

COTSOES

Recommendations

for

Terminology Work

To date these Recommendations have been published in French, German and Italian:

CST, Recommandations relatives à la terminologie, Berne, 2003
Numéro de commande 104.001 f
ISBN 3-907871-06-5

KÜDES, Empfehlungen für die Terminologiearbeit, Bern, 2003
Bestellnummer 104.001 d
ISBN 3-907871-00-6

CST: Raccomandazioni per l'attività terminologica, Berna, 2003
Numero di ordinazione 104.001 i
ISBN 3-907871-01-4

2nd, revised and enlarged edition

Editor:

Conference of Translation Services
of European States
Working Party on Terminology and Documentation

Published by:

MediaCenter of the Confederation
CH-3003 Berne

Obtainable from:

SFBL
Publications
CH-3003 Berne
www.bundespublikationen.ch

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Federal Chancellery
Terminology Section
CH-3003 Berne
termdat@bk.admin.ch

Order Number 104.001 e
ISBN 3-907871-07-3

Table of contents

Foreword

1 What is Terminology for?

- 1.1 Terminology as the basis for specialist communication
- 1.2 Legislation and international co-operation
- 1.3 Terminology as economic factor
- 1.4 Terminology work serving the enterprise culture
- 1.5 Terminology work by translators
- 1.6 Terminology and automatic translation

2 What is Terminology?

- 2.1 Terminology work
- 2.2 What is LSP?
 - 2.2.1 The term
 - 2.2.2 Word formation in LSP
 - 2.2.3 Vocabulary and syntax of LSP
 - 2.2.4 Classification of LSPs
 - 2.2.5 LSP and LGP

3 Terminological Co-operation

- 3.1 Economic aspects
- 3.2 Qualitative aspects
- 3.3 Harmonisation
- 3.4 Practical considerations

4 The Terminological Record

- 4.1 Terminological data
 - 4.1.1 Term
 - 4.1.2 Sources
 - 4.1.3 Subject field
 - 4.1.4 Definition
 - 4.1.5 Synonyms
 - 4.1.6 Short forms
 - 4.1.7 Notes
 - 4.1.8 Degree of equivalence
 - 4.1.9 Degree of synonymy
 - 4.1.10 Context
 - 4.1.11 Phraseology
 - 4.1.12 Illustrations
 - 4.1.13 Alternative spellings
 - 4.1.14 Transliteration
- 4.2 Additional or management data
 - 4.2.1 Identification number
 - 4.2.2 Language code

- 4.2.3 Date of first record and any revisions
- 4.2.4 Bureau of origin, author
- 4.2.5 Identification of sub-files

- 4.3 The step-by-step compilation of terminological records

5 Terminological Working Methods

- 5.1 Sources of information
 - 5.1.1 Experts and specialist authors
 - 5.1.2 Libraries and documentation
 - 5.1.3 Translations
 - 5.1.4 Authoritative sources

- 5.2 Terminological research
 - 5.2.1 Ad hoc research
 - 5.2.2 Text-related research
 - 5.2.3 Subject-related research
 - 5.2.4 Project organisation

- 5.3 Concept diagrams
 - 5.3.1 Presentation in concept fields
 - 5.3.2 Subject area tree
 - 5.3.3 System of concepts

- 5.4 Multilingual terminology work
 - 5.4.1 Comparison of terminologies
 - 5.4.2 The mother-tongue principle in terminology

- 5.5 Specialised phraseology
 - 5.5.1 Technical expressions
 - 5.5.2 Technical phrases
 - 5.5.3 Standard formulations
 - 5.5.4 Compiling specialised phraseology
 - 5.5.5 Processing specialised phraseology

- 5.6 Compiling terminology in a new field of knowledge

- 5.7 Data and database management
 - 5.7.1 Updating
 - 5.7.2 Practical considerations

- 5.8 Computer aided terminology work
 - 5.8.1 A wide range of products
 - 5.8.2 Best possible use of resources
 - 5.8.3 The most important requirements

- 5.8.4 What to consider before buying
- 5.8.5 What to do after buying
- 5.8.6 New developments

6 Classification

- 6.1 Task of terminology classification
- 6.2 Classification systems
- 6.3 Practical classification problems

I Annex: Basic Concepts

II Annex: Bibliography

- II.1 Literature
- II.2 Periodicals
- II.3 Standards

III Annex: Useful Internet Adresses

- III.1 Terminology Organisations
- III.2 Networks
- III.3 Terminology Databases
- III.4 Standards Organisations

Foreword

With the publication of its “Recommendations for Terminology Work”, COTSOES intends to create a basis for international co-operation, as all the participating services are well aware that without this it would be impossible to keep up with the rapid development of specialised vocabularies. COTSOES wishes to promote such co-operation by pooling experience in the terminology work of state administrations and by demonstrating the proven requirements of terminological working methods that ensure that the work of many different services can be put together to form a whole that will be of benefit to all.

The first edition of the Recommendations was greeted with approval and was praised for its clarity, conciseness and practicality. It was published in German, English, French, Italian, Dutch and Spanish and was well received in state administrations, the private sector and universities around the world. The COTSOES Recommendations have contributed to a growing awareness in the public and the private sector of the importance of terminology in communication between specialists, and of its significance in a developing community of states. Numerous terminology projects, large and small, have been launched, opportunities for training in terminology have grown in number and diversity, useful technical aids for terminology work have been created and, here and there, valuable co-operation has also developed. Nevertheless, the aim of close, straightforward co-operation among the terminology services of state administrations, universities and businesses has only been partially achieved.

This new edition of the Recommendations, which has been substantially revised and expanded by the COTSOES Working Group on Terminology and Documentation¹, therefore devotes a separate chapter to terminological co-operation. Moreover, the new edition has been supplemented by three important new chapters relating to specialised phraseology, data and data set management, and computer aids for terminology work. In the introduction, the Working Group presents its thoughts on the use and purpose of terminology work in the economic, academic and administrative sectors.

Since the first edition of the Recommendations was published, ways and means of communication have changed drastically due to the worldwide spread of the Internet, making access to specialist information considerably easier. The Working Group has taken account of this change by omitting those annexes whose content will naturally change in the short term. This type of information (e.g. on existing databases and their managers, or on sources of further training in terminology) will in future be made available on the COTSOES website (www.cotsoes.org).

¹ Member Services of the following countries have taken part in the working group: Austria, France, Germany, Iceland, the Netherlands, Norway, Spain, Sweden and Switzerland

The Working Group would like to thank Prof. Dr. R. Arntz (Hildesheim), Dr. F. Mayer (Munich) and Prof. Dr. K.-D. Schmitz (Cologne) for their valuable advice and support. Special thanks go to the staff of the Terminology Section of the Swiss Federal Chancellery, without whom the Recommendations would scarcely have been possible.

It is our sincere hope that these Recommendations will help to make efficient and thorough terminology work of the highest quality the norm in state administrations and ensure fruitful cooperation on questions of terminology at both national and international levels.

On behalf of the Working Group:

The Chairman

Werner Hauck

What is Terminology for?

1.1 **Terminology** **as the basis** **for specialist** **communication**

Science, research and technology, and many other specialist areas such as politics, culture, and the economy have undergone development in recent decades that has been marked by an ever more rapid updating and replacement of knowledge and products. Along with this go a general diversification of specialist knowledge and a large increase in specialist communication (= exchange of specialist information), not only within language and national boundaries, but also due to the internationalisation and globalisation of life as a whole across language barriers and geopolitical frontiers. Specialist communication now makes up about four fifths of all information, which is exchanged at an ever increasing rate via the new communication channels of the borderless, multilingual information society.

Experts use their special language (LSP = language for special purposes) to exchange specialist information, and this special language is distinguished first and foremost by its own special terminology (= specialised vocabulary). The increasing complexity of technical content and of specialist knowledge as a whole, as well as the interlinking and overlapping of specialist subject fields, make ever greater demands on the accuracy of specialist communication. Terminology as a specialist subject and research field has its place here: it helps to make specialist communication quicker and easier and to ensure its quality by preparing mono- and multilingual specialised vocabularies (= terminologies) and making them available to the widest possible circle of users via the data communications networks.

1.2 **Legislation** **and** **international** **co-operation**

The breakneck speed of development in science and technology also affects the work of state agencies. The regulatory areas have become considerably more complex and are continually increasing in number. We only have to think of the fields of telecommunications, genetic engineering, organ transplants, merger control and many others. Draft laws are no longer drawn up as in the past by individual experts, but by whole teams of specialists for whom interdisciplinary considerations play an increasingly important role.

If high quality terminology work is carried out from the outset when new legislation is being drafted, this will assist in providing the regulatory area concerned with a clear conceptual structure. This will make dialogue between the disciplines and interest groups involved considerably easier and mean the goal is reached more quickly. Terminology work is also an essential condition for conceptually coherent legislation. Conceptual coherence facilitates the application of the law, strengthens legal certainty and encourages legal certitude.

Since in many areas state tasks can only be carried out with international co-operation, and the law is developing extensively in different states at

much the same time and with much the same content, great importance is attached to international dialogue between authorities and thus to the terminology which makes fruitful dialogue so much easier. Early terminology work in new areas of law will result in specialised vocabularies that are more or less uniform internationally in the different language areas, whilst in other areas they will provide the conceptual clarity that is vital for an efficient exchange of ideas.

The authorities of European states face a particular challenge, not least from the point of view of terminology, when integrating or implementing EU legislation in national law. This not only applies to EU Member States, but also to states that have to adapt their legislation to EU regulations in many areas.

In view of the enormous responsibilities terminology has to fulfil for the benefit of international co-operation and harmonisation of legislation, the authorities involved in these processes are compelled to work together closely and systematically on terminology. However, this is only possible if terminology services are set up in each individual country and are made responsible for co-ordinating terminology work throughout the whole administration, for managing data stocks and for making them available to departments in a suitable form.

New requirements laid down for commercial information and documentation (e.g. product declaration and tendering in the language of the customer, multilingual documentation and stock-keeping of international companies) have made terminology into a production and marketing factor and even an economic factor with regard to quality, safety and profitability. This is felt particularly keenly by small and medium-sized enterprises, such as those that were formed for the economic or industrial exploitation of scientific or technological developments. Whereas in large, specifically international companies, just as in the larger public administrations, terminology in its various applications (e.g. editing of specialist texts, translation, documentation, stock-keeping) has now largely been accepted as a matter of course, smaller and newly formed companies face considerable difficulties in this field because terminology work is relatively costly. However, if any of these firms wishes to maintain its position in national or even international competition, it must meet the terminological requirements imposed by reliable product information and documentation.

Various specialist organisations, particularly in the economic sector, have recognised this and are working on gradually harmonising the terminology of their particular subject field and setting it down in terminology standards,

1.3 Terminology as an economic factor

in order to ensure quality of specialist communication in the same way as product quality. Depending on the subject, varying constraints are placed on these efforts which are determined not least by economic strength and the interests at stake. Moreover, new specialist subject fields (computer science, communication, the stock exchange, etc.) and with them their specialised vocabularies are developing faster than reliable standardisation work can keep up with.

1.4
Terminology
work serving
the enterprise
culture

The increasing specialisation and growing number of tasks which an administration has to carry out in the service-oriented state can lead, inter alia, to fragmentation of the administration, which in spite of excellent telecommunications structures cannot easily be remedied and has a detrimental effect on the efficiency of its work. This is an aspect which must be taken seriously at a time when intensive interdisciplinary co-operation is also of great importance in administrations.

Well-organised and co-ordinated interdepartmental terminology work, the results of which are accessible to all via an easy-to-use database, encourages an interdisciplinary approach as well as co-operation and cohesion among the departments.

These observations apply not only to public administrations but also *mutatis mutandis* to medium and large private enterprises.

1.5
Terminology
work by
translators

Terminology work is in the immediate interest of translators. It captures the results of often lengthy research and makes them accessible to as wide a circle of colleagues and other interested parties as is desired. It prevents duplication of work, which is so time-consuming and stressful.

Terminology work is also an excellent way of becoming acquainted with a specialist subject field. Translators who become involved with this work and for this purpose seek out and foster dialogue with the specialists concerned are soon accepted as genuine partners. Many of the problems faced by translators such as lack of documentation, lack of competent partners to consult, no consideration given to the time required for translation in the planning, etc. can be overcome much more easily if this idea of partnership gradually gains general acceptance. Moreover, the translator who can show his specialist skills in joint terminology work with specialists will also be invited to contribute to the thinking process by the author of the text. He is thus able to help make important additions and improvements to the original text, thereby greatly increasing the quality of his professional life.

For many years a relatively large amount of time and money has been spent on research in the field of automatic translation. No wonder, when one thinks of the enormous sums that are swallowed up by the translation budget in international organisations and in industry. The research results that have been achieved so far are impressive, but when measured against the yardstick of what is required, they are still so rudimentary that output based on these systems is a very long way from an acceptable quality standard. For this reason a growing number of translation services are buying programs simply for the archiving or parallel storage of translations and their original texts, and for the production of lists of equivalents. These less ambitious tools provide translators with effective assistance in their day to day work: they help prevent terminological dispersion, make it easier for new translators to become familiar with their field and guarantee a certain return on the capital invested, above all in the case of translations of technical and highly repetitive texts.

Nevertheless, the economic advantages of a truly reliable high-performance system would be so compelling that research is certain to continue. The problems that have to be solved are so complex and fascinating that it is easy for research teams and their financial backers to forget about terminology. This is to be warned against, as the best automatic translation system cannot perform satisfactorily unless it can rely on a comprehensive terminology database of the highest quality.

1.6 Terminology and automatic translation

What is terminology?

Terminology¹ is first of all the vocabulary of LSP (language for special purposes, also known as special language), but it is also the science of both the concepts and terms of specialised vocabularies (terminology science) and terminological working methods.

2.1 Terminology work Terminologists collect and check the terminology of a particular subject field in one or, often, more languages (translation-oriented terminology work). They record specialised vocabularies, select terms where necessary (terminological selection) or coin new ones, and compile terminologies in terminological collections. The results of this work, particularly of systematic terminology work, are made available to the users in the form of lists of specialised terms, glossaries or technical dictionaries (terminological lexicography, terminography), or can be accessed in terminological databases.

An important branch of terminology work is terminological standardisation. Increasingly, scientific and technical organisations (e.g. IEC, UIC) as well as national and international standards organisations (e.g. DIN, ON, AFNOR, ISO) standardise the terminology of the widest variety of special subject fields in one or more languages (standardisation of terminology) and present them in systems of concepts or nomenclatures. Some standards organisations have laid down principles for this area of terminology work (standardisation of terminological principles) (cf. also Annex II.3)

Terminology work is based on rules and procedures derived from general and special theories of terminology. Terminology science as the theory of specialised vocabularies is closely connected with linguistics in its object and methods, but the main point of difference is that it is exclusively concerned with present-day vocabularies (synchrony) and largely ignores the history of language (diachrony). Moreover, unlike most linguistic disciplines, terminology has an effect, particularly a unifying effect, on the development of LSPs through the standardisation of language (terminological standardisation). Even more than linguistics, terminology is interdisciplinary; it is closely linked not only with linguistics but also with logic and information science, and above all with the technical disciplines, for linguistic and technical knowledge constantly complement and interact with each other in terminology work.

¹⁾ The basic concepts of terminology are explained in Annex I.

When communicating specialist information, experts use linguistic (lexical, morphological, syntactic) means that are characteristic of the subject field concerned and together constitute its LSP.

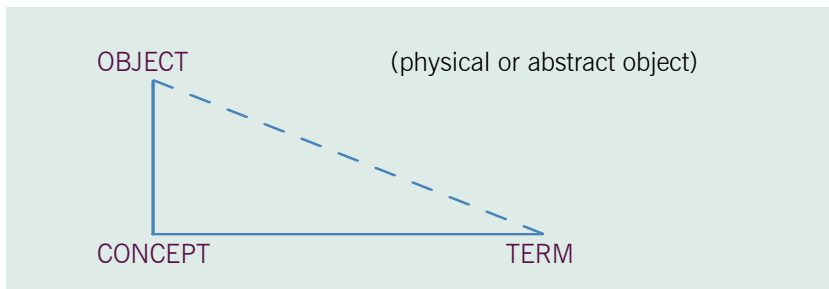
2.2 **What is LSP?**

The selection of these linguistic means, which are largely provided by LGP (language for general purposes), is determined by the prerequisites for optimum understanding between experts: precision, conciseness and clearness as well as suitability for the formation of compounds.

Terms are in a more general sense specialised designations that indicate clearly definable, physical or abstract objects (camshaft, criminal proceedings)².

2.2.1 **The term**

In a term model, a distinction is made between object, concept and term. The relationships between them can be represented as follows:



Concepts comprise the more or less specific characteristics of particular, individual objects (individual concepts; example: “Mini”) or whole classes of objects (general concepts; example “subcompact car”). These characteristics play an important part in terminology work; they are used to define and delimit the concept (cf. 4.1.4: Definition) and determine the position of the concept in a system of concepts (cf. 5.3.3). The characteristics of concepts can be put in classes (types of characteristics):

²⁾ After Filipec, J.: Zur Spezifik des spezialsprachlichen Wortschatzes gegenüber dem allgemeinen Wortschatz. In: Bausch, K.H., Schewe W.H.U., Spiegel, H.-R. (Eds.): Fachsprachen. Terminologie, Struktur, Normung. Cologne 1976, p. 55

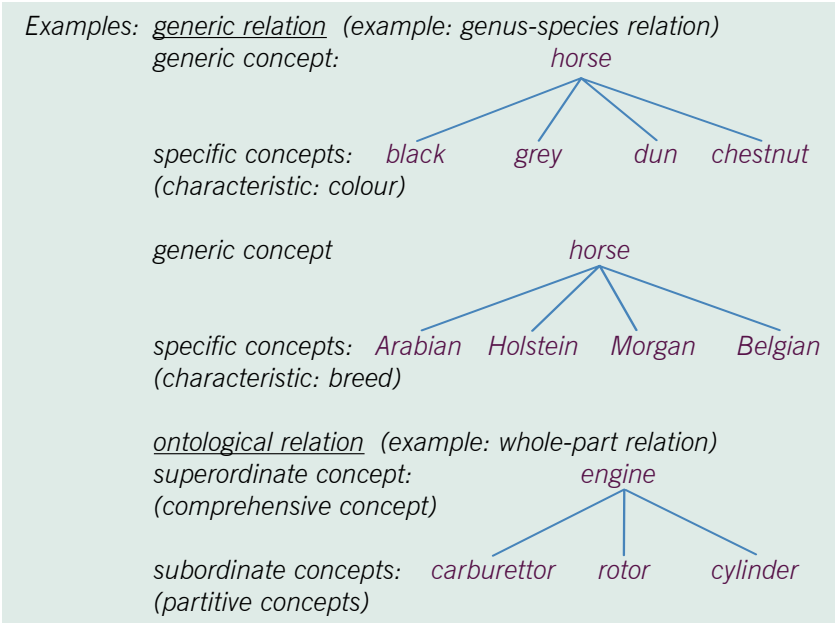
Examples: - intrinsic characteristics (e.g. nature)

shape:	round, square
size:	long, high
material:	of wood, air
colour:	azure

- extrinsic characteristics

origin:	
- place:	Delft china
- time:	Gothic cathedral
- manufacturer:	Dufour map
use:	screwdriver
location:	tail fin

Concepts do not exist independently of each other, but are related in different ways (concept relations). Terminology presents these relationships in concept diagrams (system of concepts, concept field; cf. 5.3). By analogy with the generally hierarchical structure of specialised subject fields, it mostly uses a hierarchical arrangement (superordinate, subordinate, co-ordinate concept).



Terms are the linguistic symbols that are used to express the specialised concepts. A term can be a word, a group of words or compound, or an expression (technical expression).

Examples: duty
import duty
levy duties on goods

In addition to terms, there are a number of other ways of representing specialised concepts:

Examples: mathematical symbols: x = multiplication
chemical formulae: CO = carbon monoxide
numbered codes: 337 = UDC code for customs policy

With specialised knowledge, the knowledge of special subject fields, the number of specialised concepts increases and the related vocabularies expand. New objects and circumstances require precise and unambiguous terms. These should also be self-explanatory and systematic. Often these requirements can be met only by forming a new term for a specialised concept.

2.2.2 **Word formation in LSP**

Examples: systematic: hub, wheel hub, spline hub, multiple spline hub
self-explanatory: gear wheel

LSPs use largely the same methods of word formation as LGP. The coining of completely new terms is rare; LSPs generally fall back on existing words too. Examples of this are terminologisation, derivation, borrowing, abbreviation and compounding, which is very productive particularly in the Germanic languages.

Examples: a. terminologisation
Terminologisation involves endowing a word from the LGP inventory with a new, special intension. The word becomes a term; its meaning has been changed, but not its form.
terminal
general:
a) a terminating point, part or place
b) a station, usually at the end of a railway line
technical:
c) a point at which current enters or leaves an electrical device
d) a device having input/output links with a computer but situated at a distance from the computer

- b. derivation
heater, meeting, transferable, handy
- c. borrowing
ombudsman, crèche, rucksack
- d. abbreviation
bus (omnibus), pram (perambulator), HGV (heavy goods vehicle)
- e. compounding
vacuum cleaner, motorway, air-cooled, revolving door

2.2.3 **Vocabulary and syntax of LSP**

The term is the essential component of communication in a specialised subject field. The primary meaning in a LSP is therefore conveyed in its specialised vocabulary (terminology), in the totality of its terms and expressions (cf. also 5.5: "Specialised Phraseology").

Depending on the degree of specialisation, we may distinguish general terminology, which comprises the terms common to many LSPs, and special terminology, i.e. the terminology that is used exclusively in a particular subject field.

Terminology can also be classified by areas of communication:

- research and technology
(scientific language)
- manufacture and production
(LSP in its true sense)
- sales and marketing
(dilution, coarsening of LSP)
- consumption
(LSP in LGP)

It would be wrong to equate LSP with specialised vocabulary (terminology) and ignore the sometimes marked syntactic peculiarities of LSP. For one thing, LSPs would not be "languages" if they had no syntax; for another, it is precisely the peculiarities of sentence structure that mark the style of LSP. For example, a feature of the syntax of the often reviled language of bureaucracy is its preference for functional verb and participial constructions and passive sentences.

Languages for special purposes can be classified horizontally and vertically.

2.2.4 Classification of LSPs

The horizontal classification reflects the subdivision of total specialist knowledge into its parts, i.e. into subject fields. There are many overlaps, particularly because the ever closer co-operation between special disciplines is constantly giving rise to new sub-disciplines that are difficult to delimit.

The vertical classification differs from LSP to LSP and is not necessarily uniform within individual LSPs, but depends on the criteria used: the degree of specialisation, the people involved in the communication, the situation, the type of communication (written, verbal), etc. Using the LSP of engineering as an example, according to L. Hoffmann this classification gives five layers that differ not only in their vocabulary but also in their sentence structure and text structure or form of presentation.

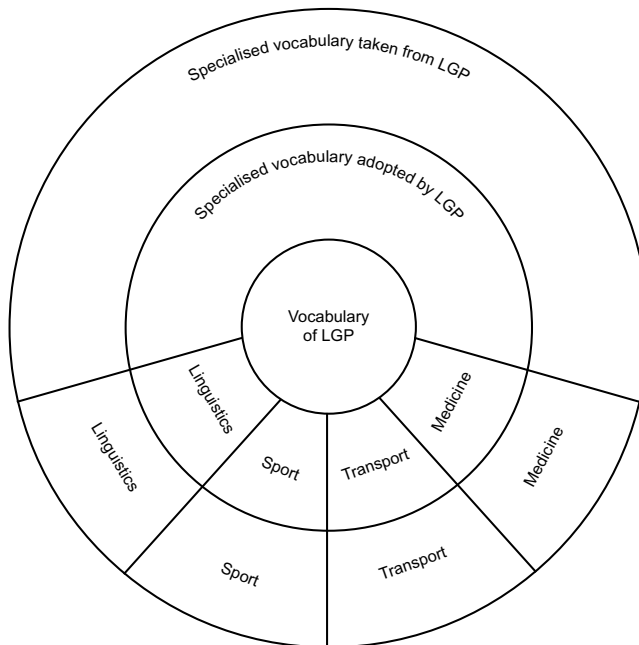
	LEVEL OF ABSTRACTION	EXTERNAL LINGUISTIC FORM	FIELD OF USE	COMMUNICATORS
A	HIGHEST LEVEL OF ABSTRACTION	ARTIFICIAL SYMBOLS FOR ELEMENTS AND RELATIONSHIP	THEORETICAL SCIENCE	SCIENTISTS SCIENTISTS
B	VERY HIGH LEVEL OF ABSTRACTION	ARTIFICIAL SYMBOLS FOR ELEMENTS, NATURAL LANGUAGE FOR RELATIONSHIP (SYNTAX)	EXPERIMENTAL SCIENCE	SCIENTISTS (ENGINEERS) SCIENTISTS (ENGINEERS) SCIENTISTS (ENGINEERS) SCIENTIFIC & TECH. ASSISTANTS
C	HIGH LEVEL OF ABSTRACTION	NATURAL LANGUAGE WITH A VERY HIGH PROPORTION OF SPEC. TERMINOLOGY AND RIGIDLY DEFINED SYNTAX	APPLIED SCIENCE AND TECHNOLOGY	SCIENTISTS (ENGINEERS) SCIENTISTS (ENGINEERS) SCIENTIFIC & TECHNICAL PRODUCTION MANAGERS
D	LOW LEVEL OF ABSTRACTION	NATURAL LANGUAGE WITH A HIGH PROPORTION OF SPEC. TERMINOLOGY & A RELATIVELY FREE SYNTAX	PRODUCTION	SCIENTIFIC & TECH. PROD. MANAGERS SCIENTIFIC & TECH. PROD. MANAGERS SKILLED WORKERS (EMPLOYEES) MASTER CRAFTSMEN
E	VERY LOW LEVEL OF ABSTRACTION	NATURAL LANGUAGE WITH SOME SPEC. TERMS AND FREE SYNTAX	CONSUMPTION	PRODUCTION STAFF PRODUCTION STAFF SALES STAFF CONSUMERS

L. Hoffmann in: Hahn, W.v. (Ed.): *Fachkommunikation: Entwicklung - Linguistische Konzepte - Betriebliche Beispiele*. Berlin, 1983, p.75

2.2.5 LSP and LGP No clear demarcation can be made between LSP and LGP, as there is too much interaction between them. In particular, most LSPs are based on LGP. They use numerous forms of expression provided by LGP.

Conversely, LSPs have an effect on LGP, which, for example, has always adopted expressions from the LSP of craftsmen, giving them a modified meaning: “forge plans”, “hammer something home”, etc. This process is even more in evidence nowadays because science and technology are increasingly invading our daily lives, e.g. through the use of technological products (video recorders, personal computers, DVD) or through the dissemination of technical and scientific knowledge by the mass media. However, the effect of LSP on LGP can be seen not only in vocabulary but also in syntax, e.g. the frequent use of the substantive (nominal style).

According to K. Baldinger, the relationship between the lexis of LSP and that of LGP can be represented by three concentric circles with constant exchanges between the circles in both directions.



Baldinger K.: Über die Gestaltung des wissenschaftlichen Wörterbuchs.
 In: Rom. Jahrb. V. 1952, p. 90

Terminological Co-operation

All terminology work of high quality, regardless of whether it is mono- or multilingual, and irrespective of the subject field to which it relates, requires a large amount of time and money, and this can only be justified if the result serves a wide circle of users. Added to this is the fact that no terminology database, however extensive its data stock, can meet the needs of all its users. In the latter case, the aim is to fill the gaps, while in the former it is to avoid expense wherever possible. Co-operation (data exchange, joint terminology projects, joint databases, etc.) provides tried and tested ways of doing this.

3.1 ***Economic*** ***aspects***

Terminological co-operation brings firstly quantitative advantages, which carry particular weight, both from an economic point of view and given the notorious time pressure under which translation services work. The division of work and the joint use of the resulting terminology collections reduce individuals' workloads and increase the benefit of their work, in that the results are used by all the contributors. Efficient, co-ordinated co-operation also helps to prevent the same terminology work being done several times, i.e. senseless multiple expenditure, something that still happens all too frequently.

Terminological co-operation improves the quality of the work of partners as well. Participants often do not have the same opportunities of carrying out terminology work of a high standard in all the subject areas of mutual interest because they have different resources at their disposal, such as documentation or even finances, or because the consultation of experts, who contribute essential specialist knowledge, is not possible everywhere to the same extent. Co-operation makes it possible for participants to restrict themselves to the specialist areas in which they are able to conduct high-quality terminology work, and nevertheless obtain a satisfactory result in terms of quantity.

3.2 ***Qualitative*** ***aspects***

Moreover, mainly through joint projects, but also through data exchange or the combination of data collections in a joint database, terminological co-operation also encourages harmonisation, approximation, or even standardisation of terminology, in that it allows the linguistic and regional or national differences between the terminologies of a specialist area to be worked out and made apparent. It thereby facilitates rapid and smooth communication between specialists - one of terminology's most important tasks.

3.3 ***Harmonisa-*** ***tion***

The advanced computerisation of translation and terminology workplaces (terminology management programs for PCs, Intra-, Extra- and Internet, etc.)

provides all the technical requirements for networking, at all levels and in the most diverse directions: between the subsidiary companies of groups and the departments of large public administrations as well as between private and public bodies, nationally and internationally, both within language regions and specialist areas and across their boundaries, such as the terminological co-operation in COTSOES and other international networks (Rat für Deutschsprachige Terminologie, Réseau international francophone d'aménagement linguistique, Union latine, Infoterm/TermNet, etc.).

The most important prerequisite for successful terminological co-operation is that the working methods and quality standards of all participants should be as uniform as possible. This does not mean that the special requirements and needs regarding content, form or organisation that apply in every terminology centre and database cannot also be taken into account. However, it is only by having the greatest possible uniformity of working methods that terminology can be exchanged without fuss and time-consuming preparation, that joint projects can be set up, or even joint databases operated.

Beyond this, the success of terminological co-operation depends on a whole series of other circumstances. These can be summarised under the following recommendations:

3.4 Practical considerations

3.4.1 Look for (permanent) co-operation

Take the initiative, speak to your colleagues on the subject and encourage them to enter into co-operation.

Whenever possible look for permanent co-operation. It is true that many terminological problems can be solved by spontaneous, ad hoc contacts, which are part and parcel of everyday life as a translator. However, these may well cause considerable expense to the person approached for information or assistance if lengthy research work requiring time and effort has to be carried out.

Much more valuable are the various forms of permanent co-operation:

- joint terminology projects with division of the work,
- continuous data exchange, or
- a joint database which all partners contribute to and use - certainly the most ambitious but also the most rewarding form of terminological co-operation.

3.4.2 Let others know about your terminological activities - use the Internet

Without information, there can be no terminological co-operation! This can only come about if potential partners publicise their work, data collections and databases, projects and needs in specialist circles.

Specialist terminology organisations (cf. Annex III) - they can be found on the Internet under this keyword - offer private and public terminology centres space in specialist publications and on the information networks and the opportunity to provide regular information about their terminological activities. Moreover, in the Internet forums for your special subject field, you will find colleagues who could be co-operation partners. The COTSOES Working Group on Terminology and Documentation offers this kind of forum on its homepage (www.cotsoes.org).

3.4.3 Understand co-operation as “give and take”

A readiness to give is a basic requirement for successful co-operation, in any field including terminology, and should be at least as great as the readiness to take.

If what you are offering fulfils the usual quality criteria and there is a demand for it, then it will be worth co-operating through data exchange, since in return for a terminology collection you will obtain another or even several equally valuable data stocks. From this point of view, it is recommended whenever possible to request payment not in money but in good quality terminological data, because in this way you not only increase the profitability of your own work, but also build up your data stock, with a direct benefit for your translation or terminology service.

The same applies to joint terminology projects, where, in return for your share of the work, you can in the end make use of the entire result and thus gain access to information that you would not have been able to produce alone, e.g. because one or other of the languages used is not one of your active languages.

In joint terminology work, it will not always be easy or even possible to meet the needs and requirements of all participants. The COTSOES recommendations are based on the practical experience that the advantages gained through co-operation far outweigh any disadvantages.

Finally, and this is not the least of the advantages, participants broaden their specialist terminological knowledge through the exchange of ideas and experience which any terminological co-operation involves: they learn new

and different methods and procedures, not only concerning terminology work per se, but also with regard to the environment in which this activity takes place, its rational organisation, and its integration into the running of a translation service.

3.4.4 *Be flexible*

Terminological co-operation is characterised not only by “give and take” but also by the need to “accept and concede”. In fact no real co-operation will develop if the participants are not able or willing to tolerate “foreign gods”, in other words to allow their partners with their valid methods and well-founded requests and needs to be recognised along with their own.

Flexibility, “accept and concede”, is a basic requirement for work in partnership. It means that many problems which would otherwise be bound to come up do not even arise, and makes it possible for all participants to benefit from working together while still remaining true to themselves and being able to fulfil the special requirements of their employers in terms of content or form.

3.4.5 *Agree the rules of co-operation*

Every co-operation requires the participants to agree on their rights and duties. In some circumstances, namely when the sale or other commercialisation of data collections is involved, it may even be necessary to enter into a formal agreement¹, particularly on the property rights and rights of use of the database, dictionary entries or other information.

If permanent co-operation is established, the participants should lay down the “rules of good co-operation”. This need not be a comprehensive, detailed set of rules, but it will undoubtedly facilitate co-operation, and it will help to guard against unpleasant surprises and misunderstandings if agreement is reached from the outset on the following basic points:

- working methods;
- quality requirements and quality assurance;
- procedures, e.g. for data exchange: data carriers, file formats and other arrangements;

¹ INFOTERM has published guidelines for this type of agreement: Galinski, C.; Goebel, J.: Guide to Terminology Agreements. Vienna, 1996

- co-ordination of terminology work;
- rights and duties of participants, e.g. the right to make changes or corrections to the database records of partners or to merge records or whole files with others, or the obligation to inform each other and to record the information received, etc.

3.4.6 *Make co-operation visible*

If a terminology collection is compiled as a joint project or if data stocks are combined, it should be easy to see from the relevant database records that they are the result of co-operation. It will not be possible to make the origin clear for every item of information, but it is always possible to give a general indication (e.g. in an author field or in a description of the relevant terminology project that can be interrogated on the database in question) of who has participated in a particular terminology collection. In any case, it is a basic, incontrovertible working rule that sources must be indicated (cf. 4.1.2).

The fact that co-operation is made visible and that its results are publicised improves the satisfaction and motivation of participants, the more so the wider information about it is spread. There are many opportunities for this; don't neglect to report on successful co-operation, joint terminology projects, new data exchange procedures or organisation models, etc., at conferences and in specialist periodicals.

The Terminological Record

The terminological record consists of terminological data on the concept and its term/s, together with additional data required for the management of the information recorded.

The nature and amount of the terminological data should be primarily geared to the needs of users, who are often professional linguists, working as translators or interpreters. For example, grammatical information is of great interest to teachers and students, but it is generally familiar to professional linguists, with the result that it is usually unnecessary to include such information in a terminology database.

Even a record which contains only a term and its corresponding term(s) in other languages (equivalents) together with the sources can be valuable. But generally speaking the user needs more information, and in particular information about the subject field and an indication of the reliability of the record (cf. 4.3).

The more data the records contain, the greater the informational value of the database and the wider its usage. However, as the number of data categories increases, so the records become more complex and management of the data stock becomes more time-consuming. Too wide a variety of data makes the interrogation of the database and the training of new terminologists more difficult, for example, and may prove to be a handicap when other people are to be entrusted with compiling records or with managing the data stock. A sensible middle course therefore has to be found.

4.1 *Terminological data* The data set out here gives a description of terms and their usage that concentrates on the essentials

4.1.1	Term	4.1.8	Degree of equivalence
4.1.2	Sources	4.1.9	Degree of synonymy
4.1.3	Subject field	4.1.10	Context
4.1.4	Definition	4.1.11	Phraseology
4.1.5	Synonyms	4.1.12	Illustrations
4.1.6	Short forms	4.1.13	Spelling variants
4.1.7	Notes	4.1.14	Transliteration

Terms should appear in their base form (nouns in the nominative singular, verbs in the infinitive, etc). Terms comprising more than one word and technical expressions should appear in their natural word order.

4.1.1 **Term**

Examples: correct: "electric light", "(to) drain off fuel"

incorrect: "light, electric", "fuel, drain off"

It is advisable to identify English verbs by preceding the term with "to" or following them with "(v.)".

It is very important to indicate the sources of the terms, synonyms, short forms, definitions and notes for further investigation of the field surrounding the recorded data and so that the information can be checked. The sources also provide information on the specialist nature of the source documents and indirectly indicate the reliability of the data recorded.

4.1.2 **Sources**

There are often several sources for one term. In such cases the most reliable should be given (cf. 5.1).

The source should be indicated in accordance with internationally accepted rules (cf. International Standard ISO 690). A source must always be given in the same form. It is therefore a good idea to specify in the source data set the form (full title, abbreviated title or code) in which the source should be quoted in the records.

The year of compilation or publication is an important piece of information on the source as it gives an indication of how up-to-date the information is. Every translator knows that care should be taken with older sources, because usage in the subject field concerned may have changed in the meantime.

Use of codes to indicate the source has the disadvantage of being generally opaque and therefore not very informative for the user, and as the number of codes increases, management becomes time-consuming (avoidance of multiple use, accuracy control or central coding) and the risk of error increases.

Abbreviated titles are generally more user-friendly than codes. If a source work is used very frequently in a translation service, a keyword may sometimes be sufficient as an abbreviated title. On the other hand, an outside user generally requires more information.

Example:

1) Code:	BulCN87//128
2a) Abbreviated title:	Bulletin.CN.1987//I, 128
2b) Abbreviated title:	Bulletin du Conseil national 1987//I, p.128
3) Full title:	Bulletin officiel de l'Assemblée federale. Conseil national 1987 (Session de printemps), p.128

4.1.3 Subject field The subject field is an aid to orientation and understanding; it permits the appropriate term to be found more quickly (cf. 6.1), and is often an essential selection criterion for compiling word lists or glossaries.

The subject field must comply with the classification system of the terminological data collection (cf. 6). In multilingual terminological databases it is an advantage not to write the subject field out in full but to use a non-language-dependent code, provided that it is intelligible. This code should be devised in such a way that it can be developed as the database and the classification system expand and is easy to understand and remember (mnemonic code). It is also important that the classification is easy to use, i.e. it should be possible to code the subject field without the help of documentation specialists.

When preparing the term record, precise consideration must be given to what subject field the term should be classified under - carelessness can easily lead to annoying mistakes. It will often be necessary to indicate several subject fields (cf. 6.3).

Examples: "catalytic converter"
As this motor vehicle part is very important for environmental protection the term should be classified under both "motor vehicle engineering" and "environmental protection".

"dental calculus"
The fact that we found this term plus definition in a reputable fruit growing trade journal (context: fruit eating and dental calculus) must not induce us to classify "dental calculus" under "fruit growing".

Multiple coding generally increases the number of selection possibilities during interrogations.

Example: BPT = banking/payment transactions

POS = postal services

If a list of “giro payment system” terms is wanted, the search can be restricted to records with the codes BPT and POS. In this way all the other terms with the codes BPT or POS which do not relate to giro payments are automatically excluded.

It is advisable to code each record individually. However, terminology collections are still incorporated in databases en bloc, for example when exchanging data, and all records are thereby given a global code. This usually leads to errors.

Example: This process would lead to “guided missile” being given the same code as “clinical thermometer” in a collection of customs tariff terminology.

The definition describes the concept according to intension or extent and differentiates it from other concepts. This is essential for the clear assignment of terms to their concepts and thus for reliable terminology work.

4.1.4 Definition

4.1.4.1 Types of definition

4.1.4.1.1 Intensional definition

An intensional definition is based on the next higher concept (generic concept) and gives the characteristics that permit the concept to be defined and that delimit it from the neighbouring concepts (e.g. co-ordinate concepts; cf. 2.2.1 and 5.3.3).

Example: “incandescent lamp”

“Electric lamp in which solid materials are heated by an electric current to such a high temperature that they emit light.”

generic concept: electric lamp

restricting characteristics: - solid materials

- heat by current to a high temperature

- emit light

co-ordinate concept: gas discharge lamp

4.1.4.1.2 *Extensional definition*

An extensional definition describes a concept by its specific concepts or an object by its parts.

Examples: 1. Definition using specific concepts:

“reactor”

“Reactors are classified according to their fuel, moderator and coolant.[...] They are based on the following alternatives:

- fuel: uranium-235, plutonium-239 [...] ;*
- moderator: heavy water, graphite [...] ;*
- coolant: gas, light water [...] .”*

2. Definition using the parts:

“wheel” (of a bicycle)

“The wheel consists of hub, spokes, rim and tyre.”

4.1.4.2 *Requirements for definitions*

Where definitions are available, these should be incorporated rather than a new definition being composed. It is however essential to make sure that definitions come from reliable sources (cf. 5.1). Definitions that authors of records compose or amend themselves should be checked by experts.

All definitions must meet the following requirements:

4.1.4.2.1 *Conciseness*

Definitions should be as brief as possible but still contain all the main distinguishing characteristics (cf. 2.2.1). If definitions are shortened, which may often be necessary for readability, it must be ensured that conciseness does not lead to factual errors. The users' needs must be taken into account when definitions are shortened.

Examples: original definition:

“ageing - Gradual rise in strength due to physical change in metals and alloys, in which there is breakdown from supersaturated solid solution and lattice precipitation over a period of days at atmospheric temperature.”

poor shortened form:
“ageing - Gradual rise in strength due to physical change in metals and alloys.”

good shortened form:
“ageing - Rise in strength in metals and alloys in which there is a breakdown from super-saturated solid solution.”

4.1.4.2.2 Reference to a system

The definition should show the position of the concept in the system of concepts.

The intensional definition names the generic concept and delimits the concept itself from its co-ordinate concepts by means of distinguishing characteristics.

Example: “horse” (system “ungulates”)
“Domesticated perissodactyl mammal used for draught work and riding.”

The definition in a system of partitive relations (extensional definition) should indicate the whole to which a part belongs and the relationship it has with the other parts.

Example: “hub” (system “bicycle”)
“Central part of the wheel which is connected to the rim by spokes.”

4.1.4.2.3 Reference to the subject field

All the concepts in a system of concepts must be defined according to the same objective criterion. It would therefore be wrong to define a horse in the “ungulates” system of concepts as “an animal used for riding” (criterion: use) and a cow as “an artiodactyl” (criterion: zoological classification).

The definition must also use the characteristics specific to the subject field. Thus “water” is defined differently in physics and chemistry.

Examples: “water” (chemistry):
“Combination of two hydrogen atoms with one oxygen atom.”

*“water” (physics):
“Liquid with a freezing point of 0oC and a boiling point of
100oC at a pressure of 1 atm.”*

4.1.4.2.4 Use of terms which have already been defined

The terms used for the definition should have already been defined or be generally known. If an unknown or undefined term is used, it should also be added to the terminology collection.

*Example: “fustic”
not: “Yellow dye derived from the wood of Cotinus
coggyria.”
better: “Yellow dye derived from the wood of the smoketree.”*

4.1.4.2.5 Indication of the field of application of a definition

Regulations and technical standards define many concepts for their purposes differently from the corresponding subject field (see “water” example below). However, these legal or standard definitions only apply specifically to the regulatory area covered by the regulation or standard concerned. It may be important for the understanding and translation of texts in this area to know the special meaning of a term. This can justify the inclusion of such definitions in a terminological database. In this case, however, the restricted field of application must be clearly stated, e.g. by giving the subject field or, if this is not possible or is insufficient, in the definition itself.

*Examples: “For the purposes of this Regulation:
Telecommunications system means: any system for the
transmission of signals, images or sound.”

“In construction work tenders, the series of prices describes
what type of price should be chosen for each article or
service.”*

In addition, legal definitions often contain elements that are irrelevant to the basic definition, e.g. details that would have to be included in a substantive law version of the relevant text.

*Example: “Placing on the market”: first release of a product, whether
or not against payment, not intended for clinical testing,
with a view to its sale and/or use within the Community,
irrespective of whether it is a new product or one prepared
as new.” (Directive 93/42/EEC of 14.6.1993)*

Therefore the general subject definition should be entered in the record beside, or even better, before the legal definition, provided that the concept is not a primary legal concept, i.e. not a concept which comes from the subject field “law”, such as e.g. contract, legal transaction, or criminal offence.

Example: “water”
general: “Liquid made up of two hydrogen atoms and one oxygen atom that boils at 100°C and freezes at 0°.”
Federal Act on National Hydrology: “Any flowing or standing, surface or underground waters.”

4.1.4.2.6 Avoidance of circular definitions

Here the principle that a concept must not be defined by itself applies.

Example: wrong: “textiles” = “Products of the textile industry.”
better: “textiles” = “Woven or knitted goods made from fibrous material.”

4.1.4.2.7 Avoidance of negative definitions

On closer inspection, a negative definition often proves to be faulty because the negative, preclusive characteristic also applies to other concepts and therefore loses its restricting effect.

Example: wrong: “trailer” = “Non-mechanically propelled vehicle.”
better: “trailer” = “Vehicle of a kind designed solely to be coupled to another vehicle by means of a special coupling device.”

Negative characteristics should be used in definitions only if the concept itself is negative.

Example: “indeclinable noun” = “Noun in which a change of case cannot be shown by transforming the ending.”

4.1.4.3 Explanations

It is customary in many subject fields to use descriptions of concepts that do not in every respect fulfil the formal or structural requirements that definitions have to satisfy (e.g. intensional definition = generic concept

+ distinguishing characteristics). However, such descriptions can often replace definitions because, unlike many defining contexts, they are real descriptions of the concept and, like intensional definitions, list the main characteristics of the concept.

Example: occupation “traffic engineer”
“Undertakes research, development, design, consultancy or related work in respect of road systems and road traffic conditions to reduce traffic congestion and improve road safety conditions.”

If no such description is available, an explanatory context or an illustration (cf. 4.1.10 and 4.1.12) may be given.

A good explanation indicates essential characteristics of the concept; however, it does not need to list them all.

Example: “V-belt” *“The V-belt is part of the power transmission in prime movers.”*

4.1.5 Synonyms Full synonyms, if known, are also recorded with the term. Full synonyms designate identical concepts, i.e. they are interchangeable in any context. The others are quasi-synonyms; a separate record should be made out for each of these.

Examples: synonyms: dextrose = grape sugar
quasi-synonyms: education > instruction

It is advantageous to put the synonyms in the same field as the term for the following reasons:

- the user sees the various terms for a particular concept at a glance;
- no preferred term need be specified; this avoids tiresome discussion of national or regional preferences, which hinders co-operation.

However, there are disadvantages to this method:

- the preferred term, if there is one, is not immediately apparent; it must be indicated, e.g. in the “Notes” field;
- it is more difficult to exchange data with terminological databases that have a separate field for synonyms.

Terms often have short forms. It is useful to note the short forms in the record. However, it may also be advantageous to create a separate data set for them, particularly if one also wants to record non-specialist short forms, which is very helpful for translators, for example.

4.1.6 Short forms

It is not always known what language a short form is in. So with multilingual databases it must be possible to retrieve short forms without having to specify the source language in advance.

4.1.6.1 Abbreviations

An abbreviation is obtained when a term is not written out in full.

<i>Examples: <u>Long form</u></i>	<i><u>Abbreviation</u></i>
<i>page</i>	<i>p.</i>
<i>cosine</i>	<i>cos</i>
<i>not elsewhere specified</i>	<i>n.e.s.</i>

4.1.6.2 Initialisms and acronyms

An initialism is made up of the first letters of the term elements. In many cases this produces a sequence which can be pronounced as a word (an acronym); in other cases the initialism is pronounced letter by letter.

<i>Example: pronounced as a word:</i>	<i>laser = light amplification by stimulated emission of radiation</i>
<i>pronounced letter by letter:</i>	<i>HGV = heavy goods vehicle</i>

4.1.6.3 Syllable acronyms

An syllable acronym consists of syllables of the original term which are suitable for forming a word, i.e. are easily pronounced and remembered:

<i>Examples: radwaste</i>	<i>= radioactive waste</i>
<i>algol</i>	<i>= algorithmic language</i>

4.1.7 Notes Notes include additional information which helps to establish the use of a term, and in particular information on geographical restrictions, regional peculiarities and the status of a term. The different notes should be quite clearly distinguishable in the record.

4.1.7.1 Geographical restrictions

Within a language, if different terms are used for one and the same concept depending on the region, these should be pointed out in a note.

Examples: terms: Bahnsteig (1); Perron (2)
notes: (1) DE, (2) CH
terms: elevator (1); lift (2)
notes: (1) US, (2) GB

The country codes given in the International Standard ISO 3166 “Codes for the representation of names of countries and their subdivisions” should be used.

4.1.7.2 Status

It is often important for the user to know the status of a term.

Examples: - standardised - not standardised
- official - unofficial
- obsolete – new / neologism
- deprecated - admitted - preferred
- confirmed - unconfirmed (proposal)

4.1.8 Degree of equivalence It is essential for the user to know the degree of equivalence between the terms in the source and target languages. Differences should be indicated clearly by means of a note, e.g. in the notes.

The degree of equivalence can be simply indicated using the following symbols:

- = concepts with the same intension*)
- ~ concepts with roughly the same intension
- > the concept has a smaller intension than the other
- < the concept has a larger intension than the other

*)The larger the intension a concept has (the concept characteristics in their entirety), the smaller the extension of the concept is (all the objects covered by the concept; cf. also 2.2.1)

Example: *de Logistik* *en logistics (mil.)*
de = en GB < en US

- *movement and billeting of troops*
- *production, procurement, storage, movement and distribution of material and related facilities*
- *US also: sale of obsolete material*

Quasi-synonyms are often noted with synonyms on the same record - a practice which, although not recommended, is nevertheless very common. In this case it is helpful to the user if the degree of synonymy is specified. The relationships =, ~, >, < also apply here.

4.1.9 **Degree of** **synonymy**

Example: *motor vehicle > motor car*

The context is the piece of text surrounding a term. It may be defining or linguistic.

4.1.10 **Context**

4.1.10.1 Defining context

If there is no definition (cf. 4.1.4) or explanation (cf. 4.1.4.3), a context from which the meaning of the concept can be deduced should be given. The “defining context” indicates essential characteristics of the object or shows the function that the object has or the effects that a process has, etc.

Examples: “*boulder earth*”
“*Resting on the surface of the ice-worn rocks we find a widespread accumulation of boulder earth, an unstratified mass of coarse gritty mud in which are embedded pebbles, boulders and stony particles.*”

“*drawback*”
“*Drawback shall be paid on deposit of the goods in a Customs warehouse.*”

4.1.10.2 Linguistic context

The “linguistic context” should show the typical specialist use of a term.

*Examples: “deduct tax at source”
“abandon goods to the revenue”*

4.1.10.3 Selection of contexts

It is essential not to select a context to explain a concept which only includes the term and gives no indication of its meaning. If a definition already exists, a context should only be included if it provides additional information, e.g. on the typical specialist use of the term.

The context may be abbreviated so that only the essential information is given.

<i>Example: concept:</i>	<i>“relief” (Article 47 (1) of the Swiss Customs Act)</i>
<i>full context:</i>	<i>“The Commissioners may grant relief from any import duty or agricultural levy where the imported or equivalent goods are with their permission exported outside the Community in the unaltered state or in the form of intermediate products.”</i>
<i>abbreviated context:</i>	<i>“The Commissioners may grant relief from ... import duty.”</i>

4.1.11 Phraseology LSP is full of formulations that are often typical of the language of a special subject field.

The language of international treaties, for example, often uses set phrases (expressions, sentences) in the interests of understanding and legal certainty, and these often have to be translated in the same way.

If the translation is to be reliable, it is important to record the whole set phrase in the record, and not merely the terms it contains.

Example: (Final Act of the CSCE)

laws and regulations, including those relating to foreign exchange

Gesetze und Vorschriften, einschliesslich der Bestimmungen über den Devisenverkehr

les lois et règlements, et notamment la réglementation des changes

Other comments on dealing with specialised phraseology in terminology work are given in Section 5.5.

It is often difficult to give precise and succinct definitions of the various parts of an object. In such cases, illustrations, e.g. drawings, graphs or diagrams, can make the definition easier to understand or more precise; but they cannot replace it.

4.1.12

Illustrations

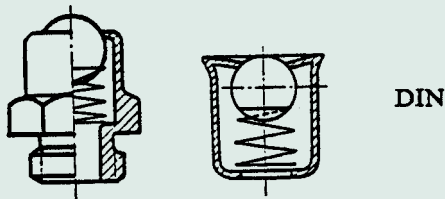
Example:

1242

UDC 621.9-725.3

ball valve oiler; Winkley oiler: An oiler (1240) in which the oil or grease hole (1227) is closed by a spring-loaded (1026) ball.

graisseur à bille: Graisseur (1240) dans lequel le trou de graissage (1227) est obturé par une bille appliquée par un ressort (1026).



1242 Kugelöler DIN

Wüster, Eugen

The Machine Tool - An Interlingual Dictionary of Basic Concepts. Dictionnaire Multilingue de la Machine-Outil. London: Technical Press, 1968

Grundbegriffe bei Werkzeugmaschinen. Deutscher Ergänzungsband zu dem Grundwerk "The Machine Tool - La Machine-Outil". London: Technical Press, 1967

4.1.13 Alternative spellings It can be helpful, particularly for foreign users, if the alternative spellings of a term are noted. For the sake of simplicity these can be treated as synonyms (cf. 4.1.5).

Examples: - *Fotografie, Photographie*
- *connection, connexion*
- *colour, color*

4.1.14 Transliteration Transliteration is useful for recording words from a language whose character set is not available in the system. In this case the transliteration laid down for the language concerned should be used rather than creating a new one, unless this is necessary for particular technical reasons.

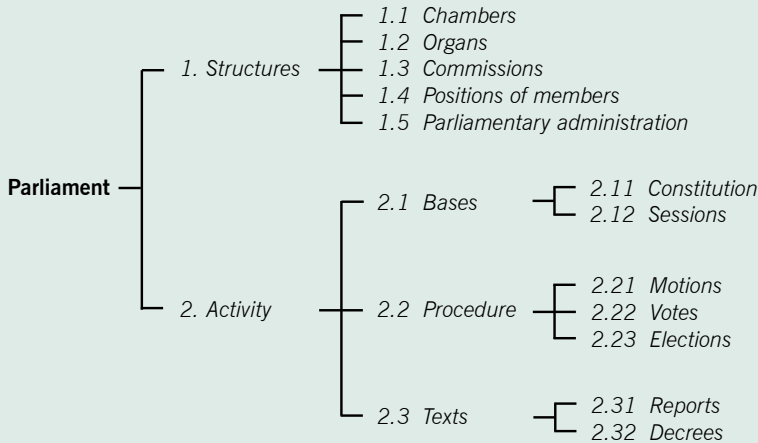
4.2 Additional or management data A terminological database can only be managed and maintained properly if the records include at least the following additional data:

- 4.2.1 Identification number
- 4.2.2 Language code
- 4.2.3 Date of first record and any revisions
- 4.2.4 Bureau of origin, author
- 4.2.5 Identification of sub-files

4.2.1 Identification number The identification number serves different purposes depending on the structure of the database. First of all, it is no more than a distinguishing mark, which makes it easier to access records in a terminological database, for example.

However, the identification number can also be used to mark the origin of records or to organise the records in accordance with the relationships between concepts (e.g. generic concepts and specific concepts), or in accordance with the linguistic relationship between the terms (e.g. according to word families or types of word formation).

Example: subject tree for the subject area "Parliament"



The numbers used in this subject tree (cf. 5.3.2) can be integrated into the identification numbers, which, for example, allows the terminology to be presented according to this structure in a specialist dictionary.

The language code tells the user the language of a particular term and also serves as a selection criterion.

4.2.2 Language code

The International Standard ISO 639 "Codes for the representation of languages" should be used.

Example: en "key" = de "Schlüssel" = fr "clé"

The date of first record together with the last revision show the user how up-to-date the records are.

4.2.3 Date of first record and any revisions

The dates should be written in the usual form used in computer science (year, month, day).

Example: 13 February 2001 = 20010213

4.2.4
**Bureau of
origin, author**

It can be important for the user of a terminological database to know the origin of a term record. It is therefore a good idea to note the bureau of origin on the record using a code.

It is advantageous for the management of the data, e.g. for quality control, to indicate the name of the person who compiled or revised the record. This name need not appear in the information supplied.

4.2.5
**Identification
of sub-files**

As usage in communication between specialists is constantly changing, the records in a terminological database must be constantly updated, i.e. supplemented and corrected (cf. 5.7). This is made considerably easier if sub-files can be withdrawn for revision en bloc, e.g. all the records that are related to a concept, come from a particular source, or are classified under a particular subject field. They must therefore be appropriately marked, possibly by means of a special code.

Example: All the data protection terminology extracted from national data protection legislation is to be printed out for the revision of the Data Protection Act. It will be possible to select these records if they were given a special code when entered. If the subject field "data protection" were used as the selection criterion, all the other terms classified under this subject field would also be printed out.

4.3
**The step-by-
step com-
pilation of
terminologi-
cal records**

In translation services where terminological problems all too often have to be solved under severe time pressure, it is not always possible to compile all the information required for new terminological records at once. The same is true of terminology services that cannot always carry out the necessary research systematically when urgent enquiries are received.

A "pragmatic" approach is needed in such situations, i.e. do what one can at the time and add the missing data to the records step by step later, e.g. by revising them in the course of subsequent, possibly systematic, research or by passing them to the terminology service to complete as one of its terminology projects.

Even in the case of text-related or subject-related research (cf. 5.2.2 ff.), it may be sensible to input records that do not contain all the terminological information required but which include enough reliable data to be of help to many users.

However, certain information is essential from the outset. Apart from the term and the essential management data, we are thinking primarily of the source data. If it is not given, the record cannot be assessed as to its reliability and cannot be supplemented. If revising the record later, a search may well have to be made for the source, which will certainly require far more effort than is required if the source data is recorded at the outset when it is freely available.

The subject field is also essential (cf. 4.1.3). When this “pragmatic” approach is used, it is also absolutely imperative for an indication to be given that these records are of limited reliability, e.g. by means of a note (cf. 4.1.7) or an indication of reliability – possibly by means of a reliability code if the database permits this. Information of this kind makes the record more reliable, i.e. more useful, because it enables the database to be used critically.

Terminological Working Methods

The terminological working methods of translation services depend to a large extent on their duties, terminology needs and specific working conditions. Their terminology work is primarily translation oriented.

Some services specialise in a more or less clearly defined subject field, even if they sometimes translate texts from other fields. The detailed terminology of their subject field is their primary requirement. It is worthwhile for them to tap reliable sources of information on a long-term basis, for example by subscribing to specialist journals and establishing permanent links with experts.

Other services, however, have a more general, varied range of activities, even if they have to concentrate on particular subject fields from time to time. They require more wide-ranging terminology that covers a large number of fields. As the subject focus of the translation work shifts, so the terminology needs and consequently the terminology work changes.

Translation services in monolingual countries work primarily to facilitate communication with countries that use a different language. It is particularly important for them to have the correct, standard terminology, sometimes in numerous target languages. On the other hand, services in countries or institutions with several official languages firstly need the official terminology in these languages, each of which can be source or target language. Close co-operation with lawyers and other specialists is particularly important for them from this point of view, above all when legislation has the same legal force in each official language. Incidentally, this also applies to any service that has to translate international treaties where all versions are equally authoritative.

- 5.1 Sources of information** Anyone engaged in terminology work must check the reliability of their terminological sources. Dictionaries and specialist texts written by individual authors sometimes contain terminology that bears the stamp of the specialist knowledge and interests of the author, is not very common, and is therefore not necessarily reliable. On the other hand, dictionaries produced by expert commissions or professional organisations are generally based on enquiries made among a larger group of experts. The most reliable sources are terminological standards (standards dictionaries; cf. Annex II.3).

Experts and specialist authors often act as first sources of information. They can also recommend reliable documentation, and, where the target language is their mother tongue, they can also define concepts and check definitions in their specialist field, confirm the content of entries, and check terminology collections and phraseologies.

5.1.1 Experts and specialist authors

However, it is always important to clarify whether the terminology recommended by the expert in the particular subject area is in general use or whether it is specific to his firm or to himself. In other words, the information obtained must be critically evaluated. If no reliable document in the subject field is available, an expert may exceptionally be used as the source; he should then be cited as such in the terminological record.

Terminologists have every interest in working with experts as closely as possible and in consulting them even about terminological records that seem to present no problems. All uncertain points and contradictions should be clarified when talking to the experts. If a relatively large collection of concepts is being prepared (e.g. for a long text which has to be translated into several languages, or for a glossary), it is worth consulting several experts in order to cover the different sub-fields and working languages, or even forming a working group whose members have the essential specialised knowledge and the required languages.

This cooperation with experts gives rise to particular organisational requirements. Firstly, the work needs to be carefully planned and questions must be well prepared and organised into subjects, so that the amount of time needed by experts for preparation is kept within bounds and discussions can be conducted efficiently. Moreover, secure methodical project leadership must ensure that the coherence in content and form of the revised terminology collection is maintained, even when the work is divided up. It is therefore important to establish in advance not only working rules but also the information required for each record.

Libraries and documentation centres are particularly valuable sources of information for terminology work. When selecting documents, the following criteria should be borne in mind with regard to the reliability of their terminology:

5.1.2 Libraries and documentation

- a specialist document is generally more reliable than a general one;
- a specialist document in the original language is often more reliable than its translation;

- a report in a technical journal is usually more reliable than an article on the same subject in a weekly or daily newspaper;
- an official normative text is more reliable and, above all, more binding than an official non-normative text;
- a specialist document that relates primarily to the subject field of the concepts to be investigated is more reliable than a specialist document that only deals with the subject in passing;
- specialist authors are most reliable in their mother tongue;
- information is more reliable when it is confirmed by several independent sources.

5.1.3 **Translations**

It is often worth extracting terminology from translations that have been produced in one's own service in order to record usage and thereby achieve some standardisation of the terminology used in the service.

However, this is only worthwhile if the translation has been made under favourable conditions and if it has also been checked. Translators seldom have enough time to make a careful note of sources and other terminological information, with the result that the equivalence of the terminology used

As a general rule, terminologists should be warned against recording terminology extracted from translations without checking it.

in the translation often cannot be verified without further research. Moreover, the quality of the terminology used in a translation is closely connected to its purpose. The translation of a manual for operating expensive production

plant or of a contract should be terminologically more reliable than a text simply for information.

The situation is different in multilingual countries or organisations. The translations of official texts into the official languages that are prepared there are naturally more reliable than translations of similar texts that are produced in a monolingual country for information purposes only. It is also the case that in a multilingual society many people have sufficient command of both the source and target language of the translated texts to be able to guarantee a constant "quality control" of translations.

The most reliable sources are terminological standards and standards dictionaries (cf. Annex II.3) and the “recommendations” of professional organisations, because generally speaking all the bodies working in a specialist area (national and international standards institutions, professional organisations, specialist associations, etc.) are involved.

5.1.4 Authoritative sources

This is true of normative texts generally and the same applies to legislative texts, because it is often not only government bodies that are involved in the legislative process, but also a broad range of other interested parties, often including professional organisations and specialist associations. Moreover, the process, which often has several stages, exercises very strict control over the terminological quality of the texts and their translations. However, since errors occur time and again in this area, for example due to notorious time pressure, legislative texts must not be used uncritically as terminology sources either.

If normative and legislative texts are drawn up in a multilingual procedure, they can serve as reliable multilingual terminology sources in the various working or procedural languages. However, this applies only in the geographical or institutional field of application of the texts, i.e. only insofar as the rules in the different language versions apply to one and the same reality, in other words, only in the country or within the organisation concerned (cf. 5.4).

The method and content of terminology work depend on the purpose and possibilities. A choice must be made between ad hoc research or subject field-related terminology work, depending on whether it is a question of solving a terminology problem in a translation as quickly as possible, or of recording the terminology of a whole subject area. Text-related terminology work lies between the two.

5.2 Terminologi- cal research

Every day translation services have to solve individual terminological problems in the shortest possible time. These usually involve terms, neologisms, technical expressions or official designations that are not in databases and dictionaries, or unconfirmed equivalents of terms.

5.2.1 Ad hoc research

With ad hoc research, it is important to avoid roundabout routes as far as possible, because time is generally short. It is recommended that the following procedure be followed:

- Define the terminology problem carefully (origin of the original text, recipients of the translation, type of text, subject field) so that the research can be focussed.
- Carry out research in the documentation held by the service that is directly related to the subject field.
- If there is no relevant documentation to hand, consult a competent specialist centre that can provide the information itself, recommend relevant documentation or give the name of the “right” expert.
- If the problem has still not been solved, do not hesitate to ask for help from another translation service specialising in the subject field.

In various respects the result of ad hoc research is not always satisfactory. Firstly, it often takes a disproportionate amount of time to research a single technical expression because the context has to be clarified for just one concept and in some cases lengthy documentary research carried out, while neighbouring concepts that are encountered in the course of the research often cannot be recorded or revised for lack of time. The risk of error is also relatively high, as the concept in question cannot always be clearly enough differentiated from similar concepts. For example, the terms for judicial authorities in different countries can only be translated correctly if the whole judicial system is familiar in the source and the target language (cf. 5.4).

Even if for the above reasons the results of ad hoc research are not necessarily entered in a database, they can be useful for later systematic research provided that at least the most important data is also noted. It may be worthwhile creating a working file for such records (cf. also 4.1 and 4.3).

5.2.2 ***Text-related research***

The translation of long specialist texts provides an opportunity to carry out intensive terminology work. This is dependent, however, on the necessary time being available and the text being primarily concerned with one particular subject field or topic. With a more general text that relates to several subject areas the result of terminology work will be no more than a number of ad hoc investigations.

For example, if a text of several dozen pages on the financial problems of the Third World also deals with related questions (prices of exported raw materials, prices of imported industrial goods, effect of oil prices on the industrialised countries, etc.), it is clear that the research in each one of these subject areas can only be superficial and the results may be less reliable than for a text of about the same length which deals exclusively with

the various forms of lending to developing countries. In the second case, the results will be more reliable and more productive because all the basic terminology of the subject area will very probably occur in the text and the terminological analysis will also record the other related concepts. This produces a terminology collection for a limited subject field that is similar to the result of subject-related research.

In fact the terminological analysis of a long text on one subject is often equivalent to a small terminology project. It is therefore worth organising the work accordingly, for example:

- by collecting detailed documentation that can be used for further work later on;
- by contacting competent experts right from the outset and form a working party if necessary.

Subject-related research¹ is the most reliable method because it allows the terminology of all or part of a clearly defined subject area and the relevant concepts as they relate to each other to be set out (concept diagrams; cf. 5.3). In comparison with ad hoc research, subject-related terminology work produces a much higher return for a relatively small amount of extra effort because:

- neighbouring concepts are also recorded and revised with a concept (cf. 5.3.2 ff.);
- preparatory work and familiarisation with the subject field only have to be done once;
- the most effective use is made of the documentation;
- the most efficient use can be made of experts for establishing and checking terms;
- the result is a comprehensive terminology collection of the subject area that can be made available to a wider circle of users in a database or in printed form.

5.2.3 **Subject- related research**

¹ Subject-related terminology work is also referred to as “systematic” or “thematic” terminology work. “Systematic” terminology work means work that is based on a system of concepts drawn up in accordance with the Wüster method (cf. 5.3.3). The concept diagram of “thematic” terminology work is its presentation in concept fields or the subject tree (cf. 5.3.1ff.).

If there is an increase in the number of translations requested in a particular subject field, or if such an increase is expected, a systematic terminological study of this specialist area is definitely worthwhile.

A subject-related investigation is also very useful if it is a question of elaborating the relevant terminology as preliminary work for draft legislation or treaties. This provides a reliable terminological, i.e. special language basis for editing work and later translations, because the up-to-date terminology of the subject area is recorded and described, and at the same time inconsistencies, lack of coherence, and spread – e.g. concept overlaps and variants and synonyms – are identified and corrected, and finally terminological gaps are filled. Clarity about the concepts facilitates and shortens the discussions and prevents unnecessary misunderstandings that impede the work and can often only be resolved with difficulty by carrying out additional research.

5.2.4 Project organisation

Terminology work primarily involves thinking rather than writing. It is therefore important to organise terminology work in the translation service in such a way that it can be done continuously, whenever possible on a daily basis, if it is to produce reliable results. Longer interruptions are detrimental to the work because important subject and concept connections are lost. They are also uneconomic because those responsible have constantly to refamiliarise themselves with the progress of the work and if necessary with special questions of subject or method.

5.2.4.1 Project stage

To achieve the desired result that is satisfactory in terms of quality and reliability, the working methods must match the requirements. Good preparation for a subject-related investigation entails:

- familiarisation with the subject field (reading introductory works);
- clear delimitation and structuring of the subject area (consult experts), so that the research does not digress;
- collection of sufficient documentation (ask experts) - the quality of terminology work is heavily dependent on this;
- finding out whether terminology collections in the subject field already exist, e.g. from other translation or terminology services or professional organisations (avoid duplication of work);

- early formation of a working party comprising language and subject experts.

Only then can the recording and description of terminology begin, and this should also take place in clearly defined stages and in accordance with the proven methods (cf. 4 and 5.4):

- evaluation of source texts (first in one language; cf. also 5.4);
- compilation of monolingual lists of specialised terms and deciding on the concepts to be defined;
- preparation of working files in all working languages (with the minimum data set; cf. 4.1, 4.3 and 5.4); here, particularly in the case of computer-aided work, it is worth keeping the different versions of a working file with the in some cases extensive background information for later stages;
- compilation of definitions and contexts;
- compilation of other terminological and general information (cf. 4.1-4.3);
- checking of the terminology collection by experts;
- final editing of the records and entry into the database.

5.2.4.2 Rational organisation of work

It is a good idea to organise a terminological investigation in stages, each of which should produce a result that can be checked, evaluated and used. When recording and describing terminology, the quality of the working file should already be such that it makes sense to make it available, if only perhaps to a selected, informed circle of users. The various working languages can be incorporated in stages, as can the additional information (definition, context, usage and other notes). In this way the results can be used sooner, which offsets to a certain extent the large amount of time and money spent, and test users can contribute to the further development of the data collection through criticism and by making suggestions. It is normally worthwhile keeping the different versions of the working file so that the sometimes extensive background information is retained for later work.

Terminology work, and in particular subject-related research, should also be divided up into relatively narrowly defined projects and if necessary

sub-projects², so that the tasks do not become too complex and unmanageable. It must be possible to finish each sub-project within a reasonable period and to produce a usable result. Individual, reliable and fully usable sub-sections are gradually incorporated to form a comprehensive whole. Terminology projects on too large a scale run the risk of becoming “endless” projects, and this can dampen the motivation of those involved and eventually hamper the progress of the terminology work altogether.

5.3 **Concept diagrams**

The system-compatible further development of terminology, the terminologically reliable editing of technical texts, as well as the use of terminology in the transfer of knowledge (thesaurus construction) require the vocabulary of the subject field in question to be presented in a way that shows the relations between subjects and concepts. A technical dictionary arranged in alphabetical order, for example, is sufficient as a translation aid, but can never provide the required overview of the range of concepts, even if it contains only the terminology of the subject field concerned.

Relations between concepts can be shown very well in graphic form (a concept diagram)³, provided that this presentation is descriptive and clear. However, as the relations between concepts may be complex, it is not always easy to construct a clear system. There are therefore different types of concept diagrams for terminology: presentation in concept fields or the subject area diagram with tree structure (subject area tree), both of which leave relatively large scope for the arrangement of concepts, and the stricter system of concepts built up hierarchically according to logical relationships.

The aim and purpose of a terminology project must determine whether a concept diagram should be drawn up or not, because it often takes considerable time. It is worth the effort, however, if it is a matter of presenting the vocabulary of a subject field clearly for the editing of a specialised text or for the comparison or standardisation of terminology. There is the added factor that the concept diagram can also be produced in the database, which makes it possible to extract and print technical dictionaries or glossaries constructed in this way at any time (cf. 4.2.1 and 5.3.2).

The usefulness of concept diagrams becomes particularly clear in translation-related multilingual terminology work. By comparing concept fields, subject area diagrams, or systems of concepts, terminological gaps in one or other language can be identified, for example, and reliably filled (cf.

² Good examples of this are terminology work relating to private law with its various subdivisions (such as commercial law, intellectual property and insurance law) or to submarine construction (ship's hull, propulsion, immersion technology, weapons etc.).

³ Cf. Sager, J.C.: *A Practical Course in Terminology Processing*, Amsterdam/Philadelphia, 1990, p. 31, 65

5.4.1). For concept comparison, it is often sufficient to draw up the system of concepts for a particular group of terms, so that synonymy within languages or the equivalence of terms between languages can be clarified with certainty (cf. 5.3.3 and 5.4.1).

Concept diagrams, namely presentation in concept fields and the subject area tree, with the help of concept classification, provide an overview and perspective of the range of concepts in the subject area. Comparison with a conveniently arranged crockery cupboard springs to mind here: here objects with the same or similar function are kept together (crockery for eating; for everyday purposes or special occasions; drinking vessels: cups, glasses: wine glasses, tumblers, etc.); likewise, terms with similar intension are grouped together (cf. example of “parliament” subject area tree: bodies; procedures; motions, votes; cf. 5.3.2). Over and above their classifying function, both these concept diagrams assist with different aspects of terminology work, and in particular with project organisation (division of work and arrangement of progress, compilation of documentation and selection of experts according to subjects; cf. 5.1.1 and 5.2.4.1) as well as with definition, because the “denominators” of the groups of terms are often actual generic concepts.

The presentation of concept relations in concept fields, with its relatively loose structure, is an easier method than the system of concepts, where concepts of very different categories are put into a clear order. If, for example, a subject field includes very diverse (abstract and concrete) objects, which are related in very different ways to each other (function, chronology, type of object, etc.), one should not try to force these into a hierarchical system of relationships (cf. 5.3.3). Such varied relationships are better presented in the thematic relations of concept fields.

5.3.1 Presentation in concept fields

For example, the concept field “Swiss Education” would record the concepts relating to not only the various education systems and levels of schools, types of diploma and titles, but also to the types of teaching, teaching resources and aids, as well as subjects and teaching staff etc., and would show these according to categories or in subject groups. The large number of concepts of very different categories that have to be dealt with in such a project makes it advisable from the outset to give preference to the free arrangement of the concept field over that of the system of concepts, provided the purpose of the terminology work is not standardisation or complete, if necessary multilingual, comparison of terminologies, both of which make particularly high demands on concept arrangement.

Example: Concept field “Swiss Education” (extract: types of school classified according to school level)

EDUCATION

SCHOOL LEVELS

TYPES OF SCHOOL

Pre-school level

*Playgroup
Kindergarten*

Primary level

*Primary school
Intermediate school*

Lower secondary level

*Secondary school
Pre-gymnasium*

Upper secondary level

*Gymnasium
Vocational school
Technical college
Vocational middle school
Diploma middle school*

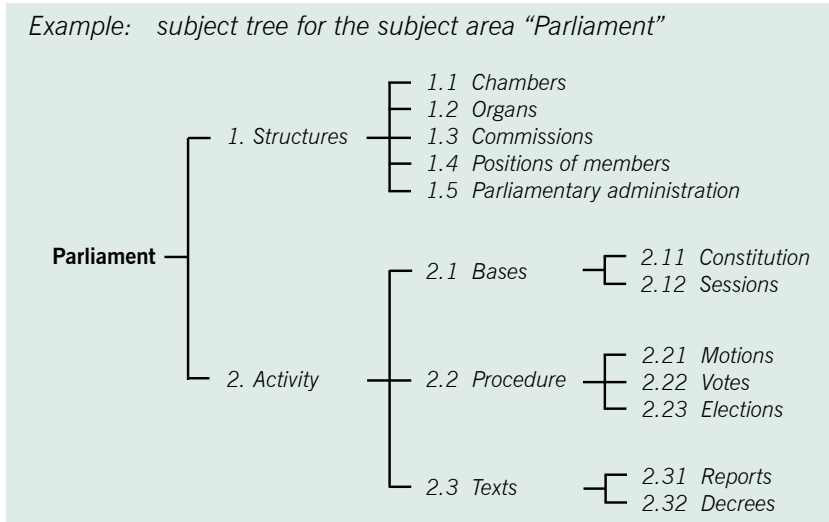
Higher education level

*University
University of applied arts and science
Institute of Technology*

5.3.2 Subject area tree

Closely connected with the presentation of concept relationships in concept fields is the subject area diagram in the form of a tree structure, the subject area tree (FR: arbre du domaine). It arranges all the concepts of the subject area under consideration according to subjects and categories of object that are developed up during familiarisation with the subject area and evaluation of the source texts. The arrangement and thus the concept diagram is in fact obtained by examining or “questioning” (question: WHAT IS IT?) the terms found with regard to the concepts, i.e. the named physical or abstract objects.

Example: subject tree for the subject area "Parliament"



The structure, a concept plan, which is presented in the form of a tree, is obtained from the links, the relevant connections between these subjects and categories. Similar objects are grouped under their subject and if necessary according to categories (cf. below the subject diagram on terminology of the Swiss Federal Assembly). These groups form concept fields and can eventually form the basis for the construction of "small" systems of concepts.

A system of concepts presents the relations between the concepts and serves:

- to enable comparisons to be made of concepts and their terms in a language (e.g. in the analysis of synonymy) or between different languages (analysis of equivalence);
- to form the basis for unifying and standardising terminology;
- to order knowledge.

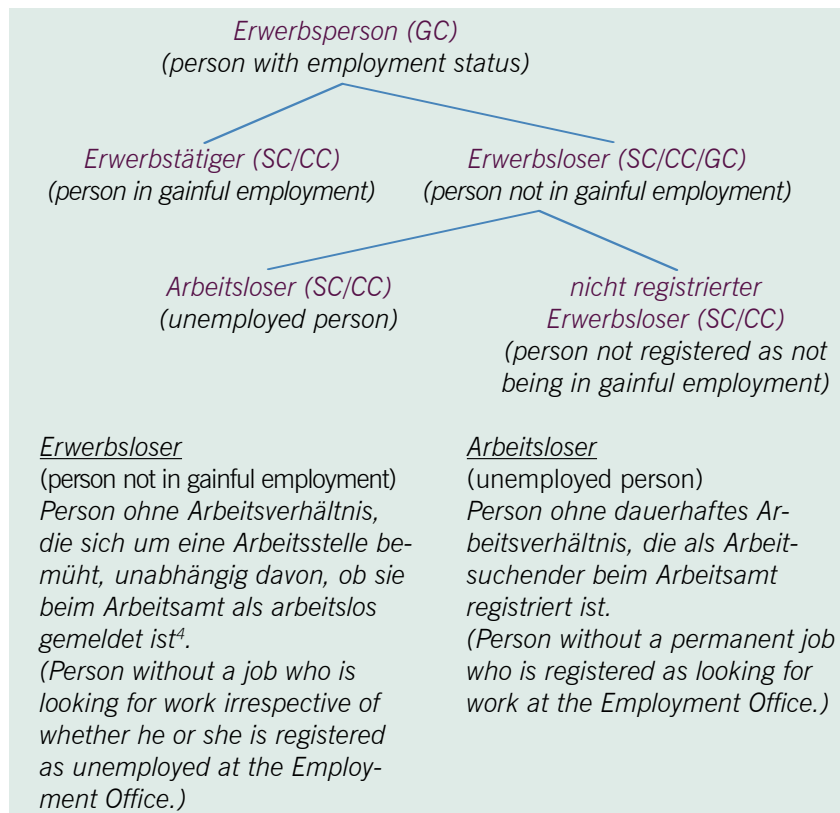
5.3.3 System of concepts

The hierarchical relations between concepts are of particular importance for terminology work. A distinction is made in logical relations between generic concepts (GC), specific concepts (SC) and co-ordinate concepts (CC: concept on the same level with others), and in partitive relations between comprehensive concepts and partitive concepts (whole and part; cf. 2.2.1 and Annex I).

The position of a concept in the system of concepts of abstraction relations is determined by its extension and intension. The larger the intension of a concept (the larger the number of characteristics), the smaller its extension will be (the smaller the number of specific concepts falling under the concept will be). Furthermore, each generic concept (broader concept) may be the specific concept (narrower concept) of a concept on a higher level of abstraction.

The definitions, which delimit and differentiate the concepts from each other by means of their characteristics, which are in turn obtained from the source texts during terminology work, form the basis for the construction of systems of concepts (cf. 2.2.1 and 4.1.4).

This can be illustrated using an example from the field of employment statistics:



As the definitions show, what both concepts have in common is that the persons concerned are without work and are looking for work. The concept

⁴⁾Source: Statistisches Jahrbuch der Bundesrepublik Deutschland, Bonn 1985

“Arbeitsloser” (unemployed person) has the additional limiting characteristic of being registered at the Employment Office as a person looking for work. “Erwerbsloser” is therefore the generic concept and “Arbeitsloser” its specific concept.

Terminology work in several languages makes special demands with regard to language knowledge and also with regard to knowledge of the relevant language realities. However, the particular problems of multilingual, translation-oriented terminology work carry different weight depending on whether the work involves internal texts in the languages of a multilingual country or foreign-language texts in a monolingual country (cf. also 5 and 5.1.3).

5.4 **Multilingual terminology work**

The first prerequisite of reliable multilingual terminology work is to clarify precisely the concepts in one of the working languages, the “source language”⁵. Subject-related research is the best way of doing this (cf. 5.2.3). Secondly, the terms in the other languages, the “target languages”, must be found using original texts in the language concerned.

5.4.1 **Comparison of terminolo- gies**

Finally, comparing the concepts and systems of concepts in the source and target languages provides information on the degree of equivalence of the terms. The primary basis for this comparison is the additional information on the individual concepts, namely the definitions (cf. 5.3.3). It will often be found that concepts do not have equivalents or are not even found in a particular language because they do not exist in the real world of the language area. In this case one can make do with a suggested translation, which must be marked as such in the terminological record.

*Example:*⁶

<i>“Laufbahn” f. (umfasst alle Ämter derselben Fachrichtung, die eine gleiche Vorbildung und Ausbildung voraussetzen)</i>	±	<i>“career structure” (comprises all posts within the same specialist area which require similar education and training)</i>
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⁵In multilingual terminology work, the “source language” is the first language worked with. In fact, it would have to be possible for each of the working languages to be both source and target language. However, this ideal will only occur in certain circumstances (cf. also note on terminology work in multilingual countries and organisations under 5.1.3).

⁶From: Manual of Legal and Administrative Terminology. Public Service Law. Deutsch/Englisch - German/English. Berlin: Heymanns Verlag, 1988, pp.126, 133

<i>“Verwaltungsfachangestellter” > (Berufsbezeichnung eines Ange- stellten, der nach dreijähriger Ausbildung eine Prüfung abgelegt hat)</i>	<i>tp.: “specialist administrative employee” (professional designation of an office employee who has passed an examination following a three- year training period) tp. = translation proposed</i>
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These examples from the field of legislation give a clear indication of the problems that may confront the translator when legal terminology has to be translated into the language of a different legal system. It will not be possible to fill all the gaps by comparing the terminology in the source and target languages because, despite all the similarities, legal systems are too different, even though they are subject to increasing harmonisation nowadays. This applies not only to law, but similarly to many other subject areas that have developed more or less independently in a particular region, or which for other reasons such as tradition, for example, have a strong national or regional character (old crafts and trades, the armed forces, etc.).

The translator will have to decide in such cases whether to concentrate on the similarities and make do with approximate terms in the target language, or whether to coin new terms, based on the terminology in the source language if necessary. The second solution was chosen by the authors of “Einheitliche Übersetzung deutscher Gerichtsbezeichnungen in die englische, französische und spanische Sprache”⁷ who suggested the following French terms for German courts:

<u>German</u>	<u>French</u>
<i>Amtsgericht</i>	<i>Tribunal cantonal</i>
<i>Landgericht</i>	<i>Tribunal régional</i>
<i>Oberlandesgericht</i>	<i>Tribunal régional supérieur</i>
<i>Bundesgerichtshof</i>	<i>Cour fédérale de Justice</i>
<i>Bundesverfassungsgericht</i>	<i>Cour constitutionnelle fédérale</i>

As far as the designations are concerned, this point is made even clearer if we consider the French and German names for courts in Switzerland as a further example. The “Oberlandesgericht” in the canton of Bern, for example, is “Obergericht” in German and “Cour suprême” in French, but in the canton of Fribourg “Kantonsgericht” and “Tribunal cantonal”. The “Amtsgericht” is called “Bezirksgericht” in the canton of Zurich and “Tribunal de

⁷⁾ From: Auswärtiges Amt/Bundesminister der Justiz: “Einheitliche Übersetzung deutscher Gerichtsbezeichnungen in die englische, französische und spanische Sprache”. Bonn, 1974

district” in the canton of Vaud. And finally the highest Swiss court is called “Bundesgericht” or “Tribunal fédéral”.

If new terms are coined to fill terminological gaps, this must be done systematically and in accordance with the rules of the target language (cf. 2.2.2). Experts in the subject field concerned should always be asked to check neologisms.

The raw materials for terminology work are normally specialist texts on a specific subject. Opinions are divided on who best should examine such texts for terminological purposes: someone whose mother tongue is the original language of the text, or someone who translates from this (foreign) language? Increasingly, the prevalent view is that terminological analysis of specialised texts should be carried out by people whose mother tongue is the language of the texts. Since they are particularly well acquainted with this language, they can distinguish between general language (LGP) and LSP with more certainty in difficult cases and can spot problems that foreign speakers may well overlook, for example idiomatic technical expressions or terms whose motivation is unknown or no longer discernible.

5.4.2 ***The mother-tongue principle in terminology***

Examples: “to shut down the system”

Computer: to switch off the operating system

“to lodge an appeal”

Law: to present an appeal formally to the proper authorities

“flag of convenience”

National flag which a ship is allowed to fly, although its home harbour is not in the country in question

“generic medicine”

Medicine that is no longer protected by a patent.

However, anyone who carries out terminological analysis of texts in their mother tongue must be careful not to overlook terms or expressions which, perhaps because they know the language well, may seem to be banal or easy to translate. The needs and difficulties of foreign speakers should therefore always be borne in mind when carrying out the analysis.

Implementation of the mother-tongue principle poses particular practical problems. Of course not every translation service can call on people with the required language knowledge of all the source languages from which it translates. Teamwork and co-operation between translation services within the same company, the same global concern or even different firms and organisations, as well as between specialist centres and translation services often provide excellent opportunities to obtain reliable terminology in the source languages in a rational way. More use should be made of these opportunities.

5.5 The linguistic means of expression of specialist communication includes not only specialised vocabularies and single- and multiple-word terms, but also various expressions that combine terms with other terms or with words from general purpose language: technical expressions and phrases as well as - in a wider sense – standard formulations relating to the special subject. These expressions can be recognised as being typical of a particular subject field by the fact that they are met particularly frequently or even solely in texts on this subject. Taken as a whole, they form its specialised phraseology.

5.5.1 These are combinations of a verb and a noun or a term based on preferred or established usage, where the verb, and possibly also the noun, is often not a specialist term on its own, but only becomes so in conjunction with the other component of the combination.

*Examples: to tighten a screw
to issue shares
to shut down the (operating) system
to institute criminal proceedings
to launder money
to coat a lens*

5.5.2 These too are more or less permanent word combinations, but with a variety of elements (verb, noun, adjective, preposition) and usually consist of no more than three to six words. Through frequent usage they become fixed formal parts of a sentence, which constantly recur in the texts of a particular subject like set pieces.

*Examples: turnover including tax
free of taxes and duties
free on board harbour
construction and equipment of vehicles
to bind by terms and conditions
in good faith*

These include expressions, phrases, whole sentences or even texts, whose wording has been fixed in detail, with the intention of ensuring that the same intensions are always expressed in the same way. Well-known examples of this are the opening and closing forms of words of international agreements (with their translations) and the standard formulations of business contracts, statutory texts, weather forecasts, etc.

5.5.3 Standard formulations

*Examples: "Follow me!" // "Open the door, please!" (air transport)
"Cloudy, wind from the west." (meteorology)
"[...], drawn up in [...] languages, each being equally
authentic [...]." (contract law)*

Specialised phraseology, like terminology, plays an extremely important part in specialist communication. The use of the correct specialised phraseologisms underlines the specialist nature of the texts and translations, creates confidence in the specialist reader, and specialist communication gains in reliability and efficiency. If, for example, the same specialised phraseologisms (technical expressions and phrases) or subject-specific standard formulations occur in several texts on the same subject, the reader/recipient of the message can assume that these express the same intensions.

This consistency of specialised phraseology, within and between languages, is a self-evident requirement for any specialist text and its translations. However, it is specialised phraseology that often causes difficulties in the translation of specialist texts. The quality of each technical translation is therefore measured to a great extent by how well the problems of specialised phraseology are mastered.

For these reasons, when compiling terminology of a subject field, its phraseology should also be recorded. The following considerations may be of help here:

5.5.4 Compiling specialised phraseology

5.5.4.1

The technical expressions and phrases to a major extent form the idiomatic nature of the specialist texts and, of course, also of their translations too. The agreement or disagreement of experts (“yes, we say that”; “no, we don’t say that”) therefore makes it easier to determine whether an expression or phrase belongs to the inventory of expressions of the subject field concerned.

5.5.4.2

Technical expressions and technical phrases differ from multiple-word terms, *inter alia*, due to the fact that the link that exists between their constituent parts is not absolutely fixed in every case. Whether the various elements occur together or not, i.e. whether for example shares are “issued” or “put on the market” depends on the circumstances or conditions of use. The conditions can, for example, be: the subject field, the type of text (legal text, instructions for use, intended readership of the text: experts or a wider public), the employer (company, administration) and the required style.

It seems characteristic for expressions that, outside the specific specialist context (subject field, country, etc.), the verb can be replaced by a synonym.

<i>Examples: <u>Technical expression</u></i>	<i><u>Alternative verbs</u></i>
<i>to institute criminal proceedings</i>	<i>to start, begin</i>
<i>to issue shares</i>	<i>to put/place on the market</i>
<i>to shut down the (operating) system</i>	<i>to switch off, turn off</i>

5.5.4.3

The importance and use of a technical expression or technical phrase necessarily depends on the specialist context; in other words, a specialised phraseologism typically occurs in a particular subject field and belongs to its inventory of expressions (specialised vocabulary in the wider sense).

The following points should be considered when processing specialised phraseology in a data collection:

5.5.5 ***Processing specialised phraseology***

5.5.5.1

Technical expressions and phrases should be recorded in their basic form (singular, infinitive, not inverted). (cf. example 1 below)

5.5.5.2

The record structure must allow,

- both the term and the technical expression or phrase to be recorded (e.g. in the context field; Example 2);
- the correspondence between technical expressions or phrases to be made clearly recognisable in different languages (example 2).

This requirement may make it advisable to make a separate record for each expression or phrase.

5.5.5.3

Standard formulations can be recorded in the context field of the terminological record or in a special record (example 3).

5.5.5.4

Generally there is a reason for technical expressions and phrases – the term or the verb is defined if necessary – and they therefore usually require no further commentary. Nevertheless, it may be useful in addition to the technical expression to give a context that shows linguistic usage or clarifies the technical expression (example 4).

5.5.5.5

The following criteria should be standard for the way in which specialised phraseology is recorded: terminological clarity, easy access, overview.

<i>Example 1:</i>	<i>Technical expression</i>	<i>to trim a ship</i>
	<i>Technical phrase</i>	<i>exchange of official publications and documents</i>
<i>Example 2:</i>	<i>Term DE</i>	<i>Mietzins</i>
	<i>Context</i>	<i>den Mietzins entrichten (a); den Mietzins hinterlegen (b)</i>
	<i>Sources</i>	<i>Verordnung Miete und Pacht, (VE) Art.5 Abs.2, (a) Art.7 Abs.1, (b) Art.8</i>
	<i>Term FR</i>	<i>loyer</i>
	<i>Context</i>	<i>payer le loyer (a) (a); consigner le loyer (b)</i>
	<i>Sources</i>	<i>O Loyer et bail à ferme, (VE) art.5 al.2, (a) art.7 al.1, (b) art.8</i>
	<i>Term IT</i>	<i>pigione</i>
	<i>Context</i>	<i>pagare la pigione (a); depositare la pigione (b)</i>
	<i>Sources</i>	<i>O Locazione e affitto, (VE) art.5 cpv.2, (a) art.7 cpv.1, (b) art.8</i>
	<i>Term EN</i>	<i>rent</i>
	<i>Context</i>	<i>to pay the rent (a); to deposit the rent (with) (b)</i>
<i>Example 3:</i>	<i>Term</i>	<i>stable balance</i>
	<i>Phrase</i>	<i>stable and secure balance</i>
	<i>Standard formulation</i>	<i>establishment of a stable and secure balance of conventional armed forces at lower levels</i>
<i>Example 4:</i>	<i>Technical expression</i>	<i>progressive phasing out</i>
	<i>Context</i>	<i>[...]to consider in a positive spirit the progressive phasing out, for foreign tourists, of minimum exchange requirements</i>

5.6 **Compiling terminology in a new field of knowledge**

Compiling the terminology of a new field of knowledge or research (e.g. neurone architecture for 5th generation computers) is a particularly demanding but at the same time extremely interesting task. However, prospective terminology work of this kind is very time-consuming. It is worth doing, however, if a large amount of translation work is expected in the subject field concerned.

The following recommendations can be made for such terminology work:

The person commissioning the work is the first source of documentation and should be asked to provide texts and other documents. The texts, if they meet academic requirements, will refer to specialist documentation. These references will help to obtain specialist journals and conference reports; headwords will be extracted from already available texts and used to search for further documentation in specialist databases).

5.6.1 ***Collecting documenta- tion***

The specialist documentation obtained will provide references to institutions carrying out research in the new field. The leaders of such projects will generally be interested in the terminology themselves and will therefore be prepared to enter into co-operation. If necessary, they will be able to help find further documentation and they are vital for checking the compiled terminology.

5.6.2 ***Interest spe- cialist bodies***

The specialist documentation should be assessed for its reliability, possibly in conjunction with experts (cf. 5.1.2) and finally the terminology is evaluated (cf. 5.2.4). As there is no new area of research that does not overlap with an existing one, the terminology of this common field, which will usually already be partially collected and documented (in our example in specialist dictionaries on neurology), should be investigated first.

5.6.3 ***First compile a monolin- gual ter- minology collection***

Once sufficient material has been collected (time required: up to six months), the provisional terminology collection can be shown to experts for the first time. They can check that information is factually correct and will suggest changes and additions. Experience has shown that many terms used by experts do not comply with the language rules. Scientists are not usually interested in the details of orthography, and generally they readily accept the terminologist's opinion.

5.6.4 ***Let experts check termi- nology***

Once the basic vocabulary has been compiled (about 500 to 1000 terms, time required up to a year) and revised and completed on the basis of suggestions from experts and further evaluation of documentation, it should again be given to the specialists for checking. A general consensus must now be achieved, and the interested bodies should be written to and asked for their opinions. If they do not agree, the majority view should prevail, but the alternative term should be kept and a comment added.

5.6.5 *Add foreign language terminology to the collection* After a time the new subject field becomes established; the first symposia are held on the subject and the terminology takes root. Now foreign partners (specialist bodies, translation services) should be found with the help of specialists within the country and on the basis of congress reports and further documentation who will be prepared to provide equivalents in other languages or to check the foreign language terminology compiled.

5.6.6 *Make terminology accessible* The “new” terminology should be made available to the widest possible circle of those interested in the field, i.e. either in printed form or via a database or information network.

Additional information, explanations, etc. should be given in the language in which the bulk of the literature was obtained.

For the presentation, a decision will have to be made in favour of alphabetical or “hierarchical” classification, depending on the purpose. Alphabetical classification is sufficient for translation aids; it provides the necessary quick access. For other purposes (editing, development or standardisation of terminology), the terminology must be presented in a subject context (cf. 5.3 ff.). Indexes for each working language can also speed up access in systematic specialist dictionaries.

5.6.7 *Ensure quality* For reasons of quality, two terminologists should always be entrusted with a terminology project of this kind if at all possible.

In order to ensure quality, a terminology collection should also be managed, i.e. checked from time to time as to whether it is up-to-date and factually correct (cf. 5.6).

5.7 *Data and database management* Terminology collections that are not managed grow out of date and become incomplete or incorrect in that the relevant subject area and its inventory of concepts, special language and stock of specialist terms develop or that the terminology of the original source texts changes (in the case of legal texts, e.g. due to revision). In other words,; terminology collections whose management does not keep pace with terminological developments in the relevant specialist subject fields and their specialist literature lose so much in quality over time (currency, reliability) that in the worst case, they become unusable.

Nevertheless, data and database management⁶ is often neglected, mainly because the time and money involved take away from the production of new terminological records and are seen as a loss. The actual loss – namely the reduction in quality of the terminology collection concerned – is easily overlooked or underestimated.

Data and database management is essential for maintaining quality.

Data and database management is an ongoing task and includes not only updating the content of collections, but also supplementing it, removing duplicates, correcting erroneous records, editing the form and adapting information (e.g. to new spelling rules). The essential prerequisites for being able to undertake the task at all are:

- the organisation of the database so that the withdrawal of sub-sets of the database according to topics or subject areas is possible;
- the required planning of the work and making available the necessary work capacities;

5.7.1.1 Updating content

5.7.1 Updating

Revise out-of-date information relating to the terms (definitions, usage notes, information on sources, etc.; cf. 4.1).

Explanatory note:

Terms do not become out of date as such. A term may no longer be used because the concept has declined in use or another meaning is given to a term. However, “out-of-date” terms continue to appear in “old” texts and thus still have to be understood and translated. Therefore, they are not removed from terminology collections or databases, but their description (e.g. definition, usage notes; cf. 4) must be adjusted to the new circumstances. The same should be done in the case of spelling changes, such as those regularly introduced in German and French.

⁶ Data management and database management are different aspects of the same activity and indicate respectively that either individual items of information or information categories, or the data stock or parts of the stock as a whole are being processed.

<i>Example:</i>	<i>Term EN</i>	<i>community of property</i>
	<i>Definition:</i>	<i>Contractual system of marital property according to which the spouses select items from their own property, which are then pooled as common property in the joint ownership of both spouses.</i>
	<i>Notes:</i>	<i>Subject: matrimonial law</i> <i>Usage: previous law</i> <i>Cf.: community property system, marital separation of property</i>
	<i>Sources:</i>	<i>(VE) After Swiss Civil Code, Sixth Title, Section Three, title, (DF) after Art.215ff. (BS 2 40) and Art.225ff. (BS 2 42) as well as Keller, Eherecht, 1973, p.147ff., 158</i>

Only under favourable circumstances (e.g. sufficient staff, connection with subject area, sufficient specialist knowledge, partnership with specialist bodies) is it possible to follow developments in the subject areas (and the fundamental specialist literature) in terminology work and to keep a terminology collection up to date. The more subject areas that are covered by a database, the more difficult it is to meet the requirement of keeping up to date. Co-operation with specialist bodies is therefore extremely important, as they may possibly undertake the continuous updating of terminology collections once they accept them, and they are above all also able to indicate important developments.

5.7.1.2 *Supplementing content*

Add further information such as new synonyms, definitions, contexts or new languages, etc. to terminological records (continue to develop records; (cf. 4.3) or make new records (for other, possibly new concepts)).

Explanatory note:

Supplementing records by adding terminological information and expanding a collection with new records increase the value (quality, reliability) of a terminological data collection, widen the circle of possible users, and thus increase the usefulness of the database.

Additional information also creates confidence, and makes it easier to follow up attributions (synonymity, equivalence), while additional languages widen the potential circle of users and thus the increase the usefulness of a database.

5.7.1.3 Tidying up: removal of multiple records (duplicates)

Remove multiple records by merging or deleting of the relevant records.

Explanatory note:

Duplicates arise when there are two or more records relating to the same concept. They waste time in database interrogation and are therefore quite rightly disliked by users. They also give rise to criticism that could be avoided and which can only damage terminology work. Furthermore, they cause unnecessary extra expense in the preparation of printed technical dictionaries because of the essential weeding they involve. Duplicates should therefore be avoided as far as possible or, failing that, be weeded out as soon as possible, by removing all but one of the records that contain the same concept or by merging them together (merging).

5.7.1.3.1 Merging of multiple records

A distinction must be made between disruptive and harmless duplicates. Double or multiple records are disruptive when they are the same in all sections, i.e. contain entirely corresponding or identical information. This kind of duplicate is particularly irritating because it indicates a repetition of work and a lack of co-ordination and care, and it can quite easily be removed by deletion.

Less disruptive are duplicates which, although documenting the same concept, contain for the most part different, supplementary information or are recorded in different languages. In this case merging is the correct solution.

*Example: **Merging of three records** (examples translated from German)*

EN contract of bailment (1); bailment agreement (2)

DF Contract that obliges the bailee to safeguard chattels given to him by the bailor and to return such chattels to the bailor when requested to do so by the depositor.

RF (1) Creifelds, Rechtswörterbuch, 13/1996, S.1368;(2) FRANKL; (DF) GABLERS LEXIKON DES WIRTSCHAFTS-RECHTS

EN contract of bailment

DF Contract whereby the bailee is obliged to the bailor to take a chattel that the latter entrusts to him into custody and to keep it in a safe place.

RF SACC, Swiss Code of Obligations, Art.472 (SR 220), unofficial translation, 1995

EN contract of bailment (1); bailment (2)

DF Contract whereby the bailee is obliged to the bailor to take a chattel that the latter entrusts to him into custody and to keep it in a safe place.

NT REG: CH; USG: (2) usual short form

RF SACC, Swiss Code of Obligations, Art.472 (SR 220), unofficial translation, 1995

Result of merging:

EN contract of bailment (1); bailment agreement (2); bailment (3)

DF Contract whereby the bailee is obliged to the bailor to take a chattel that the latter entrusts to him into custody and to keep it in a safe place and to return it to the bailor when requested to do so.

PS (1) (3) CH, (1) (2) DE

NT USG: (3) usual short form

RF (1) (3) after SACC, Swiss Code of Obligations, Art.472 para.1 (SR 220), unofficial translation; (2) after Creifelds, Rechtswörterbuch, 13/1996, S.1368; (DF) after source (1)(3) and Gablers Lexikon des Wirtschaftsrechts

Often records do describe the same concept but in different circumstances, e.g. in different subject areas. Thus we find, for example, “Aufsichtsbehörde” (supervisory authority) in almost all areas of administration and law, and in each case this authority has roughly the same or at least a similar role. The same applies to many other legal terms that are recorded, for example, e.g. in thematic terminology works that fully cover a subject area. In this case, one must check whether the records concerned should be merged by recording the concept at a higher abstraction level – specific concepts of the deleted records are included, but not in the original definition. The criterion for the decision on such a procedure is the terminological, concept-based interest in the information concerned at a lower level (e.g. in the intension of the “Auskunftspflicht” (obligation to provide information) in different areas of law; cf. the following example).

Example: Merging of definitions

Duty to provide information

- a) *Duty of the proprietor of a data collection to inform the person affected of the nature of all the data held in the data collection relating to the latter, the purpose and if applicable the legal basis for the processing of the data, as well as of the category of the processed personal data, the persons participating in the processing of the data and the recipients of the data.*

- b) *Duty of the lessor at the time of transfer of the object to provide the new lessee at his request with the report on return for inspection.*
- c) *Duty of each licensee to provide information and to hand over files if circumstances require clarification within the scope of general or channel supervision.*
- d) *Basic duty of general application to provide information to investigation authorities or to a court.*
- e) *Duty of the tax payer to provide information to the tax authorities on all matters that may be of relevance to his liability to pay tax or to the computation of taxable amount or of the tax payable.*

Result of merging:

Definition:

Legal duty of the person affected to provide to the authority or person entitled with truthful information or access to files relating to the facts or circumstances named in the relevant legislation.

5.7.1.3.2 Apparent duplicates

Records that document terms with the same form whose concept characteristics correspond for the most part but not fully, such as occur for example in comparative terminology works in law and administration, are not duplicates. Notable examples are the names of authorities (cf. 5.4.1); but actual legal terms, for example criminal offences, often require a differentiated terminological description (if necessary in separate records), because although they may be termed the same in different countries, they are judged differently as regards their gravity and are therefore punished differently. If these terms are to be used correctly, the terminological records must contain the relevant information (in addition to the definition, above all, indications of region of origin or use and cross-references).

Example: Names of Government Authorities

<i>concept / designation</i>	<i>Germany</i>	<i>Austria</i>	<i>Switzerland</i>
<i>Chamber of parliament representing the federal states</i>	Bundesrat (Federal Council)	Bundesrat (Federal Council)	<i>Ständerat</i> (Council of States)
<i>Government</i>	<i>Bundesregierung</i> (Federal Government)	<i>Bundesregierung</i> (Federal Government)	Bundesrat (Federal Council)
<i>Administrative office of the Government</i>	<i>Bundeskanzleramt</i> (Federal Chancellery)	<i>Bundeskanzleramt</i> (Federal Chancellery)	<i>Bundeskanzlei</i> (Federal Chancellery)

Disregarded here are true homonyms (words with the same form and pronunciation but with different meanings), which must be recorded and described separately according to the terminological rule “a record for each concept”.

Duplicates (double or multiple records) are always being created, partly for understandable reasons, e.g. because different terminology centres combine the results of their terminological work in a joint database and want to have them stored and processed as a whole. If there is subject/topic overlap between these collections, it is highly probable that duplicates will be created in the combination process; the same will occur when, in order to save work, whole collections are taken over without checking for duplication first.

Duplicates can actually be prevented to a great extent if a duplication check is carried out before new records are entered or data collections are incorporated – a job that is well worth the effort.

5.7.1.4 Correction

- *Records containing errors should be corrected.*
- *Spelling errors should be corrected.*

Explanatory note:

Errors in content (= incorrect information) can occur in any category of data or information (term/synonyms/equivalents, definition, usage notes, etc.). They reduce the reliability and thus the quality of the terminology collection or database in question and must be weeded out without exception and as soon as possible (at the next updating).

Spelling errors should if possible be corrected immediately.

5.7.1.5 Adjustment of form

- *Introduce new forms in the editing of records (e.g. in the presentation of sources).*
- *Adjust spelling in accordance with new spelling rules.*

Explanatory note:

Certain matters of form can be changed by automated general correction, while others are extremely time-consuming to adjust. Many are not important enough to justify separate revision of the data stock. In such cases the introduction of new forms (e.g. citation rules for sources) should be undertaken in conjunction with other revision work, e.g. updating the content of a database.

When new spelling rules are introduced, the outdated forms must continue to be stored in the database as spelling variants, because they continue to occur in texts which were written before the spelling reform. Moreover, they enable uninformed users to access the relevant records. A note should make the current correct spelling clear.

*Example: Term DE: Hochseeschiffahrt (1); Hochseeschiffahrt (2)
Notes: Sachgebiet: Transportwesen
Usage: (2) new spelling rules from August 1999
Sources: RF (1) Internat. ÜK Schiffahrt auf Hoher See,
Art.25 Abs.2; (2) author*

5.7.1.6 Restructuring the database

- *Allocate records to other, possibly new subject sub-sets because of close subject affiliation.*

Explanatory note:

In the course of terminology work in a broad specialist area such as law, for example, the subject subdivisions (private law, criminal law, administrative law, or environmental protection, transport, agriculture, etc.) are recorded one after the other. This continually produces new thematic terminology collections. Therefore, it can happen that already existing individual records or groups of records have to be allocated to a newly created sub-section of the database, either because a less detailed subject area structure was used

at an earlier stage of processing and the records were allocated to a more general subject area, or because the subject area to which a term actually belongs was not in use at that time.

Correct subject allocation of records (cf. also 6) is the prerequisite for the coherent presentation of terminologies according to relevant contexts (e.g. in technical dictionaries) and for the withdrawal of thematic sub-stocks for data management. However, this allocation is not always very easy. For example, the names of authorities and organisations can quite correctly be allocated to both a specific subject area and to the superordinate area “authorities and organisations”. In these cases, it is an advantage if the record format allows dual allocations (subject area and topic: customs and authorities, tax law and authorities).

5.7.2 5.7.2.1

Practical considerations

Data and database management is an ongoing task, which is why it requires appropriate organisation. Data management cannot be carried out ad hoc, especially with large databases, but must be organised as projects (cf. 5.2.4) and have its firm place in work schedules.

5.7.2.2

It is absolutely essential that those responsible for terminology draw up an “updating policy”, i.e. determine the priorities and criteria on the basis of which the updating of their data collection/s is to be planned and carried out.

Criteria for planning data and database management may be:

- Importance of the terminology in question (frequent demand, politically topical, legal relevance, particularly important for the company, etc.)
- Importance of the circumstances (importance/extent of innovations in the subject area or of the revision of legal texts or standards: fundamental, specific, general revision, etc.)
- Amount of work (e.g. size of the texts for evaluation) and capacity of the terminology centre
- Availability of experts, etc.

5.7.2.3

A prerequisite for successful database management is the continuous observation of terminological developments in the specialist area and specialist literature. Those responsible for terminology must, with the aid of experts, keep up with these developments in the subject areas that are relevant to the terminology database. This is the only way that it is possible to allow for the necessary updating of the database in good time. Therefore, a responsible person, preferably the person who originally compiled the collection, should be assigned to take on this observation task for each terminology collection.

5.7.2.4

Building up the content of a database is best carried out by revising entire collections and should therefore be organised in the same way as subject terminology work (cf. 5.2.4). It is a good idea to combine it with updating the contents of records that already exist, so that certain work that which would otherwise be done twice can be carried out at one and the same time.

5.7.2.5

Whether a data collection is compiled in one or more languages, it requires little additional time to add further languages. This is particularly true when the records contain the information necessary for concept comparison (especially the definition and subject area).

5.7.2.6

Errors in content or spelling errors should not occur often in reliable terminology work (the records are checked by experts before being entered into the database). They can therefore be corrected ad hoc, and should not be left until revision of the entire relevant collection is carried out.

5.7.2.7

The simplest way of checking the database for duplicates is to draw up subject area-related indexes in alphabetical order in the most important (= best stocked) languages. Duplicates with the same spelling (homographs) can easily be identified in this way, and the majority of genuine duplicates should be picked up (cf. 5.7.1.3.1).

5.7.2.8

The original versions of terminology collections and specialist word lists (with sources) must be maintained. They are important for the documentation of the database and for later expansion. Similarly, it is wise to reduce the risk of data loss during subsequent editing as far as possible by storing a copy of the data collection to be edited.

Whenever updating or correction work is undertaken, general working rules should also be drawn up which specify, for example, what information is to be changed and how, and how the revision is to be documented.

5.7.2.9

Certain additional terminological information is essential for each subsequent revision of a data collection: the subject area, possibly the definition, and in every case the sources with year of publication.

Whenever part of a stock is updated, this should be made clear in the records as with any other revision, for example, by giving the year of editing. This kind of information not only makes data management easier, but also encourages users' interest in the data collection by indicating how up to date it is.

5.7.2.10

The organisation of the database must meet the requirements of data and database management. For example, larger stocks (upwards of several thousand records) must be divided into topics or subject areas that can be edited separately. This is the only way rational database management is possible, since an overview of the subject is vital for this work and large stocks are unwieldy.

It must also be possible to check for duplicates in each subject area, because genuine duplicates refer to the same concept and thus in principle to the same subject area.

5.8 *Computer aided termi- nology work*

Before obtaining computer aids for terminology work, a wide range of issues needs to be clarified. These may differ depending on the professional or organisational background: a self-employed translator, for example, will have fewer standards and requirements to fulfil than a large translation service within a government department or multinational company. For the

independent translator, the ability to operate a terminology management program within a network is of much less importance, whereas network capability is indispensable to the translation service as the basis for teamwork and creating synergies. If the translation service operates a large terminology database, or makes use of EDP-based translation aids, this will also influence the choice of further computer aids for terminology work.

The 1990's saw the introduction of computer equipment at most translators' workplaces. This led firstly to "shoebox" card index files being replaced by bilingual or even multi-lingual terminology lists, often maintained using word-processing systems. Nowadays, a word-processing system with its limited sorting capabilities and search tools is not the ideal aid for the efficient management and proper exploitation of terminology collections, even where the entries contain only the bare minimum of data (cf. 4.6). Moreover, these word lists are often poorly structured and can thus be ruled out for any automatic reprocessing, such as conversion for data exchange.

A notable advance is represented by spreadsheet and information management programs, which are now standard software on virtually all personal computers, representing a considerable advantage for those on a limited budget. These programs allow the processing of larger terminology collections, provide for the definition of a convenient input mask and of a format for entering information that is adapted to specific needs, and permit the efficient management of files. In addition, entering and search processes are much more versatile.

Finally, there are now a wide range of PC programs on the market that have been specially devised for terminology work and for the processing of linguistic data, and that are specifically suited to the technical, organisational and terminological requirements of translation⁹. However, it is often the many and varied advantages of PC capable terminology management programs themselves that lead to frustration, as these often differ in their numerous special features and options. This means that automated data exchange has become more complicated rather than easier. Furthermore, the compatibility of many small databases is reduced rather than improved, as users commonly decide on a wide variety of database and entry structures or because automated translation aids impose formats that are not compatible with those of terminology databases. The increasing efforts of various organisations (ISO, DIN, etc.) to facilitate the exchange of data and terminological cooperation through standard exchange programs are time and again cancelled out by these factors.

5.8.1 ***A wide range of products***

⁹ A comprehensive list of computer aids can be found under the link "Outils / Inventaire terminotique" at <http://www.rifal.org>.

5.8.2 Anyone who wants to use computer aids for terminology work should be advised to have a good look around if they want the first purchase to bring the desired success. Here it is not only the time spent familiarising yourself with the program and adapting it to your needs that has to be kept in check; repeated imports, exports and conversions of data in the collection have also to be avoided and thus the irritation of a senseless waste of time and money.

**Best
possible use
of resources**

A warning must also be given against home-made developments: the range of suitable terminology management programs is so wide that getting involved in trying to develop your own database program makes little sense. The time that can be spent on this – experience shows that it takes a great deal of time, and the amount is often underestimated – would only be justified if the solutions available on the market on close examination all prove to be unsuitable. When considering what is available, the criteria listed below should be taken into account.

5.8.3 Your hardware must of course have the features and capacities recommended by the suppliers and manufacturers of the programs (RAM, processor, hard disk, etc.).

**The most
important
requirements**

The program itself should fulfil the following requirements:¹⁰

- It must be able to be easily integrated into the existing translation desktop, i.e. it must be compatible with the text processing system and any other translation aids. This will spare any costly adaptations.
- It must be network-capable – certainly in the case of a translation service.
- When working on a network, it must be possible to define and manage access rights and rights to enter data in accordance with the responsibilities of those involved, or at least to keep a record of instances of database access and data processing.
- It must be possible for several users to consult the database at any one time. It should however be impossible for more than one person to work on any single entry at the same time.
- The program must be capable of processing and managing an unlimited number of entries.

¹⁰ Cf. also: GTW-Report: Mayer, F.; Schmitz, K.-D. et al: Criteria for the Evaluation of Terminology Management Software, 1996

- Individual data fields (term, synonym, source, etc.) should be unlimited in size or at least so large that the information can be entered in full in the field provided and does not need to be abbreviated, or even accommodated in a different field.
- It must be possible to process a variety of languages, and a specific zone must be reserved for each language. Even if only two working languages are normally used, it may be useful to record equivalents in a third language, e.g. in the language in which the source document was originally written, as is often the case when dealing with international treaties or in information technology or the sciences.
- If the program offers only one fixed entry format, this must allow all the required categories of data (term, synonyms, source, etc.) to be recorded.
- Interrogating the database must be simple, but must be capable of being controlled by means of search criteria, (focussing on subject areas, the usual combinations of words, etc.). Searches based on the full text should also be possible.
- The processing of information should be as easy and user-friendly as with normal text processing programs but also feature the most important functions for terminology work (general correction, inserting blocks of text, etc.).
- The program must be capable of processing the characters used in all the working languages.
- To facilitate the exchange of data, it must be possible to select entries and entire terminology collections according to search criteria and to export and import these in a standard format.
- An automatic check on duplicates should prevent the same term from being recorded more than once when recording terminology or importing data.
- It must be possible to print out the entire data collection or parts thereof in a variety of formats (layout and fonts).

5.8.4 Programs for EDP based terminology work must satisfy numerous test criteria, but there is one requirement that they must all fulfil: they must offer basic conversion capabilities so that terminology collections in different formats that are offered in any data exchange can be imported into the database and saved without difficulty. Unfortunately, too little attention is paid to this compatibility requirement, and this all too often leads to difficulty in data exchange and in terminological cooperation.

What to consider before buying

In order that the time spent on terminology work brings the expected benefits, it is essential to define a clearly structured entry model with clearly defined fields for the various categories of data. This model should offer or permit all the fields and sub-fields that are required to present the information clearly and coherently.

The format of the entry has to be decided before making a purchase. This decision should not however be dictated by the minimum requirements and your current needs (cf. 4.3), but you should instead consider that sooner or later additional information may become necessary that you perhaps record only occasionally at the moment and in a makeshift manner in a field not specifically provided for that purpose – for example, management data that may prove useful, or indeed essential, as soon as the database reaches a certain size (cf. 4.2). If at all possible, you should therefore choose a program with a free structure, because you can then define the entry format to suit your requirements.

In addition, it is extremely worthwhile to obtain as much information as possible before buying anything:

- Discuss your plans with terminology experts. To do this, contact a public or private terminology centre.
- Get information from users of the programs you are considering buying, for example employees of public or private translation services or from user groups, and consult the relevant specialist publications and websites (cf. Annexes II and III).
- Ask for a free demo-version of the program so that you can check its user-friendliness, its suitability for integration in your desktop, its functions and stability.
- Compare the prices of the programs you are considering and remember to factor in the additional costs (installation, training, conversion of your terminology collection, assistance with faults, maintenance, updating policy, etc.).

- If only one specific entry format is available (e.g. only one field for terms and synonyms), make sure that this can be converted into a standard format for the automated exchange of data.
- Do not fall prey to tempting offers of preliminary versions, even if you are promised the installation of a final version free of charge. The desire always to have the latest product, even when this has not been properly tested, can prove expensive.

If you want to use your new computer program efficiently, you should follow these recommendations:

5.8.5

What to do after buying

- Choose an entry format that is compatible with conventional formats. If none of these formats suit your requirements, discuss the situation with experienced colleagues before creating your own solution.
- Consider carefully whether your needs are compatible with the requirements of straightforward cooperation (compatibility, exchange capability, etc.; cf. also 3).
- Always enter the information (term, notes, source, etc.) in the specific field provided.
- Use the setting up of your new terminology database as an opportunity to update the content and form of your existing terminology collection.
- If the transfer of existing terminology collections to the new database proves more difficult than expected, ask for support from your supplier (beware of the cost) or contact a competent terminology service. Such services will be happy to advise you in the spirit of mutual cooperation and to help you with the conversion of data.
- Working in cooperation with a terminology service offers a range of additional advantages (cf. 3) that you can obtain and exploit all the more easily if you bear the following in mind:
 - Do not change the entry structure or format before you have discussed your requirements with the terminology service responsible and confirmed compatibility.
 - If a potential partner uses a complex entry format, this need not be an obstacle to cooperation. Not all fields have to be filled in every case; what is essential is that all the important fields (cf. 4.1) are available.

- The terminology centre on which you rely should be regarded as a partner and not as a competitor.
- Start work immediately after the installation of your new program so that you do not run the risk of forgetting what you learned in the initial phase of use.

5.8.6 ***New developments***

The past few years have seen an exponential growth in the number of terminology extraction programs that are available. The programs on the market fall into two categories: those which use only a statistical procedure to identify term candidates, and those that take account of specific linguistic criteria in accordance with the working language. Only a few of the programs in the second category perform to an acceptable level, with the best of them being able to recognise around 80 per cent of term candidates, dependent on the analysis procedure and the calculation methods used.

The indisputable advantage of such extractors lies in their high processing speed, i.e. these programs can evaluate large documents in a very short space of time. This advantage is countered by the fact that, dependent on the program, complex terms are often not identified or wrongly identified as terms, which means that the results have to be revised and the documents reassessed, which often proves to be time-consuming. On top of this comes the purchase price and the time spent setting up the program. It may also be the case that the results have to be converted before being imported into the terminology collection.

Whether such a program can in fact be used in future will be dependent on what the language service involved wishes to achieve through the terminological evaluation of the texts, on how they organise their work, on the financial and human resources that are available, and above all on the length of the texts that they wish to evaluate and whether these texts are stored in electronic form.

Above all, never forget that computer programs are only an aid and although they are indispensable to today's terminology work, they alone cannot guarantee a good end-result. The decisive factor, as always, is that you have a good command of the methods of terminology work.

Classification

The larger a terminology collection becomes, the more difficult it is to handle and manage and the more complicated it is to find the records stored. It is no longer sufficient to use the alphabet as the sole principle of classification, even for terminological databases that run on powerful computer systems. An appropriate subject classification system (subject key) with corresponding coding (cf. 4.1.3) can help to satisfy the user's need for fast and reliable information.

Subject classification permits the records in the terminology data collection to be collated in sub-files, which are easier to check over and to manage. It therefore not only facilitates and accelerates the interrogation of the database but also serves many purposes in the field of data management:

- updating and revising sub-files
- systematic organisation of the data collection
- production of subject glossaries
- exchange of data in particular subject fields.

Moreover, subject classification helps the user understand the records in the database. He can use the subject field reference on the terminological records (cf. 4.1.3) to distinguish quickly between terms with the same written form (homographs).

Example: "sinus"

Medicine

en "sinus"

cavity in the substance of a bone of the skull that communicates with the nostrils and contains air

fr "sinus"

toute cavité développée à l'intérieur d'un organe ou toute dilatation localisée d'un organe creux

de "Sinus"

taschenartige Ausbuchtungen von Organen und Körperhöhlen

Botany

en "sinus"

opening between the lobes in the blade of a leaf

fr "sinus"

déoupures plus ou moins profondes du limbe des feuilles

6.1 Task of terminology classification

de "Blattbucht"
mehr oder minder tiefer Einschnitt in die Blattspreite

Geometry
en "sine"
trigonometric function
fr "sinus"
fonction trigonométrique
de "Sinus"
Winkelfunktion

A subject classification system must be decided on before work on building up a terminology database begins. Changing the classification system later and revising the coding of large data collections is very labour-intensive and costly. In addition, there is a considerable risk of error if there is not enough time or if the original documents are not available.

What requirements must a subject classification system meet? The first priority is the needs of the user, i.e. the author of the records and the user of the database. The user must find the system easy to use, without special training or detailed instructions. Of course, the structure of a classification system also depends on the degree of specialisation with which the organisation operating the database compiles its subject areas. The greater the specialisation, the more detail the organisation will want to include in the classification of its terminology collections in the appropriate subject fields, because the users will often want to know all the more precisely in which sub-field a term is classified.

Experience shows that as a classification system becomes more detailed, it loses clarity and is consequently harder to use. A predetermined, systematic („logical“) structure facilitates the use of the subject key and the ordering of the data collections quite considerably. The "system" is the guide for both the author of the record when he classifies it and the database user when he retrieves it. It limits freedom but also subjectivity in the classification process and thus helps to prevent errors. Finally, the user will find his way round the classification system more quickly because its systematic structure makes it easier to understand.

Subject classification must also cover the entire range of terminology used by the database operator, without omissions. But as this range can change, it is important for the classification system to be adaptable and expandable.

There are already several classification systems in existence. The best known is the Universal Decimal Classification, which covers every field of knowledge and manifestation of human thought and action. Its disadvantage is that, like many other documentation classification systems, it is too detailed for terminology needs. The large number of digits in the subject code increases the time spent on coding and storing quite considerably. A less detailed classification system should be sufficient for most terminology databases.

6.2 Classification systems

Comparing the LENOCH classification (EURODICAUTOM) with the decimal classification clearly illustrates the difference in the amount of detail:

- LENOCH classification

A mixture of classification and thesaurus.
Used for terminology and documentation.

Subject field: Remuneration
(code: TV5)

wages and salaries - other forms of remuneration - continued wage payment in cases of illness & accident - methods of payment - rewards – types of payment: piece work pay, monthly pay, royalties, tips, etc. – persons with two jobs - pensions – interest payments - retirement pensions

description of
the subject
field
("quasi-
descriptors")

- Universal Decimal Classification

Subject field: Salaries. Wages. Pay. Fees. Gratuities.
(Code: 331.2)

331.21	Wage payment. Wage administration
<u>331.22</u>	Types of wages. <u>Wage systems</u> . Additional pay
331.23	Types and methods of remuneration
331.24	Profit-sharing. Royalties
331.25	Old age pension. Pension. Superannuation. Retirement pay. Half-pay, reservists' pay. Severance pay (compensation when retiring)
331.26	
331.27	Professional remuneration. Fees, e.g. of doctors lawyers, architects, writers, artists

331.28	Wage budget. Organisation of wages
331.29	
<u>331.221</u>	<u>Wage systems</u> . Wage structure. <u>Wage scales</u>
331.222	Index-linked pay
331.223	
331.224	
331.225	Bonus systems. Bonuses. Special payments
331.226	Family allowances
331.227	Special subsidies, e.g. local weighting (UK)
331.228	Wage adjustment funds. Wage compensation funds
<u>331.221.1</u>	<u>Wage systems</u>
331.221.2	Wage increases related to length of service
331.221.3	Wage increases related to performance
331.221.4	Wage reductions related to performance
331.221.5	Wage related to diplomas, qualifications or special capabilities
331.221.11	Pay according to quantity of work done, qualifications of worker and economic significance
<u>331.221.12</u>	Scale contracts
331.221.121	Job evaluation
<u>331.221.122</u>	<u>Wage scales</u>
331.221.123	Wage rates

The terminology classification systems used at present (TERMIUM/BTUM, EURODICAUTOM/LENOCH, LEXIS, etc.) all differ from each other to a greater or lesser degree because they have of course each been devised to meet the particular needs of the organisation operating the database..

However, it is obvious that a common classification system facilitates terminological cooperation, and in particular the exchange of data, because it obviates the need to recode the subject fields, which in certain circumstances can be too time-consuming, if not totally impossible.

A service that is starting to do terminology work is therefore wise to check whether one of the existing terminology classification systems does not meet its needs. Many of the systematic classification systems used today are structured in such a way that they can be adapted to meet new requirements, e.g. for increased detail in a particular subject field.

If several services use a common classification system, it is essential that they make any adjustments together. If one of them goes it alone, there is a

danger that this will make later developments impossible, or the work done will be of no use to the other services because it has not taken account of their needs.

It can often happen, particularly when data is exchanged, that large collections of records are given the same subject code because they all come from, the same collection or database, e.g. records from a collection of customs tariff product descriptions (“cocoa butter”, “hunting rifle”, “anorak”, “oats”, etc.). Data of this kind must be reclassified before being entered according to one’s own subject classification system, if necessary, because later correction of classifications can be very time-consuming. If the collection is not large, it is preferable to classify the records individually.

6.3 **Practical classification problems**

Whoever undertakes the classification of database records must not simply focus on the subject field dealt with in the source document. Each concept must be placed in its real context. A “tractor”, for example, is firstly a “hauling vehicle” and only secondly an “agricultural machine”.

Caution is advised when it comes to multiple classifications. Having too many subject fields diminishes the value of the information and thus the quality of the record. Generally speaking, it should be possible to classify a term with sufficient accuracy by using two or three subject codes.

<i>Example:</i>	<i>Term:</i>	<i>“agricultural tractor”</i>
	<i>Subject fields:</i>	<i>vehicles, machinery agricultural law (if tractors are subject to national or international regulations)</i>

If it is difficult to classify a term accurately because the subject key used does not have a suitable subordinate group, the appropriate superordinate group should be used.

The possibility of homography must always be borne in mind when classifying terms. The French “*céréales*”, for example, in the original meaning of “grain, types of grain”, must now, as a result of a borrowing from the English (“cereals”) be distinguished from “*céréales*” in the sense of oat and corn flakes that are eaten at breakfast.

In the case of metaphors or enigmatic expressions (“eye” [of a hurricane]) the subject field on its own will not be enough to enable the user to identify the concept. In such cases an explanation or definition is essential (cf. 4.1.4).

The classification system must clearly indicate the place of the concept within the entire spectrum of human knowledge and prevent the confusion of homographs (cf. 6.1: “sinus”).

Annex I: Basic Concepts

The explanations given here are based on the corresponding international standards (cf. Annex II.3).

TERM	TERMINUS	TERME	TERMINE
<p>characteristic</p> <p>Feature of a physical or abstract object that is typical of that object and which, in combination with other characteristics, constitutes the concept for the object.</p> <p>➔ <i>Chap. 2.2</i></p>	<p>Begriffsmerkmal</p> <p>Eigenschaft eines konkreten oder abstrakten Gegenstandes, die für diesen charakteristisch ist und zusammen mit anderen Merkmalen den Begriff von dem Gegenstand bildet.</p> <p>➔ <i>Kap. 2.2</i></p>	<p>caractère</p> <p>Propriété d'un objet concret ou abstrait, caractéristique de cet objet et qui, unie à d'autres propriétés, constitue la notion.</p> <p>➔ <i>Chap. 2.2</i></p>	<p>caratteristica</p> <p>Qualità peculiare di un oggetto concreto o astratto che con altre proprietà costituisce il concetto.</p> <p>➔ <i>Cap. 2.2</i></p>
<p>complex term; multiple-word term</p> <p>Term that consists of two or more separately written words.</p> <p>➔ <i>Chap. 2.2.1, 5.5</i></p>	<p>Fachausdruck; Mehrwortterminus</p> <p>Ein Terminus, der aus zwei oder mehr getrennt geschriebenen Wörtern besteht.</p> <p>➔ <i>Kap. 2.2.1 und 5.5</i></p>	<p>terme complexe; pluriterme</p> <p>Terme constitué de deux ou plusieurs mots séparés.</p> <p>➔ <i>Chap. 2.2.1 et 5.5</i></p>	<p>termine complesso</p> <p>Termine costituito da due o più parole.</p> <p>➔ <i>Cap. 2.2.1 e 5.5</i></p>
<p>comprehensive concept; integrative concept</p> <p>Superordinate concept in a partitive relation.</p> <p>➔ <i>Chap. 2.2.1, 5.3.3</i></p>	<p>Verbandsbegriff</p> <p>Übergeordneter Begriff in einer Bestandesbeziehung.</p> <p>➔ <i>Kap. 2.2.1, 5.3.3</i></p>	<p>notion intégrante</p> <p>Notion superordonnée dans une relation partitive.</p> <p>➔ <i>Chap. 2.2.1, 5.3.3</i></p>	<p>concetto comprensivo</p> <p>Concetto superordinato in una relazione partitiva.</p> <p>➔ <i>Cap. 2.2.1, 5.3.3</i></p>
<p>concept</p> <p>Unit of thought that summarises those characteristics that typify physical or abstract objects, and distinguish them from one another.</p> <p>➔ <i>Chap. 2.2 and 5.3</i></p>	<p>Begriff</p> <p>Denkeinheit, die diejenigen Begriffsmerkmale zusammenfasst, welche konkrete oder abstrakte Gegenstände kennzeichnen und voneinander unterscheiden.</p> <p>➔ <i>Kap. 2.2 und 5.3</i></p>	<p>notion; concept</p> <p>Unité de pensée regroupant les caractères qui sont propres à un objet concret ou abstrait et qui délimitent celui-ci par rapport à d'autres objets.</p> <p>➔ <i>Chap. 2.2 et 5.3</i></p>	<p>concetto</p> <p>Unità di pensiero che riassume le caratteristiche, proprie e distintive, di oggetti concreti o astratti.</p> <p>➔ <i>Cap. 2.2 e 5.3</i></p>

<p>concept diagram</p> <p>Graphical presentation of the conceptual structure of a subject area.</p> <p>→ <i>Chap. 5.3</i></p>	<p>Begriffsplan</p> <p>Grafische Darstellung der Begriffsordnung eines Sachgebiets.</p> <p>→ <i>Kap. 5.3</i></p>	<p>schéma notionnel</p> <p>Représentation graphique d'un ensemble structuré des notions d'un domaine.</p> <p>→ <i>Chap. 5.3</i></p>	<p>schema concettuale</p> <p>Rappresentazione grafica dell'ordinamento concettuale di un dominio.</p> <p>→ <i>Cap. 5.3</i></p>
<p>context</p> <p>Text that shows a term in its linguistic environment.</p> <p>→ <i>Chap. 4.1.10</i></p>	<p>Kontext</p> <p>Text, der einen Terminus in seinem sprachlichen Umfeld zeigt.</p> <p>→ <i>Kap. 4.1.10</i></p>	<p>contexte</p> <p>Texte illustrant un terme dans son environnement linguistique.</p> <p>→ <i>Chap. 4.1.10</i></p>	<p>contesto</p> <p>Testo che illustra un termine nel proprio intorno linguistico.</p> <p>→ <i>Cap. 4.1.10</i></p>
<p>co-ordinate concept</p> <p>Concept that is on the same level in the hierarchical concept order (superordinate, subordinate and co-ordinate levels) as another concept.</p> <p>→ <i>Chap. 2.2.1, 4.1.4.1 and 5.3.3</i></p>	<p>Nebenbegriff</p> <p>Begriff, der in der hierarchischen Begriffsordnung (Über-, Unter-, Nebenordnung) mit einem anderen auf der gleichen Stufe steht.</p> <p>→ <i>Kap. 2.2.1, 4.1.4.1 und 5.3.3</i></p>	<p>notion coordonnée</p> <p>Notion qui dans un système hiérarchique (niveaux superordonné, subordonné, coordonné) se situe au même niveau qu'une autre.</p> <p>→ <i>Chap. 2.2.1, 4.1.4.1 et 5.3.3</i></p>	<p>concetto coordinato</p> <p>Concetto che nell'ambito di un ordinamento concettuale gerarchico (livello superordinato, subordinato, coordinato), si situa allo stesso livello di un altro.</p> <p>→ <i>Cap. 2.2.1, 4.1.4.1 e 5.3.3</i></p>
<p>definition</p> <p>Statement that describes a concept by naming its characteristics (intensional definition) or its specific concepts or parts (extensional definition) and which distinguishes it from neighbouring concepts.</p> <p>→ <i>Chap. 2.2.1, 4.1.4 and 5.3</i></p>	<p>Definition; Begriffsumschreibung</p> <p>Aussage über den Begriff, die diesen durch Nennung seiner Merkmale (Inhaltsdefinition) oder seiner Unterbegriffe bzw. Teile (Umfangsdefinition) bestimmt und gegen seine Nachbarbegriffe abgrenzt.</p> <p>→ <i>Kap. 2.2.1, 4.1.4 und 5.3</i></p>	<p>définition</p> <p>Énoncé qui sert d'une part à décrire une notion par ses caractères (définition par compréhension) ou par l'énumération exhaustive de ses spécifiques ou des objets qu'elle englobe, et d'autre part à différencier celle-ci des notions voisines.</p> <p>→ <i>Chap. 2.2.1, 4.1.4 et 5.3</i></p>	<p>definizione</p> <p>Enunciato che descrive un concetto enumerandone le caratteristiche (definizione per comprensione), i concetti subordinati o i concetti partitivi (definizione per estensione) e lo delimita rispetto ad altri concetti vicini.</p> <p>→ <i>Cap. 2.2.1, 4.1.4 e 5.3</i></p>
<p>extension (of the concept)</p> <p>Set of all concepts that are contained within a generic concept.</p> <p>→ <i>Chap. 4.1.8, 5.3.3</i></p>	<p>Begriffsumfang</p> <p>Gesamtheit der Begriffe, die in einem übergeordneten Begriff enthalten sind.</p> <p>→ <i>Kap. 4.1.8, 5.3.3</i></p>	<p>extension (d'une notion)</p> <p>Ensemble des notions incluses dans une notion superordonnée.</p> <p>→ <i>Chap. 4.1.8, 5.3.3</i></p>	<p>estensione (concettuale)</p> <p>Insieme di tutti i concetti compresi in un concetto superordinato.</p> <p>→ <i>Cap. 4.1.8, 5.3.3</i></p>

<p>generic concept</p> <p>Concept that in a generic (logical) relation between concepts is on an immediately higher level to another concept, and which incorporates that other concept.</p> <p>➔ Chap. 2.2.1, 4.1.4.1 and 5.3.3</p>	<p>Oberbegriff</p> <p>Begriff, der in der logischen (generischen) Begriffsbeziehung einem anderen unmittelbar übergeordnet ist und diesen einschließt.</p> <p>➔ Kap. 2.2.1, 4.1.4.1 und 5.3.3</p>	<p>notion générique</p> <p>Notion qui dans une relation générique se situe au dessus d'une autre, et par le fait même l'englobe.</p> <p>➔ Chap. 2.2.1, 4.1.4.1 et 5.3.3</p>	<p>concetto generico</p> <p>Concetto che nell'ambito di una <i>relazione generica</i> si situa ad un livello superiore rispetto ad un altro concetto che quindi racchiude.</p> <p>➔ Cap. 2.2.1, 4.1.4.1 e 5.3.3</p>
<p>generic relation; logical relation</p> <p>Relation between concepts in which the concept on the higher hierarchical (generic) level incorporates the subordinate (specific) concept, which is defined by additional specific characteristics.</p> <p>➔ Chap. 2.2.1</p>	<p>logische Begriffsbeziehung; generische Begriffsbeziehung</p> <p>Begriffsbeziehung, in der der übergeordnete (dem Umfang nach weitere) Begriff den durch zusätzliche Merkmale spezifizierten, untergeordneten (engeren) Begriff einschließt.</p> <p>➔ Kap. 2.2.1</p>	<p>relation générique</p> <p>Relation qui existe entre deux notions lorsque l'une, à compréhension plus large (le générique), englobe l'autre (le spécifique), plus restreinte et dotée de caractères propres.</p> <p>➔ Chap. 2.2.1</p>	<p>relazione generica; relazione genere-specie</p> <p>Relazione nella quale il concetto subordinato (con un'estensione più ampia) racchiude il concetto subordinato avente ulteriori caratteristiche (concetto specifico).</p> <p>➔ Cap. 2.2.1</p>
<p>intension (of the concept)</p> <p>Set of characteristics that make up a concept.</p> <p>➔ Chap. 2.2</p>	<p>Begriffsinhalt</p> <p>Gesamtheit der Begriffsmerkmale, die einen Begriff ausmachen.</p> <p>➔ Kap. 2.2</p>	<p>compréhension (d'une notion)</p> <p>Ensemble de caractères qui constituent une notion.</p> <p>➔ Chap. 2.2</p>	<p>comprensione (concettuale)</p> <p>Insieme di tutte le caratteristiche di un concetto.</p> <p>➔ Cap. 2.2</p>
<p>language for special purposes (LSP)</p> <p>Typical language of a subject field, characterised primarily by special vocabulary and occasionally by peculiarities in sentence construction and spelling.</p> <p>➔ Chap. 2.2, 5.5</p>	<p>Fachsprache</p> <p>Die typische Sprache eines Fachgebiets, die sich vor allem durch ihren besonderen Wortschatz und allenfalls durch Besonderheiten in Satzbau und Orthographie auszeichnet.</p> <p>➔ Kap. 2.2, 5.5</p>	<p>langue de spécialité</p> <p>Langue propre à un domaine de spécialité qui se distingue avant tout par son vocabulaire spécifique et à l'occasion par des particularités de syntaxe et d'orthographe.</p> <p>➔ Chap. 2.2, 5.5</p>	<p>linguaggio speciale</p> <p>Linguaggio tipico di un dominio caratterizzato da un vocabolario speciale e da eventuali particolarità sintattiche e ortografiche.</p> <p>➔ Cap. 2.2, 5.5</p>

<p>partitive concept</p> <p>Subordinate concept in a partitive relation.</p> <p>➔ <i>Chap. 5.3.3</i></p>	<p>Teilbegriff</p> <p>Untergeordneter Begriff in einer Bestandesbeziehung.</p> <p>➔ <i>Kap. 2.2.1, 5.3.3</i></p>	<p>notion partitive</p> <p>Notion subordonnée dans une relation partitive.</p> <p>➔ <i>Chap. 2.2.1, 5.3.3</i></p>	<p>concetto partitivo</p> <p>Concetto subordinato in una relazione partitiva.</p> <p>➔ <i>Cap. 2.2.1, 5.3.3</i></p>
<p>partitive relation</p> <p>Hierarchical relationship between the superior comprehensive concept (whole) and its subordinate partitive concepts (parts).</p> <p>➔ <i>Chap. 2.2.1, 5.3.3</i></p>	<p>Bestandesbeziehung; Ganzes-Teil-Beziehung</p> <p>Hierarchische Beziehung zwischen dem übergeordneten Verbandsbegriff (Ganzes) und seinen untergeordneten Teilbegriffen (Teile).</p> <p>➔ <i>Kap. 2.2.1, 5.3.3</i></p>	<p>relation partitive ; relation partie-tout</p> <p>Relation hiérarchique entre une notion superordonnée représentant un tout et des notions subordonnées constituant les parties de ce tout.</p> <p>➔ <i>Chap. 2.2.1, 5.3.3</i></p>	<p>relazione partitiva; relazione parte-tutto</p> <p>Relazione gerarchica tra il concetto comprensivo superordinato (tutto) e relativi concetti partitivi subordinati (parti).</p> <p>➔ <i>Cap. 2.2.1 e 5.3.3</i></p>
<p>relation between concepts</p> <p>Relationship between concepts that is based on their shared characteristics.</p> <p>➔ <i>Chap. 2.2 and 5.3</i></p>	<p>Begriffsbeziehung</p> <p>Beziehung zwischen Begriffen, die auf deren gemeinsamen Begriffsmerkmalen beruht.</p> <p>➔ <i>Kap. 2.2 und 5.3</i></p>	<p>relation entre notions</p> <p>Relation qu'entretiennent entre elles des notions par le biais de caractères communs.</p> <p>➔ <i>Chap. 2.2 et 5.3</i></p>	<p>relazione concettuale</p> <p>Relazione tra concetti basata sulle loro caratteristiche comuni.</p> <p>➔ <i>Cap. 2.2 e 5.3</i></p>
<p>short form; abbreviated term</p> <p>Shortened form of a term.</p> <p>➔ <i>Chap. 4.1.6</i></p>	<p>Kurzform</p> <p>Gekürzte Form der Benennung.</p> <p>➔ <i>Kap. 4.1.6</i></p>	<p>terme abrégé</p> <p>Forme écourtée d'un terme.</p> <p>➔ <i>Chap. 4.1.6</i></p>	<p>termine abbreviato</p> <p>Forma abbreviata di un termine.</p> <p>➔ <i>Cap. 4.1.6</i></p>
<p>specific concept</p> <p>Concept that in a generic (logical) relation between concepts is on an immediately lower level to another concept, and which is incorporated in that other concept.</p> <p>➔ <i>Chap. 2.2.1, 4.1.4.1 and 5.3.3</i></p>	<p>Unterbegriff</p> <p>Begriff, der in der logischen (generischen) Begriffsbeziehung einem anderen unmittelbar untergeordnet und in diesem enthalten ist.</p> <p>➔ <i>Kap. 2.2.1, 4.1.4.1 und 5.3.3</i></p>	<p>notion spécifique</p> <p>Notion qui dans une relation générique se situe au dessous d'une autre, et par le fait même est contenue dans celle-ci.</p> <p>➔ <i>Chap. 2.2.1, 4.1.4.1 et 5.3.3</i></p>	<p>concetto specifico</p> <p>Concetto che nell'ambito di una relazione generica si situa ad un livello inferiore rispetto ad un altro ed è quindi racchiuso da quest'ultimo.</p> <p>➔ <i>Cap. 2.2.1, 4.1.4.1 e 5.3.3</i></p>

<p>subject field</p> <p>Set of all physical and abstract objects that are to be found in an especially close relationship with each other due to the special purpose that determines their use.</p> <p>→ <i>Chap. 2.2.1</i></p>	<p>Fachgebiet; Sachgebiet</p> <p>Gesamtheit der konkreten und abstrakten Gegenstände, die aufgrund des besonderen fachlichen Zwecks, der die Beschäftigung mit ihnen bestimmt, zueinander in einer besonders engen Beziehung stehen.</p> <p>→ <i>Kap. 2.2.1</i></p>	<p>domaine; domaine de spécialité</p> <p>Ensemble des objets concrets et abstraits qui entretiennent entre eux des liens étroits en raison de l'utilisation spécialisée qui en est faite.</p> <p>→ <i>Chap. 2.2.1</i></p>	<p>dominio</p> <p>Insieme di tutti gli oggetti concreti o astratti in stretta relazione reciproca in ragione dell'uso specialistico che ne è fatto.</p> <p>→ <i>Cap. 2.2.1</i></p>
<p>subject tree</p> <p>Graphical presentation in the form of a tree that shows the grouping of concepts according to their functional relations.</p> <p>→ <i>Chap. 5.3.2</i></p>	<p>Sachgebietsbaum</p> <p>Grafische Darstellung in Baumstruktur, welche die Gruppierung der Begriffe nach sachlichen Zusammenhängen zeigt.</p> <p>→ <i>Kap. 5.3.2</i></p>	<p>arbre de domaine</p> <p>Schéma sous forme d'arborescence illustrant le regroupement fonctionnel des notions entre elles.</p> <p>→ <i>Chap. 5.3.2</i></p>	<p>albero del dominio</p> <p>Schema arborescente che illustra il raggruppamento funzionale dei concetti.</p> <p>→ <i>Cap. 5.3.2</i></p>
<p>subordinate concept</p> <p>Concept that is on a lower level in the hierarchical concept order (superordinate, subordinate and coordinate levels) than another concept, i.e. that is contained in the other concept.</p> <p>→ <i>Chap. 2.2.1, 4.1.4.1 and 5.3.3</i></p>	<p>untergeordneter Begriff</p> <p>Begriff, der in der hierarchischen Begriffsordnung (Über-, Unter-, Nebenordnung) einem anderen untergeordnet, d.h. in diesem enthalten ist.</p> <p>→ <i>Kap. 2.2.1, 4.1.4.1 und 5.3.3</i></p>	<p>notion subordonnée</p> <p>Notion qui dans un système hiérarchique (niveaux superordonné, subordonné, coordonné) se situe au dessous d'une autre, et par le fait même est contenue dans celle-ci.</p> <p>→ <i>Chap. 2.2.1, 4.1.4.1 et 5.3.3</i></p>	<p>concetto subordinato</p> <p>Concetto che nell'ambito di un ordinamento concettuale gerarchico (livello superordinato, subordinato, coordinato), si situa ad un livello inferiore rispetto ad un altro ed è quindi racchiuso da quest'ultimo.</p> <p>→ <i>Cap. 2.2.1</i></p>
<p>superordinate concept</p> <p>Concept that is on a higher level in the hierarchical concept order (superordinate, subordinate and coordinate levels) than another concept, i.e. that incorporates the other concept.</p> <p>→ <i>Chap. 2.2.1, 4.1.4.1 and 5.3.3</i></p>	<p>übergeordneter Begriff</p> <p>Begriff, der in der hierarchischen Begriffsordnung (Über-, Unter-, Nebenordnung) einem anderen Begriff übergeordnet ist, d.h. diesen einschliesst.</p> <p>→ <i>Kap. 2.2.1, 4.1.4.1 und 5.3.3</i></p>	<p>notion superordonnée</p> <p>Notion qui dans un système hiérarchique (niveaux superordonné, subordonné, coordonné) se situe au dessus d'une autre, et par le fait même l'englobe.</p> <p>→ <i>Chap. 2.2.1, 4.1.4.1 et 5.3.3</i></p>	<p>concetto superordinato</p> <p>Concetto che nell'ambito di un ordinamento concettuale gerarchico (livello superordinato, subordinato, coordinato) si situa ad un livello superiore rispetto ad un altro concetto che quindi racchiude.</p> <p>→ <i>Cap. 2.2.1, 4.1.4.1 e 5.3.3</i></p>

<p>synonym</p> <p>Term that denotes the same concept as another term.</p> <p>➔ <i>Chap. 4.1.5</i></p>	<p>Synonym</p> <p>Benennung, die denselben Begriff bezeichnet wie eine andere Benennung.</p> <p>➔ <i>Kap. 4.1.5</i></p>	<p>synonyme</p> <p>Terme désignant la même notion qu'un autre terme.</p> <p>➔ <i>Chap. 4.1.5</i></p>	<p>sinonimo</p> <p>Termini che, con un altro, designa lo stesso concetto.</p> <p>➔ <i>Cap. 4.1.5</i></p>
<p>system of concepts</p> <p>Graphical presentation of the conceptual structure of a subject area that shows the hierarchical relations between the concepts.</p> <p>➔ <i>Chap. 5.3.3</i></p>	<p>Begriffssystem</p> <p>Grafische Darstellung der Begriffsordnung eines Sachgebiets, welche die hierarchischen Beziehungen zwischen den Begriffen zeigt.</p> <p>➔ <i>Kap. 5.3.3</i></p>	<p>système de notions</p> <p>Représentation graphique des relations hiérarchiques existant entre les notions d'un domaine.</p> <p>➔ <i>Chap. 5.3.3</i></p>	<p>sistema concettuale</p> <p>Rappresentazione grafica dell'ordinamento concettuale di un dominio che evidenzia le relazioni gerarchiche tra i concetti.</p> <p>➔ <i>Cap. 5.3.3</i></p>
<p>technical expression</p> <p>Specialised expression, normally fixed, that consists of a number of words.</p> <p>➔ <i>Chap. 2.2.1, 5.5</i></p>	<p>Fachwendung; fachsprachliche Wendung</p> <p>Fachausdruck, der aus mehreren, festgefügten Worten besteht.</p> <p>➔ <i>Kap. 2.2.1, 5.5</i></p>	<p>collocation; co-occurrence; locution technique</p> <p>Expression spécialisée, généralement figée, composée de plusieurs éléments.</p> <p>➔ <i>Chap. 2.2.1, 5.5</i></p>	<p>collocazione; locuzione tecnica</p> <p>Espressione specialistica consacrata, composta da vari elementi.</p> <p>➔ <i>Cap. 2.2.1, 5.5</i></p>
<p>term</p> <p>Single- or multiple-word expression that denotes a specialised concept.</p> <p>➔ <i>Chap. 2.2.1</i></p>	<p>Benennung; Fachwort; Terminus</p> <p>Ein- oder Mehrwortausdruck, der einen fachlichen Begriff bezeichnet. (s. auch Terminus).</p> <p>➔ <i>Kap. 2.2.1</i></p>	<p>terme; dénomination</p> <p>Unité linguistique, simple ou complexe, qui désigne une notion spécialisée.</p> <p><i>L'utilisation de "dénomination" est peu courante en français</i></p> <p>➔ <i>Chap. 2.2.1</i></p>	<p>termine; designazione</p> <p>Unità linguistica semplice o complessa che rappresenta un concetto speciale.</p> <p><i>"Designazione" è meno usuale.</i></p> <p>➔ <i>Cap. 2.2.1</i></p>
<p>terminology</p> <p>Specialised vocabulary of a subject field, in a broader sense including the terminological work, teachings and research as well.</p> <p>➔ <i>Chap. 2</i></p>	<p>Terminologie</p> <p>Gesamtbestand des spezifischen Wortschatzes eines Fachgebiets, im weiteren Sinn auch die Terminologiearbeit, -lehre und -forschung.</p> <p>➔ <i>Kap. 2</i></p>	<p>terminologie</p> <p>Ensemble des termes propres à un domaine; au sens large désigne également la pratique, la théorie et la recherche terminologiques.</p> <p>➔ <i>Chap. 2</i></p>	<p>terminologia</p> <p>Insieme dei termini propri di un dominio; in senso lato, anche attività, teoria e ricerca terminologica.</p> <p>➔ <i>Cap. 2</i></p>

Annex II: Bibliography

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II.3 Standards

- ➔ National standards and translations of ISO standards can be obtained from the national standards organisations (cf. Annex III.4).

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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 - 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)
ISO 10241:1992	Preparation and layout of international terminology standards
ISO 12199:2000(E)	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/TR 12618:1994	Computer aids in terminology - Creation and use of terminological databases and text corpora

ISO 12620:1999 Computer applications in terminology - Data categories

Standards in preparation:

DIS 639-1 Code for the representation of names of languages
-Part 1: Alpha-2 code (Rev. of ISO 639)

PWI 12200-Amd 1 Computer applications in terminology - Machine-readable terminology interchange format (MARTIF)
- Amendment 1: Extended MARTIF (including a normative Annex H to ISO 12200)

WD 12615 Bibliographic references for terminology work

DIS 12616.2 Translation-oriented terminography

AWI 12618 Computer applications in terminology - Design, implementation and use of terminology management systems (Rev. of ISO/TR 12618)

FDIS 15188 Project management guidelines for terminology standardization

FDIS 16642 Computer applications in terminology – Terminological mark-up framework ((TMF)

With annexes:

Representation format for terminological data collections - MARTIF-compatible with specified constraints (MSC)

Generic model (GENETER) for SGML-based representations of terminological data

Annex III: Useful Internet Addresses



III.1 Terminology Organisations

ACATERM
ASSOCIACIÓ CATALANA DE TERMINOLOGIA
<http://www.acaterm.org>
secretaria@acaterm.org

AETER
ASOCIACIÓN ESPAÑOLA DE TERMINOLOGÍA
http://efyn.insde.es/AETER/indice_AETER.htm

AIT
ASSOCIAÇÃO DE INFORMAÇÃO TERMINOLÓGICA
PORTUGAL
<http://www.unilat.org/dtil/etis/actasTDCnet/correia.htm>

APLL
ACADEMY OF PERSIAN LANGUAGE AND LITERATURE,
IRAN
<http://www.irib.com/ads.academy/academy-left.htm>

ASCR
THE CZECH LANGUAGE INSTITUTE,
SECTION FOR LEXICOGRAPHY AND TERMINOLOGY
<http://www.cas.cz/en/UJC.html>
ujc@cas.cz

ASS.I.TERM.
ASSOCIAZIONE ITALIANA PER LA TERMINOLOGIA
<http://web.tiscali.it/assiterm91>
assiterm@www.isrds.rm.cnr.it

BRASILTERM
c/o INSTITUTO BRASILEIRO DE INFORMAÇÃO
EM CIÊNCIA E TECNOLOGIA
<http://www.ibict.br>

TRANSLATION BUREAU
PUBLIC WORKS AND GOVERNMENT
SERVICES CANADA
<http://www.bureaudelatraduction.gc.ca>
bureau@tpsgc.gc.ca



CANOLFAN SAFONI TERMAU
CENTRE FOR THE STANDARDIZATION OF WELSH TERMINOLOGY
<http://weblife.bangor.ac.uk/addysg/courses/cst.html>
welsh-termau-cymraeg@mailbase.ac.uk

CGTN
COMMISSION GÉNÉRALE DE TERMINOLOGIE ET DE NÉOLOGIE
DÉLÉGATION GÉNÉRALE À LA LANGUE FRANÇAISE ET
AUX LANGUES DE FRANCE
<http://www.culture.fr/culture/dglf/dispositif-enrichissement.htm>

CNT
CENTRUL NATIONAL DE TERMINOLOGIE, MOLDOVA
<http://www.iatp.md/cnt/index1.htm>
termrom@mednet.md

COLTERM
RED COLOMBIANA DE TERMINOLOGÍA
http://www.unilat.org/dtil/fr/reseauxnational_colterm.htm

COMPUTERM
SWISS LANGUAGE SERVICES
ACTIVE IN THE TERMINOLOGY SECTOR
Donatella.Pulitano@sta.be.ch

CSTT
COMMISSION OF SCIENTIFIC AND TECHNICAL TERMINOLOGY, INDIA
<http://cstt.nic.in>

DANTERMCENTRET
DANISH CENTRE FOR TERMINOLOGY
<http://www.danterm.dk>
danterm@cbs.dk

DEUTERM
DEUTSCHES INFORMATIONS- UND DOKUMENTATIONSZENTRUM FÜR
TERMINOLOGIE
(GERMAN TERMINOLOGY INFORMATION CENTER)
<http://www.iim.fh-koeln.de/iim/deuterm.html>
deuterm@fh-koeln.de



DTT
DEUTSCHER TERMINOLOGIE-TAG
<http://www.dttev.org>

EAFT/AET
EUROPEAN ASSOCIATION FOR TERMINOLOGY
c/o UNION LATINE
<http://www.eaft-aet.net>
eaft_aet@unilat.org

ELETO
HELLENIC SOCIETY FOR TERMINOLOGY, GREECE
<http://sfr.ee.teiath.gr/Orogramma.htm>
valeonti@mail.otenet.gr

ELRA
EUROPEAN LANGUAGE RESOURCES ASSOCIATION
<http://www.elDA.FR>
elra@hsholland.nl

ETER
EESTI TERMINOLOOGIA ÜHING, ESTLAND
<http://www.eter.ee>
eter@eter.ee

GALICISKA TERMINOLOGIORGANISATIONEN
SERVICIO DE TERMINOLOXÍA GALEGA
<http://www.usc.es/~snlus/snl.htm>
snlxusto@lugo.usc.es

GTW
ASSOCIATION FOR TERMINOLOGY AND
KNOWLEDGE TRANSFER
<http://gtw-org.uibk.ac.at/>

IBL
INSTITUTE FOR BULGARIAN LANGUAGE
BULGARIAN TERMINOLOGY GROUP
<http://www.cl.bas.bg/directory/humanies/ibl.htm>
jumb@ibl.acad.bg

IERA
INSTITUT D'ETUDES ET DE RECHERCHES POUR L'ARABISATION
<http://www.emi.ac.ma/univ-MdV/IERA/iera.html>



INSTITUTE OF LITHUANIAN LANGUAGE
DEPARTMENT OF TERMINOLOGY
<http://www.mch.mii.lt/>
henrikas@delfi.lt

ÍSLENSK MÁLNEFND
THE ICELANDIC LANGUAGE INSTITUTE
aripk@ismal.hi.is

KORTERM
KOREA TERMINOLOGY RESEARCH CENTER
<http://korterm.or.kr>
korterm@korterm.kaist.ac.kr

NEDERLANDSE TAALUNIE
<http://www.taalunie.org>
secr@ntu.nl

NL-TERM
VERENIGING VOOR NEDERLANDSTALIGE TERMINOLOGIE
<http://www.nlterm.org/home.htm>

OFFICE QUÉBÉCOIS DE LA LANGUE FRANÇAISE
<http://www.oqlf.gouv.qc.ca/>
webmestre@oqlf.gouv.qc.ca

PARATERM
LA COMISIÓN PARAGUAYA DE TERMINOLOGÍA
http://www.unilat.org/dtil/es/redes_nat_paraterm.htm

SFT
LA SOCIÉTÉ FRANÇAISE DE TERMINOLOGIE
<http://www.laterminologie.net>
terminologie@wanadoo.fr

TAHK
TERMINOLOGY ASSOCIATION OF HONG KONG
CTHKTERM@cityu.edu.hk

TERMAR
GRUPO ARGENTINO DE TERMINOLOGIA
<http://www.iula.upf.es/cpt/cpti22es.htm>



TERMBRET
KREIZENN DERMENADUREZH
CENTRE DE TERMINOLOGIE
OFFICE DE LA LANGUE BRETONNE
<http://www.ofis-bzh.org/pages/fr/termfr.htm>
terbret.ofisr.bzh@wanadoo.fr

TERMCAT
ORGANISME DE COORDINACIÓ DE LES ACTIVITATS
TERMINOLÒGIQUES EN LLENGUA CATALANA
<http://www.termcat.es>
informacio@termcat.es

TERMIP
ASSOCIAÇÃO DE TERMINOLOGIA PORTUGUESA
<http://www.fcsh.unl.pt/termip/>
termip@fcsh.unl.pt

TERMISTI
CENTRE DE RECHERCHE EN TERMINOLOGIE, BRUXELLES
<http://www.termisti.refer.org>
termisti@euronet.be

TERMROM BUCAREST
ASSOCIATION ROUMAINE DE TERMINOLOGIE
c/o UNION LATINE
[http://www.unilat.org/dtil/it/redes_nat_
tbucarest.asp](http://www.unilat.org/dtil/it/redes_nat_tbucarest.asp)

TERMROM MOLDAVA
ASSOCIATION DE TERMINOLOGIE
<http://www.moldnet.md>
termrom@moldnet.md

NC
TEKNISKA NOMENKLATUR CENTRALEN
SWEDISH CENTRE FOR TECHNICAL TERMINOLOGY
<http://www.tnc.se/>
tnc@tnc.se



TSK
TEKNIIKAN SANASTOKESKUS
CENTRALEN FÖR TEKNISK TERMINOLOGI
FINNISH CENTRE FOR TECHNICAL TERMINOLOGY
<http://www.tsk.fi>
tsk@tsk.fi

T&TC
TULKOSANAS UN TERMINOLOGIJAS CENTRS
LATVIAN TRANSLATION AND TERMINOLOGY CENTRE, LETTLAND
<http://www.ttc.lv>
ttc@ttc.lv

UNIVERSITY OF SURREY
http://www.surrey.ac.uk/LIS/Terminology/surrey_sites.htm
K.Ahmad@mcs.surrey.ac.uk

URUTERM
SUB COMISIÓN URUGUAYA DE TERMINOLOGÍA PARA EL MERCOSUR
http://www.mec.gub.uy/arch_geral/URUTERM.HTM
uruterm@internet.com.uy

UZEI
TERMINOLOGIA ETA LEXIKOGRAFIKO ZENTROA
CENTRE BASQUE DE TERMINOLOGIE ET LEXICOGRAPHIE
<http://www.uzei.com>
uzei@uzei.com

VENTERM
ASOCIACIÓN VENEZOLANA DE TERMINOLOGÍA
<http://www.venterm.org.ve/>
venterm@venterm.org.ve

VNIIKI
ALL-RUSSIAN RESEARCH INSTITUTE FOR CLASSIFICATION, TERMI-
NOLOGY AND INFORMATION ON STANDARDIZATION AND QUALITY
http://www.vniiki.ru:8080/English/gic_eng.asp



III.2 Networks

ALETERM

RED TEMÁTICA DE DOCENCIA EN TERMINOLOGÍA ARGENTINA /
BRASIL / COLOMBIA / ESPAÑA
<http://www.iula.upf.es/aleterm>

COTSOES / CST / CEOV / KÜDES

CONFERENCE OF TRANSLATION SERVICES
OF EUROPEAN STATES
WORKING PARTY ON TERMINOLOGY AND DOCUMENTATION
<http://www.cotsoes.org>

EAFTERM

EAST ASIA FORUM ON TERMINOLOGY
<http://www.eafterm.org>
eafterm@eafterm.org

ETIS

EUROPEAN TERMINOLOGICAL INFORMATION SERVER
<http://www.etis.info>

IBEROLENGUAS

FORO LINGÜÍSTICO IBEROAMERICANO
http://www.iberolenguas.com/termi_esp.htm
iberolenguas@iberolenguas.com

INFOTERM

INTERNATIONAL INFORMATION CENTRE FOR TERMINOLOGY
<http://www.infoterm.org>
infopoint@infoterm.org

JIAMCATT

UNITED NATIONS ORGANIZATIONS' JOINT INTER-AGENCY MEETING
ON COMPUTER-ASSISTED TRANSLATION AND TERMINOLOGY
<http://jiamcatt.unsystem.org/english/jiamcate.htm>

LINMITER

TERMINOLOGIES DES LANGUES LATINES MINORITAIRES
<http://www.linmiter.net>

NORDTERM

THE NORDIC COUNTRIES' ASSOCIATION FOR TERMINOLOGY WORK
<http://www.tsk.fi/nordterm/en.html>
webmaster@tsk.fi



RADT
RAT FÜR DEUTSCHSPRACHIGE TERMINOLOGIE
<http://radt.uibk.ac.at/index.html>

REALITER
RÉSEAUX PANLATIN DE TERMINOLOGIE
c/o UNION LATINE
<http://www.portalingua.info>

RIFAL
RÉSEAU INTERNATIONAL FRANCOPHONE
D'AMÉNAGEMENT LINGUISTIQUE
<http://www.rifal.org>
rifal@olf.gouv.qc.ca

RITERM
RED IBERO-AMERICANA DE TERMINOLOGÍA
c/o UNIONE LATINA
<http://www.riterm.net>
riterm@unilat.org

RTT
RÅDET FOR TEKNISK TERMINOLOGI
NORWEGIAN CENTRE FOR TECHNICAL TERMINOLOGY
<http://www.rtt.org/>
rtt@rtt.org.

TDCNET CONSORTIUM
EUROPEAN NETWORK OF TERMINOLOGY INFORMATION
AND DOCUMENTATION CENTRES
<http://www.tdcnet.net>

TERMILAT
LISTE ÉLECTRONIQUE DE DISCUSSION ET D'ÉCHANGE
D'INFORMATIONS SUR LA TERMINOLOGIE ET
LES INDUSTRIES DE LA LANGUE
c/o UNION LATINE
<http://www.termilat.info>
termilat@unilat.org

TERMINOLOGY FORUM
UNIVERSITY OF VAASA
<http://www.uwasa.fi/comm/termino/>



TERMNET INTERNATIONAL NETWORK FOR TERMINOLOGY
c/o INFOTERM
<http://linux.infoterm.org/termnet-e/i-term.htm>
termnet@termnet.at

UNION LATINE
DIRECTION TERMINOLOGIE ET
INDUSTRIE DE LA LANGUE (DTIL)
<http://www.unilat.org/dtil>
dtil@unilat.org

III.3 Terminology Databases

BALNÉO
BASES DES NÉOLOGISMES DE LA LANGUE FRANÇAISE
<http://www.uhb.fr/langues/Craie/balneo/balneo.pl>

BLUTERM
ACCADEMIA EUROPEA BOLZANO
<http://www2.eurac.edu:4711>

CRITER
DÉLÉGATION GÉNÉRALE À LA LANGUE FRANÇAISE
ET AUX LANGUES DE FRANCE
<http://www.culture.gouv.fr/culture/dgjf>

EUROVOC
MULTILINGUAL THESAURUS OF THE
EUROPEAN COMMUNITIES
<http://europa.eu.int/celex/eurovoc>

EURYDICE
INFORMATION NETWORK ON EDUCATION IN EUROPE
<http://www.eurydice.org>

EURODICAUTOM
EUROPEAN TERMINOLOGY DATABASE
EUROPEAN COMMISSION LUXEMBOURG
<http://europa.eu.int/eurodicautom/login.jsp>



EUSKALTERM
BASQUE PUBLIC TERM BANK
http://www1.euskadi.net/euskalterm/indice_i.htm

FAO TERM
FOOD AND AGRICULTURAL ORGANISATION (FAO)
<http://www.fao.org/faoterm/main-e.htm>

LE GRAND DICTIONNAIRE TERMINOLOGIQUE
OFFICE QUÉBÉCOIS DE LA LANGUE FRANÇAISE
http://www.granddictionnaire.com/_fs_global_01.htm

IBEROTERM
IBEROLENGUAS. FORO LINGÜÍSTICO IBEROAMERICANO
<http://www.iberolenguas.com/form1.asp>

ILOTERM
INTERNATIONAL LABOR ORGANISATION (ILO)
<http://ilis.ilo.org/ilis/ilisterm/ilintrte.html>

IMF TERMINOLOGY
INTERNATIONAL MONETARY FOUND
<http://www.imf.org/external/np/term/index.asp>

THE ICELANDIC WORD BANK
ÍSLENSK MÁLSTÖÐS TERMBANK
<http://www.ismal.hi.is/ob/birta/?vinnumal=EN>

NORSK TERMBANK
BERGEN UNIVERSITY
<http://www.hit.uib.no/nt/homepg.htm>

TEPA
THE FINNISH CENTRE
FOR TECHNICAL TERMINOLOGY (TSK)
<http://www.tsk.fi/tepa/>
TERM BAZAAR
UNIVERSITY OF SURREY
http://www.computing.surrey.ac.uk/ai/cgi-bin/term_bazaar

TERMCELT
TERMINOLOGY DATABASES FOR CELTIC LANGUAGES
<http://www.jjscmail.ac.uk/lists/TERMCELT.html>



TERMCOL
TIMISOARA POLYTECHNIC UNIVERSITY, ROMANIA [http://
www.ceft.utt.ro/Termcol/termcol.html](http://www.ceft.utt.ro/Termcol/termcol.html)

TERMDAT
SWISS FEDERAL ADMINISTRATION
<http://www.admin.ch/ch/i/bk/termdat>

TERMINOBANQUE
MINISTÈRE DE LA COMMUNAUTÉ FRANÇAISE
DE BELGIQUE
SERVICE DE LA LANGUE FRANÇAISE
<http://www.cfwb.be/franca/bd/bd.htm>

TERMINOLOGY DATABANK
INSTITUT FÜR TRANSLATIONSWISSENSCHAFT
UNIVERSITÄT INNSBRUCK
<http://starwww.uibk.ac.at/dolm/termdb.html>

THE TERMINOLOGY DATABASE
HUNGARIAN MINISTRY OF JUSTICE
<http://www.eujogszab.hu/default.asp>

TERMITE
INTERNATIONAL TELECOMMUNICATION UNION (ITU)
<http://www.itu.int/terminology/index.html>

TERMIUM
PUBLIC WORKS AND GOVERNMENT
SERVICES CANADA
<http://www.termium.com/site>

TERMROM
CONSULTAREA BAZEI DE DATE TERMINOLOGICE
ASSOCIAZIONE ROMENA DI TERMINOLOGIA
<http://www.cimec.ro/tr>

VINTARS-2
UNITED NATIONS OFFICE AT VIENNA
<http://vintars.unvienna.org>

WHO TERMINOLOGY
WORLD HEALTH ORGANIZATION
<http://www.who.int/terminology/ter/>



YOURDICTIONARY
THE GLOBAL LANGUAGE RESOURCE
<http://www.yourdictionary.com/about.html>

III.4 Standards Organisations

ISO
INTERNATIONAL ORGANISATION FOR STANDARDISATION
[http://www.iso.ch/iso/en/
central@iso.org](http://www.iso.ch/iso/en/central@iso.org)

ISO TC 37
TECHNICAL COMMITTEE: TERMINOLOGY AND OTHER LANGUAGE
RESOURCES
C/O INFOTERM
<http://linux.infoterm.org/iso-e/i-iso.htm>
infoterm@infoterm.org

National and international organisations:

The member organisations of the ISO can be accessed
at the following address:

<http://www.iso.ch/iso/en/aboutiso/isomembers/index.html>