

CENELEC'S VISIONS UNTIL 2010



Background

In 1996, CENELEC, the European Committee for Electrotechnical Standardization, international association under Belgian law, published a Corporate Plan 1996-2000 entitled : "Moving into the Twenty-first Century".

An updated and more condensed version of the CENELEC plan called "European standardization in the field of electrotechnology" was published in 1998.

Both papers define the current policy of CENELEC and constitute a common basis for the activities of the national committees members of the association within the near future.

However, the rapid changes of both the economic and the technical environment of electrotechnical standardization call for a long-term plan of action based on visions about developments during the next ten years at least. These changes will have far-reaching impacts on the basis of CENELEC's existence and operation.

The present situation of CENELEC seems to the insiders to be stable and sound. Thanks to the steady commitment of its 19 national members, CENELEC has received a very solid financial basis which makes it independent of all external interest groups.

The electrotechnical standards are currently developed in Europe in an efficient way with the result that there exist no real technical barriers to trade due to electrotechnical standards in the European Economic area. CENELEC is also attractive for many other European countries. There is however no reason for complacency.

CENELEC has probably not made people sufficiently aware of its performance and realisations.

In fact, as the visibility of CENELEC and its work has been rather low, the special features and advantages of the coherent electrotechnical standardization and its results are not always recognized by the public, including some European and national authorities.

All interested market players are however invited to contribute validly, at expert level, to the ongoing standardization efforts. This may also require the use of new tools and facilities.

In this publication, the major trends in the further development of CENELEC's environment have been identified and an attempt of identifying strengths, weaknesses, opportunities and threats (SWOT analysis) has been made.

Further discussions involving the political, social and economic partners of CENELEC may be necessary to refine and develop the long-term planning and operation.

The present publication is intended to inform all those interested in CENELEC, with a direct invitation to contribute to our thinking.

Analysis of the present and future situation of electrotechnical standardization in Europe and in the world

General trends :

On the basis of the swot analysis it can be stressed that the globalization of economies will continue and even accelerate. With regard to CENELEC's specific area of interest the following aspects of this globalization are of special concern :

- Big national industrial companies will merge at international level and become transnational or "global" players.
- Small and medium sized enterprises (SMEs) of the sector will maintain the important role that they play today in the national economies and may extend their fields of activities to a global scale whenever possible.
- Markets will grow bigger to become more and more worldwide and will have less regional diversity.
- As a result of the economic globalization, the cultures of nations will grow closer together. One common business language may be used (lingua franca) as an interface between the diverse national languages.
- The "meeting technology" or technical features for organizing meetings will change totally due to achievements in the technical means of communication.
- Customers of standards will receive all information in an electronic format and will claim to be entitled to exploit this information without any restriction.

Standardization aspects :

Specific developments will influence the standardization as a whole. They have to be taken in account when defining CENELEC's visions of the future.

These factors are mainly :

- the increasing role of the business of services and service providers in contrast with the manufacturing of products;
- the growing preference for system contracting in replacement of the marketing and procurement of simple products;
- the creation of a business-oriented "certification industry" which tries to be independent in its business of the traditional standardization but which may create new "market needs" for specialized standards;
- the possible change of the public opinion on standards as more and more people will be affected by the results of standardization, while fewer people will be involved in the development of these standards.

These factors may have an increasing impact on the daily standardization work and programmes. The policies and procedures defining CENELEC's operation need to be monitored continuously and will have to be adapted when necessary. This action will ensure most efficient and proactive responses to those trends.

Technical developments :

- Standardization in the electrotechnical sector will become more and more complex as a result of :
 - the integration of electrotechnology and in particular electronics into systems which are used in several sectors of industry;
 - the further shortening of periods for innovation and life cycles of products.
- These developments will become more complex through the different speeds and scales of importance of this evolution in different sectors.
- The increasing availability and use of IT tools, such as databases, network servers, specialized software etc... will allow individual experts to cope with this development.
- Information flows surrounding the standardization work will have to be monitored carefully in order to avoid an information overload.

Aspects of legislation :

It is obvious that the relationship with European legislation and in consequence the co-operation of CENELEC with the European authorities are one of the most characteristic features of European standardization for electrotechnology.

With regard to CENELEC's role, the political development in Europe is expected to take the following direction :

- the principle of subsidiarity will remain prevalent. European legislation may in comparison with national legislation increase in volume and in importance;
- directly applicable legislation referring to European standards will play an increasing role in the fields of
 - occupational health and safety,
 - environmental protection,
 - reduced exploitation of resources.

This specific legislation will very often create special European requirements considered as essential which cannot be dealt with at the level of international or worldwide standardization.

- European politicians and officials intend to use standardization more and more as a vehicle for promoting and realizing their economic policy.
- European interest groups representing consumers, environmentalists, trade unions and industrial associations will further develop these direct links with CENELEC and will more strongly influence the decisions. The diversity of languages and cultures to be taken into account will require continuation of the involvement of national membership.
- Until 2010, the European Union may be specifically enlarged by the accession of a number of middle and eastern European countries. This process will create new challenges for reaching the enlarged harmonization of European standards in all these countries.

CENELEC's visions for the future

- The effect of globalization of markets clearly favours the creation of a system of true International Standards. However, national implementations of these international work results need to be based on identical rules in order to avoid the creation or the continuation of competing or conflicting standards, different from country to country.
National standards bodies will still be needed for answering the contribution to the international standardization through national delegations representing the national interested parties (SMEs, national authorities, social partners, consumers). This national participation must be operational during the development of the international standards and will assure the national implementation in time.
- In an unregulated worldwide market there might be no apparent need for regional standards organizations. Such a worldwide market will however not exist by 2010. Regional particularities will still remain, mainly due to the different levels of technical development and due also to different prescriptions by legislation/regulation.
The world economy will be concentrated in three main regions which are not homogenous in their structure and constituency.
- New means of data transmission and communications technology will accelerate the development of standards and reduce the number and the cost of meetings. The free availability of the standards of ETSI through Internet or other means constitutes a major threat for the financial basis and stability of many National Committees, the members of CENELEC.
- The closer relationship between standardization and legislation leads to a growing questioning of the genuine private and voluntary character of the standards making process with a pretext of legitimacy and accountability. During political "discussions" the legal aspects of standards are often generalized to the whole field of electrotechnical standardization, despite the fact that only a limited number of standards is directly linked to this legislation.
- The present trends to promote centralization of all work programmes and to formulate unproven synergic arguments for unification might lead to requests for the setting up of one centralized European organization for standardization, covering all technical sectors. If CENELEC's independence was to go astray due to the unnecessary integration into such a mega-organization, the proven flexibility and efficiency would be at stake.
- CENELEC's visibility suffers from a lack of formal recognition. In the public opinion of today, with the exception of a few specialists, CENELEC is perceived as the organization which did not realize the European harmonization of domestic plugs and socket-outlets. Unnecessary disputes with and divergences from the other European standards organizations (e.g. work repartition, procedures, new deliverables) can only weaken the reputation of the European standardization system as a whole.
- The future standardization will change from today's product oriented approach to system-oriented activity. Electrotechnology will become a substantial part of all systems, especially where new technologies are applied. Any weakening or exclusion of CENELEC's involvement in the standardization of systems and in the application of new technologies would impair CENELEC's ability to produce and to maintain the set of coherent and up to date European standards in the field of electrotechnology.
- The coherent standards programme of CENELEC combined with efficient management have led to the present results. Interweaving of these programmes and actions with standardization efforts for other technologies will affect this coherence. CENELEC would no longer be able to react quickly to identified market needs and to reach the required standards issues.

Conclusions

Globalization will enhance the importance of International Standards but will not eliminate the need for regional/national standards within the time period under consideration. With the wider acceptance and implementation of IEC standards CENELEC might even streamline its work, thereby reducing sensibly the work of experts.

CENELEC shall continue its liaison with IEC. Priority should be given to the principle of triggering and participating in the development of standards at international level in order to facilitate their subsequent implementation in Europe. The approach towards making standards in Europe first and having European solutions consequently accepted globally will remain the less effective way of promoting European interests. The current Dresden Agreement provides a solid basis for the further developing of the co-operation between IEC and CENELEC.

The availability of the texts of adopted standards in electronic format in Europe and in each of the member countries will have to be organized. CENELEC might act as the co-ordinating and concerting body of this evolution.

Supporting European legislation remains an important objective of European standardization. The basic idea must be to define the role and the limits of standardization in the framework of economic policy. The dialogue with European authorities has to be maintained and even intensified, this being the prime task of the CENELEC officers. New members have to be accommodated within CENELEC and have to be assisted when bringing forward their interests.

As long as subsidiarity with national legislation exists in Europe, the articulation of national standpoints to national voting and national implementation of standards by national standards bodies will be required. Due to the relationship with legislation, regional standards bodies are necessary as well. In consequence, the structure of the European standardization system based on the principle of representation by national delegations must not be changed within the next decade. This does not prevent the further development of co-operation modes with the social and co-operating partners.

There exists a big difference between the perception of CENELEC by the general public - including the electrotechnical industry itself - and its actual performance. That is why the Public Relations of CENELEC policies and activities will be intensified at both national and Central Secretariat levels and the required resources made available.

The direct involvement of the electrotechnical industry in the standards making process from the Working Group level to the management level and avoidance of decision making by professional standardizers must be maintained in order to ensure the market-driven approach of electrotechnical standardization. This is also a precondition for a research and manufacturing oriented allocation of standards work. For strategic decisions however the involvement of the top-level management of all parties concerned must be ensured.

The definition of interfaces will become the main characteristic and objective of the system oriented standardization. As single expert knowledge will never cover all details to be standardized in a system, the collaboration of experts from different subsectors must be promoted and extended. That is why CENELEC operations must in those exceptional cases be closely co-ordinated with those of CEN on the one hand and ETSI on the other hand. The instruments for this collaboration should be well established in the spirit of good partnership between the three ESOs, but this should not necessarily be done by a centralized organization.

As long as the national members of CENELEC and their stakeholders feel that standardization can be carried out more efficiently in the comparatively homogeneous sector of electrotechnology and not in a centralized standards organization, a merger with the other European standards organizations should not be envisaged.

Different speeds of development in the different sectors of industry require different types of technical specifications. The set of deliverables recently established by the European Standards Organizations can cope with all demands of the market with respect to timeliness and degree of consensus. Harmonization of these deliverables should take place. CENELEC has the firm intention to continue the development of those harmonized standards which are requested in the markets. This will be done in a spirit of co-operation that has always determined its activities from the start.

Executive summary

Based on the analysis of strengths, weaknesses, opportunities and threats, CENELEC studied the trends and changes to be expected in the political and technological environment of electrotechnical standardization in Europe. The group in charge of this study tried to describe a scenario for the evolution of electrotechnology during the first decade of the third millennium. This publication contains proposals for an adequate response of CENELEC and its member countries to the major trends of that evolution.

- The main factor defining the work of CENELEC remains the close co-operation with the International Electrotechnical Commission (IEC).
- In response to the ongoing globalization of technical standards, the national electrotechnical committees, members of CENELEC, will continue to concentrate their activities and contributions at the international level of IEC.
- Another consequence is that the resulting IEC international standards will be implemented in Europe as far as possible unchanged.
- The European political scene may lead to the formulation of special legislative requirements to be incorporated in or complemented by the European standards.
- The working out of national standpoints as a contribution to the standardization work together with the official national implementation of European standards require a structure of national standards organizations. These organizations, the members of CENELEC, dispose of the adequate voting rights for the adoption of ENs. For this reason, the basic structure of the European standardization will remain unchanged.
- Market driven flexibility and speed of work and procedures as well as the development of new fields of working constitute the main technical challenges in standardization for the next ten years. The continuous adaptation of working methods and procedures will meet the requirements of the market and will simultaneously improve the perception of standardization by the general public.