Medtech4 Europe
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Action Plan

South-Transdanubian Regional Innovation Agency
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A magyar partner részvétele a projektben a Magyar Állam társfinanszírozásával valósul meg.
The project is co-funded by the European Union.

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GENERAL INFORMATION

Project	Medtech4 Europe (PGI04950)
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SUMMARY ON THE PROJECT RESULTS ACHIEVED SO FAR

The Medtech4 Europe project

Medtech4 Europe is implemented with the participation of the South Transdanubian Regional Innovation Agency within the framework of the INTERREG Europe Program. It aims to increase the effectiveness of public policies on research and innovation capacities in the field of medical technologies.

The project addresses a sector "Medical technology" that covers many different products, all intended to perform a therapeutic or diagnostic action on human beings to improve health. Medical technology is a regulated EU sector (2017/745, 2017/746) and covers

- Medical devices (MDs) which are products, services or solutions that prevent, diagnose, monitor, treat and care for human beings by physical means;
- In vitro diagnostics (IVDs) which are non-invasive tests used on biological samples (for example blood, urine or tissues) to determine the status of one's health.
- Tools and services for Digital Health and Care can be included, depending on sectorial definition and regulatory status.

Medical technology is used to diagnose, prevent, monitor, treat or alleviate a disease or injury. In addition to the above, the Medtech4 Europe project will also consider the link to Enabling technologies (ICT, manufacturing, materials…) that contribute to the improvement of MDs and IVDs.

In addition to the above, the Medtech4 Europe project will consider the related Key Enabling Technologies and will remain closely associated with the Vanguard Initiative based on smart specializations and the ESTHER (Alliance for Global Health Partnership) initiative during the experience exchange.

In line with the objectives of the project, based on the processing of the results of the experience exchange (see the document "Processing of the results of the experience exchange"), this document provides a brief overview on the adaptable elements of the exchange and proceeding from the results achieved so far proposes four medical technology actions. The policy coordination with the detailed elaboration of the proposed actions is the task of the next period.

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Results of the exchange of experiences

The exchange of experiences between the project partners took place through four main pillars. These include a regional situation analysis prepared by the partnership, a collection of good practices, a joint interregional analysis and implemented study visits.

In terms of adapting the results of the experience exchange, it is important that the medical technology industry, which is the sectoral focus of the Medtech4 project, is itself one of the fastest growing sectors. These include diagnostics, therapy, imaging, cardiovascular diagnostics and therapy devices, optical, medical devices, disposable, traumatology and orthopaedic devices, ICT-related hardware and nanotechnology-related device developments, and the whole healthcare industry sector.

The importance of the medical technology industry is significant in all partner countries, and the results of the experience exchange have confirmed this. However, there are some specific aspects in Hungary that need to be considered for successful policy interventions. The most important are as follows:

- the medical technology industry is one of the largest multiplier sectors;
- it is one of the very few domestically owned manufacturing sectors;
- its role in research and development and innovation in the ecosystem is outstanding;
- its export orientation is outstanding;
- its role in innovative product development is significant.

Some elements of the exchange of experiences have been processed by taking his unique sectoral environment into account, the most important elements of which are summarized in this chapter. A **state of play analysis** prepared on the basis of the common methodology has shown that the different actors, with regard to the interconnections established between product or service providers, researchers, educators or doctors treating patients in healthcare institutions, naturally work together and can play different roles at the same time. Formalized relations are primarily required by the administrative process of operating the health care system in Hungary. For example, hospitals purchase goods and services from medical technology companies, which receive their resources from the Hungarian National Health Insurance Fund in return for the provision.

It is important to emphasize the need for cooperation between the research-innovation (mainly, but not exclusively available at the university) side of the medical technologies with the innovative production (medical equipment and devices) as the supply side towards the

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public and private (individual) consumers. The objective of such cooperation is to support the excellence of the medical technology research and innovation with complementary skills based on the medical technology production. The ways of this cooperation are versatile

- consultancy: a medical technology SME in order to solve a special medical technology problem, asks for consultation with the university. By doing so the university receives important impulses impacting its research and development activities,
- development of materials, technologies (for instance in the case of drugs) which is partly research, partly innovation
- development of specialized medical services (like remote radiology that is analysing medical imaging from a remote location by a professional doctor).

It is a social issue that the development of medical technologies serves the rehabilitation of and the ageing of the population, is in favour for the treatment neurodegenerative diseases. Musculoskeletal rehabilitation is even more frequently a supporting treatment for a growing number of diseases (stroke, etc.). Availability of good quality medical technologies for wider layers of the society provides for the better inclusion into the society. Research on some innovative medical technology equipment as exoskeleton provides for further spillover towards its industrial and military use.

In economic terms the development of medical technologies by research based, innovative, value added solutions attracts investors and poses new challenges towards medical higher education. It also requires elaboration of viable business models to be introduced and implemented with medical technology SMEs.

During the experience exchanges, the partners identified and processed a total of thirty-nine **good practices**. From the point of view of action planning in Hungary, we have identified nine good practices that have been relevant to the areas of preliminary action formulated during previous policy consultations at the national level. Each of the nine good practices is directly related to the planned actions, thus supporting the implementation of the action plan in Hungary.

Of the results of the **joint cross analysis** the most important for us is the strengthening of the innovation ecosystem through policy support to meet the following challenges:

- better organized ecosystems, a better understanding of the successful processes to be developed, the role of R&D&I infrastructures in Medtech, the availability and

management of R&D&I organizations, and how they can better facilitate cooperation between companies , laboratories, hospitals or healthcare facilities

- Developing business models for R&D&I organizations to facilitate access to R&D investments for SMEs and studying the sustainability of these models
- Initiating possible cooperation by identifying complementary strengths for each region, given the wide range of specific technologies.

Based on the characteristics of the partner areas, the partnership aimed to achieve six different results:

- Leadership and reinforcement (Auvergne Rhone Alpes, Limburg)
- Initial development (South-Transdanubia), transfer of research results to innovative production, financing and intellectual property, innovative projects as demonstrators
- Procurement of additional equipment
    - Missing or weak parts of the value chain:
        - Clinical tests (Limburg)
        - Regulatory education / funds (Helsinki, Baden Württemberg, Auvergne Rhone Alpes)
    - Or technologies / new health models that are promising and necessary, such as cardiology equipment, regenerative healing, data analysis, surgical systems, microchips, nanomaterials, photonics (Silesia), healthcare and data interconnection, addressing the challenges of aging and the needs of elderly people (Helsinki)
- Better coordination between the different elements of the innovation ecosystem (medical technology and others), with special regard to the digital sector and genomics (Limburg, Helsinki, Silesia)
- Better coordination and synergies between R&D&I elements in the field of medical technology (facilities, research centres, R&D&I organizations should be more accessible to SMEs) (Auvergne Rhone Alpes, Baden Württemberg, Silesia)
- Expanding policy knowledge: "Closer links should be maintained between EU policy makers and industry to better understand key issues" (Baden-Württemberg)

In addition, the identified risks associated with R&D&I infrastructure policies are important to us. Improper assessment of these risks leads to failures or limited "errors" in terms of targeted efficiency and utilization of public funds."

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- When an R&D&I infrastructure receives support, the definition of its business model is not yet known. Either a poor assessment of this business model or, more likely, a lack of follow-up to the learning process associated with the business model is the greatest risk.
- Once the infrastructure is operational, there is a risk that customers and partners may overestimate or underestimate its usability. To reduce this risk, a step-by-step approach may be considered, including investment in buildings and equipment
- Reproduction is also a risk (only for large and rich regions). Energy invested in coordinating similar initiatives (clusters, networks, infrastructures) is confusing and wasted. The way to avoid this risk is to ensure the free flow of strategic discussions within the ecosystem (and this is particularly difficult when it involves a multidisciplinary field of medical technology).

In the case of policy interventions, much attention must also be paid to the traditional limiting factors of public policies:

- A classical pitfall is the underestimation of time/money required to achieve good projects with a strong impact. In trying to satisfy all stakeholders, policy instruments might not have the right ambition or the right dimension to address these challenges. Thin spread of funds limits impacts (larger projects are better). Therefore mutualise policy instruments seems to be a possible solution (at the national, cross border or European level). Subcritical investments do not produce miracles.
- Another one is the rigidity of support programmes that doesn't allow a reorientation of budget or objectives during implementation. It is obvious that public aids should better accommodate with the intrinsic risky nature of projects, and thus allow budget reallocation during the course of project. A too strict regulation doesn't serve its goals
- Also the lack of orchestration, the lack of coordination might underperform good ecosystems which have all assets in place.

Finally, four **study visits** were implemented during the project so far. The most important adaptable elements of the study trips made to Denmark, the Netherlands, Poland and Hungary are as follows:

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1. Great emphasis should be placed on supporting active startups and university students in the field of medical technology. In this respect, the elements of the Futurebox incubation program can be well adapted, the operating model of the complex support system, which ranges from idea initiatives to startups already operating successfully on the market, can be well transferred into the Hungarian development environment.
2. The Skylab program, implemented in collaboration with the Danish Institute for Health Innovation and the DTU Science Park, can provide assistance for integrating prototype production and testing in Hungary through the enterprises of university students and researchers.
3. Additional elements can be adapted from the collaboration between Righospital and the Copenhagen Health Science Partners (CHSP). The studying of their activities can help in optimizing the structure of research teams and the functioning of clinical scientific research teams.
4. Copenhagen Health Innovation also has a number of adaptable elements. In this respect, the interconnection of health care providers with the most outstanding knowledge and educational institutions in the field of health and medicine can be highlighted. At the same time, the development of market players and knowledge providers within the medical technology innovation education value chain is also important.
5. Simulation and training initiatives can also serve as practical examples in Hungary, which we had the opportunity to learn at the Copenhagen Academy of Medical Education and Simulation (CAMES).
6. The health industry campus in the Province of Limburg, which hosts health industry research and innovation in the field of human medicine using body scanners, is a step forward in terms of developing collaborations.
7. The Bakken Research Institute of Medtronic in Maastricht is also interesting from an organizational point of view. Learning its activities can greatly contribute to the transfer of Hungarian research and development results into products and services, as well as to their export.

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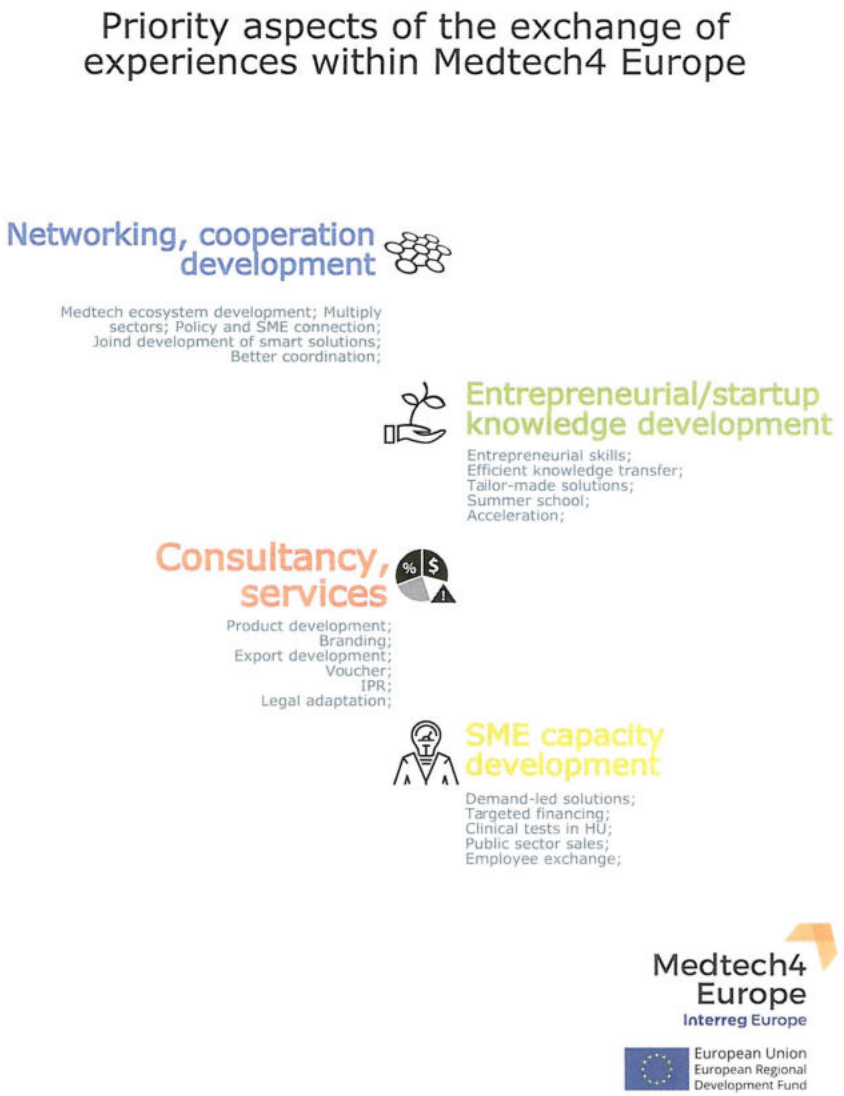
Based on the processing of the results of the experience exchanges, we identified four main fields that form the basis of the actions on the one hand, and build on the results of the experience exchanges, integrate them, and enable complex interventions that effectively develop the sector on the other hand. The four fields identified are as follows:



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POLICY CONTEXT

The Action Plan aims to impact:
- ☒ Investment for Growth and Jobs programme
- ☐ European Territorial Cooperation programme
- ☐ Other regional development policy instrument

Name of the policy instrument addressed: **Economic Development and Innovation Operational Program (EDIOP/GINOP – 2014-2020), Economic Development and Innovation Operational Program Plus (EDIOP/GINOP Plus – 2021-2027)**

Further details on the policy context and the way the action plan should contribute to improve the policy instruments:

EDIOP and EDIOP Plus intends to support strengthening of research and innovation capacities to reach European level, and especially in those scientific domains, where international excellence-based cooperation is intensive (as in medical technologies). Main prerequisite of the above actions is to be in direct linkage with national S3 strategy.

As an ERDF co-financed programme, in framework of international excellence-based initiatives and programmes the Hungarian presence is to be made more intensive. This cooperation serves system-based research, intelligent manufacturing and sustainable society, especially in research field of healthy society and wellbeing where medical technology actions belong to. The focus is also very much on European exchange and transfer of medical technology solutions. Eligible beneficiaries are research-innovation organisations and enterprises.

EDIOP priority concerned: 2nd priority "Research, technology development and innovation", 3rd specific objective "Strengthening research and innovation capacities for international excellence". Eligible actions focus on knowledge triangle made up of education, research and innovation for joining relevant international excellence-based cooperation within Horizon 2020 and European Territorial Cooperation (ETC) Programmes, in accordance with NS3 objectives. In the context of EDIOP Plus, the priorities have already been defined, and the similarly to the EDIOP, it is the 2nd priority that is centred on research and innovation.

The actions planned to be implemented will improve low level of organizational excellence in Hungary by taking part in medtech sector focused ETC projects. These initiatives will have international impact with effective contribution to international/European network building activities in medical technologies.

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To sum it up the implementation of our action plan will contribute to the policy instrument in the following ways:

- increasing the competencies of the medtech companies leads to the generation of new projects (forward-look to EDIOP Plus in the new programming period);
- increasing the competencies of the medtech companies leads to the efficient use of development resources and creates an effective environment for tendering;
- increasing the efficiency of the management of the policy instrument by continuous feedbacks to the policy relevant body on the target group needs and challenges.

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DETAILS OF THE ACTIONS ENVISAGED

ACTION 1: Encouraging the cooperation and networking of medical technology companies

Relevance to the project

The medical technology sector in Hungary can be characterized by a stable, growing economic weight. Significant domestic development and production capacities are available; however, the domestic sales volume is low in terms of market absorption capacity. Coordinating the developments that have been isolated so far and linking the activities of the relevant actors can significantly increase the competitiveness of the sector.

The joint comprehensive analysis has shown that better coordination and exploitation of synergies from cooperation through external support are essential.

Due to the limited internal resources of the companies operating in the sector, especially in the case of the medical technology niche markets, the supporting services connected to cooperation should be developed. By the articulated demands, it covers the better utilization of high value services, as well as the increase the efficiency of knowledge sharing that can increase the presence on the domestic market.

The main demand side factor of supporting services and knowledge sharing is that due to the high level of innovation in the medical technology sector and the great number of licensing procedures, the possibilities for state intervention presuppose a variety of professional support, such as 1) quality assurance certificates; 2) rapid registration of new products; 3) uniform identification of devices (GS1 system); 4) IPR; 5) performing clinical tests. In these cases, developers need external service provider support which is difficult to identify in advance. That can be better planned by the organized thematic cooperation.

Of the good practices identified in the project, the action adapts four elements: Smart Innovation (DK), Lecco Innovation Ecosystem (IT) Brightlands Ecosystem (NL) and SME Innovation Voucher (FR). In the case of the first three, a complex system of support activities has been developed, which can also be found separately in Hungary, but due to their fragmentation, they are difficult to be accessed systematically. In turn, the voucher system is suitable for technology developers to take advantage of reaching individual supporting services.

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The elements of the selected good practice examples that can be adapted in the action are: networking service supported by an adequate organizational, professional-technological background as well as consultancy, which can significantly increase the market efficiency of each medical technology development organization. Additionally, the selection criteria of the voucher based financial support scheme also be adapted.

The experiences of study trips also added value and were incorporated during the development of the action. The Skylab program of the Danish Institute for Health Innovation and DTU Science Park can be used in the field of network-based developments, especially their systematic process of prototype development fitted to Hungarian industrial conditions. Another initiative used is the Bakken Research Institute of Medtronic in Maastricht. Primarily, the coordination of the medical technology ecosystem and the market introduction of R&D results can be applied in Hungary. The results of the health industry campus in the Province of Limburg in the Netherlands, developed along a triple helix approach has been also adapted. It is used to provide health industry and innovation related to human medicine by providing value-added services at home. Finally, the Bakken Research Institute in Maastricht, a Dutch-based Medtronic company engaged in the development of medical technology devices also has added value. The institution is connected to the medical technology ecosystem of the Province of Limburg in many respects, and contributes greatly, for example, to the transfer of research and development results into products and services, as well as to their export.

Nature of the action

The aim of the action is to develop collaborations, and within this in particular to thematize the professional services needed by the participants of medtech development and manufacturing market, and to make them available online. It is contributing to the improvement of the competitiveness of enterprises, to the reduction of their fragmentation and isolation, and to the development of the medical technology sector as a whole. The implementation of the action in the second phase of the project aims to address the companies, introduce them working collaborations, international and domestic good practices, professional actors, help them to learn those areas where they would most badly need cooperation and then coordinate and encourage them. In addition, an online service database will be created, and the service provision model will also be elaborated.

Activities performed under the action

- Developing cooperation and servise-provision model;
- Establishing collaborations, coordination of collaborations;
- Creating an online service database and the development of its content;
- Organizing professional, thematic online and personal events and consultations for companies;

As of the policy impact, the action will support to prepare new medtech projects for having financed through the policy instrument, as well as widened the sectoral criteria of the related calls.

The listed activities providing an opportunity to meet the target group organizations in person with the goal of changing good practice experiences, get known with the needs of different stakeholder groups, connecting different territorial needs and challenges, as well as evaluate the implemented projects in the policy instrument addressed. As a concrete policy change measure on GINOP (and additionally GINOP Plus in the new programming period) implementation, the outcomes of the activities will be summarized annually, and the summary report will be forwarded to the policy responsible body as a systematic feedback. As such, the result of the action is clarifying the goals for businesses to be achieved independently and in collaboration, creating an effective environment for tendering and continuously formulating development objectives for GINOP and GINOP Plus. The Action has a direct impact on GINOP-1.2.8-20 (Adaptation of SMEs to modern business and production challenges), by updating the call content through widening its sectoral scopes and the supported activities.

Stakeholders involved

STRIA will implement the action with the involvement of the following stakeholders:

- Ministry of Finance
- Higher education institutions, research institutes
- Medical Technology Association
- Sectoral SMEs and clusters
- National Healthcare Service Center

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Timeframe

- 1-24 months of phase 2: establishing collaborations, coordination of collaborations;
- 6-24 months of phase 2: organizing professional, thematic online and personal events for companies;
- 1-24 months of phase 2: regular meetings, consultations;

Indicative cost

- 13000 EUR/year

Indicative funding sources

- contributon from STRIA
- Application resources (e.g. GINOP Plus)

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ACTION 2: Capacity building of medtech enterprises

Relevance to the project

Medtech sector is struggling with lack of capacities. To support building the missing capacities is the main precondition of fast market adaptation.

Progress is needed in securing the human resources background for the medtech sector, in particular in the following areas: 1) skilled workers directly involved in manufacturing; 2) engineers involved in design and production; 3) strengthening dual training at all levels of training; 4) engineers and researchers participating in the research with a master's degree or doctoral degree. In addition to capacity building in this direction, the obligation to apply the MDR from mid-2020 on domestic medical companies, healthcare and treatment is expected to have serious effects, because the demand for specialist and product testing services increases in companies, the production and market entry costs of companies increase, as a result of which the production of products may cease, product innovation processes may slow down, and supply disruptions may even occur in some product groups.

Another important aspect of human resource capacity development is the support of innovative project ideas. There are a number of forward-looking initiatives and internationally competitive medical technology startups operating in Hungary, which can also be important players for the Medtech4 project. For them, increasing their non-development skills in particular can be an advantage.

Finally, it is essential to strengthen the technological capacity of enterprises, which will help them to adapt quickly to the market.

Among the good practices identified in the project, the action adapts four elements: the EIT Health Summer University (FR), the Business Support Program in the Capital Region (DK), the CEA Technological Innovation Exhibition Space (FR) and Mediation in the field of open innovation for startups (FI). In case of all good practices, we adapt the methods of increasing human, professional and technological capacities to implement the action. While at the last one we adapted the support scheme for each development steps of the individual ideas.

The elements of the selected good practice examples that can be adapted in the action are: dedicated support schemes for new medtech project ideas, market development consultancy and trainings for market-ready solutions, as well as support schemes for startup ideas in different development stages.

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The role of the study trips implemented within the framework of the project can also be highlighted from the point of view of the action. In particular, the Copenhagen Health Innovation Initiative, which develops the skills of those working in the sector, is important. The connection of health care providers with the most prominent knowledge and educational institutions in the field of health and medicine means a significant added value for the action. At the same time, it is important to develop market players and knowledge providers within the value chain of medtech innovation education, especially the effective development of their human and technological capacities.

Nature of the action

The aim of the action is to expand the human and technological capacity of medtech companies, together with the development of an entrepreneurial ecosystem to increase the efficiency of capacity building. To this end, a capacity development knowledge base to support professional adaptation as well as a startup mentor program will be developed and implemented.

Activities performed under the action:

- Development of a capacity development knowledge base and a mentoring programme
- Organizing and conducting knowledge sharing events, including train the trainer curses;
- Support for individual capacity development projects;

As of the policy impact, the action will support to prepare new medtech projects for having financed through the policy instrument, as well as widened the sectoral criteria of the related calls.

The Action is therefore aimed at expanding the capacity of medtech companies and expanding knowledge. The planned knowledge-sharing activities and trainings will contribute indirectly to the realization of GINOP, to increase the adaptation capacity of medtech companies on market processes and to increase the technological capacities through the improvement of the development acquisition. The action is directly linked to GINOP-1.2.7-20 (Support of complex development of SMEs with significant growing potential) call, with the increase in the number of medtech-related project ideas generated by collaborations,

and improvement in the elaboration of project ideas, as well as their effective implementation and maintenance.

Stakeholders involved

STRIA will implement the action with the involvement of the following stakeholders:

- University of Pécs
- Sectoral clusters and accelerators
- SMEs in the medtech sector
- Foundation for the Hungarian Medical Technology Industry

Timeframe

- 1-5 months of phase 2: development of a capacity development knowledge base and mentor program
- 6-24 months of phase 2: organizing and conducting knowledge sharing and train the trainer events
- 6-24 months of phase 2: Support for individual capacity development projects with mentoring

Indicative cost

- 10500 EUR in the 1st year and then 8500 EUR/year

Indicative funding sources

- contributon from STRIA
- Application resources (GINOP Plus)
- For- and nonprofit innovation support programmes

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ACTION 3: Effective promotion and marketing for the better utilisation of medical technology research and development infrastructures

Relevance to the project

Action 3 is the pilot action of the Medtehch4 Europe project. The pilot action is dedicated to testing the feasibility of the transfer of the French "CEA Technological Innovation Showroom" Medtech4 Europe good practice to Hungary for the purpose of effective promotion and marketing of medical technology research and development infrastructures in Hungary. The aim is to demonstrate the added value of the showroom in medical technology infrastructure promotion and marketing as a potential new eligible activity to the EDIOP 2021-2027.

During Phase 1., the "market place for good practices" was organised on 12 December 2018 in Stuttgart where the CEA showroom was first presented, and that introduction raised the attention of STRIA. Following that CEA colleagues visited STRIA and the UP facilities on the 15 October 2019 Medtech4 Europe study visit and obtained supportive medical technology experiences for the CEA good practice transfer to Hungary. As a result, STRIA and UP planned to organise a staff exchange to Grenoble, but that was not possible due to COVID 19 travelling restrictions. With the same enthusiasm, the Hungarian partners participated the online streaming of the guided tour of the CEA showroom organised on 24 June 2020, and that was also encouraging for them. As a consequence, knowing the importing environment in South Transdanubia and the CEA good practice in detail resulted in the elaboration of this pilot action.

Alternative Energies and Atomic Energy Commission (CEA), the French Medtech4 Europe advisory partner operates a technological innovation showroom that highlights the latest technology solutions in 400 sqm, hosting 90 technology-transfer demonstrations in regularly updated interactive, educational exhibitions. Introducing the latest innovations fosters the integration of those into digital, energy related and healthcare products. Exhibition showroom tours are tailored in length and technical difficulty depending on the group of visitors. Professionals from industry can associate their journey of discovering CEA's technology achievements with creativity sessions facilitated by innovation experts. The multidisciplinary CEA team builds the demonstrations and designs the exhibitions, leveraging know-how in medical technologies, material science, engineering, microelectronics, 3D prototyping, design, etc. to facilitate access of enterprises and industrial partners to these proofs of concepts and products. The facility also showcases results of successful joint CEA research and development partnerships with industrial partners.

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The CEA's technological innovation showroom good practice has the following five components:

- identification of basic technologies, knowledge, projects with transfer potential towards industry,
- identification of public interested in collaborating with the identified technologies, knowledge and projects,
- creation of structured technology innovation offers towards companies with simultaneous valorisation,
- identification of the best design for the future showroom with technology innovation offers in a sustainable manner over time,
- creation, operation and promotion of the technological innovation showroom.

The pilot action focuses on the limited testing of the above five CEA's good practice components in the Hungarian medical technology sector.

Within the region, the University of Pécs (UP) has the required medical technology, biomedical, 3D printing, material science, super resolution microscopy, ultrafast laser spectroscopy infrastructure and research capacities that are essential for the successful testing of the CEA's good practice transfer to Hungary. Therefore, STRIA invited UP, the key regional medical technology stakeholder to join the pilot action.

Nature of the action

Preparation part for testing the good practice transfer (01.03.2021. – 31.05.2021.):

- CEA visits Pécs to get familiar with the Hungarian local/regional biomed-medical technology ecosystem and research infrastructures available at UP.
- 1 set of guidelines with concrete will be proposed output and result indicators for the showroom as a tool for medical technology research infrastructure promotion and marketing.
- The road map detailing the transferability process is elaborated.

Implementation part for testing the good practice transfer (01.06.2021.- 30.02.2022.):

- It kickstarts testing the transfer process in practice by collecting medical technology focused companies and organisation data from professional statistics.
- UP will organise *1 kick-off demonstration conference* in Pécs, Hungary to present the CEA's technological innovation showroom and its transfer process to Hungary.
- The pilot action target audiences are aware of the advantages of preparation and implementation of the showrooms for medical technology research and innovation infrastructure promotion.

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- By taking into consideration the specificities of structured innovation offers as well as the needs and endowments of South Transdanubian medical technology, the best design for the showroom is also elaborated in a form of *1 concept and delivery note of the showroom.*
- Finally, 1 showroom and 2 demonstrations are implemented, by using the facilities, research devices and associated assets of UP.
- Communication-dissemination activities play an important role during the implementation part:
  - *3-3-3 press contents* for the kick-off conference and the two co-design workshops;
  - *2 HU videos with EN subtitling* on the showroom and the two demonstrations for engaging with research infrastructure and medical technology market and public actors;
  - *1 EN and 1 HU professional articles* drafted and published free of charge on the operation of the showroom;
  - *4 press contents* serve the general promotion of the showroom pilot locally/regionally (done by STRIA and UP);
- CEA constantly supports STRIA and UP with background assistance and professional advices on the above activities.

Evaluation-policy influencing part related to testing the good practice transfer (01.03.2022. – 31.05.2022.):

- STRIA writes *1 pilot action report* summarising the qualitative and quantitative findings of the evaluation and the lessons learnt during the implementation part.
- Depending on the outcome (success or failure) of the pilot action report, partnership suggests: a.) *1 proposal for a new eligible activity*, b.) 1 summary of lessons learnt in case the testing proves to be not successful.
- Pilot action ends by organising *1 closing conference* in Pécs.

As of the policy impact, the pilot action will support the EDIOP Plus. In the context of EDIOP Plus, the 2nd priority is centred on research and innovation. What is still not decided yet is the list of eligible activities of the calls for proposals under this priority. As expressed by the Managing Authority of EDIOP Plus, they would like to learn from concrete pilot actions that test the showroom as eligible activity in the research and development context and in the medical technologies.

Stakeholders involved

STRIA will implement the pilot action with the involvement of the following stakeholders:

- the Managing Authority of EDIOP Plus
- SMEs and start-ups that operate in the 1.) biomedical, 3D printing, material science, and 2.) super resolution microscopy, ultrafast laser spectroscopy domains of the medical technology
- MEDIKLASZTER, the national medical cluster
- medical technology units of UP (3D Printing and Visualization Centre, MediSkillsLab, etc.)
- future students/researchers
- actors of the urban economic network of the city Pécs (home to STRIA and UP headquarters) and of South Transdanubia:
- hospitals, outpatient treatment centres
- further Central European university and research actors (Masaryk University, Brno – CZ, further universities from other countries)

Timeframe

- 01.04.2021. – 31.05.2022.

Indicative cost

- The total budget of the pilot action is 72 890 EUR.

Indicative funding sources

- Own contribution from Pilot Action partners (15% of the total budget)
- Interreg Europe ERFD contribution to the Pilot Action (85% of the total budget)

Date: 25/10/2021

Signature: _____

Mr. Zoltán János HAÁSZ

managing director

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Stamp of the organisation (if available): _____