

The realisation of a national term bank – how and why?

Henrik Nilsson

ABSTRACT

Rikstermbanken (www.rikstermbanken.se), Sweden's national term bank, was officially inaugurated on the 19th March 2009. At its opening, Rikstermbanken included more than 50 000 term records containing terms in some fifteen languages, e.g. English, French, Finnish – but also Greek!

Terminologikum TNC (The Swedish Centre for Terminology, TNC) has designed the term bank and its software, and the Ministry of Industry, Employment and Communications has contributed financially. More than 70 organizations – mostly public bodies but also some associations and private companies – have contributed with their terminology collections.

The idea of a term bank is not new – TNC has been working towards this aim since the late 1960's. Lately, a complete programme for a national terminology infrastructure has been planned, and the term bank is one of its most important constituents. The opening of Rikstermbanken was therefore an important step forward, not only for TNC, but also for all current and future users: decision makers, civil servants, translators and interpreters, journalists – and ultimately the general public.

This paper will describe the experience of creating a national depository of terminology including preliminary steps and various phases (collection, revision etc.) as well as the reactions to the term bank. It will also discuss a term bank as a constituent of an overall national terminology infrastructure, i.e. address the following questions:

- What arguments were used in order to convince decision makers etc. about the necessity of a national term bank?
- Who contributed terminological material to the term bank, and why did they do it?
- What priorities were set up (regarding contents and functionalities), and what steps were taken to ensure the terminological quality?
- How can this tool be used in terminology work, research etc.?
- What will be the place and functions of this tool in the overall terminology infrastructure under way?

La réalisation d'une banque de données terminologique nationale – comment and pourquoi ?

Henrik Nilsson

RÉSUMÉ

Rikstermbanken (www.rikstermbanken.se), la banque nationale terminologique de Suède sur le web, fut officiellement inaugurée le 19 mars 2009. Au moment de l'inauguration, Rikstermbanken contenait déjà plus de 50 000 fiches terminologiques dans une quinzaine de langues, par exemple l'anglais, le français et le finnois – mais aussi le grec.

Terminologikum TNC (le Centre suédois de terminologie) est le constructeur derrière la banque et son logiciel. Le support financier du Ministère suédois de l'industrie, de l'emploi et des communications a rendu possible la réalisation de la banque après trois ans de travail. Plus de 70 organismes divers – des administrations publiques en majorité, mais aussi des divers associations et sociétés privées – ont contribué en délivrant leurs collections de terminologie interne.

L'idée d'une banque nationale de terminologie n'est pas nouvelle ; cela fait plus de 40 ans que le TNC travaille dessus. Durant ces dernières années, un programme visant à une infrastructure terminologique nationale (dont la banque nationale constitue un des éléments les plus importants) est en cours. Et ceci dans un monde où les ordinateurs deviennent des acteurs principaux de la communication et de l'administration publique électronique – un fait qui demande des notions bien définies et des termes bien précis. En réalisant Rikstermbanken, le TNC prend un pas important vers l'infrastructure terminologique futur en Suède.

Dans cette communication nous allons décrire notre expérience de la création d'un recueil national de terminologie en incluant les phases diverses suivies (collection, révision etc.) aussi bien que les réactions des utilisateurs. L'importance d'une banque de données terminologique comme un constituant dans une infrastructure terminologique nationale sera aussi mentionnée à travers les questions suivantes :

- Quels arguments ont été utilisés pour convaincre les autorités qu'une banque de données terminologique soit nécessaire ?
- Qui a contribué des terminologies à la banque, et pourquoi ?
- Quels ont été les priorités (concernant le contenu et les fonctionnalités), et quels ont été les phases suivies afin d'assurer la qualité terminologique ?
- Comment cet outil pourra-t-il être utilisé dans le travail terminologique, dans la recherche ?
- Quelles seront la place et les fonctions de cet outil dans l'infrastructure terminologique à venir ?

0 Introduction

In 2006, Ulrica Messing, the previous Minister for Communications and Regional Policy commented the Government's decision to grant TNC 1,5 million SEK for the establishment of a national term bank in the following way:

“– An adequate and quality-assured term bank will be an efficient tool for both companies and authorities, as well as for the development of new ICT-services.”

Three years later, the current Minister for Communications and Regional Policy, Åsa Torstensson, expressed her joy at inaugurating Rikstermbanken (The Swedish National Term Bank): a new – and safe – bank in times of economic crisis and unrest – a bank which is open day and night, without fees or interest rates.

The idea of a national term bank is not a new one – TNC has been working towards this aim since the late 1960's. In TNC's vision for a national terminology infrastructure (named "TISS" Terminology Infrastructure in Sweden, see below), developed and described during the last few years, the term bank has definitely been highlighted as one of the most important constituents of such an infrastructure. The inauguration of Rikstermbanken therefore

constitutes a major step forward for Swedish terminology work as well as for a heightened terminological awareness in Sweden.

But what steps were taken during these three years, what challenges were met, and what will happen next? This paper will try to answer these and other questions.

1 Background

In October 2002, the Swedish Centre for Terminology, TNC, launched a programme, TISS (Terminology Infrastructure in Sweden), financed by the Swedish Ministry of Industry and Commerce (Näringsdepartementet). The programme, which lasted two years, proposed an enlarged terminology infrastructure for Sweden and it described the basic prerequisites and the needs for such an infrastructure taking into consideration existing and planned terminological resources in Sweden. Overall, TISS aimed at following up the results of the Pointer project, in which it was stressed that among other things a terminology infrastructure was expected to "distribute terminological resources and support the development of new tools for terminology work" [12]. A national term bank, and possibly a terminology portal to go with it, will help achieving that goal.

Overall, TISS centred around a number of key concepts: development, intensification, inventory, tools, coordination, training. The programme attempted to describe the organization necessary for a terminology infrastructure, the basic prerequisites and the needs for such an infrastructure taking into consideration existing and planned terminological resources in Sweden. More concretely, it included the establishing of a web-based terminology portal with a national term bank, Rikstermbanken, as well as networks of people responsible for terminology work in different organizations.

TISS overall contributed greatly to TNC's overview of terminological activities in Sweden but especially the survey of existing terminological resources showed that there are substantial resources on a national level which could be included in a term bank. The survey also revealed important facts about the in-house organization of terminology work in various places, the tools used for developing, editing and storing terminology and the most important needs related to terminology work, e.g. training, support, tools.

During 2005, TNC's proposal and the ideas put forward in the TISS programme were taken into consideration in two Swedish Government bills: one on information technology and society (IT-propositionen 2004/05:175) and another one on Swedish language politics (språkpolitiska propositionen 2005/06:2):

"A central term bank, the national term bank, should be set up so that access to Swedish terms can be facilitated and so that the quality of the terms can be assured. The responsibility for the formation of terms and concepts should be part of the language cultivation work of the [Swedish] authorities, within their respective fields of activity"

This was an important step towards the realization of a national terminology infrastructure in Sweden, but also an indication of the growing terminological awareness in Swedish society.

2 What arguments were used in order to convince decision makers etc. about the necessity of a national term bank?

The recognition by the Swedish Government of a great need for a central terminology repository, a national term bank was an important precondition:

"A well-functioning terminology is necessary within all fields of activity if we are to use the fast information flow and communication possibilities of modern society. Terminology work contributes to a well-functioning language within all areas of our society and increases efficiency within, and between various subject fields. The fast development of society requires constant work on creating and making accessible agreed-upon terminologies, within more and more subject fields. An easy access to terms via the Internet in a national term bank endorses such a development."

The current state of affairs can be seen as the result of several conscious steps; TNC has succeeded in presenting the idea and achieving a continued governmental financial support by constantly stressing the importance of terminology work, harmonization and the advantages of a shared national repository for terminologies. In so doing, various arguments have been used, e.g. that a national term bank like Rikstermbanken will

- give a simpler and quicker access to terminology from a large number of domains,
- facilitate a quicker dissemination of new terms,
- bring about a raised terminological quality since the contents will be continuously checked, edited and updated,
- make terminology work more efficient by the easier re-use of existing terms and definitions.

In preparation for the EAFT (European Association for Terminology) seminar "The Terminology Profession and the Marketplace" held in Paris in February 2009, an attempt at generalizing this kind of arguments into a draft typology of argument types used for terminology work was made [6]:

- time-related arguments: terminology saves time (fewer discussions etc.) →

- money-related arguments: terminology saves money (through saved time, but also through quicker translations, less time for newly employed people to get into the business etc.)
- knowledge transfer arguments (between departments within companies, between authorities and citizens, between teachers and students etc.)
- educational arguments (raising awareness on the role of LSP)
- linguistic arguments (the importance of having terms in one's native language, domain loss etc.)
- authoritative arguments (accuracy, consistency, transparency, standardization, harmonization)
- legal arguments (raising awareness on legal implications of incorrect terminology)

It would seem that the same arguments could be used on a more detailed level, for the use of a (national) term bank (although this would naturally not mean a limiting of the concept of terminology work to only that of creating a term bank or other terminological resource). A national term bank will be a useful tool for students in learning the subject field specific terminology of their future professions, it will help promote national equivalents and in that way work against domain loss etc. Especially the money-related arguments have recently become more important, and several examples have recently shown the power of cost-benefit analysis as an argument for terminology work in general and for term banks in particular. Erdman Thomsen [2] has adapted the cost-benefit models to the implementation of a term bank within a company, showing costs and benefits involved in that kind of implementation, and major companies and authorities such as Scania and FMV (Swedish Defence Materiel Administration) in Sweden have also performed similar analyses. A recent example [13] showed how an array of different cost-benefit analyses performed by in-house economists successfully led to a decision to implement a term bank within the Bank of Finland. No such analysis was however performed by TNC in order to acquire funding for Rikstermbanken. Rather, as shown above, the other types of arguments were used during a long period of time. With the development of the term bank, new arguments also presented themselves, e.g. legal ones: e.g. the often surprisingly low terminological quality of valid legal definitions.¹

To this list could possibly be added other kinds of arguments, of which technical ones could be relevant in connection to a term bank. There might be a wish to adapt and/or develop terminology management systems – although this could perhaps rather be seen as a

¹ This could of course be used as an important argument for further terminology work within that subject field.

consequence of the decision to construct a term bank. In the case of Rikstermbanken this was not a main aim or argument. TNC started the term bank software development process with earlier experience of evaluating existing terminology management systems (TMS) (during the MLIS-project "Nordterm-Net" etc.). However, it was considered that no existing tool would probably be powerful enough for Rikstermbanken. TNC's experiences from the IATE development process proved very useful, and a first choice of the IATE software for a Swedish national term bank seemed a natural one. Through a special grant from the Swedish Agency for Innovation Systems, a formal evaluation of IATE was made possible. The evaluation, which focused mainly on data entry, import and search facilities, came to principally positive conclusions, but although a great many of the IATE features could easily be used also for a national term bank, other features were considered slightly too focused on translation or too complicated. For various reasons (legal and others), the process was delayed and TNC opted for an open source-solution instead, based on Linux, Apache Tomcat and MySQL among others. On the structural level, the same basic structure of terminological entries as in IATE and ISO standards has been adopted, i.e. a three-level structure embracing a language independent level, a language level and a term level.

Although Rikstermbanken is a national endeavour, fruitful co-operation on technology and other aspects with the project EuroTermBank, as well as with the Lithuanian institutions which have developed the Lithuanian national term bank Terminų bankas, should be mentioned. With Rikstermbanken the supply of national term banks – France (FranceTerme), Turkey (TDK Bilim ve sanat terimleri Ana Sözlüğü), Wales (MAES-T), Irland, Baskien (Euskalterm) and others – has also been further enriched.

3 Who contributed terminological material to the term bank, and why did they do it?

"The major terminology developers include public institutions, universities, technical societies as well as representatives of the private sector. Although a significant number of such institutions do exist, only a few of them produce resources that are exchangeable and/or marketable" [3, p. 9]

A major part of the TISS programme was constituted by a national inventory of existing resources showing as its result that there are many collections of high qualities at various organizations, although few authorities and companies have been working consistently with terminology or even have terminologists employed. The continued inventory in connection to the opening of the term bank also showed the substantial amount of terminology "hidden away" in reports and official documents such as laws and bills; it was decided to also include

this material in the term bank. This material together with the material collected through the years by TNC, including TNC's glossaries created a sufficient amount of material. In a first stage, some hundred authorities, known to have terminological collections, were contacted through a formal letter, containing a request to incorporate the collection into Rikstermbanken. The response to this letter was overwhelmingly positive, and a majority stated they were happy to contribute their terminological collections to one central terminology repository. For these official institutions, a reference was made to *Directive 2003/98/EC of the European Parliament and of the Council of 17 November 2003 on the re-use of public sector information* where it is stated that: "Public sector information is an important primary material for digital content products and services and will become an even more important content resource with the development of wireless content services." And Rikstermbanken could certainly count as such a service. To what extent this influenced their decisions to participate is however difficult to say.

Parallel to this, some private sector organizations (companies etc.) as well as other types of associations were also contacted, and again, most of these responded positively. To date, there are over 300 different sources from more than 100 contributors included in Rikstermbanken. An interesting consequence is that other organizations have also expressed an interest in contributing material while some started a revision work of their material before it was delivered – in itself an interesting raise of terminological awareness. In one case, a publication was not considered interesting because the terms were considered too specific, which shows the importance of stressing that it is a term bank and not a general language database intended for anyone. Another important factor has been the communication between the TNC and the various contributors concerning their material; quite often a number of questions were raised when the material was prepared for import – questions which often had to be discussed with the experts of the contributors. Such contacts between terminologists and subject field experts are precious opportunities of again discussing terminological issues and raising an awareness and an understanding of how definitions are written and, more generally, what terminology work is all about.

4 What priorities were set up (regarding contents and functionalities), and what steps were taken to ensure the terminological quality?

Surprisingly little have been written in terminological literature about how to choose and prioritize between possible terminological material for a term bank. A preliminary evaluation included the answering of the following questions: Is the material informative, (technically) manageable, reliable, recent, and unique (the last aspect naturally raising in importance with

the amount of accepted and imported material)? Then, a set of demands were set up according to which accepted material should be

- extensive, considering the number of domains covered and the number of terms and concepts,
- representative, i.e. the most important domains should be covered,
- varied, i.e. the terminological material shall preferably be of different kinds and originate from different organizations,
- reliable,
- of high terminological quality.

On a more detailed level, the priorities concerned

- language: at least Swedish terms or terms in one of the five official minority languages of Sweden: Finnish, Meänkieli, Sami, Romani and Yiddish, but preferably also with equivalents in other languages.
- language variety: only LSP
- types of terminological information: although information about concepts, such as definitions and comments, is considered a crucial part of any material to be included in Rikstermbanken, other kinds of material could also be accepted, e.g. taxonomies, ontologies, thesauri, nomenclatures, controlled vocabularies, concept catalogues, information models, concept(ual) models, lexicons, dictionaries, glossaries, lists of names, etc.
- macro- and micro-structure: preferably arranged in term entries, but also other types (see above) structured in different ways.
- storage and "manageability": preferably in electronic format and not demanding enormous amounts of time in preparation. (It should be said, however, that some printed collections considered especially important were digitalized through scanning and OCR.)

Reversely, these priorities meant that the following types of material did not make it into the term bank: general language material, material not containing terms in Swedish or any of the official minority languages, incomplete material, terminologically unstructured material, material demanding too much preparation time, politically incorrect material and material protected by copyright for which no permission was granted.

With these demands and priorities in mind, there were still some challenges to face in the process of deciding what to import into the term bank:

- selection: all, nothing or parts of a particular collection?
- interpretation: how should the collection be interpreted (e.g. concerning the indication of synonymy, inconsistencies etc.)?
- term choice: should one term be given the status of recommended and if so, which one and why?

- conceptual description: should the information presented in the collection be indicated as a definition, an explanation or a note – or a combination of these?
- actualization: the dichotomy between the task of documenting a particular collection and presenting updated and correct information is a tricky one to handle. How should updates be indicated without changing the original source etc.?
- “balance issues”: should the term bank contents be balanced and contain e.g. glossaries from all political parties and not only some etc.?

This list is naturally not exhaustive but rather gives some samples of some of the challenges at the initiatory stages; in later stages other challenges will arise, e.g. if a later contributor has material similar to one already imported but of a higher quality. Should this be added alongside, supersede the previous or be joined together?

Overall, the term bank content work has been divided into stages with the first one being the inventory/presentation stage during which all the selected and revised collections are presented side by side, a consequence of which can be several definitions of the same concept, even within the same subject field – which in itself is a kind of pedagogical challenge to explain to the users. In a stage to follow, the consolidation stage, these could perhaps be reduced so that the reference within one entry would include several organizations all adhering to the presented definition. Such work would of course necessitate “traditional” terminology work with experts and consensus decisions. During the current presentation stage, users are also invited, through a simple comment system, to give comments on the entries which will help in the revision and consolidation of the term bank contents.

5 How can this tool be used in terminology work, research etc.?

At a seminar in 1976 about computerized terminology work, it was said that the basic functions of a term bank is collection, storage and distribution of terms. This is still valid. But Lie [7] also stresses the importance of a term bank for the marketing of terminology work as a whole, as the nucleus of a system of distribution, publication and knowledge transfer and as a way of marketing small and very specific terminologies to various target groups. In its first “presentation stage”, Rikstermbanken primarily functions as a search and retrieval tool, where answers to the following kinds of questions could be found:

- Is there already a definition of a certain concept? And could this definition, with some modification, be used by another organization, in another context?
- What terminology is used by different organizations?
- What are the equivalents of a particular Swedish term?
- etc.

A national term bank can naturally be used in many different ways depending on various target groups.

Rikstermbanken could help domain experts in their internal and external communication, translators in and outside of Sweden who need quick and easy access to up-to-date Swedish terminology and also companies trading with other companies abroad. The media, technical writers, standardisers and other language professionals can easily get an overview over a subject field and will no longer need to be in doubt as to what established terminology ought to be used in different types of texts. With the precise definitions of concepts provided by Rikstermbanken, a further coordination can be achieved and less duplication of effort avoided, which will eventually lead to a smoother public administration and a more clear-cut communication with the citizens.

In connection to the aforementioned EAFT seminar, a list of target groups for terminology work was also developed [5], and again this list coincides with many of the possible users of a term bank:

- A. "Customers" (users of terminological products and services)
 - i. "Technical communication" professionals (primary users), e.g. technical writers, translators, journalists, information professionals, education & training professionals, standardisers
 - ii. "Specific domain" professionals (secondary users), e.g. lawyers, doctors and so on.
- B. "Manpower" (directly involved in the production of terminological products and services)
 - i. Language experts, e.g. terminologists, lexicographers, linguists
 - ii. Subject field experts
 - iii. Other participants in networks, work groups etc.
- C. "Investors" (indirectly involved in the production of terminological products and services)
 - i. Commercial sponsors
 - ii. Non-profit organizations
 - iii. Public funding authorities
- D. "Authorities"
 - i. Language planners
 - ii. Educational policy makers
 - iii. Legislators

Although mostly A is interesting in the context of a term bank (the actual users), B–D will also be affected since a national term bank will constitute a working tool also for them, e.g. in developing other terminologies etc. Any priorities set up concerning contents will be linked to the intended target groups, and TNC tested the software with these different target groups in mind. One has to remember, however, that it is a term bank and not a database of

general language which therefore makes the general public somewhat of a secondary target group. This does not mean however, that there is not a substantial amount of terminology in everyday life, no matter what subject field you encounter in work or leisure activities. All citizens can make use of a tool which can facilitate their contacts with authorities, and enhance their possibilities of following and participating in the public debate, understand research results etc. The challenge here is to explain what a term bank is and how it differs from search engines and other types of language databases.

From the beginning, it was decided that the service would be free of charge for anyone connected to the Internet, and this fact is of course an important prerequisite for the benefits mentioned above.

6 What will be the place and functions of this tool in the overall terminology infrastructure under way?

During one of the biannual Nordterm conferences (Helsinki, 1981) the subject of marketing of terminology was touched upon, and especially that of the term bank as a marketing tool:

"I believe that the bigger selection and the better access to domain specific terminology we can provide, the easier it will be for us to gain recognition for terminology work. With a better total access to terminologies and an enhanced interest in these small specific terminologies, it will be easier to expand terminology work. It will also be easier to market the total access to terminology at the same time as we make ourselves understood, known and respected in society, among users, politicians and authorities." [7. pp. 23–24]

The final point is especially important since it would have been difficult to implement a national term bank and turn it into a well-used and respected reference without the support of politicians and authorities. As has already been stated, the term bank in itself is only a part of a larger structure² – a national terminology infrastructure. In the various descriptions of the concept of "terminology infrastructure" which have been presented during the last ten years, focus has been put on organizations and co-operative networks and slightly less on the technical aspect of terminology work. The definition of "terminology infrastructure" presented in the Pointer project in 1996: "framework of institutions, companies (LEs and SMEs), associations, self-employed professionals, etc.; their terminological activities; and co-operation and communication networks (on both the physical and logical levels) they are operating in for a given application area" [12], and the later description by Budin & Wright [1] of the same concept as "all arrangements and configurations of people working together, of

² See [8, 9, 10, 11] for further details on this.

institutions dedicated to or responsible for terminology-related activities, producing and using different kinds of information resources, reference materials, archives, databases, etc." are examples of this. When Galinski [4] presented five main structural elements or aspects of a horizontal terminology infrastructure – 1. terminology (planning) policy; 2. (systematic) terminology creation; 3. information and documentation in the field of terminology; 4. terminology associations (primarily for individuals); 5. purpose-oriented co-operation groupings in private industry or between private industry and public institutions (for the sake of creating and/or sharing terminological data) – there is again no explicit mentioning of a national term bank as a central hub of terminology work. Within the framework of EPOS (National Programme for Terminological Coordination) presented in Greece in 1999 [14], however, a national terminology database was presented as a part of the programme alongside a terminology business plan, human networks for terminology.

The situation is slightly different in a country like Sweden, where there is since many years a strong, separate institution devoted to terminology with established networks of different kinds and a continued state support; in that context, focus could more easily be directed towards the realization of a more tangible product such as a national term bank. Several favourable preconditions have influenced the development leading up to the financial grants from the state for the creation of a national term bank. One of them is a raised terminological awareness, of which there are several indications in Sweden today: Discussions in the media often circle around the definition of concepts although they are not explicitly characterized as "terminological". More and more companies provide glossaries on their web sites and use terminology as a marketing means. And with this awareness, the prospects of enlarging the existing terminology infrastructure into a truly national one has become more probable. Another important precondition not to be forgotten is the raised awareness about language in general: articles, prime time TV-shows and publicity advertisements all refer to language and even terminology to a growing extent, and discussions about the so-called "domain loss" (the inability to use Swedish within certain domains) and the influence of English on the Swedish language, have been frequent.

On a national level, it becomes even more important that each authority should be given a formal responsibility for the standardisation of terms and concepts within the domain of the authority. In July 2009 a language law stating that Swedish is the official language of Sweden besides the five official minority languages was instituted, and especially paragraph 12 of this language law is crucial for the continued development of a national terminology infrastructure in Sweden. In this paragraph it is stated that all authorities now have "a special

responsibility for Swedish terminology within their respective domains so that such terminology is accessible, used and developed". For the first time, this has been expressed in a legal document. Currently guidelines for how this work could and should become reality are being drafted, but for certain Rikstermbanken will be an important ingredient in the implementation of this "terminology paragraph".

Even though the existence of a national terminology centre with a long tradition – The Swedish national centre for terminology, TNC was founded as The Swedish Centre for Technical Terminology (Tekniska nomenklaturcentralen, TNC) already in 1941 on the initiative of the Academy of Engineering Sciences (IVA) and other interested parties such as engineers and inventors – and a high credibility is crucial in itself, it is certainly not the only factor to be taken into consideration. The importance of timing, a raised terminological awareness in society and the continued governmental financial support from the Swedish Ministry of Industry, Employment and Communications have already been stressed. To this should then be added the raised awareness about language in general mentioned above.

Work on the national term bank has but started, and at TNC we now face more challenges:

- New material needs to be included and evaluated, new and already imported material consolidated, and the quality criteria for the material need to be developed further
- Further technological development (e.g. related to availability issues) of Rikstermbanken is needed, e.g. personalized interfaces for various user groups and contributors, Web 2.0 and semantic web-adaptions etc.
- Implementing Rikstermbanken as a complete terminology management system (TMS) with possibilities of storing and using it as a working tool for external parties. This usage raises new questions: Should organizations already maintaining a term bank (few today) continue this or should they hand it over to Rikstermbanken? Should those without a term bank still invest in a proper TMS? etc.
- International co-operation: interest for the software and the work done by TNC has generated an interest from neighbouring countries about creating a similar term bank.
- Further financing need to be found, which in itself will call upon several argument types, and through
- The consequences of the new language law for the term bank in particular, and for Swedish terminology work in general, need to be further investigated.

7 References

- [1] Budin, G. & Wright, S-E (compiled by). 1997. Handbook of Terminology Management. Vol. II: Application-oriented terminology management. Amsterdam: John Benjamin. ISBN: 90-272-2155-3
- [2] Erdman Thomsen, H. 2008. Cost/benefit-analyse af terminologiarbejde. IN: Kunnskap og fagkommunikasjon. Nordterm 2007. Bergen 13.–16. juni 2007, Språkrådet: Oslo. ISBN 978-82-997266-2-7, pp. 237–241

- [3] EuroTermBank (2006), Towards Consolidation of European Terminology Resources. Experience and Recommendations from EuroTermBank Project. Latvia: Tilde. ISBN 9984-9133-4-1
- [4] Galinski, C. 1998. Terminology infrastructures and the terminology market in Europe. IN: Trans, Internet-Zeitschrift für Kulturwissenschaften, September 1998, <http://www.inst.at/trans/0Nr/galinski.htm>, 2009-07-17
- [5] Giannibas, D. 2009. Unpublished draft on target groups for terminology work.
- [6] Giannibas, D; Nilsson, H. & Ní Ghallchobhair, F. 2009. Unpublished draft on typology of arguments for terminology work.
- [7] Lie, K. 1981. Hur skall vi marknadsföra våra termer? IN: Nordterm 1981 Terminologiskt samarbete i Norden. Helsingfors 21–22 maj 1981, pp. 22–27
- [8] Nilsson, H. 2005. TISS & IATE. Svensk terminologisk infrastruktur och svensk rikstermbank. IN: Nordterm 2005 Ord og termer. Reykjavík: Íslensk málstöð. ISBN: 9979-842-85-7
- [9] Nilsson, H. 2004. Terminology work – the Swedish way. IN: Eesti oskuskeel 2003. Tallinn: Eesti Keele Sihtasutus. ISBN 9985-79-074-X
- [10] Nilsson, H. 2000. "One-stop shop – two-aim game. Improving the availability and quality of terminology in the Nordic countries through Nordterm-Net. Nordic Term bank Services via Internet.". IN Conférence sur la coopération dans le domaine de la terminologie en Europe, Union Latine. ISBN 92-9122-005-1.
- [11] Nilsson, H. 2006. "Towards a national terminology infrastructure – the Swedish experience". IN Terminology and Society, Benjamins. To be published.
- [12] POINTER, Final Report, (DIT, 16/02/96), <http://www.computing.surrey.ac.uk/ai/pointer/report/>, 2007-03-30
- [13] Puttonen, E. 2009. En termbank växer fram. Från kostnadsnyttoanalys via terminologisk analys till praktisk tillämpning. To be published (in conference report from Nordterm 2009).
- [14] Valeontis, K. 2006. EPOS in brief (National Programme for Terminological Coordination). Unpublished presentation.

Web links

<www.tnc.se>

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Mr Henrik Nilsson

terminologist

Terminologicentrum TNC (Swedish Centre for Terminology, TNC)

Västra vägen 7 B, SE-169 61 Solna, Sweden

Tel.: +46 8 446 66 10, Fax: +46 8 446 66 29

E-mail: henrik.nilsson@tnc.se

Web site: www.tnc.se