Lawtech: a comparative analysis of legal technology in the UK and in other jurisdictions

November 2019

The Law Society

Introduction

The Law Society conducted a comparative analysis of public, private and third sector accelerators to lawtech innovation and adoption in the UK and in other jurisdictions. This study is based on data available up to August 2019.

Objectives of this study:

- Identify the funding patterns of the UK lawtech.*

- Undertake a jurisdictional and state-of-play analysis of our nearest competitors against ease of doing business, the rule of law, innovation and investment metrics.

*For a definition of lawtech see:
https://www.lawsociety.org.uk/support-services/lawtech/what-is-lawtech/

Main findings

1. Investment in UK lawtech is likely to increase. Global investments in lawtech currently stand at $926m. While the UK lawtech market is still at an embryonic stage, the value of investment in the sector shows encouraging levels of backing by venture capital firms, angel and seed investors. The level of investment in fledgling lawtech companies is likely to grow in the coming years, as law firms seek to harness lawtech to increase efficiency, reduce costs or provide a broader scope of services.

2. Lawtech remains less mature than other fields of digital disruption, most notably Fintech (financial technology), where funding and regulatory alignment are more advanced. Growth areas of lawtech include: legal analytics; legal project management; governance and compliance; and contract management. More established areas include: collaboration tools; document management; IP management; and e-billing.

3. London is becoming a hub for legal technology. Global tech investors are drawn to London for its strengths in developing the latest cutting-edge technologies, with the UK capital topping the European investment charts for funding into fast growing sectors such as artificial intelligence (AI), cybersecurity and Fintech. London ranks close to the San Francisco Bay Area in three specialist markets for AI suppliers: insurance (88% the size of the Bay Area), legal (70%), and education (48%).

Main findings

4. The UK is playing a significant role in lawtech on the world stage. The closest competitors are Singapore, Hong Kong and the Netherlands. Although the UK leads in some aspects, it is lagging in others, and overall the gap between the UK and the competitor nations is not large. This means that in order to, as a minimum, retain our position, we are likely to need to invest – and more so if we aim to improve our competitive edge.

5. The most established lawtech products in the UK are target eDiscovery and legal research. Contract management is ripe for explosion in terms of legal services market interest (especially B2B and in-house) and as an attractive investment. We will see these individual lawtech product types merge as start-ups work together to offer blended solutions, further pushing what tech can achieve in the legal services sector.

Funding patterns in tech by UK sector – equity investment deals 2011 to 2018
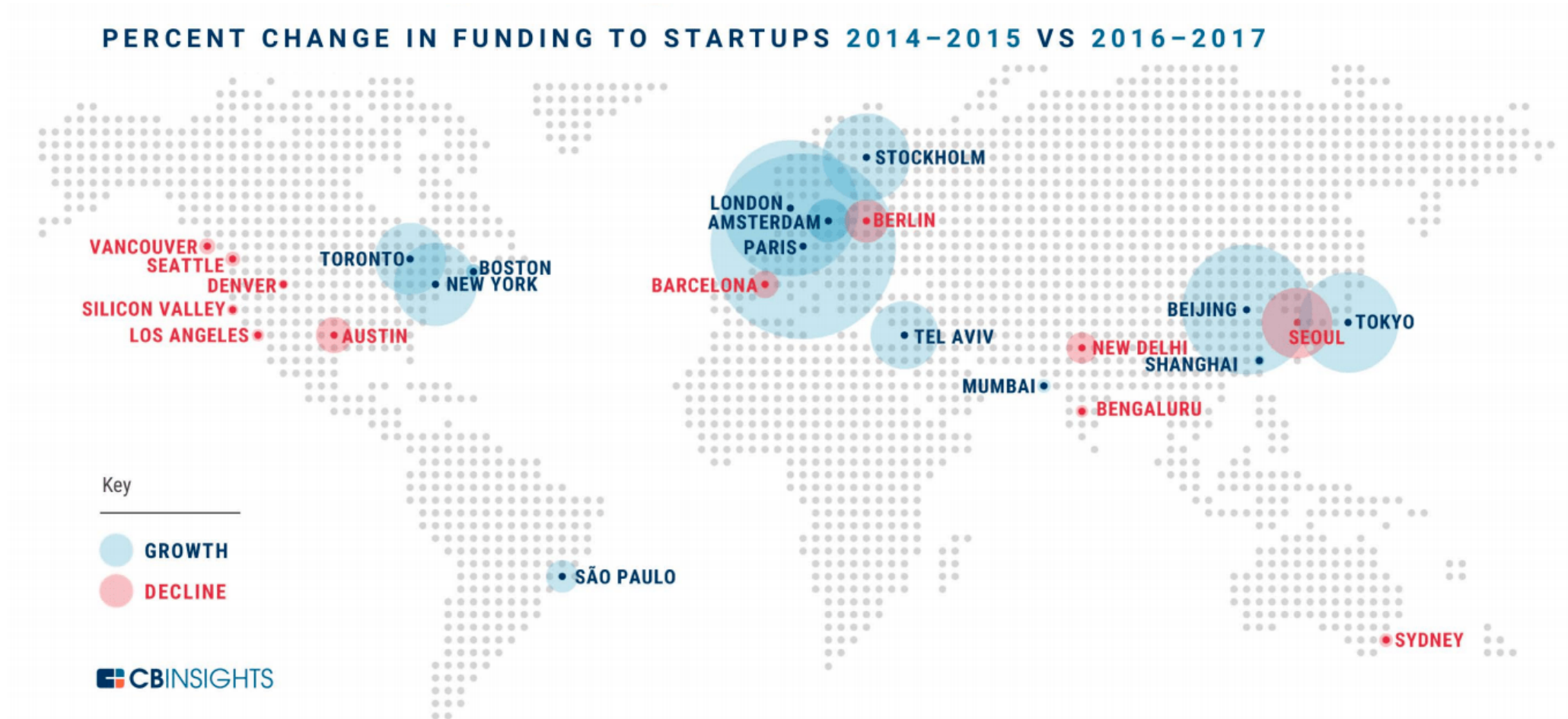
While Q3 of 2018 was generally poor for deal numbers, Fintech saw the highest number of deals on record, and £309m invested into the sector.
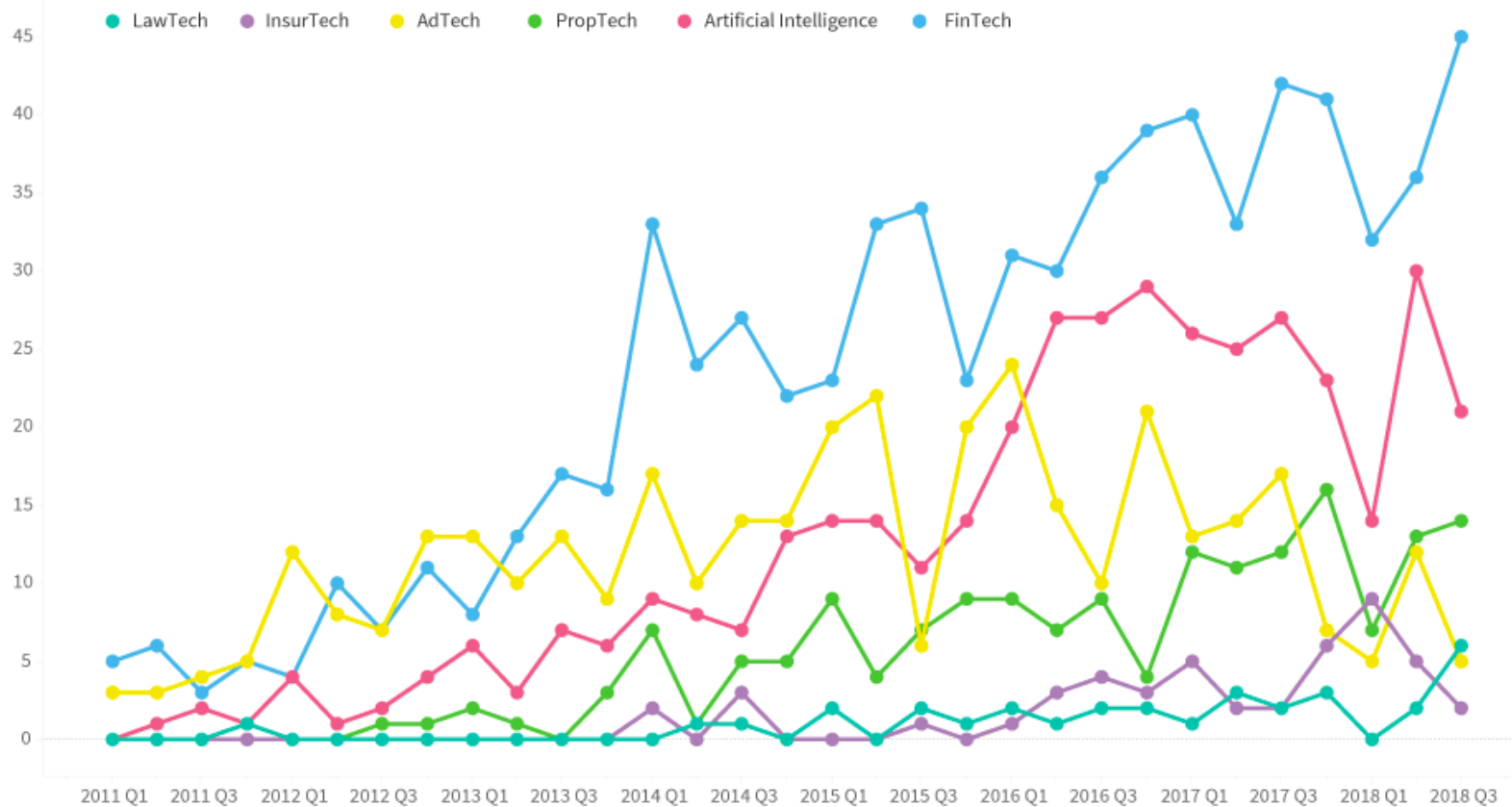
- Investor appetite for Fintech has shown no signs of slowing down despite increasing Brexit uncertainty.

- Investment into Adtech (advertising technology) continues to decline from its peak in 2016, with numbers falling below both lawtech and Proptech (property technology) for the first time.

- lawtech and Proptech appear to be sectors on the up and ones to watch.

Source: Beauhurst, Q3 Equity Market Update 2018

Relative change in funding to tech start-ups globally: 2014-15 to 2016-17

Data from CB Insights observes a decline in funding towards tech start-ups on the US West Coast and India, but increased funding for tech start-ups in Canada, on the US East Coast, and **towards Northern Europe and East Asia**. This may also reflect a shift of start-up power away from Silicon Valley.

PERCENT CHANGE IN FUNDING TO STARTUPS 2014–2015 VS 2016–2017

VANCOUVER
SEATTLE
DENVER
SILICON VALLEY
LOS ANGELES
TORONTO
BOSTON
NEW YORK
AUSTIN
SÃO PAULO

STOCKHOLM
LONDON
AMSTERDAM
BERLIN
PARIS
BARCELONA
TEL AVIV
MUMBAI

BEIJING
NEW DELHI
SHANGHAI
SEOUL
TOKYO
BENGALURU
SYDNEY

Key

GROWTH

DECLINE

CB INSIGHTS

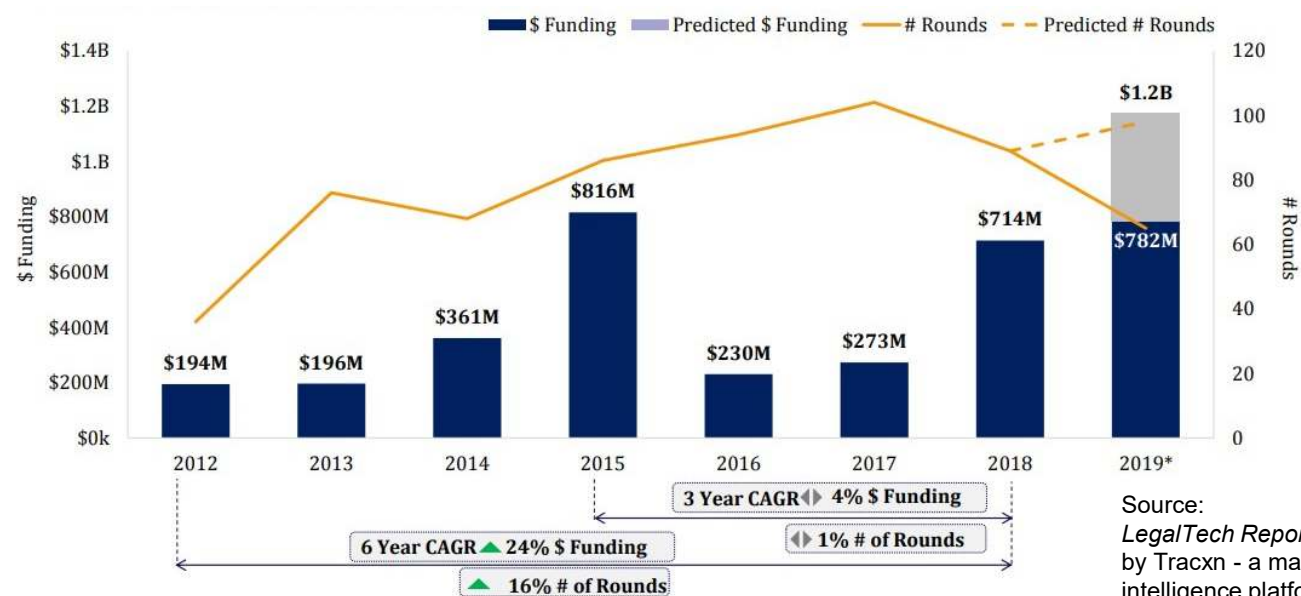Source: CB Insights (2018) '*Global Tech Hubs*' report

Funding patterns in UK lawtech

While the UK lawtech market is still at an embryonic stage, the value of investment in the sector shows encouraging levels of backing by VC firms, angel and seed investors. The level of investment in fledgling lawtech companies is likely to grow in the coming years, as law firms seek to harness lawtech to increase efficiency, reduce costs or provide a broader scope of services.
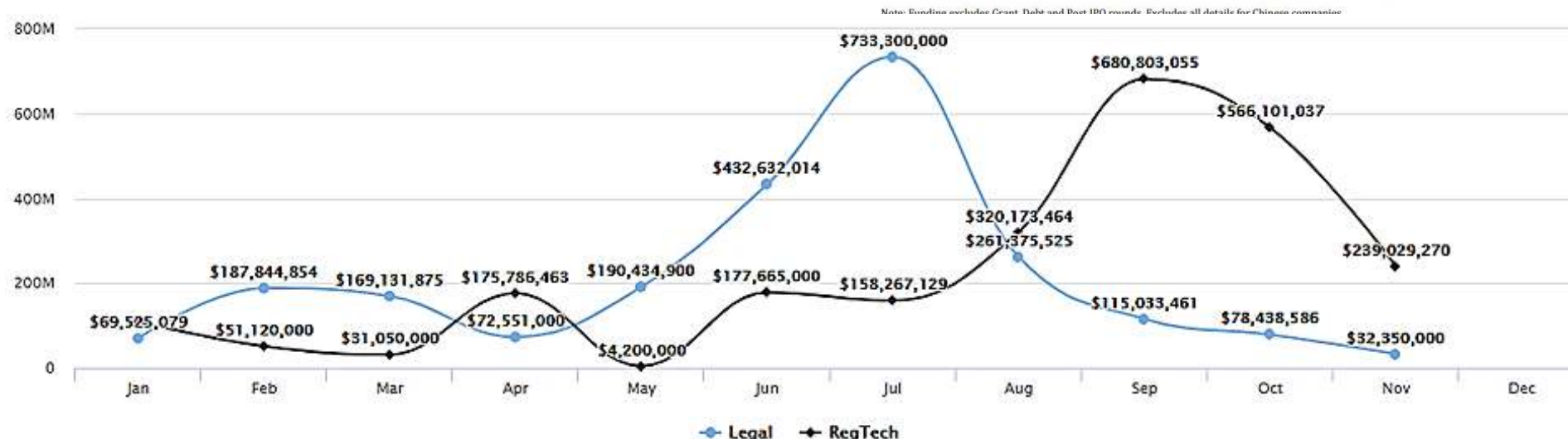
It is unclear whether law firm incubators (e.g. Fuse, MDR Labs) will impact funding levels/appetites in the lawtech sector.

Investments ($m) and number of rounds in lawtech (2012-2019)

Legend: ■ $ Funding ■ Predicted $ Funding — # Rounds ‑ ‑ Predicted # Rounds

Data points: 2012 $194M; 2013 $196M; 2014 $361M; 2015 $816M; 2016 $230M; 2017 $273M; 2018 $714M; 2019* $782M / $1.2B

3 Year CAGR ◄► 4% $ Funding
6 Year CAGR ▲ 24% $ Funding
◄► 1% # of Rounds
▲ 16% # of Rounds

Note: Funding excludes Grant, Debt and Post IPO rounds. Excludes all details for Chinese companies

Source:
LegalTech Report 2019
by Tracxn - a market intelligence platform

Funding in lawtech and Regtech by month, 2018 (to Nov. 18)

Legend: — Legal — RegTech

Legal: Jan $69,525,079; Feb $187,844,854; Mar $169,131,875; Apr $72,551,000; May $190,434,900; Jun $432,632,014; Jul $733,300,000; Aug $261,375,525; Sep $115,033,461; Oct $78,438,586; Nov $32,350,000

RegTech: Feb $51,120,000; Mar $31,050,000; Apr $175,786,463; May $4,200,000; Jun $177,665,000; Jul $158,267,129; Aug $320,173,464; Sep $680,803,055; Oct $566,101,037; Nov $239,029,270

Source: Legalpioneer -
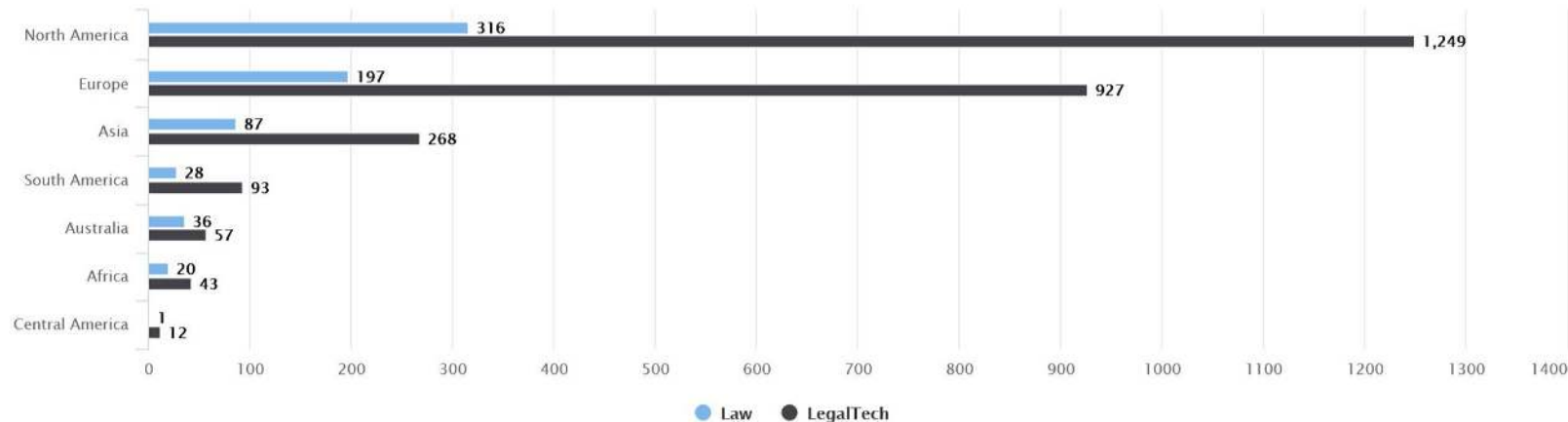Legalcomplex.com/data

Lawtech business creation

The growth of the lawtech sector is intrinsically tied to the amount of investment businesses receive. Although funding reached record levels between 2016 and 2017, a decrease in investment globally has left lawtech businesses unable to scale and fulfil their potential.
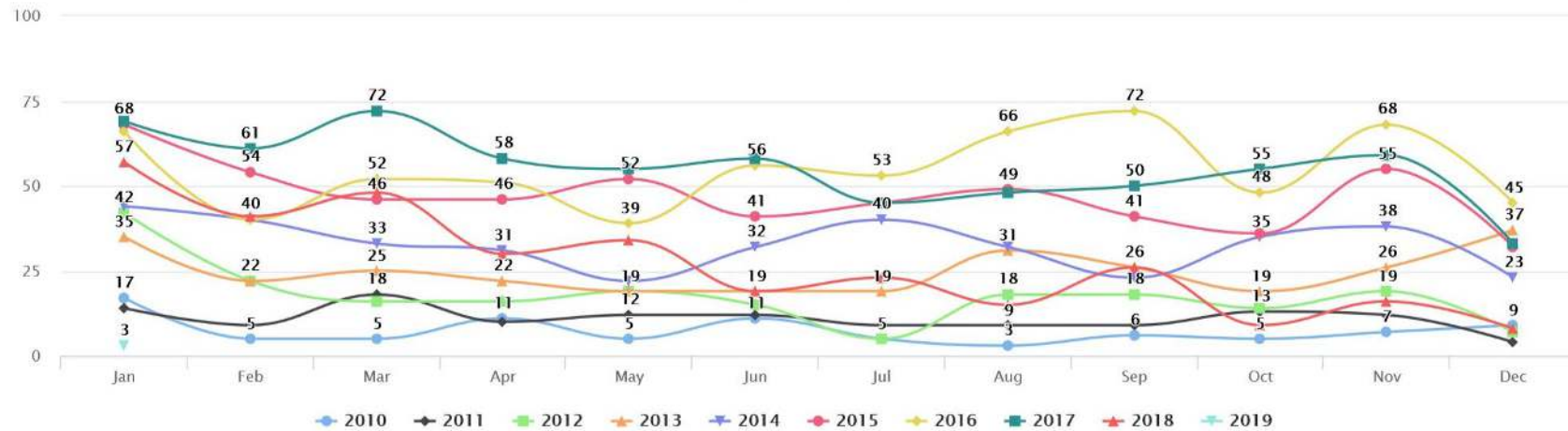
Legal start-ups 2010-2018
start-ups founded by month

Source: Legalpioneer - Legalcomplex.com/data

Legal start-ups per continent
Legal vs lawtech per continent starting 2010

Source: Legalpioneer - Legalcomplex.com/data

Lawtech adoption and comparison to other professional services tech sectors

Lawtech remains less mature than other fields of digital disruption, most notably Fintech, where funding and regulatory alignment are more advanced. Growth areas of lawtech include: legal analytics; legal project management; governance and compliance; and contract management. More established areas include: collaboration tools; document management; IP management; and e-billing.

Types of lawtech adoption across market segments
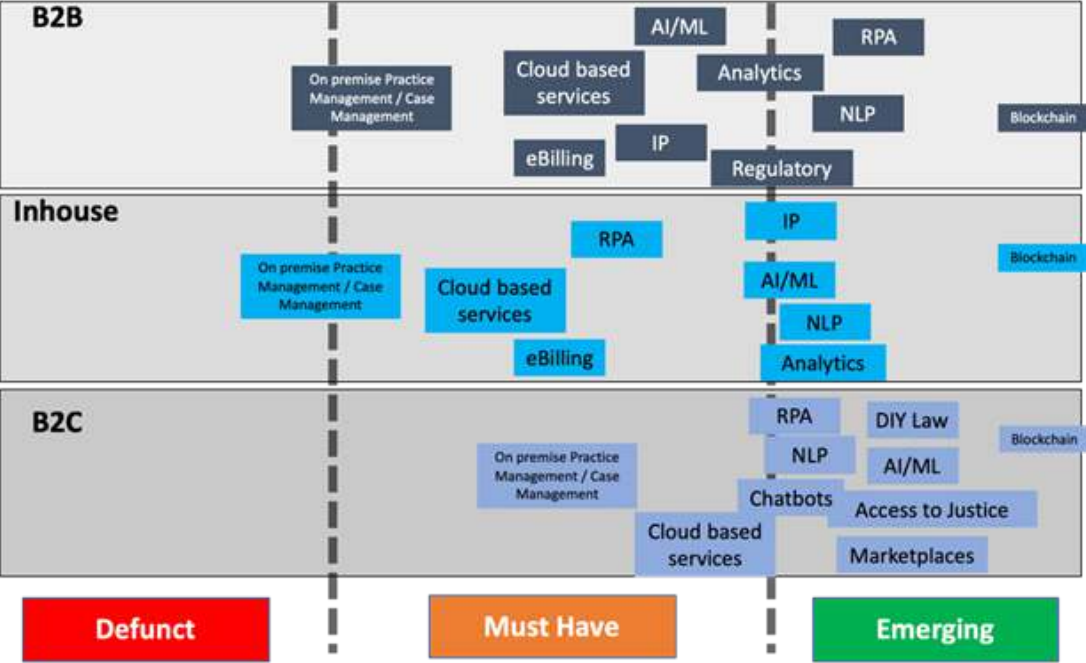
Summary of market maturity across tech areas

	Lawtech	Fintech	Insurtech	Regtech
Size of ecosystem and start-ups	Lots of companies ripe for consolidation	Well established and thriving UK cluster. Global centre of expertise	Very active market driven by UK's large insurance sector	Thriving community of established providers of regulatory solutions and start-ups
Funding environment	2018 most active year to date but embryonic	Extremely well-funded with high-quality companies	Has become very active in the past 12 months	Remains niche for start-ups
Current level of disruption	Mostly focused on delivering efficiencies. Few genuinely disruptive approaches to the law	Different operating models that are tech enabled. New consumer and corporate services	Some completely new insurance products, but most are more about the technology than new business models	Streamlining and creating efficiencies
Regulatory environment	Some disconnect between regulations and technology	FCA a driving force for adoption	FCA a driving force for adoption	GDPR, KYC, AML all driving adoption
B2C adoption	Embryonic market although one with large potential customer base	Many providers gaining traction and crossing over into mass market	Supply of new solutions is increasing but market still wedded to traditional providers	Not applicable
B2B adoption	Gaining traction in large law firms but adoption within firms still inconsistent	Active market but with fintechs often still finding it hard to engage with large FS providers	Insurance companies increasingly investing in digital disruption	Regulatory compliance is one of the main areas of spend for Financial Institutions

Early stage   Maturing   Most mature
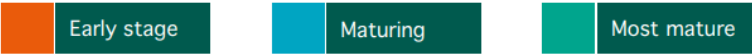
Source: *Lawtech Adoption Report* (Law Society 2019, p.41).

London's draw as a tech hub

London is the leading city for a number of sectors within the tech industry, namely Fintech and e-commerce. Last year, Innovate Finance reported that £1.8bn was invested into UK Fintech start-ups with Transferwise and Oaknorth ranking in the top 20 deals globally.

According to London & Partners, investment in London tech start-ups was twice that of any other European hub in 2017. Last year saw the UK capital receive £2.4bn in tech investment, followed by Paris (£564.97m) and Berlin (£456m) with an estimated 3,000 to 5,000 tech start-ups active in London right now.

The Fintech sector is worth around £7bn to the UK economy and currently employs around 60,000 people, making it high on the priority list when it comes to government investment.

Global investments in lawtech currently stand at $926 million, based on 26 lawtech deals; $355m of this has been invested in legal solutions utilising AI. This AI-focused funding represents a bigger sum than the investment across all lawtech solutions in 2017. By contrast, in 2017, there was only $233m in investments in companies, across 61 deals, with funding of legal AI companies representing a marginal amount of this total.

London's digital tech sector turnover currently sits at £64.1bn in the capital. On average, the rest of the UK has £528m.

Elsewhere in the UK is attracting tech start-ups, for example Southampton and Portsmouth, as well as the 'power path' that connects these two cities to London. Bristol is the UK's most productive local tech ecosystem, producing £320,000 per employee.

Global tech investors are drawn to London for its strengths in developing the latest cutting-edge technologies, with the UK capital topping the European investment charts for funding into fast growing sectors such as AI, cybersecurity and Fintech. The United States is the leading source of venture capital funding into the UK, with American based VCs pumping over £3.5bn into UK tech firms since June 2016.

By measures such as 'start-ups per capita', Britain now beats the United States.

The *Tech Nation 2018 Report* found 3,527 tech meetup groups, with over 1.6m members across the UK. The report also found that London is the second most connected city globally, showing the emphasis on building international connections and partnerships.

One of London's draws has been it's cultural diversity. According to the *Tech Nation Report 2018*, companies outside the capital and Cambridge, which historically have relied less heavily on overseas talent to fill job vacancies, are less concerned about the impacts of Brexit on their talent pipeline. But London is the engine for UK digital tech industries. London-based start-ups have the fourth most international workforce in the world, with only Singapore, Berlin and Chicago having a higher proportion of overseas workers.

London's strength as a tech hub for AI

- With **758 companies**, 645 of which have a London headquarters, London has an AI supplier base that is double the size of those in Paris and Berlin combined. London has stronger global positions in AI in its leading industries, especially finance, insurance, and **law**.

- The rate of new **AI supplier formation in London is 42% per annum**, significantly faster than the global rate of 24% per annum.

- **London's skilled talent pool** provides the capital's AI suppliers and their customers with a pipeline of technical and entrepreneurial talent.

- **Investment in London's AI sector is growing**. It exceeded £200m in 2017, an increase of over 50% on 2016 levels.

- London ranks close to the San Francisco Bay Area in three specialist markets for AI suppliers: insurance (88% the size of the Bay Area), **legal (70%)**, and education (48%).

London's AI Ecosystem

Number of AI Suppliers	758 of which 645 have a London HQ
Example AI Suppliers	Iponweb, BenevolentAI, Improbable, Onfido, MiQ
AI Sector Strengths	Education, Finance, Healthcare, Insurance, Law, Media & Entertainment, Retail, Sales & Marketing
Demand for AI in London	Demand for AI in London is broad and interest is rising; Adoption is in its early days but expected to grow rapidly; AI will be transformational in London's leading industries
13 London universities offer AI, machine learning & related undergraduate and postgraduate degrees	University College London, Imperial College London, King's College London, Brunel University London, Queen Mary University of London, University of Greenwich, Goldsmiths University of London, Kingston University London, London South Bank University, University of East London, Royal Holloway University of London, City University of London, Birkbeck University of London
AI Policy Stakeholders	The Alan Turing Institute, The Ada Lovelace Institute, The Royal Society, Nesta, EPSRC, Innovation Research Centres, Tech Nation, Innovate UK, The RSA, House of Lords AI Committee, CBI, British Computer Society
Long Term Institutional Support for AI	£950m AI Sector Deal; £9m Centre for Data Ethics and Innovation; Government Office for Artificial Intelligence; AI and Data Grand Challenge to transform healthcare; Action plan to unlock £20bn of "patient capital" over the next 10 years

The spread of AI lawtech by solution subcategory

The figure shows a greater number of solutions targeting eDiscovery and legal research, both well established now within the lawtech sector and exploiting advanced search and synthesis capabilities.

Contract management is ripe for explosion in terms of legal services market interest (especially B2B and in-house) and as an attractive investment.

Increasingly we will see these individual columns merge as start-ups work together to offer blended solutions, further pushing what tech can achieve in the law space.

Jurisdictional analysis – nearest competitors

This comparative analysis is based on the following three indexes – [Ease of Doing Business Index](), [World Justice Partnership Ranking on the Rule of Law](), **and data on the growth of lawtech**. It shows that although the UK leads in some aspects it is lagging in others and overall the gap between the UK and the competitor nations is not large, meaning that in order to, as a minimum , retain our position we are likely to need to invest, and more so if we aim to seek to improve competitive edge. Data was obtained from open sources updated in 2019 on the Ease of Doing Business and World Justice Project, hyperlinked above. Green, amber and red denote the attractivity of the jurisdictions.

Ease of doing business

THE WORLD BANK
IBRD · IDA

World Justice Project
Rule of Law Index®
2015

Legal Efficiency

UK
9

11 — Global Of 113
9 — Regional Of 24

Singapore
2

13 — Global Of 113
3 — Regional Of 15

Hong Kong
4

16 — Global Of 113
5 — Regional Of 15

Netherlands
36

5 — Global Of 113
5 — Regional Of 24

Out of 190
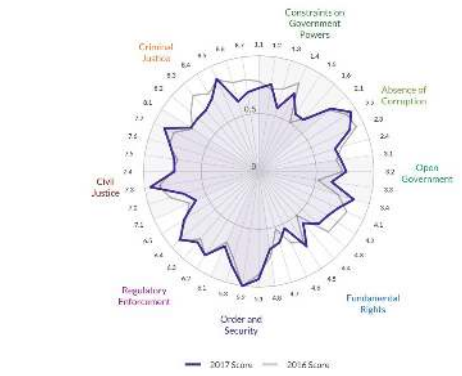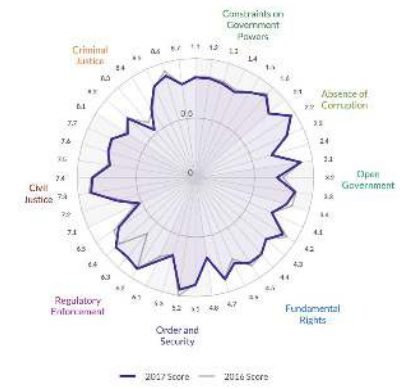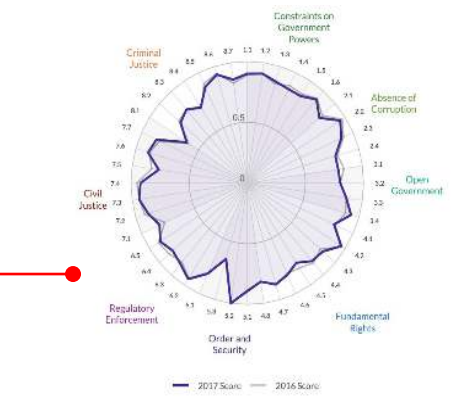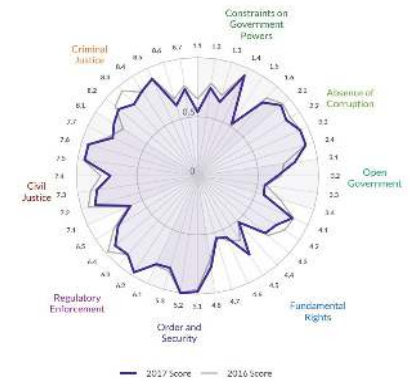
Geographical distribution of lawtech start-ups
Jan 2010 – Dec 2018

Startups
2,417
# of private companies

Raised
$9,283,441,129
$ funds inc. ICO

Market
1 SELECTED LOCK   ALL
LEGALTECH   2.4k
RISKTECH   1.1k
FINTECH   930
LAW   657
WEALTHTECH   609

Date   2.4K SELECTED
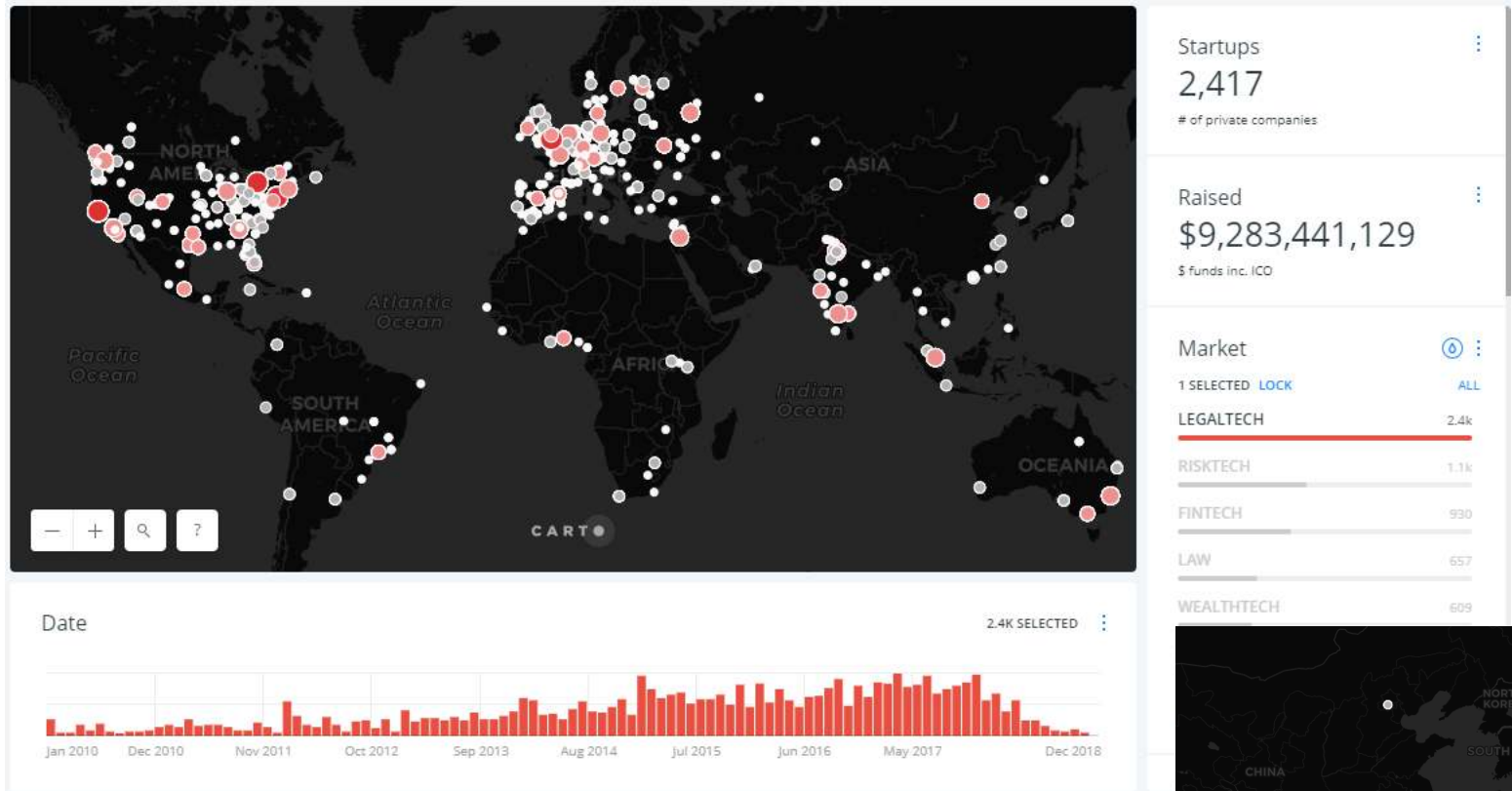
Source: Legalpioneer - Legalcomplex.com/data
(snapshot at Dec 2018)

China: 19 start-ups, raised $307,692,904

The image, left, is a screenshot of lawtech start-ups taken from an interactive map. The map changes based around user selection of tech sector, whether the start-up has AI or not and whether the start-up has blockchain or not. It is also possible to filter by specific country or city.
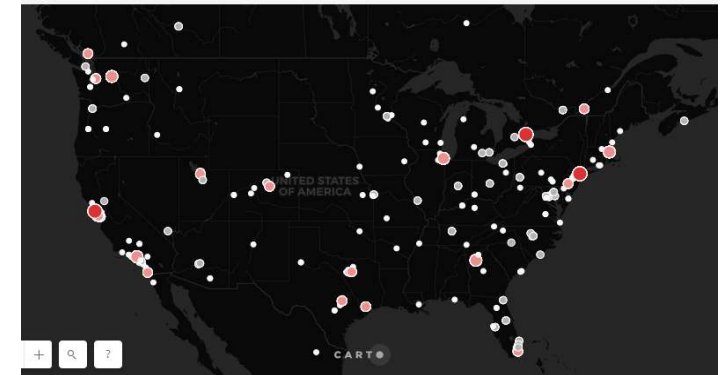
North America: 1,149 start-ups, raised $3,566,430,820

Europe and edges: 834 start-ups, raised $1,008,352,977

Singapore: Lawtech Landscape

The tech and law relationship begin in 1990 when the Singapore Academy of Law (SAL) launched its LawNet database, technology courts and electronic filing systems.

2017: SAL published its Legal Technology Vision, a five-year roadmap to help the legal industry leverage technology to enhance their practice. It is also a call to action for lawtech providers to engage in public-private collaboration for the building of a lawtech ecosystem.

2018: SAL formally launched its Future Law Innovation Programme (FLIP), a two-year pilot that forms part of a wider bid for Singapore to become the tech hub of Asia.

FLIP was launched in partnership with the Infocomm Media Development Agency (IMDA) and Singapore Management University.

Three broad purposes:

1. Overarching road map for legal sector in Singapore

2. Call to action for legal technology providers to public-private collaboration

3. Reassurance that assistance will be provided to any and all who are willing to change
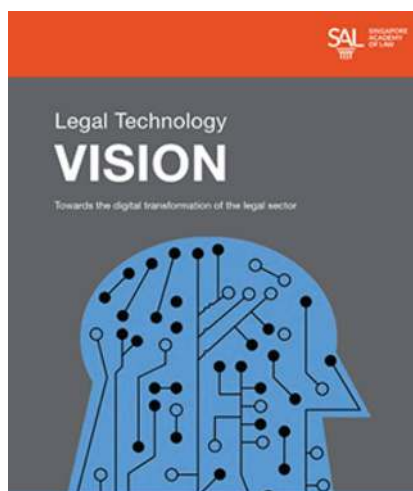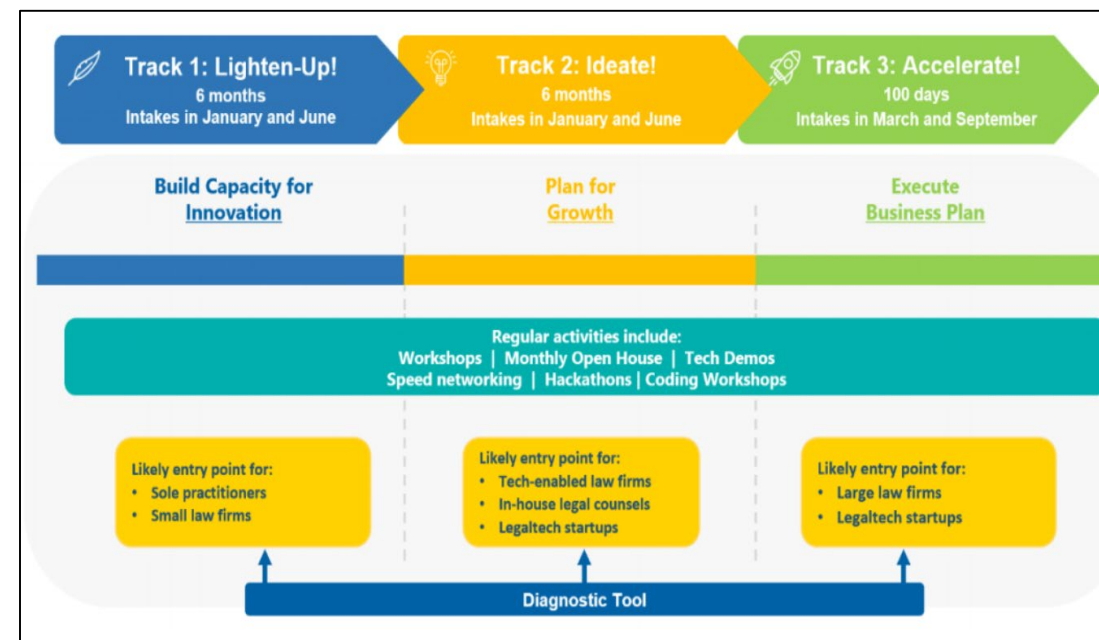

- [(Image obtained from the FLIP Programme Pack)](#)
- SAL's academic partner for issues relating to legal innovation/the future business of law.
- Collaborate with FLIP on student and curriculum development, thought leadership, case studies and research.
- In addition, SMU School of Law explore the possibility of curating modular executive education programmes to support leadership and/or legal innovation for FLIP participants.

The Vision was developed following extensive consultation with lawyers, judges, regulators and industry experts, and presents a multi-stakeholder vision for the industry to be at the forefront of delivering legal services in the digital economy, and for the growth of a vibrant lawtech scene in Singapore.

According to Lawtech HK and the Law & Technology Centre and the University of Hong Kong, the Hong Kong government's recognition of lawtech accelerated the development of the lawtech sector and economy as a whole. Both the Investment Agreement and Economic Technical Cooperation Agreement ratified in 2017 support further liberalisation of Hong Kong Service Industries in Pilot Free Trade Zones.
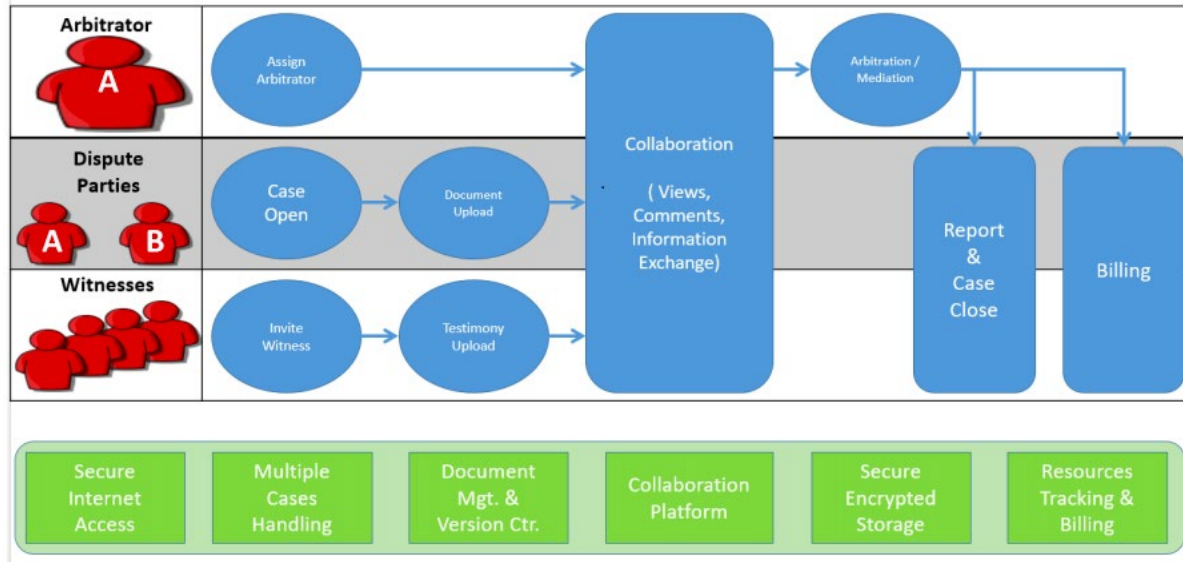
Private sector stakeholders in Hong Kong, including the Law Society, are already actively exploring the creation of an e-platform known as the eBRAM (Belt and Road Arbitration and Mediation Centre) to facilitate the conclusion of transactions as well as dispute resolution.

Lawtech is also becoming increasingly important. Hong Kong positions itself as the region's legal and dispute-resolution services hub and has been consistently rated as the one of the most preferred seats of arbitration outside Europe.

The Law & Technology Centre (Lawtech Centre), established in 2001, is a joint Centre of the Faculty of Law and the Department of Computer Science at The University of Hong Kong. The centre will promote and support the rule of law in Hong Kong, and be committed to serving the community by making legal information available on the Internet with free access given to the public. The government will fulfil its role as an enable through several organizations;

1. The Hong Kong Legal Information Institute

2. The Community Legal Information Centre, subdivided in Family CLIC, Youth CLIC and Senior CLIC.

3. Creative Commons

The DOJ, the Law Society and universities have created a concurrent event, the InnoTech Law Hackathon: Belt & Road Justice Challenge, which is organised by the Innotech Committee under the Law Society. The event will focus on how technology can enhance access to justice in Belt and Road jurisdictions is being sponsored by;

Netherlands: Lawtech Landscape

The Netherlands is recognised by the Global Innovation Index as the second most innovative country on the world. According to the Index, its unparalleled connectivity and supportive start-up ecosystem has made it an emerging jurisdiction for lawtech, specifically Online Legal Services and Document Assembly, Research & Analysis, IP/Trademark services, and lawtech consultancy.

The Dutch Government and start-ups have seen an increase lawtech businesses creation and scaling as a result of the following:

1. Belgian and Dutch social impact funds, like Social Finance NL, Social Impact Ventures and Dutch Social Impact have invested in several projects to increase the rule of law. (Investing in Global Prospects, For the World, For the Netherlands, Ministry of Foreign Affairs, 2018). In addition, the Dutch government have granted social impact funding to businesses seeking to modernise land rights through the creation of land registries, i.e. Netherlands Land Academy and the Land Dialogue.

2. The creation of Dutch Legal Tech, an initiative to drive national lawtech strategy through engagement with stakeholders.

3. Case law and legislation being increasingly made available and searchable online.

NEDERLANDSE ORDE VAN ADVOCATEN

The Netherlands Bar Association has established a special committee to review rules of conduct in relation to lawtech, alongside The Hague Institute for Innovation of Law which has advised the committee and created programmes to ensure justice is universally accessible. (Artificial Lawyer, https://www.artificiallawyer.com/2016/10/27/a-rising-legal-tech-star-holland/)

Uitelkaar's process map and fee structure

Dutch Legal Tech is a platform for Legal Innovation directed at entrepreneurs, lawyers, lawyers, financiers, academics and. Supported by the General Counsel Netherlands (GCN), a professional network of members managing more than 3,000 in-house counsel, is currently forming a think tank to engage better with lawtech and help start-ups take the next step.
https://www.dutchlegaltech.nl/

Justice42 is an online platform enabling people to work together to resolve their legal disputes, with the help from experts if needed. It is the founder of the Netherlands' ODR divorce system, *nitelkaar.nl*. It was based on the initial Rechtwijzer project, which was the first project providing legal advice on online dispute resolution in the Netherlands.
https://justice42.com/?lang=en

Uitelkaar's Process map:

1. Registering Your Plan:
Starts the online divorce proceedings by allowing the user to select a plan which suits their situation, i.e. if you have minor children and are married you will need an additional parenting plan. There are different payment schemes depending on the needs of the user.

2. Answering Intake Questions:
After registering for a plan you will be asked intake questions which provides an indication of needs from both partners.

3. Working on Appointments Together:
After answering the intake questions, the user is presented with suggested texts, which the user can adjust. The users are given a case manager to answer questions. If both users can not agree on a final agreement, additional specialist advice is provided.

4. Checked by Case Manager, Reviewed by a Lawyer:
Once the divorce plan, and other plans selected in step one, are finalised, the case manager completes an initial review. Then an independent divorce lawyer does a review to ensure the agreements are fair and complete.

5. Plan Completion:
Following a few adjustments, the agreements are finalised. The legal specialist completes it at court.

The UK

Private companies
269
impacting the legal industry

Raised
$555,716,741
Capital + Coin

Market
1 BLOCKED UNLOCK

LEGALTECH   269

SEARCH IN 8 CATEGORIES

Contracts
ALL SELECTED

FALSE   201

TRUE   68

Date   269 SELECTED

Q1 2010 Q1 2011 Q1 2012 Q1 2013 Q1 2014 Q1 2015 Q1 2016 Q1 2017 Q1 2018 Q1 2019 Q1 2020

Singapore
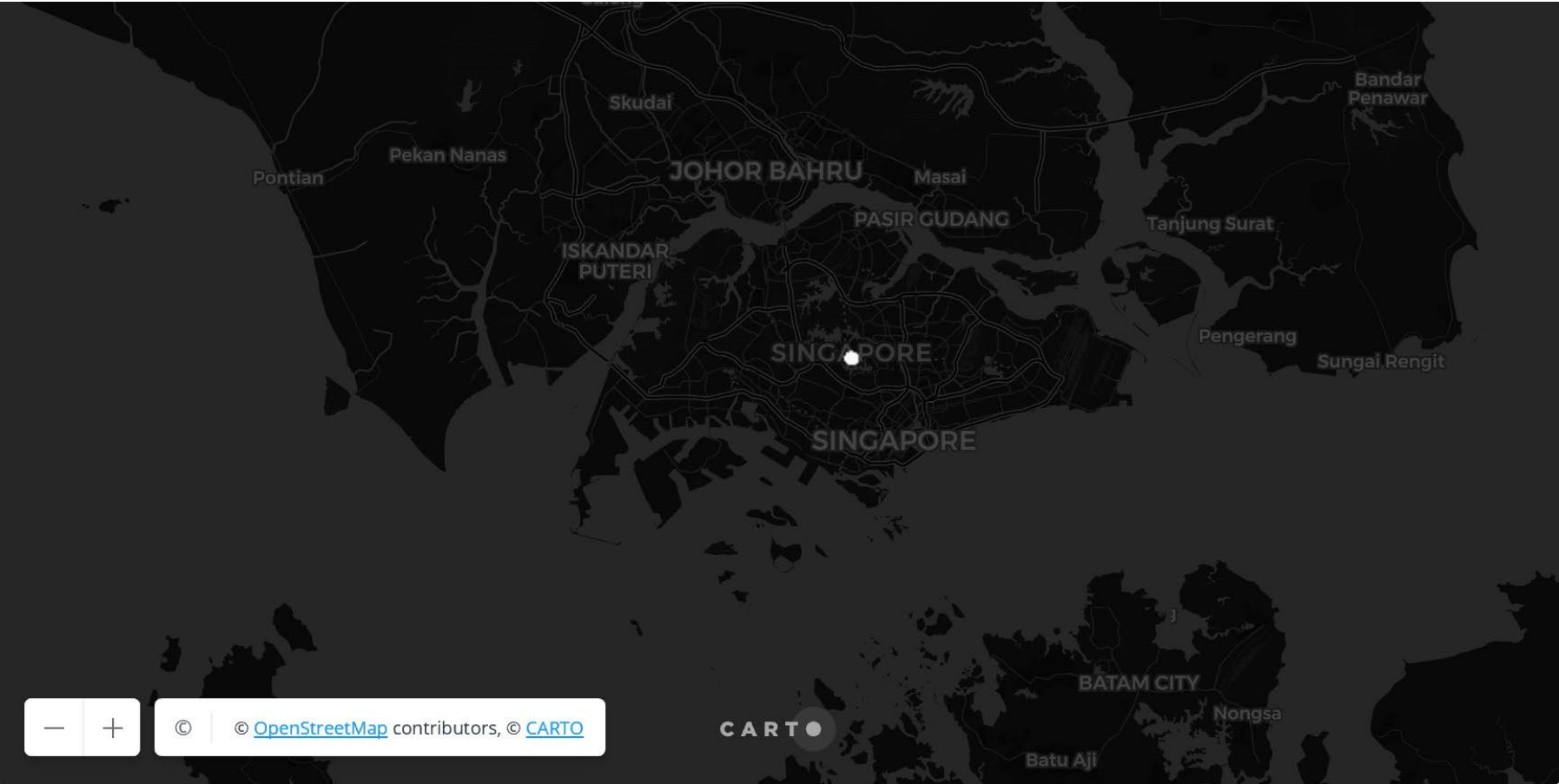
Private companies

42

impacting the legal industry

Raised

$237,416,307

Capital + Coin

Market

1 BLOCKED UNLOCK

LEGALTECH   42

🔍 **SEARCH IN 8 CATEGORIES**

Contracts

ALL SELECTED

FALSE   28

TRUE   14

Date   42 SELECTED

Q1 2010   Q1 2011   Q1 2012   Q1 2013   Q1 2014   Q1 2015   Q1 2016   Q1 2017   Q1 2018   Q1 2019   Q1 2020

Hong Kong
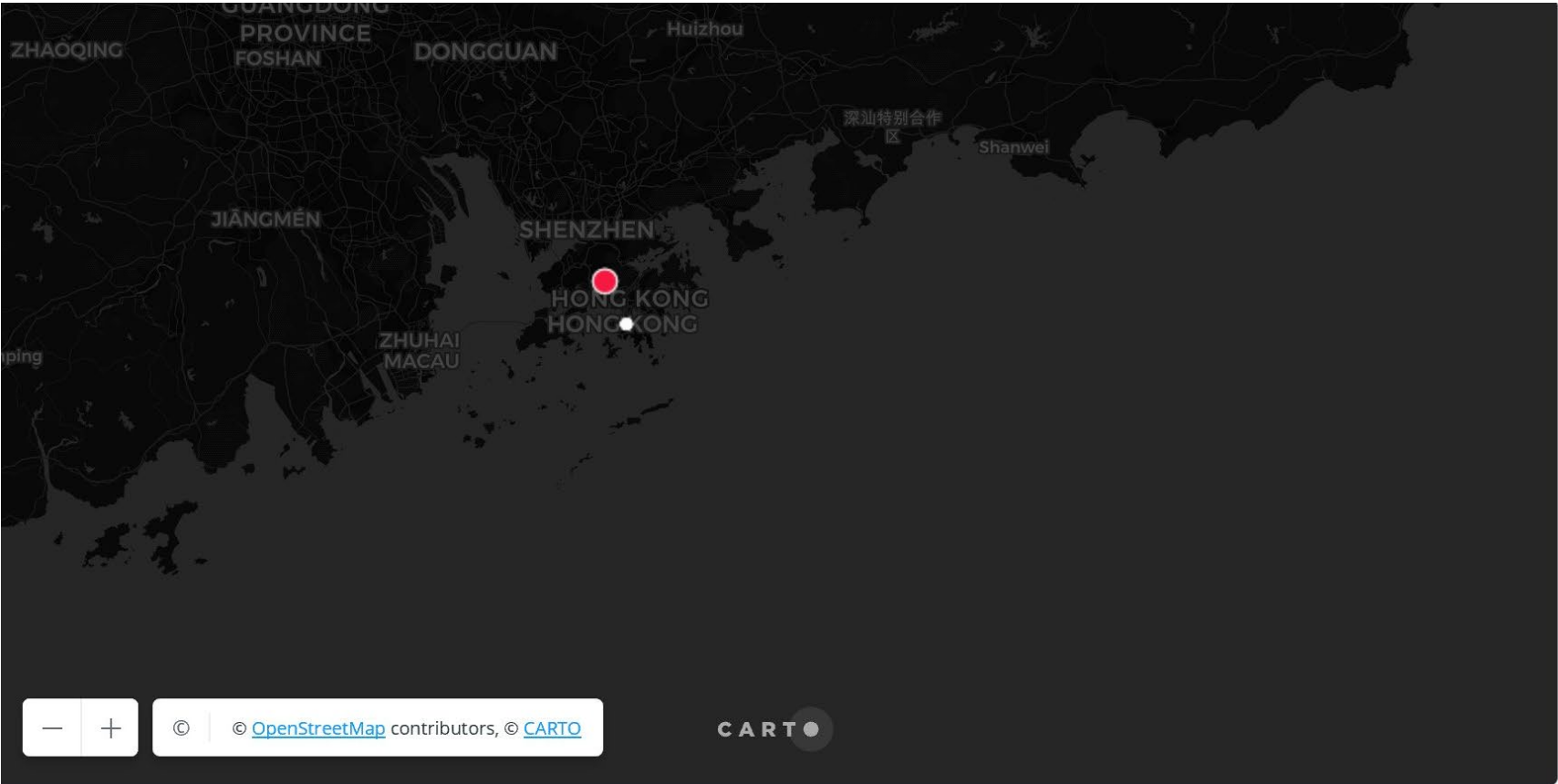
Private companies

6

impacting the legal industry

Raised

$4,021,776,392

Capital + Coin

Market

1 BLOCKED UNLOCK

LEGALTECH   6

🔍 SEARCH IN 8 CATEGORIES

Contracts

ALL SELECTED

FALSE   4

TRUE   2

Date   6 SELECTED

Q1 2010 Q1 2011 Q1 2012 Q1 2013 Q1 2014 Q1 2015 Q1 2016 Q1 2017 Q1 2018 Q1 2019 Q1 2020

The Netherlands
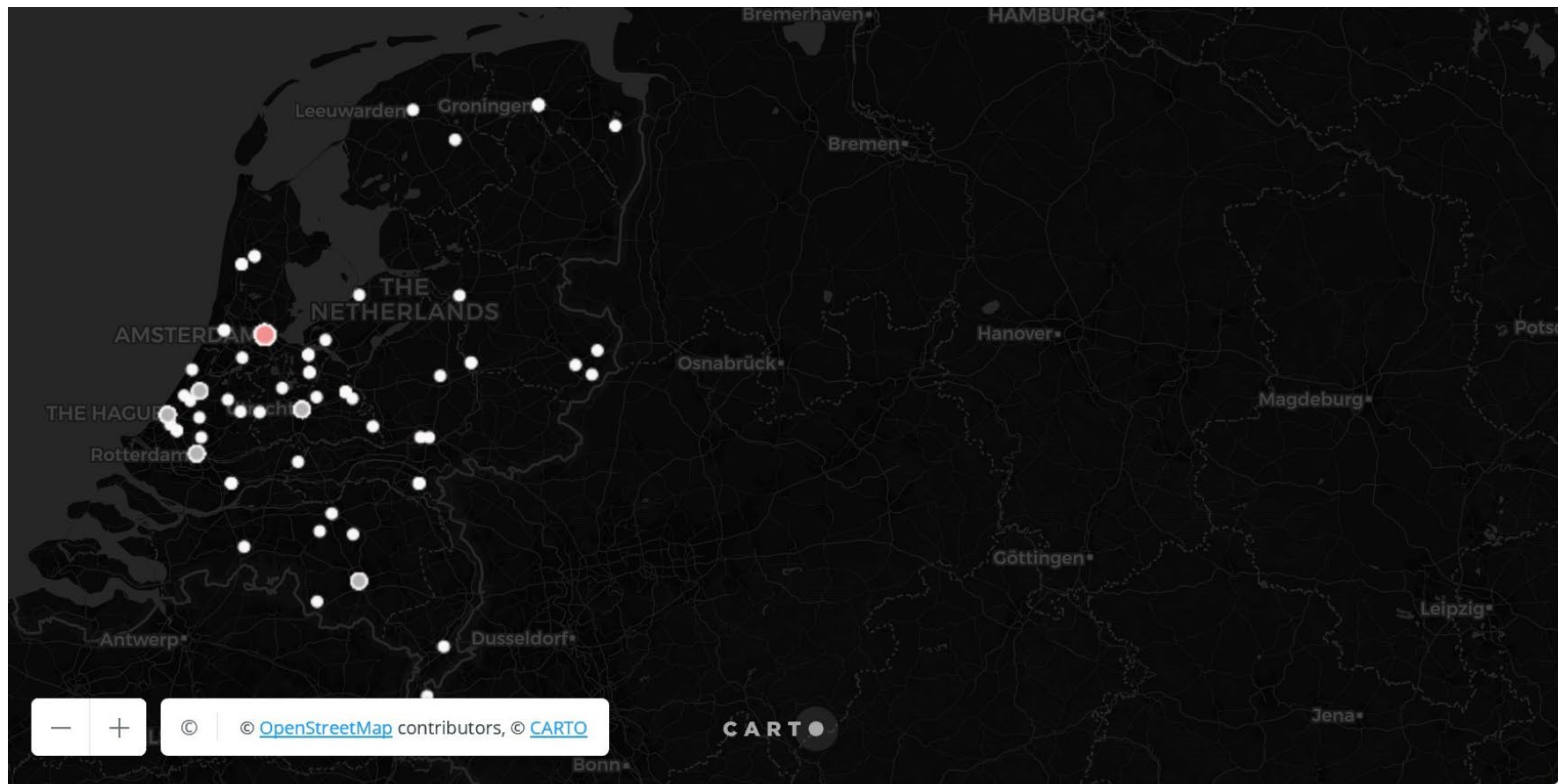
Private companies

317

impacting the legal industry

Raised

$482,020,511

Capital + Coin

🔍 Search by market

1 SELECTED

☑ LEGALTECH	3.1k
☐ RISKTECH	1.8k
☐ FINTECH	1.4k
☐ LAW	727
☐ WEALTHTECH	707

CANCEL

Date   317 SELECTED

Q1 2010 Q1 2011 Q1 2012 Q1 2013 Q1 2014 Q1 2015 Q1 2016 Q1 2017 Q1 2018 Q1 2019 Q1 2020

Contracts

There are 10 emerging lawtech scenes. London is one but we are not alone

Toronto
Birthplace of ROSS and Kira systems. Some 41 lawtech businesses are based here (inc. Codify; Founded; Blakes Nitro; Flatlaw.ca)

Belfast
Hosts major operation centres for iManage and Axiom. Home to A&O's Legal Services Centre (employing lawyers and scientists); also HSF's Alternative Legal Services Hub and Belfast University has an Innovation Centre with a lawtech arm.

London
London is a proven launchpad for AI in law. Luminance and RAVN are based here. Prominent law firms have engaged with tech start-ups, especially via their own incubators, Legal Geek network and the Law Society's Eagle Labs partnership with Barclays. Legal Geek and Thomson Reuters pegged investment in the UK lawtech industry at £16m in 2017. In 2019 the government announced an investment of over £2m to support new and emerging technologies in the legal sector

Hong Kong
Nascent scene, but robust Legal Hackers community. Hosted a Global Legal Hackathon, also a two-day access-to-justice hackathon, and the Hong Kong Computational Law and Blockchain Festival. Emerging companies include: Decoding Law and Zegal. US companies Epiq and Relativity have stared operations here.

San Francisco
Houses much of the US tech scene. Stanford University's Codex brings together lawyers and technologists. Tech Accelerator, Ycombinator is active here. Growing companies inc: Casetext; Logikcull; ROSS; Lex Machina

Madrid
The city's IE Law School runs a course in lawtech and start-ups, partnering with global universities. Institute Innovacion Legal focus on new lawtech. Law Firm, Garrigues has an Innovation Think Tank where staff can explore tech ideas.

Singapore
The tech and law relationship begin in 1990 when the Singapore Academy of Law (SAL) launched its LawNet database. SAL released its lawtech innovation roadmap in 2017. Tech features heavily in the Singapore Chambers and Courts. LawGuideSingapore is a chatbot, launched on Facebook, to provide legal advice.

Atlanta
Most associated with cybersecurity and data protection. Firm, Baker Donelson has hosted a CyberCon and Cyberweek and has an accelerator for cybersecurity companies (e.g. WitFoo, Gyomo)

Tel Aviv
Hosted its first major annual LawTechnology conference in 2017. Homegrown companies include LawGeex; Bavli; Autorni; Paralegal; and cybersecurity group, Cybint. Highest concentration of hi-tech companies in the world.

Kuala Lumpur
The city hosts LexTech a lawtechnology conference aimed at SE Asian practitioners, and has its own chapter of Legal Hackers. Homegrown companies include: BurgieLaw; CanLaw; EasyLaw and LocumLegalis.