Kheiron Training System

KTS Project Presentation

July 2014

e-learning serious game for surgical skills training: Kheiron Training System -- 543202-LLP-1-2013-1-ES-KA3-KA3MP

Lifelong Learning Programme

"This project has been funded with support from the European Commission. This communication reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein."

Index

1. Background
2. Objectives
3. Problems, innovation and benefits
4. Consortium
5. Workplan
6. For more information

1. Background

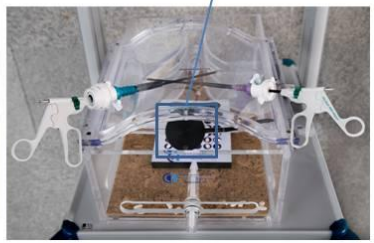
Minimally Invasive Surgery (MIS)

- Shorter recovery time
- Lower morbidity
- Reduction in overall cost

Surgeons must acquire specfic psychomotor skills

Provide medical students and surgeons with **<u>tools for psychomotor training</u>**

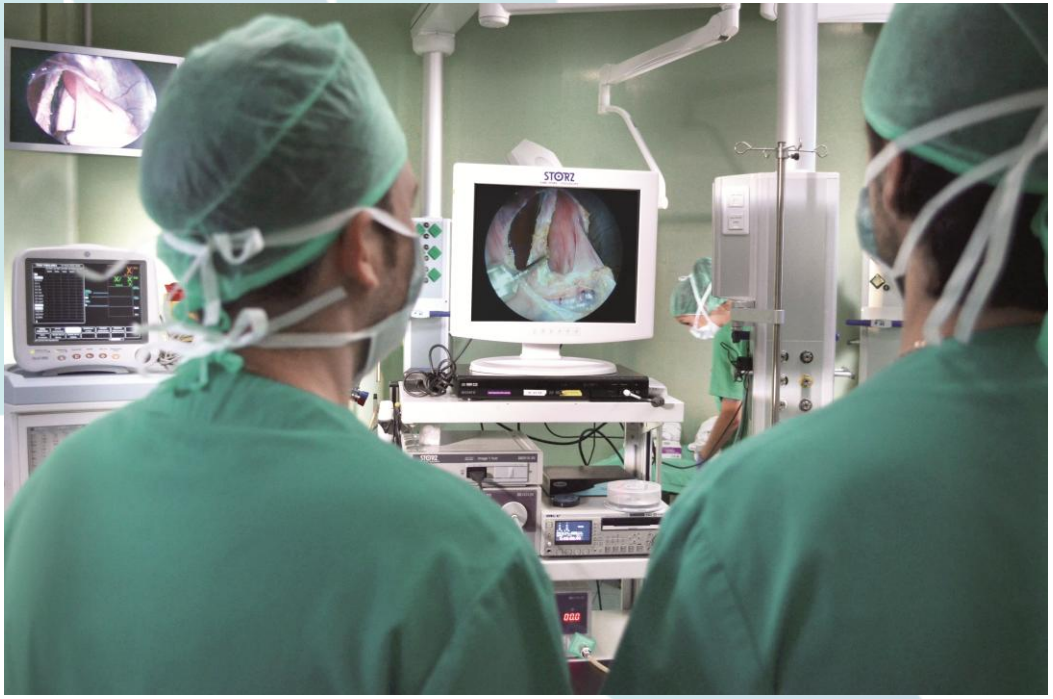
1. Background



The use of **box-trainers** in the initial stage of training is widely used, but their combination together with **e-Learning** systems is still missing.

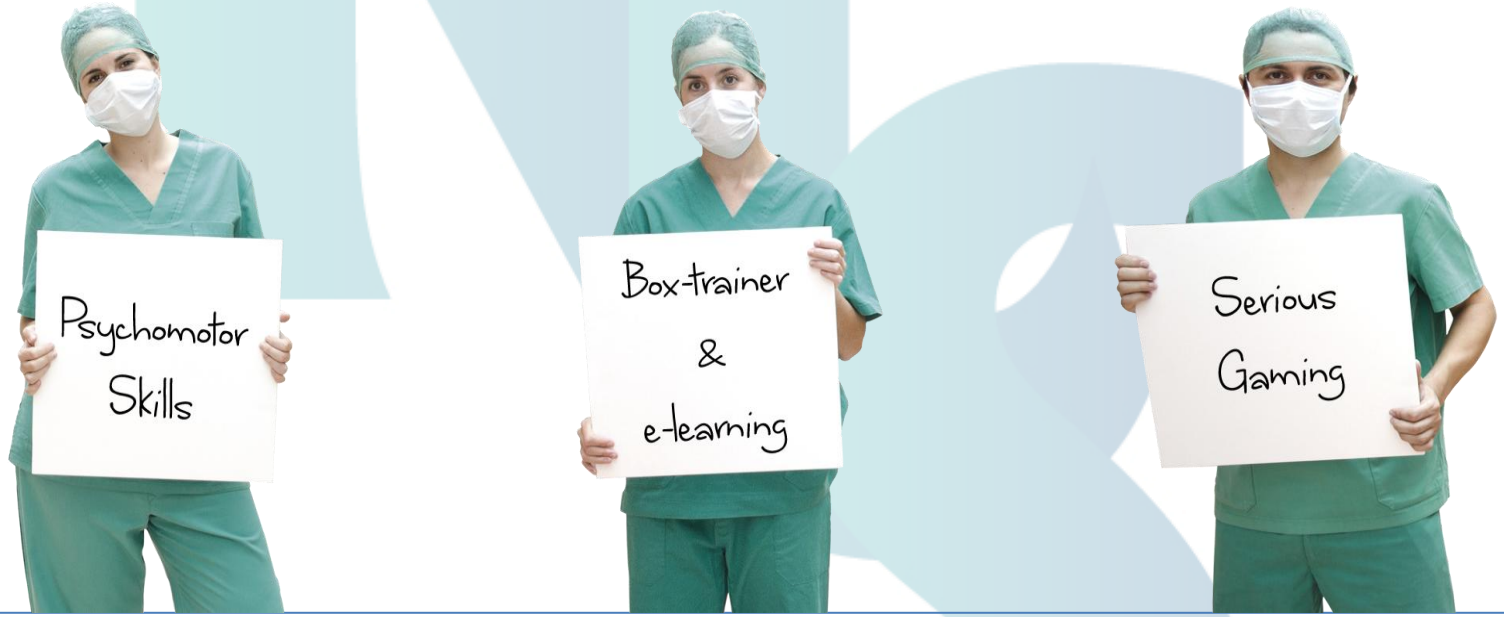
1. Background

Serious gaming is an innovative ICT approach with great success in different fields of education and with an enormous potential to improve medical training by providing non-formal and informal learning or being part of formal training programmes.

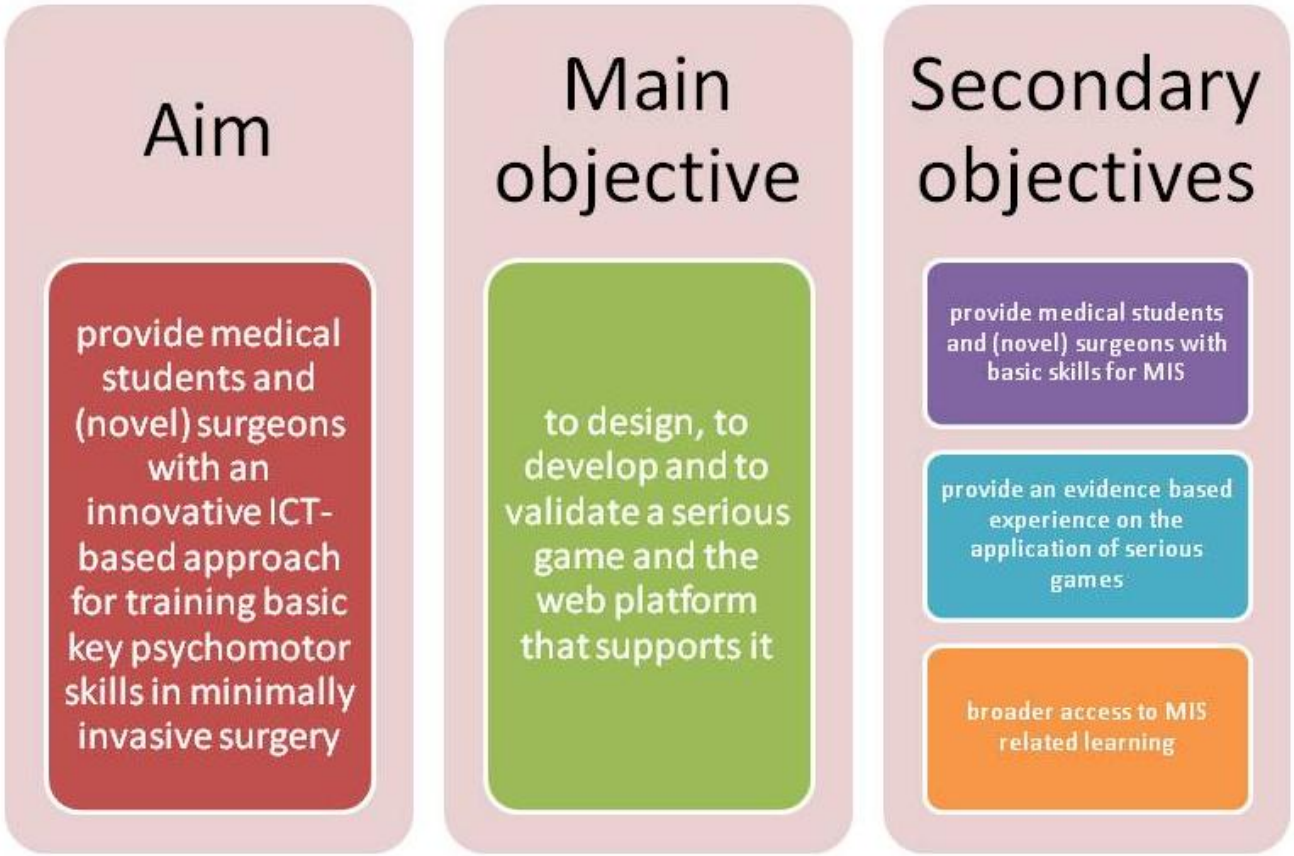


2. Objectives

The main objective of **KTS project** is to design, to develop and to validate a **serious game** and the supporting material in order to provide medical students and (novel) surgeons with an innovative ICT-based approach for **training** basic key **psychomotor skills** in minimally invasive surgery



2. Objectives



3. Problems, innovation and benefits

Current problems

- No distance mentoring
- e-Learning just for cognitive training
- Serious gaming not fully exploited for MIS training
- Need of more training options for medical students and (novel) surgeons

KTS serious game innovation

- Especially designed for MIS
- Based on an actually used box trainer
- Real-time tracking of the tools based only on video analysis
- Distance mentoring for psychomotor training

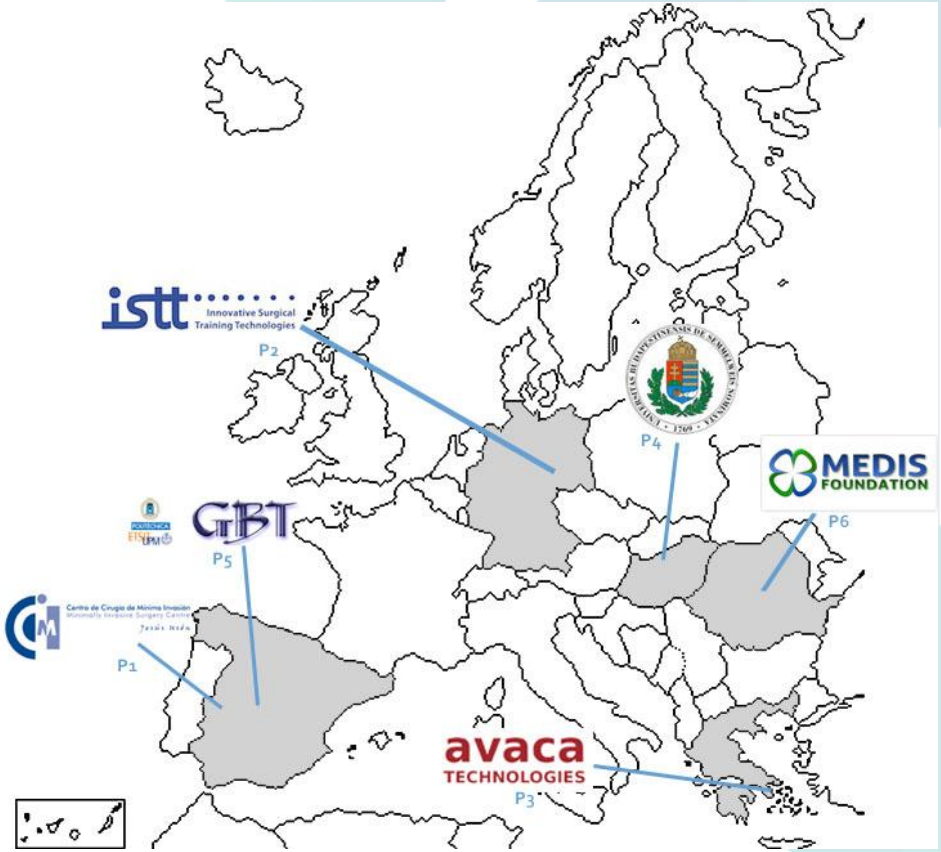
Benefits

- Psychomotor training from any place using a box-trainier
- Inclussion of serious games in psychomotor training
- Increasing accesibility to specialized training centres

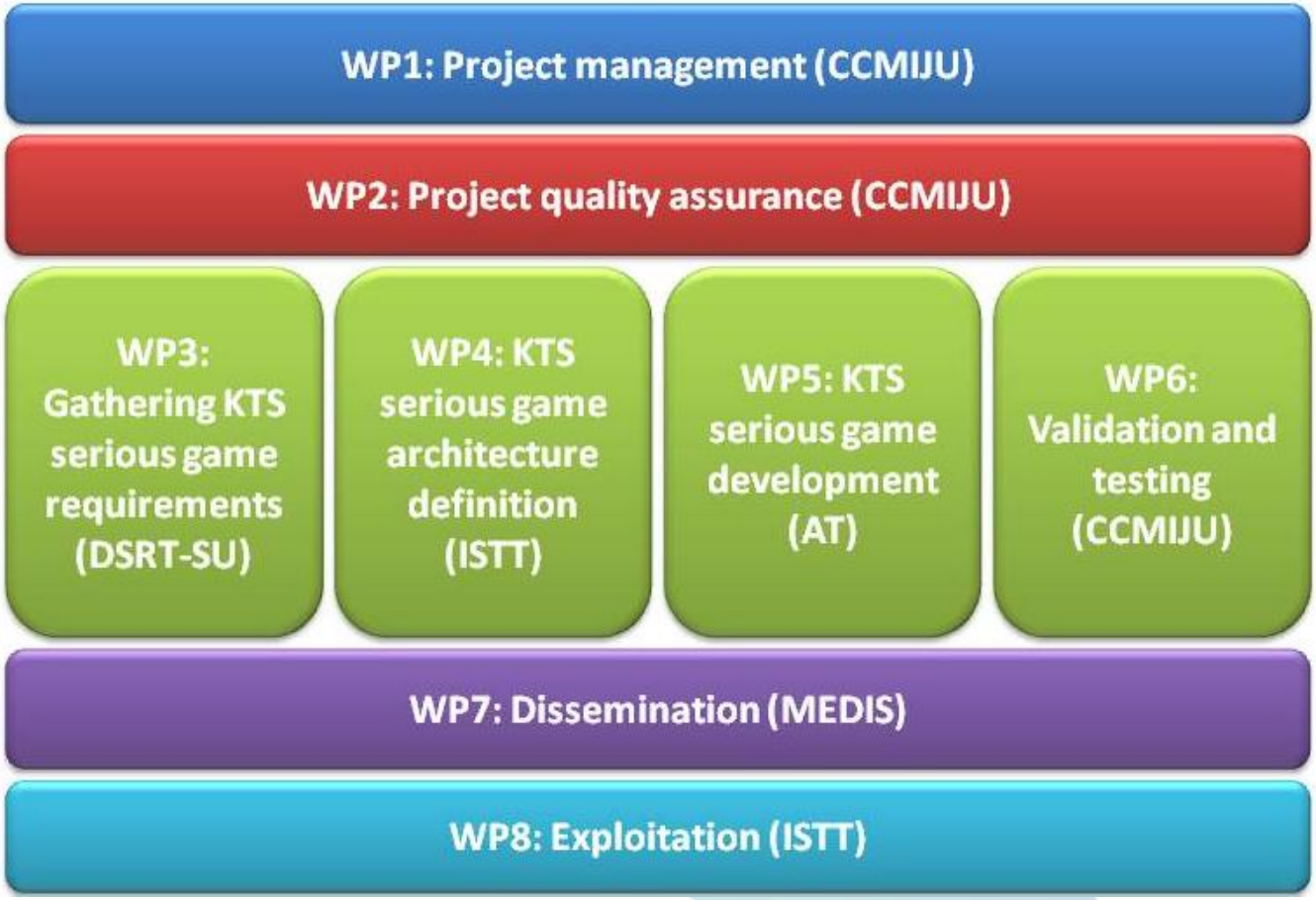
4. Consortium

Centro de Cirugía de Mínima Invasión Jesús Usón Coordinator Francisco M. Sánchez-Margallo msanchez@ccmijesususon.com	***Innovative Surgical Training Technologies – HTWK Leipzig*** Werner Korb korb@istt.htwk-leipzig.de	***AVACA Technologies*** Nikos Skarmeas nskarmeas@avaca.gr
Department of Surgical Research and Techniques – Semmelweis University György Wéber gyorgyweber@yahoo.com	***Grupo de Bioingeniería y Telemedicina – Universidad Politécnica de Madrid*** Enrique J. Gómez egomez@gbt.tfo.upm.es	***MEDIS Foundation*** Calin Tiu tiucalin@yahoo.com

4. Consortium



5. Work Plan

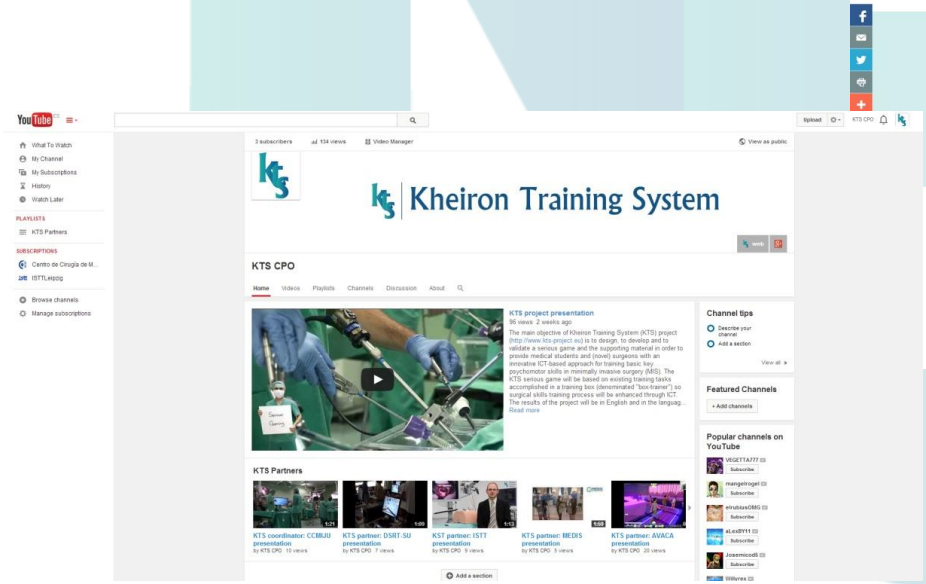

WP1: Project management (CCMIJU)
WP2: Project quality assurance (CCMIJU)
WP3: Gathering KTS serious game requirements (DSRT-SU)
WP4: KTS serious game architecture definition (ISTT)
WP5: KTS serious game development (AT)
WP6: Validation and testing (CCMIJU)
WP7: Dissemination (MEDIS)
WP8: Exploitation (ISTT)

6. For more information

cpo.kts@ccmijesususon.com

www.kts-project.eu

http://www.youtube.com/user/KTSprojectEU



Thank you!