Title: ELVIS - *E*ducational *L*aparoscopy with *V*irtual *I*nstructive *S*imulations and robotics
Duration: 18 months
Starting date: june2021
Closing date: november 2022
Admissible costs: 363.500,00 €
Co-founder: POR FESR 2014-2020 - Asse 1 - Azione 1.2.4

Partner:

Project description:

The Elvis project was first classified among the 13 projects approved by Filse (Finanziaria Ligure per lo Sviluppo Economico) under the POR FESR 2014-2020 call - Axis 1 - Action 1.2.4, the only one with full score, out of a total of 96 participating proposals. The project is coordinated by EMAC srl, a Ligurian company with more than 40 years of experience in the medical distribution sector, which has always been sensitive to research and innovation used to improve the quality of life of patients, which will work in collaboration with important companies in the Liguria panorama (Gruppo FOS spa, Nextage srl, Dema srl and Mectrotech srl), under the guidance of the Scientific Responsible Prof. Marco Frascio.

The companies will start from a prototype developed in previous projects with the aim of innovating, improving and developing a high-tech, low-cost multimodal laparoscopic surgery simulator for future market entry. The device will be updated according to the feedback collected from the medical world and enriched by an advanced human-device interface. The companies will be supported in their path by Research Bodies, which thanks to their profound expertise in the clinical, training and technological fields, will bring great added value and solidity to the final product.

The project result will be immediately available on local area: an advanced simulator will be available at the SimAv (Center of Simulation and Advanced Training of the University of Genoa), to implement innovative surgical training courses.

Compared to the currently available prototype, the new simulator will provide quantitative performance measurements; it will be updated with up-to-date technologies and designed in order to have a competitive target price; it will be integrated with devices transmitting physiological parameters for the detection of the operator's stress level which, together with the measured performance parameters, will create a Big Data structure to which an algorithm based on Artificial Intelligence can be applied for the identification of personalized training courses.