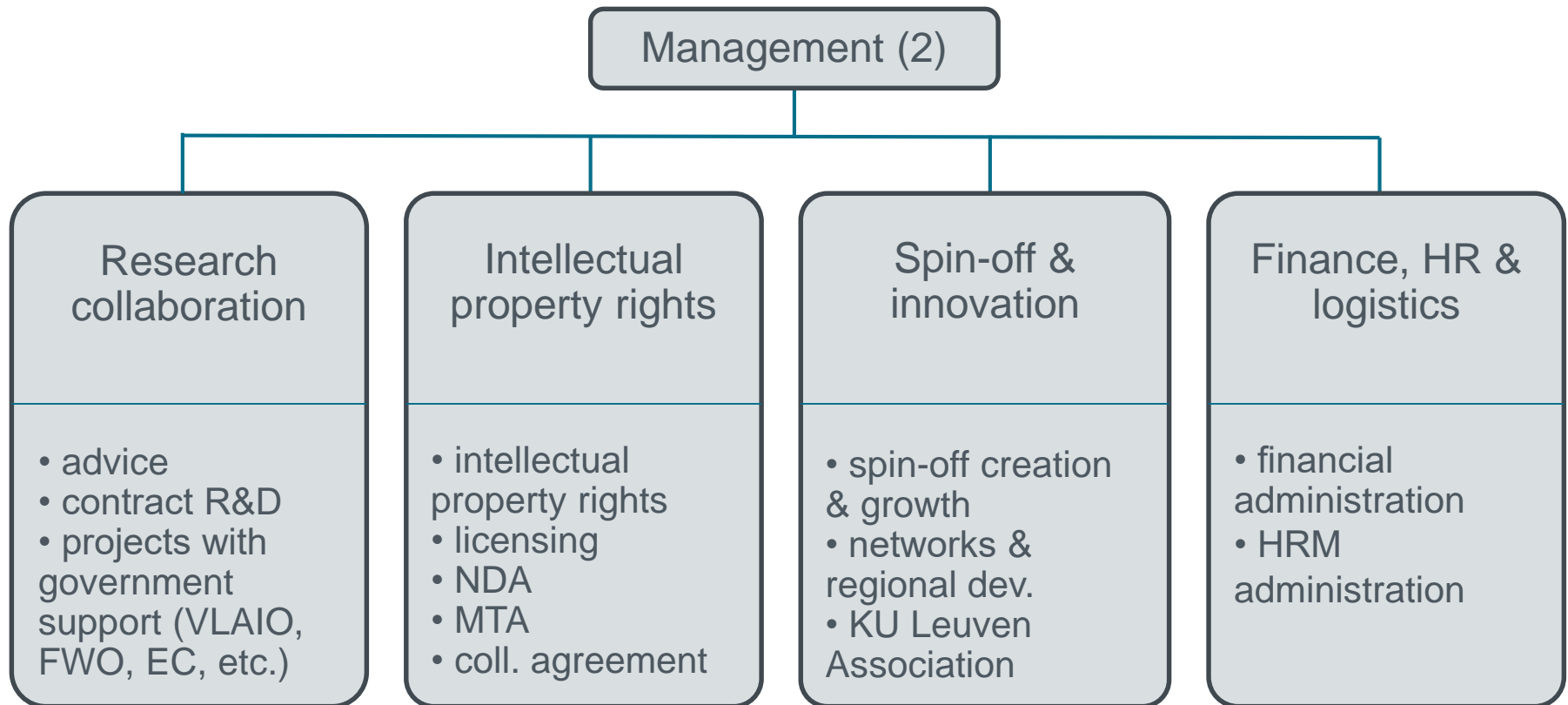


# PATENTS FROM PERSPECTIVE OF APPLICANT

Isabelle François, PhD  
IP Officer  
KU Leuven Research & Development (LRD)



## KU Leuven Research & Development: TTO KU Leuven



- Close interaction and collaboration between different units
- Regional and international networking

## Overview

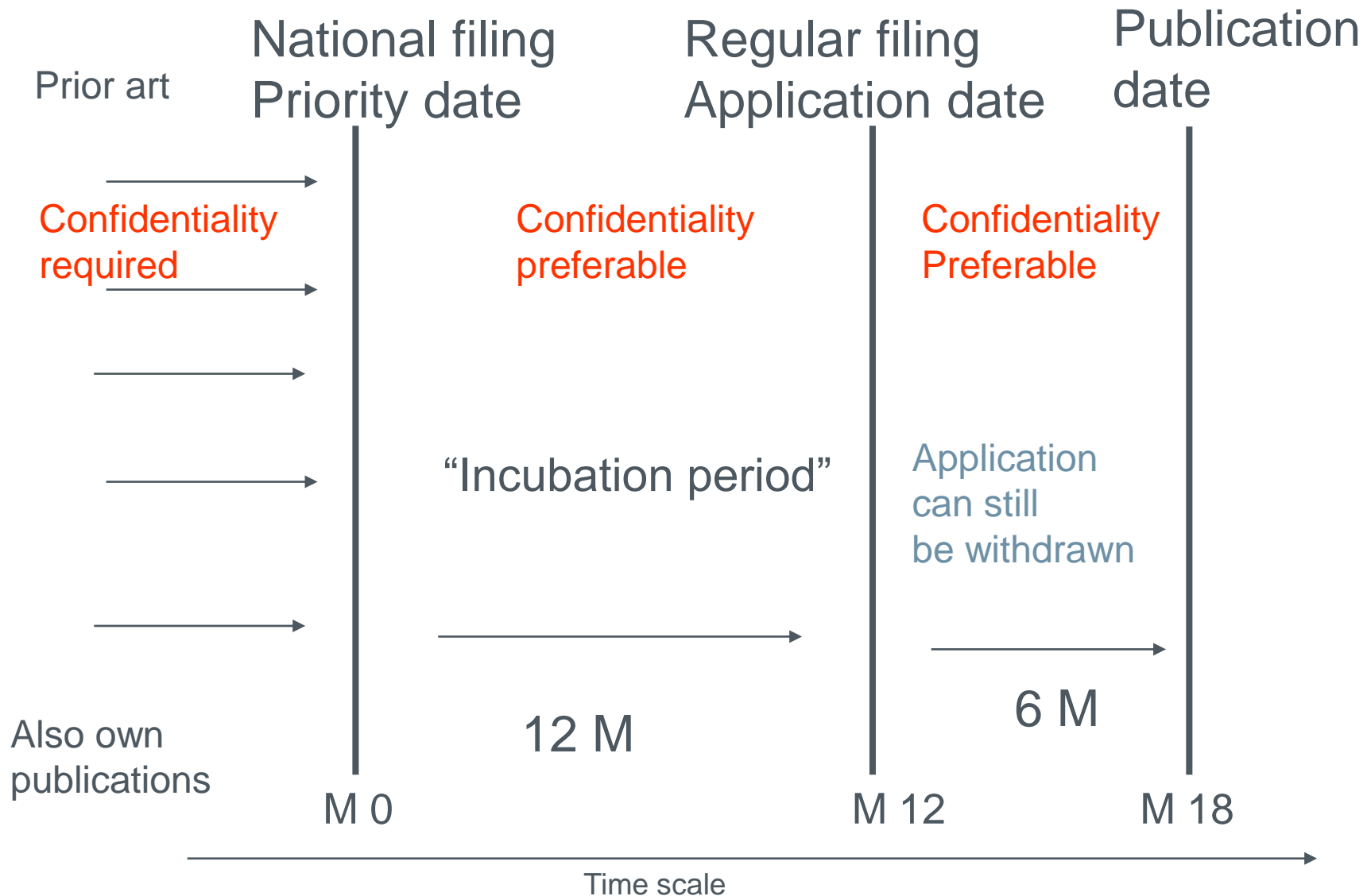
- How to apply for a patent and how much does it cost?
- Advantages and disadvantages of patenting
- The alternatives to patenting
- Use patent information to gain valuable knowledge on:
  - Freedom-to-operate
  - Free R&D information (content & strategy)
- Searching patent databases



## How to apply for a patent?

- Inventor/Applicant files a written full disclosure of invention at the Patent Office (national, EPO, WIPO/PCT)
- The Patent Office
  - Conducts searches to ascertain the requirements
  - Publishes the application after 18 months
  - Conducts in-depth examination
  - Raises objections to the application, prosecution, interactions
  - Grants the patent

## What is the procedure for applying?



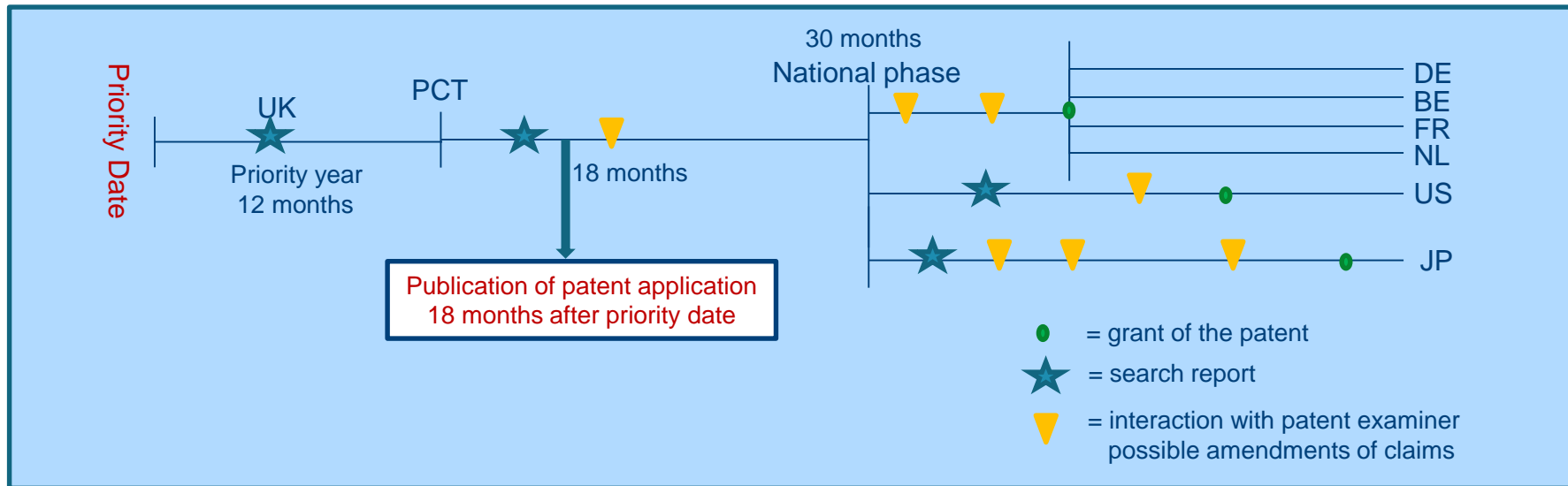
# Confidentiality

## ACADEMIC: Publication ASAP vs COMMERCIAL: Secret ALAP

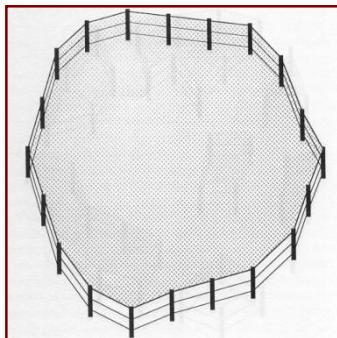
- **Before filing**
  - A Must! EU
  - some countries grace period
  - NDA
  - Publication, abstract, thesis etc: Date = important
  - Thesis = always public, unless embargoed but watch out for on-line abstracts/full texts @ Univ website)
  - Internet is public disclosure, retract after “publication” is not OK
  - Poster presentation, even in the hall of your lab = public
  - Oral communication, eg. answering questions on (poster) presentation at conference

# How to apply for a patent? Right of priority

## Paris Convention 1883 – Priority right

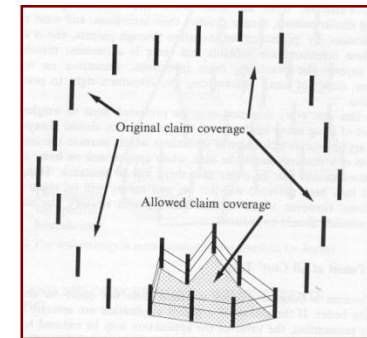


Original claim



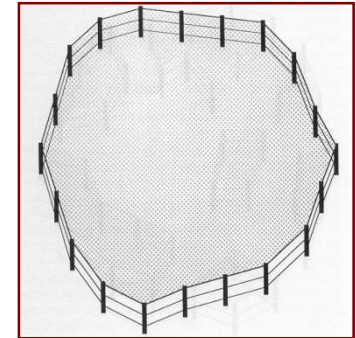
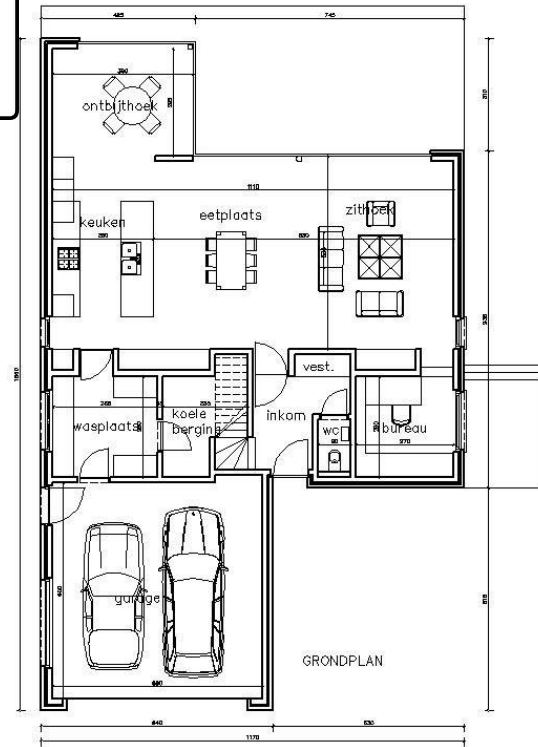
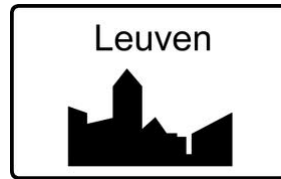
EP1776022A1

Claim as granted



EP1776022B1

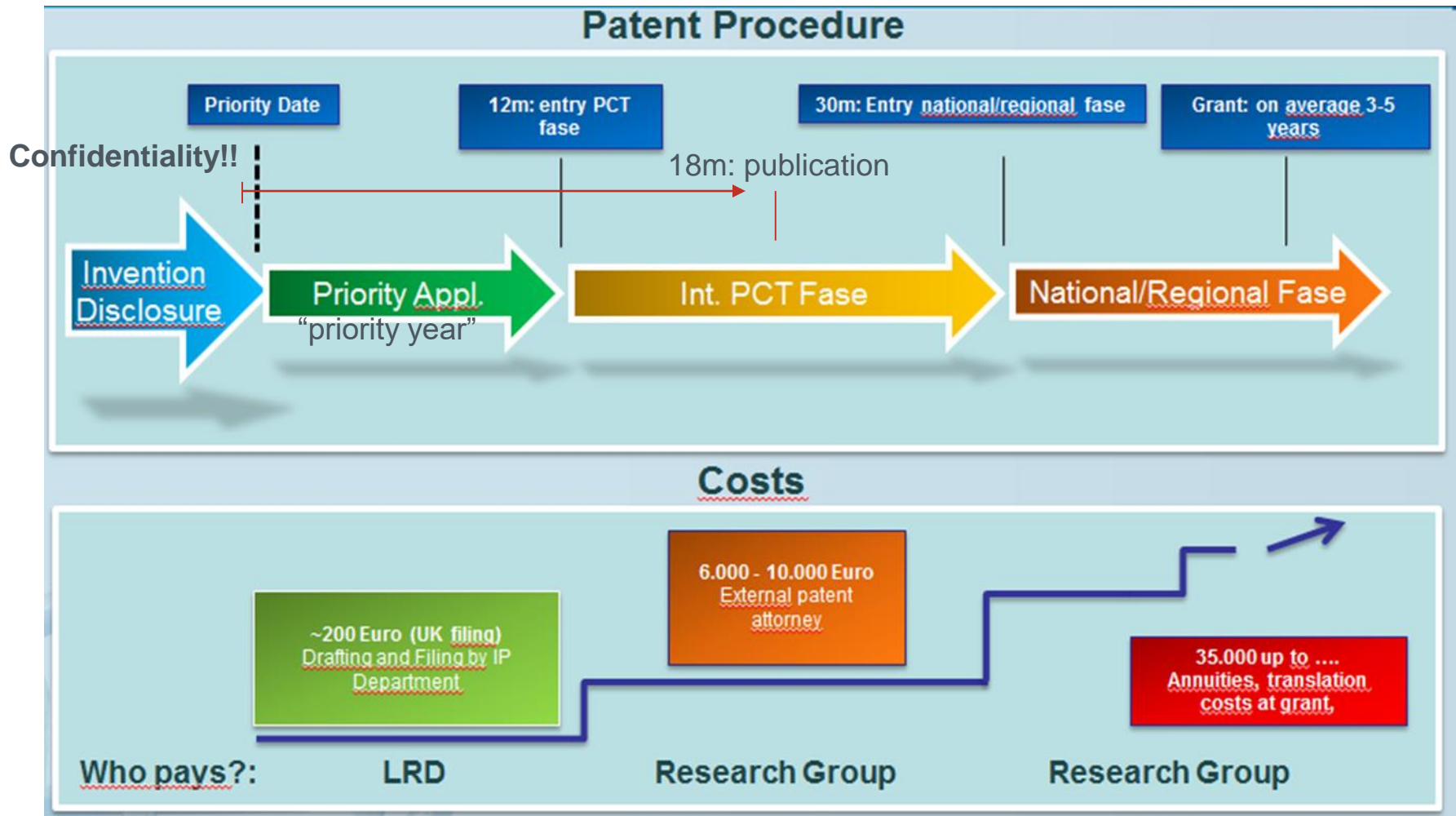
# Claims & Property



**You can live in your property, rent it out and/or prevent others in trespassing your property. The property can be sold/rented out through a legal document describing the conditions and the actual property.**



# How to apply for a patent? Costs



=> Search for valorisation opportunities within the priority/PCT phase

# Advantages and disadvantages of patenting

## Advantages

- Exclusivity enables investment and higher returns on investment
- Strong, enforceable legal right
- Makes invention tradable (licensing)
- Strong claims – strong protection

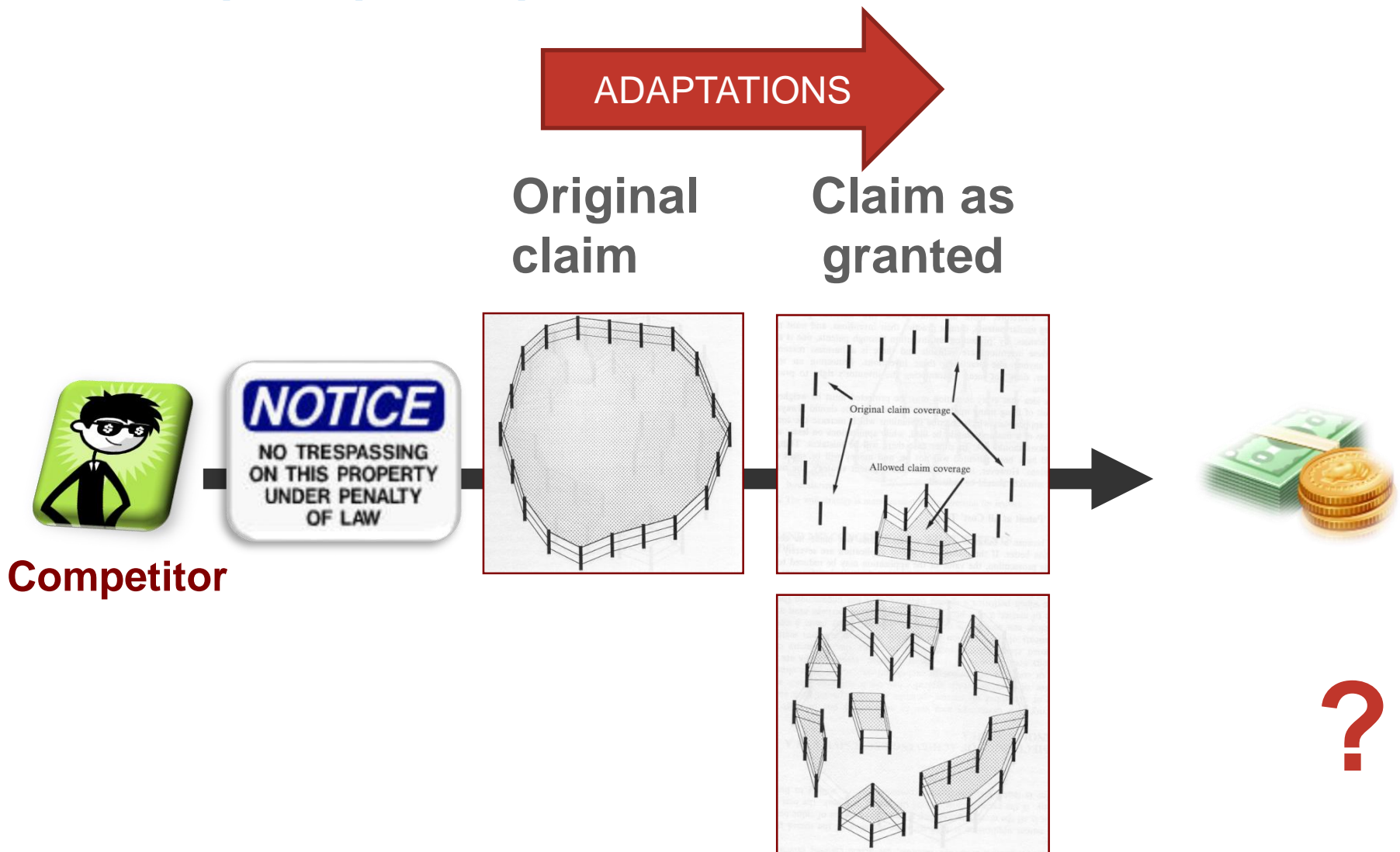
## Disadvantages

- Reveals invention to competitors (after 18 months)
- Is expensive: market vs. patent & investment costs
- Patent enforceable only after grant (this can take 4-5 + years)
- Claims: infringement detectable – easy to work around claims?

## If patentable, is it worthwhile?

- Claim too narrow (work around solutions possible)

# Scope of patent protection



## If patentable, is it worthwhile?

- Claim too narrow (work around solutions possible)
- Other prior art in the field, which solves the problem in a more efficient way.
- “Trespassing” possible to detect or not?
- Does anyone want the solution (cf. high costs of the patent)?
- Is the invention safer if it’s kept secret?
- 20 year time line

# Expiration of a patent and its impact



Expiration of last patent in 1989, competitors start copying

**TYCO**



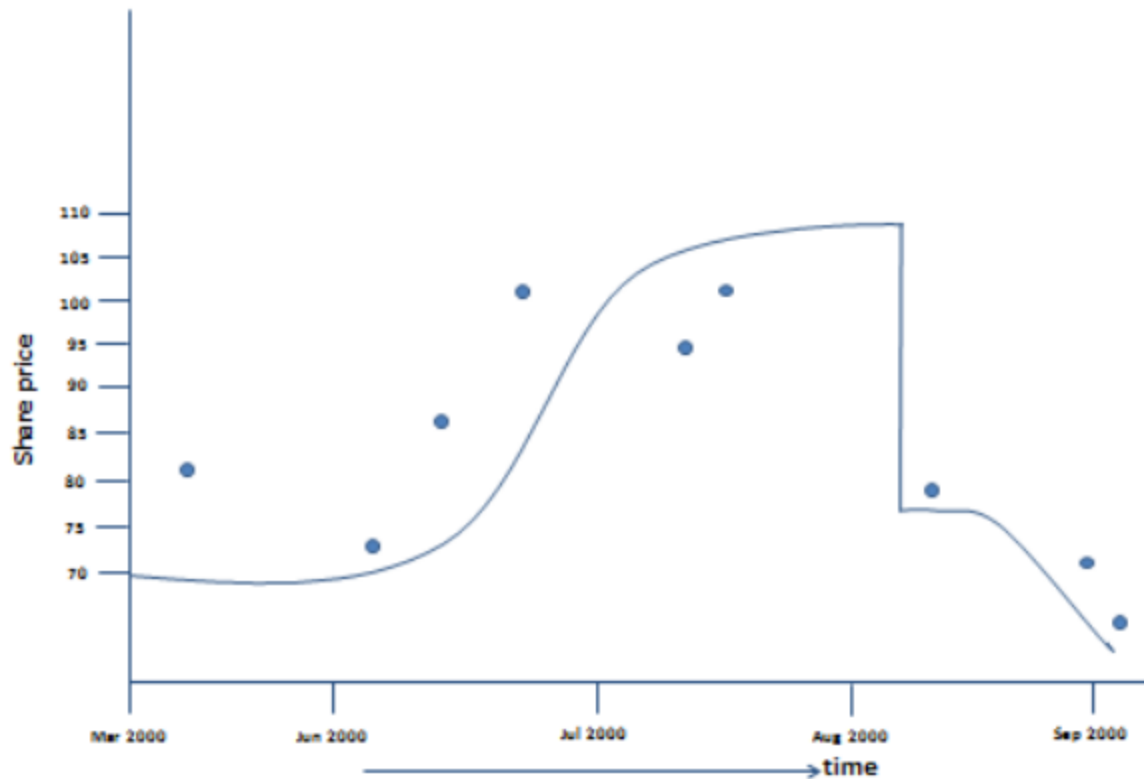
**MEGA**<sup>TM</sup>



# Expiration of a patent and its impact

*Lilly*

Expiration of Prozac in August 2001, Eli Lilly lost 30+% of its shares in one day



# Expiration of a patent: an IP strategy



Patent was going to expire

IP Strategy



Before expiration of the patent, GSK brought their own generic brand on the market



## Conclusion: how are patents used?

- Protecting products and processes (50%)
  - Increasing turnover and profits
  - Attracting investors
- Licensing (10%)
- Cross-licensing (3%)
- Blocking competitors (19%)
- Building reputation
- ...
- Not (yet) used (17%)

# Alternatives to patenting ?

## Information disclosure (publishing)

- |   |   |
|---|---|
| <ul style="list-style-type: none"><li>• Cheap</li><li>• Prevents others from patenting the same invention</li></ul> | <ul style="list-style-type: none"><li>• Does not offer exclusivity</li><li>• Reveals the invention to competitors</li></ul> |
|---|---|

## Secrecy (creating a trade secret)

- |  |  |
|--|--|
| <ul style="list-style-type: none"><li>• Cheap (but there is the cost of maintaining secrecy)</li><li>• Does not reveal the invention</li></ul> | <ul style="list-style-type: none"><li>• No protection against reverse-engineering/duplication of invention</li><li>• "Secrets" often leak quite fast</li></ul> |
|--|--|

## Do nothing

- |  |   |
|--|---|
| <ul style="list-style-type: none"><li>• No effort required</li></ul> | <ul style="list-style-type: none"><li>• Does not offer exclusivity</li><li>• Competitors will often learn details</li></ul> |
|--|---|

## One product – different IPR



→ Closing system: Patent

→ Recipe: Confidential Information

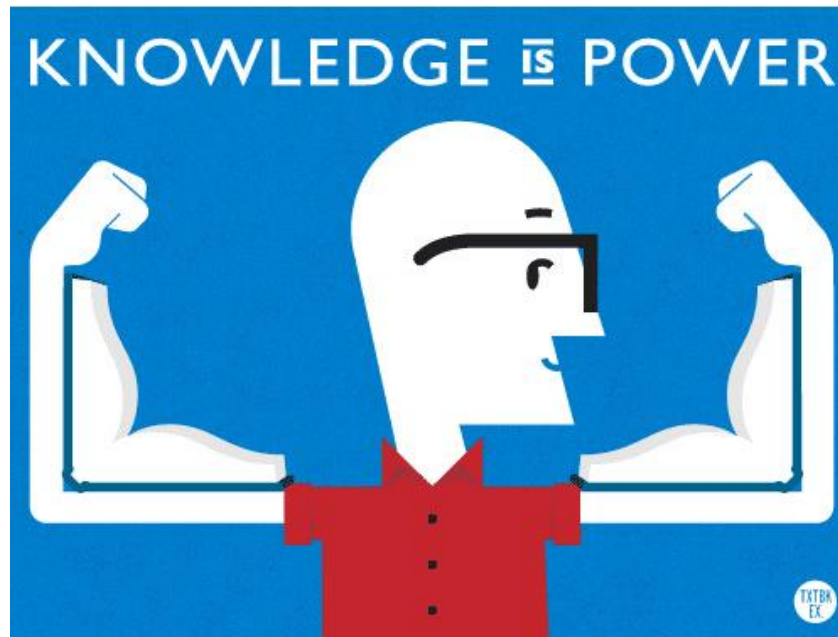
→ Name: Trademark

→ Appearance of the bottle: Right in Designs

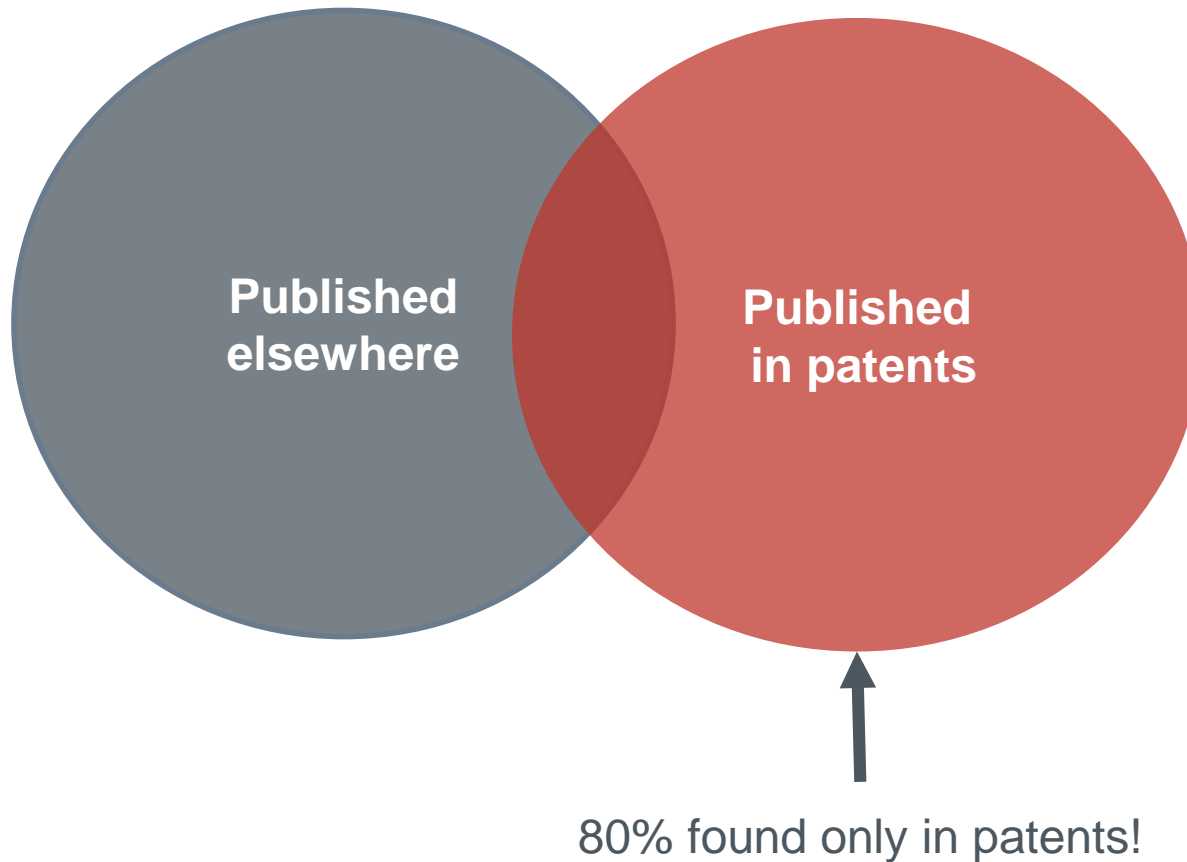
→ Picture: Copyright

## Searching patents

- 25% of all R&D efforts ... are wasted each year on inventions that have already been invented, so don't start your R&D until you have done a search!



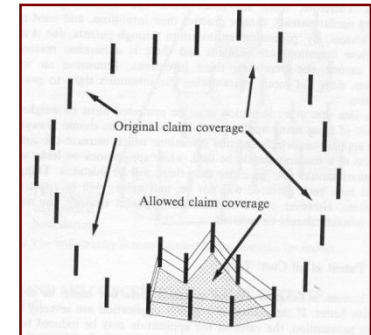
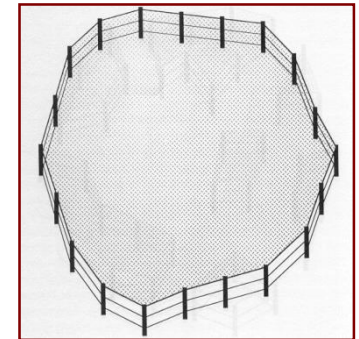
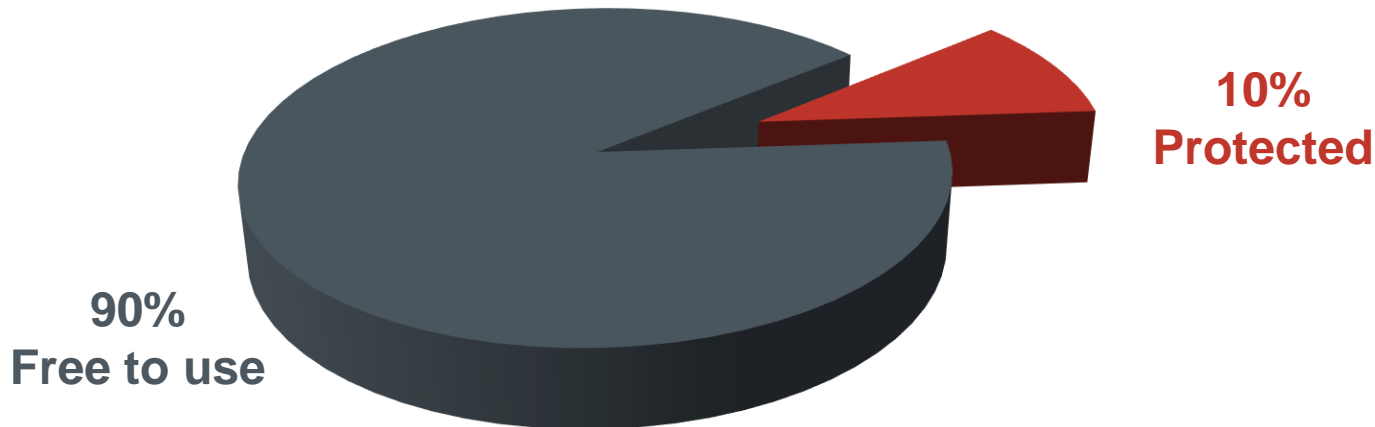
## A lot of information is only available in patents



Where do secretive competitors publish their R&D?

→ screen the patent databases to get to know the novel products/technology of your competitors

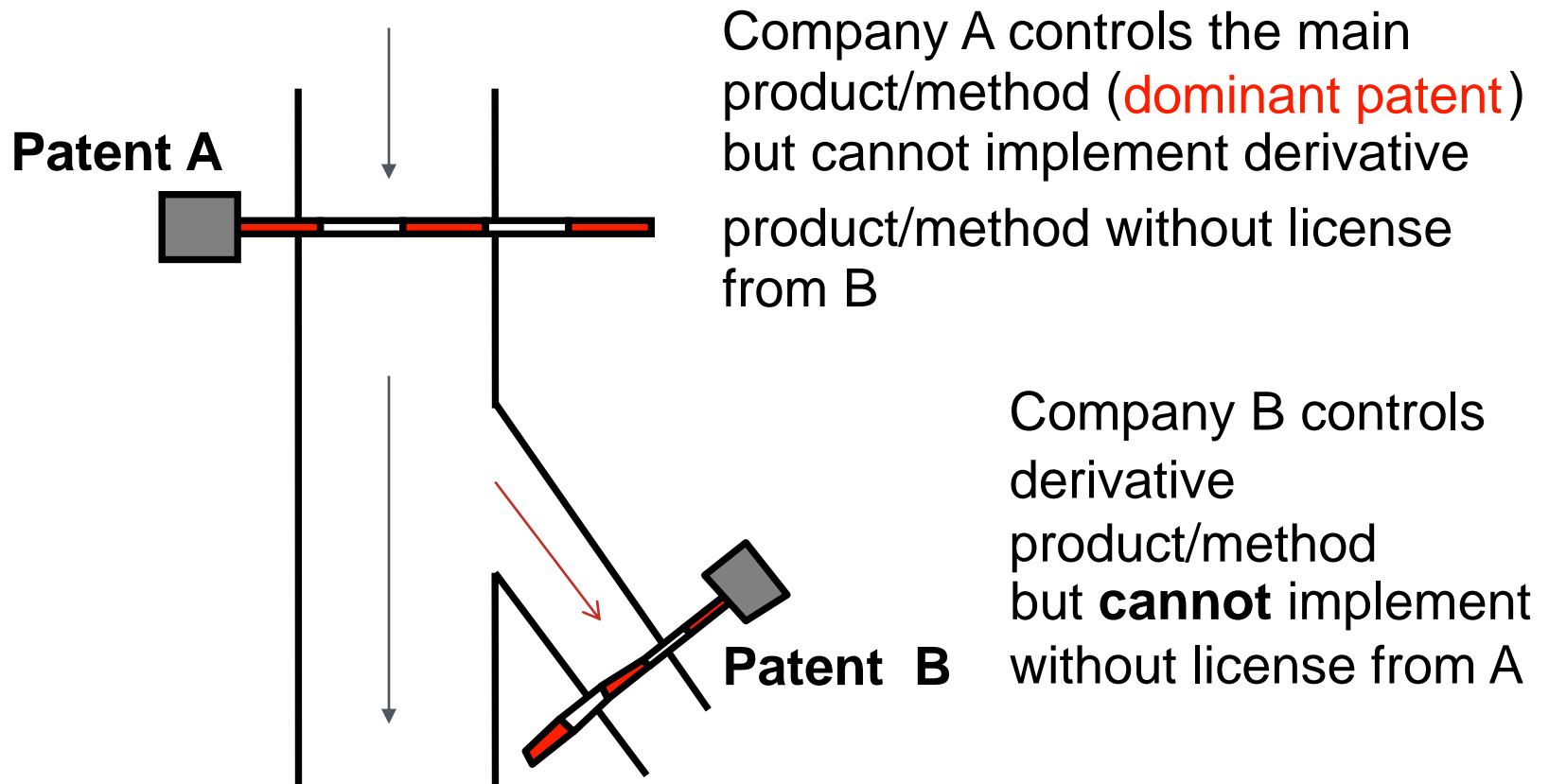
## Solutions found in patent documents



### **Prior art search:** why is it important?

- You can find many great solutions for free!
- No need to reinvent the wheel
- Validity
- Establishing state of the art
- Avoiding infringement
- Landscaping – competitors
- Freedom to operate (claim search)

## Use Patent searches to gain information on Freedom-To-Operate (FTO)



# How to find relevant documents: free patent databases

<http://worldwide.espacenet.com>



<http://www.wipo.int/patentscope/search/en/search.jsf>

<http://portal.uspto.gov/pair/PublicPair>



<http://www.google.com/patents>



# Thank you!

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