THE "TELEPRASENZ" CONSORTIUM: STRUCTURE & INTENTIONS

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The Teleprasenz-Consortium is an open group of currently 37 scientists of different disciplines who devote a major part of their research activities to the foundations of telepresence technology. The necessary support for their work is provided by German federal and state sources as well as by European agencies and industry. The activities of the consortium are organized into three main branches: virtual environment, surveillance and control systems and speech and language technology. In the following, a brief summary of the main activities in these areas is given.

Telepresence technology - in this context - is basically understood as a means to bridge spatial and temporal gaps as well as certain kinds of concealment, inaccessibility and danger of exposure (e.g., microscopic dimensions, non-perceptibility by human senses, sensoric disabilities, speech and language problems, load of emissions).

Virtual Environment: In this group, it is the aim to provide a virtual environment for specific tasks such as telesurveillance or telecooperation applications. Although the main focus was directed on the auditory and visual components so far, future work will include tactile and kinesthetic cues.

Surveillance and Control Systems: This group is mainly engaged in tasks which concern control technology, diagnostics of complex systems in biology and technology as well as in accompanying problems in signal processing and software technology.

Speech and Language Technology: This group is concerned with several projects in the areas of automatic speech in- and output, speech coding and symbolic processing fore telepresence scenarios.

Current research proposals of the Teleprasenz Consortium include a telemanipulator system and a testbed for polysensory virtual environment as well as many smaller research and development contracts. An information brochure on Teleprasenz (in German) will be available at the conference.

MACHINE PERCEPTION AND ITS ROLE IN VIRTUAL ENVIRONMENTS

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(No written material provided)