IP-evaluation at the University of Debrecen

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University of Debrecen: the Research University

- One of Hungary's five research universities;
- More than half of the academic staff have PhD;
- 30 members of the Hungarian Academy of Sciences (HAS);
- 12 research groups sponsored by the HAS;
- 25 doctoral schools (highest number in Hungary);
- 854 PhD students;
- ~ 150-200 new PhD degrees per annum (156 in 2007);
- R&D income 4-4.5 billion HUF/year (16-18 million €).

The Transformation of University-industry-government Relations

Educational university
Research university
Entrepreneurial university

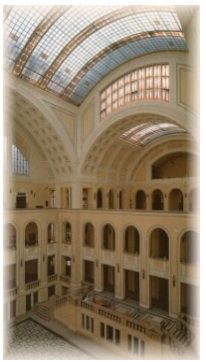
Characteristics of the University of Debrecen:
- strong R&D potential
- poor entrepreneurial functions

Goal: to enhance the economic role of the University by strengthening the transfer of the knowledge into business and industry

UD TTO plays a significant role in turning the University into an entrepreneurial university

Medical and Health Science Center

Centre for Agricultural Sciences and Engineering

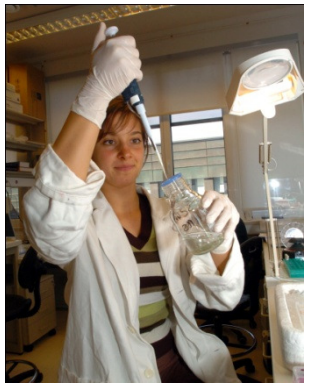


Centre of Arts, Humanities and Sciences

Mission statement

The mission of the Technology Transfer Office of University of Debrecen is to facilitate the transfer of research results achieved at the University into business and industry, as well as disseminate innovation culture among the citizens of the University.

Introduction of the TTO



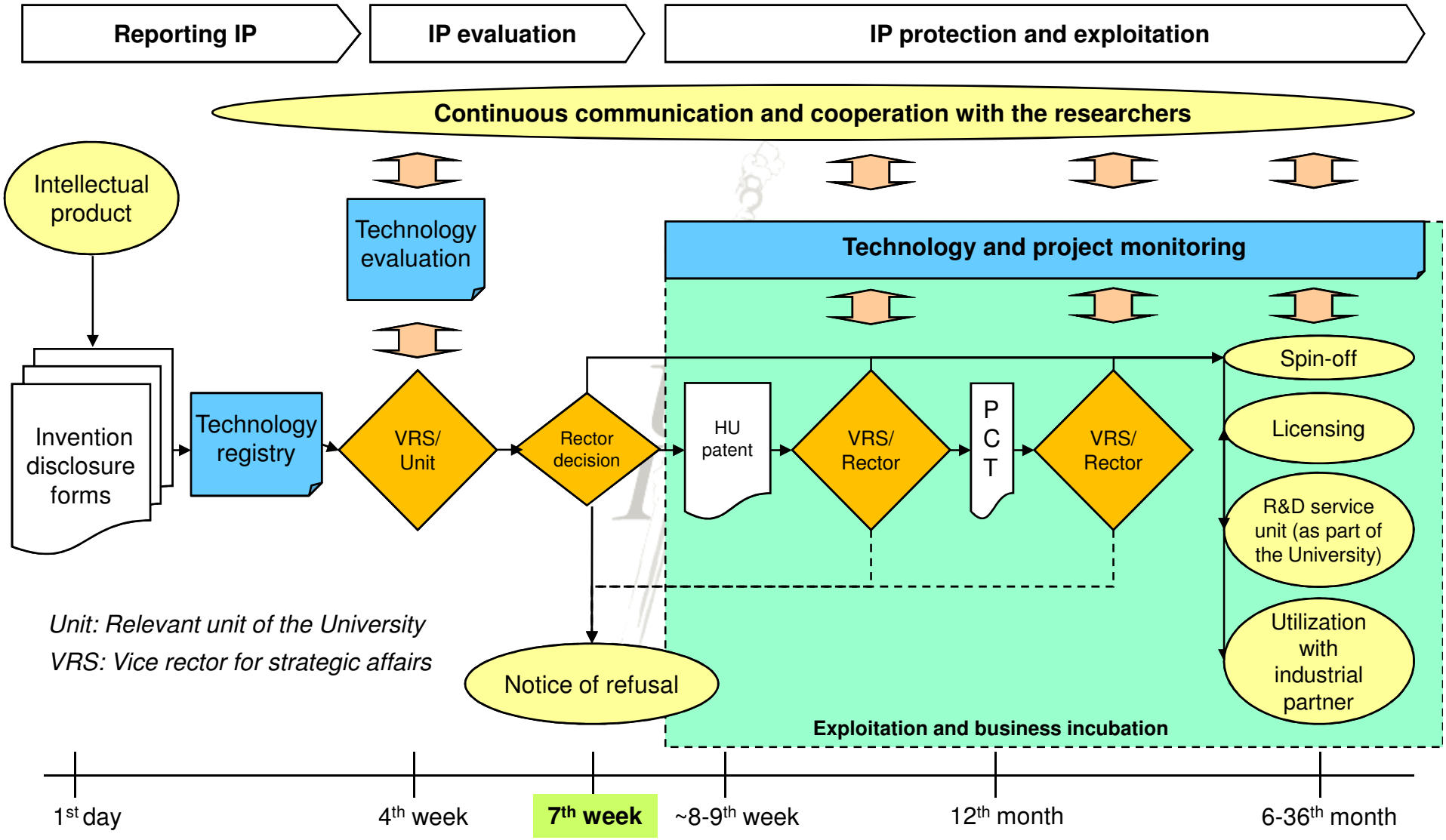
· Established in 2005

· The Office is directly supervised by the rector of the University

Our services:

- Supporting innovative ideas and projects
- Developing and maintaining partnership between researchers and enterprises
- Managing the knowledge map of the University of Debrecen
- Providing online technology search service
- Full management of intellectual property
- Transfer of research results into business and industry
- Consultancy on funding R&D projects
- Supporting spin-off foundations
- Investment promotion and business development services
- Initiation of innovation trainings and dissemination of innovation culture

Intellectual property management and technology evaluation system at the University of Debrecen



Development of a technology evaluation system - 2007

Goal: to develop a technology evaluation system which meets the following criteria:

- Gives valid information for business decisions in innovation management
- Sufficiently specific to support a forthcoming decision
- Straight, clear and reasonable system for decision makers
- Supports the procedure controlled by the Intellectual property management regulations of the University
- Standardized unbiased (industry and discipline neutral)
- Easy-to-manage
- Qualitative or semi-quantitative screening/valuation method
- Motivates inventors
- Assists discovering the methods of possible exploitation
- Suitable for screening the research results of the knowledge map

Structure of the development phase

Phase 1
Development of the scheme of the technology evaluation system

a. Expectations and opportunities

- Deep-interviews
- Analysis of University regulations and TTO internal documents

b. Analyses of good practices

c. Designing the evaluation system

Phase 2
Testing through pilot projects and optimization

a. Testing

- Evaluation of 24 innovative technologies by applying the preliminary version of the system
- Selection of technologies for further development

b. Optimization

External expert in development: Dr. Arnold Fehér, MD, MBA
Convincive Consulting

Phase 1 - Development

Survey of the status quo

- Attitude of the University
- Role of the TTO
- Competencies

Collection of internal proposals

- Make it a quick tool!
- Inventors should not be overloaded.
- Any rejection should be justified.
- Independent external experts should be involved, where reasonable.

Good practices of foreign TTOs

-The methodology of technology evaluation at university TTO's is an internal issue
- Patent costs are kept low, the goal is quick utilization
- Method of utilization

Evaluation / valuation?

Values:

++	Very good
+	Good
+/-	Average
-	Poor
--	Very poor
K.O.	Rejection

Phase 2 – Testing and optimization

We tested the system through 24 technology evaluations.

Experiences:

- Inventors, researchers like the evaluation form – not too difficult to complete.
- Usually gives enough information to make decisions.
- Impartial system – inventors accept negative decisions based on the result of the evaluation.

Optimization: creating the final version of the evaluation form based on test experiences and feedbacks to be used in the IP management system of the University of Debrecen.

The depth of the evaluation method depends on the actual phase of the technology-management process and the financial implications of the decision

Pre-evaluation

(Costs are under EUR 3500)

The technology evaluation form is completed based on

- **interviews** with the inventors
- **novelty search** done by patent attorney and
- the common **knowledge** available at the TTO.

The form is not necessarily fully completed, the focus is on its substantial parts.

Evaluation and monitoring

(Costs are usually above EUR 3500)

- **A complete evaluation is required using:**
  - **Secondary analyses** (technology, market, competitors, etc.)
  - **Primary analyses** (technology, market, competitors, etc.)
  - **Independent, professional external expert** (if needed)
  - **Internal TTO-discussions**

Technology evaluation at the University of Debrecen

Technology evaluation	Business evaluation	Return on investments
1. Strategic goals 2. Technology/product /service 3. IP rights	4. Market, utilization 5. Inventor, team 6. External partners	• Expected income • Expenditures • Likelihood of success

Total value

Next steps

Experience

- We have evaluated 36 technologies – continuous monitoring.
- The system supports the University and the TTO in making business decisions (e.g. file/continue a patent application).
- It supports the TTO in the follow-up of projects.
- Gives orientation on how to exploit the technology.
- Motivates inventors by driving them into business-approach thinking.

Deficiencies:

- The scoring method is not well-defined.
- Not suitable for giving a monetary value of the IP.
- Not suitable for external use:
  - not a business plan
  - not a licensing strategy
  - not authentic and accurate enough to support an investor's decision or a spin-off establishment.

Case study – Technology evaluation

Biological protection of fruit and vegetables

Invention disclosed to TTO: February, 2008

Date of first valuation: March, 2008

The technology is evaluated based on

- invention disclosure
- interviews with inventors
- novelty report done by patent attorney
- knowledge available at the TTO.

Goal: support the University in making decision whether to invest in patenting and exploitation.

Result of the evaluation:

Return on investments	+	Next steps:
- Income potential	+	- Deposit the microorganism
- Expenditures	+	- File a Hungarian patent application
- Likelihood of success	+/-	- Look for a potential licensee/investor

Date of second valuation: March, 2009

The technology is evaluated based on

- invention disclosure
- interviews with inventors
- knowledge available at the TTO
- feasibility study and strategy for continuation of research and development activities concerning biological control agent …

Goal: support the University in making decision whether to file a PCT patent application

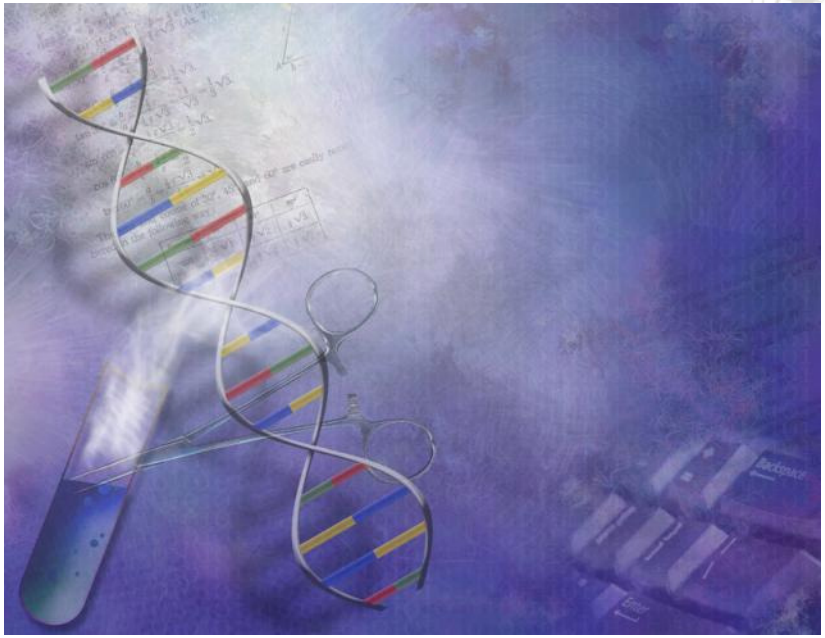
Goal 2: support TTO in exploiting the technology.

Result of the evaluation:

Return on investments	**-**	**Next steps:** **- Stop the patenting procedure (no more investments)**
- Income potential	**-**	
- Expenditures	**-**	
- Likelihood of success	**-**	

Thank you for your attention!

University of Debrecen
Knowledge and Technology Transfer Office



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