Innovate UK

Innovate UK Global Expert Mission Report

A Close Look at Insurtech in the United States

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PUBLIC

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1. Executive Summary

In March 2023, an Innovate UK Global Expert Mission (GEM) visited New York City to gain insight into the insurance sector in the United States and explore bilateral collaboration opportunities between the US and the UK. As part of the five-day mission, the UK team, which included leadership from Innovate UK, private companies, professional organisations, and academia, met with US insurance industry stakeholders.

Insurtech, a portmanteau of "insurance" and "technology," is the use of technology innovations to improve insurance practices, processes, and overall experiences in the insurance marketplace and beyond. It's a relatively new term that has evolved in the last decade. So new, in fact, that there isn't a global consensus on how it's spelled; variations include "InsurTech," "insuretech," and what appears to be the more common "insurtech."

But nomenclature aside, insurtech has enabled incumbent insurance organisations to become more efficient and innovative and facilitated new entrants that are attempting to disrupt the market. Insurtech innovations range from improving and redesigning existing individual insurance processes such as risk assessment, pricing and claims management to the development of novel business models.

In 2022, the global insurance market size was valued at $8.4 billion, according to the CB Insights State of Insurtech 2022 Report.[1]

The US and the UK are among the largest insurance markets; today, there are close to 3,000 global insurance firms — more than 1,000 are based in the US, and close to 300 are based in the UK.

This report is a product of the March 2023 mission and presents an overview of the market in both countries, including a deep dive into the insurtech innovation landscape, its players, regulatory similarities and differences, initiatives, and collaborative opportunities and barriers.

According to a member of the Innovate UK leadership team, *"What Innovate UK is trying to achieve on this mission is to understand what the opportunities are and what's the best path into and across the US."* This would not only help understand the most effective approach for entry and expansion but also help develop a pathway towards a strategic roadmap that drives innovation, collaboration, and achievement in the US insurtech ecosystem.

This mission highlighted several efforts and initiatives that could be taken to enhance the innovation landscape and develop collaborative efforts between the two countries. Based on expert insight from the GEM, recommendations are as follows:

- ✓ Given the economic value of geographic clustering, agencies and organisations such as Innovate UK and Insurtech could help the UK develop a powerful regional alliance. This alliance, comprising insurance companies, government, professional and trade bodies, regulators, insurance firms, and universities, would be effective in London and other UK cities
- ✓ There is an opportunity to introduce government-supported evergreen venture capital funds to help start-ups and encourage innovation.
- ✓ UK universities could develop market-focused university programmes designed to develop insurtech knowledge and skills and offer relevant internships and other hands-on opportunities as part of those programmes.
- ✓ UK universities, professional insurance organisations, and insurance companies could collaborate to develop joint executive programs and postgraduate courses to improve the supply of insurance management and graduates into the industry. An essential aspect of this approach would be the development of mutually beneficial projects to address current operational problems and strategic opportunities such as AI strategy development as well as evaluation of insurtech and implementation models of digital transformation.
- ✓ Agencies like the UK Department for Business and Trade (DBT) could build on the InsurTech Corridor arrangement between the UK and Connecticut and help develop additional corridors that drive bilateral collaborations between the US and the UK.
- ✓ Similarly, the DBT and Innovate UK could follow on this GEM with a Global Business Innovation Programme (GBIP), building on the InsurTech UK/CT corridor to take UK Insurtechs wanting to expand into the US to Connecticut and potentially other insurtech clusters in the US.

1. CB Insights State of Insurtech 2022 Report

2. Acronyms

Below is a list of acronyms used throughout the report:

AI	Artificial Intelligence
API	Application Programming Interface
B2B	Business to Business
B2C	Business to Consumer
CAGR	Compound Annual Growth Rate
CFTC	Commodity Futures Trading Commission
CII	Chartered Insurance Institute
DBT	Department for Business and Trade
DSIT	Department for Science, Innovation and Technology
EIOPA	European Insurance and Occupational Pensions Authority
EIS	Enterprise Investment Scheme
FCA	Financial Conduct Authority
FCDO	Foreign, Commonwealth and Development Office
GBIP	Global Business Innovation Programme
GDPR	General Data Protection Regulation
GEM	Global Expert Mission
HMRC	His Majesty's Revenue and Customs
ICO	Information Commissioner's Office
IoT	Internet of Things
KIC	Knowledge Intensive Company
MGA	Managing General Agent
ML	Machine Learning
MVP	Minimum Viable Product
NAIC	National Association of Insurance Commissioners
PRA	Prudential Regulation Authority
RPA	Robotic Process Automation
SBIR	Small Business Innovation Research
SME	Small and Midsize Enterprise
STTR	Small Business Technology Transfer
UKFAN	UK FinTech Academic Network
UKRI	UK Research and Innovation
VC	Venture Capital

3. Introduction

3.1 Innovate UK, Innovate UK KTN, and the Global Expert Missions

Innovate UK supports business-led innovation and is part of UK Research and Innovation (UKRI). UKRI convenes, catalyses, and invests in close collaboration with others to build a thriving, inclusive research and innovation system. To this end, Innovate UK helps businesses identify the commercial potential of new technologies and turn them into new products and services that will generate economic growth and increase productivity. With a strong business focus, Innovate UK drives growth by working with companies to de-risk, enable and support innovation.

As innovation is increasingly a global endeavour and the ambition of UK businesses to become truly international enterprises is at its highest, Innovate UK established its GEM programme in 2017. Delivered by Innovate UK KTN, in partnership with the Foreign, Commonwealth and Development Office (FCDO) Science and Innovation Network (SIN), GEMs help further Innovate UK's global strategy by providing the evidence base for where it should invest and by providing the opportunities for UK businesses to build partnerships and collaborations with key economies.

3.2 Mission Overview and Objectives

Hartford, Connecticut, is a city with a rich history in the insurance industry, dating back to the 19th century. It is home to some of the largest insurance companies in the world, including Aetna, The Hartford, and Travelers. In recent years, Hartford has become a hub for insurtech, attracting start-ups and established companies looking to innovate in the insurance sector.

The global insurance industry has had considerable growth and investment in the US, reflecting the growing demand for digital solutions in the insurance industry as consumers increasingly look for personalised and convenient insurance products.

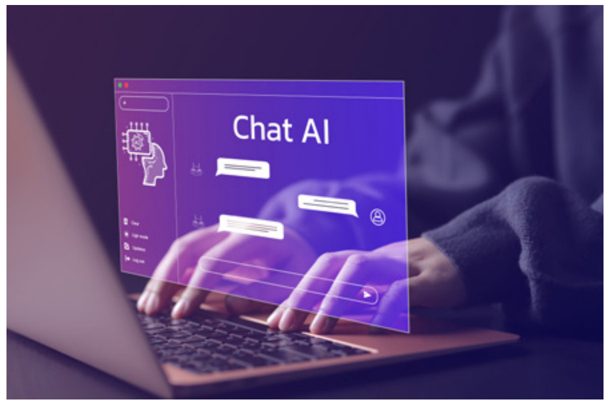
Similarly, the industry is undergoing a growth period in the UK, with London being the leading insurance hub in Europe. According to Tech Nation, a UK-based trade association for digital and insurtech start-ups, in 2020, UK insurance companies received total investments amounting to $361 million, a rise of more than 60 percent from 2019.[2]

Given the growth and potential of these two markets, in March 2022, the UK government signed an agreement with Connecticut Insurance and Financial Services, the MetroHartford Alliance, the Connecticut Insurance Department, and Insurtech UK to drive collaboration between the US and UK as well as help remove barriers for US and UK insurance companies looking to expand into these respective foreign markets.

In March 2023, Innovate UK and Innovate UK KTN delivered an in-person Global Expert Mission (GEM) to New York where a group of UK experts met private and public sector organisations to better understand the innovation landscape and help benchmark against UK capability.

The primary outcome of the GEM was to provide evidence to underpin private/public support for innovation in the UK and to explore opportunities for the UK to collaborate with the best US organisations and companies.

The GEM aimed to provide a greater understanding of the US Insurtech funding landscape, innovation areas and where there are key innovation and technology gaps. It also aimed to establish key areas where the UK and the US could collaborate around Insurtech.



2. Thirty UK insurtech companies to watch out for in 2021

The overarching Global Expert Mission objectives were:

- To help determine how Innovate UK can best support UK businesses more effectively and efficiently when considering innovation partnerships with the US.
- To provide insights into where there are synergies between the two countries in insurance and insurtech and determine whether there is an appetite for further collaboration.
- To identify and showcase key future market opportunities for innovative products and services to UK businesses that may be interested in collaborating with US organisations.
- To capture key UK R&I and emerging market opportunities/challenges for developing innovative products and services when considering collaboration with the US insurance/insurtech sector.

Sector-specific objectives were:

- To establish connections and collaborate with key organisations in the US insurtech ecosystem.
- To understand insurance and insurtech opportunities between the UK and the US.
- To explore linkages between UK and US insurtech programmes.
- To explore and further understand funding mechanism opportunities for both public and private funding of insurtechs and insurance start-ups.

Built around UK business, policy and research representation, the GEM aims to:

1. Informing UK businesses and government
The findings and opinions of experts on the topic of the GEMs are made available to UK businesses and government departments. These inform UK businesses about potential opportunities for innovation in the country and the UK government on how it can help UK businesses make the most of those opportunities.

2. Building International Collaborations
The expert insights will help inform how Innovate UK can best help UK businesses find and exploit the opportunities for innovation partnerships. The GEM creates connections with key organisations and people that will deepen and widen the collaboration with the partner country to benefit UK business.

3. Sharing UK Capabilities
During the Mission, the delegation of experts will use the opportunity to promote and share the UK's innovation strengths.

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4. Sector Overview

The insurance industry in both the UK and the US is a highly complex and regulated ecosystem with a constellation of players serving varied markets across different insurance sectors. As a result, a diverse set of tools and technologies exists to help manage and deliver the service. This diversity, however, makes it difficult to view the sector as a single ecosystem; instead, it's perhaps best to view it as a set of multiple sectors.

While most companies work in the primary sectors of insurance—Life, Health, Property & Casualty (P&C), Annuity, Reinsurance, and long-term care; the last decade has seen the emergence of other important market segments focussed on cyber liability, event cancellation, travel, and pet insurance.

Today, the global insurance market is worth trillions of dollars, with the US leading the world in market size: In 2021, the US insurance market was valued at $1.4 trillion worth of net premiums.

Market size:

The large US population and economy result in a substantial insurance market with significant growth potential for insurance companies, leading to higher valuations. The US leads the ranking in premium volume with a total of $2.7 trillion[4] with healthcare being one of the largest segments of the US insurance market.

It's worth noting that when it comes to healthcare, the US and the UK have vastly different health insurance systems. In the UK, healthcare is largely provided by the National Health Service (NHS), a publicly funded healthcare system that provides a wide range of health services, free at the point of use for UK residents. Because of this, the private health insurance market in the UK tends to be supplementary.

People usually take out private health insurance to get faster access to treatment, to access private facilities, or to cover services that are not provided by the NHS.

In contrast, the US has a predominantly private health insurance system, with public health insurance (Medicaid[5] and Medicare[6]) mainly covering specific demographic groups like low-income individuals and seniors. This means the market for health insurance is much larger and more complex in the US, with more potential areas for insurance innovation. This can include things like streamlining the claims process, telemedicine, personalised premiums based on health data, and other digital solutions.

Life/annuity insurers and P&C account for a major percentage of those premiums.

Given its weight in the insurance industry, the US is also home to several of the world's largest insurance companies, including Prudential Financial, Berkshire Hathaway, and MetLife.

Although it's hard to truly understand the reasons behind higher US valuations compared to other large markets, such as the UK, the following factors play some part in it:

However, to assess the influence and importance of insurance in each country's economy, it's essential to consider the industry's representation in relation to a country's GDP. For example, although insurance makes up 11.8 percent of the US GDP, in markets with lower premium volume, such as Great Britain ($399 billion), the industry's weight in its economy is higher, reaching 12.5 percent[7].

3. A Firm Foundation: How Insurance Supports the Economy
4. Leading life and nonlife direct premium writing countries globally in 2021 by the value of premiums
5. Medicaid
6. Medicare
7. Insurance accounts for more than 7% of the global economy
8. Gallagher Re Global InsurTech Report for Q1 2023
9. ABI: UK Insurance and Long-Term Savings Key Facts, February 2021

Venture capital ecosystem:

The US has a mature venture capital ecosystem with significant access to funding for insurtech start-ups and other promising efforts and initiatives. In fact, based on the recent Gallagher Re Global Insurtech Report[8] for Q1 2023, "Funding for Insurtech increased 37.6% quarter on quarter, from $1.01 billion in Q4 2022 to $1.39 billion in Q1 2023."

Risk appetite:

US investors appear to have an appetite for high-risk investment with a willingness to support insurtech start-ups and early-stage businesses with growth potential.

Comparatively, the UK has the largest insurance industry in Europe and the fourth largest in the world. In 2018, the UK insurance industry contributed roughly $38 billion to the UK economy[9]. Even though the UK insurance market is smaller than that of the US, it plays a significant role globally, particularly in commercial insurance and reinsurance. In fact, the UK is a European leader in price comparison insurance markets for automotive and travel insurance. Some of the largest insurance companies operating in the UK include Aviva, Direct Line Group, AXA, and collectively the Lloyd's Market.

Both the US and the UK have well—developed insurance distribution setups catering to businesses and consumers' diverse needs. These markets offer various channels, including direct sales by insurance companies, tied agents, independent brokers, bancassurance, and affinity and group schemes. This complex system has evolved and continues to adapt to market dynamics, technological advancements, and regulations.

The regulatory environment, however, differs in the two countries. In the US, insurance regulation is largely managed at a state level. However, states typically coordinate their efforts through the National Association of Insurance Commissioners (NAIC)[10], a non-profit trade association governed by chief insurance regulators from the 50 US states, five territories, and the District of Columbia.

Regulatory environment:

While the US' state-based regulatory system can be complex for insurers and other players in the insurance ecosystem, it's this same decentralised setup that helps create opportunities for innovative companies looking to disrupt the market.

GLBA
Gramm-Leach-Bliley Act
Gramm-Leach-Bliley Act COMPLIANT

There is some federal oversight, however, such as the Gramm-Leach-Bliley Financial Modernization Act[11], which sets out certain minimum standards that state insurance laws and regulations are required to meet. Two laws—the Affordable Care Act , which pertained to healthcare coverage, and the Dodd-Frank Wall Street Reform and Consumer Protection Act[12], which impacted regulation and oversight of financial institutions—caused states to adjust some of the existing regulations.

By contrast, the UK government plays a significant role in insurance regulation through the Financial Conduct Authority (FCA)[14], which is responsible for regulating the conduct of insurance companies in the UK, ensuring they treat customers fairly and transparently, and the Prudential Regulation Authority (PRA)[15], responsible for regulating and supervising the financial strength and stability of insurance companies in the UK.

In addition, the UK government also plays a part in shaping insurance policy through legislation—for instance, by introducing new laws or regulations designed to protect consumers, address cyber and other emerging risks, and increase competition in the insurance industry.

10. National Association of Insurance Commissioners
11. Gramm-Leach-Bliley Financial Modernization Act
12. Affordable Care Act
13. Dodd-Frank Wall Street Reform and Consumer Protection Act
14. Financial Conduct Authority
15. Prudential Regulation Authority

4.1 The Rise of Insurtech

Although technology has been part of the insurance landscape for a long time, insurtech—the use of technology to innovate and improve the efficiency of the insurance industry—is a relatively new term, developed in the last decade or so. So new, in fact, that there isn't a global consensus on the spelling of the word, so variations exist such as "InsurTech," "insuretech," and the more commonly used "insurtech." During this time, insurance companies have used various technologies to create new data-driven insurance products, streamline existing product lines and processes, and improve the overall customer experience.

Key technologies in insurtech include AI and ML for automating processes and risk assessment, big data and advanced analytics for personalised services, IoT for real-time data collection, blockchain for transparency and security, mobile and digital platforms for customer engagement, advanced APIs for integration, and RPA–technology that uses software robots or "bots" to automate routine tasks.

According to a 2022 report[16] of the top 100 global insurtechs—produced by Sønr, an insurtech scouting and open innovation platform—AI, ML, big data, and RPA remain the top enablers of innovation for insurtechs. Nearly 40 percent of the "Insurtech 100" use multiple technologies, with 23 percent mainly relying on AI and ML.

Insurers use these technologies to provide data-driven, seamless, personalised insurance options. Usage-based insurance, for instance, uses telematics devices to collect real-time data on driving habits; parametric insurance pays out a predetermined amount to customers based on specific triggers such as flight cancellations or natural disasters; through microinsurance, companies use mobile and digital technology to offer low-cost, small-scale health or property insurance to low-income and other underserved groups, tailoring premiums and payouts to that specific market.

2020 was a record-breaking year for the insurance industry, with global funding at $7.5 billion—up 21 percent from the previous year. It was the highest annual mark for the industry despite the outbreak of COVID-19. In 2022, the global insurtech market size was valued at $8.4 billion[17]. (Still, it appears that the pace of growth might have slowed with no signs of recovery[18].)

At the end of 2019, there were nearly 3,000 global insurtech firms[19]. The US accounts for almost two-fifths of the world's insurtech unicorns- insurance start-ups valued at $1 billion or more- with roughly 11 insurtech startups; the UK is in second place with five[20]. In 2020, UK insurance companies received total investments amounting to $361 million, a rise of more than 60 percent from 2019, as reported by Insurance Business[21]. London is one of the leading insurtech hubs in Europe, with the highest number of insurtechs per capita among all major economies[22].

16. The Insurtech 100
17. The Pandemic Pushed Insurtech Funding to an All-Time High
18. Insurtech's Hot Streak Has Ended. What's Next?
19. Global InsurTech Data Highlights 2023: VC Investments, Deal Size & Funding Rounds
20. Revealed – The top US insurtech unicorns
21. Insurance Business News
22. "The United Kingdom: The nexus of insurtech," McKinsey & Company, July 2023 Report

The insurance industry is diverse and includes various players, from start-ups to established insurance companies. Some key players include:

Insurtech Start-Ups:

These are relatively new companies that leverage technology to disrupt the traditional insurance industry, such as US-based Lemonade, founded in 2015, with the bold tagline, *"Forget everything you know about insurance."* Similarly, US-based auto insurance company Root, also founded in 2015, offers all its services through its mobile app, while Metromile and ByMiles, US-based and UK-based technology start-ups respectively focused on pay-per-mile car insurance, offer driving apps that collect data about drivers and the condition of a car.

Perhaps one of the biggest advantages for insurtech start-ups is that they aren't tied to legacy products and processes like incumbent insurance companies typically tend to be, allowing these young companies to design and develop state-of-the-art products and systems from the ground up. Still, while many insurtechs proved to be disrupters, especially early in the insurtech wave, *"the vast majority of innovation is based on partnerships between insurtechs and existing companies,"* stated a UK delegate on the recent GEM.

Established Insurance Companies:

Several incumbent insurance companies have also begun investing in technology to improve their products and services. While some partner with insurtech start-ups, others, like Germany-based Allianz, France-based AXA, and Switzerland-based Zurich, work on developing their own technology solutions. For instance, a few years ago, Zurich launched LiveWell[23], a digital health app that provides personalised feedback from experts on a customer's lifestyle choices, health, and wellbeing. Similarly, Allianz partnered with "Drivy[24]," a car-sharing platform that covers the insurance of an individual renting a car rather than relying on the car owner's insurance plan. Getaround acquired Drivy in 2019[25].

Technology Companies:

Tech giants like Google, Microsoft, and Amazon are also exploring opportunities in the insurance industry by offering services such as data analytics, cloud computing, and AI. For instance, in 2016, Amazon launched Amazon Protect[26] in the UK—an insurance product that provides extended warranty and accident protection for consumer electronics sold by Amazon. More recently, Google partnered with reinsurance company Munich Re to develop cloud-based solutions that help insurance companies improve underwriting, risk management, and claims processing[27].

23. LiveWell
24. Allianz Partners with Drivy in UK to Provide Insurance for Car Sharing Platform
25. Getaround Becomes Global Carsharing Leader With $300 Million Acquisition Of European Platform Drivy
26. Amazon Protect
27. Pioneering cyber insurance: Munich Re partners with Google Cloud and Allianz

4.2 Regulatory Measures

Technological innovations bring additional considerations. For instance, using algorithms and AI in insurtech raises concerns about potential bias in risk assessments and underwriting decisions, possibly leading to unfair treatment of certain groups or individuals. Questions also arise about how insurance companies use the large amounts of personal information they collect, whether and how it's being shared and monetised, and the accuracy of the data for underwriting and claims decisions.

Additionally, companies must ensure that their systems are protected against cyberattacks.

To address these concerns, the US and the UK have implemented additional regulatory measures to ensure customer safety and privacy as well as ethical and responsible use of data on the part of insurance companies.

In the UK:

The GDPR[28] and the Data Protection Act[29]

Both protect individuals' privacy and personal information in the EU and the UK. These regulations apply to all companies processing personal data in these regions and set strict standards for data protection. The UK GDPR has the same privacy requirements as the GDPR, combined with the UK Data Protection Act of 2018.

The Information Commissioner's Office (ICO)[30]

An independent regulatory office that deals with several data protection laws and regulations, including the GDPR, the Data Protection Act of 2018, and the Privacy and Electronic Communications Regulations of 2003. Insurance companies must comply with the ICO or face penalties for non-compliance.

The European Insurance and Occupational Pensions Authority (EIOPA)[31]

An independent advisory body that ensures the proper use of big data in the European insurance industry. It works with European bodies to ensure existing regulations like the GDPR are properly implemented, provides guidelines and recommendations on using big data and personal information, and promotes consumer protection and transparency in the insurance sector.

Companies comply with these regulations in a number of ways; for instance, Zurich's LiveWell app makes sure all that data is secure and encrypted; similarly, UK-based Cuvva, offering flexible car insurance, ensures it not only maintains a record of data processing activities but also provides users with clear guidance on how their personal data is collected, processed, and shared with third parties.

In the US:

State-Level Privacy Laws:

While there is no equivalent to GDPR in the US, some states have implemented similar regulations. For example, the California Consumer Privacy Act (CCPA)[32] protects individuals' personal data but only applies to companies operating in California. It ensures that residents have certain rights over their personal data, are aware of what is being collected, can request data deletion from public records, and have the right to opt out of the sale of their data.

Other examples include the Virginia Consumer Data Protection Act[33] and the Colorado Privacy Act[34] protecting consumers from insurance practices resulting in discrimination. More states are considering similar legislation.

Recently, the California Department of Insurance and the Connecticut Insurance Department followed the New York Department of Financial Services in issuing circular letters and bulletins highlighting concerns over bias and discrimination from using AI and ML in insurance.

While these laws are similar to the GDPR, they are not as strict, and fines for non-compliance are generally lower. For example, under GDPR, customers determine what happens with their personal information; in the US, individuals must specifically "opt-out" of processes that allow businesses to collect and store personal information.

Using the GDPR as a standardised model could benefit global organisations looking to do business across the EU and the US. The GDPR successfully replaced disparate regulations instituted by various EU member states, simplifying business matters. Similarly, addressing regulatory differences across US states could facilitate business expansion across state lines.

Federal Regulations:

While regulations exist at the national level, they address specific aspects of an individual's life or particular groups. For example, the Health Insurance Portability and Accountability Act (HIPPA)[35] safeguards the privacy and security of an individual's health and medical records and personal information. As a result, insurtechs operating in this space must also adhere to these data protection standards. The Family Educational Rights and Privacy Act (FERPA)[36] has similar safeguards for students' private information.

NIST Cybersecurity Framework:[37]

The National Institute of Standards and Technology—a government agency that's part of the US Department of Commerce—provides a cybersecurity framework that provides a structure of guidelines, standards, and practices to help companies, regulators, and customers develop, manage, and understand infrastructures critical in addressing cyber risks.

NAIC Insurance Data Security Model Law:[38]

The NAIC is leading the effort in the US to study, assess, and potentially regulate the use of AI. One of its priorities for 2022 is to *"analyse AI advancements to assess if current state laws and regulatory tools are sufficiently protecting consumers."* As part of this effort, the NAIC is exploring topics related to the risk management approach to AI, the ethical use of data and predictive models, the need for testing, and the need for diversity. It has also formed a "Big Data and Artificial Intelligence Working Group[39]" tasked with researching the use of big data and AI in the insurance market, evaluating existing regulatory frameworks, and other related aspects of the use and management of innovative technologies in insurance.

In addition to all this, insurance companies across both countries must implement best practices such as data minimisation—collecting and processing data required for a specific purpose; consent management—obtaining explicit and unambiguous consent from customers; data encryption—using encryption when storing and transferring data, and employee training—ensuring employees are aware of their responsibilities related to data privacy and security.

28. GDPR
29. Data Protection Act
30. Information Commissioner's Office
31. European Insurance and Occupational Pensions Authority
32. California Consumer Privacy Act
33. Virginia Consumer Data Protection Act
34. Colorado Privacy Act
35. Health Insurance Portability and Accountability Act
36. Family Educational Rights and Privacy Act
37. NIST Cybersecurity Framework
38. NAIC Insurance Data Security Model Law
39. Big Data and Artificial Intelligence Working GroupInsurtech Gateway

Accelerator programs focus on helping start-ups scale and achieve rapid growth, typically by providing access to funding and mentorship opportunities.

4.3 Innovation landscape

Insurance Accelerators and Incubators

Accelerators and incubator programs provide valuable support and resources to early-stage insurtech start-ups, fostering innovation and building collaborations. While there's some overlap between the two, they typically differ in the duration, focus, and services they provide.

For instance, incubators, which tend to be longer in duration compared to accelerators, generally focus on early-stage start-ups that are still refining their business models. Incubators help by offering basic business services to entrepreneurs, including providing a physical space to work as well as access to mentoring and networking opportunities.

By comparison, accelerators tend to be more structured programmes that last for a few months and are typically targeted toward start-ups that already have a minimum viable product (MVP) or have gained some traction in the market.

Accelerator programs focus on helping start-ups scale and achieve rapid growth, typically by providing access to funding and mentorship opportunities. Many accelerator programmes culminate in a demo day or pitch event where participating start-ups present their business idea to investors and other stakeholders.

Examples of programs that feature both accelerators and incubators include Insurtech Gateway[40] (an FCA-approved incubator), Lloyd's Lab[41], and Startupbootcamp InsurTech[42]—all based in the UK. In the US, examples include Global Insurance Accelerator[43], Hartford InsurTech Hub[44], and Plug and Play Insurtech[45]. This list is by no means exhaustive, and the number of insurtech-focused incubators and accelerators will continue to grow in response to the increasing demand for innovative insurance solutions.

40. Insurtech Gateway
41. Lloyd's Lab
42. Startupbootcamp InsurTech
43. Global Insurance Accelerator
44. Hartford InsurTech Hub
45. Plug and Play Insurtech

Government Efforts and Initiatives

Both US and UK governments play a key role in driving innovation in the insurtech space. Much like accelerators and incubators, government programs provide start-ups with opportunities to expand and succeed. Below are examples of such government efforts:

Global Business Innovation Program (GBIP)

GBIP is a government-sponsored initiative by Innovate UK that helps companies expand their business globally by connecting them with customers, prospective partners, and investors in foreign markets.

GBIPs offer structured activities like workshops, networking events, and stakeholder meetings to provide companies with expert insight into the market, expose them to new technologies and ideas, and help them explore business opportunities.

In the US, initiatives such as the International Trade Administration's (ITA) Market Development Cooperation Program (MDCP) and the Small Business Administration's (SBA) State Trade Expansion Program both provide funding and resources to help US companies explore international markets. Similarly, in the UK, the Department for Business and Trade's (DBT) UK Global Entrepreneur Programme (GEP) provides mentoring and support to foreign companies looking to establish their business in the UK while the UK Tradeshow Programme (UKTP) has helped UK-based businesses looking to participate in international trade shows.

Additional government efforts include the **Small Business Innovation Research (SBIR)** program in the US, equivalent to the UK's **Small Business Research Innovation fund (SBRI)**, that encourages small businesses, including insurtech start-ups, to engage in research and development with an eye on commercialisation. The **Small Business Technology Transfer (STTR)** is designed to foster collaboration between small business and research institutions in hopes of bringing innovative ideas and technologies to the market.

In the UK, **Innovate UK**, part of UK Research and Innovation, provides funding and support for innovative businesses, including insurtech start-ups. Similarly, the **Seed Enterprise Investment Scheme (SEIS)** and **Enterprise Investment Scheme (EIS)** offer tax incentives to investors investing in small and early-stage companies, including insurtech start-ups.

Regulatory Sandbox

In 2016, the UK's Financial Conduct Authority (FCA) launched the Regulatory Sandbox[46]. This model allowed financial and insurance firms to experiment with technology and test out their innovations in a controlled environment with some regulatory flexibility. By doing this, companies can identify potential risks, successes, and failures before putting in the large amounts of resources and capital that typically accompany the launch of a new product. The FCA monitors their progress and guides regulatory compliance as part of the effort. Since its launch, the FCA has received more than 550 applications, of which it accepted close to 200. In April 2023, Emily Shepperd, Chief Operating Officer and Executive Director of Authorisations stated in a City Week 2023 speech that the Regulatory Sandbox ensures firms are up to speed with the basics of regulation and can bring their product or service to market more quickly.

While a handful of countries have adopted the regulatory sandbox model, there appears to be some uncertainty related to a sandbox's legal basis. Although some states in the US have adopted the model—Kentucky was the first US state to adopt the insurtech sandbox model in 2019—others have expressed the need for greater oversight over new technology rather than the regulatory flexibility that comes with the sandbox.

Venture Capital

Venture Capital firms and other investors play a key role in funding insurtech start-ups and driving technological innovation in the industry. They not only provide funding but also help with mentoring, networking, and establishing partnerships.

While the COVID-19 pandemic initially slowed investment activity across all sectors, it also helped accelerate the insurance industry's digital transformation, leading to an increased interest in insurtech. According to PitchBook's 2021 Q4 Emerging Tech Research: Insurtech report, VC funding surpassed 15 billion in 2020, exceeding its previous record of 7.2 billion in 2018.[47](PitchBook analysts cautioned that insurtech start-ups could be viewed as overpriced in private markets and might, therefore, face challenges in the near future despite record VC funding in 2021.)

Some examples of big VC firms that invest in insurtech start-ups in the US and the UK are Sequoia Capital, Connecticut Innovations, Bessemer Venture Partners, ManchesterStory, Insurtech Gateway, Octopus Ventures, and Anthemis.

46. Regulatory Sandbox
47. Insurtech Industry Update and Outlook

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4.4 In-country stakeholders

The innovation landscape in insurtech is rapidly evolving, driven by technological advancements, changing consumer preferences, and shifting market dynamics. Several efforts and initiatives that are currently in place further enable innovation and expansion. As part of the five-day GEM in New York City, New York, delegates met with a diverse group of industry stakeholders, including individuals with insurance accelerator programmes, innovation platforms, insurance companies, and academics and regulators. The visits provided an opportunity to showcase UK capabilities to the US insurtech audience and facilitated conversation on research and innovation for both UK and US businesses.

MetroHartford Alliance (MHA)[48]

Represented by Chief Business Investment Officer, MetroHartford Alliance (MHA). MetroHartford Alliance is an investor-based economic development partnership focused on business development and growth, retaining, and attracting jobs and talent in targeted sectors, ensuring a strong urban core, and promoting the Hartford Region.

Connecticut Insurance and Financial Services[49]

The team met Executive Director, Connecticut Insurance and Financial Services, a MetroHartford Alliance initiative to promote the insurance and financial services sector in Connecticut.

Nassau Financial Group[50]

Represented by Chief Marketing Officer and Innovation Program Manager. Nassau, a financial services company that specialises in providing insurance and reinsurance solutions as well as investment management and financial advisory services.

AdvanceCT[51]

Represented by Senior Associate, Business Development, Technology Lead.

AdvanceCT is a private nonprofit economic development organization that drives job creation and new capital investment in Connecticut through business attraction, retention, and expansion, in close cooperation with state, regional, and local partners.

InsurTech Hartford[52]

Represented by Lead Organizer, InsurTech Hartford, a community-driven initiative designed to foster a culture of innovation and advance the insurance industry through innovation by bringing together insurance professionals, entrepreneurs, technologists, and other stakeholders.

University of Connecticut[53]

The team met with Academic Director, MS FinTech, at the University of Connecticut, known for its strong emphasis on research, innovation, and academic excellence.

Connecticut Insurance Department[54]

The team met with Deputy Commissioner, CT Insurance Department, focused on consumer protection and ensuring insurance companies adhere to state laws. The department offers guidance, support and education, and industry regulation promoting fair and competitive pricing for consumers.

Sønr Global[55]

Delegates met with Chief Revenue Officer at Sønr Global, a market intelligence platform focused on insurtech. The platform provides data, insights, and analysis on insurtech start-ups, established companies, and trends in the industry. With approximately 2 million companies on its platform, according to one delegate, *"They have a unique insight into the market due to their platform reach."*

ManchesterStory[56]

Representing Des Moines, Iowa, was Vice President and head of Platform for ManchesterStory, a venture capital firm based in Des Moines that focuses on investing in early-stage insurtech and fintech companies. The firm seeks to support innovative start-ups and growth-stage businesses working to transform the insurance and financial services sectors through technology.

48. MetroHartford Alliance
49. Connecticut Insurance and Financial Services
50. Nassau Financial Group
51. AdvanceCT
52. InsurTech Hartford

53. University of Connecticut
54. Connecticut Insurance Department
55. Sønr Global
56. ManchesterStory

Guy Carpenter[57]

Represented by Vice President at global risk and reinsurance specialist Guy Carpenter, who provided provided expert insight on the similarities and differences between the US and UK insurance markets based on her experience working in both countries.

Delegates spent the rest of the mission at the InsurTech NY Spring Conference[58] on the banks of the Hudson River. The conference was divided into two tracks: Property and Casualty and Life and Health—both of which included talks from industry experts who tackled a wide range of topics from building digital Managing General Agent (MGA) insurer partnerships to engaging with AI-powered insurtechs.

The conference provided unique insights on the challenges and opportunities in the US insurtech market and the value of collaboration over competition. In particular, the importance of building and maintaining relationships between VCs and insurtechs is crucial to expanding into new markets.

A Map of InsurTech NV Innovations

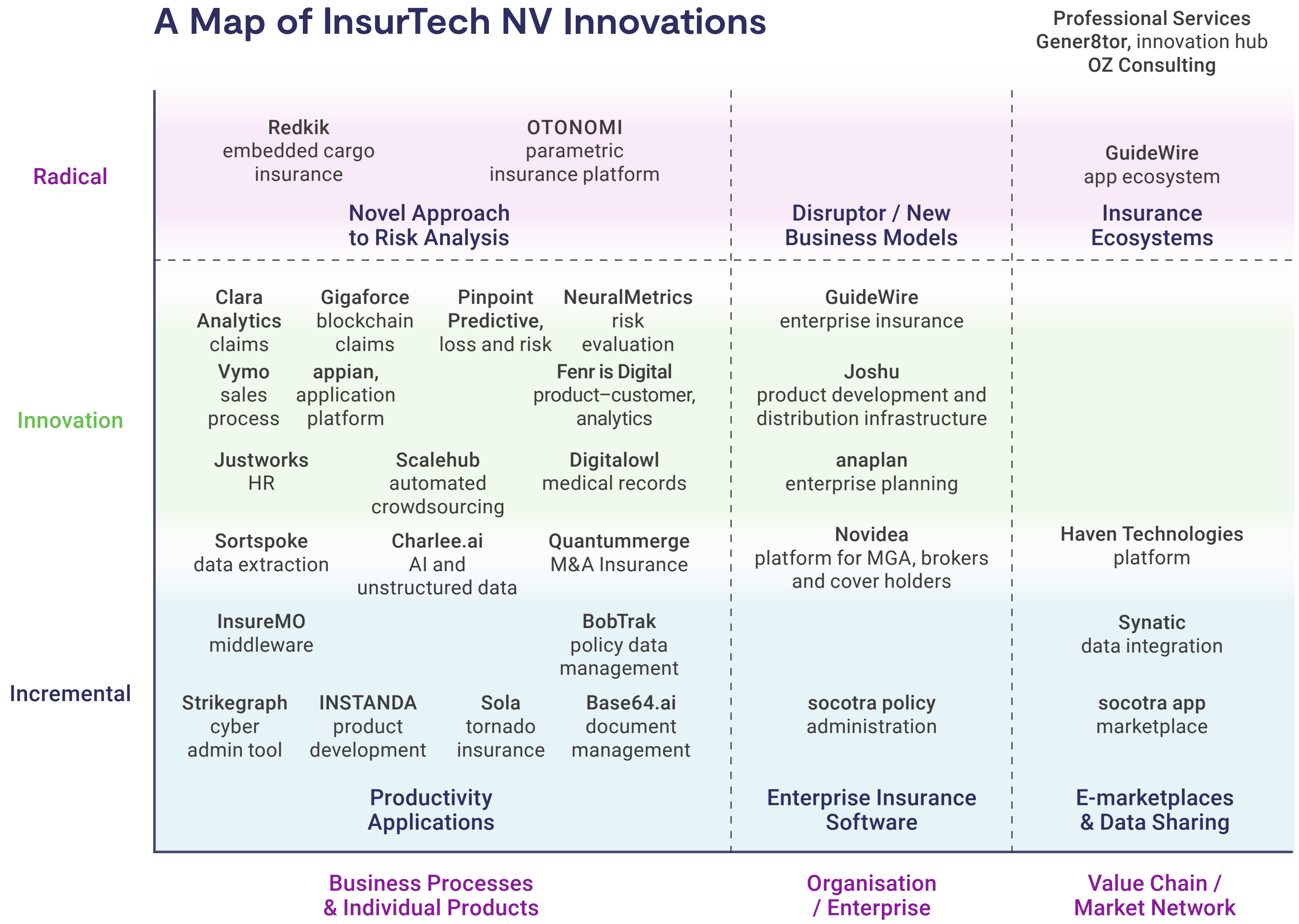

Figure 1. Attendees at the InsurTech NY Spring 2023 Conference were reflective of the range and variety of insurtech innovation, from radical innovators such as Redkik and OTONOMI, offering novel approaches to risk analysis, to other insurtechs such as Strikegraph, Joshu, and Haven Technologies—focused on bringing about more gradual changes to the insurance industry in terms of overall products, processes, and systems. Credit: CP Holland

57. Guy Carpenter
58. InsurTech NY Spring Conference

Infobox – MGA vs Full Stack Carrier: The insurance journey of start-ups

Definitions:

Managing General Agent (MGA): Is a specialised insurance broker that has been granted underwriting authority by an insurer.

Full Stack Carrier:

This is a fully regulated insurance company regulated by the relevant authorities.

Many insurance founders must consider their transition from an MGA to becoming a full-stack carrier. MGA is a good example of a structure that works to support innovation. However, to scale the business as an MGA founder, economics and planning play a key role as well as navigating a thicket of well-intentioned regulation to secure insurance capital. This journey is not easy, therefore addressing key friction points is important. It is vital that government, and regulators and businesses work collectively to mitigate these barriers.

Ref:

Interview with Director of Lazard's Financial Institutions Group.

Professional and trade organisations

Professional organisations and trade associations in the insurance world play a key role in supporting and advancing the interests of their members. Following are examples of organisations that serve to meet those goals:

Chartered Insurance Institute:

CII is a UK-based professional organisation that helps promote higher standards, ethical practices, and professionalism in the insurance and financial services industry. It also offers various qualifications and certifications to individuals in these industries. It provides technical guidance, networking opportunities, and other related professional learning opportunities and guidance, including the CII's Digital Ethics Companion, which highlights key issues that members must consider when working with digital data and products.

Insurtech UK:

This UK-based trade association, with a membership base of more than 100 insurtech businesses and partners, refers to itself as the *"largest formal insurtech alliance in the world"* with a mission to *"transform the insurance industry through the use of technology, and to make the UK the global leader for insurance innovation."* It works toward this goal through events where members can share insights, learn best practices and connect members with investment and partnership opportunities in domestic and international markets.

InsurTech NY:

InsurTech NY focuses on connecting insurance companies, insurers, and investors in the New York area through events, competitions, and workshops to foster collaboration and knowledge sharing in the insurtech space.

Insurance Information Institute (III):

This non-profit organisation tracks and analyses insurtech trends and their impact on the industry, as well as provides data-driven research, insights, and analysis on insurance-related topics.

4.5 Insurtech Workforce and Training

To help students develop an interest in insurance along with the requisite skill set, many universities in the US and the UK offer insurance programs or degrees—often as part of their business or risk management tracks. Several of these programs partner with local companies and industry experts, providing students with real-world insight through talks and workshops, hands-on training through internships and jobs, and exposure to the industry through conferences and other events.

As part of the GEM, delegates learned about the University of Connecticut's efforts to develop market-specific courses related to insurance, finance, risk management, and information, connect students with industry experts, and offer internships and other hands-on opportunities. In addition, students with the University's Center for Advancement of Business Analytics partner with companies and tackle a business problem that the company might be grappling with—an effort that provides them with real-world experience. This close collaboration between academia and industry seems especially valuable in generating an interest among a younger demographic, building a skilled workforce, and driving innovation.

Other universities in the US that offer insurance programs include Temple University, which offers a Bachelor of Business Administration and a Master of Science in Risk Management and Insurance; St. John's University, which offers a Bachelor of Science in Risk Management and Insurance, and a Master of Science in Risk Management.

Similarly, in the UK, the University of London's Bayes Business School offers an undergraduate degree in Insurance and Risk Management and a postgraduate degree in Insurance and Risk Management, while the University of Oxford's Saïd Business School offers an MBA program with elective courses in fintech and insurtech.

In addition, both the Institute of Actuaries and the Society of Actuaries are tailoring their academic approach towards insurtech, in recognition of this growing area—in the process connecting the hard sciences with insurtech.

What's more, educators are recognizing the importance and relevance of general subjects such as computer science, business, and statistics in insurtech. *"These are all high-profile subjects in the UK's leading universities, where there are vibrant academic communities who are involved in applied research across a variety of sectors, including insurance,"* says an academic expert. For instance, Loughborough University offers postgraduate modules in Managing Big Data, business models and digital strategy, which have insurance-related content, even though they're not labelled as "insurance" degrees.

In 2022, Innovate Finance—a member organisation representing the UK's global fintech community—along with the UK's leading fintech academics, launched the UK FinTech Academic Network (UKFAN) to increase collaboration between researchers in several academic disciplines relevant to FinTech such as finance, entrepreneurship, information systems, and strategy.

Similarly, professional organisations like the Chartered Insurance Institute (CII) work with universities to provide accreditation, educational resources, and assistance with career development through internships and job placements in the insurance industry.

financial service providers, investors and the like, and we're going to see a lot more start-ups in that space." Data shows that a vast majority of UK insurance firms drive or explore ESG outcomes, close the protection gap, enable the sharing economy, or promote renewables.

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4.6 Recent Developments in Insurtech

The insurance landscape is continually evolving, driven by technological advances, consumer preferences, the political climate, and numerous other factors that impact our lives. Below are some patterns and innovations that will likely continue to develop and evolve over time.

Competition or Partnership?

In the last decade, the number of insurtechs has increased for two reasons: 1. To address various customer pain points; 2. To take advantage of the enormous profit pools. As the insurtech market evolves, one key question persists: Are insurtechs and incumbents competing to address the points above, or will more of them find avenues to work collaboratively? While the early years saw more insurtech disruptors like Lemonade—a property and casualty insurance company that uses artificial intelligence and behavioural economics to offer homeowners and renters insurance; and Root Insurance-an insurance company that uses smartphone technology and data analytics to measure driving behaviour, recent developments indicate that partnerships between insurtechs and carriers seem to be more common and on the rise.

The Regulatory Learning Curve

Much of the technology being used in the insurance world is still new, and, as a result, regulators are still learning to navigate and integrate technologies and techniques like ML and advanced analytics into the insurance playing field. The field will continue to evolve as stakeholders increasingly integrate technological innovations into their processes and practices.

An Evolution of Underwriting Risk

In the past, when it came to underwriting risk, insurance underwriters relied on proxies for risk. For instance, credit scores in the US provided information on how people drive. However, technological advances such as telematics allow the industry to measure real behaviour based on more predictive data. Will this change how underwriters assess risk? Because of the improved risk assessment and underwriting process, will insurers be willing to take more risk?

The Value of ESG

Environmental, Social, and Governance (ESG) factors have become increasingly important in finance and business, and the insurance industry is no exception. According to an industry expert, *"Anything that falls under the larger ESG is going to be of great interest to insurers, financial service providers, investors and the like, and we're going to see a lot more start-ups in that space."* Data shows that a vast majority of UK insurance firms drive or explore ESG outcomes, close the protection gap, enable the sharing economy, or promote renewables.

Addressing the Coverage Gap

Today, several insurtechs target segments traditionally overlooked due to affordability or risk. For instance, Octamile, an insurtech start-up tailored to the African market, *"enables insurance and non-insurance businesses to simplify access to insurance and protect Africans from financial loss"* by offering an end-to-end claims management tool that helps insurers not only detect fraud but also fast-track payouts; as well as embedded insurance API.

The insurance market penetration rate in Africa is approximately 3 percent, significantly lower than the global average of around 7 percent. Similarly, a digital microinsurer, BIMA uses mobile technology to provide pay-as-you-go insurance and health services to low-income individuals and groups across Africa, Asia, and Latin America.

As authors of the recent Sønr report, *"The Insurtech 100"*[59] *state, insurtechs looking to "change insurance for the better"* will need to have a clear purpose that goes beyond simple profitability. *"Buying some brokers and cutting competitor's quotes a little while changing nothing else will not be sufficient. But those who do so successfully will likely gain traction."* Along those lines, only a few insurtechs specifically address climate change and extreme weather events. *"This is where insurance has a more straightforward and powerful role to play,"* the report authors conclude.

59. The Insurtech 100

5. Opportunities for Future Collaboration

A collaborative US-UK R&D program on insurtech bringing together businesses and research institutes

There is an opportunity for the UK to partner with US institutions and insurance companies in the insurtech sector. The GEM identified a number of priority areas for collaboration including:

Fraud detection
A major issue in the insurance sector leading to significant financial losses. This is an area where AI and in particular the use of ML to detect and prevent fraud.

Claims processing
An area which is in need of automation. There is an opportunity to develop systems for smart contracts applied to non-life or general insurance, for example, air travel or crop insurance.

Customer experience
Ensuring customers have a seamless and positive interaction to retain customers.

Underwriting
The use of AI to underwrite complicated risks such as flood, cyber and ransom insurance.

Data analytics
Using generative AI for insights and informing descision making by synthesising and summarising unstructured data.

In-market visits for Innovative UK businesses to support the development of insurtech products and services

There is an opportunity to build on existing relationships between the UK and the US and to strengthen UK-US commercial relationship in the insurtech sector. The InsurTech corridor provides an opportunity for UK businesses to engage with US counterparts. The agreement is between the UK government and the Connecticut Insurance and Financial Services, the MetroHartford Alliance, the Connecticut Insurance Department, and Insurtech UK.

Connect UK enterprises with US incubators to support market development

Several insurance-focused incubators and accelerators have supported US and UK start-ups, offering guidance, mentorship, funding, training, and networking opportunities. For instance, the Global Insurance Accelerator[60], Startupbootcamp[60], Lloyd's Lab[62], and Plug and Play Insurtech[63] all work with start-ups from the US and the UK, providing them with critical experience needed to survive in the respective foreign markets. There is an opportunity to work closely with overseas incubators and accelerator programmes to help UK businesses establish operations in the US.

Corporate partnership and cross border investments

There is an opportunity for the UK to strengthen corporate partnership with US institutions. A vibrant start-up ecosystem already exists in both countries where partnerships have enabled insurance incumbents to strengthen their services and expand their markets. For instance, in 2022, US-based Lemonade partnered with British multinational insurance company Aviva to offer contents insurance (a slightly trimmed-down offering compared to the US, where it sells contents, homeowners, pet, car, and life insurance), including global coverage for personal items[64].

Similarly, Trov, a global leader in insurance technology, partnered with Lloyds Banking Group to launch its end-to-end digital renter's insurance application[65].

With insurtech funding growing rapidly in recent years, US and UK investors often look across the pond for promising insurtech investment opportunities. A recent McKinsey insurtech analysis revealed that of the roughly 2,000 global insurtechs focused on life, P&C and health insurance from 2010-2020, about a third secured funding[66].

60. Global Insurance Accelerator
61. Startupbootcamp
62. Lloyd's Lab
63. Plug and Play Insurtech

64. Lemonade Launches in the UK
65. Trov Launches White-Label Insurtech Platform and Partners with Lloyds Banking Group
66. Insurtechs are increasingly ripe for insurer investments and partnerships

6. Potential Barriers to Collaboration

Entering an international market requires companies to consider regulations, political climate, competition, funding, talent, and scalability. They must obtain licences, invest in technology, compete with incumbents, and build industry relationships.

According to an industry expert, *"The early point of a critical success factor is it doesn't have to be unique; it has to work. We've seen several insurance companies from Europe coming here or already grassroots in the US, targeting elementary parts of the value chain, but it works. It doesn't have to be the latest, greatest, most unique solution; it just has to work."*

Navigating the US complex regulatory and political climate

The US' complex state-based regulations can be challenging for insurers expanding nationwide. The UK's centralised regulatory environment offers simplicity but may require more stringent compliance. The political climate can also create barriers in the insurance industry, affecting growth, innovation, and market penetration.

Key Insights

Set up in Delaware

The majority of insurtech start-ups are located in either California or New York, states which are notoriously difficult for market entry. Instead, US start-ups are increasingly being domiciled in Delaware due to its favourable legal system and tax benefit which facilitate small business incorporation.

Impact of Brexit

Brexit has made it harder for insurtechs to grow across Europe as the UK can no longer be used for passporting regulation. In addition, although Europe is similar in size to the US, language, culture, and other similar barriers make it a challenge for US companies to expand across the continent.

Challenging sales and distribution setup in the US

The sales and distribution model can be slow and expensive in the US. *"Independent agents are everything, especially to the smaller majority types of insurance companies,"* says an expert who has worked in the US and UK insurance markets. Compared to the UK's six to 18-month sales cycle, in the US, a sales cycle can range from 18-36 months, which can prove to be a challenge when selling a new product in the US.

US market and infrastructure challenges

Both the US and UK insurance markets are dominated by prominent players, which make it challenging for insurtechs to compete but also simultaneously present opportunities to collaborate with established players. In addition, legacy systems in the US are less advanced than the UK which can hinder adoption and deployment as quoted by an expert in the field *"It's worth understanding that something that can seem very simple to an insurtech becomes very complicated when you put it into a traditional carrier in the US. Instead of a few weeks, it can take months, years, even."*

7. Conclusions

The growing field of insurtech uses technology innovations to improve insurance practices, processes, and overall experiences in the insurance marketplace.

The GEM embarked on a visit to the US to better understand the insurtech innovation and market landscape to further US-UK collaboration in the sector. While a number of barriers were identified, the mission, overall, successfully highlighted a number of opportunities for the UK insurtech sector to benefit from international collaboration.

The visit enabled the UK team to establish connections and strengthen relationships with key partners in the US insurtech ecosystem. In addition, the mission identified several areas for collaboration including potential bilateral opportunities and cross-border partnerships.

Innovate UK

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