Baltic Expert workshop

Knowledge Transfer from Universities and Public Research Institutes: Strategic Approaches for Intellectual Property Management

Tallinn, Radisson BLU Hotel, 6 September 2011

Summary

Background

This workshop supported the implementation of the European Commission's 2008 Recommendation on the management of intellectual property (IP) in knowledge transfer (KT) activities and Code of Practice for universities and public research organisations (http://ec.europa.eu/invest-in-research/pdf/ip_recommendation_de.pdf). The event was part of a workshop series covering 39 European countries in 2011 and 2012.

Attendants

The workshop convened 40 stakeholders active in knowledge transfer, in particular from universities, public research organisations, knowledge transfer agencies, policy and industry. Attendance was by invitation only. See a list of attendees in the Annex.

Presentations

This summary includes the main points of the discussion and goes beyond what is included in the presentation files. The presentation files can be viewed and downloaded at http://www.knowledge-transfer-study.eu/index.php?id=76.

Main results

The Baltic countries represent different levels of KT policy, development stages and performance. Estonia appears to be developed furthest, followed by Lithuania which is in a break-up stage and Latvia suffering from contradictory IP ownership rights.

In Lithuania, IP ownership was passed from the state to universities in a legal reform in 2009. However, only Kaunas University of Technology has a strong KT office. While there is little formal patenting activity at universities and no licenses yet, there is considerable informal KT through collaborative research with industry. A change in mentality towards IP protection is currently taking place as Lithuania shakes off attitudes of its soviet past.

Latvia is hindered by conflicting legislation on IP rights which acts as a disincentive for patent filing from state funded research as the state can claim the IP. This disincentive is evident by the lack of TTOs; only one exists from the eight state universities. In practice Latvian universities and PROs often perform contract research with industry and have patent applications filed in the name of the inventors through the clients.

KT policy in Estonia seeks to provide a collaborative environment where the improvement of knowledge management is the focus rather than purely commercial objectives. IP awareness is not a problem in Estonia. KT problems arise from low IP capacity, with infrastructure, international access and financial means to secure IP creating bottlenecks.

About the Knowledge Transfer Study 2010-2012

The "Knowledge Transfer Study" (monitoring study regarding the implementation of the Commission Recommendation and Code of Practice on the management of intellectual property in knowledge transfer activities in Member States and Associated Countries) is based on a Contract (No. RTD/Dir C/C2/2010/SI2.569045) between the European Commission, Research Directorate General, and empirica GmbH, the Maastricht Economic Research Institute on Innovation and Technology, and the School of Business of the University of Applied Sciences North-Western Switzerland.
Joint sessions with Baltic Dynamics conference

1 Workshop Summaries

Presentation: Jane Davies, Chief Executive, Manchester Science Parks Ltd (UK)

Jane Davies summarised a workshop session about “soft landing services” which took place in the afternoon of the previous day of the Baltic Dynamics conference. The term “soft landing services” refers to support for establishing business operations in foreign countries. Jane Davies said that internationalisation is a must for companies in small countries. In the discussion it was stressed that internationalisation is not just about inward investment into jobs but about knowledge transfer, bringing wealth into the region, encouraging innovation in home-grown companies, possibly growth of an overseas company tied into local research and talent, collaboration to meet a new market opportunity, collaboration to enter a new market, and the generation of high productivity jobs. It is essential that the location has a unique selling point and a big market.

“Traditional” inward investment agencies are not good at working with small high-tech prospects because their metrics are usually numbers of jobs and number of inward investments – not collaborations or research partnerships.

Presentation: Yrjö Ojasaar, Solon Partners (Estonia)

Yrjö Ojasaar pointed to the importance of company funding through angel, seed and venture capital (VC). In the US, 10% of jobs are in companies funded through VC; 20% of Gross Domestic Product (GDP) is created through VC-funded companies, and 80% of jobs in high-technology companies are created through VC.

In Estonia there is a particular lack of angel investors and even potential angel investors. In the US there are many millionaires who have spare assets even after pleasing all material wishes; these millionaires may act as angel investors. In Estonia, there are only around 1,600 people with an annual income of more than 61,000 euro. Organisations such as the Baltic Innovation Agency, GatewayBaltic, Seedbooster and SmartCap could become more active in providing the required funds.

2 Entrepreneurial universities

Presentation: Will Cardwell, Centre for Entrepreneurship, Aalto University (Helsinki, Finland)

Will Cardwell provided a background to Aalto University and its centre for entrepreneurship. The centre for entrepreneurship has four cornerstones; entrepreneurship education, entrepreneurship research, innovation services and technology transfer and growth venturing and start-up services. The corner stones, however, are long standing but the transparent technology transfer processes is new. The process follows a development from proposal to evaluation followed by concept development and validation before being forwarded to the stage of start ups, intellectual property rights and licenses. However this development is not linear as a step could be made to move to another supporting organisation or to provide feedback. The presentation concluded with a Strength, Weaknesses, Opportunities and Threats (SWOT) analysis.
Joint presentation: Aivar Pere, Tartu University / Tiit Urva, Tartu Science Park (Tartu, Estonia)

Aivar Pere and Tiit Urva presented about “demand-based opportunities for technology and knowledge transfer” at the University of Tartu and Tartu Science Park. Both organisations are strong players in the Estonian national innovation system, in particular in city of Tartu’s R&D and technology transfer system. The University of Tartu is an old and renowned university with 18,000 students and 3,500 employees, founded in 1632; Tartu Science Park began its operations in 1992. The university considers “innovation, promoting research-intensive business ventures and raising public awareness of scientific research and its results” as important tasks. Invention disclosures grew, although on a low level, from 5 in 2008 to 9 in 2010.

In 1999, the university launched a spin-off support programme under which two to three new companies were created per year since then. Currently the number of spin-offs since 1999 is 33, but many are very small or dormant. Hence, Aivar Pere called for a new approach to spin-off promotion, including the following: an active role in IP portfolio development and marketing on international scale; a pro-active role in spin-offs; and a university and science park associated pre-incubator, which is a new tool for managing the spin-off process and which is a joint unit of the university and the science park. Already eight years ago the university introduced a web-based collaboration platform named “iPlanner.net” for training and coaching entrepreneurs.

Presentation: Dr. Therese Sjölundh, Managing Director, Jönköping Science Park (Sweden)

Therese Sjölundh gave a presentation entitled “it is easier to create the future than to predict it” The business model of Jönköping Science Park is to integrate arenas supporting the full business development process from start via development to growth: pre-incubator, business incubator and post-incubator. The idea behind this integration is, firstly the belief that there are no ways to predict success, secondly the aim to leverage with a cost-effective structure what society already has invested in, and thirdly new kinds of organisations that will seek “landing spots” for meetings of various kinds. The science park offers dynamic and think-tank type of collaborative spaces.

According to Therese Sjölundh, the business developers are the key to successful science park operations. They really need to have business development as their main focus. Her main recruitment criteria for business developers include own business experience, business mindset, different focus areas, a good relation to the target group. She said that with the right team on board one can abandon the linear model for idea-business-process development. In her experience there is a trend towards “lightweight innovation”, meaning that there is increased pressure to innovate faster and cheaper, using new and cheaper tools for innovation such as cloud computing, 3d-prototyping, and desktop genomics. This trend results in a new and increased role for start-ups in innovation – there will be more start-ups and fewer giants.

Presentation: Franz Dietrich, inwent (Germany)

Franz Dietrich presented about “capacity building for the development of university related technology business incubators in Thailand, Vietnam, Indonesia and the Philippines”. Relate experiences were gained in a project named “BISEA - Business Incubators for South East Asia”.

According to Franz Dietrich’s experience, the following reasons are crucial why business incubators fail: There is no clear understanding of the business incubation model among the promoters and possible stakeholders, the initiative is not embedded into the overall regional development policy, there is no sufficient financial support, no demand, no building, not the right service mix and not the right staff.
Lessons learned and recommendations for future projects include the following: First, a committed business incubation set-up team is essential. Second, commitment of the mother organisation of the business incubator is essential, requiring willingness, appreciation, listening, advising, financial support (e.g. for travel/accommodation during the project) and assigning team members who have time and some extra salary or bonus. Third, commitment of a national support organisation is essential.

### 3 Welcome and Introduction

**Patrick McCutcheon, European Commission, DG Research and Innovation**

Patrick McCutcheon outlined the importance of innovation and IP protection for the European economy. The overall issue is improving European competition. The projected growth in the EU in the next ten years is 1.5% which would be too small to overcome the financial and economic crisis and to keep up with major competitors. A specific issue is the relative failure of Europe, compared to its competitors, in developing its young innovative companies. More innovation is needed, but one should not forget that this also requires more research. Against this background the European Commission established the European Research Area in 2007, issued the Recommendation on knowledge transfer in 2008, and launched the Innovation Union initiative in 2010. The Innovation Union seeks to strengthen KT; IP brokerage, IP funds and model agreements are related ideas to be pursued.

The purpose of the Commission’s Knowledge Transfer Study 2010-2012 is monitoring KT and IP management developments in 39 European countries in order to allow the Commission to develop further policies which will be required in the future. The purpose of the workshops is assessing the status of KT and promoting KT within countries as well as identifying whether the EC has missed important KT issues which need to be tackled.

### Discussion

Following the presentation, several issues were raised. One of the participants said that the EU’s innovation policy measures would exclusively target the increase of innovation supply while innovation demand could also be promoted. Patrick McCutcheon pointed to a Commission Communication on public procurement which is currently being prepared and which addresses this issue.

Knowledge transfer agencies are sometimes unsure whether their operations are in line with European state aid regulations. Patrick McCutcheon said that the European Commission is currently revising state aid regulations. In particular, the block exemption regulation is being updated and it is not sure whether KT will still fall under state aid rules in the future.¹

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¹ With block exemption regulations, the Commission can declare specific categories of State aid compatible with the Treaty if they fulfil certain conditions, thus exempting them from the requirement of prior notification and Commission approval; see http://ec.europa.eu/competition/state_aid/legislation/block.html.
4  Case study: knowledge transfer in practice

Presentation Andy Todd: the role of commercialisation agencies in fostering valorisation of research results: the case of Commercial Edge

The Commercial Edge Initiative is a university-business partnership fostering innovation by forging relationships between the business, academic and investment communities. Commercial Edge was created in mid 2010 by Commercial Catalyst Ltd, a business service company that “helps organisations deliver exceptional financial results through improvements in sales performance”. It brings to bear industry experts to uncover and commercialise leading edge funded research opportunities. Commercial Edge was pioneered by the universities of Teesside, Sunderland and Northumbria in the UK. It is looking to involve a further six universities in the next six months.

According to Andy Todd, there is no shortage of research and innovation in the world, but there is a shortage of linking research with business. In the traditional approach of seeking to commercialise research findings, 1 in 160,000 findings has a chance of financial success. This is because universities are normally unable to provide sufficient commercial skills to create value from IP. The traditional approach is that a researcher patents his finding on his own and seeks to make money from it. Commercial Edge supports the researcher during research by helping identify commercial opportunities of research, directing research towards commercialisable results and providing funds for contract research or collaborative research. Commercial Edge tries to bring in third-party companies for funding research. This may allow becoming independent from government funds, which is becoming critical at times of strained public budgets. Commercial Edge only closes deals promising high value.

The related process begins with a workshop convening Commercial Edge professionals and university representatives, one-to-one assessment sessions between Commercial Edge professionals and researchers, and an objective review of the university’s potential. Subsequently, an umbrella agreement is signed and “pump prime funding” provided (between €150,000 to €600,000), followed by signing up individual interim agreements for “SpinIOs”, a combination of a spin-out and a spin-in company. When commercialisable results have been created, start-up deals are closed, a company may be formed, and projects and profits may be created. Profits from the companies’ operations as well as capital gains from exits are used to fund the overall portfolio of Commercial Edge ventures. This creates a valuable addition of alternative to grant funding.

Commercial Edge is open to deal with organisations in the Baltic states; there has in fact been interaction with a Latvian organisation.

5  Knowledge transfer and IP protection at universities and PROs: current issues, good practices, challenges

5.1 Lithuania

Dr. Violeta Kauneliénė, Head of Innovation Centre at Kaunas University of Technology

Violeta Kauneliénė first presented facts about the Lithuanian research system, which has 22 universities, 23 colleges, and eleven state research sites. Furthermore, five integrated science, study and business centres exist, so called “valleys”. 200,000 students study and 13,800 researchers work at these institutions of which 6,400 have a PhD degree.

See http://www.thecommercialedge.co.uk.
A New Law on Higher Education and Research, passed in April 2009, introduced competitive elements to research funding in higher education through student vouchers and programme-based competitive research funding. Research institutes were consolidated, an institutional reform of universities and colleges was implemented, and universities are now evaluated by external institutions. Intellectual rights protection is another focus of this law. IP rights of university-based research are now owned by the university; previously they were owned by the state.

Consequently, the share of basic state funding has decreased in recent years in favour of more competitive European Structural Funds funding and special programmes. The ratio of basic funding against competition funding has decreased from roughly 70/30 in 2009 to 60/40 in 2010 and 50/50 in 2011. The body responsible for distributing funding to technological projects and for commercialisation is the newly established Agency of Research, Innovation and Technologies. There are six major national science programmes funding research.

The ambitious aim of Lithuanian research policy is to increase the R&D share of GDP from approximately 1% in 2010 to 1.8% by 2015 and 2% in 2020. The most significant contribution is expected from industry. Measures to reach this aim include an improved fiscal accounting of R&D, new incentives for research and higher education institutions to commercialise R&D results and attract investments from the business sector, a reform of the research and higher education system, and renewed infrastructure, funded especially by increased foreign investment.

The Minister of Education and Science has issued “Recommendations for Lithuanian science and education institutions regarding the rights arising from the results of intellectual activities”. It is a consulting guide, setting the guidelines for Lithuanian science and education institutions with regard to the rights arising from the results of intellectual activities as well as their use, disposal and management. Recommendations specify the inclusion of IP policy (with implementation instruments and monitoring) into the institutions’ long-term strategies and the appointment of a person or allocation of a structural unit dealing with IPR issues.

The largest Lithuanian university, Kaunas University of Technology, adopted these IPR recommendations in June 2010 as "the first swallow". Interest in adopting them was also articulated by other universities and research centres such as Vilnius University, Vilnius Gediminas Technical University, and the Center for Physical Sciences and Technology. A planned change in the legal status of universities will presumably speed up the process.

Kaunas University is by far the most successful Lithuanian University as regards industry-funded research. However, even this university holds only a few patents and has no income from licenses yet. Difficulties encountered in the implementation of the recommendations are mainly related to lacking an IPR mindset – the mindset in Lithuania is still influenced by the Soviet system. Lithuania is at the beginning of a learning curve about IP rights with a current lack of practice in disclosing research results, a lack of confidence on the part of researchers that disclosures are dealt with adequately, and conflicts of interests.

The outlook for Lithuania includes a recommended list of items to be implemented for developing an intellectual property protection mentality, entrepreneurial spirit and technology transfer abilities. A recently launched call for projects on knowledge and technology transfer includes two projects with a budget of 3.5 million Lithuanian litas to tackle these goals.

Discussion

In the discussion, one of the participants stated that Lithuanian researchers often consider patents from their research as their property. University researchers are allowed to leave the university and patent a finding on their own, as no university beside Kaunas
University has a considerably strong technology transfer office. Violeta Kauneliene added that there are cases of undisclosed inventions used to start a company without informing the university.

In Lithuania the level of collaborative research projects between universities and industry is considerable, and this also creates employment at the universities – at least for the time of the research projects. Thus, while there is little formal KT through patenting and licensing, such collaborative research projects generate significant informal KT.

5.2 Latvia

The KT situation in Latvia was revealed and discussed in the workshop discussions. Latvia has eight state universities but only one TTO. A special problem in Latvia is conflicting legislation: All IP generated in the course of state funded research at universities and PROs belongs to the state, and a state scientific institute has rights to use IP created as a result of state-funded scientific activity. At the same time an inventor or his or her successor in title, as an employee of the university or PRO, owns the patent rights. Consequently no incentive at all exists to file any patents or try to maintain these, because there is always the danger that the state might claim the IP.

Therefore, one of the few solutions for a researcher to valorise research findings in Latvia is to leave the university and declare an innovation to be resulting from extra-university activity. Another strategy that can be pursued to circumvent the contradictory patenting law is to pursue fast market entry and fast market exit.

Because of this situation, Latvian universities generate revenue mainly from industry-funded research. There is evidence of spill-overs from such industry-funded research showing that KT exists even if it does not show up in statistics.

5.3 Estonia

Prof. Aleksei Kelli, Associate Professor of Intellectual Property Law, University of Tartu

As regards the institutional framework, Estonia has 18 R&D institutions, six of which are public universities. In 2010 Estonia saw 58 European Patent Office patent filings while seven patents were granted. As a very small country, it is crucial in Estonia not only to stimulate the supply of IP production, but also to ensure the demand and the ability to absorb the innovation potential by industry.

The overall issue for governmental policy making is improving quality of life – IP management is just a small part of it. The idea of governmental programmes to promote KT is good, but the issue is how to best design it. The Estonian research, development and innovation strategy 2007-2013 named "Knowledge-based Estonia" has the vision that "Estonia becomes a knowledge-based society where the creation of new knowledge and the capacity to accept and implement it are the sources of increasing quality of life". Its objectives include the competitive quality and increased intensity of R&D, innovative entrepreneurship creating new value in the global economy, and an innovation-friendly society aimed at long-term development. Estonian KT policy focuses not primarily on making deals and generating profit from IP, but rather to provide "collaborative arenas" from which knowledge will spill-over. Enhancement of knowledge management processes and competencies in the academic sphere is a declared political goal. Related policies are especially targeting IP awareness and competency building, explaining hazards to be avoided.

Aleksei Kelli made distinct statements on universities’ objectives in KT. One of the University of Tartu’s great success stories is patented lactobacillus ferment. The question
is whether one should expect such success stories to happen again and again; i.e. whether universities should become "innovation factories". Aleksei Kelli’s pronounced view is that they should not. It does not work because most researchers are not really interested in collaboration with industry. In his opinion, researchers should not focus on profits and deals but on different collaborative arenas for improving knowledge transfer. Patents should not be considered as the primary means of KT.

As regards valorisation of research, IP awareness is not a problem in Estonia – what is lacking is IP capacity. International focus is crucial for a small country like Estonia in order to balance the cost of knowledge creation and its concurrent exploitation. Market size and potentially insufficient network access need to be taken into account. High IP enforcement costs and insufficient industrial alliances are among the challenges to be tackled.

High quality research results are the basis of any successful KT activity. Whether it is better that KT happens under a professor’s privilege or an institutional ownership regime depends also on the maturity of the TTO system. In case the TTO does not have a good infrastructure and is not professionally managed, the professor’s privilege may be the better choice. If Estonia switched to a professor’s privilege regime, it would not make much difference to the country’s KT performance.

Aleksei Kelli discussed challenges in designing incentive schemes for KT. Such schemes need to be different for researchers and KT professionals, and they need to be attuned to the universities’ eventual objectives. In principle there are two different types of incentives: money and career. Monetary incentives may drive TTO officers going for the low-hanging fruit. On the other hand, researchers see a conflict of motivation between publishing and securing IP rights. Patenting delays publications. Publications are however mostly better incentivised, in that they play a key role in the academic career, other than IP protection, and are therefore preferred by researchers. This has repercussions on the measurement and monitoring of KT activities. Aleksei Kelli finally mentioned three bottlenecks: Infrastructure – or the capabilities to manage KT efficiently –, international access – the access to networks that put IP to use –, and the financial means to secure IP.

Discussion

The discussion took on the “three bottlenecks thesis” and reformulated this as a set of bottlenecks relate to infrastructure, structure and superstructure. The infrastructure bottlenecks concern the local capabilities of universities and PROs to provide intellectual services. Structure refers to the quality of research. The term “superstructure” refers to the framework conditions set by the government and also by the European Commission. For example, is the KT Recommendation a wrong or good measure? Aleksei Kelli believes that the "innovation factory” approach for universities and PROs, involving significant patenting and licensing activity, is only something for rich countries.
6 Panel discussion: professionalising KT and IP management in Baltic countries – policy implications

Participants

- A university’s view: Marko Piirsoo, Head, Research Administration Office, Tallinn University of Technology (Tallinn, Estonia)
- A public research organisation’s view: Prof. Ivars Kalvins, Director, Institute of Organic Synthesis (Riga, Latvia)
- A business view: Gailė Sakalaitė, Lawyer, Science and Technology Park "Sunrise Valley" (Vilnius, Lithuania)
- A governmental view: Dr Indrek Reimand, Head of Research Policy Department, Ministry of Education and Research (Tartu, Estonia)

Experiences with regard to knowledge transfer and intellectual property management

Marko Piirsoo stated that the workshop had put on the table the well-known difficulties in the different countries. His office creates the IPR for the university and helps with the creation of spin-offs and with patenting. According to Marko Piirsoo's experience universities generally tend to expect too much from patents and underestimate the efforts needed to file and maintain them. While many TTOs are struggling to have their organisation’s knowledge transferred to industry, his office takes a different view: They talk with industry to hear what their demand is and they try to motivate researchers to meet this demand.

The main task of the science and technology park, which Gailė Sakalaitė is working for, is consulting and facilitating access to networks and finance for company incubation. Their in-house experts include lawyers, business experts and innovation specialists. Services offered include, among others, drafting of agreements, entrepreneurship teaching, IP training, and advice on seed and pre-seed capital funding. Roundtables with university and business representatives are also offered. Difficulties experienced in her work include the universities’ need to have a contact point within enterprises, which is often problematic due to unclear competences. Another difficulty is that universities tend to not market their innovation sufficiently.

Ivars Kalvins said he holds more than 300 patents and negotiates all of his institute’s deals with industry. From his point of view the Latvian innovation system does not work. The main problem is the country’s contradictory intellectual property rights regime. As IP ownership belongs to the state, this means, in fact, that nobody pays for IP protection and nobody feels responsible for it. There is no incentive to valorise research: If inventors pay for patenting themselves, they must fear that, in case of success, the state will claim ownership. Furthermore, by law there is not even remuneration from royalties for the creator of the knowledge. The work-around, mostly chosen by Latvian universities and PROs, is to perform contract research with industry and have patent applications filed in the name of the inventors through the clients. This implies that the IP rights go to the customer.

According to Indrek Raimand, the overarching goal of KT policy in Estonia is fully realising the knowledge-based economy. While Estonia has increased research expenditures considerably, according to the European Innovation Scoreboard Estonia’s weakest point is knowledge usage. This, however, was anticipated, as Estonia’s innovation system has to cope with the disadvantage of a “late start” compared to other European countries. Indrek Raimand sees a special role for policy to help the “connectors” between knowledge creation and knowledge demand. However, Estonia also lacks knowledge demand, as it is a small country with a small industrial base and market.
Policy should address this lack of knowledge demand. While Estonia’s economy grew fast in recent years, this growth was not based on technological innovation. Where foreign direct investment was attracted, it was rather exploiting low wages and land available at low costs. However, in the current economic crisis, there is an increasing interest in new approaches to growth strategies. The government’s related measures may not have been completely systematic, but there are a lot of measures and activities to foster KT, for example university-business co-operation. The universities’ goal should be to contribute to common welfare, and the goal of research should be to benefit society. Transfer of people is most important in this respect.

Improving the relationship between universities and public research organisations on the one hand and enterprises on the other hand

Marko Piirso asked policy makers to understand that TTOs cannot operate in a self-sustaining manner. Every university in Estonia has a TTO. In smaller countries, it may be enough to have one central TTO. It could found a holding company to hold shares in ventures from the universities. Regarding the hopes for spill-overs, it might also be necessary to fund applied research even if benefiting companies have not yet been located in Estonia.

Gailė Sakalaitė stressed that TTOs need to employ real experts in order to be able to operate effectively. There should be lawyers, business people and researchers.

Ivars Kalvins focused again on the special situation in Latvia, where incentives for researchers to develop commercialisable results are badly needed. Furthermore an agency would be needed to “translate” research results for entrepreneurs who then design products from them. The old innovation system was destroyed during the privatisation efforts in the 1990s. Today, inventions originating in Latvia are rarely owned by Latvians. There is no source for funding patent applications. The state needs to urgently think about how to support IP protection and management.

Indrek Raimand stated that five years ago few people in Estonia would have thought that one can earn money from KT. However, the value of KT is larger than royalties for universities and PROs, it is for society. It is very difficult to motivate academics to create commercially usable knowledge, but this issue is currently on the policy agenda. Issues include professionalising KT and setting valuable missions for universities and PROs. The motivation behind efforts to increase R&D success is increasing the value added or GDP at large. Governmental activities in this direction include vouchers for fostering co-operation between PROs and business, supporting clusters and innovative procurement approaches. A scheme for monitoring the impact of publicly funded research is planned to be introduced.

Three wishes about policies for intellectual property protection in knowledge transfer

Marko Piirsoo’s three wishes to policy makers include the internationalisation of KT, the supply of specialists for KT practice, and not to focus too much on patents. As regards patents, Estonian higher education institution should also use other channels to raise the global awareness of scientific achievements in the country.

Gailė Sakalaitė stated that “it is all in the people”. Scientists and industry representatives should learn to speak the same language. Some money would be needed for educating scientists about entrepreneurship and business reality. Understanding each other, networking, and collaboration are key. Documentation of existing KT practices, including procedures to found spin-offs, as well as development of contracting competencies would be very helpful. Business people should know what is happening at universities, they should be involved as mentors of scientists, they should become involved in teaching entrepreneurship at universities, and there should be personnel exchange programmes between industry and science.
Ivars Kalvins called for a changed IP ownership regime in Latvia. If patents are a success indicator, it needs to be recognised as an incentive for scientists. An agency would be needed to advise on how academic results can be made more applicable in practice. The infrastructure for innovation should be recovered, reviving the tradition of industrial labs in Latvia. European state aid rules need to be overhauled. EU regulation applies rules that may be meaningful for big industry also to SMEs, which is not meaningful, particularly not in small countries. SMEs are not able to disturb market processes but they are very important for product innovation. Compared to global practice current state aid regulation is hampering Europe.

Indrek Raimand called for an entrepreneurial mindset at universities, not only among researchers but also among students. He also called for a more industry-led research agenda, conceding however that this is difficult when there is no related industry. Research agendas should be aligned to the national economic and industrial structure, and companies should be involved in the formulation of such agendas. Thirdly, a European Patent is urgently needed. Currently the lack of a European patent is one reason why a small country’s patenting activities are difficult and expensive.

Discussion

In the ensuing discussion the national situations were referred to again and the influence of the institutional set-up was put into perspective. There was agreement among the participants that linkages between business and research need to be strengthened. Similar to the recognised need to care for SMEs at the European policy level, there should also be a differentiation between small peripheral and large countries.

While one of the participants stressed his disappointment that after many years of discussion about KT the topics are still the same, other participants recognised that a lot has been achieved both as regards policy and as regards changing mindsets. For Lithuania at least, Gaiū Sakalaitė reported highly motivated students and young startups that have a very entrepreneurial approach.

There was also a call for more decentralised KT systems, mentioning the UK and Lithuania as negative examples of a centralised system. One should stop talking about institutions but start talking about systems because linking the stakeholders is important.

Violeta Kauneliene said that while it is often demanded that academics and students become more entrepreneurial, some companies lack the entrepreneurial spirit to take on existing opportunities from new research results. There should also be a better accreditation system, increasing acknowledgement of R&D at the expense of publications, and more funding for applied research.

Another participant stated that when talking about KT, it should also be borne in mind that innovation is a broader concept, and social innovation should not be neglected, for example on implementing eHealth and eGovernment concepts.

7 Conclusions

Patrick McCutcheon, European Commission, DG Research and Innovation

Patrick McCutcheon concluded that KT in the broad sense is clearly happening in Baltic countries. While patenting and licensing activity may be small, it is important that knowledge generated is used locally in order to foster economic and societal development. As regards the issue of ownership regime, Patrick McCutcheon referred to the experience of Denmark: After switching from the professor’s privilege to institutional IP ownership, the Danish KT system moved to profitability. It can also be insightful to look at Switzerland where certain KT functions of universities and PROs were merged on a higher geographical level.
## Annex

### Annex 1: List of participants

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| 39  | Valanciauskas, Ricardas | Lithuanian Agency for Science, Innovation and Technology |}

Note: BDS = Speaker at the Baltic Dynamics conference, no participation in the separate session of the Knowledge Transfer Study
## Annex 2: Programme

<table>
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<th>Time</th>
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| 09.30 – 10.00 | **Workshop summaries**<br>  
  - Jane Davies, Chief Executive, Manchester Science Park (UK): Company internationalisation and “soft landing” services  
  - Yrjö Ojaasaar, Solon Partners (Estonia): Business angelship, seed and venture capital attraction |
| 10.00 – 11.10 | **Entrepreneurial universities**<br>  
  - Will Cardwell, Center for Entrepreneurship, Aalto University (Helsinki, Finland): Building entrepreneurial universities: the case of Aalto University  
  - Aivar Pere, Tartu University / Tiit Urva, Tartu Science Park (Tartu, Estonia): Demand-based opportunities for technology and knowledge transfer: University of Tartu and Tartu Science Park  
  - Dr. Therese Sjölundh, Jönköping Science Park (Sweden): It’s easier to create the future than to predict it – support system creating 100 start-ups yearly  
  - Franz Dietrich, inwent (Germany): Capacity building for the development of university related technology business incubators in Thailand, Vietnam, Indonesia and the Philippines |
| 11.10 – 11.30 | **Coffee and tea break**                                               |
| 11.30 – 12.00 | **Welcome and introduction**<br>  
  - Patrick McCutcheon, European Commission, DG Research and Innovation: the EC Recommendation and Code of Practice on Knowledge Transfer |
| 12.00 – 12.30 | **Case study**<br>  
  *The role of commercialisation agencies in fostering valorisation of research results: the case of Commercial Edge*<br>  
  - Andy Todd, Director, Commercial Catalyst (Ullesthorpe, UK) |
| 12.30 – 14.00 | **Country profiles**<br>  
  *Knowledge transfer and IP management at universities and public research organisations: current situation, good practice and challenges*<br>  
  - Lithuania: Dr. Violeta Kauneliene, Head of Innovation Centre at Kaunas University of Technology (Kaunas, Lithuania)  
  - Estonia: Prof. Aleksei Kelli, Associate Professor of Intellectual Property Law, University of Tartu (Tartu, Estonia)  
  Discussion after each presentation |
| 14.00 – 15.00 | **Lunch break**                                                        |
| 15.00 – 16.15 | **Panel discussion**<br>  
  *Professionalising knowledge transfer and IP management in Baltic states: policy implications*<br>  
  - A university’s view: Marko Piirsoo, Head, Research Administration Office, Tallinn University of Technology (Tallinn, Estonia)  
  - A public research organisation’s view: Prof. Ivars Kalvins, Director, Institute of Organic Synthesis (Riga, Latvia)  
  - A business view: Gailė Sakalaitė, Lawyer, Science and Technology Park "Sunrise Valley" (Vilnius, Lithuania)  
  - A governmental view: Dr Indrek Reimand, Head of Research Policy Department, Ministry of Education and Research (Tartu, Estonia) |
| 16.15 – 16.30 | **Conclusions**<br>  
  - Patrick McCutcheon, European Commission, DG Research and Innovation |

Moderation: Dr. Stefan Lilischkis, empirica, Bonn