

# Approach to IP and Technology Management (Part 2): Invention Disclosure Process, Patent Protection and Cost Management

WIPO Regional Seminar on Technology Transfer

by Universities and PRIs

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Dr. Alexandros Papaderos 10/12/2009

## Outline

- ▣ Invention Disclosure Process at TUM
- ▣ The decision on patenting
- ▣ Patent costs - Case study: the Xan beer

## The four phases of the treatment of an invention at TUM

- ▣ Phase 1: Consulting (events, consulting of individuals and research groups, patent search assistance, pre-audit of the invention report)
- ▣ Phase 2: Report (invention disclosure, formal examination)
- ▣ Phase 3: Evaluation (examination, patent search, expertise, patent strategy, commission of the patent attorneys)
- ▣ Phase 4: Commercial exploitation (search for licensees, presentation of the invention, preliminary agreements, license agreements, monitoring, revenue management)

## The TUM Invention Disclosure Form

**Invention Disclosure Form** Technische Universität München **TUM**

Please mail separately, in a sealed envelope!

<b>To</b>	<b>From</b>	
Teamwache Universität München TUM ForTü Forschungsfindung & Technologietransfer Patent- und Lizenzbüro 80200 München	<b>Phone</b>	<b>E-Mail</b>
	<b>Receipt notes</b>	

To be completed by Technische Universität München

<b>Received on:</b>	<b>Two-months period for disclosure of invention expires on:</b>
<b>Written confirmation of receipt sent on:</b>	<b>Four months period for claiming the invention expires on:</b>
<b>Notification that document is incomplete sent on:</b>	<b>File number:</b>

**1. Title of the invention:**

\_\_\_\_\_

**2. Enclosures**

The following documents are enclosed with the Invention Disclosure Form:

\_\_\_\_\_ pages, describing the invention including \_\_\_\_\_ sketches / drawings

Erklärung des Lehrstuhlinhabers bzw. Vorgesetzten

Inventor's own work / publications in the field related to the invention

Documents reflecting the prior art (publications, patent specifications, etc.)

Copy / copies of third-party funded agreements / cooperative agreements

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## To patent or not to patent?

- ▣ reasons for patenting a university invention: **commercialization** (95 %), **strategic considerations** (5 %)
- ▣ when you want to patent an invention, **it is all about its economic potential**: will the user of the patent have a benefit from using it?
- ▣ it doesn't count if your invention is **excellent science** or how much time and money you have already invested
- ▣ to figure out the economic value is the most difficult part in the evaluation of inventions
- ▣ the most important reason for a TMO to reject an invention is that the **expected revenues will not cover the patent protection costs**
- ▣ university inventions: prognosis is very difficult because they are often immature

## Patent strategy

- ▣ patent strategy is individual for every invention
- ▣ in most cases: national patent application - one year to think about an international application
- ▣ search report from the (national) patent office: first indications for the granting of the patent
- ▣ in the PCT-application: new research results or developments
- ▣ new results can be very helpful during the commercialization process
- ▣ after publication of the patent application (18 months after filing) competitors will learn about your invention and its technical aspects

## Going abroad

- ▣ which markets should be considered?
- ▣ are there regional market considerations?
- ▣ in which markets is licensing realistic?
- ▣ is your primary cost calculation still correct? If not, you will might have to reduce the number of your international patent applications
- ▣ if you have already a licensee, maybe it is useful to discuss with him the patenting strategy

## Patent costs and essential markets

- ▣ An innovation should cover the invested costs:
  - ▣ research and development costs
  - ▣ patent costs
  - ▣ marketing costs
- ▣ on the other hand innovations need a certain market penetration to cover at least the patent costs

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## The Xan beer

beer containing **xanthohumol**: Xan Wheat Beer and Xan Wellness Drink

Xanthohumol from hop can dispose free radicals due to its antioxidant nature and can thus contribute to keep the somatic cells healthy

*Special brewing method (DE 102 56 199.4-26, granted)*

concentration of the natural active ingredient xanthohumol is up to 15 times higher in the XAN Wheat Beer and up to 50 times higher in the alcohol-free XAN Wellness drink in comparison to usual wheat beers



## The Xan beer



**Prof. Dr.-Ing. Werner Back**

**Chair of  
Brewery Technology I  
TUM-Weihenstephan**



**Dipl.-Ing. Sascha Wunderlich**

**Dr.-Ing. Joachim Zürcher  
(former doctoral student)**

## The Xan beer

- **first contact** with Dr. Zürcher in **October 2002**, consultations about the further steps due to an impending disclosure of the invention: participation in a conference in May 2003
- Report of Invention shortly after the consultation, evaluation of the invention by the Patent Bureau of the Bayern Patent Project
- recommendation by the Patent Bureau (**November 2002**) to claim the invention and **file a patent application** at the German Patent and Trade Mark Office (GPTMO)
- **first contacts with breweries (November 2002)**, signing of Non-Disclosure Agreements) and commission of the patent attorneys to start with the preparations of the patent application

## The Xan beer

- **Assignment** of the invention part of Mr. Wunderlich to the TUM (**November 2002**): Mr. Wunderlich was a **student!**
- **filing of the patent application** at the GPTMO (**December 2002**) and request of examination
- from the middle of November: negotiations with 4 breweries
- **September 2003**: release of the invention to the inventors to file **international patent applications**
- **first examination communication (October 2003)** from the GPTMO: notice of opposition, 3 relevant documents, “the claimed solution to the objective technical problem is obvious for the skilled person in view of the state of the art in general“
- **reply** to the first examination communication (**February 2004**)

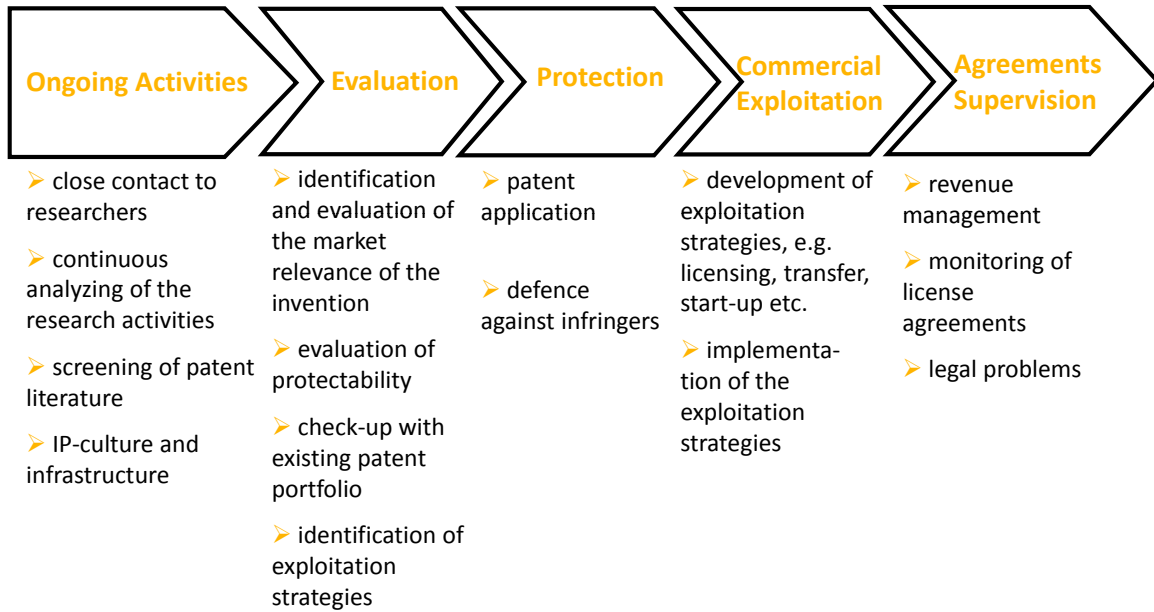
## The Xan beer

- **April 2004**: signing of a **non-exclusive Licence Agreement** with the State Brewery Weihenstephan, **first revenues in July 2004**
- already in **November 2004** request of the State Brewery Weihenstephan for an **exclusive licence** due to the positive development of the sales figures
- **November 2005**: signing of an exclusive Licence Agreement with the State Brewery Weihenstephan
- **second examination communication (April 2006)** from the GPTMO: arguments of the TUM couldn't convince the examiner
- **reply** to the second examination communication (**August 2006**)

## The Xan-beer

- **July 2006**: inventors inform the TUM that a patent of another brewery was granted in May 2006 which is based on the content of the TUM-invention
- **August 2006**: TUM files an opposition against the patent
- **April 2007**: reply of the GPTMO to TUM in regards of the opposition and to the second examination communication, revenues are still coming in
- **June 2007**: hearing before the GPTMO
- **August 2007**: after the hearing the claims of the opposing patent are limited, but the patent is still valid
- **August 2007**: TUM again filed an opposition, next hearing in about 2 years before the Federal Patent Court
- **September 2008**: TUM patent granted (!)





Thank you for listening !

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