



# ISO/IEC Directives Supplement



CONTAINS THE FINAL VERSION AND THE REDLINE VERSION

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**Procedures specific to IEC**



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# ISO/IEC Directives Supplement



CONTAINS THE FINAL VERSION AND THE REDLINE VERSION

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**Procedures specific to IEC**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

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## FINAL VERSION



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### Procedures specific to IEC

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## FOREWORD

### 0.1 General

This Supplement to the ISO/IEC Directives comprises modifications and additions to the ISO/IEC Directives that have been approved by the Standardization Management Board for implementation within IEC.

Reference is also made to the list of additional documentation provided on the IEC web site.

Relevant material from this documentation will be regularly included in this Supplement.

Part 1 of the ISO/IEC Directives, together with this Supplement, provides the complete set of procedural rules to be followed by IEC committees.

Generic terminology is used in the common parts of the ISO/IEC Directives and this has been replaced by terminology particular to the IEC in this Supplement (for example, the TMB is called the Standardization Management Board in this Supplement).

Attention is also drawn to the fact that these procedures do not apply to ISO/IEC JTC 1, for which reference should be made to the ISO/IEC Directives, Procedures for the technical work of ISO/IEC JTC 1 on information technology.

### 0.2 The structure of the IEC Supplement

The clause structure of the *IEC Supplement* follows that of Part 1 of the *ISO/IEC Directives* to the first subclause level, e.g. to the level of 1.7, 2.1, etc., in order to assist in cross-relating the texts. If there are no comments (see, for example subclause 1.4), it means that there are no IEC-specific requirements or recommendations.

Annexes specific to this Supplement are labelled starting from Annex SA, SB, SC etc.

### 0.3 Major changes from the previous edition

The following significant changes have been made with respect to the previous edition:

- a) changes to the appointment of Chairs of technical committees and subcommittees (subclauses 1.8.1.1 and 1.8.1.2);
- b) addition of a new subclause 1.15.5 on liaison coordinator;
- c) shortening of the voting period for FDIS from 8 to 6 weeks (subclause 2.7.1);
- d) modifications to Annex SM (Organization, rules and procedures of CISPR): changes to subclause SM.3.2; addition of new subclauses SM.3.4, SM.3.5 and SM.4.3.

## **1 Organizational structure and responsibilities for the technical work**

### **1.1 Role of the technical management board**

### **1.2 Advisory groups to the technical management board**

### **1.3 Joint technical work**

### **1.4 Role of the Chief Executive Officer**

### **1.5 Establishment of technical committees**

**1.5.12** “Stand-by” – a technical committee or subcommittee is said to be in a “stand-by” status when it has no tasks on its working programme but retains its title, scope and secretariat so that it can be reactivated should a new task be assigned to it.

The decision to put a committee on stand-by or to reactivate it is taken by the Standardization Management Board on a proposal from the committee in question.

### **1.6 Establishment of subcommittees**

### **1.7 Participation in the work of technical committees and subcommittees**

### **1.8 Chairs of technical committees and subcommittees**

#### **1.8.1 Appointment**

##### **1.8.1.1 Introduction**

Secretariats are strongly encouraged to appoint a Chair from a National committee other than its own. Chairs from the same National committee as the Secretary should only be approved in exceptional circumstances, for example when no other candidate is available.

##### **1.8.1.2 Procedure**

Twelve months before the end of the term of office of a TC/SC Chair, Central Office requests the TC/SC secretariat to indicate whether it wishes to nominate another candidate as Chair or extend the term of office of the current Chair. For the appointment of Chairs, the following procedure is applied:

- a) All National Committees are informed of the vacancy and invited to submit nominations to the secretariat within a period of 12 weeks. Nominations shall include a CV and a brief motivation statement.
- b) When multiple candidates are nominated, the P-members of the TC or SC shall be asked in a questionnaire (Q document) to express their preference for one of the candidates. The responses are seen only by IEC CO and the Secretariat is notified of the level of support for each candidate. The secretariat chooses a single candidate from the nominees but is not bound by the results of the questionnaire. However if a nominee other than the one receiving the most support is nominated, the Secretariat shall provide the rationale for its nomination.
- c) When the Secretariat is requesting the extension of the term of office of the current Chair, the nomination is submitted in accordance with d) below.
- d) The nomination is submitted, in the case of a TC Chair to the Standardization Management Board and, in the case of a SC Chair to the P-members of the technical committee, for approval within 6 weeks.
- e) Any objections to the extension submitted by the SMB members or by the P-members during the voting period shall be distributed immediately to the other members.

- f) If the nomination is not supported by either a two-thirds majority of the SMB members voting in the case of a TC or by a two-thirds majority of TC P-members voting in the case of a SC, the procedure shall be repeated.

### **1.8.3 Vice-Chairs of technical committees and subcommittees**

Technical committees and subcommittees can choose to appoint one or more Vice-Chairs at their discretion.

The process for appointing Vice-Chairs shall be the responsibility of the technical committees and subcommittees.

Technical committees and subcommittees are given wide latitude in the scope and portfolio of responsibility of any Vice-Chairs they choose to appoint, however, the following conditions apply:

- a) The responsibilities shall be meaningful and not ceremonial
- b) The responsibilities shall be clearly stated along with the nomination of candidate(s) for the role.

Vice-Chairs can be appointed for up to three years.

## **1.9 Secretariats of technical committees and subcommittees**

### **1.10 Project committees**

### **1.11 Editing committees**

### **1.12 Working groups**

#### **Project teams**

During the process of approving a new work item (see ISO/IEC Directives Part 1), P-members approving the work item are required to appoint experts able to participate in the development of the project. These experts form a project team (PT) operating under the responsibility of the project leader. Once the project has been finished, the project team shall be disbanded. Each project team should normally have only one project on its work programme. Project teams may either be grouped together into working groups or report directly to the parent committee. In the latter case, project teams shall be designated by the project number assigned to the project concerned.

For other aspects relating to the work of project teams, the procedures for working groups apply (see ISO/IEC Directives Part 1).

### **1.13 Groups having advisory functions within a committee**

### **1.14 Ad hoc groups**

### **1.15 Liaison between technical committees**

**1.15.5** With a view to maintaining effectiveness of liaison activities, a Liaison Coordinator (the Chair, the Vice-Chair, the Secretary or a designated expert) may be appointed by a TC or SC to manage and coordinate the liaison activities in the TC or SC as a whole.

The name and contact information of the Liaison Coordinator shall be made available to all National bodies.

A TC or SC may define the roles and responsibilities of the Liaison Coordinator under the following conditions:

- a) The Liaison Coordinator should address information requests on emerging technologies in the process of standards development.
- b) The Liaison Coordinator should ensure that reports from TC/SC Liaison Officers be submitted to the TC/SC.
- c) The Liaison Coordinator, with help of the Technical Officer responsible for the TC or SC concerned, should inform established liaisons of potential new work item proposals (NPs) in order to deal with potential conflicts in earlier stage of standardization.

## **1.16 Liaison between ISO and IEC**

## **1.17 Liaison with other organizations**

### **1.17.2 Liaisons at the technical committee and subcommittee level**

The procedure for the establishment of Category A and B liaisons is:

- The organization wishing to create a Category A or B liaison shall send an application to the IEC CEO with copies to the technical committee or subcommittee officers and IEC CO Technical Officer giving the following information:
  - Organization is not-for-profit;
  - Organization is open to members worldwide or over a broad region;
  - Its activities and membership demonstrate that it has the competence and expertise to contribute to the development of International Standards or the authority to promote their implementation in the area of the technical committee or subcommittee concerned (Only relevant for category A liaisons);
  - The name of the main contact person.

NOTE Invariably the organization will have been in contact with the technical committee or subcommittee officers prior to submitting its application and in these cases the technical committee or subcommittee officers should ensure that the organization is aware of their obligations as given in clauses 1.17.1 i.e. copyright, agreeing to ISO/IEC procedures including IPR, and patent rights.

- The IEC CEO will confirm that the eligibility criteria have been fulfilled and then consult with the IEC NC where the organization making the application has its headquarters;
- Upon a non-objection from the IEC NC where the organization making the application has its headquarters, the application will be sent to the technical committee or subcommittee secretary with a request to circulate it for vote;
- Approval criteria for category A or B liaisons are a 2/3rds. majority of P-members voting approve with the additional requirement that the P-member country in which the proposed liaison organization is based shall not have voted negatively.

## **2 Development of International Standards**

### **2.1 The project approach**

#### **2.1.6**

The following time limits may be used as guidance when establishing target dates (following approval of the work item):

- availability of working draft (if not supplied with the proposal): 6 months;
- availability of committee draft: 12 months;
- availability of enquiry draft: 24 months;
- availability of approval draft: 33 months;

- availability of published standard: 36 months.

## **2.2 Preliminary stage**

## **2.3 Proposal stage**

### **2.3.4**

In the IEC, the last paragraph of 2.3.4 of ISO/IEC Directives; Part 1 is replaced by the following:

National bodies shall provide a justification statement when voting negatively on an NP. In the absence of such a statement, the negative vote of a national body will not be registered and considered.

The following additions apply.

The Chair and secretary of a technical committee or subcommittee may decide, where appropriate, that the ballot on a new work item proposal and enquiry draft ballot proceed in parallel. This can obviously be done only if a mature enquiry draft is available for ballot.

The new work item proposal and enquiry ballots shall be distributed simultaneously with two distinct references and with two distinct ballots. The time limits for the new work item proposal and enquiry draft ballots shall remain unchanged.

During the new work item ballot, the work item is considered as being at the PNW stage code.

If the new work item proposal is not approved, the result of vote on the new work item proposal shall be issued immediately announcing that the enquiry draft ballot has been cancelled.

If the new work item proposal is approved, the result of vote on the new work item proposal shall be issued according to the normal procedures and the enquiry draft ballot shall continue. The project is considered as being at the CCDV stage code.

### **2.3.5**

If the required number of nominated experts has not been obtained by the end of the voting period, P-members may, within 4 weeks, nominate further experts they consider will contribute effectively to the work, without resubmitting the new work item proposal for ballot.

### **2.3.6**

The voting results will be reported to the IEC Central Office (using Form RVN) within 4 weeks after the close of the ballot.

## **2.4 Preparatory stage**

## **2.5 Committee stage**

## **2.6 Enquiry stage**

### **2.6.1**

The stability date shall be noted in the foreword in the event that there are no negative votes on the enquiry draft and the Chair of the technical committee or subcommittee selects the option to proceed directly to publication.

#### **2.6.4**

When proceeding directly to publication, no changes to the technical content of the enquiry draft shall be made.

### **2.7 Approval stage**

2.7.1 At the approval stage, the final draft International Standard (FDIS) shall be distributed by the office of the CEO within 12 weeks to all national bodies for a 6-week vote.

#### **2.7.2**

Proposals for the correction of obvious errors associated with a positive vote should be sent directly to the technical committee or subcommittee secretary by the end of the voting period.

### **2.8 Publication stage**

### **2.9 Maintenance of standards (and other IEC deliverables)**

#### **2.9.1 Definitions**

##### **2.9.1.1**

##### **stability period**

period over which a publication remains unchanged

##### **2.9.1.2**

##### **review**

evaluation of the usage of a publication and need for maintenance

##### **2.9.1.3**

##### **review date**

date when the review of a publication has been completed

##### **2.9.1.4**

##### **maintenance** (of documents)

keeping existing International Standards (IS), Technical Specifications (TS) and Technical Reports (TR) updated, whilst respecting industries' needs for stable publications

##### **2.9.1.5**

##### **maintenance team**

MT

group of experts designated to keep a publication or set of publications up to date

##### **2.9.1.6**

##### **stability date**

end of the stability period, when the committee's decision (withdrawal, confirmation, amendment, revision) has been implemented

##### **2.9.1.7**

##### **review report**

RR

form, which has the committee's decision after the review of a publication

#### **2.9.2 Review**

Each publication shall be reviewed to assess whether it has an acceptable usage prior to evaluating if maintenance is needed.

NOTE A non-exhaustive list of indicators which may be used in the review process is given below:

- adoption or future adoption as a national standard or other publication;
- use by NCs without national adoption or for products manufactured/used based on the publication;
- publication or its national adoption referenced in regulation;
- IEC CO sales statistics.

If the committee concludes that the publication does not have an acceptable usage, then it shall decide to either withdraw it or confirm it for another stability period.

If the committee concludes that the publication has an acceptable usage, then it shall decide if there is a need for maintenance, noting that any minor changes which have no direct consequence for the application of the publication should be saved for future maintenance.

In such cases, when there are insufficient resources for maintenance, the committee shall take the decision to confirm the publication for another stability period. If there are sufficient resources for maintenance, the procedures of 2.9.3.2 apply.

A flow chart for the review process is given in Annex SA.

Alternatively, if there is common acceptance within a working group or maintenance team that maintenance is needed for a given publication, then a recommendation can be submitted to the technical committee or subcommittee P-members for decision either at a plenary meeting or by correspondence.

### **2.9.3 Maintenance**

#### **2.9.3.1 Establishment of maintenance team**

Each committee should set up one or more maintenance teams, comprised of groups of experts, designated by the P-members of the committee, by correspondence or during a TC/SC meeting and whose task is to keep a publication or a set of publications up to date.

Its members may be the same or different from those who developed the original publication.

The convenor shall be appointed by the TC/SC either by correspondence or at a meeting.

For other requirements relating to maintenance teams, the procedures for working groups apply, see the ISO/IEC Directives, Part 1.

#### **2.9.3.2 Maintenance procedure**

The maintenance team shall be activated once the committee has decided that there is a need for maintenance. The maintenance team shall be responsible for, revising or amending publications subject to the maintenance procedure. It shall implement a project plan to enable the maintenance work to be completed by the end of the stability period.

The stability date shall be agreed by the committee. It shall be included in the CDV and also in the FDIS. Upon final publication, this information shall be given on the IEC web site under <http://webstore.iec.ch>.

Stability periods should be as long as possible based on an assessment of the maturity of the technology and future, foreseen changes due to development or maintenance of associated publications. Typically stability periods shall be between 3 and 12 years.

Individual proposals for changes may be distributed for information only and kept in hand by the TC/SC secretary until the next scheduled review.

If a committee needs to process an amendment or revision before the review date, it may decide to advance the review date and modify the stability date accordingly.

The steps for revision or amendment of a publication are the same as those for preparation of a new publication without the need to pass via the new work item proposal stage (CD (optional for the maintenance procedures), CDV, FDIS, as appropriate) and shall include the establishment of target dates for the completion of the relevant stages.

A new maintenance project may be started at the earliest when the current project is at the enquiry stage (i.e. circulation of the CDV).

Fragmented CDVs (multiple documents with a single vote on each document) may be used where considered appropriate for maintenance projects, however a consolidated document consisting of the approved fragments shall be submitted for the next stage in the project.

### **2.9.3.3 Review and stability dates**

Review and stability dates for a committee's publications will be available on the IEC website. They shall be included with the Report to the Standardization Management Board and will be subject to its approval.

## **2.10 Technical corrigenda and amendments**

### **2.10.3 Amendments**

As a general rule, if an amendment constitutes more than 10 pages or 15 % of the base publication, whichever is the smaller, the IEC Central Office will normally issue a complete new edition and not publish the amendment.

Consolidated versions are prepared by the IEC Central Office for user convenience consisting of the base edition with the amendment(s) and designated as for example Ed. 1.2 i.e. the first edition consolidated with the first and second amendments.

There are two types of consolidated versions:

- a) The old version where changes made to the base edition as a result of the amendment(s) are indicated with a black line in the margin. Sometimes the black line outlines a blank space where content has been removed but with no indication of the previous content;
- b) The new version applied to new consolidations that is to say publications consolidated with the first amendment. All the modifications – additions, deletions and replacements – made to the technical content of a publication by its amendment are highlighted in red using the track change functionality of Microsoft® Word.

### **2.10.5 Interpretation sheets**

#### **2.10.5.1 Introduction**

An interpretation sheet provides a quick formal explanation to an urgent request by a user of a standard (testing laboratory, certification body, manufacturer, etc.). The request may come directly or via an IEC conformity assessment scheme.

It is recognized that it is sometimes difficult to define, what is a “matter of interpretation” for a given standard.

#### **2.10.5.2 Proposal stage**

A proposal for an interpretation sheet, including the draft text, may be submitted by



- the secretariat of the technical committee or subcommittee which is responsible for the relevant standard,
- a National Committee,
- an IEC Committee of Testing Laboratories (e.g. IECEE-CTL),
- any other body of the IEC.

Proposals emanating from the IEC schemes' technical bodies, e.g. IECEE-CTL or ExTAG, or from "any other body of the IEC" shall be sent via the office of the CEO to the secretary of the technical committee or subcommittee which is responsible for the relevant standard.

The Chair and secretary of the technical committee or subcommittee shall consider whether the subject is really a matter of interpretation within the sense of 2.10.5.1. If this is considered not to be the case, the subject shall be dealt with as a proposal for an amendment of the standard, or if it originated as a "Decision" in a scheme it may remain as a procedural clarification for use in the scheme. The technical committee or subcommittee shall inform the secretariat of the scheme of its conclusions, including whether the committee endorses the Decision as being compatible with the standard.

#### **2.10.5.3 Preparatory stage**

The secretary of the technical committee or subcommittee that is responsible for the relevant standard shall, within 4 weeks, circulate the draft for the interpretation sheet to all National Committees with a request for comments on the draft within a period of one month.

The proposal and the comments received shall be assessed by the Chair and secretary of the technical committee or subcommittee and be immediately communicated to the secretariat of the appropriate scheme. If deemed necessary, it may further be discussed at the next meeting of the technical committee or subcommittee.

The final wording of the interpretation sheet shall then be agreed upon.

#### **2.10.5.4 Approval stage**

The draft shall be distributed in bilingual version to the National Committees for approval with the voting period being 8 weeks. It shall be referenced as a final draft International Standard, the title being "Interpretation of Clause x, y, z of IEC: ..."

The draft will be considered to have been approved for publication if:

- a) two-thirds majority of the votes cast by P-members of the committee are in favour, and
- b) not more than one-quarter of the total number of votes cast are negative.

Abstentions are excluded when the votes are counted.

#### **2.10.5.5 Issue of interpretation sheets**

The draft, when approved, shall be issued by the Central Office with the heading "Interpretation sheet".

The interpretation sheet shall be sent to the National Committees and shall be included with the relevant IEC Publication at the time of sale. It shall also be sent to the Secretariats of the appropriate IEC Conformity Assessment Bodies for publication in the CB Bulletin. The issue of interpretation sheets shall be announced by the IEC. The reference numbers of applicable interpretation sheets shall also be given in the IEC catalogue under the publication number.

For a given IEC publication, each interpretation sheet shall be numbered as follows:

TC .../

Publication .../  
Date, Edition

I-SH .../

EXAMPLE: TC 61/Publication 60335-2-9(1986) Third edition/I-SH 01.

#### **2.10.5.6 Review**

Every 3 years, the Technical Committee shall review the interpretation sheets in order to check their applicability.

When an amendment to the publication or a revised publication is issued, the opportunity shall be used to consider the inclusion of the contents of the interpretation sheets in the amendment or the revised text.

Once the contents are included in the amendment or in the revised text, the relevant interpretation sheets shall be withdrawn

#### **2.11 Maintenance agencies**

#### **2.12 Registration authorities**

#### **2.13 Copyright**

#### **2.14 Reference to patented items (see also Annex I)**

### **3 Development of other deliverables**

#### **3.1 Technical Specifications**

#### **3.2 Publicly Available Specifications (PAS)**

##### **3.2.2**

The submission of a PAS can be made using:

- a) a draft originating from an existing, approved project for the development of an International Standard prior to the circulation of the enquiry draft (CDV);
- b) a proposal for a PAS where there is no existing approved project. In this case, it may be either submitted directly for approval, noting that for subsequent transformation into either a TS or IS, it shall go via the new work item proposal procedure or for immediate transformation of the PAS into another normative document by the parallel circulation of the PAS and a new work item proposal (see Annex SB).

##### **3.2.3**

The wording “Pre-standard” may be included on the cover and title pages at the request of the technical committee or subcommittee. It shall be in smaller font and situated immediately below “Publicly Available Specification” at the top of the page.

#### **3.3 Technical Reports**

### **4 Meetings**

#### **4.1 General**

NCs are reminded that they are not permitted to charge delegates/ experts any sort of participation fee for any meetings of technical committees, subcommittees, working groups, maintenance and project teams. These meetings shall be funded entirely by resources from the NC and/or local sponsors.

## **4.2 Procedure for calling a meeting**

### **4.2.1.3**

The agenda shall clearly state the starting and estimated finishing times.

In the event of meetings over running the estimated finishing time, the Chair shall ensure that the P-members are willing to take voting decisions. However if P-members leave, they may request the Chair not to take any further voting decisions.

## **4.3 Languages at meetings**

## **4.4 Cancellation of meetings**

# **5 Appeals**

## **5.1 General**

## **5.2 Appeal against a subcommittee decision**

## **5.3 Appeal against a technical committee decision**

## **5.4 Appeal against a technical management board decision**

## **5.5 Progress of work during an appeal process**

**Annex A**  
(normative)

**Guides**

**Annex B**  
(normative)

**ISO/IEC procedures for liaison and work allocation**

**Annex C**  
(normative)

**Justification of proposals for the establishment of standards**

## **Annex D** (normative)

### **Resources of secretariats and qualifications of secretaries**

#### **D.1 Reference material for secretaries**

The latest editions of the publications listed are essential reference material for secretaries of IEC committees. All of these publications are available on the IEC web site.

a) The ISO/IEC Directives:

- Part 1: Procedures for the technical work
- Part 2: Rules for the structure and drafting of International Standards<sup>1</sup>
- IEC Supplement

b) IEC Statutes and rules of procedure

c) IEC Directory<sup>2</sup>

d) Catalogue of IEC Publications<sup>2</sup>

Secretaries should also be aware of the material listed in ISO/IEC Directives, Part 2.

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<sup>1</sup> Lists further documents to which a secretary will need to refer.

<sup>2</sup> Up-to-date information is available on the IEC web site (<http://www.iec.ch>).

## **Annex E** (normative)

### **General policy on the use of languages**

#### **E.3 International Standards**

##### **E.3.1 Preparation of French versions of documents**

###### **E.3.1.1 French versions of enquiry drafts (CDVs)**

TC/SC Secretaries shall make available the English version of the CDV(s) they request to be circulated for voting to the relevant Technical Officer in charge of their committee at the Central Office who will make the CDV text available to any interested National Committee for translation purposes. This shall be followed 60 days later by the circulation of the bilingual (English and French) CDV within the committee concerned.

When the French version is submitted within 30 days after the circulation of the English version, it will be circulated separately without changing the deadline for vote.

###### **E.3.1.2 French versions of final draft International Standards (FDISs)**

TC/SC secretaries shall make available the English version of the FDIS(s) they request to be circulated for voting to the relevant Technical Officer in charge of their committee at the Central Office which will make the FDIS text available to the French National Committee as well as any other interested National Committee for translation purposes. The French National Committee will be requested to confirm within 7 days if a French version of the FDIS will be provided within the 60 days period. If no response is received after 7 days, a monolingual FDIS will be circulated.

The bilingual FDIS will be processed by IEC CO upon completion of the French translation or the 60 days period, whichever occurs first.

When the request refers to a previously translated document, then it shall be accompanied by a marked-up file, preferably using vertical lines in the margins as opposed to coloured revision marks, clearly identifying the changes.

When the French version of a final draft International Standard is received after the 60 days limit and before the end of the voting period, the Central Office will consider whether it is possible to publish a bilingual standard within the time limit (see ISO/IEC Directives, Part 1). If not, the bilingual standard will be published later. A note will be inserted in the Foreword of the International Standard to indicate that the French text has not been subject to voting.

The French version of a final draft International Standard may also be submitted after the standard has been published in English. The Central Office will then prepare and publish a bilingual version, replacing the monolingual version, again with a note in the Foreword to indicate that the French text has not been subject to voting.

###### **E.3.1.3 French versions of Technical Specifications (TS) and Technical Reports (TR)**

TC/SC secretaries shall make available the English version of the TS(s) and TR(s) they request to be circulated for voting to the relevant Technical Officer in charge of their committee at the Central Office which will make the TS or TR text(s) available to the French National Committee. The French National Committee will be requested to confirm within one week if a French version of the TS or TR will be provided within the 60 days period. If no response is received after 7 days, a monolingual TS or TR will be circulated.

When the French version is submitted within 30 days after the circulation of the English version, it will be circulated separately without changing the deadline for vote.

When the French version of a TS or TR is received after the 60-day limit and before publication, the Central Office will consider whether it is possible to publish a bilingual publication without incurring significant delay. If not, the bilingual publication will be published later. If the French text has not been subjected to voting then this will be indicated in the Foreword.

**Annex F**  
(normative)

**Options for development of a project**

**Annex G**  
(normative)

**Maintenance agencies**

**Annex H**  
(normative)

**Registration authorities**

**Annex I**  
(normative)

**Guidelines for Implementation of the Common Patent Policy  
for ITU-T/ITU-R/ISO/IEC**

**Annex J**  
(normative)

**Formulating scopes of technical committees and subcommittees**

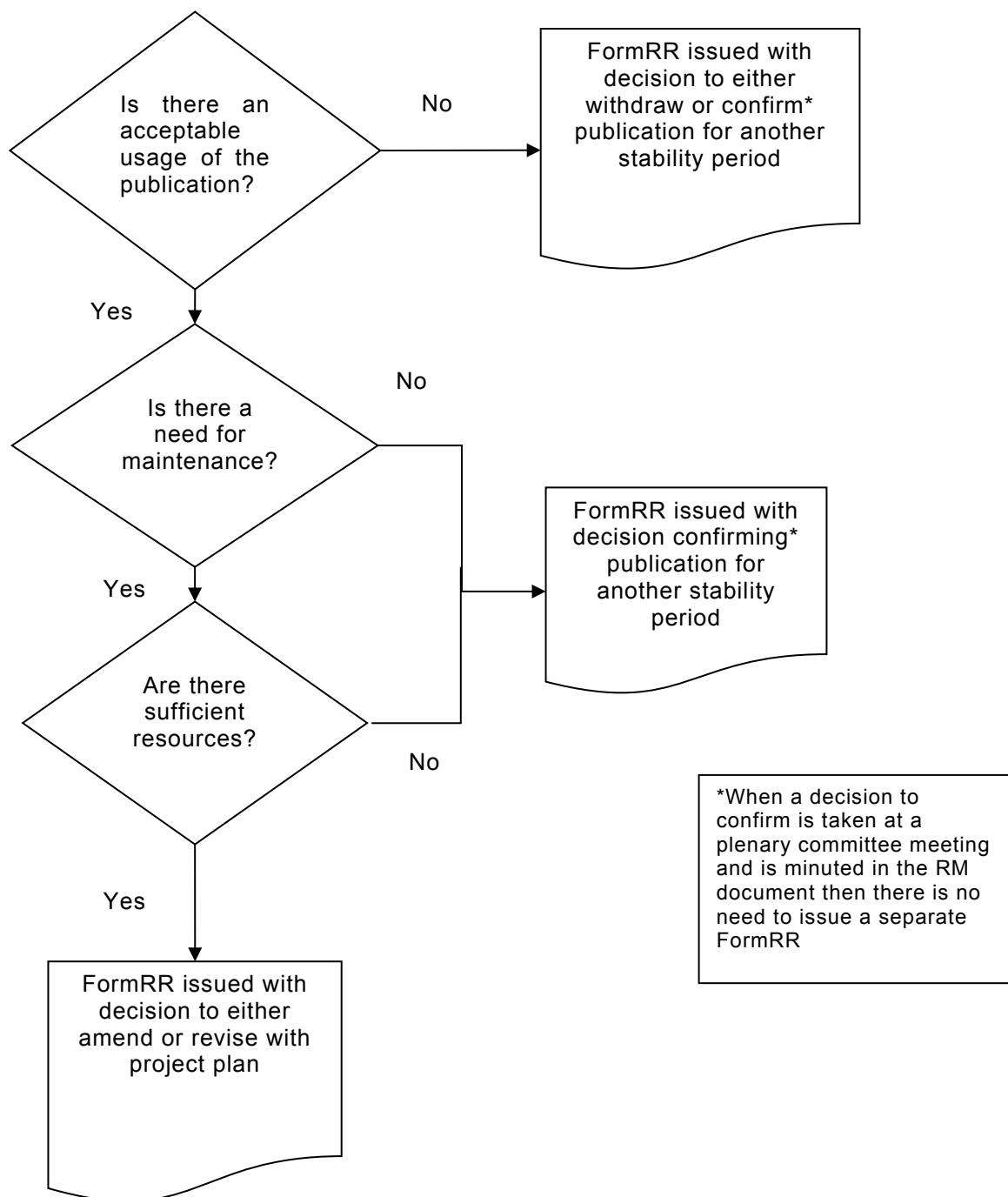
**Annex K**  
(normative)

**Project committees**



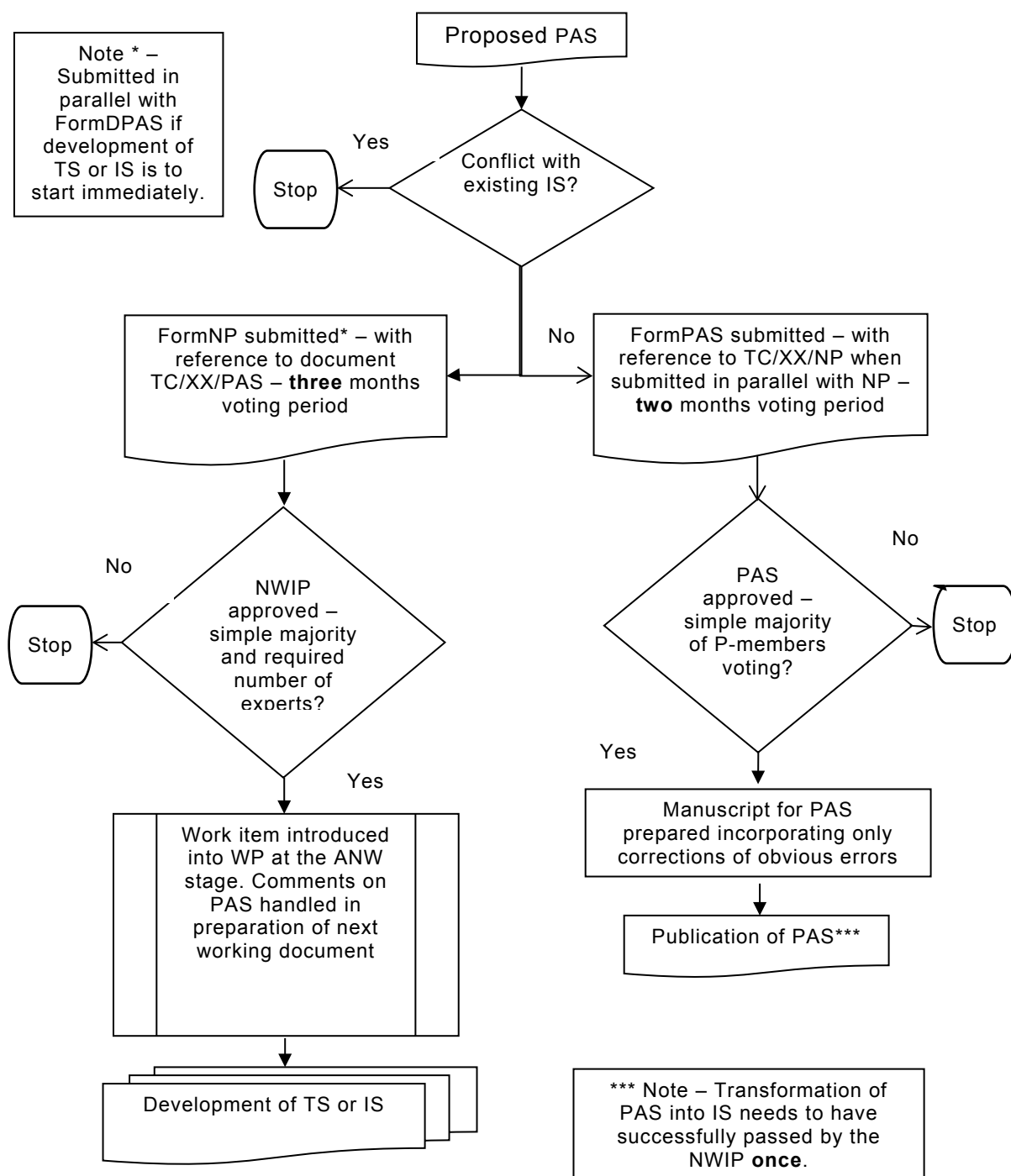
## Annex SA (normative)

### Review process – flow chart



## Annex SB (normative)

### PAS procedures – flow chart



## Annex SC (normative)

### Inclusion of text concerning particular conditions existing in certain countries (exceptions)

An IEC National Committee may provide a statement to be included in an International Standard, informing the user of the standard of particular conditions existing in its country.

NOTE 1 It is important to note that this statement is purely informative. Any statement of compliance with the standard requires compliance with the normative elements of the standard. The contents of an "in some countries" clause may become normative requirements in a regional/national adoption of the standard in the region/country concerned. Such an adoption is a modified (MOD) version of the IEC standard.

The inclusion of the statement does not need the approval of the relevant technical committee or subcommittee, or of its Chair or secretary. However, every effort shall be made to find solutions that would make statements regarding particular conditions unnecessary.

NOTE 2 It is preferable that the officers and other members agree to the statement provided by a National Committee. However, in the end it is the National Committee concerned that decides on the statement. If the officers or other members disagree with the statement proposed, there is room for discussion to determine clearly what it is that gives rise to an "in some countries" clause, and possibly make accommodation on both sides, to result in either elimination of the need for the statement, or a document with an acceptable statement. The onus is on the TC/SC officers to identify a situation and make best efforts to resolve it.

Any possible misuse of the clause that cannot be resolved by the Chairs and secretaries of TC/SCs should be brought to the attention of the Standardization Management Board for decision.

NOTE 3 If, after serious discussions with the National Committee concerned, the TC/SC officers feel that there is misuse of the clause, they should refer the matter to the Standardization Management Board.

A statement by a National Committee shall be given prior to the circulation of a final Draft International Standard (FDIS) for voting, preferably at a meeting of the relevant technical committee or subcommittee, or, at least, after consultation with its Chair and secretary.

NOTE 4 The final point at which a National Committee can request the inclusion of an "in some countries" clause is on receipt of the voting report of the CDV. Before the FDIS text is sent to Central Office, the officers will need to address the statement and, either concur with it, or enter into discussions with the National Committee submitting the statement, referring the matter, if necessary, to the Standardization Management Board.

Two cases of particular conditions are distinguished:

- a) *conditions of a permanent nature, such as mains voltages, mains frequencies or climate*: a statement regarding such a situation shall be included in the body of the draft International Standard with reference to the country or group of countries concerned;
- b) *differing practices of a less permanent nature*: a statement regarding such a situation shall be included in the foreword or in an informative annex, with a note in the foreword referencing it, of the draft International Standard with reference to the country or group of countries concerned.

It is the prerogative of a National Committee to declare whether a given national situation is case a) or case b).

NOTE 5 It is the submitting National Committee that has final say as to where to place the "in some countries" clause.

When voting on a draft International Standard containing one or more statements regarding particular conditions existing in certain countries, National Committees that are not concerned shall not take the existence of such statements as a reason for a negative vote.

NOTE 6 National Committees are reminded that they cannot vote on such a statement provided by another National Committee. This reinforces the concept of each National Committee having full authority over statements concerning conditions in its country.

## **Annex SD** (normative)

### **Criteria for SMB consideration of requests by technical committees or subcommittees for approval to prepare a separate standard or other document for conformity assessment requirements**

In accordance with 6.7 of the ISO/IEC Directives, Part 2, 2011, product standards, process standards and service standards shall not include elements related to conformity assessment aspects other than testing provisions (and associated sampling). However, technical committees or subcommittees may, with the prior approval of the Standardization Management Board based on satisfying all of the criteria below, develop a separate standard specifying additional conformity assessment requirements. The Standardization Management Board shall assess requests from technical committees or subcommittees, to produce a separate standard containing additional conformity assessment requirements, against the following criteria:

- a) The product, process or service that is the subject of the principal standard shall not be subject generally to regulation, as in such cases the regulator will specify the relevant conformity assessment requirements.
- b) The product, process or service shall be such as to impose significant potential risk to personnel or other equipment or property if it fails to comply in full with the specifications in the standard (e.g. equipment for high voltage live line working).
- c) A market need for such a standard shall be identified and there shall be no existing standard that includes the relevant requirements.
- d) The technical committee or subcommittee shall outline the conformity assessment requirements it wishes to include in the standard and the justification for such requirements.

Before deciding whether to approve the request, the SMB will first refer it to the CAB for a recommendation.

## **Annex SE** (normative)

### **Transitional period for the adoption by member countries of IEC publications**

Transitional periods for the adoption by member countries of IEC publications to define a suitable transitional period from the use of the old to the new edition may be provided on an informative basis.

IEC publications should not specify arbitrary transitional periods that would be inconsistent with the requirements in different markets.

For those publications specifying a transitional period, the following standard text shall be added as a note in the Foreword after the paragraph on maintenance:

NOTE The attention of National Committees is drawn to the fact that equipment manufacturers and testing organizations may need a transitional period following publication of a new, amended or revised IEC publication in which to make products in accordance with the new requirements and to equip themselves for conducting new or revised tests.

It is the recommendation of the committee that the content of this publication be adopted for implementation nationally not earlier than X months/years from the date of publication.

The standard text given above shall be incorporated into the foreword of publications no later than at the enquiry stage (CDV).

This standard text shall be reproduced in the abstract.

When the transitional period is used for a revised edition, then the following additional text shall be added to the abstract:

In the meantime, the previous edition can still be ordered by contacting your local IEC member National Committee or the IEC Central Office.

During the transitional period of a revised edition, both editions of the publications will be available.

Technical committees and subcommittees should also ensure that there is coherence between the transitional period and stability period. As a general rule, the transitional period should not exceed the stability period.

## Annex SF (normative)

### Document distribution within IEC

DOCUMENTS	PARTY(IES) CONCERNED									
	Proposal initiator	TC or SC secretariat	TC or SC P-members	TC or SC O-members	Category A liaisons	Office of CEO	WG/PT convenor	WG/PT experts	National bodies	TC or SC Chair
<b>Proposal stage</b>										
New work item proposal	★					●				
Copy of proposal		●				★				
Comments on the proposal		★				●				
Copies of proposal & ballot		○	●	○	○	★ <sup>1)</sup>				○
Completed ballot			★			●				
Votes/comments		●				★				
Result of voting		★				■				
	●	●	○	○	○	★ <sup>1)</sup>				○
<b>Preparatory stage</b>										
Working draft(s) (WD)							★	●		
Final working draft		●					★	○		
<b>Committee stage</b>										
Committee draft(s) (CD)		★				■				
Comments		○	●	○	○	★ <sup>1)</sup>				○
Compilation of comments		○	★	☆	☆	●				
+ proposal		★				●				○
Reaction to proposal		○	●	○	○	★ <sup>1)</sup>				○
		○	☆			●				
<b>Enquiry stage</b>										
Committee Draft for Vote (CDV)		★				■				
Committee Draft for Vote & ballot		○	●	●	○	★ <sup>1)</sup>				○
Votes/comments		○	★	★		●			★	
Result of vote and proposal		●				★			○	○
		★				■				●
		○	●	○	○	★ <sup>1)</sup>				○
Text for Final Draft International Standard		★				■				
<b>Approval stage</b>										
Final Draft International Standard and ballot		○			○	★ <sup>1)</sup>			●	○
Completed ballot						●			★	
Final corrections to standard		★				■	○			○
Result of voting		○			○	★ <sup>1)</sup>			○	○
<b>Publication stage</b>										
International Standard		○				★ <sup>1)</sup>			○	○
★ Sender of document					1)	For a SC, a copy is also sent to Chair and secretariat of the TC for information				
● Recipient for action					○	Recipient for information				
■ Recipient for registration action					☆	Optional action				

## Annex SG (normative)

## Reporting of secretariats within IEC

DOCUMENTS	PARTY(IES) CONCERNED							
	WG/PT convenor	WG/PT experts	SC secretariat	TC secretariat	TC or SC P- and O- members and A- liaisons	Office of CEO	Standard- ization Management Board	President, Vice- President and Council members
<b>SC working group / project team</b>								
— meeting report	★ —	○ —	○					
— progress report to SC meeting	★ —	○ —	○					
<b>TC working group / project team</b>								
— meeting report	★ —	○ —		○				
— progress report to TC meeting	★ —	○ —		○				
<b>Subcommittee</b>								
— meeting report			★ —	○ —	○ —	● — ★		
— progress report to TC meeting			★ —			● — ★		
— report to Standardization Management Board			★ <sup>1)</sup> —	★ —	○ —	● — ★	○ —	○
<b>Technical committee</b>								
— meeting report				★ —	○ —	● — ★		
— report to Standardization Management Board				★ —		● — ★	○ —	○
<b>Office of CEO</b>								
— progress report on the technical work			○ —	○ —	○ —	★ —	○ —	○
<b>Standardization Management Board</b>								
— progress report on the technical work					○ —	● — ★	★ —	○

★ Sender

● Recipient for redistribution action

○ Recipient for information

1) Only if the SC meets in isolation from the parent TC

## Annex SH (normative)

### IEC project stages

STAGE	SUB-STAGE				
	<b>00</b> Registration	<b>20</b> Start of main action	<b>60</b> Completion of main action	<b>70</b> Completion of further action	<b>90</b> Decision
<b>00</b> Definition of new project	<b>00.00</b> Registration of PWI				
<b>10</b> Evaluation of project proposal	<b>10.00</b> Registration of project proposal for evaluation PNW				
<b>15</b> Evaluation of Interest					
<b>20</b> Drafting stage	<b>20.00</b> Registration of new project ANW				<b>20.98</b> Abandon <b>CAN, DEL</b>
<b>30</b> Consensus building		<b>30.20</b> Circulation for comment 1CD			<b>30.92</b> Return to drafting phase or redefine project <b>BWG</b> <b>30.97</b> Merge or split project <b>MERGED</b> <b>30.98</b> Abandon <b>DREJ</b> <b>30.99</b> Register for next applicable phase <b>A2CD</b>
<b>35</b> Second level consensus building		<b>35.20</b> Circulation for Comment 2CD to 9CD			<b>35.91</b> Draft to be discussed at meeting <b>CDM</b> <b>35.92</b> Return to drafting phase <b>A3CD to A9CD</b> <b>35.99</b> Register for next applicable phase <b>ACDV</b>
<b>40</b> Enquiry stage		<b>40.20</b> Circulation for enquiry CCDV			<b>40.91</b> Draft to be discussed at meeting <b>CDVM</b> <b>40.93</b> Repeat enquiry <b>NADIS</b> <b>40.95</b> Preparation of text subcontracted to CO <b>ADISSB</b> <b>40.99</b> Register for next applicable phase <b>ADIS, DEC</b>
<b>50</b> Approval stage	<b>50.00</b> Registration for formal approval RDIS	<b>50.20</b> Circulation for formal approval CDIS CDPAS			<b>50.92</b> Return to drafting phase <b>NCD</b> <b>50.95</b> Preparation of text subcontracted to CO <b>APUBSB</b> <b>50.99</b> Register for next phase <b>APUB</b>
<b>60</b> Publication stage	<b>60.00</b> Document under publication BPUB		<b>60.60</b> Document made available PPUB		
<b>90</b> Review stage					<b>90.92</b> Review report <b>RR</b>
<b>92</b> Revision or amendment		<b>92.20</b> Document under revision AMW			
<b>95</b> Withdrawal procedure					<b>95.99</b> Proceed to withdrawal <b>WPUB</b>
<b>99</b> Withdrawal stage			<b>99.60</b> Approval of withdrawal DELPUB		



## Annex SI (normative)

### Numbering of documents

#### SI.1 Working documents

All IEC documents intended for circulation bear a reference. This reference is composed of three parts:

- a) a number, indicating the technical committee or subcommittee for which the document is primarily intended;
- b) the serial number of the document with respect to the committee;
- c) a mnemonic indicating the type of document<sup>3</sup>.

EXAMPLE Document **18/21/CD** is the 21st document for circulation in IEC/TC 18 and currently has the status of a committee draft.

The serial number is allocated by the Central Office at the time of circulation of the document, based on the register of all documents kept by the Central Office

#### SI.2 Allocation of project number

When a new project is registered by the Central Office (see ISO/IEC Directives, Part 1), the latter allocates a number to the project. The number allocated remains the same for the ensuing CD, CDV and FDIS and for the published International Standard. The number allocated is purely a registration and reference number and has no meaning whatsoever in the sense of classification or chronological order. The number allocated to a withdrawn project or International Standard shall not be used again.

If the project represents a revision or amendment of an existing International Standard, the registered project shall be allocated the same number as the existing International Standard (with, in the case of an amendment, a suffix indicating the nature of the document). If, however, the scope is substantially changed, the project may be given a different number.

<sup>3</sup> List of mnemonics to indicate the type of document

AC	Administrative Circular	NCC	National Committee Comment (C/SMB only)
CC	Compilation of Comments on CD	NCP	National Committee Proposal
CD	Committee Draft for Comments	NP	New Work Item Proposal
CDV	Committee Draft for Vote	PAS	Publicly Available Specification
DA	Draft Agenda	PW	Programme of Work
DC	Document for Comments	Q	Questionnaire
DIS	Draft International Standard	QP	Question of Principle (SMB only)
DL	Decision List	R	Report
DTS	Draft Technical Specification	RSMB	Report to Standardization Management Board
DTR	Draft Technical report	RM	Report on Meeting
DV	Draft for Voting (C/SMB only)	RQ	Report on Questionnaire
FDIS	Final Draft International Standard	RV	Report of Voting (C/SMB only)
FMV	Four Months' Vote (IECQ CMC only)	RVC	Report of Voting on CDV, DTS or DTR
INF	Document for Information	RVD	Report of Voting on FDIS or PAS
ISH	Interpretation Sheet	RVN	Report of Voting on NWP
RR	Review Report	SBP	Strategic Business Plan
MT	Maintenance Team List	WD	Working Document (SB only)
MTG	Meeting Document		

### **SI.3 Meeting documents**

Meeting documents, as the name implies, are intended for use only at a meeting of a committee. They shall be made available in the “Collaboration Tools Suite” in the area “TC/SC Meetings” (<http://collaboration.iec.ch/>) in each Technical Committee area. The system gives the possibility to create and upload new documents and classify them in folders by Technical Committee and Subcommittee. It is possible for TC/SC officers to create their own new folders.

Meeting documents shall be available for a given meeting to the participants only, and shall not be distributed afterwards to National Committees unless this is requested by a National Committee or the secretariat of the technical committee or subcommittee.

As such documents are thus not generally available, no reference to them shall normally be made in the final minutes of the meeting or other documents intended for general circulation. However, where this is unavoidable, a note shall be added to the effect that copies can be obtained from the secretary on request until the next meeting.

A collection of meeting documents may be made available in the form of an archived folder and distributed with an “MTG” reference.

All documents issued at meetings for use in the meeting carry a reference composed of the number of the technical committee (or subcommittee, etc.), the place of the meeting and the origin of the document, followed by a meeting serial number.

#### **EXAMPLES**

**20(Paris/Secretariat)2**

**20(Paris/Belgium)3**

If a National Committee reproduces a meeting document itself and sends copies to the meeting, it should leave a blank space for the serial number to be added at the meeting place.

### **SI.4 Documents from groups within a committee**

The reference number of the documents should avoid giving the impression that they originate from a National Committee and it is recommended that the name of the member should be used and not that of his country.

#### **EXAMPLE**

**100 WG1(Smith)5 or 100 WG1(Convenor)6**

## **Annex SJ** (normative)

### **Forms relating to standards development**

FORM NTC	Proposal for a new field of technical activity
FORM VTC	Vote on proposal for a new field of technical activity
FORM NSC	Decision to establish a subcommittee
FORM NP	New work item proposal
FORM RVN	Result of voting on new work item proposal
FORM CD	Cover page of committee draft
FORM CC	Compilation of comments on committee draft
FORM Comments	Annex for compilation of comments
FORM CDV	Cover page of committee draft for vote
FORM RVC	Result of voting on CDV, DTS or DTR
FORM FDIS	Cover page of final draft International Standard (FDIS)
FORM RVD	Report of voting on FDIS
FORM DTS	Cover page of draft Technical Specification
FORM DPAS	Cover page of draft Publicly Available Specification (PAS)
FORM RVDPAS	Report of voting on a draft PAS
FORM DTR	Cover page of draft Technical Report
FORM RR	Review report
FORM RSMB	Report to the Standardization Management Board
FORM SBP	Strategic Business Plan

All forms are available on the IEC web site at

[http://www.iec.ch/standardsdev/resources/docpreparation/forms\\_templates/](http://www.iec.ch/standardsdev/resources/docpreparation/forms_templates/).

## **Annex SK** (normative)

### **Rules for terminology work**

#### **SK.1 Scope**

Annex SK provides rules for terminology work in the IEC as well as some rules particular to the preparation of IEC 60050, *International Electrotechnical Vocabulary* (IEV).

The rules for terminology work are in conformity with the ISO/IEC Directives, Part 2, but Annex SK provides additional rules specific to the drafting, structuring and presentation of terminology in the IEC. Adherence to these rules will help the IEC to ensure that the IEV (available online at <http://www.electropedia.org/>) remains an exemplary terminology resource in the field of electrotechnical terminology, and that terminology drafted by the committees can be integrated in the IEV without any need for modification of the terminological data.

#### **SK.2 Drafting and presentation of the International Electrotechnical Vocabulary**

##### **SK.2.1 General**

###### **SK.2.1.1 Introduction**

Clause SK.2.1 has been prepared on the basis of the experience acquired in the preparation of the International Electrotechnical Vocabulary (IEV) by IEC/TC 1 *Terminology*, and of the work of ISO/TC 37, *Terminology and other language and content resources*, in which experts of IEC/TC 1 participate.

###### **SK.2.1.2 Aim of the IEV**

The aim of the IEV is to provide precise, brief and correct definitions of internationally accepted concepts in the field of electrotechnology, electronics and telecommunications, and to name the terms by which these defined concepts shall be known.

It is not intended to cover all terms used in IEC standards, but is rather a broad vocabulary, giving

- the basic and reference terms to be used by the other technical committees, and
- for each “product” or “family product” covered by other technical committees, the recurrent terms used by these technical committees.

The IEV is “standardization-oriented”, and is intended to help the standards writer to prepare standards, and to help the standards users to understand and implement them. It is also intended to be of help to the translators of normative (and more generally technical) texts.

Last but not least, the IEV is not meant to be a treatise or a tutorial on electrical engineering. This should be borne in mind when considering the degree of precision provided by the definitions.

###### **SK.2.1.3 Content and structure of the IEV**

The terminological data are categorized into classes as defined in Table SK.1.

**Table SK.1 – Classes in the IEV**

Class number	Class of concepts
1	General concepts
2	Materials
3	Measurement, automatic control
4	Electric equipment
5	Electronic equipment
6	Generation, transmission and distribution of energy
7	Telecommunications
8	Particular applications
9	Standardization and related activities

Each class is further divided into a number of subject fields (i.e. fields of special knowledge) each corresponding to a given field related to electrotechnology and prepared as a part of the IEV.

EXAMPLE 1

<b>161</b>	Electromagnetic compatibility
<b>411</b>	Rotating machinery

Concepts shall, as far as reasonably possible, be classified in a logical order according to their interdependence, in sections which themselves form the elements of the parts. Concepts applying to the same phenomenon or class of phenomena, or to the same technique or the same equipment, shall normally be classified in the same section, leading from the general to the specific, from the whole to the elements.

Each part and section shall have a title. If this title contains technical terms, these terms shall be defined.

The entries (and their elements) are thus constituted in such a way that they can be accessed and understood independently of their context in a given subject field.

The IEV is developed under the responsibility of IEC/TC 1, in cooperation with the other IEC technical committees, each part being prepared by a project team or working group, either within IEC/TC 1 or within another IEC technical committee (see SK.4.1).

Each part of the IEV is published as a separate fascicle, and referenced as **IEC 60050-###** in the catalogue of IEC Publications.

EXAMPLE 2

IEC 60050-121:1998, <i>Electromagnetism</i> , which constitutes Part 121 of the IEV, and belongs to class 1 "General concepts".
---

The terminological data contained in the various parts are used to compile an online dictionary entitled Electropedia (<http://www.electropedia.org/>).

Each of the terminological entries corresponds to a concept, and comprises the following elements (see SK.3.1):

- an entry number (see SK.2.1.5);
- possibly one or more letter symbols designating the concept (see SK.3.1.2);

then, for each of the **principal** (see SK.2.1.4) **IEV languages**:

- the preferred term designating the concept (see SK.3.1.3), called the "entry term", optionally accompanied by synonyms and abbreviated forms;
- the definition of the concept (see SK.3.1.4);

- optionally non-verbal representations, examples and notes to the definition (see SK.3.1.5 to SK.3.1.7);
- optionally the source (see SK.3.1.8);

and finally, for each of the **additional** (see SK.2.1.4) **IEV languages**, the term (and possible synonyms and abbreviated forms) alone.

It may happen that several concepts are designated by the same term, in one or several IEV languages: these concepts shall be placed in different entries, even if the appropriate definitions differ from each other by a few words only, and even if corresponding terms do not exist in every IEV language (as defined in SK.2.1.4). Homographs (terms having the same written form but representing different concepts) can be language dependent. See SK.3.1.3.5.6 for how to draft and structure terminological entries for which homographs exist.

#### SK.2.1.4 Languages

The entries corresponding to the concepts are given in two or more of the three IEC languages, i.e. French, English and Russian, referred to as the **principal IEV languages**.

The terms alone are also given in the **additional IEV languages** [Arabic, Chinese, German, Italian, Japanese, Norwegian (Bokmål and Nynorsk), Polish, Portuguese, Slovenian, Spanish and Swedish at the time of preparation of this document].

The principal and the additional IEV languages are referred to collectively in Annex SK as the **IEV languages**.

#### SK.2.1.5 Numbering system

Each entry has an entry number composed of three elements, separated by dashes:

- **Part** number of the part (formerly called “chapter”): three digits, the first one being the class number (see Table SK.1);
- **Section** number of the section: two digits (01 to 99);

NOTE In the past some of the “Chapters” (since renamed as “Parts”) had been subdivided into “parts”, each comprising a number of sections, as shown in the following example, taken from IEC 60050-393 “*Nuclear instrumentation: Physical phenomena and basic concepts*”:

Sections 393-01 to 393-04 --> Part 1 – Ionizing radiations and radioactivity
Sections 393-05 to 393-08 --> Part 2 – Nuclear reactors

These “parts” were renamed “sub-chapters” to avoid possible confusion with the “parts” (formerly “chapters”).

- **Concept** number of the concept in the section: two digits (01 to 99).

In each part, the sections are numbered from 01 to 99 consecutively, and in each section the terms are numbered from 01 to 99 consecutively.

EXAMPLE

151-13-77
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### SK.3 Drafting and presentation of terminological entries

#### SK.3.1 Elements of the entries

##### SK.3.1.1 Entry number

For the numbering of entries in the IEV, see SK.2.1.5.

For the numbering of entries in other documents, see the ISO/IEC Directives, Part 2, 2011, D.2.

**SK.3.1.2 Letter symbol(s)**

A letter symbol (or a limited number of letter symbols) may be used to designate the concept. This (these) symbol(s) shall be in accordance with the relevant standards, in particular with the IEC 60027, IEC 80000 and ISO 80000 series. ISO 80000-1:2009, Clause 7, provides rules for the printing of symbols. In documents the letter symbol(s) is (are) printed on a separate line. In the Electropedia the letter symbol(s) is (are) indicated in a separate field. Where an entry contains more than one symbol, each symbol is presented on a separate line for clarity.

The letter symbols for quantities are rendered in italics, whereas the letter symbols for units are rendered in upright characters.

The letter symbols are independent of the language, and shall not be repeated in the terms in the principal or additional IEV languages (see SK.2.1.4).

**EXAMPLE 1****112-02-05**

m

**mètre**, m

unité SI de longueur, égale à la longueur du trajet parcouru dans le vide par la lumière pendant une durée de 1/299 792 458 de seconde

Note 1 à l'article: Dans la définition de la CGPM en anglais, « time interval » est utilisé à la place de « duration ». Les termes « intervalle de temps » et « durée » correspondent toutefois à des concepts différents (voir 111-16-10 et 111-16-13).

[SOURCE: CGPM, modifiée]

**metre****meter**, US

SI unit of length, equal to the length of the path travelled by light in vacuum during a duration of 1/299 792 458 of a second

Note 1 to entry: In the CGPM definition in English, "time interval" is used instead of "duration". However the two terms correspond to different concepts (see 111-16-10 and 111-16-13).

[SOURCE: CGPM, modified]

**EXAMPLE 2****131-12-28** $R_m$  $R$ **réluctance**, f

pour un élément réluctant, quotient de la tension magnétique  $V_m$  par le flux magnétique  $\Phi$

$$R_m = \frac{V_m}{\Phi}$$

Note 1 à l'article: La réluctance est l'inverse de la perméance.

Note 2 à l'article: L'unité SI cohérente de réluctance est le henry à la puissance moins un,  $H^{-1}$ .

**reluctance**

for a reluctant element, quotient of the magnetic tension  $V_m$  by the magnetic flux  $\Phi$

$$R_m = \frac{V_m}{\Phi}$$

Note 1 to entry: The reluctance is the reciprocal of the permeance.

Note 2 to entry: The coherent SI unit of reluctance is henry to the power minus one,  $H^{-1}$ .

### SK.3.1.3 Terms

#### SK.3.1.3.1 General

As mentioned in SK.2.1.3, each concept is designated in each language by a preferred term (called the “entry term”), and possibly synonyms (see SK.3.1.3.4) and abbreviated forms (see SK.3.1.3.4.3). Terms may comprise one or several words, and may be followed by optional attributes, corresponding to specific features of the term, in the following order:

- specific use of the term (see SK.3.1.3.5.6);
- grammatical indication (see SK.3.1.3.6.2);
- national variant (see SK.3.1.3.4.2 and SK.3.1.3.6.3).

No other attributes shall be used.

In certain subject fields, the preferred term may be a letter symbol [e.g.  $I^2t$  (IEV 441-18-23:2000-07)].

#### SK.3.1.3.2 Choice or formation of terms

In general, it is recommended to apply the rules given in the ISO/IEC Directives, Part 2, and in ISO 704.

Ideally, the objective of the term–concept assignment in a given technical subject field is to ensure a one-to-one correspondence between term and concept. Synonyms and homographs are often unavoidable but shall be kept to a minimum, and duly indicated.

Before creating a new term, it is required to ascertain whether a term does not already exist for the concept in question.

A term has to be accepted and used by the specialists in the subject field covered by the terminology. Therefore well-established and widely used terms, even if etymologically questionable, should be changed only if there are very good reasons (e.g. risk of confusion or contradiction). However trade names (brand names) and archaic and colloquial terms shall not be chosen as terms.

For the creation of new terms (or for the revision of existing terminologies), the following principles should be followed (more information is given in ISO 704:2009, 7.4).

- The term is a label used to designate the concept (as described by the definition) in a **concise** and **unambiguous** (i.e. avoiding as far as possible homographs) **manner**: it should of course evoke the concept, but is not intended to replace the definition.
- Consistency: the terminology in any subject field should not be an arbitrary collection of terms, but rather a coherent terminological system corresponding to the concept system.
- Appropriateness: the terms proposed should adhere to familiar and established patterns of meaning within a language community; term formation that causes confusion shall be avoided; terms shall be as neutral as possible and avoid connotations, especially negative ones.
- Derivability: terms that allow for the formation of derivatives should be favoured.
- Linguistic correctness vis-à-vis the language shall be considered.
- Preference should be given to terms in native language rather than to terms borrowed from other languages.

In addition, it is to be noted that the terms in the various languages should not be word-for-word translations of the term in the initial language in which a specific entry was prepared. The right process for the formation of the term in a given language is to start from the



concept, as described by the definition, and then to choose (or to form) the most appropriate term in this language.

In the case of creation of a new term (neologism), it is recommended that the technical experts consult with linguistic experts in the country concerned.

### **SK.3.1.3.3 Absence of a preferred term**

When no preferred term can be found in a given language for a defined concept, and when no neologism can be formed, this shall be shown by means of five dots “.....” (half-high on the line) in place of the term.

In this case, the terminological entry shall not contain any synonyms in that language.

### **SK.3.1.3.4 Synonyms**

#### **SK.3.1.3.4.1 Use**

Terms (including letter symbols and abbreviated forms that are terms) that are interchangeable with the entry term, possibly with some restrictions (specific use of a term, national variant), are considered and treated as synonyms.

The use of synonyms shall be kept to a minimum; an abundance of synonyms in a given entry is very often the sign that this entry covers in fact several (closely related) concepts.

Meanwhile, bearing in mind the aim of the IEV (see SK.2.1.2), it is useful to list all terms by which a concept might be known, including those for which their use is deprecated or obsolete.

For all principal IEV languages, the synonyms shall be placed on successive lines, following the line of the entry term, and in the order of preference. Synonyms shall be differentiated by their rendering (see SK.3.1.3.5.1).

The number of synonyms may be different for each language.

#### **SK.3.1.3.4.2 National variants**

When a language is spoken in several countries, a term relating to a concept may be different according to the country.

In this case, a term used in all the countries in which the language is spoken shall be placed first.

A variant, which is not used in all the countries, shall be followed by an alpha-2 code representing the country or countries in which the variant is used (see SK.3.1.3.6.3).

EXAMPLE

earthing inductor grounding inductor, US
---

In order to promote standardization, such cases should be kept to the minimum.

#### **SK.3.1.3.4.3 Abbreviated forms**

Abbreviated forms should be given only when they are of current usage for a given concept (see also SK.3.1.3.5.7).

#### SK.3.1.3.4.4 Deprecated and obsolete synonyms

Deprecated and obsolete synonyms, as well as superseded terms, archaic terms, scientific-technical slang, and other terms which are detrimental to domain communication, shall be rated as deprecated terms (see also SK.3.1.3.5.8).

Both full forms and abbreviated forms may be selected as deprecated terms if their use is rated as undesired.

If it is considered useful, provide an explanation of the reasons for the deprecation of the terms in a note to entry (see SK.3.1.7).

#### SK.3.1.3.5 Presentation of terms and synonyms

##### SK.3.1.3.5.1 Letter form and rendering of terms and synonyms

Terms and synonyms shall be rendered as they would appear in the middle of a sentence, i.e. letters normally appearing in lower case shall remain in lower case (this is applicable in particular to the first letter of the term). Mathematical symbols, hyphens, parentheses, square brackets and other syntactic signs shall be used in a term or synonym only if they constitute part of the normal written form of the term. The term or synonym shall not be followed by a full stop, unless this forms part of the term.

In the clause “Terms and definitions” of a document (see SK.3.3.2 and SK.3.3.3):

- preferred terms and synonyms shall be rendered in boldface type;
- deprecated or obsolete synonyms shall be rendered in lightface type;
- attributes relating to the terms and synonyms shall be rendered in lightface type.

EXAMPLE	<b>vector quantity</b> <b>vector</b>	<b>grandeur vectorielle, f</b> <b>vecteur, m</b>
	<b>St. Andrew's cross</b>	<b>croix de Saint-André, f</b>
	<b>control difference variable</b> DEPRECATED: error variable	<b>variable de différence de régulation, f</b> DÉCONSEILLÉE: variable d'erreur, f

##### SK.3.1.3.5.2 Grammatical form

In general, a term shall be presented in its grammatical base form, i.e.

- a noun in the singular (unless it is a plural word),
- a verb in the infinitive (without the word “to” in English), and
- an adjective in uninflected form (e.g. masculine singular in French, non-comparative form in English).

##### SK.3.1.3.5.3 Multi-word terms

When a term is composed of several separate words, it shall be given in the usual order of words in the language to which it belongs.

##### SK.3.1.3.5.4 Parts of a term that may be omitted

It is not permissible to use parentheses to indicate parts of a term that may be omitted, either in the field under consideration or in an appropriate context. Instead, each term and synonym shall be presented on a separate line, as they would appear in the middle of a sentence (see SK.3.1.3.5.1), in the order of usage preference.

EXAMPLE	Incorrect:	<b>(electromagnetic) emission</b>
	Correct:	<b>emission</b> <b>electromagnetic emission</b>

### SK.3.1.3.5.5 Field of application of a term

In some cases, it is desirable to specify or restrict the use or field of application of a term or synonym. This may be achieved by specifying a “specific use”. Specific use shall be used only where it is essential for a term or synonym in a given language (e.g. to distinguish homographs) and is not always needed for all terms and synonyms, or for all languages, in a given entry. So that to any user it is clear that the specific use is not part of the term, it is enclosed in angle brackets “<>” and is separated from the term by a comma. The specific use precedes any other term attributes.

NOTE In the IEV, “specific use” is used, when necessary for a given term or synonym, in place of the element “domain” specified in the ISO/IEC Directives, Part 2, 2011, D.4.5

#### EXAMPLE 1

##### 161-02-19

**rang**, <d'un harmonique> m

nombre entier égal au rapport de la fréquence d'un harmonique à la fréquence du fondamentale

#### EXAMPLE 2

##### 102-05-28

**Laplacian**, <of a scalar field>

scalar  $\Delta f$  associated at each point of a given space region with a scalar  $f$ , equal to the divergence of the gradient of the scalar field

$$\Delta f = \text{div } \mathbf{grad} f$$

Note 1 to entry: In orthonormal Cartesian coordinates, the Laplacian of a scalar field quantity is:

$$\Delta f = \frac{\partial^2 f}{\partial x^2} + \frac{\partial^2 f}{\partial y^2} + \frac{\partial^2 f}{\partial z^2}.$$

Note 2 to entry: The Laplacian of the scalar field  $f$  is denoted  $\Delta f$  or  $\nabla^2 f$ , where  $\Delta$  is the Laplacian operator.

Note 3 to entry: The Laplacian of a vector field is defined in 102-05-29.

### SK.3.1.3.5.6 Homographs

Where several concepts are designated by the same term, a cross-reference to the other entry or entries in which the term is defined shall be added (see SK.3.1.7). The homographs can be in one language only. In documents, the cross-reference shall be added in a note to entry (see example 1). In a database, such information may be transferred to a dedicated field and introduced by an appropriate text such as “Related entries:” (see example 2, which for purposes of illustration is an adapted version of the entries in the IEV).

For homographs in additional IEV languages, the cross-reference may be added following the term, the introductory text (e.g. “related entry:”) being translated into the additional IEV language concerned. So that to any user it is clear that the cross-reference is not part of the term, it is enclosed in angle brackets and is separated from the term by a comma (see example 3).

EXAMPLE 1

**431-02-05**

**caractéristique de réglage**, <d'un transducteur>

représentation graphique de la relation entre une grandeur de sortie et une grandeur de commande en régime établi

Note 1 à l'article: En anglais, le terme « static characteristic » désigne aussi la caractéristique statique des tubes électroniques (531-18-04) et des sources de courant de soudage à l'arc (851-12-32).

**static characteristic**, <of a transducer>

**transfer curve**, <of a transducer>

graphic representation of the relation between an output quantity and a control quantity under steady-state conditions

Note 1 to entry: Other static characteristics are defined in English for electronic tubes (531-18-04) and for arc welding power sources (851-12-32).

EXAMPLE 2

**102-05-12**

**champ**, <...> m

fonction qui attribue un scalaire, un vecteur ou un tenseur, ou un ensemble de tels éléments liés entre eux, à chaque point d'un domaine déterminé de l'espace euclidien à trois dimensions

Note 1 à l'article: Un champ peut représenter un phénomène physique, comme par exemple un champ de pression acoustique, un champ de pesanteur, le champ magnétique terrestre, un champ électromagnétique.

Note 2 à l'article: En anglais, le terme « field » a aussi en mathématiques le sens de « corps » (voir 102-02-18, Note 2).

Entrées associées: champ (102-05-17:2007)

**field**

function that attributes a scalar, a vector or a tensor, or an interrelated set of such elements, to each point in a given region of the three-dimensional Euclidean space

Note 1 to entry: A field may represent a physical phenomenon such as an acoustic pressure field, a gravity field, the Earth's magnetic field, an electromagnetic field.

Note 2 to entry: In English, the term "field", in French "corps", has also another meaning in mathematics (see 102-02-18, Note 2).

Related entries: field quantity (102-05-17:2007)

**102-05-17**

**champ**, <...> m

grandeur scalaire, vectorielle ou tensorielle, qui existe en chaque point d'un domaine déterminé de l'espace et qui dépend de la position de ce point

Note 1 à l'article: Un champ peut être une fonction du temps ou de tout autre paramètre.

Note 2 à l'article: En anglais le terme « field quantity », en français « grandeur de champ », est aussi utilisé dans la CEI 60027-3 pour désigner une grandeur telle que tension électrique, courant électrique, pression acoustique, champ électrique, dont le carré est proportionnel à une puissance dans les systèmes linéaires, tandis que les grandeurs proportionnelles à une puissance sont appelées « grandeurs de puissance », que les grandeurs dépendent ou non de la position d'un point.

Entrées associées: champ (102-05-12:2007)

**field quantity**

scalar, vector or tensor quantity, existing at each point of a defined space region and depending on the position of the point

Note 1 to entry: A field quantity may be a function of time or any other parameter.

Note 2 to entry: In English the term "field quantity", in French "grandeur de champ", is also used in IEC 60027-3 to denote a quantity such as voltage, electric current, sound pressure, electric field strength, the square of which in linear systems is proportional to power, whereas quantities proportional to power are called "power quantities", whether or not the quantities depend on the position of a point.

Related entries: field (102-05-12:2007)

## EXAMPLE 3

<b>131-12-45</b>
...
ar ...
...
jp 交流に対する抵抗; 抵抗, <関連エントリー: 131-12-04>
<b>351-57-05</b>
...
ar ...
...
zh 安全, <相关条目: 351-57-07>

**SK.3.1.3.5.7 Abbreviated forms**

Abbreviated forms shall be specified as entry term or as synonym depending on their preferred usage. They shall not be followed by the indication “(abbreviation)”.

## EXAMPLE

**161-01-22**  
**ESD**  
 electrostatic discharge

**702-06-57**  
 pulse duration modulation  
**PDM**  
 DEPRECATED: pulse width modulation

**SK.3.1.3.5.8 Deprecated and obsolete synonyms**

Deprecated and obsolete synonyms shall be indicated by the prefix “DEPRECATED:” (in French: “DÉCONSEILLÉ:”), the term being rendered in lightface type.

## EXAMPLE 1

**102-06-04**  
**matrice-colonne, f**  
 DÉCONSEILLÉ: vecteur-colonne, m

The attributes “deprecated in this sense”, “obsolete” and “superseded” shall not be used; instead use the prefix “DEPRECATED:” together with an explanation in a note to entry.

## EXAMPLE 2

**845-02-28**  
**brightness**  
 DEPRECATED: luminosity  
 attribute of a visual sensation according to which an area appears to emit more or less light  
 Note 1 to entry: The term “luminosity” is obsolete.

**SK.3.1.3.6 Attributes to the terms****SK.3.1.3.6.1 Presentation**

The attributes follow the term, on the same line. They shall be separated from the term by a comma, and shall be separated from each other by a space. The attributes are rendered in lightface type.

A table giving the complete list of attributes, with examples, is given in SK.5.

### SK.3.1.3.6.2 Grammatical information

The gender (f, m or n) shall be indicated if applicable for the language (see SK.5). The number (sg or pl) and word class (adj, adv, noun or verb) of all terms shall be indicated with the exception that the attribute “noun” is only necessary in English to distinguish a term from a non-noun homograph (e.g. the term “transient” can be both an adjective and a noun) and, in French, it is not necessary if the gender is indicated (since then it is implicit: only nouns have a gender). In French, if both genders are possible, if necessary indicate “nom”.

Do not use the attribute “qualifier” (in French: “qualificatif”). Instead, word the definition in such a way that it is clear that the term is a qualifier [e.g. start the definition using an expression such as “qualifies ...” (in French: “qualifie ...”) or “pertaining to ...” (in French: “relatif à ...”)]. Provide any additional information in a note to entry.

EXAMPLE

<p><b>harmonique</b>, m</p> <p><b>eddy currents</b>, pl</p> <p><b>transient</b>, adj</p> <p><b>transient</b>, noun</p>
--

### SK.3.1.3.6.3 National variant

A national variant shall be indicated by the alpha-2 country code(s), specified in ISO 3166, representing the country (or countries) in which the variant is used. The code is placed after the term or the previous attribute, if any. See the examples in SK.3.1.3.4.2 and SK.5.

## SK.3.1.4 Definitions

### SK.3.1.4.1 Characteristics expressed

A definition shall be simple, clear, and relatively short. It shall, however, completely describe the concept from the viewpoint of the electrical engineer. This implies that the definition shall contain all the characteristics of the concept necessary and sufficient to enable the concept considered to be well understood and its boundaries to be defined.

Preference should be given to functional characteristics rather than to constructional aspects.

A definition shall not take the form of, or contain, a requirement.

A definition shall describe what a concept is, not what it is not except when the absence or the non-existence of a characteristic is essential to the understanding of a concept, in which case a negative form is required.

EXAMPLE

<p><b>131-11-19</b></p> <p><b>non-linear</b>, adj</p> <p>qualifies a circuit element or a circuit for which not all relations between the integral quantities are linear</p>
--

### SK.3.1.4.2 Drafting

The definition shall have the same grammatical form as the term. Thus, to define a verb, a verb shall be used; to define a noun in the singular, the singular shall be used. In the case of adjectives, it is often essential to indicate in the definition to which objects the concept applies. The definition then begins with “qualifies ...” or “pertaining to ...” (see SK.3.1.3.6.2).

Unless there is a specific reason, the definition shall not begin with an article.

The definition shall not begin with an expression such as “term used to describe” or “term denoting”.

The term designating the concept shall not be repeated in the definition.

A definition shall remain comprehensible even when separated from the context (subject field, title of the IEV part and section, neighbouring entries) in which it appears. In particular, for terminological entries given in standards, a definition shall not rely on general explanations, for example in the foreword.

A definition shall consist of a single phrase, which should be as short as possible, shall be built in view of future possible translations into additional languages and shall follow plain syntax rules.

The form of a definition shall be such that it can replace the term in the context where the term appears. Additional information shall be given only in the form of examples or notes to entry.

Circularities shall be avoided. (For further information on circular definitions, see ISO 704.)

Except in subject fields in which non-verbal representations are conventionally used instead of a definition, a concept shall not be defined only by a figure or a formula, although a formula may be an essential element of a definition.

#### EXAMPLE 1

##### 113-01-32

*v*

##### **velocity**

vector quantity  $v = dr / dt$ , where *r* is position vector and *t* is time

Note 1 to entry: The velocity is related to a point described by its position vector. The point may localize a particle, or be attached to any other object such as a body or a wave.

Note 2 to entry: The velocity depends on the choice of the reference frame. Proper transformation between frames must be used: Galilean for non-relativistic description, Lorentzian for relativistic description.

Note 3 to entry: The coherent SI unit of velocity is metre per second, m/s.

Figures, formulae and other forms of non-verbal representation which are not an essential element of a definition may be given to help to make clear a simplified definition. Such non-verbal representations shall be placed following the definition (see SK.3.1.5).

#### EXAMPLE 2

##### 131-12-29

*Λ*

##### **perméance, f**

pour un élément réductant, quotient du flux magnétique  $\Phi$  par la tension magnétique  $V_m$

$$\Lambda = \frac{\Phi}{V_m}$$

Note 1 à l'article: La perméance est l'inverse de la réductance (131-12-28).

Note 2 à l'article: L'unité SI cohérente de perméance est le henry, H.

Note 3 à l'article: Dans un circuit équivalent électrique, les perméances sont représentées par des conductances, les flux magnétiques par des courants électriques et les tensions magnétiques par des tensions électriques.

### SK.3.1.4.3 Terms used in definitions

Technical terms appearing in a definition should be defined either in the IEV, or in another authoritative publication. If there is more than one term for a concept (see SK.3.1.3.4), the

entry term shall be used in other definitions. It is useful to add between parentheses the entry number of the concept that the term designates (in the Electropedia, the cross-reference to the entry may be replaced by a hyperlink). If the term is defined in another document, precede the entry number by a dated reference to the reference document.

#### EXAMPLE

Term defined in the same document (in this case the IEV):	<b>electrolytic conductivity</b> <i>conductivity</i> (121-12-03:1998) of an electrolyte
Hyperlink to the entry (in this case in the Electropedia):	<b>electrolytic conductivity</b> <a href="#">conductivity</a> of an electrolyte
Term defined in another document:	<b>tie stick</b> <i>hand stick</i> (IEC 60743:2001, 2.5.2) used to bind or unbind a conductor to or from an insulator

### SK.3.1.4.4 Style and form

The style and form shall be as uniform as possible throughout all IEC terminology.

Drawings, diagrams, graphs and formulae may be used when they provide for a better understanding of the text. Letter symbols used for quantities or units shall be in accordance with the relevant standards, in particular with the IEC 60027, IEC 80000 and ISO 80000 series.

The meaning of all letter symbols used in a definition shall be explained. It is not necessary to explain the meaning of SI units and common mathematical functions and operators. Meanwhile, in both cases, if the letter symbol or unit is defined in another entry, it is useful to add between parentheses the entry number (in the Electropedia, the cross-reference to the entry may be replaced by a hyperlink).

When graphical symbols are used, they shall be in accordance with the relevant IEC standards, in particular with the IEC 60617 DB.

Abbreviated terms defined in the IEV need not be explained provided that a cross-reference to the entry is given; those not already defined in the IEV shall be explained.

### SK.3.1.4.5 Languages

The meaning shall be identical in all languages present, although it may be expressed differently to conform to the rules and structure of each language.

In the IEV, the definition of a concept shall be given in at least two of the principal IEV languages, i.e. French, English and Russian.

### SK.3.1.4.6 Presentation of the definitions

The words in a definition shall be rendered as they would appear in the middle of a sentence, i.e. letters normally appearing in lower case shall remain in lower case (this applies in particular to the first letter of the definition). The definition shall not end with a full stop, unless this forms part of the last word.

### SK.3.1.5 Non-verbal representations

Non-verbal representations shall be placed following the definition.

In subject fields in which non-verbal representations are conventionally used instead of a definition, non-verbal representations shall be placed following the term(s) (i.e. in place of the definition).



EXAMPLE

<b>393-14-09</b> u <b>unified atomic mass unit</b> $1\text{ u} = 1,660\ 54 \times 10^{-27}\text{ kg}$
--

It is necessary to differentiate between a formula that is an essential element of a definition (as described in SK.3.1.4.2 and illustrated in example 1 of SK.3.1.4.2) and that used as a non-verbal representation (as illustrated in the example above and example 2 of SK.3.1.4.2).

Where a non-verbal representation is referred to in more than one terminological entry either it shall be repeated in every terminological entry or it shall be referred to by the string “SEE:” followed by a reference to the place in the document or database where it appears. The use of “SEE:” can also be useful for cases where non-verbal representations are large and where it is considered useful to group all non-verbal representations (e.g. in a particular clause of a document or in a place in a database reserved for non-verbal representations).

Since each terminological entry is autonomous, figures, tables, formulae, etc. shall in principal be numbered per entry, starting from 1.

EXAMPLE 1

**732-06-01**

**firewall**

functional unit that mediates all traffic between two networks and protects one of them or some part thereof against unauthorized access

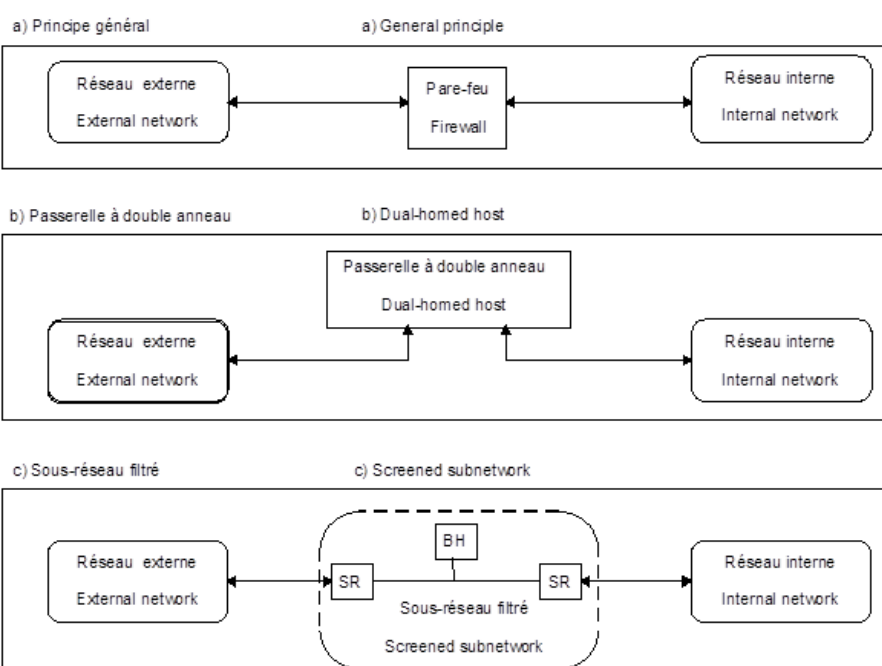
SEE: Figure 1.

Note 1 to entry: The protected network is generally a private network, internal to an organization.

Note 2 to entry: A firewall may permit messages or files to be transferred to a high-security workstation within the internal network, without permitting such transfer in the opposite direction.

Note 3 to entry: The firewall may have different types of implementation. Examples are dual-homed-host, screened subnet, screening router, or bastion host.

Figure 1 is a “shared” non-verbal representation for entries 732.06.01, 732.06.02, 732.06.03, 732.06.04 732.06.05:



IEC 1137/10

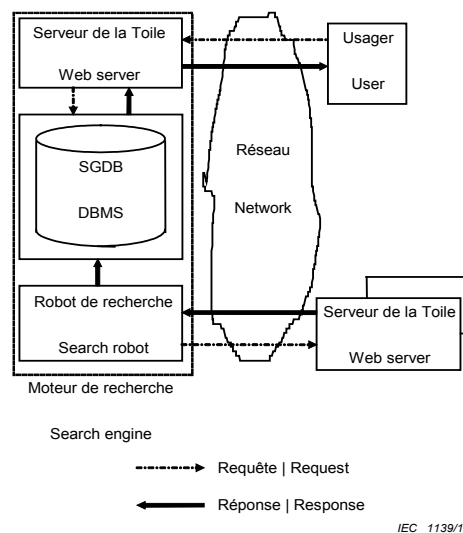
**Figure 1 — Fire wall**

To allow for text-only readers, an ALT text should be provided for all image-based (as opposed to character-based) content (see example 2).

## EXAMPLE 2

**732-07-19****search robot  
knowledge robot  
knowbot**

component of a search engine that collects data from Internet resources and stores them in a database



**Figure 1 – Example of interactions of users, search engines, and Web servers**

<img src="" alt="A user sends a request to a Web server which is part of a search engine. The Web server forwards the request to a database management system (DBMS), which finds links for the users' keywords and returns it back to the user via the Web server. The database is fed by the search robot, which reads the content of public Web pages at regular intervals and follows all available links between pages. The search robot acts like an ordinary Web user. The DBMS indexes all texts and links found by the search robot for full text and hypertext access.">

**SK.3.1.6 Examples**

In certain cases, it may be necessary or useful to add one or more examples to the definition. The text of an example shall be preceded by the text "EXAMPLE" (in French: "EXEMPLE"). Several examples within the same entry shall be designated "EXAMPLE 1", "EXAMPLE 2", "EXAMPLE 3", etc. (in French: "EXEMPLE 1", "EXEMPLE 2", "EXEMPLE 3", etc.).

## EXAMPLE

**722-01-15****logatom**

phonetic element, chosen without inherent meaning, for use in telephony, consisting of a vowel sound preceded and followed by a consonant sound or a consonant combination sound

EXAMPLE BALP, KID, FROP.

[SOURCE: CCITT Red Book, Volume V, 1960, pages 74 and 75]

**SK.3.1.7 Notes to entry****SK.3.1.7.1 General**

In certain cases, it may be necessary or useful to add one or more notes to entry. These may be used, for example,

- to add further explanations, details or special cases which may give additional information about the concept and assist to understand it (see examples 1 and 2),
- to point out deviations from earlier definitions or differences between the definitions being adopted and other definitions,
- to add a reference to another IEC entry number under which the entry was published previously (see example 2),
- to add references to homographs (see example 2 in SK.3.1.3.5.5 and example 1 in SK.3.1.3.5.6),
- to draw attention to linguistic or etymological peculiarities,
- to explain the reasons for the deprecation of a term, synonym or symbol (see example 2 in SK.3.1.3.5.8),
- to explain the derivation of an abbreviated form (see example 3), and
- to specify the units in which a quantity is expressed (see example 1).

EXAMPLE 1

**131-12-28**

**reluctance**

for a reluctant element, quotient of the magnetic tension  $V_m$  by the magnetic flux  $\Phi$

$$R_m = \frac{V_m}{\Phi}$$

Note 1 to entry: The reluctance is the reciprocal of the permeance.

Note 2 to entry: The coherent SI unit of reluctance is henry to the power minus one,  $H^{-1}$ .

EXAMPLE 2

**351-41-01**

**variable quantity**

**variable**

physical quantity the value of which is subject to change and can usually be measured

Note 1 to entry: The term "variable" alone is frequently used to circumvent the lengthy but correct designation "variable quantity".

Note 2 to entry: See also IEC 60050-112 :2010, 112-01-01.

Note 3 to entry: This entry was numbered 351-21-01 in IEC 60050-351:2006.

EXAMPLE 3

**3.1**

**système de gestion d'énergie**

**EMS**

système informatique comprenant une plate-forme logicielle offrant les services de support de base et un ensemble d'applications offrant les fonctionnalités requises pour le bon fonctionnement des installations de production et de transmission d'électricité afin d'assurer la sécurité adéquate d'approvisionnement énergétique à un coût minimal

Note 1 à l'article: L'abréviation « EMS » est dérivé du terme anglais développé correspondant « energy management system ».

The notes to entry shall be given in each of the languages present. If a note to entry applies to only one language and not to another language, the other language shall contain a note to entry which either provides a translation of the note together with an indication of the language(s) concerned [for example "In English, ..." (for clarity, it is useful to include the indication of the language in the notes in all language sections)] (see the example in SK.3.1.7.2) or states "Note # to entry: This note applies to the ... language only." (in French: "Note # à l'article: Cette note ne s'applique qu'à la langue ....").

The provisions of SK.3.1.4.3 and SK.3.1.4.4 are also applicable to the terms used in notes to entry.

### SK.3.1.7.2 Presentation of the notes to entry

A note to entry shall be placed under the definition, after any non-verbal representations and examples. Each note to entry consists of one or several “regular” (i.e. starting with a capital letter, and ending with a full stop) sentences, preceded by the text “Note # to entry:” (in French: “Note # à l'article:”), where # is an Arabic number starting at 1. A single note to entry shall be numbered (see example 3 in SK.3.1.7.1).

EXAMPLE

**191-06-08**

**up state**

state of an item characterized by the fact that it can perform a required function, assuming that the external resources, if required, are provided

Note 1 to entry: This state relates to availability performance.

Note 2 to entry: In French, the adjective “disponible” qualifies an item in an up state.

### SK.3.1.8 Sources

In some cases, it might be necessary to repeat a concept taken from another subject area, or from another authoritative terminology document (e.g. ISO/IEC Guide 99, ISO/IEC 2382 series, etc.), with or without modification to the definition (and possibly to the term).

The source of any repeated entry shall be introduced by the text “SOURCE:” (in both English and French) in lightface, and placed at the end of the entry:

SOURCE: {document reference} reference of the concept, { modified }

where

- **document reference** comprises the source of the document and the year of publication or the number of the edition; it is not necessary to include the document reference for entries repeated from the IEV,
- **reference of the concept** comprises the entry number of the concept (for entries repeated from the IEV, as specified in SK.2.1.5), and
- **modified** (where necessary) for those cases where the definition has been modified. If this is the case, the nature of the modifications and the reasons for them should be appended.

In documents, the source may be placed between square brackets. (In Annex SK examples showing both forms of presentation are provided.)

EXAMPLE

Source in the IEV:	SOURCE: IEC 60050-561:1991, 561-06-18, modified – By adding Note 1 to entry and Figure 1 to illustrate an apodization of IDT.
Source in a document:	[SOURCE: IEC 60050-702:1992, 702-08-04]
Source in a document:	[SOURCE: CISPR 22:2008, 3.5]

## SK.3.2 Basic terminology

General terms concerning standardization and certification are defined in ISO/IEC Guide 2.

Terms relating to quantities and units are specified in the IEC 60027 series, IEC 60050-113, IEC 60050-114, IEC 60050-121, IEC 60050-131 and many other parts of IEC 60050, and in the IEC 80000 and ISO 80000 series.

IEC 60050-112 and ISO 80000-1:2009, Annex A, cover in particular the use of some special terms such as:

- coefficient, factor, parameter, number, ratio, level, constant;
- massic ..., specific ...;
- volumic ..., ... density;
- lineic ..., linear ... density;
- areic ..., surface ... density.

General terms concerning safety are defined in ISO/IEC Guide 51.

Terms relating to measurements and measuring instruments are specified in ISO/IEC Guide 99 and in IEC 60050-300 which comprises Parts 311, 312, 313 and 314.

### **SK.3.3 Structure and layout of IEV documents**

#### **SK.3.3.1 General**

The overall structure and layout of IEV documents shall be in accordance with the ISO/IEC Directives, Part 2. An IEV document shall thus comprise the following elements as laid out in the ISO/IEC Directives, Part 2:

- Table of contents
- Foreword
- Introduction, indicating the principles and rules followed
- Scope
- Terms and definitions
- Annexes (as necessary)
  - figures
  - tables of symbols
- Bibliography (as necessary)
- Index (as necessary); can be useful for documents circulated as CD, CDV and FDIS, or for documents published separately from the Electropedia.

A template IEV.dot is available for the clause “Terms and definitions”. For all the other clauses, the template iecstd.dot applies. These templates are available from the IEC website (<http://www.iec.ch/>) in the section Standards development > TC/SC resource area > Drafting IEC publications.

#### **SK.3.3.2 Clause “Terms and definitions” – Structure and layout**

As mentioned in SK.2.1.5, a part is subdivided into a series of sections, each section comprising:

- a section header, in the principal IEV languages;
- a number of “entries” or “blocks”, each corresponding to a concept and identified by an entry number.

The individual presentation of the various elements of the entries is given in SK.3.3.1.

The arrangement of these elements within each “block” is given in Figure SK.1.

<b>Entry number</b> {letter symbol}	
<b>French entry term</b> {attribute(s)} {French synonym(s) {attribute(s)}}	
French definition {French non-verbal representation} {French examples} {French notes to entry} {[Source]}	
<b>English entry term</b> {attribute(s)} {English synonym(s) {attribute(s)}}	
English definition {English non-verbal representation} {English examples} {English notes to entry} {[Source]}	
<b>Russian entry term</b> {attribute(s)} {Russian synonym(s) {attribute(s)}}	
Russian definition {Russian non-verbal representation} {Russian examples} {Russian notes to entry} {[Source]}	
ar	<b>Arabic entry term</b> {attribute(s)}; {syn. {attribute(s)}}; ...
cz	<b>Czech entry term</b> {attribute(s)}; {syn. {attribute(s)}}; ...
de	<b>German entry term</b> {attribute(s)}; {syn. {attribute(s)}}; ...
es	<b>Spanish entry term</b> {attribute(s)}; {syn. {attribute(s)}}; ...
fi	<b>Finnish entry term</b> {attribute(s)}; {syn. {attribute(s)}}; ...
it	<b>Italian entry term</b> {attribute(s)}; {syn. {attribute(s)}}; ...
ja	<b>Japanese entry term</b> {attribute(s)}; {syn. {attribute(s)}}; ...
no	<b>Norwegian entry term</b> {attribute(s)}; {syn. {attribute(s)}}; ...
pl	<b>Polish entry term</b> {attribute(s)}; {syn. {attribute(s)}}; ...
pt	<b>Portuguese entry term</b> {attribute(s)}; {syn. {attribute(s)}}; ...
sl	<b>Slovenian entry term</b> {attribute(s)}; {syn. {attribute(s)}}; ...
sr	<b>Serbian entry term</b> {attribute(s)}; {syn. {attribute(s)}}; ...
sv	<b>Swedish entry term</b> {attribute(s)}; {syn. {attribute(s)}}; ...
zh	<b>Chinese entry term</b> {attribute(s)}; {syn. {attribute(s)}}; ...

NOTE 1 The signs { and } mark optional elements.

NOTE 2 The terms in additional IEV languages are placed at the end of the “block” (one single line for each language), preceded by the ISO 639 alpha-2 code for the language considered, and in the alphabetic order of this code. The synonyms are separated by semicolons. In the case of homographs in an additional IEV language, it is possible to append a cross-reference to the entry containing the homograph (see example 3 in SK.3.1.3.5.6).

NOTE 3 When the IEC cooperates with other international organizations for publishing some parts of the vocabulary including more than the three principal languages or other additional languages, the above-mentioned layout may be changed accordingly.

NOTE 4 In the final publication, the “entries” or “blocks” are generated as snapshots from the Electropedia.

**Figure SK.1 – Arrangements of the elements within a block (all elements shown)**

### SK.3.3.3 Clause “Terms and definitions” – Structure and layout for drafts

The arrangement of the elements is specified in the ISO/IEC Directives, Part 2.

## **SK.4 Procedures for the preparation of the IEV parts**

### **SK.4.1 General – Technical Committee No. 1 responsibility**

IEC/TC 1, *Terminology*, has the overall responsibility for preparing the International Electrotechnical Vocabulary.

However, in a number of cases (more than 50 % of the projects), the work is initiated by another technical committee, and carried out in a working group belonging to that TC, but still under the responsibility of IEC/TC 1. A close cooperation shall then be established between that TC and IEC/TC 1, the present clause giving the rules to be followed in such a case. In particular, the first Committee Draft is distributed by the initiating technical committee and the subsequent drafts, although prepared by the same Working Group, by IEC/TC 1.

When a part does not correspond to the scope of a single technical committee, its preparation is entrusted to IEC/TC 1. This applies particularly to the parts of Class 1, General concepts, and to those of Class 7, Telecommunications.

### **SK.4.2 Database procedure**

The IEV is managed in accordance with the IEC Supplement, Annex SL, *Procedures for the maintenance of the IEC standards in database format*.

### **SK.4.3 Development of projects (New work)**

(See ISO/IEC Directives, Part 1, and the IEC Supplement, Annex SL)

#### **SK.4.3.1 Proposal (NP) stage**

(See ISO/IEC Directives, Part 1, and the IEC Supplement, Annex SL)

The new work item proposal (NP) and report on voting are circulated with a reference of the initiating TC/SC. If accepted, the project is assigned to IEC/TC 1.

Where a part is relevant to several technical committees, the Chair and secretary of IEC/TC 1 may, after consulting with the Chairs and secretaries of the technical committees concerned, assign the project to IEC/TC 1/WG 100, *Fundamental concepts*, or set up a new working group directly under the responsibility of IEC/TC 1.

#### **SK.4.3.2 Preparatory stage**

(See ISO/IEC Directives, Part 1, and the IEC Supplement, Annex SL)

The project team or working group shall, within the framework of the task it has been assigned:

- define the field of the terminology to be studied, state its limits and any possible overlap with other IEV parts;
- list the concepts to be defined;
- classify the concepts in a logical order and number them;
- verify, by looking in the Electropedia and checking with the secretariat of IEC/TC 1 (who will provide information for concepts at draft stage) that these concepts have not already been defined in another IEV part: should this be the case, the existing definition should be used. A definition may only be changed if it is:
  - incorrect or unsatisfactory, or
  - rendered obsolete because of further developments.



This shall be indicated in the corresponding entry of the new project by the mention “modified”<sup>4</sup> in the source field (see SK.3.1.8).

- give a definition in French, English and Russian; when the Russian Federation is not represented in the working group, the Russian term(s) and definition may be provided at the FDIS stage (see SK.4.3.5) by the National Committee of the Russian Federation, using the French and English definitions as a basis for translation;
- establish, on behalf of its technical committee, the first committee draft (CD).

This first CD, as well as the subsequent drafts shall be bilingual (French and English).

The following points shall be noted.

- It is essential to request the presence of a representative of the secretariat of IEC/TC 1 to attend the first meeting of the project team or working group and all other important meetings in order to ensure that the work is correctly developed; this representative will ensure that the general rules are followed, ensure effective coordination with other IEV parts, and, with the aid of the IEC Central Office, if necessary, establish liaisons with ISO and other international organizations (ITU, CIE, UIC, IUPAP, etc.).
- It is essential to work in at least two languages; for instance, the obligation to prepare immediately in English a definition proposed in French (or vice versa) will ensure a more precise definition; a definition checked by a group of experts is better than a translation made subsequently by a single person; translation into a third language is simplified when a bilingual definition exists. In practice, it is therefore essential that every working group comprise at least one expert of French mother tongue and one expert of English mother tongue.
- As already mentioned in SK.2.1.3, the terms shall be chosen and the definitions of the concepts written with a view to their further integration into a dictionary in which the logical order of every IEV part may not be visible.

#### **SK.4.3.3 Committee (CD) stage**

(See ISO/IEC Directives, Part 1, and the IEC Supplement, Annex SL)

The committee draft (CD) and associated compilation of comments are circulated with a reference of the initiating TC.

#### **Follow-up of a CD**

- a) If there are substantial comments, the convenor of the project team or working group shall call an “enlarged meeting”, and invite, in addition to the project team or working group members:
- the Chair and the secretary of the technical committee entrusted with the part;
  - the Chair and the secretary of IEC/TC 1;
  - a representative of every National Committee which has made important comments on the draft or which may be interested in this draft (even if the National Committee has already appointed an expert to the PT/WG);
  - a representative of other international organizations concerned;
  - a Central Office Technical Officer.

For this meeting the convenor of the project team or working group shall prepare a term-by-term compilation of the comments received, on which he (or she) may mention the action he (or she) proposes for each comment.

<sup>4</sup> In that case, it is up to the secretary of IEC/TC 1 to examine, together with the PT/WG convenors and TC Secretaries concerned, whether a revision of the source definition is needed.

b) This “enlarged meeting” shall lead to proposals on how to deal with the comments received, i.e.

- submission of the document, with or without amendments, to the secretariat of IEC/TC 1 for circulation as enquiry draft (CDV) (see SK.4.3.4);
- preparation of a new committee draft for comments.

These proposals, together with a version of the compilation of comments marked up with the decisions taken during the “enlarged meeting” are then forwarded to the secretary of IEC/TC 1 by the convenor of the project team or working group (subject to the agreement of his (or her) technical committee, if appropriate).

c) The decision to circulate an enquiry draft shall then be taken by the Chair of IEC/TC 1, in consultation with the secretary of IEC/TC 1, taking into account these proposals, and on the basis of the consensus principle (see ISO/IEC Directives, Part 1). The document shall then be forwarded to IEC Central Office by the secretary of IEC/TC 1, with the request that the draft be distributed as an enquiry draft (CDV) (see SK.4.3.4).

d) If necessary, the procedure described in a) to b) above shall be repeated until the draft is ready for submission to National Committees for approval as an enquiry draft (CDV).

#### **SK.4.3.4 Enquiry (CDV) stage**

(See ISO/IEC Directives, Part 1, and the IEC Supplement, Annex SL)

#### **SK.4.3.5 Approval (FDIS) stage**

(See ISO/IEC Directives, Part 1, and the IEC Supplement, Annex SL)

In order to expedite the publication process, and unless the secretariat of IEC/TC 1 informs IEC Central Office that the FDIS is likely to be rejected (in which case the Central Office shall wait until the end of the voting period), at the same time as the FDIS is distributed, the IEC Central Office shall send this FDIS to the National Committee of the Russian Federation to obtain the Russian version of the FDIS, as well as to the National Committees in charge of the additional IEV languages.

These National Committees shall return their translations within six months, in accordance with the instructions provided by the IEC Central Office:

	NC Russian Federation	NCs in charge of additional languages
<b>Section header</b>	X	
<b>Term</b>	X	X

The secretariat of IEC/TC 1 shall send as soon as possible (and anyhow before the end of the period allowed for the translations) the “final version” of the document, in French and English, to the IEC Central Office.

#### **SK.4.3.6 Publication stage**

(See ISO/IEC Directives, Part 1, and the IEC Supplement, Annex SL)

The problem of the translations into Russian and additional IEV languages is dealt with in SK.4.3.5 above. If the translations are not available within six months (or any longer period that the secretariat may specify in the case of exceptionally long documents, or when the six months' period covers a holiday period), which follow the date at which the FDIS was sent to the National Committee responsible for the translation, the IEV part concerned will be published without the missing translation.

The checking of the printer's proof, if necessary after importation into the database by the IEC Central Office, is then ensured in parallel:

- by the IEC Central Office;
- by the secretariat of IEC/TC 1, with the help of the convenor of the working group and the members of the Editing Committee;
- by the National Committees concerned for the other languages.

The terms and definitions in the Russian language, and the terms in the additional languages shall be in accordance with the decisions of the National Committees concerned, and shall not be subject to change or deletion by IEC/TC 1 or by IEC Central Office without consultation of the National Committee concerned (this is valid in particular for possible corrigenda).

#### **SK.4.4 Revision of IEV parts or sections**

The revision of each IEV part shall be included in the programme of maintenance of IEC/TC 1 publications. This programme is prepared by IEC/TC 1, in consultation, when appropriate, with the technical committees concerned. It is then included in the Strategic Business Plan, and is subject to approval by the Standardization Management Board.

If the revised part has the same reference number, to avoid confusion between references to the old and new entries, the section numbers of the revised part shall be different from those of the existing part (for example by adding 10 or 20).

#### **SK.4.5 Amendments**

If the concepts concerned are deemed to be of interest for several Parts, IEC/TC 1/WG 100 *Fundamental concepts* (or other "horizontal" WGs such as TC 1/WG 446, *Electrical relays*, as appropriate) is consulted, and advantage can be taken of the meeting of IEC/TC 1/WG 100 in conjunction with the IEC/TC 1 plenary meeting to expedite the treatment of this update.

In the case of the addition of new entries, these entries are given numbers following the last one in the existing section(s) concerned, irrespective of the logical order in which they should appear in the section(s). The logical order will be restored on the occasion of a subsequent revision or of a new edition of the part.

#### **SK.4.6 Cancellation of IEV parts or sections**

Sometimes, a revised part or a new part does not correspond exactly with an existing part, but involves the cancellation of one or more sections belonging to one or more existing parts. Such a cancellation of sections or parts shall be explained in detail in the Foreword of the new part and, for the individual entries concerned, a reference to the other IEV entry number under which the entry was published previously shall be added (see SK.3.1.7.1).

It may also occur that an existing part (or whole sections of a part) has become obsolete.

It is then the responsibility of the secretariat of IEC/TC 1 to ask for cancellation of this part or of these sections (after consultation of the technical committee concerned, if appropriate) by requesting the IEC Central Office to circulate a formal enquiry to the National Committees.

#### **SK.4.7 Cooperation with other international organizations**

It may happen that certain parts of the IEV are of interest not only to the IEC, but also to other international organizations such as ISO, ITU, CIE, UIC, UIE, etc. In such cases, the Chair and secretary of IEC/TC 1 shall propose the setting up of a working group composed of members of the IEC technical committees concerned as well as members of the other international organization. Details of the procedure will be laid down by IEC/TC 1 in each individual case.

EXAMPLE Part 845: *Lighting*, has been prepared together by the IEC and CIE (International Commission on Illumination). The drafts of Sections 7, 8 and 10 have been prepared by a working group comprising experts from IEC/TC 34: *Lamps and related equipment*, while the other sections have been prepared under the aegis of the CIE. Since German is one of the official languages of the CIE, all the definitions are given in four languages.

#### **SK.4.8 Terminologies specific to technical committees**

A technical committee may also develop specialized “glossaries”, for the purposes of its own publications, glossaries to be included in the “terms and definitions” clause of its own standards or in an independent Standard or Technical Report. The concepts defined in such glossaries shall be restricted to the field corresponding to the scope of the standard or of the TC.

The TC shall of course make sure that the terms and definitions included in these glossaries are consistent and not in contradiction with the relevant concepts of the IEV, and that the necessary coordination measures have been taken in liaison with IEC/TC 1.

These glossaries may also include terms taken directly and without modification from the IEV.

If the TC considers that some of its existing specialized terms and definitions should be given a more general validity and included in the IEV, it shall inform the secretariat of IEC/TC 1, in order to begin the process. If approval is granted, the procedures defined in SK.4.3, SK.4.4 or SK.4.5 are applicable.

## SK.5 List of data categories and attributes

Data category	Applicability	Subclause	ISO 10241-1:2011	Examples	
				French	English
<b>Entry number</b>	Mandatory	SK.3.1.1	6.1	IEV: 161-01-22	Standard: 3.1
<b>Letter symbols</b>	If applicable	SK.3.1.2	6.3	m	$R_m$
<b>Preferred terms, synonyms and abbreviated forms</b>	In the order of preference	SK.3.1.3	6.2	modulation d'impulsions en durée, f MID, f modulation d'impulsions en largeur, f	pulse duration modulation PDM
<b>Deprecated or obsolete synonyms</b>	If applicable	SK.3.1.3.4.4, SK.3.1.3.5.8	6.2	DÉCONSEILLÉ: vecteur-colonne, m	DEPRECATED: pulse width modulation
<b>Specific use of the term</b>	If needed	SK.3.1.3.5.5	–	rang, <d'un harmonique> m	Laplacian, <of a scalar field>
<b>National variant</b>	If needed	SK.3.1.3.4.2, SK.3.1.3.6.3	6.2.3.5	unité de traitement, f CA	grounding inductor, US
<b>Grammatical information:</b>					
– gender	Mandatory (if applicable for the language)	SK.3.1.3.6.2	6.2.3	diaphragme, m	
– number	If needed			courants de Foucault, m pl	eddy currents, pl
– word class	Mandatory <sup>a</sup>			sous-ensemble, m	subset
				transitoire, nom	transient, noun
				transitoire, adj	transient, adj
				automatiser, verbe	automate, verb
<b>Non-verbal representation</b>	If needed	SK.3.1.5	6.5	VOIR: Figure 1	SEE: Figure 1
<b>Example</b>	If needed	SK.3.1.6	6.6	EXEMPLE BALP, KID, FROP.	EXAMPLE BALP, KID, FROP.
<b>Note to entry</b>	If needed	SK.3.1.7	6.7	Note 1 à l'article: En anglais, le terme « static characteristic » désigne aussi la caractéristique statique des tubes électroniques (531-18-04) et des sources de courant de soudage à l'arc (851-12-32).	Note 1 to entry: Other static characteristics are defined in English for electronic tubes (531-18-04) and for arc welding power sources (851-12-32).
<b>Source</b>	If applicable	SK.3.1.8	6.8	SOURCE: CEI 62127-1:2007, 3.54, modifié	SOURCE: IEC Guide 104:2010, 3.2

<sup>a</sup> The attribute "noun" is only necessary in English to distinguish a term from a non-noun homograph (e.g. the term "transient" can be both an adjective and a noun). In French, the attribute "noun" is not necessary if the gender is indicated (since then it is implicit: only nouns have a gender).

## **Annex SL** (normative)

### **Procedures for the maintenance of the IEC standards in database format**

#### **SL.1 Introduction**

This Annex of the IEC Supplement to the ISO/IEC Directives describes procedures for the maintenance of any international standard consisting of “collections of items” managed in a database. This may include graphical symbols of all kinds, sets of definitions, sets of dimensions, dictionaries of data element types with associated classification schema and other standards in which collections of objects require maintenance (addition or amendment) on a continual basis. Therefore, neither separate new work item proposals (NP) nor review reports (RR) are required.

Supplementary procedural information, requirements or criteria that apply to particular standards database(s) can be described in separate document(s) within the domain of the responsible technical committee or subcommittee. These supplementary documents should not be in conflict with the ISO/IEC directives.

#### **SL.2 Procedures**

##### **SL.2.1 Overview**

The procedures described in this document are based on the use of a web-accessible database and electronic communication. The prescribed throughput time for maintenance/validation can only be achieved by means of electronic communication.

The procedures are in three parts: firstly the preliminaries, followed by either the normal database procedure or the extended database procedure.

Figure SL.1 provides an overview of the procedures.

##### **SL.2.2 Preliminaries**

This is the initial part of the maintenance procedures that shall be completed for every Change Request (CR) and consists of the following stages.

##### **Initiation of Change Request (CR)**

Entering of a CR with the required information in a web-accessible database by an authorized person or body also referred to as “proposer”.

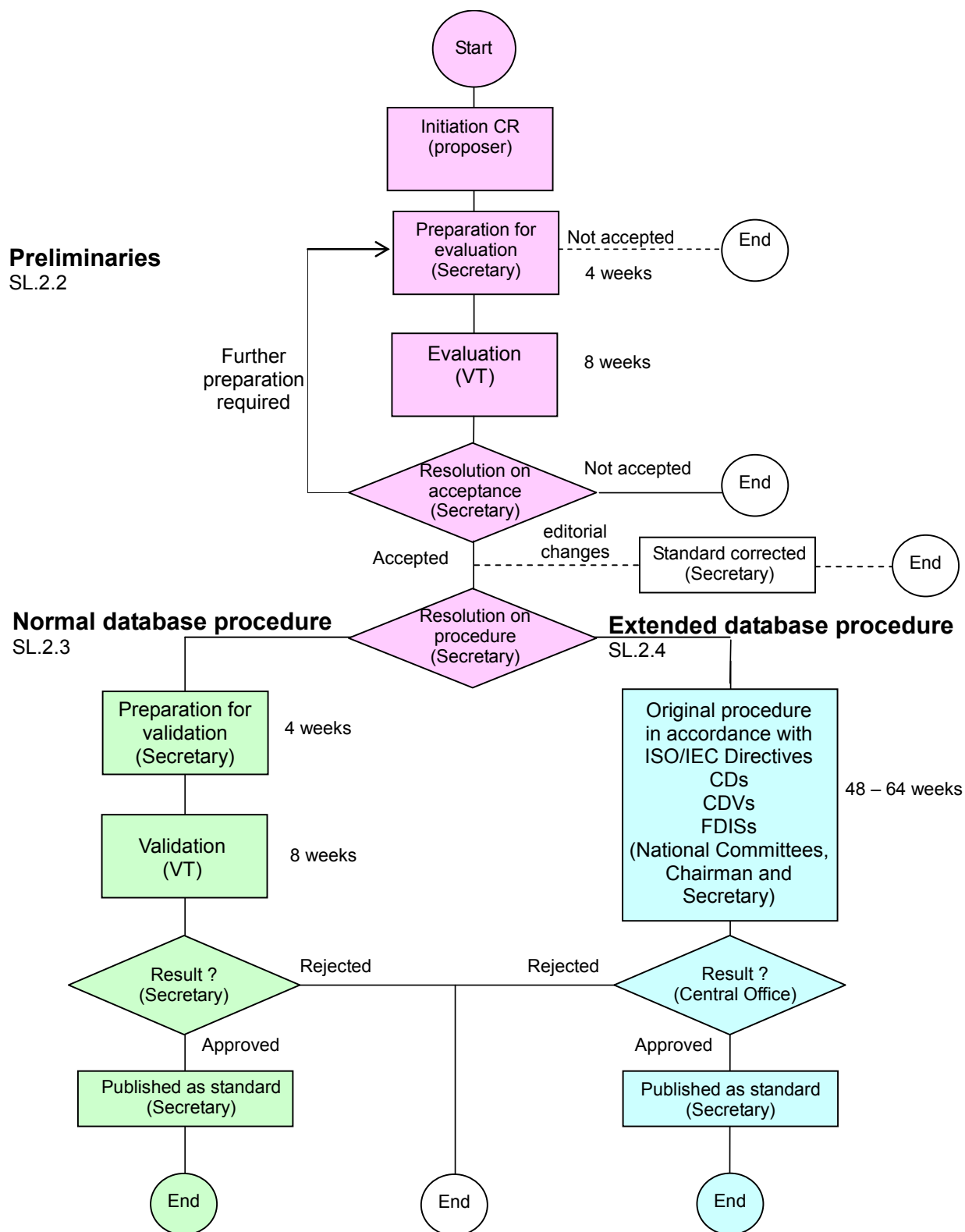
##### **Preparation for evaluation**

Preparation by the secretary of the technical committee or subcommittee (TC/SC) to ensure that all mandatory entries of the CR are appropriately filled in and that any associated graphics is of a quality sufficient for evaluation, although it need not have final quality.

NOTE 1 More detailed rules applicable to a specific standard can be provided by the TC/SC in charge of the standard.

If required, a Maintenance Team (MT) may be set up to assist the secretary in the preparation activities. When established, the MT has a one to one relation to a “database-based standard”

(referred to in the procedure as “database standard”) and consists of members with expertise to assist the secretary in managing the maintenance of this database standard.



**Figure SL.1 – Overview of the procedures**

NOTE 2 The time required for preparation work should normally not exceed 4 weeks, but might exceptionally be longer if the original proposal is not mature enough. In such a case the preparation is comparable to “stage 0” work and the time has to be counted from final agreement with the proposer.

## Evaluation of the CR

Action by the Validation Team (VT) to determine whether the CR is within the scope of the database and valid for further work or should be rejected.

When the quality of the information provided at the preparation stage is satisfactory, the status level of the CR is changed to *for evaluation* and the VT is informed (with copies to the proposer and possibly other relevant TCs) and asked by the secretary to make an evaluation and to comment.

The commenting is comparable to the commenting on a CD.

The evaluation of the CR should be completed within 8 weeks.

## Resolution

Observation by the TC/SC secretary on the comments and general opinions of the members of the VT followed by the conclusion whether the CR should be

- continued with the *normal database procedure*, or
- continued with the *extended database procedure*, or
- improved and *re-evaluated*, or
- *rejected* altogether.

NOTE 3 The entry of a new item in the database is not to be seen as “new work”, but rather as part of the continuous maintenance of the existing collection. Therefore, to arrive at a conclusion, a simple majority of the submitted votes can be used at the evaluation stage, applying the choice between continuation/rejection as well as between normal/extended procedure.

NOTE 4 If the original CR references many items, and if some of these might be acceptable for continuation with the normal database procedure while others are not, the original CR might be divided into two or more new CRs and processed separately. Such new CRs start at the status level already achieved.

### SL.2.3 The normal database procedure

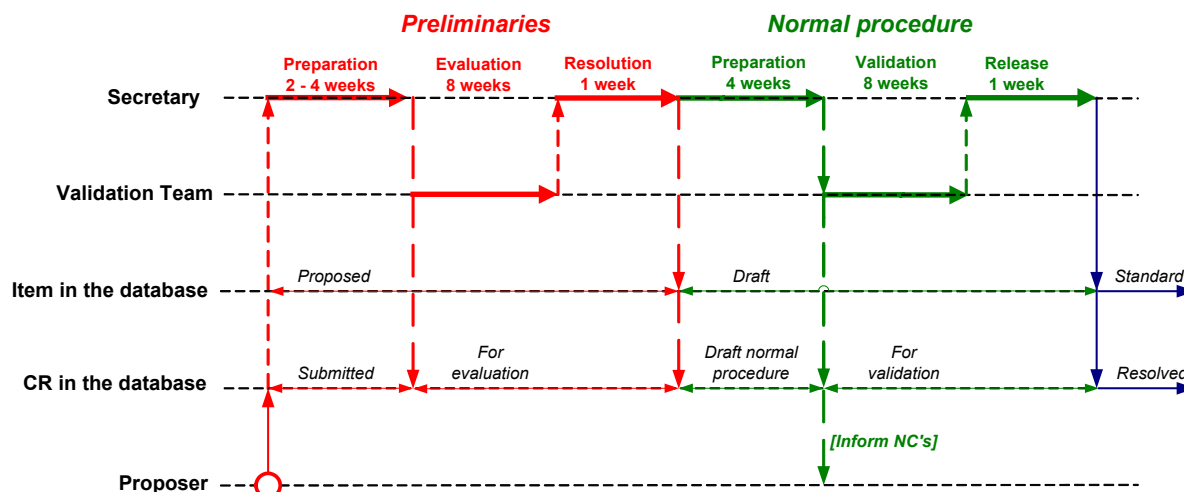
The normal database procedure is faster than the extended procedure as described in SL.2.4 and relies on the use of the Validation Team (VT) acting on behalf of the National Committees for the final voting on proposals.

The normal database procedure is typically applicable for changes to existing items and for new items within the boundaries of the existing domain of the database or in cases where there is an urgent need for standardization.

NOTE 1 More detailed rules applicable to a specific standard can be provided by the TC/SC in charge of the standard.

Figure SL.2 shows a process map of this procedure.





**Figure SL.2 – Process map of the normal database procedure including preliminaries**

### Preparation for validation

The TC/SC secretary revises the proposal in line with the comments received during the evaluation stage and checks that the item(s) associated with the CR are, after possible changes still sufficiently and properly described, within the scope of the database and consistent with items already existing in the database. If required, corrections are made. For this, the secretary might seek assistance from the Maintenance Team (MT) or from other internal or external experts. This preparation should be carried out within 4 weeks.

### Validation

When the quality of the information is satisfactory, the status level of the Change Request (CR) is changed to *for validation*, and the Validation Team (VT) called to vote by the secretary, with copies to the proposer, the P-members of the TC/SC and possibly other relevant TCs. Voting should be completed within 8 weeks.

If the proposed item(s) are accepted, the status level of the item(s) is changed to *standard*. If they are not accepted, then the reason(s) are noted in the remark and the status level of the item(s) is set to *rejected*.

The criteria applied are the same as those for the voting on a normal FDIS. Abstention from voting means that the vote is not counted.

NOTE 2 The rules for the obligation for P-members to vote are also the same as for a normal FDIS, which in consequence means that P-members have an obligation to appoint delegates to the Validation Team.

After setting the final status levels for the items and noting the reasons, the status level of the change request is set to *resolved*, and the procedure is finished (maximum 2 weeks).

With the normal database procedure it is possible for proposals to be approved within approximately 24 weeks.

### Report to the technical committee/subcommittee

The TC/SC secretary summarizes the set of items approved in accordance with the normal database procedure in a report to the TC/SC plenary meeting. At the plenary meeting all items standardized since the previous plenary meeting are presented.

## SL.2.4 Extended database procedure

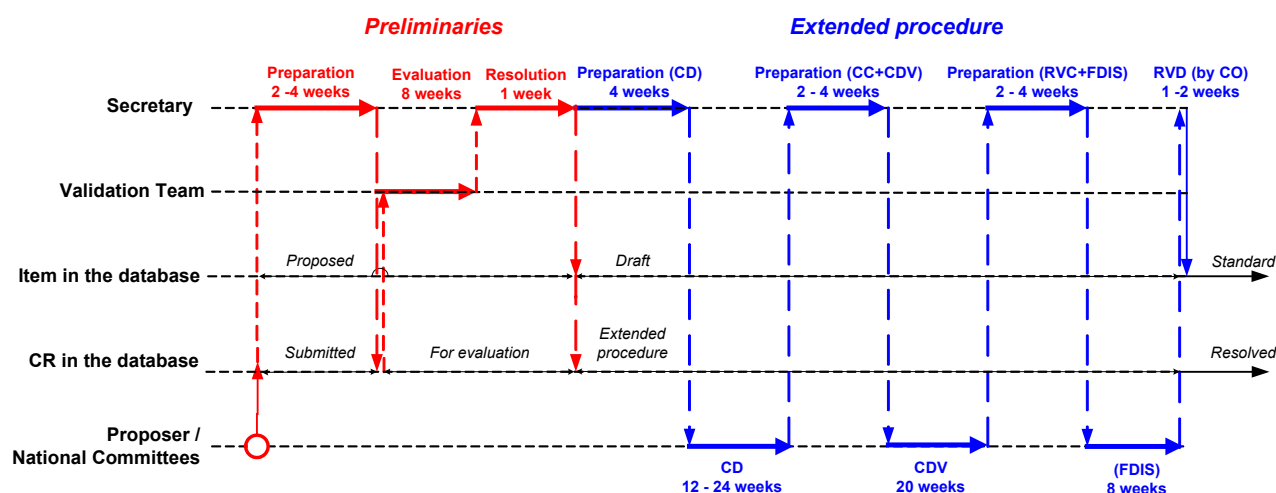
The extended database procedure respects all stages of the procedure described in the ISO/IEC Directives for the approval of standards as printed documents, the *original procedure*. The procedure involves the National Committees in the traditional way in which the different project stages are introduced by formal documents/messages to the National Committees. However, as with the normal procedure, the information in the database is considered as the original source of information.

NOTE 1 Such a formal document consists of the appropriate document cover page with a title referring to the relevant Change Request. Although not necessary, it might be helpful during a changeover period, to attach printouts from the database to these documents. This includes the printout of the Change Request and of all relevant items.

It is expected that, in the majority of cases, the normal database procedure will be followed and that the extended database procedure will only be rarely required.

The extended procedure is described below including all stages and associated throughput times. It is possible that there could be comments against an item, so that the CD or CDV stage might need to be repeated (as described in the ISO/IEC Directives, Part 1).

Figure SL.3 shows a "process map" with the different roles indicated along the vertical axis. This diagram highlights the flow, and indicates clearly when the different roles have to be active.



**Figure SL.3 – Process map of the extended database procedure including preliminaries**

A short description of each of the stages of the extended procedure is given below:

### Preparation (CD)

In the Preparation (CD) stage, the TC/SC secretary checks that the item(s) contained in the CR are sufficiently and properly described, and that comments received during the evaluation stage have been adequately reflected. Consequently, it should be checked that the item(s) are within the scope of the database and consistent with items already existing in the database. If required, corrections are made. The secretary might in this work seek assistance from the Maintenance Team (MT) or from other internal or external experts. The preparation (CD) stage should be carried out within 4 weeks.

**CD**

When the proposed item(s) are sufficiently well prepared, the secretary issues a formal CD document to the National Committees, informing them that the CR is available for commenting on the CD stage, within the normal time frame for CDs. Comments are to be submitted in the normal way (16, 12 or 8 weeks according to the ISO/IEC Directives, Part 1).

**Preparation (CC + CDV)**

The comments are compiled and made available as an ordinary compilation of comments (published on the web server). The item and its associated information are prepared for the CDV stage, taking note of the comments (maximum 4 weeks).

**CDV**

When sufficiently prepared, the secretary issues a formal CDV document to the National Committees that the item is available for commenting and voting for acceptance as an FDIS, within the normal time frame for a CDV (20 weeks according to the ISO/IEC Directives, Part 1).

**Preparation (RVC + FDIS)**

The comments are compiled and the votes counted and made available as an ordinary compilation of comments and result of voting on a CDV. The item and its associated information are prepared for the FDIS stage, taking note of possible purely editorial comments (maximum 4 weeks).

NOTE 2 If the CDV is unanimously approved, the contained items may be published directly after the preparation and circulation of the RVC, without circulation of an FDIS, in accordance with the original procedure.

**FDIS**

The secretary issues a formal FDIS document to the National Committees, that the item is available for voting for approval as an International Standard (IS), within the normal time frame for a FDIS (8 weeks according to the ISO/IEC Directives, Part 1).

NOTE 3 In accordance with the present IEC rules the FDIS stage might be omitted if the CDV is unanimously approved.

**RVD**

A voting report is prepared and published. If proposed item(s) are accepted, the status level of the item(s) is changed to *standard*. If they are not accepted, then the reason(s) are noted in the remark and the status level of the item(s) is set to *rejected*.

After completing setting the final status levels for the items and the reasons are noted, the status level of the change request is set to *resolved*, and the procedure is finished (maximum 2 weeks). With the extended database procedure it is possible for proposals to be approved within 60 weeks up to a maximum of 79 weeks.

**SL.2.5 Editorial changes to an existing item**

Proposed changes to an item that affect neither its use nor semantics (i.e. editorial changes) only require going through the Preliminaries (as described in SL.2.2). It is not required to continue with either the normal or the extended procedure. At the end of the preliminaries the change is either accepted or rejected without validation.

More specific criteria on which changes are classified as editorial changes can differ, dependent on standard, and are described in separate document(s) within the domain of the responsible TC/SC.

After a positive resolution, the TC/SC secretary will make the changes to the existing standard item. The status level of the Change Request is set to *resolved* and the work is finished.

If not accepted, then the reason(s) are noted in the remark, the status level of the Change Request is set to *resolved* and the work is finished.

## **SL.2.6 Regular maintenance of the entire standard**

In addition to the continuous maintenance of the standard described above, a comprehensive review of the database contents carried out by the Maintenance Team at regular intervals may be necessary. For such reviews the concept as defined elsewhere in the ISO/IEC Directives is relevant.

The resulting proposal from such a work is to be entered formally into the database as one or many change requests and then each change request is dealt with according to the normal or extended database procedure as appropriate.

## **SL.2.7 Appeals**

If, at any time after acceptance of an item as *standard*, a National Committee is dissatisfied with the result of the validation process on an item, it may bring forward a change request with a proposal for an amendment to the item which will re-open consideration of it under the procedures described above.

## **SL.3 Terms for general use**

### **SL.3.1**

#### **original procedure**

traditional standardization procedure for standard publications as described in the ISO/IEC Directives and IEC Supplement relying on the circulation of documents to the National Committees

### **SL.3.2**

#### **normal database procedure**

standardization procedure making use of a *Validation Team* and a **workflow around a database** for information sharing (as specified in this document)

NOTE The normal database procedure is used for validation of new items and of item combinations that are within the boundary of existing rules.

### **SL.3.3**

#### **extended database procedure**

standardization procedure with stages and time frames as specified in the *original procedure*, but implemented as a **workflow around a database** for information sharing (as specified in this document)

### **SL.3.4**

#### **Maintenance Team**

group of experts that has the task in the *original procedure* at specified maintenance cycles to carry out revisions of existing international standards. In the *normal database procedure* and the *extended database procedure* the Maintenance Team can be called upon by the TC/SC secretary to deliver support at specified maintenance cycles and for the purpose of preparatory work in connection with a (single) Change Request.

### SL.3.5

#### **Validation Team**

permanent, “executive”, group of experts appointed by and acting as delegates on behalf of their National Committees to execute evaluation and validation of Change Requests and to vote for their release as part of a database standard

NOTE 1 All P-members have the right and duty to appoint an own member of the team. The Validation Team evaluates proposals and votes, in the *normal database procedure*, on *items* on behalf of their National Committees. The Validation Team reports to the technical committee or subcommittee.

NOTE 2 The described procedure asks for very short response times from the Validation Team members. Therefore, the National Committees should appoint one or more deputies that can take over the task when the ordinary one for any reason is absent (travel, business, etc.).

NOTE 3 It is up to the National Committee to decide for how long time a member should be appointed, and also to organize the possible supporting network of experts on National level.

NOTE 4 The secretariat manages the Validation Team.

### SL.3.6

#### **proposer**

person (or body) authorized to submit a Change Request

NOTE 1 There can be many proposers.

NOTE 2 The required limited write access to the database is password protected, and authorization will only be granted to persons appointed by the National Committees. Proposers have to be personally authorized and should, in connection with this authorization, get the required information and training.

### SL.3.7

#### **database standard [database-based standard]**

standard in database format for which the valid form of publication is a publicly accessible database, containing the standardized *items*

NOTE 1 The content of the database standard is normally possible to retrieve by using different search criteria.

NOTE 2 The management and documentation of the standardization process is normally also part of the database.

### SL.3.8

#### **item (of a database standard)**

separately managed part of a database standard, documented in accordance with a structure common to the specific standard

NOTE Typical examples of items are: symbols (graphical or letter), terms, data element types, data sheets.

## **SL.4 Terms for status levels for Change Requests**

### SL.4.1

#### **Submitted**

status level of the Change Request from the moment of its registration and identification in the database, until the TC/SC secretary has finished the preparation for evaluation stage

### SL.4.2

#### **For evaluation**

status level of the Change Request in the evaluation stage until a resolution has been reached on how to proceed following the preliminaries

NOTE The transition to *For evaluation* is from *Submitted*.

### **SL.4.3**

#### **Draft normal procedure**

status level of the Change Request in the preparation for the validation stage as part of the *normal database procedure* until the preparation is completed

### **SL.4.4**

#### **For validation**

status level of the Change Request in the validation stage as part of the *normal database procedure* until the validation is completed

NOTE The transition to *For validation* is from *For evaluation*.

### **SL.4.5**

#### **Extended procedure**

status level of the Change Request from the moment that the *extended database procedure* is followed until the completion of that procedure

NOTE The transition to *Extended procedure* is from *For evaluation*.

### **SL.4.6**

#### **Resolved**

status level of the Change Request after completion of the *normal-* or *extended database procedure*, or after initial rejection

### **SL.4.7**

#### **For testing**

status level of a Change Request used for testing purposes

NOTE An Change Request *For testing*, is normally deleted after intended use (leaving a “hole” in the identity number series).

## **SL.5 Terms for status levels for items (i.e. graphical symbols, DETs, etc.)**

### **SL.5.1**

#### **Proposed**

status level of a new *item* from its registration and identification in the database, until it has been accepted for work and a resolution has been reached on how to proceed following the preliminaries

### **SL.5.2**

#### **Draft**

status level of a new *item* that has been accepted for work following the preliminaries with either the *normal-* or *extended database procedure*, until the moment a decision has been taken on whether or not it is to be part of the standard

NOTE The transition to *Draft* is from *Proposed*.

### **SL.5.3**

#### **Standard**

status level of a new *item* that has been released for use as part of the standard

NOTE The transition to *Standard* is from *Draft*.

### **SL.5.4**

#### **Obsolete – reference only**

status level of an *item* that is no longer part of the standard, irrespective of reason

NOTE The transition to *Obsolete – reference only* is from *Standard*. On the item page a note or a reference to a replacing item further indicates the reason for obsolescence.

**SL.5.5**

**Rejected**

status of an *item* that has been entered into the database as part of a Change Request, but has not been approved to be part of the standard

NOTE The transition to *Rejected* is either from *Proposed* or from *Draft*.

**SL.5.6**

**For test purposes only**

status of an *item* being tested

NOTE An item *For test purposes only*, is normally deleted after intended use (leaving a “gap” in the identity number series).

## **Annex SM** (normative)

### **Organization, rules and procedures of the International Special Committee on Radio Interference (CISPR)**

#### **SM.1 Introduction**

The International Special Committee on Radio Interference (CISPR) is an organization within the IEC that is established to consider the protection of radio reception from interference. The committee constitutes subcommittees that provide both product (vertical) and basic standard (horizontal) roles. The full Terms of Reference and Scope are also published on the IEC internet website. A full history of the CISPR is provided in publication CISPR 16-3.

***CISPR follows the ISO/IEC Directives Parts 1 and 2 and the IEC Supplement with the following deviations.***

#### **SM.2 Membership**

##### **SM.2.1 'I' Members**

In addition to the normal categories of IEC membership, CISPR has 'I' members as defined below:

Category 'I' members are organizations, other than IEC National Committees, that have a recognized interest in the international aspects of the reduction of radio interference. "I" members representatives may participate in the work of any committee, subcommittee or working group. 'I' members have the right to comment but do not have any voting rights on IEC publications.

An International organization may become an 'I' member of the CISPR, subject to acceptance by the Plenary Assembly of the CISPR.

The current membership is shown on the [IEC CISPR web page](#).

#### **SM.3 Chair and Vice-Chair**

##### **SM.3.1 Chair**

The Chair of the CISPR is the Chair of the Plenary Assembly.

The procedures contained in the ISO/IEC directives shall be used to seek nominations for the position of Chair. The Secretariat of CISPR shall nominate a Chair who shall be appointed by the Plenary Assembly on the recommendation of the Steering Committee. The Chair of the CISPR shall be appointed initially for a period of six years. In the interest of continuity, this period shall embrace not less than two successive Plenary Meetings and, if necessary, the period of office shall be adjusted to permit this condition to be fulfilled. Further terms of office shall be subject to the ISO/IEC directives with the exception that they shall be ratified by the CISPR Plenary meeting.



**SM.3.2 Vice-Chair**

The procedures for appointment of Chairs contained in the ISO/IEC Directives (ISO/IEC Directives Supplement, Clause 1.8.1.2 a) and b)) shall be used to seek nominations for the position of Vice-Chair of CISPR. The Secretariat of CISPR shall nominate a Vice-Chair who shall be appointed by the Plenary Assembly upon the recommendation of the Steering Committee. The Vice-Chair shall initially be elected for a period of up to six years. Further terms of office shall be subject to the ISO/IEC Directives with the exception that they shall be ratified by the CISPR Plenary meeting.

The Vice-Chair shall advise the Chair, and act as Chair in his absence.

**SM.3.3 Subcommittee Chairs**

The procedures contained in the ISO/IEC Directives shall be used to seek nominations for the position of subcommittee Chairs. The Secretariat of each subcommittee shall nominate a Chair who shall be appointed by the Plenary Assembly on the recommendation of the Steering Committee. The period of office shall initially be for six years. Further terms of office shall be subject to the ISO/IEC directives with the exception that they shall be ratified by the CISPR Plenary meeting. The Steering Committee may take temporary appointments in the intervals between meetings of the Plenary Assembly.

**SM.3.4 Subcommittee Vice-Chairs**

The procedures for appointment of Chairs contained in the ISO/IEC Directives (ISO/IEC Directives Supplement Clause 1.8.1.2 a) and b)) shall be used to seek nominations for the position of a CISPR Sub-committee Vice-Chair. The Secretariat of the relevant CISPR subcommittee shall nominate a Vice-Chair who shall be appointed by the CISPR Plenary Assembly upon the recommendation of the Steering Committee. The subcommittee Vice-Chair shall initially be appointed for a period of up to six years. Further terms of office shall be subject to the ISO/IEC Directives with the exception that they shall be ratified by the CISPR Plenary Assembly.

Subcommittees shall define the role of their Vice-Chair, which must include at least advising the subcommittee Chair and acting as subcommittee Chair in his absence.

**SM.3.5 Working Group Convenors**

Working group convenors shall be appointed by the CISPR Committee which the group reports to (i.e. the 'parent committee') for a term of up to three years. The term shall be set so that it ends at a suitable future plenary session of the parent committee. The procedure to follow where terms of convenors have ended or a convenor has relinquished the post prior to a plenary meeting is:

1. The first draft agenda for the relevant plenary meeting shall include an item to review the position of WG Convenor.
2. The parent committee Secretariat shall ascertain if the current convenor is willing to continue.
3. The parent committee Secretariat shall apply the timescales in the IEC Directives for circulation of documents before plenary meetings to inform the Committee members of the review of the position of convenor and inviting members to submit nominations. An AC document is used for this purpose and this should include the WG scope for reference by members.
4. If there is a single nomination for the position of convenor, whether that is the existing convenor or other person, then the plenary meeting of the parent committee shall endorse their appointment.

5. If there is more than one nomination for the position of convenor, there shall be a secret ballot taken during the parent committee plenary meeting. Each P-member delegation present at the meeting will be entitled to vote and the new convenor shall be the person receiving the highest number of votes, with abstentions not counted.

6. The parent committee Secretariat shall circulate an INF document announcing the result of the review

7. In the event that a convenor steps down and there is no nomination for a replacement, the CISPR Steering Committee shall appoint a temporary convenor and the parent committee shall seek nominations and appoint a convenor at the earliest opportunity by correspondence or at the next plenary meeting.

There is no limit to the number of terms, as long as the convenor keeps the support of the parent committee or sub-committee. The National Committee which has designated the convenor as expert is expected to confirm its support to the convenor in their (new) role.

## **SM.4 Plenary Assembly**

### **SM.4.1 Constitution**

The Plenary Assembly shall consist of delegates representing the CISPR National Committees and Member Bodies.

### **SM.4.2 Terms of reference**

The Plenary Assembly shall be the supreme body of the CISPR. Its responsibilities are as follows:

- a) to elect (ratify) the Chair and Vice-Chair of the CISPR;
- b) to allocate the Secretariat of the CISPR;
- c) to appoint (ratify) Chairs of subcommittees;
- d) to allocate Secretariats of subcommittees;
- e) to approve changes in membership of the CISPR;
- f) to modify, as necessary, the structure and organization of the CISPR;
- g) to consider matters of policy and general interest referred to it by the Steering Committee;
- h) to consider technical matters as requested by National Committees and Member Bodies, the Chair of the CISPR or Chairs of the subcommittees.

### **SM.4.3 Setting CISPR Policy**

#### **SM.4.3.1 CISPR Policy**

For the purposes of these rules and procedures, CISPR Policy is defined as the preferred approach to standardisation recommended to be taken by CISPR Sub-Committees as agreed by CISPR using approval requirements for International Standards.

Policy setting could include, for example, guidance on preferred test methods, the use of referee methods or the optimum way to utilise measurement uncertainty.

Setting CISPR policy in the CISPR plenary assembly or by correspondence will be reserved for those occasions when decisions needed to be made to inform/guide sub-committees in their work to establish consistency in standardisation across CISPR.

If decisions on CISPR policy are made, it is with the intention that the policy is adopted universally.

#### **SM.4.3.2 Procedure for setting CISPR Policy**

Policy proposal documents for consideration and voting at the plenary assembly must be circulated to NCs at least three months in advance of the meeting. To be adopted at the meeting, the following must be achieved:

- a) a two-thirds majority of the votes cast by CISPR P-members vote are in favour and
- b) not more than one-quarter of the total number of votes cast are negative.

Abstentions are excluded when the votes are counted.

Where policy is adopted at CISPR level, Sub-Committees should adopt the policy when developing new publications or amendments to existing publications.

If a CISPR Sub-Committee does not apply a policy which has been adopted at CISPR level, then the Secretary of the Sub-Committee shall enter a note in the first draft of a publication circulated. The note shall highlight the text which does not follow the agreed policy.

The text inserted by the Secretary will alert P-members so that they can refer back to their original decision on the policy.

### **SM.5 Steering Committee**

#### **SM.5.1 Constitution**

The Steering Committee shall consist of the following:

- a) the Chair of the CISPR (to be Chair of the Steering Committee);
- b) the Vice-Chair of the CISPR;
- c) the Chairs of all CISPR subcommittees;
- d) the immediate past Chair of the CISPR;
- e) the Chief Executive Officer of the IEC;
- f) the Secretariat of the CISPR;
- g) additional members as co-opted by the Chair of the CISPR;
- h) a representative of each of the Member Bodies of the CISPR other than the National Committees of the IEC. Details of current members are shown on the CISPR page of the IEC website;
- i) a representative of each liaison body;
- j) the conveners of those Working Groups which report directly to the Steering Committee (when required).

#### **SM.6 Terms of reference**

The responsibilities of the Steering Committee are as follows:

- a) To approve the CISPR Strategic Business Plan.
- b) To assist and advise the Chair of the CISPR in the conduct of the affairs of the CISPR.
- c) To maintain contact with all work in progress in the CISPR.

- d) To give guidance and assistance to those carrying out the work of the CISPR.
- e) To consider progress reports from subcommittees, and from Working Groups which report directly to the Steering Committee.
- f) To advise the Chair of the CISPR as to the arrangements to be made for meetings of the CISPR.
- g) To refer new objects of study to a subcommittee when the terms of reference do not directly apply.
- h) To set up Working Groups reporting to the Steering Committee.
- i) To coordinate and direct the work between sub committees on common issues.

### **SM.7 Appeals**

Mostly covered by ISO/IEC Directives Part 1.

National Committees and Member bodies have the right to appeal

to the Steering Committee on a decision of a subcommittee,

to the CISPR Plenary Assembly on the decision of the Steering Committee.

The decision of the Plenary Assembly in the case of an appeal is final.

Any matters of technical coordination between IEC and CISPR which cannot be resolved by the parties concerned or by the IEC Advisory Committee on Electromagnetic Compatibility (ACEC) will be referred to the Standards Management Board (SMB) for a decision after taking into consideration the position of the CISPR Steering Committee.

### **SM.8 Amendments to CISPR rules and procedures**

The organization, rules and procedures of the CISPR, as described in this annex, may only be amended either by the Plenary Assembly or by correspondence with CISPR member bodies. Such amendments can only be made on the condition that not more than one-quarter of the membership cast a negative vote.

## **Annex SN** (normative)

### **Deviations of TC 100's procedures and organizational structures from the ISO/IEC Directives**

#### **SN.1 Introduction**

The establishment of TC 100 required procedures and organizational structures reflecting market needs so that the work could be completed in a timely and efficient manner. Therefore, a flexible organization with new positions and functions was developed, which deviated from the ISO/IEC Directives.

This was supported by National Committees and the Standardization Management Board.

TC 100 follows the ISO/IEC Directives Part 1 and Part 2 along with the Supplement – Procedures specific to IEC, with the following deviations.

Further information on TC 100's general procedures is given in document 100/1180/INF.

#### **SN.2 Terms and definitions**

##### **SN.2.1**

##### **Technical Secretary**

TS

individual supporting a number of technologies relating to TAs and/or PTs in technical, organizational and administrative activities

##### **SN.2.2**

##### **Technical Area**

TA

area of related technologies for which standardization is needed

##### **SN.2.3**

##### **Technical Area Manager**

TAM

individual managing the activities of a TA

##### **SN.2.4**

##### **General Maintenance Team**

GMT

permanent body responsible for the management of all maintenance work and for the overall maintenance of existing documents and standards directly under TC 100 or of disbanded TAs

##### **SN.2.5**

##### **General Maintenance Manager**

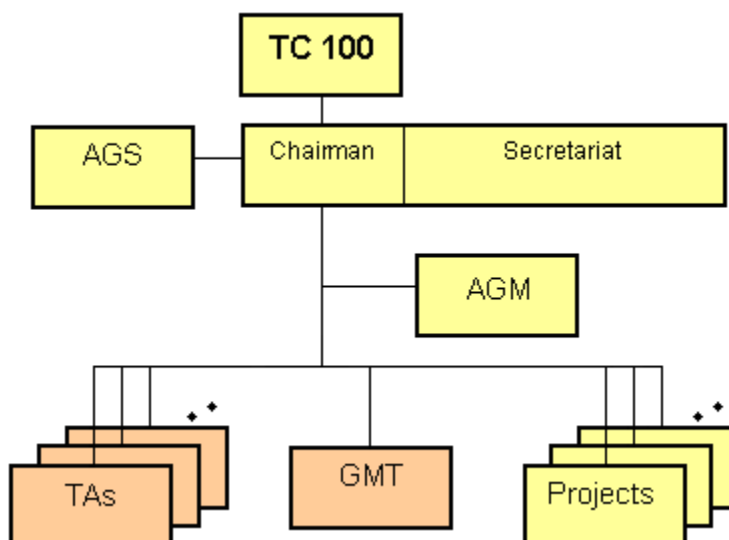
GMM

individual managing the maintenance activities of TC 100

#### **SN.3 Structure and organization**

##### **SN.3.1 TC Structure**

An overview structure of TC 100 is shown in Figure SN.1.



**Figure SN.1 – Structure of TC 100**

### **SN.3.2 Advisory Group on Strategy (AGS)**

#### **SN.3.2.1 Scope**

In accordance with AC/27/2002, paragraph 5, the Scope and Objectives for TC 100's Advisory Group on Strategy, has been revised as follows:

- The AGS Advisory Group is charged with the design and development of long term strategies for TC 100.
- To meet this objective, the AGS advises and recommends action on long-term strategic plans and directions for organizational structure and procedures for effective standards development.
- The AGS provides leadership to enable improved cooperation between industry and TC 100 by creating the strategic plans, which strengthen the relevance of TC 100 standardization activities.
- The AGS reports directly to TC 100.

#### **SN.3.2.2 Membership**

The members of the AGS include:

- Persons representing industry associations, where the members of the AGS cover global regions. Regions include: America, Europe, Asia and Oceanic. The AGS reviews and considers additional members periodically.
- The Chair, Secretary(ies) of TC 100.
- IEC Central Office representative to give a strong support of the IEC Central Office.

The secretary of the AGS is appointed from the TC 100 secretariat.

TAMs are invited to attend as guests for informational exchange.

### **SN.3.3 Advisory Group on Management**

#### **SN.3.3.1 Scope**

To organize, coordinate and manage the work of TC 100, an advisory group is needed.

The advisory management group submits recommendations to the Chair and officers of TC 100 on

- the organization of TC 100, the coordination of the work, the establishment of new TAs and the allocation of all new work items of TC 100, i.e. to an existing TA, a new TA or directly under TC 100's responsibility,
- the related work of the other IEC committees and other liaison bodies,
- any other matter on which the Chair requires advice.

The AGM advises and recommends actions on short-term implementation and management issues.

### **SN.3.3.2 Membership**

The members of the AGM include:

- Chair, Secretary(ies);
- AGS Chair;
- Technical secretaries;
- Technical area managers, general maintenance manager;
- the representative of the IEC Central Office;
- Project leaders, working directly under TC 100, on invitation.

The AGM is chaired by the TC 100 Chair. The secretary is appointed from the TC 100 secretariat.

### **SN.3.4 Technical Area (TA)**

#### **SN.3.4.1 Description**

A Technical Area (TA) is a technologically categorized area in TC 100, in which projects of related technology are allocated. A TA is similar to a sub-committee but TC 100 avoids organizing a conventional rigid sub-committee structure and employs a TA and project team system, in which all technical work is carried out by project teams under TC 100, and these projects are flexibly grouped within TAs for efficient standards development and practical project management reflecting the rapidly changing multimedia technology. All circulation of working documents and voting of TC 100 projects are conducted at the TC 100 level.

The TA system is based on the following concepts:

- a TA has a minimum of two active projects;
- any modification of title and scope of a TA is proposed by the respective TA and approved at the TC 100 level;
- the TAM and TS manage the TA in the same way as a sub-committee Chair and secretary respectively;
- TAs are flexibly established and disbanded to meet rapidly changing multimedia technology.

The daily management and activity of TA are almost the same as those of a sub-committee.

#### **SN.3.4.2 Establishment of a TA**

A TA is established by the TC 100 secretariat in consultation with the AGM, when it is foreseen that related projects needing coordination are expected or approved.

- establishment of TA is discussed in AGM based on the proposal by TC 100 Secretariat or TC 100 officers;

- the proposed scope shall be clearly broad enough to support two or more IEC publications, or a multi-part publication, in the foreseeable future;
- consideration shall be given that one project already exists and additional projects are expected with submission of a quality draft within six months.

#### **SN.3.4.3 Membership**

Members of the TA include:

- Technical area manager;
- Technical secretary(ies);
- Project leaders from PTs and MTs within the responsibility of the TA;
- Liaison representatives of internal (IEC/ISO), A liaison of the TA.

As agreed in the procedures, National Committees cannot be members of a TA. They are members of TC 100.

For participation in meetings see SN.5.2.2.

#### **SN.3.4.4 Disbandment of a TA**

A TA will be disbanded by the TC 100 secretariat when all projects are finished and no new projects are expected in this area of technology in the near future. Maintenance Teams working under a TA will be re-allocated to the GMT.

### **SN.3.5 General Maintenance Team (GMT)**

#### **SN.3.5.1 Description**

The GMT is a permanent body responsible for the management of all maintenance work and for the overall maintenance of existing documents and standards directly under TC 100's responsibility or of disbanded TAs.

Members of the GMT include:

- General maintenance manager;
- Assistant Maintenance Manager, Technical secretaries;
- Project leaders from active MTs under the responsibility of the GMM;
- Liaison representatives of internal (IEC/ISO), category A liaisons to the GMM.

NOTE 1 The maintenance work itself is carried out by a maintenance team (MT).

NOTE 2 A MT is allocated to the TA being responsible for the standard. If no TA exists, a MT is allocated to the GMT.

For participation in meetings, the same rules apply as for TA meetings see SN.5.2.2.

#### **SN.3.5.2 Maintenance procedure**

Maintenance of publications within TC 100 is the responsibility of the TAs. Only in the case where there is not a TA available the maintenance will be performed in the GMT. Maintenance projects in the GMT will also address projects from the former TC 100 organization.

The performance of maintenance is in accordance with the ISO/IEC Directives – Supplement – Procedures specific to IEC.



In addition to the IEC rules the following are applicable for TC 100:

- a) To manage the maintenance work of all projects allocated to TC 100, the TC 100 secretariat runs a database containing all projects.
- b) At least twice a year, preferably four weeks before the TC 100/AGM meeting, the GMM, in consultation with the TC 100 secretariat, advises TSs and TAMs by distributing an abstract from the database containing all projects for which the stability date falls within 24 months.
- c) The relevant TS is responsible for the publication of a DC document and a FormRR for the project concerned.

## **SN.4 Functions and responsibilities**

### **SN.4.1 AGS Chair**

#### **SN.4.1.1 Responsibilities**

The AGS Chair is responsible for the management of the AGS activities. He shall report the AGS activities to the TC 100 Chair and to the AGM.

The AGS Chair shall

- identify and report future technologies and standardization themes and issues to TC 100,
- advise on the future of standardization themes and issues proposed by NC,
- identify and recommend the action on long-term strategic plans and directions for the TC 100 organizational structure and advise on procedures for more effective standards development,
- motivate AGS members for informative and productive discussions, and advise, when appropriate, on how to move work forward to standardization,
- arrange necessary liaison with respective bodies, and
- if necessary, prepare appropriate responses on inquiries from outside of TC 100.

#### **SN.4.1.2 Appointment**

The AGS Chair is nominated by TC 100 Chair in consultation with the TC 100 secretariat and approved by TC 100.

TC 100 Chair, TC 100 Secretary and AGS Chair should in principle be assigned equally from the three global regions.

#### **SN.4.1.3 Term of office**

The AGS Chair is appointed for a period of six years. The TC 100 Chair, in consultation with the TC 100 secretariat, may ask TC 100 to approve successive extensions each of a maximum of three years.

#### **SN.4.1.4 Relinquishment**

If the AGS Chair resigns, then the TC 100 Chair should be notified as early as possible. The TC 100 Chair and secretariat will then find a suitable replacement in consultation with various industry associations.

## **SN.4.2 AGS members**

### **SN.4.2.1 Responsibilities**

An AGS member shall

- participate in the AGS discussion in good faith,
- introduce new technologies of interest to TC 100,
- find technologies that relate to TC 100 for standardization. Propose any action on long-term strategic plans and directions for organizational structure and procedures for more effective standards development.

### **SN.4.2.2 Appointment**

Any industry association, representing regions of America, Asia, Europe, or Oceania proposes a person(s) representing industry association as an AGS member and the NC to which the nominee belongs submits the proposal to the TC 100 secretariat. The TC 100 Chair nominates him (them) as the AGS member(s) in consultation with the AGS Chair and TC 100 secretariat. The number of AGS members representing industry associations shall be limited to four for each region. The TC 100 Chair may nominate suitable additional member(s) regardless of region in consultation with the AGS Chair and the TC 100 secretariat. TC 100 approves the appointment of the AGS member(s).

### **SN.4.2.3 Term of membership**

The AGS member is appointed for a period of three years. Successive extensions, each of a three year period, may be proposed in consultation with the TC 100 Chair and the TC 100 secretariat and approved by TC 100. If an AGS member makes no contribution to the AGS activity for two years, then the TC 100 Chair may recommend replacing him with another person.

### **SN.4.2.4 Relinquishment**

If an AGS member resigns, he should announce his relinquishment as earlier as possible. The TC 100 Chair and the TC 100 secretariat may ask the industry association to nominate another suitable person.

## **SN.4.3 Technical Secretary**

### **SN.4.3.1 Appointment**

The technical secretary of a TA will be proposed by a P-member, nominated by the TC 100 secretariat and appointed by the TC 100 Chair. The number of technical secretaries in TC 100 will be evaluated by the AGM and relate to existing TAs and work.

In case a new technical secretary is needed, the TC 100 secretary takes appropriate action by asking P-members for proposals giving a clear description of the technical area.

A technical secretary is assigned by the Chair and secretary of TC 100 to support a number of technical areas and/or PTs/MTs.

The National Committee proposing a technical secretary shall

- indicate its intention to participate actively in the work of TC 100, and
- be in a position to ensure that adequate resources are available for the work in the relevant technical area.

The technical secretary should be suitably qualified with broad technical knowledge. The person shall

- have an aptitude for administration and organization,
- have some relevant technical knowledge,
- have sufficient administrative and organizational ability as well as knowledge of using modern means of communication,
- have support from his National Committee to perform the duties of a technical secretary in a timely and effective manner.

The TS may nominate an Assistant TS. The TC 100 Chair appoints an Assistant TS upon request.

#### **SN.4.4 Technical Area Manager (TAM)**

##### **SN.4.4.1 Elucidation**

A technical area manager and technical secretary shall communicate with each other on their respective responsibilities and duties. A technical area manager and technical secretary shall also coordinate document status within a TA.

The technical area manager reports to TC 100 Chair on the activities of his TA. The technical secretary reports to TC 100 secretariat on his activities.

Appropriate decisions related to the development process of standards are taken by the technical area manager, in consultation with the technical secretary and the PL.

##### **SN.4.4.2 Appointment**

A TAM is proposed by the industry for which the TA is important, a P-member of TC 100 or a TC 100 officer, nominated by the TC 100 secretariat and appointed by the TC 100 Chair.

In case of a new TA, the TC 100 secretary takes appropriate action to receive proposals for a nomination of a TAM.

The TAM should be suitably qualified, usually with relevant technical knowledge about any involvement in the TA for which he will be appointed. The person shall also have

- an aptitude for management,
- relevant technical knowledge and be able to judge what is essential within the TA,
- sufficient knowledge of using modern means of communication,
- support from the industry to perform the duties of a TAM in a timely and effective manner.

##### **SN.4.4.3 Term of office**

Term of office of a TAM ends when the TA is disbanded or three years after appointment of the TAM, where in the latter case successive extensions each of three year periods may be approved by TC 100 Chair.

##### **SN.4.4.4 Relinquishment**

If the TAM resigns, he should announce his intention by giving a minimum of six months' notice to the TC 100 secretary.

The TC 100 secretary will take appropriate action to receive proposals for nomination of a successor.

## **SN.4.5 General Maintenance Manager (GMM)**

### **SN.4.5.1 Responsibilities**

The GMM acts as a Chair for the GMT. He will advise the TC Chair on important matters relating to the maintenance work. For this purpose he shall receive regular reports from the experts/PLs working on the several maintenance subjects.

The GMM shall

- manage the work within the GMT,
- act in a purely international capacity, divesting himself of a national point of view,
- be responsible for the TC 100 maintenance plan,
- keep himself very well informed about what is going on in this activity,
- make proposals to TC 100 secretariat for the maintenance of relevant liaisons with external bodies and committees,
- act, if necessary, as liaison representative and reporter,
- by monitoring all activities going on in the GMT, make decisions about the timely start/progress of the work,
- guide the technical secretary(ies), assigned to GMT, in carrying out his (their) duty(ies) in line with the needs of the GMT and the experts/PLs active in the GMT,
- take, in consultation with the technical secretary(ies) and the experts/PLs, appropriate decisions related to the maintenance of standards,
- act as Chair in GMT meetings in which decisions are taken and PLs' report about the progress of the maintenance work, and
- prepare reports to TC 100 Chair in plenary meetings and in between meetings, if necessary.

### **SN.4.5.2 Appointment**

A GMM is proposed by a P-member of TC 100 or a TC 100 officer, nominated by the TC 100 secretariat and appointed by the TC 100 Chair.

The GMM should be suitably qualified, usually with knowledge about the fields of technology TC 100 is/was responsible for. The person shall also have

- an aptitude for management,
- relevant technical knowledge and be able to judge what is essential to deal with in the GMT,
- sufficient knowledge of using modern means of communication,
- support from his National Committee to perform the duties of a GMM in a timely and effective manner.

The GMM, Chair or Secretariat may appoint (an) Assistant General Maintenance Manager(s).

### **SN.4.5.3 Term of office**

Term of office of a GMM ends three years after appointment of the GMM, but successive extensions each of a three year period may be approved by TC 100 Chair.

### **SN.4.5.4 Relinquishment**

If the GMM resigns, the GMM should announce his intention by giving a minimum of six months' notice to the TC 100 secretary.

The TC 100 secretary will request P-members to submit nominations for a successor.

#### **SN.4.6 Project leader (PL)**

##### **SN.4.6.1 Appointment of a PL**

The PL is appointed following approval of a new work item by the P-members of the committee. The PL is nominated by the proposer of the new work item proposal. The PL is responsible for the project and reports to the technical secretary on the progress of the work. In case his PT is allocated to a TA, he reports to the TAM concerned.

##### **SN.4.6.2 Replacement of the PL**

If the PL is no longer in a position to carry out his duties, a replacement is nominated by the proposer of the new work and appointed by the TAM. If the nomination is not acceptable, the TAM may appoint a new PL in consultation with the technical secretary and any NCs. In case of projects directly under TC 100's responsibility, the TC 100 Chair and the TC 100 secretariat take the role of TAM and technical secretary respectively.

#### **SN.4.7 Liaison representative**

##### **SN.4.7.1 Responsibilities**

There are two types of liaison representatives:

- from TC 100 to the liaison organization, and
- from the liaison organization to TC 100.

In practice, the liaison representative from and to a liaison organization can be the same person.

The liaison representative should

- represent the liaison organization within TC 100 and the TAs or represent TC 100 and/or the respective TAs to the liaison organization, and
- be an expert in the technical area appointed or when requested acquire information from the liaison organization.

##### **SN.4.7.2 Appointment**

A liaison representative is nominated by the liaison organization and appointed by TC 100.

##### **SN.4.7.3 Relinquishment**

If the liaison representative is no longer in a position to carry out his duties, a replacement is nominated by the relevant liaison organization in case of liaison to TC 100 or by the TAM in consultation with the technical secretary in case of liaison from TC 100. For the liaison from the TC 100 level, the TC 100 Chair nominates a replacement in consultation with the TC 100 secretariat.

In the event it is not possible to nominate a liaison representative from a liaison organization or a TA, the committee should reconsider the established liaison.

The task of a liaison representation ends at the time the liaison is no longer useful for coordination of work within TC 100 and the respective liaison organization.

## **SN.5 Meetings**

### **SN.5.1 AGS/AGM meetings**

Attendance at the AGS/AGM meetings is for members only. For the AGS meeting, TAM, GMM and TS are invited as observers. For the AGM meeting, AGS members are invited as observers. The Chair or Secretariat can invite any experts to attend. Others wishing to attend should consult the Chair or Secretariat.

### **SN.5.2 TA meetings**

#### **SN.5.2.1 Organization of meeting**

The technical secretary should organize a TA meeting only if there is need for a meeting (physical or virtual). This should be completed in cooperation with the TAM. In the event of a physical meeting, it should preferably be held in conjunction with a TC 100 plenary meeting.

#### **SN.5.2.2 Attendance of meeting**

A TA is a coordination group within a specified area. Meetings should coordinate work in the relevant project teams and when necessary with groups outside the TA having interest in the subject.

TA meetings should, in principle, be attended by its members only. In addition to those members, guests can participate in meetings on the invitation of the TAM. The TC 100 Chair and secretariat are entitled to be present at TA meetings as observers.

If a TA meeting is held in conjunction with a TC 100 plenary meeting, representatives of National Committees can attend the TA meeting as observers. NC representatives can obtain meeting documents by means of the electronic distribution system used for that meeting.

If a TA meeting is held independently from TC 100 plenary meeting, the TA meeting notice should be distributed to all national committees one month before the meeting date. The notice shall be distributed as a TC 100 informative document. The representatives of National Committees can attend the meeting as an observer by the invitation of the TAM.

## **SN.6 Reporting**

### **SN.6.1 TA to TC**

The report to the TC 100 Chair differs from the minutes of a TA meeting. Most reports will be written following a TA meeting. The report describes the current status of projects within the TA and other relevant issues. Using the latest report, it should be possible for the TC 100 secretariat to inform the SMB about the current status of any project.

The TAM should make a report to the TC 100 Chair in plenary meetings or on request.

The report should contain the following items and should be written using the template as given in document 100/1180/INF:

- last meeting data and next meeting data;
- questions/remarks to be brought to TC 100 or TC 100/AGM;
- Programme of Work and state of art of projects;
- maintenance forthcoming year;
- developments and expectations in market covered by TA;
- requests for new/modified liaisons, if any.

## **SN.6.2 Availability of reports**

In general, reports to the TC 100 Chair should be available at least one week before the TC meeting and circulated to the TC 100 secretariat.

## **SN.7 Documents**

### **SN.7.1 Special standard documents**

#### **Terms of reference of TA/GMT**

Form to be used for the announcement to the National Committees of the establishment of a TA.

## **SN.8 Special procedure – Acceptance of new work**

Proposal: CA/1368/R

Acceptance: CA/1414/RV

TC 100 follows different rules from the ISO/IEC Directives, Part 1 for acceptance of NPs:

- in case a simple majority of P-members voting is in favour of the new project, the existing rules should be applied,
- in case of more than two-thirds of the P-members voting is in favour the acceptance criterion related to the minimum number of nominated technical experts is replaced by:

In addition to the PL, there should be nominated at least one expert from a different P-member country. The PL should be convinced that the target dates for the project can be met.

It should also be recognized that many New Work Item Proposals are accompanied by well-developed specifications, hardly needing any technical discussion. When products, based on these specifications, are already in the market place, changes are counter-productive, as incompatibilities could occur. Where changes are proposed and supported, great care is essential to avoid any such incompatibilities.

The above-mentioned derogation is limited to TC 100 and its application shall be regularly reviewed by the Standardization Management Board. If their effectiveness is confirmed, they may be considered for general application and for inclusion in the ISO/IEC Directives.

The acceptance criteria for New Work are dependent on the availability of a well developed draft, as described. Otherwise, the normal acceptance procedure will be applicable.

## Annex SO

### Voting/commenting periods on technical documents

#### Documents for votes and comments:

New Work Item Proposal	NP	12 weeks <sup>5</sup>
Committee Draft for Vote	CDV	12 weeks
Final Draft International Standard	FDIS	6 weeks
Publicly Available Specification	PAS	8 weeks
Draft Technical Report	DTR	8 weeks
Draft Technical Specification	DTS	12 weeks
Questionnaire	Q	6 weeks

#### Documents for comments only:

Committee Draft	CD	8, 12 or 16 weeks
Document for Comments	DC	6 weeks

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<sup>5</sup> When there is only an outline to review and where an existing group is effectively making the proposal, the TC/SC officers, in consultation with the proposer and the Office of the CEO, may propose a 4-week NP vote.



## **Annex SP** (normative)

### **Systems standardization**

#### **SP.1 Introduction**

The multiplicity of technologies and their convergence in many new and emerging markets, particularly those involving large scale infrastructure, now demand a top down approach to standardization, starting at the system or system architecture rather than at the product level. System standards are also increasingly required in sectors such as environment, energy efficiency, safety and health.

In this context, a system is formally defined as:

*A group of interacting, interrelated, or interdependent elements forming a purposeful whole of a complexity that requires specific structures and work methods in order to support applications and services relevant to IEC stakeholders.*

The structures and procedures needed in IEC to accommodate the systems approach are, as far as possible, the same as those already in place for more traditional standardization activity. However, some further provisions are required in order to ensure that a particular systems standardization programme

- is fully market relevant;
- can be managed within clearly defined boundaries;
- engages all the appropriate interests, both within and beyond the traditional IEC community;
- does not duplicate, overlap or conflict with other work being undertaken in the same area.

Systems Standardization in the IEC includes a process with the following two stages of systems activity and an additional group to serve as a resource for all groups undertaking this systems activity:

- **Systems Evaluation Group (SEG):** an open, potentially large group drawn from within and beyond the IEC community, used in the first stage of systems development. Its role is to engage the community of experts, identify the relevant stakeholders, define the general architecture and boundaries of the subject to be addressed and propose a possible programme of work and a relevant roadmap for the implementation of the standardization activities.
- **Systems Committee (SyC):** a specialized type of committee working at the systems instead of the product level to develop reference architectures, use cases and appropriate standards and guidance on the interfaces, functionality and interaction of a system within its agreed terms of reference. A SyC can draft international standards, as well as other IEC deliverables. It functions generally in the same manner as a conventional technical committee, although special attention might need to be given to ensuring effective liaison and cooperation with members representing stakeholders beyond the IEC community.
- **Systems Resource Group (SRG):** a group populated by systems experts whose purpose is to guide the development and use of specialized tools and software applications for Systems, and encourage the use of these tools and sharing of best practices within the Systems Committees.

## **SP.2 Establishment of a Systems Evaluation Group (SEG)**

**SP.2.1** Systems Evaluation Groups are established and dissolved by the Standardization Management Board. They have a limited life, normally of 18 to 24 months and shall not have on-going tasks. They are not entitled to develop standards or other IEC deliverables.

A proposal for the establishment of a SEG can be made by

- a National Committee;
- the Standardization Management Board;
- the Chief Executive Officer.

A proposal for the creation of a SEG should include information on as many of the following as relevant:

- Market needs, market relevance and business drivers;
- Regulatory demands or other restrictions in countries or regions;
- Related work or other valuable information from other organizations or Industries;
- List of already identified stakeholders, including IEC technical committees, ISO technical committees and ITU SGs, fora and consortia outside of IEC which should be engaged in the work;
- Recommendation of needed expertise and administrative structure of the SEG;
- Proposal for an appropriate name of the SEG;
- Proposal for a convenor.

### **SP.2.2 Membership**

The SEG membership should have a strong competence in all the issues within the scope of the SEG. This may require participation of experts outside the normal IEC community.

There shall be an open call for participation of experts from both within and outside IEC, but there is no definitive limitation on numbers.

There is a need for representation from the TC/SCs concerned, as well as a representation from interested SMB members and National Committees. Where appropriate, participation from conformity assessment bodies, external organizations, such as ISO, ITU and fora / consortia, is encouraged.

It is expected that all interested experts be present and contribute constructively to the work.

A nomination for a Convenor of a SEG should be suggested by the proposer and shall be approved by the SMB. The Secretary is provided by the IEC Central Office.

### **SP.2.3 Tasks**

The principal task of a SEG is to evaluate whether or not there is a need for a new Systems Committee or other technical activity within the IEC. This entails the examination of the following factors:

- market needs, market relevance and business drivers;
- potential participants in the work from inside and outside IEC, including IEC and ISO technical bodies, ITU/SGs, fora, consortia and other groups outside of IEC;

- related work or other valuable information from other organizations or industries;
- environmental, energy and safety conditions considerations for the System work;
- regulatory demands or other restrictions in countries or regions;
- a relevant/suitable model or reference architecture, based on the methods provided by the System Resource Group, which actively supports this process;
- an initial set of use-cases<sup>6</sup> which can be mapped to the reference architecture or model in order to prove its validity;
- a gap analysis of existing work and activities.

If the need for a SyC is identified, the SEG should make a proposal supported by:

1. a justification for the proposal;
2. an appropriate title and scope;
3. the structure with subgroups and a Chair's Advisory Group;
4. if applicable, a survey of similar work undertaken in other bodies;
5. any liaisons deemed necessary with other bodies;
6. a possible work programme and a roadmap to be further detailed and updated by the SyC.

The roadmap shall identify any closely related systems activities to clearly position the expected new systems work with the active participation of the existing SyCs. Such a mapping shall get the full support of these respective SyCs.

Progress reports to SMB shall be presented regularly. SMB will carry out a review on the SEG activity and results between 18 and 24 months after setting-up.

### **SP.3 Establishment of Systems Committees**

**SP.3.1** System committees are established and dissolved by the Standardization Management Board.

**SP.3.2** A proposal for the establishment of a new systems committee is normally made by a Systems Evaluation Group.

**SP.3.3** The proposal shall be made using the appropriate form.

The form shall be submitted to the office of the CEO who shall ensure that the proposal is properly developed in accordance with IEC requirements and provides sufficient information to support informed decision making by National Committees.

If it is questionable whether proposal documentation provides sufficient information, the proposal shall be returned to the proposer for further development before circulation for voting. This is intended as a quality control process only, and shall not reflect any value judgment about the market relevance or need for the proposed standard(s).

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<sup>6</sup> **use case:** specification of a set of actions performed by a system, which yields an observable result that is, typically, of value for one or more actors or other stakeholders of the system (definition taken from IEC TC 8).

If a proposal is returned to the proposer for further development, the proposer has the right to request that its proposal be circulated for voting as originally presented and without further development.

**SP.3.4** The Chief Executive Officer shall assess the relationship of the proposal to existing work, and may consult interested parties, including the Chair of the Standardization Management Board or Chairs of committees conducting related existing work, immediately after such a proposal is received. If necessary, an ad hoc group may be established to examine the proposal.

Any comments and recommendations by the Chief Executive Officer resulting from the consultations shall be added to the proposal form. These comments and recommendations shall not include value judgments about the market relevance or need for the proposed standard(s).

**SP.3.5** The proposal shall be circulated by the office of the CEO to all National Committees of the IEC, asking whether or not they

- a) support the establishment of a new systems committee providing a statement justifying their decision, and
- b) intend to participate actively in the work of the new systems committee.

The proposal shall also be submitted to ISO for comment and for agreement.

The replies to the proposal shall be made using the appropriate form within 3 months after circulation. Regarding SP.3.5 a) above, if no such statement is provided, the positive or negative vote of a National Committee will not be registered and considered.

**SP.3.6** The Standardization Management Board evaluates the replies and either

- decides the establishment of a new SyC, provided that
  - a 2/3 majority of the National Committees voting are in favour of the proposal, and
  - at least 5 National Committees voting in favour have expressed their intention to participate actively, and allocates the secretariat, or
- assigns the work to an existing committee, subject to the same criteria of acceptance.

**SP.3.7** SyCs shall have a labelling assignment distinctive from the TC numbering systems (e.g. SyC-AAL, SyC-EE, etc.).

**SP.3.8** As soon as possible after the decision to establish a new SyC, the necessary liaisons shall be arranged.

**SP.3.9** A new SyC shall agree on its title and scope as soon as possible after its establishment, preferably by correspondence.

The scope is a statement precisely defining the limits of the work of a SyC. The definition of the scope of a SyC shall begin with the words "Standardization of ..." or "Standardization in the field of ..." and shall be drafted as concisely as possible.

For recommendations on scopes, see Directives Part 1, Annex J.

The agreed title and scope shall be submitted by the Chief Executive Officer to the Standardization Management Board for approval.

SyCs shall prepare a strategic business plan for its own specific field of activity (see 2.1.2 of ISO/IEC Directives, Part 1).

**SP.3.10** The Standardization Management Board or a systems committee may propose a modification of the latter's title and/or scope. The modified wording shall be established by the system committee for approval by the Standardization Management Board.

**SP.3.11** The secretariat is allocated to the IEC Central Office. For appointment of the Chair, the Central Office will issue a call for nominations to the P-members of the new SyC.

All valid nominations will be submitted to SMB members who will vote on designating a Chair. If one of the candidates obtains a 2/3 majority vote in favour, then he/she will be appointed as Chair of the SyC.

If none of the candidates obtains a 2/3 majority vote, all but the two candidates obtaining the most votes are eliminated. If there is a tie for the second place, all the candidates in second place will be retained.

The candidates remaining are then again submitted for vote to SMB. If one of the candidates obtains a 2/3 majority vote in favour, then he/she will be appointed as Chair of the SyC.

If none of the candidates obtains a 2/3 majority vote in favour, the candidate obtaining the most votes will be submitted for approval to SMB. If the candidate obtains a 2/3 majority vote in favour, he/she will be appointed as Chair of the SyC.

If at this stage it is not possible to designate a Chair, the decision will be deferred to the next SMB meeting.

#### **SP.4 Systems Resource Group (SRG)**

**SP.4.1** A Systems Resource Group is a group formed by the SMB to accomplish the following:

- Serve as a support and consulting Resource to SyCs and SEGs;
- Collect and share best practices between SyCs and SEGs;
- Specify, have built and perform acceptance tests for tools and guidance for specialized functions such as:
  - Architecture Models
  - Road mapping
  - Use Cases
- Serve as a repository of tools and methods to be used by SyCs and SEGs

**SP.4.2** The SRG is principally focused on the science of systems standardization and development of supporting infrastructure, and shall not engage in technical work of the systems groups themselves.

**SP.4.3** The members of the SRG are experts nominated by the NCs and approved by SMB. They must have strong systems proficiency.

The SRG works with all SyCs, but is intended to be different from SMB advisory committees. The members of the SRG are mostly systems experts, whereas the normal composition of technical advisory committees includes representatives of product TCs.

**SP.4.4** A report to SMB shall be presented regularly. SMB will carry out a review on the SRG activity and results when felt necessary.

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## REDLINE VERSION



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### Procedures specific to IEC

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## FOREWORD

### 0.1 General

This Supplement to the ISO/IEC Directives comprises modifications and additions to the ISO/IEC Directives that have been approved by the Standardization Management Board for implementation within IEC.

Reference is also made to the list of additional documentation provided on the IEC web site.

Relevant material from this documentation will be regularly included in this Supplement.

Part 1 of the ISO/IEC Directives, together with this Supplement, provides the complete set of procedural rules to be followed by IEC committees.

Generic terminology is used in the common parts of the ISO/IEC Directives and this has been replaced by terminology particular to the IEC in this Supplement (for example, the TMB is called the Standardization Management Board in this Supplement).

Attention is also drawn to the fact that these procedures do not apply to ISO/IEC JTC 1, for which reference should be made to the ISO/IEC Directives, Procedures for the technical work of ISO/IEC JTC 1 on information technology.

### 0.2 The structure of the IEC Supplement

The clause structure of the *IEC Supplement* follows that of Part 1 of the *ISO/IEC Directives* to the first subclause level, e.g. to the level of 1.7, 2.1, etc., in order to assist in cross-relating the texts. If there are no comments (see, for example subclause 1.4), it means that there are no IEC-specific requirements or recommendations.

Annexes specific to this Supplement are labelled starting from Annex SA, SB, SC etc.

### 0.3 Major changes from the previous edition

The following significant changes have been made with respect to the previous edition:

- ~~a) justification statement when voting negatively on an NP (2.3.4);~~
- ~~b) preparation of French versions of documents (E.3.1);~~
- ~~c) new Annex SP on Systems standardization.~~
- a) changes to the appointment of Chairs of technical committees and subcommittees (subclauses 1.8.1.1 and 1.8.1.2);
- b) addition of a new subclause 1.15.5 on liaison coordinator;
- c) shortening of the voting period for FDIS from 8 to 6 weeks (subclause 2.7.1);
- d) modifications to Annex SM (Organization, rules and procedures of CISPR): changes to subclause SM.3.2; addition of new subclauses SM.3.4, SM.3.5 and SM.4.3.

## 1 Organizational structure and responsibilities for the technical work

### 1.1 Role of the technical management board

### 1.2 Advisory groups to the technical management board

### 1.3 Joint technical work

### 1.4 Role of the Chief Executive Officer

### 1.5 Establishment of technical committees

**1.5.12** “Stand-by” – a technical committee or subcommittee is said to be in a “stand-by” status when it has no tasks on its working programme but retains its title, scope and secretariat so that it can be reactivated should a new task be assigned to it.

The decision to put a committee on stand-by or to reactivate it is taken by the Standardization Management Board on a proposal from the committee in question.

### 1.6 Establishment of subcommittees

### 1.7 Participation in the work of technical committees and subcommittees

### 1.8 Chairs of technical committees and subcommittees

#### 1.8.1 Appointment

##### 1.8.1.1 Introduction

~~Chairmen of technical committees shall be nominated by the secretariat of the technical committee and appointed by the Standardization Management Board (SMB), for a maximum period of 6 years, or for such shorter period as may be appropriate. One single extension, of a maximum of 3 years, is allowed.~~

~~Chairmen of subcommittees shall be nominated by the secretariat of the subcommittee and appointed by the technical committee for a maximum period of 6 years, or for such shorter period as may be appropriate. One single extension, of a maximum of 3 years, is allowed. Approval criterion for both appointment and extension is a two thirds majority vote of the P members of the technical committee.~~

~~The possibility of appointing as chairman, a national of a country other than that of the secretariat is recommended.~~

Secretariats are strongly encouraged to appoint a Chair from a National committee other than its own. Chairs from the same National committee as the Secretary should only be approved in exceptional circumstances, for example when no other candidate is available.

##### 1.8.1.2 Procedure

Twelve months before the end of the term of office of a TC/SC Chair, Central Office requests the TC/SC secretariat to indicate whether it wishes to nominate another candidate as Chair or extend the term of office of the current Chair. For the appointment of Chairs ~~and extension of their term of office~~, the following procedure is applied:

- a) All National Committees are informed of the vacancy and invited to submit nominations to the secretariat within a period of ~~3 months~~ 12 weeks. Nominations shall include a CV and a brief motivation statement.
- ~~b) The secretariat chooses a single candidate from the nominations received from National Committees.~~

- b) When multiple candidates are nominated, the P-members of the TC or SC shall be asked in a questionnaire (Q document) to express their preference for one of the candidates. The responses are seen only by IEC CO and the Secretariat is notified of the level of support for each candidate. The secretariat chooses a single candidate from the nominees but is not bound by the results of the questionnaire. However if a nominee other than the one receiving the most support is nominated, the Secretariat shall provide the rationale for its nomination.
- c) When the Secretariat is requesting the extension of the term of office of the current Chair, the nomination is submitted in accordance with d) below.
- ~~e~~d) The nomination is submitted, in the case of a TC Chair to the Standardization Management Board and, in the case of a SC Chair to the P-members of the technical committee, for approval within 6 weeks.
- ~~d~~e) Any objections to the extension submitted by the SMB members or by the P-members during the voting period shall be distributed immediately to the other members.
- ~~e~~f) If the nomination is not supported by either a two-thirds majority of the SMB members voting in the case of a TC or by a two-thirds majority of TC P-members voting in the case of a SC, the procedure shall be repeated.

### **1.8.3 Vice-Chairs of technical committees and subcommittees**

Technical committees and subcommittees can choose to appoint one or more Vice-Chairs at their discretion.

The process for appointing Vice-Chairs shall be the responsibility of the technical committees and subcommittees.

Technical committees and subcommittees are given wide latitude in the scope and portfolio of responsibility of any Vice-Chairs they choose to appoint, however, the following conditions apply:

- a) The responsibilities shall be meaningful and not ceremonial
- b) The responsibilities shall be clearly stated along with the nomination of candidate(s) for the role.

Vice-Chairs can be appointed for up to three years.

## **1.9 Secretariats of technical committees and subcommittees**

### **1.10 Project committees**

### **1.11 Editing committees**

### **1.12 Working groups**

#### **Project teams**

During the process of approving a new work item (see ISO/IEC Directives Part 1), P-members approving the work item are required to appoint experts able to participate in the development of the project. These experts form a project team (PT) operating under the responsibility of the project leader. Once the project has been finished, the project team shall be disbanded. Each project team should normally have only one project on its work programme. Project teams may either be grouped together into working groups or report directly to the parent committee. In the latter case, project teams shall be designated by the project number assigned to the project concerned.

For other aspects relating to the work of project teams, the procedures for working groups apply (see ISO/IEC Directives Part 1).

### **1.13 Groups having advisory functions within a committee**

## 1.14 Ad hoc groups

## 1.15 Liaison between technical committees

**1.15.5** With a view to maintaining effectiveness of liaison activities, a Liaison Coordinator (the Chair, the Vice-Chair, the Secretary or a designated expert) may be appointed by a TC or SC to manage and coordinate the liaison activities in the TC or SC as a whole.

The name and contact information of the Liaison Coordinator shall be made available to all National bodies.

A TC or SC may define the roles and responsibilities of the Liaison Coordinator under the following conditions:

- a) The Liaison Coordinator should address information requests on emerging technologies in the process of standards development.
- b) The Liaison Coordinator should ensure that reports from TC/SC Liaison Officers be submitted to the TC/SC.
- c) The Liaison Coordinator, with help of the Technical Officer responsible for the TC or SC concerned, should inform established liaisons of potential new work item proposals (NPs) in order to deal with potential conflicts in earlier stage of standardization.

## 1.16 Liaison between ISO and IEC

## 1.17 Liaison with other organizations

### 1.17.2 Liaisons at the technical committee and subcommittee level

The procedure for the establishment of Category A and B liaisons is:

- The organization wishing to create a Category A or B liaison shall send an application to the IEC CEO with copies to the technical committee or subcommittee officers and IEC CO Technical Officer giving the following information:
  - Organization is not-for-profit;
  - Organization is open to members worldwide ~~and~~ or over a broad region;
  - Its activities and membership demonstrate that it has the competence and expertise to contribute to the development of International Standards or the authority to promote their implementation in the area of the technical committee or subcommittee concerned (Only relevant for category A liaisons);
  - The name of the main contact person.

NOTE Invariably the organization will have been in contact with the technical committee or subcommittee officers prior to submitting its application and in these cases the technical committee or subcommittee officers should ensure that the organization is aware of their obligations as given in clauses 1.17.1 i.e. copyright, agreeing to ISO/IEC procedures including IPR, and patent rights.

- The IEC CEO will confirm that the eligibility criteria have been fulfilled and then consult with the IEC NC where the organization making the application has its headquarters;
- Upon a non-objection from the IEC NC where the organization making the application has its headquarters, the application will be sent to the technical committee or subcommittee secretary with a request to circulate it for vote;
- Approval criteria for category A or B liaisons are a 2/3rds. majority of P-members voting approve with the additional requirement that the P-member country in which the proposed liaison organization is based shall not have voted negatively.

## **2 Development of International Standards**

### **2.1 The project approach**

#### **2.1.6**

The following time limits may be used as guidance when establishing target dates (following approval of the work item):

- availability of working draft (if not supplied with the proposal): 6 months;
- availability of committee draft: 12 months;
- availability of enquiry draft: 24 months;
- availability of approval draft: 33 months;
- availability of published standard: 36 months.

### **2.2 Preliminary stage**

### **2.3 Proposal stage**

#### **2.3.4**

In the IEC, the last paragraph of 2.3.4 of ISO/IEC Directives; Part 1 is replaced by the following:

National bodies shall provide a justification statement when voting negatively on an NP. In the absence of such a statement, the negative vote of a national body will not be registered and considered.

The following additions apply.

The Chair and secretary of a technical committee or subcommittee may decide, where appropriate, that the ballot on a new work item proposal and enquiry draft ballot proceed in parallel. This can obviously be done only if a mature enquiry draft is available for ballot.

The new work item proposal and enquiry ballots shall be distributed simultaneously with two distinct references and with two distinct ballots. The time limits for the new work item proposal and enquiry draft ballots shall remain unchanged.

During the new work item ballot, the work item is considered as being at the PNW stage code.

If the new work item proposal is not approved, the result of vote on the new work item proposal shall be issued immediately announcing that the enquiry draft ballot has been cancelled.

If the new work item proposal is approved, the result of vote on the new work item proposal shall be issued according to the normal procedures and the enquiry draft ballot shall continue. The project is considered as being at the CCDV stage code.

#### **2.3.5**

If the required number of nominated experts has not been obtained by the end of the voting period, P-members may, within ~~one month~~ 4 weeks, nominate further experts they consider will contribute effectively to the work, without resubmitting the new work item proposal for ballot.

### 2.3.6

The voting results will be reported to the IEC Central Office (using Form RVN) within 4 weeks after the close of the ballot.

## 2.4 Preparatory stage

## 2.5 Committee stage

## 2.6 Enquiry stage

### 2.6.1

The stability date shall be noted in the foreword in the event that there are no negative votes on the enquiry draft and the Chair of the technical committee or subcommittee selects the option to proceed directly to publication.

### 2.6.4

When proceeding directly to publication, no changes to the technical content of the enquiry draft shall be made.

## 2.7 Approval stage

2.7.1 At the approval stage, the final draft International Standard (FDIS) shall be distributed by the office of the CEO within 12 weeks to all national bodies for a 6-week vote.

### 2.7.2

Proposals for the correction of obvious errors associated with a positive vote should be sent directly to the technical committee or subcommittee secretary by the end of the voting period.

## 2.8 Publication stage

## 2.9 Maintenance of standards (and other IEC deliverables)

### 2.9.1 Definitions

#### 2.9.1.1

##### **stability period**

period over which a publication remains unchanged

#### 2.9.1.2

##### **review**

evaluation of the usage of a publication and need for maintenance

#### 2.9.1.3

##### **review date**

date when the review of a publication has been completed

#### 2.9.1.4

##### **maintenance** (of documents)

keeping existing International Standards (IS), Technical Specifications (TS) and Technical Reports (TR) updated, whilst respecting industries' needs for stable publications

#### 2.9.1.5

##### **maintenance team**

MT

group of experts designated to keep a publication or set of publications up to date



#### **2.9.1.6**

##### **stability date**

end of the stability period, when the committee's decision (withdrawal, confirmation, amendment, revision) has been implemented

#### **2.9.1.7**

##### **review report**

RR

form, which has the committee's decision after the review of a publication

### **2.9.2 Review**

Each publication shall be reviewed to assess whether it has an acceptable usage prior to evaluating if maintenance is needed.

NOTE A non-exhaustive list of indicators which may be used in the review process is given below:

- adoption or future adoption as a national standard or other publication;
- use by NCs without national adoption or for products manufactured/used based on the publication;
- publication or its national adoption referenced in regulation;
- IEC CO sales statistics.

If the committee concludes that the publication does not have an acceptable usage, then it shall decide to either withdraw it or confirm it for another stability period.

If the committee concludes that the publication has an acceptable usage, then it shall decide if there is a need for maintenance, noting that any minor changes which have no direct consequence for the application of the publication should be saved for future maintenance.

In such cases, when there are insufficient resources for maintenance, the committee shall take the decision to confirm the publication for another stability period. If there are sufficient resources for maintenance, the procedures of 2.9.3.2 apply.

A flow chart for the review process is given in Annex SA.

Alternatively, if there is common acceptance within a working group or maintenance team that maintenance is needed for a given publication, then a recommendation can be submitted to the technical committee or subcommittee P-members for decision either at a plenary meeting or by correspondence.

### **2.9.3 Maintenance**

#### **2.9.3.1 Establishment of maintenance team**

Each committee should set up one or more maintenance teams, comprised of groups of experts, designated by the P-members of the committee, by correspondence or during a TC/SC meeting and whose task is to keep a publication or a set of publications up to date.

Its members may be the same or different from those who developed the original publication.

The convenor shall be appointed by the TC/SC either by correspondence or at a meeting.

For other requirements relating to maintenance teams, the procedures for working groups apply, see the ISO/IEC Directives, Part 1.

#### **2.9.3.2 Maintenance procedure**

The maintenance team shall be activated once the committee has decided that there is a need for maintenance. The maintenance team shall be responsible for, revising or amending

publications subject to the maintenance procedure. It shall implement a project plan to enable the maintenance work to be completed by the end of the stability period.

The stability date shall be agreed by the committee. It shall be included in the CDV and also in the FDIS. Upon final publication, this information shall be given on the IEC web site under <http://webstore.iec.ch>.

Stability periods should be as long as possible based on an assessment of the maturity of the technology and future, foreseen changes due to development or maintenance of associated publications. Typically stability periods shall be between 3 and 12 years.

Individual proposals for changes may be distributed for information only and kept in hand by the TC/SC secretary until the next scheduled review.

If a committee needs to process an amendment or revision before the review date, it may decide to advance the review date and modify the stability date accordingly.

The steps for revision or amendment of a publication are the same as those for preparation of a new publication without the need to pass via the new work item proposal stage (CD (optional for the maintenance procedures), CDV, FDIS, as appropriate) and shall include the establishment of target dates for the completion of the relevant stages.

A new maintenance project may be started at the earliest when the current project is at the enquiry stage (i.e. circulation of the CDV).

Fragmented CDVs (multiple documents with a single vote on each document) may be used where considered appropriate for maintenance projects, however a consolidated document consisting of the approved fragments shall be submitted for the next stage in the project.

### **2.9.3.3 Review and stability dates**

Review and stability dates for a committee's publications will be available on the IEC website. They shall be included with the Report to the Standardization Management Board and will be subject to its approval.

## **2.10 Technical corrigenda and amendments**

### **2.10.3 Amendments**

As a general rule, if an amendment constitutes more than 10 pages or 15 % of the base publication, whichever is the smaller, the IEC Central Office will normally issue a complete new edition and not publish the amendment.

Consolidated versions are prepared by the IEC Central Office for user convenience consisting of the base edition with the amendment(s) and designated as for example Ed. 1.2 i.e. the first edition consolidated with the first and second amendments.

There are two types of consolidated versions:

- a) The old version where changes made to the base edition as a result of the amendment(s) are indicated with a black line in the margin. Sometimes the black line outlines a blank space where content has been removed but with no indication of the previous content;
- b) The new version applied to new consolidations that is to say publications consolidated with the first amendment. All the modifications – additions, deletions and replacements – made to the technical content of a publication by its amendment are highlighted in red using the track change functionality of Microsoft® Word.

## 2.10.5 Interpretation sheets

### 2.10.5.1 Introduction

An interpretation sheet provides a quick formal explanation to an urgent request by a user of a standard (testing laboratory, certification body, manufacturer, etc.). The request may come directly or via an IEC conformity assessment scheme.

It is recognized that it is sometimes difficult to define, what is a “matter of interpretation” for a given standard.

### 2.10.5.2 Proposal stage

A proposal for an interpretation sheet, including the draft text, may be submitted by

- the secretariat of the technical committee or subcommittee which is responsible for the relevant standard,
- a National Committee,
- an IEC Committee of Testing Laboratories (e.g. IECEE-CTL),
- any other body of the IEC.

Proposals emanating from the IEC schemes' technical bodies, e.g. IECEE-CTL or ExTAG, or from “any other body of the IEC” shall be sent via the office of the CEO to the secretary of the technical committee or subcommittee which is responsible for the relevant standard.

The Chair and secretary of the technical committee or subcommittee shall consider whether the subject is really a matter of interpretation within the sense of 2.10.5.1. If this is considered not to be the case, the subject shall be dealt with as a proposal for an amendment of the standard, or if it originated as a “Decision” in a scheme it may remain as a procedural clarification for use in the scheme. The technical committee or subcommittee shall inform the secretariat of the scheme of its conclusions, including whether the committee endorses the Decision as being compatible with the standard.

### 2.10.5.3 Preparatory stage

The secretary of the technical committee or subcommittee that is responsible for the relevant standard shall, within ~~one month~~ 4 weeks, circulate the draft for the interpretation sheet to all National Committees with a request for comments on the draft within a period of one month.

The proposal and the comments received shall be assessed by the Chair and secretary of the technical committee or subcommittee and be immediately communicated to the secretariat of the appropriate scheme. If deemed necessary, it may further be discussed at the next meeting of the technical committee or subcommittee.

The final wording of the interpretation sheet shall then be agreed upon.

### 2.10.5.4 Approval stage

The draft shall be distributed in bilingual version to the National Committees for approval with the voting period being ~~two months~~ 8 weeks. It shall be referenced as a final draft International Standard, the title being “Interpretation of Clause x, y, z of IEC: ...”

The draft will be considered to have been approved for publication if:

- a) two-thirds majority of the votes cast by P-members of the committee are in favour, and
- b) not more than one-quarter of the total number of votes cast are negative.

Abstentions are excluded when the votes are counted.

#### **2.10.5.5 Issue of interpretation sheets**

The draft, when approved, shall be issued by the Central Office with the heading "Interpretation sheet".

The interpretation sheet shall be sent to the National Committees and shall be included with the relevant IEC Publication at the time of sale. It shall also be sent to the Secretariats of the appropriate IEC Conformity Assessment Bodies for publication in the CB Bulletin. The issue of interpretation sheets shall be announced by the IEC. The reference numbers of applicable interpretation sheets shall also be given in the IEC catalogue under the publication number.

For a given IEC publication, each interpretation sheet shall be numbered as follows:

TC .../	Publication .../ Date, Edition	I-SH .../
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EXAMPLE: TC 61/Publication 60335-2-9(1986) Third edition/I-SH 01.

#### **2.10.5.6 Review**

Every 3 years, the Technical Committee shall review the interpretation sheets in order to check their applicability.

When an amendment to the publication or a revised publication is issued, the opportunity shall be used to consider the inclusion of the contents of the interpretation sheets in the amendment or the revised text.

Once the contents are included in the amendment or in the revised text, the relevant interpretation sheets shall be withdrawn

### **2.11 Maintenance agencies**

### **2.12 Registration authorities**

### **2.13 Copyright**

### **2.14 Reference to patented items (see also Annex I)**

## **3 Development of other deliverables**

### **3.1 Technical Specifications**

### **3.2 Publicly Available Specifications (PAS)**

#### **3.2.2**

The submission of a PAS can be made using:

- a) a draft originating from an existing, approved project for the development of an International Standard prior to the circulation of the enquiry draft (CDV);
- b) a proposal for a PAS where there is no existing approved project. In this case, it may be either submitted directly for approval, noting that for subsequent transformation into either a TS or IS, it shall go via the new work item proposal procedure or for immediate transformation of the PAS into another normative document by the parallel circulation of the PAS and a new work item proposal (see Annex SB).

### **3.2.3**

The wording “Pre-standard” may be included on the cover and title pages at the request of the technical committee or subcommittee. It shall be in smaller font and situated immediately below “Publicly Available Specification” at the top of the page.

## **3.3 Technical Reports**

## **4 Meetings**

### **4.1 General**

NCs are reminded that they are not permitted to charge delegates/ experts any sort of participation fee for any meetings of technical committees, subcommittees, working groups, maintenance and project teams. These meetings shall be funded entirely by resources from the NC and/or local sponsors.

### **4.2 Procedure for calling a meeting**

#### **4.2.1.3**

The agenda shall clearly state the starting and estimated finishing times.

In the event of meetings over running the estimated finishing time, the Chair shall ensure that the P-members are willing to take voting decisions. However if P-members leave, they may request the Chair not to take any further voting decisions.

### **4.3 Languages at meetings**

### **4.4 Cancellation of meetings**

## **5 Appeals**

### **5.1 General**

### **5.2 Appeal against a subcommittee decision**

### **5.3 Appeal against a technical committee decision**

### **5.4 Appeal against a technical management board decision**

### **5.5 Progress of work during an appeal process**

**Annex A**  
(normative)

**Guides**

**Annex B**  
(normative)

**ISO/IEC procedures for liaison and work allocation**

**Annex C**  
(normative)

**Justification of proposals for the establishment of standards**

## **Annex D** (normative)

### **Resources of secretariats and qualifications of secretaries**

#### **D.1 Reference material for secretaries**

The latest editions of the publications listed are essential reference material for secretaries of IEC committees. All of these publications are available on the IEC web site.

a) The ISO/IEC Directives:

- Part 1: Procedures for the technical work
- Part 2: Rules for the structure and drafting of International Standards<sup>1</sup>
- IEC Supplement

b) IEC Statutes and rules of procedure

c) IEC Directory<sup>2</sup>

d) Catalogue of IEC Publications<sup>2</sup>

Secretaries should also be aware of the material listed in ISO/IEC Directives, Part 2.

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<sup>1</sup> Lists further documents to which a secretary will need to refer.

<sup>2</sup> Up-to-date information is available on the IEC web site (<http://www.iec.ch>).

## **Annex E** (normative)

### **General policy on the use of languages**

#### **E.3 International Standards**

##### **E.3.1 Preparation of French versions of documents**

###### **E.3.1.1 French versions of enquiry drafts (CDVs)**

TC/SC Secretaries shall make available the English version of the CDV(s) they request to be circulated for voting to the relevant Technical Officer in charge of their committee at the Central Office who will make the CDV text available to any interested National Committee for translation purposes. This shall be followed 60 days later by the circulation of the bilingual (English and French) CDV within the committee concerned.

When the French version is submitted within 30 days after the circulation of the English version, it will be circulated separately without changing the deadline for vote.

###### **E.3.1.2 French versions of final draft International Standards (FDISs)**

TC/SC secretaries shall make available the English version of the FDIS(s) they request to be circulated for voting to the relevant Technical Officer in charge of their committee at the Central Office which will make the FDIS text available to the French National Committee as well as any other interested National Committee for translation purposes. The French National Committee will be requested to confirm within 7 days if a French version of the FDIS will be provided within the 60 days period. If no response is received after 7 days, a monolingual FDIS will be circulated.

The bilingual FDIS will be processed by IEC CO upon completion of the French translation or the 60 days period, whichever occurs first.

When the request refers to a previously translated document, then it shall be accompanied by a marked-up file, preferably using vertical lines in the margins as opposed to coloured revision marks, clearly identifying the changes.

When the French version of a final draft International Standard is received after the 60 days limit and before the end of the voting period, the Central Office will consider whether it is possible to publish a bilingual standard within the time limit (see ISO/IEC Directives, Part 1). If not, the bilingual standard will be published later. A note will be inserted in the Foreword of the International Standard to indicate that the French text has not been subject to voting.

The French version of a final draft International Standard may also be submitted after the standard has been published in English. The Central Office will then prepare and publish a bilingual version, replacing the monolingual version, again with a note in the Foreword to indicate that the French text has not been subject to voting.

###### **E.3.1.3 French versions of Technical Specifications (TS) and Technical Reports (TR)**

TC/SC secretaries shall make available the English version of the TS(s) and TR(s) they request to be circulated for voting to the relevant Technical Officer in charge of their committee at the Central Office which will make the TS or TR text(s) available to the French National Committee. The French National Committee will be requested to confirm within one week if a French version of the TS or TR will be provided within the 60 days period. If no response is received after 7 days, a monolingual TS or TR will be circulated.



When the French version is submitted within 30 days after the circulation of the English version, it will be circulated separately without changing the deadline for vote.

When the French version of a TS or TR is received after the 60-day limit and before publication, the Central Office will consider whether it is possible to publish a bilingual publication without incurring significant delay. If not, the bilingual publication will be published later. If the French text has not been subjected to voting then this will be indicated in the Foreword.

**Annex F**  
(normative)

**Options for development of a project**

**Annex G**  
(normative)

**Maintenance agencies**

**Annex H**  
(normative)

**Registration authorities**

**Annex I**  
(normative)

**Guidelines for Implementation of the Common Patent Policy  
for ITU-T/ITU-R/ISO/IEC**

**Annex J**  
(normative)

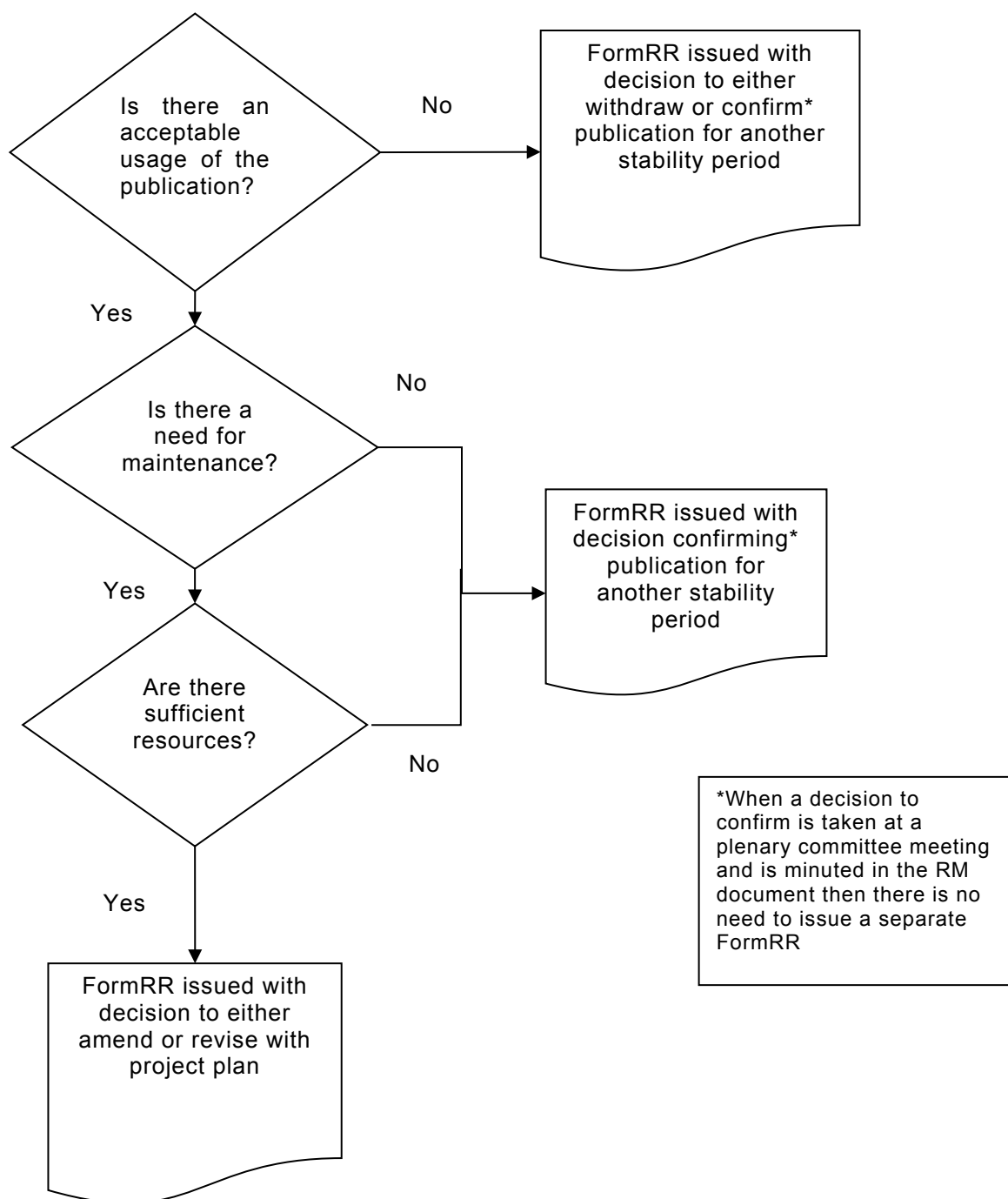
**Formulating scopes of technical committees and subcommittees**

**Annex K**  
(normative)

**Project committees**

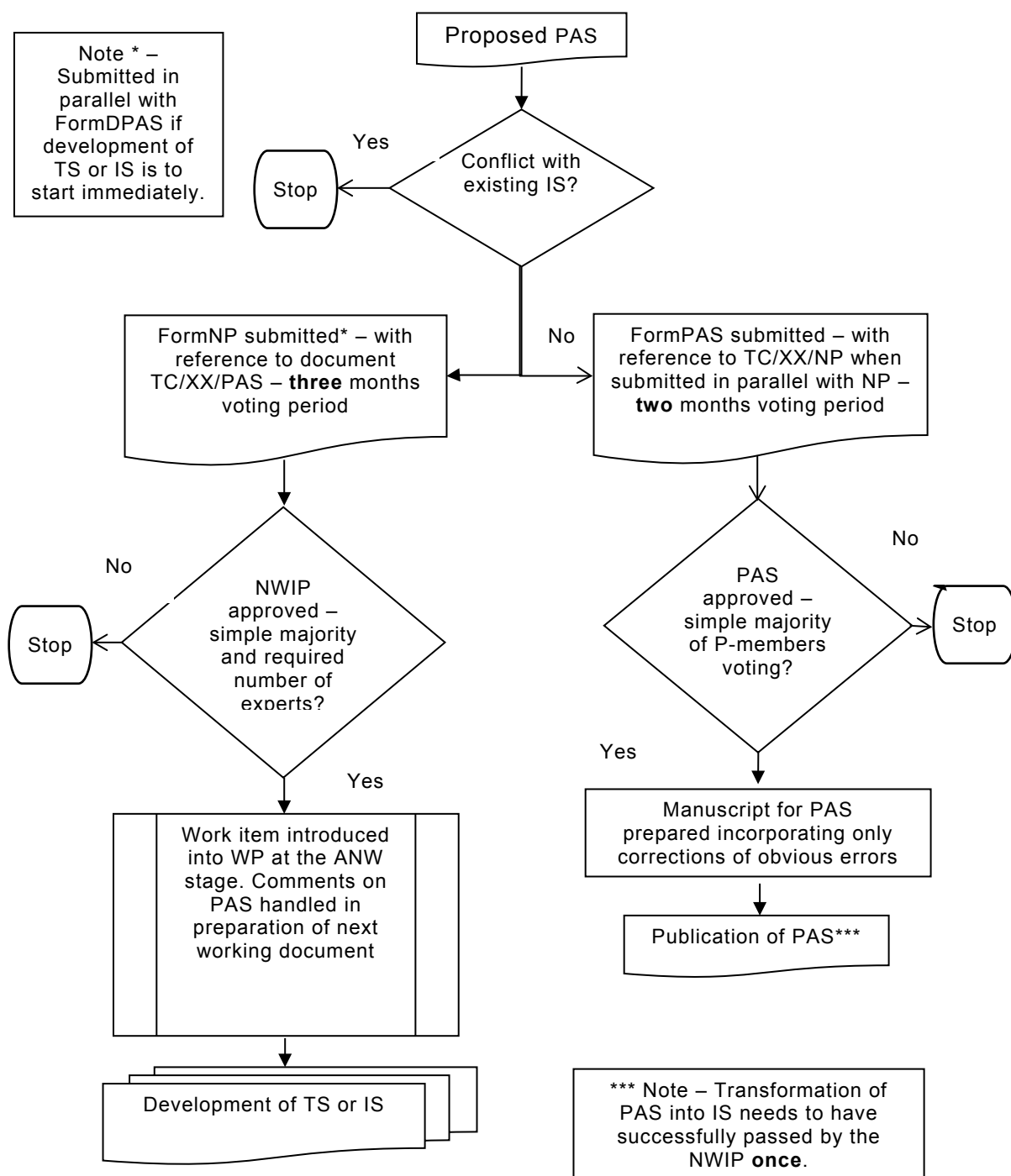
## Annex SA (normative)

### Review process – flow chart



## Annex SB (normative)

### PAS procedures – flow chart



## Annex SC (normative)

### Inclusion of text concerning particular conditions existing in certain countries (exceptions)

An IEC National Committee may provide a statement to be included in an International Standard, informing the user of the standard of particular conditions existing in its country.

NOTE 1 It is important to note that this statement is purely informative. Any statement of compliance with the standard requires compliance with the normative elements of the standard. The contents of an "in some countries" clause may become normative requirements in a regional/national adoption of the standard in the region/country concerned. Such an adoption is a modified (MOD) version of the IEC standard.

The inclusion of the statement does not need the approval of the relevant technical committee or subcommittee, or of its Chair or secretary. However, every effort shall be made to find solutions that would make statements regarding particular conditions unnecessary.

NOTE 2 It is preferable that the officers and other members agree to the statement provided by a National Committee. However, in the end it is the National Committee concerned that decides on the statement. If the officers or other members disagree with the statement proposed, there is room for discussion to determine clearly what it is that gives rise to an "in some countries" clause, and possibly make accommodation on both sides, to result in either elimination of the need for the statement, or a document with an acceptable statement. The onus is on the TC/SC officers to identify a situation and make best efforts to resolve it.

Any possible misuse of the clause that cannot be resolved by the Chairs and secretaries of TC/SCs should be brought to the attention of the Standardization Management Board for decision.

NOTE 3 If, after serious discussions with the National Committee concerned, the TC/SC officers feel that there is misuse of the clause, they should refer the matter to the Standardization Management Board.

A statement by a National Committee shall be given prior to the circulation of a final Draft International Standard (FDIS) for voting, preferably at a meeting of the relevant technical committee or subcommittee, or, at least, after consultation with its Chair and secretary.

NOTE 4 The final point at which a National Committee can request the inclusion of an "in some countries" clause is on receipt of the voting report of the CDV. Before the FDIS text is sent to Central Office, the officers will need to address the statement and, either concur with it, or enter into discussions with the National Committee submitting the statement, referring the matter, if necessary, to the Standardization Management Board.

Two cases of particular conditions are distinguished:

- a) *conditions of a permanent nature, such as mains voltages, mains frequencies or climate*: a statement regarding such a situation shall be included in the body of the draft International Standard with reference to the country or group of countries concerned;
- b) *differing practices of a less permanent nature*: a statement regarding such a situation shall be included in the foreword or in an informative annex, with a note in the foreword referencing it, of the draft International Standard with reference to the country or group of countries concerned.

It is the prerogative of a National Committee to declare whether a given national situation is case a) or case b).

NOTE 5 It is the submitting National Committee that has final say as to where to place the "in some countries" clause.

When voting on a draft International Standard containing one or more statements regarding particular conditions existing in certain countries, National Committees that are not concerned shall not take the existence of such statements as a reason for a negative vote.

NOTE 6 National Committees are reminded that they cannot vote on such a statement provided by another National Committee. This reinforces the concept of each National Committee having full authority over statements concerning conditions in its country.

## **Annex SD** (normative)

### **Criteria for SMB consideration of requests by technical committees or subcommittees for approval to prepare a separate standard or other document for conformity assessment requirements**

In accordance with 6.7 of the ISO/IEC Directives, Part 2, 2011, product standards, process standards and service standards shall not include elements related to conformity assessment aspects other than testing provisions (and associated sampling). However, technical committees or subcommittees may, with the prior approval of the Standardization Management Board based on satisfying all of the criteria below, develop a separate standard specifying additional conformity assessment requirements. The Standardization Management Board shall assess requests from technical committees or subcommittees, to produce a separate standard containing additional conformity assessment requirements, against the following criteria:

- a) The product, process or service that is the subject of the principal standard shall not be subject generally to regulation, as in such cases the regulator will specify the relevant conformity assessment requirements.
- b) The product, process or service shall be such as to impose significant potential risk to personnel or other equipment or property if it fails to comply in full with the specifications in the standard (e.g. equipment for high voltage live line working).
- c) A market need for such a standard shall be identified and there shall be no existing standard that includes the relevant requirements.
- d) The technical committee or subcommittee shall outline the conformity assessment requirements it wishes to include in the standard and the justification for such requirements.

Before deciding whether to approve the request, the SMB will first refer it to the CAB for a recommendation.

## **Annex SE** (normative)

### **Transitional period for the adoption by member countries of IEC publications**

Transitional periods for the adoption by member countries of IEC publications to define a suitable transitional period from the use of the old to the new edition may be provided on an informative basis.

IEC publications should not specify arbitrary transitional periods that would be inconsistent with the requirements in different markets.

For those publications specifying a transitional period, the following standard text shall be added as a note in the Foreword after the paragraph on maintenance:

NOTE The attention of National Committees is drawn to the fact that equipment manufacturers and testing organizations may need a transitional period following publication of a new, amended or revised IEC publication in which to make products in accordance with the new requirements and to equip themselves for conducting new or revised tests.

It is the recommendation of the committee that the content of this publication be adopted for implementation nationally not earlier than X months/years from the date of publication.

The standard text given above shall be incorporated into the foreword of publications no later than at the enquiry stage (CDV).

This standard text shall be reproduced in the abstract.

When the transitional period is used for a revised edition, then the following additional text shall be added to the abstract:

In the meantime, the previous edition can still be ordered by contacting your local IEC member National Committee or the IEC Central Office.

During the transitional period of a revised edition, both editions of the publications will be available.

Technical committees and subcommittees should also ensure that there is coherence between the transitional period and stability period. As a general rule, the transitional period should not exceed the stability period.

## Annex SF (normative)

### Document distribution within IEC

DOCUMENTS	PARTY(IES) CONCERNED									
	Proposal initiator	TC or SC secretariat	TC or SC P-members	TC or SC O-members	Category A liaisons	Office of CEO	WG/PT convenor	WG/PT experts	National bodies	TC or SC Chair
<b>Proposal stage</b>										
New work item proposal	★					●				
Copy of proposal		●				★				
Comments on the proposal		★				●				
Copies of proposal & ballot		○	●	○	○	★ <sup>1)</sup>				○
Completed ballot			★			●				
Votes/comments		●				★				
Result of voting		★				■				
	●	●	○	○	○	★ <sup>1)</sup>				○
<b>Preparatory stage</b>										
Working draft(s) (WD)							★	●		
Final working draft		●					★	○		
<b>Committee stage</b>										
Committee draft(s) (CD)		★				■				
Comments		○	●	○	○	★ <sup>1)</sup>				○
Compilation of comments + proposal		○	★	☆	☆	●				
Reaction to proposal		★				●				
		○	●	○	○	★ <sup>1)</sup>				○
		○	☆			●				
<b>Enquiry stage</b>										
Committee Draft for Vote (CDV)		★				■				
Committee Draft for Vote & ballot		○	●	●	○	★ <sup>1)</sup>				○
Votes/comments		○	★	★		●			★	
Result of vote and proposal		●				★			○	○
		★				■				●
		○	●	○	○	★ <sup>1)</sup>				○
Text for Final Draft International Standard		★				■				
<b>Approval stage</b>										
Final Draft International Standard and ballot		○			○	★ <sup>1)</sup>			●	○
Completed ballot						●			★	
Final corrections to standard		★				■	○			○
Result of voting		○			○	★ <sup>1)</sup>			○	○
<b>Publication stage</b>										
International Standard		○				★ <sup>1)</sup>			○	○
★ Sender of document					1)	For a SC, a copy is also sent to Chair and secretariat of the TC for information				
● Recipient for action					○	Recipient for information				
■ Recipient for registration action					☆	Optional action				



## Annex SG (normative)

### Reporting of secretariats within IEC

DOCUMENTS	PARTY(IES) CONCERNED							
	WG/PT convenor	WG/PT experts	SC secretariat	TC secretariat	TC or SC P- and O- members and A- liaisons	Office of CEO	Standar- dization Manage- ment Board	President, Vice- President and Council members
<b>SC working group / project team</b>								
– meeting report	* —	○ —	○					
– progress report to SC meeting	* —	○ —	○					
<b>TC working group / project team</b>								
– meeting report	* —	○ —		○				
– progress report to TC meeting	* —	○ —		○				
<b>Subcommittee</b>								
– meeting report			* —	○ —	○ —	●		
– progress report to TC meeting			* —	○ —	○ —	●		
– report to Standardization Management Board			* <sup>1)</sup> —	* —	○ —	●	○ —	○
<b>Technical committee</b>								
– meeting report				* —	○ —	●		
– report to Standardization Management Board				* —		●	○ —	○
<b>Office of CEO</b>								
– progress report on the technical work			○ —	○ —	○ —	* —	○ —	○
<b>Standardization Management Board</b>								
– progress report on the technical work					○ —	● —	* —	○
* Sender ● Recipient for redistribution action ○ Recipient for information								

1) Only if the SC meets in isolation from the parent TC

## Annex SH (normative)

### IEC project stages

STAGE	SUB-STAGE				
	<b>00</b> Registration	<b>20</b> Start of main action	<b>60</b> Completion of main action	<b>70</b> Completion of further action	<b>90</b> Decision
<b>00</b> Definition of new project	<b>00.00</b> Registration of PWI				
<b>10</b> Evaluation of project proposal	<b>10.00</b> Registration of project proposal for evaluation PNW				
<b>15</b> Evaluation of Interest					
<b>20</b> Drafting stage	<b>20.00</b> Registration of new project ANW				<b>20.98</b> Abandon <b>CAN, DEL</b>
<b>30</b> Consensus building		<b>30.20</b> Circulation for comment 1CD			<b>30.92</b> Return to drafting phase or redefine project <b>BWG</b> <b>30.97</b> Merge or split project <b>MERGED</b> <b>30.98</b> Abandon <b>DREJ</b> <b>30.99</b> Register for next applicable phase <b>A2CD</b>
<b>35</b> Second level consensus building		<b>35.20</b> Circulation for Comment 2CD to 9CD			<b>35.91</b> Draft to be discussed at meeting <b>CDM</b> <b>35.92</b> Return to drafting phase <b>A3CD to A9CD</b> <b>35.99</b> Register for next applicable phase <b>ACDV</b>
<b>40</b> Enquiry stage		<b>40.20</b> Circulation for enquiry CCDV			<b>40.91</b> Draft to be discussed at meeting <b>CDVM</b> <b>40.93</b> Repeat enquiry <b>NADIS</b> <b>40.95</b> Preparation of text subcontracted to CO <b>ADISSB</b> <b>40.99</b> Register for next applicable phase <b>ADIS, DEC</b>
<b>50</b> Approval stage	<b>50.00</b> Registration for formal approval RDIS	<b>50.20</b> Circulation for formal approval CDIS CDPAS			<b>50.92</b> Return to drafting phase <b>NCD</b> <b>50.95</b> Preparation of text subcontracted to CO <b>APUBSB</b> <b>50.99</b> Register for next phase <b>APUB</b>
<b>60</b> Publication stage	<b>60.00</b> Document under publication BPUB		<b>60.60</b> Document made available PPUB		
<b>90</b> Review stage					<b>90.92</b> Review report <b>RR</b>
<b>92</b> Revision or amendment		<b>92.20</b> Document under revision AMW			
<b>95</b> Withdrawal procedure					<b>95.99</b> Proceed to withdrawal <b>WPUB</b>
<b>99</b> Withdrawal stage			<b>99.60</b> Approval of withdrawal DELPUB		

## Annex SI (normative)

### Numbering of documents

#### SI.1 Working documents

All IEC documents intended for circulation bear a reference. This reference is composed of three parts:

- a) a number, indicating the technical committee or subcommittee for which the document is primarily intended;
- b) the serial number of the document with respect to the committee;
- c) a mnemonic indicating the type of document<sup>3</sup>.

EXAMPLE Document **18/21/CD** is the 21st document for circulation in IEC/TC 18 and currently has the status of a committee draft.

The serial number is allocated by the Central Office at the time of circulation of the document, based on the register of all documents kept by the Central Office

#### SI.2 Allocation of project number

When a new project is registered by the Central Office (see ISO/IEC Directives, Part 1), the latter allocates a number to the project. The number allocated remains the same for the ensuing CD, CDV and FDIS and for the published International Standard. The number allocated is purely a registration and reference number and has no meaning whatsoever in the sense of classification or chronological order. The number allocated to a withdrawn project or International Standard shall not be used again.

If the project represents a revision or amendment of an existing International Standard, the registered project shall be allocated the same number as the existing International Standard (with, in the case of an amendment, a suffix indicating the nature of the document). If, however, the scope is substantially changed, the project may be given a different number.

<sup>3</sup> List of mnemonics to indicate the type of document

AC	Administrative Circular	NCC	National Committee Comment (C/SMB only)
CC	Compilation of Comments on CD	NCP	National Committee Proposal
CD	Committee Draft for Comments	NP	New Work Item Proposal
CDV	Committee Draft for Vote	PAS	Publicly Available Specification
DA	Draft Agenda	PW	Programme of Work
DC	Document for Comments	Q	Questionnaire
DIS	Draft International Standard	QP	Question of Principle (SMB only)
DL	Decision List	R	Report
DTS	Draft Technical Specification	RSMB	Report to Standardization Management Board
DTR	Draft Technical report	RM	Report on Meeting
DV	Draft for Voting (C/SMB only)	RQ	Report on Questionnaire
FDIS	Final Draft International Standard	RV	Report of Voting (C/SMB only)
FMV	Four Months' Vote (IECQ CMC only)	RVC	Report of Voting on CDV, DTS or DTR
INF	Document for Information	RVD	Report of Voting on FDIS or PAS
ISH	Interpretation Sheet	RVN	Report of Voting on NWP
RR	Review Report	SBP	Strategic Business Plan
MT	Maintenance Team List	WD	Working Document (SB only)
MTG	Meeting Document		

### **SI.3 Meeting documents**

Meeting documents, as the name implies, are intended for use only at a meeting of a committee. They shall be made available in the “Collaboration Tools Suite” in the area “TC/SC Meetings” (<http://collaboration.iec.ch/>) in each Technical Committee area. The system gives the possibility to create and upload new documents and classify them in folders by Technical Committee and Subcommittee. It is possible for TC/SC officers to create their own new folders.

Meeting documents shall be available for a given meeting to the participants only, and shall not be distributed afterwards to National Committees unless this is requested by a National Committee or the secretariat of the technical committee or subcommittee.

As such documents are thus not generally available, no reference to them shall normally be made in the final minutes of the meeting or other documents intended for general circulation. However, where this is unavoidable, a note shall be added to the effect that copies can be obtained from the secretary on request until the next meeting.

A collection of meeting documents may be made available in the form of an archived folder and distributed with an “MTG” reference.

All documents issued at meetings for use in the meeting carry a reference composed of the number of the technical committee (or subcommittee, etc.), the place of the meeting and the origin of the document, followed by a meeting serial number.

#### **EXAMPLES**

**20(Paris/Secretariat)2**

**20(Paris/Belgium)3**

If a National Committee reproduces a meeting document itself and sends copies to the meeting, it should leave a blank space for the serial number to be added at the meeting place.

### **SI.4 Documents from groups within a committee**

The reference number of the documents should avoid giving the impression that they originate from a National Committee and it is recommended that the name of the member should be used and not that of his country.

#### **EXAMPLE**

**100 WG1(Smith)5 or 100 WG1(Convenor)6**

## **Annex SJ** (normative)

### **Forms relating to standards development**

FORM NTC	Proposal for a new field of technical activity
FORM VTC	Vote on proposal for a new field of technical activity
FORM NSC	Decision to establish a subcommittee
FORM NP	New work item proposal
FORM RVN	Result of voting on new work item proposal
FORM CD	Cover page of committee draft
FORM CC	Compilation of comments on committee draft
FORM Comments	Annex for compilation of comments
FORM CDV	Cover page of committee draft for vote
FORM RVC	Result of voting on CDV, DTS or DTR
FORM FDIS	Cover page of final draft International Standard (FDIS)
FORM RVD	Report of voting on FDIS
FORM DTS	Cover page of draft Technical Specification
FORM DPAS	Cover page of draft Publicly Available Specification (PAS)
FORM RVDPAS	Report of voting on a draft PAS
FORM DTR	Cover page of draft Technical Report
FORM RR	Review report
FORM RSMB	Report to the Standardization Management Board
FORM SBP	Strategic Business Plan

All forms are available on the IEC web site at

[http://www.iec.ch/standardsdev/resources/docpreparation/forms\\_templates/](http://www.iec.ch/standardsdev/resources/docpreparation/forms_templates/).

## **Annex SK** (normative)

### **Rules for terminology work**

#### **SK.1 Scope**

Annex SK provides rules for terminology work in the IEC as well as some rules particular to the preparation of IEC 60050, *International Electrotechnical Vocabulary* (IEV).

The rules for terminology work are in conformity with the ISO/IEC Directives, Part 2, but Annex SK provides additional rules specific to the drafting, structuring and presentation of terminology in the IEC. Adherence to these rules will help the IEC to ensure that the IEV (available online at <http://www.electropedia.org/>) remains an exemplary terminology resource in the field of electrotechnical terminology, and that terminology drafted by the committees can be integrated in the IEV without any need for modification of the terminological data.

#### **SK.2 Drafting and presentation of the International Electrotechnical Vocabulary**

##### **SK.2.1 General**

###### **SK.2.1.1 Introduction**

Clause SK.2.1 has been prepared on the basis of the experience acquired in the preparation of the International Electrotechnical Vocabulary (IEV) by IEC/TC 1 *Terminology*, and of the work of ISO/TC 37, *Terminology and other language and content resources*, in which experts of IEC/TC 1 participate.

###### **SK.2.1.2 Aim of the IEV**

The aim of the IEV is to provide precise, brief and correct definitions of internationally accepted concepts in the field of electrotechnology, electronics and telecommunications, and to name the terms by which these defined concepts shall be known.

It is not intended to cover all terms used in IEC standards, but is rather a broad vocabulary, giving

- the basic and reference terms to be used by the other technical committees, and
- for each “product” or “family product” covered by other technical committees, the recurrent terms used by these technical committees.

The IEV is “standardization-oriented”, and is intended to help the standards writer to prepare standards, and to help the standards users to understand and implement them. It is also intended to be of help to the translators of normative (and more generally technical) texts.

Last but not least, the IEV is not meant to be a treatise or a tutorial on electrical engineering. This should be borne in mind when considering the degree of precision provided by the definitions.

###### **SK.2.1.3 Content and structure of the IEV**

The terminological data are categorized into classes as defined in Table SK.1.

**Table SK.1 – Classes in the IEV**

Class number	Class of concepts
1	General concepts
2	Materials
3	Measurement, automatic control
4	Electric equipment
5	Electronic equipment
6	Generation, transmission and distribution of energy
7	Telecommunications
8	Particular applications
9	Standardization and related activities

Each class is further divided into a number of subject fields (i.e. fields of special knowledge) each corresponding to a given field related to electrotechnology and prepared as a part of the IEV.

EXAMPLE 1

<b>161</b>	Electromagnetic compatibility
<b>411</b>	Rotating machinery

Concepts shall, as far as reasonably possible, be classified in a logical order according to their interdependence, in sections which themselves form the elements of the parts. Concepts applying to the same phenomenon or class of phenomena, or to the same technique or the same equipment, shall normally be classified in the same section, leading from the general to the specific, from the whole to the elements.

Each part and section shall have a title. If this title contains technical terms, these terms shall be defined.

The entries (and their elements) are thus constituted in such a way that they can be accessed and understood independently of their context in a given subject field.

The IEV is developed under the responsibility of IEC/TC 1, in cooperation with the other IEC technical committees, each part being prepared by a project team or working group, either within IEC/TC 1 or within another IEC technical committee (see SK.4.1).

Each part of the IEV is published as a separate fascicle, and referenced as **IEC 60050-###** in the catalogue of IEC Publications.

EXAMPLE 2

IEC 60050-121:1998, <i>Electromagnetism</i> , which constitutes Part 121 of the IEV, and belongs to class 1 "General concepts".
---

The terminological data contained in the various parts are used to compile an online dictionary entitled Electropedia (<http://www.electropedia.org/>).

Each of the terminological entries corresponds to a concept, and comprises the following elements (see SK.3.1):

- an entry number (see SK.2.1.5);
- possibly one or more letter symbols designating the concept (see SK.3.1.2);

then, for each of the **principal** (see SK.2.1.4) **IEV languages**:

- the preferred term designating the concept (see SK.3.1.3), called the "entry term", optionally accompanied by synonyms and abbreviated forms;
- the definition of the concept (see SK.3.1.4);

- optionally non-verbal representations, examples and notes to the definition (see SK.3.1.5 to SK.3.1.7);
- optionally the source (see SK.3.1.8);

and finally, for each of the **additional** (see SK.2.1.4) **IEV languages**, the term (and possible synonyms and abbreviated forms) alone.

It may happen that several concepts are designated by the same term, in one or several IEV languages: these concepts shall be placed in different entries, even if the appropriate definitions differ from each other by a few words only, and even if corresponding terms do not exist in every IEV language (as defined in SK.2.1.4). Homographs (terms having the same written form but representing different concepts) can be language dependent. See SK.3.1.3.5.6 for how to draft and structure terminological entries for which homographs exist.

#### SK.2.1.4 Languages

The entries corresponding to the concepts are given in two or more of the three IEC languages, i.e. French, English and Russian, referred to as the **principal IEV languages**.

The terms alone are also given in the **additional IEV languages** [Arabic, Chinese, German, Italian, Japanese, Norwegian (Bokmål and Nynorsk), Polish, Portuguese, Slovenian, Spanish and Swedish at the time of preparation of this document].

The principal and the additional IEV languages are referred to collectively in Annex SK as the **IEV languages**.

#### SK.2.1.5 Numbering system

Each entry has an entry number composed of three elements, separated by dashes:

- **Part** number of the part (formerly called “chapter”): three digits, the first one being the class number (see Table SK.1);
- **Section** number of the section: two digits (01 to 99);

NOTE In the past some of the “Chapters” (since renamed as “Parts”) had been subdivided into “parts”, each comprising a number of sections, as shown in the following example, taken from IEC 60050-393 “*Nuclear instrumentation: Physical phenomena and basic concepts*”:

Sections 393-01 to 393-04 --> Part 1 – Ionizing radiations and radioactivity
Sections 393-05 to 393-08 --> Part 2 – Nuclear reactors

These “parts” were renamed “sub-chapters” to avoid possible confusion with the “parts” (formerly “chapters”).

- **Concept** number of the concept in the section: two digits (01 to 99).

In each part, the sections are numbered from 01 to 99 consecutively, and in each section the terms are numbered from 01 to 99 consecutively.

EXAMPLE

151-13-77
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### SK.3 Drafting and presentation of terminological entries

#### SK.3.1 Elements of the entries

##### SK.3.1.1 Entry number

For the numbering of entries in the IEV, see SK.2.1.5.

For the numbering of entries in other documents, see the ISO/IEC Directives, Part 2, 2011, D.2.



**SK.3.1.2 Letter symbol(s)**

A letter symbol (or a limited number of letter symbols) may be used to designate the concept. This (these) symbol(s) shall be in accordance with the relevant standards, in particular with the IEC 60027, IEC 80000 and ISO 80000 series. ISO 80000-1:2009, Clause 7, provides rules for the printing of symbols. In documents the letter symbol(s) is (are) printed on a separate line. In the Electropedia the letter symbol(s) is (are) indicated in a separate field. Where an entry contains more than one symbol, each symbol is presented on a separate line for clarity.

The letter symbols for quantities are rendered in italics, whereas the letter symbols for units are rendered in upright characters.

The letter symbols are independent of the language, and shall not be repeated in the terms in the principal or additional IEV languages (see SK.2.1.4).

**EXAMPLE 1****112-02-05**

m

**mètre**, m

unité SI de longueur, égale à la longueur du trajet parcouru dans le vide par la lumière pendant une durée de 1/299 792 458 de seconde

Note 1 à l'article: Dans la définition de la CGPM en anglais, « time interval » est utilisé à la place de « duration ». Les termes « intervalle de temps » et « durée » correspondent toutefois à des concepts différents (voir 111-16-10 et 111-16-13).

[SOURCE: CGPM, modifiée]

**metre****meter**, US

SI unit of length, equal to the length of the path travelled by light in vacuum during a duration of 1/299 792 458 of a second

Note 1 to entry: In the CGPM definition in English, "time interval" is used instead of "duration". However the two terms correspond to different concepts (see 111-16-10 and 111-16-13).

[SOURCE: CGPM, modified]

**EXAMPLE 2****131-12-28** $R_m$  $R$ **réluctance**, f

pour un élément réluctant, quotient de la tension magnétique  $V_m$  par le flux magnétique  $\Phi$

$$R_m = \frac{V_m}{\Phi}$$

Note 1 à l'article: La réluctance est l'inverse de la perméance.

Note 2 à l'article: L'unité SI cohérente de réluctance est le henry à la puissance moins un,  $H^{-1}$ .

**reluctance**

for a reluctant element, quotient of the magnetic tension  $V_m$  by the magnetic flux  $\Phi$

$$R_m = \frac{V_m}{\Phi}$$

Note 1 to entry: The reluctance is the reciprocal of the permeance.

Note 2 to entry: The coherent SI unit of reluctance is henry to the power minus one,  $H^{-1}$ .

### SK.3.1.3 Terms

#### SK.3.1.3.1 General

As mentioned in SK.2.1.3, each concept is designated in each language by a preferred term (called the “entry term”), and possibly synonyms (see SK.3.1.3.4) and abbreviated forms (see SK.3.1.3.4.3). Terms may comprise one or several words, and may be followed by optional attributes, corresponding to specific features of the term, in the following order:

- specific use of the term (see SK.3.1.3.5.6);
- grammatical indication (see SK.3.1.3.6.2);
- national variant (see SK.3.1.3.4.2 and SK.3.1.3.6.3).

No other attributes shall be used.

In certain subject fields, the preferred term may be a letter symbol [e.g.  $I^2t$  (IEV 441-18-23:2000-07)].

#### SK.3.1.3.2 Choice or formation of terms

In general, it is recommended to apply the rules given in the ISO/IEC Directives, Part 2, and in ISO 704.

Ideally, the objective of the term–concept assignment in a given technical subject field is to ensure a one-to-one correspondence between term and concept. Synonyms and homographs are often unavoidable but shall be kept to a minimum, and duly indicated.

Before creating a new term, it is required to ascertain whether a term does not already exist for the concept in question.

A term has to be accepted and used by the specialists in the subject field covered by the terminology. Therefore well-established and widely used terms, even if etymologically questionable, should be changed only if there are very good reasons (e.g. risk of confusion or contradiction). However trade names (brand names) and archaic and colloquial terms shall not be chosen as terms.

For the creation of new terms (or for the revision of existing terminologies), the following principles should be followed (more information is given in ISO 704:2009, 7.4).

- The term is a label used to designate the concept (as described by the definition) in a **concise** and **unambiguous** (i.e. avoiding as far as possible homographs) **manner**: it should of course evoke the concept, but is not intended to replace the definition.
- Consistency: the terminology in any subject field should not be an arbitrary collection of terms, but rather a coherent terminological system corresponding to the concept system.
- Appropriateness: the terms proposed should adhere to familiar and established patterns of meaning within a language community; term formation that causes confusion shall be avoided; terms shall be as neutral as possible and avoid connotations, especially negative ones.
- Derivability: terms that allow for the formation of derivatives should be favoured.
- Linguistic correctness vis-à-vis the language shall be considered.
- Preference should be given to terms in native language rather than to terms borrowed from other languages.

In addition, it is to be noted that the terms in the various languages should not be word-for-word translations of the term in the initial language in which a specific entry was prepared. The right process for the formation of the term in a given language is to start from the

concept, as described by the definition, and then to choose (or to form) the most appropriate term in this language.

In the case of creation of a new term (neologism), it is recommended that the technical experts consult with linguistic experts in the country concerned.

### **SK.3.1.3.3 Absence of a preferred term**

When no preferred term can be found in a given language for a defined concept, and when no neologism can be formed, this shall be shown by means of five dots “.....” (half-high on the line) in place of the term.

In this case, the terminological entry shall not contain any synonyms in that language.

### **SK.3.1.3.4 Synonyms**

#### **SK.3.1.3.4.1 Use**

Terms (including letter symbols and abbreviated forms that are terms) that are interchangeable with the entry term, possibly with some restrictions (specific use of a term, national variant), are considered and treated as synonyms.

The use of synonyms shall be kept to a minimum; an abundance of synonyms in a given entry is very often the sign that this entry covers in fact several (closely related) concepts.

Meanwhile, bearing in mind the aim of the IEV (see SK.2.1.2), it is useful to list all terms by which a concept might be known, including those for which their use is deprecated or obsolete.

For all principal IEV languages, the synonyms shall be placed on successive lines, following the line of the entry term, and in the order of preference. Synonyms shall be differentiated by their rendering (see SK.3.1.3.5.1).

The number of synonyms may be different for each language.

#### **SK.3.1.3.4.2 National variants**

When a language is spoken in several countries, a term relating to a concept may be different according to the country.

In this case, a term used in all the countries in which the language is spoken shall be placed first.

A variant, which is not used in all the countries, shall be followed by an alpha-2 code representing the country or countries in which the variant is used (see SK.3.1.3.6.3).

EXAMPLE

earthing inductor grounding inductor, US
---

In order to promote standardization, such cases should be kept to the minimum.

#### **SK.3.1.3.4.3 Abbreviated forms**

Abbreviated forms should be given only when they are of current usage for a given concept (see also SK.3.1.3.5.7).

#### SK.3.1.3.4.4 Deprecated and obsolete synonyms

Deprecated and obsolete synonyms, as well as superseded terms, archaic terms, scientific-technical slang, and other terms which are detrimental to domain communication, shall be rated as deprecated terms (see also SK.3.1.3.5.8).

Both full forms and abbreviated forms may be selected as deprecated terms if their use is rated as undesired.

If it is considered useful, provide an explanation of the reasons for the deprecation of the terms in a note to entry (see SK.3.1.7).

#### SK.3.1.3.5 Presentation of terms and synonyms

##### SK.3.1.3.5.1 Letter form and rendering of terms and synonyms

Terms and synonyms shall be rendered as they would appear in the middle of a sentence, i.e. letters normally appearing in lower case shall remain in lower case (this is applicable in particular to the first letter of the term). Mathematical symbols, hyphens, parentheses, square brackets and other syntactic signs shall be used in a term or synonym only if they constitute part of the normal written form of the term. The term or synonym shall not be followed by a full stop, unless this forms part of the term.

In the clause “Terms and definitions” of a document (see SK.3.3.2 and SK.3.3.3):

- preferred terms and synonyms shall be rendered in boldface type;
- deprecated or obsolete synonyms shall be rendered in lightface type;
- attributes relating to the terms and synonyms shall be rendered in lightface type.

EXAMPLE	<b>vector quantity</b> <b>vector</b>	<b>grandeur vectorielle, f</b> <b>vecteur, m</b>
	<b>St. Andrew's cross</b>	<b>croix de Saint-André, f</b>
	<b>control difference variable</b> DEPRECATED: error variable	<b>variable de différence de régulation, f</b> DÉCONSEILLÉE: variable d'erreur, f

##### SK.3.1.3.5.2 Grammatical form

In general, a term shall be presented in its grammatical base form, i.e.

- a noun in the singular (unless it is a plural word),
- a verb in the infinitive (without the word “to” in English), and
- an adjective in uninflected form (e.g. masculine singular in French, non-comparative form in English).

##### SK.3.1.3.5.3 Multi-word terms

When a term is composed of several separate words, it shall be given in the usual order of words in the language to which it belongs.

##### SK.3.1.3.5.4 Parts of a term that may be omitted

It is not permissible to use parentheses to indicate parts of a term that may be omitted, either in the field under consideration or in an appropriate context. Instead, each term and synonym shall be presented on a separate line, as they would appear in the middle of a sentence (see SK.3.1.3.5.1), in the order of usage preference.

EXAMPLE	Incorrect:	<b>(electromagnetic) emission</b>
	Correct:	<b>emission</b> <b>electromagnetic emission</b>

### SK.3.1.3.5.5 Field of application of a term

In some cases, it is desirable to specify or restrict the use or field of application of a term or synonym. This may be achieved by specifying a “specific use”. Specific use shall be used only where it is essential for a term or synonym in a given language (e.g. to distinguish homographs) and is not always needed for all terms and synonyms, or for all languages, in a given entry. So that to any user it is clear that the specific use is not part of the term, it is enclosed in angle brackets “<>” and is separated from the term by a comma. The specific use precedes any other term attributes.

NOTE In the IEV, “specific use” is used, when necessary for a given term or synonym, in place of the element “domain” specified in the ISO/IEC Directives, Part 2, 2011, D.4.5

#### EXAMPLE 1

##### 161-02-19

**rang**, <d'un harmonique> m

nombre entier égal au rapport de la fréquence d'un harmonique à la fréquence du fondamentale

#### EXAMPLE 2

##### 102-05-28

**Laplacian**, <of a scalar field>

scalar  $\Delta f$  associated at each point of a given space region with a scalar  $f$ , equal to the divergence of the gradient of the scalar field

$$\Delta f = \text{div } \mathbf{grad} f$$

Note 1 to entry: In orthonormal Cartesian coordinates, the Laplacian of a scalar field quantity is:

$$\Delta f = \frac{\partial^2 f}{\partial x^2} + \frac{\partial^2 f}{\partial y^2} + \frac{\partial^2 f}{\partial z^2}.$$

Note 2 to entry: The Laplacian of the scalar field  $f$  is denoted  $\Delta f$  or  $\nabla^2 f$ , where  $\Delta$  is the Laplacian operator.

Note 3 to entry: The Laplacian of a vector field is defined in 102-05-29.

### SK.3.1.3.5.6 Homographs

Where several concepts are designated by the same term, a cross-reference to the other entry or entries in which the term is defined shall be added (see SK.3.1.7). The homographs can be in one language only. In documents, the cross-reference shall be added in a note to entry (see example 1). In a database, such information may be transferred to a dedicated field and introduced by an appropriate text such as “Related entries:” (see example 2, which for purposes of illustration is an adapted version of the entries in the IEV).

For homographs in additional IEV languages, the cross-reference may be added following the term, the introductory text (e.g. “related entry:”) being translated into the additional IEV language concerned. So that to any user it is clear that the cross-reference is not part of the term, it is enclosed in angle brackets and is separated from the term by a comma (see example 3).

EXAMPLE 1

**431-02-05**

**caractéristique de réglage**, <d'un transducteur>

représentation graphique de la relation entre une grandeur de sortie et une grandeur de commande en régime établi

Note 1 à l'article: En anglais, le terme « static characteristic » désigne aussi la caractéristique statique des tubes électroniques (531-18-04) et des sources de courant de soudage à l'arc (851-12-32).

**static characteristic**, <of a transducer>

**transfer curve**, <of a transducer>

graphic representation of the relation between an output quantity and a control quantity under steady-state conditions

Note 1 to entry: Other static characteristics are defined in English for electronic tubes (531-18-04) and for arc welding power sources (851-12-32).

EXAMPLE 2

**102-05-12**

**champ**, <...> m

fonction qui attribue un scalaire, un vecteur ou un tenseur, ou un ensemble de tels éléments liés entre eux, à chaque point d'un domaine déterminé de l'espace euclidien à trois dimensions

Note 1 à l'article: Un champ peut représenter un phénomène physique, comme par exemple un champ de pression acoustique, un champ de pesanteur, le champ magnétique terrestre, un champ électromagnétique.

Note 2 à l'article: En anglais, le terme « field » a aussi en mathématiques le sens de « corps » (voir 102-02-18, Note 2).

Entrées associées: champ (102-05-17:2007)

**field**

function that attributes a scalar, a vector or a tensor, or an interrelated set of such elements, to each point in a given region of the three-dimensional Euclidean space

Note 1 to entry: A field may represent a physical phenomenon such as an acoustic pressure field, a gravity field, the Earth's magnetic field, an electromagnetic field.

Note 2 to entry: In English, the term "field", in French "corps", has also another meaning in mathematics (see 102-02-18, Note 2).

Related entries: field quantity (102-05-17:2007)

**102-05-17**

**champ**, <...> m

grandeur scalaire, vectorielle ou tensorielle, qui existe en chaque point d'un domaine déterminé de l'espace et qui dépend de la position de ce point

Note 1 à l'article: Un champ peut être une fonction du temps ou de tout autre paramètre.

Note 2 à l'article: En anglais le terme « field quantity », en français « grandeur de champ », est aussi utilisé dans la CEI 60027-3 pour désigner une grandeur telle que tension électrique, courant électrique, pression acoustique, champ électrique, dont le carré est proportionnel à une puissance dans les systèmes linéaires, tandis que les grandeurs proportionnelles à une puissance sont appelées « grandeurs de puissance », que les grandeurs dépendent ou non de la position d'un point.

Entrées associées: champ (102-05-12:2007)

**field quantity**

scalar, vector or tensor quantity, existing at each point of a defined space region and depending on the position of the point

Note 1 to entry: A field quantity may be a function of time or any other parameter.

Note 2 to entry: In English the term "field quantity", in French "grandeur de champ", is also used in IEC 60027-3 to denote a quantity such as voltage, electric current, sound pressure, electric field strength, the square of which in linear systems is proportional to power, whereas quantities proportional to power are called "power quantities", whether or not the quantities depend on the position of a point.

Related entries: field (102-05-12:2007)

## EXAMPLE 3

<b>131-12-45</b>
...
ar ...
...
jp 交流に対する抵抗; 抵抗, <関連エントリー: 131-12-04>
<b>351-57-05</b>
...
ar ...
...
zh 安全, <相关条目: 351-57-07>

**SK.3.1.3.5.7 Abbreviated forms**

Abbreviated forms shall be specified as entry term or as synonym depending on their preferred usage. They shall not be followed by the indication “(abbreviation)”.

## EXAMPLE

**161-01-22**  
**ESD**  
 electrostatic discharge

**702-06-57**  
 pulse duration modulation  
**PDM**  
 DEPRECATED: pulse width modulation

**SK.3.1.3.5.8 Deprecated and obsolete synonyms**

Deprecated and obsolete synonyms shall be indicated by the prefix “DEPRECATED:” (in French: “DÉCONSEILLÉ:”), the term being rendered in lightface type.

## EXAMPLE 1

**102-06-04**  
**matrice-colonne, f**  
 DÉCONSEILLÉ: vecteur-colonne, m

The attributes “deprecated in this sense”, “obsolete” and “superseded” shall not be used; instead use the prefix “DEPRECATED:” together with an explanation in a note to entry.

## EXAMPLE 2

**845-02-28**  
**brightness**  
 DEPRECATED: luminosity  
 attribute of a visual sensation according to which an area appears to emit more or less light  
 Note 1 to entry: The term “luminosity” is obsolete.

**SK.3.1.3.6 Attributes to the terms****SK.3.1.3.6.1 Presentation**

The attributes follow the term, on the same line. They shall be separated from the term by a comma, and shall be separated from each other by a space. The attributes are rendered in lightface type.

A table giving the complete list of attributes, with examples, is given in SK.5.

### SK.3.1.3.6.2 Grammatical information

The gender (f, m or n) shall be indicated if applicable for the language (see SK.5). The number (sg or pl) and word class (adj, adv, noun or verb) of all terms shall be indicated with the exception that the attribute “noun” is only necessary in English to distinguish a term from a non-noun homograph (e.g. the term “transient” can be both an adjective and a noun) and, in French, it is not necessary if the gender is indicated (since then it is implicit: only nouns have a gender). In French, if both genders are possible, if necessary indicate “nom”.

Do not use the attribute “qualifier” (in French: “qualificatif”). Instead, word the definition in such a way that it is clear that the term is a qualifier [e.g. start the definition using an expression such as “qualifies ...” (in French: “qualifie ...”) or “pertaining to ...” (in French: “relatif à ...”)]. Provide any additional information in a note to entry.

EXAMPLE

<p><b>harmonique</b>, m</p> <p><b>eddy currents</b>, pl</p> <p><b>transient</b>, adj</p> <p><b>transient</b>, noun</p>
--

### SK.3.1.3.6.3 National variant

A national variant shall be indicated by the alpha-2 country code(s), specified in ISO 3166, representing the country (or countries) in which the variant is used. The code is placed after the term or the previous attribute, if any. See the examples in SK.3.1.3.4.2 and SK.5.

## SK.3.1.4 Definitions

### SK.3.1.4.1 Characteristics expressed

A definition shall be simple, clear, and relatively short. It shall, however, completely describe the concept from the viewpoint of the electrical engineer. This implies that the definition shall contain all the characteristics of the concept necessary and sufficient to enable the concept considered to be well understood and its boundaries to be defined.

Preference should be given to functional characteristics rather than to constructional aspects.

A definition shall not take the form of, or contain, a requirement.

A definition shall describe what a concept is, not what it is not except when the absence or the non-existence of a characteristic is essential to the understanding of a concept, in which case a negative form is required.

EXAMPLE

<p><b>131-11-19</b></p> <p><b>non-linear</b>, adj</p> <p>qualifies a circuit element or a circuit for which not all relations between the integral quantities are linear</p>
--

### SK.3.1.4.2 Drafting

The definition shall have the same grammatical form as the term. Thus, to define a verb, a verb shall be used; to define a noun in the singular, the singular shall be used. In the case of adjectives, it is often essential to indicate in the definition to which objects the concept applies. The definition then begins with “qualifies ...” or “pertaining to ...” (see SK.3.1.3.6.2).

Unless there is a specific reason, the definition shall not begin with an article.



The definition shall not begin with an expression such as “term used to describe” or “term denoting”.

The term designating the concept shall not be repeated in the definition.

A definition shall remain comprehensible even when separated from the context (subject field, title of the IEV part and section, neighbouring entries) in which it appears. In particular, for terminological entries given in standards, a definition shall not rely on general explanations, for example in the foreword.

A definition shall consist of a single phrase, which should be as short as possible, shall be built in view of future possible translations into additional languages and shall follow plain syntax rules.

The form of a definition shall be such that it can replace the term in the context where the term appears. Additional information shall be given only in the form of examples or notes to entry.

Circularities shall be avoided. (For further information on circular definitions, see ISO 704.)

Except in subject fields in which non-verbal representations are conventionally used instead of a definition, a concept shall not be defined only by a figure or a formula, although a formula may be an essential element of a definition.

#### EXAMPLE 1

##### 113-01-32

*v*

##### **velocity**

vector quantity  $v = dr / dt$ , where *r* is position vector and *t* is time

Note 1 to entry: The velocity is related to a point described by its position vector. The point may localize a particle, or be attached to any other object such as a body or a wave.

Note 2 to entry: The velocity depends on the choice of the reference frame. Proper transformation between frames must be used: Galilean for non-relativistic description, Lorentzian for relativistic description.

Note 3 to entry: The coherent SI unit of velocity is metre per second, m/s.

Figures, formulae and other forms of non-verbal representation which are not an essential element of a definition may be given to help to make clear a simplified definition. Such non-verbal representations shall be placed following the definition (see SK.3.1.5).

#### EXAMPLE 2

##### 131-12-29

*Λ*

##### **perméance, f**

pour un élément réductant, quotient du flux magnétique  $\Phi$  par la tension magnétique  $V_m$

$$\Lambda = \frac{\Phi}{V_m}$$

Note 1 à l'article: La perméance est l'inverse de la réductance (131-12-28).

Note 2 à l'article: L'unité SI cohérente de perméance est le henry, H.

Note 3 à l'article: Dans un circuit équivalent électrique, les perméances sont représentées par des conductances, les flux magnétiques par des courants électriques et les tensions magnétiques par des tensions électriques.

### SK.3.1.4.3 Terms used in definitions

Technical terms appearing in a definition should be defined either in the IEV, or in another authoritative publication. If there is more than one term for a concept (see SK.3.1.3.4), the

entry term shall be used in other definitions. It is useful to add between parentheses the entry number of the concept that the term designates (in the Electropedia, the cross-reference to the entry may be replaced by a hyperlink). If the term is defined in another document, precede the entry number by a dated reference to the reference document.

#### EXAMPLE

Term defined in the same document (in this case the IEV):	<b>electrolytic conductivity</b> <i>conductivity</i> (121-12-03:1998) of an electrolyte
Hyperlink to the entry (in this case in the Electropedia):	<b>electrolytic conductivity</b> <a href="#"><i>conductivity</i></a> of an electrolyte
Term defined in another document:	<b>tie stick</b> <i>hand stick</i> (IEC 60743:2001, 2.5.2) used to bind or unbind a conductor to or from an insulator

### SK.3.1.4.4 Style and form

The style and form shall be as uniform as possible throughout all IEC terminology.

Drawings, diagrams, graphs and formulae may be used when they provide for a better understanding of the text. Letter symbols used for quantities or units shall be in accordance with the relevant standards, in particular with the IEC 60027, IEC 80000 and ISO 80000 series.

The meaning of all letter symbols used in a definition shall be explained. It is not necessary to explain the meaning of SI units and common mathematical functions and operators. Meanwhile, in both cases, if the letter symbol or unit is defined in another entry, it is useful to add between parentheses the entry number (in the Electropedia, the cross-reference to the entry may be replaced by a hyperlink).

When graphical symbols are used, they shall be in accordance with the relevant IEC standards, in particular with the IEC 60617 DB.

Abbreviated terms defined in the IEV need not be explained provided that a cross-reference to the entry is given; those not already defined in the IEV shall be explained.

### SK.3.1.4.5 Languages

The meaning shall be identical in all languages present, although it may be expressed differently to conform to the rules and structure of each language.

In the IEV, the definition of a concept shall be given in at least two of the principal IEV languages, i.e. French, English and Russian.

### SK.3.1.4.6 Presentation of the definitions

The words in a definition shall be rendered as they would appear in the middle of a sentence, i.e. letters normally appearing in lower case shall remain in lower case (this applies in particular to the first letter of the definition). The definition shall not end with a full stop, unless this forms part of the last word.

### SK.3.1.5 Non-verbal representations

Non-verbal representations shall be placed following the definition.

In subject fields in which non-verbal representations are conventionally used instead of a definition, non-verbal representations shall be placed following the term(s) (i.e. in place of the definition).

EXAMPLE

<b>393-14-09</b> u <b>unified atomic mass unit</b> $1\text{ u} = 1,660\ 54 \times 10^{-27}\text{ kg}$
--

It is necessary to differentiate between a formula that is an essential element of a definition (as described in SK.3.1.4.2 and illustrated in example 1 of SK.3.1.4.2) and that used as a non-verbal representation (as illustrated in the example above and example 2 of SK.3.1.4.2).

Where a non-verbal representation is referred to in more than one terminological entry either it shall be repeated in every terminological entry or it shall be referred to by the string “SEE:” followed by a reference to the place in the document or database where it appears. The use of “SEE:” can also be useful for cases where non-verbal representations are large and where it is considered useful to group all non-verbal representations (e.g. in a particular clause of a document or in a place in a database reserved for non-verbal representations).

Since each terminological entry is autonomous, figures, tables, formulae, etc. shall in principal be numbered per entry, starting from 1.

EXAMPLE 1

**732-06-01**

**firewall**

functional unit that mediates all traffic between two networks and protects one of them or some part thereof against unauthorized access

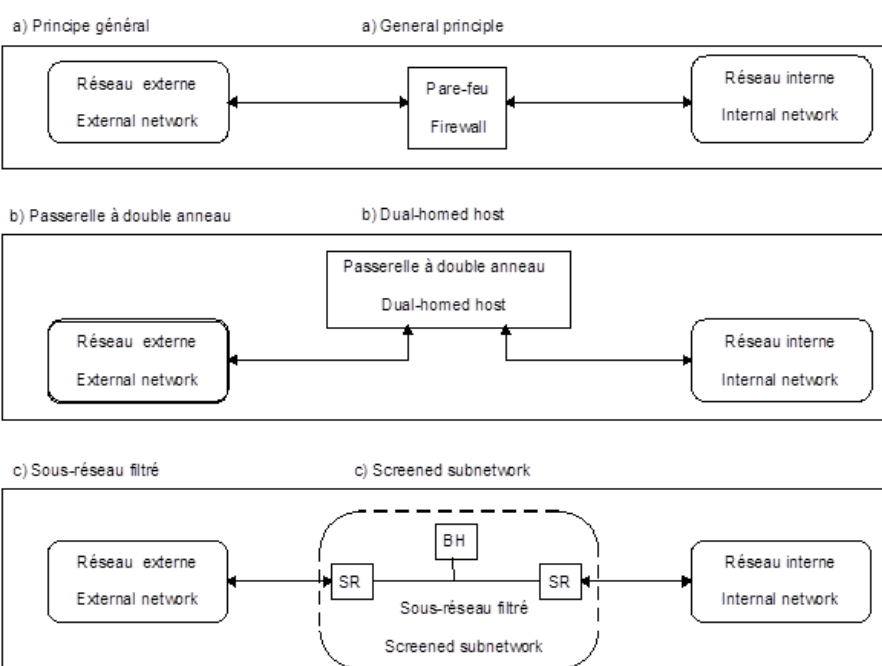
SEE: Figure 1.

Note 1 to entry: The protected network is generally a private network, internal to an organization.

Note 2 to entry: A firewall may permit messages or files to be transferred to a high-security workstation within the internal network, without permitting such transfer in the opposite direction.

Note 3 to entry: The firewall may have different types of implementation. Examples are dual-homed-host, screened subnet, screening router, or bastion host.

Figure 1 is a “shared” non-verbal representation for entries 732.06.01, 732.06.02, 732.06.03, 732.06.04 732.06.05:



IEC 1137/10

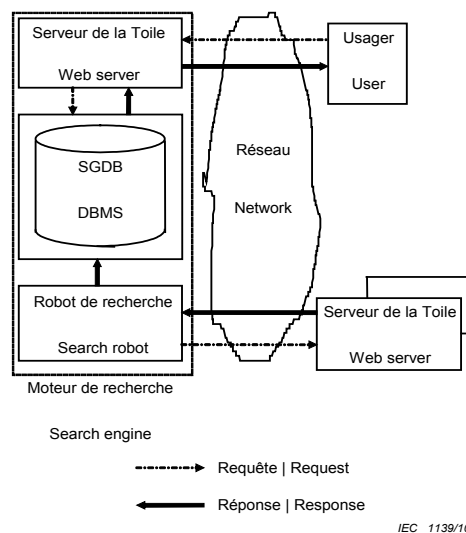
**Figure 1 — Fire wall**

To allow for text-only readers, an ALT text should be provided for all image-based (as opposed to character-based) content (see example 2).

## EXAMPLE 2

**732-07-19****search robot  
knowledge robot  
knowbot**

component of a search engine that collects data from Internet resources and stores them in a database



**Figure 1 – Example of interactions of users, search engines, and Web servers**

<img src="" alt="A user sends a request to a Web server which is part of a search engine. The Web server forwards the request to a database management system (DBMS), which finds links for the users' keywords and returns it back to the user via the Web server. The database is fed by the search robot, which reads the content of public Web pages at regular intervals and follows all available links between pages. The search robot acts like an ordinary Web user. The DBMS indexes all texts and links found by the search robot for full text and hypertext access.">

**SK.3.1.6 Examples**

In certain cases, it may be necessary or useful to add one or more examples to the definition. The text of an example shall be preceded by the text "EXAMPLE" (in French: "EXEMPLE"). Several examples within the same entry shall be designated "EXAMPLE 1", "EXAMPLE 2", "EXAMPLE 3", etc. (in French: "EXEMPLE 1", "EXEMPLE 2", "EXEMPLE 3", etc.).

## EXAMPLE

**722-01-15****logatom**

phonetic element, chosen without inherent meaning, for use in telephony, consisting of a vowel sound preceded and followed by a consonant sound or a consonant combination sound

EXAMPLE BALP, KID, FROP.

[SOURCE: CCITT Red Book, Volume V, 1960, pages 74 and 75]

**SK.3.1.7 Notes to entry****SK.3.1.7.1 General**

In certain cases, it may be necessary or useful to add one or more notes to entry. These may be used, for example,

- to add further explanations, details or special cases which may give additional information about the concept and assist to understand it (see examples 1 and 2),
- to point out deviations from earlier definitions or differences between the definitions being adopted and other definitions,
- to add a reference to another IEC entry number under which the entry was published previously (see example 2),
- to add references to homographs (see example 2 in SK.3.1.3.5.5 and example 1 in SK.3.1.3.5.6),
- to draw attention to linguistic or etymological peculiarities,
- to explain the reasons for the deprecation of a term, synonym or symbol (see example 2 in SK.3.1.3.5.8),
- to explain the derivation of an abbreviated form (see example 3), and
- to specify the units in which a quantity is expressed (see example 1).

EXAMPLE 1

**131-12-28**

**reluctance**

for a reluctant element, quotient of the magnetic tension  $V_m$  by the magnetic flux  $\Phi$

$$R_m = \frac{V_m}{\Phi}$$

Note 1 to entry: The reluctance is the reciprocal of the permeance.

Note 2 to entry: The coherent SI unit of reluctance is henry to the power minus one,  $H^{-1}$ .

EXAMPLE 2

**351-41-01**

**variable quantity**

**variable**

physical quantity the value of which is subject to change and can usually be measured

Note 1 to entry: The term "variable" alone is frequently used to circumvent the lengthy but correct designation "variable quantity".

Note 2 to entry: See also IEC 60050-112 :2010, 112-01-01.

Note 3 to entry: This entry was numbered 351-21-01 in IEC 60050-351:2006.

EXAMPLE 3

**3.1**

**système de gestion d'énergie**

**EMS**

système informatique comprenant une plate-forme logicielle offrant les services de support de base et un ensemble d'applications offrant les fonctionnalités requises pour le bon fonctionnement des installations de production et de transmission d'électricité afin d'assurer la sécurité adéquate d'approvisionnement énergétique à un coût minimal

Note 1 à l'article: L'abréviation « EMS » est dérivé du terme anglais développé correspondant « energy management system ».

The notes to entry shall be given in each of the languages present. If a note to entry applies to only one language and not to another language, the other language shall contain a note to entry which either provides a translation of the note together with an indication of the language(s) concerned [for example "In English, ..." (for clarity, it is useful to include the indication of the language in the notes in all language sections)] (see the example in SK.3.1.7.2) or states "Note # to entry: This note applies to the ... language only." (in French: "Note # à l'article: Cette note ne s'applique qu'à la langue ....").

The provisions of SK.3.1.4.3 and SK.3.1.4.4 are also applicable to the terms used in notes to entry.

### SK.3.1.7.2 Presentation of the notes to entry

A note to entry shall be placed under the definition, after any non-verbal representations and examples. Each note to entry consists of one or several “regular” (i.e. starting with a capital letter, and ending with a full stop) sentences, preceded by the text “Note # to entry:” (in French: “Note # à l'article:”), where # is an Arabic number starting at 1. A single note to entry shall be numbered (see example 3 in SK.3.1.7.1).

EXAMPLE

**191-06-08**

**up state**

state of an item characterized by the fact that it can perform a required function, assuming that the external resources, if required, are provided

Note 1 to entry: This state relates to availability performance.

Note 2 to entry: In French, the adjective “disponible” qualifies an item in an up state.

### SK.3.1.8 Sources

In some cases, it might be necessary to repeat a concept taken from another subject area, or from another authoritative terminology document (e.g. ISO/IEC Guide 99, ISO/IEC 2382 series, etc.), with or without modification to the definition (and possibly to the term).

The source of any repeated entry shall be introduced by the text “SOURCE:” (in both English and French) in lightface, and placed at the end of the entry:

SOURCE: {document reference} reference of the concept, { modified }

where

- **document reference** comprises the source of the document and the year of publication or the number of the edition; it is not necessary to include the document reference for entries repeated from the IEV,
- **reference of the concept** comprises the entry number of the concept (for entries repeated from the IEV, as specified in SK.2.1.5), and
- **modified** (where necessary) for those cases where the definition has been modified. If this is the case, the nature of the modifications and the reasons for them should be appended.

In documents, the source may be placed between square brackets. (In Annex SK examples showing both forms of presentation are provided.)

EXAMPLE

Source in the IEV:	SOURCE: IEC 60050-561:1991, 561-06-18, modified – By adding Note 1 to entry and Figure 1 to illustrate an apodization of IDT.
Source in a document:	[SOURCE: IEC 60050-702:1992, 702-08-04]
Source in a document:	[SOURCE: CISPR 22:2008, 3.5]

## SK.3.2 Basic terminology

General terms concerning standardization and certification are defined in ISO/IEC Guide 2.

Terms relating to quantities and units are specified in the IEC 60027 series, IEC 60050-113, IEC 60050-114, IEC 60050-121, IEC 60050-131 and many other parts of IEC 60050, and in the IEC 80000 and ISO 80000 series.

IEC 60050-112 and ISO 80000-1:2009, Annex A, cover in particular the use of some special terms such as:

- coefficient, factor, parameter, number, ratio, level, constant;
- massic ..., specific ...;
- volumic ..., ... density;
- lineic ..., linear ... density;
- areic ..., surface ... density.

General terms concerning safety are defined in ISO/IEC Guide 51.

Terms relating to measurements and measuring instruments are specified in ISO/IEC Guide 99 and in IEC 60050-300 which comprises Parts 311, 312, 313 and 314.

### **SK.3.3 Structure and layout of IEV documents**

#### **SK.3.3.1 General**

The overall structure and layout of IEV documents shall be in accordance with the ISO/IEC Directives, Part 2. An IEV document shall thus comprise the following elements as laid out in the ISO/IEC Directives, Part 2:

- Table of contents
- Foreword
- Introduction, indicating the principles and rules followed
- Scope
- Terms and definitions
- Annexes (as necessary)
  - figures
  - tables of symbols
- Bibliography (as necessary)
- Index (as necessary); can be useful for documents circulated as CD, CDV and FDIS, or for documents published separately from the Electropedia.

A template IEV.dot is available for the clause “Terms and definitions”. For all the other clauses, the template iecstd.dot applies. These templates are available from the IEC website (<http://www.iec.ch/>) in the section Standards development > TC/SC resource area > Drafting IEC publications.

#### **SK.3.3.2 Clause “Terms and definitions” – Structure and layout**

As mentioned in SK.2.1.5, a part is subdivided into a series of sections, each section comprising:

- a section header, in the principal IEV languages;
- a number of “entries” or “blocks”, each corresponding to a concept and identified by an entry number.

The individual presentation of the various elements of the entries is given in SK.3.3.1.

The arrangement of these elements within each “block” is given in Figure SK.1.



<b>Entry number</b> {letter symbol}	
<b>French entry term</b> {attribute(s)} {French synonym(s) {attribute(s)}} French definition {French non-verbal representation} {French examples} {French notes to entry} {[Source]}	
<b>English entry term</b> {attribute(s)} {English synonym(s) {attribute(s)}} English definition {English non-verbal representation} {English examples} {English notes to entry} {[Source]}	
<b>Russian entry term</b> {attribute(s)} {Russian synonym(s) {attribute(s)}} Russian definition {Russian non-verbal representation} {Russian examples} {Russian notes to entry} {[Source]}	
ar	<b>Arabic entry term</b> {attribute(s)}; {syn. {attribute(s)}}; ...
cz	<b>Czech entry term</b> {attribute(s)}; {syn. {attribute(s)}}; ...
de	<b>German entry term</b> {attribute(s)}; {syn. {attribute(s)}}; ...
es	<b>Spanish entry term</b> {attribute(s)}; {syn. {attribute(s)}}; ...
fi	<b>Finnish entry term</b> {attribute(s)}; {syn. {attribute(s)}}; ...
it	<b>Italian entry term</b> {attribute(s)}; {syn. {attribute(s)}}; ...
ja	<b>Japanese entry term</b> {attribute(s)}; {syn. {attribute(s)}}; ...
no	<b>Norwegian entry term</b> {attribute(s)}; {syn. {attribute(s)}}; ...
pl	<b>Polish entry term</b> {attribute(s)}; {syn. {attribute(s)}}; ...
pt	<b>Portuguese entry term</b> {attribute(s)}; {syn. {attribute(s)}}; ...
sl	<b>Slovenian entry term</b> {attribute(s)}; {syn. {attribute(s)}}; ...
sr	<b>Serbian entry term</b> {attribute(s)}; {syn. {attribute(s)}}; ...
sv	<b>Swedish entry term</b> {attribute(s)}; {syn. {attribute(s)}}; ...
zh	<b>Chinese entry term</b> {attribute(s)}; {syn. {attribute(s)}}; ...

NOTE 1 The signs { and } mark optional elements.

NOTE 2 The terms in additional IEV languages are placed at the end of the “block” (one single line for each language), preceded by the ISO 639 alpha-2 code for the language considered, and in the alphabetic order of this code. The synonyms are separated by semicolons. In the case of homographs in an additional IEV language, it is possible to append a cross-reference to the entry containing the homograph (see example 3 in SK.3.1.3.5.6).

NOTE 3 When the IEC cooperates with other international organizations for publishing some parts of the vocabulary including more than the three principal languages or other additional languages, the above-mentioned layout may be changed accordingly.

NOTE 4 In the final publication, the “entries” or “blocks” are generated as snapshots from the Electropedia.

**Figure SK.1 – Arrangements of the elements within a block (all elements shown)**

### SK.3.3.3 Clause “Terms and definitions” – Structure and layout for drafts

The arrangement of the elements is specified in the ISO/IEC Directives, Part 2.

## **SK.4 Procedures for the preparation of the IEV parts**

### **SK.4.1 General – Technical Committee No. 1 responsibility**

IEC/TC 1, *Terminology*, has the overall responsibility for preparing the International Electrotechnical Vocabulary.

However, in a number of cases (more than 50 % of the projects), the work is initiated by another technical committee, and carried out in a working group belonging to that TC, but still under the responsibility of IEC/TC 1. A close cooperation shall then be established between that TC and IEC/TC 1, the present clause giving the rules to be followed in such a case. In particular, the first Committee Draft is distributed by the initiating technical committee and the subsequent drafts, although prepared by the same Working Group, by IEC/TC 1.

When a part does not correspond to the scope of a single technical committee, its preparation is entrusted to IEC/TC 1. This applies particularly to the parts of Class 1, General concepts, and to those of Class 7, Telecommunications.

### **SK.4.2 Database procedure**

The IEV is managed in accordance with the IEC Supplement, Annex SL, *Procedures for the maintenance of the IEC standards in database format*.

### **SK.4.3 Development of projects (New work)**

(See ISO/IEC Directives, Part 1, and the IEC Supplement, Annex SL)

#### **SK.4.3.1 Proposal (NP) stage**

(See ISO/IEC Directives, Part 1, and the IEC Supplement, Annex SL)

The new work item proposal (NP) and report on voting are circulated with a reference of the initiating TC/SC. If accepted, the project is assigned to IEC/TC 1.

Where a part is relevant to several technical committees, the Chair and secretary of IEC/TC 1 may, after consulting with the Chairs and secretaries of the technical committees concerned, assign the project to IEC/TC 1/WG 100, *Fundamental concepts*, or set up a new working group directly under the responsibility of IEC/TC 1.

#### **SK.4.3.2 Preparatory stage**

(See ISO/IEC Directives, Part 1, and the IEC Supplement, Annex SL)

The project team or working group shall, within the framework of the task it has been assigned:

- define the field of the terminology to be studied, state its limits and any possible overlap with other IEV parts;
- list the concepts to be defined;
- classify the concepts in a logical order and number them;
- verify, by looking in the Electropedia and checking with the secretariat of IEC/TC 1 (who will provide information for concepts at draft stage) that these concepts have not already been defined in another IEV part: should this be the case, the existing definition should be used. A definition may only be changed if it is:
  - incorrect or unsatisfactory, or
  - rendered obsolete because of further developments.

This shall be indicated in the corresponding entry of the new project by the mention “modified”<sup>4</sup> in the source field (see SK.3.1.8).

- give a definition in French, English and Russian; when the Russian Federation is not represented in the working group, the Russian term(s) and definition may be provided at the FDIS stage (see SK.4.3.5) by the National Committee of the Russian Federation, using the French and English definitions as a basis for translation;
- establish, on behalf of its technical committee, the first committee draft (CD).

This first CD, as well as the subsequent drafts shall be bilingual (French and English).

The following points shall be noted.

- It is essential to request the presence of a representative of the secretariat of IEC/TC 1 to attend the first meeting of the project team or working group and all other important meetings in order to ensure that the work is correctly developed; this representative will ensure that the general rules are followed, ensure effective coordination with other IEV parts, and, with the aid of the IEC Central Office, if necessary, establish liaisons with ISO and other international organizations (ITU, CIE, UIC, IUPAP, etc.).
- It is essential to work in at least two languages; for instance, the obligation to prepare immediately in English a definition proposed in French (or vice versa) will ensure a more precise definition; a definition checked by a group of experts is better than a translation made subsequently by a single person; translation into a third language is simplified when a bilingual definition exists. In practice, it is therefore essential that every working group comprise at least one expert of French mother tongue and one expert of English mother tongue.
- As already mentioned in SK.2.1.3, the terms shall be chosen and the definitions of the concepts written with a view to their further integration into a dictionary in which the logical order of every IEV part may not be visible.

#### **SK.4.3.3 Committee (CD) stage**

(See ISO/IEC Directives, Part 1, and the IEC Supplement, Annex SL)

The committee draft (CD) and associated compilation of comments are circulated with a reference of the initiating TC.

#### **Follow-up of a CD**

- a) If there are substantial comments, the convenor of the project team or working group shall call an “enlarged meeting”, and invite, in addition to the project team or working group members:
- the Chair and the secretary of the technical committee entrusted with the part;
  - the Chair and the secretary of IEC/TC 1;
  - a representative of every National Committee which has made important comments on the draft or which may be interested in this draft (even if the National Committee has already appointed an expert to the PT/WG);
  - a representative of other international organizations concerned;
  - a Central Office Technical Officer.

For this meeting the convenor of the project team or working group shall prepare a term-by-term compilation of the comments received, on which he (or she) may mention the action he (or she) proposes for each comment.

<sup>4</sup> In that case, it is up to the secretary of IEC/TC 1 to examine, together with the PT/WG convenors and TC Secretaries concerned, whether a revision of the source definition is needed.

b) This “enlarged meeting” shall lead to proposals on how to deal with the comments received, i.e.

- submission of the document, with or without amendments, to the secretariat of IEC/TC 1 for circulation as enquiry draft (CDV) (see SK.4.3.4);
- preparation of a new committee draft for comments.

These proposals, together with a version of the compilation of comments marked up with the decisions taken during the “enlarged meeting” are then forwarded to the secretary of IEC/TC 1 by the convenor of the project team or working group (subject to the agreement of his (or her) technical committee, if appropriate).

c) The decision to circulate an enquiry draft shall then be taken by the Chair of IEC/TC 1, in consultation with the secretary of IEC/TC 1, taking into account these proposals, and on the basis of the consensus principle (see ISO/IEC Directives, Part 1). The document shall then be forwarded to IEC Central Office by the secretary of IEC/TC 1, with the request that the draft be distributed as an enquiry draft (CDV) (see SK.4.3.4).

d) If necessary, the procedure described in a) to b) above shall be repeated until the draft is ready for submission to National Committees for approval as an enquiry draft (CDV).

#### **SK.4.3.4 Enquiry (CDV) stage**

(See ISO/IEC Directives, Part 1, and the IEC Supplement, Annex SL)

#### **SK.4.3.5 Approval (FDIS) stage**

(See ISO/IEC Directives, Part 1, and the IEC Supplement, Annex SL)

In order to expedite the publication process, and unless the secretariat of IEC/TC 1 informs IEC Central Office that the FDIS is likely to be rejected (in which case the Central Office shall wait until the end of the voting period), at the same time as the FDIS is distributed, the IEC Central Office shall send this FDIS to the National Committee of the Russian Federation to obtain the Russian version of the FDIS, as well as to the National Committees in charge of the additional IEV languages.

These National Committees shall return their translations within six months, in accordance with the instructions provided by the IEC Central Office:

	NC Russian Federation	NCs in charge of additional languages
<b>Section header</b>	X	
<b>Term</b>	X	X

The secretariat of IEC/TC 1 shall send as soon as possible (and anyhow before the end of the period allowed for the translations) the “final version” of the document, in French and English, to the IEC Central Office.

#### **SK.4.3.6 Publication stage**

(See ISO/IEC Directives, Part 1, and the IEC Supplement, Annex SL)

The problem of the translations into Russian and additional IEV languages is dealt with in SK.4.3.5 above. If the translations are not available within six months (or any longer period that the secretariat may specify in the case of exceptionally long documents, or when the six months' period covers a holiday period), which follow the date at which the FDIS was sent to the National Committee responsible for the translation, the IEV part concerned will be published without the missing translation.

The checking of the printer's proof, if necessary after importation into the database by the IEC Central Office, is then ensured in parallel:

- by the IEC Central Office;
- by the secretariat of IEC/TC 1, with the help of the convenor of the working group and the members of the Editing Committee;
- by the National Committees concerned for the other languages.

The terms and definitions in the Russian language, and the terms in the additional languages shall be in accordance with the decisions of the National Committees concerned, and shall not be subject to change or deletion by IEC/TC 1 or by IEC Central Office without consultation of the National Committee concerned (this is valid in particular for possible corrigenda).

#### **SK.4.4 Revision of IEV parts or sections**

The revision of each IEV part shall be included in the programme of maintenance of IEC/TC 1 publications. This programme is prepared by IEC/TC 1, in consultation, when appropriate, with the technical committees concerned. It is then included in the Strategic Business Plan, and is subject to approval by the Standardization Management Board.

If the revised part has the same reference number, to avoid confusion between references to the old and new entries, the section numbers of the revised part shall be different from those of the existing part (for example by adding 10 or 20).

#### **SK.4.5 Amendments**

If the concepts concerned are deemed to be of interest for several Parts, IEC/TC 1/WG 100 *Fundamental concepts* (or other "horizontal" WGs such as TC 1/WG 446, *Electrical relays*, as appropriate) is consulted, and advantage can be taken of the meeting of IEC/TC 1/WG 100 in conjunction with the IEC/TC 1 plenary meeting to expedite the treatment of this update.

In the case of the addition of new entries, these entries are given numbers following the last one in the existing section(s) concerned, irrespective of the logical order in which they should appear in the section(s). The logical order will be restored on the occasion of a subsequent revision or of a new edition of the part.

#### **SK.4.6 Cancellation of IEV parts or sections**

Sometimes, a revised part or a new part does not correspond exactly with an existing part, but involves the cancellation of one or more sections belonging to one or more existing parts. Such a cancellation of sections or parts shall be explained in detail in the Foreword of the new part and, for the individual entries concerned, a reference to the other IEV entry number under which the entry was published previously shall be added (see SK.3.1.7.1).

It may also occur that an existing part (or whole sections of a part) has become obsolete.

It is then the responsibility of the secretariat of IEC/TC 1 to ask for cancellation of this part or of these sections (after consultation of the technical committee concerned, if appropriate) by requesting the IEC Central Office to circulate a formal enquiry to the National Committees.

#### **SK.4.7 Cooperation with other international organizations**

It may happen that certain parts of the IEV are of interest not only to the IEC, but also to other international organizations such as ISO, ITU, CIE, UIC, UIE, etc. In such cases, the Chair and secretary of IEC/TC 1 shall propose the setting up of a working group composed of members of the IEC technical committees concerned as well as members of the other international organization. Details of the procedure will be laid down by IEC/TC 1 in each individual case.

EXAMPLE Part 845: *Lighting*, has been prepared together by the IEC and CIE (International Commission on Illumination). The drafts of Sections 7, 8 and 10 have been prepared by a working group comprising experts from IEC/TC 34: *Lamps and related equipment*, while the other sections have been prepared under the aegis of the CIE. Since German is one of the official languages of the CIE, all the definitions are given in four languages.

#### **SK.4.8 Terminologies specific to technical committees**

A technical committee may also develop specialized “glossaries”, for the purposes of its own publications, glossaries to be included in the “terms and definitions” clause of its own standards or in an independent Standard or Technical Report. The concepts defined in such glossaries shall be restricted to the field corresponding to the scope of the standard or of the TC.

The TC shall of course make sure that the terms and definitions included in these glossaries are consistent and not in contradiction with the relevant concepts of the IEV, and that the necessary coordination measures have been taken in liaison with IEC/TC 1.

These glossaries may also include terms taken directly and without modification from the IEV.

If the TC considers that some of its existing specialized terms and definitions should be given a more general validity and included in the IEV, it shall inform the secretariat of IEC/TC 1, in order to begin the process. If approval is granted, the procedures defined in SK.4.3, SK.4.4 or SK.4.5 are applicable

## SK.5 List of data categories and attributes

Data category	Applicability	Subclause	ISO 10241-1:2011	Examples	
				French	English
Entry number	Mandatory	SK.3.1.1	6.1	IEV: 161-01-22	Standard: 3.1
Letter symbols	If applicable	SK.3.1.2	6.3	m	$R_m$
Preferred terms, synonyms and abbreviated forms	In the order of preference	SK.3.1.3	6.2	modulation d'impulsions en durée, f MID, f modulation d'impulsions en largeur, f	pulse duration modulation PDM
Deprecated or obsolete synonyms	If applicable	SK.3.1.3.4.4, SK.3.1.3.5.8	6.2	DÉCONSEILLÉ: vecteur-colonne, m	DEPRECATED: pulse width modulation
Specific use of the term	If needed	SK.3.1.3.5.5	–	rang, <d'un harmonique> m	Laplacian, <of a scalar field>
National variant	If needed	SK.3.1.3.4.2, SK.3.1.3.6.3	6.2.3.5	unité de traitement, f CA	grounding inductor, US
Grammatical information: – gender – number – word class	Mandatory (if applicable for the language)	SK.3.1.3.6.2	6.2.3	diaphragme, m	
	If needed			courants de Foucault, m pl	eddy currents, pl
	Mandatory <sup>a</sup>			sous-ensemble, m	subset
				transitoire, nom	transient, noun
				transitoire, adj	transient, adj
Non-verbal representation	If needed	SK.3.1.5	6.5	VOIR: Figure 1	SEE: Figure 1
Example	If needed	SK.3.1.6	6.6	EXEMPLE BALP, KID, FROP.	EXAMPLE BALP, KID, FROP.
Note to entry	If needed	SK.3.1.7	6.7	Note 1 à l'article: En anglais, le terme « static characteristic » désigne aussi la caractéristique statique des tubes électroniques (531-18-04) et des sources de courant de soudage à l'arc (851-12-32).	Note 1 to entry: Other static characteristics are defined in English for electronic tubes (531-18-04) and for arc welding power sources (851-12-32).
Source	If applicable	SK.3.1.8	6.8	SOURCE: CEI 62127-1:2007, 3.54, modifié	SOURCE: IEC Guide 104:2010, 3.2

<sup>a</sup> The attribute "noun" is only necessary in English to distinguish a term from a non-noun homograph (e.g. the term "transient" can be both an adjective and a noun). In French, the attribute "noun" is not necessary if the gender is indicated (since then it is implicit: only nouns have a gender).

## **Annex SL** (normative)

### **Procedures for the maintenance of the IEC standards in database format**

#### **SL.1 Introduction**

This Annex of the IEC Supplement to the ISO/IEC Directives describes procedures for the maintenance of any international standard consisting of “collections of items” managed in a database. This may include graphical symbols of all kinds, sets of definitions, sets of dimensions, dictionaries of data element types with associated classification schema and other standards in which collections of objects require maintenance (addition or amendment) on a continual basis. Therefore, neither separate new work item proposals (NP) nor review reports (RR) are required.

Supplementary procedural information, requirements or criteria that apply to particular standards database(s) can be described in separate document(s) within the domain of the responsible technical committee or subcommittee. These supplementary documents should not be in conflict with the ISO/IEC directives.

#### **SL.2 Procedures**

##### **SL.2.1 Overview**

The procedures described in this document are based on the use of a web-accessible database and electronic communication. The prescribed throughput time for maintenance/validation can only be achieved by means of electronic communication.

The procedures are in three parts: firstly the preliminaries, followed by either the normal database procedure or the extended database procedure.

Figure SL.1 provides an overview of the procedures.

##### **SL.2.2 Preliminaries**

This is the initial part of the maintenance procedures that shall be completed for every Change Request (CR) and consists of the following stages.

##### **Initiation of Change Request (CR)**

Entering of a CR with the required information in a web-accessible database by an authorized person or body also referred to as “proposer”.

##### **Preparation for evaluation**

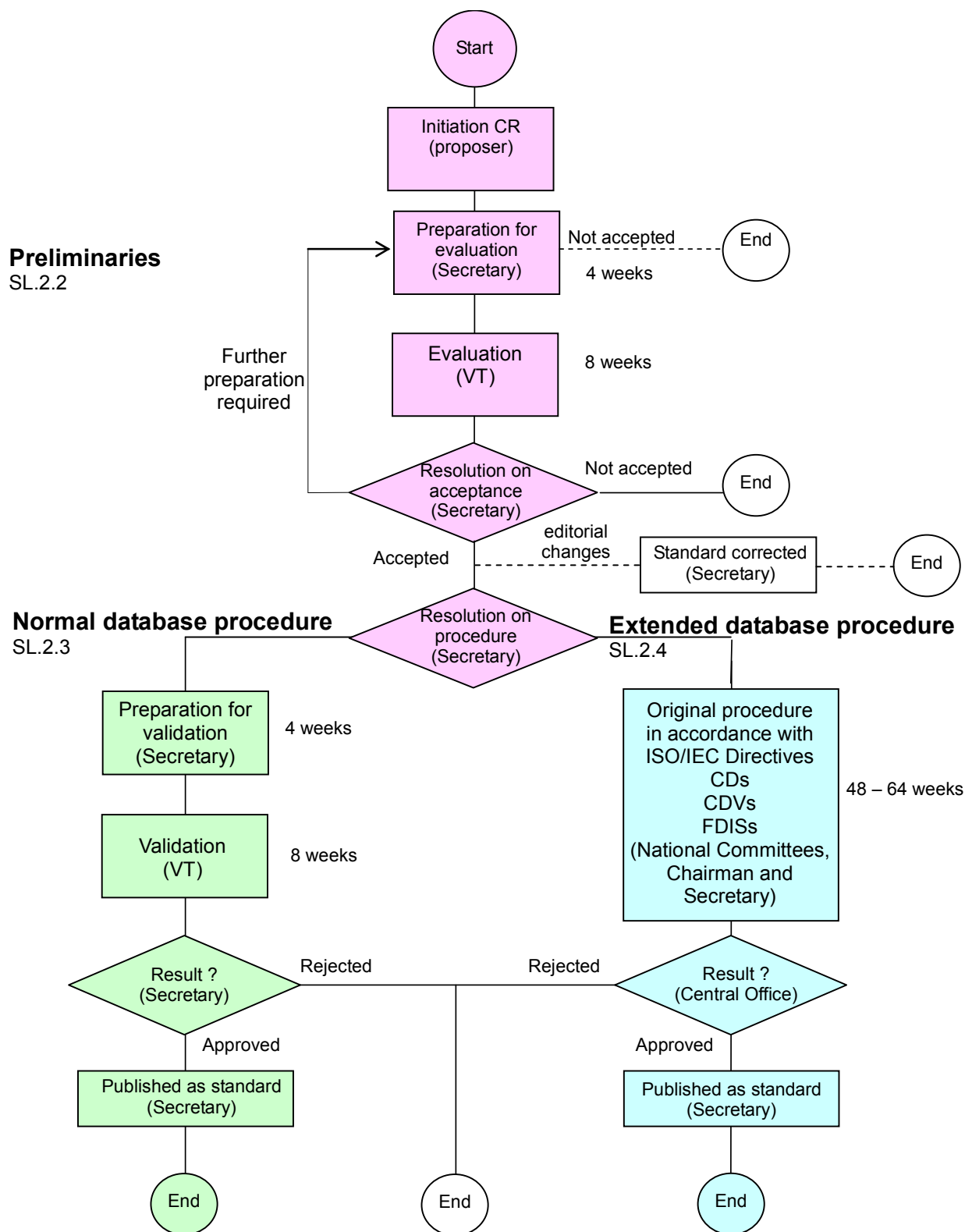
Preparation by the secretary of the technical committee or subcommittee (TC/SC) to ensure that all mandatory entries of the CR are appropriately filled in and that any associated graphics is of a quality sufficient for evaluation, although it need not have final quality.

NOTE 1 More detailed rules applicable to a specific standard can be provided by the TC/SC in charge of the standard.

If required, a Maintenance Team (MT) may be set up to assist the secretary in the preparation activities. When established, the MT has a one to one relation to a “database-based standard”



(referred to in the procedure as “database standard”) and consists of members with expertise to assist the secretary in managing the maintenance of this database standard.



**Figure SL.1 – Overview of the procedures**

NOTE 2 The time required for preparation work should normally not exceed 4 weeks, but might exceptionally be longer if the original proposal is not mature enough. In such a case the preparation is comparable to “stage 0” work and the time has to be counted from final agreement with the proposer.

## Evaluation of the CR

Action by the Validation Team (VT) to determine whether the CR is within the scope of the database and valid for further work or should be rejected.

When the quality of the information provided at the preparation stage is satisfactory, the status level of the CR is changed to *for evaluation* and the VT is informed (with copies to the proposer and possibly other relevant TCs) and asked by the secretary to make an evaluation and to comment.

The commenting is comparable to the commenting on a CD.

The evaluation of the CR should be completed within 8 weeks.

## Resolution

Observation by the TC/SC secretary on the comments and general opinions of the members of the VT followed by the conclusion whether the CR should be

- continued with the *normal database procedure*, or
- continued with the *extended database procedure*, or
- improved and *re-evaluated*, or
- *rejected* altogether.

NOTE 3 The entry of a new item in the database is not to be seen as “new work”, but rather as part of the continuous maintenance of the existing collection. Therefore, to arrive at a conclusion, a simple majority of the submitted votes can be used at the evaluation stage, applying the choice between continuation/rejection as well as between normal/extended procedure.

NOTE 4 If the original CR references many items, and if some of these might be acceptable for continuation with the normal database procedure while others are not, the original CR might be divided into two or more new CRs and processed separately. Such new CRs start at the status level already achieved.

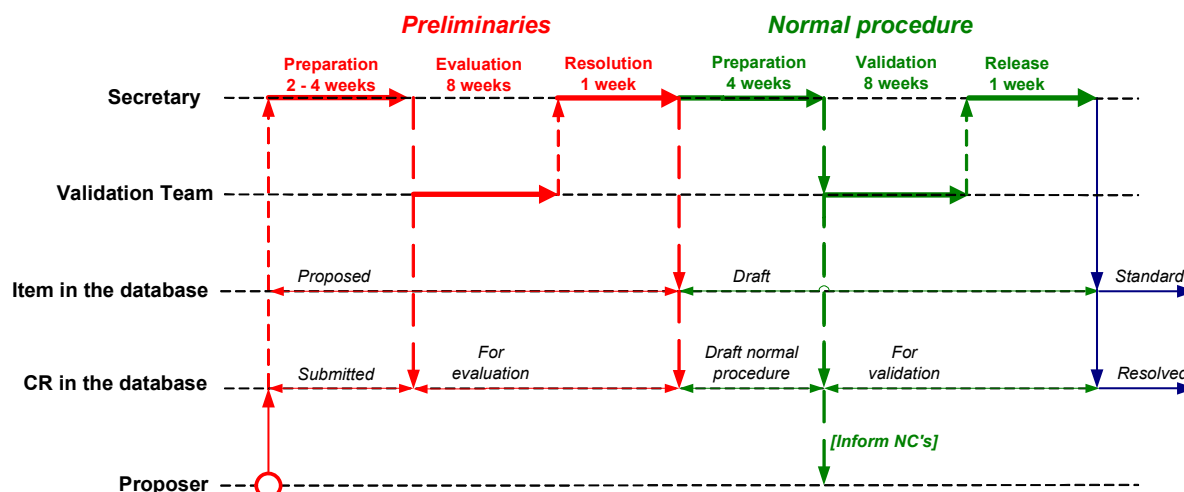
### SL.2.3 The normal database procedure

The normal database procedure is faster than the extended procedure as described in SL.2.4 and relies on the use of the Validation Team (VT) acting on behalf of the National Committees for the final voting on proposals.

The normal database procedure is typically applicable for changes to existing items and for new items within the boundaries of the existing domain of the database or in cases where there is an urgent need for standardization.

NOTE 1 More detailed rules applicable to a specific standard can be provided by the TC/SC in charge of the standard.

Figure SL.2 shows a process map of this procedure.



**Figure SL.2 – Process map of the normal database procedure including preliminaries**

### Preparation for validation

The TC/SC secretary revises the proposal in line with the comments received during the evaluation stage and checks that the item(s) associated with the CR are, after possible changes still sufficiently and properly described, within the scope of the database and consistent with items already existing in the database. If required, corrections are made. For this, the secretary might seek assistance from the Maintenance Team (MT) or from other internal or external experts. This preparation should be carried out within 4 weeks.

### Validation

When the quality of the information is satisfactory, the status level of the Change Request (CR) is changed to *for validation*, and the Validation Team (VT) called to vote by the secretary, with copies to the proposer, the P-members of the TC/SC and possibly other relevant TCs. Voting should be completed within 8 weeks.

If the proposed item(s) are accepted, the status level of the item(s) is changed to *standard*. If they are not accepted, then the reason(s) are noted in the remark and the status level of the item(s) is set to *rejected*.

The criteria applied are the same as those for the voting on a normal FDIS. Abstention from voting means that the vote is not counted.

NOTE 2 The rules for the obligation for P-members to vote are also the same as for a normal FDIS, which in consequence means that P-members have an obligation to appoint delegates to the Validation Team.

After setting the final status levels for the items and noting the reasons, the status level of the change request is set to *resolved*, and the procedure is finished (maximum 2 weeks).

With the normal database procedure it is possible for proposals to be approved within approximately 24 weeks.

### Report to the technical committee/subcommittee

The TC/SC secretary summarizes the set of items approved in accordance with the normal database procedure in a report to the TC/SC plenary meeting. At the plenary meeting all items standardized since the previous plenary meeting are presented.

## SL.2.4 Extended database procedure

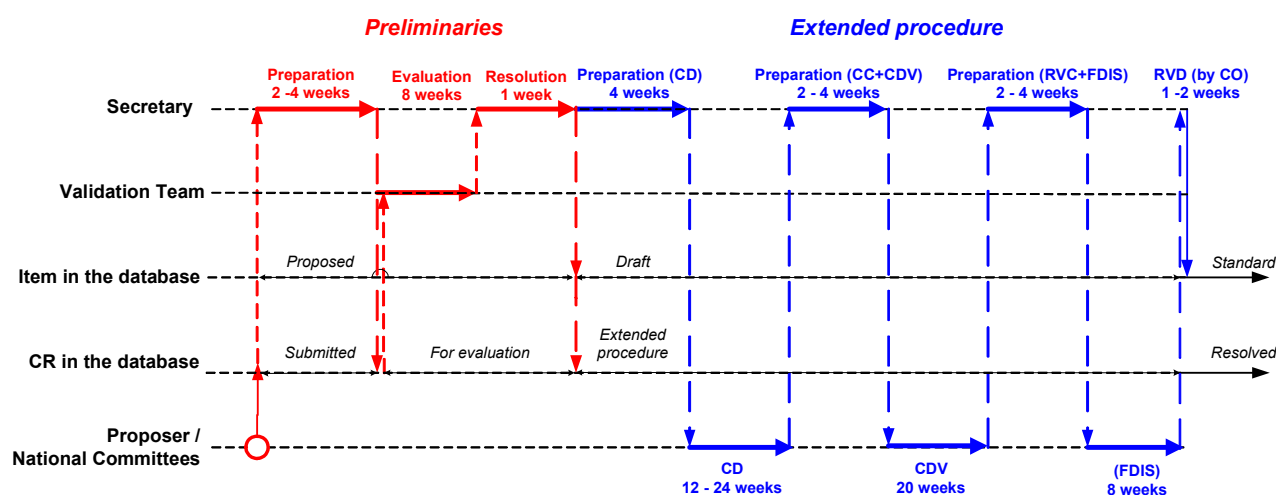
The extended database procedure respects all stages of the procedure described in the ISO/IEC Directives for the approval of standards as printed documents, the *original procedure*. The procedure involves the National Committees in the traditional way in which the different project stages are introduced by formal documents/messages to the National Committees. However, as with the normal procedure, the information in the database is considered as the original source of information.

NOTE 1 Such a formal document consists of the appropriate document cover page with a title referring to the relevant Change Request. Although not necessary, it might be helpful during a changeover period, to attach printouts from the database to these documents. This includes the printout of the Change Request and of all relevant items.

It is expected that, in the majority of cases, the normal database procedure will be followed and that the extended database procedure will only be rarely required.

The extended procedure is described below including all stages and associated throughput times. It is possible that there could be comments against an item, so that the CD or CDV stage might need to be repeated (as described in the ISO/IEC Directives, Part 1).

Figure SL.3 shows a "process map" with the different roles indicated along the vertical axis. This diagram highlights the flow, and indicates clearly when the different roles have to be active.



**Figure SL.3 – Process map of the extended database procedure including preliminaries**

A short description of each of the stages of the extended procedure is given below:

### Preparation (CD)

In the Preparation (CD) stage, the TC/SC secretary checks that the item(s) contained in the CR are sufficiently and properly described, and that comments received during the evaluation stage have been adequately reflected. Consequently, it should be checked that the item(s) are within the scope of the database and consistent with items already existing in the database. If required, corrections are made. The secretary might in this work seek assistance from the Maintenance Team (MT) or from other internal or external experts. The preparation (CD) stage should be carried out within 4 weeks.

**CD**

When the proposed item(s) are sufficiently well prepared, the secretary issues a formal CD document to the National Committees, informing them that the CR is available for commenting on the CD stage, within the normal time frame for CDs. Comments are to be submitted in the normal way (16, 12 or 8 weeks according to the ISO/IEC Directives, Part 1).

**Preparation (CC + CDV)**

The comments are compiled and made available as an ordinary compilation of comments (published on the web server). The item and its associated information are prepared for the CDV stage, taking note of the comments (maximum 4 weeks).

**CDV**

When sufficiently prepared, the secretary issues a formal CDV document to the National Committees that the item is available for commenting and voting for acceptance as an FDIS, within the normal time frame for a CDV (20 weeks according to the ISO/IEC Directives, Part 1).

**Preparation (RVC + FDIS)**

The comments are compiled and the votes counted and made available as an ordinary compilation of comments and result of voting on a CDV. The item and its associated information are prepared for the FDIS stage, taking note of possible purely editorial comments (maximum 4 weeks).

NOTE 2 If the CDV is unanimously approved, the contained items may be published directly after the preparation and circulation of the RVC, without circulation of an FDIS, in accordance with the original procedure.

**FDIS**

The secretary issues a formal FDIS document to the National Committees, that the item is available for voting for approval as an International Standard (IS), within the normal time frame for a FDIS (8 weeks according to the ISO/IEC Directives, Part 1).

NOTE 3 In accordance with the present IEC rules the FDIS stage might be omitted if the CDV is unanimously approved.

**RVD**

A voting report is prepared and published. If proposed item(s) are accepted, the status level of the item(s) is changed to *standard*. If they are not accepted, then the reason(s) are noted in the remark and the status level of the item(s) is set to *rejected*.

After completing setting the final status levels for the items and the reasons are noted, the status level of the change request is set to *resolved*, and the procedure is finished (maximum 2 weeks). With the extended database procedure it is possible for proposals to be approved within 60 weeks up to a maximum of 79 weeks.

**SL.2.5 Editorial changes to an existing item**

Proposed changes to an item that affect neither its use nor semantics (i.e. editorial changes) only require going through the Preliminaries (as described in SL.2.2). It is not required to continue with either the normal or the extended procedure. At the end of the preliminaries the change is either accepted or rejected without validation.

More specific criteria on which changes are classified as editorial changes can differ, dependent on standard, and are described in separate document(s) within the domain of the responsible TC/SC.

After a positive resolution, the TC/SC secretary will make the changes to the existing standard item. The status level of the Change Request is set to *resolved* and the work is finished.

If not accepted, then the reason(s) are noted in the remark, the status level of the Change Request is set to *resolved* and the work is finished.

## **SL.2.6 Regular maintenance of the entire standard**

In addition to the continuous maintenance of the standard described above, a comprehensive review of the database contents carried out by the Maintenance Team at regular intervals may be necessary. For such reviews the concept as defined elsewhere in the ISO/IEC Directives is relevant.

The resulting proposal from such a work is to be entered formally into the database as one or many change requests and then each change request is dealt with according to the normal or extended database procedure as appropriate.

## **SL.2.7 Appeals**

If, at any time after acceptance of an item as *standard*, a National Committee is dissatisfied with the result of the validation process on an item, it may bring forward a change request with a proposal for an amendment to the item which will re-open consideration of it under the procedures described above.

## **SL.3 Terms for general use**

### **SL.3.1**

#### **original procedure**

traditional standardization procedure for standard publications as described in the ISO/IEC Directives and IEC Supplement relying on the circulation of documents to the National Committees

### **SL.3.2**

#### **normal database procedure**

standardization procedure making use of a *Validation Team* and a **workflow around a database** for information sharing (as specified in this document)

NOTE The normal database procedure is used for validation of new items and of item combinations that are within the boundary of existing rules.

### **SL.3.3**

#### **extended database procedure**

standardization procedure with stages and time frames as specified in the *original procedure*, but implemented as a **workflow around a database** for information sharing (as specified in this document)

### **SL.3.4**

#### **Maintenance Team**

group of experts that has the task in the *original procedure* at specified maintenance cycles to carry out revisions of existing international standards. In the *normal database procedure* and the *extended database procedure* the Maintenance Team can be called upon by the TC/SC secretary to deliver support at specified maintenance cycles and for the purpose of preparatory work in connection with a (single) Change Request.

### **SL.3.5**

#### **Validation Team**

permanent, “executive”, group of experts appointed by and acting as delegates on behalf of their National Committees to execute evaluation and validation of Change Requests and to vote for their release as part of a database standard

NOTE 1 All P-members have the right and duty to appoint an own member of the team. The Validation Team evaluates proposals and votes, in the *normal database procedure*, on *items* on behalf of their National Committees. The Validation Team reports to the technical committee or subcommittee.

NOTE 2 The described procedure asks for very short response times from the Validation Team members. Therefore, the National Committees should appoint one or more deputies that can take over the task when the ordinary one for any reason is absent (travel, business, etc.).

NOTE 3 It is up to the National Committee to decide for how long time a member should be appointed, and also to organize the possible supporting network of experts on National level.

NOTE 4 The secretariat manages the Validation Team.

### **SL.3.6**

#### **proposer**

person (or body) authorized to submit a Change Request

NOTE 1 There can be many proposers.

NOTE 2 The required limited write access to the database is password protected, and authorization will only be granted to persons appointed by the National Committees. Proposers have to be personally authorized and should, in connection with this authorization, get the required information and training.

### **SL.3.7**

#### **database standard [database-based standard]**

standard in database format for which the valid form of publication is a publicly accessible database, containing the standardized *items*

NOTE 1 The content of the database standard is normally possible to retrieve by using different search criteria.

NOTE 2 The management and documentation of the standardization process is normally also part of the database.

### **SL.3.8**

#### **item (of a database standard)**

separately managed part of a database standard, documented in accordance with a structure common to the specific standard

NOTE Typical examples of items are: symbols (graphical or letter), terms, data element types, data sheets.

## **SL.4 Terms for status levels for Change Requests**

### **SL.4.1**

#### **Submitted**

status level of the Change Request from the moment of its registration and identification in the database, until the TC/SC secretary has finished the preparation for evaluation stage

### **SL.4.2**

#### **For evaluation**

status level of the Change Request in the evaluation stage until a resolution has been reached on how to proceed following the preliminaries

NOTE The transition to *For evaluation* is from *Submitted*.

### **SL.4.3**

#### **Draft normal procedure**

status level of the Change Request in the preparation for the validation stage as part of the *normal database procedure* until the preparation is completed

### **SL.4.4**

#### **For validation**

status level of the Change Request in the validation stage as part of the *normal database procedure* until the validation is completed

NOTE The transition to *For validation* is from *For evaluation*.

### **SL.4.5**

#### **Extended procedure**

status level of the Change Request from the moment that the *extended database procedure* is followed until the completion of that procedure

NOTE The transition to *Extended procedure* is from *For evaluation*.

### **SL.4.6**

#### **Resolved**

status level of the Change Request after completion of the *normal-* or *extended database procedure*, or after initial rejection

### **SL.4.7**

#### **For testing**

status level of a Change Request used for testing purposes

NOTE An Change Request *For testing*, is normally deleted after intended use (leaving a “hole” in the identity number series).

## **SL.5 Terms for status levels for items (i.e. graphical symbols, DETs, etc.)**

### **SL.5.1**

#### **Proposed**

status level of a new *item* from its registration and identification in the database, until it has been accepted for work and a resolution has been reached on how to proceed following the preliminaries

### **SL.5.2**

#### **Draft**

status level of a new *item* that has been accepted for work following the preliminaries with either the *normal-* or *extended database procedure*, until the moment a decision has been taken on whether or not it is to be part of the standard

NOTE The transition to *Draft* is from *Proposed*.

### **SL.5.3**

#### **Standard**

status level of a new *item* that has been released for use as part of the standard

NOTE The transition to *Standard* is from *Draft*.

### **SL.5.4**

#### **Obsolete – reference only**

status level of an *item* that is no longer part of the standard, irrespective of reason

NOTE The transition to *Obsolete – reference only* is from *Standard*. On the item page a note or a reference to a replacing item further indicates the reason for obsolescence.



**SL.5.5**

**Rejected**

status of an *item* that has been entered into the database as part of a Change Request, but has not been approved to be part of the standard

NOTE The transition to *Rejected* is either from *Proposed* or from *Draft*.

**SL.5.6**

**For test purposes only**

status of an *item* being tested

NOTE An item *For test purposes only*, is normally deleted after intended use (leaving a “gap” in the identity number series).

## **Annex SM** (normative)

### **Organization, rules and procedures of the International Special Committee on Radio Interference (CISPR)**

#### **SM.1 Introduction**

The International Special Committee on Radio Interference (CISPR) is an organization within the IEC that is established to consider the protection of radio reception from interference. The committee constitutes subcommittees that provide both product (vertical) and basic standard (horizontal) roles. The full Terms of Reference and Scope are also published on the IEC internet website. A full history of the CISPR is provided in publication CISPR 16-3.

***CISPR follows the ISO/IEC Directives Parts 1 and 2 and the IEC Supplement with the following deviations.***

#### **SM.2 Membership**

##### **SM.2.1 'I' Members**

In addition to the normal categories of IEC membership, CISPR has 'I' members as defined below:

Category 'I' members are organizations, other than IEC National Committees, that have a recognized interest in the international aspects of the reduction of radio interference. "I" members representatives may participate in the work of any committee, subcommittee or working group. 'I' members have the right to comment but do not have any voting rights on IEC publications.

An International organization may become an 'I' member of the CISPR, subject to acceptance by the Plenary Assembly of the CISPR.

The current membership is shown on the [IEC CISPR web page](#).

#### **SM.3 Chair and Vice-Chair**

##### **SM.3.1 Chair**

The Chair of the CISPR is the Chair of the Plenary Assembly.

The procedures contained in the ISO/IEC directives shall be used to seek nominations for the position of Chair. The Secretariat of CISPR shall nominate a Chair who shall be appointed by the Plenary Assembly on the recommendation of the Steering Committee. The Chair of the CISPR shall be appointed initially for a period of six years. In the interest of continuity, this period shall embrace not less than two successive Plenary Meetings and, if necessary, the period of office shall be adjusted to permit this condition to be fulfilled. Further terms of office shall be subject to the ISO/IEC directives with the exception that they shall be ratified by the CISPR Plenary meeting.

**SM.3.2 Vice-Chair**

The procedures for appointment of Chairs contained in the ISO/IEC Directives (ISO/IEC Directives Supplement, Clause 1.8.1.2 a) and b)) shall be used to seek nominations for the position of Vice-Chair of CISPR. The Secretariat of CISPR shall nominate a Vice-Chair who shall be appointed by the Plenary Assembly upon the ~~nomination~~ recommendation of the Steering Committee ~~shall elect the Vice-Chairman of the CISPR~~. The Vice-Chair shall initially be elected for a period of up to six years. Further terms of office shall be subject to the ISO/IEC Directives with the exception that they shall be ratified by the CISPR Plenary meeting.

The Vice-Chair shall advise the Chair, and act as Chair in his absence.

**SM.3.3 Subcommittee Chairs**

The procedures contained in the ISO/IEC Directives shall be used to seek nominations for the position of subcommittee Chairs. The Secretariat of each subcommittee shall nominate a Chair who shall be appointed by the Plenary Assembly on the recommendation of the Steering Committee. The period of office shall initially be for six years. Further terms of office shall be subject to the ISO/IEC directives with the exception that they shall be ratified by the CISPR Plenary meeting. The Steering Committee may take temporary appointments in the intervals between meetings of the Plenary Assembly.

**SM.3.4 Subcommittee Vice-Chairs**

The procedures for appointment of Chairs contained in the ISO/IEC Directives (ISO/IEC Directives Supplement Clause 1.8.1.2 a) and b)) shall be used to seek nominations for the position of a CISPR Sub-committee Vice-Chair. The Secretariat of the relevant CISPR subcommittee shall nominate a Vice-Chair who shall be appointed by the CISPR Plenary Assembly upon the recommendation of the Steering Committee. The subcommittee Vice-Chair shall initially be appointed for a period of up to six years. Further terms of office shall be subject to the ISO/IEC Directives with the exception that they shall be ratified by the CISPR Plenary Assembly.

Subcommittees shall define the role of their Vice-Chair, which must include at least advising the subcommittee Chair and acting as subcommittee Chair in his absence.

**SM.3.5 Working Group Convenors**

Working group convenors shall be appointed by the CISPR Committee which the group reports to (i.e. the 'parent committee') for a term of up to three years. The term shall be set so that it ends at a suitable future plenary session of the parent committee. The procedure to follow where terms of convenors have ended or a convenor has relinquished the post prior to a plenary meeting is:

1. The first draft agenda for the relevant plenary meeting shall include an item to review the position of WG Convenor.
2. The parent committee Secretariat shall ascertain if the current convenor is willing to continue.
3. The parent committee Secretariat shall apply the timescales in the IEC Directives for circulation of documents before plenary meetings to inform the Committee members of the review of the position of convenor and inviting members to submit nominations. An AC document is used for this purpose and this should include the WG scope for reference by members.

4. If there is a single nomination for the position of convenor, whether that is the existing convenor or other person, then the plenary meeting of the parent committee shall endorse their appointment.

5. If there is more than one nomination for the position of convenor, there shall be a secret ballot taken during the parent committee plenary meeting. Each P-member delegation present at the meeting will be entitled to vote and the new convenor shall be the person receiving the highest number of votes, with abstentions not counted.

6. The parent committee Secretariat shall circulate an INF document announcing the result of the review

7. In the event that a convenor steps down and there is no nomination for a replacement, the CISPR Steering Committee shall appoint a temporary convenor and the parent committee shall seek nominations and appoint a convenor at the earliest opportunity by correspondence or at the next plenary meeting.

There is no limit to the number of terms, as long as the convenor keeps the support of the parent committee or sub-committee. The National Committee which has designated the convenor as expert is expected to confirm its support to the convenor in their (new) role.

## **SM.4 Plenary Assembly**

### **SM.4.1 Constitution**

The Plenary Assembly shall consist of delegates representing the CISPR National Committees and Member Bodies.

### **SM.4.2 Terms of reference**

The Plenary Assembly shall be the supreme body of the CISPR. Its responsibilities are as follows:

- a) to elect (ratify) the Chair and Vice-Chair of the CISPR;
- b) to allocate the Secretariat of the CISPR;
- c) to appoint (ratify) Chairs of subcommittees;
- d) to allocate Secretariats of subcommittees;
- e) to approve changes in membership of the CISPR;
- f) to modify, as necessary, the structure and organization of the CISPR;
- g) to consider matters of policy and general interest referred to it by the Steering Committee;
- h) to consider technical matters as requested by National Committees and Member Bodies, the Chair of the CISPR or Chairs of the subcommittees.

### **SM.4.3 Setting CISPR Policy**

#### **SM.4.3.1 CISPR Policy**

For the purposes of these rules and procedures, CISPR Policy is defined as the preferred approach to standardisation recommended to be taken by CISPR Sub-Committees as agreed by CISPR using approval requirements for International Standards.

Policy setting could include, for example, guidance on preferred test methods, the use of referee methods or the optimum way to utilise measurement uncertainty.

Setting CISPR policy in the CISPR plenary assembly or by correspondence will be reserved for those occasions when decisions needed to be made to inform/guide sub-committees in their work to establish consistency in standardisation across CISPR.

If decisions on CISPR policy are made, it is with the intention that the policy is adopted universally.

#### **SM.4.3.2 Procedure for setting CISPR Policy**

Policy proposal documents for consideration and voting at the plenary assembly must be circulated to NCs at least three months in advance of the meeting. To be adopted at the meeting, the following must be achieved:

- a) a two-thirds majority of the votes cast by CISPR P-members vote are in favour and
- b) not more than one-quarter of the total number of votes cast are negative.

Abstentions are excluded when the votes are counted.

Where policy is adopted at CISPR level, Sub-Committees should adopt the policy when developing new publications or amendments to existing publications.

If a CISPR Sub-Committee does not apply a policy which has been adopted at CISPR level, then the Secretary of the Sub-Committee shall enter a note in the first draft of a publication circulated. The note shall highlight the text which does not follow the agreed policy.

The text inserted by the Secretary will alert P-members so that they can refer back to their original decision on the policy.

### **SM.5 Steering Committee**

#### **SM.5.1 Constitution**

The Steering Committee shall consist of the following:

- a) the Chair of the CISPR (to be Chair of the Steering Committee);
- b) the Vice-Chair of the CISPR;
- c) the Chairs of all CISPR subcommittees;
- d) the immediate past Chair of the CISPR;
- e) the Chief Executive Officer of the IEC;
- f) the Secretariat of the CISPR;
- g) additional members as co-opted by the Chair of the CISPR;
- h) a representative of each of the Member Bodies of the CISPR other than the National Committees of the IEC. Details of current members are shown on the CISPR page of the IEC website;
- i) a representative of each liaison body;
- j) the conveners of those Working Groups which report directly to the Steering Committee (when required).

#### **SM.6 Terms of reference**

The responsibilities of the Steering Committee are as follows:

- a) To approve the CISPR Strategic Business Plan.
- b) To assist and advise the Chair of the CISPR in the conduct of the affairs of the CISPR.
- c) To maintain contact with all work in progress in the CISPR.
- d) To give guidance and assistance to those carrying out the work of the CISPR.
- e) To consider progress reports from subcommittees, and from Working Groups which report directly to the Steering Committee.
- f) To advise the Chair of the CISPR as to the arrangements to be made for meetings of the CISPR.
- g) To refer new objects of study to a subcommittee when the terms of reference do not directly apply.
- h) To set up Working Groups reporting to the Steering Committee.
- i) To coordinate and direct the work between sub committees on common issues.

### **SM.7 Appeals**

Mostly covered by ISO/IEC Directives Part 1.

National Committees and Member bodies have the right to appeal

to the Steering Committee on a decision of a subcommittee,

to the CISPR Plenary Assembly on the decision of the Steering Committee.

The decision of the Plenary Assembly in the case of an appeal is final.

Any matters of technical coordination between IEC and CISPR which cannot be resolved by the parties concerned or by the IEC Advisory Committee on Electromagnetic Compatibility (ACEC) will be referred to the Standards Management Board (SMB) for a decision after taking into consideration the position of the CISPR Steering Committee.

### **SM.8 Amendments to CISPR rules and procedures**

The organization, rules and procedures of the CISPR, as described in this annex, may only be amended either by the Plenary Assembly or by correspondence with CISPR member bodies. Such amendments can only be made on the condition that not more than one-quarter of the membership cast a negative vote.

## **Annex SN** (normative)

### **Deviations of TC 100's procedures and organizational structures from the ISO/IEC Directives**

#### **SN.1 Introduction**

The establishment of TC 100 required procedures and organizational structures reflecting market needs so that the work could be completed in a timely and efficient manner. Therefore, a flexible organization with new positions and functions was developed, which deviated from the ISO/IEC Directives.

This was supported by National Committees and the Standardization Management Board.

TC 100 follows the ISO/IEC Directives Part 1 and Part 2 along with the Supplement – Procedures specific to IEC, with the following deviations.

Further information on TC 100's general procedures is given in document 100/1180/INF.

#### **SN.2 Terms and definitions**

##### **SN.2.1**

##### **Technical Secretary**

TS

individual supporting a number of technologies relating to TAs and/or PTs in technical, organizational and administrative activities

##### **SN.2.2**

##### **Technical Area**

TA

area of related technologies for which standardization is needed

##### **SN.2.3**

##### **Technical Area Manager**

TAM

individual managing the activities of a TA

##### **SN.2.4**

##### **General Maintenance Team**

GMT

permanent body responsible for the management of all maintenance work and for the overall maintenance of existing documents and standards directly under TC 100 or of disbanded TAs

##### **SN.2.5**

##### **General Maintenance Manager**

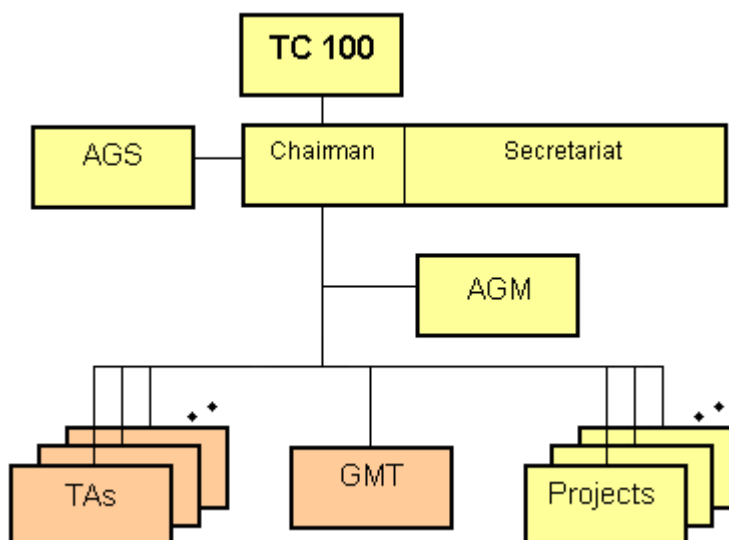
GMM

individual managing the maintenance activities of TC 100

#### **SN.3 Structure and organization**

##### **SN.3.1 TC Structure**

An overview structure of TC 100 is shown in Figure SN.1.



**Figure SN.1 – Structure of TC 100**

### **SN.3.2 Advisory Group on Strategy (AGS)**

#### **SN.3.2.1 Scope**

In accordance with AC/27/2002, paragraph 5, the Scope and Objectives for TC 100's Advisory Group on Strategy, has been revised as follows:

- The AGS Advisory Group is charged with the design and development of long term strategies for TC 100.
- To meet this objective, the AGS advises and recommends action on long-term strategic plans and directions for organizational structure and procedures for effective standards development.
- The AGS provides leadership to enable improved cooperation between industry and TC 100 by creating the strategic plans, which strengthen the relevance of TC 100 standardization activities.
- The AGS reports directly to TC 100.

#### **SN.3.2.2 Membership**

The members of the AGS include:

- Persons representing industry associations, where the members of the AGS cover global regions. Regions include: America, Europe, Asia and Oceanic. The AGS reviews and considers additional members periodically.
- The Chair, Secretary(ies) of TC 100.
- IEC Central Office representative to give a strong support of the IEC Central Office.

The secretary of the AGS is appointed from the TC 100 secretariat.

TAMs are invited to attend as guests for informational exchange.

### **SN.3.3 Advisory Group on Management**

#### **SN.3.3.1 Scope**

To organize, coordinate and manage the work of TC 100, an advisory group is needed.



The advisory management group submits recommendations to the Chair and officers of TC 100 on

- the organization of TC 100, the coordination of the work, the establishment of new TAs and the allocation of all new work items of TC 100, i.e. to an existing TA, a new TA or directly under TC 100's responsibility,
- the related work of the other IEC committees and other liaison bodies,
- any other matter on which the Chair requires advice.

The AGM advises and recommends actions on short-term implementation and management issues.

### **SN.3.3.2 Membership**

The members of the AGM include:

- Chair, Secretary(ies);
- AGS Chair;
- Technical secretaries;
- Technical area managers, general maintenance manager;
- the representative of the IEC Central Office;
- Project leaders, working directly under TC 100, on invitation.

The AGM is chaired by the TC 100 Chair. The secretary is appointed from the TC 100 secretariat.

### **SN.3.4 Technical Area (TA)**

#### **SN.3.4.1 Description**

A Technical Area (TA) is a technologically categorized area in TC 100, in which projects of related technology are allocated. A TA is similar to a sub-committee but TC 100 avoids organizing a conventional rigid sub-committee structure and employs a TA and project team system, in which all technical work is carried out by project teams under TC 100, and these projects are flexibly grouped within TAs for efficient standards development and practical project management reflecting the rapidly changing multimedia technology. All circulation of working documents and voting of TC 100 projects are conducted at the TC 100 level.

The TA system is based on the following concepts:

- a TA has a minimum of two active projects;
- any modification of title and scope of a TA is proposed by the respective TA and approved at the TC 100 level;
- the TAM and TS manage the TA in the same way as a sub-committee Chair and secretary respectively;
- TAs are flexibly established and disbanded to meet rapidly changing multimedia technology.

The daily management and activity of TA are almost the same as those of a sub-committee.

#### **SN.3.4.2 Establishment of a TA**

A TA is established by the TC 100 secretariat in consultation with the AGM, when it is foreseen that related projects needing coordination are expected or approved.

- establishment of TA is discussed in AGM based on the proposal by TC 100 Secretariat or TC 100 officers;

- the proposed scope shall be clearly broad enough to support two or more IEC publications, or a multi-part publication, in the foreseeable future;
- consideration shall be given that one project already exists and additional projects are expected with submission of a quality draft within six months.

#### **SN.3.4.3 Membership**

Members of the TA include:

- Technical area manager;
- Technical secretary(ies);
- Project leaders from PTs and MTs within the responsibility of the TA;
- Liaison representatives of internal (IEC/ISO), A liaison of the TA.

As agreed in the procedures, National Committees cannot be members of a TA. They are members of TC 100.

For participation in meetings see SN.5.2.2.

#### **SN.3.4.4 Disbandment of a TA**

A TA will be disbanded by the TC 100 secretariat when all projects are finished and no new projects are expected in this area of technology in the near future. Maintenance Teams working under a TA will be re-allocated to the GMT.

### **SN.3.5 General Maintenance Team (GMT)**

#### **SN.3.5.1 Description**

The GMT is a permanent body responsible for the management of all maintenance work and for the overall maintenance of existing documents and standards directly under TC 100's responsibility or of disbanded TAs.

Members of the GMT include:

- General maintenance manager;
- Assistant Maintenance Manager, Technical secretaries;
- Project leaders from active MTs under the responsibility of the GMM;
- Liaison representatives of internal (IEC/ISO), category A liaisons to the GMM.

NOTE 1 The maintenance work itself is carried out by a maintenance team (MT).

NOTE 2 A MT is allocated to the TA being responsible for the standard. If no TA exists, a MT is allocated to the GMT.

For participation in meetings, the same rules apply as for TA meetings see SN.5.2.2.

#### **SN.3.5.2 Maintenance procedure**

Maintenance of publications within TC 100 is the responsibility of the TAs. Only in the case where there is not a TA available the maintenance will be performed in the GMT. Maintenance projects in the GMT will also address projects from the former TC 100 organization.

The performance of maintenance is in accordance with the ISO/IEC Directives – Supplement – Procedures specific to IEC.

In addition to the IEC rules the following are applicable for TC 100:

- a) To manage the maintenance work of all projects allocated to TC 100, the TC 100 secretariat runs a database containing all projects.
- b) At least twice a year, preferably four weeks before the TC 100/AGM meeting, the GMM, in consultation with the TC 100 secretariat, advises TSs and TAMs by distributing an abstract from the database containing all projects for which the stability date falls within 24 months.
- c) The relevant TS is responsible for the publication of a DC document and a FormRR for the project concerned.

## **SN.4 Functions and responsibilities**

### **SN.4.1 AGS Chair**

#### **SN.4.1.1 Responsibilities**

The AGS Chair is responsible for the management of the AGS activities. He shall report the AGS activities to the TC 100 Chair and to the AGM.

The AGS Chair shall

- identify and report future technologies and standardization themes and issues to TC 100,
- advise on the future of standardization themes and issues proposed by NC,
- identify and recommend the action on long-term strategic plans and directions for the TC 100 organizational structure and advise on procedures for more effective standards development,
- motivate AGS members for informative and productive discussions, and advise, when appropriate, on how to move work forward to standardization,
- arrange necessary liaison with respective bodies, and
- if necessary, prepare appropriate responses on inquiries from outside of TC 100.

#### **SN.4.1.2 Appointment**

The AGS Chair is nominated by TC 100 Chair in consultation with the TC 100 secretariat and approved by TC 100.

TC 100 Chair, TC 100 Secretary and AGS Chair should in principle be assigned equally from the three global regions.

#### **SN.4.1.3 Term of office**

The AGS Chair is appointed for a period of six years. The TC 100 Chair, in consultation with the TC 100 secretariat, may ask TC 100 to approve successive extensions each of a maximum of three years.

#### **SN.4.1.4 Relinquishment**

If the AGS Chair resigns, then the TC 100 Chair should be notified as early as possible. The TC 100 Chair and secretariat will then find a suitable replacement in consultation with various industry associations.

## **SN.4.2 AGS members**

### **SN.4.2.1 Responsibilities**

An AGS member shall

- participate in the AGS discussion in good faith,
- introduce new technologies of interest to TC 100,
- find technologies that relate to TC 100 for standardization. Propose any action on long-term strategic plans and directions for organizational structure and procedures for more effective standards development.

### **SN.4.2.2 Appointment**

Any industry association, representing regions of America, Asia, Europe, or Oceania proposes a person(s) representing industry association as an AGS member and the NC to which the nominee belongs submits the proposal to the TC 100 secretariat. The TC 100 Chair nominates him (them) as the AGS member(s) in consultation with the AGS Chair and TC 100 secretariat. The number of AGS members representing industry associations shall be limited to four for each region. The TC 100 Chair may nominate suitable additional member(s) regardless of region in consultation with the AGS Chair and the TC 100 secretariat. TC 100 approves the appointment of the AGS member(s).

### **SN.4.2.3 Term of membership**

The AGS member is appointed for a period of three years. Successive extensions, each of a three year period, may be proposed in consultation with the TC 100 Chair and the TC 100 secretariat and approved by TC 100. If an AGS member makes no contribution to the AGS activity for two years, then the TC 100 Chair may recommend replacing him with another person.

### **SN.4.2.4 Relinquishment**

If an AGS member resigns, he should announce his relinquishment as earlier as possible. The TC 100 Chair and the TC 100 secretariat may ask the industry association to nominate another suitable person.

## **SN.4.3 Technical Secretary**

### **SN.4.3.1 Appointment**

The technical secretary of a TA will be proposed by a P-member, nominated by the TC 100 secretariat and appointed by the TC 100 Chair. The number of technical secretaries in TC 100 will be evaluated by the AGM and relate to existing TAs and work.

In case a new technical secretary is needed, the TC 100 secretary takes appropriate action by asking P-members for proposals giving a clear description of the technical area.

A technical secretary is assigned by the Chair and secretary of TC 100 to support a number of technical areas and/or PTs/MTs.

The National Committee proposing a technical secretary shall

- indicate its intention to participate actively in the work of TC 100, and
- be in a position to ensure that adequate resources are available for the work in the relevant technical area.

The technical secretary should be suitably qualified with broad technical knowledge. The person shall

- have an aptitude for administration and organization,
- have some relevant technical knowledge,
- have sufficient administrative and organizational ability as well as knowledge of using modern means of communication,
- have support from his National Committee to perform the duties of a technical secretary in a timely and effective manner.

The TS may nominate an Assistant TS. The TC 100 Chair appoints an Assistant TS upon request.

#### **SN.4.4 Technical Area Manager (TAM)**

##### **SN.4.4.1 Elucidation**

A technical area manager and technical secretary shall communicate with each other on their respective responsibilities and duties. A technical area manager and technical secretary shall also coordinate document status within a TA.

The technical area manager reports to TC 100 Chair on the activities of his TA. The technical secretary reports to TC 100 secretariat on his activities.

Appropriate decisions related to the development process of standards are taken by the technical area manager, in consultation with the technical secretary and the PL.

##### **SN.4.4.2 Appointment**

A TAM is proposed by the industry for which the TA is important, a P-member of TC 100 or a TC 100 officer, nominated by the TC 100 secretariat and appointed by the TC 100 Chair.

In case of a new TA, the TC 100 secretary takes appropriate action to receive proposals for a nomination of a TAM.

The TAM should be suitably qualified, usually with relevant technical knowledge about any involvement in the TA for which he will be appointed. The person shall also have

- an aptitude for management,
- relevant technical knowledge and be able to judge what is essential within the TA,
- sufficient knowledge of using modern means of communication,
- support from the industry to perform the duties of a TAM in a timely and effective manner.

##### **SN.4.4.3 Term of office**

Term of office of a TAM ends when the TA is disbanded or three years after appointment of the TAM, where in the latter case successive extensions each of three year periods may be approved by TC 100 Chair.

##### **SN.4.4.4 Relinquishment**

If the TAM resigns, he should announce his intention by giving a minimum of six months' notice to the TC 100 secretary.

The TC 100 secretary will take appropriate action to receive proposals for nomination of a successor.

## **SN.4.5 General Maintenance Manager (GMM)**

### **SN.4.5.1 Responsibilities**

The GMM acts as a Chair for the GMT. He will advise the TC Chair on important matters relating to the maintenance work. For this purpose he shall receive regular reports from the experts/PLs working on the several maintenance subjects.

The GMM shall

- manage the work within the GMT,
- act in a purely international capacity, divesting himself of a national point of view,
- be responsible for the TC 100 maintenance plan,
- keep himself very well informed about what is going on in this activity,
- make proposals to TC 100 secretariat for the maintenance of relevant liaisons with external bodies and committees,
- act, if necessary, as liaison representative and reporter,
- by monitoring all activities going on in the GMT, make decisions about the timely start/progress of the work,
- guide the technical secretary(ies), assigned to GMT, in carrying out his (their) duty(ies) in line with the needs of the GMT and the experts/PLs active in the GMT,
- take, in consultation with the technical secretary(ies) and the experts/PLs, appropriate decisions related to the maintenance of standards,
- act as Chair in GMT meetings in which decisions are taken and PLs' report about the progress of the maintenance work, and
- prepare reports to TC 100 Chair in plenary meetings and in between meetings, if necessary.

### **SN.4.5.2 Appointment**

A GMM is proposed by a P-member of TC 100 or a TC 100 officer, nominated by the TC 100 secretariat and appointed by the TC 100 Chair.

The GMM should be suitably qualified, usually with knowledge about the fields of technology TC 100 is/was responsible for. The person shall also have

- an aptitude for management,
- relevant technical knowledge and be able to judge what is essential to deal with in the GMT,
- sufficient knowledge of using modern means of communication,
- support from his National Committee to perform the duties of a GMM in a timely and effective manner.

The GMM, Chair or Secretariat may appoint (an) Assistant General Maintenance Manager(s).

### **SN.4.5.3 Term of office**

Term of office of a GMM ends three years after appointment of the GMM, but successive extensions each of a three year period may be approved by TC 100 Chair.

### **SN.4.5.4 Relinquishment**

If the GMM resigns, the GMM should announce his intention by giving a minimum of six months' notice to the TC 100 secretary.

The TC 100 secretary will request P-members to submit nominations for a successor.

#### **SN.4.6 Project leader (PL)**

##### **SN.4.6.1 Appointment of a PL**

The PL is appointed following approval of a new work item by the P-members of the committee. The PL is nominated by the proposer of the new work item proposal. The PL is responsible for the project and reports to the technical secretary on the progress of the work. In case his PT is allocated to a TA, he reports to the TAM concerned.

##### **SN.4.6.2 Replacement of the PL**

If the PL is no longer in a position to carry out his duties, a replacement is nominated by the proposer of the new work and appointed by the TAM. If the nomination is not acceptable, the TAM may appoint a new PL in consultation with the technical secretary and any NCs. In case of projects directly under TC 100's responsibility, the TC 100 Chair and the TC 100 secretariat take the role of TAM and technical secretary respectively.

#### **SN.4.7 Liaison representative**

##### **SN.4.7.1 Responsibilities**

There are two types of liaison representatives:

- from TC 100 to the liaison organization, and
- from the liaison organization to TC 100.

In practice, the liaison representative from and to a liaison organization can be the same person.

The liaison representative should

- represent the liaison organization within TC 100 and the TAs or represent TC 100 and/or the respective TAs to the liaison organization, and
- be an expert in the technical area appointed or when requested acquire information from the liaison organization.

##### **SN.4.7.2 Appointment**

A liaison representative is nominated by the liaison organization and appointed by TC 100.

##### **SN.4.7.3 Relinquishment**

If the liaison representative is no longer in a position to carry out his duties, a replacement is nominated by the relevant liaison organization in case of liaison to TC 100 or by the TAM in consultation with the technical secretary in case of liaison from TC 100. For the liaison from the TC 100 level, the TC 100 Chair nominates a replacement in consultation with the TC 100 secretariat.

In the event it is not possible to nominate a liaison representative from a liaison organization or a TA, the committee should reconsider the established liaison.

The task of a liaison representation ends at the time the liaison is no longer useful for coordination of work within TC 100 and the respective liaison organization.

## **SN.5 Meetings**

### **SN.5.1 AGS/AGM meetings**

Attendance at the AGS/AGM meetings is for members only. For the AGS meeting, TAM, GMM and TS are invited as observers. For the AGM meeting, AGS members are invited as observers. The Chair or Secretariat can invite any experts to attend. Others wishing to attend should consult the Chair or Secretariat.

### **SN.5.2 TA meetings**

#### **SN.5.2.1 Organization of meeting**

The technical secretary should organize a TA meeting only if there is need for a meeting (physical or virtual). This should be completed in cooperation with the TAM. In the event of a physical meeting, it should preferably be held in conjunction with a TC 100 plenary meeting.

#### **SN.5.2.2 Attendance of meeting**

A TA is a coordination group within a specified area. Meetings should coordinate work in the relevant project teams and when necessary with groups outside the TA having interest in the subject.

TA meetings should, in principle, be attended by its members only. In addition to those members, guests can participate in meetings on the invitation of the TAM. The TC 100 Chair and secretariat are entitled to be present at TA meetings as observers.

If a TA meeting is held in conjunction with a TC 100 plenary meeting, representatives of National Committees can attend the TA meeting as observers. NC representatives can obtain meeting documents by means of the electronic distribution system used for that meeting.

If a TA meeting is held independently from TC 100 plenary meeting, the TA meeting notice should be distributed to all national committees one month before the meeting date. The notice shall be distributed as a TC 100 informative document. The representatives of National Committees can attend the meeting as an observer by the invitation of the TAM.

## **SN.6 Reporting**

### **SN.6.1 TA to TC**

The report to the TC 100 Chair differs from the minutes of a TA meeting. Most reports will be written following a TA meeting. The report describes the current status of projects within the TA and other relevant issues. Using the latest report, it should be possible for the TC 100 secretariat to inform the SMB about the current status of any project.

The TAM should make a report to the TC 100 Chair in plenary meetings or on request.

The report should contain the following items and should be written using the template as given in document 100/1180/INF:

- last meeting data and next meeting data;
- questions/remarks to be brought to TC 100 or TC 100/AGM;
- Programme of Work and state of art of projects;
- maintenance forthcoming year;
- developments and expectations in market covered by TA;
- requests for new/modified liaisons, if any.



## **SN.6.2 Availability of reports**

In general, reports to the TC 100 Chair should be available at least one week before the TC meeting and circulated to the TC 100 secretariat.

## **SN.7 Documents**

### **SN.7.1 Special standard documents**

#### **Terms of reference of TA/GMT**

Form to be used for the announcement to the National Committees of the establishment of a TA.

## **SN.8 Special procedure – Acceptance of new work**

Proposal: CA/1368/R

Acceptance: CA/1414/RV

TC 100 follows different rules from the ISO/IEC Directives, Part 1 for acceptance of NPs:

- in case a simple majority of P-members voting is in favour of the new project, the existing rules should be applied,
- in case of more than two-thirds of the P-members voting is in favour the acceptance criterion related to the minimum number of nominated technical experts is replaced by:

In addition to the PL, there should be nominated at least one expert from a different P-member country. The PL should be convinced that the target dates for the project can be met.

It should also be recognized that many New Work Item Proposals are accompanied by well-developed specifications, hardly needing any technical discussion. When products, based on these specifications, are already in the market place, changes are counter-productive, as incompatibilities could occur. Where changes are proposed and supported, great care is essential to avoid any such incompatibilities.

The above-mentioned derogation is limited to TC 100 and its application shall be regularly reviewed by the Standardization Management Board. If their effectiveness is confirmed, they may be considered for general application and for inclusion in the ISO/IEC Directives.

The acceptance criteria for New Work are dependent on the availability of a well developed draft, as described. Otherwise, the normal acceptance procedure will be applicable.

## Annex SO

### Voting/commenting periods on technical documents

#### Documents for votes and comments:

New Work Item Proposal	NP	<del>3 months</del> 12 weeks <sup>5</sup>
Committee Draft for Vote	CDV	<del>3 months</del> <sup>6</sup> 12 weeks
Final Draft International Standard	FDIS	<del>2 months</del> 6 weeks
Publicly Available Specification	PAS	<del>2 months</del> 8 weeks
Draft Technical Report	DTR	<del>2 months</del> 8 weeks
Draft Technical Specification	DTS	<del>3 months</del> 12 weeks
Questionnaire	Q	6 weeks

#### Documents for comments only:

Committee Draft	CD	<del>2, 3 or 4 months</del> 8, 12 or 16 weeks
Document for Comments	DC	6 weeks
Questionnaire	Q	<del>6 weeks</del>

<sup>5</sup> When there is only an outline to review and where an existing group is effectively making the proposal, the TC/SC officers, in consultation with the proposer and the Office of the CEO, may propose a 4-week NP vote.

<sup>6</sup> ~~The TC/SC concerned may decide, on a case-by-case basis, to extend the voting period to 5 months.~~

## **Annex SP** (normative)

### **Systems standardization**

#### **SP.1 Introduction**

The multiplicity of technologies and their convergence in many new and emerging markets, particularly those involving large scale infrastructure, now demand a top down approach to standardization, starting at the system or system architecture rather than at the product level. System standards are also increasingly required in sectors such as environment, energy efficiency, safety and health.

In this context, a system is formally defined as:

*A group of interacting, interrelated, or interdependent elements forming a purposeful whole of a complexity that requires specific structures and work methods in order to support applications and services relevant to IEC stakeholders.*

The structures and procedures needed in IEC to accommodate the systems approach are, as far as possible, the same as those already in place for more traditional standardization activity. However, some further provisions are required in order to ensure that a particular systems standardization programme

- is fully market relevant;
- can be managed within clearly defined boundaries;
- engages all the appropriate interests, both within and beyond the traditional IEC community;
- does not duplicate, overlap or conflict with other work being undertaken in the same area.

Systems Standardization in the IEC includes a process with the following two stages of systems activity and an additional group to serve as a resource for all groups undertaking this systems activity:

- **Systems Evaluation Group (SEG):** an open, potentially large group drawn from within and beyond the IEC community, used in the first stage of systems development. Its role is to engage the community of experts, identify the relevant stakeholders, define the general architecture and boundaries of the subject to be addressed and propose a possible programme of work and a relevant roadmap for the implementation of the standardization activities.
- **Systems Committee (SyC):** a specialized type of committee working at the systems instead of the product level to develop reference architectures, use cases and appropriate standards and guidance on the interfaces, functionality and interaction of a system within its agreed terms of reference. A SyC can draft international standards, as well as other IEC deliverables. It functions generally in the same manner as a conventional technical committee, although special attention might need to be given to ensuring effective liaison and cooperation with members representing stakeholders beyond the IEC community.
- **Systems Resource Group (SRG):** a group populated by systems experts whose purpose is to guide the development and use of specialized tools and software applications for Systems, and encourage the use of these tools and sharing of best practices within the Systems Committees.

## **SP.2 Establishment of a Systems Evaluation Group (SEG)**

**SP.2.1** Systems Evaluation Groups are established and dissolved by the Standardization Management Board. They have a limited life, normally of 18 to 24 months and shall not have on-going tasks. They are not entitled to develop standards or other IEC deliverables.

A proposal for the establishment of a SEG can be made by

- a National Committee;
- the Standardization Management Board;
- the Chief Executive Officer.

A proposal for the creation of a SEG should include information on as many of the following as relevant:

- Market needs, market relevance and business drivers;
- Regulatory demands or other restrictions in countries or regions;
- Related work or other valuable information from other organizations or Industries;
- List of already identified stakeholders, including IEC technical committees, ISO technical committees and ITU SGs, fora and consortia outside of IEC which should be engaged in the work;
- Recommendation of needed expertise and administrative structure of the SEG;
- Proposal for an appropriate name of the SEG;
- Proposal for a convenor.

### **SP.2.2 Membership**

The SEG membership should have a strong competence in all the issues within the scope of the SEG. This may require participation of experts outside the normal IEC community.

There shall be an open call for participation of experts from both within and outside IEC, but there is no definitive limitation on numbers.

There is a need for representation from the TC/SCs concerned, as well as a representation from interested SMB members and National Committees. Where appropriate, participation from conformity assessment bodies, external organizations, such as ISO, ITU and fora / consortia, is encouraged.

It is expected that all interested experts be present and contribute constructively to the work.

A nomination for a Convenor of a SEG should be suggested by the proposer and shall be approved by the SMB. The Secretary is provided by the IEC Central Office.

### **SP.2.3 Tasks**

The principal task of a SEG is to evaluate whether or not there is a need for a new Systems Committee or other technical activity within the IEC. This entails the examination of the following factors:

- market needs, market relevance and business drivers;
- potential participants in the work from inside and outside IEC, including IEC and ISO technical bodies, ITU/SGs, fora, consortia and other groups outside of IEC;

- related work or other valuable information from other organizations or industries;
- environmental, energy and safety conditions considerations for the System work;
- regulatory demands or other restrictions in countries or regions;
- a relevant/suitable model or reference architecture, based on the methods provided by the System Resource Group, which actively supports this process;
- an initial set of use-cases<sup>7</sup> which can be mapped to the reference architecture or model in order to prove its validity;
- a gap analysis of existing work and activities.

If the need for a SyC is identified, the SEG should make a proposal supported by:

1. a justification for the proposal;
2. an appropriate title and scope;
3. the structure with subgroups and a Chair's Advisory Group;
4. if applicable, a survey of similar work undertaken in other bodies;
5. any liaisons deemed necessary with other bodies;
6. a possible work programme and a roadmap to be further detailed and updated by the SyC.

The roadmap shall identify any closely related systems activities to clearly position the expected new systems work with the active participation of the existing SyCs. Such a mapping shall get the full support of these respective SyCs.

Progress reports to SMB shall be presented regularly. SMB will carry out a review on the SEG activity and results between 18 and 24 months after setting-up.

### **SP.3 Establishment of Systems Committees**

**SP.3.1** System committees are established and dissolved by the Standardization Management Board.

**SP.3.2** A proposal for the establishment of a new systems committee is normally made by a Systems Evaluation Group.

**SP.3.3** The proposal shall be made using the appropriate form.

The form shall be submitted to the office of the CEO who shall ensure that the proposal is properly developed in accordance with IEC requirements and provides sufficient information to support informed decision making by National Committees.

If it is questionable whether proposal documentation provides sufficient information, the proposal shall be returned to the proposer for further development before circulation for voting. This is intended as a quality control process only, and shall not reflect any value judgment about the market relevance or need for the proposed standard(s).

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<sup>7</sup> **use case:** specification of a set of actions performed by a system, which yields an observable result that is, typically, of value for one or more actors or other stakeholders of the system (definition taken from IEC TC 8).

If a proposal is returned to the proposer for further development, the proposer has the right to request that its proposal be circulated for voting as originally presented and without further development.

**SP.3.4** The Chief Executive Officer shall assess the relationship of the proposal to existing work, and may consult interested parties, including the Chair of the Standardization Management Board or Chairs of committees conducting related existing work, immediately after such a proposal is received. If necessary, an ad hoc group may be established to examine the proposal.

Any comments and recommendations by the Chief Executive Officer resulting from the consultations shall be added to the proposal form. These comments and recommendations shall not include value judgments about the market relevance or need for the proposed standard(s).

**SP.3.5** The proposal shall be circulated by the office of the CEO to all National Committees of the IEC, asking whether or not they

- a) support the establishment of a new systems committee providing a statement justifying their decision, and
- b) intend to participate actively in the work of the new systems committee.

The proposal shall also be submitted to ISO for comment and for agreement.

The replies to the proposal shall be made using the appropriate form within 3 months after circulation. Regarding SP.3.5 a) above, if no such statement is provided, the positive or negative vote of a National Committee will not be registered and considered.

**SP.3.6** The Standardization Management Board evaluates the replies and either

- decides the establishment of a new SyC, provided that
  - a 2/3 majority of the National Committees voting are in favour of the proposal, and
  - at least 5 National Committees voting in favour have expressed their intention to participate actively, and allocates the secretariat, or
- assigns the work to an existing committee, subject to the same criteria of acceptance.

**SP.3.7** SyCs shall have a labelling assignment distinctive from the TC numbering systems (e.g. SyC-AAL, SyC-EE, etc.).

**SP.3.8** As soon as possible after the decision to establish a new SyC, the necessary liaisons shall be arranged.

**SP.3.9** A new SyC shall agree on its title and scope as soon as possible after its establishment, preferably by correspondence.

The scope is a statement precisely defining the limits of the work of a SyC. The definition of the scope of a SyC shall begin with the words "Standardization of ..." or "Standardization in the field of ..." and shall be drafted as concisely as possible.

For recommendations on scopes, see Directives Part 1, Annex J.

The agreed title and scope shall be submitted by the Chief Executive Officer to the Standardization Management Board for approval.

SyCs shall prepare a strategic business plan for its own specific field of activity (see 2.1.2 of ISO/IEC Directives, Part 1).

**SP.3.10** The Standardization Management Board or a systems committee may propose a modification of the latter's title and/or scope. The modified wording shall be established by the system committee for approval by the Standardization Management Board.

**SP.3.11** The secretariat is allocated to the IEC Central Office. For appointment of the Chair, the Central Office will issue a call for nominations to the P-members of the new SyC.

All valid nominations will be submitted to SMB members who will vote on designating a Chair. If one of the candidates obtains a 2/3 majority vote in favour, then he/she will be appointed as Chair of the SyC.

If none of the candidates obtains a 2/3 majority vote, all but the two candidates obtaining the most votes are eliminated. If there is a tie for the second place, all the candidates in second place will be retained.

The candidates remaining are then again submitted for vote to SMB. If one of the candidates obtains a 2/3 majority vote in favour, then he/she will be appointed as Chair of the SyC.

If none of the candidates obtains a 2/3 majority vote in favour, the candidate obtaining the most votes will be submitted for approval to SMB. If the candidate obtains a 2/3 majority vote in favour, he/she will be appointed as Chair of the SyC.

If at this stage it is not possible to designate a Chair, the decision will be deferred to the next SMB meeting.

#### **SP.4 Systems Resource Group (SRG)**

**SP.4.1** A Systems Resource Group is a group formed by the SMB to accomplish the following:

- Serve as a support and consulting Resource to SyCs and SEGs;
- Collect and share best practices between SyCs and SEGs;
- Specify, have built and perform acceptance tests for tools and guidance for specialized functions such as:
  - Architecture Models
  - Road mapping
  - Use Cases
- Serve as a repository of tools and methods to be used by SyCs and SEGs

**SP.4.2** The SRG is principally focused on the science of systems standardization and development of supporting infrastructure, and shall not engage in technical work of the systems groups themselves.

**SP.4.3** The members of the SRG are experts nominated by the NCs and approved by SMB. They must have strong systems proficiency.

The SRG works with all SyCs, but is intended to be different from SMB advisory committees. The members of the SRG are mostly systems experts, whereas the normal composition of technical advisory committees includes representatives of product TCs.

**SP.4.4** A report to SMB shall be presented regularly. SMB will carry out a review on the SRG activity and results when felt necessary.

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