High-growth firms and intellectual property rights

IPR profile of high-potential SMEs in Europe, May 2019

A joint project between the European Patent Office and the European Union Intellectual Property Office

Executive Summary
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This report, produced jointly by economists from the EPO and EUIPO, examines the relationship between IP activity and the growth prospects of European SMEs.

It is often said that SMEs are the backbone of Europe’s economy. Indeed, according to the European Commission, SMEs constitute 99% of EU businesses, employ two out of every three employees, and produce 57% of the Union’s GDP. However, a small proportion of those firms account for a disproportionate share of employment and turnover growth in the SME sector. Those high-growth firms represent a small share of European SMEs but they are the future of the European economy, and some of them will be the European industry champions of tomorrow.

Being innovative, these firms rely heavily on intellectual property rights. They grow internationally, primarily within the EU single market but also elsewhere, and therefore need to secure Europe-wide and international IP protection.

As shown in the study, these high-potential SMEs often turn towards the EPO and EUIPO to secure such protection. SMEs and individual entrepreneurs represent 20% of applications filed from Europe at the EPO, and an even higher share of the trade mark applications and design registrations filed with EUIPO. Like universities (9%), they are a major element of the European innovation ecosystem.

It is therefore a major goal for the EPO and EUIPO, as European offices, to support the growth and development of European SMEs by helping them obtain sound IP protection and thus enabling them to commercialise their intellectual assets across Europe and globally.

This report quantifies some of the benefits of doing so.

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Executive summary

Small and medium-sized enterprises (SMEs) are often said to be the backbone of the European economy. However, a large proportion of their contribution to growth and job creation is in fact generated by a small fraction of SMEs. These high-growth firms (HGFs) \(^2\) are a priority target for policy-makers. They include start-ups as well as more classical SMEs, some of which may become Europe’s future industry champions. As compared with other SMEs, their success frequently stems from investment in innovation and intellectual assets, and their growth typically involves international development.

Formal intellectual property rights (IPRs) such as patents, trade marks and industrial designs can be instrumental for these innovative SMEs to appropriate the value of their ideas and secure a return on their investments in intangible assets. Small businesses can leverage IPRs to secure higher margins, license technology, establish collaboration agreements and attract investors. They can also depend on IPR protection in foreign markets to scale up their activities and compete with large, established enterprises in those markets.

The present study aims to determine the importance of IPR activities for HGFs in Europe. To this end, it assesses whether SMEs that make more frequent use of IPRs are more likely to become HGFs. It also examines the particular ways in which HGFs shape their IPR strategies prior to experiencing high growth.

These questions are of particular interest for policy-makers, potential investors and business partners wishing to identify future HGFs at an early stage of their development. Simple indicators of IPR activity can provide them with a signal of an SME’s ability to create and appropriate intellectual assets. A thorough analysis of an SME’s IPR portfolio may be even more informative of its ability to effectively exploit those assets to sustain a fast growth in future markets.

This study draws on a rich dataset linking demographic information on European SMEs in manufacturing industries from 2005 to 2010 with data stored in the national and European registers for patents, trade marks and industrial design rights. HGFs represent only 6% of the sample of European SMEs analysed in the study, but contribute 28% of net job creation. Investigation into the links between IPR activity and high turnover growth is pursued by means of descriptive statistics and econometric analysis of data.

The main findings that emerge from the analysis are as follows:

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\(^2\) HGFs in this study are defined as companies that experience a growth rate in turnover of 20% or more for a three-year period.
1. **SMEs with prior IPR activities are more likely to grow than other SMEs.**

SMEs that have filed at least one IPR are 21% more likely to experience a subsequent growth period, and 10% more likely to become an HGF. The likelihood of experiencing a high growth period is 9% higher for SMEs that have filed at least one patent, and 13% higher for those that have filed at least one trade mark.

**Figure 1:**
Increase in odds of growth with prior IPR use

<table>
<thead>
<tr>
<th>Growth</th>
<th>+21%</th>
</tr>
</thead>
<tbody>
<tr>
<td>High growth</td>
<td>+10%</td>
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</table>

2. **The likelihood of becoming an HGF is even higher for SMEs that have filed a European IPR.**

The likelihood of experiencing a high growth period is 17% higher for SMEs that have filed at least one European IPR. Filing a European IPR therefore provides a positive indicator of an SME’s readiness to scale up business to European level.

**Figure 2:**
Increase in odds of growth with prior use of a European IPR

<table>
<thead>
<tr>
<th>Growth</th>
<th>+26%</th>
</tr>
</thead>
<tbody>
<tr>
<td>High growth</td>
<td>+17%</td>
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</table>
3. Prior patent filings perform best as HGF predictors in high-tech and low-tech industries.

In high-tech industries, the likelihood of high growth is 110% higher for SMEs that have filed one or more European patents. Interestingly, the predictive power of European patents is particularly high in low-tech industries (+172%), where a patent filing can be a relatively rare event.

Figure 3:
Increase in odds of high growth with prior use of a European patent


In consumer non-durable industries, SMEs are 62% more likely to experience high growth if they have filed a European trade mark. By contrast, the filing of a national trade mark is a better predictor (+49%) of the likelihood of high growth in consumer durable industries.

Figure 4:
Increase in odds of high growth with prior use of a European trade mark
5. **SMEs that use bundles of trade marks, patents and designs instead of a single category of IPR are even more likely to achieve high growth.**

IP bundles involving trade marks systematically outperform other bundles and single IPR categories, thus suggesting that trade marks are the basic building block of effective IP bundles. This is likely due to the fact that a trade mark registration is related to market entry and thus turnover growth.

![Figure 5: Increase in odds of high growth with prior use of an IPR bundle](image)

The econometric analysis from which the main results are derived is designed to assess the predictive power of IPR indicators, by measuring the correlation between the IP activities of SMEs and the likelihood that they will experience a high growth period. Importantly, this correlation should not be interpreted as a direct causal effect: the mere filing of an IP right is not sufficient to trigger growth, but it can signal a firm’s stronger ability to sustain growth through the creation, protection and exploitation of intellectual assets.