

EASIER: Technology-enhanced learning of surgical and interventional technical and nontechnical skills

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As surgical education evolves towards structured, objective and patient-safe training programs, new challenges arise related with the efficient exploitation of technology enhanced learning. The lack of a common pedagogical framework means that it is up to hospitals and training centres to dispose of different technological tools and resources such as VR simulators, online platforms, etc. The choice is usually based in economic criteria rather than pedagogical value. Moreover, the technologies are used in an isolated fashion, their potential diminished by the lack of integrative curricular reports considering technical and nontechnical assessment of skills.

The European Knowledge Alliance for Innovative Education of Surgical and Interventional Skills (EASIER) proposes an innovative approach for surgical and interventional teaching and learning based on TEL. EASIER will develop an innovative pedagogically-supported platform for surgical and interventional multi-skills education. The platform will integrate heterogeneous external TEL assets (VR, augmented video, augmented box trainers, etc.) to provide an engaging learning experience, favouring simulation and interaction. Through the integration, the learner will have access to a comprehensive record of achievements and outcomes linked to any course taken on both technical and nontechnical skills. On the other hand, mentors will be able to use this knowledge to guide residents and suggest learning itineraries and contents.

The platform will be grounded on a validated learning framework for setting learning outcomes and activities in online platforms, the MISTELA pedagogical model. This will set the basis for an EU strategy on a common TEL-based programme offering structured learning and assessment, which will help standard graduate and postgraduate training across the continent, thus favouring mobility of professionals as well as the exchange and co-creation of knowledge. Validation with end-users (learners and mentors) will be carried out in 4 EU countries (Spain, Hungary, The Netherlands and Romania).