



Patent Trend Report 2022

Global insights into patent
purpose, value, protection
and technology

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Introduction

Organizations worldwide are operating in an environment marked by the continuous risk of disruption. Competitive landscapes are shifting constantly and opportunities are appearing in unexpected places. In this age of innovation, intellectual property (IP) is at the heart of these business imperatives. In particular, patents represent an opportunity for competitive advantage, market share, licensing, partnerships, investors and more.

The patent research industry has grown to accommodate the needs of the world's innovators, whether they're working for a garage-based start-up or a global multi-national. Inventors, patent attorneys, licensing specialists, patent examiners and law firm professionals specializing in IP, rely on patent research providers to investigate and monitor technology trends and competitive landscapes, inform FTO opinions, prosecute patents, monetize and license assets and support litigation activities. There is also increasing interest from the C-suite around IP data and its role in informing strategic investments and priorities as well as benchmarking and mergers and acquisitions. It's clear that many stakeholders are taking an interest in IP data, but are they using patent data to its full potential?

The increasing speed of business means that organizations are under pressure to simplify increasingly complex portfolios and processes, such as patent filing and management. To gain a deeper insight into how organizations are using patents and patent data, challenges and opportunities, and the role of patents in driving the lifecycle of innovation, Clarivate commissioned research into patent trends across key global regions. Carried out by independent survey firm Vitreous World, the research sought the views of 275 IP and patent professionals, both in-house and external counsel, across seven countries/regions: the United States, United Kingdom, France, Germany, Mainland China, Japan and South Korea.

Key findings

Organizations view patents as a business driver

The majority (75%) say the primary purpose of their patent strategy is to enable further innovation, with patent strategies driven mainly by a desire to enable further R&D, licensing and monetizing innovation and establishing a dominant market position.

Organizations are driving revenue through patent licensing

91% of in-house respondents are involved in the licensing and monetization of their organization's patents and 45% want to expand their current licensing program in the next 12 months.

Patent portfolios are increasing

The majority (69%) of patent portfolios have increased in the last 12 months, with the biggest increases in Japan (80%), Germany (77%) and Mainland China (76%). Increasing portfolios have been driven by increases in budget, greater C-suite buy-in and changes in business focus.

Most are using patent data beyond filings

81% say organizations are using patent data to its full potential, however, confidence is higher among in-house respondents. The top uses of patent data are to inform research and development, deliver competitive intelligence and develop business intelligence.

Opportunities are being missed when the C-suite doesn't pay attention

While over two thirds say the C-suite is involved in patent strategy in some shape or form, only 39% say patent data is used by the C-suite. Nearly half (45%) say they have missed opportunities because the C-Suite was not engaged including missing licensing opportunities, further R&D and opportunities to protect IP.

Managing patents is getting harder

Over half (57%) say it has become harder to implement their patent strategy in the last 12 months with the top reasons being insufficient staff, data, budget and time. Insufficient time and difficulty demonstrating ROI were seen as bigger factors for in-house teams, whereas too high a volume of patents to file and insufficient budget was more of an issue for legal firms. The range of requests made to legal firms is likely to be creating further challenges, with over a third (36%) identifying patent licensing, more than a quarter (26%) noting patent renewals, and 17% citing recordals among the services most demanded by clients.

And this is stopping organizations from filing more

Obstacles such as the complexity of the patent system, the time it takes to obtain patents and costs associated with obtaining patents are preventing organizations from filing more. Further challenges include reducing the time it takes to file, patent maintenance, ownership over patent strategy and managing the volume of patents.

Many are turning to outsourcing as the answer

The majority (45%) are already outsourcing between 26% to 50% of their patent activities with the top three areas for outsourcing patent licensing, analysis and search. Nearly half (44%) say they will outsource more in the next 12 months with analysis, translations and benchmarking the top priorities. Almost a third identified patent renewals (31%) as an area that is currently being outsourced, with over a quarter (26%) also citing this as a key focus when it came to the need to outsource more.

Enforcement is widespread

Nearly half (46%) are enforcing patent portfolios through litigation at least once a month and over a third (36%) are enforced against at least once a month. Figures are significantly higher in the U.S. with 70% enforcing their patent portfolio through litigation at least once a month and half enforced against at least once a month.

Patent and search technology could be improved

Respondents think technology could provide better data analytics capabilities, better efficiency to enhance productivity and a real-time view of data. Respondents also see AI adding the most value in patent analysis, search and licensing.

The impact of the last 12-months

In the last 12 months, the majority of organizations (69%) have filed up to 100 patents and a third of these have filed 1 – 25 patents. Nearly a quarter (23%) have filed between 51 – 100. Substantially more organizations from Mainland China and South Korea (50% from each) have filed just up to 25 patents.

No. of Patents	Avg %	United States	United Kingdom	France	Germany	Mainland China	Japan	South Korea
None	3%	2%	0%	9%	0%	0%	10%	7%
1-10	13%	8%	4%	11%	10%	20%	17%	23%
11-25	20%	8%	24%	23%	13%	30%	17%	27%
26-50	13%	18%	18%	9%	13%	16%	7%	7%
51-100	23%	26%	20%	31%	20%	4%	7%	3%
101-200	10%	12%	18%	3%	20%	4%	7%	3%
201-500	7%	8%	6%	3%	7%	2%	20%	7%
501-1,000	5%	10%	2%	6%	10%	4%	0%	0%
> 1,000	5%	8%	8%	6%	7%	0%	3%	7%

Looking at the comparison between respondents who work in-house and those who represent law firms, in-house respondents appear to have filed slightly less, with the majority filing 50 or less patents in the past 12 months.

Filed 1 – 50 patents in last 12 months

In-house: 51%



Law firms 40%



Filed 51+ patents in last 12 months

In-house: 43%



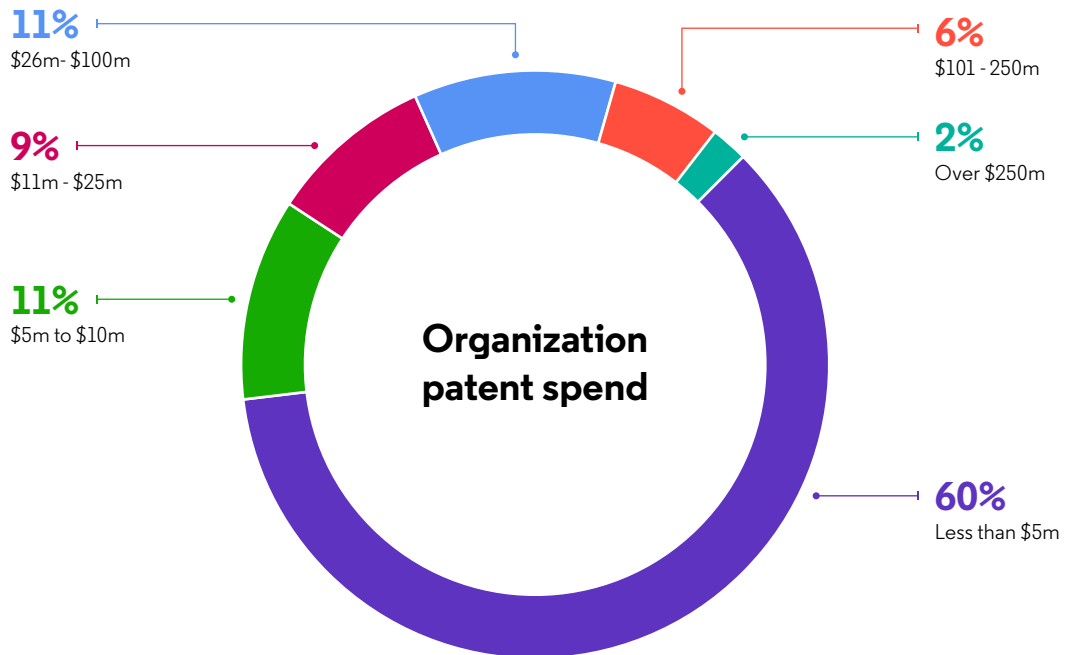
Law firms 58%



Patent spend

The majority (60%) of organizations spend less than \$5 million each year on obtaining and maintaining patents.

A significantly higher number of organizations in South Korea (73%) admit to spending less than \$5m, followed by France (66%) and then Japan (63%). One fifth of respondents in Mainland China say they spent between \$11 million to \$25 million, higher than other countries.



Portfolio sizes

The last 12 months have been turbulent for businesses all over the world. So how have patent portfolios changed in the last 12 months? The majority (69%) of patent portfolios have increased and 15% of these have significantly increased. A quarter (25%) have stayed the same while only 6% have decreased.

The biggest increases have taken place in Japan (80%), Germany (77%) and Mainland China (76%) while France has seen a significant decrease of 14%, twice as high as the average decrease across all surveyed nations (7%).

More in-house respondents (72%) have seen an increase in comparison to the portfolios managed by law firms (65%). Twice as many respondents from law firms have seen a decrease (8%) in the portfolios they manage for their clients compared to in-house respondents (4%).

69%

of patent portfolios have increased

Drivers of change

It's interesting that patent portfolios have accelerated so significantly during the pandemic. This could be a result of organizations potentially making significant savings as they cut-back on spend in response to the pandemic.

Savings from areas such as less travel and reduced real estate footprint may have been diverted to investment and innovation while businesses adapted to the new normal. This is supported by the top three reasons respondents gave for increasing their patent portfolios in the last 12 months:

- Increase in budget (28%)
- Greater C-suite buy-in (23%)
- Change in business focus (18%)

This also aligns with the findings from our "[Chasing change: Innovation and patent activity during COVID-19](#)" report which

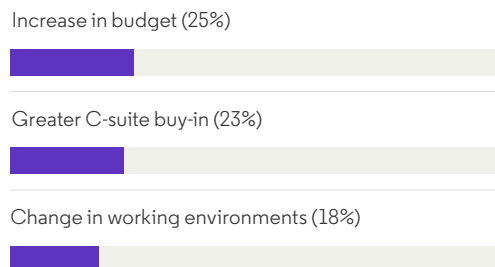
showed that long-term commitment to innovation is unwavering and in fact innovation has accelerated in areas including digitization, as organizations use it as an opportunity to pursue new ideas or diversify into new markets.

The reasons for the increase in patent portfolios differ slightly between in-house and law firms with a change in working environment a top reason for in-house and a change in business focus for law firms. Interestingly, budget increases seem to have impacted law firms more than in house (33% vs 25%) despite the fact that law firms saw lower increases and higher decreases in patent portfolios.

These findings don't necessarily mean that IP budget as whole increased, but that more money was spent on IP activity, again indicating a focus on increasing innovation to help companies rise stronger from the economic uncertainty of the pandemic and increase competitive advantage.

Top three reasons for increasing patent portfolios in the last 12 months

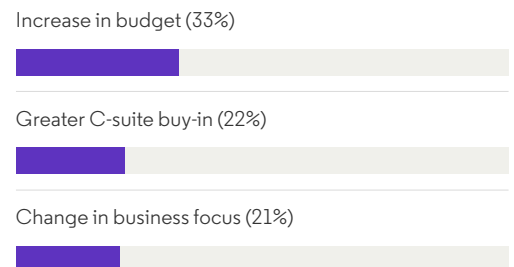
In-house



Increase in budgets was a top reason across all countries, whereas greater C-suite buy in was significantly greater in Germany and Mainland China. Economic uncertainty was a top reason for organizations in the U.S., Germany and Japan.

The top three reasons for decreasing patent portfolios in the last 12 months are:

Law Firms



- Economic uncertainty (38%)
- Change in business focus (25%)
- Decrease in budget (19%)

In France where a significant decrease was reported, the biggest reason is economic uncertainty (40%) followed by change in business focus, decrease in budget and lacking C-suite buy in, scoring 20% each.

Strategy challenges

When asked if it had become harder to implement their patent strategy in the last 12 months over half (57%) of respondents said it had while 38% say it has not and 5% weren't sure. More respondents from the United Kingdom (66%) said it became harder than other nations, followed by Japan (63%) and South Korea (63%).

The top three reasons why it has become harder to implement patent strategies in the last 12 months are:

- Insufficient staff (38%)
- Insufficient data (34%)
- Insufficient budget to support (33%) / Insufficient time (33%)

Insufficient staff was a top reason why it has become harder across all countries, but significantly higher in Japan (42%) and South Korea (47%). Cutting back on the workforce as a result of the pandemic could be a contributing reason that strategies are becoming impacted by insufficient staff. In turn, this could lead to more outsourcing of patent filing activities. Remaining staff tasked with managing patents need the right levels of support to help them cope with the increased workload and this is where outsourcing can help.

Insufficient data was cited by a significantly higher proportion of United Kingdom respondents (45%) while difficulty demonstrating ROI on investment was a top reason for the majority in Mainland China (57%). The patent portfolio being too large to manage was seen as a top reason in all countries apart from the United Kingdom and United States.

Insufficient time and difficulty demonstrating ROI were also seen as bigger factors for in-house teams, whereas too high a volume of patents to file and insufficient budget was more of an issue for law firms.

Patent strategy and data usage

When we asked respondents about the statements that best describe the primary purpose of their patent strategy, it became clear that patents are seen more as an enabler of innovation than a protector. The majority (75%) said say the primary purpose of their patent strategy is to enable further innovation. A quarter say it is to protect existing innovation.

Significantly more organizations in Japan (83%) see their patent strategy as an enabler of innovation, while more in Germany (37%) see it as helping protect innovation.

In-house teams are more likely to see their patent strategy as an enabler, while law firms see the primary focus of the clients' patent strategies centering more around protection.

In-house

Patents help us enable further innovation (78%)



Patents help us protect existing innovation (22%)



Law Firms

Patents help us enable further innovation (69%)



Patents help us protect existing innovation (31%)



The top three primary drivers for patent strategy emerged as:

- Enabling further R&D (36%)
- Licensing and monetizing innovation (35%)
- Establishing a dominant market position (32%)

The drivers differ slightly between in-house and law firms with enabling further R&D more of a driver for in-house while law firms believe the top driver for clients is licensing and monetization of innovation. The top drivers also differ per country. The U.K. and U.S. do not see enabling further R&D as a key driver, whereas Mainland China does not see licensing and monetization of innovation as a top driver.

In-house

To enable further R&D (40%)



To license and monetize innovation (35%)



To establish a dominant market position (33%)



Law Firms

To license and monetize innovation (34%)



To enable further R&D (30%)



To establish a dominant market position (30%)

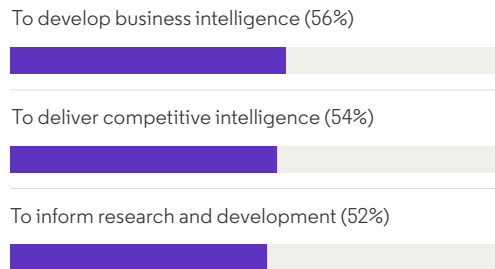


How patent data is used beyond filings

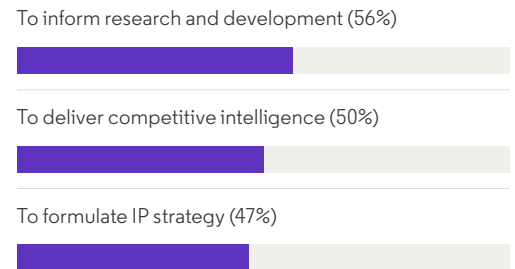
The majority of organizations are using patent data beyond filings with the top three ways:

- To inform research and development (53%)
- To deliver competitive intelligence (52%)
- To develop business intelligence (51%)

In-house



Law Firms



Again, views on how patent data is being used differs slightly between in-house and law firms with developing business intelligence considered the top driver for in-house while law firms believe the top driver for clients is informing research and development. Law firms also believe clients use it formulate their IP strategy.

Usage of patent data also differs across countries with some using it primarily proactively to identify new areas for innovation, while others use data more

reactively to gather intelligence and respond accordingly. For example, a significantly higher proportion of organizations in Mainland China (74%) are using data to inform R&D, while more in the U.S. use it for competitive intelligence. This supports the Chinese national agenda to use IP to support its position as the leader in innovation while the U.S., is more focused on using patent insight to stay ahead of the competition. More organizations in Japan (60%) and South Korea (70%) are using patent data to develop business intelligence.

Country	Top usage of patent data
United States	To deliver competitive intelligence (68%)
United Kingdom	To inform research & development (48%)
France	To inform research & development (63%)
Germany	To develop business intelligence and formulate IP strategy (both 57%)
Mainland China	To inform research & development (74%)
Japan	To develop business intelligence (60%)
South Korea	To develop business intelligence (70%)

Confidence in patent data usage

When asked if they think their organizations are using patent data to its full potential, the majority (81%) said yes. This is highest in Mainland China (96%), South Korea (90%) and Germany (83%). Only 16% don't believe they're using patent data to its full potential. This is significantly higher in France where 43% don't believe it's being used to its full potential.

These findings show high levels of confidence in patent strategies in Mainland China, South Korea and Germany but this could suggest that respondents in these regions are not fully aware of the further potential they can get from their data. More in-house respondents think they're using patent data to its full potential (84%) whereas only three quarters of law firms (76%) believe clients are using it to its full potential.

Patent data is used by a broad range of users within the business with the top being law firms/IP departments, R&D and product development.

However, only 39% say data is used by the C-suite and only 36% say to support strategy. This suggests a disconnect between respondents, the C-suite and strategy departments.

The volume of Law firms/IP departments using patent data in the U.S. (72%) is significantly higher than all other nations surveyed. The volume of Product Developers using patent data in Mainland China (66%) and South Korea (60%) and Japan (53%) is significantly higher than all other nations surveyed. Data is also being used significantly more in Mainland China for licensing (58%) compared to other nations.

Departments using patent data

Law firms / IP Departments (46%)



R&D (44%)



Product developers (44%)



Strategy (36%)



Licensing (42%)



C-suite (39%)



The C-suite's influence on patent strategy

Despite the majority of respondents saying the C-suite doesn't use patent data in the previous section, over two thirds of in-house respondents (67%) say the C-suite is involved in patent strategy in some shape or form:

- 37% say the C-suite is involved to some degree
- 30% say the C-suite is involved to a large degree or leading it

Nearly a third say the C-suite is not involved:

- 24% say the C-suite recognizes the importance but isn't involved
- 8% say the C-suite is not involved

Respondents from the U.K. said the C-suite has the least involvement with 50% saying the C-suite is not involved, followed by Japan (44%).

These findings, combined with the fact that only 39% say data is used by the C-suite, suggest that while the executive leadership is involved in developing the patent strategy, this strategy may not be informed by data.

This further highlights the disconnect between confidence in usage of patent data and the reality of how it is actually being used. Decisions that are driven from the top but are not informed by data could be having a negative impact on patent strategies. An explanation for this may be that respondents lack the skillsets or capabilities to translate the data findings they're leveraging for the C-suite.

30%

say the c-suite is involved to a large degree

1/3

say the C-suite is not involved

Missed opportunities

Worryingly, a significant proportion of respondents said their organizations have missed out on opportunities because the C-Suite was not engaged with their patent strategy.

Opinion is divided with 48% of in-house respondents saying they have not missed opportunities because the C-Suite was not engaged at some point and 45% saying they have.

The top three impacts reported by in-house respondents who have missed opportunities because the C-Suite was not engaged at some point were:

- Missed a licensing opportunity (41%)
- Missed an opportunity to enable further R&D work (39%)
- Missed an opportunity to protect an IP asset (38%)

Concerningly, over a quarter (27%) say it meant a competitor was able to move faster and nearly a third (31%) say they missed an investment opportunity.

These findings represent a significant volume of missed opportunities that in turn impact the global economy. This further supports the argument that the C-suite needs to be presented with digestible data analytics to help drive better decision-making when setting the patent strategy and suggests a level of misplaced confidence in how effectively patent data is being used within organizations. It's clear that those that aren't enabling executive leadership to leverage data and make decisions with more confidence are losing out to their competitors.

27%

say it meant a competitor was able to move faster and nearly a third

31%

say they missed an investment opportunity

Licensing, Enforcement and Litigation

Patent licensing

The majority (91%) of in-house respondents are involved in the licensing and monetization of their organization's patents.

When asked how much revenue was driven by patent licensing in the last fiscal year, the majority of respondents (29%) said their organizations drove more than \$5 million, up to \$10 million revenue from patent licensing. A quarter drove more than \$10 million, up to \$50 million and 10% drove more than \$50 million, up to \$100 million revenue. A quarter drove less than \$5 million but this was significantly higher in France (52%) suggesting organizations in the nation are behind other countries.

The top three statements in-house respondents chose to best describe how their licensing programs will evolve over the next 12 months are:

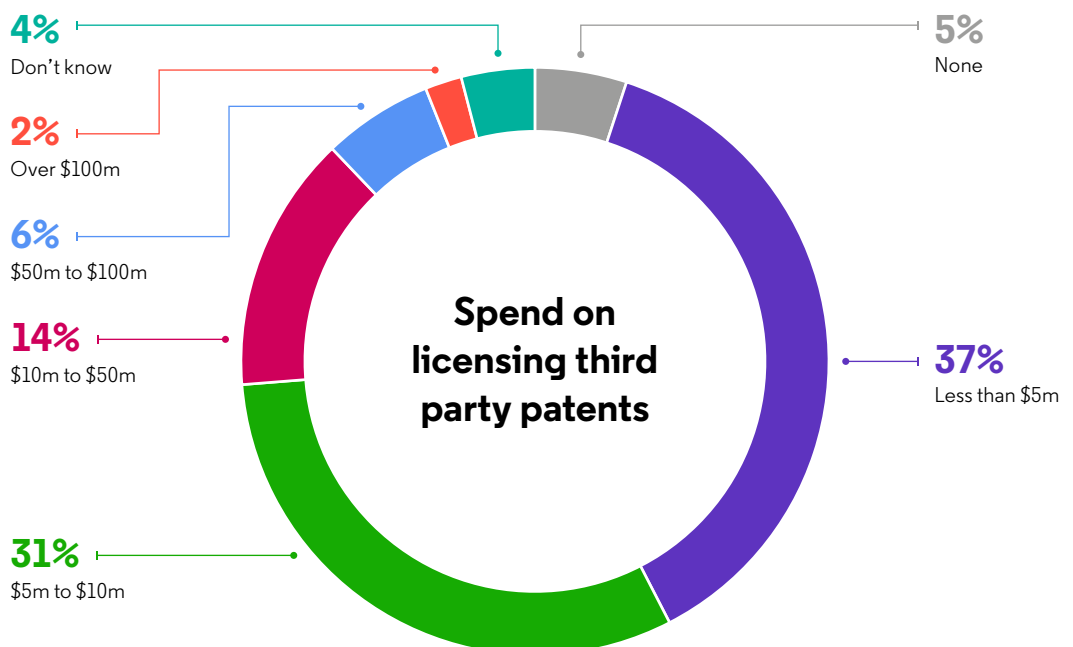
- We want to expand our current licensing program (45%)

- We expect our licensing program to stay the same (19%)
- We expect our licensing program to decrease (4%)

A third (33%) say they don't have a licensing program, however, 22% of these say they plan to start one. A significantly higher proportion of respondents in Germany (22%) don't have a licensing program or plans to start one.

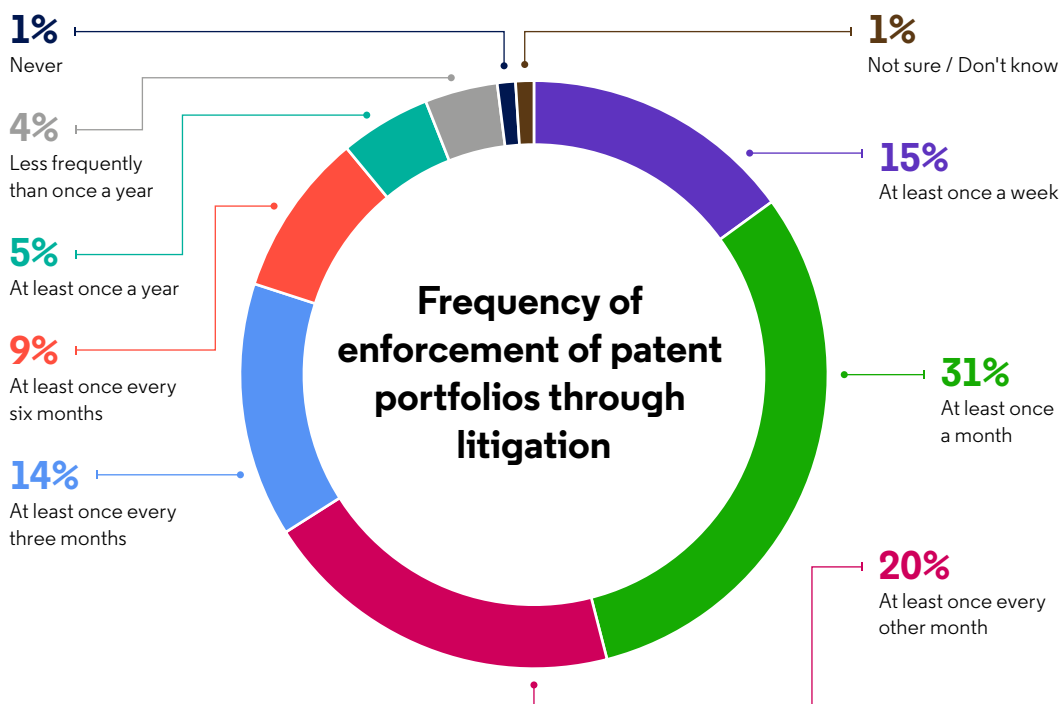
The majority (82%) of in-house respondents are involved with in-bound licensing in order to access patents their organizations don't own. Significantly less respondents in Germany (67%) say they are involved in in-bound licensing.

The majority (37%) of in-house respondents say they spent less than \$5 million on licensing third party patents and 5% say they spent none. Nearly a third (31%) spent between \$5 million and \$10 million.

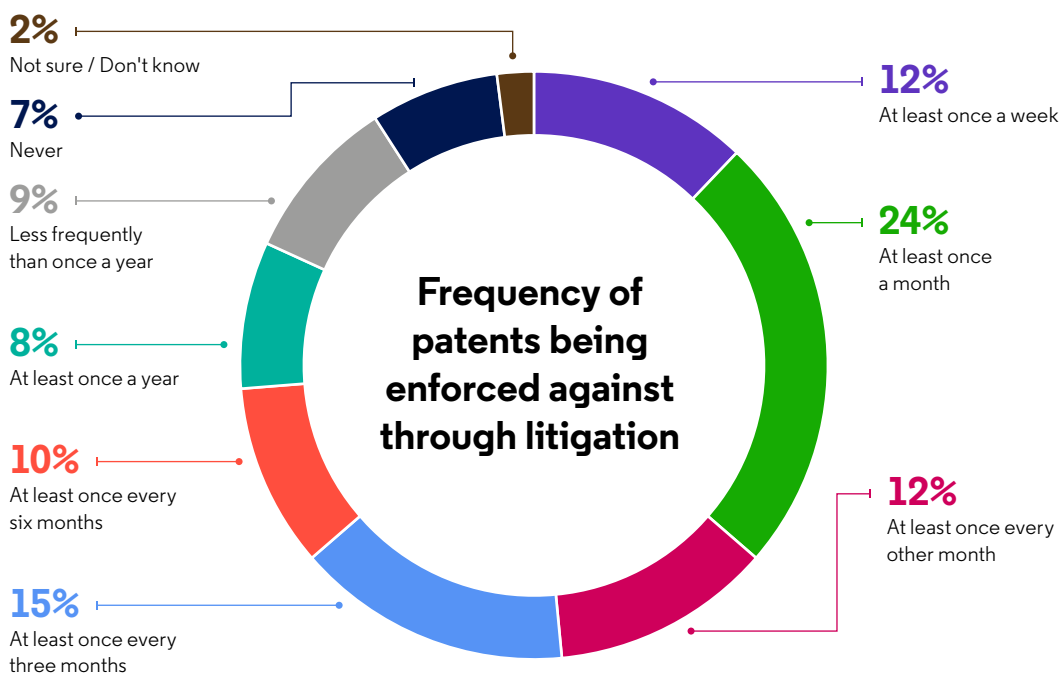


Enforcement and litigation

Nearly half (46%) are enforcing patent portfolios through litigation at least once a month. This figure is significantly higher in the U.S. with 70% enforcing their patent portfolio through litigation at least once a month, of which 32% do at least once a week.



Over a third (36%) of respondents are enforced against at least once a month. Again, this figure is significantly higher in the U.S. with 50% enforced at least once a month, of which 28% are at least once a week.



Patent management challenges

When asked what the top three biggest challenges they face in patent management, respondents identified filing time, ownership of strategy and managing patent volumes:

- Time taken to file and manage patents (41%)
- Ownership over patent strategy (35%)
- Managing the volume of patents (34%)

Challenges differ between in-house and law firms with the volume of patents a top challenge for law firms and the decision-making process harder for in-house:

In-house

Time taken to file and manage patents (44%)



Ownership over patent strategy (36%)



Right decisions to renew or abandon patents (32%)



Law Firms

Managing the volume of patents (38%)



Time taken to file and manage patents (35%)



Ownership over patent strategy (34%)



When asked what, if anything, prevents them from obtaining more patents, the top three factors chosen by respondents were:

- The complexity of the patent system (38%)
- The time it takes to obtain patents (35%)
- Costs associated with obtaining patents (33%)

The challenges are the same for both in-house and law firms although they differ in order:

In-house

The complexity of the patent system (33%)



The time it takes to obtain patents (33%)



Costs associated with obtaining patents (33%)



Law Firms

The complexity of the patent system (45%)



Costs associated with maintaining patents (39%)



The time it takes to obtain patents (37%)



Complexity is seen as more of a challenge in Japan (57%) and South Korea (53%), whereas time is more of a barrier in Mainland China (54%).

Outsourcing and Technology

Outsourcing patent activities

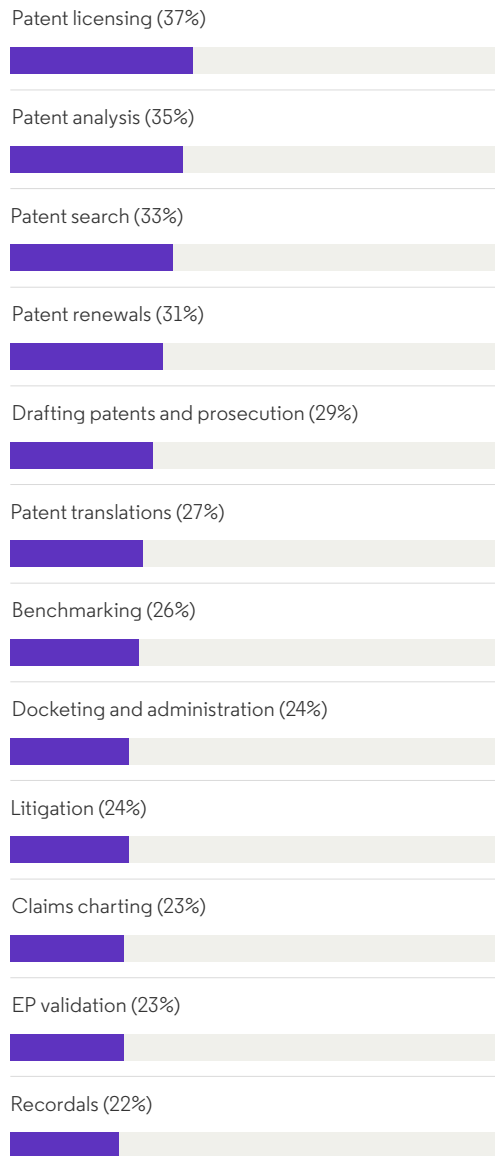
When asked how much of their patent activities they currently outsource, the majority on in-house respondents (45%) said they are outsourcing between 26% - 50% of their patent activities.

A quarter are outsourcing between 1 – 25% of patent activities and nearly one fifth (19%) outsource between 51% - 75%. Only 2% fully outsource everything.

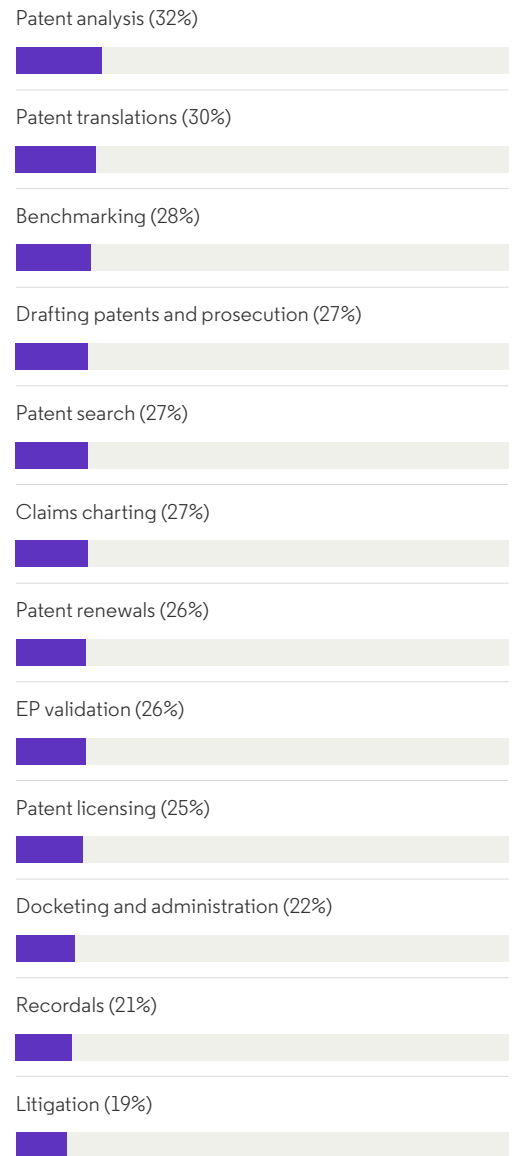
Organizations plan to outsource more in the next 12 months with 44% saying they will, 27% saying they will outsource less and 27% say there will be no change.

The top three areas respondents are currently outsourcing are patent licensing (37%), patent analysis (35%) and patent search (33%). The top three areas respondents would like to outsource more are patent analysis (32%), translation (30%) and benchmarking (28%) which can typically prove difficult to resource internally.

Currently outsourcing



Outsource more



The role of new technology

The top three areas where respondents see new technology such as AI adding the most value in the patenting process are:

- Patent analysis (31%)
- Patent search (26%)
- Patent licensing (23%)

There are slight differences between in-house and law firms although they differ in order. Law firms are typically more reluctant to adopt new technologies, so it is interesting that they are showing a stronger appetite for technology compared to in-house teams. This could be due to increased customer pressure.

In-house

Patent analysis (28%)



Patent search (25%)



Patent renewals (24%)



Law Firms

Patent analysis (35%)



Patent search (26%)



Patent licensing (26%)



How patent management technology could be improved

The top three improvements respondents think could be made to the technology used in the patent search and analytics process are:

- Better data analytics capabilities (49%)
- Better efficiency to enhance productivity (42%)
- Provide a real-time view of data (36%)

Improvements differ slightly between in-house and law firms:

In-house

Better data analytics capabilities (47%)



Better efficiency to enhance productivity (47%)



Provide a real-time view of data (36%)

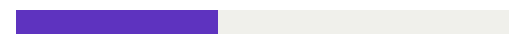


Law Firms

Better data analytics capabilities (51%)



Improving unstructured data (41%)



Better reporting (37%)



Conclusion

While the last 12 months have been turbulent for businesses, the findings in this report reveal that patent protection and its role in the innovation lifecycle remain critical.

Organizations recognize the opportunity and value to be gained by usage of patent data and while this period of economic uncertainty has created more uncertainty, this has also accelerated the need for innovation rather than slowing it down.

While crucial elements that have supported patent filing and maintenance - such as people and resources - have been reduced, some of the savings organizations through these and other cuts appear to have been directed into patent management. While this is a positive sign for those in the patent management business, the pressure that is being placed on the resource constrained departments cannot be ignored.

The lack of data-driven decision-making from the C-suite is another area of opportunity for patent management. The research highlights that important opportunities are being missed through lack of C-suite buy-in. It also suggests that where many executive leaders are involved in patent strategy, they may not be utilizing data available to them. This is despite the majority believing that patent data is being

used to its full potential, perhaps indicating a level of misplaced confidence. The C-suite should be encouraged to digest patent and IP data in general to guide the commercial strategy, but this should be presented in a digestible, easily accessible format. A patent intelligence dashboard can provide stakeholders at all levels with digestible, accurate and up-to-date data that will drive smarter decision-making and help to ensure the patent strategy is as robust as it can be.

Organizations are still adapting to the new normal and it will be fascinating to monitor and forecast how the patent landscape will change in the year ahead. One thing that is certain is that having a robust patent strategy that is supported by energized and efficient teams will be crucial.

Having an experienced patent intelligence and lifecycle partner that has the expertise and the resource to support the business and can provide the insights to inform patent strategy could be key to successfully navigating ongoing uncertainty.

About Clarivate

Clarivate™ is a global leader in providing solutions to accelerate the lifecycle of innovation. Our bold mission is to help customers solve some of the world's most complex problems by providing actionable information and insights that reduce the time from new ideas to life-changing inventions in the areas of science and intellectual property. We help customers discover, protect and commercialize their inventions using our trusted subscription and technology-based solutions coupled with deep domain expertise. For more information, please visit clarivate.com.

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