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COMMISSION GREEN PAPER ON
THE DEVELOPMENT OF EUROPEAN STANDARDIZATION :
ACTION FOR FASTER TECHNOLOGICAL INTEGRATION
IN EUROPE

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INTRODUCTION

The credibility and success of the White Paper on completing the internal market do not come from the fact that three hundred subjects were identified for legislative harmonization, but that a thousand or more Community Directives were abandoned which might have been necessary if the old approach, based on detailed harmonization, had been followed.

The new approach is based on two principles:

- mutual recognition of national rules is the basic principle. This presupposes that the objectives of national legislation - health, safety and so on - are equivalent and that only the means of achieving them are different;
- legislative harmonization at Community level only occurs exceptionally in those areas where the objectives of national legislation are not equivalent; when harmonization is necessary, Community legislation must be limited to laying down essential requirements for safety, health, and so on. It is up to producers to choose by what means they wish to comply with these requirements.

Let us take domestic electrical appliances as an example. Technical safety requires the presence in the electrical lead of a third wire, connected to the earth. Before taking legislative initiatives, the Commission will see whether the twelve Member States all require this third wire. If so, there is no need for legislation to be harmonized; if not, Community legislation will provide for an earth connection for this type of appliance throughout the Community, without going into the details of whether the third pole should be round or square, or placed in the middle or at the edge of the plug.

This policy will bring about a single Europe for traders, but not for manufacturers or consumers. A Community citizen may purchase a washing-machine in the country-next-door and bring it across frontiers without difficulty, but he may still find that the plug of the appliance does not fit the socket in his house.

Thus neither mutual recognition nor the new approach to harmonization can operate satisfactorily unless manufacturers come together and agree upon common instruments - plugs and sockets - which are intended to achieve the legislator's objectives. That is the role of the standardization organizations.

Only European standards will bring about a common economic area. National standards on the contrary compartmentalise the common market. They cannot be the subject of mutual recognition, since, not laid down by the authorities, they are not obligatory; each producer is free to fulfill

essential requirements by other means and no purchaser can be obliged to recognize foreign products. Standards will only fulfill their role in the common market if they are agreed at the European level and published as European standards.

That is why the Community encourages the work of CEN, CENELEC and ETSI, which brings together the standardization bodies of the eighteen member countries of the Community and EFTA.

The output of the European standardization bodies has risen spectacularly. Over 800 standards have been adopted in the last six years, three times as many as in the previous twenty years. But the completion of the Internal Market requires the adoption of at least 800 additional standards, or about one standard a day until 31 December 1992.

The Commission is responsible for the operation of the common market, not only for traders but also for producers and consumers. In order not to have to return to the old approach of detailed harmonization, it wishes to assist standards organizations to respond to the growing demand for standardization in anticipation of 1992. In this Green Paper, the Commission proposes for discussion suggestions for improving the efficiency of standardization organizations as well as their cooperation and cohesion.

COMMISSION GREEN PAPER ON THE DEVELOPMENT OF
EUROPEAN STANDARDIZATION

EXECUTIVE SUMMARY

The single Community market will become a reality for European Industry only insofar as common technical standards can be developed progressively at European rather than national level.

Less than 900 days from the Community's deadline for achievement of the internal market, European standardization has become central to that objective. Hundreds of European Standards are today being drawn up to accompany the Community's technical legislation which will come into force before 1 January 1993. This is the immediate goal of the European standardization process.

But as the regulatory barriers to the free circulation of industrial products within the Community are removed, differences in national technical standards still constitute a significant obstacle to the acceptability of those products in the market.

Although under Community law Member State authorities are required to accept on their market products which conform to the legislation and standards of other Member States where these are intended to achieve equivalent objectives, the same principle of "mutual recognition" cannot be applied to the individual purchaser in the market, who remains free to set his own requirements, often by reference to national standards. Only through the gradual voluntary harmonization of standards can the Community market fully achieve the economic rationalization and competition which are prime objectives of the EEC Treaty.

The objectives of the Green Paper

The main purpose of this Green Paper - a consultation document addressed to all interested parties - is to draw to the attention of producers and users of industrial products in the private and public sector the strategic significance of European standardization for the realization of the internal market. Nothing less than the future technological environment for products on the European market is at stake.

A second purpose of this Green Paper is to accelerate the delivery of European standards, especially those required for the implementation of EEC product legislation. The European standardization bodies have made major efforts to respond to the increased demand for their services in recent years, for which they are to be congratulated, but demand for European standards is outstripping supply.

A third objective of this paper is to stimulate debate on how to ensure long-term dynamism and stability in European Standardization so that this economically-important activity can be sustained at the pace which will be required during the next decade.

Contents of the Green Paper

The Green Paper examines a number of issues relating to the organizational structure, financing and policies and practices of standardization bodies, both at European and national level, and assesses what changes may be needed to make standardization serve the European market more effectively.

It is divided into two parts.

Part One identifies the challenges and problems facing European standardization. Section I explains the importance of European standardization for the Community's Internal market, both for EEC Directives adopted under the so-called New Approach to technical harmonization and in terms of common technical standards in the Community market. Section II briefly describes the structure and operation of the European standardization bodies, CEN, CENELEC and ETSI.

Part Two puts forward possible solutions to the challenges facing European standardization in the 1990's and addresses the role of European industry and other parties in the standardization process, the organization of European standardization and the role of public authorities.

The Commission's main recommendations can be summarized as follows:

European Industry is called upon to give European standardization a much higher priority in its strategy for the internal market. Without greater involvement of industry in standardization work, and the commitment of more money and expertise to that process, the ambitious objectives which the Commission and European standardization bodies have set themselves may not be met. Lack of involvement at a strategic level by European industry is likely to be a high-cost option, and will reduce the potential of the internal market.

- . Standardization bodies are asked to take further steps to improve their efficiency and to consider restructuring the European standardization system to permit sectoral autonomy in standards-making while ensuring coordination through new European-level structures (a European Standardization Council and Board) which will lay down the strategic direction of European standardization.
- . Other recommendations include greater direct participation of interested parties in European standardization work, the creation of self-standing European Standards and a long-term policy for the financing of European standardization bodies, which should allow future Community funding of European standardization to decline from its present high levels over the next few years.
- . The Commission also recommends measures by which the European Standardization bodies might respond to their changing external environment, especially in Eastern Europe.
- . Governments are asked to step up their promotion and support of standardization at national and at European level. At the Community level, the Commission recommends that the Council of Ministers should decide upon the basic principles for future cooperation between the European standardization system and public authorities and commit itself to long-term financial support.

(A full summary of Commission recommendations is given in Section V of the paper).

Follow-up to the Green Paper

This Green Paper will be widely distributed by the Commission. Interested parties will be consulted in the three months following publication, with a view to identifying the main points of consensus.

The Commission will at the same time consult the European standardization bodies on the priority issues (efficiency, new structures and external relations) with a view to agreeing appropriate action as soon as possible.

The Commission will, in the light of the discussion of the Green Paper, also consider making proposals to the Council of Ministers for decisions to formalize its recognition and support of European standardization.

For further copies of the Green Paper, please apply preferably by letter or telefax to:

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PART ONE: THE CHALLENGE

I. THE IMPORTANCE OF EUROPEAN STANDARDIZATION FOR THE INTERNAL MARKET

1. The elimination of technical barriers to trade has been recognized at the highest political level of the Community as a priority task in the programme for the completion of a market without internal frontiers by 31 December 1992. Since the adoption by the Council of the so-called "New Approach to technical harmonization and standardization" in 1985, the harmonization of European industrial standards in the areas covered by Community technical legislation has become an essential instrument in achieving that objective.

As 1993 approaches, European standardization is also being perceived as a tool by which to obtain the full economic benefits of that market. As well as being a means of eliminating regulatory barriers to trade, European standards are becoming an economic objective in their own right.

(1) European standards for legislation

2. In the Council Resolution of 7 May 1985 on the new approach to technical harmonization and standardization, which is now the basis of most Community technical legislation, reference to voluntary standards was accepted as the appropriate method of giving technical expression to the essential requirements of Community Directives. Under the new approach, EEC legislation confines itself to laying down the essential requirements to which products must comply in order to ensure the protection of public health or safety, of the environment or the consumer. European standards are developed in respect of each Directive in order to provide manufacturers with a set of technical specifications recognized in the Directive as giving a presumption of conformity to the essential requirements. The European standards concerned, the so-called "harmonized standards", remain voluntary; manufacturers are still able to put on the Community market products which either met other standards or no standards at all, subject to fulfilling the procedures for assessment of conformity laid down by the Directive.
3. The Council has now adopted several Directives based on the new approach (toys, simple pressure vessels, construction products, electro-magnetic compatibility, machines, personal protective equipment and gas appliances). Further Directives for medical devices and telecommunications terminal equipment are likely to be adopted this year. A large amount of work has been given to the European standardization bodies by means of individual "standardization mandates" from the Commission, which, after consultation of the standardization body concerned, establish the scope of the work, lay down any supplementary guidelines and fix the timetable by which the standards should be adopted.

(It should be noted that the EFTA countries, whose national standardization bodies are also members of the European standardization organizations, have consistently supported the Community's approach and contribute to the financing of mandated standardization work).

4. In a separate initiative, the Community has given harmonized European standards a prominent role in the opening up of public procurement markets. The revised Community Directives on public supplies and works⁽¹⁾, and the proposed Directive which will shortly extend the same disciplines to such sectors as telecommunications, transport, energy and water supply, require purchasing entities to refer to national standards transposing European standards where they exist, subject to some limited exceptions.
5. The final success of the new approach and of the use of European standards in public procurement policy depends largely on the European standardization bodies. The pace at which the Community has adopted its legislation has resulted in an unprecedented increase in their workload. Since 1986 about 30 standardization mandates related to EEC legislation have been given to the two main European standardization bodies, CEN (Comité Européen de Normalisation) and CENELEC (Comité Européen de Normalisation Electrotechnique) for approximately 800 European Standards, most of which are to be completed by 1993⁽²⁾. More mandates are being prepared, which are likely to bring the total to over 1,000 standards. This demand for new standards work has led to a doubling of CEN/CENELEC Technical Committees and working groups; between December 1987 and December 1989 the number of Technical Committees alone rose from 122 to 239. The number of draft European standards in course of development in CEN rose from 220 in 1986 to 950 in 1989. Several thousand people currently participate in standardization work directly related to mandated European Standards.
6. Despite this response from the standards bodies the overwhelming part of this standardization work for the EEC internal market still has to be done before 1993. The annual output of new European standards is still low (about 150 were published by CEN/CENELEC in 1989) compared to the target of at least 800 additional standards needed for EEC legislation or the production of national standards in the main standards-producing countries of the Community⁽³⁾. Even though current CEN/CENELEC output represents a rapid increase from previous levels (19 in 1985, 102 in 1988), demand for European standards is increasing faster than supply.

(1) Reference: OJEC N° L 127, 20/5/88, p. 1.

(2) A list of the subjects for which standardization mandates have been given is contained in Annex I.

(3) Purely national standards published by France, Germany and the United Kingdom in 1989 were approximately 350, 650 and 400 respectively.

(II) European standards in an integrated market

7. The Community's interest in common European standards is not limited to those to which can be referred to in Community product legislation. More European standardization will benefit the single European market in all sectors, not only in those subject to regulation, by bringing about the very economic rationalization and competition which are prime objectives of the EEC Treaty.
8. The main motive for promoting any standardization activity is economic. The motivation for standardizing products, processes or services at the national level - namely, to reduce costs for producers and to improve transparency of the market for consumers - clearly exists at the European level. Given the current fragmentation of the European market, economic gains should be much higher from European standardization than from further national standardization. Common European standards will reduce research, production and distribution costs for producers, and promote more intensive competition, to the benefit of consumers, in respect of the non-standard features of products.
9. A second reason is that, even in the absence of technical regulations imposed by governments, national standards inhibit intra-Community trade and add to costs for manufacturers. National standards tend to shape customer preference for products. Important customers in national markets, such as government agencies, reinforce this effect by favouring national standards in public procurement. Pressure in favour of known national standards is also exercised by bodies such as insurance companies. More European standardization can gradually eliminate these hidden technical barriers to trade, by building up a degree of commonality in technical specifications where the market considers it useful.
10. For newly-developing technologies (information technology, telecommunications or new industrial materials) standards are often a pre-condition for industrial production or marketing. It is crucial that in these sectors, where markets are becoming global, standardization should, where possible, proceed at the international or at least the European level from the outset.

While Europe may have to come to terms with an inheritance of conflicting national standards in more traditional technologies for some time, it must not repeat history in the technologies of tomorrow. Standards for new technologies must also be delivered more quickly than ever before if they are to meet the needs of the market.(1)

11. For all the reasons alluded to above, the work which the European standards bodies are being called upon to do is extensive and growing quickly. For most of it (two-thirds of CEN's activity and one-half of CENELEC's is covered by standardization mandates from the Community and EFTA) the European standards bodies have contracted to complete the job within the next two-and-a-half years. This task alone requires more than doubling the current annual output of European standards. To this must be added the growing demand from industry for European standards in other areas, which, although perhaps less urgent, is of long-term economic importance.

European standardization is faced with a huge challenge. It is unlikely to succeed without a heightened level of commitment from those who want the standards and from the standardization bodies themselves.

(1) The Community's research and development programmes already have an important role in pre-standardization. One of the objectives of the Community Bureau of Reference (BCR) is to facilitate the implementation of standards, and links between research, standardization and certification policies are currently being reinforced.

II. EUROPEAN STANDARDIZATION TODAY

In this Section the origin and current structure of the three European standardization bodies (CEN, CENELEC and ETSI) is briefly reviewed, and the main constraints on expansion of their activity are identified.

(1) CEN and CENELEC

Establishment and early development

12. The European standardization organizations were set up to ensure more effective implementation of international standards by national standardization bodies in Europe, the harmonization of divergent national standards or the preparation of standards where none existed. An association of European national standards, bodies from the member countries of the EEC and EFTA, the Comité Européen de Normalisation - CEN, was established in 1961, to be followed in 1962 by a similar organization for the electrotechnical area (CENELCOM, which became CENELEC in 1973).
13. In the first twenty years the output of these European organizations was low. CEN adopted 96 European standards between 1961 and 1982; CENELEC adopted in the same period 37 European standards and 303 harmonized documents (texts which, while containing common elements, allow for national deviations on a permanent or temporary basis). An important distinguishing feature of both organizations, however, was that their decisions on common European standards, once adopted, became binding on those members which had voted for them. Outside the limited area covered by common standardization work, national standardization bodies continued to develop their own standards independently.

Recognition by the Community

14. A stronger regional orientation was given to European standardization after 1983, as a result of initiatives taken by the Community in order to eliminate technical barriers to intra-Community trade.

15. The first of these was the adoption, on 28 March 1983, of Council Directive 83/189/EEC laying down an information procedure for standards and technical regulations. This Directive established the procedures for cooperation between the members of CEN/CENELEC and the Commission which still apply today. In particular, it provided for:

- the collection by the European standardization bodies of information from their members concerning their planned and current activity (Articles 2 and 4);
- requests from national standards bodies to be associated with the work of another body, or to have work taken up at European level (Article 3);
- a Standing Committee on Technical Regulations and Standards, composed of Member State representatives and chaired by the Commission, in whose work the European and national standards organizations could participate (Article 5);
- requests from the Commission, after consultation of the Standing Committee, to the European standardization bodies to draw up standards on specific subjects (Article 6) ;
- best efforts by Member State authorities to ensure that national standardization did not continue on subjects for which the Commission had requested European standards (Article 7).

Directive 83/189/EEC provided a mechanism through which national standardization could become open to collective scrutiny and the Community authorities could initiate European standardization work.

16. The Council of Ministers has formally recognized the role of European standardization in Community legislation. The Conclusions of the Council on Standardization of 1984 and the Resolution on the New Approach of May 1985 refer to the place to be given to voluntary standardization in future Community legislation, to the advantages of standardization for industrial competitiveness in the Community and in external markets, and to the need for "a very rapid strengthening of the capacity to standardize, preferably at European level".

17. In 1984 the Commission defined its relationship with CEN/CENELEC in General Guidelines for Cooperation. The Commission committed itself to following the New Approach as widely as possible, and to giving financial support to CEN/CENELEC. CEN/CENELEC agreed to coordinate their activity, to increase their resources, to align as far as possible with international standards, to ensure that all interested parties were associated with their work, and to maintain an effective information service. The financial aspects of Commission-CEN/CENELEC cooperation were laid down in a Framework Contract, first agreed in 1985 and renewed in 1989.
18. Following ratification of the European Single Act in 1987, the internal regulations of CEN/CENELEC were revised at the request of the Commission to permit the adoption and obligatory transposition of European standards by weighted majority vote. Under CEN/CENELEC rules, a draft European standard which receives a favourable vote from a qualified majority of member bodies is deemed to be adopted and is implemented by all. In the event that a standard does not receive a favourable vote from a majority of the entire CEN/CENELEC membership, the votes of members from the EEC Member States are counted separately and a qualified majority in favour requires the adoption of the standard by all EEC Member bodies and those EFTA member bodies which had voted in favour.⁽¹⁾ A similar procedure is also provided for in the rules of the European Telecommunications Standardization Institute (ETSI).

Present structure

19. The structure of CEN and CENELEC is that of associations of national standards bodies or electrotechnical committees, which have the last word on all questions relating to standardization activity at the European level. The budget of each European organization is voted by the national members, as are its internal rules, work programmes, and decisions on the allocation of resources. In contrast to the situation at national level, the governing bodies of CEN contain no direct representation of other interests than of professional standardizers (such as public authorities, manufacturers, or other users of standards), although CENELEC is closely associated with the electrotechnical industry and appoints some of its office-holders from industry.

(1) It should be noted, however, that the weighted majority voting procedure used in CEN/CENELEC is not identical to that of the EEC Treaty. In particular, the condition for a proposal to be adopted that no more than 3 members may vote negatively constitutes a more restrictive approach than that of Article 148. The Commission has asked, so far unsuccessfully, for this condition to be removed from the CEN/CENELEC regulations.

20. CEN and CENELEC have responded with energy and commitment to the increasing demand for common European standards. The secretariats of both organizations have expanded quickly ; In the period 1985 - 89, staff members have increased from 10 to 70 in CEN, from 13 to 32 in CENELEC. A comparison of the annual output of the organizations in 1989 with that of, say, 1982 is also eloquent: CEN last year adopted almost seven times as many standards as in 1982 (130 instead of 19) and CENELEC six times as many standards and Harmonized Documents (126 compared to 20). But the distance between today's achievement and tomorrow's goal is still great. There are today about 1250 adopted European standardization documents of which about 800 in the electrotechnical area ; the number of national standards in Germany, France and United Kingdom, is about 20,000, 13,000 and 10,000 respectively (a significant proportion of these is identical to or related to international or European standards).
21. CEN and CENELEC have in recent years recognized the value of using the services of other organizations, the so-called "Associated Standardization Bodies" (ASB's), in the preparation of technical documents destined to become European Standards. A number of such bodies have been given this status, such as ECISS - European Committee on Iron and Steel Standardization, AECMA - Association Européenne des Constructeurs de Matériel Aérospatial, and EWOS - European Workshop for Open Systems, and have been responsible for the programming and drafting of documents which have only to be submitted to public enquiry by CEN and voting and CENELEC before becoming European Standards. Some of these bodies provide for direct participation in their work of interested parties at the European level. Approximately 100 European Standards so far adopted by CEN and CENELEC have been provided by ASB's.
22. Despite this impressive response to the challenge, the limits to CEN and CENELEC's flexibility are becoming apparent as European activity has intensified:
 - In spite of the introduction of weighted majority voting for final decisions on standards, a concern to achieve consensus on draft standards has led to long delays ;

- CEN/CENELEC have not yet applied the "project team" approach to work up initial drafts of standards system outside information technology field; instead the organizations continue to apply a "collegiate" system, in which every stage of the standardization process assures parity of treatment on a national basis:
- Procedures for public enquiry, examination of comments and final voting are widely judged to be slow and to delay the delivery of European standards, particularly for new technologies ;
- The requirement that adopted European standards be transposed as national standards in each member country before they can be applied leads to delays in their availability for use ;
- Procedures for the collection and distribution of information on national standardization activity under Directive 83/189/EEC have been applied loosely (in 1989 an independent report described the information as not responding to the needs of the market);
- Information on European standardization activity is not yet made available in a clear and comprehensive way to European industry.

These and other difficulties are the subject of further analysis and recommendations for change in PART TWO of this document.

(II) ETSI (European Telecommunications Standards Institute)

23. In its Green Paper on the development of a Community telecommunications policy (1987) the Commission proposed that the development of harmonised specifications would be accelerated by the creation of a new European standardization body. In response, the members of the European Conference of Postal and Telecommunications Administrations (CEPT) decided to establish such a body, which represented a radical change in approach to European standardization insofar as it provided for the direct participation at European level of all interested parties in standardization work rather than for representation through national delegations headed by the national standards body.

24. The establishment of ETSI in March 1988 outside the CEN/CENELEC framework posed a number of problems for the coherence of European standardization. In the first place, coordination between ETSI and CEN/CENELEC was necessary to avoid duplication of effort in standardization, particularly as the extension of telecommunications technology into other technologies made overlapping increasingly likely. A second problem was the need to ensure that the basic principles of standardization, such as transparency and independence of particular interests, were respected by the new body. Finally, there was a concern to ensure that the standards produced by ETSI would be effectively integrated into the corpus of European and national standards.
25. During 1988 and early 1989 the Commission negotiated with ETSI in order to resolve these issues. This led to amendments to the ETSI rules of procedure and to a commitment by ETSI to cooperate with CEN and CENELEC. Two years after the establishment of ETSI, the three European standardization bodies have recently decided to establish a Joint Presidents Group in which matters of common interest can be discussed, and have negotiated a cooperation agreement for the handling of technical work. Because of the pragmatic approach followed in recent months the dangers of duplication of work appear to have been avoided. At the time of writing, however, the Commission is still concerned that the role of national standards bodies in ETSI's standardization activity should be fully recognized.
26. ETSI has in two years already developed into a substantial organization. It currently has 212 members and 31 observers, representing PTT administrations, public network operators, manufacturers, users and other organizations. Its programme of work aims to deliver nearly 300 European Telecommunications Standards, of which 40 will be adopted this year and a further 260 are at the stage of public enquiry. The Commission has provisionally concluded a framework agreement with ETSI for one year, and has issued nine standardization mandates to it.

PART TWO: MEETING THE CHALLENGE

III. THE MAIN ISSUES FOR EUROPEAN STANDARDIZATION IN THE
1990'S

27. This central section of the Green Paper is divided into
three parts

- A. - The role of European industry and other interested
parties
- B. - The organization of European standardization
- C. - The role of public authorities.

A. The role of European industry and other interested parties

28. Effective standardization depends on the motivation and commitment of those who use standards. The Commission believes that companies intending to exploit the benefits of a single European market, and other interests, such as users and consumers of industrial products, should ask themselves whether they are giving European standardization the attention it deserves and whether that attention is exercised at a sufficiently strategic level within the organization.
29. In view of the impact of European standardization on the acceptability of products in the market (and therefore on profitability) companies should accord standardization a higher priority in their planning for the Internal Market. Standards have now become too important to be the exclusive preserve of technical experts. The European standards developed over the next decade will have a decisive influence on the technological structure of the entire European market; they will change the conditions of trade not just in export markets but in each national market as well. European standardization work is already under way in a wide and growing number of sectors. The speed and scale of this process means that companies need to be attentive to what is going on in their sector and, above all, must become involved in this negotiation. Standards are not written by or for professional standardizers, but by and for those motivated enough to seek a place at the negotiating table.
30. The long-term benefits of standardization require investment by individual companies, just as improvements in productivity, marketing or distribution systems. Standards organizations need personnel and physical resources to provide an efficient service. But direct financial contributions to the costs of standardization bodies, either at European or national level, is not the main expense. That comes from participation in the standardization negotiations themselves, through the release of technical experts to assist in the drafting of European standards or in discussion of them in Technical Committees and working groups. Although streamlining the procedures of the European standardization bodies may reduce the time taken to produce European standards in future, the cost of participation in standards-making will still appear high. Companies wishing to influence their future technical environment, however, should ask themselves whether they really have a choice.

31. Besides influencing the pace of European standardization, European industry and other interested parties will be asked to play a bigger role in deciding its future direction. Although much current European work is dictated by the needs of EEC legislation, this will not always be the case. Even now, a number of industries are proposing subjects for harmonization of standards to CEN, CENELEC and ETSI. The possibilities outlined later in this document for more sectoral autonomy within the European standardization system should encourage industry to identify where the absence of European standardization is inhibiting economic rationalization and, if necessary, to set up its own organizations to do something about it. Nor is European standardization a concern limited to large companies; it should also interest small and medium companies, since it offers an opportunity to agree on common technical specifications openly and democratically. In the absence of standardization, specifications will be set by the most powerful forces in the market.
32. European industry is faced with a choice. It can accept the present structure of standardization in Europe, from which European standards will emerge relatively slowly over the next few years, or it can decide to commit itself wholeheartedly to the rapid development of common European standards. The second choice will be more expensive in the short term than the first, and may well be perceived by some parts of industry as more of a threat than a benefit. The Commission considers, however, that companies which delay in coming to terms with what is an inevitable process will find themselves at a major disadvantage compared to their more enlightened competitors.
33. Other interests, too, such as consumers, users, or workers, will have to be prepared to organize themselves more effectively to participate in European standardization. The Commission has already provided financial assistance to European Trades Union Confederation for the establishment of a Technical Bureau intended to monitor European standardization work which affects the interests of organized labour. The Commission later in this paper recommends that the European standardization bodies be more open to participation in their work by non-manufacturing interests. Any greater access to the standardization process for such interests will only lead to an improved system, however, if those concerned take up the opportunities that are offered, and ensure that their needs are articulated.

B. - The organization of European standardization

34. Not all of these challenges facing European standardization are of the same immediacy or importance. A distinction is, therefore, made between priority and other issues. Priorities which mainly concern improving the capacity of European standardization organizations to meet their commitment to deliver harmonized standards for the Internal Market. The other issues, while important, are more relevant to the period immediately following 1992; for some of these too, however, it would be useful to make progress in the near future to lay the foundation for the longer term.

Priority Issues

(1) Efficiency

35. Efficiency in the production of European standards is, from the Commission's point-of-view, the highest priority; the operation of Community product legislation effectively depends upon it. In spite of the mobilization of an army of technical experts to work on standards for the Directives that will enter into force in 1991 and beyond (such as construction products, machines, electro-magnetic compatibility, gas appliances or medical devices), it is probable that without a fairly radical change in working methods delays will occur which will have a tangible economic cost for Community manufacturers.

36. There seems a real risk that the current working methods of European standardizers may not be capable of delivering the large number of European standards needed before 1993. It usually takes CEN about two to three years to produce a draft standard from the initiation of work at European level, another year between the beginning of a public enquiry on that draft and the adoption of a standard, and at least six months between adoption and transposition of the standard in all member countries of CEN/CENELEC. Delays can occur at several stages: the setting-up of a new Technical Committee, the ratification of a work programme by executive bodies, or the translation of working documents. Although the speed of standardization work ultimately depends on the difficulty in obtaining consensus on the technical issues, the procedural rules under which technical discussions take place can and do affect delivery times.
37. New working methods are indispensable and urgent for European standardization if it is to match the current pace of European integration. At a time when important decisions at the political level are taken on the basis of majority vote, there needs to be a shift away from an unqualified commitment to consensus in European standardization, although the Commission accepts that the use of standards is related to the degree of consensus reached in their elaboration.
38. The Commission recommends for urgent consideration by the European standardization bodies:

(1) New methods for establishing common working documents

The traditional Committee-based procedure bringing together 18 national delegations (12 from the EEC, 6 from EFTA) to discuss conflicting solutions to a technical problem is costly, laborious and at times inefficient. Technical Committees, although an indispensable part of the standards-making process, need to be assisted in their deliberations by working documents which already put forward common solutions. One way of doing this would be to use "drafting secretariats", "project teams", or even outside consultants to bring together a summary of the technical issues in a single document which did not give a particular advantage to a given national solution.

The viability of this approach, however, is directly related to the availability of technical experts from industry. Without greater commitment from European industry, there can be no significant improvement in the present situation.

(II) Greater use of Associated Standards Bodies

CEN and CENELEC could actively encourage more industry-based associations to offer their services as Associated Standards Bodies to develop technical documents as the basis for future European standards. Such an initiative would not only reduce the administrative and financial burden on European standardization bodies themselves, but also provide the advantages of a more decentralized approach, such as direct industry involvement in priority-setting and the execution of work. (CEN and CENELEC have recently indicated that they are prepared to reexamine their rules on Associated Standards Bodies in order to ensure that sufficient flexibility is given to potential candidate organizations).

(III) Use of new technology to accelerate discussion on working documents

The distribution by conventional means of working documents to a membership spread across Europe takes time. Some of this time could be gained by more systematic use of modern communications technology, such as electronic mail. It would be possible to circulate both working documents and final drafts by this means, and to encourage the development of discussion outside formal meetings by exploiting this channel of communications.

(IV) Majority voting on proposed draft standards

Much time is spent in Technical Committees trying to arrive at a consensus⁽¹⁾ before a draft European standard is put out to public enquiry. This may be appropriate where a standard is not particularly urgent; in the case of most of the European standards now under discussion, however, decisions are indeed urgent if the single European market is to become a reality.

Majority voting on proposed draft standards should therefore be used as a matter of course if consensus (which remains the ideal objective) is difficult to achieve within the time available; this would be particularly important in the case of mandated standardization work.

(1) Consensus is defined by the ISO as the absence of sustained opposition to a particular proposal.

The executive bodies of the European standardization bodies (Technical Boards in the case of CEN/CENELEC, the Technical Assembly in the case of ETSI) could, for example, regularly review progress in Technical Committees and require a vote to be taken where appropriate. Voting might also take place at the request of a quorum of members, to be fixed by each standardization body. (The Commission assumes that weighted national voting rules would be aligned with those of the EEC Treaty).

(v) Shorter and more flexible public enquiries

If all interested parties have an opportunity to be represented in European standardization work and the quality of information about that work is improved, there is scope for the public enquiry for a draft European standard to be reduced from the present six months. Such enquiries could also take more account of the degree of consensus which has already been reached on the draft. Where consensus has been reached without voting, then a two months public enquiry might be sufficient ; where a draft standard has been agreed on the basis of a majority vote, a longer enquiry (but no more than four months) might be necessary.

(vi) More rapid handling of comments

At present, the speed with which comments received in an enquiry are processed depends on the Technical Committee concerned. Some acceleration of the examination of comments (which can now take up to six months) would result by establishing a general rule that comments must be examined and responded to within two months of the conclusion of a public enquiry. Exceptions would have to be decided case-by-case by the executive of the standardization body concerned.

(vii) Immediate application of adopted standards

Standards agreed at European level currently have to be "transposed" as national standards before they become official. A period of six months is usually allowed for this, although longer periods may be granted and national bodies often do not respect the agreed timetable. National transposition should no longer be a pre-condition for the use of a European standard (See "Status of the European standard"). This would eliminate the time-lag between adoption of a European standard and its availability to users.

39. The adoption of some, or all, of these procedural recommendations in the short term would speed up the delivery of European Standards. But care must also be taken to avoid overburdening the European standardization system. It is indispensable to set priority objectives for the first generation of harmonized European standards, and to discard objectives which are not strictly related to priorities.

In respect of standardization mandates related to EEC legislation, for instance, the technical expression of essential requirements of a given Directive has to be incorporated into European standards within the timescale agreed. Other aspects of standardization related to, for example, the efficiency or fitness for use of products, can be dealt with only if the delivery of mandated work on time is not compromised. Responsibility for sticking to priorities lies mainly with the European standards bodies themselves, but the Commission, with the advice of the Standing Committee on Technical Regulations and Standards, may give further guidance on priorities to the standards bodies through supplementary mandates. The Commission will also limit the issuing of new standardization mandates in the next two years as far as possible to items that are essential to achievement of the Internal Market.

40. Those concerned with keeping to priorities may have to discourage attempts to include every feature of existing national standards in early European standards. Even if a full convergence of technical standards in Europe is desirable in the long-term, to try to proceed quickly on all fronts will jeopardize agreement on the essential minimum for the functioning of the Internal Market. Concentrating on performance rather than design parameters in European standards-making would also assist the process of reaching agreement.

(11) Coordination and structure

41. Improvement in the coordination of European standardization and organizational stability are a high priority for the Commission. Efficiency and structural issues are to some extent linked. The Commission recognizes, however, that more time may be needed before the recommendations in this section can be implemented. Nevertheless, ideas on this matter need to be developed and discussed as soon as possible.
42. Of the three European standardization organizations, CEN and CENELEC have a common set of rules for their activity, while ETSI has a separate set of rules reflecting a different structure. Although some adjustment of the ETSI rules has already taken place to bring that organization into line with commonly-accepted principles of standardization, and further changes are being considered, the approach to European standardization is fundamentally different between ETSI and CEN/CENELEC. In future other branches of the economy than telecommunications (such as information technology, or the food industry) may propose that they, too, need to organize their own standardization activity at European level. The Commission, while wishing in the spirit of the New Approach to encourage voluntary standardization as a preferred alternative to regulation in bringing order to markets, is also concerned that new standardization activities should be properly integrated into the rest of the standardization system.
43. Standardization activity can only gain public recognition and legitimacy if it is governed by a clear set of rules, known and approved by all interested parties. Standards that are established in an open way, providing all parties with an opportunity to influence the final outcome, have a far better chance of being applied in the market than those which are not ; standardization is a process by which technical documents acquire legitimacy through adequate consultation. A variety of organizations, such as individual companies, trade or professional associations, may develop technical specifications for their own purposes, but if these are to become standards they must be subject to review through a formal process open to all interested parties.

44. The absence, in 1990, of a fixed and generally-agreed framework for European standardization results in a loss of efficiency in the service offered by standardization to industry, governments, and other interested parties. The organization of more standardization work on a sectoral basis could be a positive development, allowing for more direct participation by industry and perhaps more commitment to the work. Because of growing pressure for common European standards in the coming years, there may be more demand for such sectorally-based standardization. Unless such standardization is coordinated, however, and made subject to certain ground-rules, the risk of duplication or contradiction between different European standardization activities will increase. The United States of America, with nearly 400 active standardization bodies, shows the risks of fragmentation in standards-making ; Europe, which is now trying to move beyond its heritage of nationally-based technologies, needs to ensure that scarce human and capital resources are not wasted in duplication of work.
45. For this reason the Commission considers that the customers for European standards, as well as the institutions which currently supply them, should now consider whether the time has not come to establish a European Standardization system, in which the role of all participants at national and European level would be clearly defined in terms of agreed objectives, the most important of which would be the accelerated integration of European technology through agreement on common standards.

Such a system could

- allow for diversity of organization and autonomy of management within sectorally-based standardization bodies at the European level, and
- assure the coordination, transparency and the legitimacy of European standardization by applying common rules to all standardization bodies within the System, these rules to be developed and maintained by a new central body, the European Standardization Council.

The clearer the common rules governing the European standardization, the more freedom can be given to sectors to organize themselves in the most appropriate way.

46. The concept of a "European Standardization System" implies a coherent whole made up of a number of component parts. The system could consist of several European standardization bodies, provided that they were subject to common rules as far as the formal process of turning documents into European standards is concerned. The decision to establish new European-level bodies would depend on the quality of the service obtained from the existing organizations. If CEN, for example, as a multi-sectoral European standardization organization, can respond promptly and efficiently to the demands of European industry, it is unlikely that many, if any, sectors will wish to take the trouble to establish a new standardization body. Where a sector can demonstrate, however, that its needs can only be met through a separate European standardization body, it should be free to set one up, subject to compliance with the rules of the European Standardization System.
47. The Commission has recently discussed these ideas with the European standardization organizations, and a degree of consensus appears to be emerging on the need for a new structure for European standardization which can respond to the concerns already expressed. The Commission therefore puts forward the following outline of a new structure for the future coordination of European standardization (a fuller description of which is given in Annex 2):
- the European Standardization Council would be a new body responsible for the overall policy of European standardization; it would comprise persons reflecting the views of European industry and social partners, representatives of the EEC Commission and EFTA Secretariat and the European standardization bodies;
 - a European Standardization Board would act as the executive body of the Council, responsible for the management and coordination of European standardization; its membership would comprise of the officers of the European standardization bodies (for the time being, CEN, CENELEC and ETSI) and the Secretary of the Standardization Council;
 - the European standardization bodies would be those bodies organized at European level and recognized by the Council as responsible for standardization in their particular field; they would enjoy full autonomy in the programming, financing, preparation and adoption of European standards, subject to compliance with the rules of the European Standardization System and to formal agreements with the national standardization bodies;

- the national standardization bodies would carry out particular tasks on behalf of the European standardization bodies at national level (public enquiry, expression of national vote), provide regular information concerning their national activity and comply with "standstill" rules during the development of European standards.

48. The main benefits of this approach, in the Commission's view, would be that:

- strategic direction of European standardization would be assured by representatives of the main economic and political interests it is intended to serve;
- existing sectoral standardization bodies (CENELEC, ETSI) could maintain their autonomy and dynamism, and the possibility of admitting further sectoral organizations into the system would not be excluded;
- a set of common rules for the creation of European standards would apply to existing and future European standardization bodies (acceptance of the rules would be a condition for recognition under the system);
- the day-to-day operation of CEN, CENELEC and ETSI would remain essentially unchanged;
- the European Standardization Council would require limited resources, thereby avoiding unnecessary bureaucracy and expense;
- the role of national standardization bodies in European standardization would be recognized in every sector.

49. Further detailed discussion will be necessary to elaborate on these ideas, in particular to define more exactly the role and organizational shape of the European Standardization Council. With the cooperation of all concerned, the Commission believes it is now possible to foresee the establishment of this new framework during the course of 1991.

(III) Membership and International cooperation

50. The development of European standardization must take account of the external as well as internal environment. The rapid political changes taking place in Central and Eastern Europe will, over time, lead to a larger, more closely-integrated European market economy than exists today, and common technical standards are one of the means of assuring an orderly transition to that state-of-affairs. This raises important and pressing questions concerning the relationship between the present members of the European Standardization System and other European countries. Closer cooperation with these countries is desirable, and their inclusion within the System has to be considered.

Technical assistance to Central and Eastern Europe in the standardization field will also be a high priority in the years ahead: Community financial and technical assistance under the PHARE operation has already been requested by both the Polish and Hungarian governments for the improvement of standards and measures, particularly with a view to satisfying Community product requirements. There is growing interest in technical assistance from non-European countries, too.

Finally, the cooperative relationship between European and international standardization bodies will have to be further developed to ensure an effective two-way flow of information and, where possible, agreement on the best allocation of standardization work in order to avoid duplication of effort.

Membership of European standardization bodies

51. Membership of the three European standardization bodies is mainly confined to the member countries of the EEC and EFTA; CEN and CENELEC membership is limited to these countries, while ETSI also has Cyprus, Malta and Turkey as members. A number of Central and Eastern European countries have, however, recently expressed an interest in becoming members of all three European standardization organizations, and Turkey has been a candidate for CEN/CENELEC membership for some time. CEN and CENELEC have repeatedly stated that membership of their organizations is related to that of membership of the EEC and EFTA.

52. It is in the interests of all countries, European or non-European, that the present pace of development of European standards is sustained and, if possible, increased. The harmonization of conflicting national standards within Europe, based upon international standards as far as possible, is a formidable contribution to promoting international trade and global economic growth. The Commission considers that extension of the full membership of the European standardization bodies in the short term would compromise that objective, insofar as it would increase the difficulties facing the present membership of coming to agreement on complex technical issues. Although desirable in the longer term, wider membership should not be an immediate priority.
53. Nevertheless, those European countries which are not members of the European standardization system but wish to take over European standards should be closely associated with the work of European standardization bodies, in order to allow them to adapt to new European standards quickly and to obtain the economic benefits of using them. The widespread adoption and use of European standards outside the member countries of the EEC and EFTA is in Western Europe's economic interest. It should also be recalled that the Community has concluded Association Agreements with some European countries, and may conclude similar Agreements with others. For these reasons, it would be desirable for the European standardization bodies to offer European countries the possibility of participation in their work with a status that would be less than full membership.

The Commission believes that "associate member" status, which would imply a right to participate in the work of European standardization without the right to vote, would reflect the interest of the Community and the countries in question in moving towards a closer economic relationship, while making allowances for the uncertainties surrounding those countries' structural and economic development. Depending on general economic and political developments, a transition to full membership could take place after some years, when the countries concerned will have demonstrated their willingness and ability to apply European standards.

54. As far as non-European countries are concerned, the Commission believes that it is primarily up to the European standardization bodies to decide whether it is in their interest to offer a limited degree of input into their work to the standardization bodies of these countries. One European body, ETSI, already admits observer representatives from non-European countries to some of its meetings, on the basis of reciprocity. Such an approach has potential costs as well as benefits.

Against the undoubted advantages of improved transparency and the opportunity for state-of-the-art input from non-European sources must be weighed the possible risk of delay in arriving at consensus and concern that discussions proper to the international standardization bodies might take place instead at the European level. In a more decentralized, sectorally-based standardization structure within Europe, however, it seems appropriate for each European standardization body to take its own decision on this matter, provided that reciprocity is assured. Meanwhile the admission of observers from the international standardization bodies to the technical work of CEN and CENELEC, as proposed below, would in itself allow other countries to be kept informed of the progress of European work.

Technical Cooperation

55. The standardization organizations of Western Europe are being called upon to offer technical assistance to other countries on an increasing scale as the positive implications for international trade of the Community's 1992 programme becomes better understood. The demand from Central and East European Countries is already great, but similar interest has been expressed in other regions (in the Mediterranean, and South America) and the Commission already manages cooperation programmes in the standardization field with India, the ASEAN countries and the Andean Pact. The main focus of this interest is on information on current and planned European standards and the training of industry and standardization experts in their application.
56. The Community is, in principle, prepared to include technical assistance in this field within its cooperation programmes with third countries, although it must be remembered that the technical resources for this task are limited. The Commission has to rely upon the expertise available in the private sector (and in standardization bodies in particular) for the execution of such cooperation; CEN and CENELEC and their members have already assisted the Commission in the past.
57. In view of the European dimension to this activity the Commission believes that the European standardization bodies should assume responsibility for the coordination and management of such technical assistance, even if the experts concerned are largely supplied by national standardization bodies. The Commission intends to support financially the development of an appropriate infrastructure within the European bodies to service requests for information and assistance, which although an additional burden for the bodies concerned constitutes an important instrument of the Community's external economic relations. It hopes that national standardization bodies and the Member States will cooperate by contributing to collective action and avoiding uncoordinated national initiatives.

Relations with international standardization bodies

58. The links between the European standardization bodies and their international counterparts are indirect, since only national standardization bodies participate in the International Standards Organization (ISO) and the International Electrotechnical Commission (IEC) and national authorities in the International Telegraph and Telephone Consultative Committee (CCITT). Nevertheless, cooperation between the international and European bodies has increased as the volume and scope of European standardization have expanded. In the last two years, in particular, arrangements have been concluded between ISO and CEN and IEC and CENELEC which provide for regular discussions in order to compare work programmes and to coordinate them where possible. This indicates the willingness of both sides to establish a cooperative dialogue with a view to avoiding duplication and the waste of scarce expertise.

59. Other steps may need to be taken by the European Standardization System, however, to reassure the international standardization community that European-level work is a substitute for national, not global, standardization.

A first step would be to keep the international standards organizations fully informed of the progress of European work, by inviting observers from the relevant ISO or IEC Technical Committees to European working groups or Technical Committees whenever there is a common interest.

Another positive step would be to continue to ask the international standards bodies to take on some of the work which is now being proposed at European level, particularly in standardization activity that is not related to EEC product legislation. If the international standardization bodies can respond by accelerating work on projects which are of high priority for Europe, with a view to delivering results within the timetable set by European requirements, European-level standardization can be avoided.

60. If Europe is to promote further international standardization, however, others must do the same. The Community expects that its leading economic partners, and particularly the United States and Japan, will be prepared to commit more resources to international standardization in the coming years, and, equally important, to implement international standards at the national level. Unless all the parties concerned act with the same commitment to international standardization as Europe has done in the past, this important mechanism cannot be properly exploited as a means of promoting international trade and economic growth.

