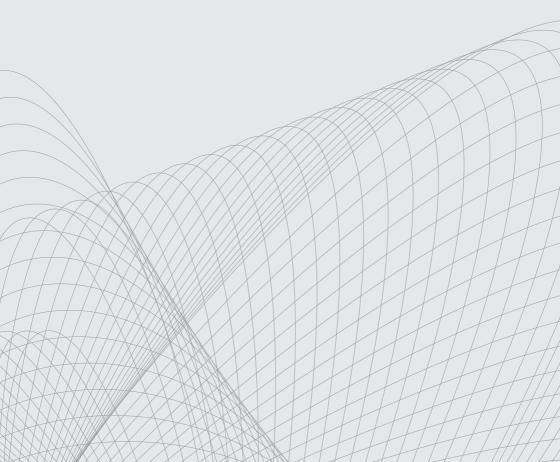
Your Guide to Patents



Section 1
General Guide to Patents

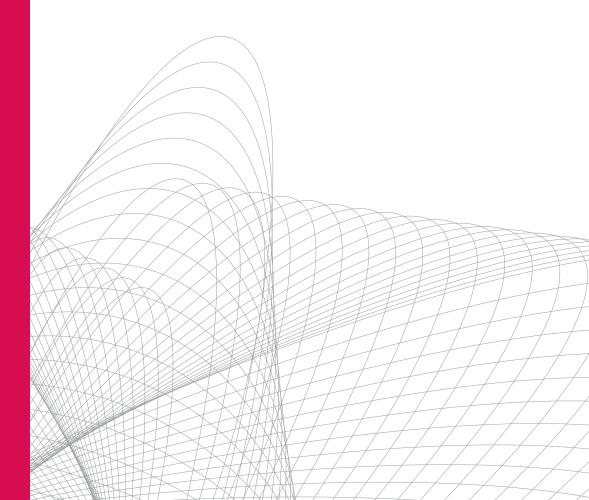
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Section 1 General Guide to Patents



What is a patent?

A patent is a registered intellectual property right granted by or on behalf of a Government over an invention. It allows the patent holder to stop someone else using their invention in the territory in which they hold the patent. Other forms of registered intellectual property rights include trade marks and registered designs. Very simply, patents protect how things work, registered designs protect what things look like, and trade marks protect brands and company names. Your attorney will be able to advise on what sort of protection is most suitable for you.

How do I get a patent?

In order to obtain a patent you must file a patent application. This patent application is then considered by a patent office, and if the requirements for patentability are met, a patent will be granted.

What makes an invention patentable?

Filing a patent application does not mean you will automatically be granted a patent. In order to be patentable, an invention has to be novel and possess an inventive step. Novelty simply means that an invention is new, i.e. it has not been done before. Inventive step is a little more complicated. It means that an invention is not obvious over what has been done before, for example that is is not an obvious combination of two known things or an obvious development of an existing product.

It is important to realise that you only require an inventive step, not an inventive leap. Generally, if an invention has clear advantages over what has been done before, then it arguably has inventive step. There are other factors that make an invention patentable or not patentable, for example the type of subject matter involved. As this is very much decided by the facts of any particular case, you should discuss this with your patent attorney.

Should I file a patent application or keep my invention secret?

If it is possible to keep the details of your invention secret and still commercially exploit the invention, you may be better off keeping it secret. Examples of this are the recipes for various well-known soft drinks and fast food. There is no limit to how long you may be able to keep information secret, compared with the maximum possible term for most patents of 20 years. However, if your invention is straightforward to copy or you do not think you will be able to keep the key details secret, the best way of protecting your invention is likely to be to file a patent application.

By filing a patent application, you are also making your competitors aware of what you are up to. In some cases, you may be better off keeping your invention secret until you are ready to launch it, and making the most out of the advantage of being first to market. If your activities are infringing a third party's patent rights then by filing a patent application this may bring you to their attention.

When should I file my patent application?

Firstly, and most importantly, you should file your patent application before making any public disclosures of your invention. Examples of public disclosures include:

- + Non-confidential discussions of your invention
- Offering to sell your product to potential customers, or adverts for your product.
- + Publications in academic journals and presentations at seminars and conferences.
- + Descriptions of your invention online

Secondly, there is a balance to be struck between filing a patent too early or too late. An application may be filed too early if your invention is at a preliminary, speculative stage. It is necessary to provide enough information in the patent application that your invention is "enabled". This means that a person skilled in the art of the invention (often a person with a similar technical background to the inventor) has enough information that they could make the invention work. An application may be filed too late if whilst developing your invention, someone else independently files their own patent application for the same idea. Before you do, the timing of filing a patent application therefore depends on the circumstances of each particular case.

In some countries, for example the US, a grace period exists. For a time limited period, your own disclosures may not stop you obtaining patent protection in such countries. However, this is the exception rather than the rule. We recommend you discuss any potential disclosures with your attorney, along with your filing strategy more generally.

What is Prior Art?

Prior art is any information publically available before the filing date of your patent application. This can include:

- Verbal disclosures
- + Patents and patent applications
- + Text books and academic papers
- Magazine articles and videos
- Websites

Should I search for prior art before filing a patent application?

As part of the patent application process, a patent office will search for prior art and assess your invention in light of the prior art that they find. However, you may decide you want to look for prior art before you file a patent application. If you find highly relevant prior art, you may decide not to file a patent application, therefore potentially saving some money. However, to search for prior art before filing an application will usually cost from several hundred pounds upwards, and there is no guarantee that you will find the most relevant documents. If you are interested in searching for prior art, we suggest you discuss this with your attorney so that you can weigh up the pros and cons of doing so.

What do I need to tell you in order to file a patent application?

In order to prepare a patent application, we need to have a clear understanding of how your invention works, and what you think are the advantages of the invention. A set of drawings is usually helpful in order to provide a clear description of your invention. If you can provide black and white line drawings for us to use, it can be very useful. If not, we can commission a patent draftsperson to prepare drawings for us.

We will also need to know who the inventors are and who you want the patent applicant (who owns the patent application) to be. It is important to make sure ownership of the patent application is clear at the start of the process, as sorting this out later on can be both expensive and time consuming.

How much will it cost?

It is very difficult to predict how much any particular patent application will cost. This is because it is hard to know how easy or difficult it will be to obtain a patent at the time of filing. However, we can give indications of what costs will be, and approximately when they will be incurred. Example cost indications are provided in the flow charts. At the end of this guide, your attorney will provide you with cost indications when you apply for a patent, and will keep you up to date with potential future costs as and when appropriate.

How long will it take?

The process of obtaining patent protection is one that is measured in years, not months or weeks. If all steps to speed up the process are taken, you may be able to obtain a granted UK patent around one year from filing. However, usually the process takes between three to five years in the UK. Protection in other countries, may take significantly longer due to backlogs at those patent offices.

If there are good reasons to accelerate the process, for example you believe someone is copying your invention, there are usually steps that can be taken to do this. That said, often having a pending application is advantageous to the applicant. Once you have a granted patent, your ability to amend the scope of patent protection is very limited, and a competitor may be able to direct their efforts to designing around your protection. Whilst the patent application is pending, within limits you are able to change the scope of protection you are seeking. This can make it more difficult for a competitor attempting to design around your invention.

What happens if someone copies my invention once I have filed a patent application?

If someone copies your invention, your first reaction is likely to be "make them stop". However, in order to take legal action using a patent right, the patent has to be granted. If you do have a granted patent, you can launch legal action through the courts, seeking an injunction to stop their activity, and damages or an account of profits to compensate you for their infringement. Due to the cost and complexity of legal action, this is usually a last resort.

"The team at Abel + Imray have a great deal of understanding of our requirements and how to put these into a patent application. They make the process simple and have successfully achieved our first patent and are in the process of dealing with a number of other applications."

- Jon Lewis, Chairman, Direct Healthcare Services Limited

A first step is often your attorney making your competitor aware of your rights. This may result in the infringing activity stopping without the need for legal action. Alternatively, a licence may be negotiated. We do not recommend approaching a potential infringer yourself. Among a number of reasons for this, in the UK there are "groundless threats" provisions. If it is later proved that infringement is not taking place, you may have to pay the alleged infringer damages. Your attorney can advise further in the event of any potential infringement dispute.

If your application is still pending, you are not able to launch court action. However, you can take steps to put the alleged infringer on notice, so that if and when your patent is granted, you can clearly show the alleged infringer was aware of your rights. Again, we recommend that any contact you have with an alleged infringer is via your attorney.

When can I tell people about my invention?

Once you file your patent application, you are free to disclose the invention without having a negative effect on your patent application. However, if you think that you might be developing or improving the invention within the first twelve months from filing, there are advantages to continuing to keep your invention secret. You may wish to include such developments or improvements in a new, updated, patent application filed during this 12-month period. You are able to claim priority from the first filed application, meaning that any subject matter shared between the two applications will benefit from the earlier filing date. However, the new material, your developments or improvements, will not benefit from this earlier priority date.

If you have disclosed the subject matter of the first application before filing the second application, your disclosure will be prior art for your new material. Therefore, the new material must be both new and inventive over the material in the first application.

If you have not disclosed the subject matter of the first application before filing the second application, your improvements will not need to be inventive over this subject matter in order to be patentable.

Once I file my patent, am I free to use my invention?

A patent is a "negative" right, in that if you have a patent, you are able to stop people doing things. The patent does not give you the right to do anything yourself. Your invention may infringe someone else's patent rights.

Imagine you invent the bicycle, for which you apply for and are granted a patent. However, when you begin to sell bicycles you receive a cease and desist letter from a person who invented and patented the wheel. As your invention, the bicycle, includes a patented product, wheels, you will need to either purchase the wheels from the person who owns the patent for the wheels, or seek a licence to manufacture wheels for use in your bicycles.

How can I be sure I am not infringing any other patent rights?

Whether or not you are infringing other patent rights can be a difficult question to answer. This is because there are many millions of patent applications and patents in the world, and so a comprehensive review of them all is not possible. However, you may be able to reduce the risk of infringing other patent rights by considered and directed patent searches in various relevant subject matter areas. Alternatively, you may wish to investigate the rights of certain competitors that you think could have relevant patent rights in your field, or restrict your investigations to certain territories.

Whether or not you choose to investigate other patent rights depends on your particular circumstances, regarding your invention, the commercial significance of the invention to you, and the market in which you operate. The timing of investigating other patent rights is also highly dependent on circumstances. We suggest you discuss this with your attorney if you have any concerns about other patent rights.

What does "patent pending" mean?

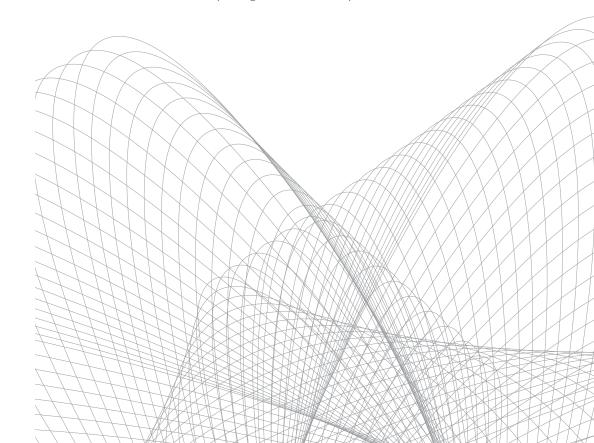
Patent pending means that a patent application has been applied for, and is pending, in at least one country. This does not mean that a patent has been granted, but it does put potential infringers on notice that you are seeking to protect your rights. This can be beneficial when involved in patent litigation. Care should be taken not to incorrectly claim or mark goods as patent pending as this can be penalised in various different countries. We recommend you discuss marking your goods with information regarding your patent rights with your attorney.

Can I sell my patent application?

Yes, a patent application or patent is an asset and can be sold in the same way as any other piece of property. You may also licence the rights in your patent application or patent, and even use it as an asset which may be mortgaged. If you are interested in any commercial transactions involving your patent rights, we suggest you contact your attorney in order to seek further advice.

Section 2 Structure of a Patent Application

A patent application is made up of the sections listed below. At first, many people find the language used in patent applications difficult. Whilst it can take some time to feel comfortable reading a patent application, the language is chosen to be as precise and clear as possible, whilst also capturing the technical aspects of an invention.



Title

We use a general, fairly non-specific title to indicate the nature of the invention. The reason for not being any more specific is that the title of the application is published, along with the Applicant name, in the UK Patents Journal shortly after filing the application. Therefore, we do not wish to disclose any key aspect of the invention before it is necessary.

Field of the Invention

This provides a very general idea of the technical field of the invention.

Background of the Invention

This puts the invention into context by describing some of the relevant technical background, including shortcomings of existing technology. This is helpful to show the problem that is solved by the invention.

Summary of the Invention

This section includes a number of statements concerning the key aspects of the invention. Usually, this corresponds closely with the claims section of the patent application, though it may include additional optional features of the invention. The language used here can appear abstract. This is in order to describe the invention in as broad terms as possible.

Description of the Drawings

This section includes a detailed description of how the invention works, and is likely to be written in more technical language than the summary of the invention section. Where the summary of the invention may use general terms, the detailed description should include a specific description of one or more embodiments (examples) of the invention. In order to ensure that the claims of the application are interpreted as widely as possible, it can be helpful to include a description of more than one embodiment of the invention in this section.

The information included in this section should be sufficient to enable a person skilled in the art to put the invention to use. When reviewing a draft patent application, you should pay special attention to the detailed description to ensure that the technical aspects of the invention are correctly described.

Claims

The claims set out the scope of protection that you are seeking. They are usually made up of at least one apparatus claim (e.g. a fuel pump) and one method claim (e.g. a method of pumping fuel), where appropriate. The claims are also structured so that you have a main, independent claim, and a number of dependent claims. The independent claim seeks the broadest scope of protection and should include only the essential features of an invention. The dependent claims are usually structured to each include an additional feature of the invention. The dependent claims may be used as fall back positions during prosecution of the application, where for example, the prior art discloses each of the features of the main independent claim. The language used in the claims tends to be more abstract and generalised than

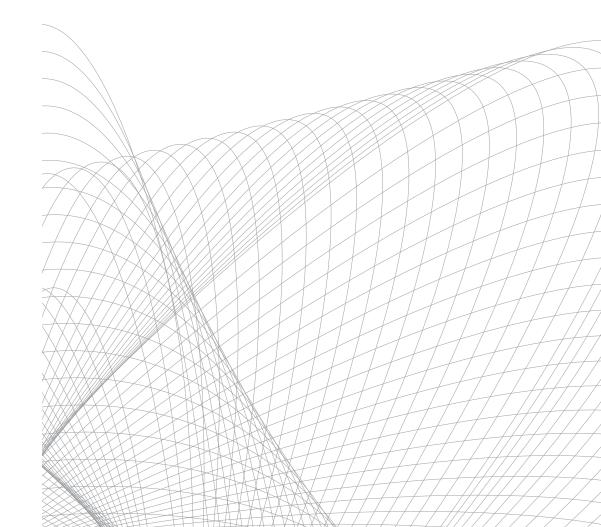
the language used in the Detailed Description, so that you obtain the broadest scope of protection possible.

When reviewing a draft patent application, you should pay special attention to the claims, particularly the independent claims, to ensure that they include only the essential features of the invention. If the independent claims include features that are not essential to the invention, it provides an opportunity for a competitor to design around your patent protection.

Abstract

The abstract is provided to allow people to review the general subject matter of a patent application without having to read the whole document. It is primarily used by patent searchers and examiners.

Section 3 Patent Application Procedure



How can I get protection all over the world?

In a typical case, we file a first patent application in the UK. By doing this, we establish an internationally recognised priority date for your invention. We can then file for protection in countries other than the UK within the 12 month period following the filing of your first patent application. We suggest you discuss filing strategies with your attorney.

What is the priority year?

Once you have filed your priority application, you have a period of 12 months in which to file other patent applications claiming priority from your first application. This means the later filed application(s) benefit from the same priority date as the first filing. This removes the need to file in several countries all on the same day. Depending on whether you are interested in only one or two countries overseas, or potentially a number of overseas countries, the later filed application can either be a direct national filing, or an International patent application. The benefit of the priority year is that your filing strategy decisions do not have to be taken immediately.

What is an International patent application?

An International patent application is a patent application which is effectively a time-limited bundle of national patent applications covering over 150 different countries. Whilst not all countries in the world are covered by an International patent application, all major territories are covered. If you have particular interest in a relatively small or obscure country, please consult your attorney to check whether they are included in an International application.

It is not possible to obtain grant of an International patent, and if you want a granted patent then you have to pursue grant of the patent in each country of choice. However, you are not required to do this until 30 months from your priority date, allowing two and a half years to develop your invention and discover your markets. This has the benefit of delaying the cost of seeking national protection, and also provides flexibility regarding which territories you want to cover.

How do I get a patent granted?

The general process, followed in most countries, is that a patent examiner searches the prior art to see if they can find any disclosures that show your invention lacks novelty or inventive step. This search may be issued with little comment (as in the UK) or include a written opinion (as when filing an International patent application) setting out whether or not the examiner thinks the claimed invention is patentable. As we write patent claims to be as broad as we think possible, it is common for the examiner to find prior art that they think is, at least a first glance, relevant to the patentability of an invention.

Following the search, the examiner issues an examination report or office action if they have any objections to the application. At this point, it may be necessary to argue with the examiner, and/or amend the application to convince the examiner the case is allowable. Once a case is ready for grant, it may be necessary to undergo formal grant procedures, including payment of grant fees, depending on the particular requirements in the country in question. Your attorney will be able to advise further on the requirements of each particular country.

Can anything go wrong after grant?

Once a patent has been granted, it may be possible for third parties to oppose the grant of your patent. For example, in Europe, there is a 9 month period post grant in which a third party may oppose your patent. In order to keep your granted patent you may be required to make a defence of the patent at the European Patent Office, which can cost several thousands of pounds. Other countries have similar provisions and your attorney will be able to advise further if this is of particular concern.

What are renewal fees and when do I have to pay them?

In most countries, it is necessary to pay renewal fees to keep a patent in force or a patent application pending. When renewal fees become due is specific to each country and we can advise further as required. For example, in the UK, patent renewals only become due on grant of the application. In Europe, renewal fees are due at the European Patent Office when a patent application is pending. Once a patent has been granted, renewal fees may be due at national patent offices and/or the European Patent Office.

Who is Clarivate (formerly CPA Global)?

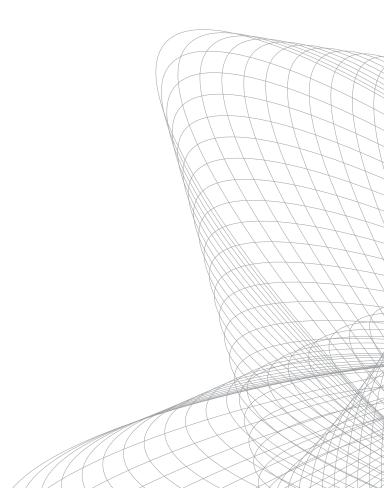
Abel + Imray do not offer a renewals payment service for routine renewals. Since it is vital that you have reliable renewal arrangements in place to avoid inadvertent loss of rights through failure to pay renewal fees, we will supply details of your cases to Clarivate (a specialist patent renewals reminder and payment service, formerly CPA Global) unless we know you have made provision with another specialist renewals provider. Once Clarivate has your details, they will send you reminders regarding any renewals due, together with details of their renewals payment service.

Who else keeps sending me invoices and renewal fee reminders?

WARNING – There are a number of companies that send out unsolicited mail to applicants following publication of their patent application, typically requesting payment in order to maintain the patent application or include it on a register. If you receive unsolicited requests for payment, it may be a scam. If you have any doubts regarding the credibility of correspondence you receive, please contact your attorney. Your attorney will then advise on whether or not the payment reminder/request is genuine and if any action is required.

Section 4 Your Relationship with Abel + Imray

For full details of how our relationship with you is defined, please see our full Terms of Business document.



Why should I use a patent attorney?

You do not have to use a patent attorney. However, patent law is complex and writing patent applications is a skill. A badly written patent application can be effectively worthless, or even worse as you may disclose your invention without the possibility of obtaining any worthwhile patent protection. Therefore, if an invention is important to the success of your business, we highly recommend that you engage a Chartered Patent Attorney.

Will you sign a non-disclosure agreement (NDA)?

As Chartered Patent Attorneys we are required to keep information disclosed to us confidential. Further details can be found in Rule 8 of the Code of Conduct published by the IP Regulation Board (IPReg). Therefore, it is not necessary for us to sign an NDA, and is also inappropriate for us to do so. However, this is a good question to ask people when disclosing details of your invention to them. If you are not satisfied with their answer then we recommend you reconsider whether you need to make such a disclosure. Your attorney can provide further guidance on NDAs and confidentiality agreements.

How are my bills worked out?

Our invoices are made up of three main elements.

- + Fixed charge work this relates to the more administrative aspects of our work, for example, the completion of a new application form together with entering the new application details onto our records and docketing system.
- + Professional time professional time spent by our attorneys is charged at an hourly rate. An example of professional time is the time spent drafting a new patent specification, or reviewing an examination report and preparing and filing a response. It also includes time spent in meetings and on telephone calls and emails. We may be able to answer some of your queries quickly and without sending you a bill. However, if we are required to spend professional time in order to provide you with an answer, this time will be invoiced.

 Disbursements – this includes official fees payable to patent offices and also payment of the charges of foreign attorneys where you have patent applications pending overseas.

How can I reduce my bills?

One way to reduce your bills is to ensure that you provide instructions in good time when asked. Time spent chasing instructions may be charged, and also late responses can often incur official penalty or extension fees.

We also recommend you perform a regular review of your patent rights to ensure that they are still commercially relevant to you. If not, you may decide to abandon a case, or not pay a renewal fee and allow a case to lapse. If you are minded to give up an application or patent, it will also help avoid unnecessary costs if you let us know as soon as possible. We may then ensure that no additional cost incurring actions are taken on a case.

Can you give me a fixed price?

We appreciate that it is difficult to budget for the costs incurred when involved in seeking patent protection. There are a number of reasons why it is challenging to give you a definite fixed price schedule.

Firstly, how much professional time we spend on a case depends very much on the complexity and difficulty of that case. This does not necessarily mean that a case is technically difficult, but if we are required to review a large number of prior art documents and respond to lengthy and/or numerous examination reports, then costs will be higher than a case where there is little prior art and the examination process is easy. If we were to provide you with a fixed price, in order to allow for the potential difficulties of examination, it may be a significantly higher price than if we simply address the difficulties if and when they arise.

Secondly, it is difficult to predict when a patent office will issue an examination report or office action. Therefore, particularly if you have a case pending in a number of countries, there may be a period of intense activity resulting in regular billing, which is preceded or followed with a lengthy period in which little or nothing happens.

However, we do provide a number of flow charts setting out some typical costs of obtaining patent protection which can be viewed as a guide to the sort of figures and timescales involved. Also, prior to undertaking any action which will incur a significant charge, we will aim to provide an estimate beforehand, and seek confirmation we should proceed with the work.

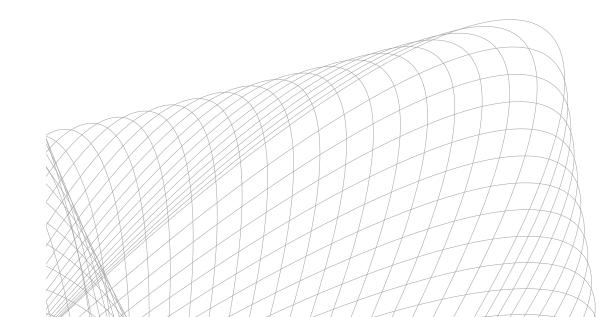
Why won't you tell me if my invention will be a success?

We are very happy to provide advice concerning all intellectual property related aspects of your invention and business. We also strive to make this advice commercially relevant to your business and the goals of that business. However, we cannot predict how commercially successful an invention will be, or provide more general business advice such as how to take a product from the prototype stage to market. We do have relationships with a number of business advice organisations and we are happy to provide details of these services at your request.

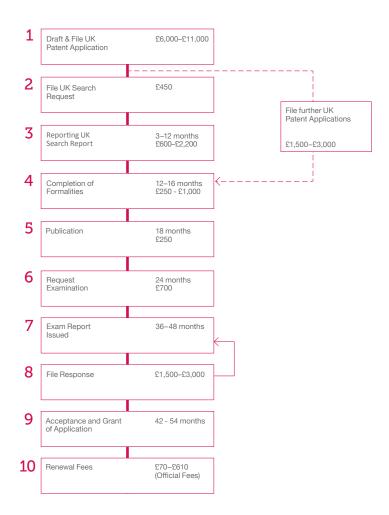
Our terms of business include a full explanation of the relationship between Abel + Imray and our clients, and should be consulted when engaging our services. If you have any specific questions about our services, or terms of business, please contact your attorney.

Section 5 Summary of Typical Costs

The following flow charts give an idea of the typical costs included in seeking patent protection. The figures are exclusive of VAT. Renewal fees may also be payable. Costs can vary significantly in each individual case. We recommend you speak to your attorney if more specific estimates are required.

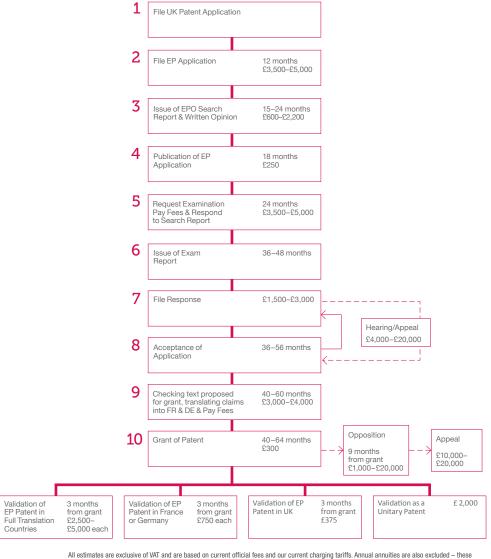


UK Patent Application



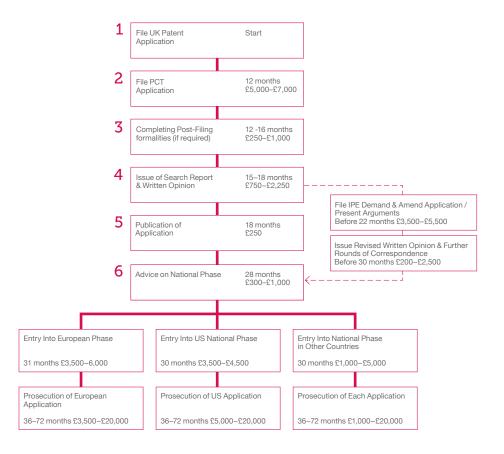
All estimates are exclusive of VAT and are based on current official fees and our current charging tariffs. It is difficult to estimate accurately the cost of prosecuting an application, because it is difficult to predict in advance, the nature of any objections that the UK-IPO (or third party) might raise in respect of a given patent application. Typical costs from filing to grant are 26k to £8k. After grant, it is necessary to pay renewal fees annually in respect of the patent, the cost of renewing increasing with the age of the patent.

European Patent Application



All estimates are exclusive of VAT and are based on current official fees and our current charging tariffs. Annual annuftes are also excluded – these are payable annually from 24 months and cost of the order of £750 rising to around £2000 annually. It is difficult to estimate accurately the cost of prosecuting an application, because it is difficult to predict in advance, the nature of any objections that the IP Office (or third party) might raise in respect of a given patent application. Typical costs from filing to grant are £8k to £12k, with validation costs varying according to local transaction requirements. After grant, it is necessary to pay renewal fees annually in respect of the patent. Renewal fees range from £100 to £1,000+ per renewal per country depending on the country and age of the patent.

International (PCT) Patent Application



All estimates are exclusive of VAT and are based on current official fees and our current charging tariffs. It is difficult to estimate accurately the cost of prosecuting an application, because it is difficult to predict in advance, the nature of any objections that the IP Office (or third party) might raise in respect of a given patent application. After grant of patents, it is necessary to pay regular renewal fees.

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"The A+I team have provided me with over a decade of consistently solid and responsive advice, combining commercial pragmatism with global IP expertise."

– Dunstan Cooke, VP Corporate Operations, Metsera, Inc.

