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PROMOTION OF MT IN THE PUBLIC DOMAIN BY THE FEDERAL REPUBLIC OF
GERMANY

Firstly the following report will give a brief outline on the rules of granting MT-projects by the German ministry of research and technology, which is coordinated under the heading of what we call Specialized Information ("Fachinformation"). Secondly it will give an overview on running projects. Thirdly a brief outlook to the future will be given.

I.

The general basis for all activities in the public domain promoting the development of MT systems is the Programme for Specialized Information of the German government. As a general action it is foreseen to support the development of machine translation systems to reduce language barriers. This includes explicitly the German contribution to the development of the EUROTRA system.

The reduction of language barriers will make it possible to offer German Specialized Information in foreign countries and vice versa. Generally our government is highly interested in having included the German language in all MT systems. But it is a principle of the mentioned programme, that commercial systems should be developed and marketed by industry without governmental support. But there are exceptions, e.g.:

1. If there are some general barriers, the government can improve the framework.
2. Whenever there is a need for a special service or whenever there seems to be a need for a special development and nobody the private market is able or willing to spent his capital for this purpose, the government can support the task with public money.
3. Commercial systems can be granted in the pre-competitional area.

II.

In the next step an impression of ongoing developments under this circumstances will be given.

First of all there is to mention the German participation in the EUROTRA project. For this purpose we have a centre of excellence in Saarbrücken, the Institute for Advanced Information Science (IAI), which is managed by Prof. Zimmermann. Executive manager for EUROTRA-D is Dr. Haller.

Besides the EUROTRA development, which follows the programme set by the EC in Luxembourg, we support two accompanying developments at university institutes. This projects turned out to be fruitful complementary research approaches.

The first, lead by Prof. Mahr and Dr. Hauenschild, is located at the TU Berlin and tries to find solutions for MT problems using GPSG (Generalized Phrase Structure Grammar) as vehicle. The project is embedded in a extensive AI research environment. But this is not the topic of this report.

The second accompanying research is done by the group of Prof. Rohrer. His centre of excellence, the IMS (Institut für maschinelle Sprachverarbeitung) is situated at the University of Stuttgart and tries to find better solutions using LFG (Lexical Functional Grammar) as another theoretical approach.

Stuttgart conducts also another project, which is supported by the Ministry of Research and Technology. Its name is POLYGLOSS. Managed by Prof. Rohrer and Prof. Lehmann, a group of researchers is going to find ways to built universal multilingual generators which also can be part of MT systems. Successful experiments, e.g. the connection with the parser of the FUJITSU system ATLAS, have shown the quality of this approach.

Further there is to mention, that Prof. Rohrer is official spokesman of the so-called SONDERFORSCHUNGSBEREICH, a informal connection of different institutes, all working in basic research in theory of language for computational linguistics. Here a bundle of projects is carried out funded by the German research association DFG.

The IAI in Saarbrücken also carries out a whole bundle of project activities. There are several experiments in the surrounding of EUROTRA with different approaches insofar, that only a limited number of languages are included and the group uses a speeded up version of the official EUROTRA formalism.

Independent to the EUROTRA activities the IAI team in the past has also built a second lower quality MT system, named MARIS (Multilinguale Anwendung von Referenz-Informationssystemen). This system is able to translate titles and - more or less - abstracts with a minimum effort in post editing. This system is used especially for translation of material out of our German centres for specialized information.

Recently the MARIS team started an investigation on efforts necessary for translating patent sheets of the German Patent Office. These sheets are up to today available in a DB under STN in the FIZ Karlsruhe only in German. More over the IAI as centre for MT research has build up an operating translation centre.

All the MARIS activities have to be seen under the above mentioned "special services". And, as you might see, all this project activities are at least near to the university world. In this sense all the projects help indirectly to improve education in the MT area. This is an example for the improvement of the framework of the field.

III.

What about the near future?

In the surrounding of the EUROTRA activities we have an expert circle consisting of the leading German MT scientists. Among other tasks this group will work out a comparative evaluation of of the German part of EUROTRA and our accompanying research.

The lexicon is always the bottleneck of MT systems. Thinking about the improvement of this situation, we have invited leading publishers in the lexicon area, hardware manufacturers and according researchers for expert talks. At this moment we are in concrete negotiations for a project to electronify a representative German dictionary.

And finally, we gave a contract to SCS, an international operation company in the field of consultancy for AI activities. SCS will work out an evaluation on trends and perspectives in the MT area. We hope, this will help us to improve MT developments, also worldwide.