



# THE GLOBAL CITY

## Powering the fintech revolution Sustainable solutions for finance





## Foreword



**Alderman William Russell**  
Rt Hon Lord Mayor of the City of London



**Catherine McGuinness**  
Policy Chair of the City of London Corporation

The pandemic has not put a stop to UK innovation; with investment topping £5.7 billion in the first half of this year, the UK remains a global leader. Nowhere is this more evident than in our collaborative financial and professional services sector.

The recent Kalifa Review has given us an excellent opportunity to take stock of UK innovation in financial and professional services and understand better the challenges across the fintech sector. With recommendations spanning investment, regulation, skills and policy, there is much to focus on.

Sustainability is perhaps the most significant area of growth. As climate change begins to dominate the financial and professional services agenda, there is an important role for technology to both support and enable progress. It can help capture and analyse data within

financial institutions, support consumers to make more sustainable investment decisions and help the insurance industry to boost resilience. Data is one area that will be key; everything we do must be led by hard facts and by understanding the issues better our response can be more long-lasting.

Innovative firms are already building technology, creating partnerships and forging solutions to some of the sectors biggest issues. With this report, we are thrilled to shine a spotlight on a key trend across UK fintech.

As our eyes turn toward addressing global challenges, 'Green' Fintech looks to be an area of strong growth. We invite you to look in more detail at the innovative UK firms that are taking the lead on an issue that affects us all.

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## Introduction



**Janine Hirt**  
CEO of Innovate Finance

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We are at a pivotal moment in tackling climate change. The report published this summer by the Intergovernmental Panel on Climate Change (IPCC), the United Nations body charged with assessing the science related to global warming, reinforced what many of us already knew.

The past five years have been the hottest on record since 1850. CO2 levels are the highest they have been in two million years. Emission cuts are needed if we stand a chance of keeping global temperature rises to 1.5 degrees C – the limit set by scientists to prevent the worst climate impacts.

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The UK with its world leading talent, technology and businesses has an enormous amount to offer. And sustainable (or green) fintechs with their combined skills in climate, finance and technology are set to be at the forefront of driving climate action.

Across the UK, there are already dozens of sustainable fintechs helping consumers and businesses achieve net-zero by funding green innovation, providing companies with better tools to measure and mitigate their climate impact, or by giving consumers the information they need to make better decisions.

The UK is fast emerging as a worldwide leader in sustainable fintech – and for many reasons. In 2019 it became the first major economy to enshrine into law a net zero emissions target by 2050 and to date almost half of the FTSE 100 companies have signed up to the UN's "race to zero" campaign, which aims to achieve net zero carbon emissions by the same date.

Add to this strong policy support from UK government and regulators and the UK's leading position as a global financial centre – both in green finance and in technological innovation – and it is easy to see why many sustainable fintechs are choosing the UK as their global base.

Whether it's collating and analysing data for investors' environmental, social and governance (ESG) strategies, facilitating peer-to-peer energy trading, or opening the world of green investing to millions of consumers, the benefits and strategies of climate fintechs are limitless.

There's no doubt – the challenges brought about by climate change are immense, but not insurmountable. With the imagination, innovation and determination of a growing army of sustainable fintechs on our side, we are in a strong position in our fight to mitigate the worst climate impacts.



## Greening finance through innovation

The UK business and regulatory environment fosters growth in green fintechs.

The ingredients required to make green fintechs a success are all coalescing in the UK.

### Demand from UK consumers

Surveys indicate that the majority of UK consumers are concerned about climate change and that they are changing their behaviours. At the same time, more and more UK companies are setting net zero targets or putting money aside for climate-related projects, making the UK a great testbed for green fintechs' international ambitions.

### Investor support

From growing flows into environmental, social and governance (ESG) investments or increased appetite from venture capitalists, the investment environment for climate fintechs continues to thrive.

### Growth of climate related data

There is an explosion of climate-related data which is being discovered, collated and analysed by a growing number of green fintechs, many of which are UK based. As this data becomes richer, more widely available and more uniform in its dissemination, companies and individuals will have much deeper and more relevant information to empower effective climate actions.



### Technology

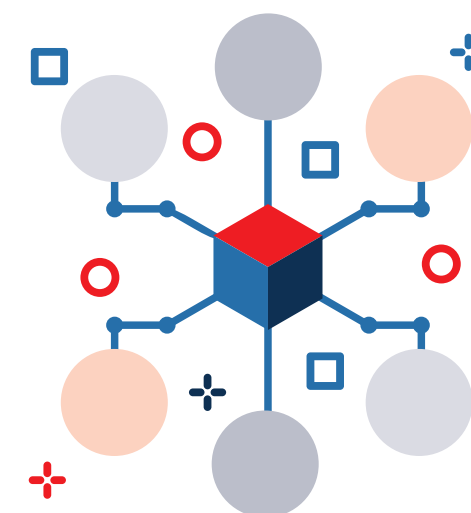
From blockchain and artificial intelligence (AI) to advanced computing and connected devices, there are growing opportunities to better capture and analyse this data. This is enabling start-ups across a wide range of sub-verticals in sustainable fintech to do things in new and different ways. With its world-leading universities in science and mathematics, the UK is well placed to capitalise on these new ways of working.

There are many challenges, not least the need for a common framework on data to define once and for all what is green. Fintechs can play a vital role in harmonising these global standards.

But the opportunities are immense. From carbon removal to green digital banking and emissions marketplaces to data analysis to inform ESG investment strategies, the variety of climate fintechs is wide and it is continuing to grow.

Open Banking, firmly entrenched in the UK, has already helped in this journey and the move towards Open Finance will only give climate fintechs further impetus. The Financial Conduct Authority, the UK's financial regulator, with the City of London Corporation, are also supporting this growth with the Digital Sandbox. The Sandbox's most recent cohort works with companies developing solutions related to ESG data and disclosures. Furthermore, a Green Fintech Challenge will enable companies to live market test new products and services.

The finance sector is undergoing enormous change as sustainability themes gain centre stage. Fintechs with their out-of-the-box thinking and advanced data analytics are well placed to deliver new, ground-breaking solutions to the myriad of challenges that lie ahead.



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## Case study: Simudyne

**Simudyne has built climate models that measure climate risk, allowing companies and financial institutions to calculate their climate value at risk and better transition their businesses to a net zero future.**

Simudyne advises governments, institutions and businesses using AI, advanced analytics and simulation technology to enable them to make better decisions. Set up in 2016, it graduated from the Barclays' Accelerator Techstars programme a year later.

Simudyne has since worked with banks, asset managers and trading exchanges as well as central banks to create lifelike models and computer simulations, enabling them to better understand how financial markets will perform in stressed situations. It is now turning its expertise to climate change, believing its technology can help asset managers track climate risks across their entire portfolios, companies more quickly and efficiently achieve net zero and governments introduce policy measures to mitigate the worst climate impacts.

Justin Lyon, CEO, is so confident in these models that he believes climate simulations will soon become the

fastest growing part of his business. In partnership with Deloitte, the professional services firm, Simudyne has built models that measure climate risk, allowing companies and financial institutions to calculate their climate value at risk and better transition their businesses to a net zero future. The company employs 15 people based in London working closely with MITRE, a US not-for-profit research and development organisation staffed by scientists and academics.

For Lyon, working out of London was an obvious choice given the attractive timezone, the proximity to many partners and clients which have global offices within walking distance and the strong talent stream from UK universities such as Oxford, Cambridge, Imperial College and UCL. But, perhaps most crucially, he views the UK as the leading global centre in AI for financial services.

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## Case study: Slingshot Simulations

**Slingshot Simulations identifies relationships between data, building models and running simulations to answer important 'what if' questions around areas like the drive to net zero, sustainable infrastructure and environmental protection.**

A 2019 spin-out from the University of Leeds, Slingshot Simulations combines proprietary data science techniques with cloud-based simulations to transform highly diverse, often disconnected, sources of large-scale data into actionable insights that enable businesses and government bodies to make more informed decisions faster. While initially focused on tackling the challenges brought about by climate change, the race to net zero, sustainable infrastructure and environmental protection, the technology platform is scalable to use cases across a broad range of sectors.

Fuelling its growth are the already large and growing numbers of devices connected to the internet. In the next several years there will be an estimated 60 to 70 billion internet connected devices, generating an unprecedented amount of data from information on the weather to street cameras tracking vehicle movements and smart watches capturing health data.

The challenge, according to Slingshot Simulations, is to bring these diverse arrays of data together and convert them into insights so that better decisions can be made faster and at much lower cost. Using its platform to contextualise data, 'as-is' situations can be better understood through correlations and patterns. With models and simulations, the 'to-be' can be assessed by asking 'what-if' questions in the platform.

Building on over a decade of research at the University of Leeds, Slingshot Simulations is growing fast. The company is based in the Nexus building in Leeds with the talent and leading academic research facilities of the University of Leeds on its doorstep.

It is in the process of incorporating in the US with the aim of positively impacting the effectiveness of the President's trillion-dollar Infrastructure Bill.

## Case study: Nossa Data

**Companies are coming under growing pressure to comply with environmental, social and governance (ESG) standards. The challenge for many is collating, analysing and disseminating the wide arrays of data that are being demanded by investors, regulators and other stakeholders.**

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Using technology and artificial intelligence solutions, Nossa Data helps companies with this increasingly demanding task. Based in London, the company provides data management and analytics tools on ESG metrics to companies, helping them bring together qualitative and quantitative ESG information into a single place so that they can easily report that information in line with required reporting standards. It also provides peer benchmarking and analytics so that companies can gauge how they are performing compared to their industry peers.

The benefits are wide-ranging. Not only can companies comply with regulatory and investor demands more easily and more quickly, but effective disclosure and analysis of ESG metrics can also reduce companies' cost of capital given the strong interest ESG disclosure is currently getting from investors.

The company is sourcing talent from UK universities as well as London's vibrant fintech scene. London was a natural home for Nossa Data given that many international companies and fund managers have their most senior ESG people based in the UK capital and that the UK and Europe are becoming global pioneers in ESG legislation.





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