
Effective technology/knowledge transfer management

Ing. Mgr. Martin Podařil

Vedoucí práce: Doc. Ing. Michal Kavan, CSc.

Abstrakt

Práce se věnuje efektivnímu transferu znalostí/technologií na institucích terciárního vzdělávání a jeho řízení. Nejdříve definuje, co transfer znalostí/technologií je, následně nastiňuje některé přístupy k efektivnímu transferu znalostí/technologií a na závěr představuje základní kroky k dosažení efektivního transferu znalostí/technologií.

Klíčová slova

Management, knowledge, technology, transfer, higher education, spin-off, research, individual property.

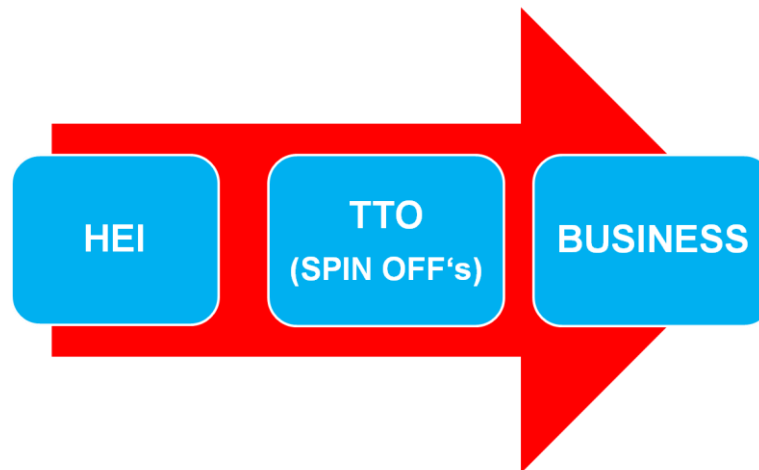
1. Knowledge/technology transfer definition

According to Wikipedia, effectiveness relates to getting the right things done. My project is trying to find a solution, how to manage technology or knowledge transfer on the field of higher education institutions, the best way.

I should begin with the explanation, what technology or knowledge transfer means. Technology transfer is the process of sharing of skills, knowledge, technologies, methods of manufacturing, samples of manufacturing and facilities among governments and other institutions to ensure that scientific and technological developments are accessible to a wider range of users who can then further develop and exploit the technology into new products, processes, applications, materials or services. It is closely related to (and may arguably be considered a subset of knowledge transfer [3]. Argote & Ingram [1] define knowledge transfer as "the process through which one unit (e.g., group, department, or division) is affected by the experience of another" (p. 151). They further point out the transfer of organizational knowledge (i.e., routine or best practices) can be observed through changes in the knowledge or performance of recipient units. The transfer of organizational knowledge, such as best practices, can be quite difficult to achieve. More simplified definition and more useful for our goal is that knowledge transfer means, when you find out something (for example brand new ceramic material in your academic dissertation), this something (new ceramic material) can be used by other entity (company, that is selling side cutting edge machines) implementing your idea (knowledge/technology) into their retail business.

2. Technology transfer Offices

Some higher education institutions (HEI) have established their Technology Transfer Offices (TTO) or spin-off companies (A spin-off company is a new business entity formed to commercialize one or more related inventions generated from the research work from a parent institution). These TTO's or Spin-off's are helping to transfer the ideas/knowledge/technology from universities to business.



Picture 1: Technology transfer process

3. Spin-off

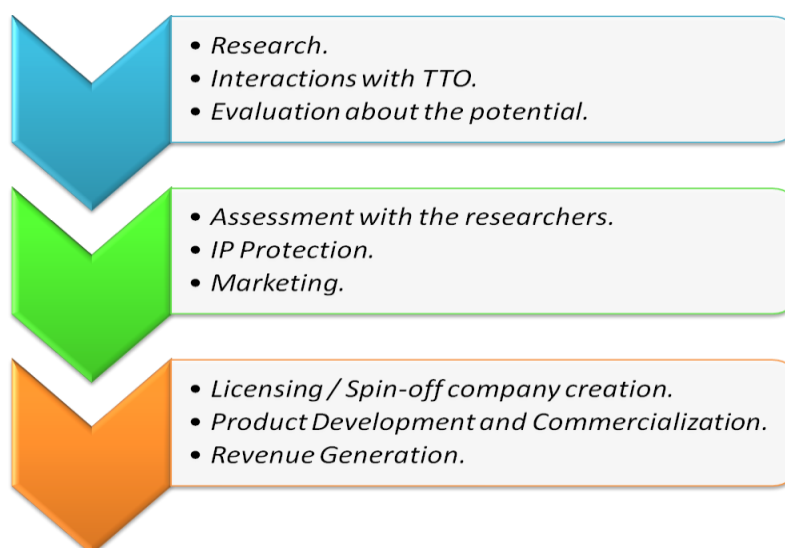
There are so many aspects of company formation which require up to date legal, taxation, accountancy and financial expertise from fully qualified and regulated professionals.

Creating a spin-off company around a technology has the potential to generate significant wealth as a large share of any profits made are retained by the HEI's, with the inventors being shareholders in that institution. Creating a spin-off may also be an appropriate commercialization route when there is a need to develop a technology further to extract its commercial value or when the team surrounding the technology is strongly entrepreneurial.

Not all research is suited to becoming the platform for a new business. Creating a company is not a new research project, it is a business project that, from a technology or an invention, a return on investment can be generated for the investors.

4. Technology transfer process

The process of technology transfer is summarized in the following steps (note that these steps may vary in sequence and often occur simultaneously):



Picture 2: Technology transfer steps

5. Conclusion

In order to generate revenues and therefore effectively transfer knowledge or technology, all the steps beginning with research need to be done. You need to communicate with TTO's, evaluate the potential, protect individual property (IP), promote and advertise your idea and then with the help from Spin-off company develop the final product.

References:

- [1] ARGOTE, L. – INGRAM, P.: *Knowledge transfer: A Basis for Competitive Advantage in Firms* Organizational Behavior and Human Decision Processes, 2000, 150-169.
- [2] COSTA, D.: *Knowledge is power*. Computer Shopper, 1999.
- [3] *Wikipedia : the free encyclopedia* [online]. St. Petersburg (Florida) : Wikimedia Foundation, 2001- [cit. 2011-01-14]. Dostupný z WWW: <http://en.wikipedia.org/wiki/Main_Page>.