



Book of Abstracts



of the 2nd International Technology
Transfer Conference
Jožef Stefan Institute
1st-2nd October 2009

ORGANIZING COMMITTEE

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THE REPUBLIC OF
SLOVENIA

MINISTRY OF HIGHER EDUCATION,
SCIENCE AND TECHNOLOGY



Jožef Stefan Institute, Ljubljana, Slovenia



Tehnološka agencija Slovenije
Slovenian Technology Agency



SLOVENIAN RESEARCH AGENCY





Kazalo

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WELCOME

INTRODUCTION

On behalf of the Organizing Committee it was our pleasure to invite you to participate in the Technology Transfer Conference, which was held in Ljubljana, Slovenia on the 1st and 2nd of October 2009. The conference was organized by the Jožef Stefan Institute, with support of Institute for Chemistry and National Institute for Biology, as the second in a row of Technology Transfer Events of Jožef Stefan Institute.

AIM

The conference targeted researchers of public research organizations in Slovenia with the aim of increasing awareness and knowledge about technology transfer processes and their necessity. It also targeted at enterprises, seeking collaboration with Jožef Stefan Institute as the biggest and most interdisciplinary institute in Slovenia and with other public research organizations. The workshop was subdivided into three modules:

- Theoretical views on technology-transfer principles - Technology transfer as a scientific discipline
- Collaborative research between JSI and large slovene enterprises
- Spin offing procedures

At the workshop, particular attention was given to the implementation and applications of the above-mentioned technology transfer principles in collaborative research and spin-offing with a special focus on implementation of these principles in Slovenia and at JSI in particular.

This was realized through talks and workshops which focused on real TT cases from JSI.





PRIZE

A special prize for INOVATIONS FOR ECONOMY was given.

OBJECTIVES

The first part of the conference - Consideration of general mechanisms for TT and marketing of IP (practice abroad and in Slovenia).

Objective: The present infrastructure for TT and marketing of IP (practice abroad and in Slovenia).

The second part of the conference: The practical use of mechanisms in Slovenia in terms of demand (Gorenje, ETI), the supply and key competences at JSI. What can JSI offer to the industry (e.g. to Gorenje, ETI) and what the industry is prepared to invest in specific projects (ideas)? What are the concrete possibility of performing TT projects between institutions and industry IP (calls, 7FP ,...).

Objective: To identify possible opportunities and the promotion of thinking, where are the common barriers to TT projects. Typical questions: researchers are academics, not aware of industry problems -> on the other hand, researchers note that the industry is not interested in the research, is looking for short-term solutions, not strategic directed, does not know the trends of development and use of promising technologies, etc. ...

The industry says otherwise: In every good idea we are willing to invest money, but if the investment is not repaid in 3-5 years, this money is lost: Is it true? What knowledge, networking, HR, already built RTD mixed groups? Problem: identification and distribution of risk, ignorance of RTD processes, under-utilization of the mechanisms available to reduce the risk ...



WORKSHOP

The primary objective of the workshop is to display (hands on) the entire process from idea to marketing of selected forms of IP - spinoff, licensing, CR, ... on (4) specific cases from JSI (IT, chemistry, materials, physics). The workshop involved all key stakeholders in the process (the parent research organization as a knowledge and Technology Parks as infrastructure providers) and capital (VC, agencies, angels).

At the end of the workshop, the researcher was aware of the basic entrepreneur opportunities for the commercialization of their ideas, and are capable to identify risk factors, know basic methodology for estimating the value of IP. The aim is also to identify obstacles to increase the range of marketing of IP and also to realize the basis for the preparation of regulations in the RTD organizations (patents, spin-offing, ...).

OUT, OFF AND UP

I had promised to someone on one occasion that we will discuss the descriptions of different types of young businesses. I will keep my promise in Slovene, since this is a problem with naming that we have in our mother tongue, even though the book of abstracts is in English. In addition, our international conference on technology transfer was primarily intended to ensure that our researchers and our Institute make some attempt to return to our people at least a part of what they give us every year making research at the Jožef Stefan Institute possible: personal progress and dignity. Well let's start with definitions. A Spin-off company is formed on the basis of intellectual property (IP), developed at the University/Institute, the IP development financed with public funds. The company, based on this IP and other capital injections, is co-owned by the university or institute. A Spin-out company is formed on the basis of intellectual property (IP), developed at the University/Institute, the IP development financed with public funds. The





University/Institute IP-based company is licensed, the company is 100% owned by investors, which are not employed by the University/Institute.

A Start-up is a company built on the basis of ideas, which are not related to publicly funded or supported research, the owners of the firms have no employment relationship with the university/institutes (e.g., the students).

The Rules of the Game in the case of any young company are different depending on how the companies are called, and these descriptions are not for the sake of giving a name.

Spin-outs feature predominantly in larger societies (e.g., USA) with strong brands of knowledge (e.g. MIT), where a young company is not limited to the relationship with its own home laboratory and it can easily hire expensive equipment for the first phase of development elsewhere, e.g., industrial plants. The fact that they are grown from a strong technological environment (e.g., via a MIT license), provides them with a competitive position that allows for an offensive marketing strategy.

Spin-offs feature predominantly in smaller societies, where the lack of other options leads to the necessity of regulating the relationship between the evolving business and home laboratories, either on the use of shared equipment (business equipment and facilities at the Institute, for example, may be hired during the night-time or weekends by the company) or in cases where a young company is grown from a relatively unknown institution and the institution and company need to create or improve a competitive market position together, providing shelter and empowering the brand of knowledge they present.

Without a brand name, market success is doubtful. Slovenian research institutions (other than through large scientific collaborations, e.g., CERN) do not have strong brands. In addition, we do





not even know the names for different types of young companies ... but we know that it is really necessary to go out, off and up, as Bill Aulet says.

YESTERDAY I MET BIL AULET

The MIT Sloan Management School web page says he is a highly accomplished business leader with a record of success over 25 years. It states that he has raised over \$100 million in funding for his companies and directly created hundreds of millions of dollars of market value.

He started his career with eleven years at IBM, culminating in being named a prestigious MIT Sloan Fellow in 1993. Upon graduation in 1994, Bill became a serial entrepreneur running two MIT spinouts as the president/CEO of both Cambridge Decision Dynamics and then SensAble Technologies. The latter became a 2 time Inc. Magazine 500 Fastest Growing Private Company. With a presence in over twenty countries, SensAble also won over two dozen awards and was featured in Fortune Magazine, BusinessWeek, The Wall Street Journal and many other publications for its innovative products and strong business foundation.

In 2003, Bill was recruited to help turn around Viisage Technology, a security technology company with a dual focus in the areas of drivers' licenses and facial recognition, as the Chief Financial Officer. At the time of his arrival, Viisage was losing \$2.4M per quarter. During his 2 1/2 year tenure, Viisage developed a new strategy, overhauled its operations, made three major acquisitions and executed two major fundraising rounds totalling over \$55 million including a highly successful public offering. During this timeframe, the market value for Viisage increased from approximately \$50 million to over \$500 million.

In October of 2005, Bill was appointed Senior Lecturer at the MIT Sloan School of Management and the Entrepreneur-in-Residence at the MIT Entrepreneurship Center. In this capacity, Bill has been able to positively apply his knowledge and experience to assist students, new ventures





and established firms associated with MIT to become more successful. He has also taught and worked with hundreds of entrepreneurs and executives at the MIT Sloan School of Management. Bill has also been engaged around the world to do onsite in-depth work with a full spectrum of companies ranging from single entrepreneurs trying to launch new ventures to large corporations such as Danfoss, Hewlett-Packard, and Microsoft, seeking to more effectively achieve their goals through the effective use of entrepreneurship, intrapreneurship and innovation.

Bill Aulet graduated in 1980 from Harvard University with an honours in engineering. In 1994, Bill earned a Masters degree in business management from the MIT Sloan School of Management as a Sloan Fellow. Bill is a former professional basketball player who is married with four sons and lives in Belmont, Massachusetts and is also the chairman of the MIT Clean Energy Prize.

At the point where I read in the press that our scientific directors are discussing RTD Law changes to be realized in the not too distant future; where the year 2009 in Slovenia is marking the launch of several national ambitious new RTD programs through different government agencies; well, this is an excellent opportunity to reflect on what Bill thinks are the key elements to successful regional economic prosperity. Bill has been deeply involved in the innovation miracle that Ireland has gone through in the past ten years. And to people, asking how the Irish did it, he answers in plain words. They started somewhere, and it was by providing leading-edge science, engineering, and mathematics research, thereby putting their nation's men/women front and centre as a role model for others.



But to understand how to most effectively achieve this, he believes it is essential to take a systems view to provide a broader context for the role of research and invention in making these changes more effective going forward. So he gives an example of the Irish institution, stating in the first line its objectives “We support science, engineering and mathematics research with consequences in Ireland.” It is quite interesting to focus on three key words in this statement - “research with consequences” - in Bill’s view if an institution can ensure that the research breakthroughs developed there are put to effective use, the organization will gain relevance and make its world spin for the better.

So it is consequences that we seek. But, what are consequences really and how do they relate to the research done? Consequences are what we refer to as innovation. Innovation is something that generates value. As Ed Roberts, a professor at MIT’s Sloan School of Management and chair of the MIT Entrepreneurship Center, described in a simple equation: “innovation = invention + commercialization” - a product idea, technology, software algorithm, patent, new business mode idea, or similar invention is not an innovation until it is successfully married to a commercialization capability, so that it has a positive and material real-world impact. To complete the equations, Bill also states that “successful research results = invention”—although invention can consist of much more than simply research breakthroughs.

A good example of these equations is Apple. Everybody knows Apple and iPod. However, when you think about it more closely, it is clear that some of the underlying inventions, e.g., the MP3 format from the Fraunhofer Institute, had been around for a while before Apple came along. But they were merely inventions, and not material innovations, until they were effectively commercialized by Steve Jobs & Co. For governments, universities, and research labs to be successful in supporting research with consequences—or innovation—they will need to find partners who will help on the commercializing capability dimension. This is the second key point. But it raises the question of how to find these partners, and how to successfully collaborate with them.





One of the most important parameters in Bill's opinion is the culture. A successful innovation culture can generally be identified by the answers to the following questions: Is the entrepreneurial spirit celebrated? Are there visible role models? Are entrepreneurs held in high esteem for taking a chance and making a difference? Is failure understood to be part of the learning process in business, as it is in experimental science? Do young people aspire to be global entrepreneurs? Or are young people encouraged to get "safe" or "prestigious" jobs in large companies or government? Bill believes in building a core team that will go further than the rest and make the nucleus of change.

This was our attempt also within our TT conference. To come from the research side and step at least a foot further onto the entrepreneurship side, together with our people, our researchers. To educate, network and celebrate the successful (as Bill says), in order to really START, really SPIN and go OUT, UP and take OFF.

Thank you, friends and fellows, for having supported us and participated in organizing this 2nd International conference on technology transfer, and thanks to all the brave participants.

And good luck.

(Sources: (1) meeting with Bill Aulet, (2) MIT Sloan School of Business web pages, (3) Xconomy, 14.10.2008)

An introduction to the Book of Abstracts, by dr. Špela Stres, TT conference president, 17th of December 2009





PRESS RELEASE

Ljubljana, 2 October 2009 - The Jožef Stefan Institute ended a two-day international conference on technology transfer, which is an area of defined through basic rules, such as demanding the presentation of the transfer of knowledge to the economy. Teachers of world-renowned institutes such as MIT American, European CERN, Leuven, Belgium, University of Klagenfurt, VTT in Finland, EPFL Loussane and other companies in a number of domestic experts in motion lectures, workshops and last but not least competition highlighted the importance of technology transfer, which should have a special place in each institute. "Researchers do not expect that market demand will knock on your door, you must be so interesting that you paved the way to the market," pointed out one of the leaders of the final debate Dr. Kenneth A. Goldman from MIT, and added that "given the small size of the Slovenian market you must urgently seek alternative routes across the border, but you need to research results enrich the knowledge of the marketing and promotion." "The fact is that at the institutes are high levels of knowledge, but the question is how much the company, individual institutes and individuals are willing to use," said Andrea Di Anselmo from Bologna. The second day of the conference forefronted representatives of ETA Cerkno, Elan and Educell, companies illustrating successful examples of technology transfer and whose primary goal is to satisfy the consumer. Moreover, the researchers were of the opinion that the transfer of knowledge into practice are not solely responsible, but should provide for special departments for technology transfer.





The conference awarded the prize for the most inventive and innovative ideas with applications of interest and use in the economy. A total of 10.000 EUR prizes went to: Dr. Matjaž Vencelj, doc. Dr. Igor Mandić, doc. dr. Janez Štrancar, Boštjan PAJNTAR and doc. dr. Barbara Koroušič Seljak.

Polona Strand
Public Relations
Jozef Stefan Institute





LIST OF SPEAKERS AND THEMES IN ALPHABETICAL ORDER

dr. A.GOLDMAN, Kenneth; Technology Transfer at MIT

dr. AMETIS, Matteo; Structuring regional tech-transfer office, reasons and results

dr. BERNARD, Denis; Workshop introduction Introduction - "We need ideas - how can they be processed for successful TT?"; Conclusion of the first part of the workshop - "We need funding, how do we get it?"

dr. CUYVERS, Rudi; Key elements in creating spin-offs: experiences from Leuven R&D

DEVATA, Ashok; TT system in USA

DI ANSELMO, Andrea; Talent vs. Technology - theory and practice for spin off creation

DRAPAL, Andrej; Pristop as a shaper of Slovene technology transfer reality NO ABSTRACT

dr. CLERC, Gabriel; Early stage financing of start-up projects through loans of a not-for-profit foundation : experiences at EPFL with the FIT model (foundation for technological innovation)

dr. GIDER, Franc; Open Innovation - a new paradigm in development of new products

mag. GROBELNIK, Simona; The state as an entrepreneur: How do we treat university and public research initiatives? ; The state as an entrepreneur: How do we support innovative entrepreneurs in their early stage?

KOS, Blaž; Business angels and the growth of new ventures; Business angels as a business model for slovene entrepreneurship

KOVAČIČ, Franci; What ETA Cerkno needs from slovene research?

dr. LEGOFF, Jean-Marie; Principles of TT in High Energy Physics (from collaborative research to spin-offing)

prof. dr. MAČEK, Peter; Technology transfer at University of Ljubljana and the problems of slovene Technology Transfer policy system

MIKUŽ, Jure; The mission and the mechanisms of RSG venture capital

OREB, Domagoj; Rudjer Innovations's way to spin-offing

PEČAVER VIDA KOVIČ, Margareta; TIA and spin-offing

PLESTENJAK, Primož; What ELAN needs from slovene research?

mag. PRÜGGLER, Claudia; How useful is TT for Uni Klagenfurt - Lakeside Labs as an incubator





dr. PUHAR, Saša; What Educell d.o.o. needs from slovene research?

ROGINA, Davorin; Presentation of project Innovation 2020

dr. SALONEN, Jarno; YEAR and VTT ventures

prof. emer. dr. SOČAN, Lojze; The upgrading of globalization

prof. dr. STANOVNIK, Peter; Socio-economic impact of public research organizations in slovenia

dr. STRES, Špela; Jožef Stefan Institute: Where we are and where do we go

mag. VALAS, Helena; IP as a TT promoter in Slovenia

VOJIR, Andrej; Patentiranje in spremljanje patentov za JRO v Sloveniji

ŠTRANCAR, Simon; An overview of financing in Slovenia - personal experience as a TT manager and entrepreneur



THE CERN TT NETWORK WORKGROUP PARTICIPANTS

dr. LEGOFF, Jean-Marie
dr. STRES, Špela;
dr. CLERC, Gabriel;
dr. BERNARD, Denis;
dr. RHEDIN, Henric
dr. RÜCK, Dorothee Maria

dr. Henric Rhedin graduated with a B.Sc. in Physics, Gothenburg University, Gothenburg, Sweden and Victoria University, Wellington, New Zealand, 1989 and has a PhD in theoretical high energy physics from the Institute for Theoretical Physics, Gothenburg University in 1995. He is a Chief Technical Officer (CTO) at Stiftelsen Chalmers Industriteknik, Chalmers Science Park, Gothenburg. His main responsibilities are in sales and marketing and in project management for industrial R&D projects. He is also a Board Member for CIP Professional Services AB (CIP PS), a company active in the field of Intellectual Property services e.g. Intellectual Asset Management. He is a board member for Sales Creator Sweden AB, vice chairman and board member for Swedish Network for Innovation and Technology Transfer Support (SNITTS) and a board member for the High Energy Physics Tech Transfer Network (HEP TT Network). He was also a project manager for Saab MicroTech AB, Chalmers Science Park, Gothenburg, Sweden from June 1999 to February 2003 and an associate professor in mathematics, Karlstad University, Karlstad in Sweden from September 1998 to June 1999, lecturing various undergraduate courses in mathematics.

dr. Dorothee Maria Rück graduated in Physics, specialising in Nuclear Physics and Biophysics, from the Universities of Giessen, obtaining a PhD in surface science and surface spectroscopy at the University of Frankfurt. Since 1988 she has been working at the GSI Helmholtzcenter of Heavy Ion Research GmbH in the Accelerators and Ion Sources department on material's research using heavy ions in metals and polymers for various applications. She is also head of the IP and Technology Transfer (TT) department at GSI and a member of DPG, VPP, GRUR and EPI. In her spare time she enjoys scuba diving and hiking.





MENTORS AT THE “WORKSHOP ON SPIN-OFFING ON THE BASIS OF 5 SUBMITTED CASES FROM PUBLIC RESEARCH ORGANIZATIONS IN SLOVENIA”

dr. DENIS, Bernard
dr. CUYVERS, Rudi;
dr. A.GOLDMAN, Kenneth;
DI ANSELMO, Andrea;
dr. CLERC, Gabriel;
mag. GROBELNIK, Simona;
MIKUŽ, Jure;
mag. JERMOL, Mitja
mag. VALAS, Helena
DRAPAL, Andrej
ŠTRANCAR, Simon

COMMISSION FOR SPECIAL PRIZES FOR IN(O)V(A->EN)TIONS FOR ECONOMY

dr. BERNARD, Denis;
dr. CLERC, Gabriel;
DI ANSELMO, Andrea;
dr. A.GOLDMAN, Kenneth;
dr. CUYVERS, Rudi;



THEME: TT SYSTEM AT JSI

ABSTRACT

The Jožef Stefan Institute as an example of a source of knowledge and the main problems of the Slovene technology transfer system are presented. The Jožef Stefan Institute (JSI) is a center of new knowledge and technologies, a research institution of more than 900 employees, and an incubator of development and progress. Acknowledging the importance of networking in the research society, and the interest of the JSI's researchers in international cooperation, we are happy to participate in the processes of technology transfer, which endeavors to foster collaboration – especially between industry and researchers – to ensure long-term, high-quality research and technology development in Slovenia and the EU, for the benefit of society as a whole.

dr. Špela Stres currently heads the Communication and technology transfer group (KTT) at Jožef Stefan Institute (JSI). She is an innovation and innovation management researcher and technology transfer professional. She started her career at JSI as a researcher in particle/accelerator physics. She has had long-term employment and experience at different international Institutes in Germany, Switzerland and USA. She currently also serves as a Referee for the Sparkling Science program at the Bundesministerium für Wissenschaft und Forschung and for technological projects at the Slovenian Public Agency for Entrepreneurship and Foreign Investments. Earlier she was involved in the development of educational products for different Slovene and multinational firms (e.g. Mehano), after which she returned to the JSI as a coordinator of research institutions. Dr. Stres holds a PhD in physics, resides in Ljubljana and is currently finishing her MBA degree.



THEME:

“TALENT VS. TECHNOLOGY - THEORY AND PRACTICE FOR SPIN-OFF CREATION”

ABSTRACT

The competitiveness of our regions rests on the creativity of the women and men living there and in their ambitions and willingness to take risks. Knowledge intensive start-ups (spin-offs) are one of the key actors of the new economy. Spin-off is analyzed with the eye of an investor discussing strategic aspects for success, common “weaknesses” and offering practical tips for their development and growth.

Andrea Di Anselmo is the vice president of Meta, an international group based in Italy, active in the field of start-ups and knowledge valorization. He has a background as a civil engineer and research experience in materials science at Storrs University in Connecticut.

He sits on the Board of Directors (BoD) of ZMV, the fund management company operating Ingenium, Sviluppumbria (the RDA of Umbria), IBAN (Italian Business Angels Network) and of several knowledge intensive start-ups. Andrea Di Anselmo has a deep, experienced-based knowledge in innovation and company creation gained by participation in many international assignments as senior consultant and/or project director. He has influenced strategic addresses as a member of the BoD of several organizations such as ISRIM (Research Institute dealing with advanced materials) and TII (European Association for Innovation and Technology Transfer). Relevant expertise: Knowledge Based start-ups support and development; research results valorization, early stage finance, Structural Funds.



THEME:

SOCIO-ECONOMIC IMPACT OF PUBLIC RESEARCH ORGANIZATIONS IN SLOVENIA

ABSTRACT

R&D, science, technology and innovation activities comprise important drivers of economic growth, increasing productivity and improving international competitiveness. The perception of a gap between a relatively high performance in science and a deteriorating industrial competitiveness, labelled as the European paradox, is valid also for Slovenia. Public research organizations including 4 universities and 20 research institutes play an important role in innovation processes driven either by market demand - 'pull', or by technology - 'push'. We are facing - despite scientific excellence in several research organizations and research groups - a low level of collaboration and flexibility of public RO in relation to the private business sector on one side, and insufficient demand in industry for the research results offered by public research organizations on the other side. One of the main disadvantages of the national innovation system is the disproportion between the innovation potential (number of researchers/developers in the business enterprise sector) and the capabilities and R&D personnel in public research organizations. The existing schemes for fostering interactive collaboration between these two poles should be changed in order to improve the impact of science on creation of value added and social welfare.

prof. dr. Peter Stanovnik studied economics at the University of Ljubljana and at the University of Zagreb where he obtained his Ph.D. The first years of his professional career were spent at the Bureau for Operational and Marketing research associated with the Chamber of Economics, while later he worked as a researcher in the Institute for Economic Research becoming director of this institute 1991- 2003. Besides consulting, teaching and public relations experience he has numerous research references within the 5th and 6th EU Framework Programmes, Phare-ACE, Inco-COPERNICUS, and COST projects. He was the leader of the project 'The process of Integration of Slovenian economy into the EU'. In the period 1999-2003 he was the vice-





president of the European Association of Development Research Institutes. He has published widely in economic journals in the field of R&D, technology and innovation. In 2004 he was promoted to professor at the Faculty of Economics of the University of Ljubljana. Since 2006 he is the chairman of the management board of the Slovenian public agency for technological development and a member of the Strategic Council for Technology at the Slovenian Chamber of the Economy. At GEA College of Entrepreneurship he has been lecturing Innovation Management course, while at the Biotechnical faculty of the University of Ljubljana he teaches Economics and Management in biotechnology.



THEME:

WHAT ELAN NEEDS FROM SLOVENE RESEARCH?

ABSTRACT

What is the Elan Company? What does Elan mean in Slovenia and in the world? What is the technology orientation of Elan Company? Elan's attitude to the issue of cooperation with research institutions? What are Elan's needs? At what stage can we realise the transfer of research projects to industry - and how? When does the project end? An interdisciplinary approach to after-sales activities must also be considered. The concept of product side management for research will be proposed. The Slovenian competitiveness development strategy, strategic guidelines for increasing the competitiveness of the country, and development priorities of the Slovenian economy will also be examined.

Primož Plestenjak studied Physics at the University of Ljubljana. He trained in Strategic Sales Management, Project Management and Finance for non-financial managers at IEDC Bled and ISO 9001 certification at BVQL in Ljubljana. Since 1998 he is working at Elan. Initially he was a R&D Engineer and R&D Department Manager at Elan Sportartikel GmbH in Austria, then he moved to Elan Slovenia where he was a Snowboard Product Manager, International Product Director, Snowboard Division Director, Chief Operating Officer. Currently he is working as director of Strategic Development in the Elan Group in Slovenia.

THEME:

RUDJER INNOVATIONS' WAY TO SPIN-OFFING

ABSTRACT

Rudjer Innovations Ltd. is a company directed towards technology transfer and the commercialisation of intellectual property and innovations. It is owned by Rudjer Boskovic Institute, which serves as a link between science and technology and business and industry. It is open to the entire Croatian community (academic, innovators' etc.) for help with commercialisation of ideas, innovations or research results. Activities of Rudjer Innovations Ltd. include intellectual property identification and evaluation, IP protection (patents, trademarks, copyrights etc.), innovation and project financing, business contract negotiation and execution, and technology transfer consulting. The company promotes innovation culture by raising awareness of commercial exploitation of academic projects, supporting academic entrepreneurship and developing different cooperation forms between academic research and the business sector. The company's intent is to help Croatian scientists and experts to develop and exploit their know-how to be competitive on the global market. Scientists and innovators benefit from technology transfer and cooperation with Rudjer Innovations Ltd. in several ways. Income is generated from royalties and fees from licensed IPR, equity shares in spin-offs and start-ups, consultancy services and sponsored research. In addition, they are recognized and honoured by the academic as well as business communities. In this way the technology transfer process attracts and retains highly qualified and motivated scientists in Croatia, contributes to national economic development and helps maintain and improve the R&D infrastructure.

Domagoj Oreb studied at the University of Zagreb and specialized in Radio Communications and Professional Electronics. He continued postgraduate studies with the MBA program at IEDC, Bled school of Management. During his career he has been the president of the Croatian Student Audio Engineering Society – AES, and Sales Manager and Project Manager at the EDGE group, where he worked on implementation and development of business applications related to human resources, time recording, accounting, book-keeping and biometric security systems.



From 2002-2004 he was a Senior Consultant at Cap Gemini Ernst & Young and from 2004 – 2007 a Project/Proposal Manager in Siemens Business Services. Since March 2007 he is president of the Management Board of Rudjer Innovations Ltd, established by the Rudjer Boskovic Institute in accordance to Republic of Croatia and World Bank. Their activities include intellectual property identification and evaluation, IP protection, appropriate commercialisation model realization, innovation and project financing, business contract negotiation and execution, and technology transfer consulting. The company's intent is to help Croatian scientists and experts to develop and exploit their know-how to be competitive on the global market.

THEME: YEAR AND VTT VENTURES

ABSTRACT

The presentation will focus on two different perspectives. First, addressing the current technology transfer challenges at VTT Ventures, a company established to support individual researchers and provide added value to VTT's research. Secondly, describing the challenges from the perspective of young researchers and how a network of young professionals (YEAR) provides support through different training activities as well as organising meetings and initiating discussion between Research & Technology Organisations (RTO) on issues restricting successful technology transfer. VTT Technical Research Centre of Finland is the biggest multi-technological applied research organisation in Northern Europe. With its 2700 employees, VTT provides high-end technology solutions and innovation services as a non-profit organisation under the domain of the Ministry of Employment and the Economy. From a wide knowledge base, VTT can combine different technologies, create new innovations and a substantial range of world class technologies and applied research services thus improving its clients' competitiveness and competence. Young European Associated Researchers (YEAR) is a network established by six European RTOs in 2007 to encourage cross-border and interdisciplinary creativity and alliances among young European researchers. YEAR aims at facilitating exchange of ideas, best practices and people to help to break down national and cultural barriers and structure the European Research Area (ERA).

dr. Jarno Salonen is a Research Engineer at VTT Technical Research Centre of Finland specialized in electronic services development, information security and different identification technologies e.g. Near Field Communication (NFC), and RFID in general. Of his recent projects, Jarno has been the project manager and key researcher of the national insurance project which had the objective of developing novel, innovative electronic insurance services. He was also the key person responsible for the security and privacy workpackage in the SmartTouch project (ITEA NO 05024, <http://www.smarttouch.org>) in 2006-2008, which was the largest effort on



piloting Near Field Communication technology in the European Union. He has also been the primary representative of VTT in several working groups (2006-2008) and secretary for the Security working group (2007-2008) of the Near Field Communication Forum (<http://www.nfc.forum>). Currently Jarno is the project manager of VTT in the Role-ID project (ITEA2 no 08007) which plans to develop an organization-oriented identity extension based on a role-centric vision. Of the other professional affiliations, Jarno has been responsible for the projects and activities at YEAR for 2007-2009 (<http://www.year-network.eu>) and has also been an active member of VTT Young Professionals, VTT's internal network for young researchers and other professionals since its foundation.



THEME: TECHNOLOGY TRANSFER AT MIT

ABSTRACT

MIT is well-known as a center of academic excellence as well as a leading research institute. Hundreds of companies from around the world are research partners with MIT and maintain their competitive position by turning research done at MIT into products and services. At the same time, MIT has been an important economic engine, not only in the Boston/Cambridge area, but for creating thousands of companies which employ over a million people in the United States and abroad. This is the result of many factors, including the "innovation ecosystem" of universities, venture capital, and other groups that foster entrepreneurship. My talk will describe how companies can access technology at MIT and outline how the innovation ecosystem operates, resulting in the constant creation of new companies, new jobs and economic growth.

Dr. Kenneth A. Goldman joined the MIT Industrial Liaison Program in 1988, managing a diverse portfolio of mostly European memberships, and concentrating in telecommunications and high technology. Before then he worked at Project Athena, MIT's experiment in distributed educational computing, where he organized and managed the visitor and demonstration facility. Dr. Goldman has special responsibility for relations with the MIT Media Laboratory, the Department of Linguistics and Philosophy, and the Department of Political Science. In the past he was manager of the Communications, Information Technology and Financial Services Industry group of Corporate Relations. After completing a doctoral degree in Slavic Languages and Literatures, applying information technology to analyze SerboCroatian oral epic song, Dr. Goldman worked for several years in the Division of Research at the Harvard Business School, in the Program for Industry and Company Analysis. Following that he worked for Compulux, Inc. of Lowell, MA, which produced multilingual word processing systems, where he was hired as manager of documentation and training, and then assumed responsibility for customer support, product design and product management. He then worked in a number of positions in the software industry before coming to Project Athena. His education: Ph.D., Dept. of Slavic Languages and Literatures at Harvard University, Cambridge, MA; B.A. degree, cum laude at City College of the City University of New York, NY; Diploma at Bronx High School of Science, NY.



THEME: THE UPGRADING OF GLOBALIZATION

ABSTRACT

The following issues will be briefly discussed: The essence of the present systemic crisis, accompanied by the eco-, market-, and financial fundamentalisms and the transformation towards the knowledge-based economy and society. Continuation of the hitherto structural changes, based on complex knowledge, technological advance, and innovation. Changing the concept: Upgrading the globalization by the institutional infrastructure supporting knowledge-based economy and society with sustainable development. The core of a modern and efficient innovation system. The growing delay of (the majority of) the EU development concept. Another half a decade?

prof.emer. dr. Lojze Sočan, University of Ljubljana. He is an Economist, B.A.1962, M.A.1973, Ph.D.1977, at the University of Ljubljana, Faculty of Economics. His numerous specializations range from research institutes, international institutions, banking, and management in Europe, Japan, and the USA. He worked at the Faculty of Economics, at the Institute for Economic Research, from 1982 to 1990 as its director, and in diplomacy from late 1990 to 1996 in Brussels. Returning to Slovenia he was lecturing in European Integration and Modern Development at the University of Ljubljana, mostly at the Faculty of Social Sciences. Presently he is involved in postgraduate teaching, mostly at the Faculty of Social Sciences and at the Josef Stefan Institute. He is the founding member of the Slovenian Association of the Club of Rome. He is the author or co-author of numerous books, mostly on development, based on the synergies of technological, economic, and societal levers. In domestic and foreign journals he has published over a hundred scientific and professional papers. At the end of 2005 he published on the internet the paper 'Paths towards Global Sustainable Development' on the Global Marshall Plan (an initiative of the Club of Rome). Considering this paper he was invited to speak in January 2006 at the 7th World Development Congress in St Petersburg, where he also presented the



main findings of the project 'Simulations of Sustainable Development', carried out in Ljubljana from 2002 – 2005. His most recent study was the 'University in the Transformation of Slovenia into the Knowledge-based Economy and Society', University of Ljubljana, 2009, where he compares the institutional infrastructure of Finland, Sweden, and Slovenia in terms of support of modern development, based on knowledge of nations, permanent technological advance, and innovation.





THEME:

WE NEED IDEAS - HOW CAN THEY BE PROCESSED FOR SUCCESSFUL TT?

ABSTRACT

Leading the “ Workshop on spin-offing on the basis of 5 submitted cases from public research organizations in Slovenia”

Participation at CERN TT Network Workgroup, Parallel session.

dr. Bernard Denis has an engineering background in electromechanics complemented by an MBA from the Henley Management College. He has been working at CERN for 25 years in various positions including IT Project Leader for the development of the SPS and LEP accelerators control systems and Deputy Group Leader of the unit in charge of the outsourcing policy and the service contracts of the Organization. He joined the Technology Transfer group of CERN in 2005 and is now the Deputy Head of the group with responsibilities for operational activities (technology assessments, IP management, elaboration and negotiation of licenses, research contracts and collaborative R&D). On top of his activities at CERN, he is preparing a Doctorate in Business Administration with Newcastle University and the Grenoble Ecole de Management. His research interest is the impact of IPR on open science.



THEME:

BUSINESS ANGELS AND THE GROWTH OF NEW VENTURES

ABSTRACT

The foundations of every new business venture are an excellent idea, a top team, and capital to start and grow the business. Business angels, who are successful, high net worth individuals willing to invest their own money into young companies, play an important role as sources of capital for new ventures. Their added value is not just their money, but they also help the entrepreneurial team with their knowledge, experiences and social network. World class companies like Google, Yahoo, Body Shop etc. were backed by business angels, so there is no doubt that they have an important role in the entrepreneurial ecosystem. In Slovenia the first formal business angel network was established 2.5 years ago. Seven investments have been made already and nearly €2m invested. The importance of business angels in Slovenia is therefore rising.

Blaž Kos founded two companies in Slovenia in his early twenties, one in the printer re-manufacturing business and one offering IT services. For his first venture, Blaž connected with a strategic investor, but because of different visions with other founders he sold his share in the company. On the basis of his strong focus on start-up companies, the University of Ljubljana invited Blaž to work for their university incubator as project manager. He worked there for three years and helped establish the whole concept as well as the company' projects. At the time of his departure the incubator was very well established and showed excellent results (over 2.000 workshop participants, over 50 business plans created, 3–5 new start-ups / per year). Blaž Kos now works for the first formal business angel network in Slovenia which was established in June 2007. At the moment the network has more than 30 investors. Over 300 companies were screened since the network was founded, 35 companies presented their business plans to investors and seven investments were made altogether.



THEME: TT SYSTEM IN USA

ABSTRACT

In order to create sustainable value, inventors and researchers need to have sound business models and entrepreneurial ecosystems in addition to ideas and technology. This session briefs on the four key aspects that investors look for in new ventures before deciding on whether to support and provide capital or not. Learn about the entrepreneurial ecosystems in the USA that include venture capitalists, angel investors, technology incubators, mentorship frameworks and other elements. The speaker will also talk about some practical examples of companies that went from a pure technology and idea to profitable acquisitions in a span of less than seven to eight years. The speaker comes from a major technology company that acquired more than 50 start-up companies in the last decade and generated revenues close to US \$15 billion in 2008. He is also associated with the Boston chapter of an entrepreneurship fostering and mentoring organization called TiE, The Indus Entrepreneurs.

Ashok Devata currently manages product marketing and go-to-market strategies for the information security products at RSA, the security division of EMC, a Fortune 172 technology company in the US. Prior to working at RSA, he has worked extensively in both start-ups and large organizations in sales and marketing, product management, business development, and operations in India and the US. Daveta co-founded a \$2 million dollar manufacturing company in India before moving to the US to work for another technology start-up in software and wireless space. Early in his life, he started learning about business through his involvement in his family business, which included agriculture, retail and financial services. He volunteers for social entrepreneurship and grass roots development organizations and has chaired various special interest groups at TiE Boston, a premier entrepreneurship forum. Daveta holds degrees in engineering and business management and currently resides in Boston.



THEME:

PRINCIPLES OF TT IN HIGH ENERGY PHYSICS (FROM COLLABORATIVE RESEARCH TO SPIN-OFFING)

ABSTRACT

Particle physics (PP) is an environment dominated by very large, extremely complex and demanding projects requiring long and intensive R&D that is a source of innovation, new technologies and know-how. This environment offers top quality education and training from apprentice to post-doctoral, and provides world standard institutions with high-tech laboratories for accelerator elements, vacuum technologies, magnets, superconductivity and cryogenics, mechanics and surface treatments, particle detectors, electronics and information technology. The developments and know-how arising from fundamental research have strong impacts on society. There are amazing track records of their dissemination in health, for IT, for energy and in environmental and industrial processes. Open science is a favorable context for the transfer of know-how and expertise but is insufficient for formal technology transfer deals. Many opportunities either failed to materialize or produce very successful results without generating the credit that the PP community deserved. It is believed that this community could enhance its societal visibility and significantly increase its impact in industry if a collaborative framework, more favorable to Knowledge and Technology Transfer (KTT) but respectful of the open science principles, could be put in place. This is the purpose of the TT Network of institutes active in particle, astro-particle and nuclear physics that was created by the CERN Council in March 2008 within the framework of the European Strategy for PP. The presentation will review the PP context and characteristics that led to the creation of the TT Network, and present the principles aimed at helping PP institutions to adopt a sensible approach for KTT and Intellectual Property matters and support the associated implementation measures while remaining compatible with open science.

Dr. Jean-Marie Le Goff is a senior applied physicist at the European Organization for Nuclear Research (CERN), Geneva, Switzerland in charge of Technology Transfer to the 20 Member States of the CERN Organization. Since 2000, he is also visiting Professor at the Faculty of Mathematics and Computing of the University of the West of England (UWE), Bristol, UK. He has a PhD in High



Energy Physics and a DPhil in Computer Science. His main R&D focuses are particle physics detectors, and control systems and software for the simulation, assembly, testing and operation of these detectors. Since 2001, he dedicates his energy to the dissemination of technologies developed in the course of the CERN research program to industry and society. Currently, Jean-Marie Le Goff is the Coordinator of the Technology Transfer Network of Institutes active in particle, astro-particle and nuclear physics approved in March 2008 by the CERN Council within the framework of the European Strategy for particle physics.

THEME:

**EARLY STAGE FINANCING OF START-UP PROJECTS
THROUGH LOANS FROM A NOT-FOR-PROFIT
FOUNDATION : EXPERIENCES AT EPFL WITH THE FIT
MODEL**

ABSTRACT

Presentation of a model of early stage financial support by a foundation for promising start-up projects. The model consist of loans without interest linked with professional coaching for the founder/team.

dr. Gabriel Clerc is head of the EPFL technology transfer office (SRI-EPFL). He is a mechanical engineer with specialization in applied thermodynamics and turbo-machinery. He is a research and development engineer in the central R&D department of SULZER Co, Switzerland working on new products and systems in the field of medium temperature thermodynamic cycles and experimental analysis of internal stresses of materials. He is an experimental test pilot for the Swiss dept. of defense with numerous test flights and evaluation experiences mainly on military fighter jets and trainer aircraft. Since 1988 he is a research contracts officer and licensing officer at the EPFL, the Swiss federal institute of technology of Lausanne. He is head of the Industrial relations office of EPFL (SRI) since 1998, the technology transfer and research contracts office of EPFL. He also sits as a member of the boards of the FIT (early stage financial support of start-up projects) and PSE (science park on EPFL campus) foundations. As an initiator and head of the technology transfer consortium "Alliance", of western Switzerland, he is involved in developing links between industry and public higher education and research institutions by proactively seeking out the needs of companies (with focus on SMEs) and translating these into R&D cooperation projects. A member of the AUTM (Association of university technology managers, USA) and ASTP (Association of European science and technology transfer professionals), he is also a co-founder and president of the Swiss technology transfer association swiTT, the association of Swiss technology transfer professionals.



THEME:

KEY ELEMENTS IN CREATING SPIN-OFFS: EXPERIENCES FROM LEUVEN R&D

ABSTRACT

Leuven Research & Development, the technology transfer office of the Katholieke Universiteit Leuven (Belgium), has a long tradition in technology transfer including starting and growing spin-offs. The presentation introduces the key elements in spin-off creation. The first part focuses on the importance of integrating the spin-off process within the larger framework of technology transfer. It is shown that an important cross fertilization can be realized with the contract research and patenting & licensing activities. In the second part, the different steps in creating a spin-off are detailed: from research to proof-of-concept & IPR, developing a business plan, finding investors & completing the team, valuation & deal structuring. For each step the key challenges and success factors are discussed.

dr. Rudi Cuyvers is an innovation manager and holds a Ph.D. in Electronics (K.U.Leuven) and an MBA (Flanders Business School). As innovation manager at K.U.Leuven R & D he is head of the Spin-offs & Innovation unit, which supports spin-off creation & growth and stimulates university-industry interaction. He has been involved in the start-up of more than 15 spin-offs, is a member of the board of directors of several companies and is an active partner in several network organizations that promote innovation and high-tech entrepreneurship (such as Leuven.Inc, DSP-Valley, and Leuven Security Excellence Consortium). He is also actively involved in a number of European projects. He has been coordinator of the EC-supported Spinnova Paxis project and is an active partner in CREA, a network of seed capital funds, and GlobalStart, a project supporting the internationalization process of spin-off companies.



THEME:

HOW USEFUL IS TT FOR UNI KLAGENFURT - LAKESIDE LABS AS AN INCUBATOR

ABSTRACT

A talk about Lakeside Labs GmbH role as an incubator for projects on “Self-organized networked Systems” performed with the technical faculty of the University of Klagenfurt. A short overview of the services provided within the field of Technology Transfer will be followed by a talk on the advantages and disadvantages of the cooperation, obstacles faced and lessons learned.

mag. Claudia Prügler is the Managing Director of Lakeside Labs GmbH since April 2008. She is in charge of legal issues, corporate development and new business development (strategic partnerships and licensing opportunities) as well as commercial issues and public affairs. Before that she worked eight years at Siemens Munich, Germany, in the field of Information and Communication Networks. She has experience in the sales department as a Commercial Account Manager for the China region as an Intellectual Property Rights Manager, and has profound knowledge of control and commercial issues in EC- and national funded projects. Her foundation is a business economics degree from the University of Klagenfurt, Austria and a Master of Business Administration from the University of West Florida (USA).



THEME:

PATENTS AND PATENTS UP TO JRO IN SLOVENIA

ABSTRACT

GETTING A PATENT, and PATENT SEARCHING: A patent is a legal monopoly, i.e. the owner of the patent is entitled to eliminate market competition on the patented invention. Since research organizations are not involved in 'product' markets, patents owned by research organizations have a specific role: to strengthen their negotiating position and to define the scope of licensing agreements. Patenting is extremely expensive; simply filing a patent – which is not necessarily granted – in many countries costs approx. 100.000 EUR. To avoid unnecessary costs, research organizations have to file national priority applications, possibly also a PCT (Patent Cooperation Treaty), and patent applications within 12 months of the priority application or 30 months of the PCT term. A patent has an interdictory, not a permissive function; the owner of a patent must not use his own patent if this use causes an infringement of someone's earlier patent. Here we come to patent searching: to avoid inventing what was already invented and to get a feel for how to draft your own patent application. I suggest using the open-to-public patent database of the European Patent Organization: <http://ep.espacenet.com> There are very strict rules for drafting a patent application regarding the description, claims, drawings, and even the form. Every national patent office has a home page with explanations; examples are to be found at : <http://www.epo.org/> <http://www.wipo.int/> <http://uspto.gov/> <http://www.dpma.de/> <http://www.uil-sipo.si/>. The following are the steps on how to draft a patent application: the decision on what the invention really is - an earlier patent search would help; the description of the invention - exhaustive such as to enable a skilled person to realize the invention; claims defining the scope of protection - nothing is allowed to be claimed if it is not described.



Vojir Andrej works at ITEM d.o.o., a patent and trademark agency. He graduated from the Faculty of Electrical Engineering at the University of Ljubljana in 1972. He is the founder of ITEM d.o.o, a patent examiner, patent agents chairman of the Association of Slovenia, and was a member of the EPI (European Patent Institute) Board and Council from 2002 to 2004. He has produced and registered about 400 new patent applications in Slovenia and abroad, about 3000 foreign patent applications in Slovenia, and prepared and filed approximately 3000 brands.



THEME:

WHAT ETA CERKNO NEEDS FROM SLOVENE RESEARCH?

ABSTRACT

ETA Cerkno, a member of the international EGO group, is one of the biggest (in some product ranges the biggest) world producer of heating and control components for the white goods (i.e., domestic appliances) industry. Support from research institutions is needed for: supporting existing products and production technologies, and as a source of ideas for new product development. ETA should have 'on -site' basic existing product competence in staff and equipment. Around the core at ETA loosely coupled network of research institutions ('virtual institute') should be built which support ETA with special knowledge, special equipment and ideas from their regular research activities. The IJS shows the necessary readiness for such technology and knowledge transfer.

Franci Kovačič graduated from the Faculty of Electrical Engineering, University of Ljubljana in 1974. Since 1974 he works at Eta Cerkno, an electro-thermal appliance factory, with emphasis on development. Since 1983 he is the director of development.



THEME:

THE STATE AS AN ENTREPRENEUR: HOW DO WE SUPPORT INNOVATIVE ENTREPRENEURS IN THEIR EARLY STAGES?

ABSTRACT (not presented)

The Slovene Enterprise Fund (hereinafter: the Fund) is a national financial institution of the Republic of Slovenia founded with the aim of making the sources of funds more accessible to small and medium-sized enterprises (hereinafter: SMEs) in Slovenia. Every year the Fund invites companies to apply for state aid, which would provide more favorable sources of financing development investments in the corporate sector in Slovenia. The aim of SEF state aid is to establish visible effects in the business environment such as higher added value per employee in the entrepreneurial sector, enlargement of the market share of Slovenian companies on European and global markets, and new employment. Support for SMEs in their early stage: launch grants and co-financing of innovative and incubated enterprise start-ups aimed at enabling new development-oriented enterprises located in innovative environmental entities. The enterprise must find a bank cooperating with the Fund and apply to the bank for a loan with an explanation that the loan will be collateralised by the Fund's guarantee. With the loan approval, the enterprise submits an application accompanied by the necessary documentation, to the Fund's public tender for the P1 Product. In the case of a positive decision by the Fund, the enterprise shall obtain a 60% to 80% guarantee to collateralise the above-mentioned loan, the right to a lower loan interest rate, and the possibility of a loan repayment grace period and an extended repayment period. In 2010 the Fund will also offer 80% of guarantees for start-up enterprises that transfer knowledge from scientific institutions to the real economy. Through equity financing the SEF is developing other ways of financing through venture capital funds. The SEF will offer the financial means for venture capital companies to invest in SMEs with high growth potential. These investments will have to be located within the Republic of Slovenia as these financial instruments will be co-financed from the European Regional Development Fund.



mag. Simona Grobelnik, finished her B.E. at the Faculty of Economics, University of Ljubljana. She started her career at the Insurance Supervision Agency. Since the beginning of 2008 she is employed at the Slovene Enterprise Fund – SEF, first as Development advisor in the field of European Cohesion Politics and then as Head of the General Affairs and Development Service. Since 2008 she is also participating in a working group for cross-border venture capital investments in the EC.



THEME:

OPEN INNOVATION - A NEW PARADIGM IN DEVELOPMENT OF NEW PRODUCTS

ABSTRACT

Open innovation brings new perspectives into the business world. The concept allows companies to easily access knowledge from outside the company, which brings added value for their clients, and creates new business opportunities resulting from the knowledge created and developed within the company. The most interesting and powerful tool in open innovation are web-based social networks. They offer easy to learn and use platforms for establishing new business opportunities and contacts. Such networks can be an especially good business tool for micro and small companies which have developed new knowledge and technology. By regular use of these networks they can extend their market and significantly increase their size.

dr. Franc Gider is director of the Public Agency for Technological Development of the Republic of Slovenia since July 2007. He studied at the Faculty of Electrical Engineering, University of Ljubljana, from which he graduated in 1993. After graduation he was a junior researcher at the J. Stefan Institute, where in 1999 he defended his doctoral dissertation on biomedical engineering. After completion of his doctorate, he worked for 8 years as a consultant in the area of continuous improvement, process optimization and lean production in the consultancy firm Deloitte, and then in his own consultancy company. Dr. Gider still occasionally teaches as an external collaborator at the Universities of Nova Gorica and Ljubljana, and at the Institute of Technical Education in Ljubljana.



THEME:

IP AS A TT PROMOTER IN SLOVENIA

ABSTRACT

The legal framework of publicly funded research and its results in Slovenia. Incentives for disclosure of publicly funded research results. General employee awareness of IPR in PRO. Lack of permanent funding of TT activities at the PRO in Slovenia.

Mag. Helena Valas graduated from the Law Faculty in Ljubljana and with a master's degree in international business law from the Central European University in Budapest in 2000. She is a member of the ELSE (European Law Student's Association) and the Geneva club's lawyers. In 2008 she founded her own company which specializes in advising on the management of intellectual property rights. She is also a director of Amasa Consulting Ltd.



THEME:

AN OVERVIEW OF FINANCING IN SLOVENIA - PERSONAL EXPERIENCE AS A TT MANAGER AND ENTREPRENEUR

Simon Štrancar is a director of the TechnoCenter at the University of Maribor d.o.o. His main responsibility is the organization of work at the firm, consulting and organization of technology transfer. He is also a director of G – 1 d.o.o. He graduated from the Faculty of Business and Economics, University of Maribor, in 2004. Being a very social person he enjoys teamwork and associating with different people to create a positive atmosphere. Good in human resource management and leadership oriented, he creates a quality working environment in a stimulating effective way. He has wide experience in organizing science and business conferences and is head of the technology transfer office with experience in with business contacts, license agreements, and negotiation. He is a consultant on technologies, market research, business growth, and entrepreneurship as well as a project advisor for EU and national projects. He is skilled in working with computers, electronic equipment in addition to heavy machinery. He has experience as a team leader in the automobile industry in England as well as in the steel construction installations. Culturally oriented he enjoys opera and was a singer in the Maribor Opera chorus.



THEME:

WHAT EDUCELL D.O.O. NEEDS FROM SLOVENE RESEARCH?

ABSTRACT

Educell d.o.o., Ljubljana (<http://www.educell.si>) is an SME, cell therapy service company, focused on the development of tissue engineering applications in the regeneration of structural tissues. The origins of Educell d.o.o. date back to July 1997, when the company was founded with the goal of introducing cell therapy and tissue engineering to human medicine. In 2004 the Slovenian part of Educell GmbH was bought by Novoline holding (Slovenian ownership), which helped us to stabilise the company and focus again on research and development of tissue engineering applications as well as services for human cell based products for clinical use in Slovenian clinics. The research and development team of Educell d.o.o. collaborates with several Institutes and Universities in Slovenia, particularly with the University Medical Centre Ljubljana, the Blood Transfusion Centre of Slovenia and the University of Ljubljana. We also collaborate with several institutes and companies in Europe and the USA. We provide autologous tissue engineered products for the treatment of articular cartilage, vesicoureteral reflux, and the regeneration of periodontal bone tissue used in the Clinical Centre Ljubljana and some other institutions in Slovenia. We cover R&D activities from basic research of cell phenotype to preclinical experiments (animal trials). In collaboration with clinicians we are also involved in clinical testing of tissue engineered products. A lot has been invested in quality management systems for human tissue engineered products. Besides applications of differentiated cells, our research is also oriented towards the investigation of different stem cell sources and their technological potential for regenerative medicine. We collaborate continuously with our partners in the field of education. Educell d.o.o has had the medical devices wholesale licence since 2005 and Human Tissue and Cell Establishment licence ? since 2008. As a strong research partner of Clinical Centre of Ljubljana, especially of the Depts. of Orthopaedic Surgery and Traumatology in Ljubljana, we have a very close collaboration with surgeons, especially in the field of implementing the new therapies into practice. Due to legislation our services are limited to the Slovenian market.





Dr. Saša Puhar graduated from the Faculty of Pharmacy at the University of Ljubljana, and finished postgraduate specialisation in Medicinal Product Quality Control. She worked at the Faculty of Pharmacy for three years and for the last eight years at the research & development Biotech Company Educell d.o.o. in the field of setting and managing quality standards, quality assurance and the manufacture of human cell-based products. She is the Person Responsible for tissue establishment (QP) and human cell-based product releases.



THEME:

STRUCTURING REGIONAL TECH-TRANSFER OFFICE, REASONS AND RESULTS

ABSTRACT

Veneto Innovazione is the regional agency for research, innovation and technology transfer in Veneto. Through its activities, in close collaboration with the main international networks, Veneto Innovazione aims both to accelerate the innovation process of regional SMEs in order to increase their competitiveness and to support regional research centres and universities in the exploitation of their research results through technology transfer. Beside direct innovation support services, Veneto Innovazione is also involved with the regional authority in defining, testing and implementing effective new innovation policies and infrastructures. The idea of structuring a regional tech-transfer office in order to exploit the know-how developed within public research has to address several issues: selection of research results of potential market interest, identification of the appropriate IP valorisation and its financing, marketing of the applied technologies and their licensing or selling. To be effective, the initiative has to balance and combine the interests of all members of the chain, directly involving the stakeholders (researchers, university ILOs, entrepreneurs associations, chambers of commerce, patent attorneys, lawyers etc) under the supervision of the regional agency responsible for innovation.

Dr. Matteo Ametis is a vice Director in charge of the Institutional Project Department at Veneto Innovazione. He is an expert in the use of computer science technologies and organizational innovation to support the competitiveness of local productive systems. He is responsible for two actions within the Regional Program Innovative Actions founded by ERDF, and participates in a project teams financed by the European Framework Programs. He has more than ten years of experience in advising on organization and business management, with particular attention to production and the logistic chain.





THEME:

“PRESENTATION OF INNOVATION 2020”

ABSTRACT

A model of fostering innovations and competitiveness at the regional level is presented. The strategy of TRC Koroška is based on the analysis of development potentials and consists of a systematic approach to the build-up of an institutional framework for the implementation of development information. This strategy takes global development trends, direct entrepreneurial competition on the joint European market, and evolving methods of managing regional and entrepreneurial changes, into consideration to the largest possible extent. The institutional framework to implement the strategy is represented by the regional development infrastructure, entrepreneurial connections, institutions of knowledge, development cores in the companies and independent researchers in addition to those of TRC Koroška own R&D group and their partners' R&D groups. TRC Koroška as such represents a well organized fusion of the various parts of the innovative environment to act as a joint development core for the preparation and implementation of development ideas. In this way, the network gradually transforms into an innovative environment where the development of products with higher added value is realized with the help of all the TRC Koroška supporting functions (innovative environment, incubator, development core for technological contents). In this way, the activities defining the strategy of TRC Koroška and addressing the external environment are applied in the internal environment of TRC as a way of performance and management of TRC Koroška. The performance of TRC Koroška reflects a network activity where the institutional frame allows clustering of capacities, and clustering of contents within the external partners (with emphasis on companies). On a project level this process is supported by an Objective 3 project Innovation 2020 where concrete results (e.g. registration of new companies within the business incubator, the development of new R&D projects) are being achieved.





Davorin Rogina works as a director of TRC Koroška – the technology development center for Koroška. She graduated from the Biotechnical University of Ljubljana. She participates in many national and international projects: the creation of high-speed data network as a key factor in the competitiveness of the region of Carinthia (PPF Phare Grant Scheme II. - Project Preparation Facility), preparing for the computerized workplace (Phare National Program Economic Social Cohesion - Grant Scheme "All in one site"), INNAC-Interregional Innovation Academy Carinthia (Interreg III. A - Slovenia - Austria), Establishment of Regional Center for Human Resources Development (PPF Phare Grant Scheme II. - Project Preparation Facility), manufacturing parts for weapons and equipment (Call for incentives for technology centers in 2006), improving techniques for processing products for the military steel, aluminum and copper industries (Call for targeted research program "Knowledge for Security and Peace 2006 -- 2010"), upgrading of SGN / Provis as modular applications for managing WLAN networks (Call for incentives for technology centers in 2007 and 2008), models of technology and the deployment of broadband and mobile communications in rural areas of Slovenia (invitation to tender for the selection of research projects Target research program "COMPETITION SLOVENIA 2006-2013" in 2006).





3

Abstracts



THE WINNERS FOR INNOVATIVE IDEAS APPLIED TO PRESENT THEIR PROJECTS

In the context of the international conference on technology transfer, which was held on 1st and 2nd October 2009 at the Jožef Stefan Institute, prizes were also awarded to the most inventive and innovative ideas that were interesting and useful with potential applications in the economy. A total value of EUR 10,000 was awarded to:

doc. dr. Janez Štrancar, doc. dr. Matjaž Vencelj, doc. dr. Igor Mandič, Boštjan Pajntar and doc. dr. Barbara Koroušič Seljak.

Doc. dr. Matjaž Vencelj, of the Department of Low and Medium Energy Physics at the Institute Jožef Stefan explained that the idea of winning teams develop methods to stabilize the drug detection materials from temperature variations in the construction of instruments for Europe's major research infrastructure projects and other ESFRI projects such as the construction of ITER fusion reactor research. That he is not only important in laboratory studies, but also has strong potential for technology transfer to industry, as different methods in the industry (sensor processing, tomographic methods and various sensors, devices used to protect the borders at airports), in some cases exposed to large temperature fluctuations (the extraction of fossil fuels under the sea may be variations from zero to two hundred degrees Celsius in the cabinet), most of the detectors have a significant temperature dependence, which is reflected in the accuracy of measurements, resulting in a foggy and vague picture. "We developed a method where the shape of small electrical pulses, any sensors usually placed, very carefully deduced the temperature, then in the correct temperature dependence of the whole system. In laboratory conditions, where we can monitor the temperature somewhere between zero and sixty degrees, we have reached full temperature stabilization without any manual calibration. " Even Vencelj considers that "the attitude of the Government of Slovenia to the research community turned for the better, but still remain two fundamental problems. One of these is that the quality initiatives from the bottom up, from the research community, therefore, difficult to secure public funding. The government is obliged to finance the start of calls for tenders, but where there are many intermediate



factors, which do not always allow that the best ideas really well supported, he said. Another key problem is, that that is still in the research institutions to advance its own Rules of researchers for researchers, simply because bread strongest stimulative mechanism, a slightly old-fashioned way valued technological contribution of specific research. We can therefore only show the effectiveness of technology patents, while in certain branch high-tech patent is not the way to the ideal measuring of intellectual property. It is often more meaningful way to the market fast. And in this context, it anti-stimulated for this work. Rather than focus on patents and research work should be greater emphasis on transferring into the economy, "said the doc. dr. Matjaž Vencelj.





Doc. dr. Janez Štrancar from the Laboratory of Biophysics at the Jožef Stefan Institute received the award for the idea applying special coatings to surfaces, such that these surfaces remain clean under certain conditions, giving it a clear practical value in the economy. Among other things, maintaining clean surfaces in the areas of food processing in health care and in stores is addressed using materials that prevent the development of dangerous bacteria with extremely long incubation periods. The project is currently in the prototype stage of development and is being carried out in cooperation with the Veterinary Faculty, Health Administration and smaller meat processing plants in north-eastern Slovenia. The "Ministry of Higher Education, Science and Technology, Research Agency and Technology Agency recently invest much more money in applied projects, while still lacks support for technology in production in the form of marketing assistance and in particular venture capital funds. That researchers cannot do it and here we need assistance from venture capital investors. Targeted research projects, for example, in Slovenia, a very good investment, but from here in Slovenia are missing this step transfer into practice, "is on the situation in Slovenia regarding technology transfer, said doc. dr. Janez Štrancar.

Doc. dr. Igor Mandič from the Department of Elementary Particle Experimental Physics, explained that his research team has developed a device for the independent monitoring of radiation in brachytherapy, a form of radiotherapy, which is used to treat cancer. It is a supplement to existing plants, whose role is to detect when errors occur, and thus improve the quality of radiation. "When we used the design ideas knowledge in the development of radiation detectors, and on this basis, developed a new detection system, developed as well as reconstruction methods of computer visualization. Such a device on the market is, therefore, would be an application of this device is clearly an interesting market. Mandič believes that the project financing of applied research is good, "but there's a missing step in the actual practical application. He is unrealistic to expect that researchers at the research work has raised the company and its solutions to market. Research work in Slovenia is also at a very high level, a fact recognized by the foreign guests who attend the institute, but lacks the support infrastructure large research institutes abroad have, "concluded doc. dr. Igor Mandič.



Doc. dr. Barbara Seljak Koroušić of the Department of Computer Systems at the Institute Jožef Stefan, together with her research group for the planning of healthy and balanced meals, heuristically developed a method in harmony with nature to seek the best combination of dishes and food in terms of quality and price. "Designing healthy nutrition for a population of patients is a kind of optimization problem, it is necessary for the daily meal to meet the individual needs of the organism for energy and an appropriate proportion of macro- and micronutrients as well as non-food, bioactive substances. Taking into account the price and even the gastronomic aspect, the problem becomes very complex calculation. The method we have developed uses a computer program that has many upgrade options by means of advanced web and mobile technologies. We are developing ideas slowly to go beyond research and to be transferred into practice," said doc. dr. Barbara Koroušić Seljak and added that for the successful transfer of technology into practice requires interdisciplinary cooperation of many areas.





OFFICIAL STATEMENTS OF THE PARTICIPANTS OF THE CONFERENCE

dr. Marco Gorini - The exploitation of research results is a complex process as every single case is different and care must be taken of the conditions and opportunities linked to the specific technology sector in creating a spin off and/or for licensing the technology for all potential markets. The market conditions differ from country to country and to reflect this several rules have been developed and tested for assuring the success of technology transfer. These rules, which are always in evolution, are used in combination with established best practices for specific cases. The conference on technology transfer organized on 1st October 2009 at the Jožef Stefan Institute succeeded in collecting the varying approaches used in different countries. Veneto Innovazione in its role of regional agency for research, innovation and technology transfer in Veneto region, supporting also the Regional Authority in defining, testing and implementing new effective innovation policies and infrastructures, was very interested to take part in the conference with speakers such as Ing. Matteo Ametis (deputy director of Veneto Innovazione) and Ing. Marco Gorini (senior technology transfer consultant of Veneto Innovazione). Their participation was very effective both for creating new relationships and for comparing new methodology models. Regarding the session dedicated to the presentation of research results and the draft business idea, it was very interesting as it allowed comparison of the different approaches and methods during a real workshop through brainstorming, thus identifying the best suggestions for future steps.

prof. dr. Peter Stanovnik - The conference was entirely successful, largely due to the excellent teachers and high foreign participation. Maybe it was lack of response in the media, as well as by heads of sections of the IJS (exception dr.Koščeva), as we expected more active participation. The reasons for this are known to us.



dr. Saša Puhar - Slovenian science is active in many scientific areas, but dispersed and focused mainly on the basic research. Scientists see the role of the companies more or less just as additional source of financial funding. Slovenian economic growth should be based on companies that will be able to create new products. Universities and institutes should be more interested in applied research and in helping companies to upgrade research findings to products that could be sold on the market.

Andrej Drapál - When it comes to 'technology transfer', it is of course necessary to ask mainly about the importance of the concept of 'transfer'. The most generally accepted meaning is of perhaps how well the technology researchers and inventors create 'sells'. The conference' afternoon workshop mainly covered this issue and covered it in a very good format. I think that such an understanding of transfer is actually a dead end, enhancing the existing mentality, i.e. a technological world with technological innovations on the one hand, and on the other non-technological world that accepts technological innovation. The two worlds living side by side - the evidence on one side and on the other remaining unused.

Of course this is not really just two sides, but a multitude of worlds and a multitude of sciences and technologies. To generate social surplus they need to connect the different layers in different worlds. Such dialogue is still far away.

Davorin Rogina - Technology Transfer requires a planned approach, where research is necessary to connect potential-knowledge-content institutions with business development strategies. Once the transfer process has become 'an economic category' for the two poles (the economy and the institutions of knowledge), it will take place automatically with minimal external control mechanisms. Technology transfer must become a multiplier of taxpayers' money allocated for research and development - that is the definition of concrete target indicators. We want to invest in RiR achieved.



Primož Plestenjak - The event was okay, it shows that at least things begin to move.

Congratulations for the organization, because is difficult to get all sides together. Mr. Goldman from MIT has been interesting, especially as his view was a little more commercial. I can see that these things function differently in America.

Blaž Kos - The Jozef Stefan Institute in early October 2009 under the organization of dr. Špela Stres held one of the first, if not the first conference exclusively on the commercialization and transfer of intellectual property, and knowledge of applications to create a high-value-added economy. It is a critical area within the business environment of a country, which must be properly realized for the successful and effective synergy between the academic and economic spheres to and increase entrepreneurial activity. The field has so far not paid enough attention to this which has led to inadequate legal regulation, irregular processes, problematic internal regulations within institutions and many other irregularities. Regulation and guidance for this field is essential for the development of technological entrepreneurship and long-term healthy economic growth in Slovenia. Leading world experts were present at the conference, notably from European and American universities, and institutes such as MIT, which stands out in this regard. These are institutions that are extremely well regulated, on the basis of different models. With good practices we can also set an example of excellence for science and the economy through promoting technological entrepreneurship and the creation of new firms. The lectures covered all the important aspects and models of technology transfer, functions of offices, methods of financing offices, demonstrations. The conference ran smoothly at the highest possible level, showcasing the global experts and excellent speakers present. In addition to the important skills acquired by the participants, it became clear to those at the conference that Slovenian academic institutions (universities, institutes) are not fully regulating the transfer of intellectual property. The area is in some cases only partially regulated, with most institutions having particular problems with funding arrangements for technology transfer offices. In accordance with the opinion of foreign experts, as well as Slovenian experts in the field, who were present at the



conference and are well aware the situation in Slovenia, an effort to promote the development of technology entrepreneurship is urgently needed as it is a basic foundation which grows mainly from the institutions of knowledge. Proof of administrative delays in academic institutions were also presented with concrete examples of technologies and applications from the Jozef Stefan Institute which have both the potential for transfer and scientists with the desire to commercialize them, but see no way past irregular internal policies and laws, funding problems, and the lack of business and entrepreneurial skills. Due to irregular internal policies and inadequate promotion and commercialization, long-term damage to many institutions of knowledge may occur. Even the Jozef Stefan Institute realizes that this area needs more attention, so this conference instituted an extremely important first step towards better regulation of this area.

dr. Jerica Sabotič - The technology transfer conference was a great opportunity to get information from participants from Slovenia and abroad on their experience in transfer of technology. Although applied research is encouraged on many levels, it has been emphasized that basic research is also very important to provide insights that lead to targeted applied research and more potential for technology transfer.

Jure Mikuž - Finally I present my opinion of such opportunities: I agree that it is useful to encourage researchers to commercialize their knowledge. Unfortunately, such events are too academically oriented, and highlight the lack of the commercial component in entrepreneurship. To effectively present the business side 15 minutes is too short a time.

doc. dr. Benjamin Zorko - The event was good and well-organized. However, I believe that there is not enough promotion of science in the economy. On Sunday I wanted to write a long article, but it seems to me that writing is not the right way at this time. This is not to make a criticism, but is instead a proposal on how to better commercialize IJS science within the economy. In short, the idea is that the IJS needs a person who knows the current technological problems and also



someone who knows what may be offered by the IJS in such cases. Personally, I know such a duo, Drago Brodnik and myself, but this proposal is just a suggestion. But if someone wants to use us, we can talk. This is my opinion although it is possible that Drago would have difficulties with this idea. Finally, I just wanted to say that I use physics, and with the knowledge we have acquired, we can help solve problems in industry, etc. This can lead to real value-added products. I do not know if I completely failed in my attempt here, so at the next lecture I will try to outline these ideas better. While the conference that has been organized is a good opportunity for the IJS to affect the economy.

Andrea Di Anselmo - The competitiveness of our regions rests on the creativity of the women and men living there and in their ambitions and willingness to take risks. Slovenia, though being excellent in research and knowledge is still lacking the capability of creating value out of such assets. This is the main outcome of the conference. There is a good support system for R&D but nothing to turn R&D results into products and services for global markets. It is not just promoting Technology Transfer or patents but mainly the consideration of knowledge as a strategic asset, not only to be developed, but also to valorize and turn into economic value, sharing the risk and rewarding the entrepreneurial attitude of researchers and institutions. The public is investing in research but not supporting the 'knowledge to market process' with a more strategic approach to the valorization and take up of R&D results and the creation of 'knowledge intensive' start-ups (i.e. spin-offs, one of the key actors of the new economy). Slovenia lacks the ecosystem, which make regions successful, (a socio economic environment rich in entrepreneurial spirit, risk-taking attitude, open attitude to business partnerships, and with international connections and availability of early stage financial tools), to build on its excellent knowledge and research base to create wealth. The conference confirmed that many ingredients are missing but the most urgent one is the connection and availability of financial tools (and the management companies of such tools) to invest in proof of concept and seed stages to make R&D results better exploitable. The conference clearly showed the quality of the knowledge produced but on the other hand





the low level of communication skills and market knowledge of its researchers and the lack of a proper set-up to help them to bridge the gap with market applications.

For the take up of its knowledge base and R&D results the IJS will need to:

- Promote within its researchers a new entrepreneurial approach
- Reward risk-taking attitudes and orientation to global markets
- Facilitate Access to Finance making dedicated proof of concept and seed funds available
- Focus on the international dimension and on global start-ups providing easy access to foreign markets and business partnerships
- Build a network of international mentors and coaches to help researchers to fine-tune their innovation for prospective markets and build a winning valorisation strategy.

In the future, technology will not be the key element to drive innovation; most companies will have access to the same technology. Thus, there will be the need to go from an industrial economy business model to a 'user centred', 'new nature of innovation', based on 'open access' to disperse knowledge, and to new business models with competitive advantages. In this new framework the public sector will have to move from a control based intervention to an influence based one, leveraging talents, global outreach and access to finance.

SWOT analysis of Slovene research environment

STRENGTHS

- Good education
- Strong academic presence and network
- Excellent basic research
- Availability of R&D funding





WEAKNESSES

- No strong lead at governmental level leading to low support and high level of administrative burdens
- Weak mechanisms to support entrepreneurship and start-ups (funding gap – no proof of concept schemes)
- Lack of success stories / role models
- Low number of patents / high costs of patenting and low exploitation of patents
- Main institutes still suffer from past orientation to “basic” sciences
- Low motivation for better exploitation of research

OPPORTUNITIES - THREATS

Proposal: A pilot initiative can be set up on a National level and rapidly implemented to satisfy the need for a new stream of high-growth knowledge-based businesses, leveraging the untapped potential of local knowledge basins and centres of excellence. The objective should be to promote the commercial exploitation of research results, endogenous knowledge and entrepreneurship, via novel approaches and financial tools. An integrated approach to the identification of commercially potential research, and the development of high potential business ideas and models through international mentors/coaches and successful entrepreneurs should be put in place, bridging the financial gap of early stage business opportunities. New financial tools which have already been shown to function well in other EU regions, such as proof of concept and seed finance mechanisms should also be introduced. Through a long-term programme, not solely short-term projects, the entrepreneurial culture could be better developed through researchers and professors being better motivated for exploitation of their knowledge, business opportunities supported by mentors, improved financial tools, an open market and the global dimension introduced, and new role models created to accelerate the circle of supportive policy measures.



dr. Gabriel Clerc - Congratulations for the organization of the TT conference. I appreciated the dynamism that is clearly emerging from many of the young scientists I had exchange with. With your help and active support I am sure there will be many very nice results in the area of TT that you will see in the future from your teams.

Nina Mazgan - I have to say that it was very educational conference and with much constructive criticism such that we all arrived at very similar conclusions.

dr. Alenka Rožaj - The conference was very good and useful, I hope that in the future will be any happening in this area. We need to catch the rest!

dr. Jean-Marie Le Goff - The projects were early birds. All the presenters were looking for advice, in particular for a good business idea or concept. This situation is typical and at this stage, the best advice people can get is from the TT Office which will identify adequate experts as the case may be. Don't present the projects to investors, business angels and others of this kind prior to completion of the above. In particular, IP clarification, possible business routes, partners and academic support must be fully addressed beforehand. If this is not possible, inform business representatives on the status of the projects and brief them on your expectations, otherwise their contribution will probably be of limited use at this stage.

mag. Helena Valas - This type of event is necessary to inform researchers of different approaches to the results of their work.

prof.emer. dr. Lojze Sočan - The conference was useful and it makes sense to continue. I got the feeling that it was too present and therefore lack of direct dialogue between lecturers and otherwise fairly well-structured public. In my opinion be able to draw even more beneficial dialogue so as to focus the program content, for example.:



- The nature of research and achievements of JSI is without doubt one of such areas chosen discipline, or be more than two or three, where they compared the results with leading JSI in the world and see the possibilities of work or participation in the future.
- The IJS is becoming increasingly important to enter the field of intensive applied research and development and links with industry at home and abroad. Presentation of some examples of high achievement in this area would be useful to link the economic law (such as MIT license means the eleventh in the world economy), as well as support institutions such as Tekes and scientific centers in universities and institutes, to country conditions, where the us things are very chaotic and discouraging and should be regulated as soon as possible.
- Commercialization of knowledge is a big problem and so worthy of our universities, and even more to JSI by far the largest research achievements. Not only Cambridge and Oxford, the Scandinavian universities and institutes are working in conditions that support business encouraging the transfer of research achievements into practice. This is increasingly associated with venture capital, not only of angels, but increasingly from countries and regions, banks, insurance companies, cities, businesses, etc.. This is the regulated legal norms create the conditions for the creation and launch of new businesses in cutting-edge knowledge and modern technologies, which will to benefit the IJS.
- It would probably be very positive and also for warning negative, also discussed the cases on which the workshop.

dr. Rudi Cuyvers - It was a pleasure to participate in your conference! I liked the concept of your TT conference where you first had external speakers explain-ing the technology transfer process and then offered the opportunity to researchers to present their specific technology transfer case on which the external speakers as wells as the audience had to give feedback. This is a very important learning mechanism as people are forced to apply theory to practice and one can learn from each other (this also counts for the external speakers!). As you know, I could only stay the first day and I even had to depart at 16.00h so I have not heard all cases. However, the cases



which were presented where very interesting and clearly showed a very important challenge in technology transfer: many opportunities exist in different domains and in different phases of development / road to the market, and they all require a project specific approach / roadmap to commercialisation. Guiding those projects requires a lot of effort and in-volves multiple expertise (intellectual property rights, legal, business development, fi-nancing). I know this a real challenge for small or starting technology transfer offices and really hope all stakeholders in your country understand the importance of professional technology transfer and are willing to support it. In the first phase the stakeholders really have to invest to build a good team and provide the appropriate incubation/financing in-struments. For licensing and spin-off creation, one has to wait many years before a fi-nancial return can be realised. For people thinking to start a new spin-off company, we organise in Leuven together with Aachen (Germany) and Eindhoven (Netherlands) twice yearly, a three day masterclass on high-tech entrepreneurship. As you can seen in the program attachment, the re-searcher-entrepreneurs stay for three days at an old castle where they get insights & testimonies in different key business / management elements and where in the late af-ternoon & evening they have to elaborate their business case. During the first two eve-nings they present their business case to the other participants and the coaches (as al-ready mentioned, a very important learning mechanism). The last day they defend their case before a jury of entrepreneurs, investors and technology transfer experts. An im-portant difference with your TT conference is that we limit the number of participants to 9 entrepreneur-teams and the number of coaches to 3.

Domagoj Oreb – The TT conference in Ljubljana was a great opportunity to introduce all the segments of R&D in the region which are interested in the commercialization of R&D. Since our region is a relatively small market it is necessary that all R&D institutions jointly make efforts to introduce the benefits of cooperation of R&D with business. It was a great pleasure to meet interesting colleagues and hear valuable experiences.



mag. Claudia Prügler, MBA - congratulations on the TT conference and thank you for inviting me to participate. It was a very productive and interesting event, and it is not very often you can say that you learned as much as I did within a conference. It became clear what is needed in order to make technology transfer efficiently and the hints from the diverse experts were very helpful. It became quite clear to everybody, that before approaching a financier or a partner the researchers have to define their own strategy and find out what they want (where the TT department can be of great help). It also became clear that Jozef Stefan Institute has a lot of potential for spin-offs and licensing, but that it needs a change in the current policies. I think it was also helpful for your department that all participants understood the role a TT department has or can have, and how you can support them. But it also became clear that there is a huge need and too few people to support them. By my understanding this means that you need some more colleagues to help you. Thank you again for inviting me and giving me the chance to meet all these interesting people!





