OP 4.3.1

Implementing InTraMed-C2C

CENTRAL EUROPE Programme 2007 – 2013

PRIORITY 1: Facilitating innovation across Central Europe

Document Classification

Title	Implementing InTraMed-C2C
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Authors	*Dieter Westphal, LP; Contributions from all PPs*
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Summary	Implementation of the IntraMED-C2C framework in order to execute the innovation transfer system, based on the experiences and conclusions from the initial pilot workshops. Implementation report will be available on the website (free of charge).

Due to the different approaches for implementing the InTraMed-C2C system in each project partner region, this report will describe individually the implementation in each region.

LP - Bayern Innovativ GmbH / Forum MedTech Pharma e.V.

Author: Andreas Frömer

The implementation of InTraMed-C2C at the region of Upper Bavaria in Germany will be described by the process of performing innovation workshops based on the access to the target groups in clinics and companies.

The access to companies is based on the excellent network of Bayern Innovativ and Forum MedTech Pharma with direct contacts to key persons in the companies. This access is described in detail in the report “Prepare workshops” (Output 4.1.3).

Brief description of a successful innovation workshop

A Non-Disclosure-Agreement (NDA) was sent to the identified participants together with the invitation for the workshop. NDAs must be signed by the persons from clinics (owner of ideas) and potential cooperation partners from the industry. These signatures can be done in advance or at the beginning of the workshop but must be discussed before.

First topic of the workshop is the overall presentation of the project InTraMed-C2C by the project manager. Next all participants will be introduced: inventors of university hospital (or other clinics), representatives of companies/ SMEs and representatives from innovation transfer institutions responsible for university hospitals.

Next topic is the presentation of the patented invention by the clinic (preferably the inventor and his team). Optionally: discussion of a study design of an already implemented clinical study, the design of a prototype, incorporation of a modified module in existing products of companies. Challenges: barriers of market introduction like validation of the system, patent situation, cooperation model.

The special situation of German university hospitals with patented inventions of employees requires a special consideration in the workshop. In general all parties involved in the process of innovation transfer at the clinic should be present in the workshop: Technology Transfer Office, patent licensing agency, Legal Department. Number of participants can vary appr. between 10-15 persons. It is advisable to have working-group experts of the invention available during the workshop in order to answer all (technical) questions from industry representatives concerning the invention. Ideally the clinic director should be one of the participants.

The InTraMed-C2C project manager as the overall (neutral) moderator is a prerequisite in order to harmonise different expectations of the parties, to harmonise different point of views and to define and follow the goal of bringing the idea to market.

The venue for the first meeting at the university hospital is ideal because the inventors are available and fundamental questions can be answered. 3-4 hours is a good time frame for the workshop.

The initial “proof” of the idea/ invention by the company/ companies is an ideal first check for the value of the invention and led to a target-oriented further development of the innovation.

During the workshop the companies discussed the market opportunities and the necessary changes which are necessary before they take further steps for a cooperation or financing next steps of development or to buy the overall invention.

Potential follow-up workshops with different companies can show the need for a continuous input from the industry in terms of further development of the innovation. The proof of concept must be demonstrated as well as a validation study.

Conclusion

At the beginning 74 companies could be identified in Upper Bavaria which could fit as partners for a selected innovation. Sources for background information of these companies are databases from the project partner institution and information provided by the companies in the internet. In a second step the innovators were asked to check the list of companies and add contacts if available. The COOs, R&D and Business Development managers of 10 relevant upper bavarian companies were contacted via email and telephone. Unfortunately the interest, even in a patented and further developed innovation, was very small due to different reasons. One reason was that the financial crisis caused a stop of development projects. Another reason was that the presence of Global Players in the workshop caused small and medium sized companies not to attend.

PP3 - Clusterland Upper-Austria

Author: Philipp Wittmann

Summary

Evaluation of project results with an External Expert: Mr. Andreas Prag.

Attendees: Health Technology Cluster Team: Project Managers, Cluster Manager, Coordinator, Communication, External Expert

Place: Eidenberger Alm, Linz, Austria

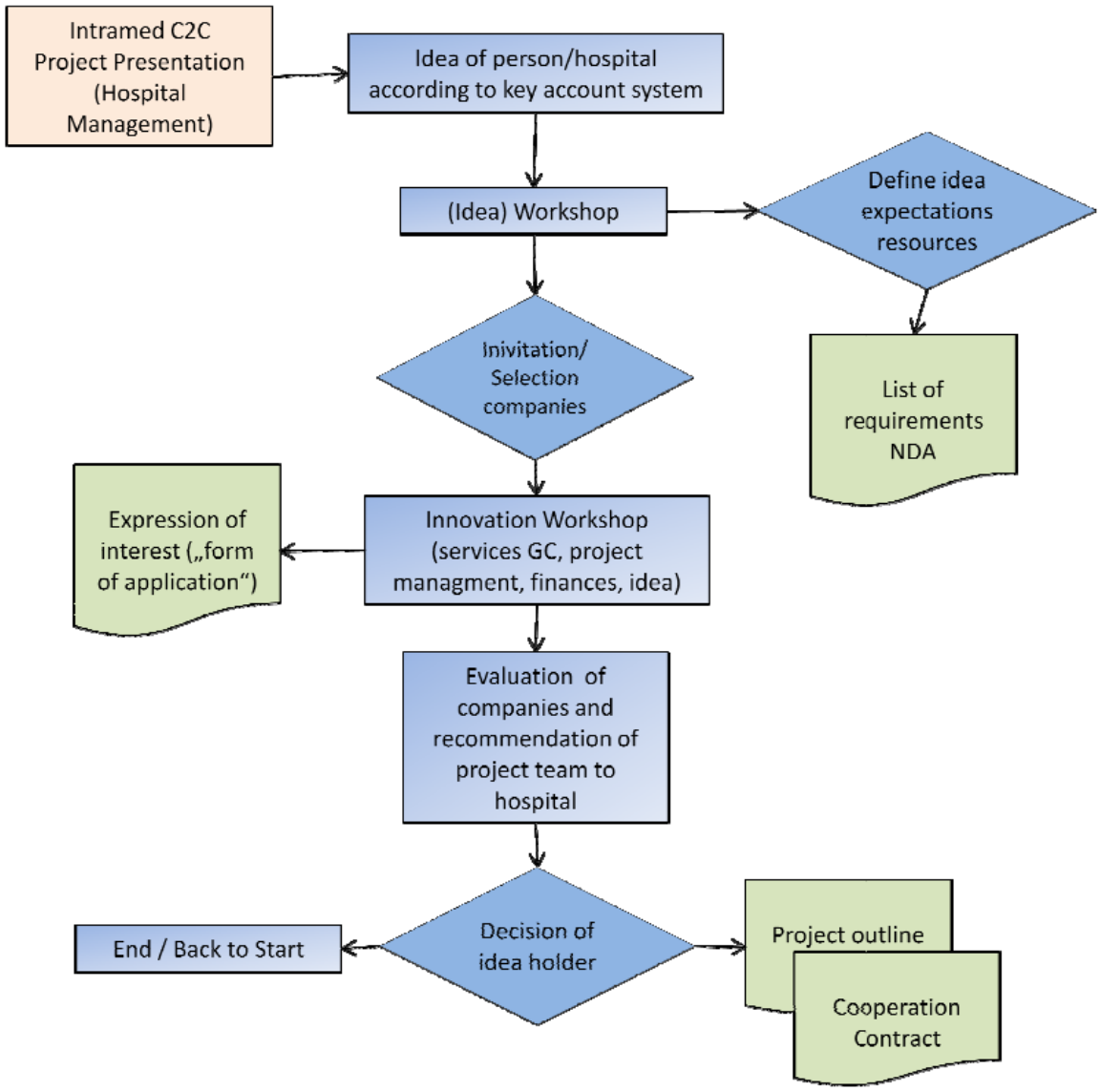
Points of discussion:

- Follow-up activities (also dissemination activities, such as press releases)
- How to maintain the established structures
- How to further improve and foster structures
- Further activities
- Alternative ways of financing

In Austria, the idea of an employee in general belongs to the employer, which is in this case the hospital. Furthermore, the implementation of an idea is not the daily work of a hospital and therefore it is not within the resources. These reasons require an official approval of the managing board of the hospital. Thus the process starts with a presentation of the Intramed-C2C approach and its benefits for the hospital. This presentation was done by the Cluster Manager of the Health Technology Cluster.
Once the managing board approved the Intramed-C2C process, hospital staff could be approached directly by the project managers of the Health Technology Cluster according to the key account system, which divided hospital staff into three groups: physicians, nursing staff and technical staff.
Once an idea was identified, the holder of the idea and a project manager of the Health Technology Cluster further defined the idea within a list of requirements and determined the following steps. Expectations, goals and legal issues are discussed within this idea workshop. The NDA is an important part of this meeting.

The idea workshop is followed by an innovation workshop. Not only hospital staff but also selected companies are invited to this innovation workshop. During this workshop the holder of the idea did a presentation on the idea and companies were able to ask questions. The Health Technology Cluster was responsible for the organisation and administration of the workshop. Also, the services of the Health Technology Cluster and the procedure of Intramed-C2C were presented.
Each company was asked to fill out a form of application in order to express their interest in the project. Based on this form, the companies were evaluated using the following criteria: willingness to cooperate, expectations and goals, infrastructure and know-how in the field of interest and the willingness to invest.
The decision which companies are part of the project consortium however is up to the hospital. As soon as the project partners are defined, a project outline and cooperation contract is drawn.

Internal Intramed-C2C Process Health Technology Cluster



List of requirements

Product requirements

Title of project:	Functional wagon
Contract person Krankenhaus der Elisabethinen:	Mrs. Prim. Dr. Elisabeth Haschke Mrs. DGKS Regina Kickingereder Mr. Ing. Karl Weidenauer
Current Situation: (~½ page)	*Available technology? Which tools or products are currently used? And why are these products inapplicable?* *(You may lable the picture)* 
Requirements: (~ ¼ page)	*Requirements that need to be fulfilled by the new wagon and nice-to-haves*
Product benefits:	*Additional advantages?*
Cost of product:	*How much are the customers willing to pay for the product?* *How much is the currently used product?*
Target group:	*Potential costumers of product?*

Project Outline

The project outline is used to evaluate the companies according to their compentences, interest and intention

Specification of project	
Project Titel:	Functional wagon
Project start:	
Duration of project:	
Estimated project budget	Labor cost: Investment cost: External Expertise: R&D Institutions:
Your input: (max. ½ page) - Concept of product – solution proposal? - You competences / special know-how? - Which role is applicable: Project partner, external expert, service provider or project coordinator?	
Describe the project benefit for your company? (max. ¼ page)	

Name, Legal Status and number of employees	
Name	
Legal Status	
Number of employees	

PP4 - TIS innovation park

Author: Michaela Egebrecht

The project implementation has been prepared very carefully with the commitment of the local public entity who is responsible for the management of the public hospitals (Bolzano, Bressanone, Brunico, Innichen, Silandro, Merano, Sterzing) in South Tyrol. In parallel we have been collaborating with some private clinics (Bonvicini, Villa Melitta) and rehabilitation centres (Salus Center) where we presented the product initiative and the goals of the InTraMed project.

These meetings have been followed by presentation meetings in the hospitals and clinics where we introduced the innovation process to the clinical staff.

Picture: Meeting at the hospital Bolzano

Online-Tool / Questionnaire (in German and Italian language)

In addition to the presentations in the hospitals we have created an Online-Tool which could be used to share an innovative product idea with TIS innovation park in order to step into the product development process.

After receiving the input from the employees of the hospital, we again confronted the clinical staff and the decision makers with the product ideas. In parallel we started to evaluate the idea, check the feasibility and analyse the market for existing products.

In most cases we have completed a specification sheet with all technical details with the help of the innovator. Having collected all important data we have been searching for companies that could be interested in the production of the innovative product.

At the moment all product development processes are still on-going. So far we had two cases where a NDA has been signed. In one case the innovator has already agreed with a company to develop a new product for handicapped people. In the second case we are still clarifying the technical features in order to develop a brand new product or to decide for an adaption of an existing product.

Other product ideas have been collected in the following fields of health care & medicine:

- Diagnosis
- Hygiene

- IT in the Health Care Sector
- Instruments for the emergency medicine
- Dosing of pharmaceuticals
- Technical support

The innovation process InTraMed-C2C at TIS innovation park

Innovation process

Challenges

Due to the fact that the health care and medicine topic has not been followed by TIS innovation park earlier, we had to work hard on stimulating the stakeholders, decision makers in the medical sector and companies at the very beginning of the project. Most of the dialog partners had doubts, that this initiative could be successful in South Tyrol because of the few companies that are actively working for the health care and medicine sector up to now.

After having implemented the questionnaire and presenting the innovative ideas, most of our partners are convinced that this process should be retained, also after the InTraMed-C2C project has finished, because they realized that the opinion and expertise of the medical staff is a brilliant source for innovation.

Additionally we have invited companies, decision makers and clinical staff to a workshop at TIS innovation park to exchange their ideas and to learn from each other. The topic of this workshop was: "Efficient Health Care through Innovations". Beside the presentations all companies had the possibility to present their products and their knowledge at a small expo at TIS.

Workshop and Expo at TIS innovation park

Another challenge that we have been confronted was, that the employers – local hospitals – have no experience how to deal with IP rights and the patent commercialisation. This issue is still open and will be elaborated in more detail in collaboration with the human resource manager of the public hospitals.

Marketing and promotion material

Marketing material

Database system

Not all innovations could have been inserted to the database system as the innovator did not agree on publishing the idea. Some ideas have been inserted but unfortunately have not been responded in the way as it has been supposed to. For the product idea "Mobile thermometer for measuring the body core temperature" we got the contact of one interested company thanks to the commitment of Forum MedTech Pharma and the company network of Andreas Frömer. This product idea has led to another innovation workshop in South Tyrol. A company from the Forum MedTech Pharma network has been involved too.

Training Activity

This initiative is described in more detail in the document 4.3.4. Training Activities.

Online-Questionnaire: http://www.tis.bz.it/info/subscribe/intramed-c2c/
(screenshots: next 2 pages)

Projekte

Subscribe

TIS Infos
School
InnovationDay 2011
TechnologyDay 2011
TechnologyDay Expertengespräche
School Programmes
Marketing Stammtisch
Technologie-Reise: Innovation-
Technologie Reise: Fahrt zur
Technologie Reise: Fahrt zur
Schlanke Prozesse in KMU
Wake up - Innovation mit Biss
Jahreserklärung des elektrischen
Pellets & Brandschutz
Schnupperkurs Sensorik
Technologiereise: Technische &
Designwerkstatt_06
ISF Food 6 und BRC 6
Klang und Geschmack
Wake Up - Gesunde Lebensmittel
Unter der Lupe: die neue
Die neuen Förderregelungen für die
Lebensmittelverpackungen 360°
Halal und koscher: der Markt im
Wettbewerbsfähigkeit im Bausekto
Energieeffizienz in der
Fachtagung Naturstein
Coaching Lebensmittelbranche
Best Learn 2013
InTraMed C2C

Online Fragebogen - Projekt InTraMed-C2C

Ihre Ideen können zu neuen Produkten werden!

Helfen Sie mit und setzen Sie mit Ihrem Fachwissen Impulse für die Produktentwicklung im Medizinsektor!

Dieser Online-Fragebogen hilft Ihnen dabei, Ihre Idee zu formulieren.

Ihr Ansprechpartner im TIS:

Michaela Egebrecht | michaela.egebrecht@tis.bz.it | 0471 068121

Produktidee

Beschreibung der Produktidee ▪

in möglichst einem Satz

Details zur Idee

Verwendungsbereich des neuen Produktes ▪

- Therapie
- Pflege
- Medizinische Anwendungen allgemein
- Krankenhausambiente/Patientenzimmer
- Krankenhausinfrastruktur
- Medizinische Fachgebiete

Andere

Produktkategorie ▪

- Medizintechnik (technische Geräte im Krankenhaus)
- Medizinische Hilfsmittel (Infustionssständer, Desinfektionsspender, etc.)

Andere

Wie schätzen Sie ihre Produktidee ein? ■

- ☐ Produktneuheit
- ☐ Produktveränderung

Ausgangsproblem / Ausgangsbedürfnis der Zielgruppe ■

Die Idee könnte folgende Problemstellung lösen ■

Marktpotenzial der Produktidee ■

- ○ Lokal (für Südtirol)
- ○ International

Zielgruppe / Verwender / Begünstigte ■

- ○ Patienten
- ○ Medizinisches Personal
- ○ Pflegepersonal

Andere

Kontaktdaten

Name und Nachname

E-Mail-Adresse ■

Berufsgruppe ■

- ☐ Arzt/Ärztin
- ☐ Krankenschwester
- ☐ Krankenpfleger/Krankenpflegerin
- ☐ Therapeut/in
- ☐ Medizinisch-technischer Mitarbeiter/In (Labor, Radiologie,...)

Andere

absenden | felder leeren

PP5 - Lower Silesian Voivodeship

Author: Antoni Zwiefka

The implementation of the InTraMed-C2C Project in Lower Silesia region is based on workshop ideas. In order to achieve the project goals the following actions set out in the WP4 – Implementation were carried out:

- "Action plans" established and implemented
- Local Steering Group established
- Pilot innovation workshop organized
- Report on pilot innovation workshop
- Follow up meetings and workshop organized

The introduction of the goals of the InTraMed-C2C Project and the action plan to link the already existing parties present in Lower Silesia were presented during the workshops in order to trace the way for an optimized and sustainable innovation transfer system from Clinics/Hospitals to companies. After that the workshop attendees were introduced:

- doctors and nurses from "Falkiewicz Hospital" in Wroclaw and some other Clinics,
- representatives of global players,
- SME sector representing Wroclaw Parks of Technology,
- representatives from the already existing innovation transfer institutions.

During meetings with the Local Steering Group several solutions and tools facilitating commercialization of innovations in the medical sector were presented. Problems regarding cooperation of hospitals combined with R&D institutes were discussed. Benefits for medical staff as a motivational factor were also introduced.

From every workshop 2 or 3 ideas were selected for implementation. Next, to develop the idea, NDAs were signed. Finally, during follow up meetings, there was a discussion on the study design; the design of the prototype, along with the possible incorporation of a modified module in existing products of companies. A target-oriented further idea development of the innovation showed the companies the value of the invention.

Some of different companies showed the need for continuous input from the industry in terms of further development of the innovation. For each idea a validation study was demanded. Then the innovation was ready to be transformed in a cooperation project

Main current methodological barriers for implementation science efforts are based on the lack of:

- agreement regarding constructs hypothesized to affect implementation success
- proof of concept demonstration.
- identifiable measures of these constructs, in order to address the gaps.

Main goals of implementation used to be identified as a multi-level framework that captures the predominant factors that impact implementation outcomes, conduct a systematic review of available measures assessing constructs subsumed within these primary factors, and determine the criterion validity of these measures in the search articles. As the nexus between research and practice, the field of implementation science plays a critical role in advancing human health.

During workshops several possible barriers of financing and market introduction caused by the financial crisis were discovered. Small and medium sized companies did not attend project meetings widely – they are focused on current products. Due to these financial reasons there was very small interest, even in a patented and further developed innovation. Establishing the property rights regarding innovations and identifying who is the owner of the IP rights (employer or employees) was also a problem. There are some cases when the cooperation failed because of additional investment need and small economical effect.

Proper actions are required for expanding knowledge and forming appropriate attitudes among medical staff to support innovation. Small and medium enterprises seem to be involved in innovation transfer ideas from the competition and economical effect as a main goal. In hospitals Innovation transfer is a still unique field. During the meetings and courses “good practices” are required to encourage the global players. This can create individual approach of doctors regarding the medical disciplines they represent and it will identify pioneers and most prominent people to cooperate with. Good practices which should be disseminated in the medical sector and small and medium enterprises are necessary and should be prepared; proper platform for innovation transfer should be created.

It is also very important to monitor the fate of the medical innovation. In Lower Silesia the main reason was a financial issue and technological barriers. The only one idea was commercialized. In this case one company was able to invest for this idea. It means that financing problems are the main which appear during commercialization of innovations in the

medical sector. Second is the market, which is not well developed. This issue is connected with economical situation.

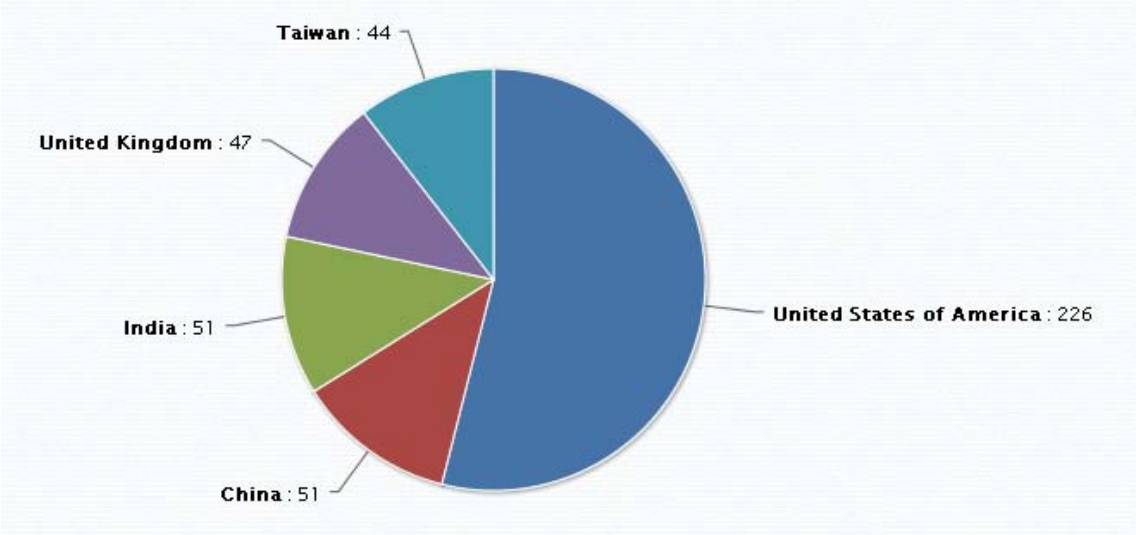
Actions in WP4 were also supported by tasks undertaken in work package 2 (WP2) – Communication, knowledge management and dissemination:

- Participation in professional events and conferences organized in Lower Silesia, Poland and in Europe,
- Organization of promotional stands and meetings during events related to innovation management,
- Cooperation with other Projects on Innovation issue in Lower Silesia and on country level (KIGMED)
- Preparation and distribution of information material movies on the InTraMed-C2C Project, and innovative ideas selected by LSC

Scientific publication on the InTraMed-C2C Project innovation subject is based on the book "New Research on Knowledge Management Technology" chapter on "Management of Knowledge Acquisition from Human Sources in Innovation Transfer":

> Antoni Zwiefka and Malgorzata Nycz (2012). Management of Knowledge Acquisition from Human Sources in Innovation Transfer, New Research on Knowledge Management Technology, Dr. Huei Tse Hou (Ed.), ISBN: 978-953-51-0074-4, InTech, DOI: 10.5772/32472.
> Available from: http://www.intechopen.com/books/new-research-on-knowledge-management-technology/management-of-knowledge-acquisition-from-human-sources-in-innovation-transfer

Accumulated downloads from the online publication date (in February 2012) up to beginning of June 2013 are 1376 uploads.
Pie chart shows the download share by TOP 5 countries from which this book chapter was accessed.



The key lesson concluding InTraMed-C2C Project is creativity-based medical education which will point out the creativity issue. It is likely that, with the additional focusing on learning, teaching and assessment through creativity-based curriculum. It will be easier to overcome the current challenges to meet the training requirements.

Creativity-based approaches illustrate the need for enhanced assessment practices and tools and would benefit from a matrix educational model that further retains the professional maturation elements of the apprenticeship model while integrating a competency-based model that includes explicit expectations and assessment yet being cautious and avoiding the risk of deconstruction of practice into ever smaller units of competence or of focusing on only those competencies that are easy to describe and assess.

PP6 - The John Paul II Hospital

Author: Agnieszka Piwowarczyk-Bargieł

The InTraMed-C2C Project was implemented by the John Paul II Hospital in Krakow in accordance with the schedule. In order to achieve the project goals the Managing Team carried out the following actions set out in the WP4 – Implementation":

1. "Action plans" were established and implemented
2. Local Steering Group was established
3. Pilot innovation workshop was organized in September 2011
4. Report on pilot innovation workshop was written

The tasks identified in the document "Action plans" were successfully carried out as described below:

a) an informing letter describing the InTraMed-C2C Project was prepared in August 2011. It was distributed among 42 hospitals in Malopolska listed in the report *3.3.1 - Evaluation of clinics in every region*. In this way the John Paul II Hospital in Krakow reached all target groups;
b) we established cooperation with the Medical Technology Transfer Center – Technology Park Ltd. The Managing Team received support from the company mainly with respect to contact lists of potential investors and workshop participants, and exchange of knowledge and experience in the process of commercialization of medical innovations;
c) on 29 September 2011 there was the first meeting of the Local Steering Group established in the beginning of the project which is described under point 2 in this report;
d) cooperation with LifeScience Cluster Krakow facilitated participation in meetings and other professional events focused on innovations in medicine;
e) cooperation of the Managing Team of the InTraMed-C2C Project, the Medical Technology Transfer Center –Technology Park Ltd. and lawyers of the John Paul II Hospital in Krakow resulted in the preparation of a confidentiality agreement template which was used during innovation workshop. The tool became a very important component of innovation management;
f) during meetings with representatives of target groups the Project Manager each time presented a motivation programme prepared in the InTraMed-C2C Project. The presentation of reciprocal benefits from participation in innovation workshop was the usual component of the meeting agenda;
g) the Managing Team developed the mode of innovation workshop with the participation of an information broker. The presence of an information consultant helped workshop participants to obtain an appropriate scheme of commercialization and a tool for innovation management;
h) during meetings with the Local Steering Group the following solutions and tools facilitating commercialization of innovations in the medical sector were presented:

– systematization of problems regarding cooperation of hospitals combined with R&D institutes and introducing clear principles regarding intellectual property rights, study results and patents such as implementation of the Swedish model, regulations on innovation management, establishing the benefits for medical staff as a motivational factor, etc.;

- drawing attention to establishing scope of work and responsibility for employees in such a way that they clearly define intellectual property rights regarding innovations and identify who is the owner of the IP rights (employer or employees);
- establishing regulations on implementation of innovations from medical sector to business – the most important thing is to prepare concrete actions which will be of pilot type and will facilitate us to develop appropriate approach after detection of errors and inaccuracies;
- expanding knowledge and forming appropriate attitudes among medical staff through organization of meetings and courses – it is important to share concrete information and practical examples in the form of case studies, as lectures are not the best way of education in this case;
- creating individual approach to doctors regarding the medical disciplines they represent, identifying pioneers and most prominent people to cooperate with, as innovations that are likely to be implemented in small and medium enterprises frequently appear in everyday work;
- establishing in hospitals Innovation Teams which would have full competences in managing innovation implementation;
- initiating and stimulating interest in technology brokers who with their knowledge can serve as intermediaries between authors and stakeholders during bilateral meetings;
- organizing bilateral meetings where experts confront and evaluate the potential of innovative projects, only then financial issues are raised;
- establishing concrete rules, regulations and process pathways for medical staff to be presented during bilateral meetings;
- preparing good practices which should be disseminated in the sector of medicine and small and medium enterprises;
- establishing hospital consortia which would make use of services and resources offered by one Innovation Team or technology transfer center.

i) The Managing Team of the InTraMed-C2C Project, after each innovation workshop prepared other bilateral meetings for the interested parties for instance a visit to the ESPEFA company which is described under the point *4.2.3 - Follow-up-meetings*;
j) After each innovation workshop the Managing Team of the InTraMed-C2C Project monitored the fate of the medical innovation, which was the topic of a given meeting. It was most frequently done via email or phone contact with stakeholders;
k) The John Paul II Hospital in Krakow will propose Good Practices in commercialization of innovations in the medical sector based on the experience gained from the implementation of the InTraMed-C2C Project. Good Practices will be discussed under the point *2.2.8 - Final report*.

2. Establishing the Local Steering Group

The aim of the Local Steering Group (LSG) is to develop innovativeness, improve quality and effectiveness regarding commercialization and technology transfer and to foster links between the medical sector (hospitals, clinical departments, medical universities) and business (mainly small and medium enterprises) in the Region of Malopolska.
The Local Steering group consists of 9 members who represent institutions focused on innovations in medicine. Their experience and knowledge facilitate realization of the following goals:

- Share experience in commercialization of innovations,
- Define problems which appear during commercialization of innovations in the medical sector,
- Propose solutions and tools facilitating commercialization of innovations in the medical sector,
- Plan new actions regarding the Local Steering Group, including support for the Managing Team of the InTraMed-C2C Project in current activities.

Detailed information on the Local Steering Group is provided under the point *4.1.2. Implement Local Steering Groups*. Three meetings of the Local Steering Groups have been held so far:

- 29.09.201 – the first meeting focusing on defining the areas of cooperation between the members of the Local Steering Group and the John Paul II Hospital in Krakow. The participants identified many problems and difficulties which appear during commercialization of innovations in the medical sector. "Brain storming" helped formulate answers and propose solutions in this respect;
- 23.03.2012 – during the second meeting the Local Steering Group discussed an innovation solution submitted by a research team of the Institute of Zootechnics – State Research Institute. Participants analyzed possibilities of commercialization and the LSG members declared support in transfer.
- 30.01.2013 – the third meeting of the Local Steering Group focused on the organization of the Final Conference of the InTraMed-C2C Project. The participants declared to cooperate in this respect and proposed speakers with their presentations. They also discussed a schedule of training for medical staff as required in the InTraMed-C2C Project.

Cooperation with the Local Steering Group in the InTraMed-C2C Project provides first of all an invaluable opportunity of using extensive knowledge and diverse experience of its members regarding innovation management.

3. Organization of pilot innovation workshop in September 2011

Pilot innovation workshop took place on 27 September 2011 at Kossak Hotel in Krakow. The event was preceded by a number of organizational tasks described under the point *4.1.3 - Prepare workshops*:

- A letter was distributed among hospitals in Malopolska informing about the InTraMed-C2C Project. The aim was to describe the activities undertaken in the project and to encourage participation in innovation workshop;
- Cooperation was established with Kamil Kipiel, technology broker. He has experience in technology brokerage services in the area of technology and knowledge transfer, especially in the field of life science, including medicine. His presence during the workshop provided the participants with a strategic support element.
- A series of meetings of the Managing Team was organized to discuss the scheme and agenda of innovation workshop. Establishing the form of this event was of extreme importance because of the lack of regulations regarding innovation management in hospitals;
- In cooperation with Kamil Kipiel a search for participants of pilot innovation workshop was performed in target groups defined in the InTraMed-C2C Project;
- Upon dissemination of information on pilot innovation workshop the following institutions declared their participation:

Hospitals and medical organizations

- The Department of Otolaryngology at University Hospital in Krakow,
- Dr. Jasinski Provincial Rehabilitation Hospital in Zakopane,
- Strabismus Center in Krakow,
- St. Anna Hospital in Miechow,
- St. John of Jerusalem Hospital in Szczyrzyc

SMEs

- Silvermedia Ltd.

Business related institutions

- Medical Technology Transfer Center –Technology Park Ltd.
- Cluster LifeScience Krakow

- All the interested institutions received official invitations to participate in pilot innovation workshop
- The Managing Team of the InTraMed-C2C Project in cooperation with the Medical Technology Transfer and lawyers of the John Paul II Hospital in Krakow prepared a confidentiality agreement template which was used during innovation workshop;
- A number of administrative tasks were performed to successfully organize pilot innovation workshop.

4. Report on pilot innovation workshop and conclusions

Report

Pilot innovation workshop, which was held on 27 September 2011 at Kossak Hotel in Krakow, was attended by 12 participants. They represented 5 medical organizations, one small and medium enterprise and 2 business-related institutions. After analysis in WP3 – *Concept and design*, which revealed that the usual form of cooperation between hospitals and companies was implementation of final products offered by enterprises, the Managing Team decided to conduct pilot workshop which was a reverse image of the situation. Silvermedia Ltd., aiming at extensive development of its offer and products for the medical sector, decided to participate in the workshop to encourage hospitals to cooperate. The underlying determinant was to encourage the participants to support Silvermedia in the process of developing the final product i.e. Screening Platform. This IT tool can be extended to include new applications, however ideas must come directly from the medical sector. With this solution two aims will be reached:

- Silvermedia will gain support from specialists in the medical sector, who will provide their knowledge to improve the Screening Platform,
- Medical sector will create a completely new IT tool which will meet the expectations of specialists working in hospitals, as functionalities of the Screening Platform will respond to the needs emerging in everyday work.

During pilot innovation workshop Krzysztof Bederski Project Manager presented a motivational programme developed under the InTraMed-C2C Project. In this way the participants were made aware of the fact that cooperation between hospitals and business may be completely different than before. Attempts to change the way of thinking and showing benefits of cooperation to both sides were invaluable.

Discussion during pilot innovation workshop was very interesting, and representatives of medical organizations understood well the need to change the mode of cooperation between hospitals and business. A very important aspect of the event was submission by the participants of three innovative ideas to extend the Screening Platform:

- Developing remote rehabilitation system for patients,

- Monitoring and studying eye disorders such as lazy eye syndrome,
- Novel method for examining neonates.

Detailed report on the course of pilot innovation workshop was presented under the point *4.2.2 - Pilot workshop report*.

Conclusions

- Pilot innovation workshop was a significant step in the process of building awareness of the potential benefits of cooperation between medical sector and business.
- Presentation of the motivational programme developed in the InTraMed-C2C Project changed the perception of cooperation between hospitals and enterprises among workshop participants.
- As at the time of pilot innovation workshop there were no regulations regarding innovation management in hospitals, it became a very important topic during discussion and experience sharing.
- The Managing Team of the InTraMed-C2C Project developed and tested the following tools and approaches to commercialization of innovations in the medical sector:
  - Confidentiality agreement template for workshop participants,
  - Scheme and course of innovation workshop,
  - Motivational programme for participants of innovation workshop,
  - Presence and support of technology broker,

Summary

The John Paul II Hospital in Krakow realized all tasks described in WP4.1 and WP4.2. Each activity was preceded by preparations with the involvement of the whole Managing Team of the InTraMed-C2C Project. The tasks were difficult because of many national and regional requirements. Detailed analysis in WP3 – *Concept and design* facilitated the implementation of the InTraMed-C2C Project. An especially important aspect from the Managing Team's viewpoint was filling the information gaps in the related area. Due to activities in WP4 of the InTraMed-C2C Project the following results were obtained:

- Assumptions defined in the „Action plans" were implemented;
- A Local Steering Group was established, with their knowledge and experience providing active support for the Managing Team in the process of technology transfer and innovation management;
- Pilot innovation workshop was organized with the aim at fostering cooperation between hospitals and business and identifying possibilities of further cooperation;
- Tools and approaches to commercialization of innovation in the medical sector were developed for use in the future innovation workshops.

Actions in WP4 were also supported by tasks undertaken in WP2 - *Communication, knowledge management and dissemination*, including:

- Participation in professional events organized in Malopolska and in Europe,
- Organization of promotional stands and meetings during events related to innovation management,
- Presentations at conferences concerning innovations in medicine
- Preparation and distribution of information material on the InTraMed-C2C Project,
- Publication of papers on the InTraMed-C2C Project in professional journals.

Parallel activities of the Managing Team in WP2 and WP4 regarding implementation of the InTraMed-C2C Project assumptions facilitated achievements of specific goals.

PP8 - Regional Development Agency of Gorenjska, BSC, Business Support Centre Ltd, Kranj

Author: Nives Zalar

Implementing of project InTraMed C2C was done by Regional Development Agency Gorenjska, Slovenia (BSC Ltd Kranj). Because of some problems with establishing contacts and cooperation with all target groups, we had some delay with organizing pilot workshop.

The implementation followed the guidance of the project:

- Action plan (document 4.1.1) was generated and implemented.
- Local Steering group was established (document 4.1.2.).
- Pilot innovation workshop was organized in March 2012.
- Report on pilot innovation workshop was written (document 4.2.1.).
- Plan for follow up workshops was done and follow up workshops were implemented (basing on pilot workshop – document 4.3.3.).

In Slovenia the legislation for public institution (also health institutions) is very rigid. That specially refers on public procurement processes, limited budget and the inability of the financial rewards for workers in health institutions. This is the main reason for lack of motivation in management staff for cooperating in projects like InTraMed C2C and lack of motivation for workers to propose some innovative ideas. The other problem is ownership of innovative idea (or prototype of potential market interesting ideas). That is why we asked our external expert (former doctor) to establish some contacts with Gorenjska region health institution directors. On the other side we had problems with small amount with SME's engaged in activities like this and who are prepare to cooperate. Many of the SME's are not prepared to invest in potentially unprofitable innovative ideas in the time of economy crises.

We decided (basing on willingness for cooperation by directors) to cooperate and organize workshops in Hospital for Gynecology and Obstetrics Kranj, General Hospital Jesenice, Institute of Public Health and University Clinic of Respiratory and Allergic Diseases Golnik.

We decided that we will in each participating institution organize at least two workshops – 2 part approach: first workshop on which we will present basic terms and foundations for establishing system for transfer the innovation from medical institution to SME's and follow-up workshop on which good practices from abroad will be presented, different ways of establishing system, gathered ideas, existing systems in hospital.

Pilot innovative workshop was organized on 26th of March in University Clinic of Respiratory and Allergic Diseases Golnik. The workshop was attended by 18 doctors, (head) nurses and other employees in managerial positions. Seminar was divided into three thematic sections:

- presentation of the key features innovations and innovation process, whose aim was to clarify and define basic terms and concepts of innovative process,
- presentation of the mechanisms, tools and best practices for establishing and maintaining the innovation system,
- implementation of a SWOT analysis to determine the current state of innovation processes.

We decided that we will on the first innovation workshops in every health institution implement a short survey of understanding the basic concepts of innovation and to gain insight into the current state of innovation process in their hospital. In that way we will be able to compare results and state of innovation process between different health organizations in Gorenjska region. Survey results from different workshops are presented in document 4.3.3.

After the first workshop in every institution we had (together with external expert) follow up meetings with management staff and we agreed that they will collect different ideas from their staff, which we will evaluate later. At that point General Hospital Jesenice didn't want to cooperate any more, but with the other hospitals we started to gather innovative ideas.

PP9 - CVVI - Centrum for innovation and regional development

Author: Tina Igličar

General framework

The Innovation workshop is attracting all, yet very different target groups. Therefore it is very important to make sure that representatives of all stakeholder groups within the target groups of the project are addressed and invited to attend the workshop. This increased a chance of getting successful outputs from the course of the workshop.

The following stakeholders were addressed to attend the pilot innovation workshop performed in Prague, Czech Republic:

1. **Clinics/hospitals** – 94 hospitals/clinics/various health care institutions (such as health Spas) from private as well as public sector have been addressed at the first stage of the project. We have always tried to contact the employees on the management level (managers, head doctors, chief of R&D department, etc.) as well as staff members (i.e. head nurses). At the end only 5 hospitals

2. **SMEs** including those which specialize in **R&D** activities and **laboratories** – 107 subjects have been addressed

3. **Other relevant subjects** connected to the target group – 16 subjects have been addressed. These include: Universities departments connected to health and research, health clusters, associations of hospitals or doctors, sports laboratories, medical institutions not included in group 1, etc.). All subjects included in this group can provide either research facilities, especially the universities and their R&D departments, or some other kind of interests and activities connected to the health sector - clusters can suggest suitable SMEs to proceed with certain proposals, association of hospitals or doctors carry big potential – doctors who are members of such association meet on regular basis and discuss all kinds of matters.

The basic objective of the Innovation workshop is to generate innovative ideas based on the principle Clinics → SMEs and to test in practice project´s objectives.

The outputs highly depend on the concrete group of participants. If the group of participants is enough diverse i.e. representatives of various subjects from the target group, we might be able to come up with quality outputs. These outputs should consist of possible partnership agreements between SMEs and hospitals/clinics representatives which would reinforce the match-making process of the project and participants should also exchange contact information relative to the match-making process.

Based on the fact the workshop is attracting very different target groups and also based on the objective of the workshop, there was quite important to address properly all the different actors from Health sector and follow complex innovation workshop methodology in all phases. To improve the workshop success we separated the whole procedure to logical complex phases:

- Preparation phase (main objective to attract relevant actors and identify the innovative idea)

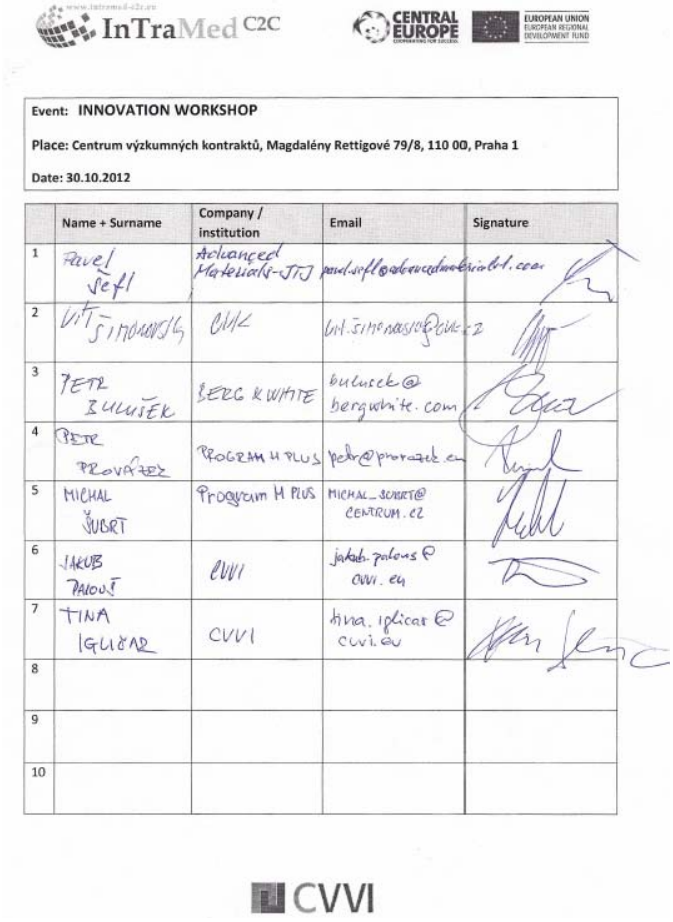
- Implementation phase (main objective to moderate the whole workshop to achieve the prospect of innovation transfer from clinics/hospitals to SMEs)
- Follow-up phase (main objective to support facilitation of innovation transfer from clinic/hospital to SMEs)

Participants

Event: INNOVATION WORKSHOP
Place: Centrum výzkumných kontraktů, Magdalény Rettigové 79/8, 110 00, Praha 1
Date: 30.10.2012

Participants		
	Name + Surname	**Company / institution**
1	Vít Šimonovský	Centrum výzkumných kontaktů
2	Pavel Šefl	Advanced Materials - JTJ s.r.o.
3	Petr Provázek	Program H plus, s.r.o
4	Petr Bulušek	Berg&White
5	Michal Šubrt	Program H plus s.r.o.
6	Jakub Palouš	CVVI
7	Tina Igličar	CVVI

Picture: attendance list



Event: INNOVATION WORKSHOP
Place: Centrum výzkumných kontraktů, Magdalény Rettigové 79/8, 110 00, Praha 1
Date: 30.10.2012

	Name + Surname	Company / institution	Email	Signature
1	Pavel Šefl	Advanced Materials-JTJ	pavel.sefl@advancedmaterials.cz	
2	Vít Šimonovský	CVVI	vit.simonovsky@cvvi.cz	
3	Petr Bulušek	Berg&White	bulusek@bergwhite.com	
4	Petr Provázek	Program H plus	petr@provazek.eu	
5	Michal Šubrt	Program H plus	michal_subrt@centrum.cz	
6	Jakub Palouš	CVVI	jakub.palous@cvvi.eu	
7	Tina Igličar	CVVI	tina.iglicar@cvvi.eu	
8				
9				
10				

CVVI

Agenda of the workshop

The workshop took place in the morning and finished at lunch time, based on the agenda presented below:

Brief report of the pilot innovation workshop

The following topics were discussed during the first innovation workshop

1) Introduction of CVVI and InTraMed-C2C Project

The workshop started with the short introduction of the CVVI, done by Jakub Palouš. Tina Igličar presented project InTraMed-C2C its development and tools and other possibilities for the participants to cooperated with the project.

2) Presentation of Centre of research contacts done by Vít Šimonovský

First SME/RTD company presented themselves, their activities and interests. The presentation was concentrated on the explanation of the field of their operation which is tackling the field of providing services of technology scouting.

3) Presentation of the Berg&White company

The company is oriented on providing technical and advisory services for technological innovations. Some examples were provided among them also the software solutions.

4) Presentation of H Plus programme

H Plus programme is the private hospital, specialized in providing high quality health care with above-standard services. The representatives of the program Michal Šubrt and Pert Provázek introduced their medical facility and the way they are dealing with patients. The discussion about ideas for innovation from their side opened among all the participants of the meeting.

The hospitals expressed the need for the new integrated software being able to store and handle the patient's data of different formats. The discussion about the application and technical requirements and restrictions started.

5) Advanced Materials - JTJ s.r.o. was presented by Pavel Šefl

The company is focused on development innovative products mainly in the field of nanotechnologies. Mr. Šefl presented on of their products which is able to sterilize the environment in hospitals. Discussion about the transfer and real application started.

6) Discussion

The discussion moderated by Jakub Palouš concentrated on possible cooperation, ideas capitalisation and involvement of the companies into the InTraMed-C2C project. Follow up meetings were set up.

Pictures


InTraMed C2C
1st InTraMed Innovation Workshop
30. 10. 2012 – od 10,00 do 12,15 hod. školící místnost 1. patro, Magdalény Rettigové 79/8, Praha 1
CVVI
CVK

PP10 - Budapest University of Technology and Economics, Biomedical Knowledge Centre

Implementation of the InTraMed-C2C system

Created by: Budapest University of Technology and Economics/
Health Technologies Knowledge Centre (BME EMT) – PP10

Version number: v4.3
12th of March, 2012

Table of Contents

Implementation Components in the InTraMed-C2C Project

Framework

The aim of the project is to promote the utilization of hospital innovations by developing and implementing InTraMed-C2C system. The implemented system contains components that are driven by a single framework and innovations are utilized correctly through them.

The framework is a process control system that embodies logical and control relationship between individual components.

The InTraMed-C2C framework can be considered as a control sequence to consist of the following components:

- ✓ The InTraMed-C2C basic steps
  - key player identification
  - SWOT Analysis on innovation transfer
  - development of motivation system
  - search for international innovation projects, exchange of experiences
  - initial steps to find innovation – identify professional fields
- ✓ development of InTraMed- C2C website –database design and development
- ✓ Operation of the innovation transfer system

We consider events and activities in the first two phases of our project as an element of the framework (foundation phase):

Key Players Identification and Selection, Organization of Regional Workshop

After having identified the key players of clinical exploration of the innovation in the region, it is necessary to organize an informative and opinion-gathering workshop for decision-makers and opinion-makers. This workshop positions the project's objectives and methods.

As a result of the workshop the importance of the clinical innovation will be clear to all participants. Everyone will be aware of the fact that supporting innovations and promoting the implementation of innovations make health care more efficient.

In case of the Central Hungarian Region we addressed the ministry, the medical professional association and the representatives of innovation agencies and hospital associations. They were, in fact, an active but – regarding their findings – not too effective audience. The main findings dealt with the topic of motivation and workload.

Presentation of the Project through the Media

We planned to publish professional articles in order to present the project. So we issued a comprehensive description of the project and a progress report about the second working period in IME, a journal for health care leaders.

The project was showed up at an event of the eVITA National Technology Platform where the interest was intense.

Region Analysis in Terms of Presence and Success of Innovations

According to the representatives of the opinion-maker civil society organizations, cardiology and surgery are the two medical fields where considerable innovation can be found beyond the daily routine. We notified the representatives of the two medical fields of the event through professional organizations of the areas – the national professional societies – as well as asked the great authorities of the companies to hold keynote lectures.

After the keynote lectures we initiated a moderated discussion to determine whether the speciality is worth the attention – in other words has appropriate innovation potential –, or not.

Development of Methodologies

We explored the innovation motivations of doctors and health care staff working for region's health institutions through interviews with the representatives of clinical sector. The survey painted a poor picture of motivations in many respects, but all respondents agreed that the social rank of innovation should be recovered to its previous level through increasing the state engagement in this sector and evolving the central motivational tools.

According to the accumulated experience the clinical innovation SWOT analysis of the region was completed and integrated into the core materials of InTraMed-C2C.

InTraMed-C2C Website Development, Database Design and Development

InTraMed-C2C website has been finished (www.intramed-c2c.eu).

The website contains relevant information and articles about the project, project partners and events.

BME EMT designed a database to upload and follow-up innovations. The database is tested by the project partners in the third and fourth working period. (The database, as key element of InTraMed-C2C system, is described in detail in the Annex).

The Innovation Transfer System

The Innovation Transfer System is the last element of the InTraMed-C2C framework, which has an automatic mechanism to search innovative ideas and to connect the innovation owner with the implementer, using valid information and methods.

The object, mentioned above, can be achieved through the following steps:

- ✓ Activities to explore the innovation – organization of exploratory workshop(s)
- ✓ Contact the innovator
- ✓ Organization of innovation workshop(s)
  - the idea is innovative
  - the idea is not innovative
- ✓ Upload the innovation to the InTraMed-C2C database
- ✓ Trace the innovation – update the database
- ✓ Reports on the innovations – close the database item

The process, which is actually the operation of InTraMed-C2C system itself, is summarized in Figure 1.

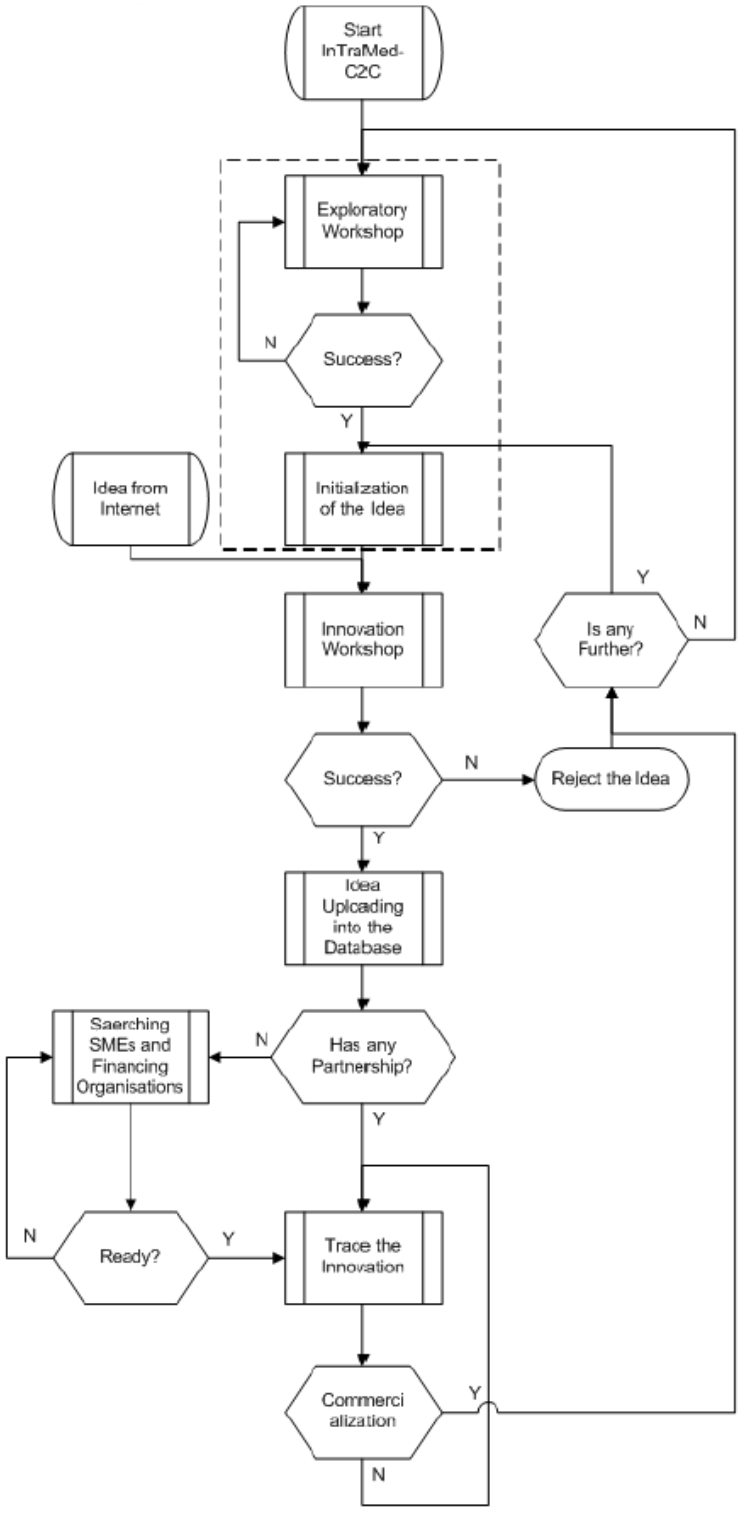


Figure 1. The system of InTraMed-C2C

This is the InTraMed-C2C framework itself. The framework is actually a description of the components of the innovation implementation support system as well as the implementation process itself.

The most important element of the tools is the device to evaluate decision point, hereby the embranchments of the process can be handled. There are two decision points which are not trivial to evaluate. These are:

- ✓ determine the success
- ✓ deciding to become a product

The two other embranchments actually check the existence of quantities. These are the followings:

- ✓ (idea-maker) has any partnership – OK
- ✓ (idea-maker) has further idea

These embranchments refer to the contact system surrounding the innovation and the existence of further ideas.

We need to revise the flowchart elements, to define their contents, input and output parameters (their data), and the activities related to their implementation. In addition we need to define the actors in the process, and describe their roles.

Use Case Diagrams for the Framework

The InTraMed-C2C system is operated by its users. From the aspect of the system there are central users and occasional ones. Knowing the roles the connection diagram of the roles can be worked up (see Figure 2).

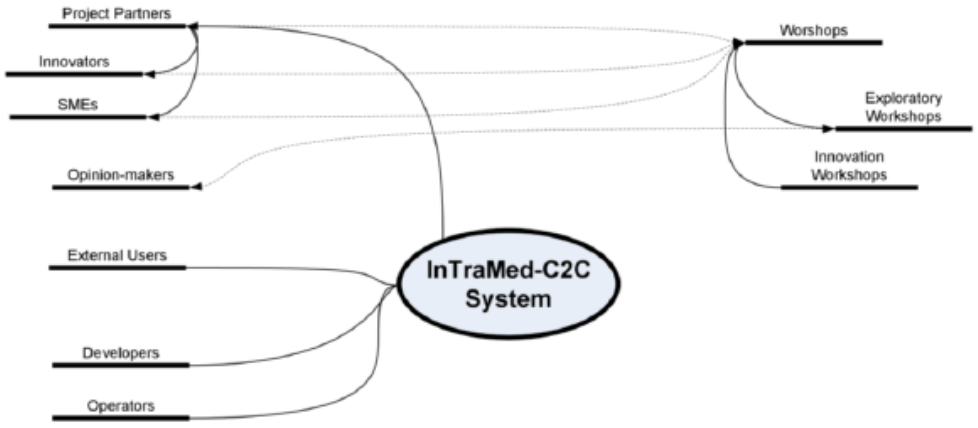


Figure 2. The roles of InTraMed-C2C and their connections

Using the role connection diagram we can construct the Use Case one (Figure 3). This is, actually, the workshop's Use Case diagram. It is clear that the two types of workshops are the exploratory and innovation ones. The project partners can be innovators as well as SMEs. Besides them opinion-makers in health care also have a role.

The users of InTraMed-C2C system are the external visitors of the site as well as operators and developers.

It is the Use Case diagram which describes a more accurate hierarchy of these actors. The following diagram (Figure 3.) shows a Use Case diagram of the workshop:

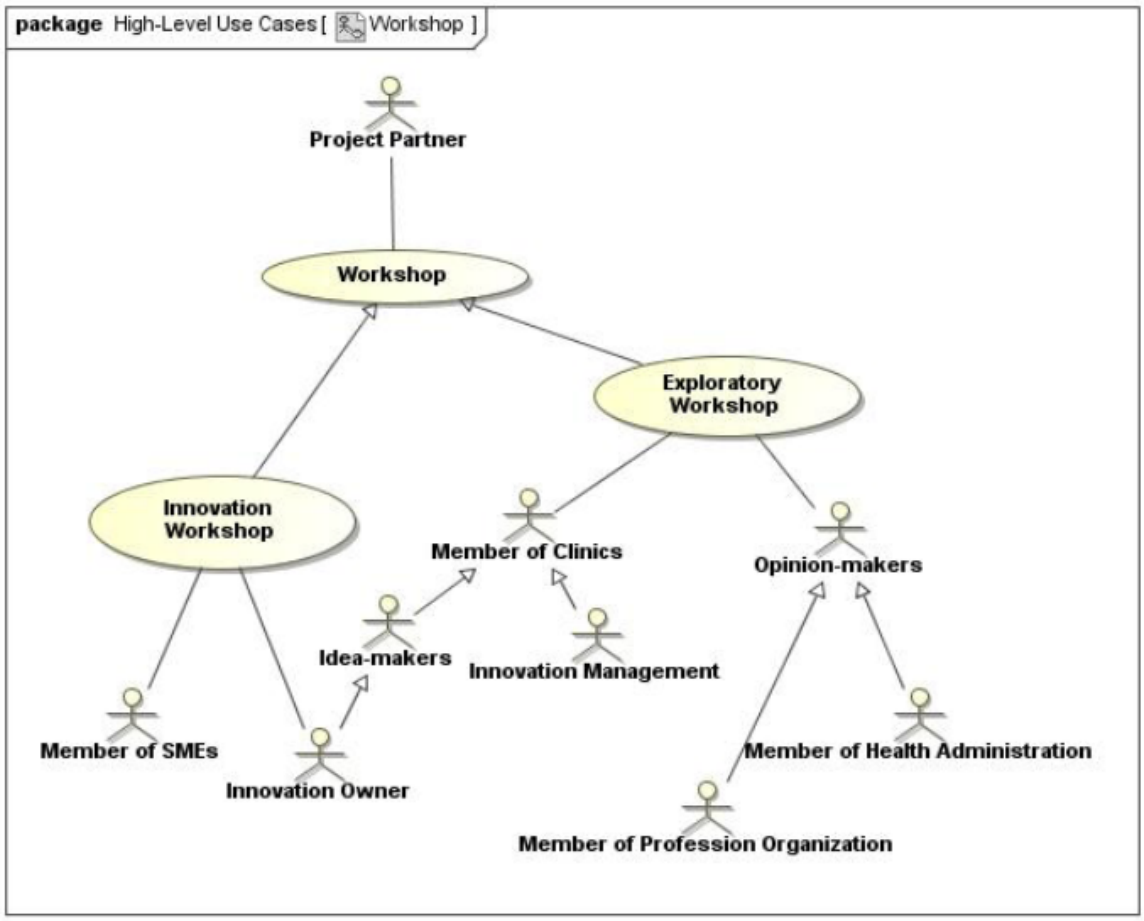


Figure 3. Use Case diagram of the workshop

Use Case diagram shows how the participants in the two types of workshop relate to the system. It is worth noting that the Innovation Owner is a special generalization of the Idea-maker, that is, while the entity participating in the exploratory workshop is an Idea-maker, he participates in the innovation workshop as an Innovation Owner.

Activities of the Exploratory Workshop

The Activity diagram, expanding the Use Case diagram of the exploratory workshop (see dashed line frame in Figure 1.), can be seen in Figure 4.

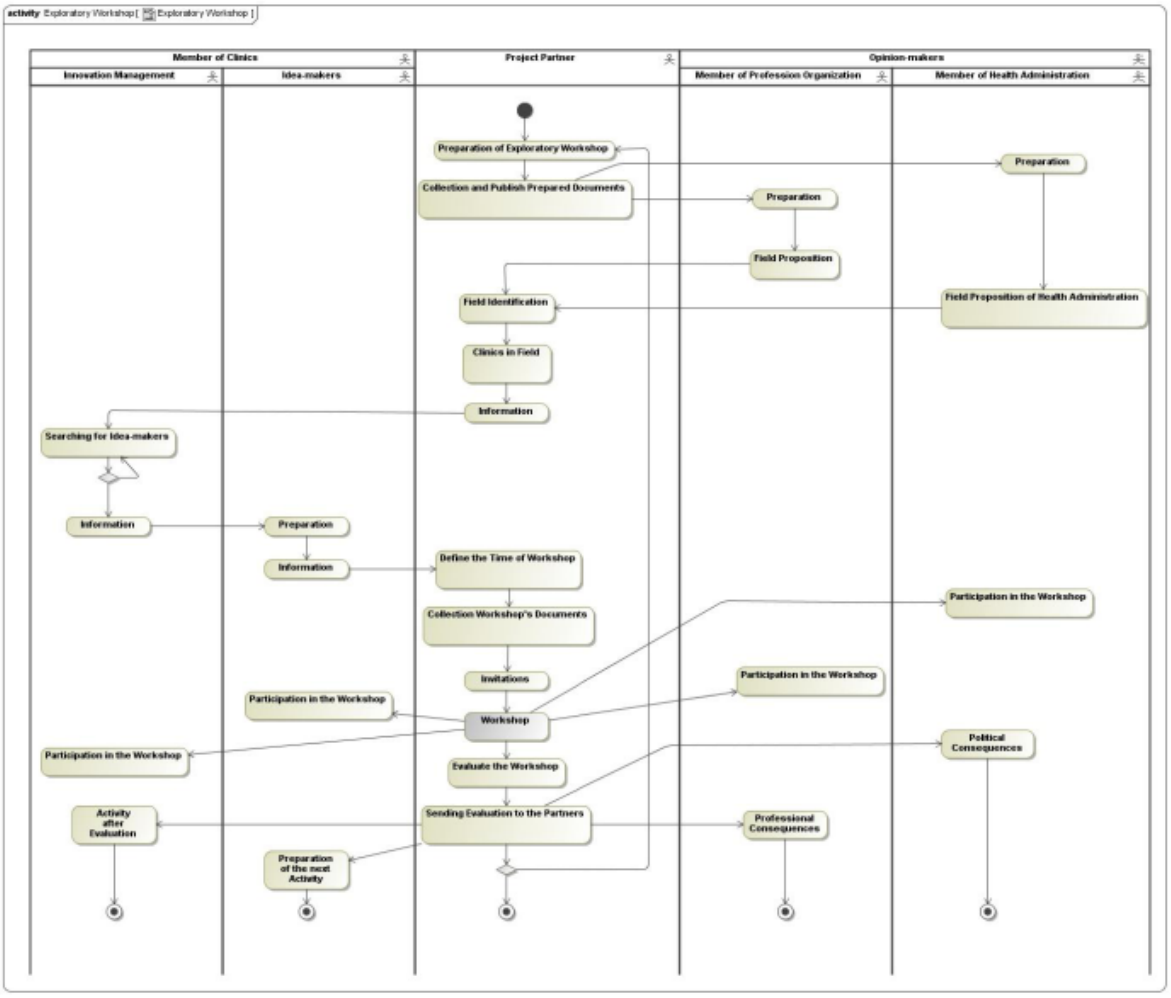


Figure 4. Activity diagram of the exploratory workshop

Different actors in the process have effects to be in their fields. The activities in a field are chronologically constrained as it is shown in the figure above.

It is to be seen that the activity sequence is initiated by the project partner, then there is a conciliation with the opinion-makers, after that comes the search for innovations in the clinics.

When the project partner has done with this, the next steps are the following: preparation of the exploratory workshop, notification of guests and hold the workshop.

Evaluation document about experiences of the workshop will be delivered to both opinion-makers and invited health care institutions. The evaluation contributes opinion-makers to get experience in this regard, and clinics – if necessary – can begin preparing the "from the idea to innovation" process.

The exploratory workshops are organized twice a year dealing with different professional medical areas. Thus, the further processes will have enough number of innovations.

So far the Budapest University of Technology and Economics, Healthcare Technologies Knowledge Centre has organized two exploratory workshops in the fields of cardiology and surgery. The two exploratory workshops have resulted one innovative idea. We wish to organize another exploratory workshop in the near future in the rehabilitation area.

Activity of the Innovation Workshop

The project partner decides, according to exploratory workshop, whether there is one or more appropriate idea for innovation. If there is one, or there are any, the project partner should organize separate innovation workshops for each.

On the one hand, the project partner should ask idea-makers to make their own presentations to present the idea, and – if they have – prepare their demo, too.

On the other hand, knowing the technical and technological area of the idea, the project partner should search for appropriate small and medium-sized enterprises to the meeting. This depends upon the project partner's preparedness and relations. We reckon that there must be invited at least three or five SMEs to the innovation workshop of one idea. Feedback carries the value of the innovation idea. In case the idea-maker has a document to describe the idea, and it is public, choosing the SMEs can be facilitated by sending the presentation materials.

The aim of the innovation workshop:

- ✓ challenging the idea from the constructor's aspect
- ✓ discussing issues about the process from the idea to innovation and product
- ✓ establishing connection between the idea-maker and the potential industry partner

If the workshop has achieved its objectives, the project partner can upload the idea to the database of the InTraMed-C2C web system.

It would be good if a seed financing could be found for the idea. Therefore – although this is not the purpose of our project – it would be worth also inviting a partner to the innovation workshop who undertakes the seed financing for such an idea.

The next figure shows the activity of the innovation workshop:

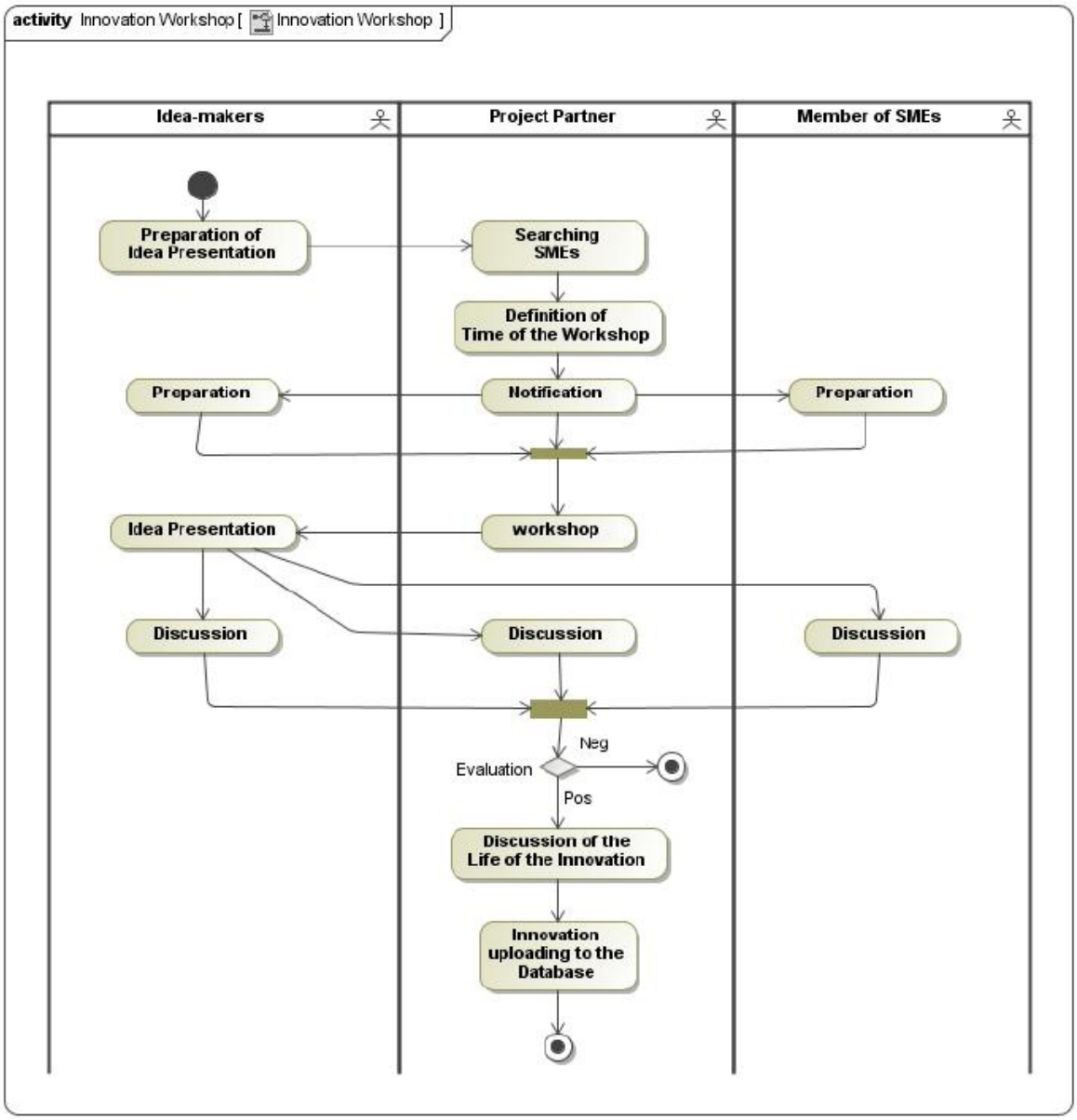


Figure 5. Activities of the innovation workshop

The result of the innovation workshop is a written summary report (minutes) about the meeting which evaluates the idea as an innovation considering the goals.

Evaluation after the Innovation Workshop

It is very difficult to determine an evaluation method for the idea. The course of innovation workshop, its mood, the activity of the participants, the number and depth of the questions put the Innovation Owner can determine the "practicability" of the idea.

In this working period BME EMT considers the practice to be decisive whether we could fix another appointment in the subject of the idea with the guests or not. If so, it means that there was present an industrial partner among hose who was interested in the idea and innovation might be taken on in this way.

If you could not fix the next appointment, the idea did not touch the guests, that is, the innovation workshop did not reach its goal, and the result is negative. In this case, there are two additional ways:

- ✓ Organizing another innovation workshop with other industrial participants. Experience of the previous workshop can help in selecting the new guests (partners without appropriate technology knowledge or without production capacity were selected etc.).
- ✓ The idea has to be dropped because of lack of interest or right criticism.

As any evaluation, it would be the best if there were tangible, numerical markers to the evaluation. This is a complex issue. The assessment can be made using a scoring sheet. The following questions must be answered on the sheet, then the total score of the answers must be determined. Using the total score the value of the idea can be looked up from a chart:

Question 1: Rate of audience's comprehension by the Innovation Owner's presentation

- O the audience did not understand the essence of the idea even after a lot of questions — 0 point
- O part of the audience understood the essence of the idea after the questions — 1 point
- O the idea became clear to everyone after the questions — 2 points
- O there was no clarifying question on the idea — 3 points

Question 2: Further considerations on the idea

- O the audience did not add thoughts to the idea — 0 point
- O the Innovation Owner did not accept the audience's thoughts — 1 point
- O additions brought on by the audience did not lead on — 2 points
- O the audience added more thoughts to the idea to lead on more directions — 3 points

Question 3: Recommendations and additions given to the Innovation Owner

- O there was no recommendation or addition to the idea — 0 point
- O there were few additions to the idea — 1 point
- O there were a lot of additions and proposals to the idea — 2 points
- O there were additions to the idea which were analysed further by the participants — 3 points

Question 4: Carrying-on the innovation workshop

- O the innovation workshop ended without any need for carrying-on — 0 point
- O at the end of the innovation workshop a claim arose to continuation but without concrete things — 1 point
- O at the end of the innovation workshop the moderator (agent) recommended another meeting — 2 points
- O at the end of the innovation workshop one of the invited partners asked for another meeting — 3 points

Question 5: Illustration of the idea

O the idea was discussed only verbally	0 point
O the idea was presented by illustrative slides	1 point
O an implemented prototype belonged to the idea	2 points
O the idea was documented too	3 points

Question 6: Novelty of the idea

O the idea is basically not novelty	0 point
O the idea itself is not new, but its details are novelty	1 point
O the idea is new, although some details are public domain	2 points
O every element of the idea and as a whole is new	3 points

After the 6 questions having correctly scored, the evaluation of the idea is the following:

Scores	Evaluation
0-3	The idea did not reach the criterion to become an innovation
4-9	The idea should be revised to become an innovation
10-14	The idea is to be taken care of for more, the innovation is likely feasible
15-18	The innovation is highly feasible

Participants should be notified about the evaluation results, attaching the appropriate justification. It is possible that the evaluation form with the questions mentioned above is completed by participants of the innovation workshop (invited potential partners).

Comments:

1. There is a long way from the idea to the matured innovation, to the first product. Everyone, who was heard by us at the innovation workshop, emphasized, that the pure idea was not enough! According to the most stressed opinion, you have to figure out how to make money from the idea, and what is the market value of the idea. For this, the Innovation Owner must invest in marketing activities seriously, that might not be trivially achieved. It is possible that the Innovation Owner has no other resource but his idea. In this case there should be found a "business angel" to add the most essential fund to the pure idea.

2. The serious inquirer takes special care to verify the novelty of the idea and the circumstances of the legal protection. If the idea does not have legal protection, the serious inquirer is not really interested in the idea.

3. Very often the organization, protecting the idea, blocks the innovation from InTraMed-C2C project, saying that the idea belongs to its owner until the organization is able to protect it from the outside world. It had occurred that the project had embraced an idea, and then, after having shown the pros and cons, the Innovation

Owners suddenly closed the communication channels because they feared for their property.

Considering these, the innovation workshops can be arranged at a certain percentage of cases, especially for ideas which have small innovation. The truly epoch-making ideas are protected by their owners, even taking the risk that under their own power the idea will not come to fruition! **This shows that the efficiency of the innovation transfer is inferior to the copyright issues!**

Working up the InTraMed-C2C Database, Testing Steps

The most important place within the project for taking care of innovative ideas is the InTraMed-C2C database.

The original aim of the database – formulated at the project start – was to help evaluating the uploaded innovation ideas and linking them to one or more SMEs ready to implement the ideas. The database had got through more testing steps, while we had asked for proposals and opinions of the project partners. In September 2011, according to the feedback, we had modified the database as we had thought it would be usable. In the usual semi-annual meeting in Debrecen we long argued about the database. After that we started a new phase of development, which culminated in the proposals given by the partners at the Budapest "mid-term" project meeting. We enhanced the database as we agreed there and by the end of February 2012, we "handed over" it to the project partners for testing. The InTraMed-C2C database is now in the "final testing stage". In the Annex we present a detailed description about the database as it has been in the last developing and testing stage (February 2012). The matter is in English and made for the project partners.

Uploade to the InTraMed-C2C Database

Before reviewing the InTraMed-C2C database, its functions, a uniform terminology must be followed. Here are some findings:

1. The database does not know the concept of **idea**. The phrase is: **innovation**.
2. In the database we use **Agent** instead of **Project Partner**. The Agent is an operator who manages the input of the innovation -related data and performs innovation management within the system.
3. The **idea-maker (innovator)** is designated with **Innovation Owner**.
4. Only the Agent has the permission to input/edit/delete any data.
5. The Agent uploads the innovation to the database.
6. The Agent uploads the Innovation Owner to the database. The Innovation Owner belongs to the Agent's group.
7. The Agent connects the Innovation Owner to his own innovation.
8. The Agent can see the full content only of the innovations which has been uploaded by him.
9. The Innovation Owner can see the full content only of his own innovation.
10. The Innovation Owner and the Agent are free to communicate with each other through the system.
11. Anyone who logs in the system can see the extracts of all innovations.
12. Anyone who visits the system can connect to an innovation. He sends a notice about it to the Agent.

13. The Agent uploads the database the SME that wants to join, and connects it to the innovation.
14. The InTraMed-C2C database user who has the **Administrator** role has all access rights, he creates the Agents.

Ideas, achieved at least 10 points in the questionnaire mentioned in chapter Evaluation after the Innovation Workshop, have to be uploaded to the innovation database. Database is used to manage the innovations accurately, in documented form, and the evaluated innovations – through the Agent – shall get the appropriate developer, implementer enterprise. The innovation manager's task is to upload and track the innovation.

The evaluation of an innovative idea – based on the above-mentioned algorithm or anything else – finally ends with an Evaluation Report. The electronic copy of this will be placed in the database to indicate that this innovation is evaluated ("evaluated by database").

Similarly, the idea that is considered to be kept further can be relayed to one or more SMEs, that is, connection of the idea and the enterprise can be realized through the Agent. The database tracks this process. The Agent takes care of the Innovation Owners in his group and if a worthy idea comes up from the group, he finds suitable partner either in his own (not InTraMed) company database or in the project's ever-expanding company database, and he lists this partner at the innovation, too ('matching by database").

Despite the fact that the Innovation Owner and the potential implementer encountered, and the innovation workshop seemed to be successful, it does not mean that the innovation is "ship-shape". The progress of the innovation or even the standstill should be continuously evaluated. The manager of the innovation should assist the events to be smooth, continuous and progressive.

Evaluating the Established Contact

As a result of the initial increased attention there could be another decision point, which is intended to determine whether the established contact between clinic and SME is insufficient, wrecked or progressive and effective.

If the innovation manager considers the situation that it is necessary to find another partner, he can search for suitable one through another workshop. If everything looks good, he continues tracking.

If the innovation had started the process becoming a product, the innovation manager would have to continue managing the remaining ideas.

The progress above, of course, is not a sequential one. Activities related to each idea are shown in different locations, as several parallel innovations (ideas) can be managed. The flowchart (Figure 1. The system of InTraMed-C2C) shows the relationship of the activities and the decision points to ensure the proper, successful work.

Running the InTraMed-C2C System through Innovation Workshops

As we showed in the introduction of the thesis, new innovative ideas can get on the radar of the project by the framework of InTraMed-C2C system, primarily through

workshops. We are working on using the evaluated experiences of our pilot innovation workshop in 2011. As a result of this, on 20th of February, 2012 a new topic–"**Electronic Voice-activated Assistant for the Mobility Impaired (eVA)**" – was discussed.

Workshop (20th of February, 2012) – Electronic Voice-activated Assistant for the Mobility Impaired (eVA)

We invited to the workshop the idea-maker, the expert and his colleagues representing the Óbuda University, John von Neumann Faculty of Information Technology, the representative of BME Tender and Project Management Group (who provided us very effective help at accounting and reporting to the Hungarian first level control authority), additionally representatives of business organizations who probably can contribute to the implementation of the idea.

Company	Name	Position
Hírközlési Mérő és Szolgáltató Kft.	dr. Zoltán Bognár	managing director
HIRTERV Bt.	dr. Tamás Somogyi	managing director
H-Lab Nonprofit Kft.	Tibor Török	managing director
GeoCoop Kft.	György Bajzik	managing director
Aviatronic Kft.	Péter Barna	managing director
Óbudai Egyetem NIK	dr. László Kutor	associate professor
Óbudai Egyetem NIK	Gergely Vitéz	research engineer
Óbudai Egyetem NIK	Gabriella Nagy	research engineer
BME EMT	Judit Mallász	communications manager
BME EMT	Lóránt Vajda	director
BME EMT	dr. Péter Hanák	chairman
BME EMT	dr. István Valovics	project manager
Közép-magyarországi Regionális Innovációs Ügynökség Khe.	András Révai	chairman
WHS-Egészségtár Kft.	Károly Fogarassy	senior consultant, managing director

12 people were present at the meeting (for more details see memo and photos in the Annex).

The innovative idea was based on the thought that nowadays people use multitude of remote controls in their homes. However, there are totally immobilized patients who cannot handle even a remote controller. These patients are, for example, in severe stage of multiple sclerosis, but people with damaged limb or spine face similar problems. These patients' power of mind and ability to speak are all right.

Development started off to satisfy a specific need – to meet the needs of a patient in Szentendre. It was basic condition to avoid the usage of cables in the flat.

The solution: wireless (ZigBee) technology.

Some of the main features: moving the bed (raise, lower, tilt etc.); using the television (power on-off, volume control, channel change etc.); Skype; nurse call; web radio.

Implementation: modular design. Speech recognizer: from BME (AITIA, free of charge).

Prototype was completed and placed in the Szentendre home mentioned above. Later another version was built and installed in Uzsoki Hospital for testing. These apparatuses are definitely not products, but breadboards. The project is still not in the stage to bring the system and service to market. Commercialization is still ahead, but it is not the profile of Óbuda University.

To be solved (among others):

- making business plan

- organizing the production

- organizing the service

A company present at the meeting undertook to participate actively in looking after the idea. Another one indicated to contribute to the subtasks of the development.

BME EMT keeps an eye on the progress of the innovative idea and supports it.

Running the InTraMed-C2C System through Innovation Partners

One of the essential thoughts of the project is that key players, who may be contributors or partners in the innovation transfer in the health sector, must be mapped. National and international associations of innovation, clusters may have key role in this.

BME EMT got in touch with INNOREG innovation agency in the first working period of the project.

INNOREG Central Hungarian Regional Innovation Agency is a founder of INNOPROD cluster.InTraMed-C2C project got an invitation to the March meeting of INNOPROD.

Workshop (1st of March, 2012) – INNOPROD Cluster Meeting in March

The discussion – as other, similar cluster discussions – began presenting one of the member companies, visiting its factory, followed by a round table discussion.

The company hosted the factory visit dos not act in the strict topic of InTraMed-C2C project (heal0th innovation transfer), however during the conversations with the members of the cluster an innovation idea that can fit into our project flashed. The managing director of Global Innovation Kft. indicated his willingness to cooperate with our project in relation to their idea. The basic idea was to customize the comfort feeling of various sitting and lying surfaces (pillows, mattresses etc.) for each user, because each one has different needs. Global Innovation Kft. has found out a simple, double valve control technology. They asked for the help of our project to spread the technology in the health care.

PP11 - University of Debrecen,

Knowledge & Technology Transfer Office

Procedure of identification

In the framework of the InTraMed C2C project the Knowledge and Technology Transfer Office of the University of Debrecen (TTO) is responsible for the identification, evaluation, protection and commercialization of the innovative ideas (products, services, technologies, know-hows) of the clinicians and healthcare staff in the region.

The TTO has created the knowledge map of the University of Debrecen containing the healthcare related research activities (available innovative ideas, products, services, technologies…) and medical research groups of the university. The knowledge map serves as the basis of the idea identification procedure of the InTraMed C2C project.
If the medical staffs have innovative ideas to share with us they can contact the TTO directly. In that case we visit the clinicians and we record a face to face interview with him/her. We have developed a detailed questionnaire for that purpose which has three sections. The first section investigates the phase of development and the available forms of IP protection. The second one analyses the market potential, the possible ways of exploitation and the availability and capacity of expert groups (researchers and business people). Based on these assessment factors, the expected income and the chance of success are evaluated. Taking this into account the TTO can give advice on the next steps (further development of the idea, offer a grant application possibility, support from the innovation fund of UD, support by the TTO in order to apply for a patent, support in license negotiations).

TTO owns a wide network of industrial partners, investment funds, other knowledge centers, clinics and hospitals and different mediator organizations. At present UD TTO has active relationship with over 40 innovative SMEs in the region. With using our relations we are able to find, match and link the best cooperating partner companies and the innovative ideas of the researchers and clinical staff for the whole IntraMed project.

Pre-matching of innovative ideas

The established Local Steering Group is responsible for the management of the activities of the InTraMed C2C project in Észak-Alföld Region. The LSG discusses on the most relevant medical project ideas of the clinical staff of the region, selects the ones which are suitable for further development and gives advices on the commercialization.

With the help of the above mentioned detailed project evaluation questioner we are able to prepare a so called technology sheet, which contains a short description of the given medical technology, idea or project. It describes the background of the idea, the status of the development, the possible ways of utilization, investment claims. It serves as a marketing tool to find cooperating partners or investors.

The most valuable medical technologies, ideas and projects are all uploaded to the Medical Innovation Database of the InTraMed C2C project which serves as a matching tool.

Organizing innovation workshops

According to the stakeholders (participants of the regional workshops) the most useful tools for reaching the main purpose of the InTraMed C2C project are regional thematic workshops, speed dating and benchmarking of best practices of the project partners. Taking this and our experiences related to the pilot innovation workshops and follow up meetings into account we use the following structure by organizing/preparing innovation workshops at the university:

step 1.: selection of promising ideas/technologies/projects

step 2.: reporting the selected ideas to the LSG and obtaining their advise

step 3.: selection of the most suitable SMEs using our relationships

step 4.: inviting the clinicians and the representatives of the SMEs to the workshop

step 5.: signing confidentiality agreement with the participants of the workshop

step 6.: facilitating the discussions during the workshop

step 7.: follow up of the workshop

We already organized one regional workshop, five pilot innovation workshops and five follow-up meetings.




According to our experiences the workshops are very useful tools for building relationships and to find cooperating partners for the innovative ideas. Both the clinicians and invited SMEs are satisfied whit these kind of meetings.

Organizing dissemination events

The main purposes of the dissemination events are to inform the public (especially the clinicians and medical staff of the university) about the InTraMed C2C project and to highlight the opportunity for them to be involved in the Medical Innovation Database of the project with their healthcare related innovative ideas.

We organized two dissemination events so far. The second regional dissemination event was organized on the 16th of February, 2013 at our university for the staff of Medical and Health Science Center of UD in order to draw attention on the InTraMed C2C project. Altogether 137 people attended the event and visited our exhibition desk.

At the regional dissemination events we use marketing tools like flyers, roll-up and other gadgets to call the attention of the participants.

Organizing innovation and technology transfer training

An important objective of the Knowledge and Technology Transfer Office of the University of Debrecen within the InTraMed C2C project is to disseminate innovation culture among the clinicians and the staff working in the health care sector.
We organized our innovation and technology transfer training at the Medical and Health Science Center of UD in the middle of March, 2013 with the participation of clinical doctors, technicians and other healthcare staff. We invited professional speakers who could provide an appropriate overview on the effective ways of innovative idea commercialization.

PP12 - Medical Valley EMN e.V.

Author: Marco Wendel

The implementation phase of InTraMed-C2C started in October 2011. During the implementation phase of InTraMed-C2C in Medical Valley area the main problem was to get in personal contact with the management of the different clinics. The initial contact was initiated by a personalized letter or e-mailing. If the clinic management reacted a phone call for arranging a meeting took place. The Medical Valley addressed the clinics in different loops. The number of interested clinics has been generally low.

During the personal meetings with the clinic management a presentation on InTraMed-C2C was given and (after its finalization) the animation was shown. The main point that was convincing the clinic managers to participate in InTraMed-C2C had been best practices of already realized innovations like the Eli-Box. The presentation of the best practices showed that the InTraMed-C2C system works. What was positive is that in half of the meetings already concrete ideas have been discussed.

But it needs to be stated that it was difficult to convince the clinic management that InTraMed-C2C also supports low-level ideas. The general meaning has been that high-level research projects have to be identified within the clinics. To change this view was crucial for the successful implementation of InTraMed-C2C in the clinics.

It was so far not possible to convince any clinic management to implement the InTraMed-C2C innovation management system as a whole in the clinic as an outstanding service. The common way was to identify ideas without following a certain structure that have been discussed in workshops. Building up structures for a permanent innovation-management at a dedicated clinic was not realized during InTraMed-C2C project lifetime so far. But there are interested clinics we have to train in the next months in implementing InTraMed-C2C.

The innovation workshops have been differently organized. In a limited number of projects a workshop with several partners (inventor, research partners, industrial partners) has been planned and executed. In other projects meetings (workshops) between the dedicated project manager and Medical Valley EMN e.V. have been conducted. This was depending on the interest of the idea owning clinic. For most of the projects that have been successfully proceeded the second way was used. In these meetings the project has been discussed, the project plan developed, possible partners identified and afterwards the possible partners have been included in the process either in dedicated workshops or by one-on-one meetings. It was experienced that the meetings between project manager and Medical Valley EMN e.V. resulted in faster project implementation than starting with a workshop with a larger number of participants.

Non-disclosure agreements had been a topic in the initial talks with the clinics but have not been used within the innovation workshops yet. Several ideas had the potential for application for public funding where a cooperation-agreement has to be concluded. Ideas that can easily be implemented by companies have not been identified. Most of the ideas had been related to complex topics. What was also helpful is the close proximity of the idea owners and the companies. All are located in the Medical Valley and know each other in

different depth. If partners from outside Medical Valley would have been included in the innovation process a NDA would have been perhaps a preferred tool by the idea owners.

The idea owners in most cases have presented a rough idea. It was easy to start discussion on the joint development of a possible project description. It was difficult to discuss the point from when the companies have to be included in the innovation project. Most of the clinics yet had not many joint projects with industrial partners so they had not been used to setting up such a joint project. After the initial discussions with the companies the openness proceeded.
Medical Valley EMN e.V. has implemented structures to maintain the activities on innovation transfer from clinics to companies after project lifetime. What will also be made is to include non-clinic healthcare providers in the process as this is also a target group with many ideas on improvements in healthcare.