

## ***Invited User Presentation: The Evolution of the European Machine Translation Programme at the European Patent Office***

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### **Abstract**

In 2004 the European Patent Office (EPO) launched its own European Machine Translation Programme (EMTP). The aim was to provide an automatic translation service of a sufficient quality to make the technical content of a patent document understandable to a technically qualified person. Such a service, which was otherwise not available at the time, was a first attempt to remove language barriers in the use of patent information.

The programme consisted in building hierarchical technical dictionaries based on IPC classification which should allow for the correct translation of technical terms and patent terminology. The dictionaries, built using parallel patent corpora of language pairs, were then loaded on an existing rule-based translation engine.

The EPO esp@cenet website (ep.espacenet.com) currently shows the results achieved through the EMTP and offers translation services from and to English for four languages: German, Spanish, French and Italian. The quality outcomes, vary substantially from language to language due to different reasons for each language. Nevertheless, the usage of the service remains remarkable.

In the meantime, attempts to extend the EMTP to further language pairs were less successful and showed that this could not be done using the same approach. In fact, since 2004 machine translation technology has developed rapidly and other approaches and solutions have proved to deliver a higher translation quality than the original EMTP solution. In view of the increasing quality of generic machine translation services, also patent system users raised their expectations.

The machine translation of patent documents has taken up a political dimension too: the London Agreement (reducing the translation requirements for European patents) is now in force in several European countries, while the Community Patent has recently become as close as ever thanks to a political compromise based, among others, on the use of automatic translation for patents from and into all EU languages.

This combination of circumstances has led the EPO, in concertation with the member states, to conceive a new Machine Translation Programme, which is due to receive final political endorsement before end 2010. The new programme intends to offer state-of-the-art language technology services for patents from English (and later on, from French and German) into all EPO member states' languages to technically qualified users skilled in the art.