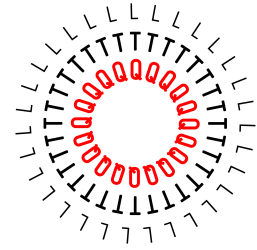# Towards global communication without linguistic barriers:
the QTLeap project

It may even sound paradoxical, but in the digital age and in a globalized world, human language is one of the last and major communication barriers that we still come across.

The European scientific research project QTLeap is seeking technological advancements to overcome this barrier without eliminating or diminishing linguistic diversity.

Human language is a gateway to the world around us. In the digital age and in a globalized world, it is nevertheless also one of the major communication barriers that we still come across.

The new information and communication technologies put within our reach people from all over the world with whom we could interact, as well as an unlimited supply of information that it would be possible to get access to. However, for each one of us, this new universe remains inaccessible and closed almost in its entirety, walled by the invisible boundaries of languages that divide it.

Scientific research on natural languages, and in particular on machine translation, can make a decisive contribution to overcoming this ultimate barrier to communication and information.

Machine translation is a computational procedure that seeks to provide the translation of utterances from one language to another. Research and development around this grand challenge is bringing this technology to a level of maturity that already supports useful practical solutions. It permits to get at least the gist of the utterances being translated, and even to get pretty good results for some language pairs in some focused discourse domains, helping to reduce costs and to improve productivity in international businesses.

It is against this background that has been designed and is currently being executed the QTLeap project, "one of the most ambitious projects of scientific research in recent years in the area of machine translation and human language technology", in the words of its scientific coordinator, António Branco, from the University of Lisbon.

The project aims to investigate and develop an innovative methodology for machine translation to take advantage of approaches based on deep linguistic processing. According to António Branco, "this project explores innovative ways to achieve higher quality translations, made possible by a new generation of increasingly larger and sophisticated semantic databases and by recent advances in semantic processing of natural language."

The QTLeap – Quality Translation by Deep Language Engineering Approaches project is run by a European consortium of eight partners: Bulgarian Academy of Sciences, Charles University in Prague, German Research Center for Artificial Intelligence, Higher Functions Lda., Humboldt University in Berlin, University of the Basque Country, University of Groningen and University of Lisbon. For more information and contact details please visit: qtleap.eu.