A standard for standards —

Part 2: Recommendations for committee procedures

ICS 01.120



_____ Incorporating

Incorporating Amendments Nos. 1 and 2

BS 0-2:1997

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i

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Contents

		Page
Fore	eword	ii
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	BSI: History and context	3
5	Organization of standards work	5
6	Organization of BSI technical committees, subcommittees and panels	s 9
7	Organization of international and European technical committees	17
8	Development of standards	20
9	Maintenance of standards	35
10	New deliverables	37
Ann	ex A (normative) Use of statistical methods of sampling in standards	41
Ann	ex B (informative) Health and safety and environmental protection	42
Ann	ex C (informative) Role of the committee chairman in standards work	46
Ann	ex D (normative) Actions on review of British Standards	47
Bibl	iography	49
Figu	re 1 — Typical chain of responsibility in BSI committee structure	8
Figu	ure $2-$ Sequence of activities in the development of a national	
stan	dard by BSI	25
Figu	ure 3 — ISO/IEC deliverables	38
Figu	re 4 — CEN/CENELEC deliverables	38
Figu	ure 5 — BSI deliverables	39
Tabl Euro	le 1 — Sequence of activities in the development of an international or opean standard	21
	*	

Foreword

A) This part of BS 0 is published under the authority of the Standards Policy and Strategy Committee of the British Standards Institution (BSI). It supersedes BS 0-2:1991, which is withdrawn.

BS 0 is intended primarily for the use of BSI committees and staff, particularly committee chairmen and committee secretaries, and those providing first drafts. It was first published in 1974 and comprehensively revised in 1981 and 1991. The standard is now issued in three parts:

- Part 1: Guide to the context, aims and general principles;
- Part 2: Recommendations for committee procedures;
- Part 3: Specification for structure, drafting and presentation.

A single index is provided to all three parts, published with BS 0-3:1997.

The revision of all parts of BS 0 has been undertaken to give greater prominence to the principles and procedures required for international and European standardization which accounts for the major part of the BSI standards work programme. The procedures and drafting rules for international and European standards have generally been followed in preparing this revision.

This revision of BS 0-2 provides recommendations for committee procedures and explains how BSI operates within the wider international fora. It draws attention to the strategic planning role of the Sector Policy and Strategy Committees and the need to plan carefully the priorities for the projects which should be supported on the limited resources which are available. The clauses dealing with international and European procedures have been expanded, and more details have been added to the clauses on BSI committee procedures. A BS 0-2 deals principally with the development of full consensus standards but it also includes a description of other deliverables.

Amendments to BS 0 have been issued in 2002 mainly:

a) to introduce changes resulting from reorganization and renaming of internal BSI committees;

b) to update texts as a result of the 2001 revision of the ISO/IEC Directives;

c) to provide information on "new deliverables" within the international, European and national environments;

- d) to revise the dating policy for BS adoptions of European standards.
- A e) to delete the text of the 1995 revision of the Memorandum of Understanding between the United Kingdom Government and BSI on standards following the further revision of the MOU in 2002, the full text of which is available from the BSI website (www.bsi-global.com).

The start and finish of text introduced or altered by amendment is indicated in the text by tags \square (A. Tags indicating changes to text carry the number of the amendment. For example, text altered by amendment 1 is indicated by (A. Minor editorial changes are not tagged.

The editorial principles, layout and typographical presentation used in BS 0 illustrate the practice to be followed in British Standards.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 49 and a back cover.

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1 Scope

This part of BS 0 describes the committee¹⁾ structures and recommends the procedures to be followed in preparing British Standards through collaboration at the international, European or national level.

2 Normative references

A) The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

BS 0-1:1997 including Amendment 1:2002 and Amendment 2:2002, A standard for standards — Part 1: Guide to the context, aims and general principles.

BS 0-3:1997 including Amendment 1:2002, A standard for standards — Part 3: Specification for structure, drafting and presentation.

BS 6000, Guide for the selection of an acceptance sampling system, scheme or plan for inspection of discrete items in lots.

BS 6001 (all parts), Sampling procedures for inspection by attributes.

BS 6002 (all parts), Sampling procedures for inspection by variables.

BS EN ISO 9000, Quality management systems — Fundamentals and vocabulary.

CEN/CENELEC Internal Regulations, Part 2, Common rules for standards work, 1996.

CEN/CENELEC Internal Regulations, Part 3, Rules for the structure and drafting of European Standards (PNE-Rules) (ISO/IEC Directives, Part 3, modified), 1999.

ISO/IEC Directives, Part 1, Procedures for the technical work, 2001.

ISO/IEC Directives, Part 2, Rules for the structure and drafting of International Standards, 2001.

ISO Supplement to the ISO/IEC Directives.

IEC Supplement to the ISO/IEC Directives.

3 Terms and definitions

For the purposes of this part of BS 0, the terms and definitions given in BS 0-1 and BS EN ISO 9000:2000, Clause $\bf 3$ and the following apply.

3.1

national standards body

standards body recognized at the national level, that is eligible to be the national member of the corresponding international and regional standards organizations [ISO/IEC Guide 2:1996, definition **4.4.1**]

3.2

stakeholder

person or body recognized by BSI as having a concerned interest in standardization

3.3

project

planned work required to produce an agreed standard

3.4

standards user

person or body who relies upon standards to ensure that different products, services, systems or tests with the same function provide similar benefits or results

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¹⁾ When "committee" is not qualified in this part of BS 0, it should be understood as applying to all boards, technical committees, subcommittees, panels and working groups.

3.5

end user

person or body who seeks the benefits from a service or from the function of a product

3.6

consumer

member of the public who uses products or services in a private, personal or domestic capacity

3.7

basic standard

standard that has a wide-ranging coverage or contains general provisions for one particular field [ISO/IEC Guide 2:1996, definition **5.1**]

3.8

compliance

action of a person or body in fulfilling requirements

ට 3.9

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conformity

fulfilment by a product, process, or service of specified requirements [ISO/IEC Guide 2:1996, definition **12.1**]

3.10

European standard (EN)

CEN/CENELEC standard that carries with it the obligation to be implemented at national level by being given the status of a national standard and by withdrawal of any conflicting national standards [CEN/CENELEC Internal Regulations, Part 2, 1996, definition **3.1.4**]

3.11

Harmonization Document (HD)

CEN/CENELEC standard that carries with it the obligation to be implemented at national level, at least by public announcement of the HD number and title and by withdrawal of any conflicting national standards

[CEN/CENELEC Internal Regulations, Part 2, 1996, definition 3.1.5]

3.12

conflicting national standard

national standard on the same subject as an EN/HD and with provisions such that compliance with the national standard is not compliance with the EN/HD or vice versa

3.13

harmonized standard

standard whose reference has been published in the Official Journal of the European Communities

3.14

state of the art

developed stage of technical capability at a given time as regards products, processes and services, based on the relevant consolidated findings of science, technology and experience

[ISO/IEC Guide 2:1996, definition 1.4]

A1angle 3.15

UK Notified Body

test laboratory, certification body or inspection body approved by the UK government for the purpose of undertaking the conformity procedures of specific EC Directives

NOTE Equivalent terms may be used for "Notified Body" depending on the terminology used in the UK legislation implementing the Directives. (A)



4 BSI: History and context

4.1 Origin and objects of BSI

The British Standards Institution (BSI) is the recognized body in the UK for the preparation and promulgation of national standards. It began in 1901 as the Engineering Standards Committee, set up by the professional engineering bodies, and in 1918 became the British Engineering Standards Association. A Royal Charter was granted in 1929 and a Supplemental Charter in 1931 when the present name was adopted. BSI is an independent body and its objects are stated in the Royal Charter [1] as follows:

a) to coordinate the efforts of companies and persons for the improvement, standardization and simplification of materials, products and processes so as to simplify production and distribution, and for the improvement, standardization and simplification of systems for the management of business, safety, technology, services and the environment and to eliminate the wastage of time and material involved in the production of an unnecessary variety of patterns and sizes of articles for one and the same purpose;

b) to set up, sell and distribute standards of quality for goods, services and management systems and prepare and promote the general adoption of British and international standards and schedules in connection therewith and from time to time to revise, alter and amend such standards and schedules as experience and circumstances may require;

c) to register, in the name of the Institution, marks of all descriptions, and to prove and affix or license the affixing of such marks or other proof, letter, name, description or device;

d) to advertise, promote, sell and deliver the services of systems assessment, registration, product and materials inspection, testing and certification, training, consultancy and arbitration, provided that this object shall not be pursued in a manner that would prejudice the objects set out in paragraphs a) to c) of this Article;

e) to take such action as may appear desirable or necessary to protect the objects or interests of the Institution.

BSI's aim is to enhance industrial performance and consumer protection in the UK through standards, testing, product certification, quality assurance and training services. To this end a principal function is to draw up voluntary standards by agreement among all the significant interests concerned and to promote their adoption.

Under the Royal Charter [1], the Bye-laws prescribe requirements for:

— the BSI Board, the Institution's governing body (answerable to an Annual General Meeting of BSI members);

- the establishment and constitution of the Standards Policy and Strategy Committee (see 5.5.1); and

— the general conduct of BSI's work.

The Standards Policy and Strategy Committee has established subsidiary Sector Policy and Strategy Committees (see **5.5.2**), each of which controls many technical committees. Technical committees are formally responsible for the development of British Standards (subject to the endorsement procedure described in **8.6.13**). The operating division for this activity is known as British Standards. In November 1982, the work of BSI was given added national recognition by a Memorandum of Understanding between the UK Government and BSI on standards. A updated Memorandum of Understanding was signed in 1995. This in turn was significantly revised in 2002 as the Memorandum of Understanding between the United Kingdom Government and the British Standards Institution in its activities as the United Kingdom's national standards body (available from the BSI website, www.bsi-global.com).

4.2 A_1 British Standards stakeholders

The stakeholders (see 3.2) of British Standards can be grouped as:

- a) subscribing members;
- b) policy and technical committee members;
- c) industry, commerce and the professions;
- d) central and local government;
- e) consumers, consumer organizations and the public;
- f) certification, inspection and testing organizations; research associations;
- g) British Standards staff. (A1

British Standards has a duty to its stakeholders to develop usable standards by an efficient and economical process. The staff resources available for allocation by Sector Policy and Strategy Committees are limited so that it is important that these are devoted to the projects which will provide the greatest benefits to the stakeholders. British Standards has developed a procedure for assessing new projects, as described in **8.5**, so that the resources available for UK activity in standardization are focused on the work items that are expected to bring greatest value to the UK from the effort invested.

4.3 International perspective: ISO/IEC and CEN/CENELEC

4.3.1 The advantages of standardization within a country are also seen to apply between nations. The first initiative towards international standardization was taken by the International Electrotechnical Commission (IEC) which was founded in 1906. In 1947 the International Organization for Standardization (ISO) was set up. The European Committee for Standardization (CEN) was established in 1961 and the European Committee for Electrotechnical Standardization (CENELEC) in 1973. In 1990, IEC and CENELEC achieved a fundamental agreement on work sharing and parallel voting: the Lugano Agreement, known since 1996 as the Dresden Agreement. In 1991, ISO and CEN concluded a similar agreement: the Vienna Agreement.

4.3.2 BSI is the gateway to UK participation in ISO and CEN and, through the British Electrotechnical Committee, in IEC and CENELEC. BSI coordinates the UK national input to the European Telecommunications Standards Institute (ETSI). In 1996 about 90 % of BSI's standards programme had an international or European basis. All the committees of BSI reflect this emphasis.

(A) **4.3.3** The procedures and practices covering the technical work of ISO and IEC and of CEN and CENELEC are governed by the ISO/IEC Directives, Part 1 and Part 2, together with the ISO and IEC Supplements to the Directives, and the CEN/CENELEC Internal Regulations, respectively (see Clause **5**, Clause **7** and Clause **8**). (A)

The procedures of these organizations have many features in common with those current in BSI:

- a) selection of projects;
- b) preparation of draft standards through questionnaire and committee processes;
- c) public consultation;
- d) modification and approval;
- e) publication.

4.4 Resources

4.4.1 European (CEN/CENELEC) and international (ISO/IEC) work

In 1985 the New Approach to technical harmonization and standards adopted by the EC (see BS 0-1:1997, including Amendment 1:2002 and Amendment 2:2002, **7.4.4**) created a special urgency and priority for European standards (to be adopted as British Standards) that will affect the work programme for many years. In a similar way, the recognition in the World Trade Organization (WTO) Agreement on Technical Barriers to Trade [2] of the value of international standards in global trading has underlined their importance. The volume of European and international work, together with the increased costs involved, has a major impact on the demand for resources.

NOTE See Clause 10 for information on new types of document, "new deliverables", that are now being made available by the international and European bodies.

4.4.2 National work

Recognition of the importance of international, and especially European work, has reduced the demand for British Standards developed on a purely national basis. Resources devoted to national work have consequently declined. This is unlikely to change greatly in the foreseeable future. The development of new standards solely for national purposes has to be fully justified in relation to the benefits sought. Maintenance of existing British Standards for which no international or European equivalents are in view will continue to need resources. Proposals to develop new British Standards and revise existing ones have to be notified to other European countries (see **6.11.1**). Every British Standard is subject to a 5-year review to ensure that it represents current practice (see **9.4**).

NOTE See Clause 10 for information on new types of document, "new deliverables", that are now being made available by BSI.

5 Organization of standards work

5.1 Structural principles

5.1.1 General

Standards organizations generally operate in "vertical" divisions corresponding to industrial sectors. The development of standards that apply to several products, for example, common test methods for materials used by different industries, and generic standards, such as those for management systems, involves a "horizontal" approach.

5.1.2 Inter-relationships between subjects

Few, if any, standards exist alone. Most have multiple and complex relationships with others that can be expressed in the form of a matrix to show their interdependence. Standards for one product or process can have horizontal relationships with standards for other similar products or processes in respect of their common features, such as dimensions. Basic standards, for subjects like units and symbols or statistical methods, can be related to a large number of relevant standards for products or processes.

It follows that the development of individual standards needs to be coordinated and planned so that all these inter-relationships are identified and taken into account at international, European and national levels.

5.1.3 Planning

The complexity and importance of this planning task vary from one sector to another depending on such factors as the rate of technological change, the strength of pressure from stakeholders for the development of new standards and the number of inter-relationships to be managed. It is essentially a management task for which appropriate tools have been or are being developed.

Where this task is especially large and complicated, it can be useful to develop a special kind of horizontal standard to provide a framework. For example, in the electrotechnical sector, matters of safety, as distinct from functional performance, are dealt with in basic IEC safety standards that apply to many products and processes.

5.2 ISO and IEC structure

The ISO General Assembly, which comprises delegates from the whole membership, is responsible for ISO's strategic direction and meets annually to discuss and decide policy. The operations of ISO are governed by the ISO Council to which the Technical Management Board (TMB) reports. This Board, to which all the technical committees report, is responsible for programming the technical work of ISO.

In the electrotechnical area, the controlling body is the IEC Council formed by the Presidents of all the national electrotechnical committees. The Council Board (formerly the Management Board) executes the policy of the IEC Council and the Standardization Management Board (SMB) supervises the work of the technical committees.

A Technical cooperation between ISO and IEC is ensured by a Joint Technical Advisory Board which recommends the allocation of new work to one or the other organization in the event of failure to obtain a decision at a lower level, e.g. by ISO TMB and IEC SMB. A In the area of information technology, a Joint Technical Committee (JTC 1) develops ISO/IEC standards. This joint committee operates under the Procedures for the technical work of ISO/IEC JTC 1, and collaborates directly with the standardization sector of the International Telecommunication Union (ITU).

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5.3 CEN and CENELEC structure

The top level of CEN is the General Assembly (CEN/AG) of national members with the Affiliates (national standards bodies that are prospective members) and Associated Bodies (other bodies contributing to European standardization). This delegates administrative issues to an Administrative Board (CEN/CA) and technical policy to a Technical Board (CEN/BT) that controls the standards programme and its execution. The technical committees are responsible to the Technical Board for the progress of their work.

The CENELEC General Assembly (CLC/AG) comprises representatives of the national members, in this case the national electrotechnical committees. It also has both an Administrative Board (CLC/CA) and a Technical Board (CLC/BT). Every technical committee reports directly to the Technical Board, which reports directly to the General Assembly. Liaison between CEN, CENELEC and the European Telecommunications Standards Institute (ETSI) is achieved at the political level through a Joint Presidents' Group (JPG) which discusses common policy.

5.4 ETSI structure

The General Assembly (GA) is the governing body of ETSI responsible for general policy and decisions concerning the management of the Institute. Membership of the Institute may be obtained by any company or organization involved in European telecommunications and all members have the right to participate in the meetings of the GA. The ETSI Board, elected by the GA, acts on behalf of the GA between its meetings by exercising delegated powers and functions. The technical committees cover specific areas of the ETSI work programme and operate through project teams. These project teams consist of paid experts who prepare the draft standards.

5.5 BSI structure

A) 5.5.1 The Standards Policy and Strategy Committee

The Standards Policy and Strategy Committee (OC/13)²⁾ is responsible on behalf of the BSI Board (OC/-), in accordance with the Royal Charter and Bye-laws [1], for:

a) bringing together the views of all stakeholders in British Standards to develop its strategic direction and policy in national, European and international fora;

b) encouraging and developing the participation at the highest level possible, of all stakeholders in the work of British Standards;

c) ensuring that committees recognize, canvas the views of, and seek the active involvement of all stakeholders who have a concerned interest in a particular standard;

d) establishing and nurturing good two-way communication with stakeholders, so as to understand where their needs and aspirations can effectively be met, and to provide appreciation of the added value which is offered by British Standards;

e) determining the objectives and priorities for the development of standards and for the deployment of available resources, including targeted funds from the Department of Trade and Industry (DTI) and other funding bodies;

f) assessing, seeking and reporting on the resources required to support the activities of standards development in meeting the needs of its stakeholders;

g) identifying and initiating new processes for standards facilitation in order to utilize available resources to best effect and ensure timely delivery of standards;

h) investigating, proposing and advising on the development of ancillary products and services to add value to and support and enhance the use of standards;

i) making and monitoring policies, plans, and resource usage in British Standards;

j) monitoring and making recommendations concerning those corporate activities which service its standards business;

k) monitoring and reporting on the financial ring fencing of British Standards;

l) commenting on the pricing of standards and the subscription rates of BSI;

7

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m) recommending suitable candidates for individual appointment to the Standards Policy and Strategy Committee by the BSI Board, having taken advice from interested parties and ensuring that the strength and balance of the committee's membership is maintained;

n) establishing supporting committees and approving their constitutions and terms of reference; appointing the chairmen of each Sector Policy and Strategy Committee from amongst the members of the Standards Policy and Strategy Committee; giving direction on items of common interest and receiving reports of progress of each sector's work;

o) resolving technical or representational disputes arising from work being carried out in the standards development field. (4)

A) 5.5.2 Sector Policy and Strategy Committees

Reporting to the Standards Policy and Strategy Committee, Sector Policy and Strategy Committees allocate resources and control the work for their sectors. Their responsibilities include:

a) authorizing work on new projects;

b) deciding the broad programme and priorities for work in their sectors by the development of business plans;

c) appointing the chairmen of technical committees.

Sector Policy and Strategy Committee membership comprises independent appointees broadly representative of stakeholder interests and the committees in the sector. Members of Sector Policy and Strategy Committees are expected to give priority to this function and maintain a high level of attendance.

The Sector Policy and Strategy Committees are as follows:

- Building and Civil Engineering Sector Policy and Strategy Committee (B/-);
- Engineering Sector Policy and Strategy Committee (E/-);
- Health and Environment Sector Policy and Strategy Committee (H/-);
- Materials and Chemicals Sector Policy and Strategy Committee (I/-);
- Electrotechnical Sector Policy and Strategy Committee (L/1);
- Management Systems Sector Policy and Strategy Committee (S/-);
- Consumer Products and Services Sector Policy and Strategy Committee (W/-).

The Electrotechnical Sector Policy and Strategy Committee has a dual role as it also reports to the British Electrotechnical Committee, to which it is responsible for international and European work. The British Standards sector responsible for information technology and telecommunications standardization is known as DISC (Delivering Information Solutions to Customers through international standards). The DISC Board functions as a Sector Policy and Strategy Committee.

A) 5.5.3 Policy committees

BSI maintains two policy committees with broad terms of reference in order to harness collectively the commitment, and focus the interests of particular stakeholder groups:

- Consumer Policy Committee (OC/11);
- Policy Committee for Small Businesses (OC/18). (A)

BSI technical committees can draw on the specialist advice of these committees when developing standards at international, European and national levels.

5.5.4 Technical committees

Technical committees are constituted to be representative of all the interests in the standardization of individual or groups of products or processes. In carrying out their work they may allocate specific tasks to subcommittees and panels or working groups with the relevant expertise (see **6.5**).

5.5.5 Committee references

Boards and committees are assigned alphanumeric references. Except in DISC, the letters identify the specific work area including the Sector Policy and Strategy Committee to which the technical committee reports. Figure 1 illustrates the chain of responsibility behind the following numbering system:

- a) H/-, a Sector Policy and Strategy Committee;
- b) FSH/12, a technical committee of H/-;
- c) FSH/12/2, a subcommittee of FSH/12;
- d) FSH/12/1/1, a panel of FSH/12/1;
- e) FSH/12/-/3, a panel of FSH/12.

The dash (-) in an intermediate position in a committee reference indicates that it reports directly to a committee two levels higher than itself.

5.5.6 Relation to international and European committees

Wherever practicable, the detailed committee structure is aligned with that of the corresponding international or European standards organization, so that the committee responsible for national work has responsibility for input to relevant international and European work. A UK committee may provide the input to more than one international or European committee.

Whether the structure is identical or not, every international and European technical committee and subcommittee in which the UK participates has a BSI "mirror" committee. This committee appoints the UK delegation and briefs it to convey a national point of view that takes account of all UK interests affected by the work. The BSI mirror committee decides the formal UK vote on a standard. Some, but not all, international or European working groups also have mirror committees.



6 Organization of BSI technical committees, subcommittees and panels

6.1 Principles

6.1.1 General

The basic principles of standards work in the UK require that BSI:

- a) carries out its task in the national interest;
- b) has an authoritative body of opinion backing every British Standard.

These require the following four activities:

- to seek the expression of all significant viewpoints;
- to secure the representation of significant interests at all levels;
- to make decisions by consensus;
- to consult the public widely.

These principles apply to, and the activities should be carried out by, any British Standards decision making group.

6.1.2 Consensus

Consensus is the principal means of reaching decisions in the work of standardization. Differences of view on policies or on the substance of a standard are not resolved by a vote. In BSI work consensus has an important, specific meaning defined in BS 0-1:1997, including Amendment 1:2002 and Amendment 2:2002, **2.3**. When a decision to publish or refer to a standard is taken or the UK decision on a draft international or European standard is made, those responsible should satisfy themselves that consensus has been achieved (see **8.6.11**). All objections will then have been:

- a) reconciled;
- b) not sustained; or
- c) judged to be of such minor significance that further delay would not be worthwhile.

The principle of consensus should be upheld at all times, but a procedure is available if objections persist (see **8.10**).

6.1.3 Responsibilities

Every committee is responsible for the content of the standards which it produces (but see **9.6.1**). Both the technical content and the means of expression should be clear and concise in accordance with BS 0-3. A standard should not be open to misinterpretation.

6.2 Terms of reference and constitution

6.2.1 Terms of reference

The terms of reference for a committee are initially laid down by the committee or Sector Policy and Strategy Committee to which it reports. They may subsequently be revised by mutual agreement between the senior and the subordinate committees but the final decision rests with the senior one. Reference to the need to liaise with other committees working on related subjects can usefully be included in the terms of reference. BSI staff are responsible for maintaining clear and unequivocal terms of reference for each committee, particularly to ensure that work is not duplicated.

6.2.2 Constitution

A distinction is drawn between the constitution of a committee, i.e. the bodies represented, and the membership, i.e. the individual representatives nominated by those bodies to serve on the committee. The names of these representatives are not made public by BSI so that individuals serving voluntarily on committees are not exposed to lobbying or media attention. Technical committee constitutions are approved by the appropriate Sector Policy and Strategy Committee, where any cases of dispute over representation should be raised. The Standards Policy and Strategy Committee has ultimate authority in this matter. With a committee's agreement, individuals who are not members may be sent papers at the request of interested organizations, on payment of a fee.

9

6.3 Representation on committees

6.3.1 General

It is a requirement of the BSI Bye-laws [1] that all of its committees are representative of the interests of users, manufacturers, government departments and other bodies concerned with their work. BSI therefore seeks to bring together all those with significant interest in particular projects, wherever possible by requesting nominations from representative organizations. The intention is that groups with a similar interest should be kept informed and contribute their views through a single channel. This method of nomination achieves, economically, a wide measure of consultation and support in standards work.

The fairness of representation on any committee should be equal to satisfying external scrutiny in the event of challenge. Representation from individual companies is permitted only in exceptional circumstances and then only if there is no representation through a relevant trade organization or no trade organization exists. A single company is not permitted to sponsor multiple representation via different trade organizations. The quality of standards and their acceptance, particularly by the courts, depends largely upon the widest and most authoritative representation available. Any imbalance in the constitution of committees could result in the production of an inadequate standard which, if discredited by a court decision, might jeopardize the status of standards generally.

Membership of a BSI committee is not a right. It is a duty which imposes obligations upon the member (see **6.9**).

6.3.2 Representative organizations

BSI encourages trade associations or equivalent organizations as the means of representing most standards users in business on its committees. Representation on committees handling work in their spheres of interest should be sought from:

- consumer organizations;
- professional institutions;
- certification, testing and inspection interests;
- research organizations, educational bodies and government departments (both regulators and public procurement interests).

(A) When a BSI committee is contributing to the development of a harmonized European standard to meet the requirements of an EC Directive, representation by a UK Notified Body should be given favourable consideration. For Directives where there are two or more UK Notified Bodies, consideration should be given to a nomination by one of the UK Notified Bodies acting on behalf of the group.

If the interests of public procurement are not directly represented, care should be taken to ensure that they are consulted when international and European standards are being developed. This is because international agreements can require such standards to be used (see BS 0-1:1997, including Amendment 1:2002 and Amendment 2:2002, **7.3.3**).

For organizations to contribute effectively to the preparation of standards that will become of value to them, their representatives should be given authority to speak on their behalf and be fully briefed on subjects currently under discussion. The need for rapid responses, particularly on European issues, means that time may not always be available for representatives to refer matters back to their organizations for direction before a decision is taken.

Involvement of the relevant enforcement interests, through, e.g. the Institute of Trading Standards Administration, the Institute of Building Control Officers or the Health and Safety Executive (HSE), is essential in ensuring that all the detail of conformity assessment techniques included in a standard is unambiguous (see Annex A on the use of statistical sampling methods in British Standards). Advice is also desirable from one of those organizations, e.g. the Association of British Certification Bodies, to which individual companies offering certification, testing and inspection services are affiliated. All When it is believed that a standard may be used for legislative purposes, it is important to involve the relevant government department, e.g. the DTI Consumer Safety Unit, as well as these enforcement interests. BSI attaches particular importance to securing the representation of end users in standards work. Trade union representation, desirable especially in the preparation of standards relevant to health and safety at work, should be sought first through the Trades Union Congress. For the private consumer, the Consumer Policy Committee (OC/11) provides representation on many technical committees. Voluntary organizations also contribute to end user representation across a wide range of standards projects. A The British Standards Society Management Committee (OC/34) can provide an informed source of standards user representation from a wide range of industry and public sector interests.

Where standardization could have an adverse effect on small businesses, the Policy Committee for Small Businesses (OC/18) should be consulted. This committee may also be able to advise on appropriate organizations to provide representation.

6.3.3 Identification of interests

BSI conducts an analysis of all those with substantial interest in, or who might be significantly affected by, a particular project. At the first meeting of a technical committee, the members in attendance are asked whether they know of any other organizations with a direct interest that should be represented. Initial members should therefore expect to be asked to use personal knowledge and reference sources to locate willing and active representatives.

After the first meeting of a new committee the constitution remains under review. The constitution and membership of a dormant committee should be reviewed when it is reconvened for new work.

6.3.4 Co-option

Each committee may co-opt members if necessary, to contribute specialized expertise for a given period, normally 12 months, or for the duration of a particular project.

6.4 Size of committees

The size of a committee needs to balance breadth of representation and effectiveness in reaching decisions. Generally, a smaller membership is better for a committee dealing with detailed aspects of a standard, with wider representation being appropriate for a committee that considers policies.

Each organization on the constitution of a technical committee should nominate a single representative. Organizations are required to justify extra nominations to the Sector Policy and Strategy Committee with regard to the needs of the work programme.

In order to keep committee meetings to an efficient size, members who cannot assist the full work of a committee are encouraged to attend only meetings at which items that particularly concern them are discussed.

6.5 Delegation of work

Much of the detailed work of a technical committee is normally delegated to subcommittees or panels or to temporary working groups, which should be disbanded on completion of their work.

Subcommittees are officially constituted by technical committees, with members nominated by the bodies represented on the subcommittee (as for technical committees) and with chairmen appointed by the technical committee. They are generally responsible for the approval of standards subject to the agreement of the technical committee chairman. A BSI, or subcontracted, secretary is appointed to manage the business of the subcommittee.

A panel is constituted by the committee to which it reports either on a representative basis or by consisting of individual experts. Panels may operate at any level, reporting to Sector Policy and Strategy Committees or to subcommittees as well as directly to technical committees. A secretary is not usually provided for a panel, though there are exceptions, particularly for those which mirror European working groups. Where no BSI secretary is appointed, copies of relevant documents should be supplied to the committee secretary of the senior committee.

Temporary working groups may be set up by a committee, or its chairman, to undertake specific short term tasks; they have no official status and usually operate without the services of a BSI secretary.

6.6 Subcontracting to external bodies under BSI's supervision

When standards work is required but BSI has not sufficient resources to provide a committee secretariat, a Sector Policy and Strategy Committee may authorize another UK organization, having the necessary specialist knowledge, to carry out this function. Such organizations operate as "subcontractors" to BSI, on the recommendation of the business manager of the Standards Development business sector concerned. A subcontractor should be an organization considered by BSI to be able to act on its behalf and to be competent to handle the work efficiently.

The detailed conditions governing the subcontracting out of work should be agreed with BSI, which retains responsibility for the work and the constitution of the committee. The following general conditions apply.

- a) Responsibility remains with BSI for overseeing the efficient and impartial operation of the secretariat.
- b) A BSI staff member is appointed to the committee to supervise its operation.
- c) Details of the agreement should be formally recorded.
- d) The subcontractor should nominate an individual who is acceptable to BSI as secretary to the committee.
- e) The subcontractor should agree to abide by the constitution and rules of BSI.
- f) The subcontractor should keep BSI regularly informed of the progress of standards projects.
- g) In all correspondence and documents, the secretariat capacity of the subcontractor should be clearly identified.
- h) The staff member of BSI who supervises the work should receive copies of all correspondence and documents in order to be able to ensure that procedures are followed correctly. In cases of doubt, e.g. about the interpretation of rules, the staff member should be consulted before any external communication is made.

6.7 Attendance at committee meetings

A member unable to attend a particular technical committee meeting may send a deputy but should always inform the committee secretary prior to the meeting, preferably in writing (see also **6.9.1.1**). Deputies are listed in minutes but are not recorded on BSI membership records. Deputies should be fully briefed and should have been supplied with relevant papers by their nominating organization. Deputies are not permitted to attend meetings at Sector Policy and Strategy Committee level, nor in place of co-opted members. In these cases the individual serves in a strictly personal capacity, rather than exercising any representative function.

6.8 Committee documents

With the exception of drafts for public comment (see **8.6.9**), documents issued to any BSI committee are marked "Private circulation". This means that the addressees are responsible for seeing that the contents are not used for any purpose other than the work of the committee. For briefing purposes documents should be circulated by the committee member within the organization which he represents. This extends to drafts for public comment in which BSI has a copyright interest which, for the purposes of consultation with nominating organizations, is waived. A committee may also authorize its secretary to circulate documents to individual non-members who are expected to be able to contribute positively to its work.

As draft documents are liable to undergo major changes, their wide distribution can cause misunderstanding among people not closely associated with the project. This has in the past delayed projects. For this reason committee papers are addressed to named individuals.

 $|\Delta\rangle$ BSI has developed a system for electronic circulation of committee documents using the Internet. In order to maintain confidentiality of such documents, committee members are, at the appropriate time, issued with an electronic password that allows controlled access to them. This password is personal to the individual and should not be divulged to any third party. In the event of the password being inadvertently compromised, committee members should request a replacement from BSI.

Committee members with password-controlled access are responsible for the circulation of committee documents, including draft standards for public comment, within their organization. Electronic circulation should be limited to those individuals within an organization who are expected to be able to contribute positively to the work.

NOTE Committee members should ensure that they have access to appropriate electronic facilities in order to benefit from the electronic circulation of documents. Details can be supplied by the committee secretary.

Committee members should understand that their inputs to the committee will be used by BSI for the general good. Originators of committee documents wishing to circulate them also in wider circles should alert the committee secretary to their intentions. Documents addressed solely to a BSI committee should not subsequently be made publicly available without the consent of the committee.

6.9 Duties

6.9.1 Responsibilities of committee members

6.9.1.1 Attendance

A member is expected to attend meetings regularly in order to contribute expert advice and to act as a channel of communication. The nominating body, the employer sponsoring a member and the individual member should recognize this obligation when a representative is being selected. If a committee member continually fails to attend meetings, the committee secretary should make enquiries and, if appropriate, take steps either to encourage attendance or to obtain a replacement nomination from the organization concerned (but see **6.4**). In cases where the organization is not immediately able to nominate a new member, papers may be sent to the organization's secretary under the conditions given in **6.8**. If a member cannot attend a particular meeting, it should be understood that matters decided at that meeting cannot be reopened when the member is next able to attend except at the discretion of the chairman. If the chairman cannot attend, the members present should elect a chairman from among themselves for that meeting.

6.9.1.2 Commitment

Members join BSI committees on the understanding that they and their nominating organizations are committed to the development of the standards allocated to the committee within the agreed timetables. An organization that is unwilling to accept a committee's approved work programme may not nominate a representative but should advise the secretary of the relevant Sector Policy and Strategy Committee.

6.9.1.3 Activity

Attendance at meetings is necessary but not sufficient to develop good standards. Members are the channel for ideas necessary to find solutions to the problems of making standards.

To develop these ideas needs time for thinking.

To keep abreast of the ideas of others requires much time for reading.

To formulate a draft on the basis of these ideas needs time for writing.

Neither individual members nor their sponsors should discount the investment of time which is needed from a successful committee member. A single active committee requires about two person-weeks each year of the member's time. The benefit received is that an active member influences standards to a greater extent than a passive observer. This influence will steer standards in the directions which the nominating organization of an active member believes to be correct.

6.9.1.4 Communication

Seeking the expression and securing the representation of all significant views and interests (see **6.1.1**) depend upon effective and timely communication between committees and British Standards stakeholders. The views of the nominating organization should be passed to the committee for consideration. In the reverse direction, committee members should provide written reports to the organizations which they represent. This duty is not effectively discharged by reporting only to a direct sponsor such as an employing company. It is recommended that nominating organizations should require this feedback from their representatives.

It is important that representatives do not operate in isolation from the members of the organization to which they belong. Consistency should be maintained between the views presented in different BSI committees by all representatives and those deputizing for them. This is advantageous both to committees and to organizations.

6.9.1.5 Duty of care

The duty of care owed by BSI as the publisher of documents having a recognized national status (see BS 0-1:1997, including Amendment 1:2002 and Amendment 2:2002, **3.3.3**) falls first and foremost on committee members in their contribution to the content of standards. BSI does, and the committee member should, recognize that standards are produced and published in the public interest.

Special consideration should be given to health and safety aspects, to fire safety and to care for the environment in the drafting of all standards (see **8.6.8** and Annex B). Though standards should provide for levels of safety that protect the user, they should not be so worded as to lead the reader to believe that compliance with the standard bestows zero risk of harm.

All possible steps should be taken to avoid error. Committee members should not withhold necessary information within the scope of a standard. This is particularly important if the omission of information could contribute to the inclusion of a false or misleading statement in the standard.

6.9.1.6 Notification of changes needed

Each technical committee is required to maintain its standards so that they are up to date with current practice (see Clause 9, particularly 9.4). Every member of a BSI committee should report to the committee any modifications which a standard is thought to need. Modifications may be required, for example, in the following situations.

a) Text needs to be updated to reflect increased knowledge and changing techniques. (A standard is a codification of knowledge at a particular time.)

b) Users have found the current text difficult to understand.

6.9.1.7 Professional conduct

Committee members should be aware that any of the following may constitute conduct sufficient to warrant expulsion from the committee:

a) a consistent failure to meet the obligations identified in 6.9.1.1, 6.9.1.2, 6.9.1.3, 6.9.1.4, 6.9.1.5 and 6.9.1.6;

- b) any activity that undermines the work of the committee;
- c) any activity which brings, or is intended to bring, the committee, any of its members, or BSI into disrepute or public ridicule;

d) any implication that a statement of personal views to an external audience is the considered opinion of the committee.

Unauthorized communication of committee proceedings to the media falls under b) and c).

Item d) is particularly important in legal cases. A committee member giving evidence in an expert capacity should make clear to the court that he is doing so as an individual and is not speaking for the committee.

The views of a whole committee may be expressed only in the form of a written statement authorized by the committee.

6.9.2 Responsibilities of committee chairmen

6.9.2.1 Appointments

Chairmen are normally appointed by the committee immediately senior to their own. The chairman and secretary of the appointing committee are responsible for appropriate consultation to arrive at a choice acceptable to the members of the committee in question and for making personal contact with the person selected. Prospective chairmen are expected to have acquired a working knowledge of standardization procedures at national, preferably at European and ideally at international levels. Prior membership of a BSI committee should familiarize them with procedures and this experience should be complemented by attendance at a relevant training course. Technical committee and subcommittee chairmen are appointed for an initial period of 3 years and, subject to review by the senior committee, may be reappointed for further consecutive periods of up to 3 years.

(A) Letters of appointment for chairmen are sent by the appropriate BSI staff. In the case of Sector Policy and Strategy Committees, they are signed by the secretary to the Standards Policy and Strategy Committee. A statement prepared in consultation with BSI's legal advisers concerning the legal principles of standards work and emphasizing the procedural safeguards that have been developed, and which should be followed in committee work, is made available, particularly for newly-appointed chairmen of Sector Policy and Strategy Committees and technical committees, via committee web sites. (A)

6.9.2.2 Duties

Chairmen's duties are, in brief:

A) a) to guide and control discussions with the object of reaching consensus in a timely manner; (A)

b) to exercise judgement without bias (particularly as some committee decisions have financial and legal consequences);

c) to maintain progress against target dates;

d) to keep in close contact with BSI staff to ensure that committee work outside meetings, e.g. testing, drafting in ad hoc panels, is proceeding on time.

The chairman may also be required to act as the spokesman when liaison is required with other committees.

Work proceeds most quickly when there is trust between members. This requires time to develop. The planning of committee work should take account of this (see also Annex C).

The chairman's source of information on the progress of projects is the committee secretary, but the impetus to drive projects onwards should come from the chairman.

6.9.2.3 Impartiality

Chairmen are required to act impartially and to declare their position if they have a direct personal or commercial interest in a point of discussion. This is particularly relevant if the chairman is self-employed or works on a contractual basis for several organizations. Once appointed, chairmen cease to represent any particular organization. When a chairman wishes to express points concerning his direct interests it is necessary for him to stand aside from the chair. At such a time the committee secretary acts as chairman.

6.9.3 Responsibilities of committee secretaries

The committee secretary, as a member of the committee, works with the chairman in managing its technical programme so that projects run to the agreed timetable (see **8.6.3**). This role involves:

a) keeping the committee informed of the state of progress of all its projects and making appropriate proposals for action;

b) advising the committee on British Standards policies that have a direct bearing on their work, e.g. fire safety, third-party certification;

c) guiding the committee on the principles and practices adopted by international and European standards organizations;

d) implementing the decisions of the committee, in particular by updating draft standards as they are being developed;

e) ensuring that drafts for public comment (see **8.6.9**) and final drafts accord with the relevant requirements of BS 0-3, the ISO/IEC Directives, Part 2 and the CEN/CENELEC Internal Regulations, Part 3;

f) liaising with those national committees working on related projects and maintaining awareness of the work of relevant international and European committees;

g) providing information from published standards and other documents needed during drafting.

The committee secretary is also specifically responsible for the administration of a committee. This includes maintaining the constitution of the committee, arranging meetings, receiving and circulating textual contributions, obtaining copyright owners' permission where necessary (see BS 0-3:1997, including Amendment 1:2002, **9.7**), and preparing minutes and agendas.

The committee secretary should ensure that the necessary information on patents, Registered Designs and copyright is deposited in the BSI Library (see BS 0-3:1997, including Amendment 1:2002, **9.4.2**, **9.5.2** and **9.7.2**). A) Where methods of test refer to the use of proprietary materials or equipment, details on sources of supply should be passed to BSI Customer Services (see BS 0-3:1997, including Amendment 1:2002, **10.1.3.3.1**).

The secretary should also ensure that committee members are advised of training opportunities (see **6.10**). This is particularly important for new members.

6.10 Training

To help committee members with the complexities of standards procedures, a training scheme is administered by BSI. This is funded by the Department of Trade and Industry (DTI) and provides short courses on subjects such as international and European procedures, standards drafting and general subjects such as developing influencing skills or building consensus. The content and number of the courses offered change from year to year. Some of the courses have contents aimed at assisting committee chairmen. No fee is charged for attendance at a course, but places are allocated on a first come first served basis. Information is provided to committee members by circulars or the committee secretary can provide details of the scheme. It is strongly recommended that new members take advantage of any of these courses that are appropriate.

New members should also, with the help of the secretary, familiarize themselves with the context in which an international or European committee is working before attending their first meeting.

6.11 Attendance at committee meetings by observers from European national standards bodies

A 6.11.1 Directive 98/34/EC [3] as amended by Directive 98/48/EC [4] lays down a procedure for the notification of new projects and draft standards: A

"Article 2

BS

The Commission and the standardization bodies referred to in Annexes I (these are CEN, CENELEC and ETSI) and II (the national standards bodies) shall be informed of the new subjects for which the national bodies ... have decided, ... to prepare or amend a standard, unless it is an identical or equivalent transposition of an international or European standard.

"Article 3

The standardization bodies ..., and the Commission, shall be sent all draft standards on request; they shall be kept informed by the body concerned of the action taken on any comments they have made relating to drafts.

"Article 4

1. Member States shall take all necessary steps to ensure that their standardization bodies:

— publish the draft standards in such a way that comments may also be obtained from parties established in other Member States;

— grant the other bodies \dots the right to be involved passively or actively (by sending an observer) in the planned activities;

— do not object to a subject for standardization in their work programme being discussed at European level in accordance with the rules laid down by the European standardization bodies and undertake no action which may prejudice a decision in this regard."

This notification alerts other national standards bodies to UK work in which they may have an interest and wish to participate. The notification procedure takes place automatically when new work or a draft for public comment is announced and does not require action by the committee secretary.

6.11.2 The principle of welcoming observers from other national standards bodies to national committees is accepted by CEN and CENELEC members. (See **8.9.4** for participation of CENELEC members under the Vilamoura procedure.)

6.11.3 When a request is received from a European national standards body for an observer to participate in a project leading to the preparation of a British Standard, the committee secretary should ensure that:

a) the observer is nominated by a standards body;

(A) b) the request is brought to the attention of the BSI committee. (A)

6.11.4 The committee secretary should make any observers aware that:

a) attendance at the meeting is by courtesy of the committee;

b) the conduct and procedures of the meeting are in accordance with established BSI practices for the preparation of British Standards;

c) they are required to respect confidentiality in the use of any BSI document, other than drafts for public comment, and ensure that proceedings are not disclosed to unauthorized bodies;

d) no interpretation facilities are provided by BSI, but the observer may be accompanied by an interpreter.

6.11.5 BSI is equally entitled to request that observers be allowed to attend meetings of national committees of other European national standards bodies where the relevant BSI committee considers that a UK presence would be useful. These requests are made via line management and on the understanding that the observer's expenses are to be borne by those interests requesting involvement in such work.

7 Organization of international and European technical committees

7.1 General

Each international or European technical committee is responsible for a specific area of standardization. This area is identified by its title and terms of reference which are decided by the Boards of the international and European standards organizations.

7.2 Principles

There are major procedural differences between the workings of international or European standards organizations and those of BSI. These are:

a) in ISO and IEC final drafts are approved for publication by simple majority voting;

b) in CEN, CENELEC and ETSI final drafts are approved for publication by weighted majority voting;

c) in BSI final drafts are approved for publication by consensus;

d) BSI is required to adopt CEN or CENELEC agreed standards, even when the UK vote was cast against them.

The processes of discussion leading up to decisions within European and international technical committees or subcommittees rely on consensus (see **6.1.2**) to produce agreed documents. However, to decide the final outcome, CEN, CENELEC, ISO and IEC all rely on voting. For ISO and IEC each country has a single vote, but for CEN and CENELEC in some defined situations the votes are weighted; the majorities required vary between the organizations. In practice most drafts reaching the final vote are approved, so that it is essential that points of difference should be settled as early as possible, and certainly before the voting stage is reached.

7.3 Representation on committees

7.3.1 ISO and IEC

Any full member of ISO or IEC is entitled to join any ISO or IEC technical committee. There are two classes of technical committee membership, P-members and O-members. ISO and IEC rules require that a P-member should actively participate in the committee's work and submit votes on draft standards. An O-member acts as an observer which receives committee documents, can submit comments and attend meetings but has no voting rights at technical committee, have the right to vote on Final Draft International Standards (FDIS).

No definite limit is specified for the size of a country's delegation to an ISO technical committee or subcommittee, but the IEC limit is four delegates.

Much of the work is done in working groups. These are of restricted size, set up to do a specific task and composed of individually appointed expert members. These members are chosen for their specialized knowledge and nominated by the member bodies. They are not intended to act as national representatives but close contact is essential with the national committee which nominated them. If the project may be affected by government policy, then special care is needed [see **8.8.5**a)]. Once the task of the working group is complete the group is disbanded, though in practice their lifespan may be many years.

7.3.2 CEN and CENELEC

CEN and CENELEC do not have classes of membership of technical committees but do distinguish between the national members of, and the affiliates to, the European standards organizations. Both bodies encourage the attendance of observers from European industrial organizations, who often attend meetings. They are allowed to speak at meetings but cannot vote. A normal limit of three delegates from any member to a technical committee is laid down. The nominations of members to committees at all levels are made by the national mirror committees (see **5.5.6**).

7.3.3 ETSI

Technical committees are set up by the ETSI Board which also appoints their chairmen from among the members of ETSI. When decisions cannot otherwise be reached by consensus, the ETSI technical working procedures are followed. Detailed drafting work is undertaken either by technical subcommittees or by project teams.

7.4 UK representation at international and European meetings

7.4.1 General

BSI

Every delegation has a leader who is its principal spokesman at the meeting. The delegation need not be large: two or three members are sufficient to cover the plenary meetings of a single technical committee. If the requirements of the standard are liable to impinge on regulatory matters, a representative of the relevant government department serving on the BSI committee may wish to be a member of the delegation. One member of the delegation should be appointed to prepare the English versions of resolutions.

A) Delegates attending meetings of international and European committees in which they make contributions to drafts should accept that they are transferring exploitation rights for these contributions to the standards body concerned (see BS 0-1:1997, including Amendment 1:2002 and

Amendment 2:2002, **6.7**). This informal understanding has been formalized by CEN and delegates are asked to assign the exploitation rights for their contributions when signing the attendance list at meetings. This assignment does not prevent the delegates from continuing to exploit their contributions for their own purposes, provided that the exploitation does not adversely affect the exploitation of the publications resulting from the technical work of CEN.

Delegates intending to submit a significant contribution from a third party, e.g. a professional body or trade organization, should either obtain permission beforehand from the third party to assign the copyright or report to the secretary that such permission has not been obtained. The secretary will then arrange to seek assignment.

NOTE The contribution of Government officials is covered by a special agreement between Her Majesty's Stationery Office (HMSO) and the CEN Management Centre.

7.4.2 Principles

The following principles apply at all international and European meetings.

- a) Delegates should at all times represent the UK view formulated by the mirror committee and not that of their nominating organization. They should follow the brief established at the briefing meeting.
- b) The leader of the delegation is the principal spokesman for the UK. Other members of the delegation may speak by agreement with the leader.

A1) 7.4.3 Insurance

BSI carries a level of insurance for committee members travelling to overseas meetings to cover emergency medical expenses. Because of insurance complications which would require disclosure of information for every journey undertaken, this cover is not available to those members over 74 years of age and, therefore, it is incumbent on those members over 74 to arrange their own cover.

7.4.4 Funding

The DTI provides funding to support some nominated members of UK delegations to formally constituted ISO, IEC, CEN and CENELEC technical committees, subcommittees and working groups responsible for the drafting of standards. This is known as the Assisted International Travel Scheme which is intended to help maintain the long-term competitive trade position of the UK. Principal delegates (such as delegation leaders, principal experts or non-BSI secretaries) who have been nominated by the BSI mirror committee are entitled to claim this support as are UK chairmen of international or European committees. The sums which may be claimed are related to the air travel costs to an overseas meeting place. The scheme is not applicable to BSI employees or delegates whose salaries are paid wholly or in part from government funds. Details can be obtained from BSI committee secretaries, including the application form and current rates of support.

A separate fund for delegates who are local authority employees is administered by the Local Government International Bureau. Details can be obtained from BSI committee secretaries.

7.4.5 Briefing

The decisions of an international or European technical committee may affect the UK for many years. The BSI mirror committee should therefore make sure that its delegates have a clear idea of UK policy and objectives in addition to their brief on the items in the agenda for a meeting. The delegates should follow this briefing and put aside their personal views to present the agreed UK position. Sometimes the introduction of a new factor into the discussions by another delegation requires the delegates to confer among themselves to determine the UK position. The leader may then request a short adjournment. In extreme cases, the delegation may seek further immediate information or advice from BSI by telephone, etc. or reserve its position.

At working group meetings it is the individual expertise of the member that is needed. Nevertheless the expert is expected to avoid conflict of his contributions with UK policies. Discussion of the issues at BSI committee meetings before the international or European meeting will assist this.

7.4.6 Reporting

After the meeting the leader of the UK delegation should prepare a written report, with the help of the other members of the delegation, to the BSI mirror committee. Reports should also be made by working group experts to keep the BSI committee informed.

7.5 Committee secretariats

7.5.1 Acceptance of secretariat responsibility

The secretariat of an international or European committee is required to act impartially in accordance with the rules of the relevant organization and not to support a national position, but it can have an influence on the speed and direction of work and on the structure and editorial quality of the resulting standard. The country proposing work on a project usually has the greatest interest in it and should be ready to provide the secretariat if a new committee has to be formed. Proposals to BSI for international or European work that could require a new committee should therefore be accompanied by an additional justification for the resources needed for secretariat duties. The resources needed to support a technical committee secretariat should not be underestimated.

In certain cases BSI may not have resources available but there may be another UK organization with staff who, through specialist knowledge, are qualified to undertake secretariat responsibility for an international or European committee. In other cases an organization represented on a BSI committee may be particularly eager to see the UK operate a secretariat, even though a case for its adoption or retention has not been proved. Such organizations may be authorized by a Sector Policy and Strategy Committee to take on the work as "subcontractors" to BSI, on the recommendation of the business manager of the Standards Development business sector concerned. A subcontractor should be an organization confirmed by BSI to be competent to handle the work efficiently.

The detailed conditions governing the subcontracting of work should be agreed with BSI or the British Electrotechnical Committee which, as UK member of the international or European organization, retains responsibility for the work. The general conditions are the same as those applying to the secretariats of national committees (see **6.6**), except that the rules of conduct which apply are those of the relevant international or European organization.

7.5.2 Relinquishing secretariat responsibility

If the responsible Sector Policy and Strategy Committee decides, on the basis of a report from the mirror committee, that the maintenance of an international or European technical committee secretariat by the UK can no longer be justified, the procedure for relinquishing a secretariat should be followed in accordance with the rules of the organization in question.

8 Development of standards

8.1 ISO and IEC projects

NOTE The relevant rules for procedures, methodology, and drafting are contained in the ISO/IEC Directives.

Sector Policy and Strategy Committees should draw up strategies for the involvement of their technical committees in ISO or IEC work. BSI has only limited control of any international programme, but the Sector Policy and Strategy Committees can influence the size and direction of UK participation.

The strategy should be built around the development stages of ISO and IEC projects (see Table 1). These stages control the timing of a project, and thus the growth and decay of its use of resources. A) ISO and IEC have set time limits for certain stages to be reached in the progress of a standards project for use by technical committees when establishing their target dates. The overall time limit in ISO for producing an International Standard is 3 years while in IEC this depends on the category of standard. A

The decision to cancel a project that fails to meet the target dates rests with the Technical Management Board of ISO and the Committee of Action for IEC, which requires appropriate justification from the secretariat in order to authorize the project's retention. If retention is agreed, target dates are amended accordingly.

8.2 CEN and CENELEC projects

NOTE The relevant rules for procedures, methodology, and drafting are contained in the CEN/CENELEC Internal Regulations.

The requirement to adopt European standards nationally, and withdraw conflicting national standards, gives a high priority to work in support of relevant CEN and CENELEC projects. Sector Policy and Strategy Committees should provide a consistent direction towards the achievement of planned objectives in order to maximize the benefit to the UK. New projects may derive from proposals made by national standards bodies, for which UK support is decided as in **8.5.3**, or from the European Commission.

Many European standards are developed in response to negotiated requests (mandates) from the Commission to provide an officially recognized means (but not the only possible means) of compliance with the "essential requirements" of the "New Approach" directives issued under Article 100a of the EC Treaty. (See BS 0-1:1997, including Amendment 1:2002 and Amendment 2:2002, **7.4.4**.)

Those standards developed for this purpose are known as "harmonized standards" in this context (see **3.13**). In cases where the "essential requirements" do not cover all the characteristics of a product sought by the users or found necessary by the manufacturers, further provisions may be included in a European standard in addition to those required by the mandate. The provisions comprising the "harmonized standard" corresponding to a particular mandate have to be identified as such by listing them in an informative annex. The associated conformity attestation procedures applicable for CE marking of the product also have to be set out in an informative annex.

In the development of a harmonized standard to fulfil a mandate, committees should take particular care to ensure that the draft carries the support of the relevant regulatory authorities. Government objections could otherwise delay or prevent both the official announcement of the standard in the Official Journal of the EC and the release of the final portion of any European Community funding linked to the mandate.

The project development stages for CEN and CENELEC are summarized in Table 1. The overall target time for completing a European standard is 3 years.

BSI activity may be needed to coordinate the collection of technical data to support or modify standards being developed at European level.

Activity	International	European	UK Input
Proposal and assessment of new work	Proposal by national standards body submitted for approval by vote as new work item		Mirror committee assesses proposal. Sector Policy and Strategy Committee decides UK vote and resources (see 5.5.6 and 8.5)
Preparation of draft standard	Working group or project team assembles a draft (DIS in ISO or CDV in IEC)	Working group assembles a draft European standard (prEN) or international standard identified as reference document	New work announced in Update Standards. Mirror committee provides experts to working group or project team and supplies back-up (see 7.4)
Public enquiry	ISO/DIS or IEC/CDV circulated for voting (5 months)	prEN circulated for 6 month enquiry (or 5 month under Vienna or Dresden Agreements)	Draft for public comment announced in Update Standards. Mirror committee decides on UK adoption of international standard and formulates national comments (see 8.8 and 8.9)
Preparation of draft standard for formal vote	Technical committee, working group or project team modifies the draft on the basis of national comments		UK experts assist in redrafting (see 8.7.3 and 8.7.4)
Formal vote	FDIS circulated for voting (2 months)	prEN circulated for voting (2 months)	Mirror committee decides UK vote (see 8.7.3 and 8.7.4)
Publication	International standard issued after approval		Mirror committee adopts as BS ISO/IEC and adds any national additions. BS ISO/IEC published and announced in <i>Update Standards</i> (see 8.8)
		EN text issued after ratification	Mirror committee adds national foreword and any additions related to it. BS EN published as the official English language version and announced in <i>Update</i> <i>Standards</i> (see 8.9.2)

Table 1 – S	Sequence of	activities in	the development	of an international	l or European standard
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8.3 ETSI projects

NOTE The relevant rules for drafting are contained in the ETSI Drafting Rules which are based on the CEN/CENELEC Internal Regulations.

A) The ETSI General Assembly annually approves the ETSI work programme. The projects undertaken include the development of European Standards (Telecommunications Series, see **8.7.5**).

Project teams prepare and approve drafts before circulation for public enquiry. After comments have been taken into account a final draft is submitted for formal vote. National standards organizations arrange the public enquiry and voting stages (see **8.7.4**).

All draft ETSI documents are distributed electronically. Both paper copies and a full set of ETSI deliverables on CD-ROM can be purchased from BSI.

8.4 British Standards work programme

8.4.1 Planning

The size of the programme for projects of national origin in a given technical area is limited by the competing demands of international and European work for resources. Nevertheless, the Sector Policy and Strategy Committees should respond to demand for urgently needed standards and attempt to encourage projects that will have wide influence in developing areas. Each Sector Policy and Strategy Committee has control of a rolling programme of work which it reviews every year to assess changes in demand against the available staff resources.

8.4.2 Control

A Sector Policy and Strategy Committee may find it necessary to adjust resource allocations between technical committees during the year. Similarly a technical committee should allocate and adjust its share of the sector total in accordance with its set objectives. A) It may also be necessary to transfer resource between sectors, to carry out, for example, an urgent or high priority project. A Each work programme should take into account the need for regular review of existing standards (see 9.4) as well as demands for new work. Resource allocation for new work should include that for activity undertaken at the national level and for international and European collaboration.

8.5 Consideration of new projects

8.5.1 Proposals for new work

Requests for new standards or for improvements to existing standards at any level, international, European or national, may be made by any interest in the UK. The decisions on initiating a national project or proposing a new project to ISO/IEC or CEN/CENELEC are taken by the appropriate Sector Policy and Strategy Committee. To initiate an international, European or national project, its proposer should submit justification for the development or revision of a standard by stating:

a) why standardization is needed, in terms of economic, commercial or industrial advantages, safety, consumer protection or other benefits;

- b) the type of standard proposed e.g. specification, method, code of practice;
- c) whether it might be required to support legislation;
- d) whether it is likely to be used for purchasing purposes;
- e) if third-party certification is envisaged.

The title and scope of the standard should be set out in detail. Ideally, the proposal should be accompanied by a draft prepared in accordance with the requirements of BS 0-3. As a minimum, the source of such a draft should be identified. The proposer should indicate the timescale within which the standard needs to be completed in order to be useful.

8.5.2 Priority setting

The decision to accept or reject each proposal for new work lies with the Sector Policy and Strategy Committee in relation to the aims summarized in BS 0-1:1997, including Amendment 1:2002 and Amendment 2:2002, Clause 4 and the principles explained in BS 0-1:1997, including Amendment 1:2002 and Amendment 2:2002, Clause 5. The proposal is first assessed by the appropriate technical committee for reporting to the Sector Policy and Strategy Committee. Where there is no appropriate BSI committee, interested parties may be brought together to assess the value, urgency and practicability of preparing a standard.

Most proposals received relate to an area of work of an existing technical committee. The relevant committee should rank the importance of the proposal in a number of specific areas. These areas are weighted and evaluated by using a project acceptance system³) to assign a (numerical) value, and are as follows:

- a) potential influence on the competitiveness of UK companies in markets at home and abroad;
- A b) expectation that the standard will be cited in legislation or will provide a presumption of conformity to the law. In accordance with the Memorandum of Understanding with the UK Government (available from the BSI website, www.bsi-global.com) priority is given to the development of such standards; A 2
 - c) potential improvement in health and safety or protection of the environment (see Annex B);
 - d) predicted high sales of the standard.

NOTE The availability of BSI staff to undertake standards projects depends on the income British Standards receives from subscribers, from Government and from sales. Potentially high revenue earning standards are therefore significant. However, low sales potential is never the only reason for rejecting a project.

Special care is needed in assessing submissions when considering standards which may be required for the development of other projects. For example, though methods of test are primarily of specialist interest, performance specifications cannot be completed without them.

The evaluation of the project leads in turn to a proposal for the allocation of BSI resources needed to progress it. Confirmation of the resource proposal by the Sector Policy and Strategy Committee represents:

- the formal acceptance of the proposed project for a British Standard; or
- the formal agreement that a proposal can be made to the international or European organization.

8.5.3 Deciding upon UK participation in international or European work

Proposals for new projects made by other national standards bodies reach BSI from the secretariats of the international and European standards organizations and responses are required by set time limits. A) The likely benefit to the UK should be a major consideration when committees recommend, on the basis of the project acceptance assessment (see 8.5.2), whether to: (A)

- a) vote for or against the addition of new items to the work programme of an existing international or European committee;
- b) vote for or against the formation of a new international or European committee;
- c) participate or not in the work, and, if the majority of member bodies agree to pursue it, at what level of input.

Committees should not agree to new work unless it is likely to provide a useful standard within an acceptable timescale.

If a UK vote is cast against a new project, but the project is accepted by a majority of member bodies, the position of BSI should be reconsidered by the mirror committee (see **5.5.6**). In this situation it may be advisable to participate in the work so as to exert some influence on the project in its formative stages. This may help to prevent the publication of a standard that would have an adverse effect for the UK.

A) NOTE Sector Policy and Strategy Committees have ultimate responsibility for the work programme (see 8.4). (4)

³⁾ The committee secretary has the details of the system and will assist the committee in the assessment exercise.

8.6 Development of British Standards

8.6.1 General

A flowchart summarizing the development of a British Standard within the UK is given in Figure 2. As required by the CEN/CENELEC standstill agreement, work can only be undertaken if no European standard is being developed.

There are two major decision points:

- a) the decision of the Sector Policy and Strategy Committee to accept the proposal and initiate the work;
- b) the judgement that consensus (see **6.1.2**) has been achieved on a draft. This decision is taken by the chairman of the technical committee or subcommittee (see also **8.6.11**).

8.6.2 Announcement of new work started

When work on a new or revised standard is started, it is announced in *Update Standards*. The announcement is intended to alert UK organizations that may have a contribution to make to the work.

A This announcement is also sent to CEN/CENELEC to meet the requirements of Directive 98/34/EC [3] (see 6.11.1). A In addition, for new work in the electrotechnical area, direct notification has to be sent to CENELEC under the Vilamoura procedure (see 8.9.4).

For national work, the announcement is made at one of the following points, whichever is the earliest:

- a) immediately following the first BSI committee meeting to start the work; or
- b) as soon as work starts on processing an initial draft; or
- c) at the start of preparatory work on a major project prior to committee action.

For international and European work, the announcement in *Update Standards* is made when work starts on an item included in the programme of work of the appropriate committee.

8.6.3 Target dates and recording of progress

Once a project and its overall timescale to publication have been accepted by or on behalf of the Sector Policy and Strategy Committee, it is assigned to a technical committee. The technical committee decides on target dates for circulation of a draft for public comment (see **8.6.9**) and for its own approval of the final draft. These dates, if not defined at the approval stage, should be fixed no later than the second meeting of the committee and should be directed towards the timely completion of the project. The committee secretary should monitor the progress of all projects in hand so that standards programmes can be kept up to date (see **8.4.2**).

As it is the responsibility of the committee chairman to see that target dates are met [see **6.9.2.2**c)], he should use his experience to advise upon minimum but achievable project durations. The whole committee should act positively to progress the work within this timescale. Typical durations and aids to consensus forming are indicated in Annex C.





8.6.4 Preparing for a project

8.6.4.1 General

It is most important at the start of a project, before any drafting is done, to finalize the scope of what is actually to be standardized (see BS 0-3:1997, including Amendment 1:2002, **6.5.1**) and to decide on the type of standard to be produced. The basis of the scope will have been approved when the project was accepted. This scope is to be followed by the technical committee and by panels or individuals drafting on its behalf.

Technical committees should produce such scopes both for new British Standards and for revising existing ones. The scope should state clearly the content and identify the users of the standard and their needs. Accommodating user needs may involve preparing separate standards for different users. For specific guidance in deciding the scope of product specifications, see **8.6.4.2**.

The scope should be agreed by the whole technical committee at the outset and should not be changed significantly without its approval.

Having finalized the scope, a detailed structure should be drawn up for the standard, and clause titles assigned to each element.

8.6.4.2 *Product specifications*

8.6.4.2.1 In the case of product specifications, the standard should specify the requirements and function of the product at the interface at which it changes hands.

The technical committee should decide at the outset which of the following forms of product specification to produce:

a) a performance specification, in which characteristics are specified in terms of the functions the product has to perform, such as carrying loads or resisting the passage of sound;

b) a descriptive specification in which characteristics are specified in terms of the product's size, shape, materials, etc.;

c) a specification that combines performance and description.

Whenever possible performance specifications should be the preferred choice.

8.6.4.2.2 In deciding the scope of the product specification, the technical committee should consider whether it should apply to:

- a) a complete product or parts of a product;
- b) a product in the form of one item or more than one item;

c) a single form of product or a range of products of different sizes, colour, shape, etc. that all conform to the specified requirements;

d) a product that is not a discrete item in its normal state, e.g. a powder or liquid material produced continuously, but that will be required in specific quantities for testing purposes.

The technical committee should also consider:

- which characteristics need to be specified;

— whether to include requirements for particular materials, particular methods of manufacture or certain physical characteristics in addition to the requirements common to all products within the scope of the standard;

- whether it is important to the function and use of the product to include requirements for packaging;

— whether to require the provision of accompanying instructions for installation, use, maintenance and disposal;

— whether the assessment procedure, i.e. a test method for verifying the value of a characteristic, is to be within the standard or form a separate standard.

Other aspects may need to be covered to suit particular needs.

8.6.5 Research

A standards body seeks to codify existing knowledge, not to establish new facts. Generally therefore, drafting work should not begin until all basic data are to hand.

However, there are times when a committee may need to initiate or extend research in its field in order to complete or strengthen a standard. This is usually arranged through organizations represented on the committee or in close touch with it. The committee should provide guidance for the direction of the work by preparing the research brief.

In the particular case of national projects dealing with construction products where support for the research is not available within the committee, BSI can apply for a measure of government funding for research to provide experimental data in support of standards. Applications for building and water cycle standards projects are considered by the Department of Transport, Local Government and the Regions. The costs of research are unlikely to be met in full by Government, which would usually expect at least an equivalent contribution from industry. Strict criteria govern the allocation of grants.

For European projects, funds may be available from the European Commission. Strict criteria are applied to the types of project which may be supported. Normally at least a 50 % contribution from industrial or other non-Commission sources is expected.

8.6.6 Patents

8.6.6.1 Inclusion of a proprietary material, product or process as the sole means of compliance with any of the requirements of a British Standard should be avoided (see BS 0-1:1997, including Amendment 1:2002 and Amendment 2:2002, **5.5.1** and BS 0-3:1997, including Amendment 1:2002, **10.1.1.5**) unless the technical committee has established that there is no satisfactory alternative available.

A patented invention should not be referred to if any generic description is available.

If a technical committee decides that the inclusion of an invention that is the subject of a British patent is essential as a requirement of a British Standard, BSI Legal Services should be asked to confirm or secure that the patent is endorsed "licences of right" at the Patent Office. This ensures that:

a) licences under the patent are available to all applicants as of right;

b) any disagreement as to terms between the owner of the patent and a person requiring a licence is subject to settlement by the Comptroller of the Patent Office.

NOTE Provision for "licences of right" is described in Section 46 of the Patents Act 1977 [5] (Section 35 of the Patents Act 1949 [6]), as amended by Sections 293, 294 and 295 of the Copyright, Designs and Patents Act 1988 [7].

Specific wording for the acknowledgement of patent rights in a British Standard is provided in BS 0-3:1997, including Amendment 1:2002, **9.4**.

8.6.6.2 For some foreign patents "licences of right" provisions do not apply. If a technical committee wishes to include an invention subject to such a patent as a requirement of a British Standard, BSI and the owner of the patent should agree on the terms under which the patented invention is to be included. These are normally that licences will be granted to all applicants (from whatever country) on reasonable and non-discriminatory terms. BSI should keep a formal record signed by the patent holder of the agreement to grant such licences.

In the case of adopted European standards, similar steps should have been taken by the relevant European organization. BSI should check that such agreements have been made and recorded before the standard is published as a British Standard.

Voluntary adoption of an international standard is made more complex by any need to use articles covered by foreign patents on account of the discrepancies between UK and international patent law.

NOTE A European Patent, granted under the European Patent Convention, confers on its proprietor, in each Contracting State for which it is granted, the same rights as would be conferred by a national patent granted in that State. "Licences of right" provisions in accordance with the British Patents Acts therefore apply in the UK. The procedure for foreign patents should however be followed in respect of any grants operating outside the UK. (See also ISO/IEC Directives, Part 1, 2001, **2.14** and ISO/IEC Directives, Part 2, 2001, Annex H.)

8.6.6.3 When a standard is being reviewed or revised that includes a patented invention, BSI Legal Services should be asked to check the position regarding the patent, particularly how long it has to run.

8.6.6.4 If a technical committee finds that a proposed solution is the subject of an application for a patent, or that such an application is intended, it should inform the applicant of the undesirability of using a patented invention in a standard. If the applicant nevertheless decides to proceed and the technical committee considers that no satisfactory alternative is available, the applicant's agreement should be obtained:

a) to the endorsement "licences of right" for a British patent; or

b) to terms required for a foreign patent.

A technical committee should, if necessary, warn an intending applicant for a patent that, except under strict conditions on which a patent agent could advise, early disclosure of the essential details of an invention, even within a BSI committee, may invalidate any subsequent application for a patent.

8.6.7 Maintenance agencies and registration authorities

8.6.7.1 In BS 0-1:1997 including Amendment 1:2002 and Amendment 2:2002, **5.5.1**, the principle is stated that standards should not give advantage to the product or service of an individual supplier. However, Annex G and Annex H of the ISO/IEC Directives, Part 1, 2001 acknowledge two exceptional cases: the designation of maintenance agencies and registration authorities.

8.6.7.2 Maintenance agencies are established where continuous updating of an international standard is required, e.g. ISO 4217 (adopted as BS EN 24217) on codes for representing currencies, and are generally operated by the secretariat of the technical committee responsible for the standard. If BSI holds the secretariat of an ISO/IEC technical committee that decides such an agency is needed, any body to be designated should be already in existence and recognized and accepted by custom, usage and practice. It is essential that the designation is approved by the General Manager, Standards Development on the recommendation of the relevant Sector Policy and Strategy Committee. An external agency may only be designated once a formal contract has been made with BSI to the approval of BSI Legal Services.

8.6.7.3 Registration authorities are established to assign names to "objects", e.g. to organizations to assist in data interchange as in ISO/IEC 6523 (adopted as BS ISO/IEC 6523). The guidelines given in the *Procedures for the technical work of ISO/IEC JTC 1 on Information Technology* may be applied more generally. The criteria for designation are the same as those in **8.6.7.2** for maintenance agencies.

8.6.8 Drafting

Once the basic decisions on the type of standard and its scope have been taken, committee work should be kept to a minimum in the initial drafting stages. Wherever possible, the initial draft should be prepared outside the committee, preferably by a small panel or a single person, knowledgeable on the subject, competent in drafting and able to discuss the project with other experts. Where committee resources are not available, a consultant may be appointed under the BSI/DTI consultancy drafting scheme or, in the case of building and water cycle standards, the support for standards scheme funded by the Department of Transport, Local Government and the Regions.

Documents for consideration as initial drafts for British Standards should be produced by competent technical bodies or associations that have an accepted national status. The company standard of an influential manufacturer or end user may also serve as the basis for a standard.

A) In the course of preparing the draft, inclusion of provisions relating to health and safety and to protection of the environment should always be considered. (A) The methodologies described in Annex B will assist committees in this responsibility.

The completed draft should be submitted for initial editing (see **8.6.12**) before circulation for public comment.

8.6.9 Public comment

A fundamental and obligatory stage in the development of any standard is the circulation of a draft for public comment. Texts of drafts are approved for circulation by the technical committee or subcommittee, in the latter case with the approval of the chairman of the technical committee. If the technical committee has not yet met, approval is given by or on behalf of the technical committee chairman. The text of every draft British Standard for public comment should be such that, if no comment were received, it could proceed to publication without major editing, i.e. it should follow the requirements of BS 0-3 or the appropriate drafting rules for international or European standards. It is the joint responsibility of the technical and editorial staff to ensure this during the drafting process (see **6.9.3** and **8.6.12**).

The draft for public comment may include, for the purposes of assisting comment, introductory matter that will not appear in the published standard. Consultation is based on the following principles:

a) a draft standard is made available for public comment irrespective of its origin;

b) the consultative procedure is usually only applied once;

c) proposed changes to the technical content of a published British Standard are made available for public comment prior to a revision or for incorporation by amendment (see **9.5**);

d) all comments received are considered by the committee.

Drafts are made available for public comment by announcement in Update Standards.

A specific format for the submission of comments should be used. A form for the submission of comments in electronic form is available from the BSI web site (www.bsi-global.com).

NOTE A period of 8 weeks is usually allowed for the receipt of comments upon a BSI document from the date of the announcement.

International and European drafts should be circulated for public comment during the enquiry period, 5 months for ISO/IEC and 6 months for CEN/CENELEC, and the UK vote and comments formulated during this period by the technical committee on the basis of comments received. Such drafts should include an introductory note indicating the extent of UK participation in their preparation and the action to be taken on their adoption if approved.

8.6.10 Review of comments

The committee (or a delegated group) considers all comments on a draft received before the closing date. For national projects the draft may be modified by the committee but for international or European documents the comments are combined into a UK comment and sent to the relevant technical committee, or central secretariat/management centre, in accordance with the rules of the organization. It may be appropriate for extensive comments to be considered by small panels or working groups (see **6.5**) within clearly defined policy guidelines from the senior committee.

Comments received are not normally acknowledged but, in ensuring that the committee takes all comments properly into account, the committee secretary should always consider with the committee chairman the desirability of inviting major contributors to discuss their comments with the committee if they do not belong to an organization already represented on it.

Where comments reveal a lack of consensus as to the state of the art, the technical committee should reconsider the usefulness and scope of the draft. There may be more appropriate forms of publication available to the relevant standards body other than a standard. For national projects the committee should consider the possibility of publishing a Draft for Development (see BS 0-3:1997, including Amendment 1:2002, **10.9**). A For European or international projects, a Technical Specification (TS) may be the most appropriate form of publication.

If it is decided that a standard is still appropriate but the content or structure of the document is significantly changed as a result of comment received, a second draft for public comment may be issued for standards of national origin. The committee secretary should consult line management on this step.

8.6.11 Approval of the draft

When consensus (see **6.1.2**) on the content of the draft is reached by the technical committee or a delegated subcommittee, the approved text, including any figures, is sent to the editing department of Business Publishing. Formal approval for publication of a British Standard is given by the chairman of the technical committee (see **8.6.13**).

8.6.12 Editing

British Standards Business Publishing staff are available for consultation at any stage in the development of a standard. Their advice should be sought at an early stage, thus avoiding potential delays immediately prior to publication.

Technical editors have no authority to make alterations to the content of a draft without securing the agreement of the committee secretary who should, if necessary, consult the committee chairman. If agreement between the technical editor and the committee secretary cannot be achieved on an important point, the matter should be referred without delay to the manager of the Business Publishing department and the business manager of the Standards Development business sector concerned.

Technical editors examine the text to ensure that the intended meaning is clearly and unambiguously conveyed, having particular regard to possible interpretation in the light of:

- a) BSI's duty of care (see 6.9.1.5);
- b) legal liability;
- c) house rules;
- d) publishing policy.

They check for consistency in terminology, forms of expression, structure and presentation and for the accuracy of cross-references, spelling, punctuation, numbering and conventions such as unit symbols, abbreviations and footnotes. In these respects they follow the rules set out in BS 0-3. Decisions on the presentation of publications are the responsibility of BSI staff.

8.6.13 Endorsement to publish

A) Before publication can take place, it is essential, under the Bye-laws [1], that the endorsement to publish is formally recorded by signatures of, or on behalf of, the secretary and chairman of the relevant technical committee and the Sector Policy and Strategy Committee secretary or, in the case of DISC, the Technical Assembly secretary.

For a publication of national origin, the signature of the technical committee secretary signifies that the text is in accordance with current BSI practices, and that it represents the agreed position of the committee. The technical committee chairman's signature confirms that the committee has examined all comments and agreed upon the technical content and that the text correctly conveys this agreed content. That of the Sector Policy and Strategy Committee secretary endorses completion of the task delegated to the technical committee.

For an international publication which is voluntarily being adopted as a BSI publication, the signature of the technical committee secretary signifies that the national components of the publication are in accordance with current BSI practices. The technical committee chairman's signature confirms that the committee agreed that the text should be adopted as a BSI publication. That of the Sector Policy and Strategy Committee secretary endorses completion of the voluntary adoption of the text by the technical committee.

A) For the publication of a European standard (which has to be adopted as a British Standard), the signature of the technical committee secretary signifies that the national components, e.g. national foreword and any national annex(es), of the publication are in accordance with current BSI practices. The technical committee chairman's signature indicates acceptance that the ratified text has to be adopted nationally even though the UK may not have voted in favour. That of the Sector Policy and Strategy Committee secretary endorses completion of the adoption by the technical committee, even though the UK may not have voted in favour and any national annex(es). (A)

The technical committee chairman may make any relevant, and specific comments on the edited draft of a standard of national origin or the draft prepared for publication of an international or European standard. Such comments may, for example, in the case of a negative UK vote, prompt a review of the situation. The final decision on publication is then taken by the General Manager, Standards Development in the light of advice particularly from the committee chairmen concerned, senior officials of any government department involved and BSI Legal Services.

For publications of any origin, the signature of the relevant Sector Policy and Strategy Committee secretary also signifies that:

- a) British Standards procedures have been properly carried out;
- b) the responsibilities of its staff have been satisfactorily discharged;
- c) BSI's constitutional procedures have been correctly followed.

8.7 International and European project development

8.7.1 General

To be able to work within the ISO, IEC, CEN or CENELEC systems it is essential to follow the ISO/IEC Directives, Part 1 or the CEN/CENELEC Internal Regulations, Part 2. An outline of these procedures is provided in 8.7.2, 8.7.3, 8.7.4 and 8.7.5; committee secretaries can advise in more detail. The BSI input from the mirror committee to the work of these organizations is described in 8.8 and 8.9.

8.7.2 Meetings of international and European committees

Meetings of international or European committees should be held only when open discussion between members is needed to reach decisions. Whenever possible, work should be carried out by post or electronic mail. Most technical committees meet about once a year but working group meetings are commonly more frequent in order to achieve rapid progress. A host country issues an invitation to the committee and provides administrative support. The prior circulation of documents to be discussed at a meeting is governed by the rules of the standards organization.

8.7.3 ISO and IEC circulation and voting

The international organizations, ISO and particularly IEC, have formal schemes controlling the distribution required for drafts of different types. Five stages require input from a member: proposal, working draft, committee draft, enquiry and approval.

NOTE 1 The ISO system is described here, that of IEC being similar but not identical.

The proposal stage is a vote to decide whether to undertake a project. If this is positive, then a working draft is assembled during the preparatory stage by a working group or project leader with the assistance of invited experts. The convenor of this group or the project leader forwards the draft to the technical committee (or subcommittee) for registration by the ISO Central Secretariat as a committee draft (CD).

During the following committee stage the technical committee or subcommittee secretariat ensures that the draft has the agreement of all the members. Once the committee has reached consensus on the committee draft, the technical committee secretary prepares the text for the Central Secretariat which circulates it as a Draft International Standard (DIS) to the full ISO membership with a 5-month voting period. Joint projects with CEN follow the provisions of the Vienna Agreement (see **4.3.1**), requiring parallel votes at the two levels.

NOTE 2 Joint projects of IEC with CENELEC follow the Dresden Agreement (see 8.8.2).

The result of this vote is considered, and the draft amended to take account of the comments, within the originating technical committee. After a positive vote, the committee chairman and secretary prepare the text, with the help of an editing committee if necessary, for the Final Draft International Standard (FDIS).

This text is then sent out in the approval stage by the Central Secretariat to all member bodies for a 2-month voting period. The Final Draft is approved for publication if two-thirds of the votes from the P-members of the technical committee are in favour and no more than a quarter of the total votes cast by all member bodies is negative.

$A_1 \rangle Text \ deleted \ (A_1 \$

8.7.4 CEN and CENELEC circulation and voting

A project is approved for the work programme of CEN or CENELEC by a 3-month questionnaire procedure based upon an initial draft forwarded by the proposer. The policy of these organizations is to adopt ISO or IEC standards as reference drafts. If agreement can be achieved on an existing international standard, technical committee work is not required.

Alternatively, the initial draft is allocated to a technical committee. A working group is then formed with a convenor who usually acts as the project leader. The draft is then refined until it is ready to be submitted to the technical committee or subcommittee. When the draft achieves consensus it is sent to the CEN Management Centre or CENELEC Central Secretariat as appropriate for public enquiry during a 6-month period. If, however, the vote is being conducted in parallel with ISO or IEC under the Vienna or Dresden Agreements (see **4.3.1** and **8.8.2**), the period is 5 months.

A) The technical committee or subcommittee considers the comments within 4 months and prepares a revised text for approval at the formal vote by all national members. Approval is obtained if 71.00 % of the weighted votes cast is in favour.

The target for completing a European standard is 3 years.

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Member countries may request modifications to a European standard because national legal requirements take precedence (A-deviation) and, in the case of a Harmonization Document, because a particular national technical requirement cannot be changed when the standard is published but needs to remain for a transitional period (B-deviation).

If approval is achieved by the weighted formal vote, the standard is ratified by the Technical Board and a timetable for the actions required of national bodies (announcement, national publication and withdrawal of conflicting standards) is issued.

It is possible for the initial questionnaire, enquiry and formal voting procedures to be combined into the Unique Acceptance Procedure (UAP). This procedure leads to a more rapid publication but the risk of failure is higher.

8.7.5 ETSI circulation and voting

Draft standards approved by technical committees are normally distributed by the secretariat to national standards organizations for circulation for a Public Enquiry. In the UK the national vote and comments are returned by BSI.

At the weighted formal vote, 71.00 % of the national votes is required for approval.

8.8 BSI committee action on ISO/IEC draft standards

8.8.1 The primary aim of UK participation in international standards work is to prepare an international standard which meets national needs and can be adopted as a British Standard. The following questions should be considered when deciding whether an international standard is to be adopted.

- a) Is the standard likely to be used for significant national trade or primarily for international trade?
- b) Would the designation "BS" assist in international trade?
- c) For specifications, is the BS number likely to be marked on the product or a label?
- d) Would adoption add to the package of national standards in a particular area?
- e) Would stakeholders prefer to use a BS ISO or accept an ISO?
- f) Has the UK taken an active part in preparing the standard or only acted as an observer?
- g) Is reference to the standard likely to be made in another British Standard, making reference to a BS ISO preferable?
- h) If additional information to a BS ISO would help users, could it be provided in a national foreword/annex?

8.8.2 If the responsible BSI committee considers that a British Standard should be developed on the basis of an international draft, it should be made available for public comment in accordance with **8.6.9**. When deciding, on the basis of comments received, the UK vote and formulating the UK comments on a Draft International Standard, the BSI mirror committee should be aware that the published ISO or IEC standard may be proposed later for adoption as a European standard (and therefore require adoption as a BS EN). Such a possibility should, therefore, be carefully considered by the committee at the ISO or IEC voting stage. Under the Vienna and Dresden Agreements the voting for the international and European versions of a standard may proceed at the same time and be coordinated by only one of the standards bodies.

8.8.3 If a committee agrees to adopt an international standard but wishes to widen the coverage for national purposes, it may be possible to publish the British Standard in parts, one of which is identical with the international standard whilst the other parts are separate standards of national origin. If total alignment with the international standard is not practicable, a statement of the differences is given in the national foreword to the British Standard (see BS 0-3:1997, including Amendment 1:2002, **6.4.6**).

8.8.4 If the responsible BSI committee does not intend to use the international draft directly as the basis for a British Standard, a draft for public comment is not made available. However, the availability of the international draft should be announced in *Update Standards* so that comments received can assist the committee in determining the UK vote on it. A BSI technical committee is free to decide that it will not participate in the international work and abstain from voting, but the points in **8.5** should be reviewed when this decision is made.

8.8.5 The following are some typical cases where the publication of a British Standard based on the international draft may not be appropriate:

a) the international draft is in conflict with current UK legislation or with an existing British Standard called up in legislation;

b) the international draft contains essential normative references to non-standards publications which are not available in a British Standard or under the conditions expressed in BS 0-3:1997, including Amendment 1:2002, **6.3.12**;

c) the international draft consists solely of an endorsement of a national or international document which either is not readily available or cannot be produced in British Standard form;

d) it does not meet UK technical requirements;

e) corresponding work is in progress in CEN/CENELEC that will produce a British Standard on the subject.

8.9 BSI committee action on CEN/CENELEC draft standards

8.9.1 National adoption of European standards is an obligation for CEN and CENELEC members under the CEN/CENELEC Internal Regulations. However their application generally remains voluntary and therefore dependent on their acceptability to those who are expected to use them. The CEN/CENELEC Internal Regulations lay down that in all cases where a decision is required within a European committee, every effort be made to reach unanimity. The enquiry draft should be circulated in the UK as a draft for public comment. The national view formulated by the BSI committee on the basis of the comments received represents the UK contribution to this process. When consensus has been reached within the European committee, a formal vote of the members by weighted majority carries with it the obligation for each member of CEN/CENELEC to adopt the result as the national standard and to withdraw existing conflicting national standards.

8.9.2 Under the CEN/CENELEC Internal Regulations, BSI is also responsible for making available the printed text of the official English language version of every European standard (EN). In practice, this obligation is fulfilled by publishing the EN as a British Standard (BS EN).

8.9.3 The aim of CEN and CENELEC is to produce ENs for obligatory adoption as identical national standards by the member bodies. Harmonization Documents (HDs) are discouraged, but may be necessary where identical national standards cannot be realized, particularly if national deviations are accepted. A) Only CENELEC now issues HDs. (A)

8.9.4 The preparation of national and European standards in the electrotechnical area is covered by an additional special procedure (the Vilamoura procedure), whereby a national member intending to revise an existing national standard or develop a new standard is required to notify CENELEC. Other members of CENELEC can then indicate a wish to participate in the national project. The national project can only proceed if fewer than four other member countries express an interest. Otherwise, the standard is developed at the European level.

As 8.9.5 CEN and CENELEC also produce prospective standards for provisional application, equivalent in status to BSI Drafts for Development. Such standards are included in the Technical Specification⁴ series (see Clause 10). When TSs are produced, conflicting national standards may be maintained unchanged in parallel. They are subject to a review within 3 years, the result of which decides future action. Amongst other options, this may be publication as an EN requiring the withdrawal of conflicting national standards. (An)

⁴⁾ A Such prestandards were designated ENVs until 2001.

8.10 Failure to reach consensus

8.10.1 General

The aim of a technical committee is to prepare speedily a standard within the agreed timescale to allow it to be used as soon as possible. It is therefore essential to achieve consensus without delay.

If it becomes clear that lack of agreement is causing delay, the technical committee secretary should advise the secretary of the appropriate Sector Policy and Strategy Committee, identifying the area of disagreement and indicating any steps taken in collaboration with the technical committee chairman to seek to resolve it.

8.10.2 Projects of national origin

The chairman and secretary of the Sector Policy and Strategy Committee responsible for authorizing the project should make a concerted effort to resolve the disagreement through discussions with:

- a) the parties involved;
- b) the chairman and secretary of the technical committee;
- c) the business manager of the Standards Development business sector;
- d) any others as necessary.

Their aim should be to resolve the problem speedily by any appropriate means, taking account of agreed target dates and the nature of the difficulty. The purpose and feasibility of the project should be re-examined and, if necessary, redefined at this juncture; the efforts of the technical committee may be redirected as a result.

If it is concluded that without agreement being reached in the technical committee, any resulting standard would in practice be a matter of continuing contention, the project should be abandoned. Alternatively, if it seems that an acceptable standard can be prepared, but the technical committee itself remains unable to reach a decision, the disagreement should be referred promptly to the Sector Policy and Strategy Committee and then if necessary to the Standards Policy and Strategy Committee on the authority of the Sector Policy and Strategy Committee.

8.10.3 Appeals procedure for national projects

In the event of the disagreement being referred to the Standards Policy and Strategy Committee, it appoints a panel to hear the evidence in confidence and to recommend to the Standards Policy and Strategy Committee the line of action likely to achieve a reasonable degree of general support and optimum use of any resulting standard. If no clear indication finally emerges that this is likely to be achieved by a Standards Policy and Strategy Committee ruling, the panel should recommend that the project be abandoned. Cross-examination by one party of another party's evidence to the panel is not permitted.

A statement of the Standards Policy and Strategy Committee's decision is then circulated to the committees concerned and to those who gave evidence. This decision is final and binding on all parties.

8.10.4 Projects of international or European origin

In the event of a BSI technical committee failing to reach consensus on the UK position on a project of international or European origin, a vote is not taken by the committee members to resolve the matter. If time permits, failure to reach consensus should be handled by the procedure given in **8.10.2**.

If time is too short, senior management concerned should be informed promptly with a view to urgent action, in consultation with the chairman and secretary of the BSI technical committee and others concerned, to resolve the problem speedily by any appropriate means. If the BSI technical committee remains unable to reach consensus, the final decision is taken by the General Manager, Standards Development in the light of advice particularly from the committee chairmen, senior officials of any government department involved and BSI Legal Services.

8.10.5 Appeals procedures for international and European projects

In the event of failure to reach consensus within the international or European committee, the rules of the appropriate organization are followed.

9 Maintenance of standards

9.1 General

All standards, whether at a national, European or international level, are subject to regular reviews to ensure that they do not become out of date. In addition, corrections may be issued whenever they are found to be necessary.

$|A_1\rangle$ 9.2 ISO and IEC standards review

For ISO standards, review takes place no later than 5 years from the date of publication or from the date when the last review was completed. The P-members of the technical committee vote on whether the standard should be confirmed, revised or withdrawn. If the decision is for revision, the standard will form the basis of a new project for the technical committee.

Unless otherwise authorized by the IEC Committee of Action, most IEC standards are subject to a maintenance cycle of duration between 2 years and 12 years, predetermined by the responsible technical committee at the time of initial publication. Maintenance is the responsibility of maintenance teams constituted for the purpose, and which report on their proposals for change (if any) at an early stage in each cycle. Any such change is subject to the approval from P-members of the technical committee, and any revision then follows the same procedure as for a new standard.

In both ISO and IEC, no more than two separate documents in the form of corrigenda or amendments should modify a current international standard. If a third is needed, a complete new edition is published.

9.3 CEN and CENELEC standards 5-year review

▷ For CEN and CENELEC standards, review takes place no later than 5 years from the date of publication or from the date when the last review was completed. However, CENELEC is proposing to move from a policy of 5-year reviews to a maintenance cycle approach consistent with that of IEC. A revision is treated in the same way as a new standard.

Corrections for typography or language do not necessarily have to undergo a vote, the procedure being handled by the CEN Management Centre or CENELEC Central Secretariat as appropriate. Technical changes are made by amendment. Complete new editions are preferred to separate amendments. New editions should in any case be used if three amendments have been produced previously.

9.4 British Standards 5-year review

A Every British Standard should be reviewed by the technical committee responsible at least every 5 years to ensure that it is valid. An earlier review may be initiated by a request from any source, typically as a result of developments in materials or technology or as a consequence of a change in the law. Where relevant, the 5-year review should be associated with the review of the adopted standard. In the case of British Standards adopting IEC standards, the timing of the review will reflect the IEC maintenance procedure. When a standard is reviewed, the options are as follows.

a) Confirmation

The standard continues to be valid without change.

b) Editorial change

Editorial change alone is needed to maintain the validity of the standard. This is introduced by amendment in accordance with item c)1).

c) Technical change

Technical change can be introduced in one of the following ways.

1) A small number of changes are introduced by amendment using the procedure for new projects. This leads to the production of an updated standard, incorporating the amended text (see **9.5.3**).

2) For a large number of changes, but not requiring a full revision, a new edition of the standard is produced using the procedure for new projects.

d) Full revision

A revision of the entire standard is produced using the procedure for new projects.

e) Declaration of obsolescence

The standard will no longer be updated but will be retained to provide for the servicing of existing equipment that is expected to have a long working life.

f) Withdrawal

The standard is no longer current.

By these means BSI undertakes to ensure that British Standards reflect current and accepted practice at any time. If a committee cannot update a standard, perhaps on account of procedural requirements (such as the European standstill agreement) or lack of resources, the only options are that the standard should be:

- confirmed;
- declared obsolescent; or
- withdrawn.

When a standard is due for review, the members of the committee are asked which option they recommend. The actions which should then be taken are listed in Annex D.

9.5 Amendment of British Standards

A) 9.5.1 Typographical errors

Correction of typographical errors does not require committee approval but should be authorized by the committee secretary.

9.5.2 Editorial, technical and other substantial changes

Corrigenda are issued to British Standards when essential for the prompt correction of an error that could be misleading or have serious consequences. In such cases, an immediate notification of the error in *Update Standards* should precede the production of a corrigendum. Amendments are issued to British Standards to introduce editorial and technical changes, including those agreed at the 5-year review (see **9.4**).

All amendments making technical changes should be approved by the committee responsible for the standard and issued for public comment.

9.5.3 Publication of amended text

All corrigenda and amendments are incorporated in an updated version of the standard. With some exceptions, corrigenda and amendments are not published separately. (See also BS 0-3:1997, including Amendment 1:2002, Clause 12.) (A)

9.5.4 Standards referred to in regulations

Changing a standard which is referred to in a regulation requires consultation with the responsible government department. Representatives of the department either are members of the technical committee or are co-opted for the particular discussion. The effective date of the change may need to be deferred until the corresponding regulation is amended. Many regulations have been affected by deregulation initiatives. The system of "approved standards" under the Consumer Protection Act [8] was revoked in 1994. However these or any other relevant British or European standards will still be taken into account when assessing the safety of a product under the General Product Safety Regulations 1994 [9]. This aspect underlines the importance of the advice of government representatives on technical committees.

9.6 Response to enquiries on national standards

9.6.1 Technical committee responsibility

Technical committees are required by the BSI Bye-laws [1] to act as standing committees to which any questions on published standards for which they are responsible may be referred. Enquiries to BSI concerning the meaning of a British Standard are therefore directed to the secretary of the appropriate technical committee. In the case of British Standards adopted from international and European standards (e.g. BS ISO/IEC, BS EN and BS EN ISO/IEC) the enquiry should be forwarded by the committee secretary to the appropriate standards organization.

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9.6.2 Explanation of meaning

If an enquiry can be answered by a straightforward explanation of the meaning of the text in question, the committee secretary is authorized to reply, after consultation with the chairman or an expert on the committee. The response should indicate that it is not a *technical* explanation of the standard.

9.6.3 Technical explanation

If an enquiry necessitates technical explanation, full details should be requested in writing so that it can be considered without delay by the technical committee. The response of the committee is then given in writing to the enquirer and can be used as the basis for replying to any similar enquiries on the same subject. If the committee identifies a need to alter the standard, this should be indicated to the enquirer, for whom the published amendment or an updated version of the standard incorporating the required alteration then provides the definitive response.

9.6.4 Enquiries relating to legal proceedings

A request for explanation can arise in the context of legal proceedings, e.g. during a contractual dispute or where a standard is cited as evidence of satisfactory quality. Once the secretary appreciates this to be the case, the enquiry is not referred to the technical committee but is passed to BSI Legal Services. The interpretation of the text is ultimately a matter for the courts and any formal change to the standard would not be relevant to any parties who have agreed to work to the standard as it existed at the time of their agreement.

At 10 New deliverables

10.1 General

In recent years, the consensus process, together with the increased demand for standards, has resulted in extended development times that have become unacceptable to industry. In response to this, CEN/CENELEC/ISO/IEC have introduced a number of "new deliverables", which produce agreements with a lower degree of consensus/transparency than formal standards, but which can be prepared in the much shorter time scales set by the interested parties (see Figure 3 and Figure 4).

As with European and international standards work, the extended time to deliver has resulted in the introduction of two new concepts at a national level (see Figure 5). Professional Standards Services has been set up to operate separately from the formal, committee processes. The level of flexibility that it offers means that it is inappropriate to describe it in detail in BS 0. In addition, a new form of agreement [Publicly Available Specification (PAS)] has been introduced. This replaces Product Assessment Schedules and Product Assessment Specifications previously prepared by BSI largely in support of certification. The product is now available for use by any stakeholder.





10.2 International (ISO/IEC) and European (CEN/CENELEC) new deliverables

The following types of publication have been introduced at the international and European level.

ISO Technical Specification (ISO/TS). A publication for which the required support for approval as an International Standard cannot be obtained or for which there is a doubt on whether consensus has been achieved, or a publication of work still under technical development or where for any other reason there is a future, but not immediate, possibility of agreement on an International Standard. A Technical Specification represents the technical consensus within an ISO technical committee (TC) or subcommittee (SC). Approval is by a two-thirds majority of P-members of the TC or SC.

ISO Publicly Available Specification (ISO/PAS). A publication representing the consensus within a working group (WG) of an ISO TC or SC or the consensus in an organization external to ISO. Approval of the WG prepared document is by simple majority of the technical committee or subcommittee P-members.

ISO Technical Report (ISO/TR). An informative publication containing collected data of a different kind from that which is normally published as an International Standard.

ISO International Workshop Agreement (IWA). A publication that does not rely on the customary technical committee structure. It is developed via an open workshop mechanism and published by ISO on the authority of the workshop.

IEC Technical Specification (IEC/TS), IEC Technical Report (IEC/TR), IEC Publicly Available Specification (IEC/PAS), IEC Industry Technical Agreement (ITA). As for similar ISO publications.

CEN or CENELEC Technical Specification (TS). A publication for which the required approval as an European Standard cannot be obtained or for which there is a doubt on whether consensus has been achieved, or a publication of work still under technical development or where for any other reason there is a future, but not immediate, possibility of agreement on a European Standard.

NOTE This category of standard includes publications that were previously published as European Prestandards (ENVs).

CEN or CENELEC Technical Report (TR). An informative publication similar to an ISO or IEC Technical Report.

CEN Workshop Agreement (CWA). A European publication, similar to the International Workshop Agreement, that is developed in a workshop open to non-Europeans as well as European members. The workshop may be administered by a national member or by the CEN Management Centre. The CWA is published by CEN on the authority of the workshop.

10.3 National new deliverable: Publicly Available Specification (PAS)

The aim of producing a PAS is to provide a robust and practical document at a speed appropriate to the needs of an industry and its customers. *Whilst a defined delivery timetable is the essence of the PAS process, it is important that it does not prejudice the requirement for proper consultation with the interested parties.* However, this does not imply the need for the full public enquiry that is required for a British Standard.

The opportunity to develop a PAS is open to any group prepared to abide by the conditions specified by BSI. This is essential to ensure the robustness and credibility of the document and safeguard the reputation and integrity of BSI as the publisher.

A PAS will be withdrawn when its content is subsequently covered by the scope of a published British Standard. A statement to this effect is included prominently in the PAS as follows:

"PAS [number] is not a British Standard. PAS [number] will be withdrawn on publication of its content in, or as, a British Standard."

Since a PAS is intended to become a British Standard in due course, it is important that it is drafted in accordance with BS 0-3.

Further information on the preparation of a PAS is available on request from the Business Development Manager of the New Product Development department, to whom reference should be made when a PAS is first proposed.

Annex A (normative) Use of statistical methods of sampling in standards

NOTE See also BS 0-3:1997, including Amendment 1:2002, 10.1.3.4.

A.1 Sampling procedures

The value of statistical methods of sampling has long been recognized. For the benefit of the parties concerned with a specification, statistically sound sampling procedures should be provided.

A) BS 6001 (ISO 2859 and ISO 8422) or BS 6002 (ISO 3951 and ISO 8423) should be invoked whenever appropriate as these standards provide clauses describing the methods of selection of the sample, the treatment of nonconforming items found during inspection and the treatment of batches resubmitted after initial rejection.

The AQL-indexed systems (see A.2) contain built-in switching rules (from normal to tightened or reduced inspection) to cater for deteriorations or improvements in production. Use of these basic reference standards can save time in discussion, and reduce the large areas of discretion often contained in non-standard sampling schemes that have only limited value, particularly for international or European trade.

A For manufactured products, specifications are often formulated with maximum and/or minimum values assigned to each characteristic. These values are usually based on experience and/or analysis of the capability of related machinery and labour. Specifications of this kind primarily invoke inspection by attributes (see BS 6001). However, under suitable conditions, inspection by variables (see BS 6002) is a more efficient procedure of which advantage should be taken.

For bulk materials, it is traditional to specify a mean value for each characteristic and the range of allowable deviation dependent upon the quantity assessed. Specifications of this kind invoke inspection for characteristics that, owing to their relative complexity, require the accurate instrumentation for measurement and the test skill normally found in laboratories rather than on the shop floor.

A.2 Use of the term AQL

The acceptable quality level (AQL) is the maximum percentage nonconforming that, for purposes of acceptance sampling, can be considered satisfactory as a process average. Designation of an AQL and inspection level from BS 6001 or BS 6002 automatically provides a sampling scheme for any given lot/batch size, related to appropriate risk levels. The term AQL should not be used without reference to one or other of these standards. For further guidance, BS 6000 should be consulted.

E NOTE 1 Work on a revision of these standards is currently underway. The more correct term "acceptance quality limit" will be used with the following definition "quality level that is the worst tolerable process average when a continuing series of lots is submitted for acceptance sampling".

NOTE 2 The "process average" can be defined as the arithmetic mean of a number of individual values of a process parameter or process output characteristic.

A.3 AQLs and legal obligations

No British Standard should be written in such a way as to result in the acceptance of nonconforming products by a purchaser ordering to that standard. BS 6001 and BS 6002 caution that the designation of an AQL does not imply that the supplier has the right knowingly to supply any nonconforming item of product.

Annex B (informative) Health and safety and environmental protection

B.1 Safety

Safety has been defined at the international level⁵⁾ as freedom from unacceptable risk of harm. This concept can be applied to people, animals or goods as well as to the wider environment. The user of a standard should be able to assume that safety has been taken into account in its development. Therefore a primary consideration for a committee when drafting has to be for the safety of people, whether the user of a product, the operator of a process or the innocent bystander. Standards need to provide for levels of safety that will give protection from harm. Some standards apply specifically to health and safety at work or at home but there is no single category of safety standard. A committee should always be ready to take action on a standard, including seeking early revision, for reasons of health and safety.

Standards can contribute to safety in many ways. Through requirements for performance and related test methods, specifications can set levels for safety in use for products such as car seat belts and gas cylinders. Codes of practice perform a similar function in recommending safe working practices, e.g. for welding or demolition. Test methods involving hazardous materials always carry the necessary warnings to the operator (see BS 0-3:1997, including Amendment 1:2002, **8.3.2**). At a more basic level, identification marking and the definition of technical terms both assist communication which is essential when safety is at stake.

B.2 Regulations

B.2.1 National legislative requirements

B.2.1.1 Consumer safety

When drafting national standards that impact on health and safety, committees should be aware of the user's obligation to comply with the law.

Any appropriate government department should be consulted at an early stage to ensure that the proposed standard will be consistent with legislation. Standards that may be invoked in regulations, either by making them mandatory or by referring to them as means of compliance, should be drafted with this purpose in mind (see BS 0-1:1997, including Amendment 1:2002 and Amendment 2:2002, **7.4**). Identification of the legislative requirements should be the first step in drafting. The standard should draw the user's attention to relevant legislation as indicated in BS 0-3:1997, including Amendment 1:2002, **9.1.3**.

The General Product Safety Regulations 1994 [9] place a general duty on suppliers of consumer products to supply products that are safe. "Consumer products" are those that are supplied to consumers for their private use. A "safe product" is any product that under normal or reasonably foreseeable conditions of use, including duration, presents no risk or only the minimum risk compatible with the product's use, and is consistent with a high level of protection for consumers.

British Standards or European standards, among other technical specifications, may be taken into account in assessing the safety of a product, but the General Product Safety Regulations do not permit any formal recognition of standards for this purpose. Conformity to a standard alone cannot guarantee that a product satisfies the general safety duty, unless that standard adequately covers all aspects of safety (in the words of the Regulations, "provides the safety which consumers may reasonably expect").

Advice on consumer health and safety issues may be sought from the BSI Consumer Policy Committee (OC/11). Data on home and leisure accidents involving consumer products are available from the DTI's Home and Leisure Accidents Surveillance Systems published in an annual report. This data can be valuable in assessing the nature of product hazards and pinpointing accident trends. The DTI Consumer Affairs Directorate, which is responsible for the systems, also publishes research reports into the causes of accidents with particular products or activities.

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⁵⁾ See ISO/IEC Guide 2:1996, **2.5**.

B.2.1.2 Safety at work

The Health and Safety at Work etc. Act 1974 [10] sets out a number of general duties which may be supplemented by related health and safety regulations made under the Act. The Act and regulations, together with associated health and safety legislation, are enforced by inspectors ultimately by way of criminal sanctions. Duties are imposed on the employer, on the self-employed, on those in control of premises, on designers, manufacturers, importers or suppliers of any article for use at work or of any substance and on employees, for their own and others' health and safety.

These general duties, and many of the duties in health and safety regulations, are qualified by the expression "so far as is reasonably practicable". This implies taking into account the current level of practice and balancing the costs of health and safety measures against the risks involved. A manufacturer or supplier who sells goods conforming to a British Standard specification and who makes clear the conditions of use for which they were intended should thereby, to the extent that the standard was adequate and appropriate, be able to indicate compliance with his general duty. To a similar extent employers, those in charge of premises and employees are assisted by the provisions of British Standard codes of practice.

By virtue of the provisions of the Health and Safety at Work etc. Act 1974 [10], standards may be cited in or approved for the purposes of regulations, or adopted as "approved codes of practice"⁶). In 1996 the Health and Safety Commission (HSC) issued a revised policy statement on standards. This states that standards will continue to be a useful form of guidance most often used by inspectors in discussion with manufacturers and suppliers of goods and with employers. It also states that it is now less likely than before that standards will be made mandatory or be adopted as approved codes of practice. Even where a standard is not made in support of a European directive, the Health and Safety Executive (HSE) may still want to use it in guidance and/or formally endorse it. This depends largely on effective participation in standards work by representatives of HSE.

The Construction (Design and Management) Regulations 1994 [11] made in support of the Health and Safety at Work etc. Act 1974 [10] require designers to ensure that their design documentation includes adequate information about any aspect of the project, structure or materials that might affect the health and safety of any people at work.

Reference to the Control of Substances Hazardous to Health Regulations 1994 [12] should be included in standards for products, processes or systems where exposure to hazardous substances, e.g. chlorinated solvents, strong acids or alkalis, could cause a health risk.

B.2.2 European Directives

At the date of publication of this standard, 20 Directives have been agreed following the New Approach (see BS 0-1:1997, including Amendment 1:2002 and Amendment 2:2002, **7.4.4**) and several others are still in negotiation. They cover products as diverse as toys, machinery, electrical products, medical devices and equipment for use in explosive atmospheres.

The essential requirements of these Directives are principally concerned with health, safety and environmental matters. Harmonized standards elaborate the technical detail needed to meet these essential requirements, but the use of such standards by manufacturers is voluntary. However where the standards are used it is incumbent on member states of the European Economic Area (EEA) to give a "presumption of conformity" to products made to harmonized standards and to allow them to be placed on the market.



⁶⁾ "Code of practice" as used in the Act is the generic term to include the standard, a specification and any other documentary form of practical guidance.

B.3 Methodology for drafting standards involving health and safety

B.3.1 General procedure

In developing standards that involve considerations of health and safety, committees should use a structured approach. ISO/IEC Guide 51 is helpful in this respect. The following stages may be appropriate:

- a) identify the hazards inherent in the product or process;
- b) consider the effects that these hazards can have: injury/damage;
- c) assess the risks of the hazards causing harm;
- \mathbb{A} d) decide what risks are tolerable, i.e. the level of safety required; \mathbb{A}
- e) state the actions that need to be taken to eliminate or reduce the risks.

B.3.2 Identification of hazards

In the context of the Consumer Protection Act 1987 [8] and the Health and Safety at Work etc. Act 1974 [10] and their associated regulations, technical committees should:

- identify hazards at an early stage in their work;
- record their findings; and
- decide where in the standard these hazards are to be dealt with.

These findings and the associated clauses should be tabulated in an annex to any standards that have implications for health and safety. Data on injuries associated with a product, or with similar attributes of other products, can help to create awareness of the hazards to be addressed when drawing up a standard.

Hazards may be:

- mechanical and physical, including piercing, cutting, trapping;
- electrical;
- thermal;
- chemical;
- biological;
- fire and explosion;
- radiation.

B.3.3 Effects of hazards

The effects of the hazards on people encompass:

- minor injury: small cuts and bruises;
- injuries requiring hospital treatment;
- loss of limbs;
- loss of life.
- The effects of hazards on goods cover:
 - superficial damage: torn packaging;
 - damage needing repair by the manufacturer;
 - destruction.

B.3.4 Assessment of risk

The committee should then assess the likelihood that the hazards will result in harm, taking account in particular of:

— the expected user of the product, e.g. child (see ISO/IEC Guide 50 on child safety and standards), elderly or disabled person;

- the consequences of failure of the product, including by misuse;
- the number of units likely to be in use and the frequency of use;
- the expected operator of a process;
- the consequences of incorrect operation of a process;
- risks to bystanders or neighbours.

B.3.5 \square Determining tolerable risk

The next step is to determine the tolerable risk and set the levels of safety that will form the basis of wording in the standard, taking into account: (A)

- the point at which increasing the health and safety measures will increase the cost of a product in undue proportion to the added protection they afford;
- the need to achieve the highest practicable level of safety with regard to the requirements for operating a process;
- the level of safety the user is reasonably entitled to expect;
- the competence and knowledge of the expected user, e.g. small child, elderly person.

B.3.6 Drafting

The committee should structure and draft the standard in such a way that the protective measures to be taken to eliminate or reduce risks of harm are evident and comprehensible to the expected user of the standard. In test methods and codes of practice, unsafe operations should be stated explicitly rather than leaving the user in doubt. Where warnings are needed, they should be worded in accordance with BS 0-3:1997, including Amendment 1:2002, **8.3.2**.

In the case of standards concerned with fire safety, account should be taken of the BSI Fire Safety Policy Statement approved by the Standards Policy and Strategy Committee. Advice can be obtained from the committee responsible for the coordination of fire safety standards (OC/13/1) which should be consulted before any standard involving fire tests or fire terminology is finalized.

A) B.4 Protection of the environment

The provisions in standards should be written to minimize any adverse impact of a product or process on the environment during its life cycle: manufacture, use or operation and at final disposal or dismantling. The issues to be considered are complex and form the subject of extensive national and European legislation, e.g. the Environmental Protection Act 1990 [13] including subsequent regulations published in 1994 [14], and Council Directive 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control [15].

The environmental impact of a product or process can be assessed by the procedures given in the ISO series on life cycle assessment. Guidance on the inclusion of environmental aspects is available in ISO Guide 64 and IEC Guide 109. Within CEN an Environmental Help Desk has been set up to assist committees preparing standards by providing environmental advice or expertise. A check list of factors to be considered when assessing environmental impact has been developed.

The inputs and outputs (emissions) associated with a product can be considered under the following headings:

- use of natural resources:
 - renewable;
- non-renewable;
- energy consumption;
- emission of gases, liquids and solids both hazardous and non-hazardous to the air, water and ground;
- emission of radiation;
- emission of noise;
- risks from accidents or misuse;
- disposal or recycling of waste material. (A

Annex C (informative) Role of the committee chairman in standards work

C.1 General

The formal duties of a committee chairman are listed in **6.9.2.2**. Carrying out of these duties requires special abilities. The ideal committee chairman should combine negotiating ability, leadership and management skill with technical knowledge of the subject. This combination is difficult to find, but none of the components should be entirely missing. This annex contains advice for BSI chairmen working for BSI. The general principles apply in international, European and national work.

C.2 Advisory role in project management

C.2.1 Initial timetable

At the start of a project the chairman and committee secretary should draw up a forecast timetable for its completion within the target period set by the standards body: ISO/IEC (see **8.1**) and CEN/CENELEC (see **8.2**). The target period for a project of national origin should be similar to that for these organizations or, preferably, shorter.

If BSI is acting as a leader in initiating an international or European project, a significant period is likely to be needed for preparing an initial draft before the new work item proposal can be submitted.

C.2.2 Impetus and regular meetings

A meeting should never be called without good reason, but if a committee never meets, decisions cannot be made. A compromise is needed for the frequency of meetings.

The committee chairman and secretary should never forget the psychological force of face-to-face encounters. The prospect of a forthcoming meeting is usually a more effective spur to action by committee members than a paper deadline.

Every technical committee should either meet at least once a year or become dormant. Working groups which have completed their tasks should be disbanded.

A date for the next meeting should always be set before the end of the current meeting. This should be a standard item on every agenda. An indefinite date is the first step on the decline to inaction.

If no work is foreseen then a positive decision should be taken to recommend that the committee become dormant. During this dormant period, the committee secretary collects comments for the next review of any standard. Any request for a technical explanation of a standard may require a prompt meeting of a dormant committee if the chairman is not able to give helpful advice.

For groups working solely or largely on international or European projects, the timing of meetings may be mainly determined by the availability of formal drafts. During periods when all the activity is within an international or European working group the chairman and secretary of the BSI mirror committee should consider whether or not it is appropriate to call meetings of the mirror committee to advise the members of the working group, or whether this can be carried out by correspondence.

C.3 Conducting a committee

C.3.1 General

The actions of a committee cannot always be explained by logic alone. All committees are formed of human beings who behave in both rational and emotional ways. The chairman should encourage an atmosphere in which people can give of their best. For some groups, rigid discipline is most effective, giving security to individuals who know that their fellow members will be forced to fulfil their obligations. In other cases, informality works better, particularly with small numbers. Between the two lies the induction of a competitive team spirit which can take pride in meeting tight deadlines. The resourceful chairman should use these and his own special techniques to orchestrate the committee's work.

C.3.2 Numbers

Smaller committees tend to work faster than large ones, because rapport between members is often stronger. However, if the committee is too small, fresh ideas may be lacking. The ideal size of a specialized technical committee may be as small as five or seven people.

C.3.3 Building rapport

One of a committee chairman's main functions is to build rapport between the members of his committee so that discussions can take place in an atmosphere of trust. The progress of standards projects is most rapid if effort is not dissipated in fruitless polarized arguments. Great progress is often made in short recesses. This occurs for two main reasons:

a) social exchanges can give insights into the aspects of a policy which are negotiable and those which should be preserved absolutely;

b) relaxation of pressure may allow the release of suggestions which are suppressed in a formal situation by the need to follow the ebb and flow of argument.

C.3.4 Membership stability

The composition of a committee is beyond the chairman's direct control, being largely determined by the nominating organizations. However, the chairman should use whatever influence he can to encourage the organizations to recognize that a commitment for about 5 years is being made when nominating an individual. Too frequent changes in the membership can lead to a loss of impetus as the newcomers have to catch up with the drift of current discussions.

Backtracking, repetition and relearning also consume more time.

Committees do age, however. Some inflow of fresh thought may be needed if new issues are to be raised and successfully overcome. The duration for which an unchanged membership manages to remain vigorous is unlikely to exceed 10 years.

C.3.5 Encouraging volunteers

The chairman should aim to break down large tasks into smaller portions that do not overload any individual. Doing this in a formal way also ensures that every member plays a full part and none become passengers. The basic approach is to use whatever human resources are to be found amongst the members of the committee in the way that is most efficient.

Annex D (normative) Actions on review of British Standards

D.1 Notification of review

Following the receipt of replies and consideration of them at a meeting, the committee should agree on one of the following courses of action. This is announced in *Update Standards*, allowing an 8-week period for comment, under one of the following headings:

"British Standards proposed for confirmation";
"British Standards proposed for confirmation", mentioning amendment;
"New work started" and "Draft British Standards for public comment";
"New work started" and "Draft British Standards for public comment";
"British Standards proposed for declaration of obsolescence";
"British Standards proposed for withdrawal".

In cases c) and d), consultation may be invited either by issuing the full text for public comment or, if the number of changes is small or for reasons of economy, by issuing a draft amendment for public comment.

If only the draft amendment is issued for public comment, the following note is prominently displayed at the beginning of the text, if applicable:

"NOTE When the changes proposed in this draft amendment are completed by the committee, it is intended to incorporate them into a new edition of the standard."

D.2 Announcement of review outcome

In the light of comments received, the committee then takes the appropriate action. Further announcements in *Update Standards* record the eventual outcome under the following headings:

a) confirmation:	"British Standards reviewed and confirmed";
A) b) editorial change and confirmation:	"Amendments to British Standards", "Updated British Standards" and "British Standards reviewed and confirmed" mentioning amendment;
c) technical change:	"Amendments to British Standards" and "Updated British Standards"; 🔄
d) fully revised standard:	"British Standards";
e) obsolescence:	"British Standards declared obsolescent";
f) withdrawal:	"British Standards withdrawn".

At the same time as a declaration of obsolescence is made, an amendment to the standard may be issued giving effect to that declaration and explaining its significance.

Entries in the *BSI Catalogue* include the word "obsolescent" in parentheses after the year of publication. Entries for confirmed standards in the *BSI Catalogue* include the year of confirmation in parentheses after the year of publication.



Bibliography

Standards publications

BS EN 24217:1994, Codes for the representation of currencies and funds.

BS ISO/IEC 6523 (all parts), Data interchange — Structure for the identification of organizations.

ISO/IEC Guide 2:1996, Standardization and related activities — General vocabulary.

ISO/IEC Guide 50:1987, Child safety and standards — General guidelines.

ISO/IEC Guide 51:1990, Guidelines for the inclusion of safety aspects in standards.

ISO Guide 64:1997, Guide for the inclusion of environmental aspects in product standards.

IEC Guide 109:1995, Environmental aspects — Inclusion in electrotechnical product standards.

Procedures for the technical work of ISO/IEC JTC 1 on Information Technology (3rd edition, 1995).

Other publications

[1] BRITISH STANDARDS INSTITUTION. Royal Charter and Bye-laws. London: BSI, 1998.

[2] HMSO. Agreement Establishing the World Trade Organization: Agreement on Technical Barriers to Trade, 1994. London: The Stationery Office.

(3] EUROPEAN COMMUNITIES. 98/34/EC. Council Directive of 22 June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations. Luxembourg: Office for Official Publications of the European Communities, 1998 (OJ No. L204, 21.7.98).

[4] EUROPEAN COMMUNITIES. 98/48/EC. Council Directive of 20 July 1998, amending Directive 98/34/EC laying down a procedure for the provision of information in the field of technical standards and regulations. Luxembourg: Office for Official Publications of the European Communities, 1998 (OJ No. L217, 5.8.98).

[5] GREAT BRITAIN. Patents Act 1977. London: The Stationery Office.

[6] GREAT BRITAIN. Patents Act 1949. London: The Stationery Office.

[7] GREAT BRITAIN. Copyright, Designs and Patents Act 1988. London: The Stationery Office.

[8] GREAT BRITAIN. Consumer Protection Act 1987. London: The Stationery Office.

[9] GREAT BRITAIN. General Product Safety Regulations 1994. London: The Stationery Office.

[10] GREAT BRITAIN. Health and Safety at Work etc. Act 1974. London: The Stationery Office.

[11] GREAT BRITAIN. Construction (Design and Management) Regulations 1994. London: The Stationery Office.

[12] GREAT BRITAIN. Control of Substances Hazardous to Health Regulations 1994. London: The Stationery Office.

[13] GREAT BRITAIN. Environmental Protection Act 1990. London: The Stationery Office.

[14] GREAT BRITAIN. Environmental Protection (Prescribed Processes and Substances etc.) (Amendment) Regulations 1994. SI 1994 No 1271. London: The Stationery Office.

[15] EUROPEAN COMMUNITIES. 96/61/EEC. Council Directive of 24 September 1996 concerning integrated pollution prevention and control. Luxembourg: Office for Official Publications of the European Communities, 1996 (OJ No. L257, 10.10.1996, pp 26 to 40).

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