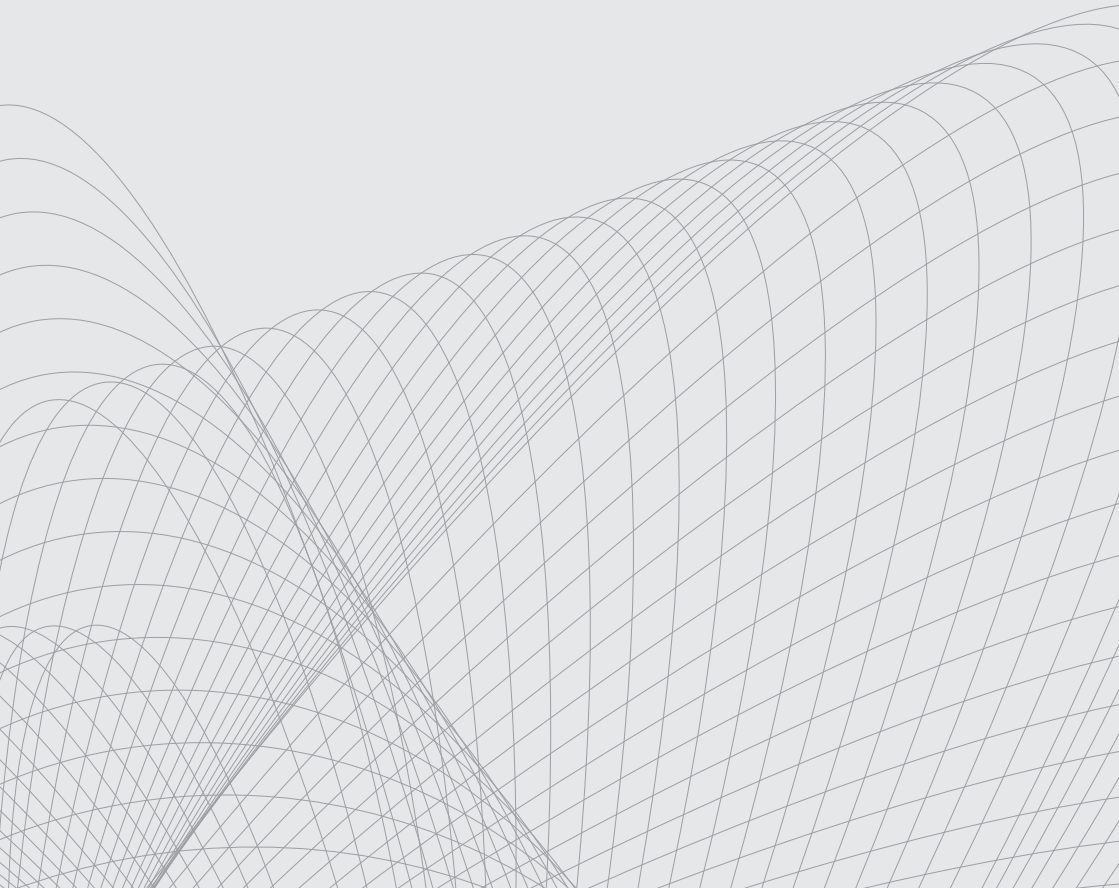
Abel+Imray

IP & Investment

A Guide for Founders



Introduction

Abel + Imray have a strong track record of helping innovative companies, start-ups and spin-outs get their Intellectual Property (IP) position in good shape for investment. This guide has been written by our IP advisers with input from investors to share our experience and to highlight some commonly-seen pitfalls.

Every company is different

No two companies are identical; their strengths, weaknesses, and plans with regard to IP and everything else will differ. The same company as it travels along its investment journey will change over time. It is therefore impossible for a general guide to provide tailored individual advice. Rather, the aim here is to highlight some of the issues you may encounter on your journey. We are always happy to provide specific advice tailored to your needs, and you will find contact details at the back of this guide.

What is IP?

Intellectual Property (IP) is a catch-all term for intangible assets which can provide significant value to an innovative company. IP includes inventions which may be protected by patents and trade secrets; reputation which can be protected by trade marks; creative works, which can be protected by copyright; and designs, which can be protected by design rights. Abel + Imray have separate guides to patents, trade marks and designs which are available at abelimray.com.

IP versus IPR

Sometimes the terms “IP” and “IP rights” (IPRs) are used interchangeably. Preserving the distinction between these terms as shown in the table below can, however, be useful especially for early-stage companies in conversations with inventors. While such companies may not yet have acquired as many IP rights as they would wish, they may still be able to talk confidently about their IP to investors by understanding what is or can be protected.

Types of IP	IP Rights Registered	Unregistered
Inventions	Patents	
		Trade Secrets/ knowhow
Designs	Registered Designs	
		Unregistered Designs
Literary (including software code), Artistic & Other creative works		Copyright
Brand Reputation	Registered Trade Mark	
		Unregistered Trade Mark

Broadly speaking, IP is what you have created. IPRs are the legal property rights which are used – in a court, for example – to protect your IP. In general, unregistered IPRs – such as copyright – arise automatically (subject to certain conditions), while registered IPRs – such as patents – need to be sought via an application, examination, and grant process taking time and money.

Understanding that distinction between IP and IPRs can be useful for early-stage companies who may not yet have spent the time and money needed to obtain registered IPRs. For example, it may be incorrect for such companies to describe themselves to an investor as lacking IP. Even if a company is too early-stage to have applied for registered IPRs, they should still consider what IP they have in their business and what IP they are likely to generate in the future. They should take steps to secure ownership of that IP, and to avoid prejudicing the later obtaining of registered IPRs – for example by keeping technical details and product designs secret.

When an investor asks an early-stage company without IPRs if they have IP, the company shouldn't sell themselves short. If they have identified IP in their business and taken care to protect their ability to obtain IPRs in it at a later date, this is likely to impress an investor more than a company which may have IP but has not identified it and is unable to answer an investor's question about IP in a positive, forward-looking way. A company which has identified its inventions, is sure that they own them and has kept details of them secret, and which is seeking investment, in part, to file patent applications, is more impressive than a company that does not know whether or not they own IP because they have deferred considering the matter.

Furthermore, some IPRs – like copyright – arise automatically and for some companies can be valuable. Such assets can make you attractive to investors but only if you have identified them and are able to demonstrate to an investor both that those IPRs exist and that you own them.

Why do investors care about IP?

IP is an asset – perhaps the biggest asset – against which investments can be secured. IPRs can help give your company exclusivity in the marketplace, and holding identified IP signals to investors that your technology is new and your company is innovative. For some companies, IPRs can also be a source of revenue in their own right, for example through license agreements with third parties.

Investors worry about risk. Regardless of whether or not the company they are investing in has their own IP, they will also be interested in whether the IPRs of third-party competitors may impact commercial exploitation of their investment. Part of your job, as a founder, is to acknowledge the risk investors are taking and help to reassure them that the risk is understood, minimised, and mitigated – we'll come back to third party rights when discussing 'freedom to operate' later.

Why should you care about IP?

Aside from attracting investment, securing IPRs in your products can give those products credibility and secure ownership in them. Owning IP and IPRs can mean that you are impossible to ignore, encouraging customers or investors wanting to work in your space to come and work with you.

Some companies use their IPRs as assets against which lending is secured. Because IP is a type of property, it can be transacted like other forms of property – in effect, mortgaged, bought, sold, or rented out (licensed) as you might do with real estate.

Under an IP licence, you may grant another company permission to do something which would otherwise be an infringement of your IP rights, in return for a fee, or perhaps a cross-licence under their IPRs. Licensing can be especially useful if you have IPRs with broad commercial applicability and you are not in a position to exploit them across their whole breadth yourself. For example, suppose your company owns IPR in a drug-delivery device which is applicable to a wide range of drugs. Selling the device loaded with each of those drugs yourself may be unattractive, particularly if you lack the expertise and regulatory approval to manufacture and sell drugs, or if you would be blocked from doing so by third party patents. A sensible strategy in that situation might be to licence the IPRs in your device to multiple pharmaceutical companies in return for a fee, such as a royalty.

Even if the above has not persuaded you that you should care about your IP, your competitors will care about their IP and you can expect them to come after you if you infringe their rights. Armed with your own IPRs, and an understanding of theirs, you will be better able to respond to such challenges.

What do investors expect from you?

This depends to a large extent on what stage your company is at. For an early-stage company, a sensible investor should not expect you to have everything perfectly in place, but no investor will be impressed if they sense that you have failed to engage with IP. You must, regardless of your stage, expect to be asked about IP by prospective investors, and you should be prepared and in a position to give an honest, credible, and forward-looking answer to investor questions concerning IP. Key topics you can expect investors to be interested in are identification and ownership of IP.

IP ownership

It is absolutely vital to get ownership right, and to consider it early. No-one is going to want to invest in an asset that they do not own. You can expect an investor to ask which individuals have been identified as the originators of your claimed IP, and how the company seeking investment owns each of the originator's contribution to the IP.

You can expect investors to ask especially nosey questions around IP-originators who, at the time of making the IP, were not employees/directors of your company. The questions will become especially probing if investors see or suspect the involvement of universities, consultants, contractors, or individuals simultaneously working for multiple

companies. You may also be asked whether the IP is based on, or follows on from, work undertaken by those individuals in a previous role, such as a university academic or researcher in another company. You need to have your answers ready, and those answers must be honest and credible. If the situation is less than perfect, you must have a credible plan for sorting the situation out.

In the case of inventions ultimately protected by patent applications, the basic principle is that IP ownership starts with the inventors. In the UK, that ownership usually passes automatically to the inventors' employer, perhaps even if the IP is not related to their day-to-day work. The key consideration is whether the inventor is employed in a role that is expected to result in an invention being made, not necessarily the invention that was actually made. Ownership may then pass on to a third party where there is an appropriate agreement in place, such as a research contract.

Where there has been a collaboration between parties, joint ownership of jointly-developed IP sometimes can seem like a good idea because it comes across as fair and reasonable. However, for various reasons, joint ownership of IP is almost always a bad idea and can scare investors away – it is often better for collaborators to agree on one of them owning the IP, perhaps with the other(s) given a licence to use it in their field of interest.

Identifying IP

A company should invest time and effort into understanding its IP position. You cannot take a good decision, for example, about acquiring IPRs, nor answer investor questions about IP, nor fully value your assets, if you don't know what your position is. We recommend that you periodically take stock of your IP position in order to be certain of what your intellectual assets are. In practice that means at least checking whether your products and/or processes are covered by existing patent applications or trade secret logs and proactively dealing with any gaps or IPRs that are no longer commercially valuable.

This review should also include a check on the ownership of each asset. If it turns out that ownership needs to be clarified or transferred, it is usually easier to do this sooner rather than later.

Abel + Imray are experienced in supporting the IP identification process. This may include training staff or holding periodic "IP meetings" with research teams, or the carrying out of an IP audit. Such regular IP meetings could include a review of upcoming actions on existing IPRs, a discussion of new technical developments, and an update on commercial developments so that IP assets can be kept in line with business objectives.

IP audits

UK companies have the possibility of requesting a publicly funded IP audit from a registered patent or trade mark attorney, and we have considerable experience in producing these. The majority of the cost of an IP audit is publicly funded with only a small contribution (currently £750) required from the company. The scheme requires the company to engage with a government business advisor and is available through Innovate UK, the devolved administrations in Wales, Scotland and Northern Ireland and the Mayor's Office in combined authority areas of England.

An IP audit can be used to review your whole business, identify IP opportunities, and risks, and provide recommendations on steps that could improve IP protection. However, the form of this document is not overly prescriptive and so it can be focussed on a specific area of interest, such as patentability of a particular invention.

It can be useful to show an IP audit to a potential investor. An IP audit may also be useful in helping you direct your own IP strategy. In some cases, follow-on grant funding may be available to help implement some of the recommendations set out in the IP audit.

Types of patents

You may sometimes hear investors and funders talking about “platform IP” and “follow-on IP”. This is usually in the context of patents. The following example is provided to help illustrate those terms.

Company X has an innovative low-cost technology for rapid discovery of novel diagnostic biomarkers. They own a “platform patent” to their biomarker identification and characterization technology. This allows them to secure a monopoly in the territories covered, to their method of discovering novel and useful biomarker. It does not, however, cover the newly discovered biomarkers themselves, just the process of finding them. Every time they discover a new biomarker, they file “follow-on” patent applications to it. Each of those applications potentially protects a diagnostic test incorporating a specific biomarker. The commercial and territorial considerations will be different for the platform and follow-on applications.

Platform applications will be most valuable in the territories in which rivals carry out their biomarker discovery, and can be seen as an IPR foundational to the generation of future IPRs. Follow-on patent applications directed to each of the diagnostic tests will be most valuable in the countries in which the diagnostic test is likely to be made or sold. So, for example, a test for a tropical disease may be of most value in countries with large diagnostic manufacturing industries and also tropical countries with large populations likely to purchase and use the diagnostic test.

An IP strategy which seeks to protect both platform and follow-on IP can be attractive to an investor because the platform IPRs give you preferential access to a discovery pipeline with the potential to generate future IP for many years to come.

There is also the balance between trade secrets and the potential for licensing to consider in this example. Some companies may keep their platform IP and their discovery expertise to themselves (i.e. as a confidential trade secret) and use it to generate externally-funded inventions for customers. Those customers may then be permitted to take a licence to (or even ownership of) follow-on IP relating to inventions arising from each project. Other companies may licence out their platform IP to third parties, allowing others to generate their own follow-on IP using the platform technology – in that case, the platform IP may be better protected by patents than trade secrets since confidentiality can be harder to control the wider information is shared.

Further examples of platform IP include drug delivery platforms, screening assays, new materials useful in wide-ranging applications or industries, and manufacturing methods.

You should also remember that patents can be directed to products and to processes (more on this below). It may therefore be possible to obtain protection to a new use of a known product.

IP strategy/policy

Your company should have a clear and credible strategy to build value and a return on investment. An IP strategy must be part of that.

Abel + Imray can assist you in developing an effective and impressive IP strategy. As a minimum, for an early-stage company, we would suggest that you should be able to tell investors that you have engaged with an IP advisor, identified your IP (and if you have not yet protected it, that you plan to do so and that, in the meantime, you are keeping it safe), that you have considered how you are going to handle IP ownership in respect of past and future collaborations, and that you have put in place processes for identifying and deciding upon IP as it is generated in the future. You will also gain credibility if you have budgeted for realistic IP costs and you have a strategy for dealing with Freedom to Operate (FTO) issues, which are discussed in more detail below.

As you look further ahead, it can be useful to map your IP strategy against your commercial plan, since the IP decisions you take should support your business objectives. We have discussed such considerations in a series of articles available on our website, starting with ‘Part 1 - Matching your IP strategy to your commercial plan – making the most of your resources’.

In those articles, we consider how your business model may help shape your IP strategy, contrasting start-ups eyeing up (i) developing, marketing and selling technology itself, (ii) licensing technology to others, or (iii) building a business for acquisition.

A company seeking to commercialise its technology itself may rely more heavily on trade secret protection, and may seek patent protection only in the countries where it reasonably expects to have a commercial footing within the next 15 or so years. It may also invest more effort in its own FTO analysis to better understand the risks of investing in manufacturing hardware.

A company intending to monetise its technology primarily through licensing may find that IPRs are a more robust form of protection, and easier to manage, than trade secrets, and could seek patent protection more broadly in the countries where prospective licensees operate. It may be useful to invest in having patents granted relatively quickly at least in certain key jurisdictions to demonstrate the validity of rights to licensees, but FTO may be left more in the hands of licensees who better understand their own markets.

Future acquisition may be more relevant in an area with high capital expenditure requirements or in a mature market dominated by established players. Companies with such an objective may find it useful to mirror the patenting strategy of those incumbents, using their patent portfolios to inform where patent protection may be most valuable. However, while such established companies may rely heavily on trade secrets, a similar approach could be more risky for start-ups if they need to share technical details of their innovations in order to attract interest from potential buyers. In that circumstance, a combination of patents for the core technology and trade secrets for the finer details (which can be held back during early negotiations) may be most effective. FTO analysis based on the portfolios of those major players can also help identify which might be the best fit for your technology.

These are of course only example scenarios and considerations, and reality is often both more complex and more variable with plans changing as start-ups develop and mature. Having some flexibility in your IP strategy is strongly advised, but keeping one eye on your commercial trajectory can nevertheless help you make better IP decisions.

What is the purpose of your IP rights?

There are many reasons for wishing to acquire IP rights. We ask our clients why they want a patent, and suggest that you should ask yourself this too!

Patents are often a major expense, so there should be a clear business reason for acquiring them, and for continuing to maintain and pursue them. They are also detailed technical documents that will end up in the public domain, and so there should also be a clear business reason for publishing that information.

Communicating the reason(s) to your patent attorney makes sense because, if we are left to guess, you may end up with a less-than-optimal strategy.

Reasons for filing patents include: to exclude your competitors from your area of commercial interest; to define and secure your background IP before embarking on a collaboration; to cover your product with a patent to take advantage of lower corporation tax rates under the “Patent Box” regime; and to demonstrate, for example, to customers and inventors, the innovative nature of your product.

Sometimes a patent is wanted because an investor said that one is needed – in that circumstance you should make sure you understand why the investor is so keen.

These considerations also feed into the timing of patent filing and prosecution. There are many things that can be done to speed up or slow down the progress from an application to a patent. Do you want a patent granted quickly or do you want to defer costs and keep your options open by allowing the process to proceed more slowly?

FTO – what is it and why should you care?

"FTO" stands for "Freedom to operate" and describes your relationship to other people's IP and most particularly your risk of infringing it. As jargon, "FTO" is also used to describe the analysis or report you may commission to satisfy yourself (and investors) that you have freedom to operate ("can I see your FTO for product X?").

As explained in more detail below, FTO is not the same as patentability – your product can be new and inventive, and you can have a patent for it, but still infringe someone else's patent. That can happen if, for example, your inventive product is a further development of technology first made by someone else.

For many investors, looking at an early-stage company's FTO may be more important than its IPRs. The reason for that is simple. If you are an innovative company with great people and a good business plan but not yet any of your own IPRs, you may still be an attractive proposition for investors because when they have invested in you, you can use their expertise and some of their money to sort out your own IP and file your own IPRs. On the other hand, if your business plan is completely blocked by someone else's IPRs, there may be little investors can do to help you sort that out, and investors may very well prefer to take their investment elsewhere to someone who has a better FTO position.

Note that FTO can relate to IP ownership. If the founder does not own the IP in their own inventions, because, for example, it belongs to a previous employer, what is to stop the previous employer enforcing their ownership rights and creating a FTO problem? There is no requirement for a third party to raise infringement issues immediately. They might not bother when you are only a small and poor company, only to start causing trouble when you begin making significant money.

The bad news regarding FTO is that it is very difficult, and thus time consuming and expensive, for an IP attorney to give you cast-iron assurances that you have FTO. This is due to a number of reasons. Firstly, an early-stage company may not yet have a clearly defined product against which a clearly defined FTO opinion can be given. Secondly, giving a FTO opinion over pending third-party patent applications is difficult because it involves estimating the likely granted scope of those applications, and making assumptions on what the third party might do in future. However, the costs and uncertainty surrounding FTO does not mean that it is an issue which can be ignored. Doing so will not impress a potential investor.

That uncertainty also means that it is often not appropriate to spend a large amount of time and money on comprehensive FTO analysis when you are still at an early stage of product development. FTO efforts need to be matched to your commercial interests, and pragmatism is needed. It is important at least to be aware of your major competitors, and to check what IPRs they have in your area of interest – a third party who would see launch of your product as a threat to its market share has an incentive to challenge you. You should keep an eye on those competitors, have an idea of where the main FTO risks may arise and have a plan to mitigate those risks. Mitigations might be to seek a licence, await the expiry of a problematic patent, or flex the design of your product to avoid infringement. An IP audit can include useful comments on FTO issues and help demonstrate to investors that you are engaged with the issue and are not simply ignoring it.

Your IP pitch

As a rule of thumb, you should assume that any investment pitch content may not remain confidential. Although an investor is unlikely to deliberately and consciously steal or disclose your invention, by their very nature, investors talk to lots of people and may find it difficult to compartmentalize what they have been told.

You should, therefore, take care to avoid disclosing full details of your invention, especially if you have yet to file patent applications to it, in a pitch. It may be preferable to explain what your invention can achieve rather than how it achieves it. If it is necessary to disclose more than this, it would be better to do so at a follow-up meeting and under the provisions of a specific non-disclosure agreement. Abel + Imray can review pitch documents, if required, prior to use.

Timings and costs

An investor will want to see that you are realistic about the timing and cost of gaining IP protection. Be aware that patent costs can start low-ish but rise over time. Factor this timing into your plans. Include the cost of securing IPR in your pitch "ask". Abel + Imray can assist you in producing IP budget forecasts.

For an outline of typical timings and costs of the patenting process, see the flow charts at the back of our Guide to Patents, available on our website here.

Trade marks

Trade marks give you a measure of exclusivity in a brand, which can be a name or logo or another identifier. As your reputation grows in the marketplace (and with investors) it will start to attach to your brand. Problems can arise if your reputation is attached to a brand which belongs to someone else. We therefore recommend that before a brand is adopted that some clearance searching is done to check whether it is available. There may also be value in registering your main brands, for example your company name as a trade mark before you invest a lot of time in building your reputation.

See our Guide to Trade Marks for more information, available on our website here.

Designs

Registered designs provide protection of the appearance of a product, or part of a product. Although sometimes seen as less valuable than patent protection, registered designs can be a useful IPR where there is value in the aesthetic appearance of your product, particularly if you have a consumer product and you are concerned about copycats. Design registrations can be obtained quickly, and at relatively low cost.

See our Guide to Registered Designs for more information, available on our website here.

Common pitfalls

Conflating FTO and patentability

It is tempting to see the IP landscape like a map of countries each with their own territories and borders between them so that everything within the border of a specific territory belongs to one company and everything outside the border belongs to someone else. This can lead to the misleading simple idea that operating within your own territory is safe whilst operating outside your territory is dangerous.

At the heart of this misleading model is the idea that you can avoid infringing other people's IPRs by gaining your own IPRs over the "territory" in which you operate and that other people's occupation of a "territory" will prevent you from gaining your own IPRs over it.

Neither idea is 100% wrong, but they are not correct either. This is because patentability – the ability for you to gain your own patent - and FTO – the ability for you to avoid other people's patents - are distinct issues which need to be considered separately and not conflated with each other.

In order to have patentability your claimed invention must be novel and inventive over everything available to the public at a date earlier than your patent's filing date[1]*. It must be novel and inventive over other people's published patents which are in force (which you could potentially infringe), but also novel and inventive over other people's patents and patent applications which have expired, been abandoned, revoked, or refused (and which you could therefore not possibly infringe). It must also be novel and inventive over other people's patents in obscure countries in which you have no intention of operating and which you could not therefore infringe. It must also be novel and inventive over your own earlier patent publications (which you will not infringe because they are yours), and over all earlier non-patent publications such as academic papers, press articles, internet disclosures, and conversations (which you cannot infringe because they are not patents) anywhere in the world.

1. Note that a few countries have a grace period for earlier disclosures, most notably the US where an inventor's own disclosures in the 12 months before the filing date may be disregarded

It is perfectly possible to have FTO for your invention because no-one else has patent rights currently in force but be unable to claim this "territory" yourself because there is a prior disclosure which would destroy the novelty and/or inventive step of any patent you filed to it. Conversely, you may own an invention to which you could gain a valid patent because not all of its features are disclosed in earlier-dated disclosures but still find yourself unable to operate within the scope of your own patent because someone else holds a valid patent to some part of what you wish to do. The mere fact that you have added extra features to make your invention does not mean that you escape infringement where your invention includes all the features required by the claims of someone else's patent.

FTO and patentability should always be considered separately.

Confusing Applications and Granted Patents

There is a huge amount of publicly available information on patents including Google Patents and Espacenet. We encourage use of those tools because they are free and because they can be a source of valuable information which can help provide familiarity with patents and a broad overview of the patent landscape.

However, we have sometimes seen clients unnecessarily concerned about FTO over some of the results they find in their own searches. On further investigation, it transpires that the patent publications which they thought that they might be infringing were not granted patents but merely abandoned or expired applications.

In general, a patent is published twice – firstly as an application (these publications are usually given a number with an "A" (or A1, A2, A3) suffix – then published again on grant when it is given the same or a different number with a "B" suffix. Not all patent applications are granted meaning that there are many more "A" publications than "B" publications in existence. Not all "B" publications are in force. This is because patents may be revoked or abandoned and generally expire after 20 years.

Often the claims of the "A" publication are broader than those eventually granted in the "B" publication. When you (or the Patent Office) are assessing patentability of your own patent rights, it is usual to review the disclosure of earlier patents in their "A" version because that version will have a potentially broader disclosure than the corresponding "B" publication. In that assessment, no account is taken of the status of the patent (in force, expired, refused, etc.) because that is irrelevant to the patentability of later applications.

However, when considering FTO, it is usual to consider the claims of any granted "B" publications. If there are any "A" publications which are still pending and thus have the potential to lead to granted claims, they may also need to be considered, but it is important to understand that the claims may yet be narrowed before a patent is granted. Any patent rights which are irreversibly "dead" (either before or after grant) or which are in force only in territories in which you will not be operating, cannot present any FTO issues.

It should be noted that patents last no more than 20 years from filing.[2*]

Old patents which have expired, or which are about to expire can be a useful source of information and remain potential prior art against which later applications must be novel but are unlikely to cause FTO problems.

Disclosing before filing

The subject matter of a patent's claims must be novel and inventive over prior art. The prior art is any information available to the public before the filing/priority date of the patent. It is important to appreciate that this includes not just written disclosures but oral presentations as well.

In practice, this means that your patent claims must be novel over any prior public disclosure made by anyone – including yourself – anywhere in the world. You should therefore seek either to file a patent application before making a potential novelty-destroying disclosure, or to make that disclosure under conditions of confidentiality. In the UK at least, confidentiality can be implied (i.e. without a written agreement), but is more securely provided with a written non-disclosure agreement (NDA).

2. There are limited provisions for up to 5 years of effective extension of rights covering pharmaceuticals and plant protection products

Mistakes which we sometimes see include third party collaborators who have failed to appreciate the importance of keeping the invention secret until a patent application has been filed, and academic inventors who have submitted a journal article before the patent application is filed. Although a journal peer review process may be confidential, this should be checked with the journal, and you should be aware of journals which make a pre-publication available online because that will qualify as a public disclosure.

If you have accidentally made a potentially prejudicial public disclosure, you should speak to a patent attorney as soon as possible. This is because there are a handful of countries – the USA and Japan among them – which allow a 6- or 12-month grace period prior to patent filing during which disclosures by the inventor can be discounted. It may also be possible, in some circumstances, to obtain patent protection in other countries if the disclosure was made in breach of confidence.

Working from the specific to the generic

It may be tempting to adopt what seems, on the face of it, a sensible strategy of developing an invention initially quite narrowly to a specific use case. Following that approach, a relatively narrow patent application may be prepared to a narrowly defined invention directed to the specific use case, with the intention of later, when more data demonstrating the invention's broader applicability is available, filing a broader patent application. For example, perhaps a chemist suspects that a commercially useful de-polymerisation reaction can be catalysed by a novel family of carboxylic acid metal salts. They carry out experiments using copper acetate and get positive results. They suspect that other salts might work but have no data yet to support that, although they plan to obtain that data within a year or so. They think that a sensible patent strategy might be to file an application now directed to the copper acetate only and then, when they have accumulated data two years later, they plan to file a broader patent application.

This strategy would be a mistake because an earlier specific disclosure of "copper acetate" would be novelty destroying to a later generic claim to "metal carboxylic acid salt", which necessarily encompasses the specific metal carboxylic acid salt copper acetate. A far better plan would be to try and draft the first patent application as broadly as possible, perhaps to include carboxylic acid metal salts in general with 'fall-back' positions to specific salts including copper acetate. A good patent attorney will probe an inventor to try to determine the true breadth of the invention with questions like "What other compounds might work?". If later research revealed that a particular salt – let's say zinc propionate – was especially good, then there may be the option to file a further application to that, even if the idea of using metal carboxylic acid salts had been publicly disclosed. This is because generic disclosure – "carboxylic acid metal salt" – is not novelty destroying against a later specific claim – "zinc propionate".

This is only a simplified summary of the legal position, but the principle of "early patents broader – later patents narrower" is a good rule of thumb. Inventors who do not undertake "intelligent speculation" as to the potential scope of their invention, or who do not tell their attorney the full potential scope, risk shooting themselves in the foot.

Ownership and employment pitfalls

There are many situations where an employer will automatically own inventions made by their employee. We often see inventors who started work on their invention whilst employed by someone else. They may think that they are in the clear because they are on good terms with their previous employer and have received from them assurances that they have no interest in claiming ownership in the invention. However, this may not be enough to formally set the record straight on the ownership situation.

According to UK law, employers do not simply gain a right of first refusal in an invention, rather they may automatically acquire ownership of the invention. In practice, this means that in such a situation, the former employer may need to assign the invention to your company. A result of this is that an investor is likely to ask about ownership and, if there is a former employer in the equation, they may need to see more than mere assurances of lack of interest in pursuing the invention from the former employer.

If the former employer is a university or other public institution, it should be appreciated that they may be under a duty to maximise the value of their property and that is actually quite difficult for such bodies to give property away without getting something in return.

How much data?

We are often asked how much data should be included in a patent application and this can be a difficult question to answer. You need to strike a balance between including too much data and disclosing too little.

Too much data has several drawbacks including the risk of giving away valuable trade secrets unnecessarily. There are also risks arising from delaying patent filing in order to accumulate more data. On the other hand, filing without enough data can make it harder to demonstrate to a patent office that the invention is sufficiently disclosed across the whole scope of the claims. In particular, patent offices may not be convinced that the invention works for every variant covered by the claims.

You should discuss with your patent attorney the level of data needed and the timing of it. In some circumstances, it may be possible to add data after your first patent filing. In general, it is recommended to have some data before filing, since a general understanding of how the invention works will allow for better drafting of the patent application. However, keep in mind that the objective is likely to have sufficient data to make the invention plausible, not necessarily fully proven. Remember that an investor will likely want to see at least plausibility too.

An inventive step not leap

It is generally well understood that the subject matter of a patent needs to be novel.

Less easily understood is the requirement for an inventive step.

Essentially, the subject matter of a patent needs to be not-obvious over prior disclosures. Obvious differences between the prior art and a novel product or process include routine variations such as swapping out components that are known to provide the same function, and trivial changes to process conditions. On the other hand, good indications of an inventive step include unexpected results or something which works in a different or better way to that which is expected.

In our experience, founders can over-estimate what is needed for an inventive step. Remember, it is not the size of the step which is important but whether or not it is obvious or predictable over prior disclosures that matters.

If your technology is novel, solves a technical problem or overcomes a deficiency of previously known systems, or is surprising in some way, you should discuss it with an attorney so that they can advise on whether it meets the legal test for inventiveness.

Further help

We hope that you have found this guide helpful. If you would like any further information, then please speak to us.

You can find our contact details on the back page of this booklet, or on our website www.abelimray.com

Glossary

Application – This is the request for the grant of a patent, the registration of a trade mark or the registration of a design made to the appropriate IP-office for example, a national patent office.

Claim – A patent claim is a sentence which defines the scope of the patent-owner's monopoly. In order to be valid, a claim must be novel and inventive over the prior art. Any prior art disclosure falling within the scope of a patent claims potentially invalidates that claim, whilst any third party operating within the scope of a granted patent claim is a potential infringer.

Copyright – A right to prevent copying of literary and artistic works including computer programs, film, music, painting, photographs and drawings. As its name suggests, copyright provides protection against copying. It does not protect against someone else independently creating a similar work.

EPO (European Patent Office) – The EPO grants European patents across 39 European countries. It is independent of the EU. European patents cover all EU countries as well as several non-EU countries including the UK, Turkey and Norway. The EPO also carries out certain tasks in relation to international patent applications, for example carrying out international searches.

Freedom-to-operate (FTO) – The freedom to carry out commercial activities such as making or selling a product without infringing other people's IP. This can be achieved by making sure that your activities fall outside of other people's IP, or by carrying them out under a licence.

Infringement – Carrying out a commercial act, for example selling, making, using or importing something covered by third-party IP.

International patent application – A patent application made under the Patent Cooperation. In international patent application covers 158 (at the time of writing) countries. Filing, search and publication of the patent application will be carried out centrally.

Intellectual property (IP) – Creations of human intellect including inventions, designs and literary, artistic and musical works.

Intellectual property right (IPR) – Legal rights in intellectual property including patents for inventions, copyright and design and trade mark registrations. They may arise automatically or as a result of an application to a governmental or intergovernmental organisation such as a patent office, or IP office.

Inventive step – In addition to being novel (new) a patentable invention must take a step beyond the prior art disclosure which is more than the application of obvious changes. The assessment of inventive step generates much argument between applicants and patent examiners. The Applicant's case is usually helped if he or she is able to point to unexcepted technical advantages resulting from changes to the prior art.

Patent – An intellectual property right granted by a patent office to an invention as defined in the claims.

Prior art – Public disclosures made before the filing (or priority) date of a patent. The subject matter of the claims needs to be novel and inventive over this prior art. Prior art can be any public disclosure including non-written disclosures and can arise from other people or the applicant themselves.

Product vs. process claims – A granted patent with a claim to a product (e.g. a chemical compound, a drug composition, or a device) allows you to stop others from making, selling (or offering for sale), using or importing that product in the territory of the patent. It does not matter how the product is made, and there is also some protection for components used to make the patented product. To establish infringement, you may need to obtain a sample of a third party product, or some other evidence of what a third party is offering for sale.

The product itself must be new and inventive for such patent claims to be granted, which can make patent protection more difficult to secure. However, you may be able to secure powerful commercial protection by obtaining patents in a relatively small number of countries, namely key markets for the product and/or import locations.

A granted patent with a claim to a process (e.g. a method of manufacture or use) allows you to stop others from using or offering to use that process. In some circumstances, some protection may extend to a product made by that process, but that protection is typically very limited, and generally does not cover a product once there has been any further processing or modification of it. To establish infringement, you may need evidence of what processes are actually being used by a third party, which can be tricky if those processes are being performed behind closed doors, such as in factories.

The process must be new and inventive, but the product used in that process, or the product made by the processes, need not be new. Process claims can therefore provide useful protection where an invention is a new way of making a known product, or a new way of using a known product. While it is strongly recommended to always consider if there might be some way to protect a product itself, process claims can still be very useful.

Often, we will include both product and process claims in the same patent application, for example protecting a new product as well as a method of making that new product and a method of using it.

Product-by-process claims – Sometimes a claim to a product is written as a 'product-by-process' claim. That means that the product is being defined at least in part by the process of making it. Although product-by-process claims necessarily include process 'features', such claims are only valid if the product itself is new and inventive. In practice, this means that there must be some feature of the process that imparts the product with a novel characteristic that is both observable in the product and capable of distinguishing it from products made by other (previously known) processes. Patent office examiners are generally very sceptical of product-by-process claims, and it can be difficult to have them granted.

Publication – At 18 months from the priority date of a patent application, the application is published. At that point it becomes prior art against other, later, applications. When a patent is granted, it is published again. The two publications, of the application and the granted patent, are known respectively, as the "A-spec" and "B-spec" after the "A" or "B" suffix on the publication number.

Registered design – Intellectual property rights in designs. They are intended to protect the appearance of objects rather than their function.

Renewal fees – In order to keep a patent, trade mark or registered design in force a renewal fees needs to be paid at regular intervals. If you miss payment of a renewal fee and do not pay it late within a grace period, your right may be lost.

Trade mark – A sign capable of distinguishing the commercial origin of goods or services. Trade marks are often words or logo, but can in certain circumstances be shapes, colours, smells or sounds. Trade marks may be registered with a trade mark registry and unlike other IPRs, provided that the mark continues to be used and renewal fees continue to be paid, they last indefinitely.

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