

# Research and Capturing the value of IP



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# Overview

- Commercialisation 101
- Keys to attracting investment
- How to increase the value of IP
- Tips and tricks

# Deakin University

- 1974 - established
- Regional university
- Strong links with local community, government
- Forged close links with local industry from the outset eg Ford, GM, Holden, CSIRO, SMEs
- Research is “closer to the market”

# Penicillin – a lesson



Howard Florey  
Ernst Chaim

<http://depts.washington.edu/chemeng/images/cent/penicillin.jpg>



Pfizer deep – deep tank fermentation method

Fleming (1928) → Florey and Chaim (1938) → Pfizer (1941 - 44)

<http://mustard.objectis.net/pictures/penicillin.jpg>

# Commercialisation 101

- Exploitation of intellectual assets for financial or economic reward
- Development of an idea/invention to the stage where it provides a financial return
- Transfer of knowledge and innovation into high-value products, services and jobs.

# When research results are interesting or exciting

- Who is likely to benefit?
- Society? - My organisation? - me?
- Are the results of commercial value to anyone?

# Should I protect what I have?

- If potentially valuable, need to protect your IP against exploitation / use by others
- Patents are the principal form of protection for innovation/developments in technology, science, and medicine

# Capture the value of your IP

Essential to:

- Consider commercialisation issues early
- **NOT** make public in any way before considering protection issues



# Market issues

- What customer problem does it solve?
- Who are the competitors?
- How big is the market?
- What is the **Value Proposition**?
  - what benefits are we selling
  - at what price
  - with which customer inputs
  - over what timeframe

# Determining commercial value

- Is there a market for it? Where? When?
- What else is there in the market like it?
- How much would it cost to make?
- How much would someone be willing to pay for it?
- Are there any barriers? eg patents

# What next?

- Who would be the first customers?  
(ie. who would buy tomorrow?)
- What would be the expected short term cash flows?
- What is the likely market penetration?
- What are the channels to market?
- What is the IP strategy?
- What further R&D is required?

# Where are your customers?



NASA time lapse photograph of Earth at night

# Commercialisation Strategies

- Manufacture, market and distribute yourself (fully integrated model)
- Start-up/spin-out company
- Joint Venture (JV)/cooperative arrangement
- Licence out – can lead to an upfront payment and an ongoing income stream
- Licence in/cross-licence
- Assign (ie sell patent rights)

*Historically, commercially successful outcomes from scratch are:*

*10% inspiration*

*90% perspiration*

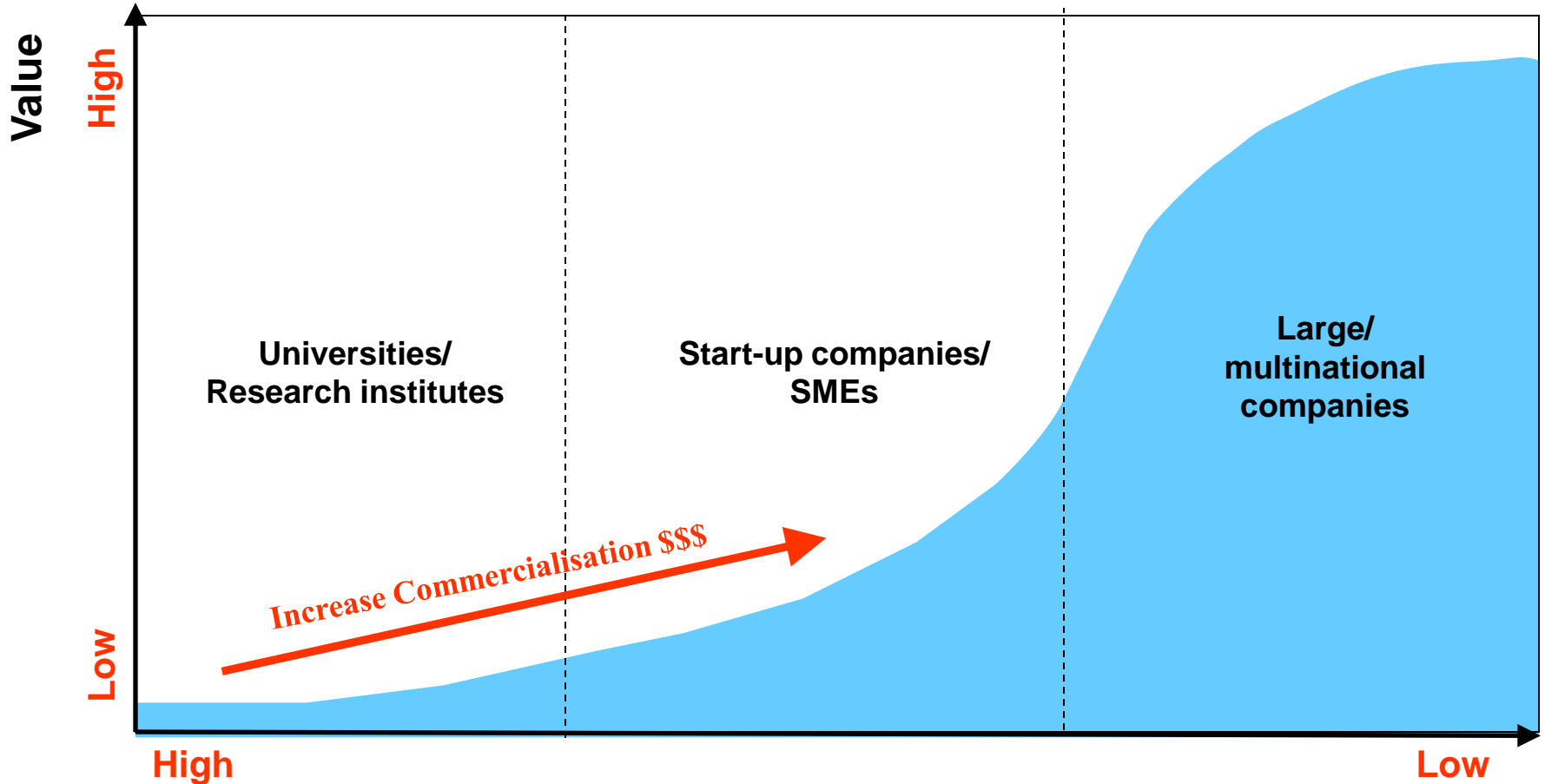
# Keys to attracting investment

- Broad IP protection
- Substantial world market
- Understanding of competition
- Sound commercial strategy
- Experienced management - PPP

# Value chain

<b>Stage:</b>	<b>Discovery research</b>	<b>Proof of concept</b>	<b>Product development and testing</b>	<b>Market testing Early regulatory approval</b>	<b>Final development, Regulatory approval manufacturing &amp; marketing</b>
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**Funds:** Pre-seed/seed: \$50-500k    Angel: \$500k-3M    VC:\$3-10M    \$10-50M (IPO/trade sale)    \$100M +



**Risk to Investors**

# 'Proof of concept' and 'industrial prototyping'

- Deakin University has built a Future Design and Manufacturing facility including a 3000m<sup>2</sup> Proof of Concept building
- Will advance Deakin's research model of co-location and collaboration with industry
- Will “de-risk” and add commercial value

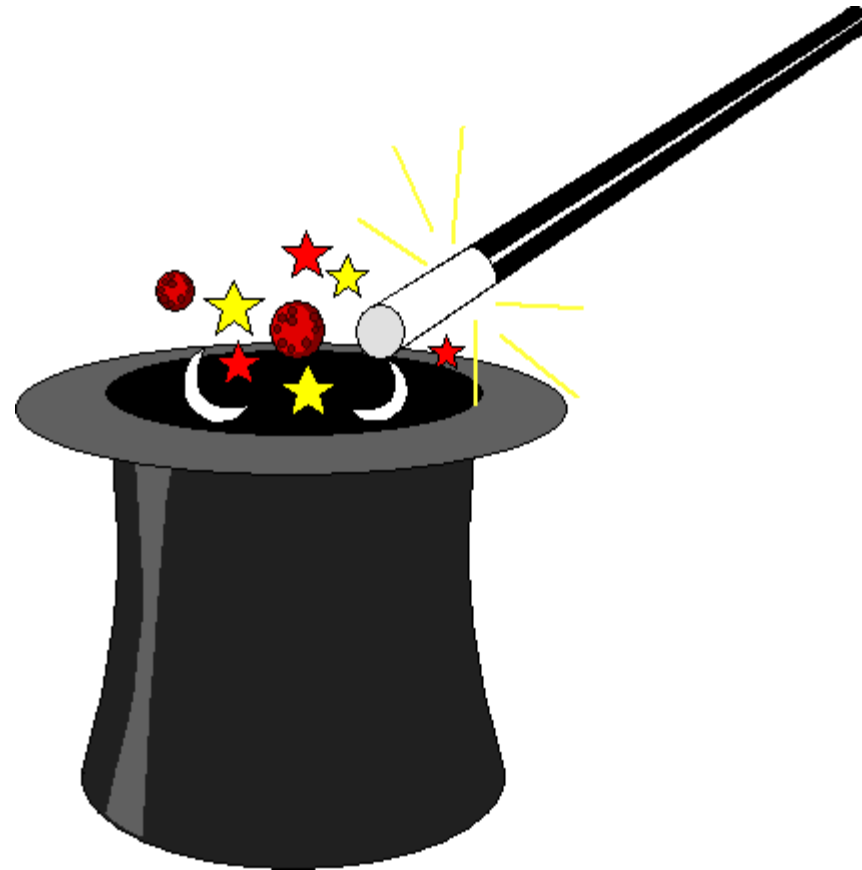


# Publish and Perish

- Publication or use of the invention before lodging a patent application may totally destroy the validity of your patent
- If you need to disclose the invention to a third party before a patent application is filed, arrange a Confidentiality Agreement first



# Commercialisation Tips and Tricks



# Tips and Tricks #1

## Follow the money

- Need to conduct research that is close to the market - more applied than pure
- Educate researchers/inventors on IP and early publication risks
- If research doesn't have commercial interest, expand research expertise into an area where there is a market

Menkes → Alzheimers

- Move research up the Value Chain


# **Tips and Tricks #2**

## **Develop a culture of innovation**

- Enthuse potential inventors
- Celebrate and reward successful commercial outcomes

# Tips and Tricks #3

## Develop Partnerships

- Network vigorously
- Develop close working relationships with universities, industry partners, government
- Collaborate, look at the bigger picture
- Always strive to exceed expectations, on time, on budget
- Build trust  mutual long term relationship

# Building Trust

- The foundations of trust are:
  1. frequent communication
  2. managing expectations
- Setting out a plan of what you will do, and regularly communicating progress
- Delivering to Milestones on time, on budget and, desirably, exceeding expectations

# Success comes from collaboration of large and small

