50 Years
ISO/TC 37 "Terminology and other language resources"
- A history of 65 years of standardization of terminological principles and methods -

*ISO/TC 37 may be only 50 years 'old', but it can look upon a long history of terminology unification activities. For decades, terminology experts – even more so experts of terminology theory and methodology – had to struggle for recognition. Today their expertise is sought in many application areas, especially in various fields of standardization. The emerging multi-lingual information and knowledge society will depend on reliable digital content – terminology is indispensable here. This is due to the fact that, terminology plays a crucial role wherever and whenever specialized information and knowledge is being prepared (e.g. in research and development), used (e.g. in specialized texts), recorded and processed (e.g. in data banks), passed on (via training and teaching), implemented (e.g. in technology and knowledge transfer), or translated and interpreted. In the age of globalization the need for methodology standards concerning multilingual digital content is increasing – **ISO/TC 37 has developed over the years the expertise for methodology standards for science and technology related content in textual form**.*

Terminology standardization

The beginnings of terminology standardization are closely linked to the standardization efforts of IEC (International Electrotechnical Commission, founded in 1906) and ISO (International Organization for Standardization, founded in 1946). A *terminology standard* according to ISO/IEC Guide 2 (1996) is defined as "standard that is concerned with terms, usually accompanied by their definitions, and sometimes by explanatory notes, illustrations, examples, etc." ISO 1087 defines *terminology* as "set of *designations* belonging to one special language" and designations as "representation of a concept by a sign which denotes it". Here concept representation goes beyond terms (being only linguistic signs), which is also supported by the state-of-the-art of terminology science, according to which terminology has three major functions:
- basic elements carrying meaning in domain communication,
- ordering of scientific-technical knowledge at the level of concepts,
- access to other representations of specialized information and knowledge.

The above indicates that terminological data (comprising various kinds of knowledge representation) possibly have a much more fundamental role in domain-related information and knowledge than commonly understood.

Today, terminology standardization can be subdivided into two distinct activities:
- standardization of terminologies,
- standardization of terminological principles and methods.

The two of them are mutually interdependent, since the standardization of terminologies would not result in high-quality terminological data, if certain common principles, rules and methods are not observed. On the other hand, these standardized terminological principles, rules and methods must reflect the state-of-the-art of theory and methodology development in those domains, in which terminological data have to be standardized in connection with the formulation of subject standards.

No wonder that terminology gained a special position in the field of *standardization* at large, which is defined as "activity of establishing, with regard to actual or potential problems, provisions for common and repeated use, aimed at the achievement of the optimum degree of order in a given context" (ISO/IEC 1996). Every technical committee or sub-committee or working group invariably finds out sooner or later that you cannot standardize subject matters, if you have not defined and standardized the respective terminology. The time-honoured saying "terminology standardization precedes subject standardization" (or "subject standardization requires terminology standardization") still holds true.

ISO/TC 37 was put into operation in 1952 in order "to find out and formulate general principles of terminology and terminological lexicography" (as terminography was called at that time).

History of ISO/TC 37
The history of terminology standardization proper – if one excludes earlier attempts in the field of metrology – started in the International Electrotechnical Commission (IEC), which was founded in London in 1906 following a recommendation passed at the International Electrical Congress, held in St. Louis, USA, on 15 September 1904, to the extent that: "…steps should be taken to secure the co-operation of the technical societies of the world, by the appointment of a representative Commission to consider the question of the standardization of the nomenclature and ratings of electrical apparatus and machinery". From the very beginning, IEC considered it its foremost task to standardize the terminology of electrotechnology for the sake of the quality of its subject standards, and soon embarked upon the International Electrotechnical Vocabulary (IEV), whose first edition, based on many individual terminology standards, was published in 1938. The IEV is still being continued today, covering 77 chapters as parts of the International Standard series IEC 60050. The IEV Online Database can be accessed via http://domino.iec.ch/iev/iev.nsf/Welcome?OpenForm

The predecessor to the International Organization for Standardization (ISO), the International Federation of Standardizing Associations (ISA, founded in 1926), made a similar experience. But it went a step further and – triggered by the publication of E. Wüster's book "Internationale Sprachnormung in der Technik" [International standardization of technical language] (Wüster 1931) – established in 1936 the Technical Committee ISA/TC 37 "Terminology" for the sake of formulating general principles and rules for terminology standardization.

ISA/TC 37 conceived a scheme of four classes of recommendations for terminology standardization mentioned below, but the Second World War interrupted its pioneering work. Nominally, ISO/TC 37 was established from the very beginning of ISO in 1946, but it was decided to re-activate it only in 1951 and the Committee started operation in 1952. Since then the secretariat of ISO/TC 37 has been held by Austria.

Development phases from 1951 till 2003
ISO/TC 37 passed through three distinct major development phases, before it embarked upon new horizons in 2004:
- The foundation phase 1951 – 1971,
- The consolidation phase 1972 – 1988,
- The extension phase 1989 – 2003.

1951 – 1971: The foundation phase
As in that period the secretariat of ISO/TC 37 had been taken care of by the Austrian engineer Eugen Wüster at his private international terminology centre on behalf of the Austrian Standards Institute, that phase could also be called the "Wüster Phase". It was very much governed by the strong character and convictions of Eugen Wüster.

Right from the beginning of its operation, ISO/TC 37 explained in a foreword, which appeared in each of the published standards, the reason for its work and programme. This statement is worth repeating here (FRENCH 1985):

> "Co-operation and communication between experts engaged in all branches of science and technology are assuming ever-increasing importance as essential conditions for progress, both within each country and between countries. For this exchange to be successful, technical terms must have the same meaning for everyone who uses them. This goal can only be achieved if there is general agreement on the meaning of these terms. Hence the importance of technical vocabularies, in which concepts and terms, as well as their definitions, are standardized (terminological standards). It is standards such as these that help to ensure mutual understanding.
> .....
> Accordingly, ISO set up a Technical Committee, known as ISO/TC 37 "Terminology (principles and c-ordination)" with the mission of finding out and formulating general principles of terminology and terminological lexicography. That "mission of finding out and formulating general principles of terminology and terminological lexicography" in fact led to the emergence of *terminology science*, as it is called today. But during those early years, the methodology of ISO/TC 37 was by no means established, on the contrary it has often been accused of not being well founded in scientific theory.

> The documents prepared by this Technical Committee deal with questions that fall under the following four classes:
> 1. Vocabulary of terminology
> 2. Procedure for preparing national or international standardized vocabularies
> 3. National and international standardization of concepts, terms and their definitions: principles for their establishment and criteria of value

4. Layout of monolingual and multilingual vocabularies, including lexicographical symbols."

The work of the Committee during that phase resulted in the following published ISO Recommendations:
Class 1: Vocabulary
ISO/R 1087:1969 Vocabulary of terminology
Class 2: Working methods
ISO/R 919:1969 Guide for the preparation of classified vocabularies
Class 3: Naming principles
ISO/R 704:1968 Naming principles
ISO/R 860:1968 International unification of concepts and terms
Class 4: Layout of classified vocabularies
ISO/R 1149:1969 Layout of multilingual classified vocabularies
ISO/R 639:1967 Symbols for languages, countries and authorities

The work on ISO/R 4466 "Layout of monolingual classified vocabularies" did not proceed and was later discontinued. ISO/R 919 and ISO/R 1149 were withdrawn in the following phase and replaced by several other standards.

1972 – 1988: The consolidation phase
These years coincided with the establishment of Infoterm, the International Information Centre for Terminology, on the basis of a contract with UNESCO in 1971. The first Director of Infoterm, Helmut Felber, who had been the assistant of Eugen Wüster for many years, became the new secretary of ISO/TC 37.

Due to its close relation with Infoterm, which was gradually establishing its methodology of Terminology & Documentation (T&D – in analogy to I&D, information & documentation) as a basis of multilingual information management, the secretariat of ISO/TC 37 was heavily involved at the level of ISO/CS in the formulation of ISO Guide 2 and in the development of ISO/INFCO, the Information Committee of ISO. The latter led to the establishment of ISONET, the information network of ISO. The first edition of the ISONET Manual was published in 1985.

At the beginning of that phase, work on the above-mentioned ISO Recommendations continued with the aim to turn them into International Standards. In the second half of that period, ISO/TC 37's SC 1 (first meeting in Moscow, 1980), SC 2 (first meeting in Germany, 1983) and SC 3 (first meeting in Copenhagen, 1985) were established. The co-operation with other technical committees of ISO and IEC was intensified in the form of internal liaisons, and a number of international organizations became external liaisons in ISO/TC 37.

In that period, the following International Standards were accomplished:
ISO 1951:1973   Lexicographical symbols particularly for use in classified defining vocabularies;
ISO 704:1987   Principles and methods of terminology;

ISO 6156:1987   Magnetic tape exchange format for terminological/lexicographical
                records (MATER);
ISO 639:1988   Code for the representation of names of languages;
ISO 1087:1990   Vocabulary of terminology *(submitted for publication in 1989).*

At the end of that period, it became clear that the original scheme of the four classes had lost its significance, not the least because of the development of computer technology and its impact on work methods and data modelling.

1989 – 2003: The extension phase
After ISO/TC 37/SC 3 had become operational, many new working items were started also in the other two SCs. As some of them had a bearing on two or all of ISO/TC 37's sub-committees, the ISO/TC 37 plenary meeting in Tunis 1989 embarked on a big revision of the operational structure of ISO/TC 37. All SCs were restructured in line with the new ISO/TC 37 "Strategic Policy Statement" (the first ISO/TC 37 Business Plan) of 1988. That internal reform also led to a new working mode with clear responsibilities of working group convenors and working item project leaders.

New working items targeting especially applications introduced new aspects of methodology standardization in the field of terminology. All the previous documents had either been revised or dropped, more than 15 standards were published by the sub-committees during that period (see list below). Only ISO 6156:1987 has been kept valid, because it might still be in use somewhere, although the era of mainframe computers applied to terminology has passed since long.

A second big change occurred, when after years of negotiation with ELRA, the European Language Resource Association, the new ISO/TC 37/SC 4 "Language resource management" was positively voted on in 2001 and established in 2002. This triggered a change of the title of TC 37 to "Terminology and other language resources" as well as an extension of the scope of the Technical Committee, and some substantial adaptations at the level of its sub-committees:
- ISO/TC 37/SC 1 "Principles and methods"
- ISO/TC 37/SC 2 "Terminography and lexicography"
- ISO/TC 37/SC 3 "Computer applications for terminology"

In 2002, ISO/TC 37 took a step in the direction of coordinating the preparation of basic principles and requirements for multilingual content creation and data modelling across eBusiness, eLearning, eGovernment, eHealth and other e…s by embarking on working item ISO/PWI 22274 "Basic principles and requirements for multilingual product classification for electronic commerce".

2004 – New horizons
Since a number of standards, which had been started during the previous phase, have been published in the meantime, ISO/TC 37 took another look with respect to adapting its working programme and structure to the new situation due to the emergence of the information and communication technologies (ICT) rapidly developing into global ICT

infrastructures. At the ISO/TC 37 Plenary in Paris, on 27 August 2004, the discussion process in the direction of far-reaching adaptations was opened. *See* ISO/TC 37 N 498.

ISO/TC 37 International Standards published/prepared by the end of 2003:

ISO 639-1:2002	Codes for the representation of names of languages – Part 1: Alpha-2 code
ISO 639-2:1998	Code for the representation of names of languages – Part 2: Alpha-3 code
ISO 704:2000	Terminology work - Principles and methods
ISO 860:1996	Terminology work – Harmonization of concepts and terms
ISO 1087-1:2000	Terminology – Vocabulary
ISO 1087-2:2000	Terminology work – Vocabulary – Part 2: Computer applications
ISO 1951:1997	Lexicographical symbols particularly for use in classified defining vocabularies
ISO 6156:1987	Magnetic tape exchange format for terminological/lexicographical records (MATER) *(withdrawn in 2004)*
ISO 10241:1992	Preparation and layout of international terminology standards
ISO 12199:2000	Alphabetical ordering of multilingual terminological and lexicographical data represented in the Latin alphabet
ISO 12200:1999	Computer applications in terminology – Machine-readable terminology interchange format (MARTIF) – Negotiated interchange
ISO 12615:2005	Bibliographic references and source identifiers for terminology *(finalized for vote as FDIS by the end of 2003)*
ISO 12616:2002	Translation-oriented terminography
ISO/TR 12618:1994	Computer aids in terminology – Creation and use of terminological databases and text corpora *(withdrawn in 2003)*
ISO 12620:1999	Computer applications in terminology – Data categories
ISO 15188:2001	Project management guidelines for terminology standardization
ISO 12616:2002	Translation-oriented terminography
ISO 16642:2003	Computer applications in terminology – Terminological markup framework

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