



eLaparo4D 2.0

Title:	eLaparo4D 2.0
Duration:	12 months
Starting date:	August, 11th 2017
Closure date:	August, 10th 2018
Admissible costs:	321.835,67€
Co-founder:	PO FESR LIGURIA 2014-2020 - Azione 1.1.3



Project description:

Training through the use of simulators is increasingly an important and fundamental path for both students and specialists and for structured doctors. For the simulation to be effective, the simulator must have a very high fidelity, which is possible today by the technology available and continuously evolving.

With this in mind, the research and development project in collaboration with MCS (funded under the POR 1.2.2. Call) was born for the development of a prototype (eLaparo4D) for the simulation of laparoscopic surgery situations, patented in Italy (patent n. IT102016000047612 "Laparoscopy Intervention Simulator") which has reached TRL 6.

The equipment, consisting of a virtual reality system installed on a robot-based device, allows to simulate the potential resistance caused by the interference between the work tools and the patient's tissues.

The work performed represents an excellent proof of concept to be further developed to optimize its functionality and solve some technical issues related to both hardware and software: this was the goal of the eLaparo4D 2.0 project.

The device also allows the analysis of different clinical situations through a single device, subsequently allowing an analysis of any errors made and an evaluation of the performance, providing the possibility to monitor staff learning in follow-up



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