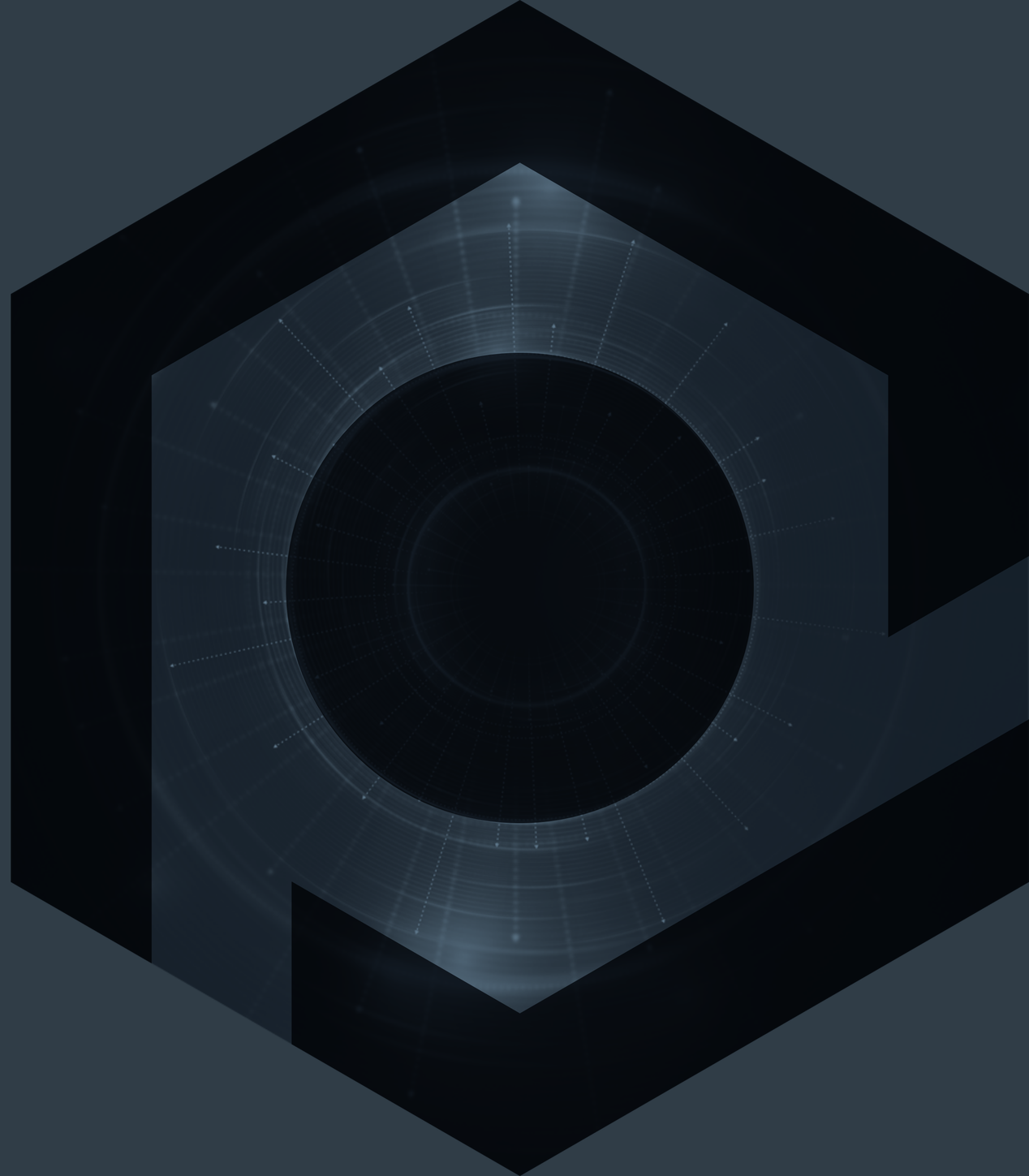
Potter Clarkson

MAKING THE MOST OF YOUR ORIGINAL CODE – **OPEN SOURCE, SOFTWARE PATENTS OR A COMBINATION?**



POTTERCLARKSON.COM

‘OPEN-SOURCE’ SOFTWARE IS SOFTWARE **ANYONE CAN INSPECT, MODIFY, AND SHARE.**

Since its launch in the 1980s, open source has grown in popularity as it allows developers to collaborate in a more transparent and community-oriented way. More recently, the concept of open source has become a fundamental part of web3, which relies on ‘composability’ (i.e. open compatibility and freedom of use) across any system using a blockchain.

Traditionally, open-source rights were contained within a common licence format. Once a member of the community has signed up to the owner’s Creative Commons license (a public license that enables people to use another party’s work), they cannot only use the software, but also enhance the program, add features, and fix errors.

Recent developments in blockchain technology will take this concept of ‘open source’ a step further. It’s likely open source will become an accepted underlying principle for all developers working using a blockchain system (given the need for inter-compatibility), rather than being limited to common licences in their previous form.

IS OPEN SOURCE **GOOD FOR THE SOFTWARE INDUSTRY?**

This is understandably a contentious and divisive question. Some believe open source is driving entrepreneurialism, innovation, and differentiation and encouraging healthy competition at a lower cost.

Others see open source as a serious threat to proprietary software which they feel still offers huge benefits to the user. Providing software as a service is the most common method of obtaining value from proprietary software or code, even where such code is mixed in with open-source code.

Such developers of course see proprietary software as best in class, a premium product produced after years of in-house development by a dedicated team. From a more practical point of view, they argue businesses with limited IT resources don't want to tweak their software.

They just want a reliable product that works and will be updated by the provider from time to time and offers easily accessible support when required.

Your point of view will of course be informed by who you are and how you use software but to present a balanced view, we'd like to look more closely at the pros and cons of open source.

THE PROS

LOW COST

As open-source software is often developed via forums, platforms such as Github and broad collaborations between developers, those involved – including those marketing the resultant software – tend to give their time for free. This means there are no fixed costs to cover.

Similarly, as fixes are being made as the software develops, there are no support costs and with low to no overheads, the cost of the software can be kept low if, indeed, there is a cost at all.

RELIABILITY

Most open-source software uses languages like Java, Python and Ruby. These languages are known for their reliability which means that the software they produce is equally reliable.

CONTINUITY

Should a piece of software be discontinued, the user will need to find an alternative. However, with so many people involved, most open-source software will just continue. Even if the project leader or lead developer were to walk away, there are usually plenty of other enthusiasts to take over their role and continue to optimise and update that software.

FLEXIBILITY

With open source, you can customise the software until it meets your specific needs without the need for additional licences or permissions (provided you don't use any proprietary code to do so).

SECURITY

As anyone can spot and fix security flaws, and the fixes are peer reviewed for best practice, many argue open-source software is more secure than proprietary software. Proprietary software may use bespoke code which is not as thoroughly checked and tested.

FREEDOM

As the software is available to all and does not come with a long-term licence or contract, users have the freedom to move from solution to solution, or upgrade as they wish.

THE CONS

LICENCE TERMS

Software is open-sourced under licence terms. Open-source licences grant permission for anybody to use, modify, and share licensed software for any purpose, subject to conditions preserving the provenance and openness of the software.

However, the terms of the licences used vary significantly, from the more restrictive copyleft licences (such as GNU General Public License v3.0) to the more permissive (such as MIT licence). Understanding the terms of the open-source licence(s) that apply can be complicated.

THE MANAGEMENT OF EXPECTATIONS

Although the software is open source, some users may still be demanding when it comes to the support they need. Some will understand the reality of the situation, but others will still expect the 24/7 service they receive from proprietary software providers.

QUALITY CONTROL

There is no way to guarantee the quality of the updates, fixes, and other changes your community is making, you will need to establish this for yourself by testing the software. Failure to do so may cause reputational harm, however unfair that may feel.

THREAT TO VALUE OF YOUR BUSINESS

However tempting open sourcing your software may be and however much people are imploring you to go open source, you must never open source any software that is key to the value of your business unless you are willing to potentially sacrifice any revenue stream you obtain from the mere provision of that software. Of course, you may still be able to generate revenue from other sources which are intrinsically related to such software including offering support services.

If any elements of your software or its implementation are what makes your business unique, it should be appropriately protected.

From a commercial perspective you should only ever open source programs, applications and ideas that can be used without any financial or positional threat to your business. This takes us neatly to the next part of this report; should you patent software or make it open source?

TO PATENT OR TO OPEN SOURCE?

While the ethos behind open-source software is to give a product away for free so others can use it and improve it (thereby encouraging innovation through collaboration), there are still those who believe it is competition, not collaboration, that drives innovation.

We suggest that both competition (by way of patents) and collaboration (by way of open source) can drive innovation, after all patents and open source were both intended to drive, inspire and support innovation. They just do it in their own way.

Obtaining patent protection requires the patent holder to publicly disclose how their invention works. The patent will eventually expire, after a maximum of 20 years, following which the patent holder will no longer be able to enforce their patent. Even during the lifetime of the patent, it is possible for anyone to obtain their own patent protection for improvements they have made to the technology of the earlier patent. Open source enables third parties to use and improve on the underlying technology within the limits of the applicable open-source licence.

The argument of those in favour of competition is that while open source might be good for those in the software industry, it is bad for the business of those providing proprietary software or software as a service. This means that if a business is going to use proprietary software code to leverage its innovation and create a solid foundation from which to grow, it will need to protect its most valuable assets.

Primarily this protection will come in the form of copyright (this will automatically protect what is in the original code) and/or protecting your code as a trade secret or confidential information. Alternatively, where such software has a technical effect, a patent may be more appropriate as long as it suits your business plan or model.

Clearly, the question as to whether open source is good or bad for the software industry as a whole is a contentious and divisive question. As such, the implications for your business in making a choice between proprietary protection and open-source could be equally or even more polarising amongst your staff, shareholders and customers (or potential customers). This being the case, it is very important to provide rational reasons for your choice in each case.

WHY SHOULD YOU PATENT SOFTWARE

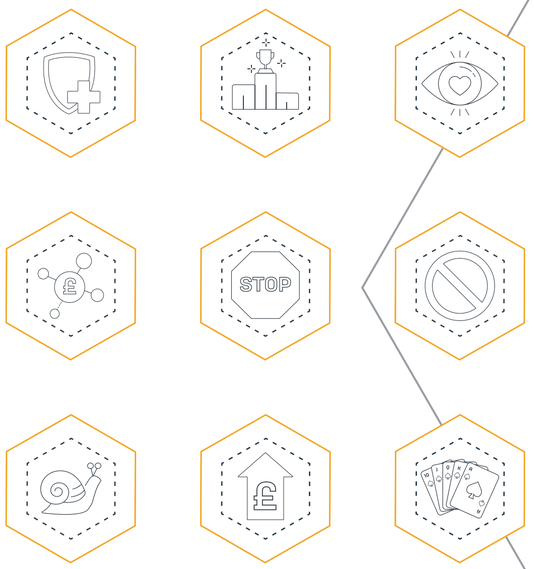
The main reason is a patent allows you to maintain control of your software. A patent gives you the opportunity to prevent others from making, using, or selling your invention. It also allows you to say who can use your invention and how they can use it

Not every patent holder uses their patents in this way, however.

In 2014 Elon Musk said Tesla will not initiate patent lawsuits against anyone who, in "good faith", wants to use its technology. Nonetheless, Tesla has its own definition of "good faith".

This suggests it is not intending to give up all the benefits that a patent provides without anything in return. Such a patent strategy therefore is perhaps not quite as open source as it is sometimes portrayed.

Aside from allowing you to maintain commercial control of your innovation, there are several more benefits a patent may unlock. **These Include:**



THE ADVANTAGES OF A PATENT

1. ADDITIONAL PROTECTION

While copyright can present a more affordable way to protect your software, copyright can only cover the ‘expression’ of your software (i.e. the code). Copyright won’t protect you if a competitor replicates the underlying functionality or concept of your software without copying your code. Patents on the other hand can protect the functionality and enable you to oppose any competing product that provides that same functionality.

2. CREATING A COMPETITIVE ADVANTAGE

With a patent in place, it automatically becomes expensive and problematic for competitors to produce anything that may infringe on your rights. This could provide you with an invaluable advantage as you look to cement your market position.

In addition, if they find a workaround, it could be at the expense of the quality of the product which will provide a benefit to your customers and a PR advantage.

3. MAKING YOU MORE ATTRACTIVE TO INVESTORS AND, ULTIMATELY, TO BUYERS.

If you are looking to raise funding for your business, you need to be able to show potential investors exactly where the value in your business is. Having a patent portfolio is neither a box-ticking or compliance exercise. Having a patent portfolio categorically proves what you have is totally unique to you and, therefore, a fundamental component of your valuation.

Similarly, when you get to exit, a well-managed and clearly recorded intellectual property portfolio (including your patents) can help you negotiate a higher purchase price.

THE ADVANTAGES OF A PATENT

4. ADDITIONAL REVENUE STREAMS

Given the robust protection that patents provide against third party infringement and competition more generally, patenting your software may allow you to drive up the licensing fees you are able to charge for your software. This could well open up a significant additional revenue stream, not to mention a potential door into entirely new markets if you secure the right strategic partnerships.

5. IMPACTING YOUR COMPETITORS' FREEDOM TO OPERATE

Even if your patent applications are never granted, simply filing them could dissuade your competitors from doing what they plan to. However, while these are all good reasons to pursue a patent, it is essential you also consider the potential shortfalls of patenting your software which include:

POTENTIAL DRAWBACKS OF PATENTING

6. YOUR SOFTWARE MAY NOT BE PATENTABLE

Software code is not patentable in and of itself. What is patentable is the underlying method your software uses and this is only patentable if – as with any other patent – you can prove the underlying method is definitely novel and inventive and preferably actually solves an existing technical problem.

7. THE PROCESS CAN BE SLOW

The patent process will usually take years and in a fast moving sector like software, that could mean everything you are trying to patent is obsolete before your patent is granted. Having said this, in many countries it can be easy to accelerate the patent process and therefore this risk can be mitigated.

8. THE PATENT PROCESS IS EXPENSIVE

Although patents are designed to defend and increase the value of the product they protect, the rewards must justify the cost. It may sound strange to hear a patent attorney say this but before you choose to progress a patent application, you must conduct a thorough cost benefit analysis. That is, you must ensure that pursuing patent protection will represent good value for money for your business.

If you feel that the rewards don't justify the cost, you should explore alternative IP rights like copyright or trade secrets.

Alternatively, the real value of some software-based ventures is in their brand rather than their innovation. If this is the case, a patent won't add any value to your business. Instead, you should be looking at how best to protect and exploit your brand through marketing, PR and trade marks, even in a business to business context.

POTENTIAL DRAWBACKS OF PATENTING

9. THE PATENT PROCESS WILL SHOW YOUR HAND

Within 18 months of filing for a patent, you will publicly disclose all the details of your innovation (unless you abandon it beforehand). This is your side of the deal when you're obtaining patent protection; you must tell the world how your invention works so that others can learn from it and develop the technology further. Depending on your business plan, this could happen too early and if that is the case, the disclosure could harm your business. At Potter Clarkson our ethos is to do what is necessary to maximise the commercial value of your innovation.

A large part of this process involves carefully analysing what you have and what you want to achieve and then carefully cross-referencing those with the benefits and shortfalls we've listed above. If your software is potentially patentable, a patent could increase its future value and the value of your business.

However, you need to bear in mind a patent is ultimately a business asset rather than an award for innovation. This means you should only look to obtain a patent if it is strategically the right thing to do in terms of your business plan, your long-term objectives, and the value of your business.

HOW CAN YOU PROGRESS MORE SAFELY IF YOU CHOOSE TO GO OPEN SOURCE?

If you do decide to go open source, it is strongly recommended that you offer access to your software under an appropriately drafted open-source licence agreement.

An open-source licence gives anyone that wants access the ability to view, use, and modify the source code for their own purposes without having to obtain further permission from the author.

However, there are multiple options and it's essential you make the right choice, particularly as licences are legally binding, and can be difficult (if not impossible) to revoke once granted.

There are basically two types of open-source licenses: **permissive** and **copyleft**.

A permissive licence allows users to do almost anything they want with your code without having to acknowledge any changes they make.

A copyleft licence requires anyone who changes your code for their own software to open up their code for others to use.

CHOOSING AN OPEN-SOURCE LICENSE

In our experience when you're deciding which type of open-source licence would be best for you, you should ask yourself three questions:

1. Do you care about how the modifications your users make are distributed?
2. Do you already own or control any related software patents?
3. Do you care if/how you are recognised when someone uses your code?

This should give you an initial steer when choosing between a permissive licence and a copyleft licence.

However, while you are deliberating there are three additional factors you may wish to consider:

1. Many open-source licences will state if the software can or can't be used in commercial applications and the restrictions a company would be limited by if they enter into your licence.
2. Are you looking to target larger companies? They may not want to use your software under an open-source licence agreement if there's a risk to their own intellectual property by combining it with your licensed software.
3. Are you looking to target smaller companies? They may not want to use your software if they can't use their version for their own commercial benefit.

The good news is there are a range of free-to-use (or should that be 'open source'?!) resources on the internet that you can use to help you make the right decision.

Of course, it may be that none of these licences quite fit the model you want to follow, in which case Potter Clarkson's Licensing team can assist with determining the risk/benefit of each type of licence based on your business model and each licence's specific terms.

One final tip is that while there are many open-source licences available, it may be best to choose an Open-Source Initiative (OSI) approved licence.

If you do choose to go down the open-source licensing route, it's important to note that while an open-source licence will affect how the creator of the software uses any associated patent rights, if the patent is filed before the software is made available to the public, it will not affect their ability to patent their software if, of course, the software is patentable.

This takes us to the final question we'd like to look at, can patents and open source work in harmony?

CAN PATENTS AND OPEN SOURCE WORK IN HARMONY?

Given the ever-present tension between patents and open source, the fact you could obtain an enforceable patent for software that is open source probably sounds incredible.

Surely if the job of a patent is to stop people from benefitting from your work (at least in the short term, bearing in mind that a patent will expire after, at most, 20 years) and the purpose of open source is to allow them to benefit from your work immediately, patent and open source could never work in harmony?

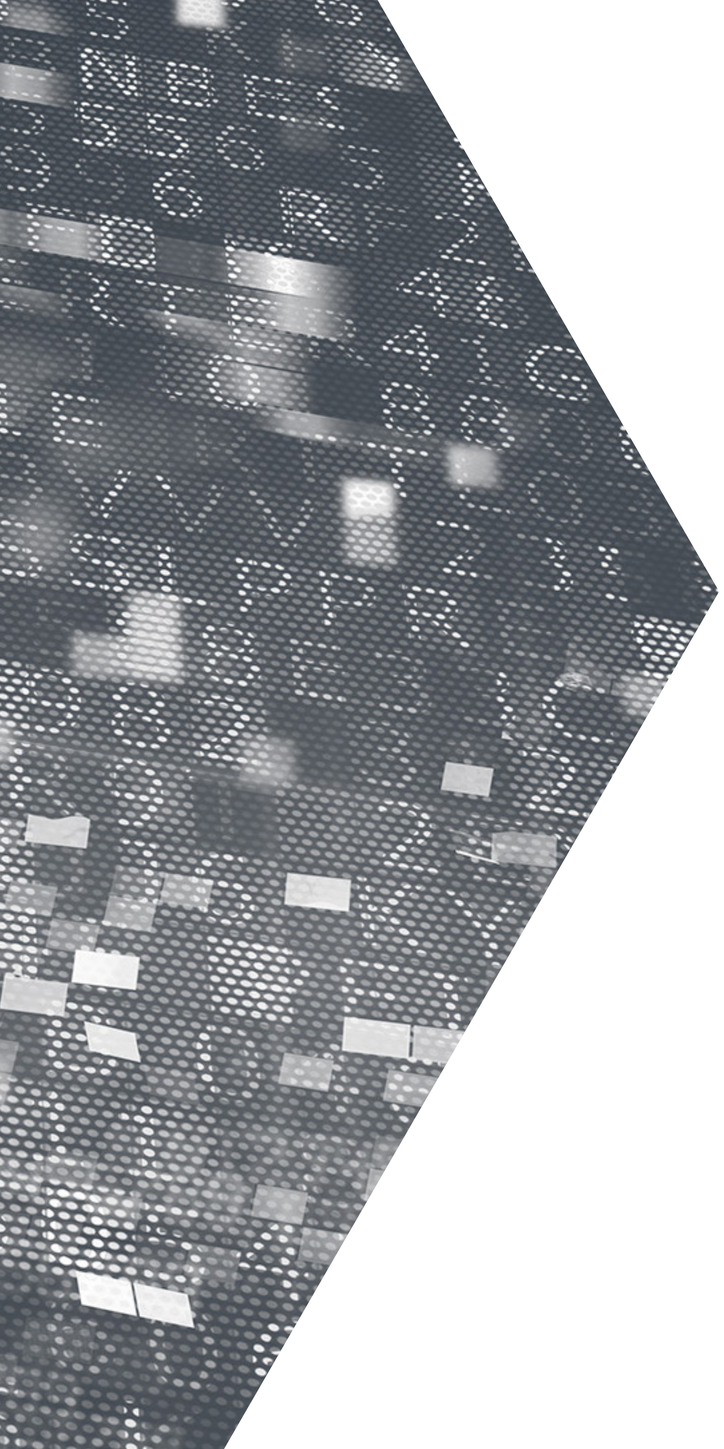
If we look at some of the best known tech companies, the truth is patents and open source are already working together.

Google and Microsoft are not only some of the most active open source contributors. They are also two of the world's top patent owners. It is impossible to think that such sophisticated patent strategists would be investing in patents they didn't need.

One conclusion could be patents are actually needed to defend open-source software.

In principle the author of a piece of software can dictate the terms under which their work is offered to the public. These terms will be captured in the form of a licence, which may (at their election) be an open-source licence.

As we've already seen, the coverage of each licence can vary significantly. However, one major difference can be that in addition to including clauses about copyright, some open-source licences now also include the grant of a licence under a patent that protects the software.



CAN PATENTS AND OPEN SOURCE WORK IN HARMONY?

The scope of this patent licence will undoubtedly be limited. It'll probably allow the licensee to use and develop the code. It will almost definitely not allow them to independently develop and distribute the software covered by the patent.

The reason holding a patent covering such open-source software would be attractive to the author is it:

1. Allows them to stop developers from exploiting their code in any way not permitted by the terms of the licence.

2. Allows them to stop developers independently developing new code which uses the same unique underlying method.

There is also an intrinsic commercial benefit in adding patent clauses to your open-source licence.

It allows the author to licence the software on a closed basis to any user who refuses to be bound by the terms of the open-source licence, thereby creating a new revenue stream. The development of a patent portfolio relating to that software may also make it possible to monetise any future versions of the software or, more specifically, pick and choose which future versions they offer under an open-source licence and which they offer under a commercial licence.

The good news is that it is you, as the patent holder, that can decide how you exercise your rights and how you calibrate your business model to balance the financial rewards of your work, and enjoyment of, the benefits of your hard work.

KEY CONTACTS

BEN LINCOLN

PARTNER
UK AND EUROPEAN PATENT ATTORNEY

+44 (0) 115 955 2211
ben.lincoln@potterclarkson.com

DAVE CLARK

PARTNER
UK AND EUROPEAN PATENT ATTORNEY

+44 (0) 115 955 2211
david.clark@potterclarkson.com

OLIVER LAING

PARTNER
IP SOLICITOR

+44 (0) 115 955 2211
oliver.laing@potterclarkson.com

DAVE HOLT

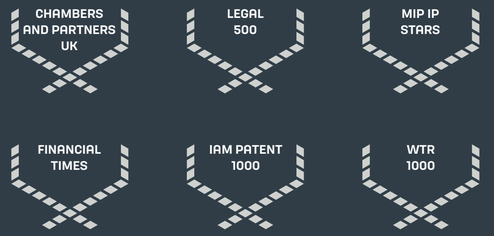
SENIOR ASSOCIATE
IP SOLICITOR

+44 (0) 115 955 2211
david.holt@potterclarkson.com

A PROVEN APPROACH

OUR ACCOLADES

You can be truly confident in our abilities – we are recognised as a top-tier firm in Europe, having received accreditations from the IP profession's leading benchmarking organisations and programmes.



"They always deliver high-quality work regarding the patent filing, prosecution and litigation. They are also approachable and responsive. We feel that they are our in-house attorneys rather than external agents."

MIP IP STARS, 2021

"In everything they have done, both from technical support and through to commercial sensibility, they are a 10 out of 10."

Chambers and Partners, 2022

Potter Clarkson

Potter Clarkson
UK Sweden Denmark Germany
E info@potterclarkson.com

POTTERCLARKSON.COM