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EUROPEAN UNION EUROPEAN REGIONAL DEVELOPMENT FUND
www.intramed-c2c.eu InTraMed C2C

INNOVATION TRANSFER IN THE MEDICAL SECTOR

FROM CLINICS TO COMPANIES

NEWSLETTER NO. 6

EDITORIAL

Content:

Dear Readers,

The project InTraMed-C2C is proceeding according to plan and we are now in the middle of the implementation phase. Several innovations from medical technology (from Budapest, Hungary; Wroclaw Medical University, Poland) as well as workshops in hospitals (Golnik, Slovenia; Cracow, Poland) were performed recently and are reported in this Newsletter. More innovations are listed in our Medical Innovation Database which is linked to our project homepage. If you are interested in any of these innovations please contact our project partners directly.

Dieter Westphal, Lead Partner, Bayern Innovativ GmbH/ Forum MedTech Pharma e.V.

T E A M W O R K - The work performed by a team

CVVI has managed to recruit...

TECHNOLOGY CENTRE ASCR

CVVI has managed to recruit and upload two new SMEs in to the Medical Innovation Database. Klaro, spol. s r.o. is a manufacturer of original equipment into hospitals, clinics and other health institutions. They produce medical carts of all types made of special medical stainless steel which is custom made for them in Italy. ELLA-CS, s. r. o. is a manufacturer of low-series production and custom made medical devices especially stents. Research and development department uses their own specialised laboratiories and manufacturing premises to produce such medical devices in order to accommodate requirements originating from doctors and other medical sector employees.

In order to continue with the promotion of InTraMed C2C project CVVI has organized another Regional dissemination via a personal meeting in the Technology centre ASCR. TC ASCR supports the participation of the Czech republic in the research area on international level and also promotes the development of innovative businesses. CVVI project manager has met the manager of technology transfer for the medical sector. The main subject of the meeting has been the Medical Innovation Database which is considered to be a very effective and usefull match-making tool. The cooperation between TC ASCR has been established and will actively continue during the upcoming months thorugh possible organization of joint event supporting the transfer of innovations in the medical sector.

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Air Mattrass – an innovation and its medical applications

Innovation workshop in Budapest
18 June 2012

How to use the personalized comfortable seats, the special air mattrasses (developer: Globalinnovation Ltd., Hungary) in hospitals, in the medical care? The participants of the workshop organized by the Budapest University of Technology and Economics Healthcare Technologies Knowledge Centre (BME EMT, PP10) were looking for answers to this and some other related questions.

The idea and the solution: special sitting and lying surfaces (cushions, mattrasses) with a hardness adjusted to the daily needs without energy consumption and moving internal parts (Energy Free Comfort, EFC). The cushions (and mattrasses) are airtight sealed, their hardness depends on the amount of the contained air. The load is shared between the foam and the air in the cushion. The key to the solution is two built-in valves: a control and a non-return valve. Due to a textile coating the cushion and the mattrass are hermetically sealed. A mattrass may consist of several zones.

T E A M W O R K - The work performed by a team

Some areas of application:

- public health (bed mattrasses)
- settees and couches (in living rooms)
- double beds (in bedrooms)
- commercial vehicles

According to the experts the air mattrass is a perfect solution to establish a right sleeping position for healthy people and for those suffering from sleep disorders. That means the air mattrass meets both the orthopedic and the neurologic criteria. The bed can affect the quality and length of hospitalization, consequently the costs of health care. The Hungarian developers offer some mattrasses to hospitals for testing. The final product will be formed according to the results of the tests. Hospitals wanted for tests!

The production and assembly of the cushion are very simple, but mass production has not yet started. In case of manufacturing 10 thousand cushions the investment is estimated at about 30 per cent additional cost compared to manufacturing traditional cushions. Manufacturer wanted!

The innovation „Personalized Comfortable Seats" can be found in the Innovation Database of InTraMed-C2C project.

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Applications of the Nine Hole Peg Tester

Innovation workshop in Budapest
12 June 2012

The Budapest University of Technology and Economics Healthcare Technologies Knowledge Centre (BME EMT, PP10) organized an innovation workshop with the participation of medical doctors, special education teachers and developers. The goal of the workshop was to discuss the possible applications of the Nine Hole Peg Tester, a dexterity test equipment developed by the experts of the Department of Measurement and Information Systems of BME (BME MIT).

Nine Hole Peg Tester is a test method to assess the status of people suffering primarily in neurological diseases (e.g. Parkinson's disease). The patient's task is to insert/remove the pegs into/from the nine-hole board – using only one hand. The results of the test well-characterize the current physical and mental status, attention and physical coordination skills of the person performing the test. The electronic version of the Nine Hole Peg Tester detects one by one the insertion and removal of the pegs, and measures the time of the procedure by means of a microcontroller. The measured data are stored in the device and can be transmitted to a computer (PC, laptop, tablet etc.) through USB port.

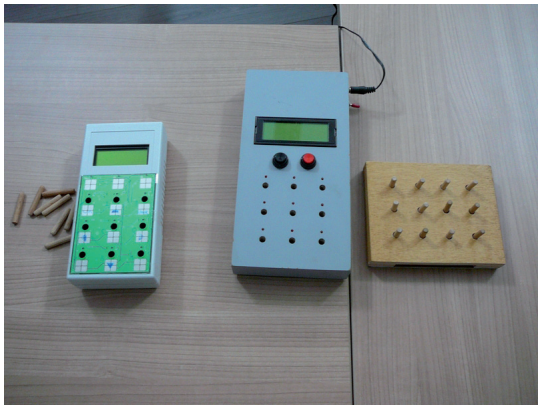
T E A M W O R K - The work performed by a team

The test method originally was produced for medical purposes. Potential uses in the medical and other areas:

- neurological and other patients' health check, follow-up and diagnosis;
- guideline to adjust the right amount of medication;
- fatigue testing in daily work;
- measurement and development of small children's dexterity;
- increase the spirit of competition by games;
- focusing attention on one thing (conditioning).

Possible directions of development:

- measurement of rhythm and fine movements;
- neuro-rehabilitation (e.g. after stroke);
- new design to the device for children.



The next steps:

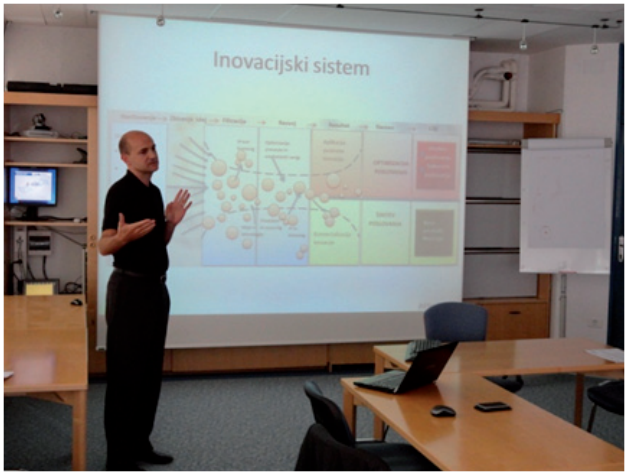
- find test fields (for adults and children);
- minor changes to the device based on the feedback;
- search for manufacturers;
- find a market;
- create publicity for the device.

How to find a manufacturer?

An opportunity: to upload the innovation to Medical Innovation Database of InTraMed-C2C project (has been done).

PP10 is willing to play a mediator role to find test environments and manufacturers. The next innovation workshop for the Nine Hole Peg Tester will be arranged in autumn 2012.

Follow-up workshop of a project InTraMed-C2C in Hospital Golnik



On the first seminar, participants learned the basics of the innovation process and the mechanisms necessary for the establishment and maintenance of it. The second InTraMed-C2C event was organized on 5th of June 2012. During the workshop four subject areas have covered:

a. Review of the previous seminar, review of collected and evaluated ideas.

b. Integration into the internal environment, as part of the innovation process in practice. Introduction of a model to find solutions, to generate ideas, methods for the selection of ideas and the formalization of process.

c. Presentation of the support mechanisms in the development and commercialization of ideas, with emphasis on the protection of intellectual property cases.

d. Survey.

The content of workshop:

1. On the first event, Prof. Dr. Dolinšek and Mr. Cerinšek presented a model for a functioning innovation process:

- key features of innovation and the innovation process,
- basic mechanisms and good practices for the creation and maintenance of the innovation system,
- survey.

For gathering ideas a special form was used.

2. Continued improvements are the basis for generating, filtering and development of ideas. At the seminar, participants learn the basics of continuous improvements and best practices from different organizations. The presented model divided gathering ideas into two parts: (1) individual brainstorming (ideas which already include a solution and usually provided by individuals) and (2) group generating ideas (this is a collection of problems for which at the beginning a solution is not known, for solving problems a project team is created, assisted by the moderator. They analyze the problem and find ideas for possible solutions, in the generating of process techniques used to solve problems). The participants also learn about different examples of formalizing a system for collecting ideas and best practices for rewarding them.

T E A M W O R K - The work performed by a team

3. In the third content block there was a presentation of support mechanisms in the development and commercialization of ideas, with emphasis on the protection of intellectual property.

4. In the last part of the workshop the participants filled in a survey. We wanted to know:

- attitude of employees towards the introduction of the innovation system,
- willingness to effectively dealing with innovative ideas,
- how big is the readiness for cooperation of managers in the hospital in dealing with the activities of the innovation system,
- check the quality of information provided by the contractors for the InTraMed-C2C Project.

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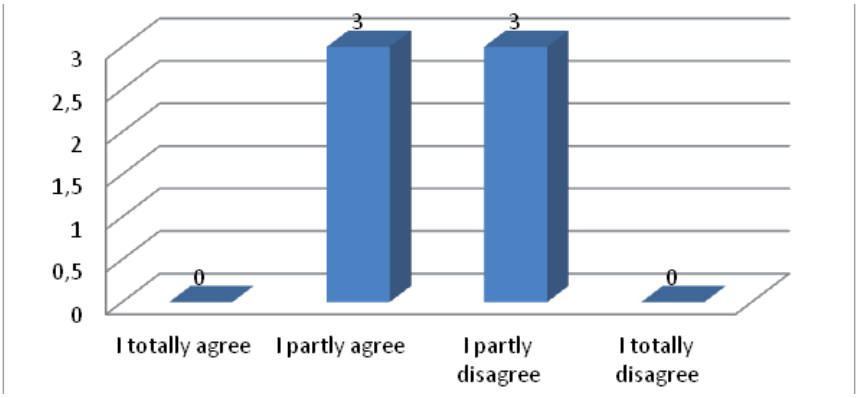
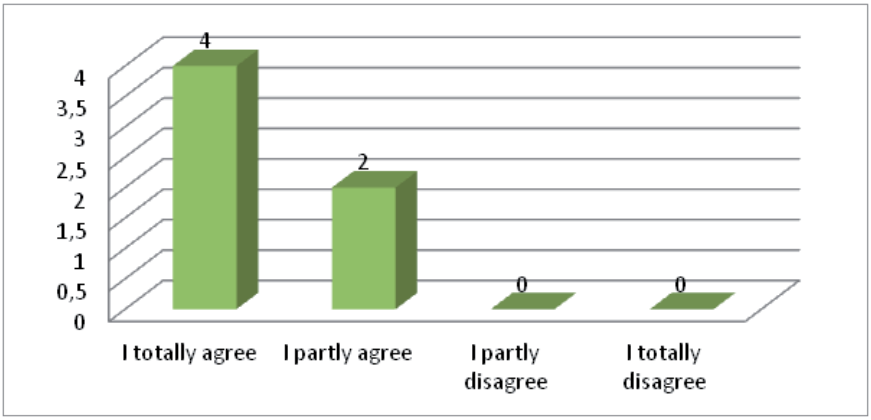
After the follow-up workshop in the Institute for Public Health and Hospital Jesenice, we will be able to compare results. The most interesting answers in the survey:

1. Before the InTraMed-C2C workshops in our Hospital I didn't know the role and importance of innovation system.

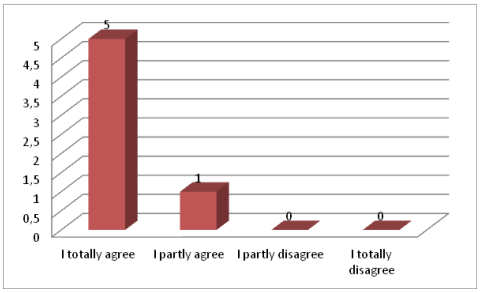


2. I would like to participate actively in innovative system (gathering ideas).



T E A M W O R K - The work performed by a team

3. The lecturers on InTraMed-C2C workshops gave me the main information about implementing the innovation system.



Further activities

At the seminar it was highlighted that Golnik Hospital already how a system to gather proposals/innovative ideas. These are mainly ideas of individuals (see description of option 1 in section 1), where the solutions are already known. The challenge is how to establish a system for rewarding ideas. The salary system for civil servants is fixed, so it is impossible to give them stimulation for making useful suggestions (ideas).

Modern wound treatment support system for diabetic foot syndrome

Currently the Medical Valley EMN e.V. supports the Fussnetz Bayern e.V. in the development of a modern efficient online based wound treatment support system. In the treatment and care process of patients with diabetic foot syndrome the rationale is that the treatment of patients with diabetic foot syndrome is very much interdisciplinary. Physicians from different backgrounds have to be involved as well as different nursing services. In fact ten different medical disciplines have to be coordinated in this process. The state-of the art process is very much paper driven. Long transfer periods for the latest information on treatment and care between the different physicians occur. As not all physicians are involved in the different stages of treatment and care not all have access to all patient related information. This makes the efficient and fast coordination from diagnosis to treatment and care sometimes difficult in this special disease pattern. So the idea came up to develop a modern efficient online based wound treatment support system where all involved physicians and care staff have access in real time to all patient related information in order to plan and execute the treatment of the diabetic foot syndrome better and faster. This can help to raise efficiency and speed up the treatment process. The technical basis in form of a labtype is almost set. The next step will be to set up a test environment in the Medical Valley Area where the system will be tested and evaluated. The Fussnetz Bayern e.V. is a network of physicians active in the field of diabetic foot treatment.

T E A M W O R K - The work performed by a team

The aim of Biobank is to collect the biological material from Lower Silesia

BIOBANK

The aim of WCB EIT+ Biobank is to collect the biological material from the population of people living in the area of the Lower Silesia. Our goal is to support research projects focusing on the detection of biomarkers of cardiovascular, neurological and autoimmune diseases. Biobank is also responsible for the collection of samples from healthy population with the aim of improving the prevention of the 21st century diseases. Along with the collection of biological material, we also collect demographic and life style information. Biobank was established due to cooperation between Wroclaw Research Centre EIT+ and Division of Laboratory Medicine, Wroclaw Medical University.

Biobank is lead by certified healthcare scientist Dr Lukasz Kozera, who brought his experience from University of Leeds (UK), where he worked as a biomarker programme coordinator and a biobank manager. The biological material is collected according to strict standard operating procedures, that ensures their high quality. The project is financed as a part of BioMed programme - „Biotechnologies and advanced medical technologies".

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Workshop in Cracow

The John Paul II Hospital has organized an innovative workshop on 8th August 2012 within the framework of the InTraMed-C2C Project. This event was held at the new conference center of the The John Paul II Hospital in Cracow. The workshop was attended by fourteen representatives from the following institutions:

- Healthcare sector:

- St. Luke Provincial Hospital in Tarnów
- Regional Hospital in Limanowa
- Stefan Żeromski Specialist Hospital in Kraków
- Regional Hospital in Chrzanów
- John Paul II Hospital in Kraków

- Business supporting institutions

- Medical Technology Transfer Center Technology Park Ltd.

- Enterprise

- IVES system

The workshop was entirely devoted to the innovative medical platform inVisium owned by the IVES system company. This IT tool provides many facilities:

- Automatic anonymization of new cases
- Browser of cases added by other users
- Addition of descriptions, findings, substances used
- Algorithm suggesting images that are similar with respect to their description or pattern
- Tools for area delineation, measurements, image adjustment
- Teleconsultation of DICOM images with audio video transmission
- Web browser – no need to install additional software
- Access to the Internet
- PC minimum 2 GB RAM and 1.5 GHz CPU

T E A M W O R K - The work performed by a team

During the workshop the participants had many conclusions. It was stated that the inVisium platform provides a very important link in the treatment process. Moreover, it assists diagnosticians in disease detection and helps with education of the new specialists. In addition the platform provides an IT tool for patient data management and reduces costs related to the hospital treatment. It was agreed that common and innovative initiative of hospitals in Malopolska province is required to unify telemedical systems in the region.

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END NOTES

Project partners:

The participating partners of the project represent clusters, business supporting, administrative and project development companies/institutions. They are:

1. Forum MedTech Pharma e.V./ Bayern Innovativ GmbH, Nuremberg, Germany (Lead Partner)
2. Medical Valley EMN, Nuremberg, Germany
3. Clusterland Upper-Austria, Linz, Austria
4. TIS innovation park, Bozen, Italy
5. Lower Silesian Voivodeship, Wroclaw, Poland
6. John Paul II Hospital & Medical Technology Transfer Center, Cracow, Poland
7. Business support centre Ltd, Kranj, Slovenija
8. Centre for research, innovation and regional development, Brno, Czech Republic
9. Budapest University of Technology and Economics, Budapest, Hungary
10. University of Debrecen, Technology Transfer Office, Debrecen, Hungary

Contact:

If you are interested in further information regarding the InTraMed C2C project please visit our website: **www.intramed-c2c.eu** or contact us as follows:

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