

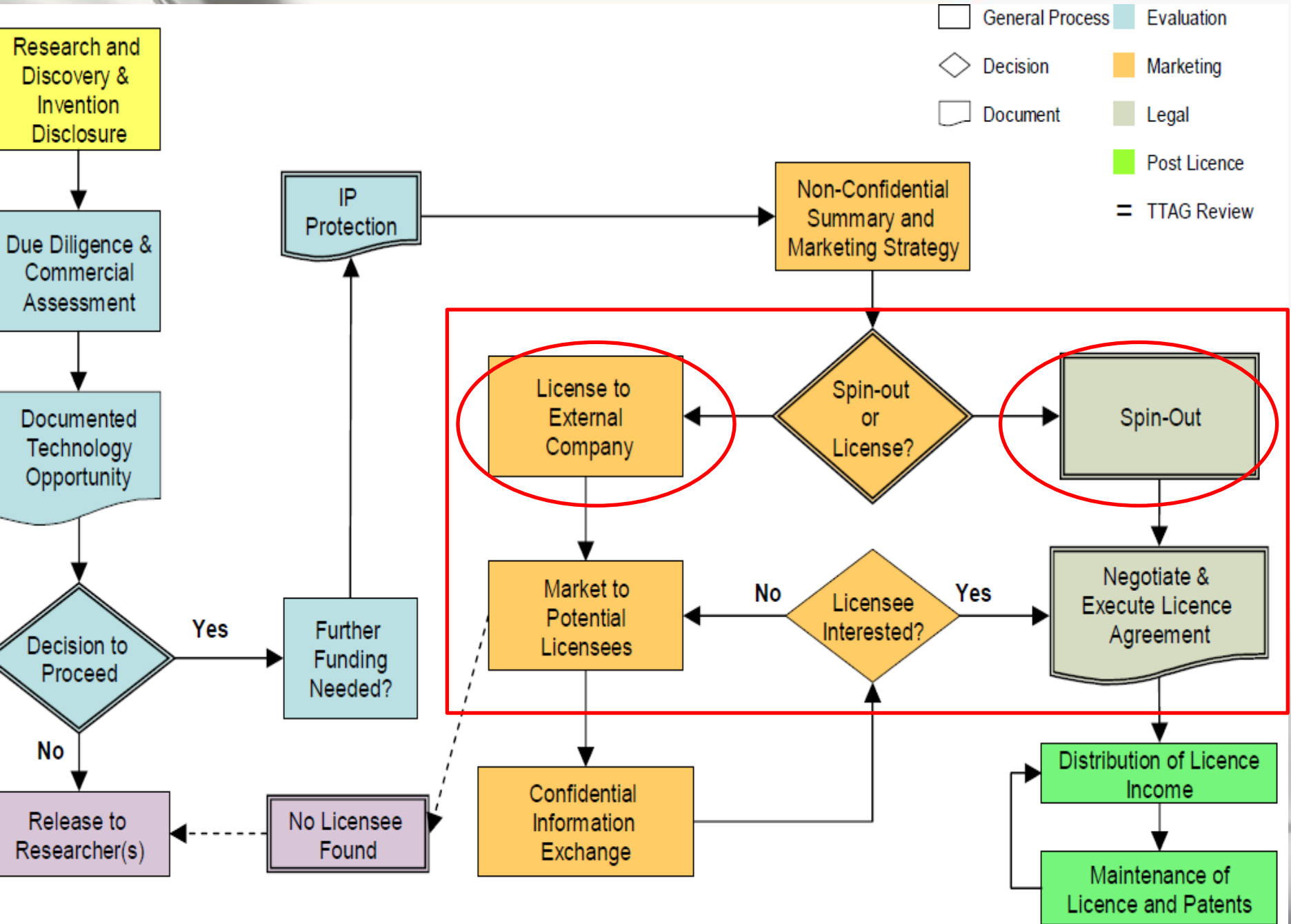


Routes for commercialisation– licensing and spin-out



TECHNOLOGY TRANSFER AND
COMMERCIALISATION
Hall "Ruen", 27th of September 2011

European Day of the Entrepreneur (EDE)
Sofia, 26-27 September, 2011



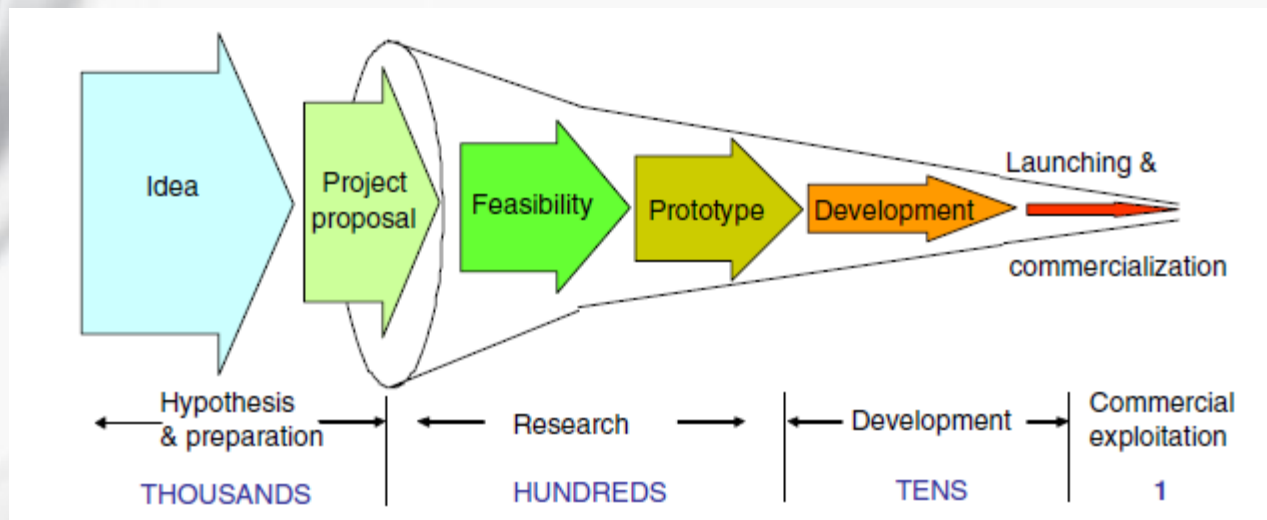


Critical factors for TT success

- The technology, itself
- The technology market potential
- Willingness of the parties involved
- Business culture (in RTOs)
- Innovativeness (in enterprises)
- Administration (laws) and society (attitude)
- TT infrastructure and mechanisms available
- Sufficient business support
- Access to finance



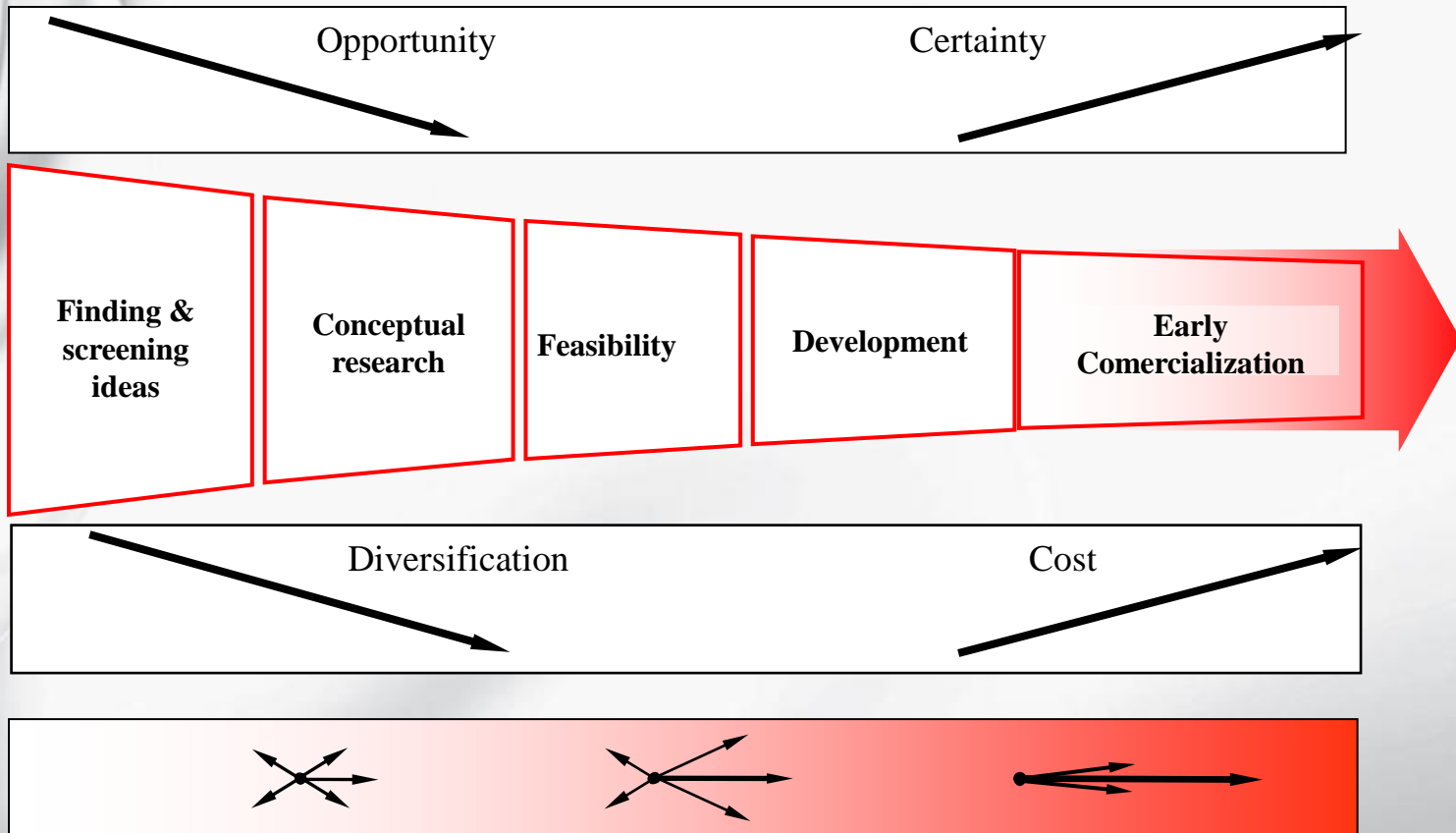
From research ideas to commercial results



L. M. Camarinha-Matos, H. Afsarmanesh / Technovation 27 (2007) 65-77

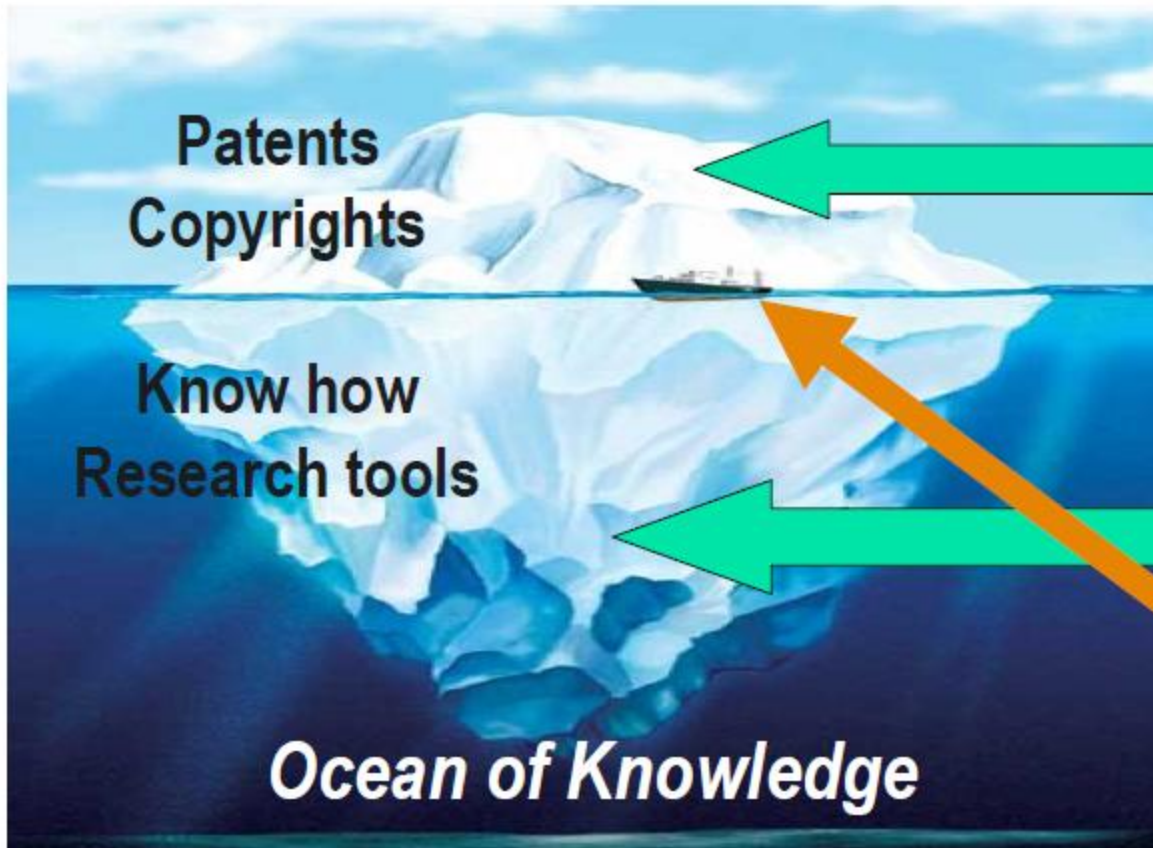


From science to product





Hidden potential...



*Intellectual
Property available
for licensing*

*Collaborative
Research
Opportunities*

Spin-outs



Formal definitions

Definition of “spinout company”: *“the term used to describe a limited company set up to develop and exploit intellectual property (IP) commercially.”*

- **Spinout:** in UK/ USA a term usually reserved for companies in which the university has an equity stake.
- **Start-up:** the university does not have equity, but licenses IP to the company in exchange for monetary royalties only.
- **Spinoff (but not out..):** company still embedded in the Research Organisation. Has not fully transferred knowledge and technology.

However in practice all terms are used interchangeably



Licensing vs. Spin-out

Licensing may be most appropriate if:

- ✓ it is a niche technology
- ✓ there is a single patent
- ✓ Invention is an improvement on existing technology
- ✓ the technology fits an existing company's IP/product portfolio
- ✓ Dominating IP makes the partner the only choice
- ✓ Large amounts of early R&D required

Appropriate partner:

- A company well-positioned to develop the technology, with established expertise in area
- Technology capitalizes on company Know-how, manufacturing, distribution, R&D infrastructure.

Result = increased chance of product reaching the market



Licensing

License Agreement:

- 20 + page document
- dense legal prose
- first draft created by the Licensor
- Allows all IP Policy to be stated up-front

Multiple drafts before agreement is reached.

(Even starting a spinout may require the IPR to be licensed to the new company)



Spin-out vs. Licensing

Spin-outs originating from research institutions are usually set up when:

1. Strength of then IP sufficient to warrant extra effort, risk, infrastructure and delay in receiving revenue.

– the work has clear possibilities to generate many products and applications and so potentially could be extremely valuable.

– “**platform** opportunities” or “**disruptive** technologies”

2. Further investment is required in the technology and associated infrastructure in order to reach the market and this can only be secured by having a legal entity.

3. Licensing is not possible! (there is no existing business to approach about a significant breakthrough in a field of work.)



The technology base of a spin-off

The technology base is broad

- Platform technology for multiple product opportunities & applications in time depth
- A must for investors
- Much better chance of getting a product onto the market

The technology is “disruptive”

- Defines a new market
- High scientific value and market potential
- Higher risk, higher reward

Lots of “know-how” is involved

- Inventors have specialized knowledge on how/ why the idea works
- Difficult to transfer to large firm
- Ongoing relationship with inventor is desired



Spin-out vs. Licensing

Other considerations prior to starting a spinout:

- entry to the market by a new company is relatively easy with few significant barriers
- the marketplace is fragmented with a lot of small companies
- it is likely that investment funds can be raised
- there is a financial exit route for investors, including the University
- Fostering business environment

- there is a group of founders motivated to start a company

Long-term commitment and personal involvement!



Why is Licensing easier to spinout?

Spinout is more complicated than licensing

- Spinouts require more Infrastructure than a license deal (people, money, buildings, manufacturing facilities etc...) **they are thus more risky**
- It will usually take longer than licensing to realise a revenue stream back to the inventors and University.
- Hard work - But, the long term gains may be greater (and they can be fun and fulfilling!)



Licensing route example

Novel class of drugs discovered by a research group of the University of North Carolina

Invention is an improvement on current product

- More specific versions of existing drugs

Company was well-positioned

- Development partner performed chemistry that enhanced the drugs
- Company had established means for assaying them and Know-how related to approaches that have failed



A startup example: Vascular Pharmaceuticals

Founded in 2005 - Division of Endocrinology and Metabolism at the University of North Carolina at Chapel Hill. A focus on treatments for the vascular complications of diabetes.

✓ **Broad technology base**

lead therapy, two novel screens for finding more - and a broad base of IP

✓ **Disruptive technology**

initial focus is a “discarded” pharma target

✓ **Valuable Know-how**

trade secret toxicity assays to differentiate Vascular’s approach from competition