International Standard



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Documentation — Guidelines for the establishment and development of multilingual thesauri

Documentation - Principes directeurs pour l'établissement et le développement de thesaurus multilingues

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Foreword

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Documentation – Guidelines for the establishment and development of multilingual thesauri

0 Introduction

A trend towards the international exchange of information, fully supported by the UNISIST* programme of UNESCO, and exemplified by systems like the International information system for the agricultural sciences and technology (AGRIS) and the International Nuclear Information System (INIS), clearly calls for a higher commitment to multilingual cooperation. Information systems are expanding across language boundaries, leading to a notable increase in the provision of indexing and retrieval tools which are either language-independent (the Broad System of Ordering), or multilingual. Aids of this kind are essential if retrieval of documents indexed in more than one language is not to depend on the acquisition and use of a single, dominant language. Indexers or searchers should, where possible, be able to work in their mother tongues, or at least in a language with which they are already familiar. Within this context it is considered that multilingual thesauri have a significant part to play in improving the bibliographic control of literature on a global scale.

The standardization of procedures for the construction of a multilingual thesaurus is seen as a primary step in achieving compatibility between thesauri produced by indexing agencies using terms selected from different natural languages. The recording of these procedures will also enable indexers engaged in this task to benefit from the experience of others, and to work in a logical and consistent fashion, using recommended practices which have been established in the course of discussions at an international level.

ISO 5964:1985

1 Scope and field of trapplicationeh.ai/catalog/standards/sist/e66447f9-6893-46f2-ad93-

0a6701e81dd4/iso-5964-1985

1.1 The guidelines given in this International Standard should be used in conjunction with ISO 2788, and regarded as an extension of the scope of the monolingual guidelines. It is considered that the majority of procedures and recommendations contained in ISO 2788 are equally valid for a multilingual thesaurus. This applies particularly to general procedures concerning, for example, the forms of terms, the basic thesaural relationships, and management operations such as evaluation and maintenance. Except when it appears to be necessary, the procedures described in ISO 2788 are not repeated here, and it is therefore essential to refer to both of these International Standards when constructing a multilingual thesaurus.

1.2 These guidelines are restricted in scope to the problems of multilingualism which can arise during the construction of a "conventional" thesaurus, i.e. a thesaurus displaying terms selected from more than one natural language, these terms then constituting the vocabulary of a controlled indexing language. Throughout this International Standard, a distinction is made between *preferred terms* and *non-preferred terms* (see definitions in clause 3). These guidelines are not applicable to indexing languages in which concepts are expressed entirely as symbols (for example mathematical equations or chemical formulae), nor to systems which are based on the automatic analysis and searching of free text. It is considered, however, that a well-constructed multilingual thesaurus can play a significant part in improving retrieval from a free-text system which covers documents in more than one language.

1.3 Multilingual thesauri are relatively recent developments in the field of documentation, and it is inevitable, therefore, that the present guidelines should display certain limitations.

a) The examples used to illustrate problems encountered in the establishment of term equivalences have been drawn largely from the fields of science (including the social sciences) and technology. As far as possible, however, examples were chosen which illustrate general problems and procedures, i.e. those which should apply in any field of knowledge.

b) It is realized that the procedures described in these guidelines may not be entirely appropriate for all languages. The examples have been selected, for entirely pragmatic reasons, from three of the major languages, i.e. English, French and German, but this does not imply that these languages are regarded as dominant in the field of documentation. As far as possible the procedures considered here, together with their accompanying examples, relate to problems which may be encountered in any language.

^{*} Intergovernmental programme for co-operation in the field of scientific and technological information.

2 References

ISO/R 639, Symbols for languages, countries and authorities.

ISO 1086, Documentation - Title-leaves of a book.

ISO 2788, Documentation – Guidelines for the establishment and development of monolingual thesauri.

3 Definitions

For the purposes of this International Standard, the following definitions apply:

3.1 coined term: A neologism especially created in a target language to express a concept which is denoted by an existing and recognized term in a source language, but which has not previously been expressed in the target language.

3.2 compound term: An indexing term (see 3.8) which can be factored morphologically into separate components, each of which could be expressed, or re-expressed, as a noun that is capable of serving independently as an indexing term.

NOTE - The parts of the great majority of compound terms can be distinguished as follows:

a) the focus or head, i.e. the noun component which identifies the general class of concepts to which the term as a whole refers;

b) the **difference** or **modifier**, i.e. one or more further components which serve to narrow the extension of the focus by specifying one of its subclasses.

In French, English and similar languages, compound terms usually consist of separate words, whereas the same concept would frequently be expressed by a single word in German and some other languages.

Examples:

a)	English SYSTEMS ANALYSIS	https://standards.itelperformen Systemanalysist/e6644719-6893-4612-ad93- 0a6701e81dd4/iso-5964-1985
b)	French PONT EN BÉTON	German = BETONBRÜCKE

In example (a) the English word "analysis" and the German component "analyse" both represent foci, and the modifying differences are represented by "systems" (English) and "system" (German). Despite these surface structural differences, however, the terms "systems analysis" and "Systemanalyse" are both regarded as compound terms for the purposes of this International Standard.

3.3 dominant language: An exchange language (see 3.5) which is also used for indexing and retrieval in systems which, for policy reasons, do not give equal status to all the languages in the system. Every concept recognized in the system must necessarily be represented by a preferred term in the dominant language. In some cases, however, an equivalent expression may be lacking in one more of the other languages. These other languages are then known as *secondary languages*.

3.4 equal status: Languages in a multilingual thesaurus have equal status when every preferred term in one language is matched by an equivalent preferred term in all other languages.

3.5 exchange language: The language used as a medium for data exchange in those multilingual systems which, as a matter of policy, decide to use terms selected from only one language for this purpose. The exchange language may also be used for indexing and/or retrieval, and the multilingual thesaurus then functions principally as a means for translating the local languages of indexers and enquirers into, or out of, the exchange language. The different languages in such a system would still be recognized as having equal status (see 3.4) if equivalents are established reciprocally between the preferred terms in the exchange language and the preferred terms in all other languages.

3.6 feedback: The act of changing the form or structure of a term in a source language in order to achieve an easier or a more useful solution to a problem encountered in a target language.

Example: Let us assume that a German thesaurus is used as a source language and contains the term "Lehrerbildungsgesetz". Direct translation of this term into English or French would call for a complicated paraphrase, "Law of education of teachers", or "Loi sur la formation des enseignants". Neither of these phrases would be regarded as a satisfactory indexing term. A shorter expression, which is closer to the German construction, can be achieved in English, i.e. "Teacher education law", but this cannot be done in French.

Feedback would operate if, in response to these problems, the original German compound term is factored into its separate components, each expressed as a noun, i.e. "Bildung", "Gesetz" and "Lehrer", and if these are henceforth accepted as indexing terms in German and assigned to documents dealing with this subject. Translation into English and French could then be carried out on this new and simpler basis, i.e.

Gesetz	=	Law	=	Loi
Lehrer	=	Teachers	=	Enseignant
Bildung	=	Education	=	Formation

The German compound term "Lehrerbildungsgesertz" may still be retained in the German thesaurus if it is likely to be sought by users, but its status would be changed to that of a non-preferred term, and the user would be redirected to the combination of separate nouns which represents this complex concept, for example:

Lehrerbildungsgesetz BS LEHRER + BILDUNG + GESETZ

3.7 indexing language: A controlled set of terms selected from natural language and used to represent, in summary form, the subjects of documents.

NOTE — In a post-coordinate system these terms are used as "keywords" for retrieval purposes, usually without attempting to indicate their syntactical relationships. Syntactical relationships can be indicated in various ways in a pre-coordinated index, for example by printing terms in entries in an order which suggests their relative roles, and so allows the user to perceive the subject as a whole. Despite these differences, however, both kinds of system can be based on controlled vocabularies of terms displayed and organized in a thesaurus.

3.8 indexing term: The representation of a concept, preferably in the form of a noun or noun phrase.

NOTE — An indexing term can consist of more than one word, and is then known as a *compound term* (see 3.2). In a controlled indexing vocabulary, a term is designated either as a *preferred term* or as a *non-preferred term*.

3.9 preferred term: A term used consistently when indexing to represent a given concept; sometimes known as "descriptor".

3.10 non-preferred term: The synonym or quasi-synonym of a preferred term. A non-preferred term is not assigned to documents, but is provided as an entry point in a thesaurus or alphabetical index, the user being directed by an instruction (for example USE or SEE) to the appropriate preferred term; sometimes known as "non-descriptor".

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3.11 Ioan term: A term in one language (the)source language) which has been adopted without change in a second (or target) language.

Example:

German (source language)		English (target language)
KINDERGARTEN	=	KINDERGARTENS

3.12 multilingual thesaurus: A thesaurus (see 3.16) containing terms selected from more than one natural language. It displays not only the interrelationships between terms, but also equivalent terms in each of the languages covered.

3.13 secondary language: See definition of *dominant language* (3.3).

3.14 source language (SL): That language which serves as a starting point when a preferred term is translated into its nearest equivalent term or terms in a second (or target) language.

3.15 target language (TL): The language into which a term first encountered in another language (the source language, see 3.14) is translated.

3.16 thesaurus: The vocabulary of a controlled *indexing language* (see 3.7), formally organized so that the *a priori* relationships between concepts (for example as "broader" and "narrower") are made explicit.

4 General

No significance should be attached to the order in which terms in the various languages are set down in the examples, nor does the use of terms such as *source language* and *target language* imply that one or the other of these languages is dominant. The order of languages used in the examples, and the designation of one language as "source" and another as "target", varies from example to example, and depends upon the problem being illustrated. Where an appropriate order is not determined on technical grounds, alphabetical order (English, French, German) has been used. See definitions of source and target languages in 3.14 and 3.15.

5 Abbreviations and symbols

5.1 The abbreviations in table 1 have been used in later clauses to indicate relationships between terms.

	Appended to terms in English		Appended to terms in French		Appended to terms in German
BT:	Broader term	TG:	Terme générique	OB:	Oberbegriff
NT:	Narrower term	TS:	Terme spécifique	UB:	Unterbegriff
RT:	Related term	VA:	Voir aussi	VB:	Verwandter Begriff
USE:	Use	EM:	Employer	BS:	Benutze
UF:	Use for	EP:	Employé pour	BF:	Benutzt für
SN:	Scope note	NE:	Note explicative	D:	Definition

Table 1 —	Abbreviations
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Similar abbreviations either exist already, or can be devised, in other languages, or a multilingual thesaurus can employ the neutral or language-independent system of symbols developed by ISO (see annex A).

5.2 The following symbols and conventions are also used throughout the following clauses of this International Standard:

a) preferred terms are printed in upper case throughout:

Example¹⁾:

,			
English DOGS	French = CHIEN	German = HUND	
b) non-preferred terms ation or acronym which	are printed in lower case, with an upper cas should be printed throughout in upper cas	se initial, except when the non-preferred ter	m is an abbrevi-
Examples:			
	<u>ISO 5964</u>	<u>:1985</u>	
English ANIMALS UF Fauna	https://standards.iteh.ai/catalog/standard 0a6701e81dd4/is	ls/sist/e66447f9-6893-46f2-ad93- o-5964-1985	
Fauna USE ANIMALS			
French RÉSONANCE MAGNÉ EP RMN	ÉTIQUE NUCLÉAIRE		
RMN EM RÉSONANCE MA	AGNÉTIQUE NUCLÉAIRE		
c) = indicates an equiv	valence between terms in two languages:		
Example:			
English POLITICS	French = POLITIQUE	German = POLITIK	

d) ? indicates that an equivalent does not exist in the language under which the question mark is printed:

Example:

English		French
LATCHKEY CHILDREN	=	?

¹⁾ See 11.1.3 for an explanation of the use of the plural form in English, and the singular forms in French and German, in this and later examples.

6 Vocabulary control

6.1 Two principal means for achieving vocabulary control are employed in thesauri:

a) terms are deliberately restricted in scope to selected meanings. Unlike the terms in a dictionary, which may be accompanied by a number of different definitions reflecting common usage, each term in a thesaurus is generally restricted to whichever single meaning best serves the needs of an indexing system. The structure of a thesaurus, notably its display of hierarchical relationships, frequently indicates the intended meaning of a term. If this technique is not sufficiently explicit, a definition or scope note should be appended to the term. This should state the chosen meaning, and may also indicate other meanings which are recognized in natural language but which have been deliberately excluded for indexing purposes;

b) when the same concept can be expressed by two or more synonyms, one of these terms is usually selected as the preferred term (see 3.9) which is then used consistently in indexing. Reference to the preferred term should be made from any synonym which might also function as a user's access point. To assist the user of a printed thesaurus, it is recommended that preferred terms should be distinguished typographically from non-preferred terms.

6.2 Vocabulary control is also achieved through the application of rules or policies which determine, for example, the form of a term, for example its expression as a singular or plural, or the extent to which a compound term (see 3.2) should be either retained in its present form or factored into separate components, each of which is then expressed as a noun and used independently as an indexing term. These and other aspects of vocabulary control apply to all kinds of thesauri, whether monolingual or multilingual, and they are considered in greater detail in ISO 2788.

7 The establishment of a multilingual thesaurus: general problems

7.1 The establishment of any thesaurus, whether monolingual or multilingual, involves two different classes of problem which call for decisions: (standards.iteh.ai)

a) management problems concerning, for example, the establishment of an updating policy, or the choice between alternative forms of display, etc.; ISO 5964:1985

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b) language problems which call for decisions on matters such as the forms of indexing terms (for example their representation as plurals or singulars), or the status of terms (i.e. preferred or non-preferred).

These general problems can usually be resolved by studying and choosing between the different recommended procedures described in a set of standard guidelines. Since these matters are covered already in ISO 2788, they will not be reconsidered here in detail.

7.2 The makers of a multilingual thesaurus face two additional kinds of problem which do not occur in monolingual work:

a) management problems, which call for decisions on, for example, the relative status of languages (i.e. the designation of a given language as the exchange language, the dominant language, or a secondary language), or the choice of a starting point for the work (for example translation of an existing thesaurus as opposed to *ab initio* construction);

b) language problems which call for the choice of an appropriate procedure when a term in one language expresses a concept which cannot be represented by an exactly equivalent term in one or more of the other languages.

7.3 These special problems associated with multilingual thesauri can be seen as extensions of the general problems considered in 7.1. The matter of status, for example, arises first as a general problem (i.e. the status of a term as "preferred" or "non-preferred"), and then re-occurs as a multilingual problem (i.e. the relative status of each language). The establishment of a multilingual thesaurus is, however, more complicated than this simple division of problems into two classes appears to indicate, due to the fact that some management decisions will directly affect the choice of procedures available to the indexer who is concerned with language problems. The possible extent of this interaction between two different classes of problem can be demonstrated by assuming, for example, that the editors of a new multilingual thesaurus have decided, as a matter of policy, to impose the following conditions:

a) the new multilingual thesaurus should be a translated version of an existing monolingual thesaurus;

b) the language of this source thesaurus should have the status of the exchange language;

c) feedback to this source thesaurus (see 3.6) is not allowed: that is to say, none of its terms or logical structure can be modified in response to linguistic or conceptual problems encountered in the other languages.

Faced by this range of management decisions, the task of the specialists responsible for adding the second or subsequent languages will certainly become very difficult, and in some cases it may be impossible to achieve satisfactory solutions.

7.4 It could be argued that standard guidelines should, for the sake of completeness, take account of all these factors. That is to say, if a term in one language cannot be matched by an exactly equivalent term in another language, an "ideal" standard should review the various ways in which this problem could be approached, it should set these down in an order of preference with adequate explanations and examples, and it should then go on to consider how each of these alternative approaches might be affected by the presence of certain management decisions (for example "feedback" versus "no feedback"). This approach was, in fact, considered during the early stages in the drafting of this International Standard, and the interaction between management decisions and language problems was represented in various ways, for example in the form of decision-making tables. It was decided, however, that the resulting International Standard would be too complicated for practical use. It was further realized that if certain combinations of circumstances were described as permitted options in the International Standard, their adoption would lead, in some circumstances, to a thesaurus which is over-biassed towards a single dominant language, without taking sufficient account of the special needs of other language users. Such a thesaurus would fail to satisfy the general criteria considered in clause 0, where it is stated that "… indexers or searchers should, where possible, be able to work in their mother tongues, or at least in a language with which they are already familiar". Consequently, certain decisions, mostly related to management problems, are indicated as "**not recommended**" in the following clauses.

8 The establishment of a multilingual thesaurus: management decisions

8.1 Status of languages

8.1.1 The status of each of the languages in a multilingual thesaurus should be decided before any attempt is made to deal with the language problems considered in the following clause. Terms such as "dominant language", "equal status", etc. were defined above (see clause 3).

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8.1.2 It is sometimes necessary, on practical grounds, to designate one of the languages as the exchange language, i.e. the language which is used as a medium for exchanging indexing data (for example in a multilingual network). Even in these cases, however, it should be possible for indexers and users to use their local languages for indexing and retrieval. All the languages should be regarded as having equal status from the viewpoint of thesaurus construction. The imposition of a dominant language upon other language users is **NOT RECOMMENDED**.

8.2 Sources of a multilingual thesaurus

8.2.1 Three main approaches to the construction of a multilingual thesaurus can be postulated. These are considered below in order of preference:

a) *ab initio* construction, i.e. establishment of a new thesaurus without direct reference to the terms or structure of any existing thesaurus. This method needs to be adopted when a new multilingual information system is being established and an existing thesaurus (whether monolingual or multilingual) does not already exist. *Ab initio* construction is also recommended in some other circumstances considered below;

b) **translation of an existing thesaurus**, for example a monolingual thesaurus covering the subject field of the proposed multilingual thesaurus, and serving as the source language. Two situations can be distinguished:

1) feedback to the source language is permitted, i.e. the terms and structure of the original thesaurus may be modified to take account of problems encountered in any of the target languages;

2) feedback is not permitted, i.e. changes cannot be made to the terms or structure of the source language thesaurus. **This procedure is not recommended**. If the only thesaurus available for translation is one which does not allow feedback, the *ab initio* construction should be preferred, the existing thesaurus being regarded only as a possible source of terms and/or relationships;

c) **reconciliation and merging of existing thesauri** in two or more of the working languages. This situation may occur if a new international system is being formed on the basis of two or more pre-existing national or monolingual systems. In practice, it is unlikely that two or more thesauri already established in different languages will correspond exactly in terms of either their logical structures or their subject coverage. This procedure should therefore be adopted only if feedback between all the pre-established thesauri is allowed, i.e. the structure and/or contents of any of the existing thesauri can be modified to take account of problems encountered during the merging process. If feedback is not permitted, the *ab initio* method should be preferred. The existing thesauri can then be regarded primarily as sources of terms and/or relationships.

9 The establishment of a multilingual thesaurus: language problems

9.1 Introduction

Examples:

9.1.1 The following assumptions are made in this and other clauses:

a) all languages in a multilingual thesaurus have equal status (see 3.4), whether or not one of these languages also functions as an exchange language;

b) either the *ab initio* method is adopted, or feedback is allowed if the work involves the translation and/or merging of one or more existing thesauri.

9.1.2 When languages have equal status, every preferred term in one of the languages should be matched by an equivalent preferred term in each of the other languages. It is not necessary to establish one-to-one equivalences between non-preferred terms, nor is this usually possible, since languages vary in the number of synonyms which express a given concept.

a)	German TELEFON BF Fernsprecher	French = TÉLÉPHONE =	English TELEPHONES
	Fernsprecher BS TELEFON		
b)	German FAHRSTUHL BF Aufzug	iTeh STAN ^{French} , RD PREVIEW (standards.iteh.ai)	English LIFTS UF Elevators
	Aufzug BS FAHRSTUHL	<u>ISO 5964:1985</u>	Elevators USE LIFTS

In case (a) a single term in French and in English is matched by two terms in German, i.e. a preferred term and a non-preferred term. In case (b) a single term in French is matched by two terms in German and two terms in English.

9.1.3 In the following clauses, the problems associated with the establishment of term equivalences are demonstrated, for the sake of simpler explanations, in only two languages. These examples have been chosen, however, to illustrate general procedures and practices which can be extended, by analogy, to situations involving more than two languages.

9.1.4 In the following examples the language possessing the term which gives rise to a particular translation problem is designated the source language (see 3.14). These problems usually occur when a term in a source language expresses a concept which has not been recognized by the users of the target language, so that the target language needs to be modified or extended to accommodate this "new" concept. The existence of such a problem could not have been recognized if translation had proceeded the other way round, i.e. if the "target language", as defined in 3.15, had served instead as the source of the translation, since this language lacks the term which introduces the problem. Consequently, the designation of a given language as "source" or "target" frequently varies, depending upon

- a) the kind of problem being considered;
- b) the stage reached in the construction of the thesaurus.

9.1.5 Experience gained in a number of international agencies indicates that acceptable equivalents between preferred terms can be established without difficulty in the majority of cases. This is sometimes as high as 90 %, although this figure may vary according to discipline, working procedures and language. Consequently, some of the procedures for dealing with non-equivalences described in the following clauses are likely to be applied in practice to only a small proportion of terms.

9.2 Degrees of equivalence and non-equivalence

9.2.1 Due to the nature of language itself, terms selected from more than one natural language vary in the extent to which they represent the same concepts. These variations can be regarded as forming a continuum, one end of which is represented by terms which can, for the practical purposes of indexing, be regarded as exact equivalents, further points being marked by various degrees of

partial or inexact equivalence, and the final point being represented by those extreme situations in which a term in one language refers to a concept which cannot be expressed by a single, direct and equivalent term in another language. For practical purposes in this International Standard, these graduated distinctions have been organized into five relatively broad categories. These are set down below in order of increasing complexity or difficulty.

Case 1 — Exact equivalence: The target language contains a term which is

- a) identical in meaning and scope to the term in the source language;
- b) capable of functioning as a preferred term in the target language.

Case 2 — **Inexact equivalence:** A term in the target language expresses the same general concept as the source language term, although the meanings of these terms are not precisely identical.

Case 3 — **Partial equivalence:** The term in the source language cannot be matched by an exactly equivalent term in the target language, but a near translation can be achieved by selecting a term with a slightly broader or narrower meaning.

Case 4 — **Single-to-multiple term equivalence**: The term in the source language cannot be matched by an exactly equivalent term in the target language, but the concept to which the source language term refers can be expressed by a combination of two or more existing preferred terms in the target language.

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Case 5 — Non-equivalence: The target language does not contain a term which corresponds in meaning, either partially or inexactly, to the source language terms://standards.iteh.ai/catalog/standards/sist/e66447f9-6893-46f2-ad93-0a6701e81dd4/iso-5964-1985

9.2.2 These five cases can be represented graphically as shown in table 2. Languages have been designated as "source" or "target" in table 2 according to the criteria outlined in 9.1.4.

9.2.3 The five degrees of equivalence described above are considered separately in clause 10, together with examples and suggested solutions. When more than one solution is possible, these have been set down in order of preference unless otherwise indicated. For the sake of clarity, examples have been chosen which illustrate, as far as possible, only the problem in hand. It is realized, however, that a problem encountered in practical indexing may involve more than one of these situations at the same time. An example of a multiple-problem situation, together with a suggested approach to its solution, is considered in 10.6.

9.3 General observations on loan terms and coined terms

9.3.1 General

The following observations should be borne in mind whenever the use of a loan term or a coined term is suggested in the following clauses as a means for achieving equivalence. The adoption of loan terms or coined terms is not generally recommended unless:

a) the adopted or coined term is likely to be known or sought by users of the target language, for example it has already been used by authors;

b) no alternative approach is practicable, for example when the meaning of the source language term can be expressed in the target language only in the form of a long definitional or explanatory phrase which could not be accepted as an indexing term.

When a loan term or coined term is adopted for indexing purposes and is not yet widely recognized, it should be accompanied by a scope note or definition in the target language. It will sometimes happen that a term, which may be either a loan term or a coined term, has been introduced by indexers to solve a particular problem, and the same result is later achieved by a different term, either loan or coined, which arises in current literature. In that case the term devised by indexers should be replaced by the "popular" term.



Table 2 - Degrees of equivalence



9.3.2 Loan terms (see 3.11)

9.3.2.1 The adoption of a loan term is usually necessary when it refers to a concept which is "native" to the users of the source language, and this concept is unlikely to arise independently within the community of target language users.

Examples:

a)	English	French	German
	DOLLARS	DOLLAR	DOLLAR
b)	French	English	German
	COGNAC	COGNAC	COGNAC

9.3.2.2 A loan term may also be adopted when its translation would call for a long definition or explanation which could not be used effectively as an indexing term in the target language.

Example:

English		German
TEENAGERS	=	TEENAGER
		D: Zwischen 13 und 19 Jahren

9.3.2.3 In some cases a loan term may be readily assimilated, on etymological grounds, into the target language.

Example:

English (SL)		French (TL)
MANAGEMENT	=	MANAGEMENT

It is then necessary to ascertain that the term expresses the same concept in both languages.

9.3.2.4 A loan term and its putative translation may sometimes co-exist. If it appears that the translation could become accepted, this should be adopted as the preferred term, and the loan term should then be designated as a non-preferred term.

Example:

German	English
BREMSSTRAHLUNG	= BRAKING RADIATION
	UF Bremsstrahlung
	Bremsstrahlung
	USE BRAKING RADIATION

9.3.3 Coined terms (see 3.1)

9.3.3.1 Terms should be coined only after consultation between indexers, language specialists and/or subject specialists. Their creation may be necessary in the following circumstances:

a) the source language term, which represents a "new" concept to the users of the target language, is not acceptable, for various reasons, as a loan term;

b) the source language term has already been used as a loan term by authors writing in the target language, but this term needs to be replaced, on the grounds that it is inappropriate or unacceptable. Until the newly-coined term has become established, the loan term should continue to be recorded in the thesaurus, but it should be designated as a non-preferred term;

c) in a thesaurus containing three of more languages, a concept first expressed in one of the languages has already been translated as a coined term in one of the other languages. An indexer working in a third language, faced by a choice between two available loan terms, might prefer instead to coin a term, especially if that concept is likely to occur in the new target language.

Example:

German	English	French
SCHLÜSSELKIND	LATCHKEY CHILDREN	= ENFANT A CLE
		NE Enfant dont les parents
		travaillent pendant la journée et
		qui est muni d'une clé pour
		pouvoir rentrer chez lui en sor-
		tant de l'école. Équivalent au
		terme allemand SCHLÜSSEL-
		KIND

9.3.3.2 Coined terms can be created in the following ways (not set down in order of preference):

a) literal translation of the source language term or its semantic components:

Examples:

English		French
WINTERIZATION	=	HIVERISATION
ENGINEERING	=	INGÉNIERIE

b) construction of a term or phrase which expresses the general meaning of the source language term:

Example:

German		English		French
BREMSSTRAHLUNG	=	BRAKING RADIATION	=	RAYONNEMENT DE FREINAGE

c) the invention of a neologism. This should be as concise as possible to encourage acceptance. These inventions may sometimes approximate to literal translations:

Examples:

English STEAM CRACKING	=	French VAPOCRAQUAGE NE: Craquage à la vapeur d'eau
TURBOFANS	=	TURBOSOUFFLANTE

or they may, for cultural or linguistic reasons, express the concept from a different point of view:

Examples:

English		French
BULLDOZERS	=	BOUTEUR
SOFTWARE	=	LOGICIEL
•		

10 Establishing equivalent terms in different languages

10.1 Exact equivalence (case 1, see 9.2.1)

Terms from different languages which refer to the same concept should be treated as exact equivalents. Exact equivalents can be morphologically related.

Example: (standards.iteh.ai)		
English PHYSICS	French = PHYSIQUE 5964:1985 ths://standards/sist/e664	German = PHYSIK 47f9_6893_46f7_ad93_
 or they may be more 	phologically unrelated?01e81dd4/iso-5964-19	85
Example:		
English BLACKBIRDS	French = MERLE	German = AMSEL
 or they may appear 	to express the same concept from different	viewpoints:

Example:

English		French
SOFT DRINKS	=	BOISSON NON ALCOOLISÉE

10.2 Inexact equivalence (case 2, see 9.2.1)

This situation covers terms which are generally regarded as denoting the same sets of objects or phenomena (for example they are frequently represented as equivalents in translation dictionaries), but the membership of these sets is slightly different.

Examples:

German		French
GEDECK	=	MENU

Solution: Terms which differ only in connotation should be treated, for indexing purposes, as exact equivalences.

10.3 Partial equivalence (case 3, see 9.3.1)

This situation covers terms which are generally regarded as referring to the same concept, but one of the terms strictly denotes a slightly broader or narrower concept.