

IAA MULTILINGUAL ASTRONAUTICAL TERMINOLOGY SYMPOSIUM (E8)  
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FROM INDEX CARDS TO NEURAL MACHINE TRANSLATION: STEPS TOWARDS  
HARMONISING EUROPEAN SPACE TERMINOLOGY

**Abstract**

The European Space Agency (ESA), under its founding Convention, is required to issue official documents in three languages and, by extension, to perform translation and ensure terminological equivalence and consistency. This task is particularly challenging given the constantly evolving nature of the technical language being used in this highly dynamic sector.

This paper considers the evolution of space terminology and the development of terminology management at ESA, looking back at its origins and focusing on two major projects related to this: the planned corporate e-Glossary and the ongoing neural machine translation trial. Looking ahead to the ultimate goal of space-sector terminology harmonisation, we also take stock of the various inter-organisational collaborative efforts (Historical Archives of the European Union, the space terminology commission under the auspices of the French Government, national space agencies, etc.).

Since its introduction, terminology management within ESA's multilingual European work environment has made great advances. The creation of a term bank in the late 1990s marked a milestone on the way to a more standardised approach. Today, what is now known as ESA Termbase covers, in English, French and German, most areas of ESA's activity. Users can directly access this continuously-growing resource, currently comprising over 30,000 entries. Through the use of a computer-assisted translation tool, previously-translated content is also accessible to translators, delivering substantial benefits in terms of output quality, retention of legacy knowledge and time saved.

The importance of harmonised terminology management organisation-wide has become increasingly apparent. Reflecting this, ESA's Knowledge Management (KM) initiative includes two major projects relevant to terminology. One is to establish a corporate taxonomy. Another is the planned e-Glossary of standard terms combining and rationalising existing glossaries and lists of acronyms/abbreviations used in-house. The latter is being designed as a single entry point for all terminology use right across the Agency, notably incorporating the standards for European space activities published by European Cooperation for Space Standardization (ECSS).

Standardising terminology across the European space sector and minimising inconsistency is also key in other regards. A successful roll-out of neural machine translation, for example, will depend to a high degree on the quality and volume of the space-based terminology archive built up over time. First results of the current trial and its impact on terminology management will be presented.