

# WHAT ENTREPRENEURS CAN EXPECT FROM EPO PATENT EXAMINERS

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Patent examiners seek to help you realise your innovation, not to hinder it. In a book about how today's winners are lining up their IP, two EPO patent examiners, Philippe Lahorte and Daniel Preller, give their side of the story about setting entrepreneurs on the path to high growth

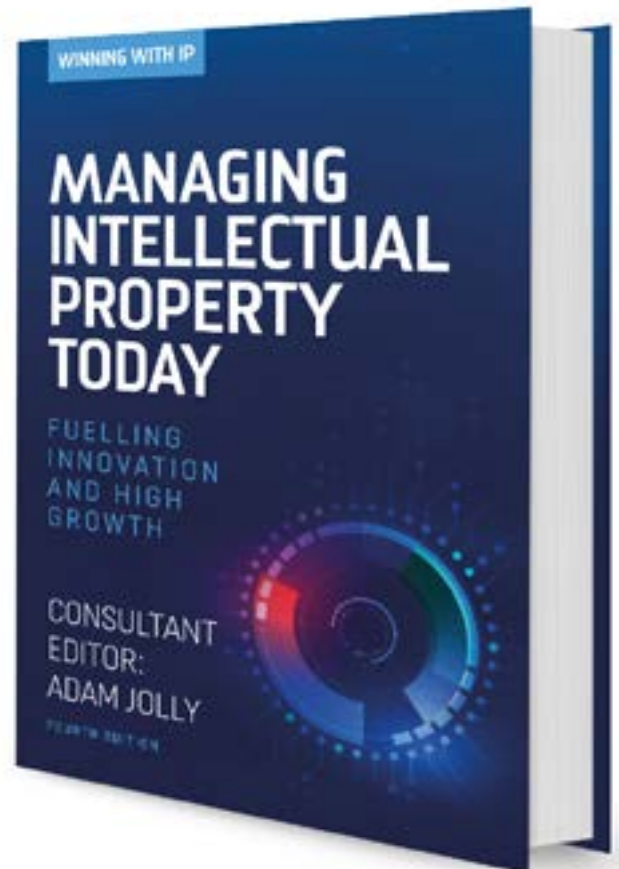
**W**e know that as a high-tech chief executive, a chief technology officer or a business developer you are fully focused on developing innovative products and services. However, from our daily practice as EPO patent examiners, reviewing and assessing your inventions and interacting with businesses small and large, we often see scope for improvement in how the patenting process is approached, which could ultimately lead to better business opportunities.

In our experience, patents are still a blind spot for many tech entrepreneurs or, at least, are not being fully used strategically. Obviously, the many options, as well as the complexity surrounding patenting, doesn't help in this respect.

In this article, we put ourselves in your shoes as an entrepreneur to tackle your questions about intellectual property that are relevant for smaller companies and for high-growth technology businesses. Rather than aiming for completeness, legal finesse or academic rigour, we take a pragmatic, practical and business-oriented approach.<sup>1</sup> We hope this will help you integrate IP and patents in your innovation efforts, engage more effectively with your patent attorneys and, ultimately, grow your business successfully.

## The inside story: how do patent examiners handle my application?

In a nutshell, we first analyse the technology and invention contained in your patent application and allocate it to



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Growth is ever more centred on intellectual property. In tech. In innovation. In people. In disruptive models. In data. In value propositions. Those who integrate IP into their strategy, culture and mindset are significantly more likely to grow at pace. Drawing on the knowledge and experience of 20 leading IP players of today and tomorrow, including the high-growth team at the EPO's Patent Academy, this book gives a series of insights and lessons into how IP inspires and fuels growth of 10 percent, 20 percent, 50 percent and more, not just this year, but next year and into the future.

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the right place in our technology classification scheme (eg, telephones in one place, medicines in another). An invention could combine technologies, like a battery in a heart pacemaker, and the examiner must determine if the invention is a new type of battery in an otherwise conventional pacemaker or, vice versa, if the invention is a new type of pacemaker powered by a conventional battery. We use that understanding to search for earlier documents describing similar inventions, the prior art, which might cast doubt on the novelty and inventiveness of your invention. This is highly relevant as both novelty and inventiveness are fundamental requirements for an invention to be awarded patent protection.

The next important step is normally the publication of your application (as well as the corresponding search report) 18 months after filing. From that moment, the invention is no longer secret. Potential customers, suppliers or licensing partners will now be able to identify and contact you, the applicant, for a possible business deal. However, competitors are now also aware of the results of your innovation efforts and third parties may file evidence against the application.

Finally, we engage in (predominantly written) dialogue with you or your patent attorney presenting all patentability objections. In most cases, attorneys can address our questions, enabling us to grant a valid patent. Getting there usually takes several years in view of the procedural time limits that need to be respected. These can work to your advantage, giving you opportunities to raise investment or sales revenue that can help with patenting costs later in the process. If time is precious in your business development (eg, to support your research-and-development strategy, to acquire further financing or to start exploiting and enforcing your IP rights) you can request to accelerate the examination process. In this way, you can ensure a faster delivery of the search report and significantly shorten the time period needed to come to a granted patent.

Between filing and final decision (to grant or refuse), examiners will normally invest several days in each patent application. The amount of effort and work that needs to be invested strongly depends on the complexity of the technology in question, the number and nature of legal and substantive objections to be raised and solved, as well as the drafting style; not to mention the level of experience and expertise of the examiner.

For example, let's take the scenario of a technologically complex invention in the field of medical technology. The corresponding application could comprise 50 pages of description, 25 pages of drawings and 30 claims (the latter define the boundaries of the invention for which the

applicant is seeking protection). A highly experienced, fully trained examiner might need one or two hours to analyse and classify the application (and potentially identify first objections), as well as roughly one day to perform the full search. A less experienced colleague might require significantly more time though. If the file can smoothly proceed to grant (ie, if few objections are raised by the examiner, and they can all be resolved in one or two written communications), the subsequent written examination may take up another day's work. However, applications which are technically or procedurally less straightforward might require significantly more work.

### How can EPO examiners consistently deliver high-quality work in a timely manner?

The EPO has about 4000 examiners covering all fields of technology, so we can specialise and work in narrow technical fields. With growing expertise and experience, you get to know your technology field and the relevant databases required for search really well, so you can work effectively and efficiently. Working day in and day out in biotechnology, for example, means that an examiner has a great knowledge of the state of the art and the evolution of the field. Also, don't forget that the EPO attracts Europe's top engineers and scientists. More than half hold a doctorate and many bring along prior professional expertise. All of the EPO's examiners are also multilingual and can work in the EPO's three official languages (English, German and French) as well as their own mother tongue. As knowledge professionals, EPO examiners are not unlike pilots or doctors.

### Examiners are like doctors?

Actually, there are several similarities: both are highly trained professionals with specialist knowledge, who often take decisions swiftly, independently and under time pressure. They apply complex rules and regulations and use state-of-the-art tools, but they also exercise significant professional discretion. Examiners also consider all the evidence before proposing a course of action, just like medical doctors.

Don't forget, the EPO is an attractive employer, providing extensive lifelong training and professional search tools, and the tenure of most examiners spans a whole professional career. EPO examiners make a long-term commitment when joining the EPO and take great professional pride in their work, which is coupled with a

strong sense of responsibility and *esprit de service*. With every file and procedure, they are driven to deliver an excellent job for every applicant.

### **My company develops cutting-edge, multi-disciplinary technologies. Are examiners capable of understanding and assessing such technologies?**

Disruptive innovation increasingly relies on extensive collaboration between partners. This applies in private industry, academic research and patent offices alike. The emergence and breakthrough of several enabling technologies (for example, artificial intelligence, additive manufacturing, data science, deep tech and blockchain) and a surge of corresponding patent applications in virtually every high-tech field is also bringing patent examiners from different disciplines closer together.

In the EPO, a team of three examiners (the so-called search or examining division) is allocated to each and every application. These three examiners are, as a team, responsible for the procedure and the final decision to grant or refuse. This approach allows us to select the technical expert with the most relevant specialist knowledge as the first, main examiner, who is supported by a second and third colleague with the required complementary technical and legal expertise. In this way, we can work flexibly and ensure that every file is treated by the right experts. Collaboration between examiners is at the forefront of our working practices, and as such we aim to set the standard among patent offices.

### **From what I've heard examiners are mostly interested in raising objections. Is that true?**

It is absolutely correct that patent examiners are masters in analysing and surgically dissecting technical texts, spotting any inaccuracies and deficiencies. They are also experts in applying their technical expertise and knowledge of databases, classification systems and search tools. This allows them to develop highly effective search strategies and to retrieve the most relevant prior art efficiently. And, indeed, most often this leads them to formulate all sorts of formal or substantive objections (eg, lack of clarity, novelty, inventive step, etc) against the claims drafted by the applicant or their patent attorneys.

As guardians of the patent system, our role is to strike the fair balance between what is accepted on behalf of the applicant in exchange for the disclosure of the invention,

and what is rejected on behalf of the other actors that have limited freedom to operate with any claim granted and upheld. Identifying and formulating the reasons for which claims are not (yet) allowable is an essential aspect of the patent examiner's role and *raison d'être* in the innovation chain. However, it does not end there.

Truly effective examiners balance their analytical instinct, ie, ensuring that a patent application fulfils all legal requirements, with real *esprit de service*. They develop a keen eye for potentially patentable subject matter in an application, if there is any. An effective examiner will normally indicate this to the applicant together with the procedural options and consequences. In this way examiners provide valuable input to the applicant, who then has a better chance of obtaining a stronger patent, resulting in predictability and consistency. This puts businesses in a better position when deciding how to prosecute the application and possibly steer their future efforts in R&D, as well as in commercializing their patents.

In short, effective patent examiners guide the applicants to take possible remedial action prior to grant and ensure that quality patents, having a high probability of validity, are issued. This gives certainty to the entire patent system from which individual patents derive their high value. Examiners also follow a smooth, fair and transparent procedure, which helps save applicants time and costs, while giving them better patent protection.

### **If I file my patent application today, when can I expect my search report and my grant?**

As examiners, we are fully aware that time can be a critical factor for start-ups and high-growth businesses, for instance, in product development, licensing or when securing financing. This is why we aim to provide the search report, including a full written opinion for first filings (ie, the first patent application for an invention to which later foreign or international filings can link back through a priority claim) typically within six months after filing. In an application where we need to sort out formal deficiencies first (severe unclarities, multiple independent claims or inventions), your search might be delayed. Importantly, a prompt high-quality search and search report gives the applicant a clear indication on relevant citations (eg, disproving novelty or inventiveness) and ways to pursue their application several weeks or months before they need to take big financial decisions about where else to file patent applications.

In examinations, it pays off to have your application written by the book if you intend to get a fast grant, because

every cycle of examiner objections and applicant's reply can delay the final decision by another six months, if not more. That said, many applicants may need several years to raise investment, find licensing deals, finetune their products, understand market needs or gather customer feedback. In such cases, getting a fast direct grant might actually be counterproductive.

### **I need a quick positive search opinion and granted patent to convince my investors. What can I do to influence this?**

Several factors play a role here. First of all, it really helps if your application actually contains a genuine invention, which is described clearly and concisely, with claims defining an appropriate scope of protection (ie, avoiding overly broad generalisations). In our experience, bulky patent applications are often an indication of tactical filing or incremental innovation which professionals in the field would consider obvious. In such cases, applicants may be unsure at the time of filing if they really need or want a granted patent, let alone which technological features are key for market success. Such an approach decreases the probability of receiving a positive search report and significantly draws out the examination procedure.

Secondly, many of the formal objections that examiners raise can be avoided by simply ensuring your application is drafted to conform to the requirements of European practice (ie, the European Patent Convention). Some formal requirements in other jurisdictions (eg, the United States) are different and, if left unadapted, lead to significant delays in the EPO examination procedure.

Thirdly, and as already mentioned, applicants can ask to accelerate the examination procedure. In the case of a positive search report and no formal or substantive objections by the examiner, this may lead to a grant shortly after publication of the patent application.

Last but not least, good communication and interaction between the applicant (often represented by their patent attorney) and the examiner can significantly speed up the prosecution of your application. Both are professionals, but still very much human; and exchanging technical arguments in writing has its communication limits. In many instances a telephone call and informal discussion can help to clear up potential misunderstandings, overcome objections and find acceptable solutions. Many EPO examiners find well-prepared telephone calls useful.

### **Developing a proper IP strategy sounds complex and costly?**

Well, let's go back to the basics: a patent is an exclusive right. In other words, it allows you to prevent others from using your technology. Vice versa, your competitors may prevent you from developing or using technology protected by them. The latter aspect can be of vital importance to start-ups and SMEs trying to build a high-growth business and collaborate with other companies, eg, by cross-licensing each other's patents. So, the real questions are: as an entrepreneur, would you want to build a business worth millions based on a lack of freedom to operate and on a lack of control over your technology due to low-quality or even non-existing IP assets? Can you actually afford not to have an effective IP strategy?

In addition to this defensive position, systematic patent intelligence (ideally before starting your own R&D) helps build an overview of the competitive landscape you are operating in. This usually covers aspects like freedom to operate, where competitors' patents are constantly monitored and assessed, which is crucial to avoid infringing your competitors' products. In addition, searching in public patent databases gives insight into what technologies are being developed by competitors, or which might be available from suppliers, or which are needed by customers, all of which potentially open up new R&D and business opportunities.

These are examples of reasons why patents, and IP in general, are a valuable tool for growing tech businesses and for strategically managing risks. The corresponding costs should therefore be seen as an investment that helps create intangible, but very real assets; and not like a costly insurance.<sup>2</sup> Or to put it more simply: Do not ask 'how much does a patent cost?', but rather 'how much is a patent worth?'

### **Any final words of advice for busy entrepreneurs?**

From our experience, the most successful companies learn how to use IP smartly to support their business strategy and not as a goal in itself. Any IP strategy that you design should ideally allow you to define, acquire, manage and leverage those IP rights that are right for you, and which directly support your business model and strategy.

Moreover, we want to encourage executive teams in start-ups and high-growth businesses to take a holistic view on intellectual assets. High-quality patents will often be

valuable milestones on your growth path, but they are only one element: the symbiosis with other IP rights (like trade marks, design rights, trade secrets and copyrights), building a strong brand and achieving operational excellence are other intellectual assets you want to develop.

Finally, we realise that many small businesses do not have ready access to the expertise and resources available to bigger players, for example, with internal IP departments. So, the quality of your communication and interaction with the mostly external and highly specialised IP professionals who are supporting you is all the more vital. If you play your cards right, your patent attorney – and to some extent even your EPO examiner – can truly become part of your innovation team.

• *Any opinions expressed in this article are those of the authors and not necessarily those of the European Patent Office.*

#### Notes

- <sup>1</sup> For a more detailed analysis, please see ‘Inside the mind of an EPO examiner’, a section on [epo.org/learning/materials/best-of-search-matters/epo-procedures-and-initiatives.html](https://www.epo.org/learning/materials/best-of-search-matters/epo-procedures-and-initiatives.html) (accessed on 29/06/23).
- <sup>2</sup> In the ‘4 Reasons to Patent’ overview at [4ipcouncil.com/4smes/4-reasons-patent](https://www.4ipcouncil.com/4smes/4-reasons-patent) (accessed on 29/06/23) you will find a more comprehensive analysis with links to the EPO’s SME case studies illustrating the practice.

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For more entry-level information about the European patent system, including some tough questions that potential applicants should ask themselves to know if they are ready to file, visit the page, ‘Are you new to patents?’, on [epo.org](https://www.epo.org). This includes links to related resources, like our step-by-step guide to the patent application process, our inventors’ handbook, and more information specifically for SMEs on [epo.org/sme](https://www.epo.org/sme), including case studies and further reading for business decision-makers and IP professionals.

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