

10 Year Anniversary

FCA Innovation Services





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Introduction

When we launched “Project Innovate” 10 years ago, it was an ambitious, trailblazing idea.

As a forward-thinking regulator, we know that innovation can be a powerful driver of effective competition in the market, lead to better products and services for consumers, and encourage firms to improve their offerings.

For 10 years, FCA Innovation has supported effective competition, and helped firms developing innovative products successfully navigate the financial regulatory landscape.

Since its launch we have helped almost 1000 firms develop and test their ideas. We’ve helped small firms who were just starting their journey, alongside some of the biggest players in financial services. Both regulated and unregulated firms have brought their ideas to us.

Firms we’ve supported range from those seeking to promote financial inclusion, companies using technology to democratise investment, to wholesale firms experimenting with fund tokenisation.

Over the last 10 years, FCA Innovation has evolved with the market, offering a breadth of data, regulatory, and product testing services to support firms through the entire innovation lifecycle.

Our **TechSprints** enable early ideation and creation of proof of concepts. **Digital Sandbox** testing provides innovators with real market data and a collaborative platform for experimentation and development

of their ideas. **Innovation Pathways** (“IP”) offers guidance and support to firms seeking to understand how their evolving product, service or business model fits within our rules. Our **Regulatory Sandbox** (“RS”) allows firms to safely test that proposition with real consumers through live testing prior to a full launch. Finally, support from our **Early High Growth Oversight (EHGO)** function can provide advice and guidance on navigating authorisations.

We now host regular TechSprints, bringing together communities from technology and financial services to tackle shared challenges in a dynamic environment, leveraging real data and expertise to find solutions to real problems in financial services. In time, these evolved to PolicySprints, which look at specific solutions to areas of financial services that feed into our agile policymaking.

Over the last 10 years, FCA Innovation has evolved with the market, offering a breadth of data, regulatory, and product testing services to support firms through the entire innovation lifecycle.

Our approach has been an inspiration around the world, with our world-first Regulatory Sandbox now replicated by more than 95 other regulators. And we are proud to have helped to found and Chair the Global Financial Innovation Network (GFIN). Now a network of over 90 organisations, it provides a more efficient way for innovative firms to work with regulators across jurisdictions, share knowledge and insights and tackle cross-border challenges in financial services together, recognising that global problems require global solutions.

As technology and priorities continue to evolve, so will we. Whether that's looking to the horizon at the impact that crypto or quantum computing will

have, helping to implement open banking for the benefit of firms and consumers, or ensuring we're tackling financial inclusion issues, we are not resting on our laurels.

That's why we are launching an AI Lab, and are excited about the potential of working with firms as they seek to harness the power of AI in a safe and sustainable way.

This report brings together data and case studies, on a sector-by-sector basis, sharing the breadth and depth of our support to firms and markets over the past 10 years. We hope this report helps firms and others with an interest understand what we do and how we can offer support, both now and into the future.

Jessica Rusu, CDIO, FCA





Key stats

Innovation Services

Total stats from inception up to end of December 2023



Service

Regulatory
Sandbox

Innovation
Pathways



Applications

629

2000



Accepted

172

735



%

27%

36%

Total

2629

907

34%

Sectors



Sector



Total no, Applications



Overall Acceptance %

Wholesale	250	28
DLT	39	26
Consumer Investment	700	23
Retail Lending	515	32
Financial Inclusion	192	45
Payments and Open Banking	471	43
AI	370	48
General Insurance	92	52
Reg Tech	39	43
ESG	80	36



We have received over
2,500
applications and
supported almost
1,000 firms



We have run over
15 Tech and Policy
Sprints on topics from
financial inclusion and APP
fraud to greenwashing and
female empowerment



25 firms
have accessed the Digital
Sandbox, developing proof
of concepts using data
related to fraud, the FCA
Register and open finance



**8 out
of 10**

firms using our services
said they were useful



An independent study
found that FCA sandbox
firms are

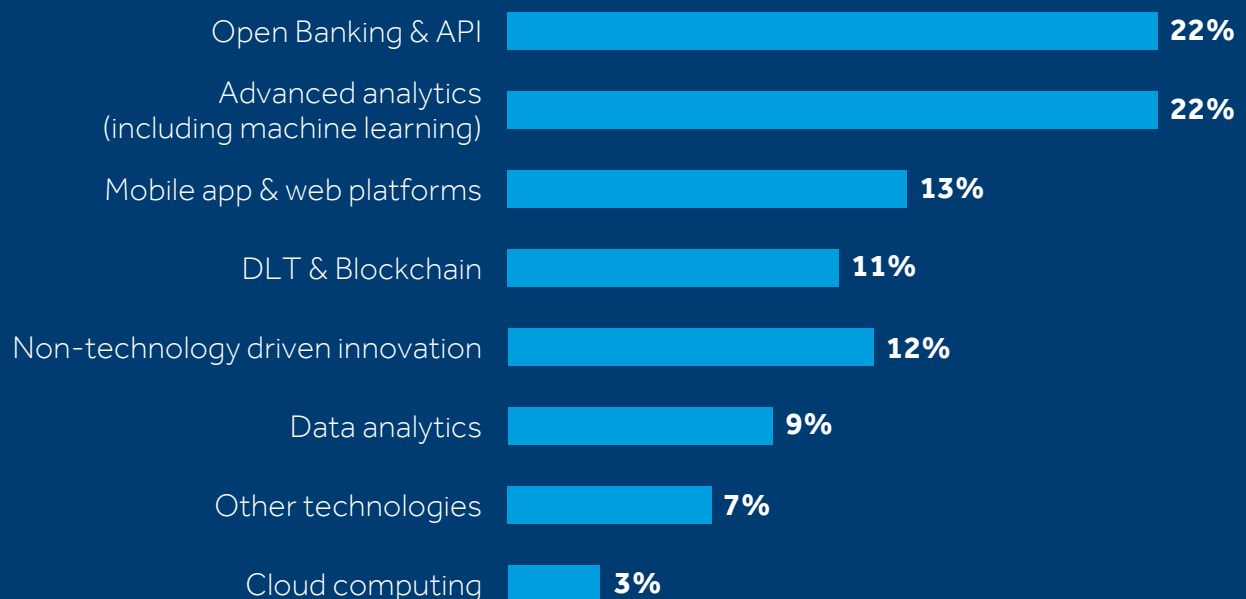
50%

more likely to raise funding
that their peers, and on
average raise 15% more in
investment



London is the second
largest fintech hub in the
world – the UK continues
to attract more fintech
investment than
anywhere else in Europe

Technology breakdown of Innovation Pathways firms since 2019



Wholesale firms

Firms in the wholesale sector carry out activities that do not directly involve retail customers. They range from wholesale banks and brokers to asset management firms.

Over the past 10 years, blockchain and DLT-powered business models were the main innovation we observed in wholesale firms.

Firms are using this technology to enhance transparency, security, accessibility and efficiency across a range of processes including issuance, settlement and post-trade services. They are generally improving existing offerings rather than creating new ones.

We've also seen wholesale firm's leveraging AI to predict market trends and match deal trades.

The integration of AI and DLT technologies with the potential to drive innovation is paving the way for more secure, efficient, and intelligent systems. Combining AI's capabilities in data analysis, pattern recognition, and predictive modelling with DLT's transparency, security, and decentralisation could tackle complex challenges and open new opportunities, such as secure data sharing, smart contracts, automated decision-making, enhanced security protocols, personalisation, and improved client engagement.

Regulatory Sandbox examples in this vein include a firm with a platform that leveraged DLT and AI to

streamline small business financing and securitisation. By digitising credit applications and integrating loan issuances with financial data, the firm sought to improve the efficiency and transparency of financing for small and medium-sized businesses.

We've also seen web-based solutions that streamlined financial processes like initial public offering (IPO) distribution and energy certificate trading, such as Enterprise-back Credit Obligations (ECO), Renewable Obligation Certificates (ROC) and Renewable Electricity Guarantee of Origin (REGO).

Most models have been sell-side, but in the buy-side space, we have seen a range of activities such as ESG, Digital ID and robo-advice. We welcome further innovative proposals and applications in these areas to our services.

We've also seen wholesale firm's leveraging AI to predict market trends and match deal trades.



Key stats – Wholesale firms

We received around

250

applications and supported
around 90 firms

31% of accepted firms applied
to the Regulatory Sandbox and

69%

to the Innovation Pathways

44% of firms accepted
to the Regulatory Sandbox
tested their proposition

Application from wholesale
firms account for around

10% of the total

applications received to our
innovation services over the
10 year period

The average acceptance rate
was around

28%

70% of applications
received were from London
based firms

15% of the applications
received were from firms based
in England (outside of London)

5% of applications
received were from firms
based in Scotland and
Northern Ireland

10%
of applications received were
from international firms

Most of the firms accepted
were start-ups with under

10 employees

Since launching the Digital
Sandbox in 2023,

2 wholesale related
applications have been accepted

15% of firms accepted
into Innovation Pathways
were given an informal steer
on specific regulatory issues
relating to their innovative
product or business model



Case Study

Case Study

Otonomos wanted to test its web-based platform that digitised private companies' shares on the blockchain. This enabled the electronic management of shareholdings, online book building and transfers, thereby enhancing efficiency and transparency in managing private equity. The main testing objectives included assessing the robustness of their technology and the readiness and willingness of participants to adopt the technology offering.

Support provided: We supported the firm through the Regulatory Sandbox, providing an informal steer and help navigating the authorisation process.

Where are they now?: After being supported through testing in the Regulatory Sandbox, the firm continues to grow its business.

Case Study

Globacap built a capital-raising platform that facilitated the issuance of debt and equity securities for smaller businesses and institutional investors.

Support provided: We supported the firm through testing in the Regulatory Sandbox which was aimed at proving its concept, and which the firm found invaluable.

In commenting about its experience in the Regulatory Sandbox, the firm said:

"Globacap would not have been able to trial our product and service and bring this innovation to market without the sandbox facility."

Where are they now?: After successful testing and guidance throughout the authorisation process, the firm has since launched their platform and continue to grow their business. It was recently recognised as one of the UK's fastest growing tech firms by Deloitte.



Distributed Ledger Technology (DLT)

Over the last 10 years we have worked with a broad range of business models which have some form of DLT or related technology at their core.

These include custodian wallet providers where a third party takes custody and manages private keys on behalf of consumers. The advantages of custodian wallets include offering of backup and recovery, ease of use and set up, and the offer of insurance against hacking.

There was an even split between applications to Innovation Pathways and to the Regulatory Sandbox. 26% of applications were accepted for support, the remaining being declined or withdrawn.





Key stats – DLT

From the launch of our services in 2014 through to December 2023, we received approximately

500

applications from firms using DLT

The majority of applications received were to Innovation Pathways (64%) with the remaining

36%

of applications to the Regulatory Sandbox

Applications from firms utilising DLT has consistently been one of the most prevalent applications, reaching a peak in 2019 with

101 applications

Of the firms that we have accepted,

64% were based in London,

20% were based in England, outside of London. The remaining few were from Europe and the US (13%), Scotland and Northern Ireland (2%) and Asia (1%)





Case Study

RegTech and Digital ID

RegTech solutions often provide know-your-customer solutions, transaction monitoring and risk assessments. RegTech is particularly important in the cryptoasset space to monitor and deter illicit activities.

We received 36 applications from firms in the RegTech and Digital ID space. 14 firms (39%) were accepted, most with models that sought to help firms meet 'know-your-customer' requirements.

Case Study

Notabene, Inc is a Regtech firm that successfully tested its model in the Regulatory Sandbox, proving that it could help Virtual Asset Service Providers comply with the 'Travel Rule' by automating elements of the process for a seamless and secure exchange of data.

Support provided: We supported the firm in the Regulatory Sandbox and followed up with an in-person roundtable discussion on the results.

Where are they now?: Following their exit from the Regulatory Sandbox and guidance from the roundtable, Notabene is now a going concern.

Case Study

Q developed a crypto custody system for institutional users. Instead of using a vault to secure a set of private keys, it would use several discrete methods which, when combined, worked to improve transparency and auditability.

Support provided: We gave the firm an informal steer through our Innovation Pathways service to provide clarity on how safeguarding and administering investments under Article 40 of the Regulated Activities Order 2001, related to its business model.

Where are they now?: Following guidance from us on permissions required, the firm continues to grow its business.



Fund Tokenisation

We have observed a growing industry interest in fund tokenisation. The benefits typical to the models we've seen include operational efficiency, transparency and improved investor experience. Among the firms accepted into the Regulatory Sandbox, we saw efficiency gains in the management of operations.

The FCA has been working with industry to explore potential uses of fund tokenisation which could make collective investment schemes more efficient, transparent, and accessible to a wider range of consumers.

The FCA and Treasury are observers on the industry-led Technology Working Group of the Government's Asset Management Taskforce, which is considering the implementation of fund tokenisation in the UK. It has also worked with firms on a high-level assessment of our rules for the Working Group's baseline approach to fund tokenisation.

Since 2019 there has been a growing trend of firms looking to tokenise green projects.

For instance, some firms sought to tokenise carbon investing products where firms create investment products similar to a global carbon index, with each token representing an interest in a basket of internationally traded carbon allowances. Others have established platforms that channel capital towards environmentally friendly projects that use DLT for transparency reporting.

Other examples include bonds which allow vetted emission-reduction project developers to issue zero-coupon green bonds in exchange for a percentage of the carbon credits generated.

Over the past 10 years the most common business models we've seen have been capital issuance for SMEs and start-ups, tokenisation of green projects, and tokenisation of real estate.

Real estate tokenisation has the potential to transform property investment by enabling fractional ownership, broadening investor access and significantly improving liquidity. We've supported models aimed at transforming tenants into partial homeowners through tokenisation with the potential for them to eventually achieve full ownership.

Since 2019 there has been a growing trend of firms looking to tokenise green projects.



Key stats – Fund Tokenisation

145
applications received

62%
to the Innovation Pathways

38%
to the Regulatory Sandbox

31%
of Innovation Pathway
applications accepted

30%
of Regulatory Sandbox
applications accepted

Overall acceptance
rate was

30%

25%
of firms accepted in the
Regulatory Sandbox tested
their proposition

20%
of all firms received an
informal steer





Case Study

In the intersection of DLT with the wholesale sector, we observed a variety of wholesale-related sandbox firms using blockchain and DLT to enhance transparency, security, accessibility, and efficiency in various financial processes, such as issuance, settlement, trade management, post-trade services, and decentralised applications.

Case Study

Nivaura is a platform that automates the issuance of financial instruments.

Support provided: They participated in both Cohort 1 and 2 of our Regulatory Sandbox, as well as being a testing partner for accepted firms in Cohort 3 and 4. It was the first company of its type to test in the Regulatory Sandbox. Their main objective was to demonstrate that assets issued and allocated through the full lifecycle of a bond issuance, under a controlled system, could be tracked using blockchain technology using their internal custody system.

Where are they now?: Following successful demonstration that they could eliminate chain of custody costs, thereby lowering costs and removing the need for a registrar/depository and a central clearing and settlement system, they have since been acquired by NowCM.



Payments and open banking

We have worked with a wide range of business models across payments and open banking, from those developing digital wallets to others wanting to use open banking data for creditworthiness assessments.

The firms we've supported in this sector tend to have a consumer focus. We've also supported firms looking to use DLT and crypto to revolutionise making payments. Firms digitising how pocket money is paid while at the same time providing financial education, developing wallet apps for users to send and receive crypto, and allowing cross-border transactions, have all been supported over the last 10 years.

Notably we have seen a number of firms in the payment and open banking sector that aimed to help consumers either offset or reduce their carbon footprint.

Payment initiation services enable a user to initiate a payment from their bank account rather than a card. Providers act as a secure bridge

between the customer, the merchant and the customer's bank. Benefits of this model include reducing the risk of fraud and greater convenience.

We've supported a number of firms deploying payment initiation services, including an authorised payments company that provides a debit card that uses payment initiation instead of Mastercard/Visa Card, and an app-based peer-to-peer payments platform for both online and instore retailers.

We've also supported firms looking to use DLT and crypto to revolutionise making payments.





Key stats – Payments and open banking

We received

471

applications from firms in the payments sector

94%

of applicants were new entrant fintech firms and 6% were incumbents

We accepted around

43%

of applications

29%

of cases used open banking technology, of which

57%

involved account information services,

39%

involved payment initiation services

20% deployed DLT technology

21%

were electronic money propositions

75%

of cases applied for regulatory support through our Innovation Pathways services

25%

applied to test their proposition with real consumers in the Regulatory Sandbox



Case Study

Banking and digital identity

The evolution of open banking as a safe way to share information digitally and at speed led to the emergence of solutions looking to advance the development of digital identity (Digital ID) – a process that enables users to access services from a variety of bodies, public and private, without the need for physical documents.

Case Study

OneID is a government-certified, UK-based identity technology company, making it easier for people to prove who they are online by accessing bank-verified and secured data. The firm uses the Open Banking framework or bank-provided custom APIs to connect with banks, and enable a bank customer to consent to OneID accessing their bank-verified identity data and sharing it with a third-party.

Support provided: Proved the efficacy of their product in a live environment with real customers in our Regulatory Sandbox. The firm was able to test whether participants were willing to confirm their identity in a fully digital way. There was a reduction of time in onboarding process, a reduction of manual intervention and an increase in consumer net promoter score and trust.

We provided feedback on the firm's business model, risk associated with the model and the need to mitigate those risks. Feedback areas included fraud, IT security risk, data breach considerations and system failure.

We also gave feedback relating to our authorisation process and expectations of firms we regulate as well as access to data and mentors through the Digital Sandbox.

Where are they now?: Since exiting the Regulatory Sandbox, OneID has continued to grow and increase its customer base. It has secured several rounds of investments since testing, and has received recognition as a certified electronic identity for KYC and AML checks.



Payment initiation services providers

Payment initiation services enable a user to initiate a payment from their bank account rather than a card. Providers act as a secure bridge between the customer, the merchant and the customer's bank. Benefits of this model include reducing the risk of fraud and greater convenience.

Under the revised payment services regulations, card-based payment initiation instrument activities were also created, in addition to payment initiation.

We've supported a number of firms deploying payment initiation services.

Case Study

Currensea is an authorised payments firm which provides a debit card that uses payment initiation – a so-called Card-Based Payment Initiation Instrument (CBPII). The card is intended to be used for forex transactions, and money transfers, and is marketed as a card to be used on holiday. Currensea is the first UK direct debit travel card.

Support provided: We provided the firm with an informal steer in respect of the category (credit or debit) under which its card falls.

Where are they now?: Currensea is now an established authorised payment services provider that has won various awards including Best Currency Travel Card 2023, Best International Payment Remittance 2021 and Best Open Finance Innovation 2022.

Variable Recurring Payment (VRP) technology

The Open Banking Implementation Entity (OBIE) now known as Open Banking Limited is a private body; its governance, composition and budget is determined by the Competition and Markets Authority (CMA). It is funded by the UK's nine largest current account providers and overseen by the CMA, the Financial Conduct Authority and His Majesty's Treasury.

Case Study

We supported OBIE using VRP technology, which enables consumers to make recurring payments from the same account to the same beneficiary automatically without the need to authenticate every time, using open banking technology. Testing allowed the OBIE to understand and assess use cases, as well as gather empirical evidence on consumer understanding. It also allowed them to develop consumer protection guidelines specific to VRPs.

Support provided: We facilitated the firm testing in the Regulatory Sandbox to evaluate the use of variable recurring payments within the Open Banking Framework and provided regulatory feedback, informal steer and insight, particularly with regarding to the open-banking requirements and how they may apply to the use of VRP by firms.

Where are they now?: The firm tested the appropriateness of consumer protection framework. Open Banking Limited (OBL) designed a model to release VRP as a generally available payment option. It developed the technical standards and required the nine biggest banking groups to implement changes, as ordered by the CMA, which enables easier sweeping of funds from customers' current accounts.

General Insurance

The general insurance and protection market provide services to millions of consumers and businesses and is made up of three key sectors: personal and commercial, wholesale, and life.

Most of the firms that we have supported over the past 10 years have been in the personal and commercial sector. The vast majority of firms that we have helped were small tech firms.

We've seen a trend of integrating AI and machine learning in various insurance operations. This has helped with risk assessments, fraud detection and personalised recommendations as well as allowing firms to develop more dynamic and flexible insurance products.

We have seen a broad range of models seeking to use real-time data from various sources to offer coverage to historically underserved markets.

The London wholesale insurance market is one of the largest centres in the world however we have received very low volumes of applications for support from this sector. We want to see the market continue to develop, especially with innovative solutions, and would welcome further applications.



Key stats

There have been

190

applications relating to insurance. The volume of applications received varied over the years, reaching peaks in 2016 and 2019

We've supported applicants from around the world including the US and China, though most are from London

(55%)

and the rest of the UK (32%). As with other sectors, most have been small firms

We accepted

52%

of applications for support in total; around

20%

were approved for testing in the Regulatory Sandbox and around

78%

for Innovation Pathways



Case Study

Laka (previously Insure A Thing) developed an alternative insurance business model for bike insurance whereby the consumer made payments at the end of a given month, with the amount calculated on the exact cost of all claims settled during that period.

Laka introduced a cap on premiums so that the consumer would always know the maximum amount they could be charged at the end of every month, regardless of how many claims were made by the pool.

Support provided: The firm came to us with a specific regulatory question around whether they would be a Managing General Agent (MGA) or within consumer finance. This would allow the firm to streamline their processes and avoid any unnecessary delays and cost with getting their authorisation completed incorrectly.

We supported the firm with an informal steer to help them identify the applicable regulated activities, which enabled them to apply for a restricted authorisation and obtain greater regulatory certainty ahead of Regulatory Sandbox testing.

We also worked with the firm to develop a thorough testing plan with specific consumer safeguards to reduce the risk of consumer harm during testing.

Where are they now?: Laka are now authorised without restrictions and delivering their proposition on a larger scale.



Consumer Investments

Developments in technology allow consumers greater access to information and enhance the ability to exercise control over their investments. However, there is considerable scope for technology to do more, something that our policy work has focused on.

Over the past 10 years we received over approximately 700 applications relating to consumer investments and we have helped around 97 firms looking to offer some sort of robo-advice. In the Digital Sandbox we've seen the widespread adoption of AI to help provide automated financial advice, streamline data processing and deliver personalised insights. As in other areas, the trend towards AI is reshaping how firms interact with their clients.

We expect AI to become the dominant technology as it matures, but that has not spelled the end for more established technologies (such as algorithmic systems) which seem to be generally preferred by established firms when developing automated advice solutions. In the last three years we have seen a significant proportion of applications which embrace the human/automated hybrid model and a growing trend toward AI as part of the solution.

Away from traditional advice, some of the most popular models we've seen revolve around educating, informing or otherwise guiding consumers. Approximately 15 models with such a theme were accepted, with some offerings on investment (through stock research, analysis of green claims, or

providing recommendations based on user's ethical preferences) with others leaning toward a more general 'education in money' approach.

We've also seen personalisation and focus on niche markets becoming more common with a growing trend for financial services that meet specific demographics or needs.

We've also seen a trend in applications from ESG/Green-related firms, which is understandable given the recent policy and societal focus on these issues. Consumers are demanding greater transparency and accountability from the firms they do business with and invest in, which is leading firms to innovate in this space to cater for this growing market.

ESG-focused firms which we have accepted were looking to introduce solutions to assist consumers with either easier access to green investments, or to be able to better determine just how green a fund or investment is. Just under 50% of firms fit in this category, using some element of automation in the process.

DLT began to feature as a significant element in the models of businesses in the consumer investment space as late as 2019. Common models enable retail investors to trade cryptocurrencies or trade in assets which have been tokenised and often fractionalised on a DLT platform created for the purpose. The underlying assets are often real-world assets such as real estate, or non-traditional investments such as wine or art.



Key stats – Consumer investments

We received around **700** applications

10%
of applications were to the Regulatory
Sandbox and

90% to Innovation Pathways

Acceptance rate averaged around

15%

We worked with several large incumbents
such as Lloyds Bank and Hargreaves
Lansdown

70% of firms had fewer than ten
employees

5% had more than 250 employees

35% of firms were given an
informal steer

40% of firms were given
signposting

50% of applicants were from
London

20% were from the South East
(excluding London)

10% were from the North

20% were from Scotland and the
rest of the world including Spain, France,
Luxembourg, the United States and
Australia

The most popular models by total volume
of applications were:

Position	Over ten years
1	Robo-advice/AI
2	DLT
3	ESG/Green



Case Study

Case Study

Lloyds Bank Group has been testing a proposition in the Regulatory Sandbox which aims to help consumers follow a completely digital investment advice journey, with human support limited to guidance (rather than advice) – commonly dubbed as a 'hybrid model'.

Support provided: We met regularly with Lloyds to learn how the test was progressing, and to gain the firm's insights on its own findings. We also explored changes Lloyds might make, providing feedback and examining with them the possible use of other regulatory tools, over the life of the test.

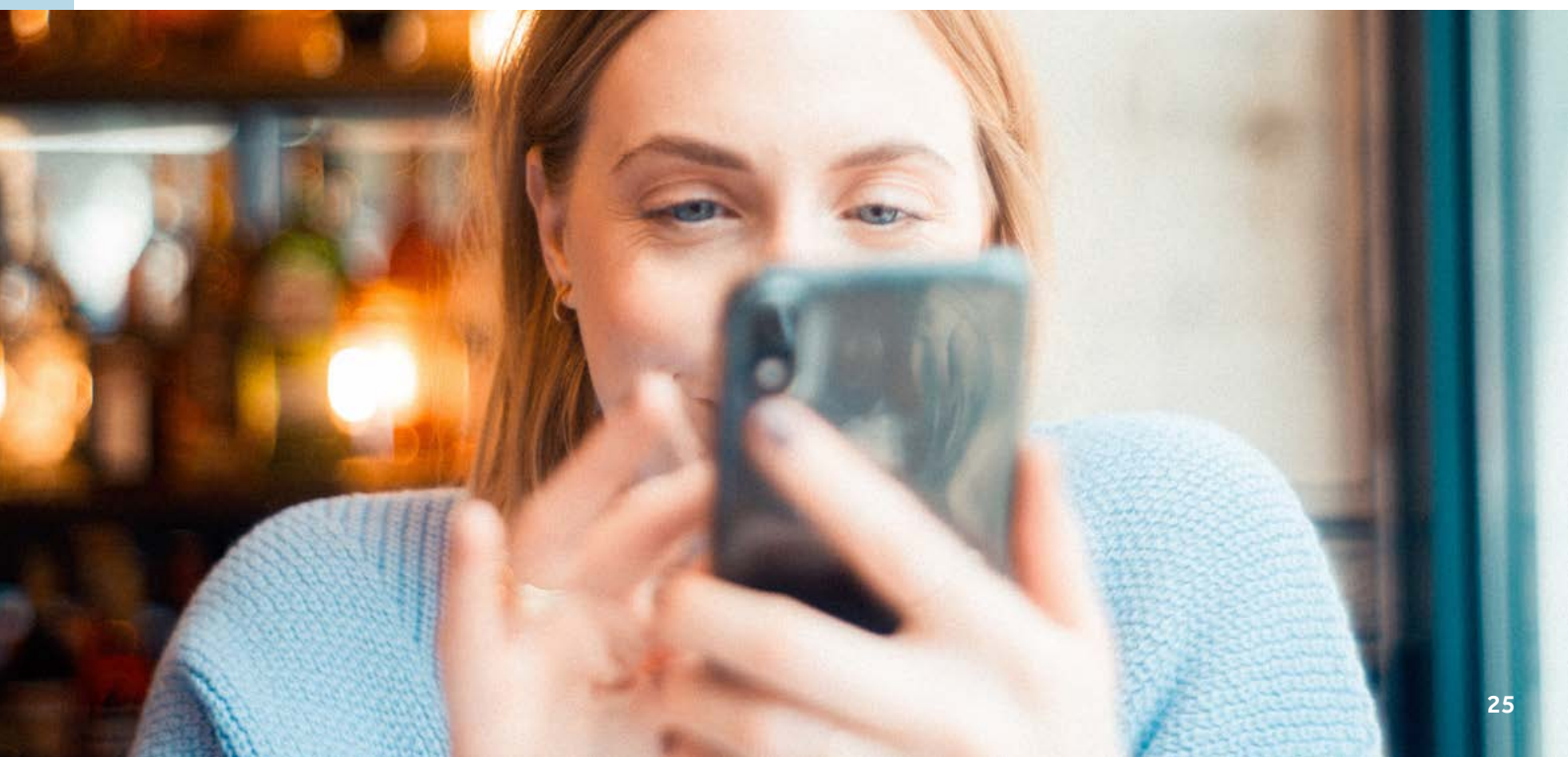
Where are they now?: Following feedback and early testing results, the firm is continuing to test its proposition in the Regulatory Sandbox.

Case Study

Green Growth's product was a mobile app and platform offering retail consumers the opportunity to invest in green Exchange Traded Funds. The platform aimed to simplify the decision-making process by only offering green investments, unlike most other platforms which offer a wider range. Users could filter investment options according to relevant criteria.

Support provided: The firm originally applied for the Regulatory Sandbox but was offered support in the Innovation Pathways.

Where are they now?: Following our guidance and successful demonstration of their concept, the company was spun down in order for the founders to pursue new opportunities.



Retail Lending

The retail lending market is essential to the UK economy. The participants in the sector are diverse and include blue-chips offering credit as part of a portfolio of other financial services, and credit reference agencies. It also includes those offering debt counselling and debt collection services to firms whose credit services are ancillary to their main business.

We have supported applicants who have developed innovative solutions to determine a consumer's creditworthiness, services to help people who find themselves in debt and solutions aimed at fully automating the mortgage application process to allow instant mortgage decisions, as opposed to decisions in principle.

We supported a firm aiming to deliver Sharia Compliant financial services using blockchain technology – specifically, exploring the use of the Ethereum Virtual Machine, Hyperledger and Tether tokens. Another firm designed a peer-to-peer lending platform for Sharia Compliant loans. The firm received support through engagement with subject matter experts.

Although this sector has been incredibly active over the past 10 years we would be keen to support more firms developing advanced technologies like AI and DLT, that want to launch services in this sector.





Key stats – Retail lending

We received

515 applications-around

98 applications to the Regulatory Sandbox and around

417 to Innovation Pathways from firms in the retail lending sector

We accepted

167 firms –

35 to the Regulatory Sandbox and

132 to Innovation Pathways

80% of applications were to Innovation Pathways and

20% to the Regulatory Sandbox with an overall acceptance rate of

32%

96%

of applicants were entrant fintech firms and around 4% were incumbents

We accepted

32% of Innovation Pathways applicants and

36% of the Regulatory Sandbox applicants

36% of firms accepted into the Regulatory Sandbox tested their proposition

Out of a sample

25% of applications received:

59.5%

were from London-based firms

33%

were from firms in England (outside of London) and Wales

1.5%

were from firms in Scotland

6%

were from international firms



Case Study

Access to Credit

Access to credit propositions include models that use alternative data to determine a consumer's creditworthiness. Other propositions sought to use innovative means for making mortgages more accessible.

Case Study

Finexos aimed to use machine learning to determine affordability and associated risks. It aimed to conduct credit decisioning using an algorithm and 'risk engine' which utilised AI and machine learning. The 'financial capability scoring' algorithm and risk engine was designed to increase the volume of affordable credit available to consumers. It used real-time data to assess credit risk and identify the consumer's ability to pay.

Support provided: The firm was given an informal steer on whether its activities amounted to regulated activities and the applicable permissions that were needed.

Where are they now?: Finexos has successfully established its business. It has won many awards, like the Fairer Finance Hackathon award, where it beat entrants from over 20 countries. It was also voted the Most Innovative Credit Repair Solution Provider UK 2022.

Debt solutions

Some debt solutions observed have been robo-advice propositions whilst others have devised ways of helping consumers manage their debt and enable them to pay it off more quickly. For instance, one proposition's aim was to help consumers make a conscious and informed decision about the credit products they hold (existing and prospective).

Case Study

Karma Technologies was a Regulatory Sandbox firm with a proposition aimed at providing interest-free salary-advance and cash flow management products, utilising DLT to enable consumers to spend a portion of their salary every month at a range of different merchants. By integrating the borrower, the lender, and the point of sale (the retailer) in a single ecosystem, Karma created a cost-effective and efficient system that enabled Karma to provide its users an interest free, no-fee access to salaries in advance.

Support provided: We supported the firm to complete testing in the Regulatory Sandbox in 2020 and provided an informal steer on various aspects of its business as it concerned access to credit.

Where are they now?: Karma, commenting on its experience of the Regulatory Sandbox said:

"Karma's experience in the sandbox has been tremendously positive. We very much appreciate the guidance we have received during the process, in particular the informal steer and help regarding our regulatory position. Having the opportunity to test Karma in the sandbox has been invaluable for Karma to prove that we deliver value and solve a problem for our customers. In addition, it has also helped us in attracting the right funding to create the company as well".

Robo-advice

Robo-advice propositions included mortgage advice, debt advice, financial education propositions and solutions aimed at fully automating the mortgage application process which results in instant actual mortgage decisions as opposed to decisions in principle.

Case Study

Molo Tech Limited aimed to deliver a genuinely streamlined and automated customer journey in the mortgage sector. The firm intended to deliver a paperless, fully digital proposition with a real-time mortgage decision, requiring no physical broker or advisor.

Support provided: We provided the firm with regulatory feedback on its automated proposition.

Where are they now?: The firm launched its proposition as the first digital direct-to-consumer mortgage lending platform.

Gregory Pennington Limited was an already authorised firm that sought to improve its current offering of telephone-based debt advice to its customers. It is looking to develop a digital debt advice proposition integrated with open banking and credit reference agencies to provide full end-to-end automated debt advice for straightforward cases, and broader financial wellness support and education for customers on the periphery of pre-arrears and those post-arrears.

Support provided: We gave the firm feedback on its automated proposition, in line with our regulatory frameworks.

Where are they now?: The firm launched its proposition and is now providing debt advice to consumers using its automated platform, which includes financial capability tools and money management.

Financial Inclusion

We have worked with a diverse range of firms seeking to promote financial inclusion over the past 10 years. These firms are often looking to help ensure that people have access to useful and affordable products and services no matter what their background. We've hosted one of our TechSprints focused on financial inclusion.

The firms we've supported to help deliver financial inclusion span a range of different products, services and sectors.

We've seen firms providing guidance to consumers about different types of investments. In retail lending we've supported firms providing non-traditional affordability and credit scoring tools, financial literacy tools and mortgage deposit schemes.

We've also worked with micro-lending and micro-savings applications, which are mobile-based solutions providing small loans or encouraging savings, often employing behavioural economics principles to drive user engagement. To address the root causes of financial exclusion, many innovations focus on developing financial education tools that combine access to financial products with educational content.

Blockchain-based identity and credit solutions, which utilise distributed ledger technology, create portable, secure financial identities and credit histories, potentially revolutionising how individuals manage and share their financial data across institutions.

Innovation is not always driven by the use of new technology. Innovation can come from new processes being used or a new approach to an old problem for example. Such innovations accounted for around 20% of applications we received. An example is Fair4All Finance which, alongside Toynbee Hall and Fair by Design, delivered a pilot to provide a No Interest Loan Scheme (NILS) to customers in vulnerable circumstances who are not able to access mainstream products and services. The project is funded and supported by Treasury and Fair4all acts as its coordinator. The firm was given an informal steer and it conducted testing in the Regulatory Sandbox. The firm says it has so far invested £26.5m in 35 community finance providers.





Key stats – Financial inclusion

Between 2014, when our services were launched, and December 2023, we received around

192

applications spanning all sectors

Around

82%

of applications were to the Innovation Pathways

18%

to the Regulatory Sandbox

We received around

21 applications per annum

The overall acceptance rate is

45%

67%

of firms accepted into the Regulatory Sandbox tested their proposition

53%

of applicant firms were from London

37%

of applicants were from England (outside of London)

2%

were from Scotland and Wales

8% were from international firms

39%

of applications were from the retail lending sector

25%

of applications related to Robo-advice

12%

of applications related to debt advice

31%

were from the retail investment sector



Case Study

Financial Inclusion

Robo-advice propositions represent a large proportion of the applications we received. The FCA has long expounded on the benefits of robo-advice especially for the purpose of advancing financial inclusion.

Case Study

Inatigo's Finley AI solution proposed to use AI to provide voice-powered financial and pension guidance. The guidance will help consumers understand pensions and basic financial planning topics through conversational voice or message chat. Having a voice-powered functionality will allow a wider range of consumers, including the visually impaired, to have access to pension guidance.

Support provided: We supported the firm in relation to questions relating to the authorisation process, guidance on permissions and the advice guidance boundary. The firm was supported in the advice unit before applying to the Regulatory Sandbox.

Where are they now?: Finley AI is a flagship product from Inatigo, who was voted Top 5 Global AI Voice Solution. They also won a "Team of the Year" fintech award, were named "Most Innovative Use of AI" finalists at the European WealthBriefing awards, and were finalists for "Innovator of the Year."

AI and Machine Learning

Some propositions sought to use AI to achieve financial inclusion.

Case Study

Amplified intends to use AI to simplify terms and conditions and other contract related documents, including those on consumer credit agreements. The firm's platform uses AI to study text and provides an assessment of its complexity, intelligibility, and the chronological age of a reader who could just about understand the text. The platform allows lenders to assess the complexity and intelligibility of their contractual documents, presenting a simplified version and attests to consumers reading the terms and conditions.

Support provided: We worked with the firm to develop a viable test plan and facilitated the firm testing its proposition in the Regulatory Sandbox. The firm was given an information steer on consumer credit related documents. They were also given access to subject matter experts to discuss aspects of its duty and testing plan.

Where are they now?: The firm is receiving further support in the Pathways following testing in the Regulatory Sandbox.

Blockchain

Around 5% of propositions utilise blockchain technology.

Case study

Brixton Pounds aimed to use blockchain to create a decentralised payment app through which consumers can make payments. It allows a Paypal-like account, where consumers can pay vendors via text. In addition, shop owners can decide to reinvest in the Brixton Pound or exchange it for Sterling.

Support provided: The firm was given an informal steer and given access to subject matter experts.

Where are they now?: Following steers from our Innovation services and experts, the firm is continuing to operate its local currency.



Artificial Intelligence (AI)

Relating specifically to firms reaching out to our Innovation services, which may not be representative of the broader market, we've seen companies seek to use AI across a wide range of sectors. Some firms are using simple technology like algorithms, while others are using more cutting-edge technologies like Machine Learning (ML) and Large Language Models (LLMs).

In broad terms, business models applying to our services include risk management tools and AML propositions, credit lending related propositions, consumer duty and financial inclusion propositions and policies and data-handling propositions.

Automation is one of the most common uses across sectors. We've observed automation in both the front-end processes such as robo-advice, debt management, switching insurance and savings accounts, as well as back-end processes such as underwriting, and some elements of financial planning or on-boarding.

From applications to the permanent Digital Sandbox, we've seen that Natural Language Processing (NLP)

and LLMs are being widely adopted for creating intelligent chatbots and virtual assistants. Some innovators are developing specialised NLP models for analysing financial documents, regulatory texts and corporate communications, aiming to extract valuable insights and assist in compliance-related tasks.

Many of these AI/ML applications are being combined with other technologies such as blockchain and open banking APIs to create more comprehensive and innovative financial products.

Notably, there's an increasing emphasis on explainable AI and responsible AI practices, particularly in areas like credit decisioning and risk assessment, to ensure transparency and fairness in financial services.

We've seen firms using AI to challenge traditional credit scoring methods in conjunction with integration of non-traditional data sources into their calculations, including rent payment history, utility bill payments, and even behavioural data.





Key stats – AI

Over
370
applications using algorithms or AI

48% acceptance rate

10% are RegTech propositions

86% applied for
regulatory support

The overall acceptance rate has been

48%

– higher than the average historical
acceptance rate for all propositions

86% of these applications were
from firms seeking regulatory clarity
through Innovation Pathways. The
remaining 14% of applications were
for the Regulatory Sandbox with firms
looking to test their propositions in a
live market with real consumers

Around
72%

of propositions were business to
consumer and the remaining 28% were
business to business. In terms of size,
the majority of firms applying to our
services are micro or small companies
with less than 10 employees. Around
95% of the firms applying were fintech
firms and the remaining 5% were
incumbents

Half of all AI-related propositions
related to consumer investments and
the most common model within that
sector was robo-advice

The permanent Digital Sandbox was
launched in August 2023. Since launch
we have received

53 AI-related applications
which accounts for

42%
of total applications made



Case Study

Consumer investments

Half of all AI-related propositions related to consumer investments and the most common model within that sector was robo-advice.

Case Study

Finley AI, founded in 2019, uses generative AI for its voice-powered financial and pension helper, which provides guidance to consumers to better understand pensions and basic financial planning topics, through conversational voice or message chat. The model is available via the web, Google Assistant, Facebook and Twitter.

Support provided: Finley AI was accepted into the Advice Unit in 2019, receiving regulatory feedback from us, including customised signposting as it developed its proposition, and explored expansion to their business model.

Where are they now?: FinleyAI launched its 'Personal Finance AI' powered by generative AI in mid-2023 using their proprietary FinleyGPT Large Language Model, and have since gone on to launch other AI-related services.

General insurance

Models using AI-powered chatbots and virtual assistants account for 12% of the overall applications in the pool.

Case Study

We supported an **insurance services firm**, a motor insurance intermediary, which uses a conversational AI chatbot able to interact with consumers across the entire motor insurance journey, from underwriting to claims renewal, customer experience and automated pre-sale underwriting.

Support provided: The firm was accepted for support in 2020. We provided regulatory feedback and signposting in relation to principles relating to transparency and fairness while the firm was in the early research and development stage.

Where are they now?: Following engagement with our services, the firm was authorised as an insurance intermediary in July 2022 and officially launched its conversational AI platform in 2023.

Consumer finance

We've seen firms using AI to challenge traditional credit scoring methods with the use of AI in conjunction with integration of non-traditional data sources into their calculations, including rent payment history, utility bill payments, and even behavioural data. AI has the capability of assessing large amounts of data with the potential of providing a more holistic view of a customer, especially for 'thin credit-file' consumers.

Propositions using AI technology in consumer finance account for 15% of all applications.

Case Study

ProGrad provides a solution for young people who have thin credit files, preventing them from accessing the credit market at high rates of interest from High-Cost Lenders. It's a business-to-business proposition that facilitates lending by mainstream lenders to this consumer base.

Support provided: The firm was accepted in August 2021. We provided regulatory feedback, signposting and pre-authorisation support. We also engaged them on questions related to regulated activities, and the extent to which future income can be taken into account for the purposes of a creditworthiness assessment.

Where are they now?: ProGrad has grown and secured further investment since engaging with our Innovation services, and continue to work on improving financial literacy and inclusivity.



RegTech

RegTech helps regulated financial firms meet their regulatory obligations. Firms in this sector have helped to develop tools that deal with changes in regulation and offer monitoring to ensure companies remain compliant.

The innovative solutions in this space cut across multiple financial services sectors and almost a quarter of all solutions involved the use of AI, machine learning, DLT Blockchain and APIs, with the rest employing other technological hybrid solutions.

The applications covered solutions including, but not limited to, general compliance, regulatory compliance management, cyber identity privacy, conduct and data management.

We accepted a high percentage (c.60%) of applications for the Innovation Pathways support, which is reflective of our support for innovations in the RegTech sector. The firms we supported were a mixture of start-ups, medium sized and big firms – 3 of the firms are in the top 13 RegTech firms in the UK, with a few repeat applicants which would indicate that they found the service useful.

The top four categories for RegTech innovation applications were in the areas of: General Compliance; Regulatory Compliance Management; Financial Crime and Cyber, and Identity and Privacy. Around 70% of the innovation applications received (and accepted) were in these top 4 categories.



Key stats

The overall acceptance rate in this sector was

43%

We accepted

16%

of firms who applied to the Regulatory Sandbox

60%

of firms we accepted into the Regulatory Sandbox tested their proposition

67%

of applications were to the Innovation Pathways

70%

of the innovation applications received were in the top 4 categories of: General Compliance; Regulatory Compliance Management; Financial Crime and Cyber, and Identity and Privacy



Case Study

Cyber, Identity and Privacy

These are solutions that manage cybersecurity risks, data protection and privacy, and ensuring identity recognition and verification by anyone in a network.

The application acceptance rate was 30% for firms innovating in this space.

TrustElevate is a RegTech proposition facilitating remote identity verification for parents and guardians who wish to open an account on behalf of a child. Currently, such checks must be conducted in-branch (parents or guardians are required to provide sufficient evidence of parental responsibility in person). The firm's product removes this friction by digitally verifying parental responsibility, and the identity and age of the child.

Support provided: While the firm was accepted, and submitted a test plan for the Regulatory Sandbox, they never went on to test. Their application does however illustrate the types of firms innovating in this sector, and the support we can offer.

Where are they now?: TrustElevate currently continue to offer various levels of age verification for children.





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