



UniQuest
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Commercialising a Bright Idea

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19 April 2011



Commercialising a Bright Idea

1. Commercialisation

- What is it?
- Why do it?
- Why does Australia need to do it better?

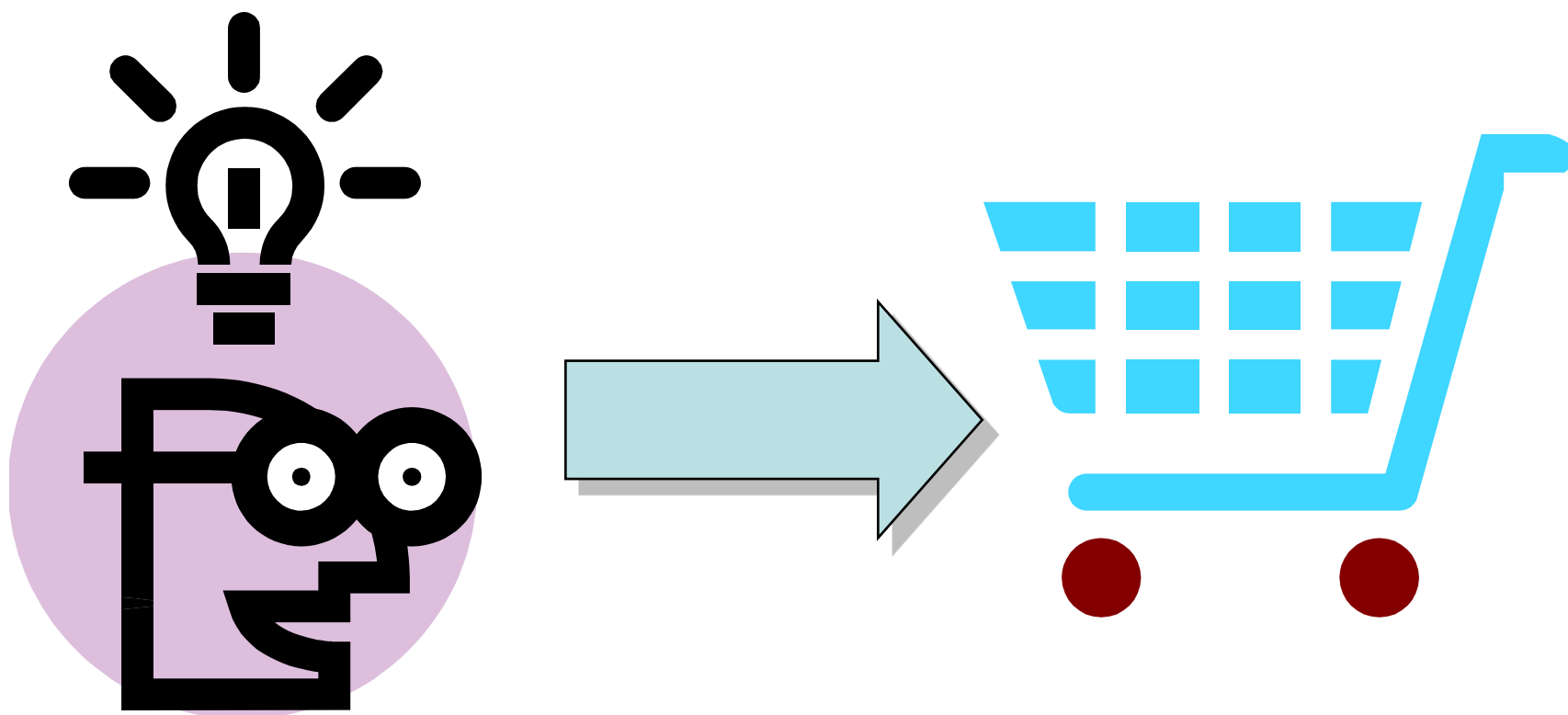
2. UniQuest

- How do we do it?

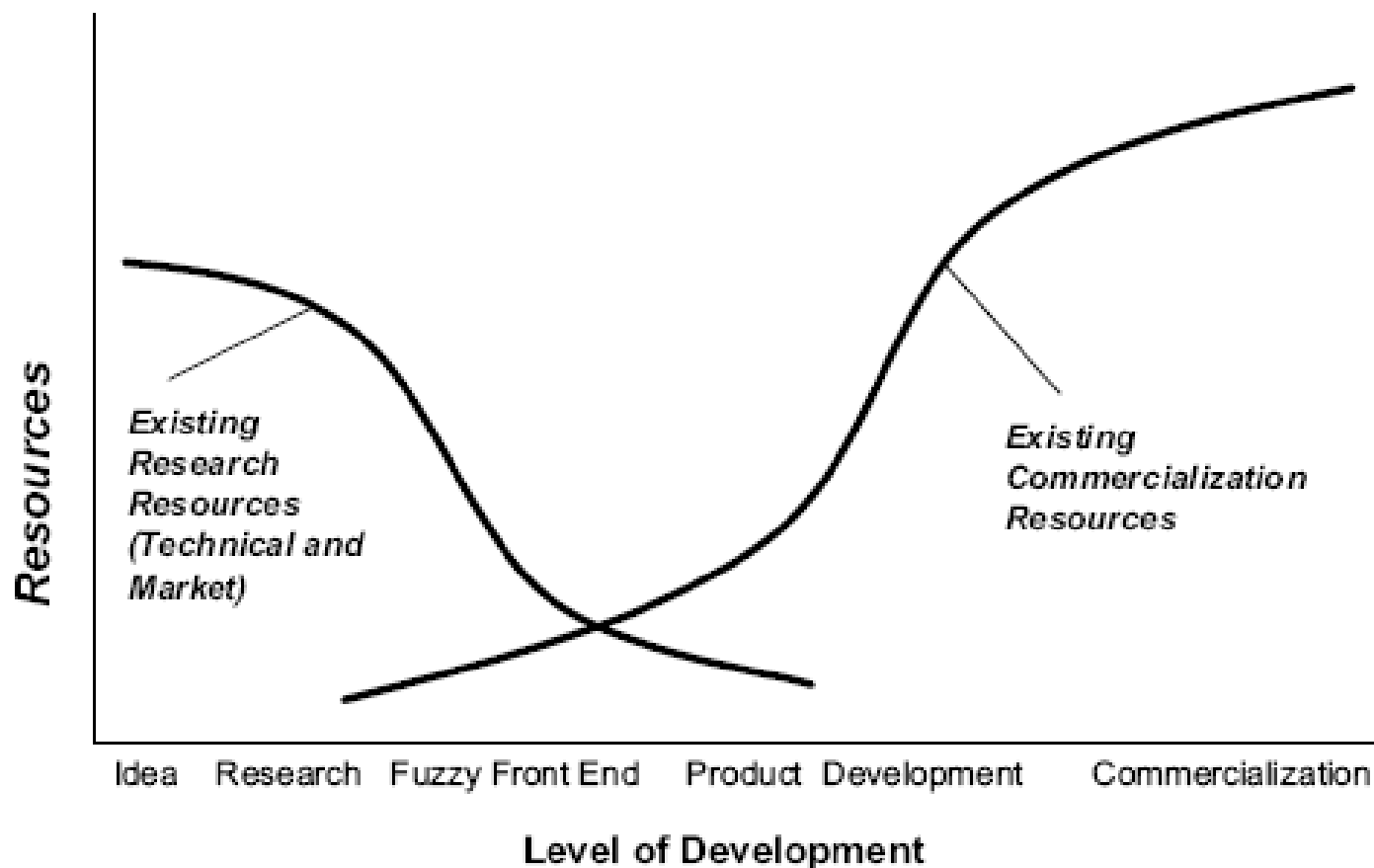
3. Insights should you want to commercialise

- How can you do it?

Commercialisation – What is it?



Commercialisation – What is it?



Commercialisation – What is it?

Valley of Death

- Not just lack of funding
- Lack of compelling business case
- Project feasible but product uneconomical
- Decisional rather than a developmental issue

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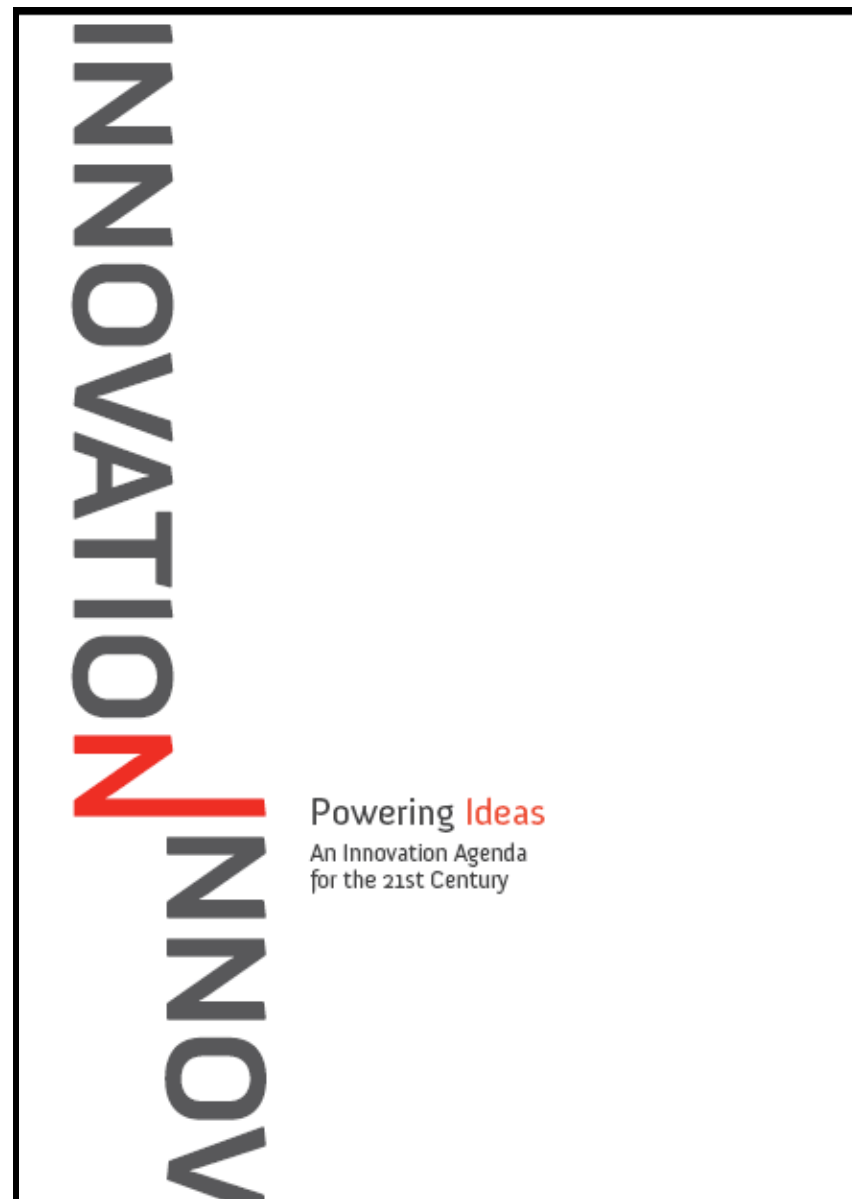
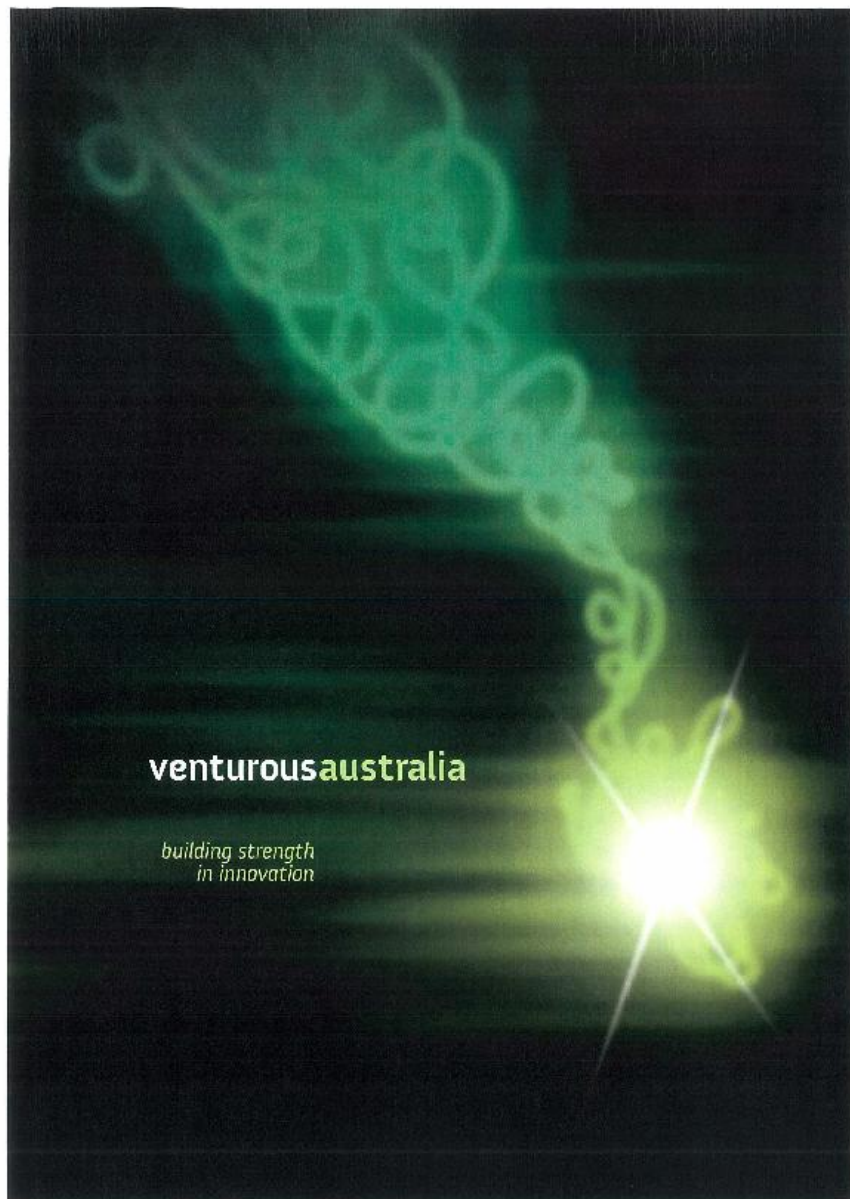
Commercialisation – What is it?

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Commercialisation – Why do it?



National Innovation System Review

GOVERNMENT ANNOUNCES REVIEW OF NATIONAL INNOVATION SYSTEM

22 January 2008 - the Minister for Innovation, Industry, Science and Research, Senator Kim Carr, today announced a wide ranging review of Australia's national innovation system ...

... "Innovation is critical to Australia's national future. Our prosperity, our economic strength and our ability to compete in the global economy, all depend on valuing innovation, harnessing its potential and putting it to work for the benefit of all Australians," Senator Carr said ...

... "In particular, we need to find ways to increase innovation performance across the economy, to ensure that business has better access to new ideas and new technologies and to bridge the divide between industry and research" ...

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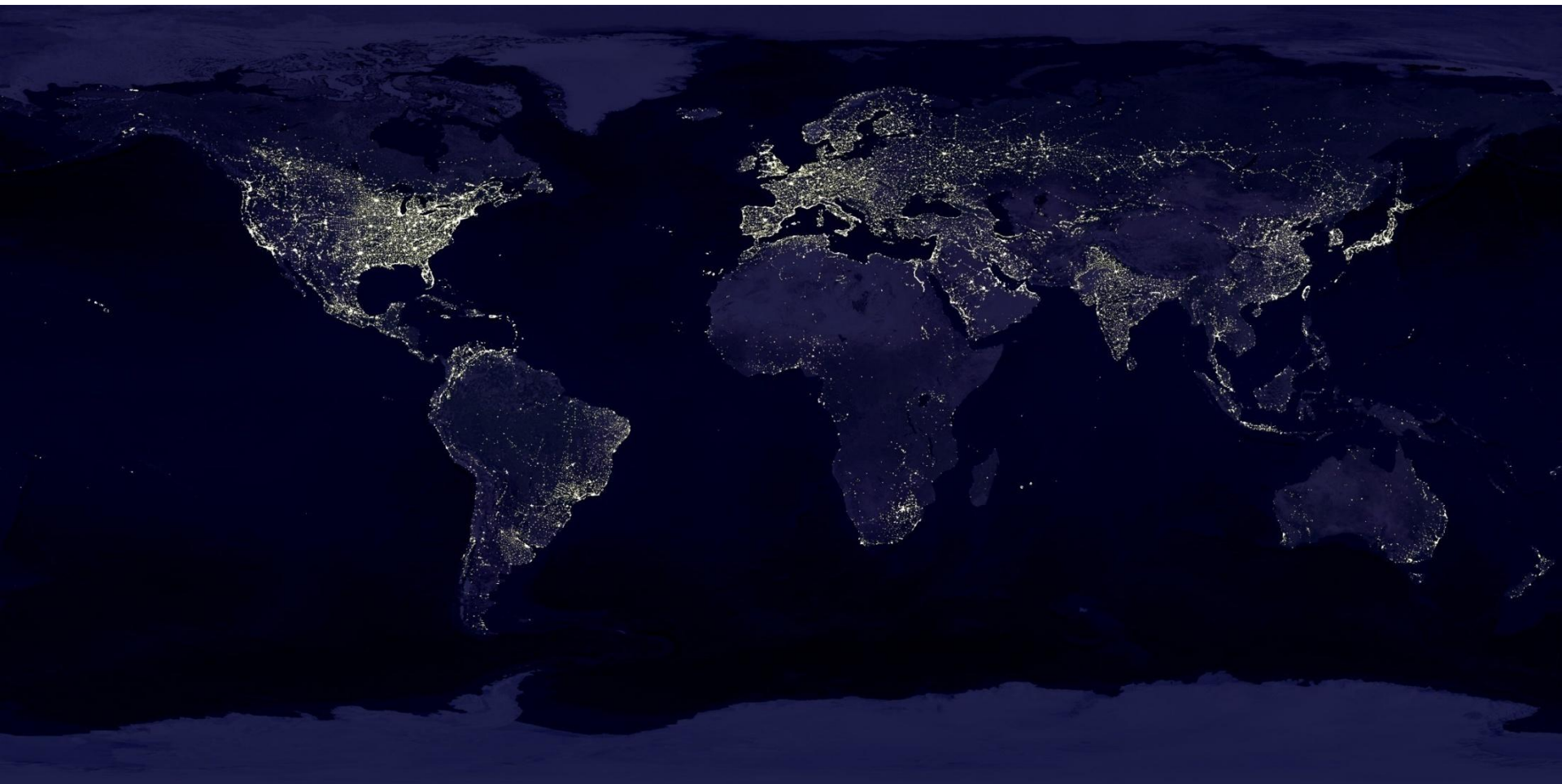
Commercialisation – Why does
Australia need to do it better?

Australia's innovation challenge

- the shift from in-house R&D to open innovation markets
- the rise of globally networked operations and 'cyber-infrastructure'
- user-generated & demand-driven innovation
- role of service industries
- shifting dynamics of global competition (India & China)
- urgency around emerging challenges (e.g. energy, water, climate change, ageing)

PLUS...

The 2% Challenge



The 2% Challenge (cont.)

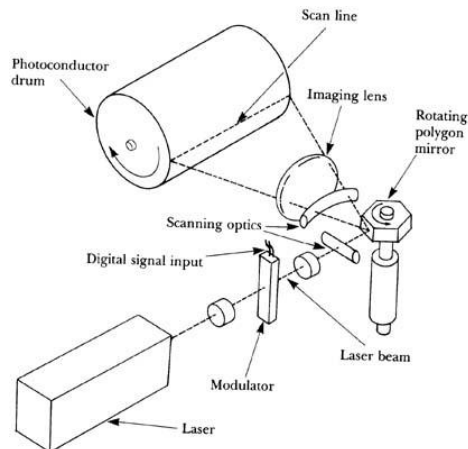
- Black Box flight recorder



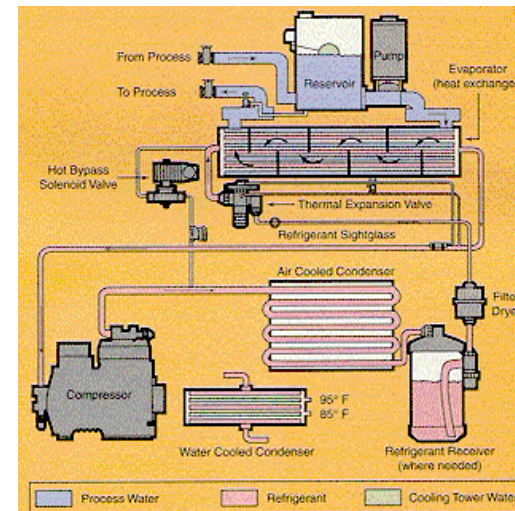
- Liquid(e) Air(e)



- Xerography photocopying



- Refrigeration

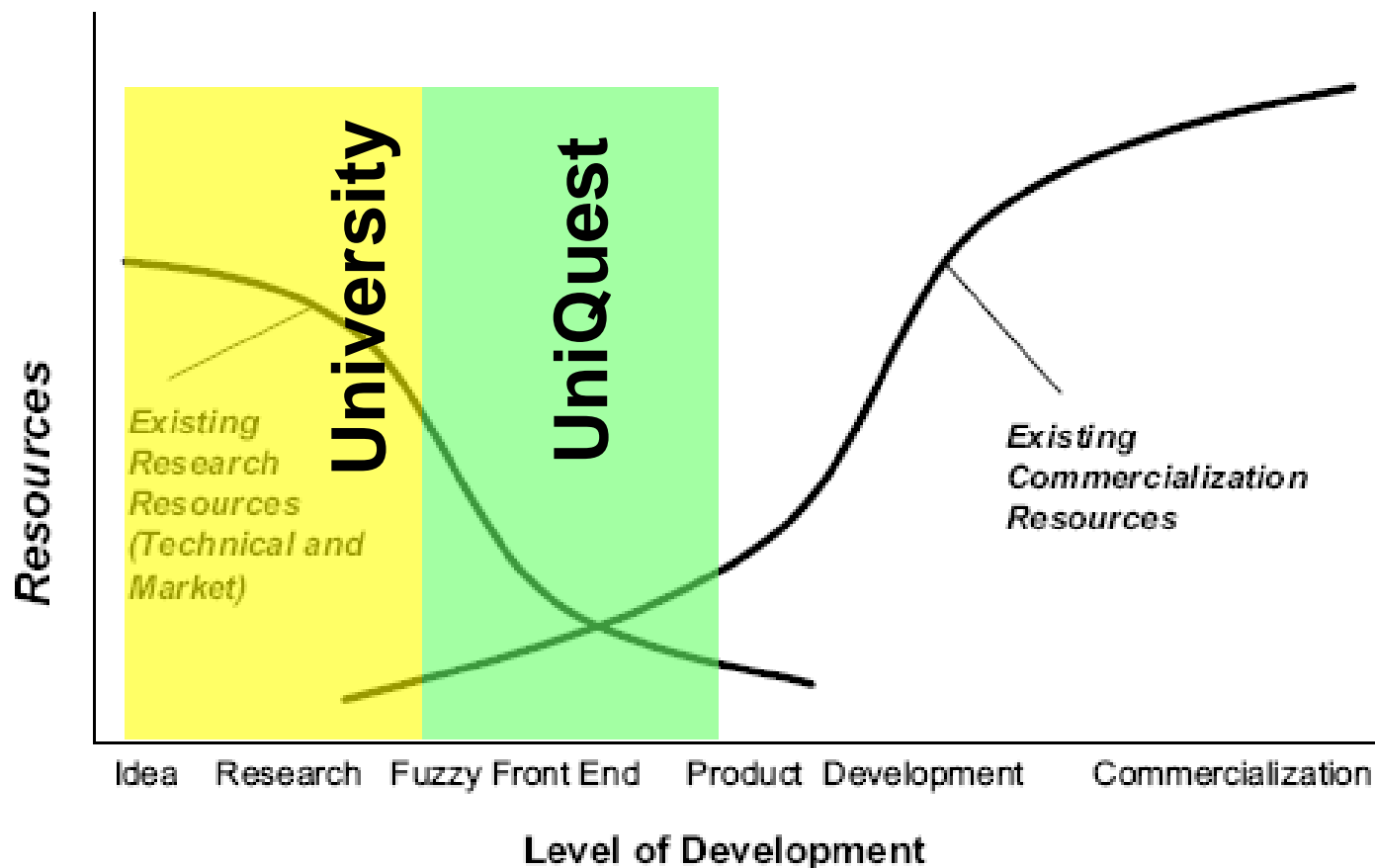


About UniQuest

UniQuest's purpose:

To **maximise the value** of The University of Queensland's intellectual property (IP) for the **benefit of the University**

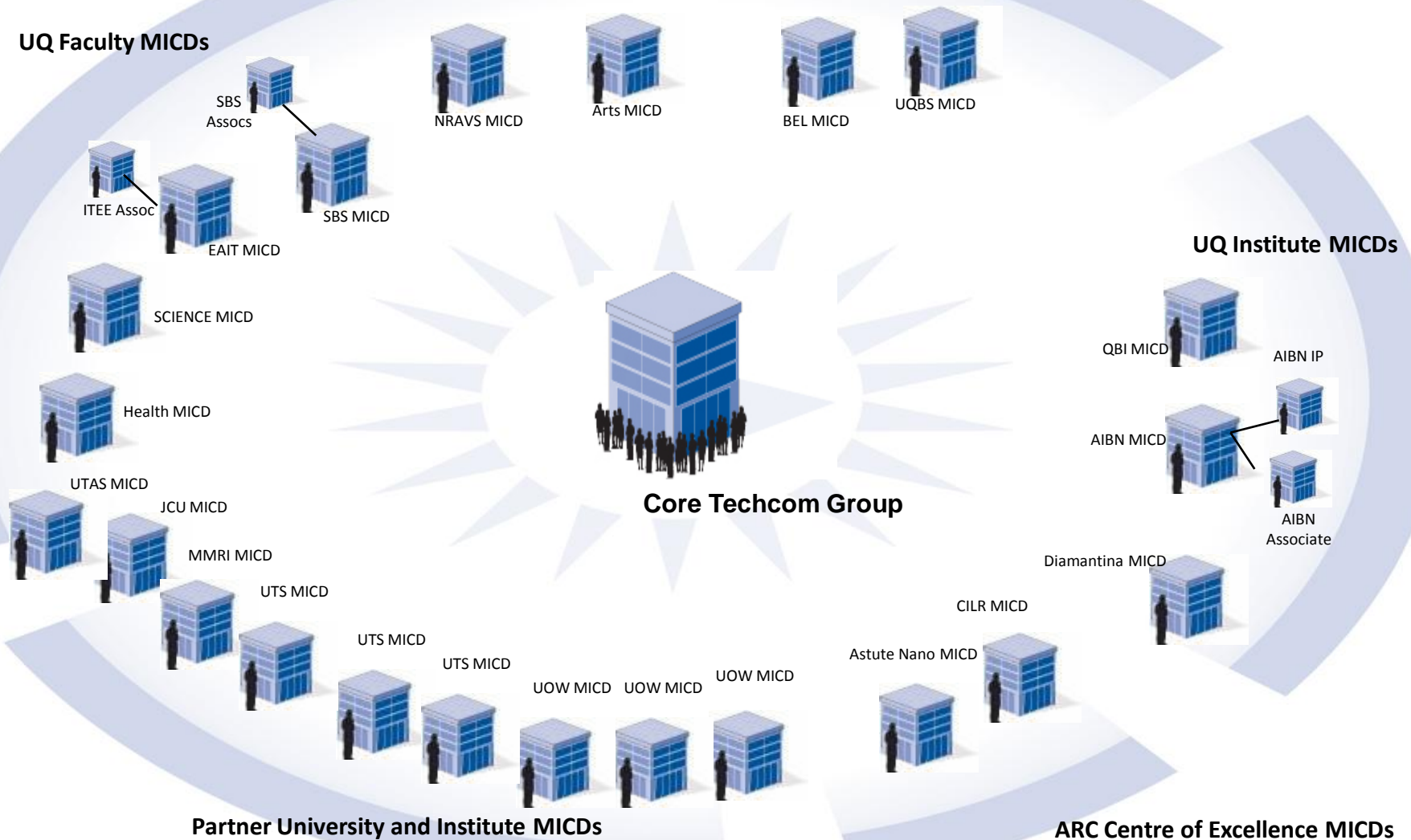
UniQuest commercialisation process



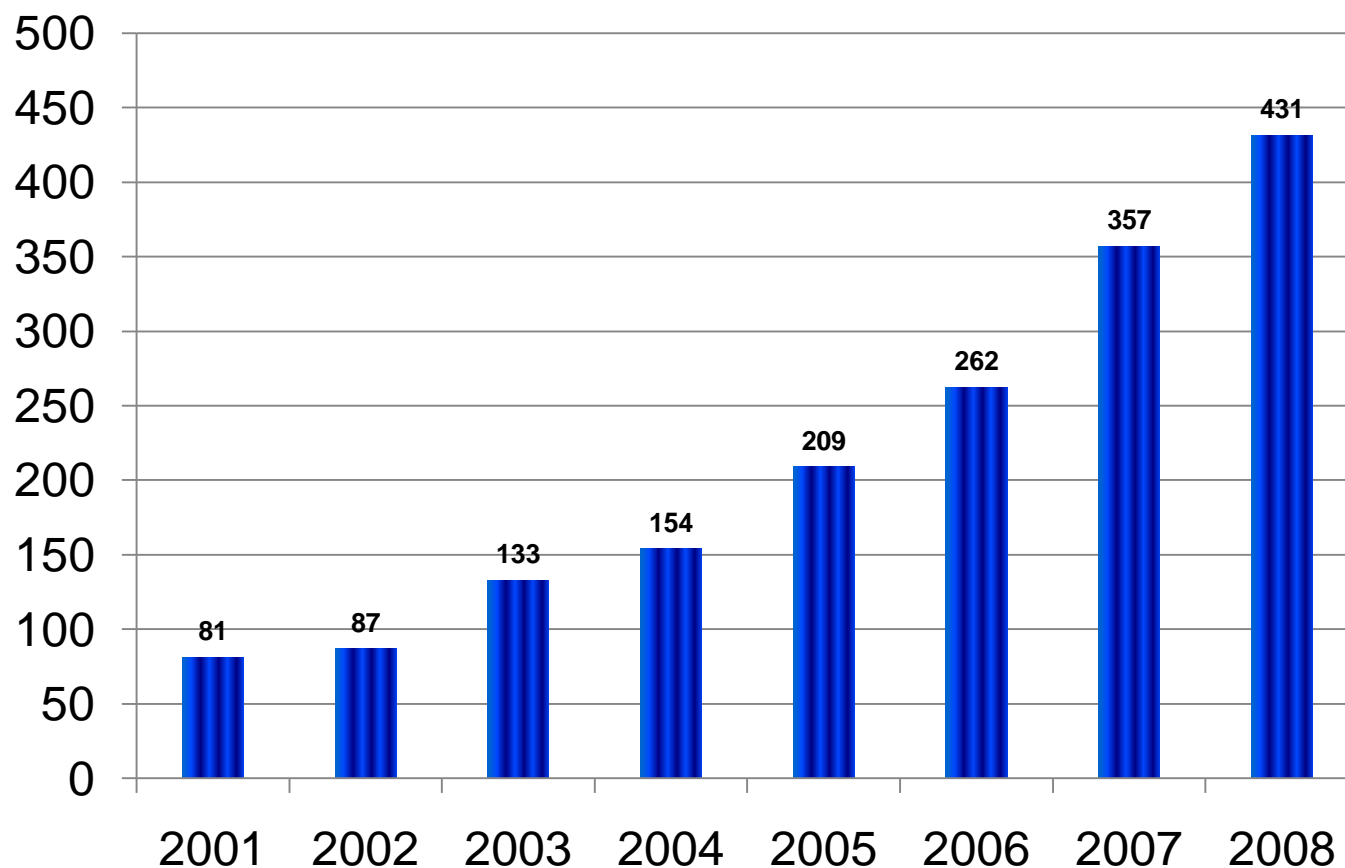
About UniQuest

- 1,500 patents and patent applications
- \$340m group revenues over the past five years
- 80 Staff
- Over 60 technology spinoffs and startups
- Australia's first commercial blockbuster drug - 2006
- Australia's largest ever Biotech IPO - 2007
- 300 – 400 Consultancy & Expert Opinions per year
- 400 International Aid projects in 46 countries

Techcom Organisation – Hub & Spoke Model

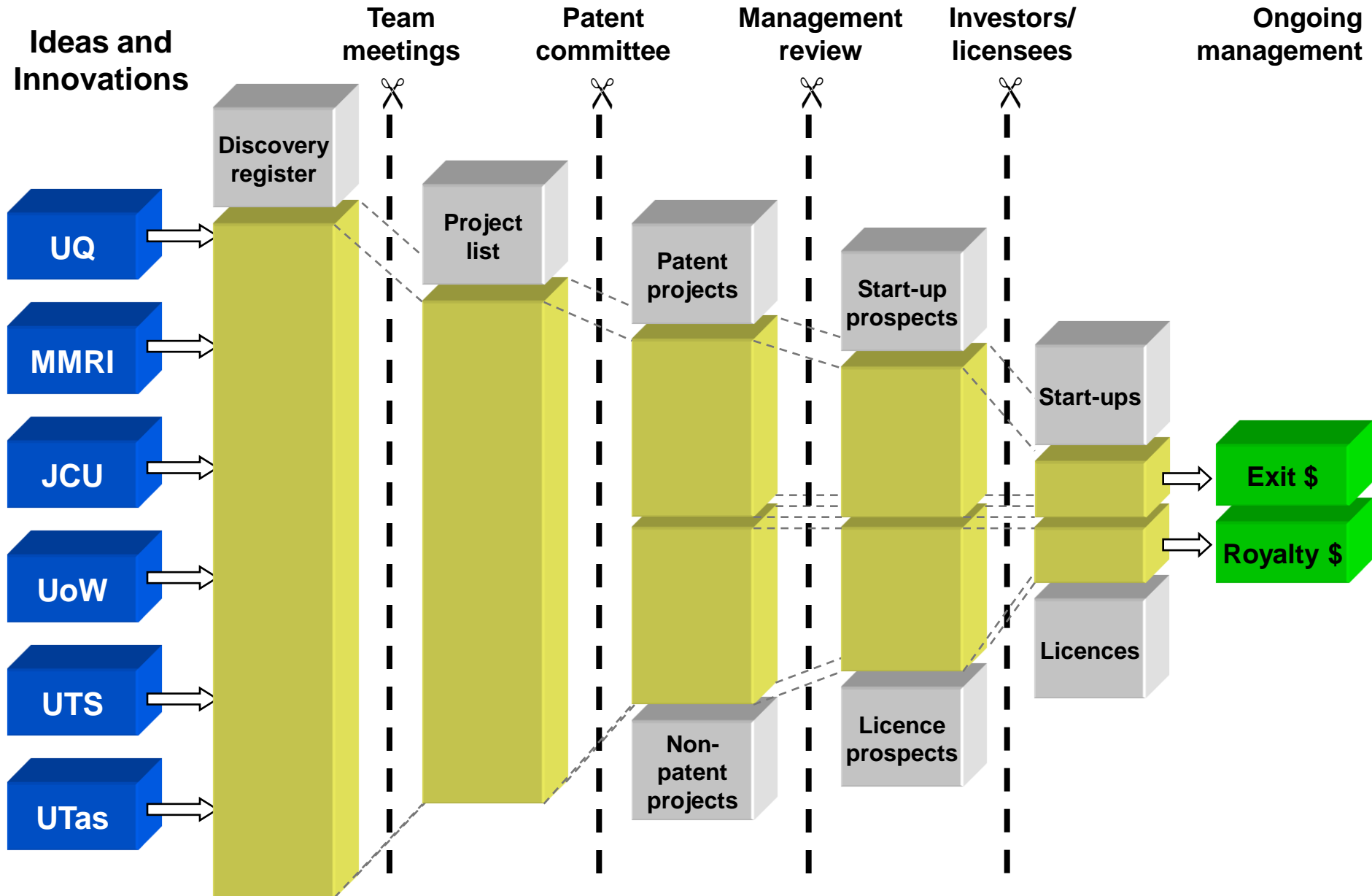


UniQuest innovation discoveries



Over 500 in 2010

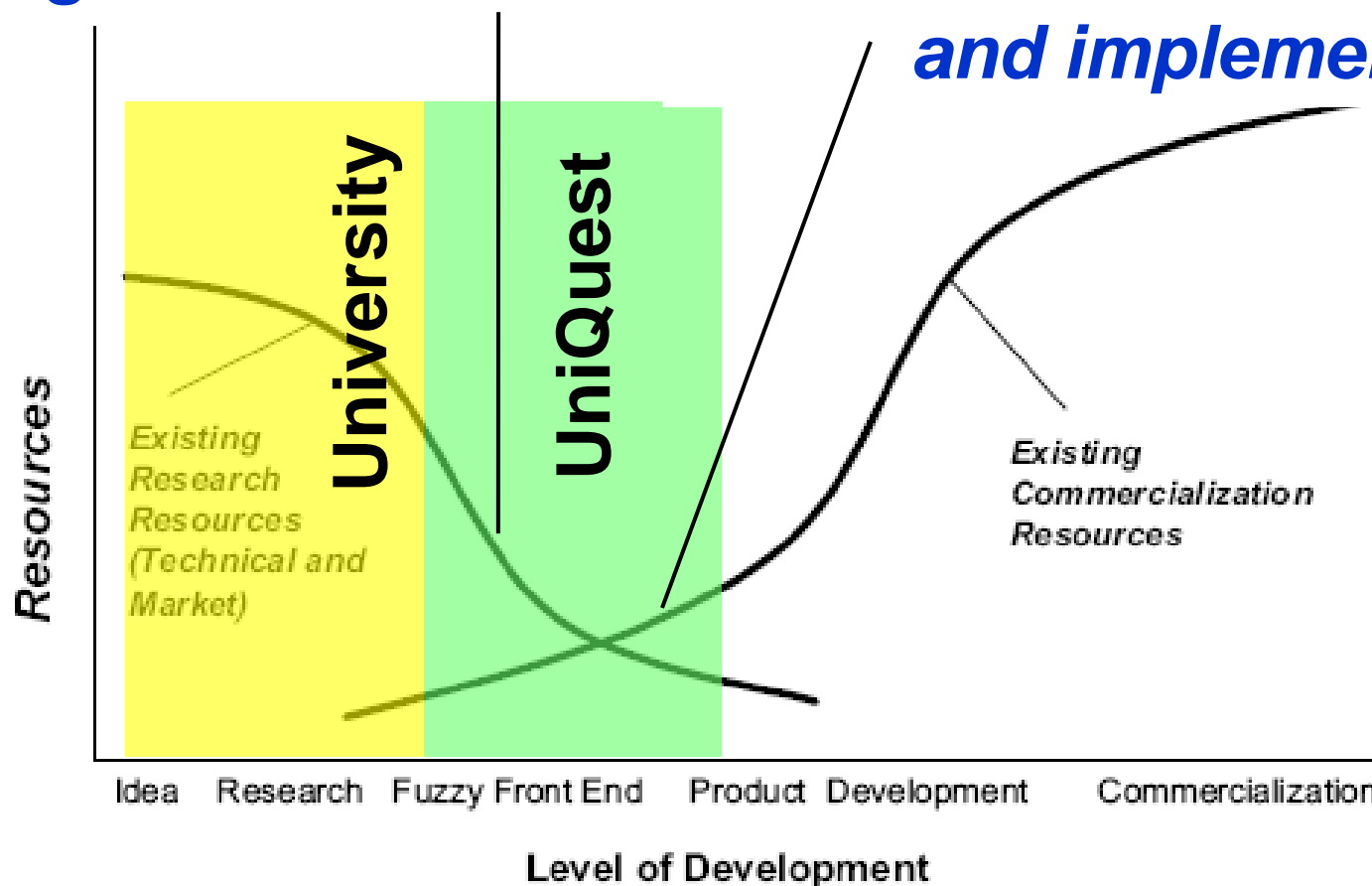
UniQuest commercialisation process



UniQuest commercialisation process

Recognition of value

Commercialisation model and implementation



Recognition of commercial value

What is the product?

- Something tangible
- Process
- Service
- Is it “new to the world” or an incremental improvement?

Is it of value?

- Scientific value is insufficient
- “Real world” application?
- Competitive advantage & IP?
- “Market need” i.e. would people willing to pay for it?
- Economically viable?

Value case study: Triple P

Discovery

Systematic approach to improving parenting skills developed over many years

To effect change leading to social outcomes, need to put in place a system that is able to reach all parents at an appropriate level at an appropriate time

Value

Grounded in evidence (43 efficacy trials)

Consistency and persistence has built brand value

Driven by focused, passionate, persuasive researcher



Market

For *Every* family

Commercialisation

Investment from research grants and training fees

Licensed as a system (brand, training & work books)

Licenses across the world and program in 15+ translations

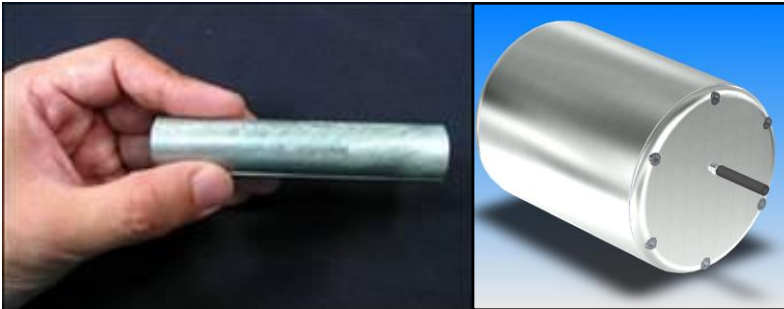
Consistently evolving to meet market e.g. Lifestyle, Mixed Family & Post-Natural Disaster Triple P



Market case study:



Hydrogen storage system using novel magnesium alloy



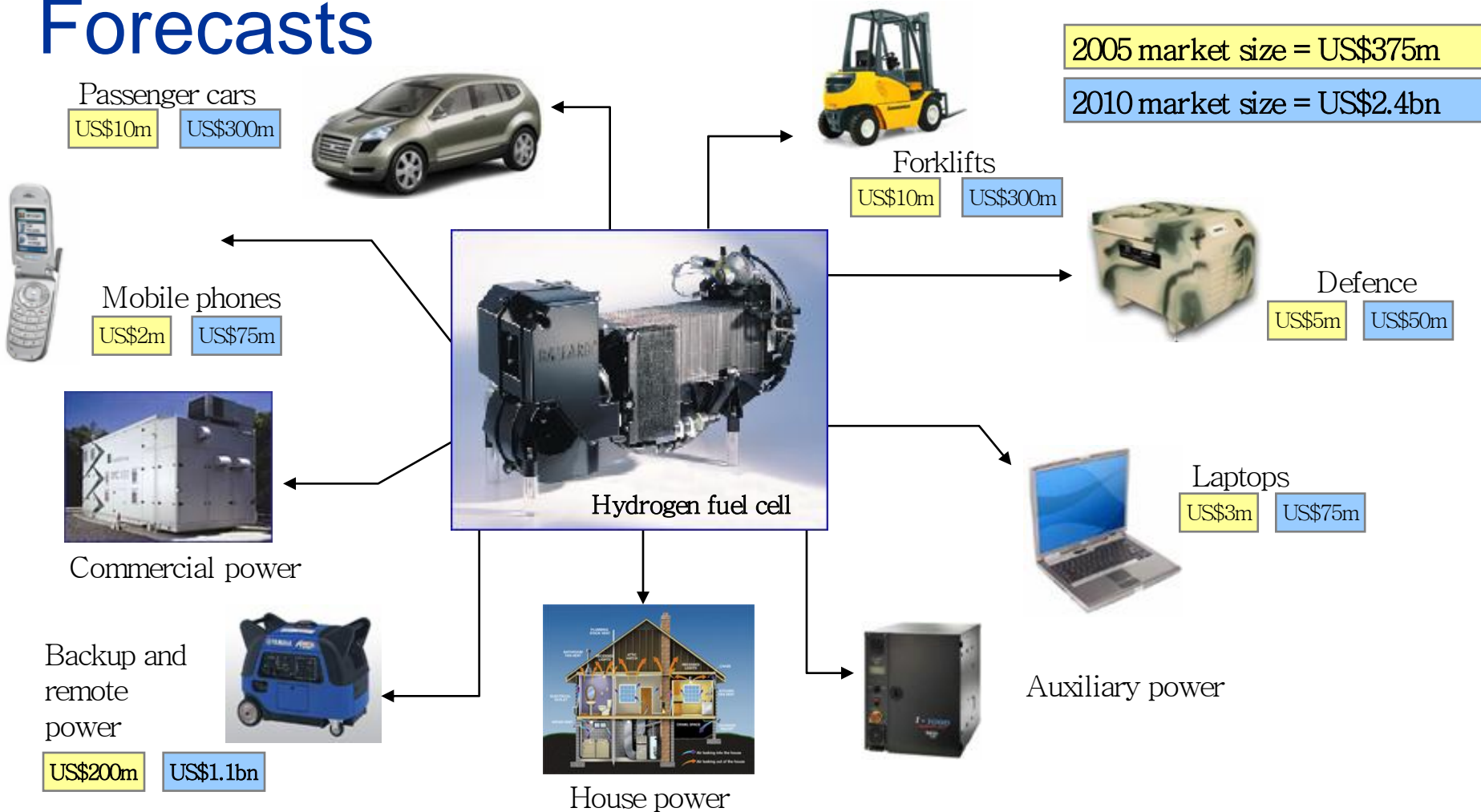
Benefits:

- Low-cost, scalable casting process

Potential competitor:

- High pressure hydrogen gas cylinders

Potential Applications and Market Growth Forecasts



hydrexia Industry segmentation and potential target markets

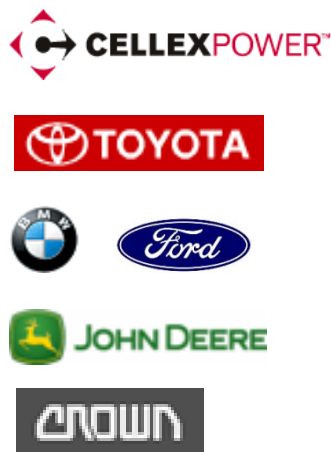
Back-up / Remote
- Industrial and Commercial

Micro / Portable

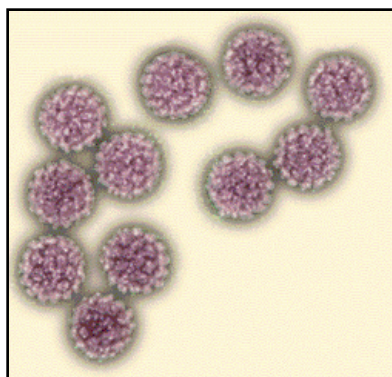
Transport – Utility and Passenger

Defense and Military

Fuels – Industrial, Merchant, Consumer



Examples of UniQuest licenses



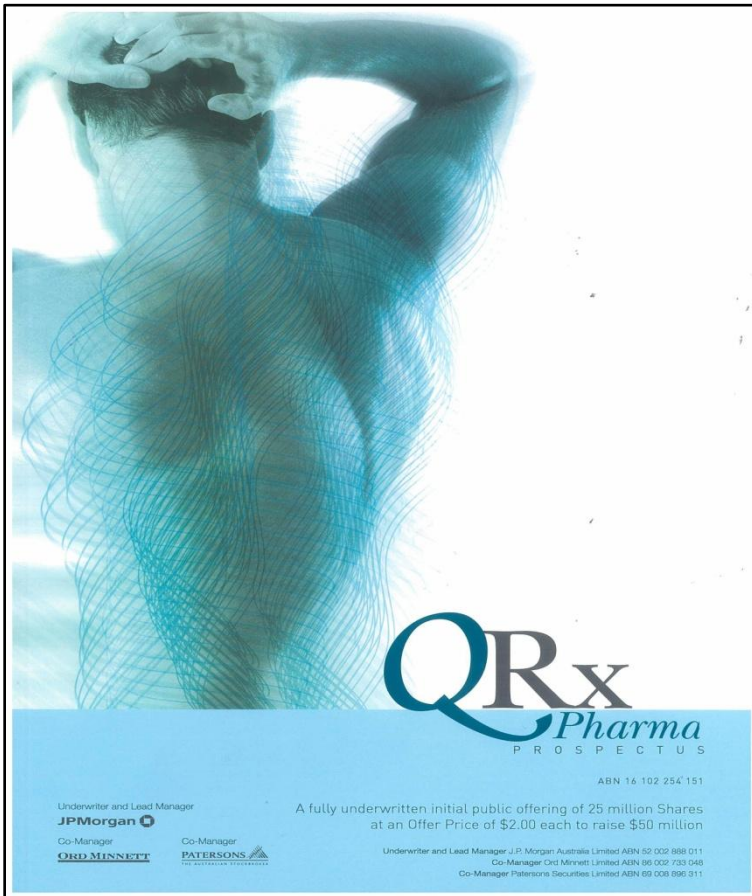
Licence of HPV vaccine for cervical cancer to CSL/Merck for Gardisal

MRI technology used in 60% of worlds **MRI machines** from 1997 (licensed to GE & Siemens)



Licence of Triple P copyright, now utilised in more than 15 countries

QRxPharma in 2007 raised A\$50M with an initial market capitalisation of A\$150M – still the largest Australian Biotech IPO



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Pharmaceutical offering aims at record

Kath Walters
Pharmaceutical offering aims at record
Kath Walters

BRW | 10 May 2007 | Page: 14 | L'Espresso

The initial public offering of early-stage pharmaceutical company QRxPharma, which is planning to raise \$50 million on the Australian Securities Exchange, will be the largest debut in Australia of a life sciences company, both in terms of the amount of capital raised and the market capitalisation on listing - \$150 million - according to analyst Mark Pachacz, co-editor of Bioshares. The previous record was set by Heartware, which listed in 2005, raising \$32.4 million.

The size of the record-breaking IPO is in line with a trend of rising capital flowing into the sector, Pachacz says. "In follow-on placements by listed biotechs, Australia has recently raised, or are in the process of raising, in excess of \$70 million for developing new drugs to treat moderate-to-severe pain using [unintelligible] Progen have both side effects."

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Prescription for profit

Kath Walters and Jane Lindhe
Prescription for profit
Kath Walters and Jane Lindhe

BRW | 24 May 2007 | Page: 1 | News and Features

Big pharma is currently courting the biotech sector, lured by the powerful promise of early-stage products to become the next generation of wonder drugs.

Biotechnology companies are being presented with an unprecedented opportunity to high-value deals with the world's largest pharmaceutical companies - providing the biotechnology sector some learn from past mistakes. The pressure facing biotech pharmaceutical companies from falling profits and portfolios of rapidly expiring patents is becoming apparent in the big bets they are willing to make on deals with biotechnology companies in Australia and overseas.

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QRxPharma trials recipe for pain relief

Fiona Tyndal
QRxPharma trials recipe for pain relief
Fiona Tyndal

The Australian Financial Review | 26 Jun 2007 | Page: 16 | Companies and Markets

It's hoped a new pain treatment drug, which has the support of Biomed chief executive Peter Farrell, will take a slice of the global \$1200 billion (\$30 billion) pain treatment market.

QRxPharma, which develops therapies to treat disorders of the central nervous system, is close to completing trials for its pain relief medication. It expects that the fewer side effects and lower addiction risk associated with the drug will boost its take-up by patients.

"There has been little innovation [in pain relief], managing director John Healey said. "Since the advent of morphine over 200 years ago there have been a number of other opioid drugs, all of which sooner or later show they have the same kinds of side effects."

QRxPharma's breakthrough was to combine two traditional, powerful pain relief medications - morphine and oxycodone - which have a synergistic effect on pain, giving patients the same relief using half the normal dose.

"The two [drugs] together add up to four," Dr Healey said.

The treatment is expected to be approved by US regulators and ready for sale by 2010, topping into the \$1500 million pain treatment market.

About \$10 million of this is sales in treatments for moderate to severe pain where QRxPharma's drug will have the greatest benefit.

What is a commercial opportunity?

- A business or technology gap, that an individual or a company realises, that exists between the current situation and the envisioned future in order to capture competitive advantage, respond to a threat, solve a problem or ameliorate a difficulty
- If an employee, needs to be aligned with business strategy and competencies of employer

The commercial path ahead

Log10 of ideas succeeding
to next stage



Stevens and Burley
*the rocket of radical
on, 2003*

opments

opments

ches

success

ment

Common methods for ideas generation

Open innovation

- Partners and vendors
- Soliciting the external scientific/technical community
- Scanning small business and business startups
- Invite external finished product designs
- External submission of ideas
- External idea contest

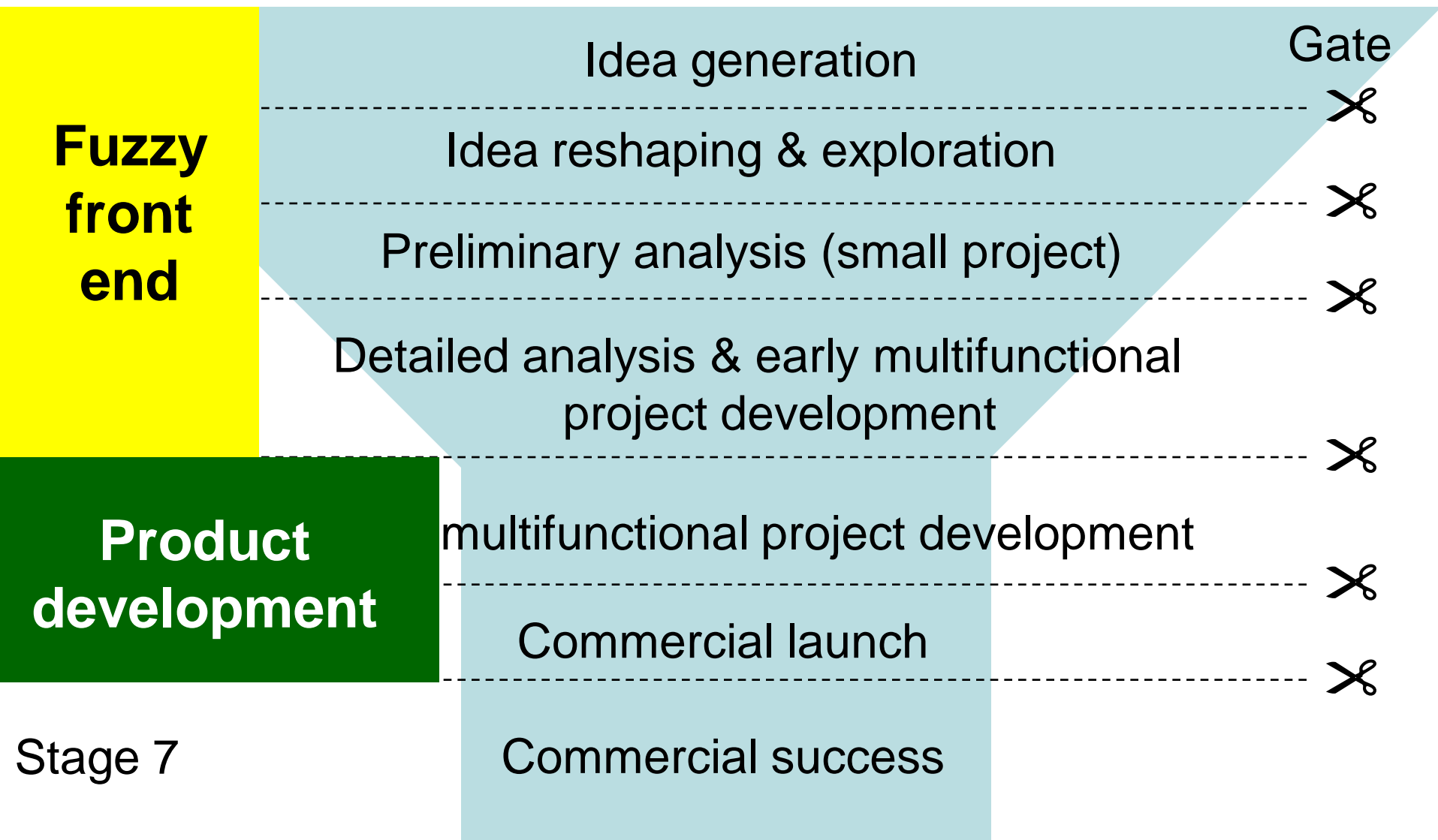
Other

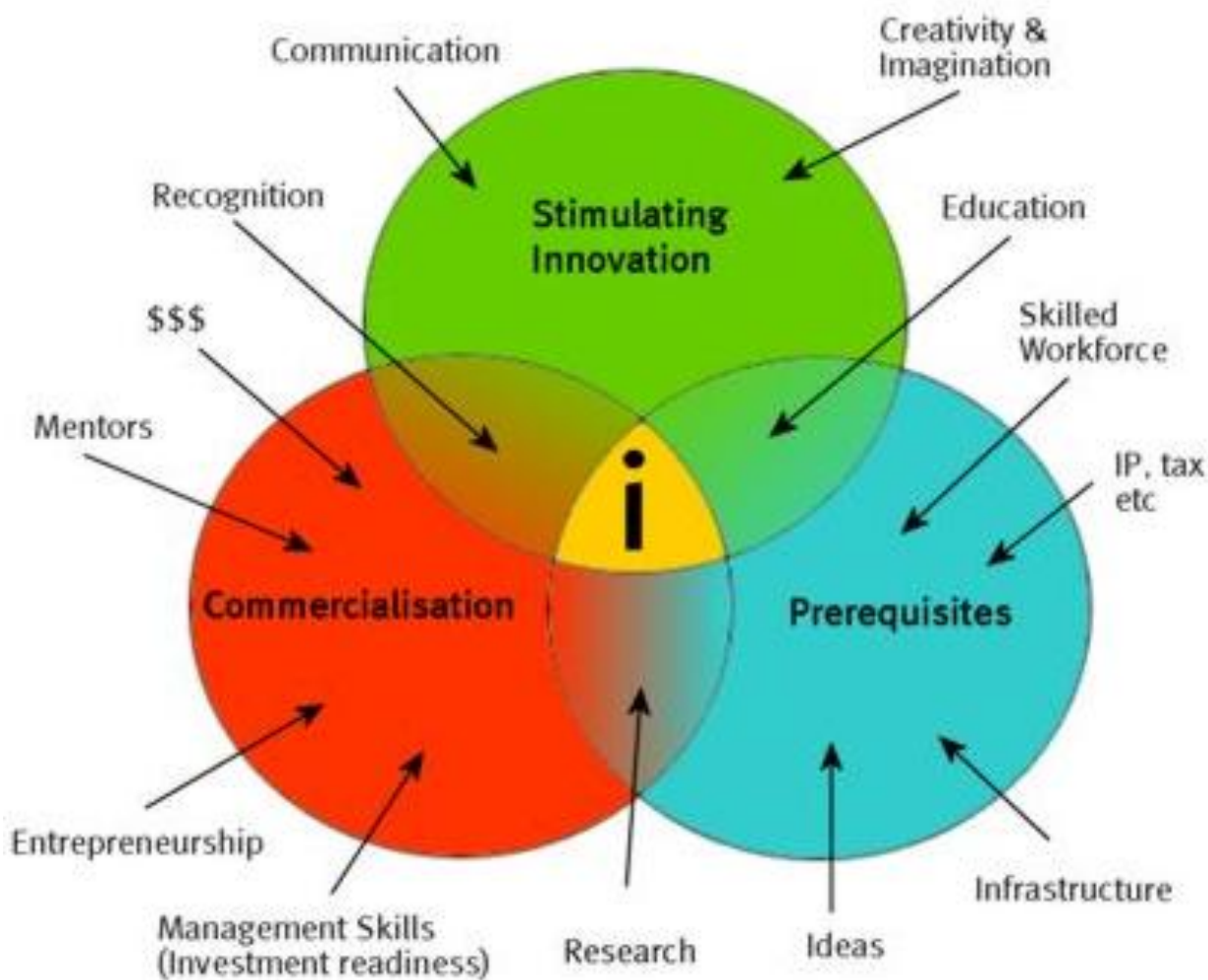
- Peripheral vision
- Disruptive technologies
- Patent mapping
- Idea capture internally

Voice-of-Customer (VOC)

- Ethnographic research
- Customer visit teams
- Customer focus groups for problem detection
- Lead user analysis
- Customer or user designs
- Customer brainstorming
- Customer advisory board or panel
- Community of enthusiasts

Typical 7-Stage-Gate NPD process





Collaboration and cooperation between industry, business, universities and research organisations and Government.

Champion the innovation culture and process

Encourage risk taking & creativity, not box ticking

Encourage ideas and the process

Apply increasing business rigour as project matures thru stages

What “Investors” look for

- **People**
 - *Passion & commitment; Experience; Synergy*
- **Value Proposition**
 - *Clearly solves well defined problem; Sustainable competitive advantage*
- **Intellectual Property**
 - *Compelling technology; Ability to protect; Differentiated skill set*
- **Market**
 - *Create barriers to entry; Growing & large; Competitive awareness*
- **Growth**
 - *Rapid growth & scalability; Clear strategy; Global vision*
- **Business Model**
 - *Sales cycle & pipeline; Sustainable margins; Path to +ve cashflow*
- **Exit for financial investors**
 - *Clear path; Creation of significant ROI; Value creation*

Commercialisation resources



Researchers in Business



UQEnterprize



Commercialising a Bright Idea

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Mechanisms of Commercialisation

Technology Licence and Start-Up Company



Mechanisms of Technology Commercialisation

1. Technology licence
2. Technology sale
3. Start-up company

Licence terms

UniQuest licenses IP to the ‘commercialising company’ in return for licence fees, royalties and milestone payments

- Field of Use
- Territory
- Exclusivity
- Term
- Performance
- Patent costs
- Confidentiality
- Publications
- Indemnity
- Limited liability

Why license?

- Low risk
- Licensee funds development
- Passive income
- May be more suitable for the IP – eg. copyright
- The technology by itself may not make a viable business
- Extract “rent” on the technology in different fields or locations

Why a start-up company?

- Greater control over commercialisation
- Potential for greater value capture
- Vehicle for capital gain rather than income
- Technology may be the basis for a range products or services
- Ongoing inventor involvement in IP development
- Availability of early stage funding
 - *Angel investors*
 - *Venture capital*
 - *Govt grants*

Why not a start-up?

- High risk
 - *Science / technology*
 - *Market*
 - *Management*
 - *Financial / funding*
- Experienced management hard to find
- Labour-intensive
- Corporate governance
- Exit unlikely
- Financial payoff only at exit