TC 1, **Terminology**

**A Background**

Inside the International Electrotechnical Commission the work on terminology began in 1909, leading, in 1911, to the setting up of TC 1, which is its oldest established Committee.

TC 1 is a semantic Committee whose scope is to sanction the terms and definitions used in the different electrotechnical fields and to determine the equivalence of the terms used in the different languages. As a consequence, its task is to prepare the International Electrotechnical Vocabulary (IEV) aiming at the standardization and coordination of the terms relating to electrical sciences and technology for use in the technical language and literature, in technical specifications and in commercial exchanges. A number of NCs provide equivalent terms in their own language. All other IEC Technical Committees are expected to ensure that their own terms and definitions are not be in contradiction with those from the IEV.

The IEV is subdivided into different Parts, of which more than 80 have been currently published, classified in the following subjects:

1. General concepts
2. Materials
3. Measurement, regulation and calculation
4. Electric equipment
5. Electronic equipment
6. Generation, transmission and distribution of electric energy
7. Telecommunications
8. Particular applications
9. Standardization and related activities

As of January 2013 the IEV has been managed as a database standard, and there has been a corresponding evolution in a) the participants involved in the IEV process, b) the procedures used and c) the nature of the “product” (i.e. the IEV) published.

**a) The roles and the responsibilities of the various participants is essentially as described in the following table**

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>TC 1</td>
<td>Responsible for the “General concepts” parts of the IEV. Provides methodological advice on IEC terminology work. Overall responsibility for approving the French and English versions of the IEV entries. Executes its work programme submitted under the extended database procedure.</td>
</tr>
<tr>
<td>TC 1 Secretary</td>
<td>In addition to the usual secretariat tasks: cooperation with the Terminology Coordinator to coordinate the input to the work programme</td>
</tr>
<tr>
<td>VT 60050 (delegates appointed by NCs)</td>
<td>In accordance with the VT 60050 Terms of reference, works on the IEV maintenance portal through the web. Evaluates proposals for changes or additions to the IEV. Validates change requests submitted under the “Normal” procedure.</td>
</tr>
<tr>
<td>NCs responsible for additional languages</td>
<td>Provide equivalent terms for new and existing IEV parts.</td>
</tr>
<tr>
<td>Product TC/SCs</td>
<td>Provide technical inputs for changes or additions to the IEV.</td>
</tr>
<tr>
<td>Central Office/Terminology Coordinator</td>
<td>Publishes IEV parts, and updates and manages the Electropedia database. Maintains the IEV maintenance portal. Works with the product TC/SCs to harmonize their terminology. Coordinates with the TC 1 Secretary the input to the work programme Coordinates with and provides support to the VT 60050 Convenor, and prepares change requests for submission to VT 60050. Provides support for IT tools.</td>
</tr>
</tbody>
</table>

**b) The IEV content is developed and maintained in accordance with Annex SK of the IEC Supplement, and as detailed in IEC/TC 1’s “Change request processing scheme”. Under these procedures the VT 60050 “evaluates” whether a change request should follow the normal or the extended database procedure, or be rejected.**
In the evaluation step the VT 60050 members submit comments comparable to the commenting on a CD. For IEV content following the normal procedure, a change request is submitted to the VT 60050 for validation; the criteria applied are the same as those for the voting on a normal FDIS. For IEV content following the extended procedure, the documents follow the standard procedure with the usual CD, CDV and FDIS steps.

The preparation of an IEV Part can be entrusted by TC 1 to a particular Technical Committee, i.e. either one of the other “semantic” Committees or a product Committee. In that case, the drafts are prepared by a Joint Working Group of this Technical Committee in cooperation with TC 1 Secretariat, and (with the exception of the Committee Draft) are circulated under the control of TC 1 and with a TC 1 number.

When the revision of one IEV Part is related to the work of several Technical Committees, its preparation is taken over by TC 1. In these cases, TC 1 invites those other Technical Committees to join the Joint Working Group which is entrusted with the preparatory work.

Whilst it is recognized that the terminology related to electrical safety is in the domain of TC/SCs holding a safety pilot function, it is the responsibility of TC 1 to ensure the consistency of the IEV in the case of conflicting concepts coming from those TC/SCs.

c) The IEV is published as a database product known as the Electropedia. Derived products include PDF publications and customized extracts (in revisable form). An “Electropedia App” is under development by the Central Office. The rules for the drafting and presentation of the IEV database are provided in Annex SK to the IEC Supplement.

B Business Environment

B.1 General

The establishment of a comprehensive and consistent terminology is a prerequisite for the efficient development of standards by the Technical Committees, and for their understanding and implementation by the final users (e.g. standards writers, product designers, test laboratory engineers, technical translators, legal and regulatory authorities, teachers and students of schools, colleges and universities). The terminology work carried out by TC 1 is aimed at providing all other Technical Committees with such an overall terminology, meant to be directly applicable, and to which they can refer, when necessary, for their own specific terminology requirements.

Hence through a close co-operation between TC 1 and the other IEC Technical Committees terminology work in the framework of the IEV has been carried out. In addition, a number of IEC Technical Committees prepare glossaries of terms and definitions for the purpose of their own publications, and which they include in the “terms and definitions” clause of their own standards. These Technical Committees have the responsibility to ensure that their documents are coherent with the IEV terminology, and that the terms and definitions do not diverge from the original ones of the IEV.

Definitions in glossaries prepared by other Technical Committees may also contain terms of general interest, which do not already appear in any Part of the IEV. The integration of these terms and definitions in the IEV is of course desirable. However, these terms and definitions might not adhere to strict terminology rules, and their consistency with the overall IEV cannot thus be guaranteed. In that case a preliminary study of these concepts by TC 1 is necessary.

B.2 Market demand

The market demands are those of the general public such as universities or users, or translators of technical documents of engineering companies or manufacturers, that may need precise reference in the matter of electrotechnical terminology. Moreover, there is a real demand from other Technical Committees for finding the best way to define their terms.

Because of that, the IEC Central Office and the TC 1 will keep on jointly examining the best ways of promoting the IEV and improving the dissemination of its derived products.

B.3 Trends in technology

TC 1 is conscious of the growing demand of the general public to gain access to the International Electrotechnical Vocabulary via the Internet. All the IEV terms and definitions are available free of charge in the “Electropedia” (http://www.electropedia.org). Electropedia was announced in e-tech April 2007 and has since been expanded to include several additional languages. It currently allows searches for terms and definitions in English and French and for equivalent terms in Arabic, Chinese, Finnish, German, Italian, Japanese, Norwegian (Bokmål and Nynorsk), Polish, Portuguese, Russian, Serbian, Slovenian, Spanish and Swedish (coverage varies by subject area). The database is divided into more than 80 Parts (main subject areas) and contains over 20 000 entries.
B.4 Market trends
Nowadays, there is a rapid development of electrical technology and, accordingly, an increasing worldwide demand for terminology to establish a common business dialogue in order to manage and exchange technical product or system information. In accordance with this, terminology standards should be used to homogenize this vocabulary and to improve communication.

B.5 Ecological environment
Until now, the terminology standards did not consider environmental impact terms. IEC/TC 111 “Environmental standardization for electrical and electronic products and systems” published in June 2013 a glossary of terms on environmental aspects (IEC 62542). Discussions are under way between the Central Office and TC 111 to prepare this glossary for submission to TC 1 for inclusion in the IEV.

C System approach aspects
Harmonized terminology is an enabler for systems approach standardization which increasingly involves several “traditional” disciplines requiring inter-disciplinary communication.

D Objectives and strategies (3 to 5 years)
Improvement of the cooperation with the other Technical Committees will be an aim. Those Technical Committees that do not carry out terminology work in cooperation with TC 1 within the framework of the IEV will be invited to participate in this work. In this line, all Technical Committees have been invited to use IEV as the reference terminology. However the best attitude is to promote cooperation between TC 1 and the Technical Committees at the earliest stage of development of the terms and definitions within these Technical Committees. This action will be progressively developed directly by each involved National Committee.
Another important issue is the joint work between TC 1 and the IEC Central Office to improve the IEV products (improved search and data management, derived “App”, etc.) and to review the complete terminology standardization process.
The development, publication and management of IEC terminology are currently a set of fragmented processes running on different platforms using different applications. Meanwhile the rules for terminology development and publication are essentially the same, the desire to harmonize IEC terminology has been expressed by the SMB, and (looking at the big picture) there is essentially a single process: the development and standardization of terminology at committee level followed by revision and standardization at TC 1 level.
On the one hand, through the product committees, the IEC has a large number of experts drafting terms and definitions. On the other hand, it has a limited number of terminologists working on a small fragment of the terminology. It would be beneficial to bring these two groups of contributors onto the same platform since this would save resources, and allow the possibility to manage the complete process.
A vision for the future could be a wiki-based approach which could serve both as a development platform, allowing collaborative authoring and commenting by designated user groups, and a publishing platform. Such a platform could also be used to elicit input from the public at large, whilst ensuring that approved terminology cannot be altered by any individual without the permission to do so.
It could also be beneficial to explore an open-data policy.

E Action plan
- The revision and/or maintenance of the different IEV Parts.
- Elaboration of new IEV Parts on demand.
- Joint work between TC 1 and the IEC Central Office to realize the objectives and strategies.

F Useful links to IEC web site
IEC/TC 1 dashboard giving access to Membership, TC/SC Officers, Scope, Liaisons, WG/MT/PT structure, Publications issued along with their Stability Dates, Work Programme and similar information for SCs, if any.

F Useful links to IEC web site
IEC/TC 1 dashboard giving access to Membership, TC/SC Officers, Scope, Liaisons, WG/MT/PT structure, Publications issued along with their Stability Dates, Work Programme and similar information for SCs, if any.

Name or signature of the secretary
Julia Tufanova