

Report on the results from the survey conducted by UNECE WP.6 Education on Standardization Initiative (START-ED)

The questionnaire was prepared in January-February 2024 by the UNECE WP.6 Education on Standardization (START-ED) initiative. The survey was distributed via e-mail to experts/delegates under the mailing list of START-ED Group in **March** 2024. Data was collected online (via google forms) from 1st March to 25th March 2024.

The UNECE secretariat received 32 replies (12 from universities; 2 from other institutions providing formal education; 3 from ministries/public agencies; 15 from other institutions) .

The respondents were from various countries representing five different world regions (see Table 1), but mostly from **Europe**.

Table 1 Geographical distribution of the respondents

Europe	Belarus	1
	Belgium	1
	Bulgaria	1
	France	4
	Germany	1
	Italy	1
	Norway	1
	Portugal	1
	Serbia	1
	Slovakia	1
	Spain	1
	Switzerland	3
	Russia	1
	<i>In total</i>	18
Asia	Iran	2
	Japan	1
	Kyrgyz Republic	1
	<i>In total</i>	4
Africa	Burkina Faso	1
	Cameron	1
	Mauritius	1
	Uganda	1
	<i>In total</i>	4
North America	Canada	3

	USA	1
<i>In total</i>		4
South America	Brazil	1
	Ecuador	1
<i>In total</i>		2

Source: WP.6 Education on standardization survey, 2024

Most respondents answered that their institutions propose education on “standards and standardization” in their study/educational programs. Twenty-six (81%) of the respondents replied that they are **directly involved in standards teaching** (and 6 respondents do not teach standards).

Graph 1 Respondents involved in standards teaching



Source: WP.6 Education on standardization survey, 2024

In average, the respondents teach standards for **11,19** years, including 4 very experienced teachers (more than 20 years of teaching standards), 10 experienced teachers (10-20 years) and 12 early career teachers (less than 10 years).

Concerning the **format of teaching**:

- 5 respondents teach standards and/or quality infrastructure as a specialized course which covers at least 25 hours of teaching (15%),
- 8 respondents teach standards and/or quality infrastructure (modules on standards) within another course,
- 9 respondents are involved in other forms of teaching (webinars, workshops,

tailored programs, occasional short training etc.)

Another question in the survey was about the profile of the students with the following results:

Table 2 Profiles of the trainees (students) in education of standards

Engineering	11
International trade	5
Finance	3
Economics	2
Other	12

Source: WP.6 Education on standardization survey, 2024

We can say that the **profile of the students** varies, with most of the institutions focusing on engineering and international trade. However, other disciplines are also represented among respondents.

The most important topics included in current training programmes - based on the WP.6 model program and its modules - according to the opinion of respondents (in the diminishing order of importance) are presented in Table 3. The introductory elements (Explanation of benefits of standardization, Basics of standardization, National and International Institutional Framework) are of the highest interest in the proposed courses and training activities.

Table 3 Representation of the topics in education on standardization

Benefits of standardization	24
Basics of standardization	23
National legal and institutional framework for standardization	21
International standardization	21
Standardization and companies	19
International trade, standards	18
Policy issues relating to standardization	17
Regulatory policies	15
Conformity assessment	14
Environmental standards	13
Metrology	10
Managing risks through standards	9
Standardization of information requirements/supply chains	9
Market surveillance	9

Source: WP.6 Education on standardization survey, 2024

69% of respondents **use online platforms** in teaching activities. 62% declare to use

them in activities of education on standardization. However, only 22% of the respondents use WP.6 online training modules (LearnQI) which are freely available to the large public.

The awareness of the WP.6 model program on education on standardization was a very important question from the perspective of the WP.6 education on standardization initiative. 20 respondents (62,5%) answered they were **aware of the UNECE WP.6 model**.

Finally, the survey mapped the preferences of respondents concerning potential assistance from WP.6 on teaching standards. Survey participants were requested to rate WP.6 activities on education on a scale from “1” ('least useful') to “5” (“most useful”). The following activities were ranked in the diminishing order of importance (Table 4):

Table 4 Preferences about START-ED WP.6 assistance

Coordination of common research activities (e.g. research on the impact of standardization on society and different stakeholders)	4,343
Provide examples of case studies on standardization issues	4,281
Discussion forum (exchange of experiences) for teachers on standards	4,218
Provide examples of training modules (applied in case of a restricted number of teaching hours)	4,125
Elaboration of guidance on course outlines to assist in the implementation of teaching modules on standards and standardization	4,093
Further e-learning modules that can be used (incorporated) in education on standards	4,062
Organization of awareness activities for students/youth (like an online “standardization day”)	4,062
examples of courses outline (whole course with at least 25 hours of teaching)	4,000
Elaboration of the list of books/publications that can be used by teachers/experts	3,875

Source: WP.6 Education on standardization survey, 2024

The results of the survey will be used to formulate future activities of the START-Ed initiative of the WP.6.

Some ideas for discussion and for the next rounds of the survey:

1. **Teaching of standards and standardization:**
 - o Most institutions responded that they do teach “standards and standardization” in their programs. This suggests a positive trend toward incorporating standardization education.

- It would be interesting to explore the specific courses or programs where this content is taught. Are there any variations based on the type of institution (universities, international organizations, etc.)?

2. **Format of Teaching:**

- The survey indicates that many institutions use e-learning platforms for educational activities. This aligns with the broader trend of digitalization in education.

- We could further investigate the effectiveness of e-learning versus traditional classroom-based teaching for standardization topics.

3. **Topics Covered:**

- What specific topics related to standardization are included in the curriculum? The survey might provide insights into the breadth and depth of coverage.

- Are there any emerging areas that institutions are emphasizing?

4. **Student Profile:**

- Understanding the profile of students who receive education on standardization is crucial. Do institutions primarily target specific disciplines (e.g., engineering, finance, international trade)?

- It would be valuable to explore whether there are differences in student demographics across countries.

5. **Challenges and Opportunities:**

- The survey could shed light on challenges faced by institutions in teaching standardization. Are there common obstacles (e.g., lack of resources, faculty expertise)?

- Identifying opportunities for improvement (e.g., collaboration, interdisciplinary approaches) could enhance standardization education.