laboratories. Later he obtained a Master Degree in Research of operations in Birmingham University, United Kingdom. He obtained the Doctor's Degree in Education in Federico Villareal National University, with the Project: The Force of the Human Capital Theory. He was the Director of Graduated School in National University of Engineering, where he promoted the first program of Systems Engineering in Peru. Also, he was elected Vice-rector in San Martin de Porres University. Currently he is President of the National Council of Science, Technology and Technological Innovation of Peru.

8. Mr John Hill, Vice Chair of International Cooperation for Education about Standardization (ICES)

As Sun Microsystems' Chief Standardization Strategy Officer, Mr. Hill was responsible for managing Sun's activities in formal standardization organizations including ISO, IEC, ITU/T and JTC 1. He is the former chairman of JTC 1's SC 22, on computer programming languages, and is the Director Emeritus of the VITA Board of Directors. Also, he has thirty two years in the ICT industry having worked in many fields, including standardization, application software development, and industrial engineering. For the past twenty years he has been working exclusively on standardization for Sun, AMP, and Unisys. He has received numerous industry awards recognizing his contributions in standardization.

9. Ms Françoise Bousquet, Vice President of European Academy for Standardization

Ms Bousquet has experience in standardization: in industry, in the French National Standards Body (AFNOR), in academic teaching about standardization, and now in her consultancy firm ZFIB Conseil. She provides consulting services mostly in standardization and normative watch. She has been teaching standardization for more than ten years in the Ecole Centrale de Paris and is now responsible for the Chair on Standardization as a tool for innovation and on competitive intelligence in EISTI (Ecole Internationale des Sciences du Traitement de l' Information - Mastère Intelligence Economique).

Asia-Pacific
Economic Cooperation

2008/SOM3/SCSC/CONF/013

APEC SCSC Education Initiative: Raising issues -Where should we go?

Purpose: Information
Submitted by: Korea

Donggeun Choi
Senior Standards Analyst, Korean Standards Association
Editor, APEC SCSC Education Project

its2win@kisi.or.kr

7th Conference on Standards and Conformance
Sub-Committee on Standards & Conformance
Cusco, Peru
10-11 August 2008

Outline

Part I: At a Glance in APEC

Part II: APEC SCSC Education Initiative

Part III: Raising issues - Where Should we go?
- Contents, Experts, and Networking
- How to integrate Research into Policy and Education

KSA KATS

Part I. At a Glance in APEC
Education is….

Education is a social infrastructure which enables citizens to prepare for intellectual and professional life in a society.

Given the socio-economic impacts of standardization, students in schools or universities are to be educated about the fundamentals and implications

of standards and conformity assessment

to prepare them for their career

in government, businesses, related organizations and research institutions.

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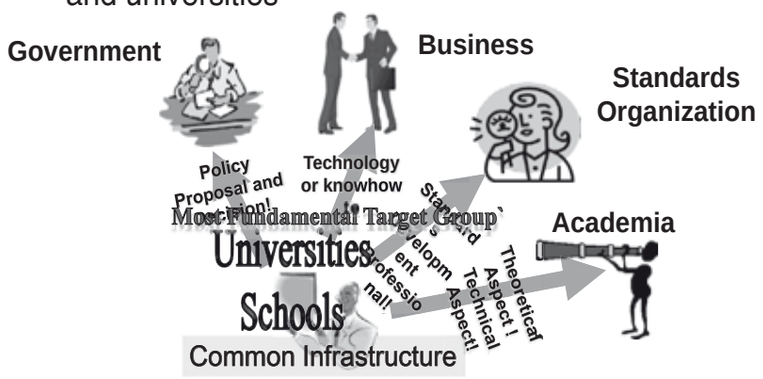
IDEALISTIC Situation is..

- It would be idealistic if students are educated in schools and universities



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But REALITY is

- Rarely heard or recognize..
- ‘Not ready to work’ in professional life

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At a glance in APEC (SCSC education)

- Sep 2005 SCSC Agreed to continue discussion
- Feb 2006 SCSC Agreed to take actions
- Sep 2006 SCSC had a session in the 6th Conference
- Nov 2006 SCSC Included in its ToR
- Nov 2006 APEC Included in its JMS(18th)
- Jan 2007 1st SCSC PAGE meeting
- Mar 2007 Educatoion Project Phase I Started
- Jun 2007 2nd SCSC PAGE meeting
- Feb 2008 3rd SCSC PAGE meeting, Phase I completed
- Mar 2008 Education Project Phase II Started
- Aug 2008 SCSC had a session in the 7th Conference

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Start formal discussion

- SCSC Agreement
  in Sep 2005 (Gyongju, Korea)
  - SCSC agreed to continue to share information and experience on standards education in its future meetings

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Agree to take actions

- SCSC Agreement
  in Feb 2006 (Hanoi, Vietnam)
  - The 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.

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Revised SCSC ToR 2006

- Revised SCSC Terms of References in
  Nov 2006 includes the objective of:
  - promoting standards awareness building and education activities to address the significance of standards and conformance in the region

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2006 APEC JMS

THE EIGHTEENTH APEC MINISTERIAL MEETING

HA NOI, VIET NAM

15-16 November 2006

JOINT STATEMENT

(page 8/29)

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.

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Part 2.
APEC SCSC Education Initiative

- Overview
- Phase I Summary
- Lima Meeting Summary

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Part 2. APEC SCSC Education Initiative

- The initative(project) is based on previous agreements:
  - APEC SCSC Agreement in Feb 2006
  - APEC SCSC ToR 2006
  - APEC J.M.S 2006

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- Title: APEC Strategic Education Program on Standards and Conformance
- Proposing Economy: Korea
- Co-Sponsoring Economies: China, Indonesia, Japan, Singapore, Thailand, USA, Vietnam (7)
- Time Plan: Three Phases Projects
  - Mar 2007 to Aug 2010 (42 months)
- APEC status
  - 2007 proposal (Phase I – Case Study & Curriculum Model)
    - approved in 2006, completed in Mar 2008
  - 2008 proposal
    - approved in 2007, onoing and to be completed by APEC 2009

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- The purpose of this education initiative(project) is:
  - To develop education model on standards and conformance
  - In order to increase public awareness mainly in higher education systems and to build capacity in a more strategic and comprehensive manner.

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APEC Strategic Education Project - Project Strategies -

Phase I (2007~)	Phase II (2008~)	Phase III (2009~)
Case Study Curricula	**Textbooks Manual**	**Pilot School Guideline**
➢Advisory Groups ➢Workshops ➢Reference Collection ➢**Case Studies** ➢ **Curricula Development**	➢Meetings and Workshops ➢ Writing/Consulting ➢ Textbook Development ➢Teaching Manual Development	➢Meetings ➢ Teachers' Workshop ➢Implementation Guideline ➢Pilot Schools ➢Lesson Book

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- The Next 10 Slides summarize the outcome of Phase I project:

Phase I - Survey plus Research

- Policy Analysis of 16 Economies
- 118 Worldwide Case Studies
- Development of Model Curriculum
  - Six Contents Modules
  - Three Domains

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Phase I - Survey plus Research

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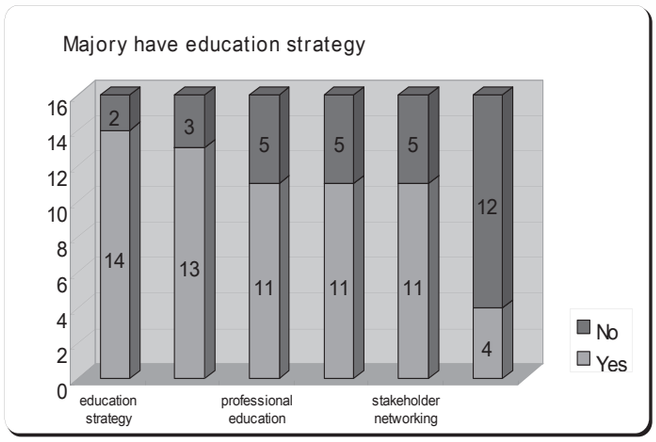
Phase I – National Policy



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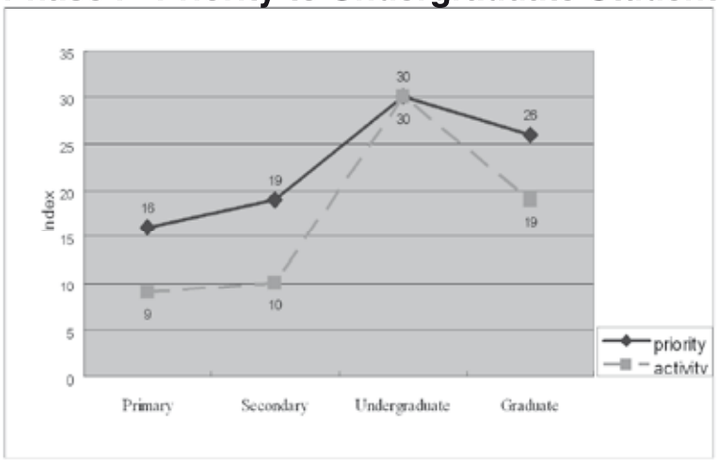
Phase I - Priority to Undergraduate Students



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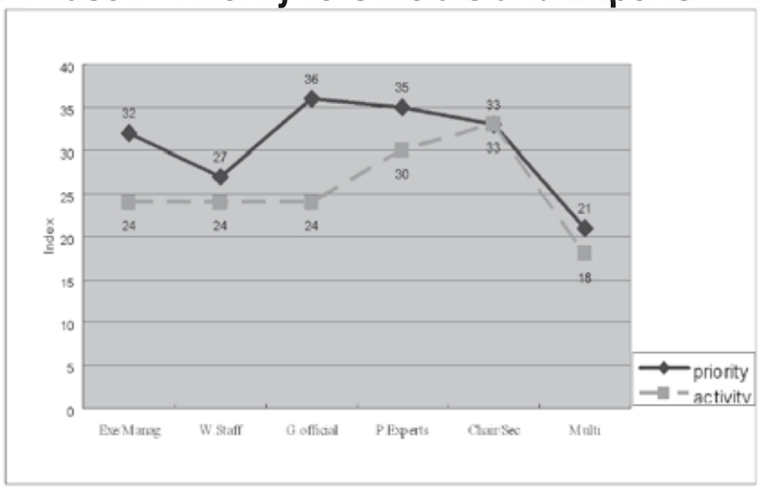
Phase I - Priority to Officials and Experts



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Phase I – Primary/Secondary School

<Level of Expansion>		One time event	Module(s) Sub-Chapter	Single Subject
	(Semi) nation-widely	-	#6 Thailand-TISI (completed) #3 Korea-KSA (in development) #4 Philippines-BPS (in expanding)	#7 Turkey-TSE (data incomplete)
	One to Dozens of Schools	#1 Japan-METI (delivery service)	#8/#9/#10 UK-BSI	-
	One time event	#2 Korea-KSA (camping) #5 Philippines-BPS (writing contest)	-	-

<Level of Intensiveness>

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Phase I – Higher Education

<Level of Expansion>		One Subject	Multi Subjects - a few subjects/thesis-	Multi Subjects - degree/program -
	Multi Universities	#27 Korea-KSA UEPS #17 EU-Asia Link #23 DEVCO(dormant)	#13 China-CJLU	#12 China-CJLU
	One University	#20.#21 France-ZFIB #24 Japan-JSA #30 Univ Moratuwa #34 USA-Catholic	#26 Korea–FEU(multi) #25 Japan-T.U(multi) #28/#29 Neth-RSM (thesis, optional)	#18 Egpyt – PQI #19 France – U.C.
		<Level of Intensiveness>		

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Phase I – Curriculum Components

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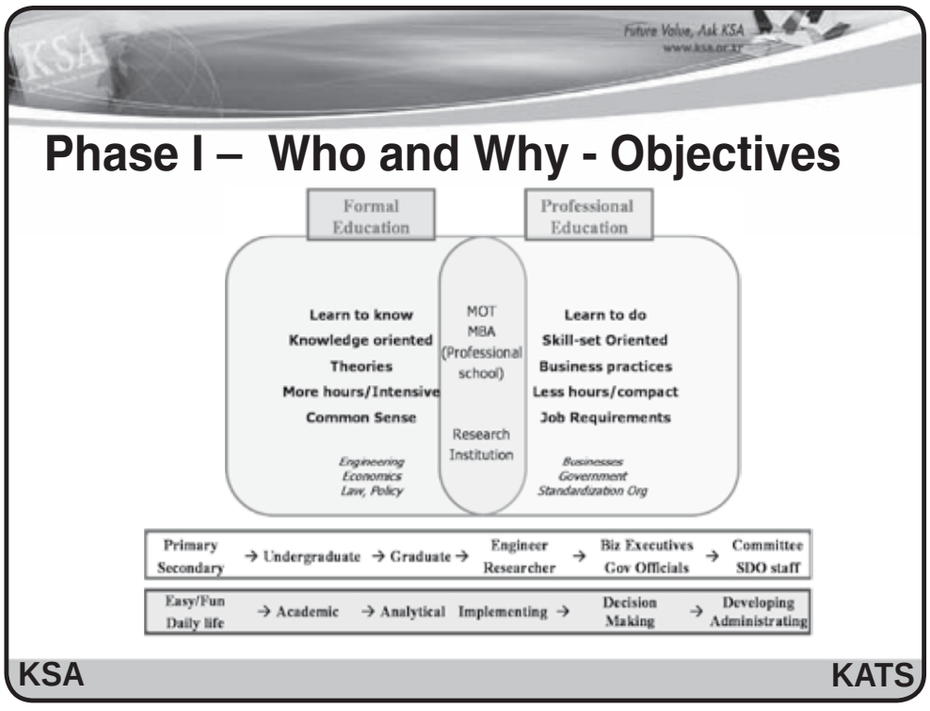
Future Value, Ask KSA
www.ksa.or.kr
Phase I – Who and Why - Objectives
Formal Education
Professional Education
Learn to know
Knowledge oriented
Theories
More hours/Intensive
Common Sense
Engineering
Economics
Law, Policy
MOT
MBA
(Professional school)
Research Institution
Learn to do
Skill-set Oriented
Business practices
Less hours/compact
Job Requirements
Businesses
Government
Standardization Org
Primary Secondary → Undergraduate → Graduate → Engineer Researcher → Biz Executives Gov Officials → Committee SDO staff
Easy/Fun Daily life → Academic → Analytical Implementing → Decision Making → Developing Administrating
KSA
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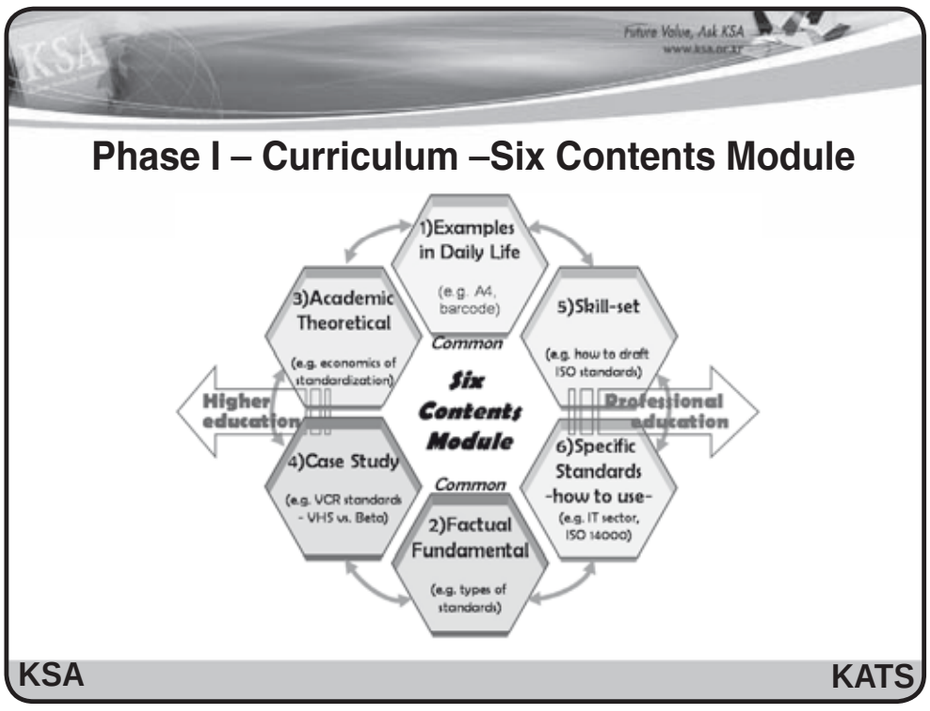
Future Value, Ask KSA
www.ksa.or.kr
Phase I – Curriculum –Six Contents Module
1)Examples in Daily Life
(e.g. A4, barcode)
3)Academic Theoretical
(e.g. economics of standardization)
5)Skill-set
(e.g. how to draft ISO standards)
Common
Six Contents Module
Higher education
Professional education
4)Case Study
(e.g. VCR standards - VHS vs. Beta)
6)Specific Standards -how to use-
(e.g. IT sector, ISO 14000)
Common
2)Factual Fundamental
(e.g. types of standards)
KSA
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Phase I – Curriculum – How – Teaching Methods

<Level of Activeness>			
	↑ Active (Detailed)	Case Study Project Paper/Report (Student) Presentation (Student)	Role-playing Simulation Team Contest Workshop Group/Panel Discussion
	Passive → (General)	Game/Quiz Questioning Sessions Field Trip	Peer Teaching Brain Storming
		Video Lecture	Class discussion
		← Less Collaborative	More Collaborative →
		<Level of Collaboration>	

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Phase I Review : Reference Model

- Not attempt to provide a perfect model suitable for all economies whose conditions are diverse
- but this guideline attempted to:
  - to provide realistic and investigative systematic information based on case studies and
  - to advise desirable framework and components, primarily focusing on formal education

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Future Value, Ask KSA
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Committee on Trade and Investment
2008
APEC SCSC Education Guideline 1:Case Studies of How to Plan and Implement Standards Education Programs and Strategic Curriculum Model, March 2008
The objective of this guideline is to provide a handbook to support you in developing policy and in planning or implementing education programs about standards and conformance. This guideline is first kind of manual in the standards education by providing comprehensive factual and analytical information with case studies about past/current standards education programs worldwide and by presenting a strategic model curriculum.
APEC#208-CT-03.2, 298pp
PDF Downloads [13.2MB]
Basic Workshop on Good Clinical Practice (GCP)/ Clinical Research Inspection, May 2008 (Electronically reproduced in August 2008)
The workshop provided training presentations, exercises and discussion opportunities according to clinical trial inspection and regulations. The main topics were Roles and Responsibilities under GCP, Elements of Data Quality and Integrity, Introduction to GCP Inspection Techniques and Documentation, Inspecting at a Clinical Investigator Site Including On-site Exercise, Compliance and Enforcement Tools, and Introduction to the Inspection of Sponsors/Contract Research Organizations and Independent Ethics Committees.
APEC#208-CT-04.3, 372pp
PDF Downloads [4.8MB]
IPXpedite - Project for Disseminating E-learning Contents on IPR Information, 2008
APEC#208-CT-07.1
To view contents of this project please visit:
PRINT
SEND
2007
2006
2005
2004
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1999
1997
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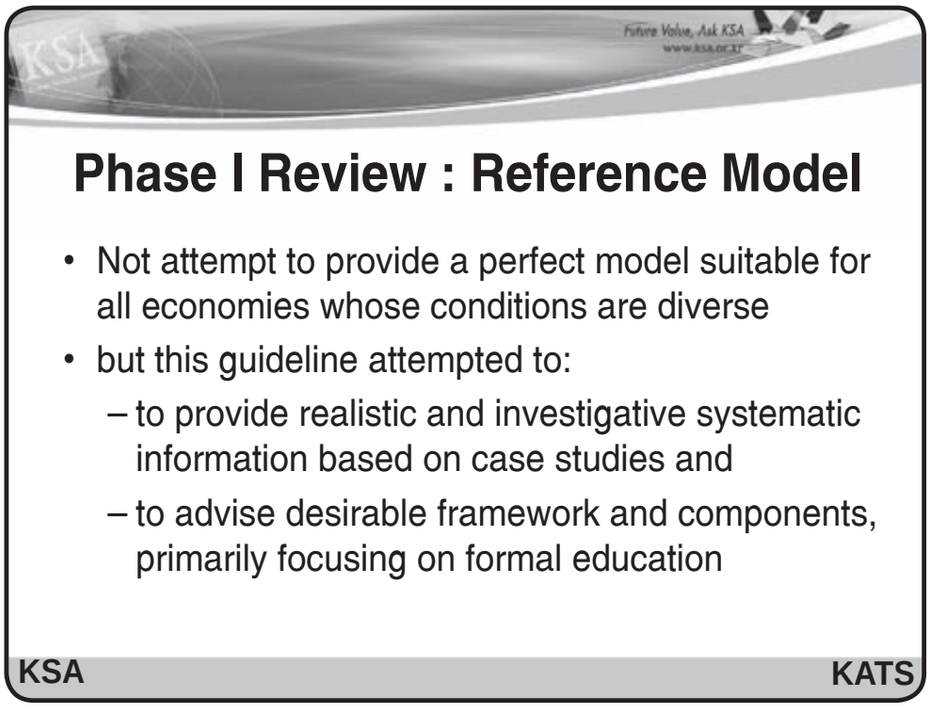
KATS


Future Value, Ask KSA
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Phase I Review : Reference Model
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Lima Meeting - Textbook Contents

- Contents priority of phase II textbook development as follows:
  - 1st: Factual/Fundamentals Contents (existing)
  - 2nd: Case Studies
  - 3rd: Economic benefits

  * Module approach and online dissemination were recommended

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Lima Meeting - Networking

- Why Academia Networking?
  - To Motivate both Academic and Professional be necessary
  - To Stimulate Academia to provide more academic contents and teach the contents
  - Useful to Share the viewpoints of Academia
- How?
  - Networking by website/database is a good tool
  - Informal dialogue to discuss education and research topics
  - Propose NSBs to coordinate the education activities and networking
  - Coordination with SRBs useful (Professional networking)
  - Coordination with relevant Fora or Societies such as ICES be useful
- Need further discussion for detailed actions
  - To be discussed in 7th SCSC Conference

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Part 3.
Where Should We Go?
-Raising Issues

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How to Develop Textbook?

- How to develop Textbook? (Part I)
  - Academic/Theoritical Contents
    - Economics of Standardization
  - Case Studies (lessons learned)
    - VHS and Beta (VCR Standards)
    - CDMA and GSM (2G mobile)
    - MPEG, Smart Card, RFID, et al
  - Factual/Fundamentals

→ Identication of existing materials

→ Tranforming into Textbook Style (copyright?)

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APEC wide Networking

- Problems
  - Little papers, researchers
  - Little venue to publish relevant papers
  - Little contents to be used in academic class
- Approaches
  - To organize APEC-wide Networking both in professional and academic experts
  - To encourage building similar society within economy*

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Research Topics

Can you find any relationship between
Research Topics and Policy/Education?

- Economics Value of Standardization
- Case Studies of Standardization
- Public Policy and Standardization
- Centraliazation and De-centralization of national standardization system
- Role of Public and Private Sector
- Corporate Strategy and Standardization
- R&D Management and Standardization
- IPR Strategy and Standardization

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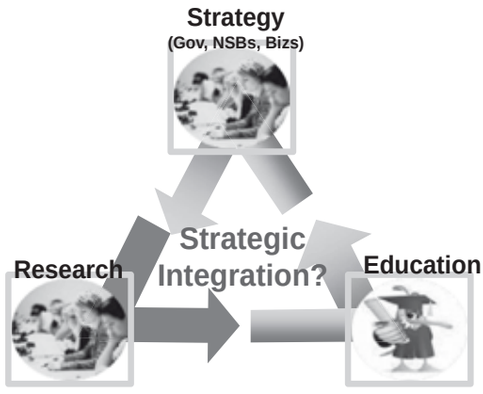
How to integrate Research in Policy and Education?



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At the end of this session:

- In the conclusion session, after listening to 8 presentations, we will have time to develop recommendations on:
  - How to develop textbook for higher education?
    - Academic/Theoritical Contents, Case Studies
    - How to use online technology (website)
  - How to build networking in standards and conformance?
    - Both academic and professional experts
    - How to use online technology (website)

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Asia-Pacific Economic Cooperation

2008/SOM3/SCSC/CONF/014

The Economic Impact of Standards

Purpose: Information
Submitted by: Australia

John Tucker
Chief Executive Officer
Standards Australia

7th Conference on Standards and Conformance
Sub-Committee on Standards & Conformance
Cusco, Perú
10-11 August 2008

Setting the scene (2005)

- UK studies: standards' impact on labour productivity
- German study: standards' impact on GNP
- Many unsupported assertions!
- Productivity Commission study on Standards and accreditation: we needed evidence of the links between standards, innovation and productivity

Standards spread knowledge

Our consultants said:

- *Standards are part of a range of institutions that contribute to the diffusion of useful knowledge. They can be seen as an effective means of collecting, embodying and disseminating ideas about how to perform various activities…*
- *Standards, if they are timely and appropriately based, can directly contribute to the diffusion of ideas, and can provide a means by which new ideas are embodied in products or processes…*
- *Standards may also help innovation by providing an essential platform on which new technologies, processes and so on can build.*

Standards, innovation and productivity

- Our consultants looked at the growth of Standards and the trend of multifactor productivity and concluded (using two different methods):
- *If standards are specified as contributing to the stock of knowledge jointly with R&D expenditure, then a 1 per cent increase in this joint stock of knowledge leads to a 0.12 per cent increase in economywide productivity….*
- *Using a combined measure of the stock of knowledge (standards combined with R&D) indicates that the inclusion of standards increases the apparent contribution [to multifactor productivity] of R&D based knowledge by around 5 percentage points.*

Standards and the sectors

Our consultants looked at the impact of particular Standards and found:

- Standards in the water and electrical industries :
  - help providers to establish the networks
  - increase the effectiveness of users in accessing the networks
  - together bring economywide benefits of around $A1.9 billion per year (=$US1.83 billion)
- Australian Standard on risk management has helped increase the awareness of risk among Australian companies, by comparison with companies in other economies
- Australian Standards on mineral sampling, by providing more precision regarding the mineral content of ores, have the effect of increasing the confidence of both buyers and sellers
  - benefits to Australia $A58 million per year

The reaction

Productivity Commission said:

- *The CIE and Standards Australia make a convincing case that standards can play a useful role in the diffusion of knowledge and productivity growth.*
- The *'principal components'* of the innovation system include *'standards making'.*

Case studies

- New industries
- Building and construction
- Electronics
- Management
- 'Whatever happened to?'
  - Need to follow through on how Standards make a difference to users

Next steps

- More evidence, particularly case studies and sectoral studies
- Respond to challenges: Submission to National Innovation Review
- Statistical recognition
- Monitor and replicate overseas studies
- Keep making the case: 'nobody owes us a living'

Following up

- Consultancy report and related material: http://www.standards.org.au/downloads/11-04-2007-Standards_and_Innovation.pdf
- Submission to National Innovation Review: http://www.innovation.gov.au/innovationreview/Documents/427-Standards_Australia.pdf
- Case studies: http://www.standards.org.au/casestudies.asp
- Contact:
  - Dr David Stephens
    Government & Stakeholder Relations Consultant to Standards Australia
    clamshred@ozemail.com.au

Asia-Pacific Economic Cooperation

2008/SOM3/SCSC/CONF/015

The Economic Value of Standardization in Canada

Submitted by: Canada
Stephen Head, Senior Policy Analyst
Standards Council of Canada
shead@scc.ca

Original presentation by Paul Darby,
The Conference Board of Canada and
Begonia Lojk, Standards Council of Canada

7th Conference on Standards and Conformance
Sub-Committee on Standards & Conformance
Cusco, Peru
10-11 August 2008

Background

SCC has undertaken a number of initiatives over the last few years exploring the value of standards:

- Task Force on Innovative Funding Solutions (circa 2002-04)
- Future Vision Task Force (followed on from TFUNS)
- Development of a Value Proposition
- Quantification of impact of standards (CBOC Study, 2006-2007): literature review, case studies and economic analysis

The Study

In 2006, the Standards Council of Canada asked The Conference Board of Canada to examine the economic benefits of standardization for Canada:

- What has the economics literature said?
- What are Canadians saying?
- What does the Canadian data say?

Key Findings

- Interviews and Case Studies

Key stakeholders provided compelling examples of the benefits of standardization

- Economic Impact of Standards in Canada

Standards have had a significant, positive impact on Canadian economic growth

Qualitative Analysis

- Purpose was to support empirical evidence with qualitative information
- 15 interviews with industry leaders
- 2 case studies
- Provided a Canadian perspective

Interviews Showed Significant Benefits From Standards

- Facilitating trade
- Encouraging innovation, R&D and continuous improvement
- Establishing credibility and quality
- Setting a level playing field
- Improving productivity and reducing costs
- Ensuring reduced health and safety risks

Benefits of Participation in the Standards Development Process

- Enhances professional interaction.
- Enables firms to influence standards.
- Ensures that unwanted constraints do not appear in standards.
- Creates demand for superior products.

Case Studies

- SaskPower
  ISO 14001 Implementation
- Infasco
  ISO 9001 Implementation

SaskPower-ISO 14001 Summary of Benefits (1)

- Increased confidence that environmental risks are being managed.
- Improved understanding and compliance with legal requirements.
- Enhanced confidence of senior executives in the Environmental Management System.
- More effective deployment of staff resources 0.

SaskPower-ISO 14001 Summary of Benefits (2)

- Better trained and environmentally sensitive staff.
- Improved monitoring and reporting; Reduced regulatory burden.
- Greater focus and attention to priority areas through objective setting and progress monitoring.
- Increased credibility with regulators and customers.

Infasco – ISO 9001 - Summary of Benefits

- Financial viability – ability to ship to U.S. customers
- Increased credibility with customers
- Better inventory control
- Higher quality products through the use of performance metrics
- Improved handling of customer complaints
- More highly trained staff

Standards, Economic Growth and Productivity: International Results

Jungmittag et. al. (1999) study of the German experience over 1961-1996 found:

- Increases in the quantity of standards are associated with increases in economic output

Department of Trade and Industry (2005) study of the British experience over 1948-2002 found:

- Increases in the quantity of standards are associated with increases in labour productivity

Economic Impact of Standards – The Canadian Results

Highlights of Findings

Over the 1981-2004 period:

- Standards had a **positive and significant impact** on labour productivity and economic growth in Canada.
- On average, the existence of standards added 0.25 of a percentage point to output growth in Canada each year or 62 B CAD in terms of real GDP during the study period.

Studying the Impact of Standards in Canada

- Follow established methodology set out by German and British studies.
- Examine the long-run relationship between the quantity of standards and labour productivity
- Quantify the contribution of standards to economic growth.

Modelling Labour Productivity

Labour Productivity depends upon:

Capital input | Labour input

Combining capital and labour in a “SMART” way

Technology | Efficiency

The Statistical Model

Labour productivity is modeled as a function of:

- Capital-labour ratio
- Quantity of standar
- Time trend

$$\ln(Q_t/L_t) = \beta + \alpha \ln(K_t/L_t) + \lambda T_t + \varepsilon \ln(STA_t)$$

Labour Productivity = Contribution of Multifactor Productivity + Contribution of Capital Deepening

Canadian Results

- The positive impact of standards on labour productivity was significant and robust.
- 10% increase in the quantity of standards is associated with a 3.56% increase in labour productivity and economic output

Canadian Results in Context

Over the study period - 1981-2004 period, the growth in standards accounted for:

- 17% of the growth rate in labour productivity (9% growth rate of real output, GDP)
- In 2004, the economic output (real GDP) would have been $62 B lower if there had been no growth in standards during the 1981-2004 study period

Standards Matter

The empirical results presented here confirm that the findings in the British and German studies also apply to Canada

Standards are an important source of economic growth

Standards matter

More information

www.scc.ca

www.conferenceboard.ca

Asia-Pacific Economic Cooperation

2008/SOM3/SCSC/CONF/016

Economic and Social Effects of Standardization

Submitted by: Japan
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7th Conference on Standards and Conformance
Sub-Committee on Standards & Conformance
Cusco, Peru
10-11 August 2008

Standardization as a tool

- Function for business activity
  - sets up suitable quality level of products
  - offers useful product information
  - expands technology
  - improves manufacturing efficiency
  - maintains competitive environment
  - give compatibility
- Function for achieving social objectives
- Function for promoting mutual understanding
- Function for promoting trade

International, Regional, and National Standards

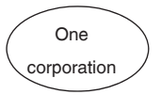
Variations of standardization

CLOSE — Consensus level — OPEN

De facto standard

Strong market winner without systematic agreement

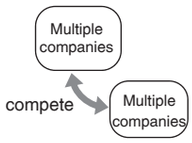
Ex. Dolby system, VHS, Windows etc



Consortium standard

Participation is closed.

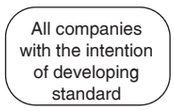
Ex. Flash memory, next-generation optical disks (Blue-ray vs. HD-DVD,) etc.



Forum standard

Participation is disclosed.

Ex. DVD - ECMA, Biometrics - INCITS M1, MPEG, etc.



De jure standard

Public standard by each standard organization.
Participation is open. ISO, IEC, ITU-T
National - JIS〔Japan〕, ANSI〔U.S.〕, BS〔UK〕, DIN〔Germany〕, EN〔EU〕・・・

Introduction - WTO/TBT

Provisions of TBT Agreement to be observed:

- not discriminate against imported products
- ensuring that the least trade-restrictive regulations is designed
- **use international standards** or relevant parts of them **as a basis for their technical regulations, standards** and conformity assessment procedures.
- the process of adopting technical regulations should be transparent

Art 2.4 states

Where technical regulations are required and relevant international standards exist or their completion is imminent, Members shall use them, or the relevant parts would be an ineffective or inappropriate means for the fulfillment of the legitimate objectives pursued, for instance because of fundamental climatic or geographical factors or fundamental technological problems.

Impacts of International Standards

Establishment of international standards

An important tool for gaining global market

WTO/TBT Agreement

WTO Members are obliged to use "International Standards and Guides" as a basis for their technical regulations, standards and conformity assessment systems.

Why International Standards are Important?

If a product of a company becomes an International standard,

→ The company will reach world market and may have a huge business chance.

If NOT,

→ The company may lose the industrial competitiveness, then lose the market.

Example of washing machine

- Safety lid for spin-drier was rejected at IEC (1993)

→ Japanese products were locked out from Southeast Asian market

Importance of international standardization activities

- Even if disadvantageous for our company, once it is developed as an international standard, the domestic standard should align with it.
- If an international standard can be developed that has merit for our companies, it is expected that standards of foreign countries will change to align with it.
- It is important in terms of global strategy not only to watch the arguments, but to lead standardization activities.

So many companies

Understood the importance

May be

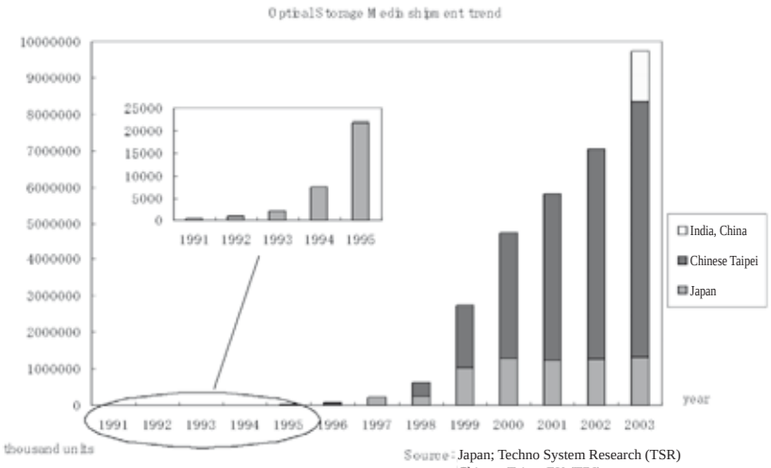
But still think

"Standardization activity is voluntary"

"Standardization is not a part of business strategy"

?

Optical storage media shipment share

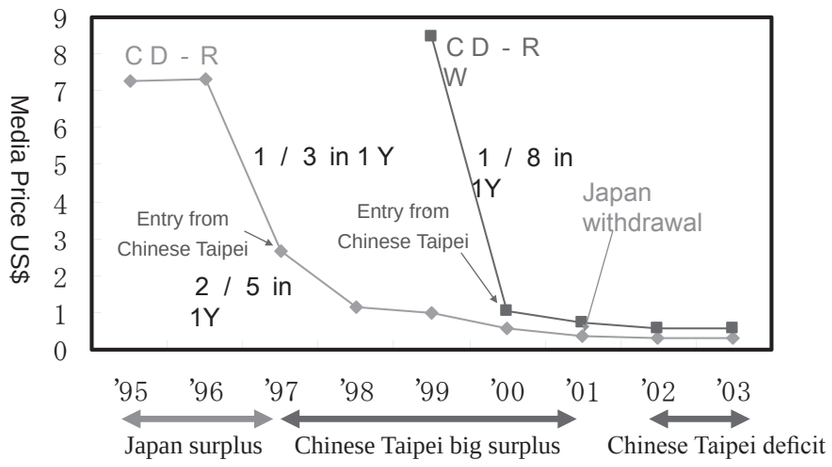


Source: Japan; Techno System Research (TSR)
Chinese Taipe; EK (TRI)
Other Areas; Techno System Research

By technical diffusion

market was governed by a NON-contributing organization

CD-R/CD-RW media price change

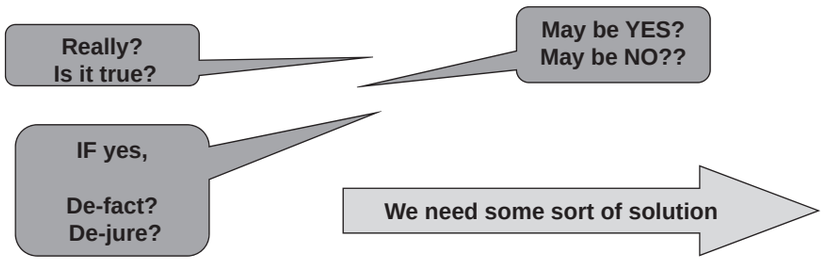


Only consumers enjoy benefit. All makers lose.

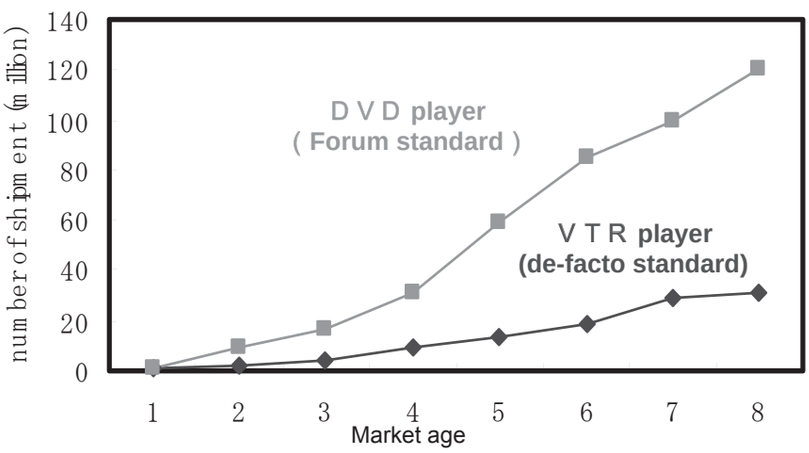
Reason

Many companies have concerns about “open” standardization

(1) leakage of technology in process
(2) non-contributing companies enjoy benefits/ profits
(3) forces abandonment of IPR.(Intellectual Property Rights)
(4) hard to differentiate our product after standardization
(5) barrier to entry become low and tough competition start



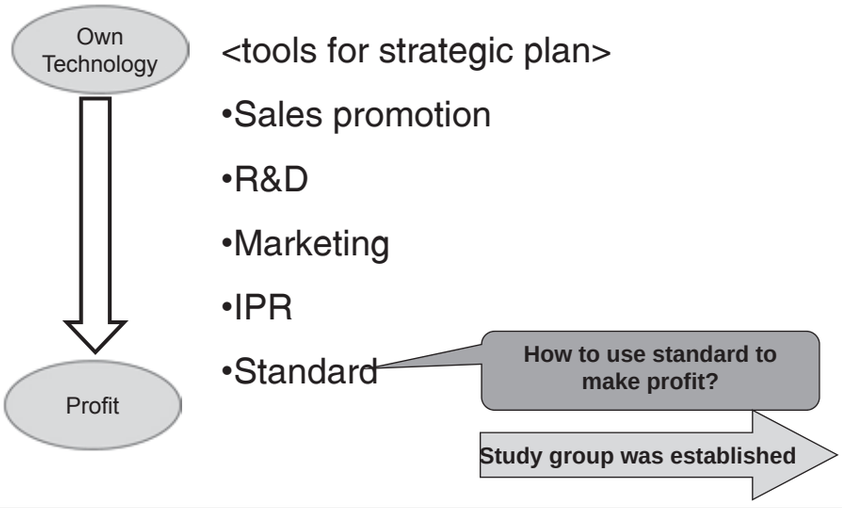
Speed of market development changes with the existence of standardization



With a standard, explosive development of the market is possible

Company's point of view

How to earn profit?



Study group on the economic and social effects of standardization

•Mission: analysis of the value of standardization

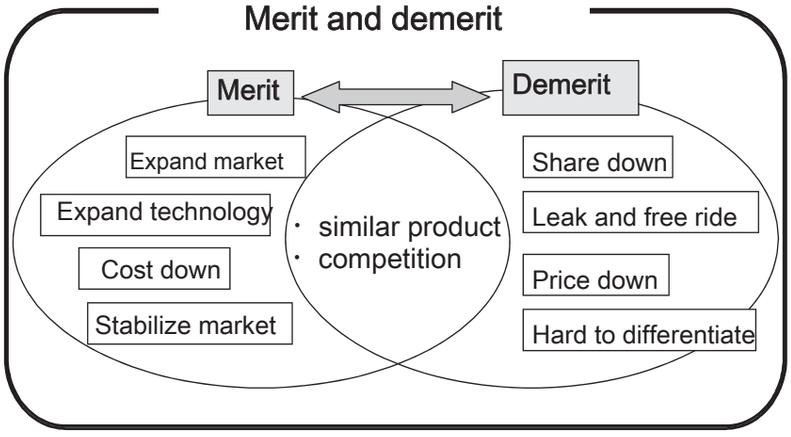
•Started activity from September 2003 (supported by METI)

•Member: Consists of researchers from industrial organizations, environmental economics, and competitive strategy theory, company people

•How: Examination from the viewpoints of micro-economics, macroeconomics, and business strategy at first. Then shifted to case studies via corporate interviews

•Case study themes: DVD-associated equipment, Electronic component, Raw material, QR code (two dimensional bar code), Automobile industry, and Flash memory

Output from the group



Output from the group
Business competition strategy examples

- Cheaply develop products suitable for standard
  - Expand market share by low price
- Standardize the inspection and evaluation method is profitable for our product.
  - Expand market share by added value
- Standardize interface and disclose the core technology
  - Expand market share by disclosure
- Put the patent around and/or inside of standard
  - Gain royalty by spread of standard
  - Gain profit by surrounding equipment sales

Asia-Pacific Economic Cooperation

2008/SOM3/SCSC/CONF/017

The Value of Standards and Standards Education

Purpose: Information
Submitted by: USA

Erin Grossi
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7th Conference on Standards and Conformance
Sub-Committee on Standards & Conformance
Cusco, Perú
10-11 August 2008

Agenda

1. UL Overview
2. Importance & Economic Value of Standards
3. Standards as Problem-Solving Tools (Case Studies)
4. Value of Consensus Standards (for All Stakeholders)
5. Standards & Innovation
6. Standards Education
7. Discussion & Questions

Underwriters Laboratories Inc. Overview

UL is…	UL is not…
• A company founded in 1894	• A government agency
• A Not-for-Profit product safety testing and certification organization	• A trade association
• A standards development organization	• Professional society
• Working for a safer world	• Publicly held company
• Committed to educating a variety of stakeholders worldwide on standards and conformity assessment issues	
• 6,800 employees working in 99 countries	

the standard in safety

The Importance and Economic Value of Standards

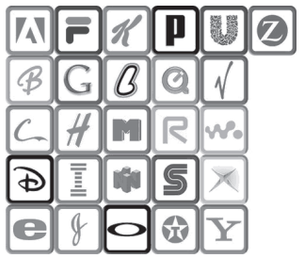
The Importance and Economic Value of Standards
Importance of Standards

- Guide manufacturing
- Promote mutual understanding and expectations for products
- Facilitate safety/quality
- Allow for compatible pieces/parts
- Facilitate trade
- Allow for innovation
- Protect the environment
- Facilitate approvals/conformity assessment

⚠ CAUTION ⚠

Economic Value of Standards

- Allow for economies of scale
- Reduce information asymmetry with respect to products
- Reduce transaction costs
- Free riders and bandwagons
- Prevention of loss (brand integrity/property/life)



Standards as Problem-Solving Tools
Case Study #1 – Electrical Safety

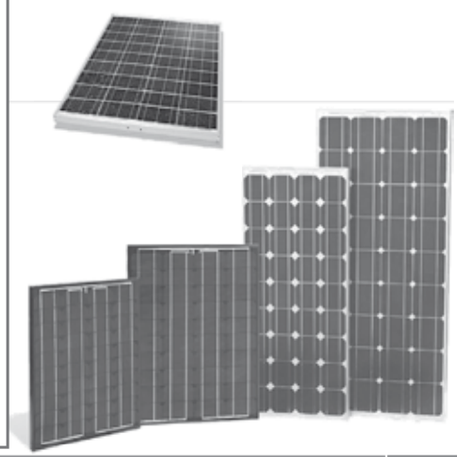
- UL has a long history of engaging in analysis for the benefit of public safety and critical analysis of product safety issues formed the basis of our company's founding in 1894
- 1893 World's Fair and US Cities were experiencing a rash of fires, caused by electricity
- William Henry Merrill was hired by the Chicago Board of Fire Underwriters to analyze problem and identify solutions
- Merrill set up a one-room laboratory with the mission to increase fire prevention by testing new electrical devices that caused fires and investigate everything that affected the spread of fires

"Palace of Electricity" at the 1893 World's Fair in Chicago

- In 1898, Merrill and his team published the first list of approved fittings and electrical devices, "Know by test and state the facts"
- 113 years later, UL still holds these values, which guide our public safety mission

Case Study #2 – Photovoltaic Modules

- UL 1703 covers safety requirements for PV modules and panels for use in systems w/ voltage 1000 V or less and components providing electrical connection to and mounting facilities for PV modules and panels.
- The UL standard focuses on construction and materials from a safety science perspective to avoid safety hazards.
- IEC 61215 and 61646 cover performance and testing of PV modules including environmental conditioning to address longevity and quality.
- UL is currently working to integrate safety elements into the IEC PV standards and to harmonize the performance elements of the IEC standards with UL standards; this will result in a harmonized, international UL/IEC 61730 standard covering safety and performance.



Case Study #3 – Appliances

- UL 858 covers safety of cooking equipment including ranges, ovens, and surface assemblies, including integral ventilating hoods.
- CPSC sent a formal request for UL to review UL 858 in 2007, citing 107 incidents of range tipovers between 1980 and 2006 [33 fatalities].
- In September 2007, UL created a "Range Stability Task Group" to study information available relative to range stability, and develop new or revised requirements as appropriate.
- The task group will:
  - Review current stability test method to determine if changes are needed
  - Review all IDI reports
  - Perhaps introduce new labeling
  - Develop improved instructions for stability bracket installation, and verification of correct bracket installation.

Consensus Process for Standards Development
A Variety of Stakeholders

Academics

SDOs & CABs

Regulators

Authorities Having Jurisdiction

Manufacturers

Insurance Providers

Consumers

Installers

Value of Participating in Standards Development

- **Influence requirements for design of products**
- **Protect your customers/ your brand reputation/ credibility**
- **Protect your company from liability**
- **Educate yourself to avoid costly recalls or be able to rectify situation faster if a recall does happen.**
- **Level the playing field for competitors**
- **Ensure the innovation/flexibility you need to design new products over time**
- **Ease the process of conformity assessment (time-to-market)**
- **Drive to one standard accepted everywhere (I can build it where I want, sell it where I want, etc. w/o jumping through a million hoops)**

Never has it been more important that corporate leadership pays attention as standards have become critical to a business' ability to compete and survive.

- Rockwell Automation

Need for Broad-based Participation

- **Standards impacted by array of stakeholders**
- **Task groups often formed to research new areas of information that could impact the standard (e.g. fire alarm standards improved so people with disabilities can pull them; paper shredder standards improved to not shred kids' fingers)**
- **Cert. organizations and manufacturers building and developing new products need new interpretations and revisions to old standards in order to keep innovating.**

the standard in safety

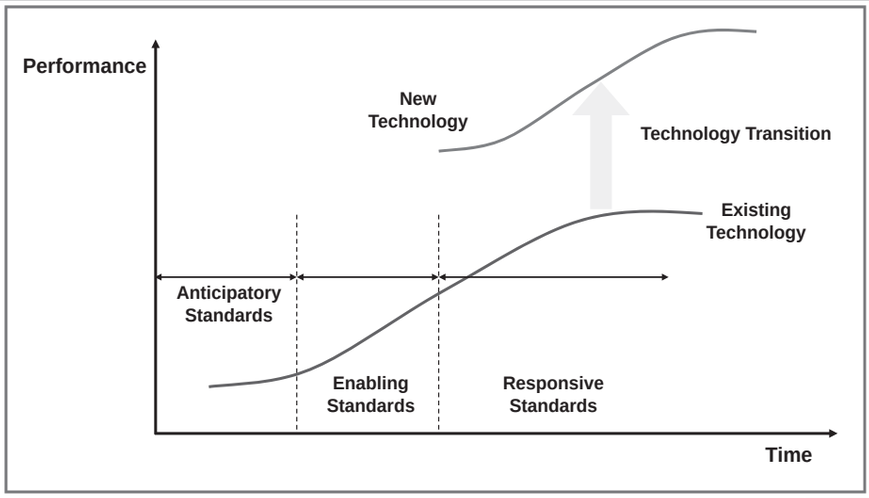
Standards and Innovation Essential for Innovation

- Standards form an essential part of the institutional infrastructure crucial for innovation in the development process
- There is a strong correlation between the number of standards and indicators of innovation
- Standards support incremental innovation
- Standardization tends to keep pace with the rate of technological maturity (Emergence, Improvement, Maturity, Substitution, Obsolescence)

We build standards into our products and systems so that we can help our customers ensure their products perform, get to market, and that they can compete globally.

- Rockwell Automation

Technology Maturity & Standardization Timing



Need for Standards Education
Multiple Education Outlets

- Early childhood (e.g. Disney)
- Professional (e.g. UL University)
- Consumer (e.g. retail education/ warnings/ media outreach aimed at consumers around dangerous products like portable generators or cook-top safety)
- Regulator (government affairs education on potential trade barriers, separating necessary standard derivations from an unnecessary barriers to trade, needs for risk-based regulation, etc.)

UL™ UNIVERSITY

Disney

Overview

UL™ UNIVERSITY

- Established in 2002
- Global Presence
- Training and development business division of UL
- Responsible for internal staff development, external customer training and enhancement of UL's public safety mission
- ISO 9001 registered
- Offering accredited content and continuing education units for engineers, electricians, architects, AHJ's and other licensed professionals.
- Professional instructors qualified through the Train-the-Trainer development program.

Delivering Training in the Most Convenient Ways

- Public workshops
- Private workshops
- Customized workshops
- Round Tables
- Online
  - Self-paced online courses
  - Live webinars
  - Pre-recorded webcasts

Vision for APEC and Standards Education

- Venue to share information about standards and standards education needs and capabilities.
- Network to tap for assistance with standards and conformance information and development of standards education infrastructure.
- Group of experts capable of setting priorities for standards education and outreach.
- Community of practice sharing experiences and and training each other to continually improve the development and delivery of standards education for a variety of stakeholders.

Asia-Pacific Economic Cooperation

2008/SOM3/SCSC/CONF/018

Introducing standardization as an input for innovation in high level education in Peru

Submitted by: Peru
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National Council of Science, Technology and Technological Innovation

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7th Conference on Standards and Conformance
Sub-Committee on Standards & Conformance
Cusco, Perú
10-11 August 2008

National System for Research and Innovation in Peru

National Council for Science,Technology and Technological Innovation
CONCYTEC

- Regions
- INDECOPI
- Enterprises
- Researchers
- Research Institutes
- Universities
- Funding

Prioritary Areas
National Plan on Science and Technology 2008-12

Productive Area

1. Information and Knowledge Industries
2. Agriculture, Agroindustry and Agro-Exportation
3. Acuiculture and Fishing
4. Textile and Confections
5. Forestry Industry
6. Mining, Metalurgy and Mechanics

Social Area

1. Education
2. Health and Nutrition
3. Security and National Defense

Enviromental Area

1. Enviroment Quality (Water, Air, Land)
2. Hydraulic Resources
3. Energy
4. Climate Change on Natural Disasters

Knowledge Transversal Areas

1. Biotecnology
2. Cognitive Sciences
3. Comunication and Information Techonology
4. Nanotecnology and New materials
5. Basic Sciencies

Regions

Vs.

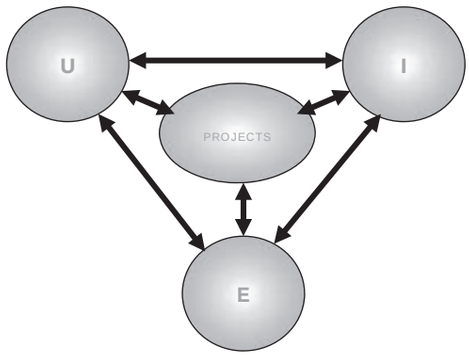
Plan National on CTel

2008-12

1. Peruvian Educational System
Public Education in Perú

- 45,00 schools
- 7 million students
- 300,000 school teachers
- Low level in key areas: Reading, mathematics
- 78 universities: 28 publics
  41 privates

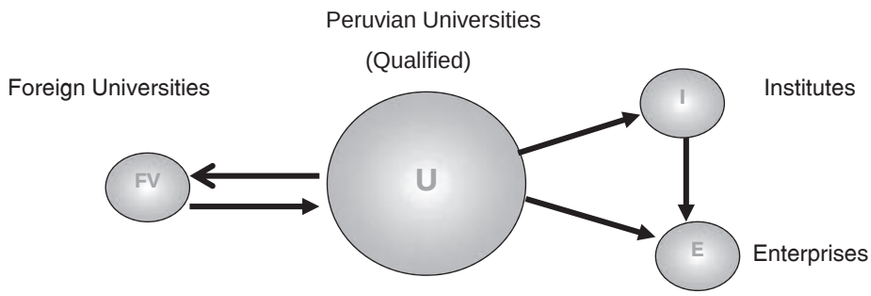
System Science, Technology and Innovation



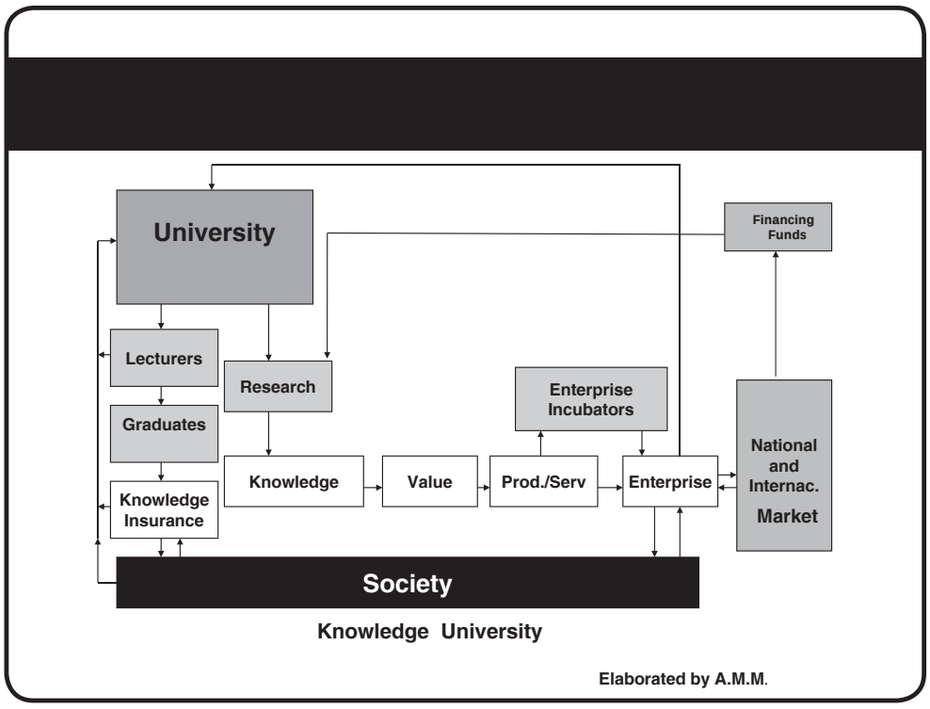
Pilot Regions : **Arequipa**
Ayacucho
Cajamarca
Loreto

Up to Date : **15 REGIONES**

Reinforcement of Regional Graduate Studies

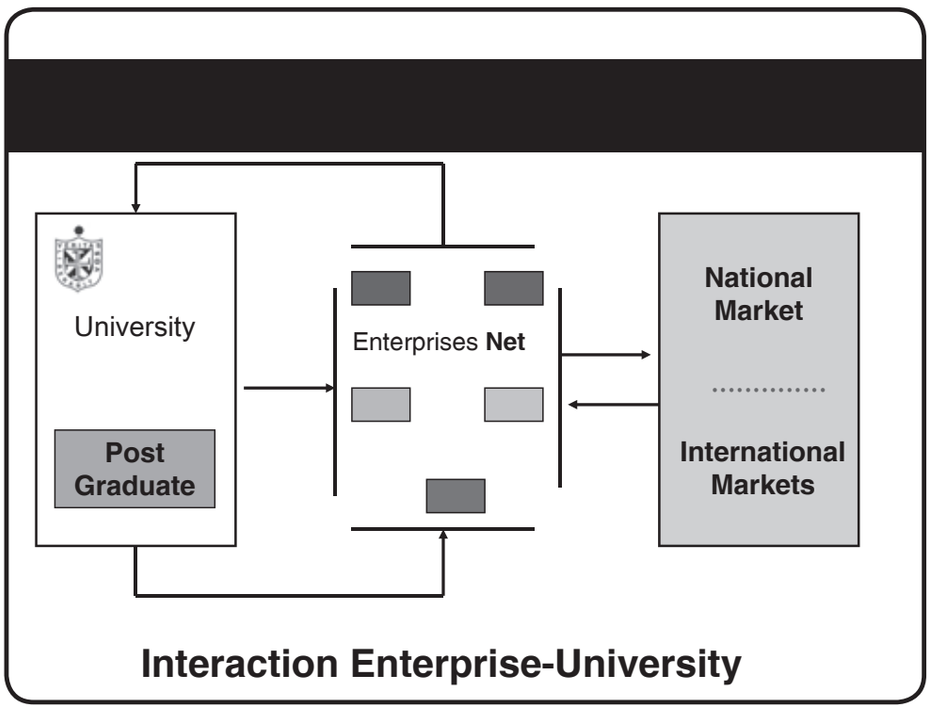


- E learning
- Project Assesment
- Visiting Lecturers
- Visiting Students
- CONCYTEC Chair



Knowledge University

Elaborated by A.M.M.



Interaction Enterprise-University

CONCYTEC Chair

Objective:

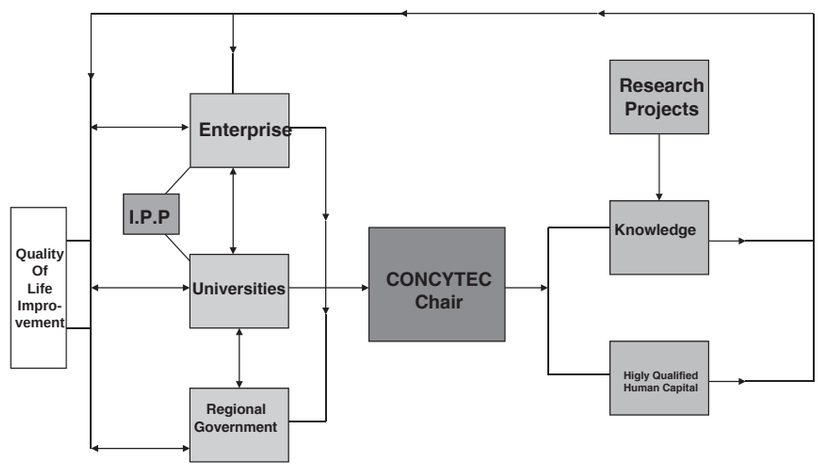
- Master and Ph. D. Programs on demand of enterprises and regional government

Motivation:

- Avoid students desertion on scholarships to foreing universities
- Promotion of links between enterprises - universities
- Generate a critical mass of scientists

Advantages:

- Replicate excelence centers of developed countries
- Research projects under the national plan of science and technology
- Enterprise and regional research project
- Improvement of life quality in the regions
- Foreing university supervision
- Promotion of technological enterprises



CONCYTEC Chair Impact

CONCYTEC Chairs 2008

AQUACULTURE: **UNAP** (M: Acuicultura)

ENVIROMENT: **UN Cajamarca**

MATERIALS: **UNT** (**D: Material of science**)

MICROBIOLOGY **UNSCH**

MATHMATICS a Ph. D level by national contest
CHEMISTRY a Ph. D level OR Mg. Sc by national contest
BIOLOGY (Biotechnology mention) a Ph. D level by national contest

2. Towards an Educational Program on Standardization in Perú

Design of the National Educational Program on Standardization:

– Policies and normativity
– Education
– Users implementation

Objective and Goals

Objective:

- Increase competitiveness and innovation.

Goals:

- Enhance awareness on national and international standards by means of an educational program on standardization.
- Standards application by enterprises and society.

Policies and Normativity

- INDECOPI
- National Science, Technology and Technological Innovation Counsil.
- Regional Autorities: Regional Science and Technology Counsils.
- Ministeries of Production, Agriculture, etc.

Education

- Primary, secondary and superior educational levels
- Technical institutes
- Universities
- Sectorial (R+D+I) Research Institutes
- National (R+D+I) Research Centers (Project)
- National (R+D+I) Research Centers (Project)
- Private (R+D+I) Research Institutes (Project)

Standards Application by Enterprises and Society

- Profesional Associations: Colegio de Ingenieros del Perú
- Industrial Society
- Small and Medium Size Enterprises
- Industrial Unions

Implementation of Objectives

- Preparation of:
  - Teachers
  - Teaching and diffusion materials
  - Pilot projects on Education and diffusion
  - General National, Sectorial and Regional Implementation of Standardization Practices

Learning Objectives: Corporate Level

- Improve product development / design
- Create efficient manufacturing
- Increase effectiveness of marketing, sales and distribution processes
- Be proactive in regulatory environment

Enhance the ability to apply the strategic value of standardization

Stakeholders Cooperation

Private sector:

- Industries
- NGOs
- Universities and schools
- International organizations

Government:

- National Institute for the Defense of Competition and the
- protection of Intellectual Property – INDECOPI
- National Council of Science, Technology and Technological Innovation- CONCYTEC
- Ministery of Education
- Universities
- Research Institutes
- Public and Private Schools

Conclusions

- Peru will design a National Program for Education on Standardization.
- The goal of the program will be to increase competitiveness and innovation in the country.
- The program will involve education on standardization at all levels, with emphasis on professional education for standards application.
- We are open to cooperation for the program implementation.

Asia-Pacific Economic Cooperation

2008/SOM3/SCSC/CONF/020

Standards Education

Purpose: Information
Submitted by: ICES

John L. Hill
Vice Chair

john.hill.1911@gmail.com

7th Conference on Standards and Conformance
Sub-Committee on Standards & Conformance
Cusco, Peru
10-11 August 2008

Overview

- ICES' History
- ICES Activities
- Suggested Action

Speaker: John L Hill Date: August 10, 2008 Overhead sheet 2

Field of Activity

- ICES is:
  - The International Cooperation on Education about Standardization (ICES) is a network of individuals and organizations interested in education about standardization. ICES focuses exclusively on this area.
- ICES Mission is:
  - The mission of ICES is to promote education about standardization and improve its quality and attractiveness for all stakeholders.

Speaker: John L Hill Date: August 10, 2008 Overhead sheet 3

ICES' History

- Meetings:
  - 2006-02 Tokyo:
    - People 17
    - Countries 6: Japan, Netherlands, China, USA, Republic of Korea, Singapore
  - 2007-02 Delft:
    - People 38
    - Countries 12: Japan, Netherlands, China, USA, RoK, Belgium, France, Germany, China, Greece, Sri Lanka, Switzerland
  - 2008-02 Gaithersburg:
    - People: 78
    - Countries: 19

Speaker: John L Hill Date: August 10, 2008 Overhead sheet 4

Tokyo 2006

- Our Goal:
  - Determine whether together sufficient interest exists, worldwide, to address education about standardization
- **We Agreed:**
  - **Education in standardization globally is a subject worth pursuing.**
  - Conduct annual meetings
  - Work together to share our knowledge and experiences.
  - Promote education about standardization

Speaker: John L Hill Date: August 10, 2008 Overhead sheet 5

Tokyo Meeting Participants

Speaker: John L Hill Date: August 10, 2008 Overhead sheet 6

Delft 2007

- Our Goals:
  - Support the development of education about standardization, worldwide by:
    - Support ICES participants activities
    - Facilitate collaboration by exchange of ideas and materials
- We Addressed:
  - Needs for education about standardization
    - Awareness
    - Learning objectives
    - Development of content
    - Availability of materials
  - Identified a team to propose an ICES Strategy (for endorsement during this meeting)

Speaker: John L Hill Date: August 10, 2008 Overhead sheet 7

Delft Meeting

Speaker: John L Hill Date: August 10, 2008 Overhead sheet 8

Gaithersburg 2008

- Our Goal:
  - Take steps toward achieving our mission:
    ... to promote education about standardization and improve its quality and attractiveness for all stakeholders.
- We Will Address:
  - Obtain global perspectives
    - Asia
    - Europe
    - Latin America
    - North America
  - Endorse ICES' Strategic Plan
  - Implement liaison activity

Speaker: John L Hill Date: August 10, 2008 Overhead sheet 9

Gaithersburg Meeting

Speaker: John L Hill Date: August 10, 2008 Overhead sheet 10

ICES' Activities

- Develop and maintain an interdisciplinary network of interested people
- Facilitate the development of policies and infrastructures for support (e.g., nations, regions, worldwide, industries, companies)
- Seek cooperative relationships with organizations that provide training and education in this area

(more)

Speaker: John L Hill Date: August 10, 2008 Overhead sheet 11

ICES' Activities

- Professionalize education about standardization, for example:
  - Tighten the link between up-to-date standardization research and education
  - Facilitate a repository for curricula
  - Facilitate a repository for educational materials
  - Facilitate peer review of educational materials
  - Stimulate the development of guidelines, innovative approaches, and educational materials
  - Organize workshops

Speaker: John L Hill Date: August 10, 2008 Overhead sheet 12

Suggested Actions

- Textbook on standardization
- Networking with other organizations

Speaker: John L Hill Date: August 10, 2008 Overhead sheet 13

Textbook on Standardization

- The Theory and Practice of Standardization
  - Phases (requirements definition, specification development, verification, evolution)
  - Phase relationships
  - Cases
- Development
  - Fund a project with participants from ICES, EURAS, and the many successful national programs
  - Provide dynamic leadership
- Considerations
  - Usable worldwide, without restrictions
  - Multi-cultural
  - Multi-settings (industrial)

Speaker: John L Hill Date: August 10, 2008 Overhead sheet 14

Networking with Other Organizations

- Take benefit from those who have come before.
- Research bodies focusing on standardization
  - European Academy of Standardization
  - Standards and Innovation in Information Technology
  - University research programs
- Standardization organizations and consortia with existing programs
  - Worldwide: ISO, IEC, ITU
  - National: Korea, China, UK, USA, etc.

Speaker: John L Hill Date: August 10, 2008 Overhead sheet 15

Asia-Pacific Economic Cooperation

2008/SOM3/SCSC/CONF/021

European Academy for Standardization

Purpose: Information
Submitted by: EURAS

Françoise Bousquet
Vice President of EURAS

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7th Conference on Standards and Conformance
Sub-Committee on Standards & Conformance
Cusco, Peru
10-11 August 2008

History

European Academy for Standardization e.V.,

- **Founded in Hamburg** in 1993 by researchers from various academic fields
- **Prompted** by a common desire to promote and achieve progress in the academic treatment of standardization, involving the widest possible range of disciplines.

What is EURAS?

- Registered non-profit society
- Board & Members: academia, industry, standards bodies
- Multi-disciplinary
- All areas of standardization
- Voluntary initiative

Objectives

Promote

- research on standardization
- education on standardization
- European cooperation
  - While EURAS emphasizes the need for European co-operation, it is internationally oriented and welcomes the participation from and collaboration with colleagues from other regions.

Liaisons

EURAS' objective is **to promote research and education in the field of standardization** and as such supports the development and professionalization of standards research and education.

- Liaison with ICES (Int. Cooperation for Education about Standardization)
- Liaison with CEN/STAR (Standardization and Research)

Networking

EURAS

- offers a platform for information exchange, collaboration and dissemination.
- is a network of experts
- runs several thematic working groups:
- supports projects on education (e.g. Asia-Link) and research (e.g. NO-REST)

EURAS Activities

- Annual and irregular EURAS Workshops
- EURAS Working Groups
  - Education (liaison with ICES)
  - Conflict resolution
  - History of standards
  - Industry requirements
- Participation in European projects
- EURAS Workshop Proceedings
- EURAS Yearbook of Standardization
- Website www.euras.org
- Mailing Lists

EURAS and the EC

EURAS

- Has established a permanent dialogue with the European Commission.
- Participates to the European R&D programmes
- Is the main interface between the European Commission and the research community for standardization-related issues
- Provides a common and sharable basis of knowledge about standardization in Europe

Euras and Education (1)

EURAS

- cooperates with ICES,
- identifies industry requirements for education and training about standardization and therefore:
- provides input to educational initiatives and on-the-job-training organizations

EURAS and Education (2)

EURAS performs research about standardization and research about standardization education

- Euras therefore helps, and develops methodologies, for efficient education and on-the-job-training about standardization.
- Euras can help in providing tools (play roles, simulation, statistics, competitive intelligence methodology…) for the acquisition of knowledge about standardization.

Recommendations to APEC 1

Recommendations

- Organize a focal point for research and educational activities in the field of standardardization (a society such as EURAS may be a good idea).
- Make sure that all relevant disciplines are represented.
- Be as open as possible.
- Involve standards bodies and industry from the outset.

Recommendations to APEC 2

- Think about the best institutional frame (e.g., to enable hiring of temporary staff).
- Adequate (seed) funding is crucially important
  - for permanent staffing (at least one full position, to acquire/run projects, do promotional work, networking, etc),
  - for a permanent 'home'.
- Liaise with sister organizations.

- Thanks to that organization, share between member bodies the basis of knowledge, litterature, research projects and results, training tools about standardization…
- Make sure that SSOs and SDOs are part of the organization and involved as much as possible
- It would be good that National Education systems also participate to the pedagogic research

Asia-Pacific
Economic Cooperation

Summary Recommendations to APEC: Textbook Development and Networking for Education about Standards and Conformance

APEC SCSC Education Project Contact:
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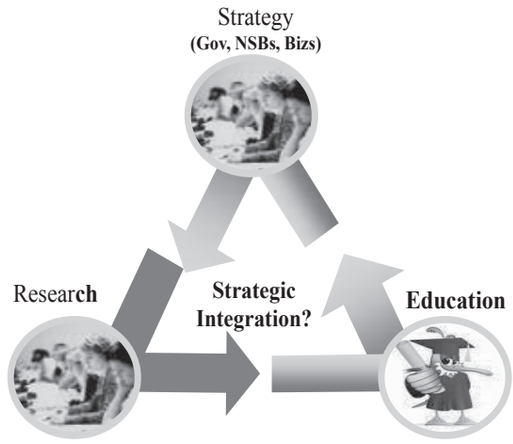
7th Conference on Standards and Conformance
Sub-Committee on Standards & Conformance
Cusco, Peru
10-11 August 2008

Issue Raising of Education Session - How to integrate Research into Policy/Education?- (D. Choi)



Textbook Development - Contents

It is recommended that APEC SCSC develop:

- Textbook focusing on theory and case studies: fundamentals, economic impacts of standardization
- Textbook providing linkage between standards and conformance with competitive strategy/innovation

Textbook Development - Considerations

It is recommended that APEC SCSC Consider:

- Online Availability, e-book
- Identification and utilization of existing contents
- Openness for everyone (for free, creative common licence)
- Multi-cultural/industry, Both Global/local cases
- Target Group based textbook development

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- Target Group based textbook development

Networking – Internal (APEC)

- Build a APEC-wide network for standards education and research
  - Among Academic/professional experts
  - Among Faculty/teachers/educator

Networking - External

It is recommended that APEC SCSC

- To liase with Research Society focusing on or related to Standards and Conformance
  - EURAS, SES, SIIT, ICES(education)
  - Related to Management of Business, Technology, Innovation; Public Policy, Law/Regulation/Trade
  - Universities and Schools, Educational Instutiions, Research Instutions
- To liase with Standards related Organizations
  - ISO, IEC, ITU, IFAN
  - SRBs, NSBs, SDOs

Session III:

Trade facilitation

Overview Session III: Trade facilitation

Session 3, on Trade Facilitation, continued the discussion of the trade and technical aspects of product related environmental technical regulations, standards and conformity assessment procedures. Reflective of the trade impact in the APEC region of these regulations, the information exchange focused exclusively on the various directives of the European Commission (EC), including those related to life-cycle product design (EuP); restrictions on hazardous substances (RoHS); registration, evaluation, authorization and restriction of chemicals and products containing chemicals (REACH); and the registration, take back, recycling and disposal requirements relating to electrical and electronic equipment (WEE).

Representatives of both industry and governments provided useful and informative updates on implementation of these directives, both by the EC and its 27 member states. Participants shared their perspectives on efforts by APEC member governments and industries to adapt to these regulations, including dealing with the costs of compliance and the impact on transactions throughout the supply chain, including the particular difficulties faced by small and medium-sized enterprises. This session was moderated by Ms Julia Doherty, TFTF Co Chair.

The presentations for this session were:

- Introduction to the TFTF Seminar impact of environmental regulations, standards on trade facilitation in APEC, Ms Julia Doherty, TFTF Co Chair, USA.
- EU RoHS Directive – Next Revision, Ms Beth A. Hulse, GE Healthcare, USA.
- Singapore's Initiatives to support industries for RoHS and REACH, Ms Rachel Choy, SPRING, Singapore.
- The EuP Directive and Implementing measure, Mr Takao Sato, Ricoh Company, Ltd. from Japan on behalf of Mr. Kun-Mo Lee, TFTF Co Chair, Korea
- Preparations and actions being taken in Japan for EU Environmental Regulation, REACH, Mr Takao Sato, Ricoh Company, Ltd. from Japan.
- U.S. Industries Experience with REACH, Mr Jim De Lisi, Fanwood Chemical Inc, USA.
- Thailand response to the EuP, Mr Charuek Hengrasmee, Electrical and Electronic Institute, Thailand.

This session provided an opportunity to exchange views and experiences on the impact of environmental standards, product related environmental regulations and conformity assessment procedures.

The recommendations in this session were:

- SCSC Trade Facilitation Task Force continue to discuss challenges APEC members face in the implementation of problematic EU directives such as, RoHS, REACH and EuP, and to cooperate on standardizing activities related to environmental regulation.
- Encourage the TFTF to discuss new or emerging proposed product related-environmental regulations that may have significant impact on exporters from APEC member economies.

Speakers Session III

In order of final agenda

1. Ms Julia Doherty, Co Chair, Trade Facilitation Task Force (TFTF), USA

Ms Doherty is Senior Director in the Office of World Trade Organization (WTO) and Multilateral Affairs of the United States Trade Representative (USTR). She is responsible for developing, coordinating and implementing U.S. trade policy positions on international standards, conformity assessment procedures, technical regulations and other non-tariff matters. She represents the United States on the trade issues in the WTO, the Asia-Pacific Economic Cooperation (APEC) and other international organizations.

2. Ms Beth A. Hulse, Global Regulatory Manager, GE Healthcare, Environmental Products & RoHS, USA

Ms Hulse is the GE Healthcare Global Regulatory Manager for Environmental Products in addition to the Global Manager for International Trade Control Digitization. As the Regulatory Manager, she is responsible for keeping the business abreast of new environmental regulations worldwide that impact the products and the environment, and leading the GE Healthcare RoHS program across all businesses and functions to ensure execution and compliance with the regulations.

3. Ms Rachel Choy, Manager Quality Assurance Services, SPRING, Singapore

Ms Choy is in charge of REACH assistance with SPRING's Export Technical Assistance Centre (ETAC) and provides general REACH advisory to Singapore industries. She is also involved with developing REACH guidance materials, outreach programmes and strategies to assist local industries. Ms. Choy is an Applied Science graduate from Deakin University, Australia.

4. Mr Takao Sato, General Manager, Corporate Environment Division, Ricoh Company Ltd, Japan

Mr Sato is Japan's representative of Advisory Council on Environmental Aspects (ACEA) at the International Electrotechnical Commission (IEC) and he is a Japanese expert for IEC Technical Committees of Environmentally Conscious Design, Environmental Terminology and Recycle. Also, he is an executive committee member of the "Eco-Design International Symposium in Japan".

5. Mr Jim De Lisi, President, Fanwood Chemical Inc, USA

Mr De Lisi specialization is on Sale of Organic Intermediates in North America, South America and Europe, Tariff & Trade Affairs, monitoring of Imports & Exports and REACH. Also, he has a Masters in Business Administration on Chemical Marketing. Currently, he is President of Fanwood Chemical, Inc.

6. Mr Charuek Hengrasmee, President, Electrical and Electronic Institute, Thailand

Mr Hengrasmee joined the Electrical and Electronics Institute (EEI) as Vice President in 2000, becoming President from 2003 until presently. He has been involved during the past five years in numerous international projects, workshops & policy dialogues in the areas of capacity building, standards & conformity assessment in trade, resources, sustainability development, etc. These activities were organized and supported by various international organizations such as EU-SPF, EU-ASIA Eco Pro, UNCTAD, UNESCAP, UNEP, UNU, and OECD-InWent, among others.

Asia-Pacific Economic Cooperation

2008/SOM3/SCSC/CONF/022

Introduction to the TFTF Seminar impact of Environmental Regulations, Standards on Trade Facilitation in APEC

Submitted by: Korea
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Eco-product Research Institute
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Presented by: Julia Doherty, TFTF Co Chair
julia_doherty@ustr.eop.gov

7th Conference on Standards and Conformance
Sub-Committee on Standards & Conformance
Cusco, Peru
10-11 August 2008

Purpose / Agenda

- To enhance technical cooperation and promote trade facilitation
- Exchange views and experience on the impact of environmental standards,
  product related environmental regulations and conformity assessment procedures

I. Environmental standards

IEC TC 111

- Working group (WG)
- WG 1 Material declaration for EEE
- WG 2 Environmentally conscious design (ECD) for EEE
- WG 3 Test methods for hazardous substances
- WG HWG 4 Recycling, reuse and recovery

IEC TC 111

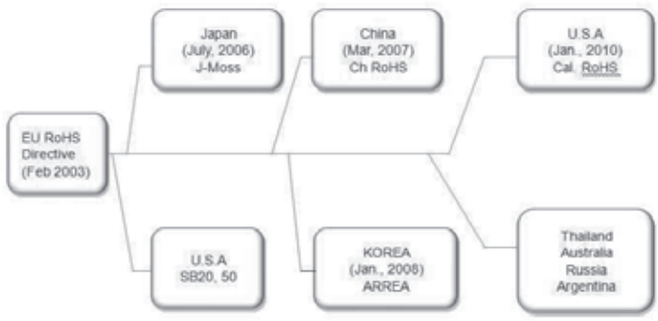
- Project team (PT)
- PT HWG 3 Sample disjointment
- PT 62476 Guidance for assessing compliance of finished goods with respect to restriction of use of hazardous substances
- PT 62542 Standardization of environmental aspects - Glossary of terms

II. Product related environmental regulations

EU regulations

- WEEE
- RoHS
- ELV
- EuP
- REACH
- etc

Expansion of RoHS like regulations



Dissemination effort by APO

The RoHS manual for SMEs

Asian Productivity Organization
August 2008

III. Conformity assessment

Conformity assessment and CE marking

1. Before placing an EuP covered by IM on the market and/or putting such an EuP into service,

– the manufacturer or its authorized representative shall ensure that

– an assessment of the EuP's conformity with all the relevant requirements of the applicable IM is carried out.

Conformity assessment and CE marking

2. The conformity assessment procedures shall be specified by the IM and shall leave to manufacturers

– the choice between

- the internal design control set out in Annex IV and
- the management system set out in Annex V

CE conformity marking

CE Marking

CE :

Conformité Européene

The CE conformity marking consists of the initials ‘CE’ as shown in Annex III. (Article 5)

Conformity assessment

- Any activity concerned with determining directly or indirectly that relevant requirements are fulfilled
- Typical examples are:

  Sampling, testing and inspection; evaluation, verification and assurance of conformity (supplier's declaration, certification); registration, accreditation and approval as well as their combinations.

Module A:

- Internal production control
- Declaration of conformity(DoC)

Module A – Internal production control

The manufacturer must:

- Establish the technical document file(TDF), enabling conformity of the product with the requirements of the directive to be assessed
- Keep the TDF for at least 10 years after last product has been manufactured
- Keep a copy of the declaration of conformity with the TDF
- Take all measures necessary in order that the manufacturing process ensures compliance of the manufactured products with the TDF

Technical documentation files

- Documentation Supporting Compliance
- Market Inspection purposes
- Competent Authority May Request
- Keep for Ten Years
- Documentation (TDF)

Technical Documentation Files

- Required for most manufacturers
- Must contain
  - General description of product
  - Conceptual design and manufacturing drawings and diagrams of components, and such
  - Descriptions and explanations for drawings/diagrams and operation

Technical documentation files

- List of harmonized standards applied in whole or part and description of solutions adopted to meet essential requirements of the Directive where standards referred to have not been applied
- Results of design calculations, examinations carried out, etc.
- Test reports

Penalty for not affixing CE marking

- Product Safety 339/93 -Must display Mark and be accompanied by a declaration
- May be impounded, shipped backed to manufacturer, or confiscated
- Penalties vary with Member States implementation of into national law

Summary

- After all, Product related environmental regulations are potential TBT.
- What matters most is the Trade!

Asia-Pacific Economic Cooperation

2008/SOM3/SCSC/CONF/023

EU RoHS Directive

Submitted by: GE Healthcare
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7th Conference on Standards and Conformance
Sub-Committee on Standards & Conformance
Cusco, Peru
10-11 August 2008

EU RoHS Directive - Next Revision

Agenda:

- Overview of GE and GE Healthcare
- Next revision of EU RoHS Directive:
  - Review of current exemptions
  - New hazardous substances under review
  - Spare Parts inclusion
  - Inclusion of Category 8 & 9
  - Results of EU Commission consultant studies
  - Timing for next revision
- Enforcement & non-compliance across EU member states

A global company

GE is a family of businesses aligned with our customers' needs.

Operations in over **100+** countries

300,000+ employees worldwide

Manufacturing facilities in **40+** countries

GE Capital
- Commercial Finance
- GE Money

GE Energy Infrastructure
- Energy
- Oil & Gas
- Water

NBC Universal

GE Technology Infrastructure
- Aviation
- Transportation
- Enterprise Solutions
- Healthcare

GE Healthcare

- GE Healthcare brings the world medical science and technologies that are helping to transform healthcare. We are working with our partners in healthcare to help them predict, diagnose, inform, and treat disease earlier than ever.
- $17B business, 45,000 employees

Diagnostic Imaging • Interventional Cardiology & Surgery • Clinical Systems
Healthcare Information Technologies • Services • Life-Sciences

B. Hulse 2008 slide#3

GE Healthcare Products

Diagnostic Imaging
- Detailed images of anatomy and functions for diagnosis.
- MRI, CT Scanners, XRAY Systems

Services
- Servicing & upgrading GEHC products

Interventional Cardiology & Surgery
- Interventional imaging, surgery guidance, and orthopedic imaging products.

Life-Sciences
- Diagnostic imaging agents
- Drug discovery
- Lab equipment

Clinical Systems
- Ultrasound systems, patient monitoring, life support.

Healthcare Information Technologies
- Radiology image archive and patient information systems.

B. Hulse 2008 slide#4

EU RoHS

The Restriction of the Use of Hazardous Substances

RoHS Directive (2002/95/EC):

- EU Directive to limit hazardous substances in electrical and electronic equipment
- Focus on six substances:
  - Lead, Cadmium, Mercury, Hexavalent Chromium, Polybrominated biphenyls (PBB) and Polybrominated diphenyl ethers (PBDE)

2005/618/EC:

- Amending directive establishing maximum concentration

Lead	0.1 %
Cadmium	0.01%
Hexavalent chromium	0.1%
Brominated plastics (PBB, PBDE)	0.1%
Mercury	0.1%

B. Hulse 2008 slide#5

Products currently "in" Scope: Category 1-7 & 10

- Small and Large appliances
- IT & telecommunications equipmen
- Consumer & Lighting equipment
- Electrical & electronic tools
- Toys, leisure & sports equipment
- Automatic dispensers

Products currently "out" of Scope: Category 8 & 9

- Medical Devices
- Monitoring and Control Devices

B. Hulse 2008 slide#6

EU RoHS Directive

Next Revision

The EU RoHS Directive – 2010 Revision

Review of:

- Category 8 & 9 Inclusion
- Additional Substances
- Elimination of Exemptions
- Consideration of new Exemptions

Reviewed every 4 years by EU Commission

Review of Exemptions…every 4 years

(c) carrying out a review of each exemption in the Annex at least every four years or four years after an item is added to the list with the aim of considering deletion of materials and components of electrical and electronic equipment from the Annex if their elimination or substitution via design changes or materials and components which do not require any of the materials or substances referred to in Article 4(1) is technically or scientifically possible, provided that the negative environmental, health and/or consumer safety impacts caused by substitution do not outweigh the possible environmental, health and/or consumer safety benefits thereof.

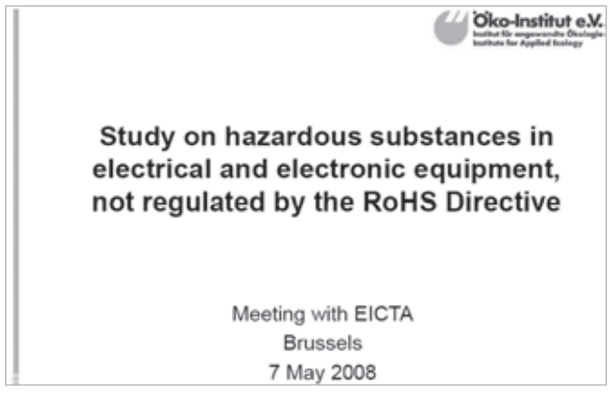
Oko-Institut hired to review existing exemptions

- Technical Stakeholder Workshops held in June
- Commission and Oko Institut communicated the following:
  - The Commission wants to have an end date for each exemption
  - Push for application specific exemptions
  - If industry cannot meet the end date, must request extension

B. Hulse 2008 slide#9

New Hazardous Substances

Study on hazardous substances in electrical and electronic equipment, not regulated by the RoHS Directive


Öko-Institut e.V.

Study on hazardous substances in electrical and electronic equipment, not regulated by the RoHS Directive

Meeting with EICTA
Brussels
7 May 2008

B. Hulse 2008 slide#10

Öko-Institut e.V.
Institut für angewandte Ökologie
Institute for Applied Ecology

Background and Objectives

- RoHS Article 4 (3): "as soon as scientific evidence is available, and in accordance with the principles on chemicals policy" **EU bodies shall decide on the prohibition of other hazardous substances and the substitution thereof by more environment-friendly alternatives** which ensure at least the same level of protection for consumers

Focus on:

Hazardous substances in EEE

Risk management

Substitutes

Identification of high priority substances

Annual usage of hazardous substances

Proposed Substances for Possible Inclusion

Öko-Institut e.V.
Institut für angewandte Ökologie
Institute for Applied Ecology

Oko-Institute hired to review additional substances

Table 8 List of candidates for potential inclusion in RoHS

ID	Substance name	CAS-No.	Hazard classification	Arguments in favour of inclusion into RoHS
1	Tetrabromo bisphenol A (TBBP-A)	79-94-7	N; R50/53[32]	- Use as additive flame retardant may result in risks for the environmental compartments water, sediment and agricultural soil - For the use as additive flame retardant in ABC sufficient halogen-free alternatives are available - Monitoring data show detections of TBBP-A in biota remote areas - Risk of formation of PBDDs and PBDFs - Epoxy resins used in PCBs cannot be recycled by remelting
2	Hexabromocyclododecane (HBCDD)	25637-99-4	Proposed classification: N; R50-53; PBT	- Substance of very high concern: PBT substance - Used as additive flame retardant in HIPS; HBCDD may leach out of polymer matrix - For the use as additive flame retardant in HIPS sufficient halogen-free alternatives available - Monitoring data show detections of HBCDD in rural and remote areas; several studies report increasing concentrations of HBCDD in biota - Risk of formation of PBDDs and PBDFs
3	Bis (2-ethylhexyl) phthalate (DEHP)[33]	117-81-7	Repr. Cat. 2; R60-61	- Substances of very high concern: reprotoxic Cat. 2 and endocrine disruptors Cat. 1 - Phthalates are not chemically bound to the plastic, but dispersed in the matrix. Thus, they may be released out of the material over time leading to emissions to the environment.
4	Butylbenzylphthalate (BBP)[34]	85-68-7	Repr. Cat.2; R61 Repr. Cat.3; R62	

46 High Priority Substances Reduced to 8

ID	Substance name	CAS-No.	Hazard classification	Arguments in favour of inclusion into RoHS
			N; R50-53	- Monitoring data indicate an ubiquitous presence of DEHP, BBP and DBP in biota and environmental compartments - Non-phthalate plasticisers and alternatives to PVC are available
5	Dibutylphthalate (DBP)[35]	84-74-2	Repr. Cat. 2; R61 Repr. Cat. 3; R62 N; R50	
6	Medium-chained chlorinated paraffins (MCCP) (Alkanes, C14-17, chloro)	85535-85-9	currently not classified according to 67/548; proposed classification: N; R50/53 Endocrine disruptor, Cat 1 (according to EDS database)	- Substances of very high concern: endocrine disruptors Cat. 1 - MCCPs are persistent, have a high potential for bioaccumulation in fish indicated by high fish bio-concentration factors and are very toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment - Proposed to be classified with the risk phrase "May cause harm to breast fed babies" - MCCP have been found in the food chain, including in fish, in cow milk and in breast milk - Monitoring data from Norway show widespread occurrence in the environment - Risk of formation of PBDDs and PBDFs
7	Short-chained chlorinated paraffins (SCCP) (Alkanes, C10-13, chloro)	85535-84-8	Carc. Cat. 3; R40 N; R50-53	- Substances of very high concern: endocrine disruptors (Cat. 1) & PBT substance - included in the priority list of Hazardous Substance of the European Water Framework Directive - included in the POP convention - regulated by Directive 76/769/EC and REACH Annex XVII (item 27) - Monitoring studies identify SCCP as body burden in biota - Risk of formation of PBDDs and PBDFs
ID	Substance name	CAS-No.	Hazard classification	Arguments in favour of inclusion into RoHS
8	Nonylphenol/ Nonylphenol ethoxylates	25154-52-3 9016-45-9	Endocrine disruptor, Cat 1 (according to EDS database)	- Substances of very high concern: endocrine disruptors Cat. 1 - Bioaccumulative and very toxic to aquatic organisms - Nonylphenol is included in the priority list of Hazardous Substance of the European Water Framework Directive

Spare Parts in Next RoHS Revision

Per ERA Report 2006-0383-Final Report:
*"**Spare parts:** Article 2.3 has been interpreted by the EC that spare parts for the repair, refurbishing or upgrade of products put onto the EU market prior to the 1st July 2006 are outside the scope of RoHS."*

- Proposal…to bring into scope spare parts used to service, refurbish, or upgrade any equipment installed before the RoHS compliance date.
- **Input from Industry:**
  - For products adding to scope in future, recommend rewording Article 2.3 : exclude spare parts for equipment put on the market before date when EEE category is brought in scope
  - If an exemption is removed at a future date, spare parts that relied on this exemption must be excluded to allow repair/refurbishment of EEE put on the market before this date
  - For critical historical equipment, need to be able to service. I.e.. Hospital equipment. Would compromise patient lives if old parts not available.
  - For viable equipment, if can not service , refurbish, or upgrade, will dispose of equipment before useful life… more equip. in landfill, depletion of natural resources, added cost to consumers.

Inclusion of Category 8 & 9

Article 6 of 2002/95/EC requires the European Commission to carry out a review of the RoHS directive and to present proposals for including category 8 & 9 in the scope of RoHS.

Medical Devices

Monitoring and Control

B. Hulse 2008 slide#15

Challenges for Medical Device Industry

Rotating Parts

High G-Forces

New Technology

Innovation

Complexity

Safety and Reliability are the highest priority

B. Hulse 2008 slide#16

Challenges for Medical Device Industry

Accurate medical diagnosis is critical

Critical Information for Doctors

Accurate diagnosis for the patients

RoHS Compliant designs must not compromise system reliability

Challenges for Medical Device Industry

Medical Devices are already highly regulated

- MDD, FDA, SFDA, HSA, etc.
- *RoHS regulations must not impact existing regulations*

Considerations When Designing for RoHS

MRI

CT Scan

- Materials are chosen for performance and reliability characteristics and must be *thoroughly* evaluated before any change is incorporated.
- Reliability of Medical Devices is of the highest level of importance to insure safety of patient and clinicians.
- Impact to GEHC Medical Devices…changes to >10,000 parts for each major product
- Must repeat product testing to ensure compliance with performance & Medical device regulations

Category 8 & 9

ERA TECHNOLOGY

Recommendations from ERA Report 2006-0383- Final Report

"After reviewing the RoHS Directive and determining whether it is possible to include Categories 8 and 9, there are several options that could be followed:

Option 1: Continue to exclude Categories 8 & 9, carry out review in 2010 or 2012.

Option 2: Continue to exclude Categories 8 & 9 but encourage eco-design.

Option 3: Include Category 8 & 9 products within the scope of RoHS:

a. from a single specified date but with a list of justified exemptions & exceptions; or

b. from a number of different specified dates depending on the type of equipment but with a list of justified exemptions and exceptions."

Category 8

Recommendations from ERA Report 2006-0383- Final Report

Option 3:

- Active implanted Medical Devices (AIMD) need long term reliability, time scales not prior to 2020
- Invitro Diagnostic Medical Devices 2016
- Other medical devices 2012

B. Hulse 2008 slide#21

Category 9

Recommendations from ERA Report 2006-0383- Final Report

- Consumer type monitoring and control should be brought into scope 2012 due to shorter product cycles. Prototypes already available.
- Analytical instruments: Most suppliers can comply by 2012.
- Industrial monitoring and control Instruments: Designs are not changed for 10 to 30 years. Long life cycles. Recommend 2018.
- Category 9 requires many exemptions and time to comply.

B. Hulse 2008 slide#22

RoHS Impact Assessment – July 2008

- ✓ Contracted by Bio Intelligence Service
- ✓ Gather & review available information, evaluate the environmental, economic & social impacts of different options.
- ✓ Review inclusion of Category 8 and 9 equipment in the scope of RoHS
- ✓ Economic & social impact of inclusion of category 8 & 9 & respective timing
- ✓ Definitions of:
  - Category 8 & 9 Scope
  - Industrial equipment
  - Modular spare part
  - Consumables
  - Fixed Installations
- ✓ Summary & Conclusions

The EU RoHS Directive –Revision Timing

• RoHS Impact Assessment	July 2008
• EU Commission Proposal	Est. October 2008
• Parliament vote	July 2009
• Date for Compliance	12 – 36 months

EU RoHS Directive

Non-Compliance & Enforcement

Non-Compliance is a Big Problem

Industry needs better control of their Supply Chain

SONY BusinessWeek

Europe's Push for Less-Toxic Tech

… Sony was stunned to learn that nearly 1.3 million of its best-selling PlayStation game machines had been stopped at the border by Dutch customs agents.

…Cables contained levels of cadmium considered unsafe under changes to Dutch law

… Sony went into high gear. It had to squelch rumors of a broader recall while sparring with its Chinese Taipei's cable supplier over who was to blame…. the seizure delayed the sale of $160 million worth of consoles, and Sony had to bear big costs for replacements parts, storage, and repacking…

RoHS Market Surveillance in Belgium

Information provided by M Sc Eng Denis POHL, Directorate-general Environment

88 Electrical/Electronic Products screened w/portable XRF

112 XRF-scans

20 % one or more haz. substances above Max. Conc. Limit

Of 27 products that failed screening… further inspections (dismantling + lab)

120 XRF measurements on the parts

14% tested positive for Cd, Cr, Pb or Br/Sb

Spot-test screening for detecting Cr(VI), 5 tested positive

All lead found with screening, confirmed with analytical testing

1 positive result for cadmium, 0 for the presence of mercury observed with the portative XRF system…results confirmed with lab analysis

Overall, 44% tested non-compliant

RoHS is enforceable!

RoHS Documentation for the inspector:

1. RoHS **Compliance Certificate** from importer/producer
2. **Test results** supporting the Compliance Certificate for the specific product
3. Description of the **RoHS Compliance Assurance System** of the company placing the products on the Belgian market:

   - *Importers: Need Compliance Assurance System for the producer*
   - *For manufacturer: Need internal CAS and procedures for control of the component suppliers*

UK RoHS Enforcement Guidance

Enforcement

40. It is the duty of the National Weights and Measures Laboratory…to enforce these Regulations.

41. Various powers of enforcement are available, including:

- Making **test purchases**.
- Requiring the production of **compliance documentation** and other information which may provide evidence as to whether or not the Regulations have been complied with in a particular case or class of cases.
- **Inspecting processes** and performing **analytical tests.**
- Issuing a **compliance notice** requiring certain action to be taken.
- Issuing an enforcement notice requiring non-compliant **goods to be withdrawn from the market** or prohibiting or restricting the placing of non-compliant goods on the market.

Asia-Pacific Economic Cooperation

2008/SOM3/SCSC/CONF/024

Singapore's Initiatives to Support Industries for RoHS and REACH

Submitted by: Singapore
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7th Conference on Standards and Conformance
Sub-Committee on Standards & Conformance
Cusco, Peru
10-11 August 2008

Outline

- SPRING Singapore
- Export Technical Assistance Centre (ETAC)
- REACH and Singapore Industries
- RoHS and Singapore Industries
- Future Directions

Vision, Mission, Strategic Thrusts and Roles

Vision **Dynamic and Innovative Singapore Enterprises**

Mission **To enhance the competitiveness of enterprises for a vibrant Singapore economy**

Strategic Thrusts

Nurture a pro-business environment	Champion industry development	Build enterprise capabilities	Improve access to markets and business opportunities

Roles **National Body for SME Development, Standards & Conformance**

Export Technical Assistance Centre (ETAC)

Objectives(1/2)

- Assistance with technical barriers & problems
- Maintain database of information on standards & export requirements
- Track changes & developments in international standards & market-specific technical regulations
- Analyse & assess impact of critical changes to industry
  - needs for process changes
  - testing & certification requirements

Export Technical Assistance Centre (ETAC)

Objectives (2/2)

- Disseminate critical information on timely basis
- Industry participation at international & regional meetings
  - keep updated
  - influence standards
  - link up with experts
- Policy inputs for FTA negotiations

Export Technical Assistance Centre (ETAC)

Key initiatives

- **Promote awareness & adoption**
  - Outreach programmes
  - Industry compliance programmes
  - Updates on export requirements in specific sectors & markets
- **Identify & nurture testing & certification needs**
  - Testing & certificate services related to export requirements
- **Strategic participation in international & regional fora**

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Export Technical Assistance Centre (ETAC)

Target Sectors

- Food
- Electrical and Electronic Equipment
- Increasing *wave* of environmental-related technical regulations

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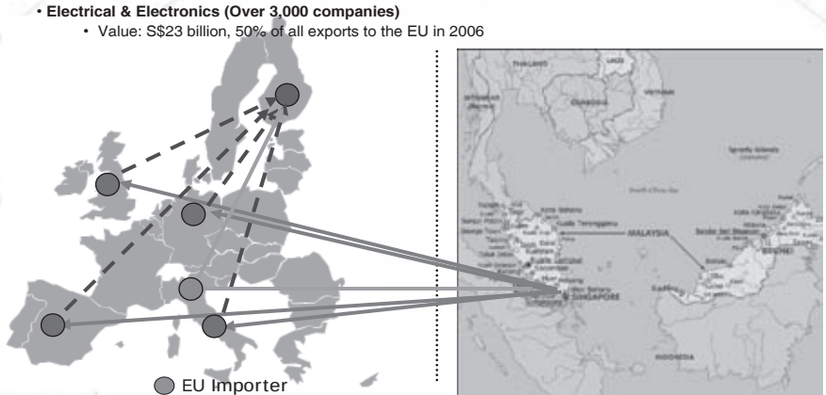
Environmental-related Regulations

- The Waste in Electrical & Electronic Equipment (WEEE) Directive
- **The Restriction of Hazardous Substances (RoHS)**
- The Energy using Products (EuP) Directive
- The Battery Directive
- **Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) Regulation**

REACH and Singapore Industries

How are Singapore Exporters Affected?

- **Chemical & Related industries (Over 500 companies)**
  - Over 140 different types of chemical products (includes chemical preparations) exported to the EU
  - (Value: S$11 billion, 23% of all exports to the EU in 2007)
- **Electrical & Electronics (Over 3,000 companies)**
  - Value: S$23 billion, 50% of all exports to the EU in 2006

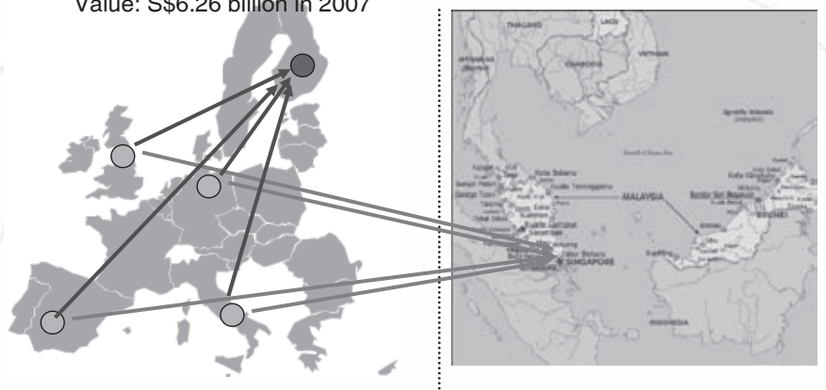


EU Importer
Singapore Exporter
ECHA
Only Rep

Substances, preparations, articles
Registration

How are Singapore Importers Affected?

Import of chemical & chemical products from the EU
Value: S$6.26 billion in 2007



Singapore Importer
EU Exporter/Manufacturer
ECHA

Substances, preparations, articles
Registration

REACH Challenges for Singapore Companies

- **REACH impact study carried out in 2007**
  - Online survey targeted at chemical and allied industries

  Key Findings:
  - Critical lack of awareness and understanding of REACH
  - Awareness limited to those in chemical clusters
  - Companies in non-chemical sectors eg: plastics, rubber & electrical & electronics likely to be affected but unaware of obligations and impact on their businesses

- **Other Challenges**
  - Customer requirements for REACH registered products within the supply chain
  - Exporters to the EU or downstream users may be required to bear some of the associated costs
  - Need to communicate with EU suppliers to ensure that they will **pre-register and register** the substance supplied to the company
  - Ensure uses are covered within the registration if products are exported back to the EU

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REACHing out to Singapore Enterprises

- **Awareness & Education Programmes**
  - Conference/Seminars/Workshops
  - REACH updates via alert service & SPRING/ETAC website
  - REACH Guidebook – "Complying with REACH: A Guide for SMEs"
- **Direct Assistance to the Industry**
  - General REACH assistance via ETAC Advisory
- **REACH through Agencies & Industry Associations**
  - Partnership with
    - Singapore Chemical Industry Council (SCIC): Chemical Industries
    - Singapore Manufacturer's Federation (SMa): Broad-base Industries
  - Industry Round Table on REACH
    - Outreach through other sectoral industry associations
      eg: Cosmetics Toilet Fragrances Association of Singapore (CTFAS), Association of Electronics Industries in Singapore (AEIS)
- **Setting up of an REACH Assistance Mechanism**
  - Provide support to Singapore enterprises who need carry out pre-registration, registration & REACH related activities
  - Exploring with local industry associations & other govt agencies

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RoHS and Singapore Industries

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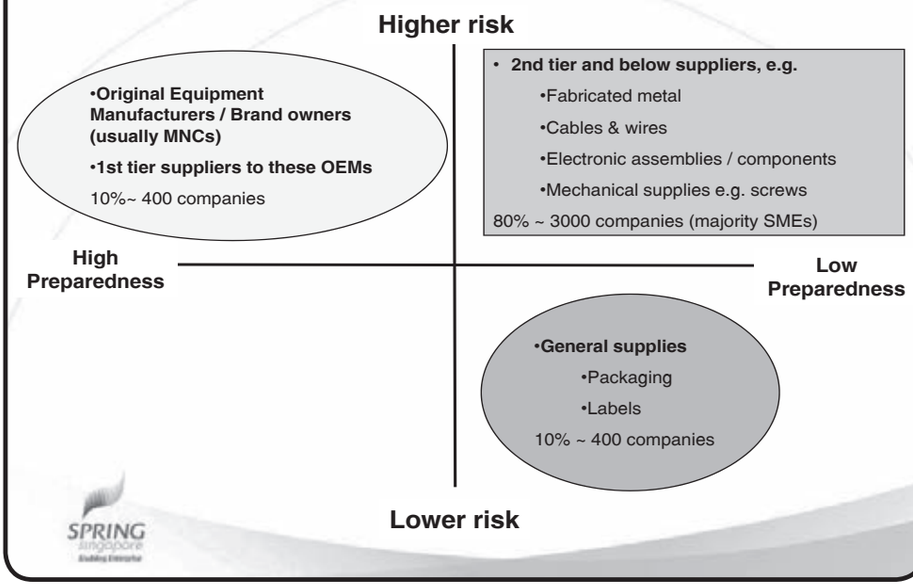
How are Singapore Exporters Affected?



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RoHS Challenges for Singapore Exporters

- **Technical challenges**
  - Finding suitable material substitutes
  - Product quality and reliability issues
- **Lack of Compliance Management System**
  - Quality & supply chain management
  - Documentation maintenance
- **Difficulties in Understanding Requirements**
- **Challenges in Demonstrating RoHS Compliance**
  - No standard format for self-declaration
  - Financial burden of testing for restricted substances
- **Differing Compliance Requirements**
  - Lack of harmonisation amongst regulations of different countries
  - Evolving regulatory requirements
  - Differing customer requirements

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Helping Singapore Companies with RoHS

- **Awareness & Education Programmes**
  - Conference/Seminars/Workshops
  - RoHS updates via alert service & SPRING/ETAC website
  - RoHS Guidebook – "Complying with RoHS: A Guide for SMEs"
- **Direct Assistance to the Industry**
  - General RoHS assistance via ETAC Advisory
  - **RoHS Supplier Directory:** provide a source of contacts to facilitate procurement

  of RoHS compliant supplies
- **RoHS through Agencies & Industry Associations**
  - Partnership with
    - Singapore Manufacturer's Federation (SMa)
    - External partners for latest updates on RoHS

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Future Directions

- **Continued Assistance to Industries on Export Technical Regulations**
  - To date, ETAC has assisted & reached out to over 680 Singapore companies for RoHS & REACH
- **Monitoring Developments in REACH and RoHS trends worldwide**
  - Update on these developments to affected industries
  - Development of industry specific outreach & compliance assistance programmes
- **Continued Partnerships with Domestic Agencies, Industry Associations & International Networks**
  - Enable effective outreach & development of appropriate strategies to aid impacted industries
  - Platform for industry to raise issues through Ministry of Trade & Industry

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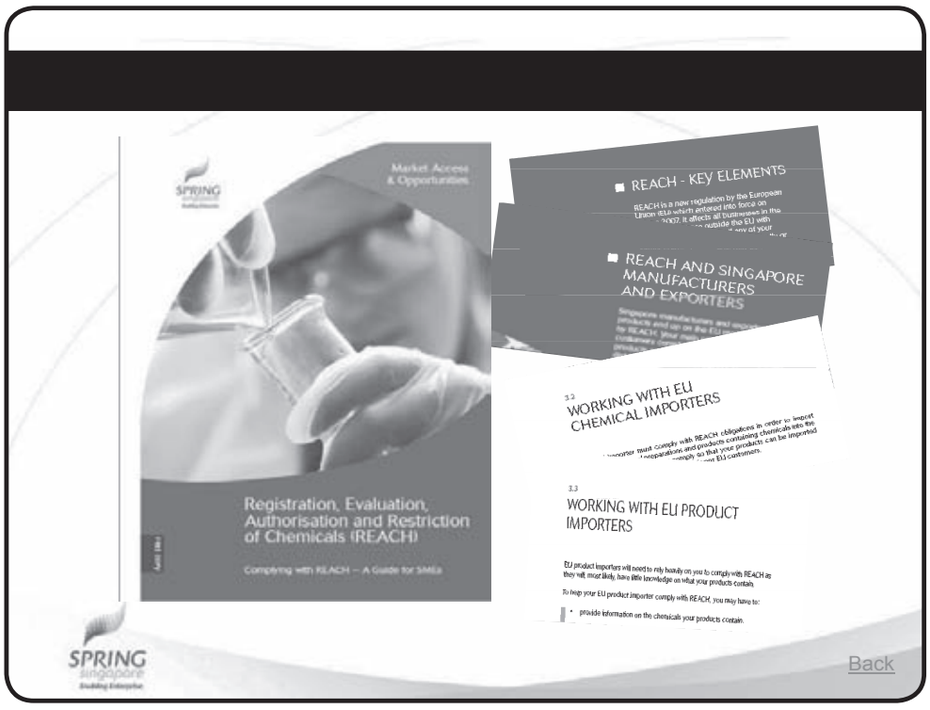
Market Access & Opportunities
Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
Complying with REACH – A Guide for SMEs
REACH - KEY ELEMENTS
REACH AND SINGAPORE MANUFACTURERS AND EXPORTERS
3.2
WORKING WITH EU CHEMICAL IMPORTERS
3.3
WORKING WITH EU PRODUCT IMPORTERS
EU product importers will need to rely heavily on you to comply with REACH as they will most likely have little knowledge on what your products contain.
To help your EU product importer comply with REACH, you may have to:
provide information on the chemicals your products contain.
SPRING singapore
Enabling Enterprise
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The RoHS Series 2007
How RoHS and Lead-free Regulations Will Affect Your Business
The RoHS Series 2008
RoHS Compliance and the Supply Chain
SPRING singapore
Enabling Enterprise


RoHS Regulations and Impact on International Exports
Date: 1 August 2007 (Wednesday)
Time: 9 am – 5 pm
Venue: Novotel Clarke Quay Hotel, Singapore
RoHS Compliance – Business Potential and Market Access Opportunities
Managing the RoHS Compliant Supply Chain
SPRING singapore
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Market Access & Opportunities
Restriction on the use of Hazardous Substances (RoHS)
Complying with RoHS – A Guide for SMEs
CHAPTER 6
HOW TO COMPLY WITH RoHS REQUIREMENTS
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CHAPTER 13
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Asia-Pacific Economic Cooperation

2008/SOM3/SCSC/CONF/025

The EuP Directive and Implementing Measure

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7th Conference on Standards and Conformance
Sub-Committee on Standards & Conformance
Cusco, Peru
10-11 August 2008

Table of contents

I. EuP Directive:Introduction

Two main pillars

Energy efficiency

- to mitigate greenhouse gas emission

Ecodesign

- envisaged as a critical tool for implementing IPP

Energy efficiency

- Energy efficiency in use and stand by mode
- Major focal points of the EuP manufacturers for many years: not a major problem meeting this requirement

Ecodesign

- No experience by the manufacturers
- Select ecodesign parameters for product design
- Choose design options leading to the improvement of the product environmental performance

New Approach

- Provides basic framework of the requirements in the Directive
- No detailed implementing measures such as limit values or guide such as specific methods for the implementation of the directive
- Particulars are in the implementing measures and standards

Scope

- **EuP Directive Deals with**
  - the **environmental aspects** of the product (e.g. energy consumption), which can be linked to the environmental impacts and can be substantially mitigated by improving product design

Generic/specific ecodesign requirements

- Generic ecodesign requirements:

  Any ecodesign requirements based on the ecological profile of an EuP without set limit values for selected environmental parameters: They also include information disclosure requirements and manufacturers obligations.

- Ecodesign requirements are any requirements related to the design an EuP, intended to improve its environmental performance.

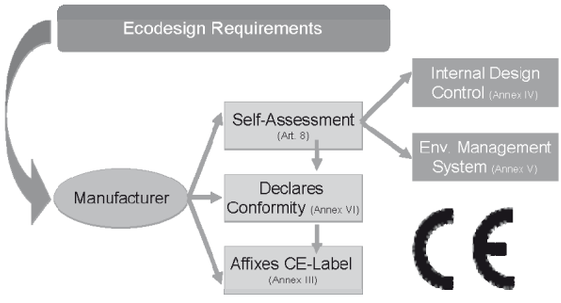
Generic/specific ecodesign requirements

- Specific ecodesign requirements:

In the form of limit values for selected ecodesign (environmental) parameters which are chosen in the implementing measure

Compliance

- **CE marking** indicates conformity to the EuP directive
- **Internal management system**, e.g. internal design control (Annex IV) or management system (Annex V)



Market surveillance (MS)

- MS obliged to ensure that only conforming products are placed on the market
- MS to set up surveillance organization
- Cooperation between MS and Commission
- MS to report on activities and results

II. EuP Directive: Manufacturer's obligation

Manufacturer's obligation

- Assess environmental aspects of the product (develop ecological profile)
- Design and develop product by meeting generic/specific ecodesign requirements
- Conformity assessment and CE marking

Assess environmental aspects of the product (ecological profile)

- Addressing the environmental aspects identified in the IM as capable of being influenced in a substantial manner through product design,
- Manufacturers of EuPs will be required to perform an assessment of the EuP model throughout its lifecycle, based upon realistic assumptions about normal conditions and purposes of use. (product modeling and environmental assessment)
- Other environmental aspects may be examined on a voluntary basis.

Assess environmental aspects of the product (ecological profile)

- On the basis of this assessment manufacturers will establish the EuP's ecological profile. It will be based on:
  - environmentally relevant product characteristics and inputs/outputs (Ecodesign parameters, see Annex I part 1) throughout the product life cycle expressed in physical quantities that can be measured.

Design and develop product by meeting generic/specific ecodesign requirements

Manufacturers will make use of this assessment to evaluate alternative design solutions and the achieved environmental performance of the product against benchmarks*.

* The benchmarks will be identified by the Commission in the IM on the basis of information gathered during the preparation of the IM.

Conformity assessment and CE marking

1. Before placing an EuP covered by IM on the market and/or putting such an EuP into service, the manufacturer or its authorized representative shall ensure that an assessment of the EuP's conformity with all the relevant requirements of the applicable IM is carried out.

Conformity assessment and CE marking

2. The conformity assessment procedures shall be specified by the IM and shall leave to manufacturers
   - the choice between
     - the internal design control set out in Annex IV and
     - the management system set out in Annex V.

III. EuP Directive: Implementing measure

Implementing Measure

- The implementing measure provides detailed instruction as to the significant environmental aspects and life cycle stages, environmental parameters, etc.

Implementing Measure

- It is the regulation, not directive. Immediate effect
- Title: Ecodesign requirements for standby and off mode electrical power consumption of electrical and electronic household and office equipment
- Vote by the regulatory committee on July 7, 2008

Implementing measure structure

- Subject matter and scope
- Definitions
- Ecodesign requirements
- Verification procedure for market surveillance purposes
- Benchmarks
- Revision
- Entry into force

List of EuPs covered by this regulation

1. Large household appliances
2. Small household appliances
3. Information technology equipment intended primarily for use in the domestic environment
4. Consumer equipment
5. Toys, leisure and sports equipment

List of EuPs covered by this regulation

1. Large household appliances

- Washing machines
- Clothes dryers
- Dish washing machines
- Cooking
- Electric ovens
- Electric hot plates
- Microwaves
- Other large appliances for cooking and other processing of food

List of EuPs covered by this regulation

2. Small household appliances

- Toasters
- Fryers
- Grinders, coffee machines and equipment for opening or sealing containers or packages
- Electric knives
- Appliances for hair cutting, hair drying, tooth brushing, shaving, massage and other body care
- appliances
- Scales

List of EuPs covered by this regulation

4. Consumer equipment

- Radio sets
- Television sets
- Videocameras
- Video recorders
- Hi-fi recorders
- Audio amplifiers
- Musical instruments
- And other equipment for the purpose of recording or reproducing sound or images, including signals or other technologies for the distribution of sound and image than by telecommunications

List of EuPs covered by this regulation

5. Toys, leisure and sports equipment

- Electric trains or car racing sets
- Hand-held video game consoles
- Sports equipment with electric or electronic components

Ecodesign requirements

- Two phases of implementation

- One year after this regulation
- Power consumption: off mode < 1.00 W
- Standby mode <2.00 W
- Four years later
- The values are halved.

Conformity assessment

The procedure for assessing conformity shall be

- The internal design control system (Annex IV) or
- The management system (Annex V)

Benchmarks

- Off mode: 0 W - 0.3 W
- Standby – reactivation function: 0.1 W
- Standby – display: simple displays and low power LEDs 0.1 W, larger displays (e.g. for clocks) require more power.

Conflict: Horizontal versus Vertical Measures

- Horizontal: Implementing measure for **standby and off-mode losses** is intended to cover **energy-using products broadly**
- Vertical: Implementing measure for **dedicated product groups** will include also standby and off-mode losses of this product group
- It is expected, that the IM for a dedicated product group **overrules** horizontal IM
  - Horizontal IM might be applicable for a transition period until vertical IM is in force (products covered by coming preparatory studies)

IV. EuP directive:Working plan

Working plan of the Ecodesign Directive (2009 – 2011)

- **Objective**

  Setting out for the three following years (2009-2011) **an indicative list of energy-using product groups,** which are considered as priorities for the development of implementing measures.

Ecodesign Directive shall cover

- **Environmentally significant product characteristics,**
  - ➢energy consumption in the use phase,
  - ➢resource consumption in the production phase,
  - ➢hazardous substances,
  - ➢waste reduction,
  - ➢extension of lifetime or
  - ➢modular assembling enabling repair and recycling of the product or its components.

Implementing measures

- **are considered when no valid self-regulatory initiative has been taken by industry**
  - **Self-regulation by industry**, including voluntary and unilateral commitments,
    - provide for quick progress due to rapid and cost-effective implementation,
    - allows for flexible and appropriate adaptation to technological options and market sensitivities.

The transitional period (2005 – 2008)

- The period between the entry into force of the Ecodesign Directive and the adoption of the working plan
- 14 preparatory studies were finished and Mid-2008 the other 5 preparatory studies are still ongoing.

Energy-Using Product Groups covered in the Transitional Period

- **Measures planned to be adopted by the Commission in 2008**
  - Tertiary sector lighting products
  - Stand-by and off-mode losses
  - External power supplies
  - Simple set top boxes
- **Measures planned to be adopted by the Commission in spring 2009**
  - Domestic lighting products I (including incandescent bulbs)
  - Televisions

Measures to be submitted for vote in the Committee in 2008 and 2009

- Boilers
- Water heaters
- Washing machines, dishwashers
- Domestic refrigeration, freezers
- Commercial refrigeration
- Electric motors
- Circulators (originally under electric motors)
- Computers
- Imaging equipment
- Electric pumps (originally under electric motors)
- Fans for ventilation in non residential buildings (originally under electric motors)
- Room Air Conditioners
- Domestic fans (originally under room air conditioners)

Other measures (preparatory studies finishing in 2009)

- Complex set top boxes
- Laundry Driers
- Vacuum Cleaners
- Domestic lighting products II (reflector lamps and luminaries)
- Solid Fuel Boilers

Working plan study

- 25 product groups chosen (A ranked, 9 product groups B ranked) out of 57 screened
- **Criteria:**
  - The primary energy consumption in the use phase to identify the product groups with the highest contribution to climate change and resource depletion

Assessment criteria of the 25 product groups

- The Product group;
  - ➢ represents a significant volume of sales and trade within the Community,
  - ➢ has a significant environmental impact within the Community resulting from the energy-using products during their life cycle,
  - ➢ presents significant potential for improvement in terms of its environmental impact without entailing excessive costs

Indicative list of energy-using product groups of the working plan

- ➢ Air conditioning systems and heat pumps
- ➢ Electric and fossil fuelled heating equipment
- ➢ Food preparing equipment
- ➢ In house networking and data processing, storing and providing equipment
- ➢ Industrial and laboratory furnaces and ovens
- ➢ Machine tools
- ➢ Refrigerating equipment
- ➢ Sound and image processing machines and equipment
- ➢ Transformers
- ➢ Water-using equipment

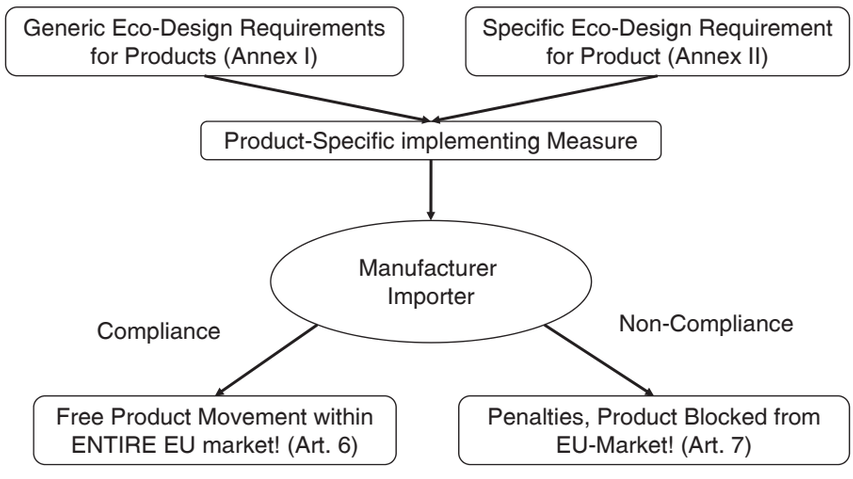
- A preparatory study: 2009 - 2011

V. Summary

- EuP Directive: Introduction
- EuP Directive: Manufacture's obligation
- EuP Directive: Implementing measure
- EuP Directive: Working plan

- After all, it is the Trade

Entering into the EU market



Asia-Pacific Economic Cooperation

2008/SOM3/SCSC/CONF/026

Preparations and Actions Being Taken in Japan for EU Environmental Regulation, REACH

Submitted by: Japan
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7th Conference on Standards and Conformance
Sub-Committee on Standards & Conformance
Cusco, Peru
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How companies in Japan try to cope with

EU REACH

1. Requirements which Industries are very concerned with REACH

- On request by a consumer any supplier of an article containing a substance in a concentration above 0,1 % (w/w) shall provide the consumer with sufficient information, available to the supplier, to allow safe use of the article including, as a minimum, the name of that substance. *(REACH Article 33).*
- The relevant information shall be provided, free of charge, within 45 days of receipt of the request. *(REACH Article 33).*
- Any actor in the supply chain of a substance or a preparation shall communicate the following information to the next actor or distributor up the supply chain: *(REACH Article 34).*

  (a) new information on hazardous properties, regardless of the uses concerned;
  (b) any other information that might call into question the appropriateness of the risk management measures identified in a safety data sheet supplied to him, which shall be communicated only for identified uses.

Distributors shall pass on that information to the next actor or distributor up the supply chain.

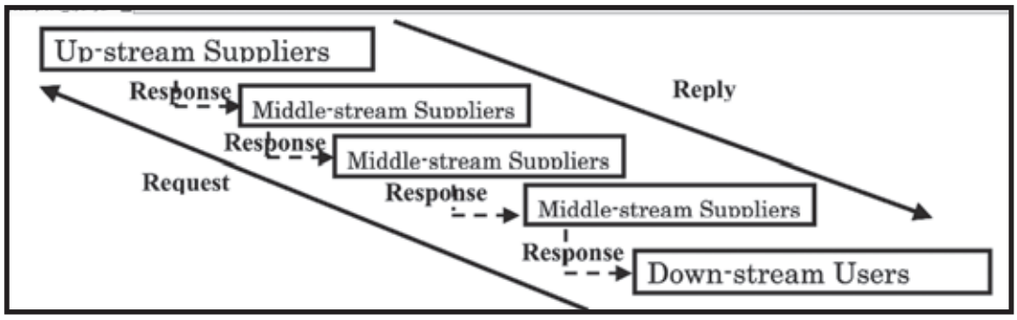
2. Problems in duty to communicate in supply chain

- Coping with REACH by conventional approach needs tremendous burden
  - Difficult for down-stream users to collect accurate information by inquiring up long and complicated supply chain.
  - Survey and information communication takes a lot of time.
  - Accuracy of information deteriorates in supply chain.

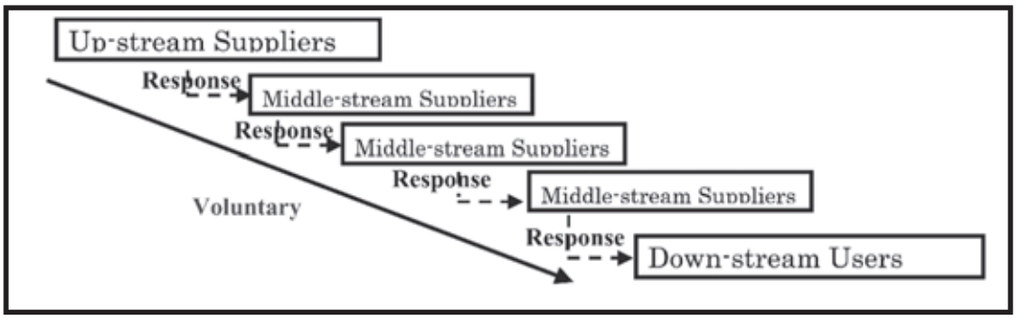
- There are no rule or methods outside EU to appropriately transfer and disclose information on substances contained in article.
  - Automobile Parts Industry — JAMA Sheet
  - Automobile Industry — IMDS (GADSL)
  - Electrical and Electronic Industry — JGPSSI format (JIG)
    - JEMA: Japan Automobile Manufacturers Association
    - IMDS: International Material Data System
    - GADSL: Global Automobile Declarable Substance List
    - JGPSSI: Japan Green Procurement Survey Standardization Initiative
    - JIG: Joint Industry Guideline

3. Two different approaches

- Information from “Up Stream to Down Stream” **(**On request).



- Information from “Up and Middle Stream to Down Stream” (Voluntary).



4. Difficulty to obtain accurate information

- Industries in Japan also face difficulty to get accurate information **on** regulated substances in supply chain.
- This makes companies difficult to cope with “Material Declaration” requested in tender business, etc.
- Strong leadership is being taken in IEC TC111 (Environment) WG1(Material Declaration)

  ➢ Method of global and uniformed approaches of “Material Declaration” and its relevant database will be established in the future.

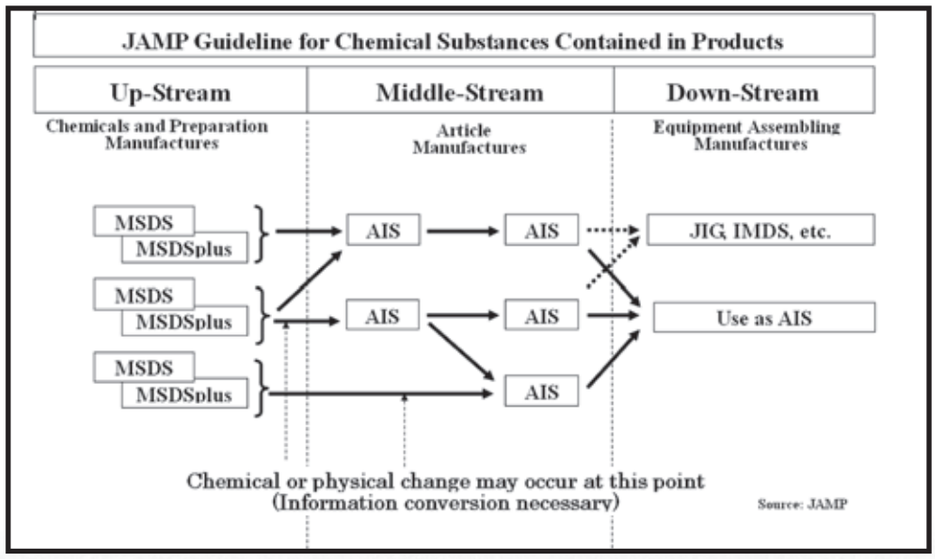
- Industries in Japan are also very interested in the project of IEC TC111 WG1.

  ➢ JGPSSI (JIG) and JAMP also try to establish systems to respond to possible future need in harmony with international projects.

5. JAMP proposes a cross-industrial scheme

- JAMP (Joint Article Management Promotion-Consortium) was established on September 11, 2006 as an industrial cross-sectoral group that promotes activities across the entire supply chains.
- Aims to contribute to all those involved in management activities of chemical substances contained in products in supply chain.
- JAMP establishes information systems which encourage middle to upstream suppliers to provide downstream users with information necessary for material declaration including REACH on voluntary basis.
- This will make downstream users and also middle to upstream suppliers easier to cope with REACH in a reliable, systematic and efficient manner.

6. JAMP provides a guideline & two tools (MSDSplus & AIS)



- JAMP provides two tools.
  - ➢ JAMP MSDSplus (hereinafter MSDSplus)
  - ➢ JAMP AIS (hereinafter AIS)

- Sections required in MSDS in Japan are basically the same as that of SDS required in REACH.
- MSDSplus presently covers (1) CMR Cat.1, Cat2 of 76/769/EEC, (2) 67/548/EEC, (3) RoHS and (4) ELV in EU and three Regulations in Japan.
- Numbers of Directives and Regulations covered by MSDSplus are subject to change in progress of activities of JAMP.
- MSDSplus is designed to be used together with the current MSDS for supplement information like quantitative chemical concentrations.
- Information for AIS (Article Information Sheet) is formulated using information in MSDS and MSDSplus.

7. Which regulations are presently covered by "MSDSplus"

EU	No of items	Japan	No of items
● RoHS Directive 2002/95/EC	6	● Chemical Substances Control Law (Class I specified chemical substances)	16
● ELV Directive 2000/53/EC	4	● Industrial Safety and Health Law (production prohibition substances)	8
● Directive 67/548/EEC Annex I CMR categories 1 & 2 (classification, packaging and labelling of dangerous substances)	C: 830+ M: 80+ R: 170+	● Poisonous and Deleterious Substances Control Law (Specified poisonous substances)	10
● Directive 76/769/EEC (excluding 67/548/EEC Annex I CMR categories 1 & 2 restrictions on the marketing and use of certain dangerous substances and preparations)	Less 100		

8. "SDS" and "extended-SDS " in EU

	SDS (EU)	e-SDS (EU)
Section	1. Name of chemical/product and information on MSDS provider 2. Summary of hazards & toxicity 3. Information on chemical content and structure 4. Emergency measures 5. Measures in case of fire 6. Measures in case of leakage 7. Warning in handling and storage 8. Measures for explosion prevention and protection 9. Physical and chemical properties 10. Stability and reactivity 11. Hazard information 12. Environmental impact information 13. Warning in case of disposal 14. Warning in transport 15. Applicable laws and regulations 16. Others	No.1-16 items in SDS plus Exposure Scenario

9. "MSDS" and "MSDS Plus"

	MSDS (Japan) JIS Z7250	MSDSplus (Japan)
Section	Same as the SDS	1. Name of chemical/product and information on MSDSplus provider 2. Name of chemical substance / CAS No. to be managed 9. Rate of content 4. Name of regulation, etc. to administer constituents contained in product

- AIS is formulated using MSDS and MSDSplus for each part or part assembly by product
  - AIS mainly contains the following information

No.1 Information on AIS provider
- Company ID, company name, address, etc.

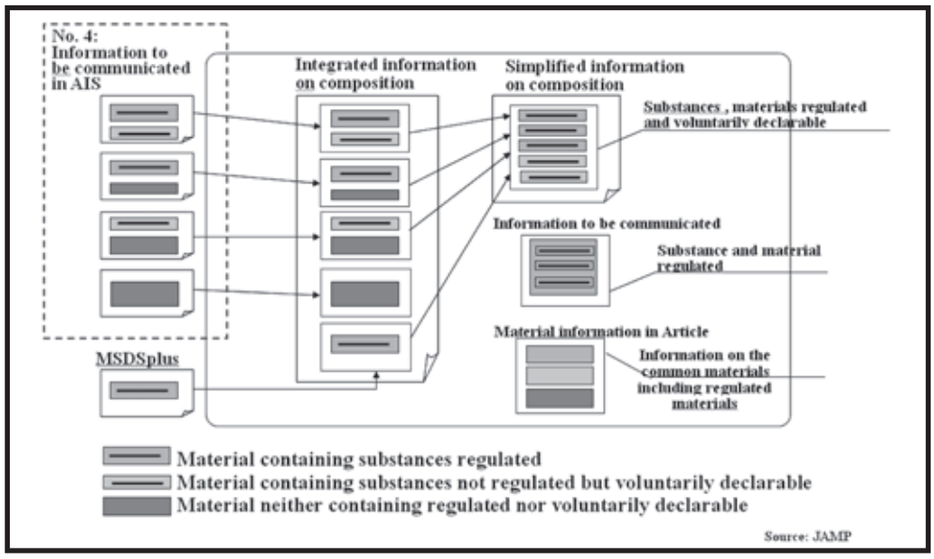
No.2 Information on AIS
- Manufacturer name, common name, model No., etc.

No.3 Information on composition
- Unit: piece, m, m^2, m^3, Mass: Kg, g, mg
- Material: Purpose, name, classification No., official material standard No.
- Substance: Name, CAS No., rate of content, mass: Kg, g, mg

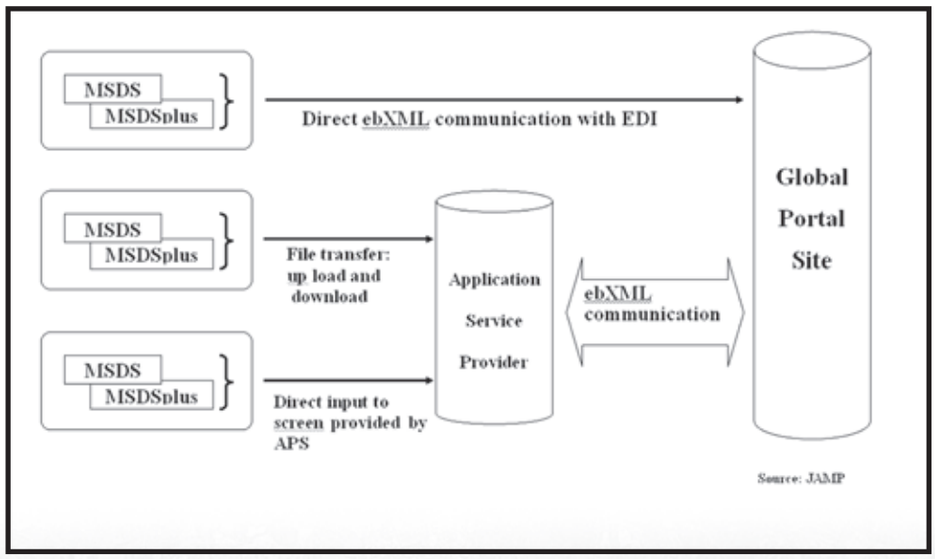
No.4 Information to be communicated
- Compiled and edited information from the above 1 to 3
- Concentration of specific substance per article
  - Regulated substances
- Information on materials in article

- Two different methods to aggregate information in AIS can be used. One is "Simplification" and the other is "Integration".
- Simplification is to provide separate information on composition, (1) materials containing substances regulated and voluntarily declarable, (2) materials containing substances regulated and (3) common materials in similar or the same categories regardless of inclusion of substances regulated or voluntarily declarable.
- Integration is to encompass the following information on composition in one AIS, i.e. (1) material containing regulated substances, (2) material containing substances not regulated but voluntarily declarable, (3) material neither containing substances regulated nor voluntarily declarable and combination of these (1), (2) and (3).
- The information system of AIS is designed that it does not allow the materials containing regulated substances to be deleted throughout the supply chain.
- JAMP aims to cope with the need of IEC TC111 and existing schemes.
- The information system for AIS will be improved so that necessary information required by the guidelines, material and substance lists of JGPSSI (JIG), IMDS or GADSL can be obtained from the system and workable as an input tool for these in the future.

10. Simplification and Integration of MSDSplus and AIS



11. JAMP aims to global operation



Asia-Pacific
Economic Cooperation

2008/SOM3/SCSC/CONF/027

US Industries Experiences with REACH

Purpose: Information
Submitted by: USA

Jim DeLisi
Chairman
SOCMA's International Trade Committee

jdelisi@fanwoodchemical.com

7th Conference on Standards and Conformance
Sub-Committee on Standards & Conformance
Cusco, Peru
10-11 August 2008

SOCMA: History & Mission

Synthetic Organic Chemical Manufacturers Association was founded in 1921. Since then, SOCMA has:

- Spoken for and served batch, custom and small chemical companies.
- Promoted innovative, safe and environmentally responsible operations.
- Is a recognized and respected voice in Washington, D.C.

SOCMA: History & Mission

Approx. 300 members

Specialty, Batch & Contract chemical manufacturers

Global membership

Suppliers to the industry

80% small businesses

- < $50 million in annual sales
- < 200 employees

Staff of 35 located in Washington, DC

SOCMA Members: Markets Served

Pharmaceutical
Fine Chemicals
Cosmetics and Toiletries
Personal Care
Soaps and Detergents
Industrial Products
Construction Products
Textiles
Household Products
Agricultural Products
Electronics/computers
Food
Performance Chemicals
Plastics
Petrochemicals

REACh Concerns & Experiences of our Members

Macro Concerns

- The implementing rules are still in transition. It is not a completed regulation.
- Can ECHA, a brand new agency, effectively administer this complicated regulation?
  - The fact that IUCLID 5 has had a rocky start is not a good sign!
  - US EPA has been skeptical that this rule can be effectively administered

Costs

- ECHA registration fees
- “OR” & SIEF Participation fees
- Data Development & Testing Costs
- Strict Liability
- “IT “ upgrades to assure compliance
- Document Preparation
  - Safety Assessment
  - Technical Dossier

Only Representative

- Cost
- Availability
- Accountability
- Independence
- One “OR” per foreign Manufacturer

Intellectual Property Rights

- Non Biocidal uses of Biocides
- Additives
  - Non-hazardous additives below 1% are not listed on our MSD sheets – may have to be disclosed under REACh.
- Confidential Formula may have to be disclosed.
- Unique “Identifiers” – how will they be used?
- SIEF participation
  - One substance – one registration

Anti-Trust

REACh compliance, if not done very carefully, could potentially involve a breach of U.S. Antitrust Laws!

Polymers

– Polymers can not be registered
  - IPR
  - “Hazardous Monomers”
  - Very complex for Paints, Coatings, etc that can contain multiple polymers

US Based Trading Companies

– Non EU based traders can not register without the permission of the manufacturer:
  - A non-EU based trader must partner with the manufacturer of materials destine for the EU – can be both an IP and contracting problem since a non-EU manufacturer can only work through one “OR”.
  - Those with EU platform may change the way they invoice customers to allow their EU company to invoice – reducing US income – and the taxes it generates.

Pharmaceuticals

- Definition of the word “IN” for Intermediates
  – Confusion: Do sole pharmaceutical use intermediates need to be registered? If so, the lack of EINECS or ELINCS numbers for many will cause disruptions.

Cosmetics

Lack of EINECS and/or ELINCS numbers has already caused disruptions

Product Substitution and Withdrawals

- Will impact US Production
  - Domestic sales
  - Export sales
- Will have consequences for worldwide demand.

Intra-company Transfers

- Much of US/EU trade in Chemicals is Inter-Company transfers.
  - Products manufactured in the EU but not consumed in the EU are covered by REACh. This was not the case with EINECS or ELINCS (or TSCA).
- May encourage big companies to alter their invoicing patterns resulting in reduced US sales.
- IT challenge is enormous!

Candidates List

- Creates a “banned” list of substances without the need for sound science.
- May take decades to review.
- May “force” substitution with untested materials.

Domestic Dilemma #1

I've got $1 M in sales in the EU and I need to register 50 compounds.

Domestic Dilemma #2

I'd abandon my sales in the EU but the plant across the street will no longer be able to purchase my chemicals if I don't continue to supply their EU facilities.

Domestic Dilemma #3

I don't have any exports to the EU but my most important customer is telling me if I don't comply with REACh he can no longer buy my products.

SOCMA's Role

- Support our membership with seminars and advice.
  - INFORMEX 2009 in January
  - Webinars
  - Expert Advice
  - Consortium formation
- Recommended Partners
- Work to avoid the spread of REACh like regulations, especially into the USA.

Asia-Pacific Economic Cooperation

2008/SOM3/SCSC/CONF/028

Thailand Response to the EuP

Submitted by: Thailand
Charuek Hengrasmee
President
Electrical and Electronics Institute

charuek@thaieei.com

7th Conference on Standards and Conformance
Sub-Committee on Standards & Conformance
Cusco, Peru
10-11 August 2008

Thailand response to the EuP

Content

- Thailand E&E Industry: Status updated and Vision 2012
- Summary of experience and Progress
- Key implementations highlighted
- Experiences learned, Pending Issues and Future expectation

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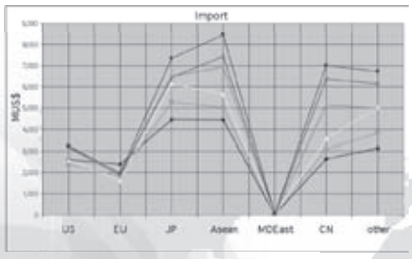
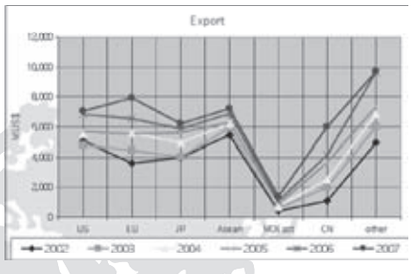
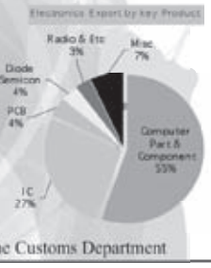
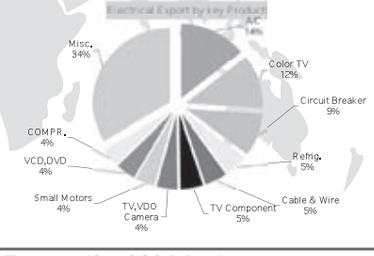
Thailand response to the EuP

Thailand E&E Industry









Source: EEI and the Customs Department

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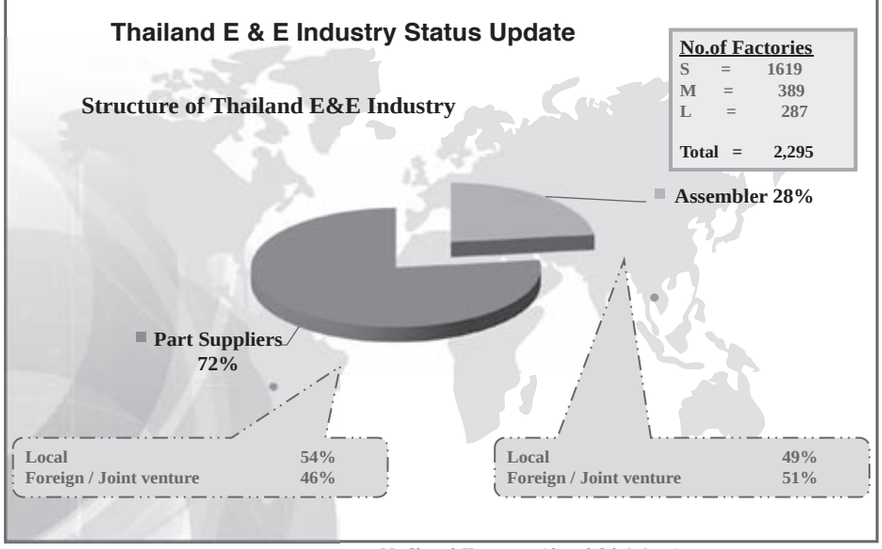
Thailand response to the EuP



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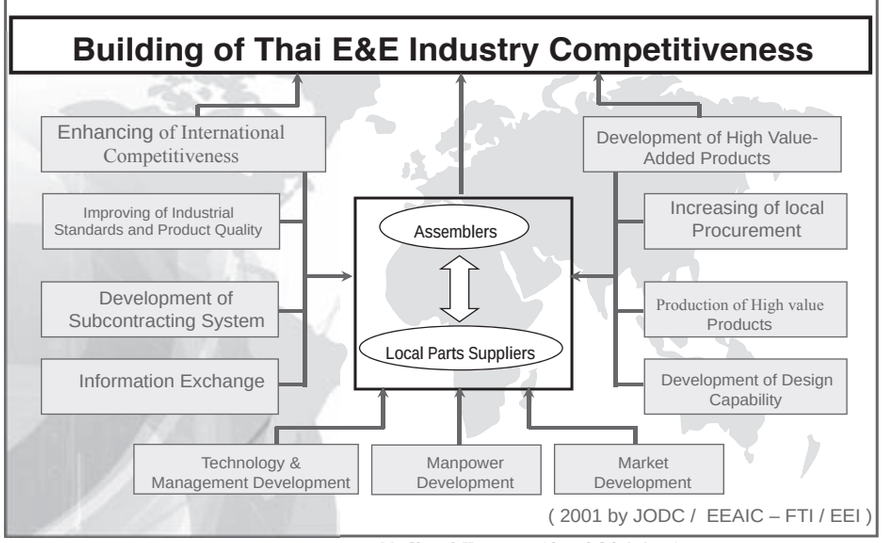
Thailand response to the EuP



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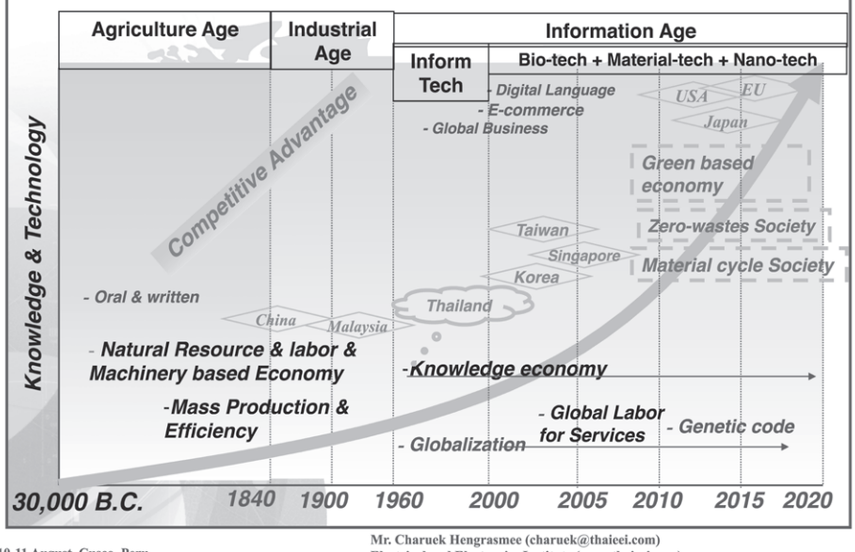
Thailand response to the EuP

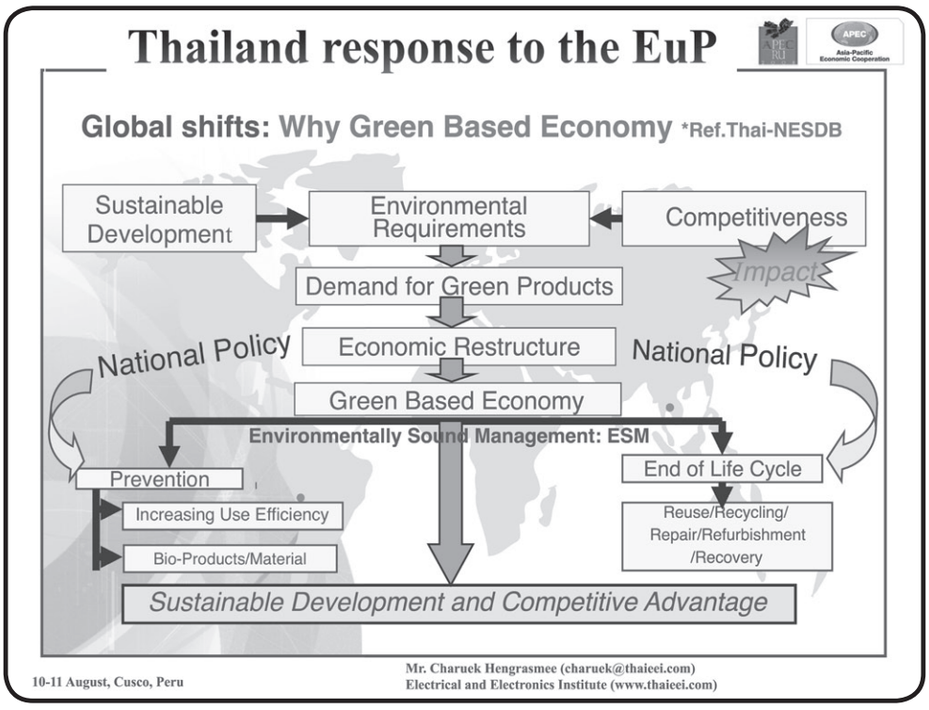
Vision

- To be an ASEAN leader in E&E manufacturing and export in 2012
- Focus on green and energy saving products manufacturing

Thailand response to the EuP

Global shifts: Where to go: Green Based Economy *Ref.Thai-NESDB




Thailand response to the EuP
Global shifts: Why Green Based Economy *Ref.Thai-NESDB
Sustainable Development
Environmental Requirements
Competitiveness
Impact
Demand for Green Products
National Policy
Economic Restructure
National Policy
Green Based Economy
Environmentally Sound Management: ESM
Prevention
Increasing Use Efficiency
Bio-Products/Material
End of Life Cycle
Reuse/Recycling/ Repair/Refurbishment /Recovery
Sustainable Development and Competitive Advantage
10-11 August, Cusco, Peru
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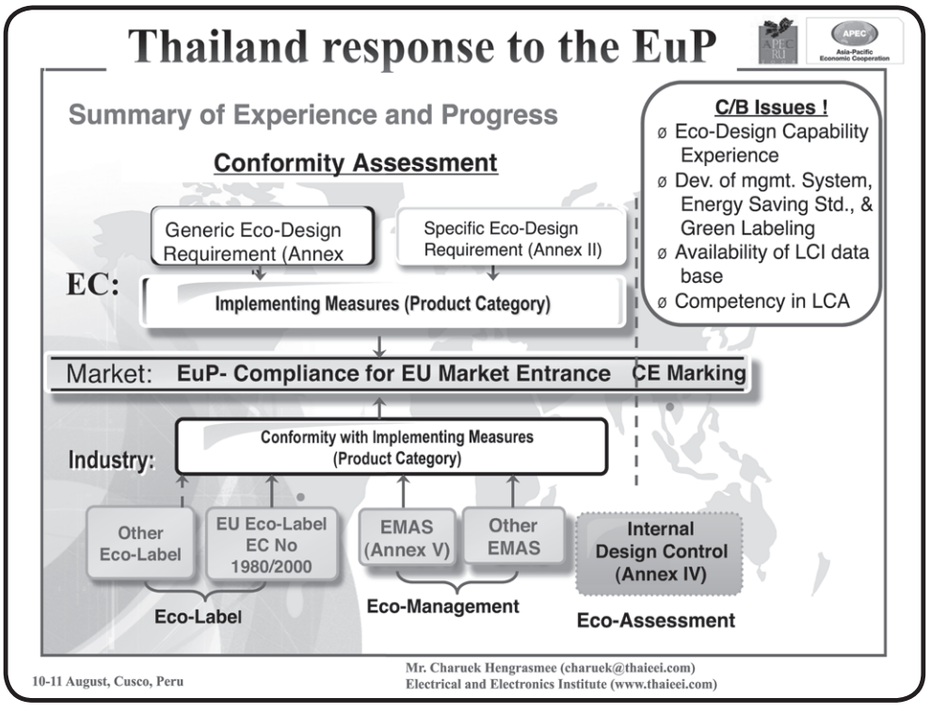
Thailand response to the EuP
Summary of Experience and Progress
C/B Issues !
ø Eco-Design Capability Experience
ø Dev. of mgmt. System, Energy Saving Std., & Green Labeling
ø Availability of LCI data base
ø Competency in LCA
Conformity Assessment
EC:
Generic Eco-Design Requirement (Annex
Specific Eco-Design Requirement (Annex II)
Implementing Measures (Product Category)
Market: EuP- Compliance for EU Market Entrance CE Marking
Industry:
Conformity with Implementing Measures (Product Category)
Other Eco-Label
EU Eco-Label EC No 1980/2000
EMAS (Annex V)
Other EMAS
Internal Design Control (Annex IV)
Eco-Label
Eco-Management
Eco-Assessment
10-11 August, Cusco, Peru
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Thailand response to the EuP

Summary of Experience and Progress

Related Envi. Issues/Directive			"Key" Activities & Experiences	00	01	02	03	04	05	06	07	08	09
WEEE	RoHS	EuP											
		☒	Energy Saving Std., and Green Labeling :										
			q EGAT. No.5 Labeling since 1993/8 E&E Products.	☒	☒	☒	☒	☒	☒	☒	☒	☒	
			q TISI/TEI Green Labeling since 1996/14 E&E Products.	☒	☒	☒	☒	☒	☒	☒	☒		
			q MOE/DEDE Regulations on Energy Efficiency for E&E Equipments since 2007/34 E&E Products.								☒	☒	
			q TISI/MEPS (Min. Energy Performance Std) Since 2002/3 products.			☒	☒		☒	☒	☒	☒	

☒ Complete ◐ Incomplete ☒ No

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Thailand response to the EuP

Summary of Experience and Progress

Related Envi. Issues/Directive			"Key" Activities & Experiences	00	01	02	03	04	05	06	07	08	09
WEEE	RoHS	EuP											
☒	☒	☒	National Subcommittee for impact follow up and policy determination to EU Directives on WEEE and RoHS	☒									
☒	☒	☒	Study project, Study & research: legislative study, economic impact, LCA, eco-design, WEEE, RoHS, impacts and measures (ASIAN and EU), existing and suggested local e-waste mgmt.			☒							
☒	☒	☒	National Subcommittee for EU–IPP			☒						◐	
☒	☒	☒	MOI established Committee (24 inter-ministerial members) to follow-up & handle EU environmental directives.						☒	☒	☒		☒
☒	☒	☒	International meeting on IEC TC111/WG2 (FTI/EEI), Bangkok							☒	☒		
☒	☒	☒	International Conference on Green and Sustainable Innovation 2006 – 2007 (CMU/EEI/MTEC) Chiengmai							☒	☒		
☒	☒	☒	Thailand Electrical and Electronic Green Society (International Conference) EEI/MTEC/FTI/DEP-MOC								☒		☒

10-11 August, Cusco, Peru

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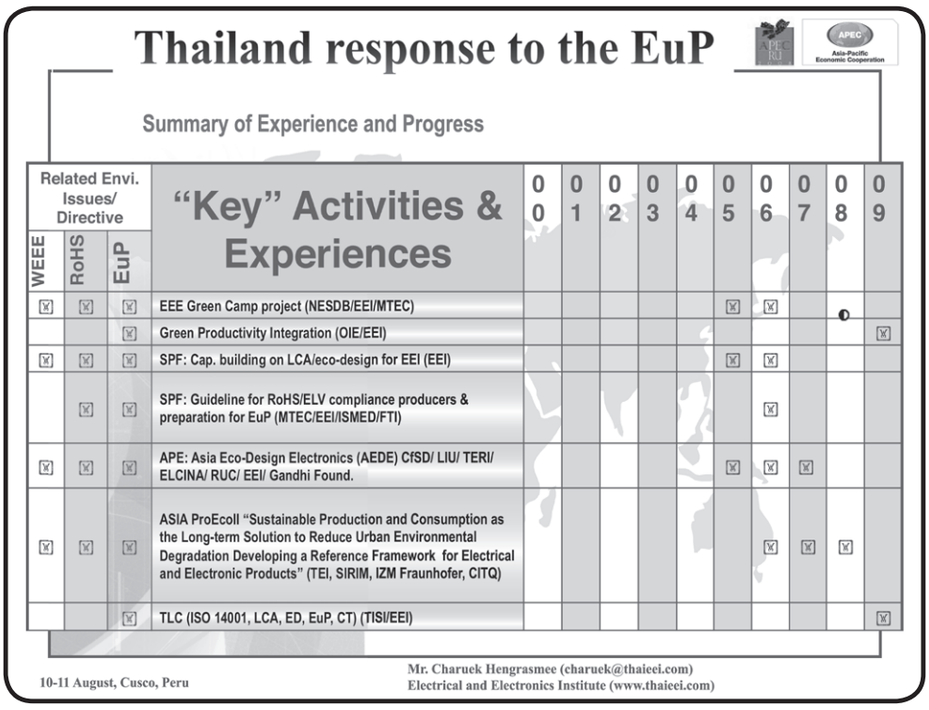
Thailand response to the EuP
Summary of Experience and Progress
Related Envi. Issues/ Directive
WEEE
RoHS
EuP
"Key" Activities & Experiences
00 01 02 03 04 05 06 07 08 09
EEE Green Camp project (NESDB/EEI/MTEC)
Green Productivity Integration (OIE/EEI)
SPF: Cap. building on LCA/eco-design for EEI (EEI)
SPF: Guideline for RoHS/ELV compliance producers & preparation for EuP (MTEC/EEI/ISMED/FTI)
APE: Asia Eco-Design Electronics (AEDE) CfSD/ LIU/ TERI/ ELCINA/ RUC/ EEI/ Gandhi Found.
ASIA ProEcoll "Sustainable Production and Consumption as the Long-term Solution to Reduce Urban Environmental Degradation Developing a Reference Framework for Electrical and Electronic Products" (TEI, SIRIM, IZM Fraunhofer, CITQ)
TLC (ISO 14001, LCA, ED, EuP, CT) (TISI/EEI)
10-11 August, Cusco, Peru
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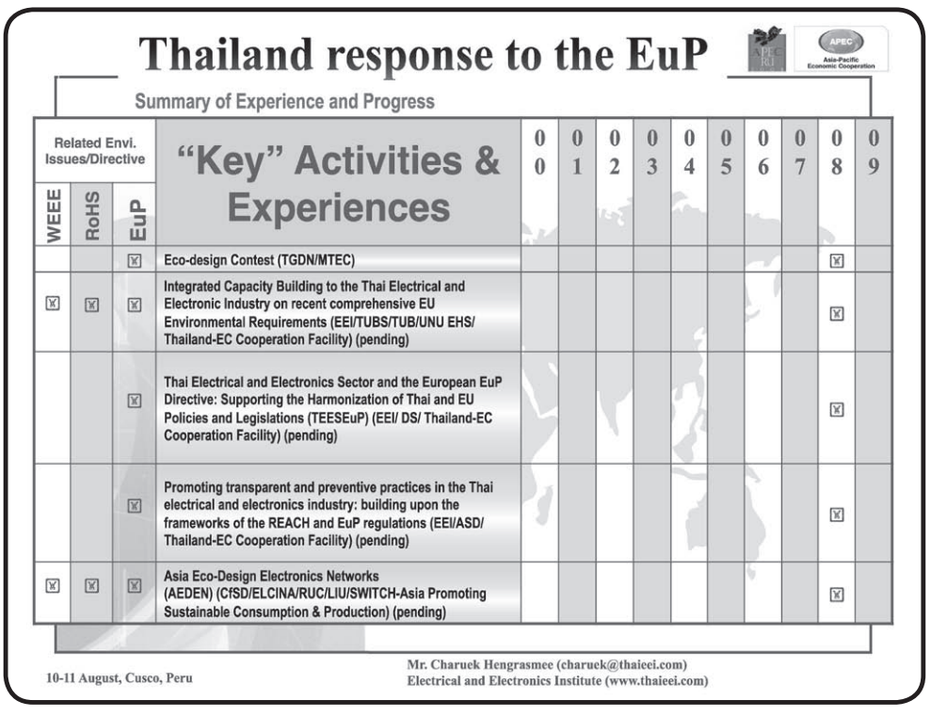
Thailand response to the EuP
Summary of Experience and Progress
Related Envi. Issues/Directive
WEEE
RoHS
EuP
"Key" Activities & Experiences
00 01 02 03 04 05 06 07 08 09
Eco-design Contest (TGDN/MTEC)
Integrated Capacity Building to the Thai Electrical and Electronic Industry on recent comprehensive EU Environmental Requirements (EEI/TUBS/TUB/UNU EHS/ Thailand-EC Cooperation Facility) (pending)
Thai Electrical and Electronics Sector and the European EuP Directive: Supporting the Harmonization of Thai and EU Policies and Legislations (TEESEuP) (EEI/ DS/ Thailand-EC Cooperation Facility) (pending)
Promoting transparent and preventive practices in the Thai electrical and electronics industry: building upon the frameworks of the REACH and EuP regulations (EEI/ASD/ Thailand-EC Cooperation Facility) (pending)
Asia Eco-Design Electronics Networks (AEDEN) (CfSD/ELCINA/RUC/LIU/SWITCH-Asia Promoting Sustainable Consumption & Production) (pending)
10-11 August, Cusco, Peru
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Thailand response to the EuP

Key Implementations Highlighted

LCA & Related EcoDesign Projects / Activities in Thailand (Prior to 2005)

Organization		No. of Projects
Government	MTEC-CTAP	6
NGO	Thailand Environment Institute (TEI)	6
University	Asian Institute of Technology (AIT)	6
	Chiang Mai University (CMU)	8
	Chulalongkorn University (CU)	5
	The Joint Graduate School of Energy and Environment (JGSEE)	10
	Khon Kaen University (KKU)	1
	KingMongkut university of Technology (Thonburi) KUTT	>3
	Kasetsart University (KU)	14
	Mahidol University (MU)	1

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Thailand response to the EuP

Key Implementations Highlighted

Activities in EEI -Green Camp Project (2005-2006)

Month	2005			2006								
	10	11	12	1	2	3	4	5	6	7	8	9
Pre-camping												
Green Camp Preparation	Website											
	Public Relation											
	Expert training											
	LCA & EcoDesign Databases/Software Development											
Green Camp Implementation		Training Material / Manual Prep.										
		Train the Trainer in LCA & EcoDesign										
					Manufacturing Training & Site Visit							
	Service Network for SMEs Development											
Green camp practice												
		Factory Consultation in CT										
					Demonstration Projects							

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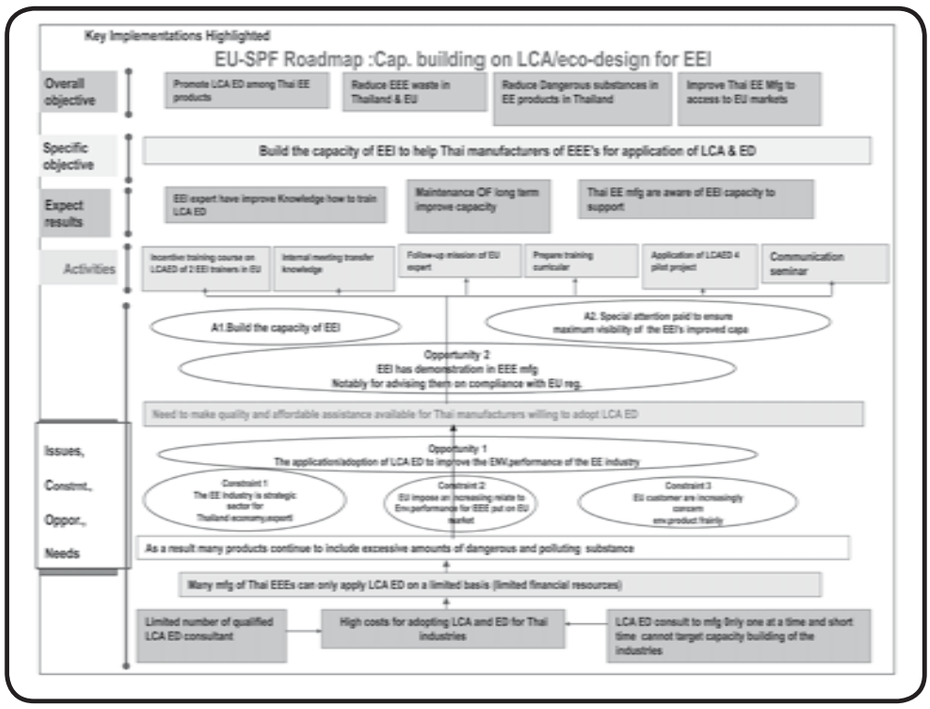

Thailand response to the EuP

Key Implementations Highlighted

KPI (Key performance Indicator) (Project Comparison)

Activity	Unit	Green Camp (TH.Gov.)	SPF-LCAED (EU)
Expert training	Man	15	2
Train the trainer	Man	200	18(10 EEI)
Industrial trainees	Man	1000	150
Curriculum	Level	2	1
Manual / Text book	Unit	3	1
Web site	Web	1	-
Service Network	SYS	1	-
Thai Software	Unit	1	-
Database	SYS	1	-
Consulting	Proj.	10	8
Pilot Project	NO...	2	-
Communication / Seminar	NO.	3	3

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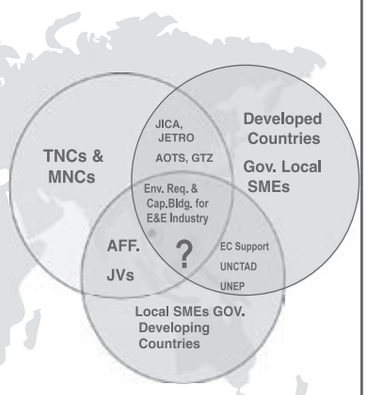
Thailand response to the EuP

Experiences Learned, Pending Issues, and Future Expectation

- **Experiences Learned**
  - Early awareness raising
  - Sourcing and Networking for Support
  - Keeping the momentum of changes (Closer cooperation, ongoing coordination, networking of "catalyst" for changes)
- **Pending Issues**
  - Availability of LCI data base & LCA competency to support Eco Design
  - MRA on Energy Saving Std. and Green Labeling, & etc.
- **Future Expectation**
  - Further support in C/B activities (from Gov./EU/MNCs)
  - Influential focal pt./powerful catalysts to follow up/coordinate for concerted effort and strategically focus.



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Thailand response to the EuP

AFF	Affiliate
APE	Asia Pro-Eco
AOTS	The Association for Overseas Technical Scholarship
ASD	Association Action Sustainable Development
CfSD	Center for Sustainable Design
CITQ	Centre d'innovacio Tecnologia Quimica, Spain
CMU	Chiang Mai University
CT	Cleawe Technology
CTAP	Cleaner Technology Advancement Program
DEDE	Department Alternative Energy Development and Efficiency
DEP	Department of Export Promotion
DS	Danish Standards Association
ED	Eco Design
EEE	Electrical and Electronic Equipment
EEI	Electrical and Electronics Institute
EGAT	Electricity Generating Authority of Thailand
ELCINA	ELCINA Electronic Industries Association of India
ELV	End of Life Vehicles
EMAS	Eco-management & audit scheme
EuP	Energy using Product
F.L	Fluorescent Lamp
FTI	Federation of Thai Industries
Gov.	Government
GTZ	German Technical Cooperation
IEC	International Electrotechnical Commission
IPP	Integrated Product Policy
ISMED	Institute of Small and Medium Enterprises Development
Fraunhofer IZM	Institut Zuverlassigkeit und Mikrointegration
JETRO	Japan External Trade Organization
JICA	Japan International Cooperaton Agency
JVs	Joint Ventures
LCA	Life Cycle Assessment
LCI	Life Cycle Inventory
LIU	Linköping University, Sweden
MNCs	Multinational Companies
MOC	Ministry of Commerce
MOE	Min. of Energy
MOI	Ministry of Industry
MRA	Mutual Recognition Agreement
MTEC	National Metal and Materials Technology Center
NESDB	National Economic & Social Development Board
OIE	Office of Industrial Economic
RoHS	Restriction of Hazardous Substances
RUC	Renmin University of China
SIRIM	Standard and Industrial Research Institute of Malaysia
SPF	Small Project Facility
TC	Technical Committee
TEI	Thailand Environment Institute
TERI	The Energy and Resources Institute
TGDN	Thai Green Design Network
TNCs	Transnational Companies
TISI	Thailand Industrial Std. Institute (Bureau)
TUB	Technische Universität Berlin
TUBS	Technische Universität Braunschweig
UNCTAD	United Nations Conference on Trade and Development
UNEP	United Nations Environmental Program
UNU EHS	United Nations University Institute for Environment and Human Security
WEEE	Waste from Electrical and Electronic Equipment
WG2	Working Group 2

10-11 August, Cusco, Peru
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Session IV:

The Dialogue SCSC – ABAC and business

Overview Session IV: The Dialogue SCSC – ABAC and business

The fourth session was the dialogue between SCSC, ABAC and business, aimed at encouraging future cooperation on standardization and conformance in APEC economies, responding to the need and expectations of business in the region. This session was moderated by Mr Teo Nam Kuan, SCSC Vice Chair.

The presentations for this session were:

- Importance of the ABAC - SCSC Dialogue: encouraging future cooperation on standardization and conformance in APEC economies according to the needs of business, Mr Augusto Mello, SCSC Chair.
- ABAC Standards Agenda – APEC Food System, Mr Geoffrey Brennan, ABAC Australia, Australia.
- Benefits of accreditation and conformity assessment for business, Ms Karen Hitchiner, Standards Australia on behalf of Dr Helen Liddy, Asia Pacific Laboratory Accreditation Cooperation (APLAC).
- Report of ABAC initiative project on Critical Infrastructure and Support Systems Standardization, Ms Karen Hitchiner, Standards Australia, Australia.
- International Standardization for the Petroleum and Natural Gas Industry / Possible Cooperation of APEC Members With OGP/SC and ISO/TC-67, Mr Wilson Barbosa, International Association of Oil and Gas Producers/ Standards Committee.
- Chilean Standard of Energy Efficiency: bases for regulations and its impact in the national industry, Ms Claudia Cerda, Chilean Standards Body INN, Chile.
- The use of standards and its impact in the agribusiness sector: the Peruvian experience, Mr Augusto Mello, Peruvian Standards Body (INDECOPI), Peru.

Session IV provided an opportunity to:

- Have a better understanding of ABAC's perspectives on standards and their importance for business.
- To identify possible areas of future cooperation between SCSC and ABAC.

The recommendations in this session were:

- SCSC should take into account ABAC's priority areas to strengthen cooperation between SCSC and ABAC through inclusion in SCSC's future agenda.
- SCSC work jointly with ABAC to achieve the goals pursued by the APEC food system of facilitating trade of food products.
- SCSC members should consider whether it is now timely to include work on conformity assessment issues, given that substantial work has been done on standards related issues.

Speakers Session IV

In order of final agenda

1. Mr Augusto Mello, Chair, APEC Sub Committee on Standards and Conformance/ Technical Secretary of INDECOPI´s Technical and Commercial Regulations Commission, Perú

Mr Mello is an economist. He is the Technical Secretary of INDECOPI´s Technical and Commercial Regulations Commission, which is the Peruvian Standardization and Accreditation Body. He has represented Peru in international forums related to standardization, accreditation and technical barriers to trade. He supports the work of the Ministry of Foreign Trade in these areas for Free Trade Agreement negotiations. From 2000 to 2004 he was President of the MLA Committee of the Inter American Accreditation Cooperation (IAAC). He is currently Chair of APEC´s Sub Committee on Standards and Conformance.

2. Mr Geoffrey Brennan, Executive Director, ABAC Australia

Mr Brennan has been in charge of the work on standards in ABAC. He is Managing Director of Gavin Anderson & Company in Canberra, an international communications company. Previously he was a senior executive in the Australian Department of Foreign Affairs and Trade and served as Minister overseas in the Australian Embassies of Tokyo and Washington.

3. Ms Karen Hitchiner, Manager for International Development, Standards Australia

Ms Hitchiner started with Standards Australia in the structures group with responsibility for facilitating the development of national and international standards in this area. Her involvement continued in the Asia Pacific by delivering seminars in a number of Asian Countries to promote the involvement and also delivering training courses. She was appointed to the joint position of manager for international development for Standards Australia and Standards New Zealand and has been actively involved in assisting them with their ISO, IEC, PASC and APEC activities over this period.

4. Mr Wilson Barbosa, International Association of Oil and Gas Producers/ Standards Committee (OGP/SC)

Mr Barbosa is a Chemical Engineer and holds Masters Degrees in Petroleum Processing and in Environmental Engineering. He participates in ISO/TC-67, representing the Brazilian Standards Association (ABNT). He also participates in the International Association of Oil and Gas Producers/Standards Committee (OGP/SC) as Vice-Chair, representing Petrobras.

5. Ms Claudia Cerda, Standardization Division, Chilean Standards Body

Ms Cerda is part of the professional staff at the Standard Division of the National Standardization Institute (INN). She holds a Degree on Acoustic Engineering from the Chilean Austral University. Mrs. Cerda is in charge of the Technical Secretariat of the COPANT Mirror Committee TC 152 Energy Efficiency. With the recent conformation of national Mirror Committee of the ISO/PC 242, she is also in charge of this Technical Secretary. She represent INN in PASC and PASC EC.

Importance of the ABAC - SCSC Dialogue: encouraging future cooperation on standardization and conformance in APEC economies according to the needs of business

Mr Augusto Mello, SCSC Chair

It is my pleasure to give a few words to open this Session 4 “The Dialogue between SCSC, ABAC and Business”.

One of SCSC’s main goals is trade facilitation, and working towards that goal necessarily means listening to business. From its early years, the SCSC has been looking for a close relationship with the business sector.

For their part, ABAC is focused on the practical impacts of standards and conformance on trade-related business activities in APEC, and on ensuring that efforts at enhanced harmonization and mutual recognition are directed in a way that will bring concrete outcomes.

One effective measure to encourage SCSC to gain awareness on the needs and expectations of industry has been the organization of a Dialogue with ABAC. These dialogues have taken place since 2004, every two years, in conjunction with SCSC’s second plenary meeting. So this is our third dialogue session.

Some of the conclusions derived of the Dialogue with ABAC, are that:

- From ABAC’s perspective, activities of SCSC are valued.
- From SCSC’s point of view input received from ABAC is very important.
- The Dialogue encourages SCSC activities to be focused along with the needs of stakeholders.
- There is a need for enhancement of capacity building programs.
- The importance of further analysis and assessment of ABAC related SCSC activities.

I would like to mention a couple of successful cases of ABAC-SCSC cooperation.

A relevant output of the cooperation between ABAC and SCSC has been the development of a program on trade facilitation in Information Technology products, which includes topics such as trade facilitation, standards and regulatory reforms in the IT sector.

Also, cooperation with the business sector has taken place in relation to Small and Medium Enterprises. The main topic currently being developed and discussed is the reduction of Compliance Costs for SME’s.

We could also mention the input of ABAC to the KPIs that the SCSC approved intersessionally in May, having received useful comments and suggestions from ABAC.

I am sure that the topics that have been discussed so far during this Conference, as well as the conclusions that will be reached in this important session will strengthen even more the cooperation between SCSC and ABAC and will serve as important input to the future work of SCSC.

Thank you very much.

Asia-Pacific Economic Cooperation

2008/SOM3/SCSC/CONF/030

ABAC Standards agenda

Submitted by: ABAC Australia
Geoffrey Brennan
Executive Director

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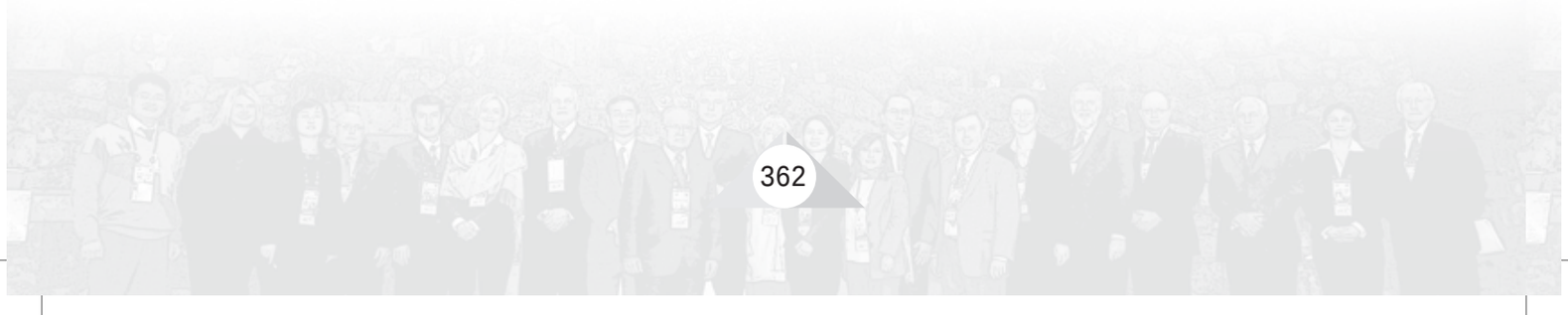
7th Conference on Standards and Conformance
Sub-Committee on Standards & Conformance
Cusco, Peru
10-11 August 2008

Benefits of standardisation for business

- ABAC has long recognised the fundamental importance of effective uniformity in standards to:
  - Lower design and other trade costs
  - Make tendering and trade easier
  - Allow business transactions to take place using a common language
  - Ensure regulations and conformance requirements are transparent
  - Encourage technology transfer
  - Protect intellectual property

Standards are critical in all sectors

- Standards increasingly affect all areas of economies:
  - Manufacturing and technological development
  - Management
  - Services such as financial, educational and health
  - Government
  - Security
  - Agriculture and food production
  - The environment



The Goal

- The goal is effective :
  - Development and adoption of common international standards
  - Conformity assessment
  - Certification and market surveillance
  - in all APEC economies

Standardisation across the Region is inhibited by:

- Varying stages of economic development and consequent resource constraints.
- Varying participation in international standards processes.
- Varying degrees of awareness of the contribution of standards by governments, industry and the public.

ABAC

- In 2005 ABAC commissioned a report to provide ideas for a forward agenda for standardisation in the Region.
- The aim of the survey was to identify difficulties confronting APEC economies in aligning standards.
- In November 2006 ABAC sent a survey to National Standards Bodies throughout the Region.
- 18 responses were received and results have been compiled.

Survey Questions

- We asked 22 questions.
- Topics covered issues of:
  - Industry and government involvement
  - Funding
  - Barriers to alignment with international standards
  - Priority areas for international alignment
  - Assistance required to strengthen the organisational skills base
  - Extent of collaboration between national standards bodies
  - APEC assistance
  - Conformance assessment

Survey Results

- It is clear that significant differences exist between levels of standardisation.
  - Staffing of National Standards Bodies ranges from 2-250
  - The number of standards ranges from 41 to 25,654.
- It is also clear that there is a desire to move toward
  - greater regional collaboration,
    - All economies answered yes when asked if they would like to see more opportunities for collaboration.
  - greater international harmonisation.
    - All but 2 economies advised that they have a target to align national standards to international standards.
    - The period of time anticipated for this target ranged between 2 and 5 years.

The Messages

- Some clear messages emerge:
- While there is interest in potential benefits of alignment with international standards as a concept, individual international standards and the processes for developing them, are often not seen as relevant or useful in this region, and economies are not confident in their participation in those processes.
- Advantages are seen in working cooperatively in international fora and in regional exchanges for training and information.

Forward Agenda

- Analysis of the survey results and the outcome of these discussions are aimed at:
  - Developing a program of capacity building to strengthen standards structures where necessary
  - Developing a program to raise awareness of the role and importance of standardisation to regional prosperity
  - Greater regional collaboration
  - Greater harmonisation with international standards
  - Identification of key areas that may be suitable for regional agreement for adoption of international standards.

The (International)Critical Infrastructure Security and Support Systems Project

- Many of you will be aware of the APEC project on security and emergency management standards.
- Importantly the catalyst for this unique and groundbreaking agreement was ABAC's work on standards.

Is this a template for future work?

- The question on my mind is can this project be a template for future work in APEC on standards?
- Can we identify other areas that do demand attention in the region and are conducive to this type of approach?

Next – convergence?

- Having had some success in moving the agenda forward on standards, does ABAC need to look more closely at convergence?
- Aim is to see if ABAC, recognising its unique role, can add value in addressing matters in convergence.

Next – supply chain issues

- We are looking at work in transport across the region
- Early stages but seeking to address adverse impact of regulatory matters on logistical & supply chain management
- Indication of areas in which we can be active for business

Enter KPIs

- The bottom line for ABAC is the need for our work to be of value to business.
- Otherwise we are unable to meet the mandate Leaders have set for our work.
- This is why ABAC has proposed the use of KPIs in the current TFAP II across 4 areas including SCSC.
- This is a new step. ABAC hopes it can continue to work closely with SCSC is taking into account our input on KPIs.

Cooperation with SCSC

- ABAC will continue to work with SCSC
- ABAC is proud of its contribution to standards across the region
- But we recognise the key role of SCSC in this work
- Look forward to future areas of assistance and support
- But please recognise that ABAC has a unique role in the APEC process and our work is meant to add value to matters relating to business that Leaders need to address

Second Trade Facilitation Action Plan (TFAP II)

Key Performance Indicators (KPIs) Suggested by Sub-Committee on Standards and Conformance (SCSC)

Areas	Actions in TFAP II	Suggested KPIs
Align APEC Economies' Domestic Standards with International Standards; Implement Good Practices for the Development and Implementation of Technical Regulations	**a)** Align with International Standards in agreed priority areas and provide updated information for inclusion in the VAP.	(i) Number of APEC economies that are participating in Technical Committees and/or activities in: - ISO - IEC -CODEX (ii) Number of international standards covered by the VAP standards alignment work as target standards. (iii) Number of APEC economies that are participating in the VAP activity. (iv) Number of APEC economies that have achieved 100% alignment of their standards with international standards in each priority area of the VAP activity. (v) Number of APEC economies that are participating in: - International and regional comparisons of measurement standards organized by CIPM and/or SIM (Interamerican Metrology System). -PASC (for national standards bodies)
	b) Align regulations, rules and procedures, standards and codes affecting the acceptance of goods between economies and markets on the basis of international standards where appropriate, e.g. CODEX, OIE, IPPC, ISO and IEC standards.	
	c) Implement WTO TBT Committee Decision on Principles for the Development of International Standards, Guides and Recommendations and use language consistent with the WTO TBT Committee decision in trade agreements and national laws and regulations when referring to international standards.	
	d) Implement the Work Programme on Trade Facilitation in Information Technology Products.	
	e) Adopt Good Regulatory Practice through revising regulations to reflect the three documents endorsed by the SCSC: Principles and Features of Good Regulatory Practice; APEC Information Notes on Good Practice for Technical Regulation; and Guidelines for the Preparation, Adoption and Review of Technical Regulations.	
	f) Align domestic regulations for medical devices with the principles of the Global Harmonization Task Force (GHTF). Progressively adopt and implement GHTF guidance documents.	
	g) Align domestic hazard classification and labelling schemes for chemicals to the Globally Harmonized System (GHS)	
	h) Sign on to the global MRA on measurement standards coordinated by the International Committee of Weights and Measures (CIPM).	
	i) Participate in international and regional comparisons of measurement standards organized by the International Committee on Weights and Measures (CIPM) and the Asia Pacific Metrology Programme (APMP).	
	j) Promote active participation by the national standards body in regional fora, such as the Pacific Area Standards Congress (PASC).	

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APEC Food System (AFS)

APEC Food Security

- Set out in the 1998 and 1999 ABAC Report to APEC Leaders, the APEC Food Security (AFS) visualizes a regional food system built on the guiding principles of rural development and capacity building, technology development and sharing, and trade and investment liberalization in food products.
- As APEC's main vehicle for addressing food security issues, the AFS seeks to create an environment based on a vision of a regional food system where:
  - consumers have access to the food they desire at affordable prices;
  - the productivity of the food sector is enhanced through region-wide availability of food-related technological advances and through efficient resource use;
  - supply security is improved through cooperation and interdependence;
  - the vitality of rural communities is enhanced through improved infrastructural development and through access to viable non-farm employment and industry.
- The AFS includes specific programs to pursue the vision.

Responding to Food Supply and Price Issues

- There is widespread concern among regional business regarding the impact of shortages in the supply of basic food products and subsequent marked increases in prices.
- These problems are due to a number of factors, notably increased global demand for food products, as well as energy related challenges including oil price rises.
- In some economies, defensive measures are being taken, including imposition of export restrictions to retain supplies for domestic markets, which cause adverse consequences for other economies.
- ABAC does not support the use of embargoes and other export restrictions as a means of addressing perceived food shortages.
- In addition to avoiding such unhelpful short term measures, it is essential that the underlying long-term problems be addressed.

Tackling challenges of today

- ABAC believes the APEC Food System (AFS) has direct relevance to the situations faced today.
- We recognize and applaud the fact that much work has been done in many economies to try and implement the AFSS.
- Nevertheless, we feel that much more can be done within APEC to fully embrace the AFS.
- ABAC stands ready to work closely with APEC on this issue and plans to put special emphasis on the AFS and food issues from now through the 2009 Leaders' Meeting.

Asia-Pacific Economic Cooperation

2008/SOM3/SCSC/CONF/032

Benefits of Accreditation and Conformity Assessment for Business

Purpose: Information
Submitted by: APLAC Secretary
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Presented by: Karen Hitchiner, Australia
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APLAC : www.aplac.org
PAC: www.apec-pac.org

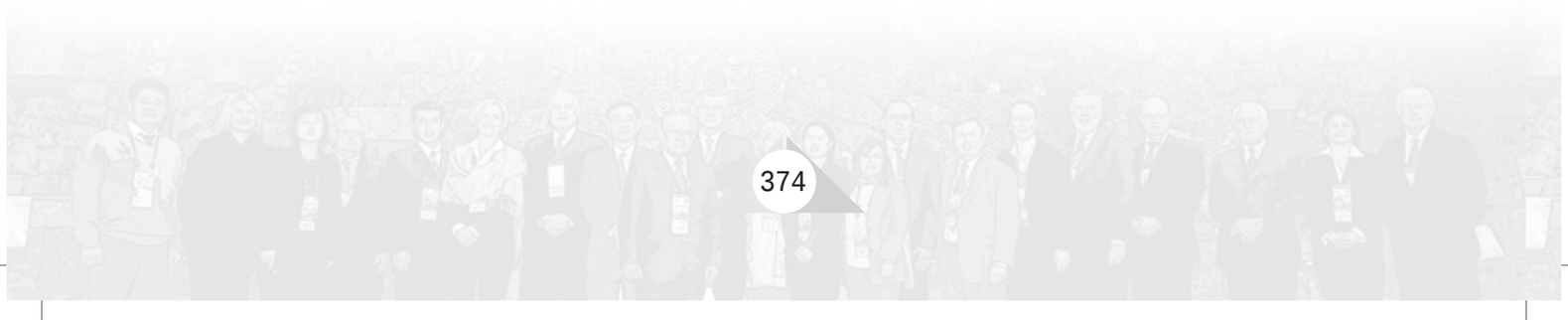
7th Conference on Standards and Conformance
Sub-Committee on Standards & Conformance
Cusco, Peru
10-11 August 2008

Overview

- Types of conformity assessment
- Business & trade rely on conformity assessment
- Competence of CABs
- Accreditation & hierarchy of criteria
- APLAC MRA and PAC MLA
- APLAC MRA, PAC MLA & APEC

Conformity Assessment

Demonstration that specified requirements relating to a product, process, system, person or body are fulfilled. ISO/IEC 17000, clause 2.1



Types of Conformity Assessment

- Testing
- Calibration
- Inspection
- Certification

Business & Trade Rely on Conformity Assessment

- Testing (e.g. food; manufactured articles; environmental protection; etc)
- Calibration (e.g. weighing and dispensing machines)
- Inspection (e.g. pipelines; cranes; shipments of goods)
- Certification (e.g. food safety; product; EMS)

International Standards

- Testing Laboratories: ISO/IEC 17025; ISO 15189
- Calibration Laboratories: ISO/IEC 17025
- Inspection Bodies: ISO/IEC 17020
- Certification: ISO/IEC 22000; ISO/IEC Guide 65; ISO/IEC 14001; etc

Competence of CABs

- Documented quality system
  - Management review & internal audits
  - Contract review
  - Purchasing
  - Complaints
  - Control of nonconforming product
  - Corrective action; improvement
  - Records

Competence of CABs

- Relevant technical requirements
  - Personnel
  - Equipment
  - Measurement traceability
  - Procedures
  - Quality control/quality assurance
  - Reports/certificates

Competence of CABs

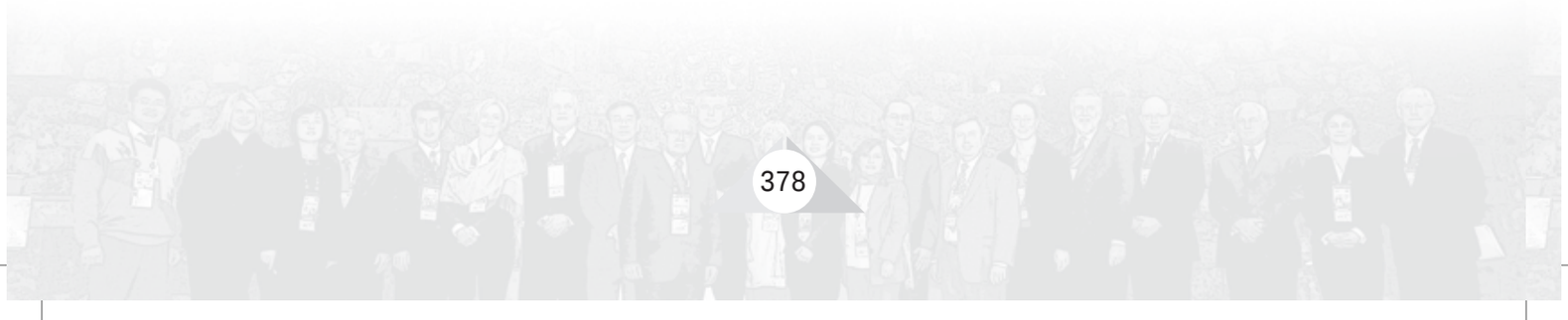
- Demonstrated through accreditation by third party organisation (accreditation body)
- Accreditation body compliant with ISO/IEC 17011
- APLAC MRA; PAC MLA

Accreditation

- Assessment of CAB performance against international criteria (ISO/IEC 17025; ISO/IEC 17020; ISO/IEC Guide 65; etc)
- Means of determining competence of CABs to perform specific measurements, calibrations, tests, inspections or certifications
- Formal recognition of that competence

Accreditation

- 3rd party attestation related to a conformity assessment body conveying formal demonstration of its competence to carry out specific conformity assessment tasks (ISO/IEC 17000, clause 5.6)
- Key phrases
  - competence
  - specific…. tasks



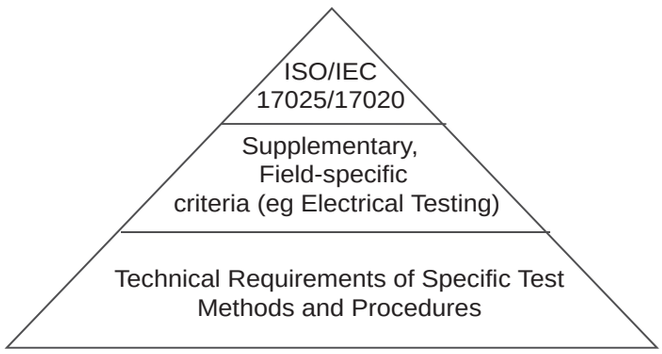
Accreditation

- Demonstrated competence
  - Specific tests
  - Defined measurements
  - Types of calibrations
  - Particular testing techniques
  - Specific types of inspections
  - Specific types of certifications

Accreditation

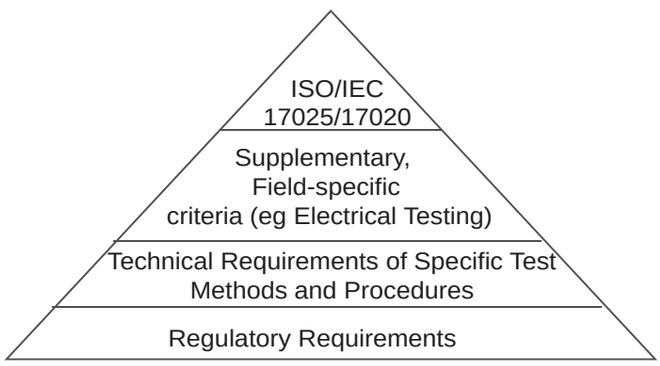
- Technical competence
- Integrity
- Transparency (as defined by WTO TBT)
- Fairness
- Scope of accreditation
  - products; types of test parameters types of inspections; matrices
  - measurement techniques, range, accuracy
  - test specification; test method

Accreditation Hierarchy of Criteria



1 General technical competence and systems compliance criteria
2 Additional field-specific criteria, eg for emc testing laboratories
3 Additional test, calibration, inspection method criteria

Accreditation Hierarchy of Criteria



1 General technical competence and systems compliance criteria
2 Additional field-specific criteria, eg for emc testing laboratories
3 Additional test, calibration, inspection method criteria
4 Additional, regulator-specific criteria (eg reporting formats, labelling etc)

APLAC MRA

- Single multilateral MRA for testing and calibration, 1997
- Extended to include inspection, 2003
- ISO 15189 separated out, 2007
- Extended to include RMP, 2007
- Replaced network of bilateral MRAs
- Regional component of global ILAC Arrangement, November 2000 (test and calibration only)

APLAC MRA

- Facility accredited by one MRA partner has equivalent competence to facility accredited by other partners
- **Each signatory acknowledges equivalence of all other signatories**
- Acceptance of test, calibration and inspection reports and reference material certificates amongst all signatories' economies
  - demands mutual confidence in technical competence
- **Confidence cannot be legislated**

APLAC MRA Signatories

- NATA
- CAEAL
- SCC
- CNAL
- HKAS
- NABL
- KAN
- JAB
- IA Japan
- VLAC
- KOLAS
- Standards Malaysia
- ema
- IANZ
- SAC

APLAC MRA Signatories ctd

- TAF
- DSS
- DMSc
- TLAS
- A2LA
- ACLASS
- LAB
- IAS
- NVLAP
- PJLA
- BoA
- JAS-ANZ

PAC MLA

- QMS signed initially in 1998
- EMS signed initially in 2003
- Product signed initially in 2004
- Regional component of global IAF MLA, signed in 1998 for QMS; in 2004 for EMS and product

PAC MLA

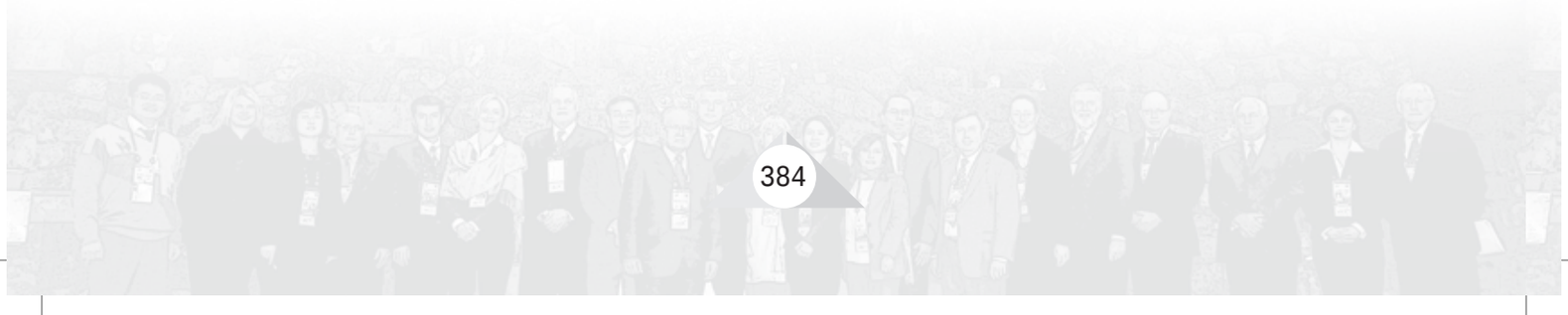
- Certification bodies accredited by PAC MLA signatories are recognised as equivalent
- Users of services can have same confidence in organisation accredited by one PAC MLA signatory as in those accredited by other PAC MLA signatories

PAC MLA Signatories

- SCC
- CNAS
- HKAS
- NABCB
- KAN
- JAB
- KAB
- KAS
- Standards Malaysia
- ema
- PAO
- SAC
- TAF
- NAC
- ANSI
- BoA
- JAS-ANZ

MRA & MLA - Assisting Trade

- APLAC MRA and PAC MLA enhance acceptance of reports and certificates amongst signatory economies
- APLAC MRA and PAC MLA signatories recognise equivalence of each others' accredited facilities
- APLAC MRA and PAC MLA are international recognitions for accredited CABs



MRA & MLA- Assisting Trade

- APLAC MRA and PAC MLA reduce or eliminate need for re-testing, re-inspection or re-certification of imported goods
- Entry into global ILAC Arrangement (for testing and calibration) and global IAF MLA (for certification)

MRA & Regulators

- Laboratories and inspection bodies accredited for compliance with domestic & foreign regulations
- MRA evaluations assure competence to assess to domestic & foreign regulations
- APLAC MRA and PAC MLA underpin APEC G2G MRAs (TEL and EE MRAs)

Summary

- Business & trade rely on CABs
- Accreditation
- APLAC MRA and PAC MLA
- Support for APEC activities

Asia-Pacific
Economic Cooperation

2008/SOM3/SCSC/CONF/033

Report of ABAC Initiative Project On Critical Infrastructure and Support Systems Standardization

Purpose: Information
Submitted by: Australia

Karen Hitchiner
Manager International Development
Standards Australia

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7th Conference on Standards and Conformance
Sub-Committee on Standards & Conformance
Cusco, Peru
10-11 August 2008

Project Background

- In December 2006 ABAC forwarded a survey to the National Standards Bodies of the 21 member economies of APEC
- Survey collected information about standards, national standards bodies, funding, government, industry and public awareness and involvement issues
- Results of survey presented at ABAC - Pacific Area Standards Congress (PASC) dialogue meeting in Cartagena on 26 April 2007
- The meeting identified five areas for a forward program
  - capacity building
  - raising awareness
  - greater regional collaboration
  - greater harmonisation
  - identification of key areas

STANDARDS Australia

Project Background

- Under “Identification of Key Areas” PASC unanimously agreed to a project on Critical Infrastructure & Support System Standardization.
- The project is to deliver tangible positive results to business and government.

STANDARDS Australia

Project Details

- With September 11th, Bali & London bombings and natural disasters such as the Boxing Day Tsunami, the standards environment for private industry and government agencies has changed requiring:
  - an 'all hazards' approach
  - integrated security framework
  - additional security standards
  - the update of existing standards
  - agreed priorities
- These items need to be addressed quickly, efficiently, comprehensively and collaboratively.

STANDARDS Australia

Project Details

- Designed to assist in the development of a framework to address the need to protect critical infrastructure in times of emergencies, whether these be caused by natural disasters or criminal activity.
- Will promote security standards and system capacity which support business.
- A key focus will be building technical capacity for developing APEC member economies.
- Will also promote the harmonisation of related standards across the APEC region.
- Will help improve the interoperability, and compatibility of systems related to securing critical infrastructure.

STANDARDS Australia

Project Details

- The Project will provide invaluable assistance and efficiencies to the owners and operators of critical infrastructure.
- It will prevent the need to redevelop or reinvent approaches to solving the same problems many times over.
- It will provide simple authoritative guidance and a consolidation of existing good industry practice developed by an independent party.
- It will provide a blue print for an integrated security framework.

Project Aims

1. Identify and detail some of the issues, barriers and solutions related to protecting critical infrastructure (power supply, water, telecommunications, financial services sectors)
2. Identify user perceptions of the importance of standards related to securing critical infrastructure
3. Identify and prioritise the standards required by the owners and operators of critical infrastructure
4. Identify the gaps between existing standards and the needs of owners and operators of critical infrastructure
5. Make recommendations on how the gaps in standards may be addressed
6. Develop a blue-print for the development of a standards framework

Project Methodology

• Preparation	Develop detailed project plan, project background paper and survey instrument.
• Capacity Building	Instruction on how to conduct survey in home country.
• Consultation	NSB to administer survey.
• Analysis	Consolidation and interpretation of results, draft report produced.
• Communicate & Report	Publish and launch report.

Progress

- Positive response to the call for nominations of key national Contact Points and Deputies.
  - 19 APEC Member Economies have agreed to participate in the project (20 including Australia).
- Given that data has already been collected for Australia in the 4S survey leading up to this initiative, this is an excellent result.
- The project training workshop will be held at the Sheraton Hanoi Hotel on 27 August 2008.
- Accommodation has also been arranged at this venue for participants.
- The purpose of the workshop is to provide training to key national Contact Points on how to conduct the CISSS Survey in their own APEC Member Economy.
- 19 representatives have indicated they will attend the workshop.

Consultation

- The key national contact points and their deputies have been asked to review and comment on the draft online survey instrument.
- The draft survey instrument has been accessed 21 times and feedback has been received.
- Time has been set aside during the training workshop for participants to test the survey instrument and provide further comments.
- The survey instrument will be fine tuned based on feedback.

Implementation

- Following the training workshop, key national contact points will focus on identifying survey respondents.
- The survey will commence mid-Sept 2008 and will be live until late-Nov 2008.
- Mentoring and support will be provided.

Further information

- Further information and link to draft online survey instrument:
  Email cmorrison@stancert.com

Asia-Pacific
Economic Cooperation

2008/SOM3/SCSC/CONF/034

International Standardization for the Petroleum & Natural Gas Industry/Possible Cooperation of APEC Members with OGP/SC and ISO/TC-67

Purpose: Information

Submitted by: OGP Standards Committee
Wilson Barbosa De Oliveira
OGP/SC Vice Chair

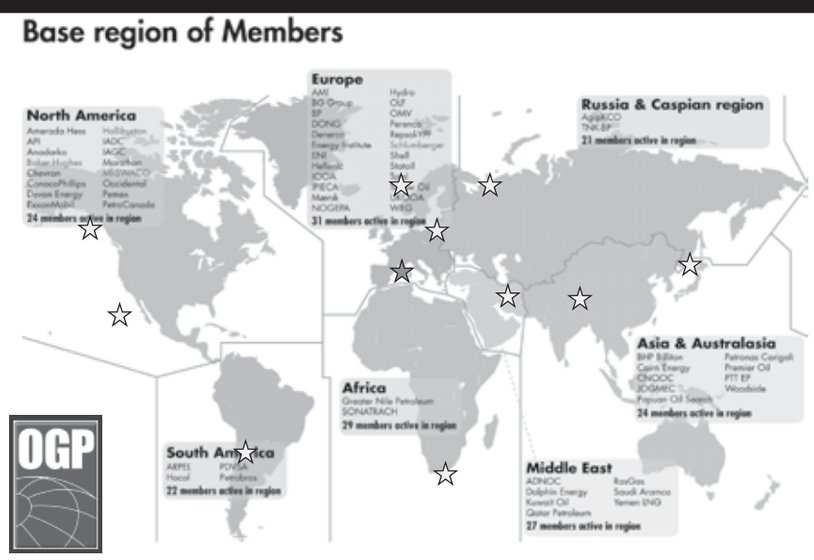
wbarbosa@petrobras.com.br

7th Conference on Standards and Conformance
Sub-Committee on Standards & Conformance
Cusco, Peru
10-11 August 2008

What is OGP?

- Formed in 1974 to develop effective communication between the upstream industry and international regulators
- Members
  - National & regional associations
  - Publicly traded, private & state oil & gas companies
  - Major service companies
- Members produce more than half of the world's oil and about one third of its gas
- Offices in London and Brussels

★ Standards Workshops



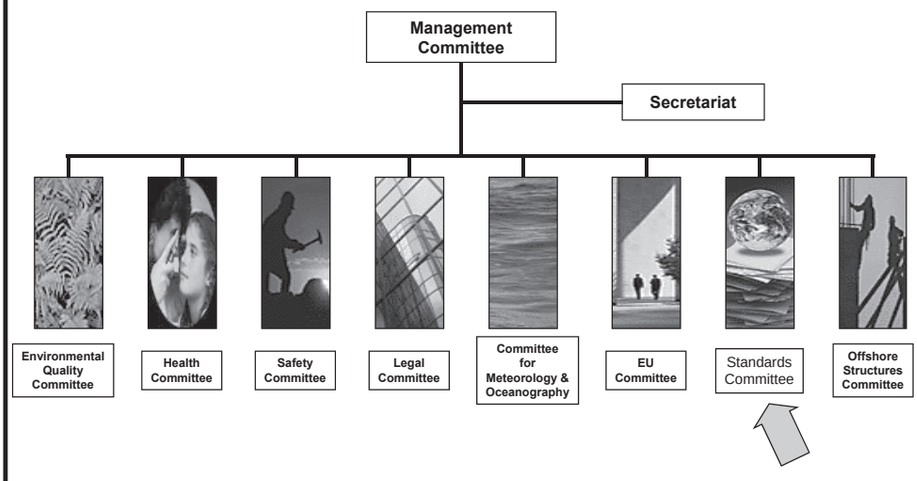
OGP Vision

To work on behalf of all the world's upstream companies to promote responsible and profitable operations

OGP Mission

- To represent the interests of the upstream industry to international regulatory and legislative bodies
- To achieve continuous improvement in safety, health and environmental performance and in the engineering and operation of upstream ventures
- To promote awareness of Corporate Social Responsibility within the industry and among stakeholders

OGP Organization



Global experience

- OGP has access to a wealth of technical knowledge and experience with its members operating around the world in many different terrains.
- OGP collate and distil this valuable knowledge into a range of reports and guidelines. Some for general use while others are restricted to OGP members.

OGP Standars committee membership

Members [1)]	Company	Country	Other functions
Wilson Barbosa de Oliveira	Petrobras	Brazil	OGP/SC Vice-Chair
Anatoly Baryshnikov	Eni	Italy	CEN/TC12 AH8 Chair
Gail Baxter	Marathon	USA	
Felicia Decusara	Petrom	Romania	
Alf Reidar Johansen	OGP/SC	Norway	OGP/SC Manager
Joachim G. Koenig	OMV	Austria	
Tom Kelleher	Petro-Canada	Canada	
Alain Loppinet	CEN	France	CEN/TC12 Chair
Martin Maeso	Energy Institute	UK	
David Miller	API	USA	API Std. Progr. Dir.
Saif S Al Naimi [3)]	Qatar Petroleum	Qatar	
Abdullah Humaid [4)]	Saudi Aramco	Saudi Arabia	
Manuel Paga Castellanos	RepsolYPF	Spain	
Terry Qin [2)]	CPSC	China	
Neil Reeve	Shell	Netherlands	IFAN President, OGP/SC Chair, ISO/TC67 Interin Chair
Daniel Rioche	Total	France	
Trevor Vyze	ISO	Switzerland	Technical Group Mgr.
Ross Smith	BP	USA	
Mike Swidzinski	ConocoPhillips	UK	
Richard Torgersen	ExxonMobil	USA	
Mirmohamad Rouzbeh	Petropars	Iran	

Notes: 1) Plus corresponding members from: BG, Chevron, Mærsk and Premier. Alternates:
2) Du Delin & Xiaohong Chen, CPSC 3) Muayad Ajjawi, 4) Fathi Abughaban

Oil & Gas Standards History

- Historically, the American organisations API, ANSI, ASME, ASTM & AWS etc. developed the standards frequently used by the upstream world wide oil & gas industry.
- North Sea operating companies developed lots of in-house and project specifications to fit their needs not covered by the American standards.
- Growing EU interest for developing European upstream standards emerged in view of EU's "new approach" for technical standards to support the general safety requirements in the EU directives.
  - A change in developing oil & gas standards & specifications was required

ISO Initiative & OGP Support

- OGP supported the ISO initiative in 1987 to reactivate ISO / TC67 (created in 1947) to develop ISO standards for the upstream – the petroleum & natural gas industry
- This created a global arena for standards development, where all ISO members and nations concerned have a role to play
- ANSI, USA were offered and accepted responsibility for the ISO / TC67 secretariat
- First meeting of the revived ISO/TC 67 in Paris 1989
- A new era in the global upstream industry standardisation had started

OGP

International Association of Oil & Gas Producers

Standards Bulletin

EXECUTIVE SUMMARY

A set of international standards for a wide selection of vital oil and gas industry materials, equipment and offshore structures is emerging from the Internat… ISO. T… respon… 67 (IS… using … more t… experts … interna… 130 IS… issued … publications in 2006. A further 16 are

GULF STATE COMPANIES FOCUS ON ISO STANDARDS

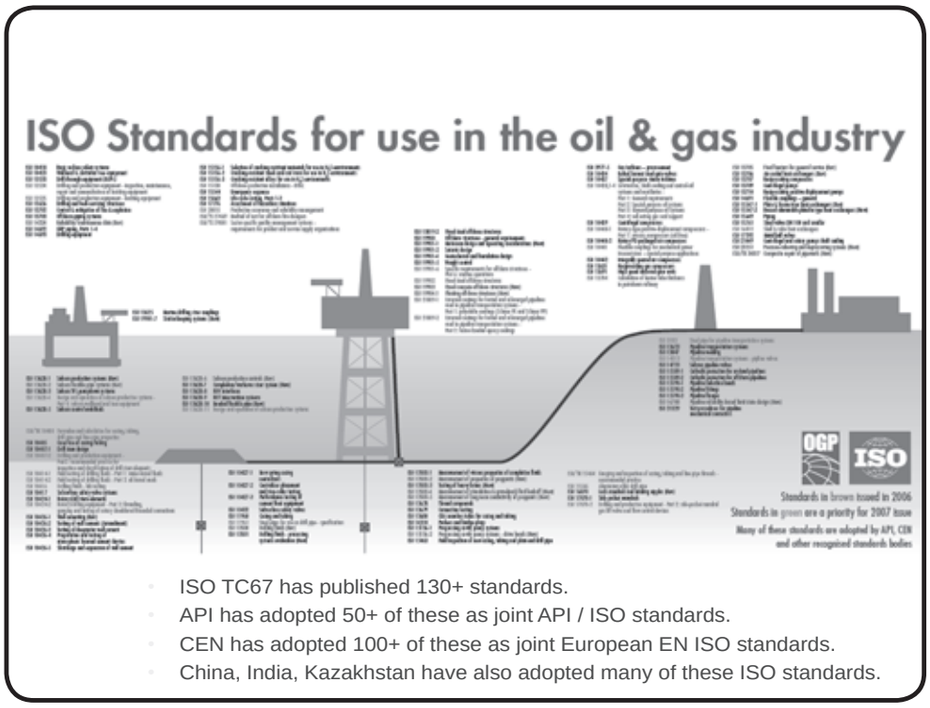
Qatar Petroleum organised, under the …me Minister …ndustry – and …n international April 2006 in …hop was to …f standardisation …tor and increase …& gas companies …nisations in the …gion. It is the first time a standards workshop had been held in this area. The number of workshop delegates

Catalogue of international standards used in the petroleum and natural gas industries

Global Standards Used Locally Worldwide

http://info.ogp.org.uk/standards/

Saudi Aramco (SA) organised its first International Standards forum and workshop on 28-29 November 2006, at the Le Gulf Meridien Hotel, Al-Khobar, Saudi Arabia. This knowledge sharing event was designed to provide the participants with an opportunity to broaden their understanding of the



- ISO TC67 has published 130+ standards.
- API has adopted 50+ of these as joint API / ISO standards.
- CEN has adopted 100+ of these as joint European EN ISO standards.
- China, India, Kazakhstan have also adopted many of these ISO standards.

OGP Position on Standards

The OGP has been a catalyst for change in the industry's approach to standards and strongly supports the internationalisation of key standards used by the Petroleum and Natural Gas Industries. OGP 's position on standards is:

- development and use of ISO and IEC standards should be promoted
- development of standards should be based on a consensus of need
- "users" should be represented on standards work groups
- duplication of effort should be avoided
- standards should be simple and fit for purpose
- International standards should be used without modification wherever possible
- company specifications should be minimised and written, where possible, as functional requirements.

The adoption of this approach is expected to minimise barriers to trade, enable more efficient worldwide operations, and improve the technical integrity of equipment, materials, and offshore structures used by the Petroleum and Natural Gas Industries. **OGP Report 381, April 2007**

OGP Standards CommitteeBusiness Plan 2008

- Support development of ISO/IEC standards
- Progress development of OGP member identified standards
- Support work of Instrument & Materials groups
- Produce 2008 Standards Bulletin
- Hold technical workshops
- Better understanding of Regulators` use of standards
- Identify and address barriers to adoption of standards
- Benchmark OGP members work with the production and use of standards.

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- Better understanding of Regulators` use of standards
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- Benchmark OGP members work with the production and use of standards.

OGP/SC Business Plan 2008 cont.

- Key publications:
  - Contribute to publication of 19 targeted ISO/TC67 standards
  - Report on regulatory use of international standards
  - 2008 Standards Bulletin
- 2008 Workshops:
  - Provisionally planned for Western Europe & Beijing
  - Potential workshop on to discuss harmonisation and development of coating standards
- Proposed budget:
  - Roll Technical editing JIP into OGP mainstream
  - £35.000 for consultancy services

ISO Standards for the Oil and Gas Industry

How it works!

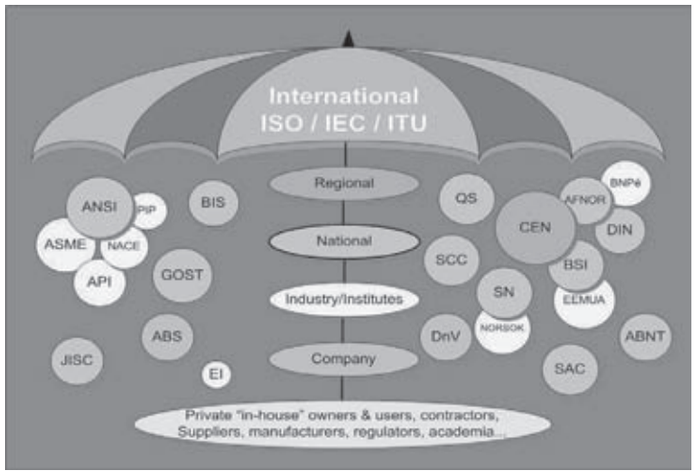
ISO Organization

- Consensus-based
- Market driven
- Technically current
- Internationally expertise
- Voluntary, not mandated
- Meet requirements of WTO Technical Barriers to Trade

ISO Organizationcont.

- “One country, one vote”
- Equal footing for all countries
- Right to join any technical committee or policy committee of commercial/technical interest
- Voting rights on all standards
- Access to global community of technical experts

ISO, IEC and ITU Organization



ISO for Oil and Gas Industry

ISO technical committees cover many 'energy' and related sectors including:

- TC 27 – Coal
- TC 28 – Petroleum Products
- TC 67 – Materials, Equipment & Offshore Structures for the PPNGI
- TC 85 – Nuclear Energy
- TC 180 – Solar Energy
- TC 193 – Natural Gas
- TC 197 – Hydrogen Energy
- TC 203 – Technical Energy Systems (Basic Concepts)

ISO/TC-67 – Materials, equipments and offshore structures for petroleum, petrochemical and natural gas industries

- Secretariat – API on behalf of ANSI
- Created – 1947, and reactivated 1987
- Scope: Standardization of the materials, equipment and offshore structures used in drilling, production, transport by pipelines and processing of liquid and gaseous hydrocarbons within the petroleum, petrochemical and natural gas industries.
- Excluded: aspects of offshore structures subject to IMO regulations (TC8 – "Ships and Marine Technology")
- Participating countries – 28
- Observing countries – 28
- Standards published - 135

ISO/TC-67

- **Mission**

  To create value-added standards for the oil and natural gas Industries.

- **Vision**

  Global standards used locally worldwide.

Vision of global standards

API Adopt-back of ISO 13706, as ANSI/API 661

Air-Cooled Heat Exchangers for General Refinery Service

API Standard 661, Fifth Edition
March 2002

ISO 13706: 2000, Petroleum and Natural Gas Industries—Air-cooled Heat Exchangers

American Petroleum Institute

Helping You Get The Job Done Right.℠

European Standard (adoption of ISO 13706 via Vienna Agreement)

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 13706

April 2000

ICS 75.180.20

English version:

Petroleum and natural gas industries - Air-cooled heat exchangers (ISO 13706:1998)

Industries du pétrole et du gaz naturel - Echangeurs de chaleur refroidis à l'air (ISO 13706:1998)

Erdöl- und Erdgasindustrien - Luftgekühlte Wärmeaustauscher (ISO 13706:1998)

This European Standard was approved by CEN on 15 April 2000.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

cen

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Central Secretariat: rue de Stassart, 36 - B-1050 Brussels

Ref. No. EN ISO 13706:2000 E

ISO/TC-67 Participants

- Operators
- Service/supply companies
- Manufacturers
- Government regulators
- Consultants
- Academics
- Experts are nominated by their national standards body to participate in work effort

ISO/TC-67 Members

- Participating Members = 28

  Argentina, Brazil, Canada, China, Denmark, Finland, France, Germany, Indonesia, Italy, Japan, Kazakhstan, Korea (Republic of), Mexico, Netherlands, Nigeria, Norway, Oman, Portugal, Qatar, Romania, Russian Federation, South Africa, Spain, Ukraine, United Kingdom, United States, Venezuela

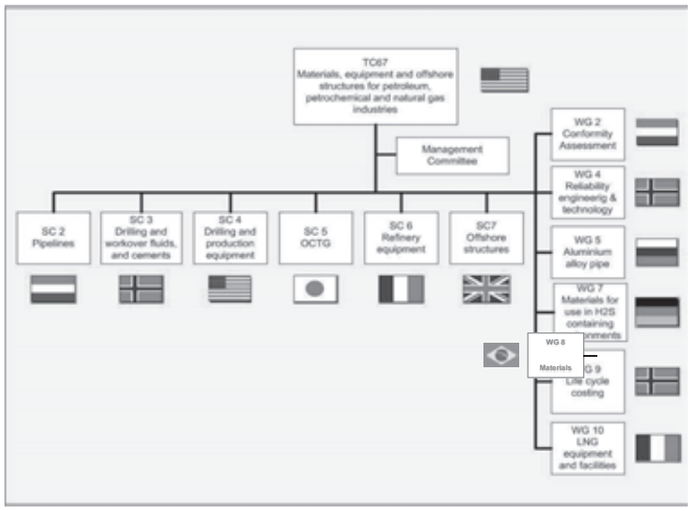
- Observing Members = 28

  Australia, Austria, Azerbaijan, Belgium, Bulgaria, Colombia, Croatia, Cuba, Czech Republic, Ecuador, Egypt, Hong Kong, Hungary, Iran (Islamic Republic), Ireland, Malaysia, Moldova (Republic of), Mongolia, Poland, Saudi Arabia, Serbia, Singapore, Slovakia, Sweden, Switzerland, Thailand, Trinidad and Tobago, Viet Nam

ISO/TC-67 Membership

ISO/TC-67 Country members

ISO/TC-67 SC and WG Organization



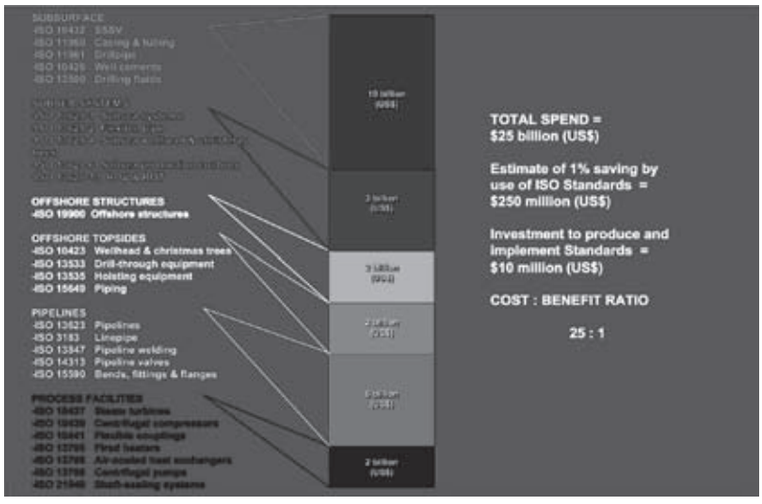
ISO/TC-67 Management Committee

- Representative from each “P” country
- Coordinates TC67 activities with ISO CS
- Seeks resources for SC – technical experts, funds, etc.
- Publishes the Business Plan (requirement of ISO Technical Management Board)
- Maintains N435-Policies and Procedures, N654-Management System, and N731-Management Plan
- Accepts TC publication targets, and works toward guiding documents through DIS and FDIS

ISO/TC-67 Management Committee

- Brazil, Canada, China, France, Germany, Italy, Japan, Netherlands, Norway, Qatar, United Kingdom, United States
- Liaisons – OGP, IADC and CEN/TC12

Cost savings of Top 30 ISO Standards



How to co-operate and participate

- OGP: Open to national and regional associations, publicly traded, private and state oil & gas companies, major service/supply companies
- OGP/SC: Open to the OGP member companies
- OGP/SC Meetings: Twice a year (usually) in any country involved or other by invitation
- ISO/TC-67: Open to operators, service/supply companies, manufacturers, government regulators, consultants, academics
- ISO/TC-67 Plenary: Annually in any ISO/TC-67 rotates among "P" member countries
  2008 – China, Beijing
  2009 – Canada, Calgary or Ottawa (tentative)
- ISO/TC-67 SC and WG: Any date, any ISO/TC-67 rotates among member countries – usually in SC or WG member countries
- Workshops, Seminars and Conferences:
  – Usually during the ISO/TC-67 and/or OGP/SC meetings
  – In conjunction with relevant events – local, national, regional, international
  – By invitation
  – Other suggested arrangements

Key notes

Join the OGP, ISO and IEC global efforts in International Standards development

&

Capture the value added by making use of the new ISO/IEC Standards for the oil & gas industry

Key notes

Neil Reeve – OGP/SC Chair and ISO/TC-67 Interin Chair
E-mail <neil.reeve@shell.com>

Wilson Brabosa de Oliveira – OGP/SC Vice-Chair
Tel. +55-21-3229-0445
E-mail <wbarbosa@petrobras.com.br>

Alf Reidar Johansen – OGP/SC Manager
E-mail <Alf.Reidar.Johansen@ogp.org.uk>

Informational

www.iso.org
www.iec.ch
www.isotc.iso.org
www.tc67.net
www.ogp.org.uk


Global
Standards
Used Locally
Worldwide

Asia-Pacific Economic Cooperation

2008/SOM3/SCSC/CONF/035

Chilean Standard of Energy Efficiency: Bases for Regulations and its Impact in the National Industry

Purpose: Information

Submitted by: Chilean Standards Body --INN
Claudia Cerda
Standardization Division

claudia.cerda@inn.cl

7th Conference on Standards and Conformance
Sub-Committee on Standards & Conformance
Cusco, Peru
10-11 August 2008

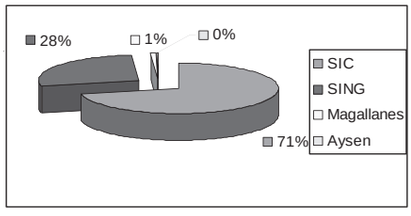
National Institute of Standardization

- Founded by CORFO (Corporation of Promotion of Production) in 1973, legal successor of INDITECNOR (1948)
- D.S. Nº 678 of Justice Ministry
- Non profit Private foundation
- Chile representative for similar organizations: ISO, IAAC, ILAC, BIPM, PASC, COPANT
- Conformity evaluations activities: technical standards, accreditation, coordination of the Metrology National Net.
- Training and qualification courses.
- web page: www.inn.cl

National Background

- Energy matrice is based on hydroelectric generation and thermal generation mainly. It is constituted by 4 Systems: SIC, SING, Magallanes and Aysén.

Sistema 2007	Potencia Instalada (MW)	Potencia Instalada (%)
SIC	9118	70.97
SING	3602	28.04
Magallanes	80	0.62
Aysen	48	0.37
Total	**12847**	**100.00**

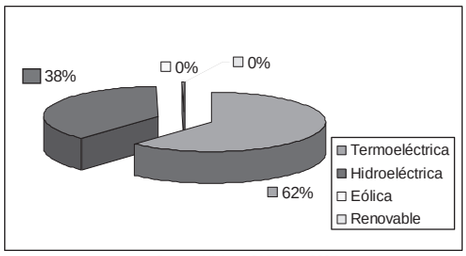


Source: Ministry Of Energy 2007

National Background

- Energy

Tipo de energía	Potencia Instalada (MW)	Potencia Instalada (%)
Termoeléctrica	7930	61.73
Hidroeléctrica	4897	38.12
Eólica	18	0.14
Renovable	2	0.02
Total	**12847**	**100**



Source: Ministry Of Energy 2007

National Background

- Since 2004-2005 the system presents vulnerability due to climatic factor (rains for reservoirs) and limitations of shipment of NG from Argentina
- Energy policies of Government begins to be integral based on 3 columns:
  - ✓Supply insurance
  - ✓Energy matrice diversification
  - ✓Focus in the save and energy efficiency

National Background

- In 2005 the Energy Efficiency Country Program (PPEE) was created like a management instance of public-private capacities to work in energy efficiency. Point of agreement: Operative committee.
- To begin: same year they decided to implement the domestic appliances energy efficiency labeling of greater consumption in houses, in this case: cooling and lamps
- In meetings of Operative Committee of the PPEE, INN detects the need to count with Chilean Standards (technical standards, involve the stakeholders, of consensus, voluntary first, with the capacity to be obligatory)
- There is one possibility to solve the standards lack: through INNOVA CORFO Project (CORFO is the agency of Government that promotes the national production)

National Background

- From the awarding of the Project INNOVA CORFO by INN, begins a **joint venture** with the Associates to the same one, especially with the Secretary of Electricity and Fuel, SEC, agency of regulating Government in matter of security and quality of electric and fuel domestic appliances
- The decisions about what standards made in the framework of the Project were take with the Associates specifically among **INN, SEC and the PPEE as a guest**
- By this way, we achieved a joint hard work where the **National Standardization Body** made the technical standards of test methods and labeling (Chilean Standards) and the **Regulatory Agency of Government** issued the regulations (namely Protocols).

Standard Division INN

- **Elaborate of Chilean Standards** (NCh)
  - product requirements (woods/service)
  - test methodologies
  - terminologies
  - labeling
- **National Technical** Consensus Committees.
- **Chile`s representative** for ISO, COPANT and PASC
- **National Mirror Committees** (Social Responsibility, Energy Management of ISO; Energy Efficiency of Copant)
- With the execution of **Public-Private Projects**, the joint-venture between the companies, government and INN is reached for the development of the Chilean Standards

Energy Efficiency Chilean Standards

- **2005-2008 execution of INNOVA CORFO Project**

Fuente financiamiento	U$
INNOVA CORFO	168,970
INN	61,139
Asociados (HP)	172,956
Otros	40,144
Total	**443,209**

- **Agreement:** domestic appliances labeling standards will be studied in INN Committees to achieve consensus among the stakeholders
- Test methods standards will be adoptions of international standards, without modifications

Energy Efficiency Chilean Standards

- Private public project, executed between 2005 and 2008, obtaining as a result 52 Chilean Standards on efficient use of the energy

- Associates:
  - Cámara Chilena de la Construcción
  - Chilecompra
  - Comisión Nacional de Energía
  - Ministerio de Minería
  - Ministerio de Vivienda y Urbanismo
  - Procobre ICA
  - Servicio Nacional del Consumidor
  - Superintendencia de Electricidad y Combustibles
  - Sociedad de Fomento Fabril
  - Universidad de Santiago de Chile
  - Invitado: Programa País de Eficiencia Energética

Energy Efficiency Chilean Standards

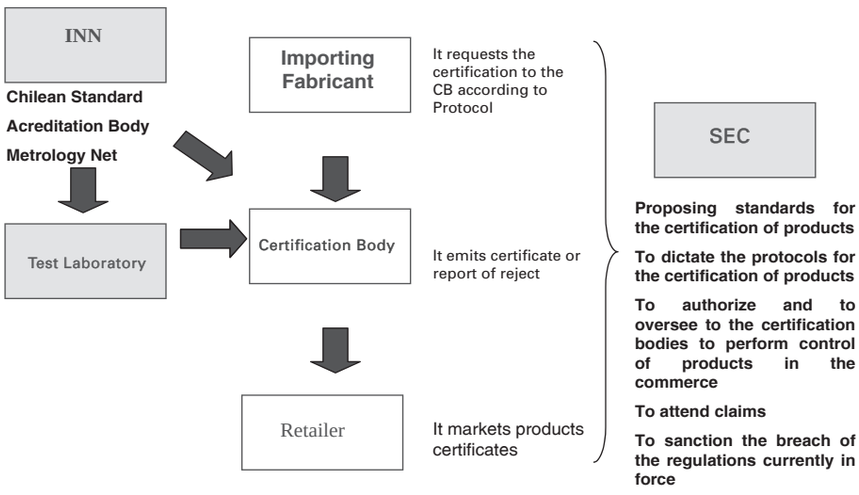
- Contribute of Associates: valued in HP

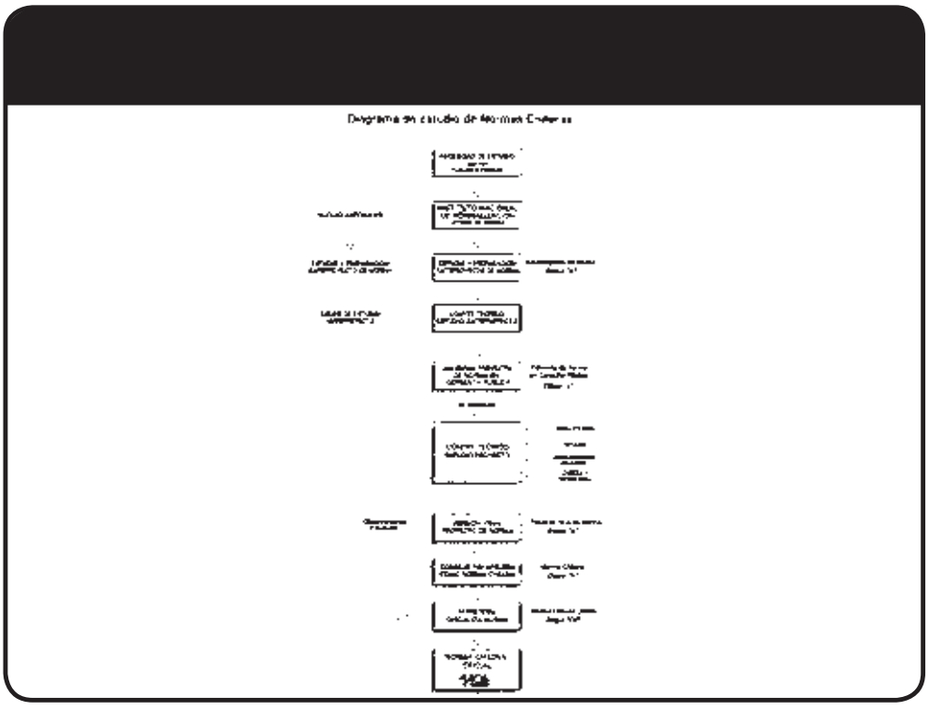
- Year 2006: 22 standards
  - 9 standards of domestic electric appliances
  - 6 standards of sustainable construction
  - 7 standards on industry

- Year 2007-2008: 30 standards
  - 2 standards of domestic electric appliances
  - 5 standards of lighting
  - 3 standards of industry
  - 8 standards of solar panels
  - 12 standards of sustainable construction

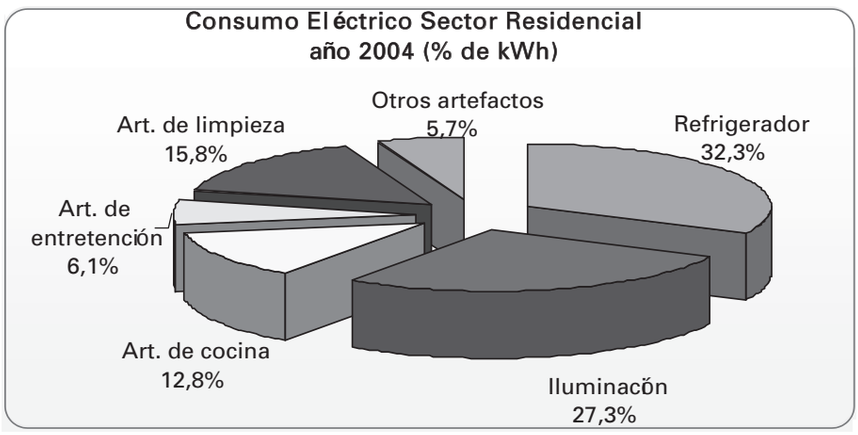
Energy Efficiency Chilean Standards

Actors of the System of EEL



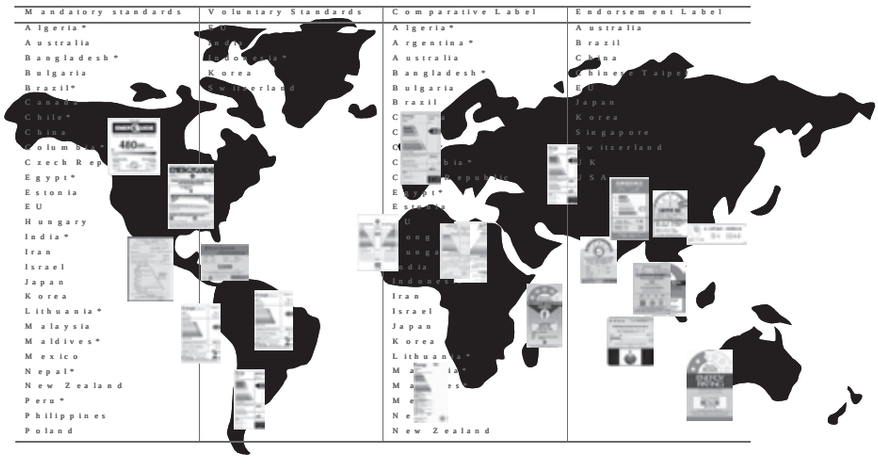


Energy Efficiency Chilean Standards



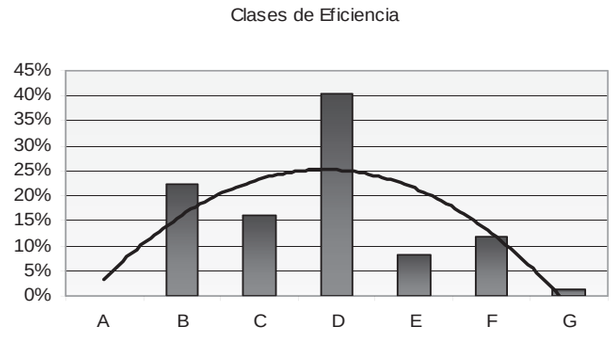
Source: Ministry of Energy survey, 2005

Energy Efficiency Chilean Standards



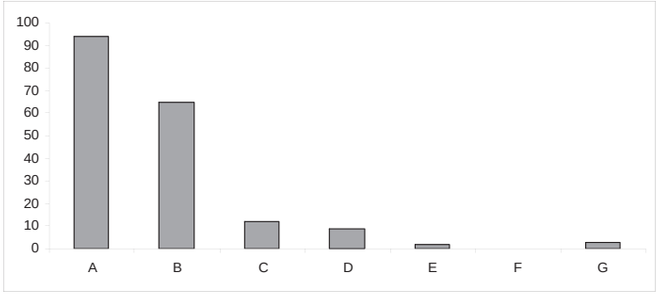
Energy Efficiency Chilean Standards: Cooling

- As it was not possible to establish a base line before the implementing of EE labeling, it presumed that the composition of the cooling market was similar to this



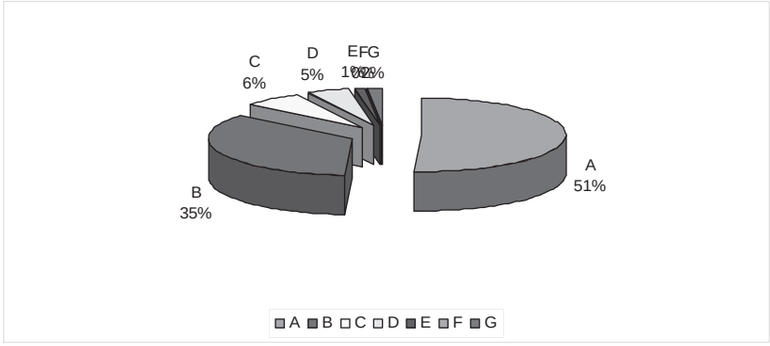
Energy Efficiency Chilean Standards: Cooling

- From the EE labeling implementation, was possible to measure, the situation to June 2008 is shown down and indicates number of models (characterized by volume frozen and chilled compartment) as a function of the classes of energy efficiency



Energy Efficiency Chilean Standards: Cooling

- Number of models in percentage as a function of the classes of energy efficiency



Energy Efficiency Chilean Standards: Cooling

- NCh3000.Of2006 Energy efficiency - Cooling, freezers and cooling-freezers of domestic use - Classification and labeling
- Agreement of Committee: to maintain the information and European label efficiency classes
- Test methods from international standard ISO 15502
- Chilean standard is included in the SEC Protocol, which begin to be obligatory from

Appliances	For fabricants	For commerce
Cooling-freezers, 2 doors	16-07-2007	01-01-2008
Cooling, 1 door	16-10-2007	31-01-2008
Freezer	14-01-2008	14-02-2008

SEC Protocol that specifies NCh3000

DEPARTAMENTO DE NORMAS Y ESTUDIOS

PROTOCOLO ANALISIS Y/O ENSAYOS EFICIENCIA ENERGETICA DE PRODUCTOS ELECTRICO

PE Nº 5/17/2 : FECHA: 02.10.2006

PRODUCTO : Refrigeradores, congeladoresy refrigeradores-congeladores.

NORMAS : ISO 15502/2005: Artefactos de refrigeración domésticos - Caracteristicas y métodos de ensayo.

NCh 3000 Of. 2006: Eficiencia energética - Refrigeradores, congeladores y refrigeradores-congeladores de uso domésticos - Clasificación y etiquetados.

FUENTE LEGAL : Decreto Nº 298 de 2005 y Nº 399 de 1985, y sus modificaciones del Ministerio de Economía, Fomento y Recontrucción.

CAPITULO

I.- ALCANCE Y CAMPO DE APLICACIÓN

El presente protocolo establece el procedimiento de certificación de Desempeño y Etiquetado de Eficiencia para Refrigeradores, Congeladores y Regrigeradores-Congeladores de acuerdo al alcance y campo de aplicación de la Norma ISO 15002/2005

II.- ANÁLISIS Y/O ENSAYOS

TABLA A

Nº	Denominación	Norma	Clausula	Notas
1	Clasificación	ISO 15502/2005	4	---
2	Determinació de volumenes	ISO 15502/2005	7	---
3	Condiciones genrerales de ensayo	ISO 15502/2005	8	---
4	Ensayo de las temperaturas de almcenamiento	ISO 15502/2005	13	---
5	Ensayo de consumo	ISO 15502/2005	15	(1) (2)
6	Ensayo de congelamiento	ISO 15502/2005	17	---
7	Eficiencia Energética - Clasificación y etiquetado	ISO 15502/2005	todas	

Notas:
(1) La información de consumo de energia declarada en la Etiquetas no debe superior en más de un 10% respecto al consumo medido en laboratorio.

Energy Efficiency Chilean Standards: Cooling

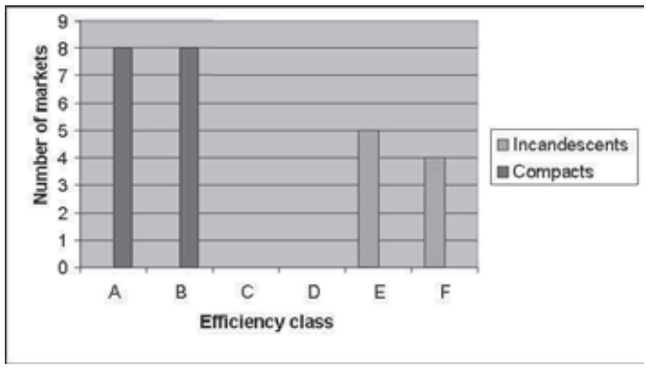
Chilean Standards in Energy Efficiency: Lamps

- **NCh3010.Of2006 Energy efficiency - Incandescent lamps of domestic use - Classification and labeling**
- Agreement of Committee: to maintain information and European label efficiency classes
- Test method from International Standard IEC
- Chilean standard is included in the SEC Protocol, which begin to be obligatory from

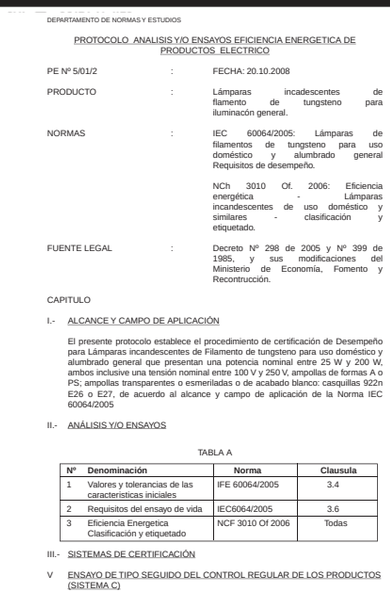
Appliance	Fabricant	Commerce
Incandescent lamp with tungsten filament	30/04/2007	30/04/2007

Chilean Standards in Energy Efficiency: Lamps

Number of available marks in the commerce to April 2008



SEC Protocol that specifies NCh3010



DEPARTAMENTO DE NORMAS Y ESTUDIOS

PROTOCOLO ANALISIS Y/O ENSAYOS EFICIENCIA ENERGETICA DE PRODUCTOS ELECTRICO

PE Nº 5/01/2 : FECHA: 20.10.2008

PRODUCTO : Lámparas incadescentes de filamento de tungsteno para iluminación general.

NORMAS : IEC 60064/2005: Lámparas de filamentos de tungsteno para uso doméstico y alumbrado general Requisitos de desempeño.

NCh 3010 Of. 2006: Eficiencia energética - Lámparas incandescentes de uso doméstico y similares - clasificación y etiquetado.

FUENTE LEGAL : Decreto Nº 298 de 2005 y Nº 399 de 1985, y sus modificaciones del Ministerio de Economía, Fomento y Recontrucción.

CAPITULO

I.- ALCANCE Y CAMPO DE APLICACIÓN

El presente protocolo establece el procedimiento de certificación de Desempeño para Lámparas incandescentes de Filamento de tungsteno para uso doméstico y alumbrado general que presentan una potencia nominal entre 25 W y 200 W, ambos inclusive una tensión nominal entre 100 V y 250 V, ampollas de formas A o PS; ampollas transparentes o esmeriladas o de acabado blanco: casquillas 922n E26 o E27, de acuerdo al alcance y campo de aplicación de la Norma IEC 60064/2005

II.- ANÁLISIS Y/O ENSAYOS

TABLA A

Nº	Denominación	Norma	Clausula
1	Valores y tolerancias de las características iniciales	IFE 60064/2005	3.4
2	Requisitos del ensayo de vida	IEC6064/2005	3.6
3	Eficiencia Energetica Clasificación y etiquetado	NCF 3010 Of 2006	Todas

III.- SISTEMAS DE CERTIFICACIÓN

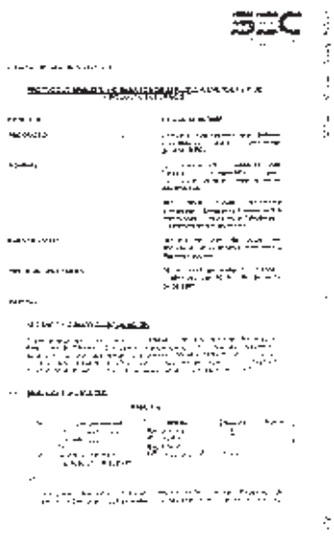
V ENSAYO DE TIPO SEGUIDO DEL CONTROL REGULAR DE LOS PRODUCTOS (SISTEMA C)

Chilean Standards in Energy Efficiency: Lamps

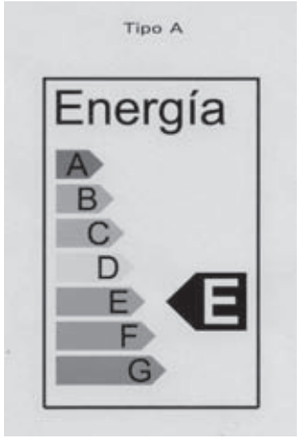
- **NCh3020.Of2006** Energy efficiency – Circular and tubular compact fluorescent lamps of domestic use - Classification and labeling
- Agreement of Committee: to maintain the information and European label efficiency classes
- Test method from International Standard IEC
- Chilean standard is included in SEC Protocol, which begin to be obligatory from

Appliance	Fabricant	Commerce
Fluorescent lamp with incorporate ballast	30/06/2007	31/10/2007
Single-capped fluorescent lamps	31/03/2009	31/07/2009
Double-capped fluorescent lamps	31/03/2009	31/07/2009

SEC Protocol that specifies NCh3020



Chilean Standards in Energy Efficiency: Lamps

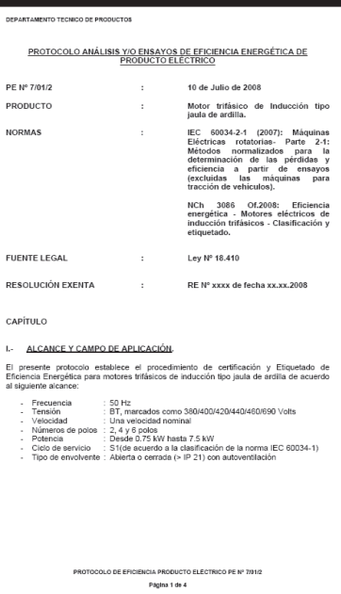


Next Protocol: Motors energy efficiency labeling

- At present the SEC Protocol project is in National Public Consult, since July 14th to September 15th
- The goals of this protocol project are to classify the “Three-phase of squirrel cage induction motor" as a function of energy efficiency, according to the Chilean Standard NCh3086.Of2008 *Energy Efficiency - Motor electric of three-phase induction - Classification and labeling*, as also to evaluate its conditions of security
- Technical Committee of INN, agreement that to carry out the test to determine the EE will be use the IEC 60034-2-1:2007 and for classification the motor in some class of EE will use the Chilean Standard NCh3086.Of2008

Next Protocol: Motors energy efficiency labeling

SEC Projects Protocol that specifies NCh3086



DEPARTAMENTO TECNICO DE PRODUCTOS

PROTOCOLO ANÁLISIS Y/O ENSAYOS DE EFICIENCIA ENERGÉTICA DE PRODUCTO ELECTRICO

PE Nº 7/01/2	:	10 de Julio de 2008
PRODUCTO	:	Motor trifásico de Inducción tipo jaula de ardilla.
NORMAS	:	IEC 60034-2-1 (2007): Máquinas Eléctricas rotatorias- Parte 2-1: Métodos normalizados para la determinación de las pérdidas y eficiencia a partir de ensayos (excluidas las máquinas para tracción de vehículos). NCh 3086 Of.2008: Eficiencia energética - Motores eléctricos de inducción trifásicos - Clasificación y etiquetado.
FUENTE LEGAL	:	Ley Nº 18.410
RESOLUCIÓN EXENTA	:	RE Nº xxxx de fecha xx.xx.2008

CAPÍTULO

I.- ALCANCE Y CAMPO DE APLICACIÓN.

El presente protocolo establece el procedimiento de certificación y Etiquetado de Eficiencia Energética para motores trifásicos de inducción tipo jaula de ardilla de acuerdo al siguiente alcance:

- Frecuencia : 50 Hz
- Tensión : BT, marcados como 380/400/420/440/460/690 Volts
- Velocidad : Una velocidad nominal
- Números de polos : 2, 4 y 6 polos
- Potencia : Desde 0.75 kW hasta 7.5 kW
- Ciclo de servicio : S1(de acuerdo a la clasificación de la norma IEC 60034-1)
- Tipo de envolvente : Abierta o cerrada (> IP 21) con autoventilación

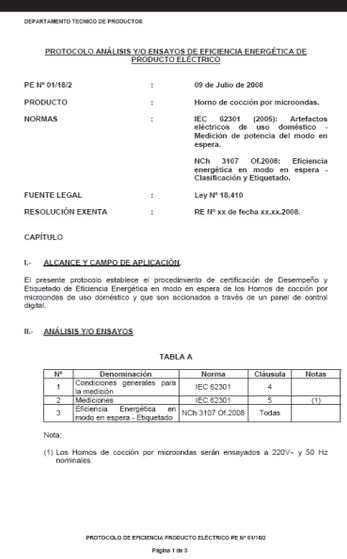
PROTOCOLO DE EFICIENCIA PRODUCTO ELÉCTRICO PE Nº 7/01/2

Página 1 de 4

Next Protocol: Microwave energy efficiency labeling

- At present the SEC Protocol project is in National Public Consult, since July 17th to September 17th
- The goal of this protocol project is to classify the “microwave owen" as a function of energy efficiency, according to the Chilean Standard NCh3107.Of2008 *Domestic electrical appliances – Stand by energy efficiency - Labeling*
- Technical Committee of INN, agreement that to carry out the test to determine the EE will be use the **IEC 62301:2005** and to classification the microwave in some class of EE will use the Chilean Standard NCh3107.Of2008

SEC Protocol Projects that specifies NCh3107



DEPARTAMENTO TECNICO DE PRODUCTOS

PROTOCOLO ANÁLISIS Y/O ENSAYOS DE EFICIENCIA ENERGÉTICA DE PRODUCTO ELÉCTRICO

PE Nº 01/18/2 : 09 de Julio de 2008

PRODUCTO : Horno de cocción por microondas.

NORMAS : IEC 62301 (2005): Artefactos eléctricos de uso doméstico - Medición de potencia del modo en espera.

NCh 3107 Of.2008: Eficiencia energética en modo en espera - Clasificación y Etiquetado.

FUENTE LEGAL : Ley Nº 18.410

RESOLUCIÓN EXENTA : RE Nº xx de fecha xx.xx.2008.

CAPÍTULO

I.- ALCANCE Y CAMPO DE APLICACIÓN.

El presente protocolo establece el procedimiento de certificación de Desempeño y Etiquetado de Eficiencia Energética en modo en espera de los Hornos de cocción por microondas de uso doméstico y que son accionados a través de un panel de control digital.

II.- ANÁLISIS Y/O ENSAYOS

TABLA A

Nº	Denominación	Norma	Cláusula	Notas
1	Condiciones generales para la medición	IEC 62301	4	
2	Mediciones	IEC 62301	5	(1)
3	Eficiencia Energética en modo en espera - Etiquetado	NCh 3107 Of.2008	Todas	

Nota:

(1) Los Hornos de cocción por microondas serán ensayados a 220V~ y 50 Hz nominales.

PROTOCOLO DE EFICIENCIA PRODUCTO ELÉCTRICO PE Nº 01/18/2

Página 1 de 3

EE Consultant Register

- **Impact in the industry because it permits that consultant register made energy audit in order to implement solutions if neccesary to achieve saves estimated**
- November **2006**, claimed by PPEE, management by INN
- Goal: to qualificate consultors to supply the **CORFO Preinvesment Program in Energy Efficiency**
- **CORFO Preinvesment Program in Energy Efficiency confinancing specialist consulting that containing**
  - ✓ Energy Efficiency audit
  - ✓ Design of implementing of solutions plan
  - ✓ To elaborate a investment project to present to a financing system
- CORFO 70%, roof of **12.000 USD**, for enterprise which sales are below or equal to **40.140.363 USD**

New challenges for INN in energy

- With the conformation of the Committee ISO/PC 242 *Energy management*, INN called to the stakeholders to conform the Committee National Mirror, which was recorded like P member by ISO

- In despite of that Chile counts with the chilean standard NCh3045.Of2007 *Guide to determine energy consumption measurement conditions*, this constitutes only a guidelines for consider, which results can`t be guaranteed

- The Committee Mirror is composed by stakeholders as energy users companies, competent authorities in energy and environment, Universities, fabricants associations, certification bodies

Asia-Pacific
Economic Cooperation

2008/SOM3/SCSC/CONF/036

The Use of Standards and its impact in the Agribusiness Sector: The Peruvian Experience

Submitted by: INDECOPI, Peru
Mr Augusto Mello
Technical Secretary
Technical and Commercial Regulations Commission

amello@indecopi.gob.pe
www.indecopi.gob.pe

7th Conference on Standards and Conformance
Sub-Committee on Standards & Conformance
Cusco, Peru
10-11 August 2008

Outline

- **Peruvian Asparagus**
  - Evolution
  - Key Factors of Change
  - Strategic Alliances
- **Peruvian Coffee**
  - Evolution
  - Key Factors of Change
  - Strategic Alliances
- **Conclusions**

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PERUVIAN ASPARAGUS™

Successful Experience

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Peru is a world leader in asparagus

- World's leading exporter of asparagus
- World's leading exporter of fresh asparagus
- World's 2nd largest exporter of canned asparagus
- World's 2nd largest producer: 27,000 Ha (Census 2008)
- Highest yield in the world
- In 2008 asparagus was appointed as an emblematic Peruvian product (Producto Bandera)
- Asparagus industry generates jobs for 60,000 people, half of which are women

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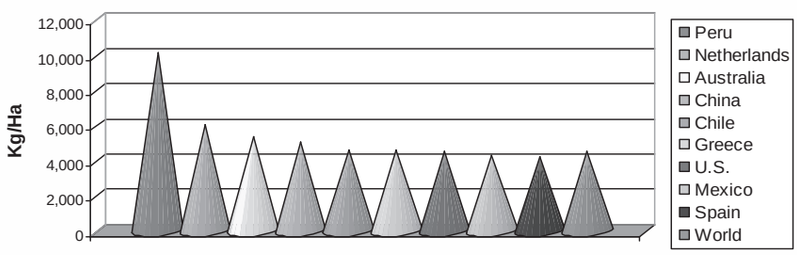
Peru is competitive in yield per Ha.

Average Yields



Source: USDAFAS Peru 2007

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Agro exports – 2007
Main Products (US$ Million)

Position	Products	Volume 1000 TM	Valor Mil US$	Particip. Valor FOB	Particip. acumulada
			2,185		
1	Green coffee	174	427	19.5%	
● 2	Fresh Asparagus	96	236	10.8%	30.3%
● 3	Canned Asparagus	59	156	7.1%	37.5%
4	Evaporated Milk	51	65	3.0%	40.4%
5	Artichoke	29	64	2.9%	43.4%
6	Fresh mangoes	82	63	2.9%	46.3%
7	Paprika chili	23	56	2.6%	48.9%
8	Wood	40	55	2.5%	51.4%
9	Fresh grapes	26	55	2.5%	53.9%
10	Avocados	38	47	2.2%	56.0%
11	Animal feed for preparation	73	45	2.1%	58.1%
12	Fine Fiber	3	33	1.5%	59.6%
13	Bananas	65	31	1.4%	61.1%
14	Piquillo pepper	17	31	1.4%	62.5%
● 15	Frozen Asparagus	12	30	1.4%	63.9%
	Subtotal		1,396	63.9%	

Source: MINAG/SUNAT

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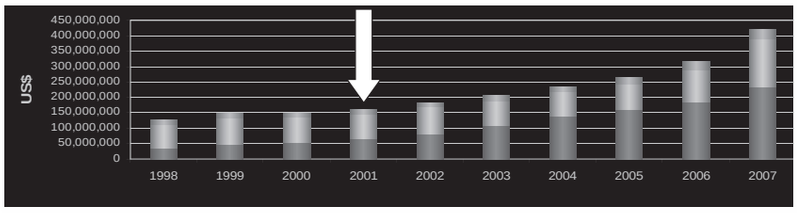
Peru: Asparagus Exports
(US $ FOB 1998-2007)

Beginning of Standards approval



Value (US$)	1998	2006	2007	Part % 98	Part % 07	Var % (98-07)	Var % (06-07)
Fresh ●	$35.70	$187.00	$235.10	**28%**	**56%**	**559%**	2
Canned ●	$77.80	$10 .30	$15 .30	1	37	8	8
Frozen ●	$1 .10	$2 . 0	$30.20	11	7	11	1
Total	**$127.60**	**$317.90**	**$419.60**	**100%**	**100%**	**TOTAL**	**32%**

Source: SUNAT / ADEX
Prepared by: Inform@ccion

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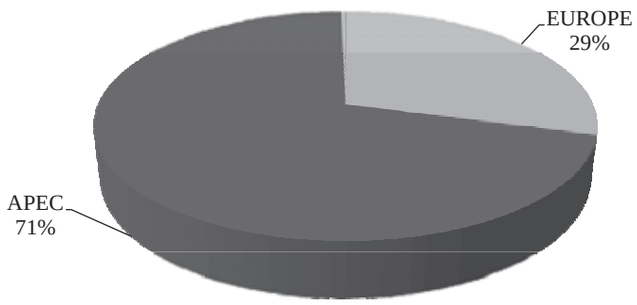
Markets for Peruvian Fresh Asparagus in 2007



Source: PROMPERU

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Asparagus: Key Factors of Change and Success

- Trade – Production Associations
- Investment and private innovation (logistics, new product presentations and packaging, others)
- Use of modern technology
- **Standards: Development and implementation**
- **Food safety and quality assurance**
- Strategic Alliances between public and private sectors
- Climate conditions: year round production

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Standardization (Quality)

- 1998: Asparagus National Technical Committee (TC)
- TC initiative of producers and exporters supported by public sector (INDECOPI, PROMPERU)
- PROMPERU held the TC Secretariat. Stakeholders: producers, exporters, consumers, the academic sector and other public and private institutions
- Three sub committees: Fresh Asparagus, Canned Asparagus and Frozen Asparagus
- From 1998 to 2007: 11 standards (harmonized with CODEX and ISO)

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Overview Peruvian Technical Standards (NTP)

Some important NTP:

- NTP 209.401:2001 ASPARAGUS. Hygiene practices for manufacturing asparagus
- NTP 209.402:2003 ASPARAGUS. Good Agricultural Practices (BPA for its acronym in Spanish)
- NTP 011.109:2008 ASPARAGUS. Fresh asparagus. Requirements
- NTP 209.406:2008 CANNED ASPARAGUS. Requirements.
- NTP BPA Asparagus has been a reference for NTP BPA hortifruitcultural sector

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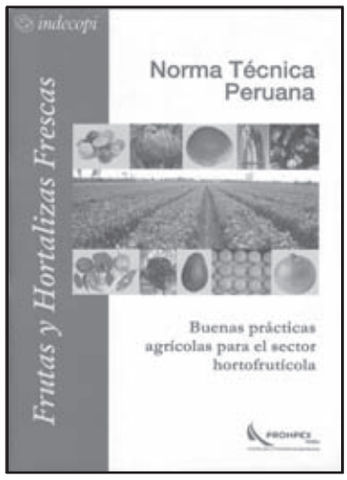
NTP BPA Asparagus

NTP BPA Hortifruitcultural



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Why is the National Technical Committee (TC) important for business?

- NTP in asparagus industry ➔ good quality products
- Asparagus factories with suitable infrastructure
- Exporters assure innocuity and high quality for the demanding markets
- Support for the application of HACCP system in the national food industry
- TC in international standardization: Codex Committee on fruits and vegetables (Mexico); and 24 ° Session of the Codex Alimentarius Commission (Geneva)
- Model to be adopted for other export products

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NTP Asparagus BPA

Award for promoting development

CREATIVIDAD EMPRESARIAL
2004
PREMIO EN PROMOCION DEL DESARROLLO

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Strategic Alliances in fresh asparagus

Peruvian Institute of Asparagus and Vegetables (IPEH)

Production Area		Terminal	Other Associations	Market
Agriculture Association Ica	APTCH Producers Association Chavimochic	Private Association "Frío Aéreo"	ADEX AGAP	Importers Association Fresh Asparagus

Facilitator and strategic partner: Government

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ADEX: Exporters Association
AGAP: Association of Peruvian Producers and Agroexporters Guilds

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XII International Asparagus Symposium
Lima - Peru

- Every 4 years:
  - USA – 1997
  - Japan - 2001
  - Netherlands – 2005
  - **Peru - 2009**
- Coordination: International Society for Horticultural Science, ISHS – www.ishs.org
- In Peru organized by *Peruvian Institute of Asparagus and Vegetables* www.ipeh.org

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Peruvian

Coffee

Successful experience

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The importance of Peruvian Coffee

- Main agricultural export product of Peru
- Cultivation is concentrated in Arabica Coffee (conventional coffee)
- World demand for special coffee has increased. Consumption preferences: gourmet and health oriented foods
- 1996: Peru ranked 15 among exporting countries; 2006: 6th place in the ranking

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Importance of Peruvian Coffee

- 150 thousand families are producers and 2 million people depend on coffee sector growth.
- Until the year 2000 the US was historically the largest buyer of Peruvian coffee.
- In 2000 Germany became the largest buyer of Peruvian coffee (32%), followed by the US (22 %).

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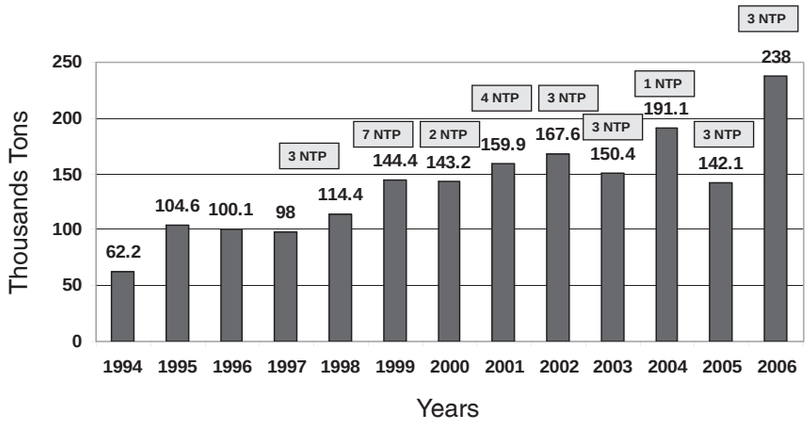
Peru: Coffee exports (Thousands tons 1994-2006)



Source: PROMPERU

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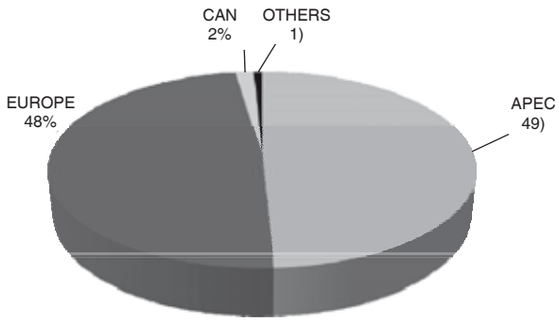
Markets for Peruvian Coffee in 2007



Source: PROMPERU

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Background

- 1960s Peruvian coffee was purchased under particular brands (E.g.: Netra, Lanco)
- 1970s and 80s purchases based on a description of the production process (MC and MCM) and on the production area
- The description of the production process was confusing ➔ potential buyers were cautious (sporadic and inconsistent demand)
- 1990s two associations arise: The Peruvian Chamber of Coffee (1991) and the National Coffee Board (1993). Goals: promotion, dissemination, training and project implementation related to coffee exports.

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Background

- Until 2005 discount of US$ 4.00 per QQ for delivery to the New York Board of Trade.
- In July 2005, based on the quality improvement of Peruvian coffee, the discount is eliminated. Benefits to exports in over US$ 20 million per year.
- Between 2002 and 2005 the enterprise KRAFT replaced Colombian for Peruvian coffee in LUFTHANSA airline.
- Main coffee brands in the world (Starbucks, Lavazza, Folgers, Jacobs, Dunkin Donuts, etc.) offer Peruvian coffee in their markets.

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Standardization (Quality)

- 1998: Coffee National Technical Committee (TC)
- TC initiative of producers and exporters supported by public sector (INDECOPI, PROMPERU)
- PROMPERU, secretariat of the TC. Stakeholders involved: producers, exporters, consumers, academic sector and other public and private institutions
- From 1998 to 2007: 23 Peruvian Technical Standards (NTP), harmonized with ISO
- The TC participates in international standardization: ISO TC 34/SC 15 - Coffee

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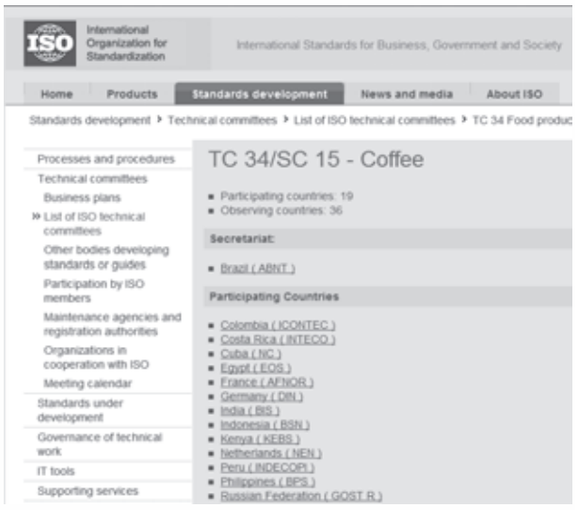
Peru in International Standardization of Coffee



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Overview Peruvian Technical Standards (NTP)

Some important NTP are

- NTP 209.311:2003 SPECIALTY COFFEE. Requirements
- NTP 209.312:2006 COFFEE. Good practices for the prevention of mould formation
- NTP 209.027:2007 GREEN COFFEE. Requirements
- NTP ISO 10470:2006 GREEN COFFEE. Defect reference chart
- NTP ISO 9116:2006 GREEN COFFEE. Guidelines on methods of specification

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Why is the TC important for Business?

- NTP in coffee industry ➔ good quality products
- Before standardization: “filler” (third category)
- After standardization: main ingredient in the mixtures of major international coffee toasters
- Peruvian coffee exports have grown (as has its demand). Access to the main world coffee markets
- Based on NTP 209.027 GREEN COFFEE. Requirements, The Peruvian Chamber of Coffee has developed over 80 training courses for producers
- From 1998 to 2007 Peruvian coffee exports increased from 2,500,000 QQ to 5,100,000 QQ

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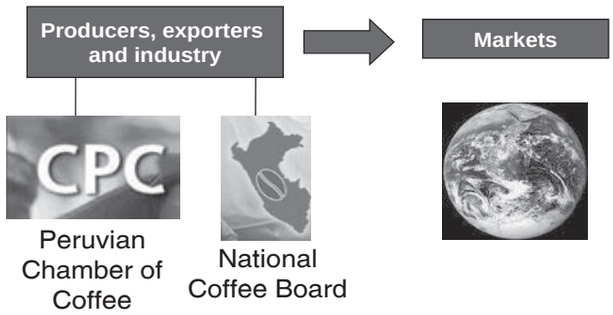
Strategic Alliances



Facilitator and strategic partner: Government

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Conclusions

- Export success due to compliance with quality standards and safety requirements.
- Strategic Alliances between exporters and producers and between public and private sector, allow for technological innovation, cost reduction and quality assurance.
- The development and implementation of National Standards based on International Standards is a guarantee of acceptance in the world wide market.
- Standards throughout the supply chain was achieved due to dynamic work of TCs, with active participation from stakeholders.

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Photo Gallery

The Venue

Our cosponsors

Our speakers

Photo Gallery

Our speakers

At the conference

Photo Gallery

At the conference

Welcome Cocktail

Photo Gallery

Welcome Cocktail

Photo Gallery

Welcome Cocktail

Sharing time

Photo Gallery

Sharing time

Photo Gallery

Sharing time

Closing

Organizing team

Thank you to all who joined us at the 7th Conference on Standards and conformance!!!!

Photo Gallery