



Intellectual Property

Greg Gering
Business Development Manager –
Sydnovate

Ph: 02 9036 7508

E: g.gering@usyd.edu.au



Today's discussion points...

1. What is Intellectual Property?
2. What is a patent?
3. How to get a patent
4. When to Patent and why?
5. The University IP Rule (2002)
6. IP tips



What is Intellectual Property?

- Firstly what about IC, IAM, KM and IM?
 - Intellectual Capital, Intellectual Asset Management, Knowledge Management and Information Management
- The common elements:
 - Intellectual
 - Knowledge
 - Information
- What about INNOVATION
- Or perhaps INVENTIONS
- So what is Intellectual Property?
 - One answer:

The stuff in people's heads that has been captured in recognisable form that has certain rights that can be valued





Definition from IP Australia

Intellectual property

represents the property of your mind or intellect. In business terms, this also means your proprietary knowledge.

■ Types of IP:

- patents for new or improved products or processes;
- trade marks for letters, words, phrases, sounds, smells, shapes, logos, pictures, aspects of packaging or a combination of these, to distinguish the goods and services of one trader from those of another;
- designs for the shape or appearance of manufactured goods;
- copyright for original material in literary, artistic, dramatic or musical works, films, broadcasts, multimedia and computer programs;
- circuit layout rights for the three-dimensional configuration of electronic circuits in integrated circuit products or layout designs;
- plant breeder's rights for new plant varieties; and
- confidentiality/trade secrets including know-how and other confidential or proprietary information.

See www.ipaustralia.gov.au/ip/introduction.shtml





What is Intellectual Capital?

- Intellectual Capital is intellectual material
(e.g.. knowledge, information, intellectual property, experience)
that can be put to use to create wealth
- IC takes on several forms
 - Human capital
 - Structural or organisational capital (including patents)
 - Customer capital
- What isn't IC?
 - A bunch of people locked up in a lab with a great idea.



So what is the message?

- The stuff in your head can make you money
 - AND it can make the world a better place too – think renewable energy
- In a business sense?
 - Organisations are creating wealth through strategic use of Intellectual Capital and Knowledge Management.
 - Knowledge, not natural resources, machinery, or financial capital, can become the most important factor in economic life.





Capture of IP

- So in a practical sense what does this mean for scientists and engineers?
 - Stop just thinking about your idea and write it down
 - How would it work?
 - What problems does it address or solve?
 - Put your musings in a log book, sign and date your entries
 - Chances are if you are solving a known problem then someone else is too
 - Pretty annoying to see a product reach the market that you had some inventive thoughts about!





Opportunities gone wrong & some quotes:

- Self contained cabinet with door cooling
- The two-ball putter

- Quotes:

- Steve Jobs (Apple Guru)

- *“Innovation has nothing to do with how many R&D dollars you have. When Apple came up with the Mac, IBM was spending at least 100 times more on R&D. It's not about money. It's about the people you have, how you're led, and how much you get it.”*

- Charles Duell (US Patent Office Commissioner)

- “Everything that can be invented has been invented” - 1899





So what's it worth?

- Any decent IP has potential value
 - Could run into the millions of dollars
 - But would you invest your own money in it?
- Inventors will tell you what they think their IP is worth but do they have
 - Proof of concept
 - Lap prototype
 - Scale up Map
- Do deals with
 - Venture Capitalists, Angels, Family and Friends
 - But for any deal you need documentation and a plan
 - Slick presentation always helps
 - Don't over sell
- Who sets the value of the IP
 - You need to understand the market to obtain the maximum value



The reality

- Great ideas or even great IP does not automatically mean the money will flow in
- What is the outcome of the market analysis
 - You may have the best solution but will somebody pay money for it
 - When will they buy it
 - How will they use it
- Can your new technology (solution) be adapted to fit the market requirements (cost v features)
 - How different is it
 - Will the market adapt to a disruptive technology
- No understanding of the IP position or no IP protection
 - Means no money and no support
 - You either have IP protection or a reason why you don't need it



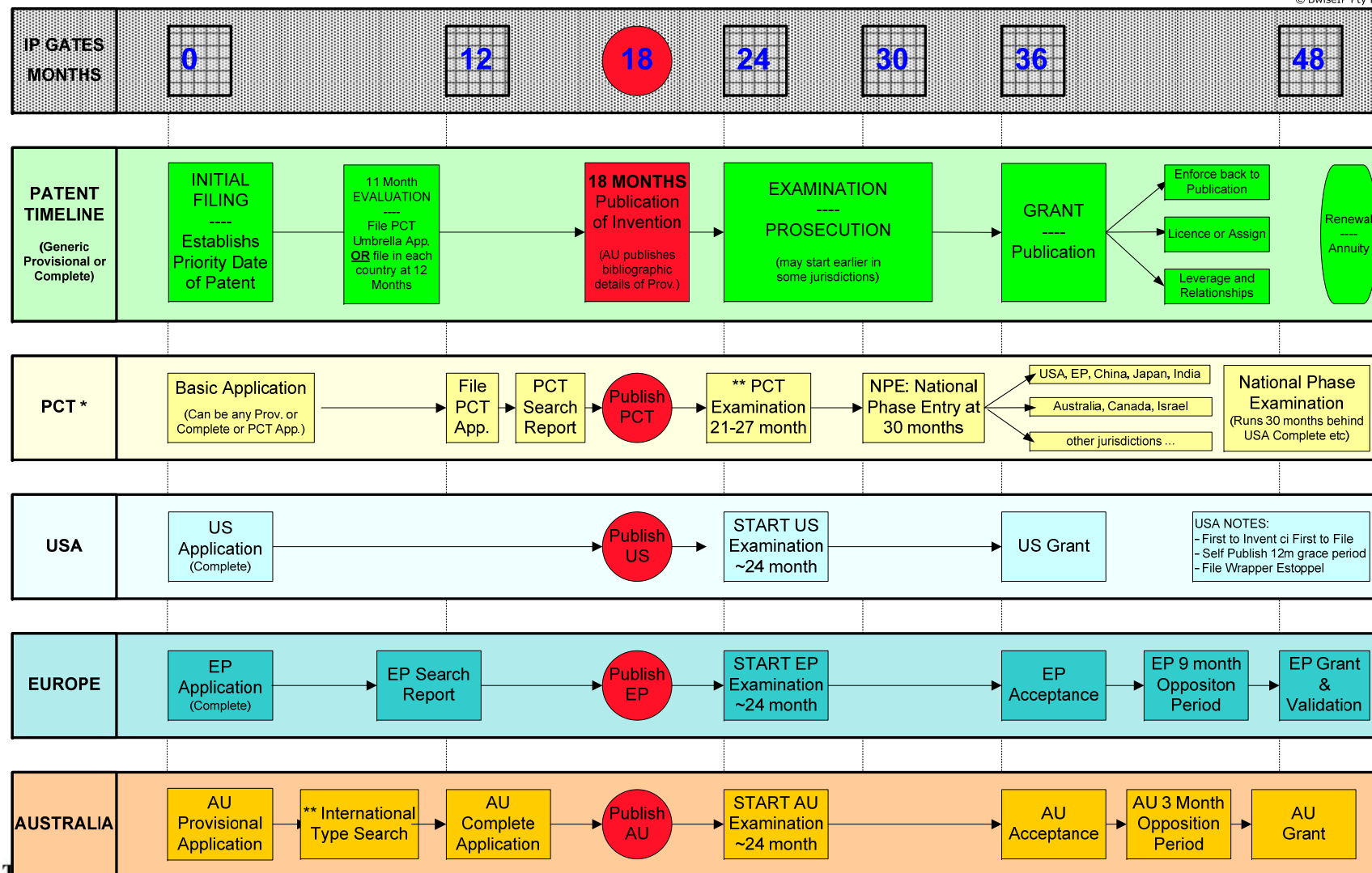


What is a patent?

- Reward for inventiveness
- Exclusive (20 year) Monopoly
 - For a fee \$\$
- Protection for Concept, not abstract idea
- It provides:
 - Licensable Asset for University
 - Source of Research Income
 - Asset for inventors

International Patent Timeline

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* PCT: The Patent Cooperation Treaty allows an *umbrella* application across many countries and effectively delays national phase entry by 18 months until 30 months from Initial Filing ** Optional Step



Requirements for registration

- Subject matter
- New (novelty)
- Inventive (not obvious)
- Useful
- **You cannot patent** artistic creations, mathematical models, plans, schemes or other purely mental processes but you can patent a business process and software.



When to Patent?

- Must file **before** the invention is published
- Before **any** non-confidential disclosure to **any** person other than applicant
- **Verbal disclosure may be a publication**
- In Australia (& most countries) recognises first to **file**
- In USA it is first to **invent**
- Therefore keep good records and file as **early** as possible



Lab notebooks

■ Record keeping

- Trail of evidence of the experimental development
- Could be used as a legal document to prove invention conception date/inventor
- Really helpful for when you write up





✓ and ✗

- ✓ Use bound books
- ✓ Ink only
- ✗ Tear pages out
- ✓ Use pages consecutively
- ✓ Fully describe experiments
- ✓ Write legibly
- ✗ Do not scrub out or use white out





University IP Rule (2002)

- IP ownership of staff, students and visitors
 - Staff – the Uni asserts ownership
 - Students – the Uni does not assert ownership
 - Visitors – the Uni uses its discretion
 - Nb: Students and visitors can be asked to assign their IP
 - Shared rewards:
 - 33% Inventor - 33% Department – 33% Innovation Fund