The main objective of the JEStiMuLE project is to better define and further expand the use of serious games. The work will be based on the development of a low-cost demonstrator. This demonstrator will be an interactive multisensory game combining visual, auditory and tactile feedback. The game will be used as a complement to the psychotherapy of children with pervasive developmental disorders, including autism. These children have impaired social skills and communication. Therefore, the interactive game will focus on teaching these skills (e.g. emotions recognition, ability to converse). The final demonstrator will be evaluated with end users and with a combination of HCl and neuroscience methods.

TECHNOLOGICAL OR SCIENTIFIC INNOVATIONS

- Expanding the use of serious games on the basis of a practical health-related application. Involving users very early in the design of the serious game.
- Analysis, modeling and integration of current therapies, which are particularly effective for autistic children.
- Integration of haptic and tactile interfaces to ensure richer interaction with the real world.
- Development and evaluation of a tactile language for the transmission of emotional cues and information.
- Evaluation of the utility, usability and user experience with the serious game.
- Use of a combination of evaluation methods from HCl, psychiatry and neuroscience.

STATUS - MAIN PROJECT OUTCOMES

The project started on 5th January 2010. Preliminary user evaluation with existing technologies and 12 autistic children have been done. The game scenario was designed and the technological specifications were done. The technological developments (game and tactile interfaces) are currently finished. A new evaluation campaign is. The Final evaluation is on-going to validate the enhancement of emotional competences of children with autism thanks to the serious game.