



October 2021

**The Unified
Patent Court**

**The Irish
Business
Case**

About the Ibec Corporate IP Group

The Ibec Corporate IP Group has been established as a unique network for IP-owning companies and in-house corporate IP professionals. The remit of the group includes patents, trademarks, copyrights, and other areas of intellectual property. The group addresses challenges and opportunities facing businesses that create, own, and trade intellectual property in, and from, Ireland. It is a forum for discussing upcoming and current developments in IP policy in Ireland, Europe and further afield.

The group has three core objectives:

- 1) to offer thought leadership and a single and strong business voice on IP issues at a national and pan-national level;
- 2) to help develop the IP management ecosystem in Ireland through the sharing of best practices amongst its membership;
- 3) to offer a “soft landing” to corporates creating IP functions for the first time in Ireland or moving new IP functions into the country.

Members of the group were involved in the development of this report. Securing Ireland’s timely involvement in the UPC would bring substantial benefits to firms operating from Ireland and attracting new investment. The UPC is a priority focus of the group’s work.

Ireland is becoming a landing-place for IP activities, and this has expanded in recent years. The Ibec Corporate IP Group is committed to promoting Ireland as a location not only for the creation of IP, but also for the management and exploitation of IP. The group supports Government’s efforts to attract IP-intensive investment to Ireland, and work with professional service firms and other bodies on efforts to market Ireland as a place to do business. This includes providing advice and support to companies considering setting up in Ireland.

Equally important to the group is promoting the importance of IP across Ireland’s enterprise base. The Ibec Corporate IP Group will undertake awareness raising of IP amongst the wider business community. Members of the group will participate in information and other outreach activities to demystify IP for companies of all size and sector.

The Ibec Corporate IP Group is networked at a national and European level. Linkages have been developed across the wider IP ecosystem in Ireland. It collaborates with other Ibec policy committees on matters such as technology transfer and taxation, as it relates to IP. It also works with Ibec trade associations on sector specific IP issues. Representatives from the Ibec Corporate IP Group sit on working groups of the European Patent Office, BusinessEurope’s Patents Working Group, and other international business IP fora.

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Table of Contents

| | |
|--|-----------|
| EXECUTIVE SUMMARY | 3 |
| SECTION ONE: Ireland and Intellectual Property | 6 |
| Intangible assets are key to a model of substance | 7 |
| Evolution as a hub for IP-intensive industries | 8 |
| Patenting performance | 10 |
| Global tax reform | 13 |
| Framework conditions | 13 |
| SECTION TWO: The Unitary Patent and the Unified Patent Court | 16 |
| The new unified patent system for registration and enforcement | 17 |
| What is the UPC and why it is needed | 18 |
| The Unified Patent Court has a key role in completing the EU Single Market | 21 |
| Progress on implementing the UPCA | 21 |
| SECTION THREE: Ireland and the Unified Patent System | 22 |
| The benefits of hosting a Local Division | 23 |
| The Local Division and Ireland | 25 |
| The economic impact of a successful Irish Local Division | 27 |
| The direct impact of a successful Irish Local Division | 30 |
| Building on Ireland’s reputation for IP enforcement | 30 |
| European patent validations | 31 |
| Assessing the impact of the UK withdrawal from the UPCA | 33 |
| Positioning Ireland as a patent litigation hub | 34 |
| SECTION FOUR: The business case for pursuing the Central Division | 35 |
| Making a play for the Central Division | 36 |
| English language proficiency of the court | 36 |
| Common law traditions must be central to the new court system | 37 |
| Global hub for life sciences | 38 |
| The Central Division and Ireland | 39 |
| The direct and economic impacts of hosting the Central Division (Life Sciences) | 40 |
| CONCLUSION | 42 |
| APPENDIX ONE: European patent applications by top technology field (2020) | 44 |
| APPENDIX TWO: Direct impact of hosting the Irish Local Division | 46 |
| APPENDIX THREE: Direct impact of hosting the Central Division | 48 |

Executive Summary

The new unified patent system (including the Unitary Patent and the Unified Patent Court) will create a simpler and more efficient mechanism for obtaining and enforcing patents in Europe. Countries hosting the most popular divisions of the Unified Patent Court (UPC) will also develop a reputation as the centres of IP-intensive activity in Europe, with all the associated economic advantages.

As Irish companies continue to diversify their reach across the EU single market and diversify their products and product ranges, they would benefit from the existence of the unitary patent and the accompanying enforcement mechanism.

On 13 November 2014, the Irish Government announced its decision that Ireland would establish a Local Division of the Unified Patent Court in Dublin. Progress had been stalled due to Brexit and delays in Germany, which have now been resolved, clearing the way for the Unified Patent Court to proceed across Europe. It is now expected to commence in 2022. Government must ratify the Unified Patent Court Agreement (UPCA) allowing Ireland to participate in this new court structure without delay, which will require a referendum.

The benefits of hosting a Local Division

Ireland stands to gain significantly through participating in this specialist pan-European court system, but only if it does so in a timely fashion. Establishing a well-run and attractive Local Division that is ready to go when the UPC starts operating will be key to competing for patent litigation to be heard before the Dublin-based court. It will need to demonstrate a reputation for quality and efficiency, and – particularly in the early days – it will need to be actively and aggressively marketed as a litigation venue. Enhancing Ireland's position as an IP hub would benefit SMEs, as well as securing further inward investment.

An Irish Local Division would provide specific comfort for enterprise, in particular indigenous SMEs who are increasing their rate of patenting but might not have much exposure to patent enforcement procedures. Companies finding it necessary to enforce their European patent rights will only have to litigate in one single location. This will provide better access to enforcement for companies that currently cannot afford to litigate in multiple jurisdictions.

The opportunities for Ireland

Brexit has raised the profile of IP policy once more. An Irish Local Division, that is English-speaking and rooted in common law tradition, would be attractive to European patent litigation that might otherwise have occurred in the UK. It would bring substantial economic benefits, in line with the economic impact projected for Ireland from the EU-Canada Comprehensive Economic and Trade Agreement (CETA).

An attractive and timely-established Local Division in Dublin will support the further expansion of the patent-intensive sectors across the country, creating jobs, benefitting SMEs, and boosting Ireland's innovation performance. This is expected to contribute at least €415m or 0.13% in GDP growth per annum. It could rise to as much as €1.663bn or 0.5% in GDP growth.

In addition, to the above benefits there will also be increased expenditure and employment in legal, professional, and other technical advisory services. For example, law firms setting up new offices in Ireland can be expected. Depending on the pace of commencement and take-up of the unified patent system, and of the timing of our participation in it, an Irish Local Division could see as much as €116 million annually spent locally by Year 7 of operations. This will have spin-off benefits in terms of employment associated with patent litigation. It is expected to create up to 1,230 jobs by Year 7.

The business case for the Central Division

Government should also launch a bid to host the part of the Central Division that was previously designated to be in London. This part of the Central Division is responsible for cases in the chemical, biopharmaceutical, and medical device sectors. These industries are key contributors to the Irish economy and significant employers. The future location of this part of the Central Division has yet to be decided, and it will be a political decision. Other locations are vying for it, and their gain will be Ireland's loss.

Irish-based firms in these life science sectors could grow by a further 1% and 4% per annum due to securing the Central Division. This could add between €314m and €1.25bn to the Irish economy annually, generating employment growth and RD&I investment through attracting new companies to Ireland and expanding the existing firm base here. There will also be the potential spin-off in terms of growing high-growth start-ups and scale-ups emerging on the back of increased patenting activity.

Next steps

Ireland currently lags far behind most other states in its preparations for the new system, not least because rollout in this country is subject to a referendum. Unfortunately, a slow start to implementation will prove costly. If Ireland is to make the fullest use of the potential of the unified patent system, prompt action is required.

Government must immediately set out its timetable for Ireland's ratification of the UPCA. This must include an indicative date for holding the necessary referendum, and for passage of the necessary legislation. A transparent timeline would confirm Ireland's continued commitment to the new unified patent system. Ireland must be seen to play a full role in getting the UPC started and in influencing key decisions regarding the court. This can be achieved at member state level and through the UPC Preparatory Committee and other associated structures.

Crucially, the ratification timetable would signal to international investors that Ireland is determined to be fully involved in the UPC. It would allow preparations to commence immediately, which would allow an Irish Local Division to come into existence once ratification occurred. Ireland's preparations must extend to positioning Ireland as a global hub for patent litigation. We must develop this brand and commence marketing Ireland as a leading location for end-to-end IP activities.

Finally, Ireland must be integral to the discussion on the future location of the London section of the Central Division. Government must be prepared to launch a bid to host this specialist part of the UPC.

Section One

Ireland and Intellectual Property

Intangible assets are key to a model of substance

The Irish business model did not appear overnight; it evolved over the course of 70 years. Deep structural change implemented by policymakers contributed to this transformation. We have evolved from a country selling mostly primary unprocessed agricultural products along with low value-add manufacturing, to a high-tech manufacturing hub for areas such as food, pharmaceuticals, information technologies and medical devices. Ireland opened its economy and fully embraced the trend towards global integration.

The key factors underpinning this economic transformation were a skilled, flexible workforce (including access to a global skills pool attracted by Ireland's high standard of living); a consistent, transparent, and competitive tax regime; membership of the EU Single Market with a regulatory regime conducive to doing business globally; a stable industrial relations regime, robust to challenge, and a strong and reliable business culture, favourable to commerce and transaction.

Foreign investment, attracted by Ireland's excellent pro-business environment, has helped transform the Irish economy. Total multinational employment rose from 65,000 in 1985 to 245,096 in 2019. The indirect employment of companies in their supply chain is likely to be more than double this figure – or one in five jobs in the total economy. The complexity and scope of Ireland's indigenous enterprise base has also evolved significantly since the 1980s.

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Ireland is home to some of the world's most innovative companies and consistently competes for R&D projects of major scale in areas such as pharma, medical devices, and technology. These three sectors (medical technology, life sciences and computer technologies) are the three most active for patent filing from Ireland (IPOI, 2020).

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Evolution as a hub for IP-intensive industries

Ireland has gained prominence as a location specialising in the full lifecycle of business for high value-added products from R&D to production, and on to sales, marketing, logistics and finance. In recent years, there has been growth in the management and exploitation of IP by firms operating from Ireland. This has been a blend of firms setting up in Ireland/Europe for the first time and firms already with a presence here.

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In terms of European patent applications per capita filed in 2020, Ireland ranks 10th globally with 187.5 EPO applications per million inhabitants. This is greater than Korea (176.6), France (155.5) and the US (133.2). The Irish rate is almost double that of the UK and two and half times greater than Italy. However, when Ireland is compared to other small, innovative nations, the picture is somewhat different. Serious work will be needed to close the gap on competitor locations such as Sweden (434.2), Denmark (409.6) or the Netherlands (369.1), with patenting rates around twice the current Irish rate. Denmark's approach to the unified patent system provides useful insights for Ireland (see case study).

Ireland's world class economy is globally competitive in terms of human capital, and research. Ireland's non-national workforce is double the EU average and twice as likely to be educated to third-level. Ireland has the EU's highest proportion of workers in high-tech manufacturing, with twice the level of Germany in second place, and 7.5% of Ireland's workforce is in high technology sectors, far outstripping the

EU average of 4%. We have developed a niche in advanced manufacturing, which could benefit from the existence of the new single European patent system. The presence of manufacturing sites can be an important factor in determining where firms decide to patent (UKIPO, 2017).

Ireland is not only a global hub for manufacturing and services activities but also R&D. OECD data shows that of over 40 OECD cities, Dublin attracted the 6th most inward cross-border R&D investment projects over a nine-year period between 2003 and 2011. Dublin is competing for R&D projects successfully with cities 10 times its size, such as London, Tokyo, and Paris. The only other mid-sized European city in the same range is Barcelona.

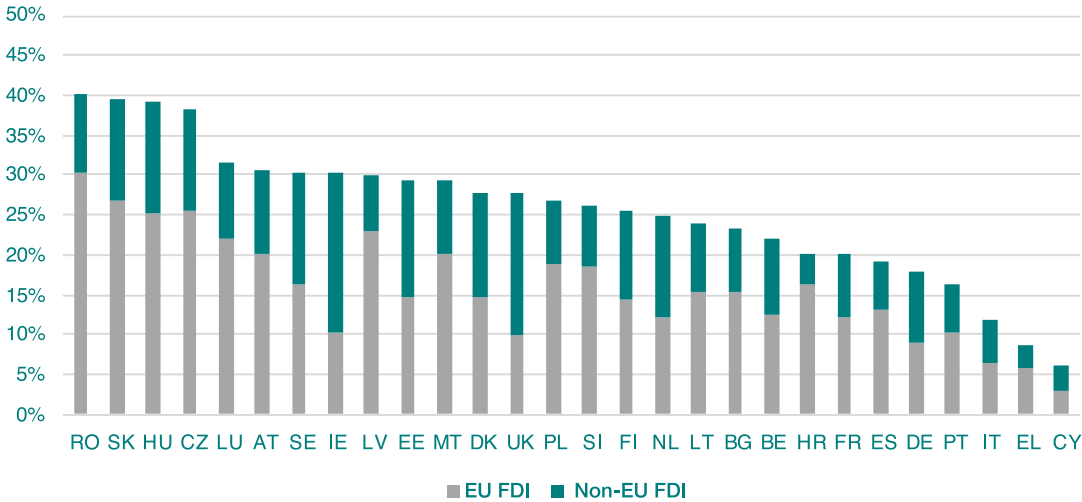
IP-intensive industries employ 542,246 people in Ireland (EPO & EUIPO, 2019). Only three out of ten of these employees may work specifically in patent-intensive industries but they generate a quarter of the total GDP for the country. Ireland is one of the leading countries in the EU for proportion of GDP attributable to these industries. However, its total share of employment in patent intensive industries at 8.4% (168,185 people) is below the EU average. The country must strive to convert its position of economic strength in patent-intensive industries into sustainable high-skilled jobs growth.

Whilst Ireland is 8th in Europe for share of total employment in foreign-owned IP intensive enterprise, it is first overall in terms of employment share by non-EU headquartered firms. The UK is in second place and Ireland's share of employment in non-EU IP-intensive companies is three times the EU average. In terms of patent-intensive industries, Ireland has far and away the greatest share of employment in non-EU firms with one out of every three jobs in FDI from outside the EU.

TABLE 1: Ranking of GDP and employment shares in patent-intensive industries by Member State, 2014-2016 (Source: EPO & EUIPO, 2019)

| | % GDP | Rank | % Employment | Rank |
|-------------|--------|------|--------------|------|
| Czech Rep | 26% | 1 | 19.8% | 1 |
| Ireland | 25.7% | 2 | 8.4% | 19 |
| Germany | 23.6% | 3 | 15.9% | 2 |
| Hungary | 23.3% | 4 | 12.8% | 6 |
| Slovenia | 21.6% | 5 | 15.8% | 3 |
| Slovakia | 19.2% | 6 | 13.4% | 5 |
| Denmark | 18.2% | 7 | 12.6% | 7 |
| Bulgaria | 17.8% | 8 | 10.4% | 12 |
| Sweden | 17.6% | 9 | 12.3% | 8 |
| Austria | 17.4% | 10 | 12.1% | 9 |
| Finland | 17.3% | 11 | 11.7% | 10 |
| Poland | 16.3% | 12 | 9.5% | 14 |
| Romania | 15.4% | 13 | 9.2% | 16 |
| Belgium | 14.9% | 14 | 9% | 17 |
| Italy | 14% | 15 | 11.3% | 11 |
| Netherlands | 13.5% | 16 | 8.2% | 21 |
| France | 13.3% | 17 | 9.4% | 15 |
| Estonia | 13% | 18 | 9.8% | 13 |
| Lithuania | 12.3% | 19 | 7.7% | 23 |
| Luxembourg | 12.3% | 20 | 13.6% | 4 |
| Spain | 12.2% | 21 | 7.5% | 24 |
| Croatia | 12.1% | 22 | 8.8% | 18 |
| UK | 11.6% | 23 | 8.4% | 20 |
| Portugal | 11.2% | 24 | 7.5% | 25 |
| Latvia | 10.5% | 25 | 6.8% | 26 |
| Malta | 9.9% | 26 | 6.5% | 27 |
| Greece | 9.5% | 27 | 7.8% | 22 |
| Cyprus | 6.2% | 28 | 5.2% | 28 |
| EU 28 | 16.10% | - | 10.90% | - |
| EU 27 | 17.00% | - | 11.30% | - |

FIG. 1: Percentage of jobs in EU Member States attributed to foreign companies in all IPR-intensive industries, 2014-2016 average (Source: EPO & EUIPO, 2019)



Ireland has been one of the big winners from globalisation. It is important for small countries like ours that global economies remain committed to the open policies which have benefitted so many. Our continued success as a global hub is built on flexibility of approach and good horizon scanning. The country must continue to evolve and develop as an IP-intensive economy, based on substance.

Patenting performance

Ireland is a “strong” innovator, ranking 11th in the European Innovation Scoreboard 2021. It continues to perform above the EU average. Ireland’s core strengths are in linkages, human resources, and attractive research systems, having achieved overall scores above 120 percent of the EU average in each of these categories. Our top-3 indicators include population with tertiary education, innovative SMEs collaborating with others, and employment in knowledge-intensive activities. Ireland, however, is underperforming in the “intellectual asset” (intellectual property) indicators. Specifically, Ireland is failing in its volume of International Patent applications, Trademark applications and Design applications; the indicators by which Ireland’s intellectual assets performance is assessed.

More generally, the country has been making moderate performance improvements over recent years. For example, there was a 10% increase in European patent filings and a 14% increase in patents granted to Irish applicants in 2020.

As has been noted, patenting rates are one indicator to measure innovative performance across the enterprise base. A lower propensity for patenting amongst firms can be due to the sectoral differences and levels of expenditure on R&D. It should also be noted that the “decision to patent does not appear to be solely driven by the economic rationale, but also by wider factors”, which can be dependent on “company culture, individual incentives, and levels of awareness of patenting” (UKIPO, 2017).

SMEs, intellectual property, and patent protection

Intellectual property rights, and patent rights especially, are an important consideration not just for large companies. IP activity is an indicator of innovation performance of a company and the economy. All companies need to protect their assets and patents are key to the protection of an organisation's commercial advantage resulting from technical or scientific innovation. However, there are significant differences on patenting activities by firm size.

Research shows that only 9% of SMEs across the EU own registered IP compared to 54% of large firms, and less than 1% of SMEs own a patent, compared with almost 18% of large firms. Low levels of patent ownership amongst SMEs is thus a pan-European phenomenon, not just an Irish one. There is a tendency in some circles to take these low levels of observed patenting activity amongst SMEs as evidence that patents are not particularly relevant to this cohort. This fundamentally flawed logic needs to be recognised for the circular reasoning that it clearly is.

In fact, patent-ownership can have a significant impact on company performance, depending on the business sector and other variables. Firms that own patents tend to be at least 5 times larger than firms that do not, employing an average of 29 people (EPO & EUIPO, 2021). Not only are they larger; they are more profitable, generate greater revenue and pay higher wages than non-patent

owning firms. This results in patent-owning firms generating on average 36% higher revenues per employee than firms without patent portfolios (EPO & EUIPO, 2021).

Patent-owning SMEs “typically rely on European patents to prevent competitors from imitating their inventions, build up a reputation and secure freedom to operate”, as well as for “transactional purposes like setting up licensing agreements and commercial contracts” (EPO, 2019). This can help start-ups and scale-ups to grow. Patents can also be used strategically by SMEs to secure external investment. It should be noted that Irish SMEs are just above the European average for ownership of European patents (EPO & EUIPO, 2021). The “broad geographical scope of protection conferred by European patents is instrumental for those aiming to grow rapidly in international markets” (EPO, 2019). Irish SMEs are well-placed, if supported by the national enterprise system, to benefit from the new unified patent system. This will allow them to grow, scale and to create high-quality jobs.

SMEs stand to make significant gains from the entry into force of the new unified patent system. Direct benefits of the new system are highlighted elsewhere in this report, but there are key reasons why SMEs should embed IP ownership into their company strategy.



Patent-owning firms generate on average 36% higher revenues per employee than firms without patent portfolios.

By international standards, there is a low rate of patent litigation before the Irish courts, although a recent increase in local litigation by the pharmaceutical sector has been reported. It has been estimated that Ireland has 0.2% share of European patent litigation (European Commission, 2011). However, it should be noted that “raw patent case counts are often not particularly informative, especially when compared over time or across jurisdictions” (Helmets, 2018). They can be open to misinterpretation. For example, is a low rate of litigation in a country indicative of fewer underlying disputes? Or is it a case that disputes could be settled prior to court or simply not enforced at all? Add to this the fact that under the current European patent enforcement system, Irish companies would have to resort to litigating in other European countries to enforce their rights – rights that might cover larger, more lucrative markets.

Ireland has lacked a specialised national court for IP. This is now being rectified under wider civil justice reforms. The Commercial

Court is to have a specialist sub-list called the Intellectual Property and Technology List with specialist judges, as recommended by Review of the Administration of Civil Justice: Review Group. Chaired by Mr Justice Peter Kelly, this group recognised “benefits which are likely to result from the introduction of a specialised intellectual property list and recommends that the appropriate resources be made available so as to ensure that the courts of Ireland remain an attractive forum for parties seeking to resolve such disputes in as timely and cost-effective manner as possible”. Ireland is capable of judicial innovation with positive results for enterprise.

The reforms currently being implemented will improve the national system for patent litigation. It is extremely important that IP litigation has been identified as an area to target for inward investment. The logical extension of this positive thinking would be to consider the impact of Ireland’s participation in the unified patent system and its associated benefits on our attractiveness as a location to do business.

Global tax reform

Ireland's tax regime is central to attracting Foreign Direct Investment (FDI) and to maintaining economic success. This regime is built on: the 12.5% corporate tax rate; reliability (e.g. assuring the business community of the permanency of the tax rate); a best in class R&D tax credit introduced in 2004; and the world's first Base Erosion and Profit Shifting (BEPS) compliant patent box. Our taxation offer is centred around innovation and intangible assets. It has played an influential role in the decision by companies to re-locate IP to Ireland.

The degree of Ireland's participation in the unified patent system should be part of national considerations on our future economic competitiveness. Discussions on global tax reform may well impact significantly how Ireland supports innovation investment and research and development. In the past decade, under the BEPS process, Ireland has moved to

being a model of substance with extraordinary levels of investment such that the capital stock in our globalised business model has been transformative.

Ireland will need to meet this competitiveness challenge by investing in other growth levers such as education, research and development and critical infrastructure. A renewed focus on business framework conditions from the better regulation agenda through to the country's intellectual property ecosystem will be fundamental to how Ireland competes for future investment. Getting the framework conditions right will stimulate growth in indigenous enterprise, particularly benefiting innovative start-ups and scale-ups. Strong national commitment to maximizing the opportunity presented by the Unified Patent Court and focusing on expanding IP-related activities more generally, would support future growth.

Framework conditions

IP development is key to the production of new knowledge which drives economic growth for incumbent and frontier firms. Ireland is a small, open economy which requires Irish businesses to be at the cutting edge to remain competitive. A renewed focus on innovation and the development of intellectual assets would allow Irish businesses to benefit from the resulting gains in productivity and acquire an advantage over international competitors.

Focusing on the framework conditions for IP will help boost the competitiveness, resilience, and innovation of Ireland's enterprise base at

this key juncture. There is a correlation between IP ownership and high-growth enterprise. Thus, patents have become an increasingly important tool in the industrial policy toolbox. This is particularly relevant to Ireland, where the number of enterprises actively involved in transacting intellectual property and similar products has doubled over the past decade. To complement and further perpetuate this growth, it is imperative that the ecosystem properly supports not only the creation and capture of IP but also its management, exploitation and, when necessary, its enforcement.

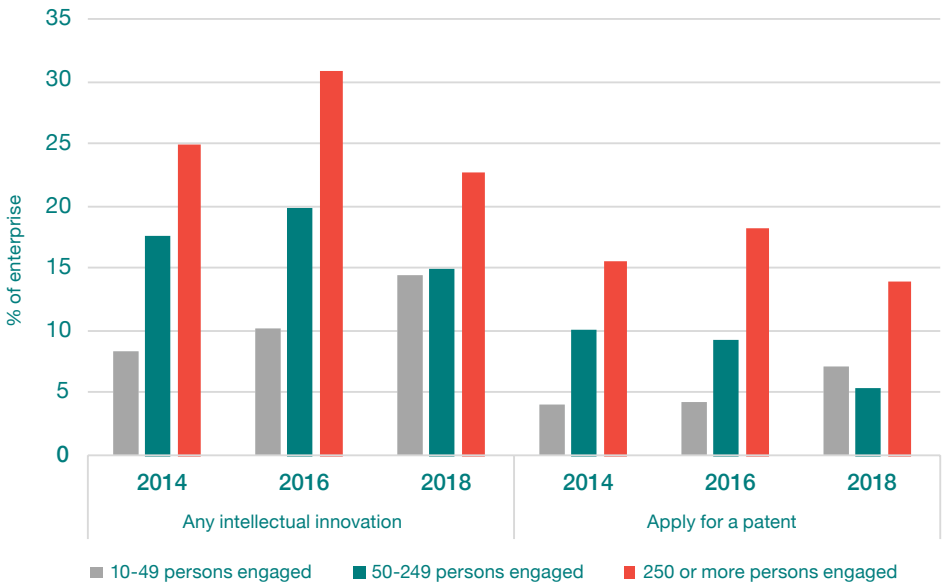


FIG. 2: Enterprises Engaged in Intellectual Property Activities by Firm Size (Source: CSO)

IP formed one of the five pillars of Innovation 2020, the national strategy for R&D, science, and technology. Key achievements under the strategy were largely concentrated on industry-academic collaboration. Actions included strengthened knowledge transfer for innovation and promoting more extensive commercialisation of public research. Progress had been made in terms of raising IP awareness and building IP capability and resilience at enterprise level. However, measuring progress of IP activity in the firm base needs to be advanced to allow a clear national picture to be formed in addition to the European Innovation Scoreboard in terms of intellectual assets. Crucially, the national strategy explicitly recognised that businesses of all sizes would benefit from improved patenting options and protection through Ireland’s participation in the unified patent system. It is clear national preparations need to be reactivated.

The new National Research and Innovation Strategy must continue to prioritise IP as one of the core pillars to address the competitiveness impacts of Brexit, global tax reform and other externalities. Focus needs to remain on making progress on IP, licensing, and technology transfer through industry-academic collaboration, with Knowledge Transfer Ireland playing a key role. It also necessitates a stronger focus on enterprise-level IP activities as part of the broader IP framework.

Knowledge Transfer Ireland (KTI) was launched in 2014 with the specific mission to make it easier for businesses to access publicly funded research.

It ensures the output from public investment in R&D is commercialised, delivering value to the economy and society. KTI has developed a strong reputation amongst its peers and supports technology transfer across the research performing organisations (RPOs).

Last year, Irish RPOs made 147 patent applications, and all but three of them came from the higher education sector. This represents an average annual growth rate of 8% since 2017 (KTI, 2021). In terms of commercialising this registered knowledge, the number of licence, option, and assignment agreements (LOAs) to patented IP have increased by 40% since 2016 (KTI, 2020). These structured arrangements are important to both SMEs and MNCs, where approximately one out of every three agreements in 2020 were to patented IP (KTI, 2021).

Corporate IP-related activities must be a key part of Ireland’s inward investment strategy. Work is still needed on raising awareness of the value of IP across the spectrum, from the classroom to the boardroom, and with special focus on entrepreneurs, start-ups, and SMEs. Such aspirations and objectives can be achieved through alignment with ratification and proactive implementation of the Unified Patent Court Agreement. It is important that the new national innovation strategy supports Ireland’s full, timely and active participation in the Unified Patent Court so that the country does not lose out.

CASE STUDY: Denmark

Denmark, like Ireland, was required to hold a referendum to ratify the Unified Patent Court Agreement. The country invested heavily under its Presidency of the European Council (1 January to 30 June 2012) in making substantial progress on the new unified patent system. This included brokering the political agreement on dividing the Central Divisions across Paris, Munich, and London. However, unlike Ireland, the Danish Government wasted little time in holding its referendum.

The referendum took on 25 May 2014, which saw 62.5% of voters in favour of Denmark joining the Unified Patent Court. The reasons behind Denmark's decision to actively favour the establishment of a local division deserve study by Ireland. It would be too simplistic to think that Denmark opted for this route because it could better assist efforts in securing a successful outcome in the forthcoming referendum.

The principal driver for the Danish decision was the positive impact that hosting a local division would have on its companies, especially SMEs. Dansk Industri stated that the patent court will give "a productivity boost to all innovative Danish companies, which will avoid special administrative requirements, translation of the patent and national fee" (DI, 2013). Some of the arguments put forward by the Danish Government in favour of the UPC included:

- It will make it simpler, cheaper, and more efficient to enforce European patents across Europe.
- It will increase the legal certainty of patent rights in Europe, making it clearer, more transparent and uniform for companies regarding their patent rights.
- The current system is fragmented; time and resource-intensive; too costly and cumbersome.
- Removes the risk from no longer having to bring cases of the same dispute before national courts in several different countries.
- The UPC will be organised to ensure rapid, high-quality decisions.

It was felt by the Danish Government that SMEs would be the biggest beneficiaries of the UPC by being able to hear cases in Denmark as plaintiffs. A Local Division of the UPC would benefit indigenous enterprise who "do not have the resources to deal with the complexity and costs of the existing system, to the extent that large companies do" (Denmark 2014). Ultimately, the Danish Government stated at the time, "it will have negative consequences for both Danish companies and Danish society if Denmark chooses to remain outside the European patent reform" (Denmark, 2014).

Section Two

The Unitary Patent and the Unified Patent Court

The new unified patent system for registration and enforcement

Over the past half century, it has become increasingly apparent that Europe requires a harmonised system for patent rights. Substantial work has already occurred on harmonising the systems for trademarks and designs. Developing a streamlined regime for patents has been a much slower affair.

Some degree of harmonization was achieved through the 1973 European Patent Convention (EPC), an international agreement that gave rise to the European Patent Organization and its primary organ, the European Patent Office (as the product of an international agreement, the EPO does not fall under the jurisdiction of the EU). This harmonization, however, was only partial. The new unified patent system promises to provide a more complete solution: a package of two parts, comprising a single patent system for registration (Unitary Patent) and enforcement (Unified Patent Court). Final agreement was reached on the new system during the Irish Presidency of the EU in 2013. The new system is “permissive in nature because it allows, but does not force, businesses to do something” and it can be expected that businesses will only use the new system where they lead to net benefits for business” (BIS, 2014).

Businesses will benefit from a streamlined and harmonised “one-stop” shop administration process for granting and enforcing patents, as well as overall enhancements to the quality and efficiency of patent protection in Europe. The current system is far too expensive for companies. The cost of seeking and obtaining patent protection in Europe is six times more than in the US or other major locations (Van Pottlesbergh, 2015).

Under the existing structure provided by the EPC and administered by the European Patent Office, applicants seeking patent protection in Europe must register (or “validate”) their granted patent application in each Member State where protection is required. This is unnecessarily costly and complex, especially for SMEs. The administrative costs and other fees may act as

a disincentive to those considering patenting across multiple European states. It requires individual validation fees to be paid and incurs expensive translation and publication costs to secure protection in specific markets. Added to this will be the annual renewal fees payable in each validated state to keep the individual national patent rights in force. Companies may also require the engagement of local legal and IP advisory services.

The Unitary Patent provides a new and attractive option, one which is simpler and more cost-effective. Patent holders will be able to benefit from immediate pan-European protection across all participating EU Member States. It has “unitary character, meaning it provides uniform protection and has equal effect in all the participating Member States” (EPO, 2017). Companies will only have to pay one registration and validation fee for the patent to have broad territorial scope. There will be only one single, harmonised fee for patent renewals. More so, the translation costs have been significantly reduced. Together, these will dramatically cut the cost of patent protection in Europe.

However, when it comes to achieving greater efficiencies and harmonisation, the focus must not solely be on the costs associated with securing and validating patents in Europe. The issue of post-grant enforcement mechanisms must also be addressed due to the “high uncertainty over the validity of the European patent and managerial complexity induced by variegated national approaches towards patent-related litigations and to the possibility of having opposite decisions (and hence outcomes) in case of parallel litigations” (Mejer, 2012). The central shortcoming of the current European patent enforcement regime is that national validates of the same European patent application must be individually enforced before their respective national courts. It is this shortcoming that the second part of the unified patent package, the Unified Patent Court (UPC), aims to address.



One of the key benefits of the UPC is that companies finding it necessary to enforce their European patent rights will only have to litigate in one single location.

What is the UPC and why it is needed

Europe's system for patent enforcement is highly fragmented. It is expensive, cumbersome, and slow. Patents issued via the European Patent Office are generally more valuable than nationally issued patents and thus, have a "high propensity to be litigated in several countries" (Van Pottlesberghe, 2015). Litigating across multiple European jurisdictions is extremely resource intensive, which can itself put off companies enforcing their rights. Even more concerning, it can result in different enforcement outcomes on the same issue in different countries.

The Unified Patent Court (UPC) is to be established as a single court system for patent litigation and enforcement. Only EU Member States will be allowed to participate. This has been confirmed by the UK's recent withdrawal from the UPC Agreement (UPCA). Spain and Poland have opted against participating in the UPCA. Set up by international agreement, it

will come into existence once it is ratified by 13 contracting Member States. Ireland will have to hold a referendum on this issue to ratify its participation in the UPCA. Denmark was the only other state needing a referendum, which was held in May 2014.

The UPC will ultimately have exclusive competence in respect of infringement and validity of all patents granted by the EPO – both the national validates currently obtainable and the new Unitary Patent. It will consist of a Court of First Instance, a Court of Appeal and a Registry. Reflecting its supranational arrangement, the Court of First Instance will be one court with several divisions (Central, Regional and Local) located across multiple countries. Contracting states can decide how they will participate in the new structure, including the option to host a specific part of the new court.

The Central Division is seated in Paris with sections in Munich and a further location to be determined. There was to be a section of the Central Division in London, but the UK's withdrawal from the UPCA has resulted in the section requiring a new location. As a stop-gap solution, it will be temporarily housed between Paris and Munich. The future location of the London section of the Central Division will be a political decision.

All revocation actions or actions for declarations of non-infringement will be heard before the Central Division. The location will be based on the subject matter of the patent in dispute. Each section of the Central Division has specific areas of expertise.

These are:

Paris (Seat):

performing operations, transporting; textiles, paper; fixed constructions; physics; electricity.

Munich:

mechanical engineering, lighting, heating, weapons, blasting.

Tbd (previously the London section):

human necessities including pharmaceuticals; chemistry, metallurgy.

Member States signing up to the UPCA were given three options to decide how they would specifically interact with the new court structure. Each country could choose to establish a Local Division or Divisions (depending on country size); co-join with other Member States in a Regional Division; or participate through the Central Division structure only. The Local Division option allows a country to host its own specific court of first instance under the UPC.

On 13 November 2014, Government announced its decision that Ireland would establish a Local Division in Dublin. This followed a public consultation. Importantly, it is also the preferred option for a number of our competing locations for investment (e.g. Denmark, Finland, the Netherlands and Belgium). An Irish Local Division would provide specific comfort for enterprise, in particular indigenous SMEs who are increasing their rate of patenting but might not have been exposed to litigation in recent years.

One of the key benefits of the UPC is that companies finding it necessary to enforce their European patent rights will only have to litigate in one single location. This will provide better access to enforcement for companies that currently cannot afford to litigate in multiple jurisdictions. In short, the "greatest perceived benefits of the UPC tend to be linked to the simplicity that it offers" (Europe Economics, 2014). Irish companies will be able to fully avail of these benefits by being able to bring European patent cases before a Local Division based in Dublin.

The new patent system will be disruptive. The Unified Patent Court structure will help redress the uncompetitive nature of the current system for patent protection and enforcement. It will be a further boost to collective efforts to complete the EU Single Market.

The Unified Patent Court has a key role in completing the EU Single Market

Trading goods and services across the EU would benefit from a harmonised system for protecting these same goods and services. Currently, a single market does not currently exist for innovations (Mejer, 2015). The new unified patent system will play a role in underpinning sustainable economic development over the coming decades through the creation of a one-stop-shop for patent protection and enforcement across the EU.

Research demonstrates that the “majority of large companies primarily decide where to patent (based) on where their markets are, and therefore the quality of the patent system (e.g. in terms of speed and cost) is of less importance in attracting companies to patent in a jurisdiction” (UKIPO, 2017). At a European level, the unified patent system has the potential to greatly simplify decisions on where to secure rights to innovations, and if necessary, where to enforce those rights. For many users, a decision-making process that is currently a complex appraisal of differing market sizes, legal requirements and enforcement regimes will be transformed into a straightforward one-size-fits-all proposition.

The new system is truly pan-European, and it provides a degree of levelling up for smaller countries, allowing those with ambition to seize on the opportunities it presents. In the future, an Irish-owned unitary patent has immediate effect across Europe. More than this, an Irish company will have the ability to enforce its European property rights once and through an Irish-based court. It is no longer the case of Ireland having a market size of 4.98 million. Under the new system, companies will be able to enforce patent rights from Ireland in a market that effectively accounts for 360 million consumers and 17.3 million small and medium-sized enterprises (SMEs).

Irish companies not only have to continue to diversify their reach across the EU single market and further afield, but they have also to diversify their products and product ranges. These will have to be protected and would benefit from the existence of the unitary patent and the accompanying enforcement mechanism. The new patent system will be an important part of the innovation policy space.

The new system is truly pan-European, and it provides a degree of levelling up for smaller countries, allowing those with ambition to seize on the opportunities it presents.



Progress on implementing the UPCA

In November 2020, the European Commission published the communication Making the most of the EU's innovative potential: An intellectual property action plan to support the EU's recovery and resilience. It stated that the unified patent system will be a "key tool for the EU's industrial recovery". The European Commission

will support a rapid roll out of the unified patent system, to create a one-stop-shop for patent protection and enforcement across the EU. This will involve finalising the institutional, operational, and practical set-up of the UPC, ahead of the full launch of the unified patent system.

Recent developments

Events over recent years in the UK and Germany caused the UPC process to stall. The start date of the UPC was difficult to predict. Ratification of the UPCA could not occur without the participation of these two countries. Or so we thought. Brexit had made it increasingly difficult for the UK to continue to participate in the unified patent system. Final confirmation of the UK's withdrawal from the UPC patent project came on 20 July 2020. The UPC was no longer dependent on the UK's involvement, although this will necessitate a decision to be made on the future location of the London-seat of the Central Division.

Ratification of the UPCA in Germany has been a somewhat drawn-out affair. In December 2020, the German Parliament completed the enabling legislation for the second time. The previous legislation had been subject to a constitutional court challenge, which was upheld on a technicality over Bundestag voting procedure and not the UPC itself. Subsequently, the new legislation was the subject of two further constitutional challenges before the Bundesverfassungsgericht (Federal Constitutional Court). On 9 July 2021, the Bundesverfassungsgericht denied preliminary injunctions sought by the appellants on grounds that have cleared the way for Germany to participate in the UPCA and the Protocol on the Provisional Application of the UPCA.

The UPC Preparatory Committee stated in August 2021 that it is estimated that the UPC will start operations around mid-2022. It has called on the Contracting States that have not yet completed their ratification procedures of the Protocol to the Agreement on a Unified Patent Court, of which Ireland is one of the few remaining, to do so promptly as it is anticipated the agreement (with or without the outliers) will enter provisional application shortly, with the provisional phase lasting 8 months. Sixteen countries have ratified the Agreement on a Unified Patent Court. They are well advanced in their preparations. Ireland is clearly some way

behind, not least because a referendum must be held. Government should also immediately re-convene the inter-departmental committee established to undertake preparatory work in relation to the establishment of the UPC.

It is clear the new system will not wait for us. Our key competitors for inward investment are far more advanced in their preparations for the new IP system, and as things are currently, others stand to secure the benefits from the new system ahead of Ireland. These benefits are detailed in the following section, along with an assessment of the potential of hosting a successful Local Division.

Section Three

Ireland and the Unified Patent System

The benefits of hosting a Local Division

The benefit of having a Local Division is likely to be more significant for a country like Ireland than for larger countries. There will be a general transfer in caseload from national courts to the UPC but all cases transferring from a national court will not necessarily go to the nearest UPC location. Litigation will now be mobile, with a healthy competition between UPC locations and it is expected that some countries will experience a net loss of cases due to the reduction in the need for parallel cases across multiple jurisdictions.

TABLE 2: Possible benefits (+) and costs and negative effects (-) from a Local Division
(Source: SEO Economic Research)

| | Government | Direct Employment | Indirect Employment | Innovative enterprise | Supporting Enterprise | Consumers | Total |
|---|------------|-------------------|---------------------|-----------------------|-----------------------|-----------|-------|
| COSTS | | | | | | | |
| Court facilities and support | - | | | | | | - |
| DIRECT BENEFITS | | | | | | | |
| Impact of local division on quality and efficiency of patent law | | | | + | | | + |
| Impact of litigation on quality and efficiency of patent litigation | | + | | + | | | + |
| Accessibility and costs of patent litigation | | | | + | | | + |
| INDIRECT BENEFITS | | | | | | | |
| Employment | + | + | | | | | + |
| Expenditures | + | | | | + | | + |
| Business climate | + | | + | | + | | + |
| EXTERNAL BENEFITS | | | | | | | |
| Impact on innovations | | | | + | | + | + |
| TOTAL | ± | + | + | + | + | + | ± |

The benefits of hosting a Local Division in Ireland include:

- Better access to enforcement for companies, especially SMEs.
- Reduced need for duplicated litigation in Europe; only need to go to court once.
- Wider reach of local decisions: judgements rendered in an Irish Local Division would apply across Europe.
- Opportunity to develop a high profile as the largest common law jurisdiction in the EU, ensuring the UPC develops at the crossroads of civil and common law traditions.
- Reduced travel and subsistence costs for Irish companies through being able to litigate in an Irish court.
- Opportunity to position Ireland as a global hub for legal services; more foreign litigants using Irish legal services and international law firms, patent attorneys and technical experts establishing a presence in Ireland.
- More competition in the specialist legal, technical and IP advisory services.
- Enhanced reputation as a location for corporate intellectual property activities; with increased investment and employment by firms establishing or growing their IP activities from Ireland.



Patent-intensive sectors could grow between 1% and 4% per annum simply by having an attractive and timely-established Local Division in Dublin. A 1% growth scenario would contribute €415m or 0.13% in GDP growth per annum.

Parties will now have the opportunity for infringement cases with overseas reach to be heard in Ireland rather than in other countries. This would bring new business to the legal and professional services sector. The UK, for example, had recognised that hosting divisions of the UPC brings “wider benefits by increasing the UK’s reputation as a centre for litigation, as well as boosting innovation through “the breaking down of barriers within Europe” (BIS, 2014).

Non-EU headquartered multinational corporations will see the benefit of the new UPC in terms of a streamlined patent system from filing through to enforcement. This could inform our inward investment strategy to capitalise on opportunities presented by the UPC. This includes maximising the benefits of being an English-speaking, common law jurisdiction. The costs of a unitary patent and enforcement through the new unified system will be more than offset by not having to protect and potentially litigate in parallel in several jurisdictions. Europe is seen as a single or unitary market; so unitary enforcement procedures should be expected.

Whilst it is recognised that the UPC will benefit Europe’s SME community, the new legal

structure carries risks for SMEs, which concern cost, the revocation risk, and the injunction risk (McDonagh, 2014). This makes it more important that Ireland is seen to be a strong player in the UPC. The risks for Irish SMEs, and indigenous enterprise more generally, can be mitigated through the timely establishment of an Irish Local Division, recognised in the efficiency, quality, and consistency of its decision-making.

Some Local Divisions will be far busier than others. There is strong evidence that the “forum in which a patent case is brought matters more than the individual characteristics of the litigated patent” (Zingg & Elsner, May 2020). Deciding to establish a Local Division is one thing, making it successful is another. Thus, the benefits that a Local Division could bring to the host location will depend on a range of factors. These include take-up of cases; attractiveness as a centre for litigation; promotion and marketing of the location; the overall speed and quality of the court; and connection to the wider enterprise ecosystem. Ireland must take the steps necessary to ensure that its Local Division is recognised as a high-quality and efficient centre for patent litigation.

The Local Division and Ireland

The caseload a Local Division could expect to receive is difficult to predict. It will be dependent on the pace of take up and interaction by companies with the unified patent system.

There will be a degree of uncertainty associated with the new European patent system, as there would be with transitioning to any new arrangement. There is an important opportunity for Ireland to take a far larger share of patent litigation through a well-run and well-promoted Local Division that is operational from the outset of the new regime.

Studies on the impact of the UPC on court locations have focused on the potential caseload from the wholesale transfer of current national patent cases to the local counterpart of the new Unified Patent Court. This 'business as usual' approach takes into consideration European Commission projections on cases before the UPC. The European Commission's

projections envisage 'high' and 'low' scenarios for uptake of the UPC. Individual studies, such as the economic impact assessment of a Dutch Local Division, have taken the European Commission projections and apportioned them according to the percentage of cases before a national court (SEO, 2014).

The 'business as usual' approach overlooks important factors. It presupposes existing countries with high rates of patent cases will retain their share of activity before a Local or Regional Division. This is not the case as the UPC will remove the need to litigate in more than one jurisdiction. It also heavily discounts smaller countries, with relatively low rates of patent litigation. For example, Ireland's share would be 0.2% under this model. It also undervalues the core objectives and benefits of the unified patent system.

TABLE 3: Modelling of projected case load before the Irish Local Division
(Source: Ibec calculations using European Commission & Juve Patent data)

| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year 10 | Year 11 | Year 12 | Year 13 | Year 14 |
|--------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|
| High uptake UPC scenario | 123 | 260 | 454 | 696 | 1055 | 1468 | 1557 | 1642 | 1723 | 1802 | 1908 | 1968 | 2028 | 2088 |
| Well-structured Local Division | 22 | 47 | 82 | 125 | 190 | 264 | 280 | 296 | 310 | 324 | 343 | 354 | 365 | 376 |
| Business as usual (0.2 %) | 0 | 1 | 1 | 1 | 2 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 |
| UPC scenario 'low uptake' | 7 | 15 | 24 | 49 | 96 | 602 | 752 | 899 | 1042 | 1183 | 1324 | 1455 | 1560 | 1695 |
| Well-structured Local Division | 1 | 3 | 4 | 9 | 17 | 108 | 135 | 162 | 188 | 213 | 238 | 262 | 281 | 305 |
| Business as usual (0.2 %) | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 |

To assess the potential impact an efficient and effective Local Division may have on case numbers, it may be more instructive to develop a model based on the German patent court system and the federated fashion in which it deals with patent infringement claims. The overall structure of the German patent infringement courts has some parallels with the organisation of the UPC, as infringement claims are typically brought before Regional Courts (Landgerichte). Importantly, the German system shows that this infringement litigation is not spread evenly across each location, nor does it correlate particularly well to the locations of the parties to the disputes.

There are 12 Regional Courts dealing with patent litigation but approximately 96% of cases are concentrated in three specific locations only (Düsseldorf, Munich and Mannheim), although there are also important patent chambers at the regional courts of Braunschweig, Frankfurt, Hamburg and Nuremberg (Juve Patent, 2021). Approximately 44% of all patent cases are conducted before the Düsseldorf Regional Court; 28% in Munich and 18% in Mannheim.

Mannheim, Düsseldorf, and Munich demonstrate that specific locations marketed and supported can secure the greater share of activity. It perfectly highlights how mobile patent litigation can be within a common legal framework, which includes some choice of venue. The strong performance of the Düsseldorf Regional Court would be consistent with the assumption that the UPC Central Division will attract a similar share of total UPC patent cases.

Patent litigation in Germany thus provides useful parallels for those looking to establish successful Local Divisions. The potential for a well-structured Local Division should be based on the caseload of one of the other high performing Regional Courts. An ambitious but achievable target the Irish Local Division could set itself would be to aim to replicate the performance of the third most popular patent infringement court in Germany: the Mannheim Regional Court.

Following this model, the Irish Local Division should set itself the target of 280 cases per annum within seven years after commencement of the UPC system. This is in keeping with the projection of between 135 and 280 cases by year seven depending on the uptake of the UPC.

Forum shopping can be expected to become a bigger consideration within the UPC. This is due to factors such as the end to parallel litigation and the fact that the UK has withdrawn altogether, removing a key centre of patent litigation. Local Divisions across Europe may have the opportunity to compete for many cases even as other litigants opt for a court close to their operations. While it is important (and to be expected) that the UPC will offer a fair, balanced, and consistent administration of justice across local and regional divisions, avoiding a race-to-the-bottom in the quality of their decisions (McDonagh, 2014), it will still be possible for individual UPC locations to compete with one another.

Users of the new system would strongly welcome a Local Division with a reputation for emphasising speedy case management that demonstrates quality and consistent judicial decision-making. The Düsseldorf Local Division of the UPC has identified the quality and availability of judges as integral to being successful on a European scale (Bechtold et al, 2018). Ireland's Local Division has two additional but powerful distinct advantages. It is to be established against the backdrop of a native English-speaking environment and the common law traditions that Ireland can offer.

Ireland can exploit the facts that non-EU FDI is more receptive to the UPC, litigation otherwise destined for a UK Local or Central Division may now be up for grabs (see below) and that the system is transformational. Ireland can now take advantage of a marketplace the size of EU and combine it with the fact the country is a hub of patent-intensive industries, multinational and indigenous.

To stand a chance of success, the Local Division must be established here in a timely fashion. If not, the opportunities are unlikely to be fully realised. Delays here would benefit locations elsewhere. There is the opportunity to build on Ireland's record for patent enforcement and to capitalise on its newfound status as the largest common law system and English-speaking state in the EU, which will be extremely attractive to US, Canada, Australia, and now UK-owned or UK-based entities. However, if Ireland delays its participation, the UPC will evolve through its most formative period without an Irish influence and these unique selling points will lose their significance.

The economic impact of a successful Irish Local Division

There are two distinct potential advantages to establishing a successful Local Division in Ireland: the industry-wide benefits associated with being an international gravitational centre for IP (the “economic” advantages), and the benefits associated with increased employment in the legal and support services sectors (the “direct” advantages) Beginning with the former, establishing an attractive Local Division in a timely manner will bring significant economic benefits to Ireland. As has been referred to earlier, Ireland currently has a low rate of patent litigation. Unlike in Germany, the UK or France, an increase in litigation through an Irish Local Division will not be displacing patent litigation already occurring through the national courts. Ireland could gain significantly through participation in this new, transformational specialist court system.

Ireland’s economic model of substance has benefitted from positioning as the preferred European operations hub for non-EU FDI, principally from the United States. We have become a location to manage and exploit IP globally due to the presence of favourable business conditions. A well-run Local Division has the potential to complement and expand these IP activities within the firm base.

Hosting a successful Local Division will boost Ireland’s GDP and national income. It will spark further expansion of the patent-intensive sectors across the country. These sectors could grow between 1% and 4% per annum simply by having an attractive and timely-established Local Division in Dublin. A 1% growth scenario would contribute €415m or 0.13% in GDP growth per annum. To put this into context, this location-impact scenario is in line with the positive economic impact projected for Ireland from the EU-Canada Comprehensive Economic and Trade Agreement (CETA).

Positive spill-over effects can be expected due to the development of a dynamic, multistakeholder environment across the full range of IP activities from developing, protecting, exploiting and managing IP. This will benefit Ireland’s overall innovation performance and increased IP activity by indigenous companies. SMEs can be expected to benefit from increased awareness, knowledge sharing, access to specialist IP skills, both in-house and external, and support. Indigenous and multinational firms in Ireland broadly engage in patenting in the same technological areas, which “illustrates Irish-based R&D operations between foreign affiliates and domestic firms” (OECD, 2020).

TABLE 4: Economic impact of the Irish Local Division on patent-intensive sectors
(Source: Ibec calculations using ABSEI 2018 data)

| Current GVA of patent intensive sectors per annum (2018) | Assumed % increase from hosting UPC | €m increase in GVA per annum | Increase as a share of 2018 GDP |
|--|-------------------------------------|------------------------------|---------------------------------|
| €41.5bn | 1-4% | €415m-€1.663bn | 0.13%-0.5% |

SMEs and the Unified Patent System

The current fragmented and decentralised European patent enforcement system does not work for SMEs. It is expensive and time-consuming, especially for small companies (Van Pottlesberghe, 2015). Country-by-country litigation is extremely expensive, time consuming, and resource intensive (Mejer, 2015). Under the new system, patents will be able to be enforced in a single court and though a Local Division, cases can be heard in Ireland. This had not been available to Irish companies before.

SMEs use European patents to “commercialise important inventions” and to “prevent competitors from imitating their inventions, build up a reputation and secure freedom to operate” (Ménière & Rudyk, 2019). Half of Europe’s SMEs use the patent system for “transactional purposes like setting up licensing agreements and commercial contracts” (Ménière & Rudyk, 2019). Unitary patents could be more valuable IP assets than bundle patents validated in several European countries, resulting in greater marketing and licensing opportunities for patent owners (BIS, 2014). The new patent system will allow companies operating from Ireland to exploit and enforce patent rights at a European scale.

SMEs are generally more positive about the UPC than larger companies, seeing greater benefits over the current system (European Economics, 2014). The establishment of the Local Division here would provide Irish SMEs a degree of familiarity with the operating environment of the court. There remains the possibility of legal aid or financial assistance being introduced to ensure proper access by SMEs and higher education institutions. Not having a Local Division would be disadvantageous to Irish SMEs, who would have to litigate in a different country and possibly in another language. These are significant drawbacks for any company, but particularly so for SMEs.

Positioning Ireland as a global IP hub would underpin our national smart specialisation strategy. The new unified patent system is expected to benefit innovation performance. Seizing on the opportunities it affords to host locations, it could secure further inward investment and employment. This will be a combination of attracting new firms and an expansion of activities from existing MNCs such as R&D, manufacturing, sales, and the expansion of corporate functions conducted from Ireland to include IP, along with legal and finance functions more generally.

Innovation Performance and the Unified Patent System

The introduction of the unified patent system is likely to have a positive impact on national innovation performance. It would help attract new investment to the country, as well as assisting innovative Irish companies to scale and create high-quality employment. The UK Government has concluded that “patent owners from outside of Europe may see holding a Unitary Patent as a reason to increase their investment in the region through either manufacturing of the product, sale of the product or research and development” (BIS, 2014).

The unified patent system will allow IP to be protected more efficiently and effectively across the EU single market. A single and harmonised approach makes it more attractive to companies to utilise the unitary patent, as it can be enforced through a court more cheaply and speedily than before. The ability of a company to enforce its ownership rights effectively has been a barrier to the patenting of new-to-market innovations. The new system will be attractive to foreign direct investment into the Europe, which could stimulate R&D locally (BIS, 2014).

The opportunity for Ireland from the UPC is undoubtedly timely and welcome, given the challenge of attracting and retaining inward investment in the wake of global tax changes. It is estimated that harmonisation of patent protection due to the unified patent system will “boost European trade and FDI in high-

IP industries” and at EU level, “high-IP trade and FDI flows to or between EU countries are expected to increase by 2% and 15% respectively, resulting in annual gains of EUR 14.6 billion in trade and EUR 1.8 billion in FDI (EPO, 2017).

The direct impact of a successful Irish Local Division

As mentioned above, in addition to the “economic” advantages, there are also more “direct” advantages associated with hosting a successful Irish Local Division. Increased litigation will lead to increased expenditure on legal, professional, and other technical advisory services. This will result in increased employment in these sectors. Legal and professional services firms setting up new offices in Ireland is also to be expected. The pattern of UK firms setting up in Ireland post-Brexit is set to continue, with the potential to secure leading IP firms on the back of ratification of the UPCA. Local economic benefits will also be derived from expenditure on court fees, accommodation, travel, and subsistence.

The projected caseload for a Local Division detailed above has been used at the basis for calculating the direct economic impact on an attractive location for litigation. Appendix two sets out the projections across the ‘high’, ‘low’ and ‘business as usual’ uptake scenarios. An

attractive Irish Local Division could generate revenues between €42 million and €116 million in Year 7 alone. Direct spending will be projected to increase by over one-third in Year 14, with as much as €155 million spent locally.

Hosting a Local Division will have spin-off benefits in terms of employment associated with patent litigation. It is expected to create between 1,002 and 1,643 jobs by Year 14. These will be related to the Local Division, and do not include the anticipated employment growth that will be associated with increased patenting activities by Irish-based companies.

It is clear, Ireland stands to benefit from establishing and promoting a Local Division. Early action will be needed to secure the widest possible economic benefits. This activity is mobile, even more so with a new pan-European court structure being set-up. Commitment will be required to ensure the Irish Local Division is positioned to attract litigation into Ireland. It will need to demonstrate a reputation for quality and efficiency.

Building on Ireland’s reputation for IP enforcement

In 2020 the US Chamber of Commerce ranked Ireland as the sixth best jurisdiction in the world in terms of the enforcement of IP rights, with a score of 90.86%, ahead of Japan, Netherlands, South Korea, and Singapore. Only one out of every five economies measured achieved a score of 50% or more.

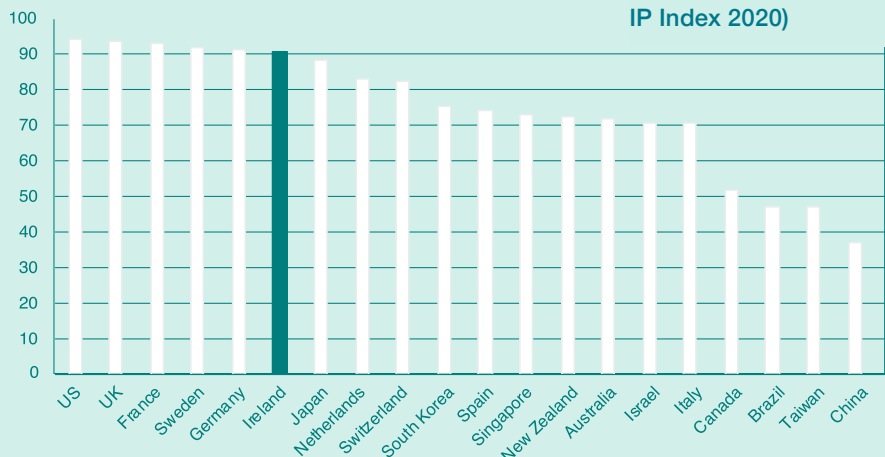


FIG. 3: Enforcement of IP Rights (Source: U.S. Chamber International IP Index 2020)

These scores are based on the prevalence within an economy of IP rights infringement, the criminal and civil legal procedures available to rights-holders, in addition to the authority of customs officials to carry out border controls and inspections. Ireland achieved the maximum score in strength of civil and procedural remedies, and preestablished damages and/or mechanisms for determining the amount of damages generated by infringement, along with effective border measures.

There are two key avenues for exerting national influence for a country like Ireland on quality and consistency of the UPC (SEO, 2014). This can be achieved through Irish judges amongst the pool of judges hearing cases across Europe, and crucially through the Irish Local Division. Leveraging a reputation for high-quality legal practices can “stimulate the quality, efficiency and procedures” in other jurisdictions across the UPC (SEO, 2014).

Establishing a Local Division with a reputation for speed, thoroughness, accuracy, and certainty will require the appointment of a small cadre of

legally qualified Irish judges. Whilst the court itself is multinational, cases heard before an Irish Local Division will involve one local judge and two other judges drawn from the UPC judicial pool. Once the caseload exceeds 50 cases per calendar year on average during a period of three successive years, two local judges will have to be provided under the terms for hosting a Local Division. Under the projections provided, a second Irish local judge will not be required until year five at the earliest and year nine at the latest.

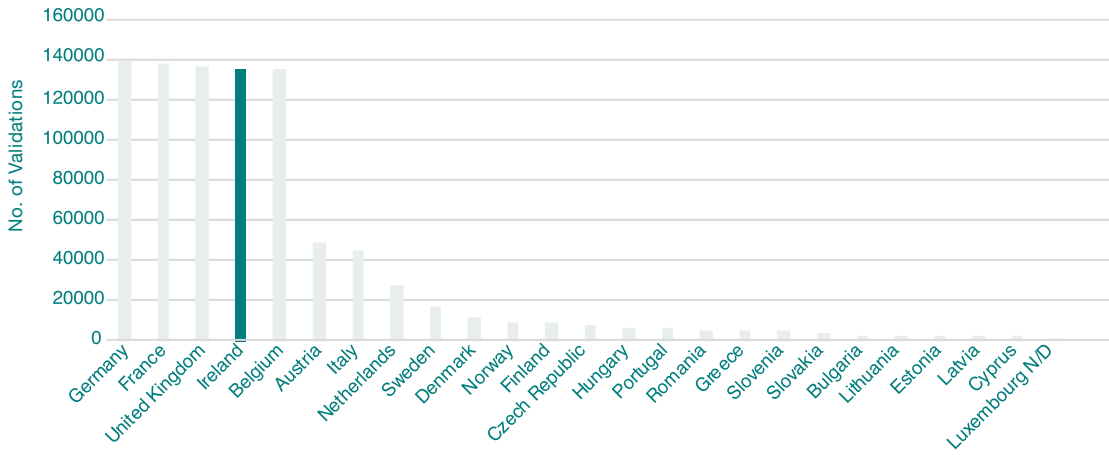
Collective determination to make the Local Division a success would assist greatly in the recruitment of specialist judges. At the start of 2020, the UK found itself in the situation of only having one technically qualified first instance judge, which if left to continue would further undermine the UK as a centre for patent litigation (Harris & Carter, 2020). Other locations will also have the challenge of recruiting quality judges. An internationally recognised reputation for the quality of Irish judges will also offset any competitiveness issues from the costs of litigating in Ireland.

European patent validations

While Ireland does not see much patent litigation relative to its European neighbours, it fares decidedly better when it comes to the percentage of patent applications granted at the European Patent Office ultimately giving rise to protection in the state. When a patent is granted at the EPO, rather than a single patent issuing that covers all participating states, the applicant opts for a bundle of individual rights in the individual states of interest. As varying degrees of expense are associated with obtaining the resultant protection in different states (a process known as validation), applicants are typically quite sparing in their choice of jurisdictions.

In 2019, the EPO granted 137,784 patents in total. Due to market size and being recognised as centres of patent litigation, Germany followed by France and the UK saw approximately 100% of all European patents validated in their jurisdictions. Interestingly, despite its much smaller market size, 97% of European patents were validated in Ireland, which is three times greater than Italy and five times that of the Netherlands (see Fig. 4). One possible explanation for this is that Ireland, like Belgium, which enjoys a similarly high validation rate for a small European nation, has one of the least costly validation procedures.

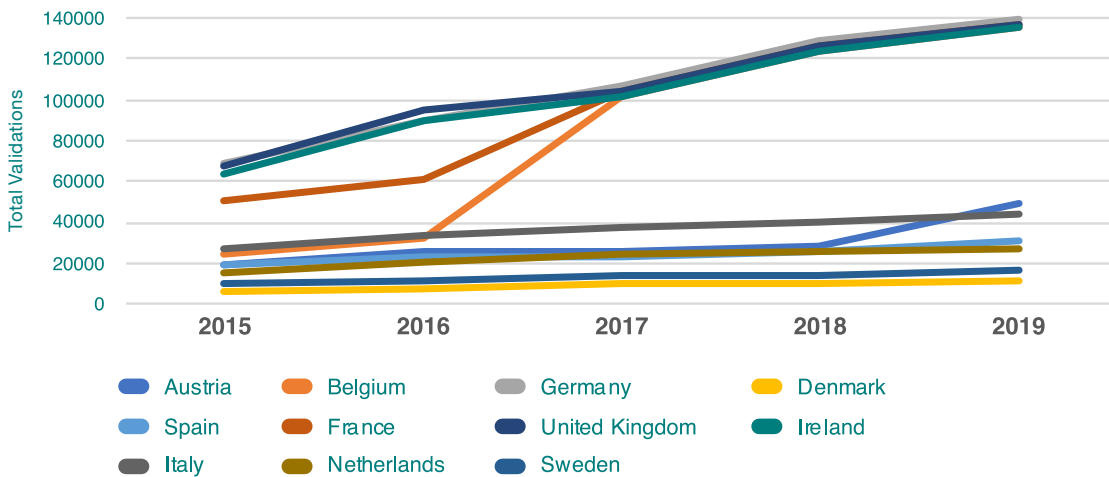
FIG. 4: Validation of 2019 European patents granted in select EPC states (Source: EPO)



Enforcement across individual countries is expensive and time consuming. The approach can vary across sectors and, also on the value of the patent(s) at stake. For example, successful patent litigation in one or two key European jurisdictions is generally enough to get an infringer to reach agreement with the patentee across all of Europe for most industries. This is usually because the per-patent stakes are not high enough for alleged infringers to hold out for enforcement on a state-by-state basis.

Patents validated across a wide number of EPC countries (e.g. 10 or more) are overwhelmingly concentrated in the life science sectors. Here, the stakes tend to be higher and as such litigation is likely to occur on a country-by-country basis. Companies in these sectors seek the strongest patent protection possible and are prepared to enforce them in each country. The establishment of an effective and efficient Local Division would add a further dimension to Ireland’s attractiveness for these sectors.

FIG. 5: Validation of European patents granted in select EPC states 2015-2019 (Source: EPO)



The opportunity for Ireland is to turn its foothold as a patent validation centre into a patent litigation hub. The potential of the unified patent package should be fully realised. Ireland should aim to be the domicile of a high proportion of multinational corporates using the unitary patent. Expanding the end-to-end IP functions being conducted in Ireland is likely to translate into increased enforcement and litigation through the Irish Local Division. As is argued throughout this report, the sectoral profile of patenting activity from validations through to litigation in the UK is similar Ireland’s.

Assessing the impact of the UK withdrawal from the UPCA

As the UK looks to fully deliver Brexit by withdrawing from the UPCA, it will “lose the advantages of its participation in the unified judicial system”, which includes “all the side benefits that these UPC locations will entail in terms of local litigation business” (Ulrich, 2018).

The decision to re-locate the London part of the Central Division to a state that will participate in the UPCA could result in “an estimate of £569-£1,968 million as the direct quantified loss to the UK economy from the Court being located outside the UK” (FTI Consulting, 2012). If indirect effects are also considered, the total cost to the UK not of having a Central Division would be £683-£2,952 million. These estimates do not account for UK firms or activities setting up offices in or moving to another UPC location. It also does not take into consideration cases that would be heard by a UK Local Division. Thus, the costs to the UK economy could be more severe due to the UK no longer being party to the broader UPC system.

The UK Intellectual Property Office assessed that “93% of patents covering the UK (including EPs) are from foreign applicants” (UKIPO, 2017). There appears to have been a conscious realisation, which resulted in the strategic approach taken by the UK to position itself as the “point of entry for many international innovating companies from the US, other English-speaking countries, and elsewhere into the European patent system” (Clayton, 2020). Germany may have greatest share of patenting activity in Europe, but this is largely built on indigenous production.

US-owned corporates account for 25% of all UK-designated European patents (Clayton, 2020). In fact, the UK, US, and Ireland are largely similar in patent applications by technology field. There is a strong emphasis in all three countries on medical devices, pharmaceuticals, and digital technologies. Ireland has an established concentration of these firms, which is built on being a global export hub. Other countries

focus more on different technologies, which is reflective of their respective enterprise base. A comparative table of European patent applications by top technology field according to country is set out in appendix one.

There is a link between the technologies patented and the most litigated patents in the UK. These are in pharmaceuticals and digital communication technologies, with the latter being a “more recent phenomenon and reflects the surge in litigation associated with the global patent wars between smartphone manufacturers” (Helmers, 2018). The total costs of patent cases heard before UK courts should not be overlooked. It is estimated that total costs for claimant(s) and defendant(s) can be as high as €7.6 million per case (Helmers & McDonagh, 2012).

The withdrawal of the UK from the UPCA is likely to result in a loss of legal expertise and IP advisory services. According to the World Intellectual Property Organization “conceivably, there is a relationship between IP and the brain drain phenomenon, with two-way causality” because “IP protection may affect the decisions of scientists, engineers, information technology specialists and related professionals about where to exercise their profession, with consequences for a country’s innovative capacity and the availability of knowledge” (WIPO, 2010).

UK solicitors and barristers are no longer able to represent clients before the Unified Patent Court. These are key parts of the UK’s overall ecosystem and could be to the detriment of the UK’s overall innovation performance. There is an exception for UK-based European patent attorneys. They will be permitted to represent clients before the UPC and to provide unitary patent-related services. Nevertheless, cities that host a court of first instance (i.e. Central, Local or Regional) can be expected to benefit from increased litigation work from the UK’s withdrawal.

Positioning Ireland as a patent litigation hub

In May 2018, the Bar of Ireland supported by the IDA and the legal community published a strategy to promote Ireland as a leading centre globally for international legal services. The strategy seeks to capitalise on the opportunities post-Brexit, as Ireland will be the only English-speaking common law jurisdiction fully integrated into the European legal order.

Ireland's inward investment approach must be modified to target international legal services in addition to other globally traded professional and technical services. UK legal firms and patent attorneys will have to re-establish themselves in the EU so Ireland could be the destination. They may, or may not, move along with their corporate clients. We must target increased trade in legal services to the international sector as the UK leaves the EU.

IDA Ireland has noted that the “development of Ireland as an international litigation and arbitration hub enhances Ireland’s reputation as a location for Foreign Direct Investment within Europe” and the “strengthening of the legal services sector here will meet the growing demands of leading international businesses that are increasingly deciding to make Ireland their European home.”

Intellectual property is recognised in the Promoting Ireland as a leading centre globally for international legal services strategy as an opportunity that complements existing growth sectors in the Irish economy. It specifically calls for a “state of the art, internationally focussed, specialist court dealing exclusively with patents,

intellectual property and technology issues to complement Ireland's offering to the life sciences, pharma and software sectors”.

It should be noted that the UPC is “different in kind to other courts in Europe as for the first time it will provide a forum for private parties to settle disputes in Europe and on a trans-national basis” (FTI Consulting, 2012). It has the ability to offer parties willing to litigate patents in Ireland a scope and impact far beyond anything that could be hoped for through an indigenous court whose jurisdictional reach does not extend beyond the borders of the state. Our ambition to become an international centre for commercial litigation and arbitration necessitates being an active participant in the UPC system because it “may be a model for future initiatives to develop trans-national dispute resolution un the EU” (FTI Consulting, 2012). In fact, a successful UPC Local Division should be at the very heart of any such strategy.

Hosting an attractive and well-run Local Division will undoubtedly be positive economically and would benefit Ireland's enterprise ecosystem. However, there is one further consideration for Government in terms of Ireland's participation in the UPC. This further consideration could allow us to be positioned right at the centre of the new court structure, and it could bring far wider benefits to a key sector of the economy and would underpin its long-term sustainable competitiveness. It is the yet-to-be-determined new seat of the Central Division section originally intended for London.

Section Four

The business case for pursuing the Central Division

Making a play for the Central Division

Brexit has resulted in the re-location of the European Banking Authority and the European Medicines Agency away from London. Ireland actively pursued both bodies. Now, the Life Sciences and Chemistry section of the UPC Central Division is next in line for a move. As a stopgap, the functions are being divided up amongst the other two seats of the Central Division, Paris, and Munich. Government should consider bidding to host the Central Division. The reasons set out below make a compelling case for doing so.

On 3 September 2020, the Italian Government formally proposed Milan as the new location for the Central Division. According to the official announcement, this is “a strategic decision, in

the direction of a further Italian contribution to the development and growth of the European Union”. Milan, if successful, would be positioned “alongside Paris and Munich in the task of recording the new discoveries and solutions devised in the field of human sciences and pharmaceuticals”. Italy will use hosting of the Central Division to secure wider economic benefits through scaling of, and attracting, IP investment and activities. Government backing and being the first official declaration to host a re-located Central Division appear to be the strongest aspects of the Milan bid. Questions remain over the capacity of the judiciary in Milan to conduct business through English, in addition to wider capacity issues within the wider legal system.

English language proficiency of the court

The importance of language cannot be overstated. It is not just familiarity with the legal system that is a factor in determining where to litigate. English is the principal language for science and business. This is the case for patents as is “pertinently demonstrated by the fact that some 55-60% of patent specifications filed at the E.P.O. are written in English (compared to approximately 30-35% in German and 10-15% in French)” so it “makes sense to litigate them in the language that they were granted in, in the country whose native language that is” (UK Parliament, 2012).

The ability to conduct cases through English will form part of a well-structured, attractive, and successful Local Division. Several local and regional divisions have opted for English as a working language including the Netherlands and Belgium. The Nordic Regional Division (Denmark, Sweden, Finland, Estonia, Latvia, and Lithuania) has opted for English as the principal working language of their regional court. It represents a key selling point for the Irish Local Division and will help in attracting cases from the UK and elsewhere. However, proficiency of court proceedings through English takes on added importance when it comes to the Central Division.

Cases before the Central Division must be conducted in the language in which the patent concerned was granted. It is projected that three-quarters of all proceedings before the Central Division will be through English (EK, 2014). This could be greater for cases before the life sciences part of Central Division. Most of the European patenting activity and litigation has been conducted in the UK. It will also be particularly important factor for non-EU companies from English-speaking countries. Given this, the English-language proficiency of legal and technical experts must be a key consideration in determining the future location of the London part of the Central Division.

The volume of patent cases and economic benefits will increase substantially for whatever location secures the re-located section of the Central Division. This is because all validity challenges and all declarations of non-infringement will be heard by the Central Division. The Netherlands is likely to bid to host the London seat of the Central Division and see it as complimentary to its recent success in bidding for the European Medicines Agency. Paris and Munich are each expected to stake a claim to taking all or part of it.

Common law traditions must be central to the new court system

Hosting a Central Division will “inevitably have significant influence on the practice and procedures of the Court, as well as bring significant economic advantages to the host city” (UK Parliament, 2012). Ireland would be able to put its national stamp on the court. More importantly, it would ensure continuity of having a common law jurisdiction at the heart of the project.

This would ensure the UPC, and the wider unified patent system continues to be developed on a hybrid model grounded in the best of common and civil law traditions. This would support the EU’s objective of becoming the world’s IP hub. Ultimately, this is an extremely attractive proposition to make.

A link exists between innovation and common law legal systems. Firms based in common law countries are more innovative (Caprio et al, 2020). Common law legal systems are by their very approach innovative. The UPC would stand to benefit by continuing its commitment to combining the best of common and civil law traditions. It

would result in added certainty in practice as well as being responsive to scientific and technical innovation. Common law offers “pragmatic incrementalism” and “situational flexibility”, which can be more effective than the civil law legal system in anticipating the “nature and forms of creativity at both ends and balance them optimally for all times to come” (Balganesh, 2010).

China, Korea, and Japan are civil law jurisdictions. However, the US, Canada, and Australia are common law systems. Ireland could fill an important void that had been occupied by the UK as being able to provide a bridge to important third-country common law systems. This would underpin global moves towards patent harmonisation. It would position the unified patent system as being able to accommodate both systems, strengthening Europe’s hands in trade agreements such as the Australian-EU Free Trade Agreement, the Comprehensive Economic and Trade Agreement, and in trade talks with the US and the UK.

The chemical, pharmaceutical, medical technology and life science sectors could grow by a further 1% and 4% per annum, adding between €314m and €1.25bn to the Irish economy from hosting that part of the Central Division



Global hub for life sciences

The Central Division is responsible for cases in the chemical, pharmaceutical, medical technologies, and life sciences sectors. Relocating it from London to a location other than Dublin could re-orient key corporate activities of companies away from Ireland. It is possible that the bulk of the IP activities in these sectors, from securing grant through to enforcement, could occur in a competing location. One that is further from Dublin than London in language, in legal system, in cross-border corporate activities as well as in physical distance.

Ireland is a global hub for life sciences. Nine of the top ten pharmaceutical companies are located here, with over 85 companies operating from Ireland. This includes having 50 US Food and Drug Administration-approved pharma & biopharma plants. Ireland is the third largest exporter of pharmaceuticals globally with annual exports valued at €80 billion. The sector also accounts for approximately €2 billion investment in R&D per annum.

Ireland is now internationally recognised as one of the world's top five global hubs for medical technology having built a world-class community of FDI Multinationals and innovative

start-ups. There are 450 medtech companies located here, 60% of which are homegrown. It also includes nine out of the world's top ten medtech companies. Four out of five companies are start-ups or SMEs. Together, these companies operating from Ireland represent €12.6 billion in exports and growing. Ireland is also one of the top 7 employers of medtech professionals in Europe as well as the greatest employer of medtech professionals, per capita, with more than 40,000 people working in the sector.

Securing additional business from the UK would further deepen the activities within the biopharma and medtech sectors. New investment is likely to come due to firms relocating key activities to remain within the EU. This includes moving patent-related functions to Ireland, which is also a UPC member state. There is also the potential for positive spill-overs in terms of increased R&D spend in addition to increased employment through the attraction of new business functions. It can be expected that investment from supporting activities is also likely to occur.

The Central Division and Ireland

Predicting the caseload for the Central Division is difficult. Like with the earlier projections for the local division, it is dependent on the take-up of the unified patent system. However, the Central Division is likely to attract earlier buy-in from litigants due to the types of actions that cannot be heard by either the local or regional divisions.

The following model has been developed on the projected caseload before the UPC Central Division. It uses the European Commission's projections on cases before the UPC as its baseline. The original modelling by the European Commission included projected the caseload before the Central Division. However, this assumed that there would be only one seat for the Central Division (Paris), with London and Munich heading up two strong Regional Divisions. In this scenario, only a third of cases would be before the Central Division.

Ibec has updated the model to reflect three Central Division locations. It also takes into consideration the subsequent developments on the proposed structure and operations of the Central Division since the original calculations by the European Commission. The model assumes that 50% of all cases before the UPC will be heard before the Central Division, which has exclusive jurisdiction over declarations of non-infringement and revocation actions. The projected cases before the Central Division were subsequently divided equally amongst the three locations. For the purposes of this report, figures have only been included for the London part of the Central Division. As with the earlier model, the projections take into consideration 'high' and 'low' scenarios for uptake of the UPC.

TABLE 5: Modelling of projected case load before the Central Division
(Source: Ibec calculations using European Commission & Juve Patent data)

| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year 10 | Year 11 | Year 12 | Year 13 | Year 14 |
|----------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|
| High uptake UPC scenario | 123 | 260 | 454 | 696 | 1055 | 1468 | 1557 | 1642 | 1723 | 1802 | 1908 | 1968 | 2028 | 2088 |
| Total Central Division | 62 | 130 | 227 | 348 | 528 | 734 | 779 | 821 | 862 | 901 | 954 | 984 | 1014 | 1044 |
| Central Division (Life Sciences) | 21 | 43 | 76 | 116 | 176 | 245 | 260 | 274 | 287 | 300 | 318 | 328 | 338 | 348 |
| UPC scenario 'low uptake' | 7 | 15 | 24 | 49 | 96 | 602 | 752 | 899 | 1042 | 1183 | 1324 | 1455 | 1560 | 1695 |
| Total Central Division | 4 | 8 | 12 | 25 | 48 | 301 | 376 | 450 | 521 | 592 | 662 | 728 | 780 | 848 |
| Central Division (Life Sciences) | 1 | 3 | 4 | 8 | 16 | 100 | 125 | 150 | 174 | 197 | 221 | 243 | 260 | 283 |

In terms of the Life Sciences and Chemistry section of the UPC Central Division, which was to be based in London, it should be noted that the pharmaceutical sector is the most litigious of all sectors (Graham & Van Zeebroeck, 2014). The model above compares favourably with the patent litigation intensity approach to modelling projected caseload. Research has shown that the “dynamics of patent litigation and its practices are substantially different from country to country and from technology to technology”, with the pharmaceutical sector having the highest rate of litigation at 3 patent cases per 1,000 patents filed in Europe (Graham & Van Zeebroeck, 2014).

Over the past decade, an average of 40,000 European patent applications were filed every year by the EPO in the field of chemistry, life sciences and pharmaceuticals. This could result in 1,200 patents filed between 2011 and 2020 being subject to litigation. This is in line with

sectoral patent litigation patterns in Europe. Of the patent applications filed before the EPO in 2020, it is likely that approximately 130 of them will be subject to litigation during their lifetime. These figures are illustrative and does not consider patents currently in force, which are older than 10 years. This is particularly pertinent for the pharmaceutical sector.

Research shows that patents in pharmaceutical, biotechnology and chemical sectors are often litigated later than other patents. The average age of a patent at litigation is over 17 years, four years older than other sectors, and most likely due to realisable value towards the end of the patent (Graham & Van Zeebroeck, 2014). This underlines the need for establishing the seat for the Life Sciences and Chemistry section of the Central Division. Litigation in these sectors have distinctive characteristics, when compared to wider industry. Ireland must put Dublin forward for the seat.

The direct and economic impacts of hosting the Central Division (Life Sciences)

Securing a Dublin seat of the Central Division would increase our GDP and national income far beyond the benefits of simply hosting a successful Local Division. The economic benefits detailed in Section 3 represents the baseline from hosting part of the UPC. The location-impact scenario from hosting the Central Division as well would require the economic forecast to be revised upwards.

Irish-based firms in the chemical, pharmaceutical, medical technology and life science sectors could grow by a further 1% and 4% per annum. This could add between €314m and €1.25bn to the Irish economy annually from hosting that part of the Central Division.

TABLE 6: Economic impact of hosting the Central Division on the chemicals & life sciences sectors
(Source: Ibec calculations using ABSEI 2018 data)

| Current GVA of the chemicals & life sciences sectors per annum (2018) | Assumed % increase from hosting UPC | €m increase in GVA per annum | Increase as a share of 2018 GDP |
|---|-------------------------------------|------------------------------|---------------------------------|
| €31.36bn | 1-4% | €314m-€1.254bn | 0.10%-0.39% |

The full economic benefits include employment growth and RD&I investment associated with increased patenting activities by Irish-based firms in these sectors. This will be a combination of attracting new companies to Ireland and expanding the existing firm base here. There will also be the potential spin-off in terms of growing high-growth start-ups and scale-ups emerging on the back of increased patenting activity.

The Central Division can also be expected to bring significant direct benefits to the host location. This will be in addition to the impact resulting from hosting a successful Local Division. The same methodology has been used to determine the direct impact of hosting the Central Division. The model has focused on economic impacts in year 7 and year 14 (see table 6).

In the 'high uptake' scenario, the Central Division (Life Sciences) could generate revenues between €80 million and €107 million in Year 7 alone.

Direct spending will be projected to increase by at least one-third in Year 14, with as much as €144 million spent locally. It is expected to create between 1,144 and 1,525 jobs by Year 14. Detailed projections for both 'high' and 'low' scenarios can be found in Annex 3.

The precise timeline for the decision over the location for London-part of the Central Division is still to be finalised. It will operate in the intervening period on a temporary split-basis between Paris and Munich. This is likely to result in the economic and direct benefits from the Central Division being felt by the new host location faster than the model anticipates. The selected host location is expected to take on part of a court that will already be operating. It will not have to focus so heavily on the start-up phase, and instead prioritise the scale-up phase of the specialty court for life sciences.

The future location of this part of the Central Division has yet to be decided, and it will be a political decision. Other locations are vying for it, and their gain will be Ireland's loss.



Conclusion

Ireland has an important choice on how it chooses to participate in the unified patent court structure. Yes, it has already been agreed to establish an Irish Local Division, which will be based in Dublin. The choice the country now faces is over its ambition for our part of this specialised international IP court. The pace of establishing a well-run and marketed Local Division will ultimately determine the economic impact the court could have here.

There is also an additional prize up for grabs. The future location of the London-part of the Central Division will be important to companies across the chemical, pharmaceutical, medical technology, and life sciences sectors in Ireland. These are key sectors of the Irish economy, contributing to growth and employment across the country. Ireland must actively campaign to secure the seat. It is clear we can put forward a compelling case. But first, we must proceed with ratifying the UPCA without delay.

Appendix One

European patent applications by top technology field (2020)

| Rank | Ireland | USA | UK |
|------|---|---|---|
| 1 | Medical technology | Medical technology | Computer technology |
| 2 | Pharmaceuticals | Computer technology | Medical technology |
| 3 | Computer technology | Digital communication | Biotechnology |
| 4 | Electrical machinery, apparatus, energy | Pharmaceuticals | Other consumer goods |
| 5 | Biotechnology | Biotechnology | Measurement |
| 6 | Measurement | Measurement | Pharmaceuticals |
| 7 | Organic fine chemistry | Electrical machinery, apparatus, energy | Organic fine chemistry |
| 8 | Transport | Other special machines | Engines, pumps, turbines |
| 9 | IT methods for management | Organic fine chemistry | Electrical machinery, apparatus, energy |
| 10 | Digital communication | Transport | Transport |
| 11 | Engines, pumps, turbines | Basic materials chemistry | Civil engineering |
| 12 | Other special machines | Audio-visual technology | Basic materials chemistry |
| 13 | Basic communication processes | Telecommunications | Digital communication |
| 14 | Chemical engineering | Chemical engineering | Other special machines |
| 15 | Audio-visual technology | Engines, pumps, turbines | Chemical engineering |

| Rank | Netherlands | Germany | France |
|------|---|---|---|
| 1 | Medical technology | Electrical machinery, apparatus, energy | Transport |
| 2 | Electrical machinery, apparatus, energy | Transport | Medical technology |
| 3 | Computer technology | Measurement | Electrical machinery, apparatus, energy |
| 4 | Measurement | Other special machines | Computer technology |
| 5 | Optics | Medical technology | Pharmaceuticals |
| 6 | Organic fine chemistry | Computer technology | Measurement |
| 7 | Other special machines | Civil engineering | Biotechnology |
| 8 | Basic materials chemistry | Organic fine chemistry | Other special machines |
| 9 | Biotechnology | Mechanical elements | Organic fine chemistry |
| 10 | Food chemistry | Basic materials chemistry | Digital communication |
| 11 | Digital communication | Machine tools | Mechanical elements |
| 12 | Pharmaceuticals | Handling | Civil engineering |
| 13 | Macromolecular chemistry, polymers | Biotechnology | Engines, pumps, turbines |
| 14 | Handling | Macromolecular chemistry, polymers | Materials, metallurgy |
| 15 | Transport | Chemical engineering | Optics |

Appendix Two

Direct impact of hosting the Irish Local Division

The projected caseload for a Local Division detailed in Section Three has been used at the basis for calculating the economic impact on an attractive location for litigation.

First, we determined the cost of litigation. Based on statistics from the World Intellectual Property Organisation, the average litigation costs in first instance across the UK, Germany & France is €517,000 per case. While there is significant variation in the average cost of patent litigation across these jurisdictions reflecting a more general civil/common law divide, it was considered appropriate to take an average of the three to reflect the fact that the UPC will be rooted in civil law traditions but will exhibit some significant common law traits due to the UK's influence during the drafting of the agreement. We believe this figure is conservative, given the stakes associated with litigating patents in a market of over 350 million people.

Next, it is important to assess the potential share of fees that would be spent here. It can be assumed that between 60% & 80% of direct spending would be with in-country legal practitioners and technical experts (FTI, 2012).

Given that the UPCA contains provision for an initial seven-year transitional phase for a Local Division, with the potential for extension, this analysis has focused on economic impacts in year 7 and year 14. The figures included below are not cumulative and address the positive impacts achievable in line with the caseload projections in those two specific years alone. Data analysis has been carried out to capture both high and low uptake scenarios.

TABLE 7: Direct economic impact of the Irish Local Division (Source: Ibec calculations)

| | HIGH UPTAKE | | LOW UPTAKE | |
|-----------------------|-------------|---------------|------------|---------------|
| | Year 7 | Year 14 | Year 7 | Year 14 |
| Direct spend (€mn) | 87 - 116 | 117 - 155 | 42 - 56 | 95 - 126 |
| Employment (Direct) | 573 - 766 | 769 - 1,023 | 276 - 370 | 624 - 832 |
| Employment (Indirect) | 347 - 464 | 466 - 620 | 167 - 224 | 378 - 504 |
| Employment (total) | 920 - 1,230 | 1,236 - 1,643 | 444 - 594 | 1,002 - 1,336 |
| Wages (€mn) | 35 - 47 | 47 - 63 | 17 - 23 | 38 - 51 |
| Output (€mn) | 103 - 137 | 138 - 183 | 49 - 66 | 112 - 149 |

In the 'high uptake' scenario, an attractive Irish Local Division could generate revenues between €87 million (60% of spending with local practitioners) and €116 million (80% of spending with local practitioners) in Year 7 alone. Direct spending will be projected to increase by over one-third in Year 14, with as much as €155 million spent locally.

Hosting a Local Division will have spin-off benefits in terms of employment. It is expected to create between 1,236 and 1,643 jobs by Year 14. These will be related to the Local Division, and do not include the anticipated employment growth that will be associated with increased patenting activities by Irish-based firms.

Whilst lower spending is projected to occur under the 'low uptake' scenario, there will be a considerable jump in spending between Years 7 and 14 in line with the anticipated spike in caseload in the intervening years. Annual local expenditure will more than double during this period. This will have a knock-on effect on employment created and the wider economic benefits derived from hosting a Local Division.

Setting up Local Division does not guarantee a certain share of patent litigation before the local court. The section above details the projected caseload and the factors that could determine the level of success for a Local Division. This is not solely dependent on the pace of the buy-in from companies to the new Unified Patent System. Commitment will be required to ensure the Irish Local Division is positioned to attract litigation into Ireland. It will need to demonstrate a reputation for quality and efficiency.

TABLE 8: 'Business as usual' economic impact of the Irish Local Division (Source: Ibec calculations)

| | HIGH UPTAKE | | LOW UPTAKE | |
|-----------------------|-------------|-----------|------------|-----------|
| | Year 7 | Year 14 | Year 7 | Year 14 |
| Direct spend (€mn) | 1.1 – 1.5 | 1.5 - 2 | 0.73 – 1 | 1.1 – 1.5 |
| Employment (Direct) | 7 - 10 | 10 - 13 | 5 - 6 | 7 - 10 |
| Employment (Indirect) | 4 - 6 | 6 – 8 | 3 - 4 | 4 - 6 |
| Employment (total) | 12- 16 | 16 - 21 | 8 - 10 | 12- 16 |
| Wages (€mn) | 0.4 – 0.6 | 0.6 – 0.8 | 0.3 - 0.4 | 0.4 – 0.6 |
| Output (€mn) | 1.3 – 1.8 | 1.8 – 2.4 | 1 – 1.1 | 1.3 – 1.8 |

The Irish Local Division will have to compete to make Ireland's participation in the UPCA worthwhile. The 'business as usual' economic impact (see table 5) reflects the case-load projections based on our current low share of total European patent litigation. Whilst these projections discount the opportunity the new system affords to Ireland, they nevertheless highlight the risk of not maximising the potential the court presents.

It is clear, Ireland stands to benefit from establishing and promoting a Local Division. The immediate economic impact from hosting a well-run and attractive court. This activity is mobile, even more so with a new pan-European court structure being set-up. Early action will be needed to secure the widest possible economic benefits.

Appendix Three

Direct impact of hosting the Central Division

The Central Division can be expected to bring significant direct benefits to the host location. This will be in addition to the impact resulting from hosting a successful Local Division. The same methodology has been used to determine the direct impact of hosting the Central Division. Again, Ireland stands to gain significantly through securing the London-part of the Central Division.

It is expected that the new location for the specific Central Division seat will not be determined until after the establishment and commencement of the UPC. The model has focused on economic impacts in year 7 and year 14 (see table 6). However, these years are nonsynchronous with the timeframe set out in the Local Division model (see table 4). The figures included below are not cumulative, and they capture both high and low uptake scenarios.

TABLE 9: Central Division – Life Sciences (Source: Ibec calculations)

| | HIGH UPTAKE | | LOW UPTAKE | |
|-----------------------|-------------|---------------|------------|---------------|
| | Year 7 | Year 14 | Year 7 | Year 14 |
| Direct spend (€mn) | 80 - 107 | 108 - 144 | 42 - 56 | 95 - 126 |
| Employment (Direct) | 531 - 708 | 712 - 950 | 276 - 368 | 625 - 832 |
| Employment (Indirect) | 322 - 429 | 432 - 576 | 167 - 223 | 379 - 504 |
| Employment (total) | 853 - 1,137 | 1,144 - 1,525 | 444 - 592 | 1,003 - 1,337 |
| Wages (€mn) | 33 - 44 | 44 - 59 | 17 - 23 | 39 - 51 |
| Output (€mn) | 95 - 127 | 127 - 170 | 49 - 66 | 112 - 149 |

In the 'high uptake' scenario, the Central Division (Life Sciences) could generate revenues between €80 million (60% of spending with local practitioners) and €107 million (80% of spending with local practitioners) in Year 7 alone. Direct spending will be projected to increase by at least one-third in Year 14, with as much as €144 million spent locally.

Securing Dublin as the seat for the Central Division will have spin-off benefits in terms of employment. It is expected to create between 1,144 and 1,525 jobs by Year 14. The 'low uptake' scenario anticipates a slow ramping up of cases in the early years of the UPC system, with a considerable spike in caseload between Years 7 and 14. Annual local expenditure is projected to more than double during this period.

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