Instituto de Biomecánica de Valencia

IBV is a Technological Centre whose aim is the promotion and practice of scientific research, technological development, technical assessment and training in Biomechanics. Engineers, medical doctors, physical therapists, biologists, informatics, and experts in training, design and social work compose its interdisciplinary staff, with large experience in European, national and regional projects. The Healthcare Technology Group collaborates with surgeons, implants companies and other entities interested in health management, trauma care and development of health products. IBV has an Education and Training department, whose activity is focused on development and teaching of different courses regarding the areas of interest of the Institute, and a department of ICT, especially dedicated to the valorization of the activities of the Centre and the dissemination of the project results.

Minimally Invasive Surgery Centre Jesús Usón

The Jesús Usón Minimally Invasive Surgery Centre, CCMIJU, is a multidisciplinary institution dedicated to excellence in research and training in minimally invasive surgical. Thanks to the available facilities and equipment, it is possible to develop less invasive surgical treatments by applying combined techniques and multidisciplinary equipment for treatment approach, thus benefiting the patient and providing higher precision to the surgeon. Similarly, the Centre is committed to technological development and innovation in health care, and for its advancement it works closely with companies from all over the world. Besides, since the CCMIJU is free from medical assistance, it joins all its efforts and resources into research. In short, this activity will have an impact on higher clinical quality for human patients and on the scientific and technical development within medical/surgical areas.

Instytut Techniki Gorniczej KOMAG

KOMAG is a state-owned research and development organization, subordinated to and supervised by the Ministry of Economy, employing 125 scientific research and technical specialists (total 225 employees), offering new, competitive technical solutions in the branch of mechanical systems. An interdisciplinary knowledge of KOMAG specialists, their high scientific, research and technical qualifications create a significant potential, enabling to develop the best advanced technologies.

Silesian University of Technology. Faculty of Organization and Management

The Faculty of Organization and Management is an entity of the Silesian University of Technology (1935 employed researchers), one of the largest higher education institutions in Poland having long scientific and didactic traditions. It is one of the leading scientific entities located in the region of Upper Silesia. Silesia – home for industry has a significant meaning for the economic and social development of the country. It is also the second most populated region in Poland. The end of the industrial era caused the change in the direction of the development of Upper Silesia to knowledge based economy, particularly the pro-innovative activities. Their activities are focused on enhancing work conditions and ergonomics in health care.

Institute of Biomechanics, Trauma Center Murnau and Paracelsus Private Medical University Salzburg

The Institute of Biomechanics Murnau is a research institute for orthopaedic disorders. Key activities are biomechanical research, product development, clinical research, training and education, and gait analysis. The research institute is associated to the Trauma Center Murnau, which is known for their expertise in trauma surgery. The research institute is composed of approximately 12 employees, including six research assistants and two orthopedic surgeons. The facility is approximately 500 square meters and includes equipment for static mechanical testing (Zwick), dynamic mechanical testing (Instron), a full machine shop, a preparation room for biological samples, a micro CT scanner (Scanco) and finite element analysis software (Ansys). The primary research focus is mechanical testing and numerical evaluation of the interaction between implants and biological tissues in order to improve osteosynthesis techniques. The institute furthermore supports industrial partners with the clinical evaluation of medical products, including the planning, preparation and conduct of clinical studies. In the past the institute successfully completed Leonardo programs (Orthotraining, Osteoform) for lifelong learning and adult education.

Sociedad Española de Cirugía Laparoscópica y Robótica

The Spanish Society of Laparoscopic Surgery and Robotic (in Spanish SECLA –Sociedad Española de CirugíaLaparoscópica y Robótica-) was founded in 2000. Its main purpose was to bring together in one organism the different surgical specialties which have in common the use of endoscopic approach as surgical instrument. These specialties include General Surgery, Gastroenterology, Gynecology, Obstetrics, Urology, Pediatric Surgery, Thoracic Surgery, Vascular Surgery, Neurosurgery, and Traumatology, among others.

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Lifelong Learning Programme

LapForm

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LapForm News

Project development

During the last trimester of the project (between July and September 2014), LapForm consortium has focused their efforts on complete the translation of the training contents of both e-learning courses into the partners' national languages such as English, Spanish, German and Polish. Besides, the integration of the remaining contents into both e-learning courses has been performed.

During this period the project consortium has been organising the final project meeting, which was held at the CCMIJU in Cáceres, together with an European Workshop in collaboration with other European projects as a way of sharing knowledge and develop new collaborations.

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Introduction to LapForm

The main objective of LapForm project is the development of the contents and the implementation of an online course to assure surgeons and laparoscopic instruments designers a worthy education and training along their professional career regarding ergonomics applied to laparoscopy, matching product innovation with the needs of laparoscopic surgeons and the latter with their working environment. The e-learning tool resulting from the project will be available online in 4 European languages (English, Spanish, Polish and German) in order to increase acceptance of the course.

The general objective will be achieved through the achievements of the following partial objectives:

- Definition of the formative needs in matter of the target groups across Europe, and definition of VET Training curriculum.
- Development of the formative contents satisfying the needs.

In general, the contents will include knowledge related to ergonomics training and laparoscopic surgery, in order to train Laparoscopic surgeons and Instruments designers.

LapForm

www.lapform.eu

Lifelong Learning Programme

Lifelong Learning Programme (LLP) supports learning opportunities from childhood to old age in every single life situation through different programmes as Comenius, Erasmus, Leonardo da Vinci, Grundtvig, Jean Monnet, and transversal key activities.

Leonardo da Vinci (sub-programme)

The Leonardo da Vinci programme links policy to practice in the field of vocational education and training (VET). Projects range from those giving individuals the chance to improve their competences, knowledge and skills through a period abroad, to Europe-wide co-operation between training organisations.

Leonardo da Vinci focuses on **vocational education and training**, other than at tertiary level. It addresses both the learning and teaching needs in the sector, and is therefore aimed at all parties involved, namely trainees in vocational education, teachers and trainers, institutions and educational bodies, enterprises, associations, social partners and bodies relating to either lifelong learning or the labour market.

LapForm project

Final phase of the project

During this last trimester the LapForm consortium has been completing the translation of all the contents regarding each training course on ergonomics for laparoscopic surgeons and for laparoscopic instrument designers, and the e-learning platform. These contents have been translated into the European languages of each project partner such as English, German, Polish and Spanish. Besides, after the validation of both pilot courses and analysing their results, all the modifications, additional contents and solutions to problems during the pilot tests have been integrated into the e-learning platform and both courses. Therefore, a final version of the e-learning courses in all project partners' languages has been obtained.

On 11 September 2014 the final meeting of the project was held at the CCMIJU in Cáceres (Spain). During this meeting the results of the previous phases, especially the findings of the pilot tests, were evaluated and the exploitation plan of the final results was also approved. In addition, the day after the final meeting, 12 September, the Eurpean Woskshop on advanced technologies for training in minimally invasive surgery took place at the same place. This event was organized by the LapForm and MISTELA projects, both projects funded by the Lifelong Learning Programme of the European Commission. The main objective of this workshop was to bring together European groups which are involved in the development of Advanced Technologies for Training in Minimally Invasive Surgery. The workshop gathered 12 projects in the field of surgical training and people from the field of surgery, surgical training, computer science, ergonomy, biomedical engineering, among others, attended it.

The work entitled “The way of planning and organizing research in range of ergonomics on the example of observation of laparoscopic surgeries”, whose authors are J. Bartnicka and A. Ziętkiewicz from SUT and G. Kowalski from District Railway Hospital, was presented at the XIth International Conference on Systems Supporting Production Engineering. This article presented the results of some studies conducted under the LapForm project framework. This work was also published in the Conference Proceedings.

IBV

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