

# UNECE StaRT-ED Group meeting, 7 June 2022

*informal paper*

## UNECE (WP.6) activities on teaching standards

### UNECE model educational programme on education about standardization

#### (New Module: the ecological context of standardization – comments from experts)

##### Note from UNECE secretariat

*The UNECE Working Party on regulatory cooperation and standardization policies (Working Party 6) has a mandate to promote an awareness building of standards and of their use. As a part of these activities in 2012 WP6 established a group of experts on education (StaRT-ED) and elaborated a model educational programme on education on standardization consisting of 15 modules (for more information see: [www.unece.org/trade/wp6/thematic-areas/education](http://www.unece.org/trade/wp6/thematic-areas/education)). This model programme and teaching materials from UNECE were used by many universities in the UNECE region to teach standards to students.*

*In November 2019, in the framework of the annual WP6 session a high-level panel on education was held. During discussions a suggestion was made to elaborate an education course on environmental issues and on environmental standards.*

*A new Module on environmental issues was elaborated in 2022 and discussed at the StaRT-ED meeting on 7 June 2022. Experts agreed with the importance of environmental issues and with the including of the new Module into the UNECE model programme on education on standardization. The module is submitted to WP.6 November 2022 session for discussion and endorsement (as document ECE/CTS/WP.6/2022/7).*

*This paper contains comments received from academia/experts (see Annexes A-E) regarding structural and implementation issues of the new Module (comments are reproduced in the format and language as received by the secretariat). The names and contact information of experts who provided comments are available at the UNECE secretariat.*

## ANNEX A

### Suggestions on implementation of the Module (from Matei Bel University in Banska Bystrica, Slovakia)

The topic is important and interdisciplinary. We think that the key problems are identified in the draft Module and experts from the different disciplines should be able to find and build the appropriate topic for their specialization.

We find 90 minutes relevant for each selected issue with the introduction, explanation, and conclusion. The structure of the course depends on the purpose and educational level of the participants.

It should be clear - who are the trainees and who are the trainers.

The draft Module is giving a space for different alternatives. Some issues could be seriously involved in the syllabus of the existing general courses such as macroeconomics, microeconomics, law, management, etc.

We see several lines of effective implementation of the Module using multi and interdisciplinary approaches in teaching standards:

1. to bring the SDGs and environmental issues into the university curricula and teaching standardization in this area as a specific topic/lecture in the existing general courses;
2. to bring the SDGs and environmental issues into the university curricula and teaching standardization in this area as a full specific course - this is a very ambitious idea, but not impossible. This depends on the national legislative and national frameworks of education and conditions for accreditation of the new courses;
3. to bring the SDGs and environmental issues and teaching standardization to the level of postgraduates;
4. to bring the SDGs and environmental issues and teaching standardization to the representatives of the third sector, NGOs, initiatives and voluntaries who are playing an active role and have an impact on the society in the achievement of the SDGs.

We find very important the legislative and institutional aspects of the processes and the discussion of policy implications.

## **ANNEX B**

### **Comments from School of Business, Okanagan College, Canada**

The module identifies a broad range of issues for consideration and involves many concepts (bottom of pg. 1) on the topic of environmental sustainability. I agree that all items (issues/concepts) are relevant to the topic, and together, possesses substantial/sufficient scope. The list of standards identified on page 2 is well aligned with the issues/concepts declared.

Given the relatively limited (i.e. proposed) 90min time frame and very large scope, I am left to conclude that the (undeclared) learning outcomes are necessarily limited to the first one or two cognitive domains of Bloom's taxonomy (i.e. remember/understand). Each of the standards identified on page 2 is large and detailed, therefore, it is not feasible for learners to apply/analyze/evaluate the proposed content. In other words, I believe that "awareness of international standards for environmental sustainability" is an appropriate learning outcome for the time frame.

I have found through my teaching experience in this domain that knowledge of standards (i.e. outcomes to be achieved) needs to be paired with sustainability frameworks or models (i.e. guidance/processes for achieving outcomes required by standards) such that learners can move beyond mere memorization of the existing standards to a higher cognitive domain (apply/analyze/evaluate) via case study application. There are at least as many sustainability frameworks/models as there are sustainability standards, therefore, it is another major area of awareness and exploration for learners. Sustainability models/frameworks provide context for the standards, so it is important that learners be exposed to both.

To conclude, I appreciate the module as proposed. It nicely categorizes standards and identifies many prominent international sustainability standards. This is excellent for foundational awareness of the broad scope of environmental sustainability. Information in the proposed module overlaps with information I currently provide in our *Sustainable Management* course, but the module is helpful in that it identifies additional standards. I would be pleased to include such UNECE materials as references in the curriculum of future sections of our sustainability course.

## ANNEX C

### Comments from University of Malta (Centre for Environment Education & Research)

- (a) A review of the Proposed model programme on standardization (15 subject areas or modules) (ECE/TRADE/C/WP.6/2012/6, Annex) clearly shows that it was conceived without due consideration of environmental concerns. The emphasis is quite clearly on economic concerns (with a lesser reference to social concerns). In fact only Modules 2, 6 and 10 specifically refer to the environment in their description ... with Module 2 making a reference to sustainability. Therefore, the suggestion to elaborate ‘an education course on environmental issues and on environmental standards’ is a step in the right direction, particularly considering the global commitment towards the achievement of the SDGs.
- (b) However, there are two ways how this suggestion can be implemented:
  - i. A standalone module (as is being suggested) that addresses the concerns outlined above. The advantage of this decision is that it presents the “cleanest” way how to graft such concerns into the already planned set of modules to ensure that they are addressed. The disadvantage of such a decision is that it is also grafting “environmental concerns” into a fragmentary mentality that considers standardisation as just a sum of individual parts rather than as a system of interrelated parts.
  - ii. Integrating (infusing) environmental concerns into the already conceived 15 modules. The *Issues for consideration* outlined in the proposed draft for the new module, provides aspects through which such an infusion can occur. The major disadvantage is that this method directly challenges the traditional monodisciplinary structures that characterise most of the university courses ... and would require a rethink of the proposed 15 modules to be implemented. The major advantage is that it would be more in line with current educational research that promotes systems thinking and issue-oriented teaching and learning ... both conducive to the development of critical and engaged learners.
- (c) Whatever the way forward I would personally suggest that the focus of the proposed course would be on “**sustainable development issues and on sustainable development standards**”. While I understand that addressing environmental issues has become an urgent concern, nevertheless focusing solely on them (i.e., disconnected from their social and economic contexts) would be repeating the same fragmentary approach that has led us to the current state of affairs.
- (d) Given the ready access to information characterising our society, such a proposed course would be more beneficial if it helps learners not just to know about the issues, but how to process knowledge, think systematically and see (understand) issues in their complex interconnected realities.

**Comments from University of Gloucestershire (School of education & humanities), UK**

Building on the comments above I would agree with the suggestion that sustainable development be woven into the other 15 modules but would also strongly recommend that a specific module be offered early in the programme on standardisation, ideally as Module 2.

Following the (very brief) format used in the other 15 modules, it might read thus:

2. The ecological context of standardization

**Objective:** to demonstrate the importance of maintaining an ecological view when considering standardization because our failure to recognise ecological processes and non-human organisms as key stakeholders has led to acute global challenges for humankind.

Issues for consideration:

- Complexity and why a basic grasp of systems thinking is essential in all aspects of human sustainable development
- Human (anthropogenic) impact on the environment including changes to biophysical environments and to ecosystems, biodiversity and natural resources
- The science of climate change, which is now irreversible, and the need for adaptation
- Global and local initiatives as a source of hope in a changing world\*
- The circular economy as a significant example of necessary change

Time schedule: 1 teaching unit of 90 minutes.

\*Initiatives include the relevant international standards covered in the fuller description provided above

**Comments from the company Deytec. Inc, USA**

Suggested wording for the introduction to the Module.

Environmental issues and challenges encompass many broad topics which are listed and discussed below. Such a broad set of topics could formulate a separate one-semester university course. This module is part of a course on standardization. The module can briefly cover the main environmental issues and challenges listed below, and then make the connection on how international standardization, including for conformity assessment, can be used towards resolving these issues and challenges. Examples of international efforts and standards to address the issues and challenges are presented below.

A connection to the other modules of this course, most of which are important to develop an infrastructure to address environmental issues, can be part of this module.

\*\*\*\*\*