Best Practice in Robotics

**From** 2009-03-01 to 2013-02-28

**Project details**

<table>
<thead>
<tr>
<th>Total cost:</th>
<th>Topic(s):</th>
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<tr>
<td>EUR 10 828 300</td>
<td>ICT-2007.2.2 - Cognitive systems, interaction, robotics</td>
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<th>EU contribution:</th>
<th>Call for proposal:</th>
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<tr>
<td>EUR 7 749 990</td>
<td>FP7-ICT-2007-3</td>
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<tr>
<th>Coordinated in:</th>
<th>Funding scheme:</th>
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<tr>
<td>Germany</td>
<td>CP - Collaborative project (generic)</td>
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**Promoting interoperability of the robotics technology and implementation of an integrated robotic development environment**

Robotic systems and applications are about to become a key technology to address two socioeconomic issues: the overaging societies and the competitiveness in the global markets. The development of new robot systems and applications has remained a challenge taking significant time and effort because they are typically highly specialized, unique, and from-scratch developments. Robot developers in academia and industry need common research platforms and development tools shortening the development cycles.

The main objectives of BRICS are to significantly promote the interoperability of hardware and software components and to design and implement an integrated robotic development environment including a software repository of best practise robotics algorithms.

**Objective**

BRICS addresses a very urgent need of the research community, namely the need for common research platforms, which support integration of research results and which support the evaluation, comparison and benchmarking of result and the promotion of best practice in robotics. In a poll in the robotics research community in December 2007 95% of the participants have voted for such platforms. Such common research platform would be beneficial for the robotics community, both for the academic community as much as for the industrial community. The academic community would save a significant amount of resources, which typically have to be invested in "from scratch developments" and "me-too approaches". Furthermore the scientific results would become better comparable which might promote a culture of sound experimentation and comparative evaluation. Jointly specified platforms will foster a rapid technology transfer. A rapid technology transfer will support the development of new systems and applications, which is to the benefit of the industrial community.

To achieve the our objectives we propose the development of a design methodology which focuses on three fundamental major research and development issues, which will be implemented in three highly interwoven lines of technical activities:

- Identification of best practice in robotics hardware and software components
- Development of a tool chain that supports a rapid and flexible configuration of new robot platforms
- Cross-sectional activities addressing robust autonomy, system openness, and harmonisation and benchmarking

Kuka in BRICS takes the leadership in a community initiative, which is not free of risk for the company, but which is badly needed for a convergence of technology in the field of robotics. This endeavour is of fundamental importance to ensure the success and competitiveness of the European robotics industry as well as research.
Related information

Documents and Publications

- BRICS Flyer

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Subjects

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