

# SMEs, IP AND HIGH-LEVEL PERFORMANCE

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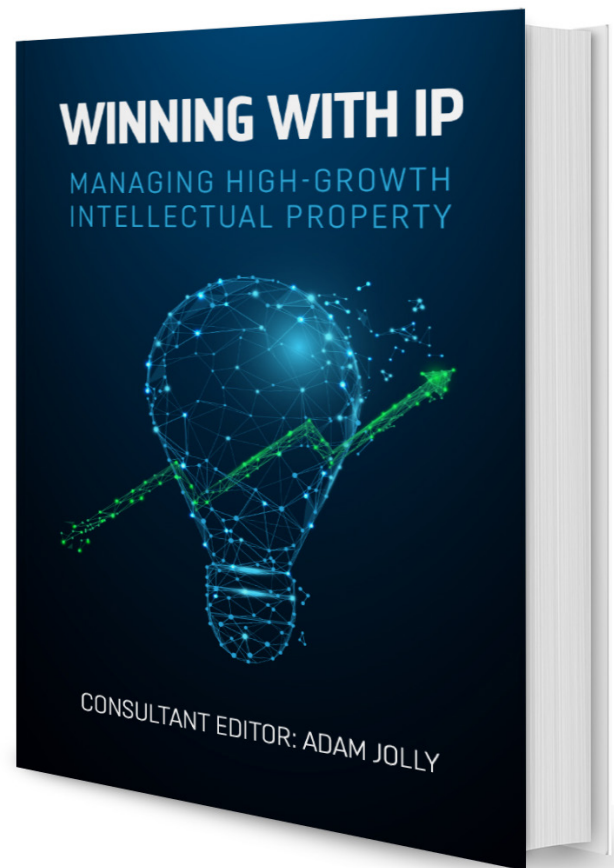
The challenge for SMEs is to match their IP to their strategy, find the right partners and manage complex negotiations, report Thomas Bereuter, Yann Ménière and Ilja Rudyk at the European Patent Office In a book about IP and the next wave of growth

Intellectual property rights are important to the European economy. The latest joint EPO-EUIPO study shows that IPR-intensive industries account for 45 percent of the European Union's output and up to 39 percent of employment<sup>1</sup>. The higher contribution from output than employment implies greater productivity. These industries are the true engine of the European economy: they account for 93 percent of all EU exports and pay their employees 47 percent more than the average.

IPR-intensive industries are not only represented by large multinational corporations. They also include a vibrant ecosystem of small and medium-sized enterprises, co-operating universities and other research institutions. The EPO's statistics of patent applications show that SMEs and individual inventors represent up to 20 percent of patent applications filed by European applicants at the EPO<sup>2</sup> and approximately 50 percent of all applicants together.

This statistic can be considered as a lower bound for their total contribution to innovation in Europe: European SMEs usually file patents in their main market first and then continue with the EPO if they expect to grow their business beyond that. Therefore, their share at national patent offices is likely to be even higher.

Patents help SMEs to protect their inventions, bring them to market and protect their sales. They can also be a major asset in setting up licensing or co-operation agreements that enable SMEs to move into new markets with their patented inventions. A recent analysis revealed that European SMEs that have taken steps to protect their IP are 21 percent more



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Growth is ever more centred on IP. Drawing on the knowledge and experience of 20 top-level IP performers, including the innovation team at the European Patent Office, 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. It discusses how entrepreneurs, innovators and executives can source the right ideas, how they can create intellectual assets that their users value and how they can be ready to negotiate high-level deals.

likely to experience a growth period afterwards and are 10 percent more likely to become high-growth firms, defined as companies whose turnover increases annually by 20 percent or more within a period of three years<sup>3</sup>.

These statistics confirm that IP activity is indeed an indicator for innovation and therefore an early signal of future growth potential. The chances of high growth or growth in general increase even further when SMEs make use of European patents, trade marks and designs. The prior use of European IP rights signals that these SMEs are not only innovative, but are also geared towards growth on an international scale.

The broad geographical scope of the protection conferred by European patents is of particular importance to companies aiming to grow rapidly in international markets. It applies most especially to typical SMEs or start-ups which, due to their small size, are even more dependent on licensing agreements or co-operations with partners in other countries to commercialize their inventions internationally and at scale. It is therefore important to better understand how these SMEs make use of their IP as a lever for growth and how successful technology commercialization can be sustained and supported.

### **Patent commercialization and European SMEs**

The EPO conducted a survey of 1500 European SMEs who filed European patent applications with the EPO between 2009 and 2018, asking them about their commercialization practices<sup>4</sup>. By analyzing how SMEs commercially exploit their European patents with a focus on collaborative forms of exploitation like licensing or co-operation, insights can be gained that foster a deeper understanding of how European SMEs can be helped to harness the business potential of their IP rights.

#### *Significance of inventions*

A large majority of the SMEs consider the inventions for which they have filed a European patent application as important compared with other inventions in their industry. Over 80 percent of respondents consider their inventions to be ranked in the top half of all inventions in their industry and up to 39 percent perceive their inventions as being ranked in the top 10 percent of technical developments in their industry. Only 17 percent perceive their inventions to be ranked in the bottom half of all inventions in their industry.

#### *Patent motivation*

‘Preventing imitation’ was cited by 83 percent of SMEs as an important or highly important motive for maintaining their European patents, followed by ‘improving the SME’s reputation’ (69 percent) and ‘helping to obtain freedom to operate’ (59 percent).

Roughly half of the SMEs surveyed also rated motives related to the use of patents in technology transactions as important. These motives include ‘facilitating commercial contracts’ (53 percent) and ‘licensing’ (46 percent). ‘Using European patent applications to secure financing’ is regarded by more than a third (35 percent) of SMEs as an important or highly important motive for maintaining their patent.

#### *Additional IP*

When asked to identify complementary IP rights that are also relevant for the commercial exploitation of their patented inventions, 48 percent of SMEs stated that they were using or planning to use additional patents. A similarly high percentage (45 percent) use trade marks as part of their IP strategy, whereas design rights are used to a lesser extent (27 percent).

#### *Commercial exploitation*

Roughly two-thirds (67 percent) of the inventions for which SMEs file a patent application with the EPO are exploited for commercial purposes. Analyzed in more detail, 34 percent are exploited exclusively by the SME, whereas 33 percent of



these inventions are commercialized in collaboration with external partners via technology transfer or cooperation agreements. In other words, half of all patented inventions that reach the market are exploited via a partnership.

### *Unexploited inventions*

Some patented inventions are not commercially exploited. According to the SMEs surveyed, it is mainly because these inventions are either still at the development stage (67 percent), or potential commercial opportunities are still being explored (64 percent). Other reasons given include a lack of resources (32 percent) or skills and contacts (19 percent) to pursue further development and commercialization. Insufficient commercial potential (14 percent of unexploited inventions to date), a lack of IP protection (8 percent) and insufficient freedom to operate (5 percent) were cited less frequently.

### *Forms of collaboration*

Licensing is the most frequent (62 percent) form of collaborative exploitation used by SMEs. Almost half of joint commercialization cases also involve a broader form of co-operation. Nearly a third of the surveyed SMEs involved in collaborative exploitation create spin-offs based on their patented inventions, while over 21 percent co-operate via cross-licensing.

### *Why partner*

Jointly exploiting patented inventions with external partners enables SMEs to leverage their partners' resources and accelerate IP commercialization. SMEs that are involved in partnerships identify 'increasing revenue' (85 percent) and 'market access' (73 percent) as the main motives for collaborative exploitation. Over half (56 percent) also cite 'joint innovation' as a motive, followed by 'outsourcing manufacturing' (42 percent) and 'settling infringements' (32 percent).

### *Future potential*

Over a third of SMEs (39 percent) that filed European patent applications said they had plans for future collaborative exploitation. The vast majority (80 percent) of these planned ventures concern inventions that have not yet

been exploited with external partners. The remaining share consists of patented inventions that are already being jointly exploited but may potentially lead to further partnerships. These statistics show that SMEs perceive collaborative exploitation as a relevant mode of commercialization for up to two-thirds of the inventions for which they have filed a European patent application.

### *Partner profiles*

SMEs seeking to exploit patented inventions most frequently partner with existing clients (59 percent) or existing suppliers (26 percent). Around a fifth (19 percent) of these inventions are also jointly exploited with a university or other publicly funded research organization. Partnerships with competitors are less frequent (15 percent), but are often cited by SMEs (22 percent) as potential options.

### *Partner locations*

European SMEs most frequently engage in collaborative IP exploitation with partners located in other European countries (56 percent) or in their own country (53 percent). SMEs commercializing inventions outside Europe tend to choose partners located in North America (26 percent) or Asia (21 percent). But in general, they prefer to choose partners located in another EU member state (68 percent).

### *Challenges in collaboration*

European SMEs involved in collaborative exploitation see identifying the right partners or the cost and complexity



of negotiations as the biggest challenge. Approximately a quarter of respondents cited reasons such as the poor availability of competent advice, the need to disclose critical information and the accompanying risk of creating a competitor as the most important challenges. Unsatisfactory IP protection and the lack of interest from potential partners were cited as major stumbling blocks by just 13 percent of companies wishing to exploit their patents via collaboration.

### *Finding partners*

Analysis of the channels used by SMEs to find partners confirms that identifying the right contacts for setting up collaborations across Europe is a difficult challenge. Up to 60 percent of partnerships involving SME patents or patent applications are actually initiated by their partners. SMEs' own efforts to find partners are mainly based on direct contacts and they seldom use available intermediary channels. SMEs cite personal contacts (77 percent) and business partners (67 percent) as by far the most important channels for collaborative exploitation, along with trade fairs or conferences (49 percent). They use brokers (17 percent), patent attorneys (20 percent), internet platforms (16 percent) and patent information tools (14 percent) far less frequently.

### **Shortcomings in strategy**

The findings of the survey clearly demonstrate the importance of European patents to technology commercialization in Europe. But they also highlight persisting challenges in finding business partners across borders, as well as the complexity of conducting negotiations to set up technology transfer agreements. To a large extent, the key to successfully addressing these challenges lies in the ability of the SMEs to acquire the required skills and implement best practices.

One of the major prerequisites for successful exploitation of new technologies is having a targeted IP strategy that supports the creation of customer benefits realized by products and services, or through business transactions and collaboration. In this context, IP is a business asset that can add, create or preserve value for the SME.

### *Lack of clarity*

The SME survey revealed that SMEs' IP activities are mainly motivated by the wish to protect their inventions against copying, to build up a sound reputation or to achieve freedom to operate. At the same time, one of the root causes for the challenges observed is that SMEs lack a well-defined and communicated IP strategy and a goal-oriented IP management system for implementation, with the consequence being that their teams may not really know what goals their company aims to achieve or how to reach them. These observations are based on feedback from participants of specialized training courses for SMEs, and are supported by the findings of the survey, although with some variation across Europe.

### *Frequency of reporting*

The frequency of IP activity reported to the company's top management is a direct indicator of the importance given by SMEs to IP business matters and an indirect indicator of progress of an IP strategy's implementation. SMEs based in the United Kingdom and Germany have a relatively high rate of IP reporting on a daily or weekly basis in 44 percent and 40 percent of cases respectively. By contrast, SMEs in France and in south-east Europe lag behind, with a reporting frequency of 26 percent and 28 percent respectively.

### *IP departments*

Having a dedicated IP department can be seen as an indicator for having an IP management system in place.



SMEs in Europe report having a dedicated IP department in 25 percent of cases. This percentage is much higher in Germany (41 percent) and slightly higher in France (32 percent). By contrast, the fact that only 12 percent of UK-based SMEs report having a dedicated IP department suggests that they may rely more heavily on external IP consultants. Interestingly, no significant differences were observed at the sector level.

### Building capability

Creating awareness of IP strategy and management is important but not sufficient. Even businesses with some IP experience might struggle with changing requirements during company development, as well as those caused by market dynamics. Therefore, businesses require training that will prepare them to cope with their challenges and questions. It is one of the tasks of the network of national IP offices and their PATLIB centres, as well as the European Patent Academy, the external training arm of the EPO.

IP management practices, even in different business environments, have many of the same principles in common. Acquiring a sound understanding of them requires dedication, but it is straightforward when making use of the available publications<sup>5</sup>, tools<sup>6</sup> and training offers from these sources<sup>7</sup>. In addition, IP management is facilitated by the availability of external IP experts that can be engaged to fill potential gaps or help during periods of peak demand<sup>8</sup>.

More challenging is the development and advancement of an IP strategy. There is a huge diversity of IP strategies in place tailored to business cases, growth stages and fields of industry. In addition, they evolve over time, which makes for a moving target. Training typically addresses such topics by either oversimplifying the topic or by demonstrating the full complexity, which can make them hard to assimilate or implement by SMEs.

One way to overcome this challenge is to improve communication between SMEs, for instance through case studies in which one SME informs another how IP can be leveraged initially, as well as how the use of IP should evolve with a scaling business. The EPO SME case studies<sup>9</sup> are an example of such peer-to-peer communication, covering different regions, diverse technology sectors and underlying business models and companies at different stages of maturity. Each is designed for self-paced learning and the takeaways enable SMEs to better understand how to use IP to their advantage. In addition, the case study material

has been integrated in different training events, such as the IPforbusiness roadshow<sup>10</sup>, which was successfully held in many European cities in co-operation with the European IP Helpdesk.

### Matching business and IP goals

A practical two-step framework that can be applied to different business cases and industry sectors has been developed by the EPO with LESI for training decision-makers and IP professionals in growth-oriented businesses who attend its two-day advanced training format, Succeeding at Technology Commercialization and Negotiation, or participate at its high-growth technology business conference and its related online formats<sup>11</sup>.

#### *Step 1: define generic business goals*

All organizations have up to five main needs or business goals<sup>12</sup>:

- 1) No surprises to current business, meaning a predictable business environment.
- 2) A sustained and advantaged market position over competitors and copycats.
- 3) Full exploitation of all company assets.
- 4) Speed up R&D and product development.
- 5) Significant influence on industry adoption of new technology and business models.

Successfully implementing these five goals achieves the company's full potential, eventually becoming a game changer. The order of the business needs reflects the



situation for at least the majority of for-profit operating companies, although the order of level 3 and 4 can also be observed inverted or combined. Otherwise, it is important to note that, in general, the first levels have to be reached before an organization can work on the next higher level.

### *Step 2: translate generic business goals into IP goals*

There are five main IP goals corresponding to and supporting the generic business goals:

- 1) As a basic requirement, if an organization doesn't have freedom to operate, it sooner or later perishes. It's a must-have for every mature or high-growth-oriented company.
- 2) An organization has to manage its IP portfolio to maintain a leading market position by preventing competitors from copying their most profitable products and services, and to lower their costs as far as possible.
- 3) In order to maximize the rate of growth, optimizing costs and revenues, most for-profit organizations engage in out-licensing programmes for greater market penetration, as well as for licensing out non-core IP.
- 4) The next level needed for successful business performance is to rapidly develop new desirable products and services. This is enhanced by in-licensing or purchasing new technologies or businesses<sup>13,14</sup>. Levels 3 and 4 may also be inverted or combined in open innovation.
- 5) Lastly, at the highest level, IP can be used to shape the direction of the industry either by setting new regulatory and technical standards, which are based on business and technical pre-competitive collaborations or establishing disruptive business models to create new markets.

Applying this systematic approach facilitates an IP strategy that is based on what the business has already achieved. Beyond that, it defines how to get where the business wants to be in the longer term.

With a well-defined IP strategy, the company's management can much better communicate to the team and their business partners the direction the company is heading. That is the prerequisite for an effective and efficient implementation. The right IP strategy refocuses the

organization's IP efforts on filling performance gaps at the current level before reaching the next level.

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

• *The full version of this article appeared first appeared in the June 2020 edition of les Nouvelles, the Journal of the Licensing Executives Society under the title 'Market success and challenges facing European SMEs: results from EPO's patent commercialization scoreboard' and is available at [epo.org/innovation-ecosystem](http://epo.org/innovation-ecosystem).*



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#### Notes

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### Winning with IP: managing high-growth intellectual property

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