



Implementation of Recommendation I

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Background

1970:

- Adoption of Recommendation I
- Governments encouraged to include standardization in the curricula of educational institutions

2012:

- More than 40 years passed
- Few institutions have standards in the curriculum
- Very different educational approaches

Several other institutions have launched initiatives

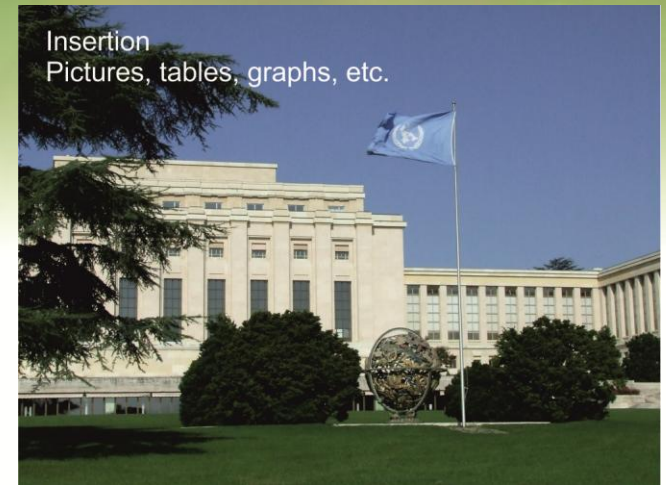
- CEN/CENELEC/ETSI Working Group
- ISO/IEC/ITU work with academia, repository of learning materials





UNECE vintage point

- UNECE unique mandate: standardization, metrology, technical regulations, conformity assessment, market surveillance and risk management.
- Other institutions focus on only one area UNECE promotes a comprehensive understanding





Curriculum – 14 modules

1. Standardization basics
2. Benefits of standardization for society
3. Standardization and companies
4. National legal and institutional framework
5. Regulatory policies and related institutional mechanisms
6. Managing risks through standards, regulations and regulatory impact assessments (RIAs)
7. Metrology
8. Conformity assessment
9. Market surveillance
10. Management system standards
11. International standardization
12. International trade, standards and regulations
13. Standardization of information requirements and supply chains
14. A practical exercise: Standardization within a company
15. Policy issues and challenges in standardization





Recommendation I

Governments should encourage:

- (a) the introduction of the subject of standardization into the curricula of educational establishments and particularly of universities for students majoring in technical and scientific subjects, as well as in legal, economic and management studies;
- (b) the vocational education and training of specialists in standardization;
- (c) the enhancement of awareness-raising activities targeted to the business community and regulatory authorities (in particular, trade and customs officials);
- (d) the further study of standardization issues in order to identify best practices in ensuring that standardization and regulatory regimes contribute to meeting the legitimate concerns of society (e.g. human safety, environment) without creating unnecessary technical barriers to trade.”





Workshop 2012

- Opening by IEC Secretary-General and UNECE Executive Secretary
- 4 sessions:
 - Academia (De Vries, Blind, Pankina)
 - Standards (ISO, Vice-President CEN-CENELEC)
 - Governments (EC, Russia, Brazil)
 - Way forwards





Outcome and developments since the last session

- Approval of revised recommendation I
- Consideration of model programme
- UNECE created a group of experts to deal with education matters
- A special webpage went online to exchange experience and to deposit information about the existing standardization programmes and training materials available to people teaching standardization.

We invite interested experts to join us in this work



Education on Standardization

In 1970, the UNECE Government Officials Responsible for Standardization Policies, the predecessor of WP. 6, developed [Recommendation I](#) that urged governments to include standardization in the curricula of educational institutions.

A preliminary survey conducted in 2011 in countries of the UNECE region revealed that more than 40 years after the adoption of the recommendation, very few universities yet include standards-related issues in the curriculum of students majoring in technical and scientific subjects. An analysis of such courses showed also differences in the underlying educational approaches.

In this context, the UNECE secretariat initiated consultations on a feasibility of elaborating a model educational programme on standardization containing minimum set of issues to give a student a general understanding of the major standardization, regulatory and related issues relevant to the activities of business and of regulatory and administrative authorities.

The first draft of such programme was prepared in February 2012 in consultation with a group of experts from educational institutions from Europe and CIS region. The draft was then presented at various forums: at the April 2012 Geneva meeting of the DCMAS (Network on Metrology, Accreditation and Standardization for Developing Countries), at the May 2012 ICES (International Cooperation for Education about Standardization) conference in Bali and at the June 2012 European conference on education about standardization in Brussels.

These discussions culminated with an [UNECE Workshop on "Introducing Standards-related issues in Educational Curricula"](#) which took place on 8 November 2012 in Geneva in the framework of the WP.6 22-nd annual session. More than 80 delegates and experts from about 20 countries and around 10 international and regional organizations representing academia, standards bodies, ministries of education and business adopted a new version of Recommendation "I" ("education on standards-related issues") and agreed on the importance of promoting and teaching standardization through elaborating coordinated approaches and building on existing national best practices.

Education on standardization

Educational programmes - national experiences/examples

Library on teaching standardization

Repository of teaching materials

Useful links





Educational programmes - national experiences/examples

This page contains examples of programmes and courses taught at various educational establishments

- Belarus
- Bulgaria

[Technical University of Sofia](#)

[Study Program](#)

- France
- Germany
- Netherlands
- Portugal
- Russian Federation

Academy of Standardization, Metrology and Certification

- Thematic plan of training program "[Contemporary Issues of standardization](#)" (to improve the experts skills on standardization over 72 hours)
- [Thematic plan of educational program "Standardization"\(over 500 hours\)](#)
- Training - In specialization of: "[Contemporary Issues of standardization](#)" of training programme «Standardization» (72 hours)
- Training - [Specialists pre-qualifying for professional retraining on educational programs "Standardization" and preparation of the candidates for the standardization experts \(560 hours\)](#)

Moscow State Region University

- Programme of the discipline "Metrology, standardization and certification" Speciality 130102 Technologies of geological exploration Specialization "[Geophysical methods of search for and exploration of mineral resources](#)"
- Programme of the discipline "Metrology of analytical control" Speciality 020100 Chemistry Master programme "[Analytical chemistry](#)"
- Programme of the discipline "Metrology, standardization and certification" Speciality 080500 Business information science Specialization "[Electronic business](#)" (bachelor programme)
- Programme of the discipline "Metrology, standardization and certification" [Speciality 230100 Information science and computer engineering](#) (bachelor programme)

- Switzerland
 - Information on the UNIGE-ISO programme "[Master on Standardization, Social regulation and Sustainable development](#)"
- Japan

