

Marks&Clerk



IP and IP Portfolios

James Robertson

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What is IP?

- IP (Intellectual Property) is a range of intangible property rights.
- Patents - products, processes, uses
 - e.g. new class of chemical compounds, synthetic pathway, use e.g. of engine lubricant as rust inhibitor.
- Trade marks – brand identity, logos.
- Designs - look/feel of products.
- Copyright - original literary, dramatic, musical and artistic works inc. computer programs, brochures.

What is IP?

- Patents, trade marks and registered designs give monopolies
- Copyright only prevents copying

Limited term for patents (20 years), designs (25 years) and copyright.

What is IP?

- As a piece of property it can add a tangible value to your company, and can be sold, licensed, and even mortgaged.
- IP can form the foundation of a business, giving you a monopoly over your technology, and allowing you to establish a niche in the market.
- For any technology company, well managed IP is essential, particularly if you want to grow and develop the business, do transactions – new investors, flotations, collaborative R&D etc., take products to market.
- Like any type of property, you have to identify it, protect it, and assert your title in it.

What is IP?

Patents basically protect the way things work, and I'll be focussing on them.

If you want to know more about trade marks, designs or copyright then please ask me afterwards.

Examples of key chemical patents

Dow/Exxon – Metallocene catalysts and olefin polymers

- EP 0418044 ("Metal complex compounds, process for preparation and method of use") (Dow)
- EP 0608369 ("Elastic substantially linear olefin polymers") (and family - 24 granted European patents) (Dow)
- EP 0420436 ("Olefin polymerization catalysts") (and family - 20 granted European patents) (Exxon)

Together, they are credited with revitalising the polymers industry.

Examples of key chemical patents

- Gore-Tex - US 3953566 (GB 1459670, GB 1355373; "Process for producing porous products"); EP 0106496 ("Porous PTFE material")
- Used in "breathable" clothing, grafts, implants etc.



Examples of key chemical patents

- 3M - US 4576850 / GB 2027441 ("Shaped plastic articles having replicated microstructure surfaces")
- The key patent behind retroreflective coatings.



Examples of key chemical patents

- DuPont - EP 0518225 ("Aqueous pigmented inks for ink jet printers")
- Key patent behind modern inkjet printer inks.



Examples of key chemical patents

- These patents have been worth billions.
- Without patents, other companies could have copied/reverse-engineered the technologies, and the original developers would have made only a tiny fraction of what they actually have.

Building your IP portfolio

You have to:

- identify it;
- protect it; and
- assert your title in it.

Identifying your IP:

- Bear in mind the technical problems that you are overcoming – may be patentable.
- Regularly review your technical developments for IP.
- Keep invention records – gives a permanent record of inventions, inventors, date of invention, allows prioritisation.

Building your IP portfolio

Requirements for patentability – your invention must be:

- Novel;
- Inventive (non-obvious); and
- Capable of industrial application.

Rule number 1:

Shhhh!

Building your IP portfolio

2. Talk to your patent attorney early. If you're in academia, get the tech transfer people involved and enthused.
3. Provide a clear and detailed written description of your invention.
4. Present your invention as a technical solution to a technical problem.

The better information you provide your patent attorney, the better the patent application and the better value for money.

Cost/Time:

Up-front: variable, but ballpark £5K. Pre-filing searches are worthwhile.

@ 12m: International (PCT) patent application – ballpark £3.5K

@ 30m: Regional/national phase - £1-2k upwards per country/region

And... ongoing prosecution, grant, maintenance costs.

Building your IP portfolio

- For spin-outs, make sure that the deal with the University is a good one and covers future situations.
- Make sure that you have got good employment contracts – particularly including terms confirming that IP rights are the property of the business, and requiring employees to assist in executing necessary documents.
- Retain original employment contracts long-term.
- Get written assignments from inventors.
- Keep invention records.
- Pro-actively manage your IP – get reports of due dates on cases, plan ahead, budget for expenditure, take a strategic view of your IP and its value, get searches done, be aware of your competitors.
- Good management is essential for a growing IP portfolio.

Case Study – Ceres Power

- Spin-out from Imperial.
- Started out with invention of new fuel cell electrolyte material.
- This opened up the new field of metal-supported intermediate temperature solid oxide fuel cells (IT-SOFCs).
- Development work is now focussing on the first commercial product, with a lot of effort going in to balance-of-plant engineering.
- Now a PLC, leading the technical development in their field.
- Centrica just paid £20M for a 10% stake, and committed £5M to 2011 for product development and trialling, and placed a forward order for 37,500 domestic CHP units.



Case study – Ceres Power

Key behaviours:

- Ambitious drive to commercialise their technology
- Brought in experienced business people early on – CEO, CFO, deal-makers
- Good, skilled, pro-active management of their IP
- Real focus on the commercial product

Overall:

- Don't be afraid to ask for help – it's money well spent
- Don't let the academics run the company!
- You can't be an academic and have a spin-out. It's one or the other.
- Equity dilution is okay

Any questions...?

Marks&Clerk



James Robertson

Marks & Clerk

90 Long Acre

London WC2E 9RA

T +44 (0)20 7420 0000

jrobertson@marks-clerk.com