INFOTERM NEWS

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International Symposium on Theoretical and Methodological Problems of Terminology

This meeting, the first of its kind, was held in Moscow November 27–30, 1979. It was convened jointly by GOSSTANDART (Gosudarstvennyj Komitet Standartov Soveta Ministrov SSSR), VNIIKI of GOSSTANDART (Vsesojuznyj Naučno-Issledovatel'skij Institut Tehničeskoj Informacii, Klassifikacii i Kodirovanija [All-Union Research Institute for technical information, classification and coding], Akademija Nauk SSSR [Academy of sciences of the USSR], Infoterm (International Information Centre for Terminology) and AILA (Association internationale de linguistique appliquée). About 70 participants representing some 15 countries and 2 international/multinational organizations were in attendance.

Upon the welcoming address delivered by Mr. Dovbenko (Director of VNIIKI) and roll call of delegates, a representative of GOSSTANDART opened the meeting on behalf of Mr. Boitsov, President of GOSSTANDART, stressing the importance of terminology as an important tool for the promotion of international understanding. Based on a division of the main theme into 5 topics papers and reports were then presented as follows:

Topic 1: Terminology Science. State-of-the-art and perspectives of its development.

The paper of *V. I. Siforov* and *T. L. Kandelaki* (Academy of Sciences, USSR), entitled "The methodological aspects of terminological work (from the experience of the Committee of Scientific and Technical Terminology)" pointed out the Academy's early recognition of the importance of terminology which stipulated intensive study of Russian terms in the late 1920s (particularly by D. S. Lotte) leading to the establishment of the Committee of Scientific and Technical Terminology.

Drawing upon the Recommendations of the Helsinki Acts which stressed, e.g. the importance of terminology Mr. Siforov concluded that the problems of terminology were not only national-historical, but international in scale gaining particular importance in the search for mutual understanding between all peoples.

H. Felber's (Infoterm, Vienna) exposé "The Vienna School of terminology – fundamentals of its theory" provided first an overview of the development of the Vienna School of terminology, i.e. the foundations laid by the late Eugen Wüster who in 1931 instigated intensive studies in this field which he considered an "interdisciplinary field of linguistics, logic, ontology, information science and individual subject fields". After presentation of the main differences between the General Theory of Terminology and Linguistics (such as the fact that terminology work starts with concepts (definitions) rather than terms, synchronic approach rather than diachronic approach, etc.) Mr. Felber described Wüster's term model of four fields (as opposed to Ogden's triangular word model for example). Characteristics of concepts, relationships and links (logical, ontological, etc.) between them, types of definitions, correspondence term-concept, etc. were expounded as well.

„Some remarks on a linguistic theory of terminology", a paper by *L. Drozd* (Agricultural University of Prague) first focused on the development of the theory of terminology (TT), i.e. the influences of modern formal logic in the 19th century, the needs of industry for special technical dictionaries at the beginning of the 20th century, and finally discussed standardization of technical terminology in the 1930s. According to Mr. Drozd the General TT should be considered an entity whereas special TTs represent only parts thereof. Turning to the subject of the TT as such Mr. Drozd defined it as a functional language, or a sub-language of the given national standard language. The concept "functional language" was defined in detail drawing upon the findings of the Prague School of linguistics. Differentiating between technical language and a language of science Mr. Drozd then took up the subject of the contents of terms which he called "concept meaning"; this required analysis of semantic relations. Terminological analysis in Mr. Drozd's terms should first deal with the differentiation process LSP – non-LSP, and should start on the morphological level. After detailed presentation of this analysis and the aims of the TT Mr. Drozd shed some additional light on the terminology of the TT.

"The role of terminology in science and technology" was subject of a paper presented by *M. A. Dovbenko* (VNIIKI, USSR). Mr. Dovbenko stressed that terminological problems had always attracted the attention of engineers and scientists alike; in recent years, however, the creation of new terms and problems arising herewith has caused an intensive study of terms in all fields of science and technology. Mr. Dovbenko singled out two major functions of terms which predetermine their role, namely "gnoseological" and "information-communicative" functions, the former being achieved as terms become a means of cognition, the latter enabling us to engage in scientific discourse. Stressing the importance of accuracy and unambiguity of scientific-technical terms Mr. Dovbenko discussed linguistic phenomena, such as polysemy, homonymy, synonymy, etc. inherent in terms. The importance of standardization of scientific and technical terms, the need for publication of specialized dictionaries, manuals and the like and progress achieved in the USSR in this field were additional terms of interest in Mr. Dovbenko's paper. Mr. Dovbenko concluded that clearness and accuracy of terminology also represented important factors in education, as the elimination of terminological ambiguity, etc. helps students to master the wide range of documentation available within each field of science and technology.

In his paper "Problems and methods of terminological neology" *G. Rondeau* (University of Laval, Canada) basically distinguished two types with reference to the creation of new terms, namely "néologisme d'origine", i.e. neologisms created by a subject specialist to designate a new product, procedure, etc., in his working language or a "néologisme d'appoint", created by a specialist or by a terminologist in another language designating a concept which is already named in the original language. According to Mr. Rondeau terminological neology has certain

aspects in common with the neology of general language, particularly with respect to the rules for the creation of neologisms, but differs in many other respects. Drawing upon experiences gaind in Canada recently Mr. Rondeau expounded various types of neologisms (of form, of meaning, etc.), problems of neonymy, etc.

"Measuring the fundamental efficacy of terms" was subject of a paper by *J. C. Sager* (University of Manchester, United Kingdom). Mr. Sager first concentrated upon the difference between term and word. As a linguistic item is mapped onto a continuum of knowledge (either general or special) the difference between word and term, in the long run, is not absolute but one of degree. Citing examples Mr. Sager demonstrated that general language uses words which become terms in special fields (e.g. velocity, speed, etc.). He felt that theorists in terminology made conflicting qualitative demands on terms without considering pragmatic requirements of terms in various text forms. Mr. Sager then presented approaches to measure efficacy of terms dicussing term requirements such as economy, precision and appropriateness. These criteria arise from the fulfillment of three basic requirements upon communication, namely: code, knowledge and situation.

H. Picht (University of Economics, Copenhagen) reported on "Terminology Science in Denmark". He concentrated on three main topics, namely organization of terminology work in the Nordic countries, theoretical foundation of terminology work, and proposals concerning supplements to ISO Recommendations on terminological principles.

After elaborating upon terminological work carried out at the University of Economics, Copenhagen, and within a special terminology commission Mr. Picht reported on activities of a transnational kind, namely "Nordterm" which represents collaboration between the Nordic countries. Even though a uniform theoretical basis for terminology work is as yet not in existence it was stressed that Wüster's ideas as well as influences of the Prague School were to be observed throughout the Northern countries. Explaining certain discrepancies between terminological field work and theory, Mr. Picht then presented a number of proposals concerning supplements to ISO-Recommendations which in his opinion would greatly facilitate application of terminological principles and, thus, enlarge the circle of users.

M. Krommer-Benz (Infoterm, Austria) presented a report on "Infoterm-Activities concerning methodological and theoretical aspects of terminology work". Referring to the late Prof. Wüster's library (which serves as a valuable source of hitherto inaccessible literature on terminology) bestowed upon Infoterm Ms. Krommer-Benz reported on a number of Infoterm activities, international in scale, which are designed to further the development of the theory and methodology of terminology. Wüster's library (located in Lower Austria) is to be converted into an international research and training centre as soon as ways and means can be found. At present inventory is taken of all holdings located there, and a special grant is being used to analyse research projects either initiated or contemplated by Wüster. Projects of this sort are the "International key to terminology", etc. Ms. Krommer-Benz explained a number of activities carried out within the framework of the international network of terminology (TermNet) a specific programme which is designed to further theory and methodology of terminology work. Suggestions and stimuli concerning specific topics still to be explored concluded Ms. Krommer-Benz' report.

P. Tessier (Secretary of State, Ottawa, Canada) reported on a number of terminological activities carried out on a governmental level. The development of terminology in Canada is given particular importance due to the official bilingualism, as decreed by law. The DGTD (Direction générale de la terminologie et de la documentation), for example, is charged officially with the task to further terminology research which is to be carried out in collaboration with other Canadian institutions, to co-ordinate standardization of terminology and to run a terminological data bank which is to support the work of the Canadian Government.

E. Weis (University of Economics, Vienna, Austria) presented a survey of a number of projects undertaken at said University, Institute of Romance Languages. Mr. Weis stressed the necessity of grass-root work which had to be undertaken at the University. The elaboration of mono- and multilingual specialized vocabularies in fields such as economics, management, etc. was accomplished on the basis of semantic – lexical and grammatical – syntactical criteria. In addition, both, synchronic and diachronic research is also being undertaken in various fields related to economics.

J. Batis (Ljubljana University, Yugoslavia) reported on "Organization and work of the Terminological Commission at the Slovene Academy of Science and Art". Terminology work is carried out within six separate terminological departments of the Slovene Academy of Science and Art, i.e. the legal, technical, medical, veterinary, natural sciences and art sections composed of subject specialists and assisted by language experts. All these sections are involved in the preparation and/or revision of terminological dictionaries. Pioneering work has been undertaken by the Technical Section via elaboration of the "General Technical Dictionary", commenced in 1964. Vocabularies, glossaries or draft booklets are prepared by all other departments with a view to reflect the most recent state of knowledge and technology.

Topic 2: "Problems of unification and standardization of terminology"

The first paper to deal with this topic was presented by *V. P. Danilenko* (Academy of Sciences, USSR), entitled "Linguistic problems of standardization in terminology". Ms. Danilenko stressed that the development of modern science has called forth the need for both, standardization as well as unification of systems of terms and systems of concepts. Discussing methodological principles of standardization Ms. Danilenko pointed out that terms as such could not be separated from linguistic processes typical of the language in question. In addition, in her opinion international co-operation required international means (such as recourse to Greek and Latin) for the elaboration of adequate terminologies.

The many projects of the Office de la langue française (OLF) were subject of a paper presented by *L.-J. Rousseau*. Since 1970 the Office de la langue française has been undertaking terminological research pertaining to various

technical scientific fields. Parallel to the practical work undertaken by OLF numerous projects have been and are still undertaken on the theory and methodology of terminology to ensure adequate working instruments applied in terminology work. This type or research has also been subject of university courses for the past five years. In conformity with existing legislature in Quebec a terminology commission has been established to deal with matters of terminology standardization.

Methodological aspects of standardization of terminology were dealt with in depth in a paper entitled "Basic methodological principles of standardization of terminology in the USSR" presented by *I. N. Volkova* (VNIIKI, USSR). In the USSR terminological standards are being elaborated in collaboration with scientists and all bodies involved or interested in the standardization process. Ms. Volkova then provided a detailed analysis of guidelines established so far which are of utmost importance for the standardization of technical and scientific terminologies, such as selection of concepts, definition of concepts, establishment of systems of concepts, assessment and choice of terms, etc. It was also emphasized that all these activities should take into account the main premises of logic.

G. Petiau (Comité du Langage Scientifique, Academie Française, France) expounded problems concerning dissemination of scientific neologism; and their influence on general language, both on a national and international scale. His paper "Formation, development and standardization of terminology in the physical sciences" dealt with prerequisites required of unified terminologies within national languages, such as the role of phonetics, etymology, etc.

The last contribution concerned with problems of standardization was presented by *M. Boudyš* (Czechoslovak Office for Standards and Measurements, Prague). His paper entitled "Czechoslovak experiences with the preparation of terminological standards" stressed the necessity of constant modification of terms to keep abreast of the development in science, technology, economics, etc. The author then presented a number of principles and methods applied in Czechoslovakia which proved to be advantageous with respect to the specific problems inherent in the Czech language. The principles to respect a certain continuity and tradition in the national terminology established so far was also discussed. In addition, Mr. Boudyš concentrated on problems with reference to the elaboration of systems of concepts, the increasing number of acronyms and abbreviations, etc.

In the ensuing short discussion topics such as the descriptive vs. prescriptive aspect of terminology work, economic aspects of standardization of terminology, etc. were raised. Attention was also drawn to recent terminological activities in the field of social sciences, both on an inter- and multinational scale. (Papers relating to terminological problems in the social sciences had been available to participants in written form only, namely by F. Riggs "Terminology of the social sciences" and I. Dahlberg "On the structure of definitions".)

During this discussion, *I. Benabdallah* (Coordination Centre for Arabization, Morocco) presented an overview of terminological activities in the Arab world.

Topic 3: Problems of automation in terminology and creation of term banks

The paper of *A. A. Sakov* and *I. P. Perstnov* (VNIIKI, USSR) "Automated banks of standardized terms in the USSR" described the systems now available in the USSR and implemented within the framework of the State Automated System of Information on Terminology (ASITO) and other branch systems. The authors stressed the importance of rapid access to terminological data to cope adequately with problems of terminology standardization. A detailed description of data formats, classification, search strategies, and the like was given as well. The report closed with an overview of future activities to improve and expand present facilities.

K. H. Brinkmann's (Siemens, Munich) paper dealt with the "Use of the TEAM terminology data bank for the terminology work of the Deutsches Institut für Normung (DIN)". He reported on experiences gained thus far, supplying information on reasons which prompted the Language Services Department of Siemens AG to develop a terminology data bank system. Mr. Brinkmann emphasized various positive aspects of the system in question, such as an unlimited character set and data fields of variable and practically unlimited length which represent essential prerequisites for handling translations in a large number of languages.

J. Vollmer (European Communities, Luxembourg) gave a report on EURODICAUTOM, the terminological data bank of the EC, set up in 1975. The bank was to serve two purposes, namely to gather terminological information centrally and to supply adequate terminological information to all interested parties. Mr. Vollmer presented a detailed description of the system, enumerating data fields used within pragmatic categories and terminological categories, search strategies, inclusive of examples, etc. Concluding the report Mr. Vollmer recommended the establishment of a model terminology bank for a well defined field.

D. Raventos de Castro (Caracas University, Venezuela) presented a "Terminology bank for a technical university", which she conceived of as a politechnical data base for monotechnical retrieval. Referring to the specific needs of a yound technical experimental university, such as the Universidad Simon Bolîvar, Caracas, Ms. de Castro stressed that such a bank was necessary to supply the teaching body (more than 50% is foreign born, and the majority of the natives has been educated abroad) with adequate Spanish terminology (for some 30 different subject fields) and to aid students with respect to literature, etc. The "Banco de Terminología de la Universidad Simon Bolivar" (BTUSB), in a development stage right now, is also to serve LSP teaching and training.

The report by *V. N. Gerasimov, I. P. Smirnov* and *I. I. Oubine* (Academy of Sciences, USSR) examined the translators' need for adequate reference tools (dictionaries, glossaries, word lists, etc.) The paper, entitled "New terms in scientific and technical translation and automatic dictionaries" dealt in depth with problems posed by translation of scientific and technical terms, and measures undertaken in the USSR to solve these problems. The All-Union Centre of Translations (ACT), the leading translation organization in the Soviet Union, provides special-

ized services relating to the collection and dissemination of new scientific and technical terms (SNOTERM) and plans to set up close relations with other translator-organizations and individual translators. The establishment of a bank of new terms is also being contemplated. At present so-called "Notebooks of new terms" for different languages and specialized fields are being published to aid translators.

D. Müller (Weidner Company, USA) then presented the last report on topic 3 introducing a new system designed to provide high level semi-automatic translation of both technical and general language texts.

V. I. Gor'kova's (VINITI, Academy of Sciences, USSR) paper, dedicated to

Topic 4: "Terminology and its relationship to other disciplines"

was entitled "Terminology development: the application of methods used in informatics" and dealt with methods of classification, indexing, structuring of objects, phenomena, etc. developed in informatics and their applicability in the field of terminology. Specific attention was given to methods relating to the development of systems of terms and systems of concepts, to thesaurus construction, etc.. The final

Topic 5: "Problems of terminology teaching and training"

was treated in a paper by *R. Arntz* (University of Saarbruck, FRG) and E. Selander (Tekniska Nomenklaturcentralen, Sweden). Mr. Arntz' report focused on terminology as a discipline within the framework of the curriculum for translators and interpreters. Training is provided in a specialized field (such as law, economics, etc.), in translation of specialized texts and in terminology proper. It is thus intended to equip future translators and interpreters with skills which will allow them to tackle difficult translation tasks satisfactorily.

E. Selander's paper "Terminology training – a tool for the improvement of international glossaries" stressed the importance of training in this field as an increasing number of inter- and transnational organizations (such as ISO, IEC, etc.) are being involved in terminology work. Knowledge of terminological principles, Mr. Selander felt, would highly contribute to the improvement of international glossaries. Training and teaching should be available both, on a national as well as an international level.

Recommendations:

After further discussion a number of recommendations were passed stressing the success of the meeting due to the excellent work of the organizers of the Symposium. Participants noted with satisfaction the benefit of this symposium with respect to exchange of views, and future development of the theory and methodology of terminology proper. It was also recommended to publish the proceedings of this symposium and to convene similar conferences on a regular basis. Closer cooperation between all interested parties (e.g. within TermNet) was also considered to be highly desirable.

Second Meeting of ISO/TC 37 "Terminology (principles and co-ordination)" Working Group 3 "Layout of vocabularies"

The meeting took place in Québec, Canada, from September 25–27, 1979, and was hosted by the Office de la Langue Française (OLF). It was attended by representatives of Canada (which also holds the Secretariat), France, the Federal Republic of Germany and the European Communities. The meeting dealt with the results of the work carried out so far on the basis of the first ISO/TC 37/WG 3-meeting (see Infoterm Newsletter 11, vol. 1, 1979). A total of 7 resolutions were adopted; the main items discussed and decisions taken were as follows:

(1) Draft Proposal DP 639 "Symbols for languages and authorities". A number of text modifications were made with Annex C "Sequence of languages in vocabularies" being supressed. The new document will be distributed to all members of ISO/TC 36/WG 3 for comments. If necessary, a new version including these comments will be elaborated by May 1980. In autumn 1980 the DP 639 will be submitted to the ISO Central Secretariat for confirmation as Draft International Standard (DIS).

(2) Revision of document ISO/R 919-1969 "Guide for the preparation of classified vocabularies".
The experts present decided to set up an ad-hoc working group which should base its work for the revision of ISO/R 919 on a plan submitted by the WG 3 Secretariat.

(3) Revision of document ISO/R 1149–1969. "Layout of multilingual classified vocabularies".
The Secretariat of ISO/TC 37 prepared a revised version of this document. After a detailed study of DP 1149 the experts present recommended a second revision which is to be carried out by the Secretariat of WG 3.

(4) DP 4466 "Layout of monolingual classified vocabularies".
As stated in Resolution 11 of the first meeting of WG 3, the Secretariat of ISO/TC 37 prepared the document above. This document too, was considered in need of revision also to be undertaken by the Secretariat of WG 3.

(5) Revision of document ISO 1951–1973 "Lexicographical symbols, particularly for use in classified vocabularies".
The Secretariat of ISO/TC 37/WG 3 was charged with the revision of this document, after having asked for comments from WG 3-members and users. In addition, the work will be harmonized with ISO/TC 46 "Documentation"/SC 5 "Monolingual and multilingual thesauri and related indexing practices".

(6) The experts present established a priority order of work which corresponds to the arrangement of items listed above.
Exact place and date of the next meeting of ISO/TC 37/WG 3 have not yet been fixed but is to be held in Europe in 1980.