# Law firm innovation and use of LegalTech – a reality check

A REPORT BY
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#### **About this Report**

In the past few months, the closely-related issues of innovation and LegalTech has rapidly risen up the agenda for many law firms. This report explores how firms are responding to these important market developments. The topics explored in the report include the rise of the innovation leader, how firms are innovating by partnering, horizon issues that firms are starting to consider – and the role played by clients in driving change.

This report is not intended to be prescriptive regarding how law firms should approach innovation and LegalTech deployments. Rather, it discusses the range of options that are now open to law firms, based on the real-world experiences of dozens of pioneering legal practices to date.

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#### **About Jomati**

Jomati is the leading UK based specialist strategic legal consultancy to law firms and general counsel. Established in 2002, Jomati has advised firms in over 50 countries on a wide range of strategic, operational and partner related issues.

Jomati Consultants LLP was awarded the Queen's Award for Enterprise: International Trade 2012.

The award recognises Jomati's success in growing international revenues year on year and for advising an increasing number of clients globally.

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#### Introduction

In the last few years, law firms around the world have increasingly demonstrated their commitment to innovation in the delivery of legal services – often facilitated by the deployment of novel legal technology (LegalTech). Today, the legal press and blogging community contains numerous excitable accounts of law firms recruiting heads of innovation, deploying legal artificial intelligence (AI) solutions, launching chatbots, investing in LegalTech start-ups – even participating in legal hackathons. In light of these market developments, this Jomati report explores law firms' growing enthusiasm for innovation in general, and LegalTech-enabled innovation in particular.

This report is not intended to breathlessly "chase the headlines" regarding law firms' latest innovation initiatives or LegalTech deployments. Nor is this report intended to offer prescriptive advice regarding the manner in which legal practice innovation should be carried out, or LegalTech solutions deployed. Instead, this report will explore the decisions now being made by law firms as they grapple with these two closely-related issues. With so many firms now facing similar choices, we believe that there are useful lessons that law firms can learn, based on the experiences of their innovative peers. We therefore hope this report forms a useful contribution to the profession's learning process in relation to innovation and LegalTech.

A large proportion of this report will focus on how LegalTech is facilitating innovation and change within the legal sector. However, it should be appreciated that LegalTech is only one mechanism by which innovation can be delivered within law firms. Readers may therefore find it useful to regard this report as a companion to our 2016 study, *Re-engineering legal services: How traditional law firms are – finally – learning to embrace alternative working practices.* Several of the themes discussed in our previous report, notably the rise of law firm low cost centres and the increasingly widespread use of legal project managers, will be discussed briefly in this study. Each of these topics are relevant to legal practice innovation in general, and LegalTechenabled innovation in particular.

When considering the various technologies discussed in this report, it may be useful for law firm leaders to reflect on both the likely impact of this new technology, and also the possible timescale for that impact. No law firm should aspire to be the next "Nokia or Blackberry", and fail to respond appropriately to a fundamental shift in legal service delivery. Equally, it should also be appreciated that some LegalTech concepts can take decades to have any market impact whatsoever – online legal services being a case in point. When evaluating the possible impact of new technology on their practices, law firm leaders therefore need to strike a delicate balance between complacency and overexuberance. In some situations a "watch and wait" approach may be a perfectly acceptable course of action, until the likelihood, direction, and timeframe, of a market shift becomes clear.

This report comprises five main chapters. The first chapter is primarily aimed at law firm leaders, who may benefit from a brief overview of the LegalTech market, and novel LegalTech specifically. The second chapter switches the focus of the report to innovation leadership and delivery – how firms decide how to innovate, where they innovate, and what structures they put in place to assist with their innovation decisions. Chapter three explores the various ways in which law firms are developing, testing and deploying innovative LegalTech solutions – for example, by building their own solutions in-house, customising existing products, or by partnering with clients, software developers and other organisations, such as universities. Chapter four explores the structural and operational challenges and opportunities that arise out of legal practice innovation in general, and LegalTech deployment in particular. Finally, chapter five explores horizon issues, both in relation to new LawTech products and services that are now starting to be developed, and also in relation to law firms' future operational and staffing needs.

# Chapter one: a brief introduction to the LegalTech market

#### What is LegalTech – and novel LegalTech in particular?

As recently as 2015, law firms might legitimately have regarded themselves as embracing novel LegalTech if they had adopted eDiscovery / eDisclosure tools, or migrated to a cloud-based practice management system (PMS). No longer: today law firms are rushing, on a global basis, to embrace LegalTech that scarcely existed just a few years ago.

In order to understand the sheer diversity of novel LegalTech solutions currently under development, it is perhaps useful to illustrate this variety by reference to a single cohort of LegalTech start-ups that were recently supported by Mishcon de Reya (MDR), a UK-based law firm. In the second iteration of its MDR LAB "incubator" programme, MDR supported the LegalTech start-ups shown in table one below with their product development and, as table one illustrates, each start-up listed aims to deliver discrete solutions to discrete law-related problems. Some solutions are principally focused on legal process support, while others are more legal advisory – and some are both. Equally, some are principally back office tools, while others are more client facing.

**Table one: MDR Lab investment cohort, 2018** 

Startup name	Foundation year	Location based	Services offered by start-up
Digitory Legal	2016	San Francisco, United States of America	Pricing prediction, project scoping and management tool for litigants. Draws on historical data and industry trends.
LawPanel	2016	London, United Kingdom automated watching	Online trademark management platform, including portfolio management and
Thirdfort	2017	London, United Kingdom	Offers a web-hosted, insured, secure, escrow account service for the property transactions market.
DealWIP	2017	Brooklyn, United States of America	Cloud-based legal workflow, document drafting and signature solution.
LitiGate	2017	Tel Aviv, Israel	Al-based disputes text analysis tool, which compares opponents' written arguments against past cases.

Source: MDR LAB / company websites

For anyone who has ever attended a LegalTech expo over the past few years, the diversity of LegalTech suppliers, and the narrow focus of individual LegalTech solutions, will not be remotely surprising. But, for those who are relatively new to the LegalTech market, the MDR LAB examples illustrate an important point: LegalTech is very much an umbrella term. Within this umbrella term are a vast number of LegalTech vendors, who typically focus on discrete solutions aimed at discrete needs. Any debate within a law firm about possible LegalTech investments should therefore focus on identifying specific problems that LegalTech solutions may help solve, either in whole or in part.

The highly fragmented nature of the LegalTech market can be further illustrated by one particular product type, which is currently gathering headlines around the world: legal Al. Even within this single LegalTech product type, there are now many different solutions providers available, each of which tend to focus on a discrete range of tasks. Table two illustrates how some legal Al solutions are tools that aim to make legal fee earners' lives easier and more productive, while others are intended to replace the role of the fee earner entirely.

#### Table two: an illustrative selection of legal AI product types

Product type	Key functionality	Typical usage	Illustrative vendor (s)
Contract analysis	Extracts, analyses and classifies data from contacts.	M&A due diligence, lease review.	Kira, LawGeex, Luminance
eDiscovery / eDisclosure – (predictive coding)	Predictive coding-based eDiscovery tools can be trained to search for specific concepts – rather than just keyword searches.	Disputes, investigations, audits.	Casepoint, Brainspace, OpenText
Analyitcs and prediction	Predicting matter outcomes by reference to historical data.	Judgment predictions in litigation, legal cost predictions more generally.	LexisNexis Lex Machina, LexPredict
Legal research	Answers research questions, monitors legal developments.	Improves case searches.	Fastcase, Ross
Expertise automation	Captures and automatically replicates the expertise of lawyers.	Compliance toolkits, NDAs.	Lisa, Neota Logic

Source: Neota Logic (classifications and illustrative vendors), company websites (functionality)

#### Notable characteristics of the LegalTech sector

Another important aspect of the LegalTech sector, illustrated in table one above, is that it is highly international: it is not unusual for law firms based in one territory to embrace a LegalTech product developed by a solutions provider based in another. Some LegalTech products are highly legal market specific, and do not travel well – but many are not. Positively, this means that law firms are often able to deploy LegalTech solutions that have been created outside their domestic market – useful in locations which lack their own indigenous LegalTech sector. Less positively, this means that any law firm employee who is tasked with keeping abreast with LegalTech innovation may need to do so on a global basis. Even before any tangible investment is made in a specific LegalTech product, a firm may need to invest a considerable amount of time and money on market research and travel costs associated with attending some of the world's most significant LegalTech expos and conferences.

In relation to novel LegalTech specifically, it is also important to appreciate that this is a fast-developing market. LegalTech solutions which launch with the aim of addressing one law-related challenge may rapidly broaden their offering. For example, in the legal AI space, Luminance originally launched in September 2016 with a focus on contract review. However, earlier this year, the company expanded its offering to include services relating to regulatory reviews, Brexit and GDPR compliance. Similarly, Lex Machina started life in 2012 as a statistics-based tool for predicting outcomes of US patent disputes. However, since then, it has expanded its offering to include around a dozen practice areas. Using one LegalTech vendor, which covers multiple market segments, is arguably useful to law firms, because it means they do not need to deploy a confusing plethora of overlapping suppliers. Unfortunately, such wide-ranging functionality may not be immediately available to law firms when a LegalTech product first launches: a degree of patience may be required before the initially niche product expands into one that has more general application.

On a related point, it should also be understood that the LegalTech startup sector is now starting to show signs of consolidation. For example, in 2017, both Lex Machina and data extraction tool RAVN Systems were acquired by veteran LegalTech heavyweight: iManage and LexisNexis respectively. For any law firm who wishes to deploy a novel specific LegalTech solution, it should therefore be appreciated that it is quite possible that the quirky start-up they previously took a reputational and financial risk in supporting may well have morphed into a far different proposition during the course of their contractual relationship. Indeed, as the recent Bloomsbury AI / Facebook tie up shows, a particular solutions vendor may suddenly and unexpectedly "pivot" away from the legal sector entirely. Law firms who are considering working with LegalTech start-up should therefore consider these possibilities as part of their precontractual due diligence.

#### Novel LegalTech – key takeaways

- When considering how your firm may benefit from novel LegalTech, have a specific problem in mind. Problems addressed by LegalTech can be both legal process and legal expertise related.
- Don't assume that potentially useful LegalTech solutions will be developed in your home market. Take an expansive view regarding where solutions providers may be located.
- Just because a LegalTech provider doesn't provide a solution to your exact legal problem now, don't assume they won't do so in a matter of months. Many providers are currently diversifying their solutions offering into closely-related markets.
- Although working with a LegalTech start-up may be considered a high risk activity, it is quite possible that the start-up will be absorbed by a more long-standing LegalTech solutions provider within a matter of months.

# Chapter two: leading and evaluating the legal innovation process

#### The rise of the "innovation head" position within law firms

With so much LegalTech now coming onto the market, the inevitable has happened: an increasing number of law firms already have, or are now seeking, "heads of innovation". Indeed, in some jurisdictions, the market for legal innovation professionals has become so palpable that legal recruitment agencies are starting to appoint their own dedicated consultants to service this market.

Although the English-speaking legal press has tended to focus on innovation manager appointments within US and UK law firms, this hiring trend is not a uniquely "Anglo American" phenomena. While searching for potential interviewees for this study, recently-appointed law firm heads of innovation were discovered in jurisdictions as diverse as Canada, the Netherlands, Spain and South Africa. Moreover, numerous types of law firms are now making these appointments: both niche and generalist practices, those with a commercial law focus, and those who serve private individuals.

In seeking out heads of innovation to interview, the authors of this report initially focused on individuals who work for some of the largest law firms, in a wide variety of jurisdictions. However, as the research process progressed, it became clear that, in itself, the size of a law firm cannot be regarded as a reliable guide to whether or not a law firm will appoint an innovation head. Some very large law firms have not, to date, created such roles. Conversely, some relatively small law firms in the same markets have done so. Law firm size, it seems, is a poor indicator of whether or not a law firm will appoint an innovation head.

It should also be appreciated that some law firms – even those that tend to be regarded as being forward-thinking – have actively decided against creating an innovation head position. Explaining this decision, a senior figure at one innovative legal practice said that, while their role at their firm was to "transform the business and practice of law", "the idea of having a role that only focuses on innovation means you're divorced from the rest of the world".

Elsewhere in the legal market, a senior figure at another innovative firm had also decided against adopting the innovation head job title on the basis that what they were doing was not particularly innovative – they were simply helping to "digitise" their practice. This individual then offered an example of what they regarded as true legal sector innovation – a website which helps consumers assess whether or not they are entitled to claim compensation for flight delays. True legal service innovation like this, this individual suggested, was typically created "in a garage", and rarely required more than a handful of lawyers to deliver. Judged against these observations, it should be understood that many law firms around the world are perhaps stretching the definition of "innovation". In reality, when law firms say they are being innovative, many are actually "doing things differently to before" or "making incremental improvements to existing processes", rather than "doing something that is genuinely ground-breaking in the legal services market."

#### Who are being appointed to lead law firms' innovation initiatives?

Having identified 100 + law firm innovation heads around the world, our research process discovered that – to date – a wide range of professionals have been appointed to this position. Barely a handful came from a New Law, Legal IT or legal product development background – all obvious sources of lateral recruitment. Roughly the same number were former managing partners, senior litigation specialists – even senior associates. Perhaps surprisingly, our research discovered that the biggest single cohort of innovation heads identified to date previously worked as professional support lawyers (PSLs).

When asked what attributes and skills they bought to their innovation head function, most innovation heads offered plausible explanations to justify their appointment. For example, former managing partners were usually high-profile individuals, who had a sound "helicopter view" of the needs of their business. These individuals also enjoyed significant personal authority – an important trait for anyone tasked with helping to deliver organisational change. At the more junior end of the innovation head appointments spectrum, former senior associates appointed to this position typically combined an aptitude for technology with a deep understanding of the "pain points" that currently hindered the delivery of legal services. Finally, several innovation heads with a background in litigation explained how their experience of working on eDiscovery roll-outs has given them real-world experience of LegalTech deployments and its associated process re-engineering requirements.

Bringing together many of these attributes were those innovation heads with a PSL background. Like former managing partners, PSLs often work on a firm-wide basis, and were therefore well-known and respected across the practice. Like former senior associates, many PSLs have previously practiced at the "sharp end" of legal service delivery, and therefore understand the firm's internal pain points. And, like those innovation heads with a litigation background, PSLs tended to have long-term exposure to practice-focused LegalTech, and also an interest in process improvement. As one innovation manager with a KM background put it:

"It's happenstance that law firms have discovered a collection of people who are already interested in processes inside their business who also come from a legal background...I'm not saying that appointing a KM professional as head of innovation is always the right approach, but I can see how there's a natural synergy."

Indeed, such is the overlap between innovation and KM, one firm interviewed for this report had recently moved their KM function out of its previous home alongside training, and into a new home alongside the practice's LegalTech specialists. Explaining this change, the firm's innovation leader recalled that:

"We kept finding that we in the LegalTech team were looking at exactly the same technologies as the KM guys. That's probably not surprising, given that many AI tools are basically intended to improve search and retrieval. Evaluating this tech requires, or at least benefits from, the skillset of our KM specialists."

Although many interviewees said they understood the reason for law firms appointing former KMs as heads of innovation, some were slightly cynical about this development. One innovation head suggested that, having already transitioned out of frontline lawyering to a support role, PSLs has a natural inclination and aptitude to "make a jump into a different legal space". Making a similar point in less flattering terms, another said: "I think KM is in a dark place within law firms at the moment – generally, I don't think it's delivering on its promise. I'm therefore not surprised that quite a few KMs are trying to reinvent themselves."

Whatever the rationale for appointing specific individuals as heads of innovation within law firms, two closely-related points can be made about many of the appointments in recent months. Firstly – so far – many law firms have opted to appoint internal candidates to lead their innovation function. There is not, as yet, a significant open market for law firm innovation leaders. Secondly, there is not – yet – a commonly-accepted career trajectory for any individual who wishes to become a law firm's head of innovation. Clearly, PSL professionals have emerged as an important talent pool, which many early adopter firms have drawn on. However, this career trajectory has not – to date – been universally adopted by law firms who are seeking to employ innovation heads.

#### **Evaluating innovation proposals – the innovation committee**

Designating a specific person as a firm's head of innovation has obvious consequences for that individual: almost immediately, they become the named target for pitching: not only for vendors selling LegalTech products, but also for anyone from within the practice who wishes to propose a process improvement idea. Perhaps not surprisingly therefore, many law firms who have appointed an innovation head have also created an innovation committee. Indeed, one firm interviewed for this report had created multiple innovation committees, each responsible for evaluating proposals relating to distinctive parts of the firm's legal and non-legal operations.

While some innovation heads expressed a scepticism about whether an innovation committee was a contradiction in terms, those who had gone down this route suggested it performed an important function – notably, helping to co-ordinate innovation activities across the firm. As one innovation head put it, "we used to have pockets of innovation, a lot of people here and there. Putting some shape and structure around these initiatives means we can begin to join the dots internally across practice areas and with other clients."

A second important function of the innovation committee is to evaluate and prioritise innovation proposals. Here, it is notable that law firm innovation committees are often dominated by individuals with a background in process improvement or tech, rather than practising lawyers. A typical innovation committee might therefore comprise business analysts and legal project managers on the process improvement side, and design experts, product testers and (sometimes) the firm's head of IT on the tech side.

Just because innovation committees are typically dominated by non-lawyers, this does not mean the committee's members lack a hard-nosed commercial view of where the firm's investments should be prioritised. Quite the reverse, in fact. Several innovation heads described their role in evaluating and prioritising investment ideas in robust commercial terms:

"We evaluate proposals through the lens of: 'If this service is built, is it going to make us any money? Is it a revenue generating idea?' When you look at their proposals in more detail, a lot of people try to say that their solution is going to generate money, whereas in fact it's more likely to be marketing tool. Marketing tools, in and of themselves, will not make the firm money."

"Internal innovation, at least in the opening phase, is probably a cost centre, which gets in the way of payments to partners. By contrast, client-facing innovation tend to be revenue generating, and is therefore an easier sell to the partnership. Right now, I am primarily focused on client-facing innovation."

"We always start an investment decision by trying to build a business case for it. What can we gain internally? Will our clients benefit? Can we realise some costs savings? Let's say an investment would cost £30,000. If it's only going to be used 50 times per year, then it doesn't have a valid business case."

"We can't buy every fancy new shiny piece of kit – we have to prioritise. When evaluating suppliers, we look at their credibility, who else is using it, the cost, and the business case. We might also trial it for usability. All of these factors come into play."

The need to ensure that innovation projects make commercial sense is not only relevant when the committee initially considers a proposal. Several innovation leaders recalled how one of the innovation committee's roles is to keep existing projects under review and reprioritise investments where necessary. As one person put it, the firm's innovation committee saw its role filtering out "low value but interesting ideas that blocked the pipeline....We need to clean out the pipeline – flush out some rubbish."

#### Ideas for law firm innovation – where do they come from?

The innovation leaders interviewed for this report were asked how ideas for innovation within their practice were identified. In very broad terms, the answers provided fell into two contrasting approaches – top down or bottom up. The role played by clients in the innovation process was also highlighted by several interviewees, and will be discussed later in this report.

#### Sources of innovation ideas - the top down approach

Among those firms who took a top down approach to innovation, there appears to be three main sources of inspiration for where innovation investment should occur:

- those based on the preferences and priorities of the innovation leaders and / or the innovation committee;
- those based on a systematic attempt to identify existing pain points and bottlenecks, typically identified by undertaking a thorough process review; and
- those based on helping to deliver the firm's wider strategic objectives;

With the first group, several innovation leaders had adopted a "benevolent dictator" approach: when taking up their roles, they came armed with a "wish list" of innovations they intended to deliver as a priority. Others took a less "maniacal" approach to project selection and prioritisation, while nevertheless leading from the front while doing so. These individuals saw it as part of their role to proactively seek out new solutions. However, having identified these solutions, they then deferred to the expertise of the firm's subject matter specialists about whether the solutions should be evaluated further and, ultimately, deployed. Another group of innovation leaders adopted more of a gatekeeper role: before legal solutions vendors were allowed to pitch their solutions directly to the firm's various functional heads, the innovation head would first undertake a preliminary assessment of the technology. No innovation head approval, no further progress.

Among those innovation leaders who saw their role as helping to eliminate firm pain points and bottlenecks, several regarded themselves as having a roving brief to challenge existing processes wherever they saw "dumb stuff being done". By contrast, others opted for more forensic approach to identifying priorities for action.

"We looked in detail at 20 major processes, that covered around 70 per cent of our revenues. People from my team facilitated discussions with partners and associates who worked on these matters, identifying pain points. This process highlighted where we could do with some more automation, or where we could do things differently."

"Using historical billing data, we analysed a bunch of M&A deals. It turns out that more than 60 per cent of all time spent on an M&A deal involves identify, analysing, summarising and disclosing the contracts of the target company. That type of work is super-susceptible to data science. We decided that we could literally build our own Al tool to do this work."

For those innovation leaders whose workload is largely determined by firm strategy, these individuals will essentially be tasked with helping to deliver that vision. The projects which the innovation team prioritises, and the LegalTech investments that they make, will be largely be determined by the firm's strategy.

Illustrating how this approach worked in practice, one innovation head interviewed for this report recalled that their firm had made a strategic decision to grow its insurance company client base. Insurance companies are known for requiring their external law firms to offer competitively-priced legal services, often on a fixed fee basis. Therefore, in order to help win new insurance clients, the innovation leader had been tasked with ensuring the firm can offer such a service. To achieve this objective, the innovation team focused its efforts on streamlining the firm's internal processes, maximising the use of document assembly tools and experimenting with predictive analytics.

Another innovation head, whose innovation agenda was also largely shaped by firm policy, made this additional observation in relation to this approach: their firm had multiple strategy objectives, some of which were firm-wide, and others that were practice area-specific. As a result, this firm's innovation team were currently working their way through a "huge list of projects", aimed at helping to deliver these multiple strategies.

#### Sources of innovation ideas - the bottom up approach

Among those firms who took a more bottom-up approach to sourcing ideas for innovation, a wide variety of methods were used. Several firms interviewed for this report had undertaken highly-structured, practice-wide consultations, aimed at teasing out ideas. Others had collected their insights on a practice-area-by-practice area basis, using a mixture of round tables, workshops and discussion groups. In addition to these formal processes, many innovation leaders said they were regularly bombarded with suggestions, including via email, phone call, and casual conversations in the corridor.

Rather than regarding the gathering of innovation ideas as a one-off exercise, several innovation leaders revealed that their firm had adopted a more embedded, long-term approach to collecting ideas. For example, one firm had created a social media style platform on the practice's intranet, where all firm employees could make suggestions, respond to ideas proposed by others – even vote on proposals. Several firms had appointed innovation champions to surface ideas – individuals who were embedded within individual departments and / or offices. Others emphasised that everyone in the firm was responsible for innovation. Indeed, at one practice, everyone in the firm was required to spend 50 hours per year on the topic.

Having collected innovation proposals from the firm's workforce, several innovation heads recalled how their firm had created an online status tool, where the progress of individual suggestions could be tracked. This tracking tool, it was felt, gave those who had made innovation suggestions a "a sense of whether there's going to be any follow-through", once their ideas had been evaluated.

Several innovation heads interviewed for this report recalled how their sourcing of innovation ideas had changed over time. One innovation head, who had initially adopted a top down approach to ideas sourcing, said that their firm had subsequently switched to a more bottom up approach, once their initial slate of ideas had been implemented. Others reported their approach later heading in the opposite direction. Initially, this firm's innovation team sourced ideas from the ground up: later, it moved towards a more top-down, strategic and tactical approach for identifying opportunities.

"We've just spent the first two years undertaking what I would call innovation 1.0. The ideas for innovation tended to be top down, in the sense that a lot of the projects and ideas generated came from me or our innovation committee. We have now launched Innovation 2.0 which focusses on firm-wide engagement in our innovation agenda."

#### Ideas for innovation - the importance of horizon scanning

For many innovation teams, a key priority is typically to deliver projects that will create an immediate benefit for the practice or its clients. However, those involved in this process also stress the importance of horizon scanning – that is, actively seeking out "the next big thing". Examples of developing LegalTech concepts that innovation leaders regard as being on their horizons will be discussed in more detail in chapter five.

In order to provide a structure and focus to the horizon scanning process, various innovation leaders interviewed for this report made two practical suggestions. Their first suggestion was that the horizon issues being monitored for should be directly relevant to the practice – which may help explain the current interest in blockchain, smart contracts and predictive analytics. The second suggestion was that it was useful to prioritise the firm's involvement with emerging LegalTech according to how far into the horizon the technology currently was, in terms of its readiness for deployment. Some LegalTech might be ready for rollout now – for example, the latest version of document management system. By contrast, other technology might be a year or two away from rollout – in which case, innovation managers should keep a close eye on it, and "take a view" as to whether their firm should be early adopters.

Finally, some technology might be at the early stages of the hype cycle, and not yet translate into easy to use, mass-market products. The challenge for any innovation leader is, of course, to decide at what point hype about a certain technology begins to translate into useful products and services, which it might give the firm a first mover advantage to deploy.

#### The role of clients in driving law firm innovation

A handful of innovation managers interviewed for this report said their clients were fully engaged in their innovation efforts, assisting with new product development, and testing law firm-built prototypes. Indeed, one interviewee even went as far to say that "we only build what our clients use – we're very much driven by the design thinking model." Some – albeit rare – examples of real-world law firm-client collaborations will therefore be discussed in the following chapters. But, in the main, the innovation leaders interviews for this report offered a fairly consistent message regarding clients: they were not the driving force of LegalTech and practice innovation that they could be.

In truth, it is probably not surprising that in-house counsels have not yet taken on the role of innovation champions. Firstly, as one innovation leader noted, clients typically "just expect us to have the right tools for the job..it's our job to figure out the right combination of people, technical expertise, process and technology to deliver that." Secondly, a large body of research consistently indicates that many corporate legal functions lack the both time and the budget to deploy even basic IT infrastructure, such as matter management systems<sup>1</sup>. It is therefore not surprising that LegalTech and innovation is not central to the day-to-day lives of in-house lawyers. Thirdly, and perhaps most importantly, many in-corporate counsel appear to be highly sceptical – dismissive even – about the efficiency-improvement claims made in relation to new LegalTech products and services. Take Al solutions, for example: a recent Thomson Reuters survey found that just one per cent of corporate counsel respondents were currently using this technology, compared with 50 per cent who were "not interested in doing so"<sup>2</sup>. A recent LexisNexis study revealed equally emphatic findings: only a small percentage of UK-based general counsel surveyed currently used any type of document automation, contract review or eSignature tools – and most had no intention of doing in the near future<sup>3</sup>.

<sup>3</sup> Legal Technology: Looking past the hype, p7.

<sup>&</sup>lt;sup>1</sup> 2017 In-House Legal Benchmarking Report: Optimising Legal & E-Discovery Activities, EDRM / Exterro / BDO, p7.

<sup>&</sup>lt;sup>2</sup> Legal Department 2025. Ready or not: artificial intellegence and the corporate legal department, p6 and 11.

For law firms, these statistics matter, because they suggest that promoting a firm on the basis of its LegalTech capabilities is a high-risk strategy. Instead, arguably a more useful sales message is that such techology will allow the firm to offer a better, cheaper or faster service to clients – ideally by reference to specific improvement metrics. This same takeaway also applies to law firms' LegalTech announcements generally. Several innovation leaders interviewed for this report expressed exasperation about "we've now signed up for 'X Al solution" type of announcements from law firms. "So what?" was a common response.

That said, the experience of one firm innovation leader interviewed for this report also highlights the danger of not promoting the practice's use of LegalTech in situations where the technology is a genuine point of differentiation. This innovation leader, who works for a non US / UK law firm, recalled how their practice had almost lost out on work from a major international client, who had wrongly assumed that their firm had not deployed a specific LegalTech solution. "In fact, we've been doing it for a while, and can do it well," they observed, with some frustration.

Although several innovation leaders interviewed for this report were sceptical about the role of clients in driving legal innovation and LegalTech adoption, one positive message did emerge from these individuals: they felt that interest and awareness of these subjects within the in-house legal community had improved significantly in the past two years. One possible driver of this recent awareness improvement may be the rise of the in-house legal operations manager. These individuals are typically tasked with improving the processes and efficiencies within the in-house legal team, rather than delivering legal services. As such, these individuals may be more sympathetic to law firms' innovation messages than their traditional general counsel peers.

Unfortunately, while innovation managers observed an overall increase in corporate counsels' interest in innovation and LegalTech, they also believe this interest to be, at least in part, sector-specific. Several innovation leaders suggested that clients in the insurance and banking sectors were particularly switched on to the possibilities of service innovation and LegalTech, largely because these sectors were themselves undergoing a tech-enabled revolution. Other innovation managers noted a difference in awareness between international and indigenous clients, with the former far keener to embrace new ways of working than the latter.

"You find clients all over the spectrum. Some don't know how to turn on their computer, and others are using virtual reality to visualise trial scenes. Most of our conversations with clients tend to be along the lines of 'look, we sort of get it, but what we really want to know is – what's actually working? What's with all the hype? What can help us now? How do we begin to put together an approach, and a strategy to utilise technology?"

"Some clients, the more sophisticated ones, are looking for the pinpointed use of quite specific technologies, with the aim of achieving a particular outcome. Others will always ask you the same questions in the pitch: 'how are you using technology to better leverage productivity?' I've answered this question a thousand times! They want things to be better, faster and smarter, but they don't know how that would happen – they're really hoping that you might tell them the answer."

This last observation, that "they're really hoping that you might tell them the answer" was one that several innovation leaders commented on. Often, it seems, clients expect their law firm advisors "to bring the innovations to them".

"Some clients now require, as part of their panel arrangement, that we pitch a number of innovations to them each year."

"One large tech company recently hosted a joint global law firm innovation summit, where we had to all present on what we had and will do for them. This was collaborative, and they will challenge us on it next year."

The lack of overt pressure from many clients for their law firms to improve their ways of working was a source of frustration for several innovation leaders interviewed for this report. However, all may not be lost: as several innovation leaders also pointed out, clients often do not vocalise their requirements for legal practice change through the prism of innovation and LegalTech. Instead, they often complain about the outcomes of existing working practice – for example, a matter is costing too much or taking too long. So long as the law firm is properly attuned to this type of feedback, and is able to spot patterns of complaints among multiple clients, then this information can help form an important part of the firm's innovation action plan.

"If a law firms says that their own clients haven't got a clue about this issue, then I say they're probably not listening very well. When I was in practice, clients would tell me 10 times per day 'here's a list of problems that are not being solved by my lawyers, including you!' If you're listening to that message, then you've got a pretty good story are about where you should innovate."

Faced with a largely passive client base, one law firm innovation leader interviewed for this report had decided to take matters into their own hands: they had proactively approached their clients' in-house legal teams, with a view to uncovering their internal inefficiencies, and helping to resolve them. This work was undertaken on a non-chargeable basis, the innovation leader said, on the basis that it would "deepen our relationship with the client we were presently working with, but also provide opportunities to apply what we learned to other clients." Another innovated leader recalled how they had been able to translate a "client wish, articulated in a meeting" into a proof of concept solution. "We see this as one of the best ways to generate innovation challenges" they said – also observing that they would also adopt this proactive approach in relation to other clients.

If there is one positive takeaway from this current lack of LegalTech savviness from the in-house legal community, it is that some forward-thinking law firms have turned corporate counsels' collective lack of awareness into a business opportunity: essentially, these law firms are now starting to offer LegalTech consultancy services to their clients. Examples of how some firms have done so will be discussed in chapter four.

#### Leading and evaluating the legal innovation process - key takeaways

- There is not, as yet, a clear career path for law firm innovation leaders. Existing personnel may therefore be suitable candidates for such a role, so long as they enjoy sufficient gravitas, real-world experience of legal practice and an interest in both LegalTech and process innovation.
- A well-balanced innovation committee can bring together employees with a wide range of skills to support the innovation head in the evaluation and delivery of legal innovation. Just because these individuals are not lawyers, this does not mean that such individuals will lack commercial nous or be transfixed by "shiny things."
- Ideas for practice innovation can come from multiple sources including from client complaints. The method of gathering and evaluating these ideas may change over time.
- Unless your firm works with innovation-minded clients, do not expect them to push your practice in relation to its innovation / LegalTech efforts. However, they may be receptive to you taking a proactive approach, if you can offer them real-world solutions to their problems.

# Chapter three: investing in LegalTech solutions: build, buy, customise or partner?

#### How do law firms develop and deploy innovative LegalTech?

A key question for law firms in relation to LegalTech is one that will be familiar to any organisation whose core competence is not developing tech-based products and services. In order to roll out innovative LegalTech, should they buy, build, customise or partner?

Overall, most innovation heads interviewed for this report took a pragmatic approach to this issue – their approach depended on the solution to be rolled out, and the resources available to the practice. To the extent that any pattern of behaviour could be determined, there was perhaps a slight overall preference for moving away from building LegalTech solutions entirely in-house, and instead towards heavy customisation of off-the-shelf products. The rationale for this approach was two-fold. Firstly, this approach meant the law firm was able to outsource the responsibility for developing, maintaining and updating the underlying technology. Secondly, even relatively small LegalTech start-ups often had access to greater funds and technical expertise than many large law firms could muster. As one law firm innovation head put it:

"It all comes down to the level of investment and commitment that you'd need to make, versus the level of commitment that those technology providers are themselves putting into their products. They're raising an awful lot of money, and they're releasing new versions of their product all of the time. I'd find it quite hard to justify matching their capabilities."

Given this mismatch in both money and expertise, many law firms are using technologies developed by third parties as the basis for their own LegalTech product rollouts. Several illustrative examples of this type of arrangement are shown in table three. Some are client facing, while others are not. Similarly, some relate to the provision of legal services, while others relate to the business of law.

#### **Table three: innovation via customisation**

Law firm	Tech partner	Output / product	When launched
Allen & Overy	Kira Systems (Al tool)	Al-assisted contract review, delivered across several practice areas.	July 2017
Norton Rose Fulbright	IBM Watson	Several "Parker"-branded chatbots, covering EU, Canadian and Australian law.	December 2017 onwards
MinterEllison	IBM Watson (Explorer)	A client and work type-specific tool to improve efficiency.	2018
Taylor Wessing	Rainbird (Automated decision-making platform)	Chatbot advises clients about Modern Slavery Act reporting requirements.	August 2017

Sometimes, a LegalTech software provider may not offer exactly what the law firm is looking for. However, by engaging in "bricolage" – essentially the "construction or creation from a diverse range of available things" – law firms can create bespoke LegalTech solutions from a series of pre-existing products. Table four (below) offers illustrative examples of this approach.

#### **Table four: innovation via bricolage**

Law firm	Solutions output	Tech partner one	Tech partner two
Akerman	Tailored data and privacy risk research and reporting	Neota Logic (AI platform) Managed Services	Thomson Reuters Legal
Mishcon de Reya	MDR Discover, an eDiscovery service	Inventus (eDiscovery platform)	Relativity (document review platform)
Slaughter and May	Project management tool	Tiki-Toki (workflow solutions vendor)	HighQ, a secure document sharing tool
Winston & Strawn	Digital dashboard	Tableau (data visualisation tool)	Alteryx (Data aggregator)

Another common activity is for one or more law firms to assist a new LegalTech market entrant with their product development. Some recent examples of law firms who have gone down this collaborative LegalTech development route are shown in table five below.

#### Table five: partnering with LegalTech vendors to develop new solutions

Law firm	Solutions partner	Product developed by solutions partner
Baker McKenzie, Mishcon de Reya, Taylor Wessing	LitiGate	Al tool to automate legal research and argument assessment in High Court applications. Tool can review arguments, suggest counter arguments and fall-backs, and recommend procedural steps.
Blakes	Founded	Founded services include the creation of company incorporation documents and an automated "health check" for missing corporate documents.
Bryan Cave Leighton Paisner	slicedbread	Sharedo – a case management and workflow platform with AI and data analytics capabilities.
CMS	Cognitiv+	Cognitiv+ is an AI-based knowledge extraction tool.  CMS helped the company develop its financial agreement risk analysis module.
Mishcon De Reya	Ping	Ping automates timekeeping for lawyers and provides data analysis for law firms.
Stibbe	Enable	Enable Pitchbuilder is a solution that assembles law firm tender documents from pre-approved templates.

Commenting on the rationale for this type of arrangement, several interviewees said the resulting product was highly tailored to their requirements, and often delivered at a very competitive price.

"We can often help define the direction of the product, if appropriate. And, to be crude about it, the financial terms are often good because you're an early adopter. We're not afraid of adopting early if we see a good opportunity. We're happy to take some risks and partner with the right people if, together, we can co-create something that's a differentiator."

Innovation heads who adopted this approach argue that being an early adopter of innovative new technology gives their firm a short-term competitive edge. However, they also recognise that – ultimately – this advantage would be diluted, if the solution proves to be a commercial success. For this reason, some interviewees said they would be happy to co-create with solutions vendors in relation to generic LegalTech platforms, such as client relationship or document management solutions. However, they tended to be more wary of co-developing with solutions vendors where the resulting LegalTech product could have formed the basis of a long-term point of differentiation for the law firm.

"If I partner with a vendor on a great new product, they'll give me a great price. But eventually, all of my competitors will have it. So it's a balancing act. You have to ask 'what's the value of the idea?' If it's a true competitive differentiator, then it might be really important to develop the solution within the firm."

Some law firms have gone beyond simply assisting market entrants in the development of their new LegalTech products – they have also made a direct financial investment in the solutions company. Perhaps the best-known of this action to date is Slaughter and May's acquisition of a five per cent stake in Al solutions provider, Luminance. However, this is not the only example of this type of law firm / LegalTech investment. For example, Taylor Vinters, a Cambridge-based UK regional law firm, has recently invested in two LegalTech startups – Pekama, and ThoughtRiver. Similarly, Mishcon de Reya, a medium-sized London practice, has invested in both timekeeping tool, Ping, and Everchron, a collaborative litigation management too. Notably, none of these law firm investments were entirely speculative. ThoughtRiver is led by a former Taylor Vinters partner, while both of the start-ups that received funding from Mishcon de Reya were members of the firm's first incubator programme.

#### The incubator option – valued evaluation option or marketing gimmick?

Staying with the incubator theme: our research suggests that, while this concept has not yet gained significant traction among commercial law firms on a global basis, Allen & Overy's Fuse, Denton's NextLaw Ventures and Mishcon de Reya's MDR LAB should not be regarded as quirky one-offs. Below are details of several other law firms who have adopted variants of the incubator approach. Some of the law firm incubators listed below have focused purely on LegalTech, with others have allowed both LegalTech and non-LegalTech companies to take part. For the sake of clarity, law firm incubators that are not supporting any LegalTech start-ups are not included in table six. Notably, each of the examples listed below have partnered with one or more external organisations to deliver the incubator. Bringing onboard expert partners appears to be useful way enhancing the quality of a law firm incubator programme, while also reducing the workload of organising it.

Table six: selection of law firms who are involved in start-up Tech incubator programmes

Name	Supporting law firm (s)	Supporting third parties	Notable attributes
Cuatrecasas Acelera	Cuatrecasas (Spain)	Alastria (Blockchain consortium), Telefónica Open Future_ (entrepreneurs' network)	Cuatrecasas Acelera is now seeking a third cohort of start-ups to support. Start-ups can be from various "tech" sectors, including LegalTech. The latest cohort will be expected to focus on blockchain and Al technologies.
Mills Oakley Accelerator	Mills Oakley (Australia)	Collective Campus (start-up incubator)	This 2016 incubator focused on LegalTech start-ups in the automation, Al and blockchain spaces. Mills Oakley offered a total of AUS\$ 500,000 in funding to it supported companies, in return for a seven per cent stake in them.
Eagle Lab	14 law firms, a mixture of global, national and regional practices	Barclays (a bank), Legal Geek (an events organiser), UCL and University of Liverpool (both universities) Law Society of England and Wales (solicitors' representative body).	This west London-based innovation lab focuses on both Legal and RegTech.
Legal Innovation Zone	Osler, Hoskin & Harcourt (Canada)	Ryerson University / Law Foundation of Ontario / Canadian Bureau for International Education	LIZ has three main areas of focus: supporting LegalTech start-ups; supporting law firms, governments and organisation with their own innovation; and designing a 21st century justice system. Currently supports 16 LegalTech start-ups.

Among those innovation heads interviewed for this report, there was no consensus about whether LegalTech incubators were a good idea. Perhaps not surprisingly, those innovation heads who worked for law firms that operated an incubator programme were generally happy to sing its praise. Similarly, those innovation heads whose firms did not operate incubators were often doubtful about the business case for such initiatives. What was clear, however, that innovation heads were monitoring the incubator activities of their rival law firms closely – even those legal practices based on the other side of the world.

Among those firms which had decided not to do go down the incubator route, a variety of explanations were offered:

"We're sort of thinking about it, but there's probably not the depth of legal start-ups in this market to justify it. I don't think we'd get ten."

"To be honest, I don't think they're a good use of time and money."

"It does seem a bit contradictory to take a massive dominant player [a law firm], hire up some small incubator capability, and then sell the incubated company's services to the law firm's own competitors."

"If you're not putting very much money into it, then what have you got to lose? If you have the space, it's dead rent anyway. But there are hidden costs of doing these things, opportunity costs. So far, we're struggling with the business logic."

By contrast, law firms who operated incubators were generally positive about their experiences of running them. Tellingly, several were on their second – or higher – start-up intake, which indicates a degree of long-term support for the incubator proposition.

Why are incubators valued so highly by those law firms who support them? One likely explanation is that the law firms who oversee incubators typically expect the start-up business they nurture to directly benefit their practice. Notably, both Allen & Overy and Mishcon De Reya have since deployed LegalTech solutions developed by their incubated companies – Kira Systems in the case of Allen & Overy, and PING, Everchron, Orbital Witness and saltDNA in the case of Mishcon De Reya.

As one innovation head put it:

"When we decided to start an incubator, we said: 'Hey guys, if you're a LegalTech company, and you're interested in building a business, then we're interested in working with you – so long as what you do is relevant to what we do. If you've got some fantastic technology, that can change the way that derivatives contracts are written, you're better off going to another firm – because we don't do that kind of work."

For law firms who do not wish to create an incubator as a vehicle for evaluating potential LegalTech partners, the approach taken by Canadian law firm, Blakes, may be more attractive. In 2017, Blakes partnered with Law Made, a legal innovation consultancy, to launch a global innovation challenge. This challenge, which included a prize fund of C\$100,000, started from the premise that Blakes had a particular problem that needed addressing: keeping corporate clients up-to-date with legislative and regulatory changes affecting the financial services sector. The legacy approach, based around Excel, was regarded as being both cumbersome to use and difficult to update. Tech companies were therefore invited to demonstrate how their solution would improve the way that this data could be captured, updated and displayed. The competition's winning prototype entry, produced by Knomos VisuaLaws, displayed legislative changes in a historical timeline viewer. And, having won the competition, Knomos was then offered the opportunity to work with Blakes to develop the prototype further.

LegalTech companies, such as Knomos VisuaLaws are an obvious source of partnerships for any law firm who wishes to share its expertise with a specialist third party. However, LegalTech companies are not, by any means, the only resource that law firms can turn to, in order to assist with their innovation efforts. For example, in 2016 Allen & Overy launched MarginMatrix<sup>TM</sup>, a digital derivatives compliance system, in partnership with Deloitte, the accountancy conglomerate. This "productised" service, whose core technology was developed in-house by Allen & Overy personnel, can reduce the time taken to draft certain derivatives contracts down from three hours to three minutes, largely by automating the process. The productisation of legal services will be discussed further in the next chapter of this report.

#### Partnering with clients – building novel LegalTech solutions from pre-existing platforms

For many innovation leaders interviewed for this report, partnering with clients did not amount to a significant source of innovation: as previously discussed, many corporate counsels simply do not know what LegalTech is currently available to them, or how it could be used within their team. More positively, however, the advent of LegalTech "platforms" means that law firms can now help their clients deploy innovative ways of working, without having to develop, test and deploy an enabling LegalTech solution from the ground up. More commonly, the law firm will take one or more existing technology solutions as a starting point, and then develop bespoke functionality for clients on top of this.

"One thing we are becoming very interested in is the use of consumer grade platforms with intuitive interfaces. Those platforms allow us to pre-program optionality for clients and best friends, for them to use internally as they see fit."

"We've just got to the completion stages of a collaboration with a client involving our building a bespoke contract generation solution for them using the Neota Logic platform. We expect to have a number of other collaborations in the next 12 months."

"We developed a new tool that was a combination of two products, and we included the clients in the tool's development process. The tool has had great feedback, and has been used on 45 matters with 700 users so far."

#### Entirely self-built legal tech - for either internal or client use

In some incidences, law firms will develop new LegalTech solutions themselves, either entirely in-house or in association with an external partner. Perhaps surprisingly, this approach to innovation does not – necessarily – require a significant investment of time and money. Several innovation heads interviewed for this report offered illustrative examples of several guickly-deployable LegalTech solutions, which nevertheless had yielded significant benefits for their firm.

"Recently, one of our securities lawyers became unhappy with the time-consuming nature of collating securities reports. They posted their comment on our ideas platform, and one of our IT people replied: 'we can fix that'. Just 48 hours later, they had built a proof of concept tool. By creating a tool that automatically scraped data from the securities reports and constructed client and matter-specific reports, we were able to save hundreds of hours of work across the entire firm."

"We built a system that interfaces the Land Registry. It pulls back information and analyses it. This system was built entirely in-house by our own developers. In terms of its adoption, it's been a great success."

"We subscribe to 800 news wires, which document filings before US courts. Today, someone has to read all of these news wires, and decide whether or not to pass on details of specific cases to partners as a potential work lead. We're currently training an Al tool to learn what facts make a good referral lead, so it can make these referrals automatically. This business development tool will help our partners line their pockets, and make them very happy."

Entirely self-build LegalTech solutions such as these have an obvious market – the law firm itself. But some law firms are now also building bespoke LegalTech solutions for their clients. An example of this type of self-built solution is shown in figure one below. In this example, the firm's client was trying to ensure that tens of thousands of contracts – across multiple jurisdictions – were kept in standard form. The firm's solution was to combine a self-built "bot" technology – which allowed the user to communicate with the solution by email – with a custom-built Al-assisted contract review solution. The up-shot of this innovative use of LegalTech is that client's contracts now take 70 per cent less time to review, when compared with the previous manual approach. In addition, contracts are now vastly more standardised than before.

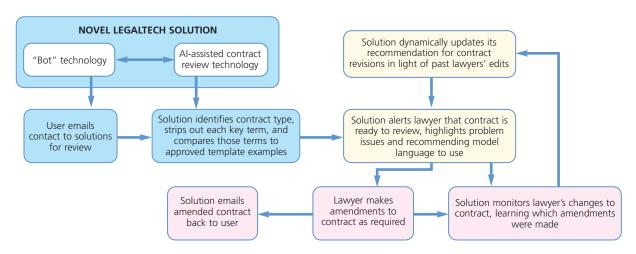


Figure one: a bespoke client-facing LegalTech solution

In broad terms, firms are taking two approaches when building novel LegalTech solutions for clients. In some cases, the solution is entirely bespoke, and intended for their use only. In other situations, while the solution is initially client-specific, and developed in close co-operation with that client, it will ultimately become a solution in its own right, which other clients can then use. Which build option the law firm chooses will depend on the extent to which the client's requirements are truly unique, and the potential market for a platform-based product.

For some firms, providing clients with LegalTech solutions is essentially a value-add service, which is not charged for. For other firms, LegalTech solutions advisory work is now becoming a small – but valued – revenue stream in its own right. This issue will be discussed in more detail in chapter four, where two contrasting models for LegalTech consultancy services are outlined, along with some real-world examples.

#### University partnerships - with a particular focus on predictive analytics

Some law firms have partnered with universities to assist them with their innovation efforts. Perhaps surprisingly, such university partnerships are often overtly commercial in nature. Typically, the intended output of the partnership is to allow the law firm to deliver better – or entirely new – law-related services. Examples of this type of law firm / university innovation partnership are listed in table seven.

Notably, all of the law firm / university tie-ups listed on table seven below focus on predictive analytics. Although pioneered in the legal sector by Stanford spin-off Lex Machina in relation to US patent disputes, this technology can now be deployed across a wide range of practice areas, and to assist clients across multiple industry sectors. Use cases deployed to date include tools which suggest arguments to deploy to help settle cases, and those which predict outcomes of employment-related disputes.

#### Table seven: law firm / university tie-ups

Law firm	Partner institution	Intended output – illustrative examples
BLM	London School of Economics and Political Science	The partnership focuses on volume litigation and high value complex claims. Al and statistical predictive models will be developed, in order to value disputes, predict outcome, predict cost overruns and case length, and manage litigation at a portfolio level.
Clyde & Co	University College London	The initial projects focus on predicting fraudulent activity in relation to insurance claims, the likelihood of disputes going to trial or to settlement, and potential litigation outcomes.
Barrett & Farahany	Georgia State University	Barrett & Farahany partnered with Georgia State University to build a model to predict the outcome of various types of employment-related cases filed in federal district court. The project also explored why so many discriminated cases are dismissed at summary judgment, what factors lead to good – and bad – client outcomes, and whether it is possible to create a successful case "playbook" for both plaintiff and defence lawyers.
DLA Piper	Imperial College London	DLA Piper recently partnered with the Data Spark Team at Imperial College London Business School with a view to generating insights from historical deals data.
Seyfarth	Georgia State University	Seyfarth's employment law group teamed up with Georgia State University in a project to analyse hundreds of thousands of labour and employment cases. This exercise sought to uncover which factors appear to influence a dispute's outcome.
Weightmans	University of Liverpool	Working in partnership with Kira Systems, Weightmans and the University of Liverpool are developing a solution that can identify arguments to deploy with the intention of settling cases.

In addition to disputes assistance, some predictive analytics solutions aim to proactively predict potential legal breaches – for example, to identify scenarios where fraudulent insurance claims are likely to be made. Other solutions aim to predict the likely lengths of cases, or likely cost overruns. Collectively, these solutions aim to address four key issues that clients typically ask of their law firms in relation to disputes: firstly "do I have a case?", secondly "am I likely to win?", thirdly "how long is this going to take?", and finally "how much is it going to cost?" Possible additional use cases for predictive analytics, based on developments in other sectors, will be discussed in the next chapter.

#### **Developing innovative LegalTech solutions – key takeaways**

As this chapter demonstrates, there has been significant advances in the use of client-facing technology by law firms in recent years. Undoubtedly, this trend that has been helped by the rise of "off-the-shelf" platforms, which can be customised by law firms to deliver solutions that closely match clients' needs. As the range and capabilities of such products increases, and costs fall, it is likely that law firms will adopt such technologies across an ever-increasing number of business units.

When developing novel LegalTech solutions, law firms therefore need to consider the best way of delivering their LegalTech requirements. These options include:

- Building novel solutions by customising existing products or bricolaging multiple products together.
- Partnering with existing LegalTech vendors to help develop new solutions, either on a standalone basis or via an incubator programme.
- Partnering with universities. This may be a particularly fruitful source of partnership when developing products and services based on predictive analysis.
- Developing new solutions entirely in-house.

#### Chapter four: how innovation and LegalTech is already impacting on the way law firms operate

Legal practice innovation and new LegalTech is already starting to disrupt several aspects of the traditional law firm business model. Most obviously, the automation and productisation of legal services is transforming the nature of work that is currently highly labour intensive and / or charged for by the hour. More positively, these developments also offer numerous new possibilities for law firms to diversify their revenue streams. This chapter will therefore set out developments that are already disrupting the way that law firms operate. The next chapter, chapter five, will discuss further changes to the legal services market that are now emerging as horizon issues.

#### Al assisted contract review: where are we now?

In recent years, we have already seen how the rise of eDiscovery and technology assisted review (TAR) has disrupted the disclosure / discovery process in relation to disputes and regulatory investigations. Now, an equivalent technology promises to upend the way in which contract reviews / due diligence exercises are undertaken – for many firms, a key source of revenue, not to mention employment. With time saving of up to 90 per cent promised compared with their manual equivalents, it is perhaps not surprising that an ever-increasing number of firms are signing up Al-assisted contract review solutions, offered by the likes of eBravia, Kira and Luminance.

For those firms who have already embraced this technology, a calculation has been made that it will either boost the profitability of low value review work or – at the very least – prevent such work from being delivered as a loss-leader. Because many of the time-related uncertainties associated with human reviews are avoided, the service can be offered to clients at a fixed price.

"Let's say it currently takes an hour for an average associate to analyse and summarise a contract, at a cost of \$350 per hour. If I introduce technology that can make that process more efficient, then I can charge a fixed fee of \$300. The client loves that I'm cheaper and faster than everyone else. But, because I've achieved an 80 per cent improvement in efficiency, my margins on that work have increased by three – four times."

"Our due diligence work often wasn't profitable, so we needed to do things differently. So, when AI due diligence tools came out, I really couldn't see any reasons why you wouldn't use them."

"I think a lot of firms are currently using AI tool such as Luminance to maintain margins or to allow them to move towards a fixed price. Clients like the switch because the work is done in time, and we're happy to because we lose less money – but no-one's making a killing on the technology at the moment."

In light of these benefits, one might wonder why Al-assisted contract reviews had not yet become ubiquitous among all law firms that routinely undertake due diligence work. Here, one innovation leader said that data security concerns were a significant barrier to wider take up, especially where it was envisioned uploading client data to the cloud for processing. However, in many cases, innovation leaders offered a less sophisticated explanation for non-usage: price. Some law firms, particularly those which now have a significant track record of off-shoring / nearshoring work, have learned the price point at which automation becomes cost-effective – and are happy to hold back from investing in software solutions until vendors meet that price point.

"I think the LegalTech companies tend to assume that you're using senior associates in a capital city location to do this work – they've built their business model around it. In fact, that's not necessarily the case. There's therefore not necessarily a fit between the way they think things are done and the way they're actually being done. The sort of work that can be delegated to a machine is exactly the sort of work that is already being nearshored or offshored."

"It's still cheaper for us to do a lot of our work in our low-cost location than to get the machines to do it. There's no training, and no risk, in maintaining our existing approach. I don't think there's a problem with the technology – the problem is that many of the vendors are currently in start-up mode and are trying to recoup the costs of their initial investment. That's why they're currently charging top whack."

"A lot of AI is pretty expensive. When you add up all the extra charges, it works out that they want you to pay £50 per document. At that price, you're really giving away all of the cost savings to the software vendor – possibly even losing money, particularly if you're already using a low-cost resource."

One law firm representative, interviewed for this report, recalled how their firm had re-run an entire due diligence exercise, using the same data set as the original transaction, in order to evaluate the financial benefits – or otherwise – of deploying an Al-assisted contract review tool. Unfortunately, the outcome of this review was disappointing. In this person's view, "none of the Al tools were currently fit for purpose". "They will get there," says this individual, who continues to undertake such reviews on a regular basis, "so we have to stay in the loop."

This "don't just accept what's currently on offer" philosophy was also endorsed by another law firm innovation head, who also complained that early vendors had "tended to piggyback off the high rate model of law". However, this individual also noted that change was coming rapidly:

"We've stumbled across a couple of suppliers that offer a phenomenal service at a tremendous, commercial, price – they're really upsetting the market, in a way that we see as being transformational. I think that, with keener pricing, some of the AI / machine learning solutions would have been embraced a lot quicker."

It should also be appreciated that the financial viability of Al-assisted contract review tools currently varies on a sectoral basis. One law firm, who had experimented with such tools in relation to multiple practice areas, had discovered that it currently made less sense to deploy such tools in practice areas where industry-wide drafting standards had not been adopted:

"If you've got documents that are standardised – that is, set terms and phrases and structures, then the AI does the heavy lifting. But, if you look at commercial leases, where anyone can draft them, AI tools require a lot more training."

On a related point, the level of "out of the box" functionality was also an important consideration, in terms of determining the financial viability of using such tools.

"When we started looking at these technologies a couple of years ago, there was the general assumption that you just paid the subscription, turned the solution on, and you were good to go. That is the case to a significant extent – the solutions we use come with a lot of functionality out of the box that's quite good. But the time it takes to get the system to exactly what you want it to – that's certainly something we're now alive to internally."

"The products we use have a series of pre-built provisions. About half the time, these provisions are surprisingly helpful, and around half the time they are not. So it really depends on the use case."

A more positive flip side of this (sometimes limited) out-of-the-box functionality is, of course, that law firms can continue to differentiate themselves from their peers in relation to how they train and use Al-assisted contract review tools. In essence, the out-of-the-box functionality becomes a default minimum standard for any user of the technology, which firms can then use to build on according to their own requirements and expertise.

Undoubtedly, when vendors offer Al-assisted contract review tools at a price that makes the technology's usage a viable commercial proposition for any firm undertaking this type of work, take-up will increase rapidly. This, in turn, will require the legal sector as a whole to reconsider its pricing of such services – or risk losing out to competitor firms who have already made the change. At present, we are probably not yet at that tipping point, even within the top end of the commercial legal market. But it is almost certainly a matter of years, if not months, before that point is reached.

When this tipping point is reached, it will become clear how the usage of Al assisted contract review will impact on the traditional "pyramid" law firm career hierarchy – even the partnership model itself. Will the technology, as LegalTech enthusiasts often claim, free fee earners from drudge work, and allow them to focus on more "cerebral", legal advisory matters? Or will it simply mean a significant reduction in work undertaken by law firm personnel, with all the implications for fee earner recruitment, lawyers' career trajectories – and, indeed, the entire partnership pyramid. We are not, yet, at the point where there are definitive answers to these questions. But it is only a matter of time before this technology's impact on firm structures begins to become apparent (See chapter five).

#### The productisation of legal services: new solutions, new questions

The rise of AI assisted contract review is not the only way in which LegalTech is now disrupting the law firm business model. Another noticeable trend in recent years is for law firms to move towards the "productisation" of their legal advisory services. These productised services are typically offered to clients on either a complimentary or subscription basis. Recently-launched products in this vein include the Littler Pay Equity Assessment™ and Orrick's EU GDPR Readiness Assessment Tool.

One law firm that has been particularly active in relation to legal services productisation is Allen & Overy – the firm currently has 11 such services listed on the "aosphere" section of its website. A selection of aosphere's products, which illustrates the range of services that this firm has now productised, is shown on table eight. Allen & Overy's aosphere service now boasts more than 200 clients globally, and around 9,500 individual user accounts.

Of course, the delivery of legal services in productised form is not a remotely new phenomenon, as those who remember Linklaters' "Blue Flag" or Clifford Chance's "NextLaw" product from the late 1990s will attest. What appears to be new, however, is the breadth and scale of the solutions now being offered by law firms. The channels for delivering such services has also expanded in recent years. No longer are such services only offered via websites – they can also be offered via phone apps or chatbots. Each of these delivery mechanisms has its own specific advantages, disadvantages – and also charging models.

#### Table eight: Allen & Overy's current "aosphere" product range

Product name	Target audience / key functionality
Rulefinder Cross Border Data Transfer	Helps institutions comply with limitations and obligations relating to the transfer of data from one jurisdiction to another.
EFETalytic	Service provides guidance and risk management advice to the energy sector across eight jurisdictions.
Rulefinder G20	This tool analyses G20-driven regulatory reforms across roughly 20 jurisdictions, and examines how these reforms will impact on parties that enter into domestic or cross-border OTC derivative transactions.
Marketing Restrictions - Asset Management	This service analyses the rules and regulations that apply to the cross-border marketing of open-ended and closed-ended funds and investment management and advisory services.
Marketing Restrictions	The service helps financial institutions learn about, and comply with, the law and regulations which apply when marketing, selling and advising on the sale of a wide range of financial products and services.
Netalytics	Netalytics extracts information from ISDA netting opinions on a jurisdiction- by-jurisdiction basis, and presents its findings in a standard format.
repoAnalytics	repoAnalytics uses data extracted from ICMA opinions to provide a "road-map" regarding the validity and enforceability of GMRA set-off and title transfer arrangements, in relation to both purchased securities and margin.
Shareholding Disclosure	This service walks users through the rules and regulations regarding substantial shareholdings in more than 90 jurisdictions. Issues covered include short selling, takeover reporting and issuer request.

When successful, such solutions offer the possibility of law firms earning income 24 hour per day, 365 days per year—and on a scale that would not be possible with the traditional one-to-one legal advisor model. However the mere existence of this type of legal services delivery poses further challenges to the traditional law firm partnership model. How, for example, should senior lawyers account for their time when assisting with the development of these products—should this time count towards their hourly targets, even though the work may not generate revenue for the practice? Should those involved in a legal product's rollout—lawyers and non-lawyers alike—be entitled to a share of any profits generated by the product? When being considered for partnership, should fee earners be judged on their ability to devise and deliver viable legal products—or might an entirely different career track be more appropriate? Indeed, given that the delivery and charging mechanism for productised legal services is so different from the traditional advisor-led model, should these services be delivered within the law firm partnership at all?

The early experiences of firms to date suggests there is not yet a consensus on this point. When delivering what (collectively) might be described as technology-enabled legal services (TELS), some law firms have opted to deliver these services via ventures that are clearly intended to be distinctive from their parent practice – from either an ownership or branding perspective, or both. Examples of the diversity of approaches taken by law firms in relation to this issue are shown in table nine below.

Table nine: examples of law firms offering distinctive tech-enabled legal services

Parent firm	Venture name	When launched	Brief overview
Clifford Change Applied Solutions	Clifford Chance	July 2018	The firm's existing legal "product" range, including CCDr@ft and the firm's MiFID II compliance tool, have now been moved into the new venture.
Eversheds	ES / Unity – Powered by Repstor	March 2017	This matter lifecycle management solution combines Eversheds Sutherland Consulting's Unity system and the Custodian platform developed by Repstor.
Fieldfisher	Condor	January 2017	Condor's services include a trading document unit, data extraction and analytics, and large-scale document project delivery.
Reed Smith	GravityStack	April 2018	Services offered by GravityStack include advising in- house counsel on LegalTech deployments and evaluating clients' organisation data.

There are several reasons why law firms might wish to pursue a particular path in terms of how they structure and brand their TELS. For example, the firm's TELS entity may wish to include non-lawyers as shareholders or operational leaders, which may be problematic in jurisdictions that have restrictive fee sharing regimes. Another consideration may be the price point at which a TELS is delivered to clients: selling an automatically-generated non-disclosure agreement online for just £5 may make commercial sense for Swiftagree, a newly-created legal start-up. However, this price point probably would not be appropriate for Swiftagree's parent law firm, Bryan Cave Leighton Paisner.

Rather than building a TELS from scratch, some law firms have opted to purchase existing TELS providers. Perhaps the best-known recent example of this development was EY's recent acquisition of Riverview Law, now known as EY Riverview Law. Another firm that has gone down this route is Gilbert + Tobin, which has gradually built up a minority shareholding in low cost legal service provider LegalVision over recent years.

Collectively, TELS allow law firms to diversify their revenues away from one-to-one, black letter law advisory services. However, it is important to be realistic about the likely financial value of these additional offerings. For example, in its fifth year of trading, Tritura® (formerly Drinker Discovery Solution) contributed around US\$10 million – roughly two per cent – to Drinker Biddle's total US\$462 million total revenues. Similarly, in the 2016 / 2017 financial year, MDR Discover generated just £1.12 million in revenue for Mishcon De Reya, compared with £149,92 million for its parent law firm. That said, although MDR Discover's revenues were modest during its first full year of trading, its profit margin was not: MDR Discover enjoyed an operating profit of £419,000. If MDR Discover's profit margin is representative of the eDiscovery sector as a whole, it is perhaps not surprising that several other large law firms, including Corrs Chambers Westgarth (via Telesto), and Linklaters (via Linklaters eDiscovery), have recently announced their expansion into the eDiscovery market.

#### A gap in the market? Law firms branch out into LegalTech consultancy services

As previously discussed in chapter two, many corporate legal departments currently lack even basic LegalTech infrastructure. What is more, many – albeit not all – in-house legal teams also lack an understanding of the LegalTech solutions that are now available, and the productivity enhancing benefits that they may bring. Noticing this situation, a small – but growing – band of law firms have stepped into this breach, and are now offering consulting services based around legal practice innovation in general, and LegalTech in particular.

In its most basic form, this new service to clients may simply involve advising them which LegalTech products and services to deploy, based on the firm's own market research and solutions usage. Alternatively, the firm may wish to go somewhat further: assisting with the deployment of firm-branded LegalTech products, based on third party solutions. One example of a firm going down this route is Bird & Bird, via its twoBirds Client Solutions offering. A selection of twoBirds services, together with details of the underlying technologies these services rely on, are shown in table 10.

Table 10: selection of Bird & Bird's LegalTech delivery consultancy services

Client offering	Underlying technology vendor (s)	Functionality
twobirds Deal Room	HighQ	Virtual data room
Twobirds Contract Risk Assessment	eLegal Technologies	Assesses and helps manage risks associated with B2B contracts
twoBirds Corporate Due Diligence	Luminance	Document review
twoBirds eDocument Review	Relativity Review Manage	Document review and associated management processes

Finally, a firm may opt to offer clients a bespoke LegalTech solutions development service. Firms who offer clients this type of service include Bryan Cave Leighton Paisner, via its BCXponent offering and Osborne Clarke, via Osborne Clarke Solutions. Some firms offer both off-the-shelf and customised LegalTech services simultaneously – CMS' recently-launched "By Design" legal delivery group being a good example.

Helpfully, even when law firms offer their clients a bespoke LegalTech solutions service, this does not always mean they develop, build and test the entire solution from scratch – a potentially expensive and time-consuming task. Instead, the firm may create a bespoke solution for their client that is, in reality, built using one or more underlying LegalTech platforms.

Helping in-house legal teams improve their internal processes might, in the words of one innovation leader, be considered "dull" work. However, this did not mean that in-house counsel would not welcome such assistance, if offered. "If you talk to your clients, you might find that their document management problems are costing them £1 million per year – or exposing them to huge risk," this innovation head explains. "We think that advising on this issue is an undersold area of the market, which could be a strategic source of new revenue for our firm." An additional benefit of undertaking this kind of work is, of course, that law firms who undertake it can gain valuable insights into their clients' internal workload, working practices and pain points. This level of holistic insight is not typically obtained by merely offering legal advisory services to a client.

That said, competition for this type of consultancy work is already starting to heat up – not least because the Big Four accountancy practices are also active in this market. In addition to EY's high profile acquisition of Riverview Law, PwC now has three offerings in this space: law department transformation, contract review and remediation, and managed legal services. Meanwhile, Deloitte's Legal Management Consulting arm offers services that include legal process analysis, LegalTech sourcing consultancy services and change management advice. Finally, KMPG recently launched a Legal Operations and Transformation Services, which "aims to leverage KPMG's in-house technology capabilities, broad expertise and its strategic partnerships with third party technology providers, to help transform in-house legal functions to become the legal teams of the future."

#### Broadening the talent pool: where are firms recruiting from?

As law firms slowly diversify, and start to develop new LegalTech-based products and services, an obvious question arises: who will these firms hire, in order to assist with the creation and delivery of such services? We have already seen how innovation leaders have – to date – often been recruited from inside the legal sector, with former PSLs emerging as a key talent pool. But, in other areas of service innovation, law firms have often been forced to either recruit from outside the legal profession, or develop their own talent internally.

A good example of a firm that has adopted this twin-track approach is Allen & Overy. Today, the firm's Belfast office – an important focal point for the firm's LegalTech innovation – includes several senior level innovation managers, hired from organisations that include Citibank, Capita, and Deloitte. However, many of the firm's more junior Belfast personnel have been trained up from scratch, having joined the office with little or no legal sector experience. Recently-advertised roles in this office, none of which specifically require previous legal sector knowledge, include "robotics automation process leads", "document automation specialists" and "legal project executives".

In some areas of legal practice innovation – notably those that require data science expertise – the current favoured hiring policy appears to be to recruit from outside the legal sector. There is a probably a good reason for this: the market for hybrid data scientists / legal domain sector specialists is not yet mature enough for a significant lateral hire market to emerge. As one law firm innovation head put it:

"When hiring, we tend to start with data science expertise and then add legal expertise later. Finding people who are already skilled in both is, quite frankly, pretty much impossible."

It is also notable that some of the more high-profile recruiters of data scientists in recent months have been law firms which focus on the insurance sector – practices such as BLM, Clyde & Co and Kennedys. In truth, it is probably not surprising that this group of law firms have been early recruiters of data scientists, given the insurance sector's long-standing usage of big data and applied analytics. To a certain extent, such firms are following a lead given by their clients. However, for any firm who wishes to recruit their own data scientists who also come with law firm experience – currently a rare prize – they may wish to point their head-hunters in the direction of insurance-focused legal practices.

More generally, in order to enhance their own LegalTech / innovation capacities, a small number of law firms are now setting up specific programmes to recruit and train such personnel. The aim of some schemes, such as Clifford Chance's "ignite" initiative, is to produce fully-qualified lawyers – albeit ones who have significant experience of legal process re-engineering. Other initiatives, such as Allen & Overy's LegalTech and project management graduate scheme, do not expect their recruits to become legally qualified. Rather, the expectation is that successful candidates will ultimately become qualified project and/or process managers. Notably, both Allen & Overy and Clifford Chance's programmes are specifically open to recruit candidates with a non-legal background – Allen & Overy is actively seeking candidates who studied science, technology, engineering, mathematics or economics, while Clifford Chance's Ignite training contract is just as open to computer scientists as it is law graduates.

In terms of qualified lawyers, does the increasing importance of LegalTech / practice innovation mean that recruitment practices will change, in terms of the personal attribute that firms are looking for? Here, the opinions of law firm innovation leaders were mixed. On the one hand, some said their firms were now going out of their way to recruit candidates who were "tech savvy" – even putting their summer interns through LegalTech boot camps and coding courses. In truth, a more common response was noticeably more hesitant, with talk of "moving the dial", "making a difference around the margins", "in borderline cases", being a more common observation.

In reality, this modest shift in lawyer skillset requirements is entirely understandable: realistically, fee earning lawyers will not typically be responsible for re-engineering legal processes, or developing LegalTech solutions from the ground up – that is not what they are trained to do, nor experts in. However much lawyers might enjoy learning to program in a law firm-organised "coding club", developing real-world client-facing software solutions is likely to be far beyond their skills set – especially from a data security perspective. Software development is a highly skilled specialism in its own right: it should not be carried out by a part-time amateur hobbyist.

Instead, going forward, it is far more likely that lawyers will need to become comfortable working with other specialist practitioners who can help develop innovative LegalTech. Indeed, this division of labour is already occurring within those law firms that are embracing legal innovation to a significant degree. In particular, those law firms that now operate standalone LegalTech / innovation offices are typically staffed by a mixture of legal innovation specialists and legal fee earners, who work in partnership with each other. A potential source of new recruits for these non-lawyer LegalTech specialists is outlined in the final chapter of this report.

#### The impact of LegalTech and practice innovation on law firm structures: issues to consider

- The market for Al-assisted contract review solutions and the financial viability of their roll-out is developing rapidly. Law firms should therefore monitor this issue closely.
- The use of assisted contract review is also likely to impact on the way that such work is charged for including the option to moving to a fixed price offering. However, it is also likely that clients will expect that a substantial percentage of any cost savings generated by the use of this type of LegalTech solution will be passed onto them.
- The time savings realised by the use of Al-assisted contract review raises new questions regarding the future role for junior lawyers. Will they be needed in the same number as before, If so, what skills will they be expected to have, and how will they be trained? What will be their career path? And will they wish to remain working in a traditional law firm environment rather than, for example, a LegalTech company?
- The productisation of legal services offers the potential for law firms to generate income automatically 24 hours per day, 365 days per year. However, this approach to delivering legal services raises numerous operational issues. These issues include: by what online platform should the service be delivered website, app, chatbot etc; on what basis should the service be charged for; and how should those involved in the services' development be rewarded?
- Law firms should consider whether the productisation of legal services requires the adaption of the traditional legal practice partnership model, or a departure from it? Should lawyers who are skilled in legal services productisation be given equity partnership status, the chance to lead a spin-off trading company or both?
- Some law firms are now diversifying into types of work that combine LegalTech and consultancy services. Might your firm be able to offer something similar?
- Law firms involved in either the productisation of legal services or LegalTech consultancy services should appreciate that they are likely to face competition from a variety of sources, including other law firms, New Law providers, legal publishers and the Big Four accountancy practices. The Big Four, in particular, have far deeper pockets to service these markets than even the world's largest law firms.
- The market for LegalTech / innovation specialists is currently at an early stage of its developments. In the short term, firms may have little option but to recruit from outside the legal sector, or "grow their own" expertise in-house. As demand for law-specific expertise grows, these individuals are likely to be in high demand. They are therefore at significant risk of being poached by rival firms.

### Chapter five: horizon issues

#### Legal innovation and LegalTech - where are we going?

As part of the research for this report, innovation leaders were asked which legal innovation / LegalTech issues they felt were now emerging as horizon opportunities. In response, several mentioned their desire to combine LegalTech solutions, with a view to creating automated, end-to-end, matter workflows. Indeed, one innovation leader said they were considering launching an incubator programme with the specific intention of delivering that outcome – all selected LegalTech companies would be expected to work together, with the aim of delivering that common goal. Several other horizon issues were also identified, and are briefly outlined below.

#### Scanning the horizon, part one: the possibilities offered by analysing data

Data, it is often said, is the new oil: the basis for a huge new range of revenue-generating opportunities. Certainly, some law firms are now developing complementary services based around data. For example, as previously mentioned some law firms that have recently entered the eDiscovery market, include Mishcon de Reya (via Mishcon Discover), Corrs Chambers Westgarth (via Telesto), and Linklaters (Linklaters eDiscovery).

However, the eDiscovery route is not the only way in which law firms can derive new revenue from data. Internally, some law firms are now using data to assist with their internal efficiency-improvement programmes, therefore helping the practice to boost its revenues and profits. Other firms are using data as the basis for new client-facing solutions.

A good example of this latter approach is the Littler Pay Equity Assessment (LPEA), which aims to help clients avoid becoming embroiled in compensation-related disputes. LPEA uses the company's own HR and payroll data to identify salary differentials between groups of employees, calculates whether those salary differences are statistically significant, and determines the extent to which any pay differences might reflect a legitimate business consideration. As a tool, LEPA is designed to be used by clients on a self-service basis. However, Littler also offers a consultancy service as a "value add", in order to advise on issues that arise from the solution's findings. This mutually-reinforcing combination of a client data-driven, LegalTech-enabled product, supported by a premium legal advisory service arguably reflects a model of modern legal service delivery which other firms may wish to emulate – and not just in relation to employment law.

#### Scanning the horizon, part two: the possibilities offered by predictive analytics

Earlier, we saw how some law firms are now using data to predict the outcome of disputes – a phenomenon known as predictive analytics. In reality, disputes are just one use case to which predictive analytics is now being applied, across the entire professional services sector. In the M&A field, for example, Thomson Reuters is currently developing a model which aims to predict – on a daily basis – the likelihood that more than 25,000 publicly traded companies around the world will become subject to a takeover. Meanwhile, Deloitte's Predictive Project Analytics solution evaluates the statistical likelihood that major capital project will succeed, while also providing specific recommendations to improve project performance.

In delivering their respective outcomes, both of these above-mentioned tools draw heavily on their organisations' proprietary dataset which, realistically, no law firm could ever hope to match. However that is arguably not the point: both serve as examples of how organisations are able to repackage data they already hold, and develop new forward-looking client solutions off the back of it. This business model poses an intriguing question for law firms: what proprietary data might they be able to repackage with a view to offering law-related, forward-looking, insights to their clients?

#### Scanning the horizon, part three: the emergence of the smart contract

In terms of more embryonic LegalTech market developments, we are now seeing a rapidly-increasing interest in smart contracts – essentially digitally-drafted contracts which "self-execute" when certain conditions are met.

An example of a smart contract in action is AXA's recently-launched flight delay insurance policy, known as "Fizzy". The smart contract which underpins Fizzy is connected to global air traffic control databases. This connectivity means that, if policy holder's flight is delayed by more than two hours, the smart contract automatically authorises a compensation payment without any human involvement. To ensure the policy cannot be tampered with, the contract's purchase is stored on the Ethereum blockchain. This type of interaction between blockchain and smart contracts explains why the two technologies are often discussed in tandem with each other.

Around the world, numerous law firms are now joining organisations which aim to develop common, open source, enforceable smart contracts. Of those organisations that have recently been launched, the Accord Project is arguably the highest profile – it currently comprises close to 40 law firm members, including many of the world's largest legal practices. In the space of just over a year, the Accord Project has not only come into existence, but also started standard-setting work on five areas of legal practice where smart contracts potentially have great value: supply chain and logistics; real estate and construction; financial services; intellectual property; and investments and digital 'token' sales. More recently, another entity, known as Reynen Court has also come into existence, with the aim of developing a "service automation platform" that will allow law firms "to adopt AI, smart contracts and other new technologies". This organisation currently has the backing of 12 major global law firms – including a handful that are also members of the Accord Project. Law firms that are interested in smart contracts may wish to monitor the output of both the Accord Project and Reynen Court closely, or become official members of them.

Moving beyond mere standards setting, some legal practices are now starting to test real-world smart contract offerings. Arguably at the forefront of this development are RocketLawyer and LegalZoom, which both operate in the US consumer legal market space. In September this year, RocketLawyer announced that it would launch a smart contract-based "Rocket Wallet" in the first half of 2019. Then, just a few weeks later, LegalZoom confirmed it too was planning to launch its own smart contract offering in the near future. Although the exact nature of RocketLawyer and LegalZoom's smart contract service is not yet clear, it is now becoming apparent that the adoption of this technology is now looming closer on the horizon than perhaps even many LegalTech evangelists had previously believed likely.

It is also noteworthy that, while the entire business model of RocketLawyer and LegalZoom is based around the delivery of self-service legal documents, both have opted to partner with expert third party providers to help develop their smart contract solutions – ConsenSys and Open Law in the case of RocketLawyer and Clause, in the case of Legal Zoom. This fact reinforces a point made elsewhere in this report: there is nothing wrong with law firms partnering with expert software solutions vendors when developing new law-related products. As we have already seen, such partnerships are commonplace. Indeed, as one innovation leader explained, this approach may even be beneficial to law firms from a legal risk perspective:

"The construction of smart contracts is an inexact art, written in computer languages that have only existed since 2015. The process is riddled with traps for the unwary, and even expert computer programmers make mistakes costing hundreds of millions of dollars. Lawyers have no proper business dabbling in the coding of smart contracts, no more than environmental lawyers should dabble in cross-border tax law... We continue to watch the area closely, but think that the role of lawyers will be confined to high level design principles rather than becoming involved in implementation."

#### Scanning the horizon, part four: recruiting new LegalTech talent – where will it come from?

Earlier, in chapter four, we observed that firms such as Allen & Overy and Clifford Chance are now hiring hybrid lawyer / LegalTech professionals, in order to help them grow their internal LegalTech capabilities. However, while welcome, initiatives such as these will do practically nothing to increase the global availability of people with such skills sets: in its first year of operation, it is anticipated that Allen & Overy will recruit just four professionals, while Clifford Chance will hire five.

Thankfully, this type of capacity-building investment is now being supplemented by a growing number of universities around the world, which are now introducing university courses that have a significant LegalTech / innovation component. Some illustrative examples of such courses are listed on table 11. Law firms who are interested in recruiting employees with the skillsets facilitated by these courses may wish to recalibrate their hiring preferences accordingly.

At this stage of the legal innovation process, it remains to be seen whether the supply of tech-savvy lawyers, or law-aware LegalTech solutions specialists, will match demand from law firms who are now seeking such candidates. Ideally, both will increase in tandem, resulting in a diffusion of skills and experiences across a wider range of firms. But perhaps a more likely outcome is a growing war for talent, where the second wave of law firm innovators ruthlessly poach personnel for their pioneering counterparts. As firms evaluate the potential costs of investing in personnel to deliver their LegalTech / innovation efforts, it may be prudent for them to budget for this possibility.

Table 11: university's offering courses with a strong LegalTech / innovation focus

Academic institution	Course title	Indicative course modules
Chicago-Kent College of Law, Illinois Institute of Technology, USA	JD Certificate Program in Legal Innovation + Technology	Legal analytics; legal project management and process improvement; LegalTech / innovation; eDiscovery.
Michigan State University College of Law, USA	LegalRnD	Al & law; delivering legal services: new legal landscapes; quantitative analysis for lawyers; litigation (data, theory, practice, & process); entrepreneurial lawyering; eDiscovery.
Suffolk University, UK	Legal Innovation & Technology Certificate Program	Legal operations; process improvement and legal project management; design thinking for legal professional; LegalTech toolkit.
Swansea University, UK	LLM in LegalTech	Al (computer science applied to law); automating legal services; computation thinking and programming for lawyers; quantitative analysis and working with big data, LegalTech entrepreneurship.
University College London, UK	LLM, Future of Legal Practice module	eDiscovery, access to justice and systems thinking; technology, design and digital divides; online dispute resolution.
University of Technology Sydney, Australia	Legal Futures and Technology, part of undergraduate law degree	Technology, law, policy and ethics; applied project in law, innovation and technology; disruptive technologies and the law.
University of Toronto, Canada	GPLLM in innovation, law and technology	Legal technology and informatics; taxonomy of innovation; design thinking.
Vermont Law School, USA	Legal innovation	Digital drafting, automated systems; eDiscovery and big data; practice management.

#### Scanning the horizon, part five: the law firm business model

The emergence of hybrid staff, who have both a technology and legal background, is just one example of the changes which are now taking place within many law firms' workforces. The use of legal project managers, pricing specialists, data analysts, and professionals who can develop and sell a product, all point to greater diversity and skills than previously existed. This, in turn, may finally prompt an end to the traditional "us and them" division between lawyers and "other staff." It may also prompt a fundamental shift in the skills and experience required of law firm personnel.

If the move towards fix price legal services continues – which seems inevitable except, perhaps, in North America – the incentive to do work better, cheaper and faster will also increase. This could have a profound impact on the partnership model. It is not incredible to imagine a scenario where highly-paid expert partners are mainly supported by a plethora of automated process and systems, rather than an army of junior fee earners. If this happens, it is possible that the traditional law firm pyramid, which has contributed so much to law firm profitability for so long, may narrow perhaps to a tower or, conceivably, an inverse pyramid.

Indeed, the advent of transformational LegalTech may also require a redefinition of who should be eligible for partnership. Star billers and rainmakers will always have a place at the top table – but what about legal efficiency improvement experts, or productisation geniuses? In future, the battle to achieve partnership status may not simply involve a tournament between talented lawyers, but amongst other professionals too. If this happens, the metrics used to evaluate potential partners will also need to diversify, in order to better reflect what they can offer the firm. The metrics required to remunerate or remove partners will also need to be revised and expanded.

Furthermore, the intergenerational challenges that arise from the need to invest in new technology will pose further challenges to the law firm partnership model. Should partners who are nearing retirement be expected to invest their money in novel LegalTech solutions, which may take years develop, rollout and monetise? What if the technology fails to take off as planned?

In short, legal innovation and novel LegalTech will require law firms to update almost every aspect of their business model. Over the long term, it is possible that the changes that law firms will be required to make will represent nothing less than a revolution in the way they deliver legal services.

#### Horizon issues: issues to consider

- Consider how your firm might use data analytics as the basis for new products and services. Some law firms are now analysing their own internal data to drive efficiency improvements, while others are using client or property data as the basis for revenue-generating client solutions.
- Some professional services firms are now starting to experiment with new predictive services that are based on a "big data" analysis of past events. Might your firm consider offering such a service?
- Smart contracts are now emerging as a real-world solution, particularly in the legal services space. Law firms who are interested in this subject may wish to join one or more of the standards-setting organisations that are now beginning to emerge.
- Even specialist LegalTech solutions vendors such as RocketLawyer and LegalZoom are not attempting to develop their own smart contract solutions entirely in-house. There is nothing wrong, either from a technical or liability perspective, with partnering with a specialist smart contract solutions vendor.
- A LegalTech-enabled future will require a new generation of hybrid specialists. Law firms may therefore find it useful to monitor which universities are launching legal innovation / LegalTech courses, and recalibrate their recruitment preferences accordingly.
- Consider how LegalTech and innovation will impact on every aspect of the law firm business model from the skills required by the firm's personnel, to the firm's pricing structures, even the legal practice pyramid structure itself.

#### Legal innovation and LegalTech - final thoughts

It is often said that the law firm partnership model hinders the ability of the legal sector to embrace change. The examples offered in this report suggests this proposition is dubious, at best. Legal practices around the world are now investing significant amounts of time and money in entering into new partnerships, developing new legal products, diversifying into new services, and hiring the personnel required to deliver change. This is often despite a lack of compelling demand from clients to deliver legal services in new ways.

True, the manner in which many law firms are now embracing innovation is often cautious. However, that does not mean that many of the decisions that are now being taken are not rational. For example, in the absence of a vibrant lateral market for law firm innovation leaders, it arguably makes sense for law firms to hire former PSLs to lead this function – especially when the early focus of much innovation concentrates on making existing internal processes more efficient. Similarly, the reluctance of some law firms to accept – at this stage – tools such as Al-assisted contract review is not, fundamentally, because they fear the technology. Rather, it is because – having evaluated the business case for doing so – the business benefits have not yet been proven. More positively, as the cost of such solutions falls due to increase competition, take-up is only likely to increase. This has the potential to allow law firms to increase their internal productivity and worker satisfaction – which also facilitating new (and cheaper) charging options for clients.

Also positively, the rise of the customisable LegalTech solutions platforms are allowing law firms to create bespoke new LegalTech solutions for their clients, without the need to develop and maintain the underlying technology. That said, the ease with which legal services can now be productised raises new questions regarding how they should be charged for and delivered – and also how those involved in the development of legal products should be evaluated and compensated.

Externally, law firms are also likely to face increased competition from those providers who are already experts in professional services productisation, notably the Big Four accountancy practices. It is possible that productisation of legal services may drive further consolidation in the legal sector, as practices seek to offer clients a one-stop-shop for their productised legal services, supported by expert advisor professionals.

As the number of tech-based legal products and services continues to explode, this inevitably raises questions regarding where the new recruits to support this burgeoning market will come from. Today, law firm pioneers are investing heavily in bringing on new talent, including many with no prior legal sector experience. It remains to be seen whether the new raft of LegalTech and innovation courses, now being rolled out by universities around the world, will help avert a war for talent for such professionals.

It appears only to be a matter of time before many of the technological advances mentioned in this report become mainstream. At that point, potentially all aspects of the law firm business and operational model will need to be revised.