

#### Introduction

If you're a UK business, large or small, creating your own new products or processes you should be asking a patent attorney whether you could or should be patenting your developments. According to research by the European Patent Office, companies that own patents have 36% higher revenue per employee than those that own no intellectual property rights. You don't need to be developing the next blockbuster pharmaceutical or autonomous vehicle to get a patent; there have been many patents granted for technology as simple as a paper clip.

Patent attorneys are specialist legal advisors who obtain and enforce patents for their clients' inventions. They are regulated by the Intellectual Property Regulation Board (https://ipreg.org.uk). Every patent attorney has a technical background, such as a university degree in a science or engineering subject, followed by a period of on-the-job legal training to achieve qualification as an expert in patent law. The Chartered Institute of Patent Attorneys (CIPA) (https://www.cipa.org.uk) is the representative body for practically all of the UK's over 2,600 patent attorneys.

You don't have to use a patent attorney to file a patent application, but research shows that only 4% of UK patent applications that are filed without a patent attorney ever get granted.

Most patent attorneys will provide an initial consultation at no cost to discuss how they may be able to help. You can find a patent attorney in your area using this link: https://www.cipa.org.uk/find-a-patent-attorney/

CIPA members also provide free clinics from sites around the country for those seeking initial advice. Details here: https://www.cipa.org.uk/ip-clinics/

The sooner you get in touch with a patent attorney the better, because the opportunity for a patent can be lost once your product has been launched.

Read on to find out more about the patent process and what it might cost.





#### Patents

Patents protect technology. For a patent to be granted, the technology must be absolutely new. That means never heard of anywhere in the world, ever. It's therefore important that your invention is kept secret until a patent application is filed. You should consult your patent attorney **before** there is any non-confidential disclosure of your technology. A non-confidential disclosure could be the sale of a product or just a description on a website or product brochure.

As well as being new, patent law requires the technology to involve an "inventive step". This means that the differences between the invention and what was known before are something more than a routine development. This is a legal test and we would always recommend getting advice from your patent attorney on whether your technology might involve an inventive step. We find that inventors are often surprised that the "small" developments they have made are enough to warrant a patent.

Some things that might be thought of as "technology" are excluded from patent protection. Your patent attorney will be able to advise on whether these exclusions apply to your invention.

The value of a patent is in the *potential* to exclude all others from exploiting your technology commercially. In general, competitors do not want to become involved in a legal battle and will prefer to operate in areas that avoid the risk of patent infringement. Strong and visible patents provide a valuable deterrent effect, which can protect a business from competition. Businesses with patents are therefore viewed more favourably by investors than those without.



## Patent searching

Before you decide to file a patent application, it can be helpful to understand what technologies are already known that might be relevant to your invention. Although you may have a good knowledge of your industry, the European Commission estimates that up to 80% of current technical knowledge can only be found in patent documents. An early patent search can save the time and money that might be wasted on trying to patent an invention that turns out not to be new.

The European Patent Office provides a comprehensive database of patent documents, ESPACENET (https://worldwide.espacenet.com), which is available to the public for free. Patent searching can be quite daunting for those who have not done any before, but your patent attorney should be able to advise on an appropriate search strategy.

Alternatively, it is possible to engage professional searchers to carry out a formal patent search, and your patent attorney will be able to brief a reputable searcher on your behalf. However, reviewing some documents yourself will help familiarise you with patents in your technical field.





## Patent process

In terms of the patenting process, the first stage is for your patent attorney to prepare a patent specification for your invention. This includes a full technical description of your invention and the way it works, as well as the legal wording (the "claims") which define the scope of protection. The claims are a single sentence which provides a carefully worded definition of your invention. The wording is chosen to exclude everything that is already known but to include variations of your invention that might be created in the future by you or potential competitors. The claims will also include fallback positions so that if it is discovered during the life of the patent that something was already known that falls within the scope of protection, it can be excluded from the scope while maintaining commercially useful protection.

Getting the patent specification right on filing is important, because in order to get a patent your invention must be new (and arguably inventive) at the date on which the application is filed. This means that the same thing must not be known publicly, for example described in a document or on the Internet or in use, before your patent application is filed. This is why it is important that you keep your invention secret until the patent application is filed. Once the application has been filed it is only possible to amend the application using subject matter that was included on filing, so all the wording that you need for the entire 20-year life of the patent needs to be included in the original patent specification. If subject matter needs to be added, a new application with a new date must be filed and if this date is after your invention has been made public the opportunity for valid patent protection may be lost forever.



In order to prepare your patent specification, your patent attorney will need to understand in full technical detail how your invention works. To brief your patent attorney, you might provide an explanatory document and drawings explaining in your own terms how the technology works. Your patent attorney can also gain this information in one or more meetings or site visits. Your patent attorney will be able to explain how best to approach this.

Once the patent specification has been prepared, your patent attorney will file it at the patent office. Most British companies choose to file at the UK Intellectual Property Office, because the process is simple and the fees are relatively low. This initial UK filing establishes the "priority date" for your invention which is the date at which the novelty of your invention is judged. It is also the date when protection provided by the eventually granted patent commences, both in the UK and in other countries where you file related applications. Anything published before your priority date counts against you in determining the patentability of your invention, but you are protected from anything subsequently published as long as your patent application continues to be entitled to this date.

Patent applications are published 18 months from their priority date, regardless of whether a patent is going to be granted or not. This means that the technical information in your patent specification will be publicly available; you cannot patent an invention AND keep it secret.

Before publication, the Intellectual Property Office will carry out a search for relevant documents published before your priority date. This is called the "prior art". Using the prior art, a patent examiner will form a view on whether your invention as claimed is sufficiently distinct from the prior art to warrant a patent. This view is communicated in an examination report. The usual expectation is that the examiner will find some relevant documents and argue that the claimed invention is not new or is too similar what was known ("not inventive"). This is actually helpful because it gives the opportunity to amend the claims to exclude the cited prior art and means that you can be relatively confident that the scope of your claims is as broad as possible. If your application proceeds without any objections, it may be that your claims were just too narrow in scope!

Once the examiner is satisfied that the amended claim scope warrants a patent, the patent will be granted and annual renewal fees are payable each year to keep the patent in force. These are usually a few hundred pounds a year and increase through the life of the patent. In some countries annual renewal fees are payable even before the patent is granted.



# International protection

A UK patent only gives you the right to stop others using your invention within the UK. Most businesses will want to consider adding patents outside the UK to protect the most important current or future commercial markets.

For international protection, there is a period of 12 months from your priority date in which you can file patent applications overseas claiming the same effective priority date as your first filing. It is possible to file directly at the patent offices of the countries in which you want protection, but most applicants choose to use the Patent Co-operation Treaty (PCT) route which allows you to file a single application covering over 150 countries (https://www.wipo.int/pct/en/pct\_contracting\_states.html) at the 12-month stage. The PCT application includes a single search and examination report which tends to co-ordinate patent examination of your international patent portfolio. There is also then a further delay of 18 months before you need to choose the final list of countries in which you wish to proceed. The PCT approach maximises initial geographical coverage while delaying the costs of translation, local representation and official fees in the national and regional patent offices.

If you choose the PCT route, then 2½ years after you file your priority application you will need to choose the countries in which you wish to proceed. This stage is generally expensive because of the costs of translation, local representation and official fees. It is therefore important to choose your list of countries judiciously. The usual approach is to choose the major markets and manufacturing sites, because once these are protected any competitor will only be able to compete in less favourable markets. In the countries in which you proceed there will be local examination reports, eventual grant and renewal fees.

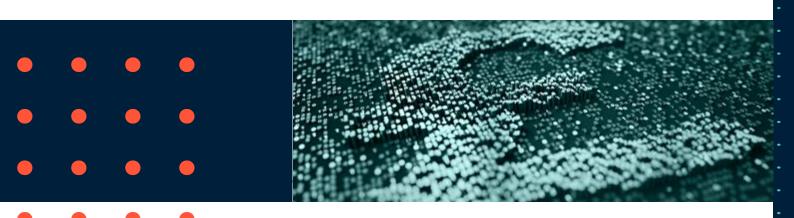


#### Ballpark costs

In terms of costs, the preparation and filing of a new priority patent application usually costs between £4,000 and £10,000 plus VAT. The cost depends on the amount and quality of the information provided by you and the complexity and extent of the invention. If you choose protection in the UK only, you might spend something in the region of a further £1,000 to £3,000 plus VAT to get the patent granted and then be paying annual renewal fees to keep the patent in force. Renewal fees start at about £300 a year increasing to £900 per year towards the end of the 20-year life of the patent.

If you choose to seek international protection at the 12-month stage, filing a PCT application costs around £5,000 plus VAT. During the course of patent examination, you will probably want advice on the examination report, and you should allow maybe £2,000 plus VAT for this. At  $2\frac{1}{2}$  years, the cost of proceeding at each patent office is around £2,000 to £6,000 plus VAT per territory depending on national fees, the length of the specification and whether a translation into the local language is required. A selection of the USA, European Patent Office (EPO), China, Japan, Canada, Korea, Australia and India might cost, say, £20,000 to £25,000 plus VAT in total at this stage. Choosing just the USA, EPO and China might be about £10,000 plus VAT. You can expect to spend a similar amount again over the following two years or more to bring the patents to grant. There will be renewal fees to pay each year in each country, which are typically £300 to £900 plus VAT per country.

These figures are ballpark costs intended to give you a sense of the level of cost involved in patenting. Over the 20-year life of an extensive international patent portfolio for one invention, you might expect to budget £10,000 plus VAT each year on average for patent costs, including annual renewal fees. If you choose only a few countries, such as the USA, EPO and China, this may be as low as £5,000 plus VAT per year. However, a patent portfolio can enable you to be the exclusive supplier of your technology worldwide, which may well justify this kind of investment. Of course, the exact costs will be different in each case, and your patent attorney will be able to provide you with further guidance.



# Further information sources

Chartered Institute of Patent Attorneys: https://www.cipa.org.uk

UK Intellectual Property Office: https://www.ipo.gov.uk

UK IPO Support Tools: https://www.ipo.gov.uk/ip-support/welcome

European Patent Office: https://www.epo.org/en

World Intellectual Property Organisation: https://www.wipo.int/portal/en/index.html

The information in the patent pack does not constitute legal advice and is provided for general guidance only. You should seek specific legal advice from a patent attorney on your own particular circumstances.

