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The third Medtech4 Europe e-bulletin focuses on good practices identified by our partners. Good practices play a crucial role in the exchange of experience process as they form a basis the action plans will be built upon.

Optimizing the impact of public policies in favour of research and innovation facilities in the field of medical technologies.
Methodological support and technical platforms dedicated to innovation and health technology assessment.

The transfer of a technological innovation to the clinical practice is a critical and crucial point in the healthcare domain: important issues have to be considered before to deploy the proposed innovation for the prognostic, diagnostic and therapeutic.

The Clinical Investigation Centres for Innovative Technology (CIC-IT) have been created to facilitate the translation from basic technological innovation research as quickly as possible to the industrial product in the current care environment (for diagnostic and therapeutic patient management). Numerous different fields are involved: medical devices, biomaterials, biomarkers, and imaging.

Located in University Hospitals, they are open spaces for research laboratories, industrial companies (either start-ups, SME or major industrial group) and clinicians. There are 8 CIC-IT in France, each specializing in one field (Computer-Assisted Medical Interventions for Grenoble CIC-IT). They are organized in a network that aims to mutualize their skills and promote all common projects.

Thanks to methodological support and technical platforms, CIC-IT are able to support innovation in all steps of the maturation cycle, from the idea to the clinical evaluation by:

- Processing clinical proofs of concept and prototypes
- Managing the technical, ergonomic, preclinical and clinical evaluation of Health Technologies
- Providing academic hospital environment of high technology to industrials
- Supporting creation of innovative start-ups
Brightlands Maastricht Health Campus is a unique ecosystem for open innovation regarding regenerative medicine, precision medicine and innovative diagnostics.

Brightlands Maastricht Health Campus was founded as a triple-helix initiative by the province of Limburg, the Maastricht University Hospital (MUMC+) and Maastricht University to create an environment of Research and Business cooperation to face the challenges in the medtech industry in the (eu)region. Brightlands is a community made up of nearly 20,000 ambitious researchers, entrepreneurs and students. Together, they work on open innovation: i.e. sharing their knowledge and inventions with one another. They focus on global challenges in health, sustainability, nutrition and digitization. It is an open innovation ecosystem with rapidly growing campuses as a home to state-of-the-art facilities, fundamental and applied research offered to scientist, entrepreneurs, students and investors. Together they create new chances and solutions in sustainability and health that are environmentally sound, business wise, socially positive and that make this great region proud.

Brightlands Maastricht Health Campus has a broad mix of tenants, consisting of world leading multinationals, innovative SMEs, high-potential start-ups, public-private knowledge institutes and educational institutions at academic, undergraduate and further education levels, plus a group of specialist service providers.

Brightlands Maastricht Health Campus is a company and has three shareholders: the Province of Limburg, Maastricht University, and Maastricht University Medical Center+.
M²OLIE pursues the goal of a time-optimised and patient-oriented closed-loop-process for treatment of oligometastatic tumour patients in a one-stop-shop

The scientific focus of the research campus M²OLIE is to improve therapy options for oligometastatic tumour patients. The M²OLIE closed-loop-process from diagnosis to therapy leveraging digital and automation will result in better medical outcome, higher precision, efficiency, cost savings, and patient centricity. The public-private partnership focuses on establishing an intervention environment for minimally invasive cancer treatment within the framework of a one-stop shop. Improved individualised therapeutic procedures in the fields of interventional radiology, nuclear medicine and radiotherapy as well as supporting imaging methods, patient-specific radio-pharmaceuticals, and robot-based intervention assistants are developed in a multidisciplinary environment at the University Medical Centre Mannheim with more than 25 partners from industry, research and public life. Procedures are developed within the framework of 3 collaborative projects with over 110 scientists dedicated to the establishment of a process model and a clinical trial management system to monitor and improve organizational processes. Within the close project network, industry partners benefit from practitioners' feedback on the use of their products, while practitioners and researchers are able to address a specific treatment holistically. For cancer patients but also for public authorities in health care, the project offers a promising alternative to existing therapeutic procedures.

More information

Source: https://www.m2olie.de/
The CleanMed cluster project aims to define, establish and continuously update the standard for purity in medical technology and provides according support.

Since April 2018, the network has been continued in the form of an ExpertTable, a platform for regular cross-sectoral exchange between different stakeholders. CleanMed opens up perspectives for future-oriented products or processes for the network partners. The declared goal was and still is to develop new manufacturing processes that leave no residues on products, to develop products that exhibit improved cleaning properties both in production and in use, and developments that monitor the durability of clean products in everyday clinical practice.

CleanMed has been created with the vision of raising technical cleanliness, cleanability, sterilizability and clean handling of medical technology products to a new level. More specifically, CleanMed focuses on standardization and validation, construction (materials, design principles, manufacturing processes), functional surfaces (antibacterial, non-stick), technical cleanliness (forming and machining production, particle sources, cooling lubricants) and cleaning (alternative methods, agents). Under the leadership of the cluster organisation MedicalMountains, the network has been supporting innovative companies and research institutions in the field of purity in medical technology.

CleanMed has a broad member base ranging from traditional producers of medical instruments and implants to producers of detergents. It also benefits from integrated expertise from research as well as from development service providers.

Source: https://medicalmountains.de/en/services/innovation-technology/experttables
Easytech Program: Technological Transfer for SMEs

Easytech is a Technology Transfer Program aimed at integrating high technology and innovation in traditional SMEs

Support provided during the SME project:

- Advice meetings - Twice a month - 1h15 per company with laboratories and partners
- Precertification meeting with 2 Easytech experts - One in marketing of innovation and one in the technical field of the project
- Certification – Our local partners (Chamber of commerce, public investment Bank etc.)
- After the certification - Coaching of the SME by an expert in marketing or in the technical field of the project (half day per month for the duration of the project).
- Follow up committee - Closure committee

Easytech is a program supported by Auvergne-Rhône-Alpes Region and driven by cluster Minalogic. It addresses 4 main challenges:

- Integrating technologies in traditional SMEs, which are not familiar with high technology and innovation.
- Commercializing a new product within a short period of time (18 months)
- Strengthening the existing network of organizations which detect innovation projects of SMEs
- Offering support to the SMEs during all the product launch process, from exploration to pre-industrialization

More information
Design and development of experimental medical equipment at PTE 3D Center, with focus on the initial production of prototypes and market implementation

Recent research projects of the working group include effective design of experimental equipment and prototype manufacturing, 3D printing material technology research, rehabilitation robotics development (for example upper limb rehabilitation, or lower extremity of the active human exoskeleton), and designing and manufacturing of medical simulation equipment. Main stakeholders are working group researchers and medical technology companies. Eventually, hospitals and patients are the main beneficiaries.

Given the fact that intricate and acute attention is witnessed in the development of robotic and rehabilitative robotics solutions from the onset, the Medical Working Group of the PTE 3D Center applies a comprehensive approach to research, related technology development and market implementation. This requires that its researchers routinely conduct fundamental research on 3D printed material testing, whilst parallelly expanding the medical technology product development portfolio, based on their market partnerships.
Establishing strong and tight medical technology cooperation between academic researchers and industrial partners to foster the innovation ecosystem.

The University of Pécs Szentágothai Research Centre well illustrates the regional medtech innovation ecosystem with its interrelation between the RDI infrastructures (platforms, R&D centres, hospitals, universities) and the value chain of the medtech sector, from the research to the patient. The research centre – among others – addresses regional problems with the following objectives set:
• to have strong and tight cooperation between academic researchers and industrial partners,
• to reflect quickly and flexibly to the modern research trends and to needs of knowledge-based economy,
• to provide external services supporting innovative projects (eg. patent research and management, legal advice).

The infrastructure, instrumentation and expertise of the seven health and indirectly medical technology focused research groups (of the 24 in total) provide an excellent basis to an extensive and fruitful collaboration network. Research centre also covers all aspects of education, research and innovation. Health research activities carried out are coordinated and supported by the international scientific advisory board (to provide for international scale benchmark) and by the industrial advisory board (representing leading health, engineering, etc. companies of the region). Proposals elaborated in cooperation with industrial actors, fundamental research carried out all prove that the concept of the research centre is appropriate.

Main stakeholders: research and industry actors.

More information
Source: https://szkk.ptt.hu/
Baross Gábor Regional Research-Innovation Fund in service of R&D infrastructures, product and service development

The Good Practice illustrates well the existing business models for the RDI capacities and their funding models. Baross Gábor Regional Research-Innovation Fund was a grant scheme co-financed by central governmental budgetary funds of Hungary in a period when RDI was not a key EU development priority in the newly acceded Central-Eastern European EU Member States.

It operated in all the seven planning-statistical regions of Hungary, so as to produce local, place-based results tailored to South Transdanubia, too.

The Fund and its granted projects – among others – focused on building research and delivery capacities in healthcare and medical technology product and service development.

Eligible activities for the development of the medical technology sector were among others own industrial R&D activities, use of a technological background service for production, testing and qualification of a prototype R&D hard- and software, support for using domestic and international patent, design, trademark application and reservation services, purchase of know-how and license.

Eligible organisations for funding were research and academia organizations, consortia of these including companies and SMEs (private market actors).

Stakeholders were public and private medical technology related research capacities, SMEs operating in manufacturing and distributing hospital-medical devices.