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Patent Due Diligence 2.0

The scope for standardising patent due diligence, to benefit IP markets,
IP business models and patent valuation methods

A provocation by
BIG INNOVATION CENTRE

PROVOCATION

By taking advantage of the Big Innovation Centre's capabilities, in collaboration with our partners and Inngot, the UK can via standardised and automated patent due diligence (Due Diligence 2.0), and an effective IP EXCHANGE (www.ipexchange.global) where IP is listed and transacted online via standardized deal-terms in trading sheets, become the global hub where IP is traded. The effect is:

- Reducing the patent transaction fee enormously
- Greater transparency and trust in patent market places.
- More deals done and faster
- New opportunities for IP-backed finance.
- Easier IP reporting and tax assessment.

The Due Diligence 2.0 with IP EXCHANGE could make UK the global innovation hub for IP commerce in the era of intellectual property capitalism – a catalyst to IP generation and a means of closing the gap with the world leaders.

October 2017

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Patent Due Diligence 2.0

The scope for standardising patent due diligence, to benefit IP markets, IP business models and patent valuation methods

Preliminary version

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Patent Due Diligence 2.0

The scope for standardising patent due diligence, to benefit IP markets, IP business models and patent valuation methods

Patent Due Diligence 2.0

Global transactions in a market that is widely recognised as too opaque and inefficient are even now estimated at £300 billion (WIPO 2014), with evidence that the market could be at least half as large again if organisations could more easily licence the IP they possess (EU Patval 2013). The IP market is thus ripe for disruption and opening up – allowing deals currently not done to be done along with deepening the existing market.

Our vision is to develop a unique structure – Due Diligence 2.0 - which can offer global IP transactors a standardized and transparent transactions template, ready for automation), greatly lowering transaction costs (we estimate from 25% to below 10% of deal sizes). The process must be to first develop the blue prints:

- for an optimal standardized design of a due diligence package *per se* (including patent seller packages, rights packages, and know-how transfer packages);
- for various deal term structures (licensing, cross licensing, selling, buying, patent pooling, and related); and
- for when patents are bundled with other intangible and tangible assets (for example, copyright, trademarks, design, software, IT systems, physical assets)

We will also need to research the transaction cost efficiency gained once standardized due diligence package has been agreed, trusted and enforced; and research must include how the new due diligence structures can enable better IP valuations around specific patent business models.

As a consequence of this research, the economic, social and public policy benefits will upgrade the corporate and national approach to:

Greater transparency and trust in patent market places. Agreement of standards, reduction of excessive service costs and clearer guidelines on internal management can enable trades to be done more quickly, reliably and inexpensively.

New opportunities for IP-backed finance. A known and well-established issue hampering the use of intellectual assets in finance relates to the lack of transparent disposal markets. Better patent reporting and new exit routes can increase lender confidence in the asset class.

Easier IP reporting and tax assessment. A National Reporting Scheme will support international visibility of patent identity, location and value, thus supporting OECD's recently introduced guidelines to tackle Base Erosion and Profit Shifting (BEPS) and combat tax avoidance.

Standardized, transparent and information rich patent due diligence

Eliminate inefficiencies and increase trust

Patent licensing and acquisition is typically viewed as the domain of multinationals and offensive or defensive aggregators, owing to the time, money and specialist expertise required for assessment, negotiation and transaction.

Historically, this has been driven by a desire to manage litigation risk. It led to a 'boom' in 2011 when high-profile transactions involving Nortel and Motorola Mobility patent portfolios caught corporate attention, raised the profile of the asset class, and triggered a large increase in broker activity. Since this time, the litigation-led market has cooled. Many brokers no longer trade, and the overall secondary market size (as defined below) is estimated to be worth around \$200m - \$300m annually. Published research shows that the proportion of listed patents successfully sold is reducing, despite an increasing trend towards direct transactions (i.e. those not involving specialist brokers).

A reduction in traded volumes and in number of actors participating in the market are likely to increase transaction costs. Within these costs, the most expensive aspect relates to the technical and legal due diligence required by buyers and sellers to facilitate successful sales. These costs are at a level that makes it difficult for smaller companies to engage in patent acquisition and licensing activities (as buyers or sellers) that could otherwise stimulate growth.

The vision is to take advantage of the increased visibility of information on successful and unsuccessful patent transactions to identify the due diligence elements which are most important and expensive, and the effects these costs have on success rates. These insights can be used to identify alternative due diligence approaches that could support an element of standardisation, thereby making patent transactions more accessible and affordable to a wider range of companies and institutions. Three specific contexts should be: patent sale and purchase, patent licensing and patent leverage (for example through finance).

A way forward?

Patent Due Diligence 2.0: a simplified process to unlock IP markets, increase transparency and trust, reduce costs and increase speed of tech transfer, resulting in more deals being done.

The IP market currently exhibits many inefficiencies. It appears ripe for disruption and opening up, but requires new approaches if low-value deals are to be made viable and the existing market is to be deepened. Our objective is to offer global IP owners and buyers an automated and transparent transactions template, greatly lowering transaction costs and facilitating trades. This is a step-change proposition in a sector otherwise geared to the customary procedures of IP agents rather than the burgeoning demands of IP-rich businesses.

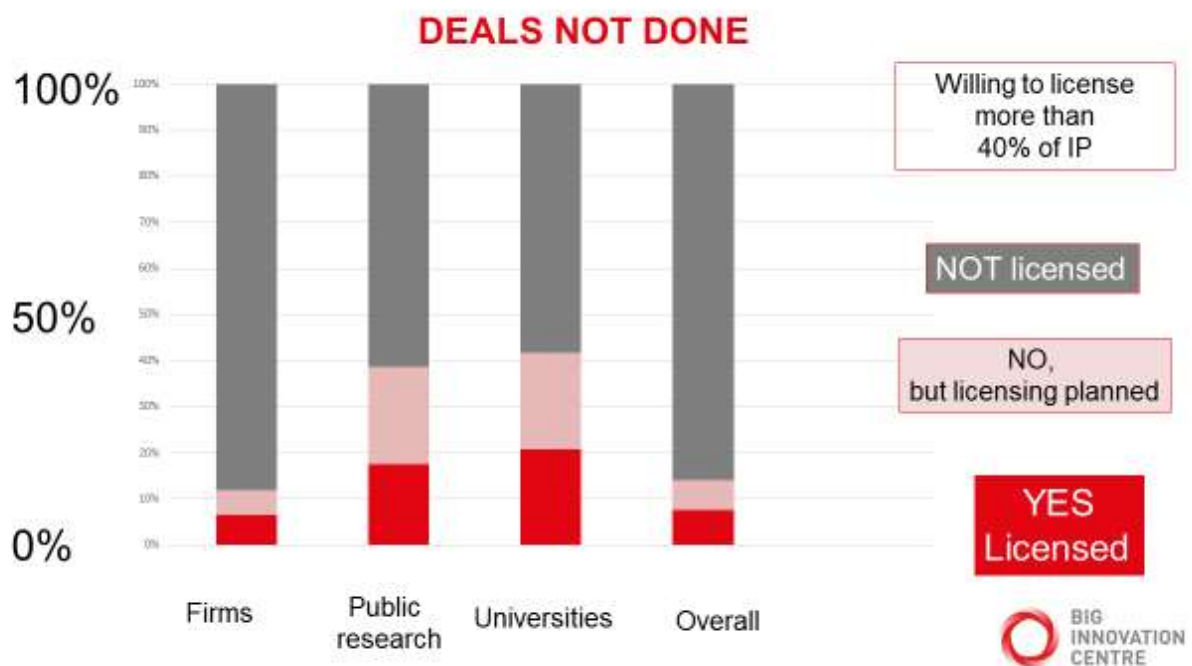


Current situation

Most organisations are under-exploiting their IP assets. According to research by the EU Patval Survey 2005 and 2013, organisations across multiple sectors believe that they are unlikely to license between 25% and 75% of their licensable IP. The global patent market where organizations are willing to license their IP is 43% of all patents, but only 8% of those patents are currently being licensed. This result varies slightly across type of organization (firm, public research organization or university).

Patent transactions are motivated by different corporate imperatives and business models. Brokers tend to distinguish between primary markets (where patent transactions are motivated by obtaining access new technologies, often supported by the transference of know-how) and secondary markets (where patents are bought and sold in isolation purely to manage risk in offensive and defensive litigation purposes, by both practising and non-practising entities). The problem of due diligence applies to both.

The primary market is difficult to size with accuracy because of the absence of effective aggregators. Industry analysis recently published in *Intellectual Asset Management* magazine (Issue 81) suggests that secondary markets are becoming increasingly international in nature (having historically been mainly US-centric) and that they are no longer the sole domain of special purpose vehicles and multinationals (smaller, non-quoted companies are now commonly involved in patent trading, though in secondary markets, their claim scope often targets larger businesses).



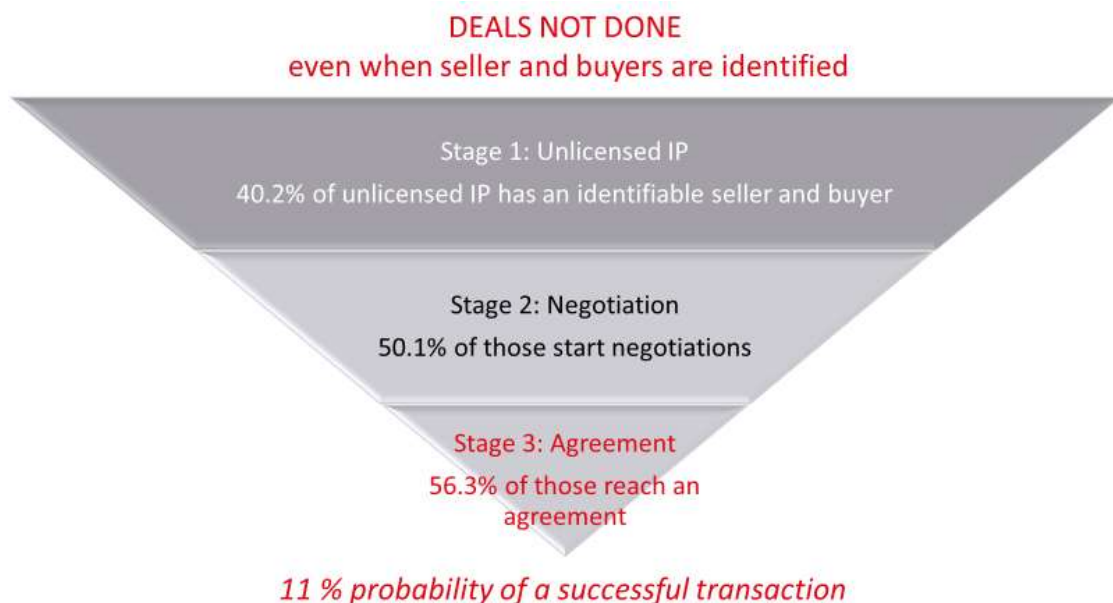
Whenever a patent is offered for sale, seller and buyer have to engage in significant due diligence activity to confirm a number of the asset's properties, including ownership, claim scope, validity and enforceability. The larger and more diverse the portfolio under scrutiny, the greater the effort required. Even after detailed enquiries, there is likely to be an element of subjectivity regarding some of these important

elements. The complexity generates cost and takes time to resolve to an acceptable level of confidence.

There are now many actors in the patent analytics market seeking to provide corporations with strategic and tactical insights in order to identify opportunities and



manage risk. However, these databases rely on official registers that are not always up to date and are known to hold imperfect information on critical aspects such as ownership. They are also not generally optimised to support transactions, and few appear to make best use of the opportunities represented by ‘big data’.

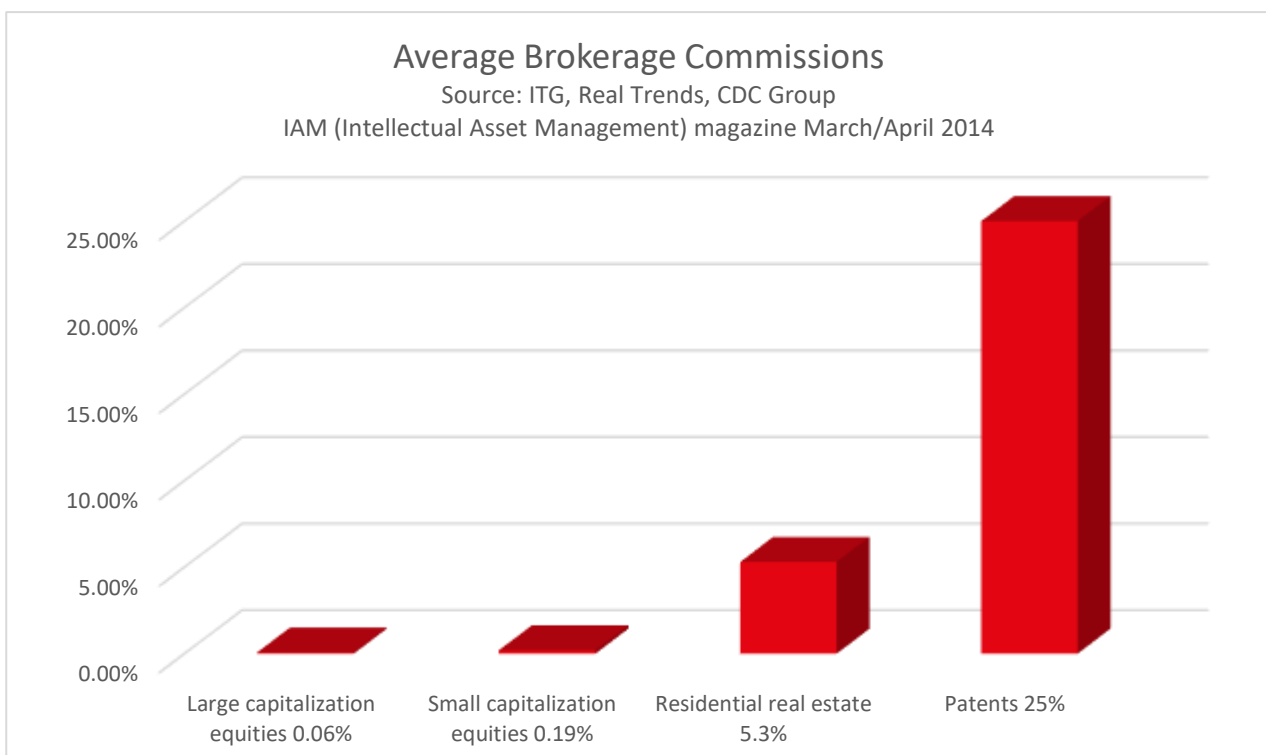


Similarly, patents are offered for sale both directly and via a wide range of brokers, law firms, auctioneers and other organisations, making it difficult for companies to initiate their own enquiries into available technologies that could support their business (the market generally relies on the broker, agent or patent owner to identify possible overlaps or synergies and to contact the potential buyer directly). This lack of aggregation introduces market inefficiencies and also means that while there is plenty of good practice, there are few standards.

Cost is also a factor. Average brokerage commissions to trade patents are 25%, compared to 5.3% for real estate and less than 1% for large and small capitalization equities. (Source: ITG, Real Trends, CDC Group, IAM (Intellectual Asset Management) magazine March/April 2014).

Transactors in intellectual property are faced with three core problems:

- There is no 'marketplace' for a critical mass of sellers and buyers to meet and have opportunities to trade with a wide range of potential transactions: as a result it is hard to find both the best, most fit-for-purpose IP and to determine who owns it.
- Transactions are too time consuming and expensive, with too many parties at the table including internal decision makers, brokers and others for each item of IP trade. As a consequence, there is only an 11% probability of a successful transaction once even when buyers and sellers have been identified. (EU Patval survey 2013)
- It is hard to assess the value of IP in an objective manner, thus negotiate a fair price and terms for any given deal based on confidence in the underlying data.



For these three obstacles to be overcome, a standardized approach to patent due diligence (which we have called 'Patent Due Diligence 2.0') is the answer, as only this

can create transparency and simplify a currently over-complicated and expensive route to IP markets.

Our aspiration is to identify a process that could ultimately be automated in order to operate with the consistency required at scale. At present, IP transactions are often traded at high cost and low speed due to a lack of trust in the marketplace and excessive services and internal management around the transaction by the buyers. Automation of the due diligence process is ultimately the best way – and arguably the only way – to make the patent market place work efficiently.

Proto-typing topics

For Patent Due Diligence 2.0 to become a reality, enabling high speed and low cost IP trade, R&D and proto-typing is needed to need to shed light on four areas:

- 1) The requirements for an optimal standardized design of due diligence package *per se*, and what it may look like (package elements, rights packaging, and know-how transfer).
- 2) The requirements for an optimal standardized design of due diligence package within specific deal term structures, and what each of these may look like (exactly what is required for successful licensing, cross licensing, selling, buying, patent pooling, and related transactions?).
- 3) The optimum way to accommodate the particularities of different IP types when patents are bundled with other intangible assets, as is often the case (for example, copyright, trade marks, designs, software, IT systems, and possibly also physical assets).
- 4) The size of the transaction cost efficiency gained, and the impact on patent valuation methods and national reporting schemes (to provide the business case for wider adoption/implementation).

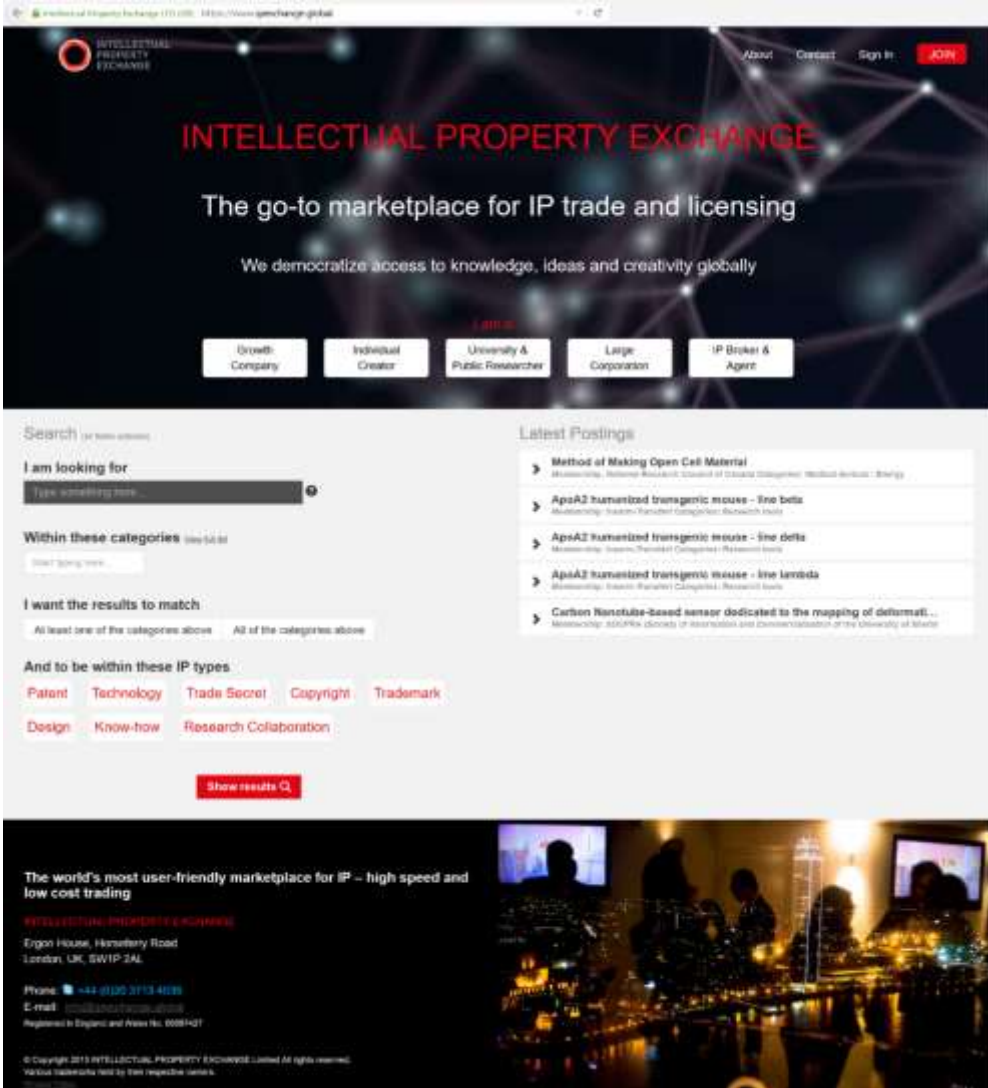


Integration with IP EXCHANGE and value added

Patent Due Diligence 2.0 must connect with IP Exchange.

Big Innovation Centre is prototyping an online digital platform IP Exchange: <https://www.ipexchange.global/> which has the ambition to create online listings and online exchanges of IP (patents, copyright, trademarks, research contracts and other online). The key differentiator of IP Exchange is that it already incorporates standard legal packages to streamline the form of agreement to be used (which otherwise introduces additional costs and delays). However, it must also include a standardized due diligence element.

Prototype:

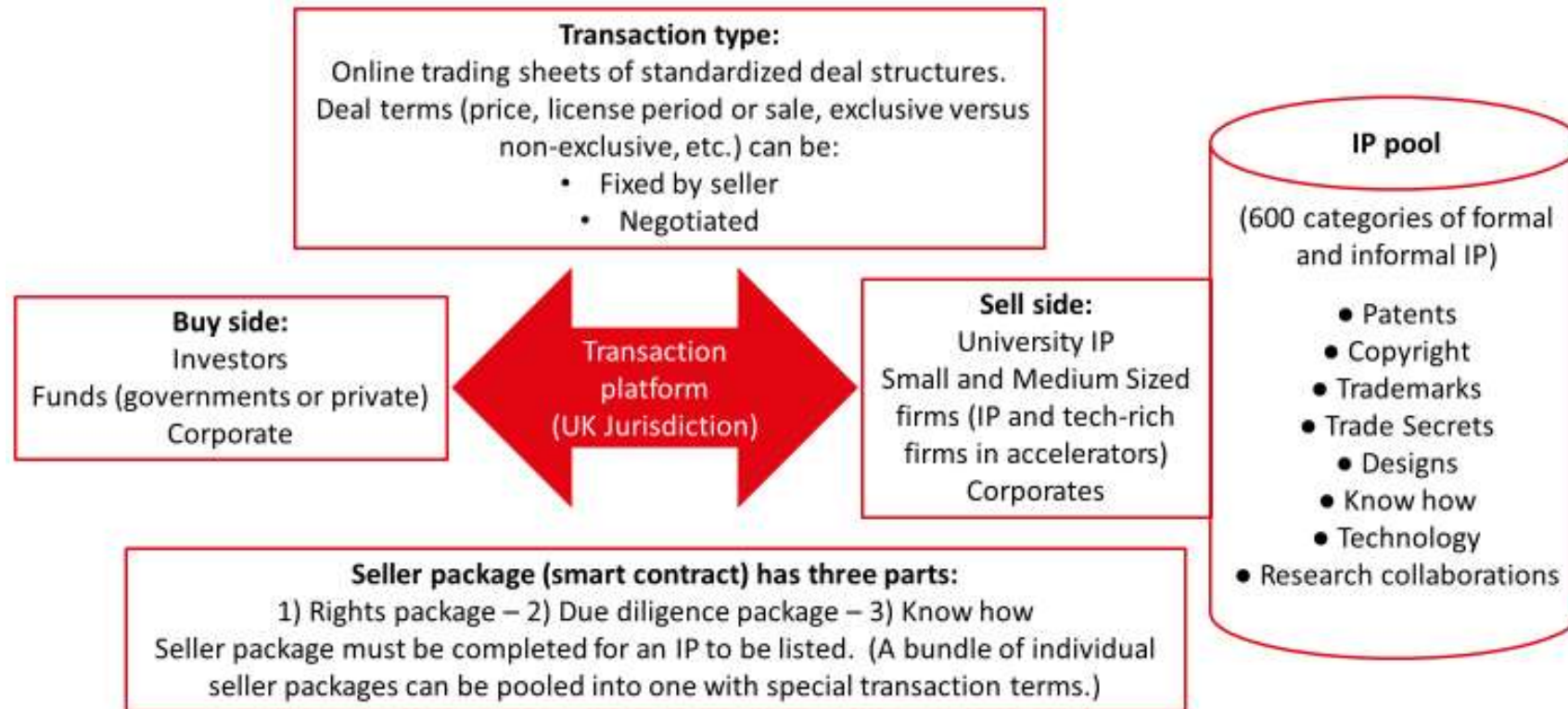


The screenshot displays the homepage of the Intellectual Property Exchange (IP Exchange) website. The header features the site's logo and navigation links for 'About', 'Contact', 'Sign In', and a 'JOIN' button. The main heading reads 'INTELLECTUAL PROPERTY EXCHANGE' with the tagline 'The go-to marketplace for IP trade and licensing' and the mission statement 'We democratize access to knowledge, ideas and creativity globally'. Below this, there are five user role buttons: 'Growth Company', 'Individual Creator', 'University & Public Researcher', 'Large Corporation', and 'IP Broker & Agent'. The central section contains a search bar with the text 'I am looking for' and a dropdown menu for 'Type something here'. To the right, there is a 'Latest Postings' section listing several research-related items, such as 'Method of Making Open Cell Material' and 'ApoA2 humanized transgenic mouse - line beta'. At the bottom, there is a footer with contact information for Ergon House, Hammersley Road, London, UK, and a copyright notice for 2013.

<https://www.ipexchange.global/>

IP Due Diligence 2.0 can benefit from this IP Exchange project by providing a community with which to test new global standards for patent due diligence (*and vice versa*)

Prototype and concept



IP Exchange's transaction platform is online:
It allows for IP to be on-boarded (automatic from data bases or manually) , seller packages to be created for official listing, deals to be agreed or negotiated, and transaction to happen, including IP transfer and money transfer.

Make UK the centre for IP commerce in an IP fintech world

Although the overall IP transaction market is growing slowly, there is evidence of significant pent-up demand and future potential growth in what is already a major market. There is strong growth in IP registration applications, with a particular focus on growth economies. However, Europe overall is under-represented in the IP

marketplace. It lags behind China, USA, Japan, South Korea, Germany, India and Brazil in terms of total national IP activity as well as in international IP activity involving patents, copyright and trademarks by our corporates. (WIPO Data 2015).

Geographic region	Patent		Utility Model	
	Applications	Share of total (%)	Applications	Share of total (%)
Africa	14,900	0.6	175	0.02
Asia	1,607,500	60.0	893,276	94.1
Europe	346,200	12.9	49,640	5.2
Latin America & the Caribbean	64,100	2.4	4,282	0.5
North America	614,300	22.9		
Oceania	33,900	1.3	1,523	0.2

Table 1: Numbers of applications & shares across geographical regions
Data source: WIPO Statistics Database, October 2015

However, UK Represents the best location to innovate in this space. Not only do we

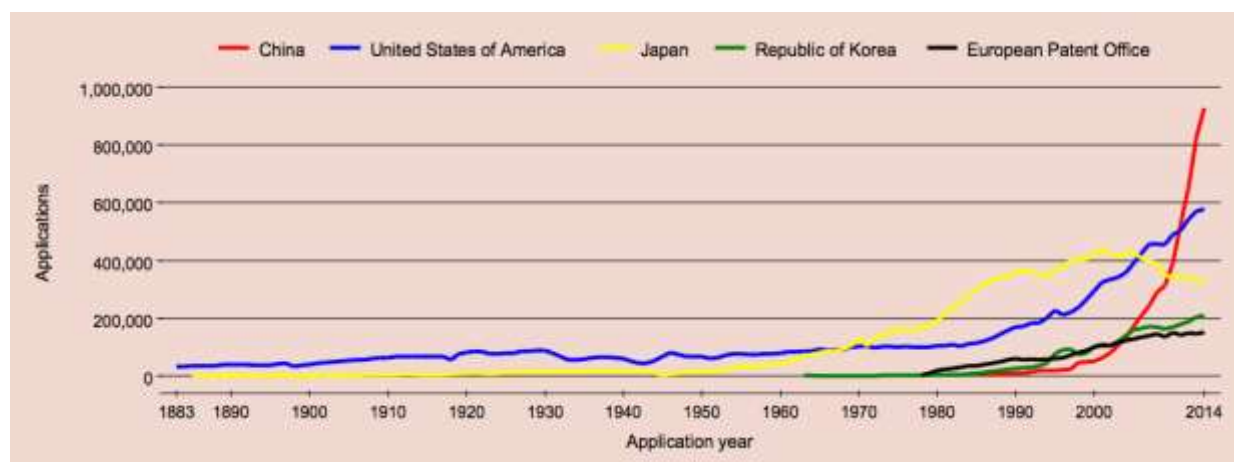


Figure 1 Patent applications in China, USA, Japan, Republic of Korea and European Patent, 1883 – 2014

have a world-leading presence in financial services; its service-focused economy, universally-accepted legal system and long history of academic and corporate

innovation make UK the ideal centre for global IP due diligence, stimulating trading and IP backed finance.

By taking advantage of the Big Innovation Centre's capabilities, in collaboration with our partners and Inngot, UK can via standardised and automated patent due diligence (Due Diligence 2.0), and an effective IP EXCHANGE where IP is listed and transacted online via standardized trading sheets (underpinning transparent and recognized deal-terms) become the global hub where IP is traded.

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LET'S DO IT !

Big Innovation Centre

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