

Luxembourg

standardization

strategy

2013-2020

ILNAS

A network of skills for competitiveness and consumer protection

The Luxembourg Standardization Strategy is available at www.ilnas.lu

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Foreword

Even though the economic situation now seems to have improved, the recovery remains fragile. The economy will only experience an upturn if our enterprises continue to be attractive and competitive on European and international markets. These enterprises must be able to deal with new challenges such as the knowledge-based economy, pressure on resources, or even climate change. The Europe 2020 strategy launched by the European Commission shows that, to emerge from the crisis, Member States must promote more intelligent and more sustainable economy with increased levels of employment, productivity and social cohesion. For some years, Luxembourg has been supporting schemes that can make its enterprises more competitive.

This is the case, for example, for the development and integration of standardization at the heart of the national economy. In fact, this experience shows that enterprises using standardization as a tool to support development reap numerous benefits. In particular, it allows these enterprises to access new markets, benefit from a brand image, know in advance the rules of the market, safeguard their relationship with their stakeholders and also strengthen their innovative capacity. Standardization also plays an important role in improving labor productivity while helping to make the business world more transparent and more ethical.

For this reason, ILNAS, Luxembourg's National Standards Body, has set up a national standardization strategy based on the following guiding principle: "setting standards means setting the market.» In this way, any enterprise involved in the development of standards can, to a certain extent, put forward its opinions and assert its good practices. To carry out this strategy, an interest group uniting the state of Luxembourg, the Chamber of Commerce, and the Chamber of Trade was created in October 2010. This Agency for Standardization and Knowledge-based Economy (*Agence pour la Normalisation et l'Economie de la Connaissance*, ANEC) supports ILNAS in its awareness, training, and monitoring activities in the field of standardization and also in applied research in order to enable enterprises to become more competitive.

Since the end of 2010, with the support of their respective partners and the nation's dynamic forces, ILNAS and ANEC have been working together toward increased integration of standardization in Luxembourg. These efforts must be continued in order to achieve the ultimate objective of providing better support to the economy in terms of competitiveness, visibility, and performance, and improving the international recognition of Luxembourg at a standard-setting level.

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Introduction

In June 2010, ILNAS, Luxembourg's National Standards Body (*Organisme luxembourgeois de normalisation*, OLN), drew up a national standardization strategy for the next ten years, which was approved by the Minister of the Economy and Foreign Trade. In terms of its content, this strategy respects the specifications of the 2009-2014 governmental program and various European Union recommendations, as well as the range of challenges to be met internationally.

In line with cyclical economic developments at national, European, and international level, this strategy is assessed each year by ILNAS, modified accordingly (if necessary) and then validated by the Minister of the Economy and Foreign Trade.

Since June 2010, significant efforts have been made to implement the strategy with regard to its five pillars.



Mixed results

Between 2010 and 2012, the overall development of the pillars was generally established. It should be noted that the creation and development of ANEC was completed in 2012, fulfilling its managerial role in the national standardization strategy, under the supervision of ILNAS.

Specific projects relating to the development of sector-based research and innovation and to the sector-based development of OLN, mean that progress is being made in these two pillars.

Against this backdrop and based on data relating to standardization activities carried out in 2010-2012, the following conclusions were drawn, leading to a *de facto* update to the 2010-2020 national standardization strategy:

- There is virtually no culture of standardization in Luxembourg;
- There is a marked lack of interest in some awareness and training activities;
- In general, market involvement is weak.

The challenges

In response to this, ILNAS now has to ensure that ANEC-Standardization is implemented and OLN is organized in order to resolve these issues and to guarantee the expected standards-related development at national level.

Without a culture of standardization in Luxembourg, ILNAS may find that little interest is expressed in awareness campaigns as well as in training and education in this area.

Likewise, if the position and needs of enterprises are not addressed, ILNAS should not expect to receive the constructive feedback required in order for the national standardization strategy to be developed effectively.

The economic fabric should therefore be measured and evaluated in order to establish expectations¹ correctly, and to adapt all useful services on offer, while continuing efforts to support the economy by developing an (inter-) sectoral approach.

Actions to be carried out

The objective of this update is to ensure the development of a homogenous culture of standardization in Luxembourg, as well as the growth of various economic sectors in Luxembourg from a standard-setting perspective.

The standardization strategy of June 2010 remains the reference framework, taking into account this new version, which has been developed as a result of developments and experiences at national level. The pillars which have not been repeated *verbatim* are pursued in the form of coordinated projects (research, management of delegates, sector-based development of OLN, development of the ANEC-Standardization).

Similarly, on the basis of internal analysis carried out regarding the current status of standardization on a national scale, it has become apparent that a collaborative approach between OLN and ANEC is indispensable in order to ensure the development of a homogenous standardization culture at national level, as well as the growth of various economic sectors in Luxembourg from a standard-setting perspective.

The goal is to strengthen OLN in the long term, increase its visibility, and reinforce its link to ANEC-Standardization. Likewise, ANEC-Standardization should assume a more assertive role *per se* in the national market through clear mandates.

¹ A global study on the value of standardization for the economic fabric is currently being carried out via ANEC (a collaboration between the standardization department and the department of the knowledge-based economy)

2013-2020

4 major development axes

1

*Creation of standards-related education
at national level*

2

(Inter-) sectoral standardization approach

3

Strengthening research activities

4

Products and services in the field of standardization

1 Creation of standards-related education at national level

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.

To carry out its task, ILNAS is now structuring standards-related education in conjunction with institutions and bodies involved in this area. A consultative committee with the objective of carrying out standards-related education has therefore been set up in order to organize and guarantee expected developments. An implementation plan will be followed with the aim of developing standards-related education from a very early age, through to the potential to develop applied PhD theses in this subject.

Note: These specific research activities could be effectively combined with standards-related inter-sectoral developments in order to maximize results and usefully meet the needs of a sector.

ILNAS will seek to introduce a national and academic network of trainers for relaying standards-related information, in order to train future generations in the challenges of standardization.

By signing agreements, the University of Luxembourg, as well as traditional technical and professional educational establishments, will be granted privileged access to ISO, IEC, CEN, and CENELEC standards.

Within this framework, awareness campaigns dedicated to standardization will be 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 results currently in progress or those that have already been obtained.

Awareness campaigns, training, or education activities are not to be developed or carried out in isolation, but integrated, where possible, in a «sector» that has already been analyzed.

The development of standards-related education will apply to both form and content:

Form	Content
<ul style="list-style-type: none">• Standardization,• Standards bodies (at international, European, and national level): ISO, IEC, CEN CENELEC, ETSI, ILNAS,• Regulations and guides: ISO, IEC, CEN, CENELEC, ILNAS, etc.,• Substantive standards-related work,• Sector-based development strategies,• Economic advantages of standardization	<p>By identified economic sectors:</p> <ul style="list-style-type: none">• ICT (information and communication technologies),• Energy,• Biomedical technologies,• Finance,• Construction,• <i>etc.</i>

Note: Another clear, predefined objective of ILNAS is to introduce higher education relating to standardization.

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 of the International Federation of Standards Users (IFAN),

in order to take into account at the national level the good practices that have been developed.

2 (Inter-) sectoral standardization approach

To develop closer ties with the market, standardization must support "promising" sectors of economic activity. Standardization is a method of strengthening the economy and can promote economic performance in the short or medium term. If standardization is not adopted, numerous markets may be lost, economic stagnation may occur, or activity may even come to a complete halt.

To support the economy, the development of national standardization will be carried out sector by sector in order to extend a full value chain incorporating standards watch, *ad hoc* analysis, awareness campaigns, training, and research. The OLN will ensure that a consultative committee, a forum, and various awareness campaigns are implemented for each relevant sector that expresses these needs. Finally, special emphasis will be placed on research axes by encouraging scientific articles and applied PhD studies.

In line with the priorities set by the government (2009-2014 governmental program), the following sectors have already been identified and partially analyzed:

- E-commerce and media: the field of information and communication technologies (ICT) already covered by ILNAS (regularly updated);
- Energy: sector already covered by ILNAS (regularly updated);
- Biomedical technologies: sector already covered by ILNAS (regularly updated).

Other sectors will also be analyzed with respect to the best interests of the Luxembourg's market:

- Financial sector;
- Construction sector;
- Space sector;
- Logistics;
- Automotive industry equipment;
- Environment: eco-technologies;
- *Etc.*

3 *Strengthening research activities*

In connection with the development of standards-related education and the (inter-) sectoral standardization approach, the use of study and research activities constitutes another significant axis at the heart of the national standardization strategy.

For example, it should be specifically noted that the Seventh European Framework Program for Research and Technological Development (FP7) contains various calls for proposals referring to the possibility of including standardization research activities or even ongoing standardization work. Typically, by integrating these types of activities into project proposals it is possible, in particular, to increase the societal impact of future projects, and it is easier to communicate, exploit, and use the results of the research at a national level, and globally at a European level. In this context, a communication has already been made that the future European Research and Innovation Framework Program, "Horizon 2020", should promote the need to address standardization.

Within this framework, ILNAS will ensure the creation of a "Research and Standardization" division within ANEC-Standardization. The dedicated resources in this division will:

- Draw up a standardization research strategy to be validated by ILNAS;
- Define, develop, and manage the global standardization research program, in line with the validated research strategy;
- Participate in the development and drafting, under the supervision of ILNAS, of research, development, and innovation projects in the field of standardization at national, European, and/or international level;
- Identify all opportunities for participation, via standardization and in line with the (inter-) sectoral approach, in research, development, and innovation projects in the interests of national economic actors;
- Participate directly as a partner in research, development, and innovation projects in the field of standardization at national, European, and/or international level, with the potential to generate a positive impact for the national economy;
- Develop and manage research partnerships;
- Ensure that the results of research, development, and innovation projects in the field of standardization are communicated to the national economic actors who are able to benefit from them;
- Define and monitor PhD thesis subjects in line with the validated research strategy;
- Participate in scientific publications at national, European, and/or international level in line with the validated research strategy.

4 *Products and services in the field of standardization*

In order to support the various developments relating to the first three axes of this strategy, a range of products and services should be offered to the national market, as follows:

- Diagnostics based on the ability of an economic entity in the field of standardization;
- Measurement of the economic benefit of standardization for enterprises (according to recognized national, European, and international methodologies);
- Creation of standards-related policies for enterprises (linked to the "standardization diagnostic for enterprises");
- Development of training on request (depending on market needs);
- Applied standards-related watch for enterprises (depending on market requirements);
- Support for enterprises in research projects relating to standardization;
- Introduction and participation of ANEC in research projects.

In view of this, the developments expected by ILNAS (in line with the "knowledge triangle") will correspond to the following dedicated project lines:

"Knowledge triangle": "Creation of knowledge":

- "ILNAS - Technical Committees" project: Administrative secretariat for national and sector-based mirror committees (Axis 2 - (inter-) sectoral standards approach).

This project will ensure that the role of secretariat is fulfilled for standardization mirror committees registered at ILNAS, based on needs identified by ILNAS and on request of the dedicated delegates. This project will therefore make it possible to facilitate meetings, for example, of national mirror committees.

- "ILNAS - Technical Committees" project: Administrative and management secretariat of the technical standardization committee: ISO/IEC JTC1 (Axis 2 - (inter-) sectoral standards approach).

This project will ensure the daily monitoring of the strategic activity sector made up of ICT (ISO/IEC JTC1), under the supervision of ILNAS, in line with the need to develop other strategic sectors of activity.

- "ILNAS - Technical Committees" project: Sector-based development (Axis 2 - (inter-) sectoral standards approach).

This project will specifically allow the sector-based national standardization approach to become established.

- "ILNAS - Technical Committees" project: Identification of standardization needs [taking sector-based developments into account] (Axis 2 - (inter-) sectoral standards approach).

This project will specifically allow the identification of national standardization needs, relating in particular to the results of the sector-based development.

"Knowledge triangle": "knowledge transfer":

- "ILNAS - standardization training" project (Axis 1 - Creation of standards-related education at a national level).

This project will enable the development, under the supervision of ILNAS, of standardization training programs, which do not currently exist in Luxembourg. These training programs will be relayed by professional partner associations of ANEC, training bodies, and also relevant education institutions (technical high schools, University of Luxembourg, etc.), as well as all relevant national research centers. It should also be emphasized that current standardization training for delegates will be updated regularly.

- "ILNAS - standardization awareness" project (Axis 1 - Creation of standards-related education at a national level).

This project will enable the development, under the supervision of ILNAS, of standardization awareness campaigns in Luxembourg. These awareness campaigns will be relayed in particular by professional partner associations of ANEC.

"Knowledge triangle": "Research and innovation":

- "ILNAS - Research" project: Identification of standards-related research, development and innovation activities in Luxembourg (Axis 3 - Strengthening research activities).

Resources within the Economic Interest Group (*groupement d'intérêt économique, GIE*) will be dedicated to the development and drafting, under the supervision of ILNAS, of research, development, and innovation projects in the field of standardization at national, European, and/or international level. Every opportunity in this field should be researched and verified in terms of partnerships and new projects. This project will also be specifically responsible for the development of relationships between ILNAS and the research domain.

- "ILNAS - Research" project: Management of research, development, and innovation activities in Luxembourg (Axis 2 - (Inter-) sectoral standardization approach and Axis 3 - Strengthening research activities).

This project will ensure the running and management of validated projects, as well as the transfer of research results to all communication networks of both ILNAS and ANEC.

This project will also allow new research projects to be identified and new services to be implemented.

Example: Monitoring specific committees of delegates identified for (by/on request of) the market, which are responsible for producing information/awareness events in order to transfer knowledge relating to standards under development.

Note: All ANEC-Standardization resources will be directed to these project lines (which will be adjusted with regular updates to this strategy).

Conclusion

This update of the Standardization Strategy for Luxembourg (update 2013-2020) is to:

- Develop a standardization culture in Luxembourg;
- Effectively develop standards-related education at a national level;
- Guarantee a standards-related development in line with the market needs;
- Develop applied research activities in line with standardization;
- Propose standards-related products and services in line with national economic needs.

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