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Optimizing the impact of public policies in favour of research and innovation facilities in the field of medical technologies.

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The fourth 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.

**Medtech4
Europe**
Interreg Europe



European Union
European Regional
Development Fund



Chemelot Institute for Science and Technology

Chemelot InSciTe is a public private knowledge and technical validation institute, founded in 2015 by DSM, UM & MUMC+, TU/e and the Province of Limburg. The partnership is dedicated to offer solutions grand societal challenges, health and wellbeing for an aging population a program on biomedical applications.

The biomedical program aims to develop solutions for future health care for an aging population. The long-lived and aging population continues to drive up both, the healthcare burden and costs. Increasingly, the elderly suffer from chronic diseases. Many medical innovations that could provide solutions never reach the clinic and the patients, simply because it is too costly, and too time consuming. Chemelot InSciTe selects the most promising innovations and provides a fast-track to the clinic by combining know-how, an ISO certified infrastructure, a quality management system and expert staff. The biomedical facilities comprise 600 m² of equipped state-of-the-art open RT&D laboratories and class B (ISO 5) cleanroom suites. A large office area with meeting rooms and private work places is located next to the laboratory



facility. The office and lab areas are set up to stimulate collaboration and innovation. Newest equipment is added often in the biomedical facility to keep up with the latest innovations and to adapt to project requirements. The location on the Brightlands Maastricht Health Campus offers easy access to other testing facilities located nearby.



Medace – A (bio)medical co-workspace

Medace offers a work-learning environment where clients set up and develop a technical dossier for clinical validation whilst producing a clinical grade product.

Too many promising medical innovations never reach the market or the patient. One of the hurdles to take is finding your way through the ever more stringent and difficult landscape of medical devices and cell therapy (GMP) legislation and technical validation. Medace offers a full service work-learning environment where customers (academics or entrepreneurs) are guided in how to set up and develop the technical dossier needed for clinical validation whilst producing their clinical grade product. The concept behind Medace was started within the Chemelot Institute for Science and Technology (InSciTe), which was set up to transform innovative biomedical ideas from an academic setting into medical devices. Medace works with an EN ISO 13485:2016 certified quality and service package available for our customers on a use by need basis.

Medace provides:

- Specialized infrastructure (e.g. ISO7 and 8, and Class C and B cleanrooms)
- Validated and specialized equipment
- Quality Management System
- Trained professionals for hands-on guidance and support during development and validation
- Dedicated in-house training programs

The main stakeholders are early stage start-ups and academic groups who often lack the necessary skills and capabilities to successfully make it through this phase of innovation.



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Scannexus: an internationally focussed imaging centre

Scannexus is a unique, integrated centre of excellence in ultra-high-field human MRI, housing three scanners of 9.4, 7, and 3 Tesla which are intertwined.

Scannexus is partner of the Brightlands e-Infrastructure for NeuroHEalth (BReIN). BReIN has set out to create an initial pilot project on applying big data approaches within health care, in particular by combining imaging and genomics data from Alzheimer (AD) patients, thus generating a multi-scaled model for the AD brain. This enables the development of innovative diagnostics and a deeper understanding of AD mechanisms for finding novel leads for anti-AD drug development.

Under the umbrella of Brains Unlimited, Scannexus provides a unique, integrated platform that combines state-of-the art technology with know-how (and access to patients), applying internationally renowned expertise in post-acquisition processing of data in relation to ultra-high-field MRI. The facility houses a worldwide unique combination of a 3T scanner with two ultra high field scanners of 7T and 9.4T.



Scannexus provides all the services related to a MRI project, such as project setup, support and data analyses.

The Province of Limburg and Maastricht University are both shareholders in the Scannexus operator. Maastricht University Hospital became a shareholder of Scannexus in 2016.



Aachen Maastricht Institute for Biobased Materials (AMIBM): cross-border open innovation

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AMIBM is a cross-border cooperation between Maastricht University, Aachen University and Fraunhofer Institute for Molecular Biology and Applied Ecology (IME). The cooperation has been established with the vision of providing the missing link between fundamental and applied research and the market in the field of biobased materials.

It aims to do this by changing the relationship between the production of biobased materials and the value chain through the development of an integrated, interdisciplinary research program. The program focuses on new strategies to produce advanced biobased materials in a sustainable and economical way. It also emphasizes the development of these novel materials into innovative products with high added value for technical and medical applications. AMIBM offers a unique approach covering the entire biobased materials value chain, including raw materials (feedstock), polymers (materials) and the end products derived from them (applications)

and sustainability evaluations over the whole value chain. Applications include biobased materials for medicine, environmental protection and industry applications. Targets are set for the 10-year funding period, which are monitored continuously. The project has so far made considerable progress in approaching the target numbers set until 2023 of 2,900 knowledge workers, 1,000 students and 117 multinational/SME/science tenants.



Trial Nation – one point entry to clinical trials in Denmark

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A single, national entry point for companies, patient organisations and clinical researchers wishing to sponsor, participate in, and conduct clinical trials.

Denmark wants to be strong in the competition for clinical trials - attract trials and investments, and can do so by taking advantage of the ease of access to the clinical environments, well-educated patients positive to participating in clinical trials, high quality of research, access to data and the well-functioning ecosystem that Denmark has. That is why the strong partnership - Trial Nation - was established in 2018.



Trial Nation services are open to public and private stakeholders and encompass:

- Identification of relevant clinical researchers and specialists
- Fast response time on feasibility requests (5 days)
- National recruitment strategy
- Access to registries
- Support of ongoing trials with focus on performance
- Established collaboration between sites. In some therapeutic areas clinical networks are coordinated and facilitated by an administrator and led by a health care professional (a medical lead) to ensure efficient clinical trials

Trial Nation represents a strong and mutually beneficial partnership between Ministry of Industry, Business and Financial Affairs and the Ministry of Health, the 5 Danish regions, Lifescience companies, Patient organisations, Danish Medical Societies and thus provides advantage for both public and private stakeholders. The Trial Nation Partnership has one Common Strategy that secures benefit and value for Patients, healthcare system, society and companies.



Copenhagen Health Innovation (CHI)

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Partnership between the Healthcare sector and knowledge institutions promoting health innovation through education - strengthening the local ecosystem.

The Healthcare sector is rapidly changing, and to gear the workforce of the healthcare sector of tomorrow we need to involve them in the development of the healthcare sector of tomorrow.

Copenhagen Health innovation(CHI) facilitates the collaboration on health innovation through two main activities:

1. Health challenges in education Identification of real-life challenges from the healthcare sector for use in an educational context. Educators facilitating their students to apply their skills and competences to real life challenges in collaboration with healthcare professionals - Theory put into practice, new knowledge applied.
2. Talent program in health innovation Specially designed programs to support talented students with courage and eager to work with health innovation and to start their own business - Understanding of the market and customer as well as users.

In order to create health innovation through education, CHI matches the needs of the health and social care sectors with relevant study programmes. When students work with actual needs and challenges, they acquire innovation and entrepreneurship competences and gain more in-depth knowledge of the reality they will face after graduation. It will enable them to act innovatively and to help shape future health solutions - beneficial for the healthcare sector and educational/knowledge institutions as well as student participants - the workforce of tomorrow, hence the society.



copenhagen
health
innovation



Greater Copenhagen Health Science Partners - From Cutting Edge Research to Excellent Patient Care

Strong translational cooperation between health, research and science partners in clinical academic groups secures excellent research in favour of the patient.

From the beginning, the collaboration has been driven by a desire to create a more integrated healthcare sector and a smoother path from basic research to the clinic and from the clinic to the research. New types of collaboration, more muscle to handle research issues and the opportunity to consolidate and think big are benefits for the research groups that are part of the Greater Copenhagen Health Science Partners (GCHSP) collaboration between regions and universities.

At an operational level, GCHSP is a well-functioning framework that brings together basic research, hospital research and clinical work in so called clinical academic groups (CAG). At the organisational level, GCHSP has succeeded in establishing a forum for dialogue on the health sector of the future.



GREATER COPENHAGEN
HEALTH · SCIENCE · PARTNERS

A CAG consists of researchers and clinicians from the universities and hospitals. It contributes to the health sector with new research and increased quality within the field of clinical practice. This will be achieved through a strong professional network with a joint strategic aim across healthcare settings from the universities and the Regions. GCHSP consists of 12 CAGs working within their area of treatment expertise.

The CAG leadership is represented by University of Copenhagen, the Capital Region of Denmark, the Technical University of Denmark and Region Zealand. Other organisations may also be a partner in a CAG and a part of GCHSP.

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CleverHealth Network

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A health technology ecosystem of companies and healthcare experts developing health service innovations utilizing artificial intelligence and robotics.

The CleverHealth Network is a health technology ecosystem coordinated by Helsinki University Hospital (HUS) and companies in which companies and health care experts develop better treatment and technological solutions for Finns and successful export products for companies. The network bases its products and service innovations on their extensive "health data lake", a large mass of data built and analyzed by HUS. The network members represent a wide range of small and large companies that are specialized in data collection and analysis, software, genomic data as well as health technology devices and applications. Innovation takes place in development projects established within the ecosystem. 4 separate projects have been started, the most extensive project features 3 sub-projects. In addition, several new pro-



CleverHealth Network

jects are in preparation. In these collaborative projects, professionals from HUS, university researchers, and business experts from different technological fields develop new solutions to well-defined clinical challenges. The results are better medical care and successful health technology service and product innovations to businesses.

The CleverHealth Network has received multiple recognitions for its success. In addition to the Intelligent Health award granted by Microsoft, the network was also granted a Growth Engine status by Business Finland, a recognition given to the most promising ecosystems, and including significant additional funding. CleverHealth Network is the first ecosystem in the health sector to be granted the Growth Engine status.



Stimulating medical technologies dissemination event – 17.11.2020.

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After two and a half year, the first phase of the Medtech4 Europe Interreg Europe program will end in November 2020. An online dissemination event summarizing the results was held on 17 November 2020.

The event was opened by moderator Charlotte Geerdink, followed by a short video message from Dr. Joost van den Akker, Minister of Economy, Education and Sport of the Province of Limburg (Netherlands). In his presentation, Patrick Boisseau, Director of Research and Development at Medtech Europe, briefly summarized how to make Europe more attractive in health research and development, the values of regional innovation ecosystems and how to coordinate them.

In the continuation of the event, the Medtech4 Europe project partners presented their experiences gained during the implementation. In each summary, the speakers outlined the challenges they faced and what they had learned from the project and presented their action plans.



Stimulating medical technologies: the role of regional innovation policies

After 2 ½ years of exchange of experience we would like to share our mutual learnings and the changes we want to implement in our regions.

We are happy to invite you to join us in our conference on 17 November 2020, 1.30 – 3.00 pm CET

