



# ELEVATE YOUR IP TO A NEW LEVEL

## Guideline on how to successfully manage the intellectual property of universities

Deliverable D3.2:

Progress report on preparing Strategic plan for Technology transfer from EPPL/FMPI CU

### 1. Foreword

Knowledge and technology transfer, often referred as the “third mission” of universities, beside teaching and research, plays a key role in our modern, knowledge-based economies. Universities all around the globe substantially contribute to innovation with their new findings from academic research. To properly identify, manage and successfully exploit this intellectual property universities need to set up a functioning Technology Transfer Office (TTO). This short guideline tries to give a rough overview of the dos and don'ts in setting up said TTO. Alongside, experiences from the University of Innsbruck will be detailed out in a second chapter. The last chapter gives a comprehensive overview of document templates regarding technology transfer (e.g. invention disclosure forms, licensing agreements) and some references to relevant literature.

### 2. Key aspects for a successful technology transfer

#### a. Know your stuff! What are intellectual property rights?

In order to effectively manage intellectual property you will need to have staff that is not only familiar with the actual piece of intellectual property (IP) within a specific discipline, but also be aware of the possibilities to protect said IP. These Intellectual Property Rights (IPR) span a broad range of rights such as copyright, patent protection, trademark to design, just to mention the most important. To have any



chance of succeeding in a technology transfer process the university will need to employ experts who have knowledge and experience in the technology transfer, preferably with a background in both, industry and academia.

Aside the basic knowledge of IPR your TTO staff will need to have a basic understanding of economics, such as different exploitation strategies (e.g. licencing versus spin-off) and when to employ them.

### **b. Know the players! Links to the industry**

Most of the IP generated at universities is an early development stage and far from a finished product or service. To transform these technologies into market ready products and services, thus innovation, is nearly always the job of the industry. Academic research and industrial development therefore go hand in hand, but in reality are often strongly apart. To bridge the “death valley” of innovation, meaning the gap between these two, you will need to facilitate academic industrial collaborations. This can be done bottom up, driven by ambitious researcher or top down, via research collaboration, arranged on the highest administrative level.

In any case, research collaborations with important industrial partner and other relevant stakeholder, most notably from the university’s surrounding, are key to success. Not only do these collaborations generate third party funds for academic research but they also help to establish new or strengthen existing links between the university and the industry. Nearly every notably innovation, i.e. the transfer of new technology to the market, kicks off with an apparently simple research project.

### **c. Invest the money! Support from university management is key**

As tempting as the idea may be to create a revenue stream by exploiting university IP, this concept is not without its flaws. First off, to achieve breakeven is far from easy, not to say generating profit. To set up a TTO you’ll need to be in for the long haul, often investing money for years without generating return on investment. It’s important not to throw in the towel too soon, as setting up a coherent framework, foster links between the university and important stakeholder as well as successfully exploit university IP takes time. Therefore it’s crucial to have a long term plan as well as the absolute commitment of the universities top management.



#### **d. Make the rules! Set up a coherent policy and legal framework**

Rules and regulations are an essential part of technology transfer. These must be unambiguously set out and include things like:

- Clear and documented workflow (invention disclosure to invention claiming)
- Ownership of IP generated by university staff and students
- Transfer rights between the university and its researchers
- Revenue sharing arrangements
- Arrangements for exploitation (i.e. licensing agreements, spin-off contracts)
- Handle potential conflict of interest

If you are not able to cover all this in one single entity you will need to include all relevant university entities (e.g. legal department, public relation department) in one workflow, in order to work hand in hand.

#### **e. Be modest! Service is your success**

Even though the legal framework clearly states that invention (normally) are to be seized by the university, try to establish a self-concept of your TTO as a service provider. Academics should not have the impression to have to deal with yet another bureaucratic office. Instead, try to provide the best service that you can to your researcher. Be supportive and people will gladly come to you and disclose their ideas and inventions. In this sense a TTO can act as a facilitator to successful technology transfer instead of been perceived as a troublesome burden.

#### **f. Be inspiring! Incentives and awareness measures**

If the TTO is successful in providing a good service this will help to create a positive spin on technology transfer. But more has to be done in this regard. Not only the researcher, but all people involved in the process have to be convinced that doing technology transfer is a good and important thing. Therefore constantly undertaking awareness raising measures is of utmost importance to facilitate the technology process. Therefore outline its advantages such as:

- Providing new ideas for the industry
- Create a positive impact for economy and society as a whole



- Providing opportunities for the university income
- Providing opportunities for researcher to gain additional income and a reference for their CV

Other incentives may be to allocate a share of the returns generated by technology transfer to the researcher and/or department. Often IP is generated by students (on their own or in collaboration with researcher). Find models to incorporate them in the technology process, always taking into account the legal preconditions.

#### **g. Be thorough! Manage and monitor your IP**

A successful technology process comes a long way from the idea to the commercialisation. But to bring an idea to the market it needs time and a careful management of the IP. This includes:

- Establish a quality control process to monitor the success of your IP
- Develop transparent indicators for IP evaluation that can be easily communicated to all necessary stakeholders (e.g. researcher, university management or industry representatives)
- Know when to keep or to abandon a certain IP
- Estimate the worth of the IP in order to evaluate upcoming new investments
- Build up an IP portfolio. A broad set of technologies in one specific field is often more valuable than several, independent inventions and patents.

#### **h. Be patient! Success in technology transfer takes time**

The outputs of university research normally are in an early stage and far from market. To develop, protect and commercialise university IP therefore takes considerable amount of time and effort. You need to keep committed to the process and also persuade others that the process takes quite some time. If you manage to commercialise IP don't be shy to communicate this success. This will tell people within and outside of the university that technology transfer may take some time but in the end, it's worth it.



### **3. The Case of the University of Innsbruck**

#### **a. Peculiarities of the University of Innsbruck**

Today the University comprises of 16 faculties and 79 institutes, has 28,560 students enrolled and a total staff number of 4,631 (persons) in 2016. In the same year the budget is 274.1 million Euro, including 50.9 million Euro third party funding.

One unique selling proposition (USP) of the university is its integrated technology transfer process. Two entities, the project.service.office (eleven persons) as well as the transfer office science – economy – society (twelve persons), support the technology transfer from start to end. Already at the beginning, TTO staff is involved in the process, e.g. for a collaborative research project. Hand in hand with the legal advisors they outline the rules for the development and protection of IP in the consortium agreement. Consequently, the protection and exploitation is done in the same office, functioning as a one-stop shop for researcher. The latter only have one contact person which helps keeping the workflow transparent. Internally, this contributing to a much higher cumulative expertise, since responsibilities are not distributed amongst separate entities of the whole university.

The university even has its proper spin-off management. The so called Universität Innsbruck Unternehmensbeteiligungsgesellschaft mbH supports researcher that plan to create a start up with their IP. They provide legal as well as business advice and even take shares of the newly founded enterprise.

#### **b. The Stage gate process**

The University of Innsbruck receives many project cases and has limited resources. Only ca. 10% of disclosed IP can be commercialized, therefore each project is evaluated regularly. In order to be successful, the IP needs to pass three gates (see below).

## IP Management: The Stage Gate Process II

### Gate 1= Facts+ Potential+ Exploitation Strategy

(inventors questionnaire, evaluation of the invention disclosure)

### Gate 2 = Facts + Potential+ Exploitation initiated

(First search report available, first exploitation activities etc.)

### Gate 3 = Facts+ Exploitation running or deal closed

(Option, sale, license, F&E cooperation with industry oder third party funded projects )

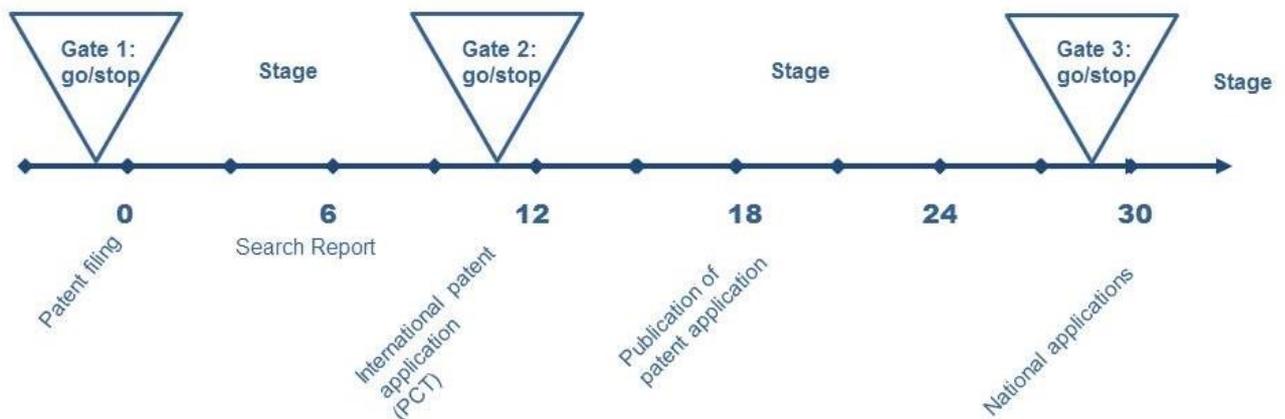


Fig. 1: Stage gate process

Meanwhile the University of Innsbruck has accumulated a considerable IP portfolio, and the management of that portfolio allows also supporting projects with higher risk.

### c. Lessons learnt

- IPR guidelines are important and helpful as they ensure transparency during all your activities
- Close collaboration with project and legal advisers essential
- Nevertheless, a certain flexibility for each case is necessary for a successful tech transfer
- Commitment of the researcher in the tech transfer process is a key factor for success
- Aside from money, good dissemination can be an incentive for researcher to engage in tech transfer
- Early stage awareness building (students) is crucial



- Don't expect blockbusters around every corner; don't underestimate a portfolio of good, small technologies

## 4. Appendix

### a. Literature

- Donald S. Siegel et al (2007) - Technology transfer offices and commercialisation
- European Commission (2008) - IP recommendation
- European Commission (2009) - Metrics for Knowledge Transfer in Europe
- Gail Edmondson (2015) - Creating a virtuous circle in technology transfer
- John Archer et al - TTO Strategic Guide Overview
- Manfred Schmiemann et al (2003) - New Approaches to Technology Transfer
- Robert Pitkethly (2007) - IP Strategy - in IPHandbook
- Terry A. Young (2007) - Establishing TTO - in IPHandbook
- Alison F. Campbell (2007) - Establishing TTOs-Europe - in IPHandbook
- TIPP - Technology Transfer Offices
- William W. Fisher III et al (2013) - Strategic Management of IP

### b. Template documents

- Invention disclosure Form UIBK
- Software disclosure form UIBK
- IP-Strategie UIBK
- IPR Richtlinie
  
- IPAG Research Assignment
- IPAG Research Cooperation
- IPAG Confidentiality Agreement
- IPAG Material Transfer Agreement
- IPAG Patent Licensing Agreement
- IPAG Sale and Purchase Agreement regarding IP

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