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VZPOSTAVLJANJE INFRASTRUKTURE UPRAVLJANJA TERMINOLOGIJE – ŠTUDIJA PRIMERA SLOVENSKE OBRAMBNO-VOJAŠKE TERMINOLOGIJE

ESTABLISHING TERMINOLOGY MANAGEMENT INFRASTRUCTURE – A CASE STUDY OF SLOVENIAN DEFENCE AND MILITARY TERMINOLOGY

Povzetek V članku je predstavljen proces vzpostavitve infrastrukture za upravljanje terminologije v Slovenski vojski in na Ministrstvu za obrambo, katere namen je zagotavljanje standardizirane obrambno-vojaške terminologije. Proces, njegovi začetki segajo v leto 2018, se je oprl na dobre prakse Natove pisarne za standardizacijo in kanadskega ministrstva za obrambo. Obe organizaciji imata dobro vzpostavljen sistem upravljanja in standardizacije terminologije. Ker so proces vzpostavili jezikoslovci, smo z anketo poskušali ugotoviti, kakšno je splošno mnenje o terminologiji na ministrstvu in v vojski.

Ključne besede *Upravljanje terminologije, standardizacija terminologije, infrastruktura upravljanja terminologije, področni strokovnjaki, terminološki produkt.*

Abstract This paper presents the process of establishing a terminology management infrastructure in the Slovenian Armed Forces (SAF) and the Ministry of Defence with the aim of ensuring standardized defence and military terminology. The process, which began in 2018, leaned on the best practices of the NATO Standardization Office and Canada's Ministry of Defence, both of which have well-established military terminology management and standardization systems in place. As the process was established by language professionals, the paper attempts to identify the overall opinion with regard to terminology at the Ministry and in the SAF by means of a survey.

Key words *Terminology management, terminology standardization, terminology management infrastructure, subject matter experts, terminological product.*

Introduction

Terminology management in the Slovenian Armed Forces and the Ministry of Defence was introduced in 2018 with the aim of ensuring the development of Slovenian defence and military language. All small languages risk being linguistically overpowered by English, especially in the dominant technological fields, in which English has been acting as a lingua franca since the late 19th and the early 20th centuries¹. As armed forces are also linked to different technological fields, raising awareness of terminology work is essential. With the globally-oriented reality that we live in, nations with a small number of speakers have been forced to establish strict linguistic policies to preserve their languages and national identity. According to Cabré, »the governments of countries with non-dominant languages pursue protectionist language policies in order to encourage the use of the minority language and attain its necessary modernization so that it can be used in all communicative situations« (1999, p 214).

In Slovenia, the only legal basis for terminology work can be found in the Public Use of the Slovene Language Act², based on which ministries are tasked with and responsible for assisting the Ministry of Culture in formulating language policy and ensuring the conditions for its implementation. Terminology work is also supported by the Resolution on the National Programme for Language Policy 2021-2025, which states that »terminology is of key importance for the functioning of Slovenia at numerous levels« (Anon., 2021, p 46). Nonetheless, no policy for terminology management has so far been introduced in the Slovenian Armed Forces (SAF) or the Ministry of Defence (MoD).

However, bearing in mind that »[...] a language that lags behind in its terminology for a given domain risks losing the ability to communicate in that subject in its language over time« (2005, p VI) language professionals at the MoD and the SAF have recognized the importance of terminology management, which has become a constituent element of any organization in which transfer of information is essential. As highlighted by Cerrella Bauer, »terminology management underpins information management processes within the organization and is thus of strategic importance« (2015, p 324). This is especially true of a military organization. With this in mind, this paper sheds light on the process of establishing the terminology management process and infrastructure in the SAF and the MoD³, where terminology is managed in-house. It attempts to highlight the different development phases, and to identify the turning points at which the need to upgrade the process and transition to the next phase arose. The paper also mentions best practices adopted from authorities in military terminology management, such as foreign armed forces and organizations, e.g. NATO.

¹ *Medicine: Use of English.*

² *Official Gazette of the Republic of Slovenia, Nos. 86/04 and 8/10.*

³ *The MoD includes various bodies within the ministry, such as the Administration for Civil Protection and Disaster Relief (ACPDR), but as the terminology management infrastructure for the management of the ACPDR terminology was not yet well established at the time of writing of this paper, this paper will focus predominantly on defence and military terminology.*

The second part of the paper presents the informative findings of a survey on the views of employees, specifically SMEs at the MoD and the SAF with regard to terminology work and terminology in general. As the process was established without a formal terminology management framework and a legal basis in place, the SMEs participated in terminology work merely on an ad hoc basis and as enthusiasts. Even though the survey is informative only, its results may be useful in helping to improve the terminology management process, and could also be used as a guide to improve the process and infrastructure.

1 ESTABLISHING TERMINOLOGY MANAGEMENT INFRASTRUCTURE IN THE SAF AND MOD

1.1 What is terminology management?

Even though ISO 1087-1: 2000 defines the term »terminology work« as »work concerned with the systematic collection, description, processing and presentation of concepts and their designations« (ISO, 2000, p 10) and mentions »terminology management« seemingly as a synonym, no clear definition of it can be found in any of the ISO standards on terminology. After examining the publicly available definitions of terminology management, it seems that it is understood either as a process and a tool aimed at facilitating the translation process, or as a tool for ensuring a uniform understanding of terms and thus a uniform transfer of knowledge. It also most closely resembles project management⁴.

In the Slovenian environment, very little has been written about terminology management. One of the authors writing about this topic is Vojko Gorjanc, who in his paper of 2010 writes that »terminology management combines all activities connected to terminological work as an interdisciplinary field« (p 97). This is how terminology management is understood at the MoD and the SAF. In their paper Karcher and Sauberer, on the other hand, define terminology management as »the systematic research, documentation and reuse of concepts and their terms« (2011, p 5), which is a rather general description of what it comprises. In the Handbook of Terminology, Cerrella Bauer defines it as »a horizontal business process that crosses different organizational units, even spanning different locations, languages and time zones« (2015, p 326). It does take place on a horizontal plane, when all relevant stakeholders (e.g. all services that use a particular concept in their work) should be involved to make sure that the concept is defined correctly and understood by everyone in a unified manner, but it also takes place on a vertical plane, as defence and military standardized terminology must go through several different hierarchical phases. In the case of the SAF and the MoD, terminology management includes the processes, methods, skills, knowledge and experience with which we accomplish

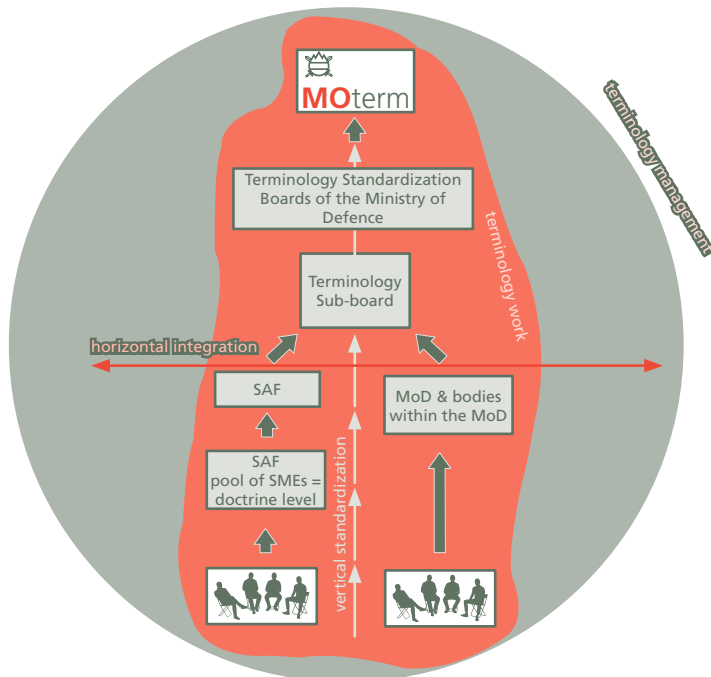
⁴ *Project management is defined as »the application of processes, methods, skills, knowledge and experience to achieve specific project objectives according to the project acceptance criteria within agreed parameters« (Anon., 2021).*

terminology standardization⁵. If we want to provide a more structured graphic representation, terminology management entails:

- The establishment and maintenance of terminology (management) infrastructure;
- Terminology work:
 - Systematic collection;
 - Description;
 - Processing;
 - Presentation of concepts and their designations;
- Terminology standardization.

Terminology management should be both horizontal (ensuring uniform understanding of terms among SMEs and the integration of terms across the horizontal axis within the system) and vertical (ensuring standardization of terminology) (see Figure 1). It can entail different terminology standardization projects⁶ or a single terminology standardization project standing alone. The end result is a termbase and a resulting dictionary. Terminology management is a circular process, which is continually improved.

Figure 1:
Terminology management infrastructure in the Slovenian Armed Forces and the Ministry of Defence
(Source: Created by author)



⁵ Also not forgetting the review and the adjustment (QA) aspect, which in the end form a (learning) cycle similar to that of project management.

⁶ As presented in Annex A of ISO 15188: Project Management Guidelines for Terminology Standardization.

The organizational aspect of terminology management can be defined by the term »terminology management infrastructure«. This term was derived from UNESCO's Guidelines; although the Guidelines do not mention this term specifically, they refer to »terminology infrastructure« (Infoterm, 2005, p 31), which is not defined explicitly.

1.2 Beginnings of terminology management in the MoD and the SAF

Even though the MoD and the SAF had produced a number of dictionaries before 2018, terminology was not managed in the way presented in this paper. There was no process in place and the teams that worked on the dictionaries were formed ad hoc. In addition, even though the Terminology Standardization Board of the Ministry of Defence was founded in 2007, it did not manage terminology as presented here. Its main focus was on providing terminology support to SAF and the MoD personnel and Slovenian national representatives assigned to NATO standardization bodies and other international military organizations, and on addressing specific terminological issues.

The motive for the digitalization of terminology and the establishment of a terminology management infrastructure in the SAF and the MoD, which began in 2018, was twofold: on the one hand, the updating of the *English-Slovenian Military Terminology Dictionary (Angleško-slovenski vojaški terminološki slovar)* of 2006, which was a translation of the then AAP-06 (NATO Glossary of Terms and Definitions), was a project a long time coming, and on the other, language professionals could see the need for standardized terminology, as the havoc in this field hindered translation assignments. Over the years, a number of dictionaries and glossaries had been produced by the MoD and the SAF⁷, but no database had been established, nor had a process for terminology management been put in place. However, with the rapidly developing field of defence and the MoD's involvement in international organizations, in particular in the NATO Alliance (since 2004), the Slovene language has become swamped with English terms⁸.

The growing number of new terms was another indicator that a terminology management infrastructure should be established, with the aim of producing a terminological database (termbase) that would serve as a tool for translators, proofreaders and SMEs. This idea is supported by Gornostay, who came to a similar conclusion in his paper, stating that in the world we live in, »an efficient terminology management solution is a must both for content creation and its translation« (2010, p 1). For this reason, an ad hoc Terminology Coordination Group was formed, comprising enthusiastic language professionals from the MoD and the SAF who

⁷ *Mountain Warfare Dictionary Handbooks (2013) (Slovene-English, English-Slovene, Slovene-German, German-Slovene); English-Slovene Military Terminology Dictionary (2006); Slovene-English Military Dictionary Handbook (1999); Explanatory Military Dictionary (draft) (2009); Language Handbook for Interpreters (2010); Temporary English-Slovene Military Dictionary Handbook (1996).*

⁸ *As the number of terms being introduced from a foreign language grows for various reasons, the »need to defend communication in one's native language becomes more widespread« (Cabré, 1999, p 216).*

both saw the need and had the initial relevant skills and knowledge to begin laying the foundations of a terminology management infrastructure and process.

Even though the Terminology Coordination Group did not use any kind of plan for establishing and sustaining a terminology management infrastructure, it seemed to have been a natural course of action that the establishment of the process followed the four phases⁹ presented in UNESCO's Guidelines for terminology policies and the phases of Terminology with Ease¹⁰, a five-step action plan, which was a surprise, because the latter focuses mainly on commercial companies, but can – as it seems – also be used for public administration bodies and services. The model that has been set up is still very much a traditional content creation model with elements of collaborative terminology work, as the Group tried to include as many relevant SMEs as available to ensure the best possible quality of the agreed terminology. It also most strongly resembles what Kudashev calls the »Preparation of International Terminology Standards« (2013, p 24) workflow scenario. This, however, is not surprising, as the best practices the Group has mirrored, i.e. Canada and NATO's terminology standardization and management processes, use ISO standards as their basis. NATO, as one of the organizations that was taken as an example of terminology standardization, has based its standardization process on »internationally established standards (ISO, UNESCO and others) and NATO standards on general military terminology and field military terminologies, i.e. STANAGs, which detail the terminology and its use« (Derman Zadavec, 2020, p 32). The Group also used Canada's publicly available Terminology Manual as a basis for preparing its own internal guidelines for terminology management, which was especially helpful in the initial phases. Later, as the process was tested in practice, it had to be adapted several times.

1.3 Analysis of the terminological needs of language professionals and SMEs

Terminology management and terminology products (defined by ISO 704 as a »product that supports special language use or the field of terminology« (p 2)) in the SAF and the MoD are primarily intended to unify terms and their meanings, which is especially important for translations (language professionals) and for professional communication (SMEs). Therefore, the two main stakeholders whose needs had to be analyzed in terms of terminology needs were language professionals and SMEs. Unified terminology presented in a publicly available dictionary would also be useful for the general public, but the primary focus was to ensure clear and concise communication for the employees of the MoD and the SAF, which could be ensured by means of a common terminological dictionary.

⁹ Phase I – Preparation for the terminology policy; Phase II – Formulation of the terminology policy; Phase III – Implementation of the terminology policy; Phase IV – Sustained operation of the terminology infrastructure and the adaptation mechanisms for the terminology policy (Infoterm, 2005, p 22).

¹⁰ Step 1: Analysis; Step 2: Terminology Policy; Step 3: Terminology Campaign; Step 4: Standardized Terminology Process; Step 5: Integration. (Sauberer; p 5).

To this end, the Terminology Coordination Group tried to define what kind of terminological product (i.e. dictionary) would one or the other need, and what were the »terminology islands«¹¹ in the system, i.e. where terminology is produced or developed naturally. The Group identified five¹² such islands where terminology is formed or used. The most important ones are 'language professionals', 'doctrine development' and 'education and training'. Another such island comprises exclusively individual terminological proposals. The identification of such terminology islands was important, as it provided useful information about the sources of terminology, which should be intercepted and included in the terminology management process.

A unified understanding of terminology is especially important when it comes to translations. Because of the lack of a central terminological database, terminology is sometimes duplicated in the Slovene language when the concept (or term) from English is transferred into Slovene. This occurs when translators discuss terminology with SMEs only for specific translations. When a different SME is assigned to help with the translation, inconsistencies in terminology may appear, because there is no central register of the agreed terms and sometimes new terms are invented even though a term already exists. SMEs on the other hand, may need Slovene terminology for writing reports or for educational purposes. The main issues (and at the same time the biggest encouragement for the development of a termbase) that were identified due to the lack of a terminological dictionary were:

- Inconsistency in translations and interpreting¹³;
- Inconsistencies in authentic Slovene texts¹⁴;
- Formation of different Slovene terms for one concept, thus creating unnecessary synonymy in the field of terminology;
- Different understanding of the same term¹⁵.

Another important aspect when it comes to defining the needs of people who will be using the dictionary is what to include in it. The termbase (prepared in MultiTerm) was therefore structured with the final users in mind, i.e. SMEs, language professionals, and soon the (interested) general public¹⁶. With little experience in building a database, the structure of both the database and the dictionary was based on the

¹¹ The term was introduced by Gabriele Sauberer during her lectures for Advanced Terminology Manager (TermNet's online learning platform).

¹² The fifth island is the MoD and the bodies within the MoD, but as the terminology of the MoD is mostly already dealt with in the SAF, the fifth island, being primarily focused on the ACPDR (Protection Against Natural and Other Disasters), will be omitted for the purposes of this paper.

¹³ Different SMEs were providing expert support for translations, and because no database of the new terms was produced or another SME suggested a different term, this caused inconsistencies.

¹⁴ In different military documents some terms are defined and named differently, even though they refer to the same concept.

¹⁵ For example, in Slovene, the differentiation between »operacija« in »delovanje«, which both refer to the English equivalent »operation«, is difficult and still unclear.

¹⁶ Later in 2022, the MOterm dictionary will be available to the interested community on the website of the Slovenian Armed Forces and updated continuously.

dictionaries available on the internet, mainly EUROTERM¹⁷, which met the needs of the final users, and on the structure and layout of NATOTerm, which was provided by the NATO Terminology Office. The selected data elements were later checked against those suggested by the ISO 10249:1992. The data elements included in the database (and dictionary¹⁸) were: the term (in both languages); the definition; the source of the definition; the domain; notes; usage; reliability, and pictures. In terms of language, the two main languages that needed to be included in the database were English and Slovene, and to a lesser extent French (due to Slovenia's membership of NATO).

1.4 Terminology input source

Slovenian defence and military terminology is specific in terms of the large amount of terminology being introduced to the national language from English. This is also the main reason why we do not deal merely with our own national terminology; although the focus is on Slovene, the terminology we manage is bilingual and in some specific areas also multilingual.¹⁹ As presented in Figure 2, the current main sources of terminology are translations (i.e. translation-based terminology) (78%), followed by term extraction (20%), and individual proposals (2%) as the input source with the lowest percentage. At the time of writing²⁰, the majority of the terminology was introduced through translations of original English texts²¹ or through authentic English sources²². In her book, Vintar mentions that foreign language terminology or translation-based terminology in disciplines that rely on foreign literature is predominantly introduced into the native language in a passive way, i.e. by adopting foreign terms and by trying to find a Slovene equivalent only when and if the need arises (summarized after Vintar, 2004, p 56). The adoption of foreign terms is not encouraged by language professionals in the Slovenian military and defence system, especially as the foreign term is, where no Slovene term has been offered yet, the first choice of SMEs. The main objective of terminology work at the MoD and the SAF, however, is to ensure and encourage the development of Slovene terms.

The inclusion of a Slovene equivalent in a database is always mandatory, as is (in general) the Slovene definition. This is either a faithful translation or an adaptation of the English definition (if any changes to it are made, this is duly noted). If no definition can be found, the SMEs write their own definition. As original Slovene literature in the military and defence domain is scarce, and because much of the newly produced literature in the field is based on translations of various NATO doctrines, STANAGs and the like, the number of terms originating from Slovene is much smaller than the

¹⁷ The structure was »copied« directly from the dictionary, before the EUROTERM database underwent stylistic changes. At the time, EUROTERM's structure strongly resembled that of a MultiTerm database.

¹⁸ The name of the MoD and the SAF's dictionary is MOTerm.

¹⁹ Some terms in the database, specifically ranks, also have French equivalents.

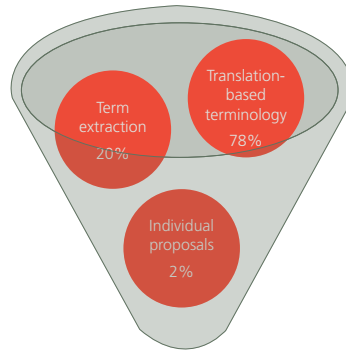
²⁰ Summer of 2022.

²¹ Such as STANAGs and doctrines.

²² NATOTerm as the source of standardized terminology and other relevant sources for the English language.

number of terms originating from English. Also, the new highly specialized terms that are being introduced into Slovene all derive from English.

Figure 2:
Terminology
input sources
(Source: Created
by author)



The term extraction of defence and military terms in the SAF and the MoD is currently limited to Slovene legal and other relevant documents in the field of defence. In this way, a high level of relevance is ensured. Attempts have also been made to prepare a corpus of military texts for the purposes of machine term extraction, but it has been identified that the same term sometimes has a different definition in different texts or that two different terms have the same definition in different texts. Therefore, for now, only legal documents are included in the corpora, while the identified discrepancies are being addressed as part of terminology management.

Also, until recently Slovene texts produced in the field of defence, in particular the final theses produced during courses at the Military Schools Centre, have not been checked for the appropriateness of the terminology. The authors of these texts, for example military personnel who attend military training or a military school abroad, may not be acquainted with the appropriate Slovene terminology or know where to find a Slovene equivalent of a term they encountered there, so they simply find or invent their own Slovene equivalents. When such theses are published on the internet, they immediately become a source of terminology in the eyes of a lay user. To avoid such incidents, a terminology review has been introduced before publication. In the long run, this process will provide a suitable basis on which a corpus could be built.

1.5 The redistribution of the roles of language professionals to meet the needs of terminology management

In the MoD and the SAF, where terminology management has not previously been in place in the way presented in this paper, a number of people, specifically language professionals (and one SME), had to learn new skills and gain new knowledge, as well as take on new roles. The book by Maria Teresa Cabré, *Terminology: Theory, Methods and Applications*, presents two types of professionals involved in terminology work in an organization which, among other things, provides language services and deals with terminology, which could easily be transferred to the Slovenian system. The two categories described were: »(a) the subject field specialists²³ and translators and interpreters who assist them in communication in foreign languages, and (b) terminologists, but also linguists, lexicographers, information scientists and language planners«. Why the division into two groups? According to Cabré, for the first group »terminology is a tool for communication«, and for the second group it is »the object of their work« (1999, p 219).

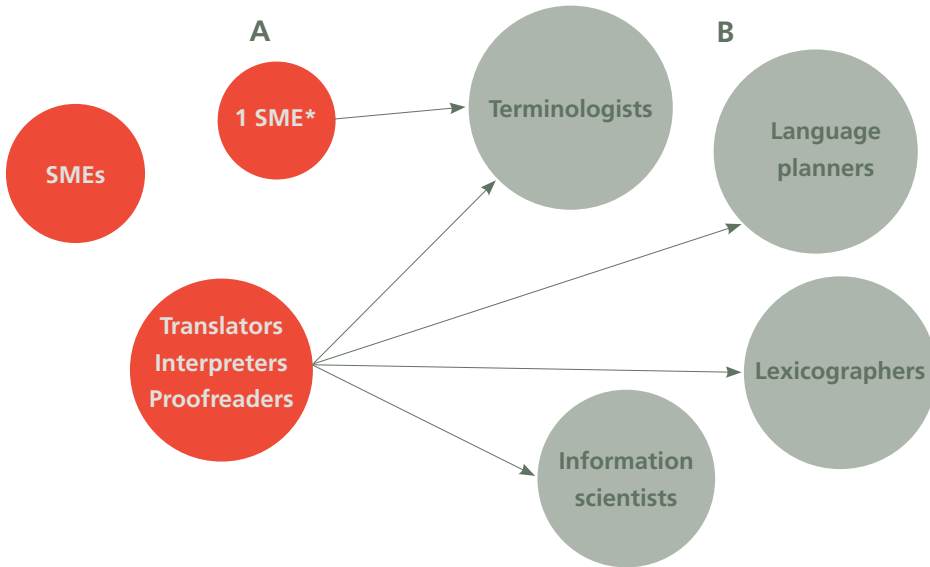
In the case of the MoD and the SAF, a group (b) dedicated specifically to terminology management did not exist. However, at times certain professionals in the MoD and the SAF took over some of the roles of group (b), but those were merely ad hoc assignments. Therefore, the language professionals who initiated this work had to »requalify«. A number of linguists (translators, interpreters, and proofreaders for the Slovene language) learned new skills and took over different roles. A few formed a Terminology Coordination Group, whose aim was to coordinate and manage terminology work, so its members took on the roles of terminologists, language planners, lexicographers, and two of them also of information scientists. They learned from experience and also attended terminology courses to become certified terminology managers. Teaching or learning terminology is impossible without practical work. As stated by Boulanger, »no one becomes a terminologist except by acquiring background knowledge and training in which theory and practice are intertwined« (Boulanger, in Cabré, 1999, p 221). Other language professionals who were not part of the Terminology Coordination Group also had to learn new knowledge and skills in addition to their regular translation and interpreting assignments, in their case that of terminologists. With the exception of one, the SMEs did not take on any new roles, but they did learn more about terminology work, such as raising awareness among SMEs²⁴. Hence, the MoD and the SAF as a whole were an important element in developing a terminology management infrastructure. The one SME whose role was different was actually appointed as military terminologist, and even though he did not have any previous knowledge of terminology, he learned from experience and became a terminologist/SME.

²³ In this paper they are called subject-matter experts (SMEs).

²⁴ By introductory meetings and an e-classroom on the basis of terminology.

Figure 3: The example of the MoD and the SAF (based on the concept presented by M. Teresa Cabré) (Source: Created by author)

"Cell division" – redistribution of roles of professionals involved in terminology work



There is another stakeholder that Cabré did not mention, but which is pointed out by Cerrella Bauer in her paper: a terminology manager, who must oversee the entire business process of terminology management (summarized after Cerrella Bauer, 2015, p 324). This strongly applies to the process established at the MoD and the SAF, and probably to all large organizations, where the process would not work on its own without a terminology manager. Eventually, when terminology work gains importance, more external experts at the MoD and the SAF may be included in group (b) on a permanent basis. The dictionary on the intranet network (which is currently the only version of MOterm available), however, was prepared by the IT department.

1.6 Legal bases and a terminology policy

As mentioned earlier, there are many legal bases at the national level that in principle support terminology work in Slovenia; however, no work can be done without proper internal legal bases. It is true that most language professionals (especially translators) have terminology work in their job descriptions, as do some SMEs, but when other assignments and tasks become a priority, it is difficult to dedicate time to this work. Already the fact that the Terminology Coordination Group was not officially founded was a problem, as it could a) not justify the amount of time dedicated to terminology and was b) not authorized to allocate work to SMEs or ask them to work on terminology assignments. It was all done on voluntary basis. As

written by Derman Zadavec in her paper, »it is most urgent to adapt the (legal) bases for the standardization of terminology by defining in detail the competences and the manner of cooperation between participants in terminology work« (2020, p 12). She further suggested the »centralization of terminology standardization with a central coordination and authoritative body« (Ibid.), an idea which will soon see the light of day, with slight modifications.

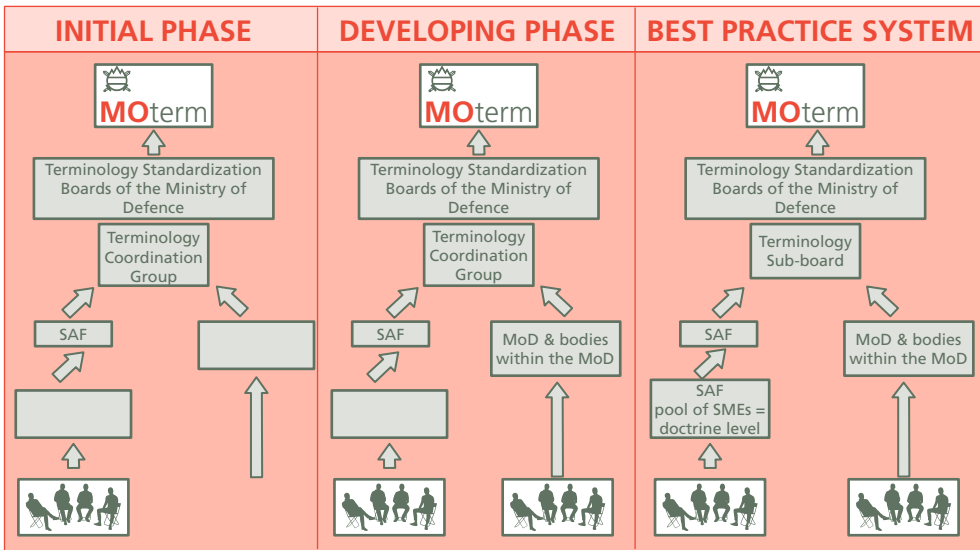
In the infrastructure, presented below, the authoritative body, i.e. the Terminology Standardization Board of the Ministry of Defence, which is the only one that already has a legal basis, is not also the coordinating body. Terminology work is currently coordinated and managed by the Terminology Coordination Group. With the intent of officially establishing the Terminology Coordination Group, we included all the members of the Group under the Terminology Standardization Board. The Group was then renamed the Terminology Sub-board and will be the body to manage and coordinate all terminology work. Why was this task not allocated to the Terminology Standardization Board? Mainly because its members are predominantly SMEs, who would still have to learn about terminology work and management. The board will, however, still have to check that the terms that will be included in the database have been through the standardization process. It will also be responsible for any complaints or review requests. All other work relating to terminology policy planning, terminology management and the coordination of terminology work will be carried out by the Terminology Sub-board (a new name of the Terminology Coordination Group). The biggest remaining problem was how SMEs in general will be included in terminology work. To this end, a document was prepared defining terminology work in the MoD and the SAF and specifying who is included in it. To have the desired effect, this document must be signed by the minister. With the legal bases soon (completely) in place, it will be easier to enforce a terminology policy, which should be drafted on the basis of the needs of the MoD and the SAF, keeping in mind the vision for the future.

2 THE THREE PHASES OF TERMINOLOGY MANAGEMENT INFRASTRUCTURE DEVELOPMENT

Figure 4 presents the three phases of our terminology management model, designed with the intent of ensuring standardized terminology. The first column shows the initial phase, in which we started off with a very simple process. The second column presents the developing phase, and the third the final phase of the development in which all best practices are applied. At the moment,²⁵ the terminology management process at the SAF and the MoD is in transition from the developing to the best practice phase.

²⁵ This paper was written in the summer of 2022.

Figure 4: The three phases of terminology management development in the Ministry of Defence and the Slovenian Armed Forces (Source: Created by author)



Phase 1: Initial phase

At first, terminology was managed by SMEs who were singled out by language professionals based on previous work experience on different translations, interpreting and the like. The simple process on which terminology management in the first phase was built is the 'working group model', which included a minimum of three SMEs together with language professionals (usually a translator or a proof-reader) who worked together on a specific term and its definition. According to Humar, »a good terminology dictionary should be the work of a team composed of experts of a specific discipline and linguists« (2004, p 20). After the group had reached an agreement, the term and its definition was sent to language professionals for double checking and comments. Any changes made to the content were checked by SMEs. In this phase of development, however, there was too much focus on the language professionals, mainly because the Terminology Coordination Group was still learning about the best way to do terminology work, and also because not enough SMEs were involved. Without them, the downsides of such a process within the military system soon appeared: a lack of consensus between SMEs; challenges in identifying the right SMEs; lengthy procedures, and not enough knowledge on the side of the language professionals to guide and direct the work. It became obvious that a special group of SMEs would have to be formed to:

- Identify appropriate/relevant SMEs (from among themselves, by their own decision);

- b) Ensure consensus on both a vertical (in terms of hierarchy) and a horizontal plane;
- c) Ensure the integration of the confirmed terms within the system.

Phase 2: Developing phase

In the second phase, the required group of SMEs was still far away, so the Terminology Coordination Group began to invest more time in learning about terminology and terminology management. Hand in hand with the knowledge it gained, the Terminology Coordination Group began to integrate the newly acquired knowledge into the process, and thus organized the first introductory meetings for individual services with the intent of explaining their scope of work and raising awareness of terminology work. As a result, individual groups of SMEs within services began to form. The introductory meetings turned out to be very positive, as the Terminology Coordination Group invited the SMEs to tell the Group what they needed in terms of managed and standardized terminology. As they are the ones with the knowledge of a specific domain, it was they who defined the core documents and vocabulary in the field, which both language professionals and SMEs started working on jointly. Despite the initial enthusiasm, the work progressed slowly, so it seems that the main problem was not the low level of awareness, but the time required for terminology work. Perhaps the results of the survey will be useful in improving the terminology management infrastructure and facilitating SMEs to allocate more time to it.

After the education and training branch, i.e. the Military Schools Centre, who recognized terminology as an interesting topic through their engagement in terminology work as SMEs, offered to include a short introductory lesson on terminology in their curriculum, the Terminology Coordination Group prepared a terminology manual and other material for the class, during which the course participants learned where to find appropriate terminology and how to help form Slovene terminology. The results were very positive, showing the Group that SMEs do need more information on this topic. With this in mind, the Terminology Coordination Group began to prepare an e-classroom, available to everyone within the system, which included even more information on terminology management and the principles of terminology work, with instructions on how to write definitions in Slovene.

In this second phase, the Group also began to work on the project of preparing a publicly available online dictionary, which will include reviewed terms from the English-Slovene military terminology dictionary, and newly standardized terms. The dictionary will be regularly updated and expanded with new terms. As the terminology management infrastructure began to grow, the Group also decided to find some appropriate software for the management of the workflow. Particularly in the third phase, such a system would be indispensable.

Phase 3: Best practice system

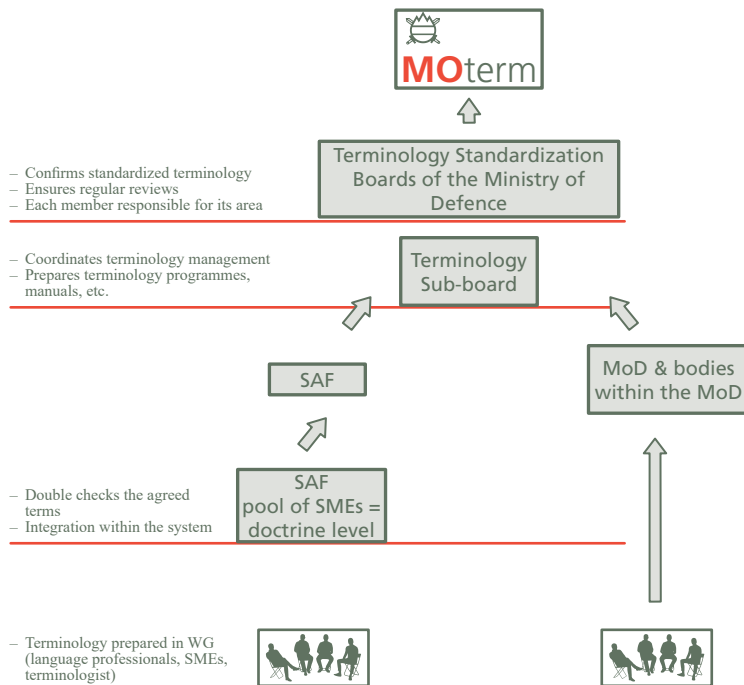
With the time invested in raising awareness of terminology work and thus getting more SMEs on board, the enriched knowledge of terminology management helped the Terminology Coordination Group in refining the terminology management infrastructure and process. With the intent of getting a better picture of the overall awareness of the terminology work in the MoD and the SAF, and perhaps with the intent of improving it, the Terminology Coordination Group carried out a survey that will be presented in Section 4. To make the terminology management process fully operational, the Group needs to continue to work on raising awareness and to make sure the appropriate legal bases are adopted. As the terminology management infrastructure became more developed, the Terminology Coordination Group also had to invest more in the development of an appropriate standardization process. To make sure that this process, once established, would attain standards at the international level, Group members joined the ISO's TC 37 Terminology and Language technical committee through the Slovenian Institute for Standardization. The core idea of the third phase, which the process is slowly transitioning to, is that SMEs will be more involved in terminology work and that language professionals will step aside, although they will still manage the process. The SMEs themselves should also be the ones who determine who is competent to discuss individual terms or terminology, while language professionals provide linguistic and terminological support and continue to manage the process.

At this point, a legitimate question arises. With appropriate knowledge at hand, could this final phase, the 'Best Practice System', be introduced in its full form from the very beginning? Even though the logical conclusion would point to a positive response, the current experiences with the establishment of the Slovenian defence and military terminology management system point to a negative answer. It would be very difficult to establish such a system, as some essential learning points/steps would have been skipped. This would be very difficult to do in the case of the MoD and the SAF, especially as neither were familiar with the in-house systematic terminology management efforts that began in 2018, particularly as no official terminology management body existed (the intent of the Terminology Board, established in 2007, was not terminology management). Additionally, those who initiated the terminology management process did not have sufficient knowledge to establish such a system, and even if they had, it would not be easy to do so, as the level of awareness was low or even non-existent. It was very hard to build on such basis. Even if the language professionals had enough terminological knowledge, introducing a terminology management process is not always easy, as Cerrella Bauer mentions that »in many cases the practitioners involved do not have a mandate from management for deploying such an initiative« (2015, p 326). This was another essential thing that the initiators were lacking – power. The key questions that should be asked, therefore, when establishing such a system are:

- a) Are your terminology efforts known to the organization or has the organization hired/tasked you?
- b) Do you have the power and/or support needed?
- c) Do you have enough knowledge?

If the answer to all of these questions is not 'yes', then it is always best to start step by step and with what you have. The terminology management infrastructure that the Terminology Coordination Group is striving to establish in the end is, as already mentioned, similar to the NATO's terminology standardization process (See Figure 5), with the exception that the work done in NATO by Member States is in our case carried out by working groups.

Figure 5:
Current terminology management infrastructure in the Slovenian Armed Forces and the Ministry of Defence
(Source: Created by author)



3 VIEWS ON TERMINOLOGY WORK IN THE SAF AND THE MOD

With the desire to obtain any information regarding the views on terminology work of the employees at the MoD and the SAF, who could all potentially be SMEs, a survey was carried out. This was the first survey ever conducted on this topic in the MoD and the SAF. As it was not a targeted survey (it was distributed to all employees), its value is only informative.

3.1 Results of the survey

The research method used in this paper for analyzing the views of SMEs on terminology was a survey, which was distributed by email to everyone included in the intranet network of the MoD and the SAF and published on the intranet pages. The survey was anonymous and consisted of 18 questions and an additional optional question. In the introductory part, the respondents had to provide information on the organizational unit they work in (MoD²⁶ or SAF), their status (civilian, officer, NCO, soldier) and the organizational level (operational, tactical, strategic). The survey began with a short explanation about the reasons for it. The survey was accessible on the intranet portal for three weeks. As it was not mandatory, it was only answered by the interested public, i.e. 155 people. All the questions in the survey, except one, were scales or required yes or no answers. The only open-ended question provided the respondents with the possibility of commenting on the topic; 26.5% of respondents gave their comments, some of which are presented below.

Of the respondents, 35.48% (n=55) were officers, 25.81% (n=40) were NCOs, 12.19% (n=20) respondents had a soldier's rank, 18.06% (n=28) were civilians (unfortunately the survey did not require them to identify themselves more specifically, which would have been useful), and 7.74% (n=12) did not provide any information on their status. A total of 91.61% of all respondents answered that they knew what terminology is. The answers to the question *»Are you acquainted with terminology work in the MoD and the SAF?«* was as follows: *»Not acquainted«* (20%); *»Somewhat acquainted«* (55%); *»Fairly well acquainted«* (19%); and *»Very well acquainted«* (6%).

In the first and second set of questions, the focus lay on the visibility of terminology work in terms of whether there are enough terminology products available and how SMEs think terminology work should be done. There were five possible answers: *»Disagree«*, *»Partially disagree«*, *»Partially agree«*, *»Agree«*, *»Strongly agree«*. The most common response to the first statement *»There are too few available terminological sources and materials (e.g. dictionaries) at the MoD and the SAF«* was *»Partially agree«* (38%), and to the second statement *»I would need a lecture or a course on terminology«* it was *»Agree«* (43%). The most common response to the third question *»I have heard about this activity, but it is not related to my work«* was *»Disagree«* (51%); however, this is difficult to analyze, because the question was two-pronged. The most common response to the next statement *»Terminology*

²⁶ For the purposes of this paper, the term MoD includes all bodies within the Ministry.

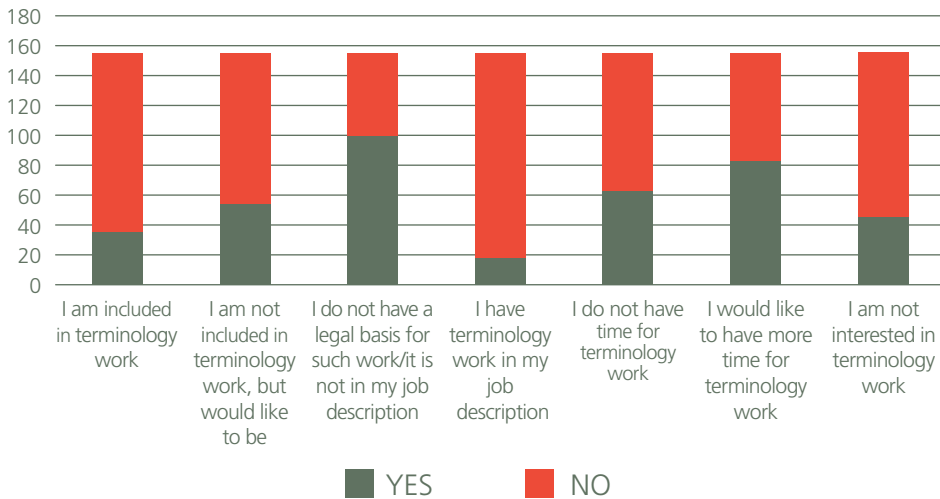
work should only be done by SMEs« was »Disagree« (29.5% – a relatively low number). The most common response to the next statement »*In doing terminology work, SMEs should cooperate with language professionals*« was »Strongly agree« (45%). The answer with the highest percentage in the next question »*In working groups, SMEs should prepare a uniform opinion about the meaning of a term, while language professionals should ensure their linguistic accuracy*« was »Strongly agree« (45%), while 40% of the respondents agreed that »*Terminology work is not visible enough*«. The respondents believed that they do not have »*enough knowledge for writing terminological definitions and providing expert support*«, as 35.5% answered »Partially disagree« to the statement, and 35.5% also answered »Partially agree« to »*It would suffice to be guided by language professionals*«.

Table 1:
The results of the first and second set of questions in the survey on terminology carried out in the Ministry of Defence and the Slovenian Armed Forces (Source: Created by author)

	I disagree	I partially disagree	I partially agree	I agree	I strongly agree
There are too few available terminological sources and materials (e.g. dictionaries) at the MoD and the SAF.	8.5%	18%	38%	26.5%	9%
I would need a lecture or a course on terminology.	1.5%	10.5%	31%	43%	14%
I have heard about this activity, but it is not related to my work.	51%	15.5%	19%	10%	4,5%
Terminology work should only be done by SMEs.	29.5%	20.5%	23%	19%	8%
In doing terminology work, SMEs should cooperate with language professionals.	1.5%	4%	9.5%	40%	45%
In working groups, SMEs should prepare a uniform opinion about the meaning of a term, while language professionals should ensure their linguistic accuracy.	1.5%	3%	8%	42.5%	45%
Terminology work is not visible enough.	1%	13%	40%	37%	10%
I have enough knowledge for writing terminological definitions and providing expert support.	26.5%	33.5%	16%	20%	4%
It would suffice to be guided by language professionals.	17.5%	17.5%	35.5%	25%	4.5%

In the next set of questions, the respondents had to mark whether the statement applied to them. What stood out was the total number of respondents who stated that they did not have terminology work in their job description or a legal basis for it (64%). The numbers presented on the vertical axis are the numbers of respondents.

Table 2: Answers to the final Yes/No statements in the survey on terminology carried out in the Ministry of Defence and the Slovenian Armed Forces (Source: Created by author)



The final, open-ended question allowed participants to comment on the topic. Here are some of the comments of the 41 respondents: *»I miss electronic dictionaries«*; *»I use the terminology dictionary²⁷ in my work, but I don't believe that it includes the newly introduced terms«*; *»I encounter different challenges in my work, especially the challenge that after 30 years we have either old Yugoslav weapons manuals, American manuals or none at all«*; *»I often encounter problems when translating terms from English into Slovene or vice versa – there are also new terms appearing which have no equivalent in Slovene or at least cannot be found in the English-Slovene terminology dictionary from 2006, which should be updated«*. One of the respondents commented that *»it is difficult to coordinate regular work with cooperation with the Terminology Coordination Group«*, adding that *»it would be necessary to explain to superiors why terminology is important, and perhaps then they would allow us to allocate more time to terminology«*. The same respondent also wrote that *»an introductory meeting on terminology should also be organized for the superiors of the service members involved in this work«*, adding that *»there is often not enough time to do this work«*. Some respondents believed that a terminology management system is already well in place and that defence and military terminology is already agreed upon. Some of them also suggested that we should have a body or an institute dealing exclusively with terminology.

Based on the comments, it can be concluded that SMEs are well aware of the problems caused by unmanaged terminology. One of them wrote that *»we have many contradicting terms in marksmanship training, which are used in different sources«* and expressed concern that this should be unified. Another respondent

²⁷ English-Slovenian Military Terminology Dictionary (2006).

wrote something similar: »*We sometimes have three or more terms which are mainly a consequence of non-unified translation of expert literature from English, which often leads to incorrect understanding or confusion*«. Respondents also recognized the importance of connecting the SAF and the MoD with the civilian sphere, as a lot of military domains (such as the air force, naval forces, mountain warfare forces, etc.) are linked to the civilian sphere. This means that we should aim at unifying and standardizing terminology not only in the SAF and the MoD, but also at the national level.

Conclusion This paper provided an overview of the development of the terminology management process and the establishment of the terminology management infrastructure. It showed that the terminology management process and infrastructure established in the MoD and the SAF resemble that of NATO, even though NATO's terminology includes all member states. The work done by them could be *mutatis mutandis* compared to the work done by ad hoc working groups in the MoD and the SAF (see Figure 5 which presents our terminology management process, based on NATO's). Both the overview of the process and the tentative analysis showed that greater emphasis should be given to terminology management. The lack of appropriate legal bases was an ongoing theme throughout the paper. The paper also showed the necessity for a) a central pool of SMEs who would deal with terminology-related questions and work together with language professionals, and the need to b) systematically and quickly feed a termbase with standardized terminology and make it available not only on the internal network, but also on the internet, to avoid the duplication of terms and unnecessary synonymy, and to ensure a unified transfer of information. To ensure this, cooperation between language professionals and SMEs is essential.

An overall conclusion is that terminology work in the MoD and the SAF is necessary as both are the most important source of new defence and military terms. Therefore both should be more aware of their role in ensuring the development of the Slovenian defence and military language, and should therefore dedicate more time to its promotion.

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*Prispevki, objavljeni v Sodobnih vojaških izzivih, niso uradno stališče Slovenske vojske niti organov, iz katerih so avtorji prispevkov.

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