



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 Cirugía Laparoscópica 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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Project development

During the time period between January and March 2013, LapForm consortium has focused its activities on the detection of formative needs about laparoscopic surgery ergonomics of surgeons and instruments designers. Focus groups and surveys were prepared and disseminated for this purpose.

The high participation of targeted groups, suggest that the results obtained from the aforementioned actions will be representative of the real formative needs about ergonomics of surgeons and designers.

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.



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.

Interview for laparoscopic surgical instrument designers: LAPFORM Project

Please complete the form. Use the space you need to answer the questions.

Date: _____
Country: _____
City: _____

Company Name: _____
Company Activity: _____
Company Position: _____

This interview is part of the European project LAPFORM, as to identify training needs in ergonomics professionals in the field of laparoscopic surgery. The course is aimed at both designers instrumental in laparoscopic surgeons.

BLOCK 1: Professional experience.
Q1. Please describe your experience and the type of products and instruments that you design. Describe with the help of text, images, etc.

BLOCK 2: Analysis of the current courses in ergonomics knowledge and training received.
Q2. Please describe your formal academic training: university degree, etc.
Q3. Have you received any training in ergonomics or ergonomic product design?
 Yes No
Q4. Have you received training in ergonomics:

Your opinion is important to us

**LapForm project
"Your opinion is important for us"**



LapForm Partners



Institut für Biomechanik
Berufsgenossenschaftliche
Unfallklinik Murnau



KOMAG INSTITUTE OF MINING TECHNOLOGY



During the first six months of LapForm project, the consortium has been working on vocational training needs detection of laparoscopic surgeons and laparoscopic instruments designers related to laparoscopic surgery ergonomics in order to start with the development of the specific formative contents that meet these needs. To this end, a focus group and several specific surveys and interviews addressed to surgeons and designers were designed and carried out with the collaboration of all partners (IBV, CCMIJU, KOMAG, SUT, BGU-MURNAU and SECLA).

Regarding laparoscopic surgeons, through the involvement of SECLA, a surgeon focus group was conducted in the IBV facilities. This focus group counted on the participation of 11 laparoscopic surgeons of different areas (digestive, general, urology, colorectal, etc.). From the results obtained from this focus group, a specific survey was designed and disseminated by all partners in their respective countries. As of today, more than one hundred fulfilled surveys were collected.

Concerning laparoscopic instruments designers, due to geographic dispersion of industry related with laparoscopic instruments and equipment, vocational training needs detection was focused on the elaboration of a specific interview, which was disseminated between the industrial contacts of project partners.

Future actions are addressed to analyse the obtained results from the aforementioned actions, with the aim of defining most suitable formative contents to the identified needs.

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