

# From researcher



# to attorney

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**Mike Zammit** reflects on the different perspectives of IP for researchers, IP coordinators and patent attorneys.

**I**n my career, I have spent time working as a researcher, an IP coordinator, and more recently as a patent attorney. Together, these roles span the process of IP generation and protection – the researcher spends time on generation, the attorney on protection, and the IP coordinator participates in each activity. Experiencing these different perspectives has changed my understanding of IP.

### Different roles – an overview

Researchers may undertake fundamental research directed at explaining the world around us, the purpose often being the explanation itself. There are direct benefits of this research, for example to other scientists, and indirect benefits can also flow, such as the pure research into the structure of the atom that led to nuclear power and silicon chips. Applied research is more focused on finding answers to specific questions,

which are typically directed at solving problems in the marketplace, such as making a process more efficient or cost-effective, addressing a polluting or less sustainable process, or product development generally.

IP coordinators work with senior in-house IP counsel, business development managers and outside IP service providers to protect new and existing IP assets locally and abroad to meet business IP needs, including providing IP advice and education to researchers (see box page 27).

Attorneys advise on IP generally, and assist IP owners to register, maintain and enforce their property (see box).

### The researcher's view

In my experience, some researchers perceive IP as a 'necessary evil', and are often in the dark about IP/legal matters, or possible business uses of IP. There are not always easy answers to questions such as: 'Could/should the

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## IP coordinators and attorneys in action

### IP coordinator

- assessing invention disclosures for technical merit and value according to strategic business direction
- facilitating patent review meetings to priorities inventions for patent filings
- coordinating/conducting invention brainstorming sessions
- working with and managing outside counsel in connection with the filing and prosecution of patent, design and trade mark applications
- identifying and participating in any out- and in-licensing opportunities
- providing IP support with respect to financing, merger and acquisitions
- providing IP training
- defending IP assets.

### Attorney

- advising on IP, and helping IP owners apply for, register and maintain their property both locally and abroad, e.g. drafting patent specifications, advising on whether a development is patentable subject matter, and whether it is new and sufficiently inventive enough to justify a patent, lodgement of applications with government bodies and guiding the application through the process
- assisting in technology transfer, e.g. by licensing
- conducting IP audits, e.g. organisations, products, systems
- conducting litigation both locally and abroad
- assisting clients manage their IP portfolios, including advising on IP held by others and the risks in infringing, or for working around that IP.

development be patented?', 'What other forms of IP should be pursued?', 'What other pre-existing company-owned IP is there?' and 'How do I leverage that IP into new products under development?'. Often, valuable time and money is also spent 'reinventing the wheel'.

Many 'green' researchers are uncertain of what to invent, how to invent, how to invent around or in front of others, how to stand on the shoulders of other inventors, and how to prevent others from inventing in front of, or on top of, their own inventions. Answers to these questions often come from a deeper understanding of IP and/or a better commercial understanding.

In terms of the prior art, patent prior art searches, in particular, can be difficult to conduct and the output can be difficult to understand, so that there can be a tendency for researchers to ignore patent prior art because it is in an unfamiliar form. However, it is well

understood that ignoring the patent literature could be disastrous if one does not want to reinvent the wheel. The significance of different patent documents can also cause some uncertainty (e.g. continuation, divisional, provisional, complete). Additionally, to those who are inexperienced or untrained, patent prior art documents can sometimes be indecipherable, with frustrating amounts of repetition that obscure the invention, and without all the scientific information provided for the invention to be repeatable.

Researchers are also under pressure to invent or develop a new product and get to market quickly. There are competing pressures on time and budget and practical matters such as being forced to use existing equipment or resources, which may not be ideal. Cross-'fertilisation' of the IP generated by different research teams is also sometimes not explored and exploited. Other options such as

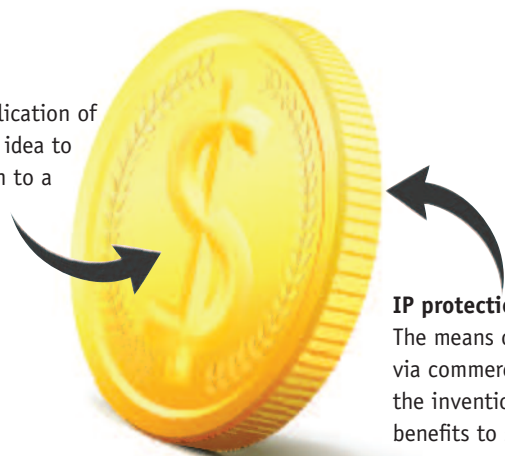
licensing-in technology or potentially invalidating a 'blocking' patent are not always considered. In an academic setting, there is often the added pressure to publish in order to justify grants, and patents are viewed as second-tier publications because they are not peer reviewed and do not count towards publication metrics.

### The IP coordinator's view

The IP coordinator's role starts with a deep understanding of the business strategy so that informed IP decisions can be made. For example, the business strategy should assist with answering questions such as: 'What has been developed that could be protected?' and 'Of the IP that could be protected, what should be protected?' Of course, it must be a business decision on what gets protected, because an organisation simply cannot protect everything invented, especially due to limited resources. And of course a patent does not guarantee

### IP generation

The practical application of a discovery or an idea to provide a solution to a problem or need.



### IP protection

The means of creating wealth via commercial exploitation of the invention, and of bringing benefits to society.

Researcher

IP coordinator

Attorney

#### Two sides of the coin: the IP coordinator works with both researchers and IP counsel.

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commercial success; rather, it is a launching pad for commercial activity. Generally speaking, IP protection should strike a balance between what the market wants (i.e. 'the pull'), what the business capabilities can provide (i.e. 'the push') and what the competition is offering (i.e. 'the clash').

The IP coordinator will also need to grapple with questions about when, where and what to file. The 'what' is deciding on which inventions to pursue and which not to pursue; the 'where' (to file for protection) is usually dictated by factors such as the jurisdictions in which the major markets are located and where manufacturing will take place. Licensing possibilities may also affect the decision. The 'when' is a more complex question to answer. An applicant should file for protection when a new product may have a commercial advantage (to the applicant or its competitors), but before any non-confidential disclosure or commercial exploitation. There is also a balance between not filing too early (as there may be insufficient enablement; deadlines are triggered, causing costs that the applicant is

unable to meet at a time when the product is not fully developed; or potential follow-up applications on improvements may be required), and not filing too late (the competitor could file first, or the invention is superseded).

It is very likely that the IP coordinator will be faced with highly relevant IP owned by third parties. There are essentially five options to consider.

- **Avoid it:** Work around the IP at project design stage.
- **Ignore it:** Ascertain the likelihood of being sued.
- **Licence it:** Attempt to negotiate a licence early with the patentee to use the technology.
- **Attack it:** Ascertain the likelihood of invalidating the patent and having it removed from the Patent Office register.
- **Buy it:** Negotiate the purchase of the relevant IP or competitor's company.

There are many other responsibilities, such as providing training and support to assist each team with their IP requirements, including watching competitors and

understanding which companies may see your IP as infringing theirs. It is also important to continuously manage the content of the IP portfolio to ensure that it has continuing relevance to commercial strategy, comprising reviewing important IP assets to ensure that they remain valid and useful. Outside counsel must be managed, including decisions on when to get them in, what information to provide, and what to ask, while simultaneously seeking to minimise IP costs where possible, especially since there is usually a fixed budget.

### The attorney's view

Attorneys are trained to think slightly differently from researchers. For example, where a researcher will try to explain something that is unknown and will postulate theories, an attorney generally thinks in a problem-solution manner, trying to identify a clear 'inventive step'. Where an academic will generally want to publish everything, an attorney will endeavour to include the best method and an enabling disclosure of the full width of the claims, but needs to be careful of saying too much as this could stand as prior art against later applications.

In the process of interviewing inventors, attorneys can also often identify overlooked or 'dismissed' inventions that may be commercially significant. More often than not, researchers can suffer from '... what I've developed is good, but it's just obvious ...' syndrome, probably because they deal with the technology day-in-day-out and become somewhat blasé about it. It is also common for a researcher to only consider one form of IP protection, whereas the concept may be protectable via a number of forms of protection – it is the attorney's responsibility to identify these possibilities.

Although an attorney must have some technical expertise in the same or a related field of art as the invention, the attorney understands that the inventor has a deeper understanding

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of the prior art, and therefore comments from an inventor on prior art documents raised in an examination report are usually invaluable. Sometimes, however, the invention will stray from the field of expertise of the inventor, in which case the attorney will need to cover any gaps in technical knowledge. Further, while the attorney will have a view on what claim amendments may be required during prosecution, the input of the IP coordinator is extremely important to ensure that the resulting IP is aligned with the business needs.

Generally speaking, the researcher is focused on solving a relatively narrow problem in one field of art. It is

the attorney's role to think broadly and attempt to expand the scope of the IP as much as realistically possible when drafting the application in order to attempt to maximise the commercial value of the resulting IP. (Typically the broader the claim, the more valuable the IP, although in crowded fields of art narrow IP protection can still be quite valuable.) An attorney is also concerned with ensuring that the entire supply chain is protected. For example, in addition to directing claims to the article itself, the attorney should ensure that claims are drafted to protect the components of the article, and the use of the article (considering the answer to questions such as: ‘What is the context of its use?’, ‘How is it used?’ and ‘How might it be modified?’). It is also important to consider the time horizon: what could the invention be used for in 10, 15 or 20 years’ time? Alternative uses in related fields of art should also be considered, and different permutations of the invention. For example, what happens if the order of the features is rearranged, or if a feature is removed, or an equivalent is used instead? It is especially important to consider how the claims are drafted to increase the likelihood of catching an infringer. These considerations are not always at the forefront of the researcher’s mind.

The attorney has specialised training in technical legal matters, such as drafting patent specifications,

freedom to operate advice, and challenging the validity of a patent. Attorneys must also have an excellent knowledge of the patent laws of our major trading partners, and in particular the countries that are of commercial interest to the applicant. This can be a challenge, especially since laws change frequently.

There are many overlapping responsibilities between the IP coordinator and the attorney. However, where there is no IP coordinator, the attorney will be expected to step into the IP coordinator’s shoes, although clearly in this case it will be the researcher’s responsibility to be on top of the commercial aspects of the invention and understand the relevant marketplace.

### A holistic approach

Each of these IP roles is essential for the generation and commercialisation of technology. IP coordinators and attorneys operate at the interface between science, law and commerce, and therefore have especially challenging and rewarding roles to play. However, teamwork is paramount to a holistic approach to IP generation, protection and management.

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