



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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Project development

During the time period between July and September 2013, LapForm consortium has focused mainly its activities on developing the formative contents of the courses in order to meet the predefined formative needs, as well as the VET curriculum previously defined in WP2.

The distribution for the development of contents among partners has been established according to their profiles. These contents include knowledge to train laparoscopic surgeons in ergonomic posture, ergonomic environment and instrumental ergonomics. Additionally, there are contents focus on training instrument designers with regard to ergonomic design requirements for laparoscopic instruments and assessment methods for ergonomic validation of the different kind of instruments.

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.



LapForm project Development training contents

Once the structure and objectives of the different modules of both training programmes for laparoscopic surgeons and instrument designers have been established in accordance with all partners, during the fourth trimester the consortium has been focused on developing the relevant training material. Each partner contributes to create the training material with regard to their background and profiles. CCMIJU and SECLA are developing the contents concerning ergonomics in laparoscopy and instruments handling, IBV is focused on contents related with ergonomic environment and surgical instruments ergonomics, KOMAG is responsible of contents related to ergonomics in the operating room and SUT is focused on the multimedia and interactive material for ergonomics at surgeon's workplace. BGU-MURNAU acts as the assessor of the course and they will validate the first versions of both courses.

In addition, the consortium has been working on developing a pilot version of both courses. These pilot versions will include the material, monitoring tests, activities and final exam for some specific sessions. It provides us the opportunity to present a real example of both courses to the target audience. As future actions, these pilot versions will be presented to some potential users as well as in events related to the field. Preliminary results and feedback from the users will be recorded and analysed in order to improve the subsequent versions of the courses.

UPCOMING EVENTS (Click to access)



Instituto de Biomecánica de Valencia (IBV)

Universidad Politécnica de Valencia
Edificio 9C. Camino Vera s/n
46022 Valencia – Spain
e-mail: ibv@ibv.upv.es
Website: www.ibv.org

Minimally Invasive Surgery Centre Jesús Usón

Carretera N-521, km. 41,8. 10071
CÁCERES (SPAIN)
e-mail: ccmi@ccmijesususon.com
website: <http://www.ccmijesususon.com>

KOMAG Institute of Mining Technology

Pszczynska 37, 44-101 Gliwice, Poland
e-mail: info@komag.eu
Website: www.komag.eu

Silesian University of Technology

Akademia 2A, 44-100 Gliwice, Poland
e-mail: Joanna.Bartnicka@polsl.pl
Website: www.polsl.pl

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

Prof.-Kuentzsch-Str. 8
82418 Murnau
Germany
e-mail: biomechanik@bgu-murnau.de
website:
<http://www.bgu-murnau.de/de-DE/medizin/biomechanik/>

Spanish Society of Laparoscopic and Robotic Surgery.

Plaza de Cristo Rey, nº 4 – 2º derecha.
Madrid – 28040 (SPAIN)
e-mail:
ramonsalinas@seclaendosurgery.com
Website: www.seclaendosurgery.com