

*Luxembourg policy
on education about standardization
2013-2020*



IILNAS

A network of skills for competitiveness and consumer protection

Introduction

At the beginning of 2013, Luxembourg's National Standards Body, ILNAS, updated its national standardization strategy¹, approved by the Minister of the Economy and Foreign Trade, for the 2013-2020 period, with the specific aim of ensuring the development of a unified technical standardization culture (hereinafter referred to under the generic term "standardization") in Luxembourg, as well as the growth of various economic sectors in Luxembourg, based on the same standards.

The image of standardization in Luxembourg is not as strong and positive as it is in other European countries or even internationally. Before reaching a satisfactory threshold, ILNAS must "manufacture" genuine *ad hoc* education. Without this fundamental global understanding, awareness campaigns will continue to be met with the same low level of interest as they are now.

The main objective of the "Luxembourg policy on education about standardization" is to achieve and guarantee a societal, national "anchorage" of the issue by 2020.

To carry out its task, ILNAS is now structuring standards-related education in conjunction with institutions and bodies involved in this area. This complies in particular with the specifications of the 2009-2014 government program, various European Union recommendations and the different challenges to be met at international level.

In the specific context of standards-related education, due to a lack of the experience required and insufficient market return, ILNAS has chosen to base its activity on the "Masterplan on Education about Standardization" document guidelines². CEN CENELEC and ETSI, the three European standardization organizations (ESO), have committed to promoting and supporting this document which sets out measures reflecting viewpoints, directives and initiatives at European level in the area of standards-related education.

ILNAS, as advocated by this document, now acts directly as the national body for promoting standards-relating education.

To support ILNAS in this task, an *ad hoc* National Advisory Committee, aimed at promoting standards-related education, has been set up and established to organize and ensure the developments expected at national level. The committee will meet within ILNAS when required.

To achieve its main objective, the "Luxembourg policy on education about standardization" consists of four lead projects³:

- Defining a national implementation plan for standards-related education;
- Producing a basic tool: a continuous standards-training catalogue;
- Implementing a national flagship Master project in the field of standardization;
- Representation within European and international entities dedicated to "Standards-related education".

¹ <http://www.ilnas.public.lu/fr/publications/normalisation/etudes-nationales/luxembourg-standardization-strategy-2013-2020.pdf>

² <http://www.ilnas.public.lu/fr/actualites/evenements/2013/02/organismes-europeens-nouvelle-strategie/index.html>

³ Managing these projects will allow development to be measured and consequently, will enable the "Luxembourg policy on education about standardization" to be adapted

1 *Défining a national implementation plan for standards-related education*

A national implementation plan for standards-related education, directly relating to the framework proposed by the "Masterplan on Education about Standardization" document, shall be developed with the aim of developing standards-related education, for all, from a very early age until higher university education (Implementation of dedicated national training - a Master [See project III] and the potential to develop applied PhD theses on this subject).

In this context, as regards priority, the implementation plan shall aim for standards-related education in secondary schools and integrating courses dedicated to the subject in existing university courses.

This implementation plan will be drawn up on a yearly basis in order to ensure that it is in line with national priorities in the field. This plan will be regularly submitted to the National Advisory Committee on "Standards-related education" for consultation.

2 *Producing a basic tool: a continuous standards-training catalogue*

Implementing an initial basis for standards-related education requires a basic tool, *i.e.* a continuous standards-training catalogue. Within this framework, awareness and training campaigns dedicated to standardization will be carefully selected to ensure their relevance and success. These campaigns are to be carried out in line with the (inter-) sectoral standardization approach, by taking account of all developments currently in progress and/or results obtained.

Awareness campaigns, trainings and education activities will not be developed or carried out in isolation, but integrated, where possible, in a "sector" under analysis or that has already been analyzed.

Overall, the development of standards-related education will apply to both form and content:

Form

- Standardization,
- Standards bodies ISO, IEC, CEN CENELEC, ETSI, ILNAS (at international, European, and national level),
- Regulations and guides: ISO, IEC, CEN, CENELEC, ILNAS, *etc.*,
- Economic advantages of standardization

Content

By identified economic sectors:

- ICT (information and communication technologies),
- Energy,
- Biomedical technologies,
- *etc.*

3 *Implementing a national flagship Master project in the area of standardization*

As a support tool for competitiveness, ILNAS, with regard to standardization, aims to ensure the necessary and adequate level of awareness for the fabric of the national economy. In this respect, ILNAS aims to create a higher education Master program focused on "Entrepreneurship and Standardization", mention ICT.

Note: Since July 2012, the Grand Duchy of Luxembourg, via ILNAS - Digital trust service, has been an "Observer Member" of the International Standardization Committee ISO/IEC Joint Technical Committee 1 (JTC1 – on ICT), formed in 1987 by agreement between ISO and IEC. This allows ILNAS, which holds the national presidency of the ISO/IEC JTC1 committee, to obtain key information on all issues addressed by the committee, by monitoring votes, accessing various sub-committee documents and being able to participate in the annual plenary meeting of the committee. This facilitates the *ad hoc* transfer of knowledge for ILNAS at national level, where a "dynamic" of interests and involvement for several ISO/IEC JTC1 sub-committees is now in place.

The ICT economic sector is a prominent support sector in Luxembourg and, in parallel, the area of ICT standardization has also become a major economic area of interest contributing in particular to the improving productivity at work, facilitating trade and developing new markets.

In this light, the goal set by the Master "Entrepreneurship and Standardization" - mention ICT, is to train students and employees on standardization and the issues involved, with the aim of promoting innovation and boosting the competitiveness of national businesses.

With this type of action in mind, as recommended in the "Masterplan on Education about Standardization" document, ILNAS entrusted the Agency for Standardization and Knowledge-based Economy (ANEC), as of 2012, with the task of carrying out a feasibility study for a Master project in the area of standardization in Luxembourg.

The underlying objective of creating a Master in standardization is to train around twenty employees in this strategic area every year and encourage them to invest in the standardization activities of delegates within the technical committees related to their economic activity (This direct link with national standards strategy promotes the idea that: "Setting standards means setting the market."). In the medium term (five years), more than one hundred employees could also cater for national-market needs with regard to standards and standardization skills. In the long term, this project will ensure a certain level of competitiveness and innovation for the Luxembourg enterprises concerned.

Implementing this Master project will also provide an opportunity to encourage the development of research projects particularly as part of the EU framework "Horizon 2020" and provide an effective response to the European Commission's request on working towards standards-related awareness and education (also part of the recent framework "Masterplan on Education about Standardization").

4 Representation within European and international entities dedicated to “Standards-related education”

ILNAS has also appointed ANEC-Standardization, which is involved with various educational structures dedicated to standardization at European and international level, such as:

- Joint Working Group Education about Standardization du CEN, CENELEC, ETSI (JWG-EaS),
- European Academy for Standardization (EURAS),
- Working Group on Education de l'International Federation of Standards Users (IFAN),

in order to make it easier to implement, at national level, the best practices developed in this respect.

Conclusion

The Luxembourg policy on education about standardization (2013-2020) should enable:

- The establishment of a societal standardization “anchorage” in Luxembourg;
- The development of a national flagship Master project in the area of standardization;
- The provision of awareness raising and training sessions on standardization according to market-sector needs;
- The development of research activities in relation to standards-related education, in the national interest.

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