FCA Innovation

FCA FINANCIAL CONDUCT AUTHORITY

2024 FCA Innovation Services Autumn Expo

Projects Overview

Welcome to the 2024 FCA Innovation Services Autumn Expo

FCA Innovation supports beneficial and responsible innovation and technology. Through a suite of services, including the Digital Sandbox, Regulatory Sandbox, and Innovation Pathways, FCA Innovation provides firms with the tools, guidance, and environments they need to develop and test cutting-edge solutions. Our services support the FCA's objectives of fostering innovation competition, protecting consumers and ensuring market integrity, while supporting the UK's broader goals of growth and global competitiveness in financial services.

The **Digital Sandbox** has fostered experimentation and driven advancements in financial technology by providing firms with a safe space to test and develop innovative solutions. It offers access to high-quality synthetic data, industry mentors and stakeholders to accelerate the development of impactful solutions.

The **Regulatory Sandbox** enables firms to test innovative propositions in a live market environment with real consumers, ensuring appropriate safeguards and regulatory support. Testing helps firms understand whether an innovative product or services is attractive to consumers, or how a specific technology works in practice. This enables firms to launch more suited propositions.

Innovation Pathways provides tailored regulatory support to firms at various stages of their development and helping them navigate the complexities of regulation as they grow.

Together, these services form part of the **FCA Innovation Hub**, supporting the FCA's competition mandate and contributing to the UK's new growth and competitiveness objectives. We are delighted to showcase 14 completed projects across the three services at the Autumn Expo. The event will take place at the FCA office on 4 November 2024. This booklet provides in-depth details about each project and its dedicated team.

We invite you to apply and we look forward to seeing you there!

WealthTech

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Kestrl
Reseo
Menna
Saturn
Tokens of Appreciation
Xcavate

Kestrl

Personalised AI financial assistant for muslims

Project Summary
Kestrl is a money app designed to help Muslims manage their finances more effectively. It uses machine learning and generative AI to provide personalised financial advice and solutions. By analysing customers' financial data through Open Banking, the app delivers tailored recommendations via a ChatGPT-style interface, making interactions more accessible. The AI assistant first assesses each customer's unique financial needs, then offers personalised budgets, savings plans, and recommends suitable financial products.

The Innovation
Kestrl tackles two significant challenges. First, it works to bridge the gap in financial literacy. Many UK Muslims are underserved, with nearly 50% of Muslim households living in poverty, compared to just 18% of the general UK population. This is largely due to a lack of financial knowledge, which has led to widespread distrust in financial products and services.

Second, it addresses the issue of limited access to personal financial advisors, often too costly and not providing the real-time insights offered by Open Banking. Kestrl's AI Assistant addresses this by offering an affordable, tailored financial plan with personalized recommendations based on real-time data. UK Muslims face the added challenge of finding financial products that align with their values. Kestrl, through its AI Assistant, provides a platform offering curated financial tools and products, empowering users to manage their money more effectively without compromising their faith.

The Benefits
The first key benefit for UK Muslim consumers is easy access to a financial assistant that can educate, assist, and advise them on financial matters. The AI Assistant monitors all aspects of users' finances through API connections, providing tailored solutions based on each customer's specific needs. Secondly, while Islamic finance products in the UK are still limited, they are gradually expanding. As consumers become more financially informed, this increased demand will drive innovation and create more competitive products in the market.

Data Used
Synthetic UK Open Banking Transactions, Consumer Transactions.

Kestrl

Areeb Siddiqui
Founder & CEO
Areeb has a Cambridge MBA with a background in Consulting and Risk Advisory at Deloitte and PwC, specialising in working with banks and wealth managers in the digital space.

Mus'ab Shaharom
Head of Data
Mus'ab holds a PhD from Oxford University and has 5 year experience working with machine learning to create innovate products to financial services firms.

Sheikh Hanif
Data Scientist
Sheikh Hanif is a data scientist with expertise in generative AI, machine learning, and data analytics, leveraging advanced techniques to solve real-world business challenges.

"We were assigned a dedicated mentor from the Sandbox to advice and give us feedback on our project. We also used the available dataset to test our model when developing our product features."

Reseo

Reseo's e-Business ID enables swift execution of investment onboarding and investment transacting

Project Summary
The groundbreaking, universal, investor centric Reseo e-Business is designed from the perspective of the corporate investor. It is a new proposition for servicing the global B2B Investment Management industry. Reseo sits between the Investor, Asset Manager and Administrator, and is easily accessed through an intuitive digital dashboard.

The Innovation
Existing solutions continue to be paper based, manual, non-universal, and lack transparency and continuous risk management. The unique Reseo e-Business ID solution sets out to address the painful and time-consuming frustrations of paper-based investor onboarding with an innovative digital solution which eliminates repetitive tasks to save time and money. Reseo takes the pain out of onboarding by enabling swift execution of investment transactions. It improves account opening time by reducing the document verification timeline from a matter of weeks, to a matter of days or minutes. It's the only product of its kind that connects with all onboarding platforms, just as a universal travel adapter does.

The Benefits
The key benefits include seamless integration with onboarding platforms connecting investors, asset managers, and administrators; a digitalised process that maximises efficiency and enables swift execution of investment transactions in minutes rather than weeks. AI-driven processes consolidate continuous, up-to-date data from multiple reputable sources into a single e-ID, ensuring data security and transparency. This creates valuable new risk insights through perpetual, verified investor data, while adapting to complex compliance rules and maintaining data accuracy. It also eliminates tedious, repetitive tasks and fosters continued financial trust between participants and the market.

Luuk Jacobs
Co-Founder

Luuk has over 25 years of experience as an International Senior Executive in the Investment Management industry with a solid appreciation of business processes, risk and control structures, strategy, and tech integration. With Reseo, Luuk has developed ambitious technology which pushes the boundaries of innovation to catapult the industry into the digital universe.

Pierre-Yves Rahari
Co-Founder

Pierre-Yves is an experienced international Investment Management professional, with over 25 years of experience in the industry navigating the key challenges related to strategic positioning, innovation and new regulations, in an increasingly complex market environment. With Reseo, Pierre-Yves has focused on developing blended technology and investor-centric services which maintain financial trust while future-proofing the investment management industry for the digital generation.

"We have greatly benefitted from the mentorship and guidance of the FCA while further developing our service. You get only one opportunity for a first impression and the FCA's review of our testing programs have definitely contributed to that."

Menna

A digital finance assistant to help small business owners manage their finances better

Project Summary
Menna combines generative AI with rich real-time data to deeply understand each business, providing engaging and relevant support that simplifies decision-making and enhances outcomes. It offers chat, LLM, and AI-driven engagement and support for more accessible information, alerts, and guidance. Additionally, Menna leverages real-time data from a wide range of sources to empower businesses with better understanding, options, and results.

The Innovation
Small business owners are increasingly struggling to get the financial support they need. There are a range of potential sources available to them including financial advisers, accountants, friends, specialist websites such as brokers and price comparison sites, bank call centres and credit ratings agencies. But many of these options are difficult to access, are not comprehensive or too costly. Recommendations are too often general and not personalised due to patchy credit data and limited use of other data sources that give a fuller picture of business performance. Sixty percent of UK small businesses fail within five years, with 5.5 million such businesses in the UK (fewer than 50 employees), and 366,000 closing last year alone.

The Benefits
For small business owners, Menna offers personalised support with answers to complex questions anytime, tailored diagnostics, smart recommendations, real-time alerts, forecasts, and business performance insights, as well as access to the right credit, hosted decisioning, and operational cost savings. For banks, Menna's tools and services help partners better support their SME customers, reducing disintermediation and the loss of business to challengers. For lenders, hosted decisioning provides access to rich, market-leading data, making it easier to reduce loan application declines and allowing more specialist lenders to enter the market.

Data Used
Synthetic credit ratings and loans data.
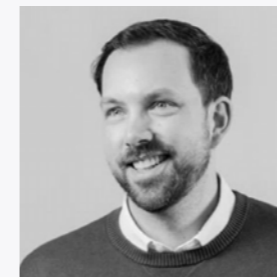
Dan Mines
Co-Founder

Dan is an accomplished, entrepreneurial, and commercially focused leader with a passion for enabling success and business transformation through data, technology and culture. He has a strong track record in Technology and Product roles within financial services and across data driven digital customer solutions in B2B and B2C businesses. His experience includes Chief Information Officer at Admiral Money and Chief Product Officer at Yolt.

Nick Carlton
Co-Founder

Nick started his career as a software developer, first in ecommerce and then in banks. Before joining Admiral where he became CPO of Confused.com, Nick was a management consultant at PA Consulting and a Senior Product Manager at Amazon. More recently, Nick was a member of the founding team at Coincover and has also worked as a consultant and adviser - launching and growing new products in personal finance for Monevo and others.

Jeremy Bowles
CTO

Jeremy has over 20 years in software development, technology and financial services including Chief Technology Officer at Admiral Money and Head of Engineering at Yoello. His skills include - Strategy. Leadership. Development. Architecture. Information Security. DevOps. SRE. CI/CD. Python. Go. Typescript. C#, C++. Terraform. CDK. AWS. Serverless. K8s. React. Unity.

"By participating in the Digital Sandbox, in addition to access to a range of data we have also had access to mentorship from senior people at data providers such as Experian and introductions to roundtables with senior FCA executives."

Saturn

Automated observations for financial advisers

Project Summary

Saturn records meetings that Financial Advisers, Financial Planners and Wealth Managers conduct with their clients. Using this recording, plus the FCAs guidelines, Saturn can flag risks and missed points from these interactions to reduce risk and improve client experience for firms. Saturn uses custom built AI, trained on the requirements within the UK advice sector, to give firms and clients peace of mind.

The Innovation

Saturn sets itself apart by focusing on models trained to recognise UK regulations, automating core operational and compliance workflows. Unlike other solutions that offer only point-specific features, Saturn provides a comprehensive workflow solution, delivering broader benefits for both firms and their clients. Its automated observation feature solves two major challenges for regulated advice firms: operational inefficiency. By capturing client conversations, Saturn reduces administrative burdens, enabling firms to serve more clients, while also helping firm owners stay compliant by delivering insights and flagging risks proactively, ensuring quality service at any scale.

The Benefits

Only 8 million people in the UK currently receive financial advice, largely due to high costs, trust issues, and lack of awareness. Saturn addresses these barriers with two key benefits: higher quality service, by customising questions for each firm to ensure clients receive tailored advice that aligns with their financial goals and regulatory expectations, and reduced administrative costs, which drive innovation and enable firms to develop new models that reach previously underserved segments.

saturn

Rohit Vaish
President

Rohit is a seasoned professional with extensive experience at a top 10 global asset manager. Specialising in operations, product management, and team-building, he has a deep understanding of the financial sector and its regulatory challenges. Rohit has successfully built and commercialised technology products across various industries, including FinTech and EdTech.

Amal Jolly
CEO, Co-Founder

Amal is an AI and data automation built for advisors and paraplanners to be efficient. Amal has extensive experience in banking, WealthTech, and RegTech. Amal has been a tech operator who has built solutions that improve process efficiency and growth for top-tier financial advisors, financial services, and FinTechs.

"Speaking to SME's within the FCA and getting their feedback, being connected to different teams working on advice and helping us frame our thinking. The FCA also enabled us to meet with former advisers who currently work in the FCA to answer specific questions."

Tokens of Appreciation

Stock rewards for loyalty at the workplace

Project Summary
Tokens of Appreciation is being developed as impactful employee recognition and reward scheme where the employee can redeem digital points for equity, through fractional/whole ownership of stocks in the company. The TOAPs are earned by employees for achieving pre-set goals.

The Innovation
The innovation's primary target market are non-desk workers who are usually not included in stock options, as a reward for good performance. TOAP's platform will encourage the participation of an excluded segment of the workforce (such as warehouse workers, bike couriers, cleaners etc who do not have access to pensions and tend to change jobs frequently) in investing in the firm(s) they work for to build better financial security.

The Benefits
TOAPs product is of mutual benefit for the employee and employer. it encourages the good financial habit of investing and possibly building future financial security as an alternative to spending traditional reward points on consumer goods that have little or no long-term benefits. It is also a way of ensuring that the employee's goal is aligned with that of the employer.

"Innovation Pathways works with us to help us navigate the relevant FCA regulation and process. We share our work around 1) stock investing regulation, 2) consumer language, 3) our designated precautions to safeguard consumers."
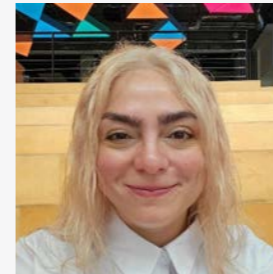
Gaia Soykok
CEO / Co-Founder

Gaia, a computer scientist turned venture builder, has developed ventures across fintech, enterprise SaaS, and DeFi for FTSE 100 companies, startups, and DAOs. She specialises in leveraging network effects in emerging technologies, working with organisations like Legal & General, Lloyds, Vodafone, and various Web3 and community groups.
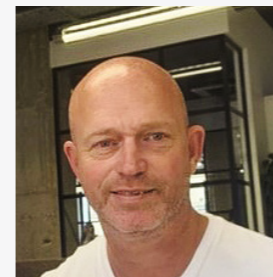
Sean O'Reilly
CTO / Co-Founder

Sean is an experienced engineer and architect with a passion for emerging technology and innovation. He is a hands-on tech leader with a proven track record of guiding engineering teams in FTSE 100 companies, startups, and Web3 ventures. His collaborators include UBS, Legal & General, Virgin Holidays, OSL, Thales, and Accenture.
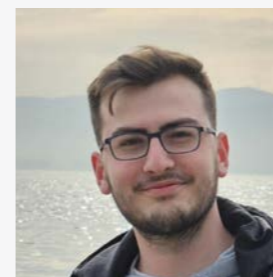
Murathan Kagan Bayram
Blockchain and back-end developer

Murathan is skilled in the Ethereum stack, digital identity, and wallets, with a background in Computer Science from Karabuk University.
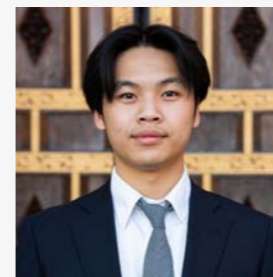
Arthur Kuan Han
Business Development

Arthur focuses on business communications and market research and is a Business major at Boston University.

Xcavate

A decentralised marketplace for real estate asset tokenisation and fractionalisation

Project Summary

Xcavate is a decentralised, community-driven protocol for real estate investment and tokenisation, designed to enhance transparency, accessibility, and efficiency in the sector while maintaining full regulatory compliance. Xcavate streamlines processes using reusable digital credentials that are cryptographically secured and easily verified. Built on the Polkadot SDK, the protocol automates token transfers, reducing counterparty risks and errors. Its decentralised approach provides global access to early-stage real estate investments with low entry barriers, enabling fractional property ownership and more affordable investment opportunities.

The Innovation

The end-to-end process from investor onboarding to property investment is significantly streamlined by eliminating intermediaries and automating processes, speeding up market entry and reducing costs. Independent checks are conducted on all real estate developers and assets before tokenisation, fractionalisation, and market listing. A decentralised governance structure is implemented for each real estate property to manage the relationship with the letting agent, further simplifying operations. Fractionalisation enables investors to purchase a fraction of a property, making real estate investment more accessible. This efficient, secure platform reduces complexity, time, and costs, while robust digital identity and asset verification processes help mitigate fraud whilst ensuring consumer and investor protection.

The Benefits

The platform allows consumers to invest relatively small amounts in one or more real estate rental yield bearing asset, spreading risk and building wealth. It provides a secure and controlled voting allocation, proportionately representing their investment for fair decision-making. Consumers have full visibility of their investment's valuation and can choose to sell via a secondary marketplace at their convenience. The platform also enables well-governed property ownership distribution among families and friends, with potential for better management of part-government-owned properties, while supporting property developers through streamlined purchase and investment processes.

Richard Houldsworth
CTO & Co-Founder

Richard, with over 12 years in the web 2.0 industry and a 2023 Polkadot Blockchain Academy graduate, is passionate about using blockchain in real estate. He aims to create a regulatory-compliant platform for tokenised property investment, making global real estate more accessible and affordable.

Alex Ward
COO / Co-Founder

Alex, with over 24 years of experience in traditional real estate - including land acquisition, new build construction, and property sales and lettings in the UK and abroad - has used his extensive sector knowledge to drive transformation and increase inclusivity in the industry.

Clare Conby
CCO / Board Advisor

Claire has over 20 years of experience in business and risk management, specialising in New Forms of Digital Money and navigating the evolving regulatory landscape. She is also the Executive Director of the Digital Pound Foundation.

"We have been able to test our product in a live market environment much quicker and with reduced risk to investors and other participants so that valuable data can be gathered to ensure our product is the right market fit and meets consumer needs accordingly, ensuring fulfilment of consumer duty requirements throughout."

RegTech

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Aptitude Global
Deriskly
Tazama
LexisNexis Risk Solutions

Aptitude Global

Decision Intelligence
- tackling global sanctions risks

Project Summary
Aptitude Global specialise in building innovative solutions to fight fraud and financial crime. Their graph-powered Decision Intelligence Platform seamlessly integrates customer and third-party data into a connected network view of individuals, companies and risks (such as sanctions, PEPs, adverse media and ESG). Using this platform, Aptitude Global are exploring new approaches to enhance global sanctions screening compliance using graph data science and machine learning, improving the accuracy of sanctions screening processes and identifying cases of sanctions circumvention.

The Innovation
With sanctions measures rising by 16% annually and screening teams experiencing a 400% increase in workloads since the Russia-Ukraine War, sanctions-busting activities and circumvention have surged as affected entities seek to operate undetected. Combined with the proliferation of sector and trade sanctions, standard list-based screening solutions have been inadequate. Whilst these tools flag entities that are directly listed on published sanctions lists, they often miss hidden connections or complex networks involved in circumvention. Aptitude Global's solution addresses these gaps by integrating rich third-party risk and ownership data through its Entity Resolution software, adding contextual relationships to client data. This enables more accurate and automated detection of sanctions risks, identifying sanctioned entities and circumvention attempts significantly improving compliance efforts while reducing manual reviews.

The Benefits
Aptitude Global's solution protects consumers and financial institutions from illegal activities, helps prevent reputational damage, and ensures compliance with increasingly complex global regulations. By improving screening efficiency, the platform reduces the burden on compliance teams, allowing them to focus on wider fraud and financial crime risk, promoting a safer financial environment for both businesses and individuals.

Data Used
OpenSanctions, Global AML Risk Scores, Global ISO Country Codes as well as various Data Provider APIs.
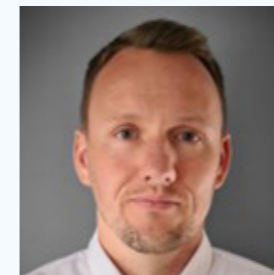
Alan Brown
Chief Technology Officer

Alan is a technology executive with expertise in data management, fraud, and financial crime, having led remediation and transformation programs at Tier-1 UK banks. Alan excels in using graph technology, decision intelligence, and entity resolution to drive innovation, improve data management strategies, and combat financial crime. He leads Aptitude Global's Innovation & Engineering lab, applying Data Science, AI, and Machine Learning to address unique challenges in regulated industries.

Suzie Ogilvie
Partner at Ogiro Risk & Aptitude Global Business Associate

Suzie is a seasoned compliance professional with over 20 years of experience in financial crime, sanctions, and reputational risk management. She has held senior roles in the compliance functions of three top international law firms and has been a leading advocate for AML and sanctions policy, representing the legal profession before UK and EU governmental bodies and aiding in the practical application of these requirements.

"Our solution relies on access to varied sources of third party data and the Digital Sandbox provides an environment that allows us to test connectivity and design connectors for these tools. Additionally, we've enjoyed a soundboard for our ideas, have received constructive feedback and made meaningful connections through the wider participant network."

Deriskly

AI for consumer understanding

Project Summary
In line with the FCA's Consumer Duty, firms are expected to ensure that consumers fully understand the products and services offered, providing sufficient information for informed decision-making at the right time, in a clear and accessible manner. Deriskly's solution evaluates the clarity of financial promotions and communications based on consumer feedback, recommending revised text to improve better understanding.

The Innovation
Research shows that 93% of UK adults do not fully trust financial services firms, largely due to the use of complex financial language. While financial products and services can provide significant benefits to consumers, their complex nature often leads to information asymmetries between firms and consumers. This, in turn, heightens the risk of mis-selling and deepens consumer distrust, making it critical for firms to improve transparency and communication.

Deriskly's primary goal is to address this key challenge: rebuilding consumer trust in the UK financial sector, particularly with innovative financial products and services. Deriskly's solution stands apart by being grounded in real human feedback, with a special focus on analysing how consumer attributes - such as age, income, qualification level and other - affect understanding. Unlike fully automated tools, they use direct consumer insights to inform recommendations, ensuring more accurate and personalised improvements.

The Benefits
The key benefits of this human-centred approach include clearer communication, fostering greater trust in financial services, and improved understanding of complex products. Vulnerable customers, in particular, benefit from tailored communication that ensures their needs are met, reducing the risk of mis-selling and financial harm. For the market, firms can bring innovative products to market more quickly by addressing information asymmetry and building consumer confidence. Enhanced transparency and trust lead to stronger customer relationships, and lower reputational risk, ultimately supporting the sustainable growth of the UK financial sector.

Data Used
Augmented Financial Products and Services Complaints, Consumer Complaints and Outcomes.
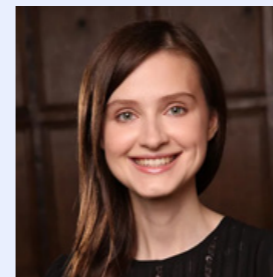
Tatiana Botskina
Founder / CEO

Tatiana is a serial entrepreneur, former lawyer, and pioneering machine learning engineer. She began her career as a banking lawyer before transitioning to software engineering, driven by an interest in machine learning. With an MSc in Law and Finance from Oxford, she is now pursuing a DPhil in Computer Science, focusing on explainable AI. Tatiana has been recognised on the Forbes 30 Under 30 in Technology (2022) and the Innovate Finance Women in Fintech Powerlist (2023).

Venu Varada
Technical Lead

Venu is a Senior Full Stack Developer with 11 years of experience, having led engineering teams at Tata Consultancy Services and Deloitte. He has delivered innovative solutions across various industries, including dispute prevention and tax compliance, with expertise in cloud-native architectures, microservices, and AI-enhanced applications.

Tazama

Detection of Authorised Push Payments fraud through real-time behavioural modelling

Project Summary

Tazama offers a number of fraud and money laundering typologies "out of the box". One of these typologies consists of a set of rules to establish the patterns of behaviour that would indicate that the debtor in a transaction is about to become the victim in Authorised Push Payments (APP) fraud. The rules evaluate a new transaction against the historical behaviour of the debtor (as the potential victim) and the creditor (as the potential fraudster) to determine if the transaction is APP fraud. The FCA Digital Sandbox assists us in validating the approach and the rules.

The Innovation

Authorised Push Payments (APP) fraud is a rising problem, with growing financial losses affecting customers and financial institutions alike. Our product aims to provide free tools to help protect customers at minimal cost.

Tazama is an open-source software product that is free to use and offers fraud detection in real-time to prevent fraud before transactions are completed.

The Benefits

Tazama reduces the incidence of APP fraud affecting customers and decreases the volume of refunds that financial institutions need to issue as a result of fraud within their ecosystem.

Data Used

APP Fraud Synthetic Data.

Justus Ortlepp
Product Manager

Justus brings over 20 years of experience in Business Analysis, having sharpened his problem-solving and system-building skills at leading companies in South Africa, including IBM, First National Bank (FNB), and Deloitte. While at Deloitte, he contributed to a client project for the Bill & Melinda Gates Foundation, which inspired him to pursue the full-time design and development of an open-source software product focused on real-time transaction monitoring.

"The data provided in the FCA APP Fraud Synthetic Data is extremely useful in validating our model. High volumes of accessible tagged data are very rare outside the organisation that owns the data, and unlikely to be available to calibrate an open-source model. Regular engagement with a dedicated coordinator has been helpful in keeping us focused and assisting in issues. We have also been introduced to other great and knowledgeable contributors in the community."

LexisNexis Risk Solutions

Demonstrating the value of cross-industry data integration to enhance fraud detection

Project Summary
The ThreatMetrix® Digital Identity Network® is a market leading fraud and digital identity product. Combining real-time global transactional data with fraud and risk intelligence datapoints to make effective risk assessments of fraud. Using synthetic data from the FCA to showcase the product's capabilities, LexisNexis's analysis collated the new data with existing sources to develop targeted rulesets aimed at flagging behaviour with a high propensity for scams or mules. The exercise has showcased that additional data sources widen the scope of risk identification and enhance the accuracy of fraud detection in the existing product.

The Innovation
Alongside device, payment and behavioural based signals, the network creates a 360-degree view of a customer's digital footprint to make near real-time risk decisions.

LexisNexis Risk Solutions has demonstrated the advantages of cross-industry collaboration in combatting fraud. Integrating TelCo industry data with intelligence from our Digital Identity Network has significantly improved our capacity to detect APP scams and money mules. The combined data provides greater context to transactional behaviour, revealing clear patterns of fraudulent activity that may otherwise go undetected, such as anomalous inbound payments that deviate from expected account usage, or an outbound call detected during the transaction.

The Benefits
LexisNexis Risk Solutions highlight the significant benefits of leveraging crowd-sourced intelligence to uncover and address fraud. By pooling data and insights across industries, they enhance their ability to detect patterns and anomalies that single organisations might miss; enabling a collective intelligence approach not only improves fraud detection but strengthens market resilience against evolving threats.

Data Used
Authorised Push Payment Fraud synthetic data.

LexisNexis® RISK SOLUTIONS
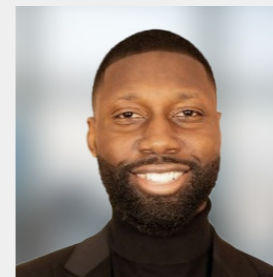
Joey Bajela
Lead Engagement Manager

Joey has over 10 years of experience across industries like mobile telecommunications, financial services, and information security. With degrees from the University of Oxford and GCHQ cybersecurity accreditation. Before joining LNRS, Joey served as a Senior Manager in HSBC's Global Digital Fraud team, providing fraud expertise to mitigate risks across the bank's digital channels.

Marijn Veelers
Data Scientist

Marijn holds a master's in computer science and has worked with the Dutch Financial Police's Cybercrime Team. With expertise in cybercrime and machine learning, Marijn develops innovative fraud solutions and collaborates with leading UK banks.

Dr Noemi Gyori
Senior Data Scientist

Noemi Gyori helps clients tackle fraud and optimise user experiences using advanced data-driven tools. Previously at Callsign, she worked on behavioural biometrics to enhance trust in digital identities. She holds an MSci in Physics from Imperial College London and a PhD in Computational Neuroimaging from University College London.

"The data provided by the FCA allowed us to demonstrate the effectiveness of our fraud detection product at the Inbound Payment Level, which we believe will assist our customers in addressing fraud on incoming payments. Moreover, research conducted through the FCA Innovation Service showcases that enhanced data sharing across industries significantly improves fraud detection outcomes for contributors, benefitting organisations of all sizes: it takes a network to fight a network."
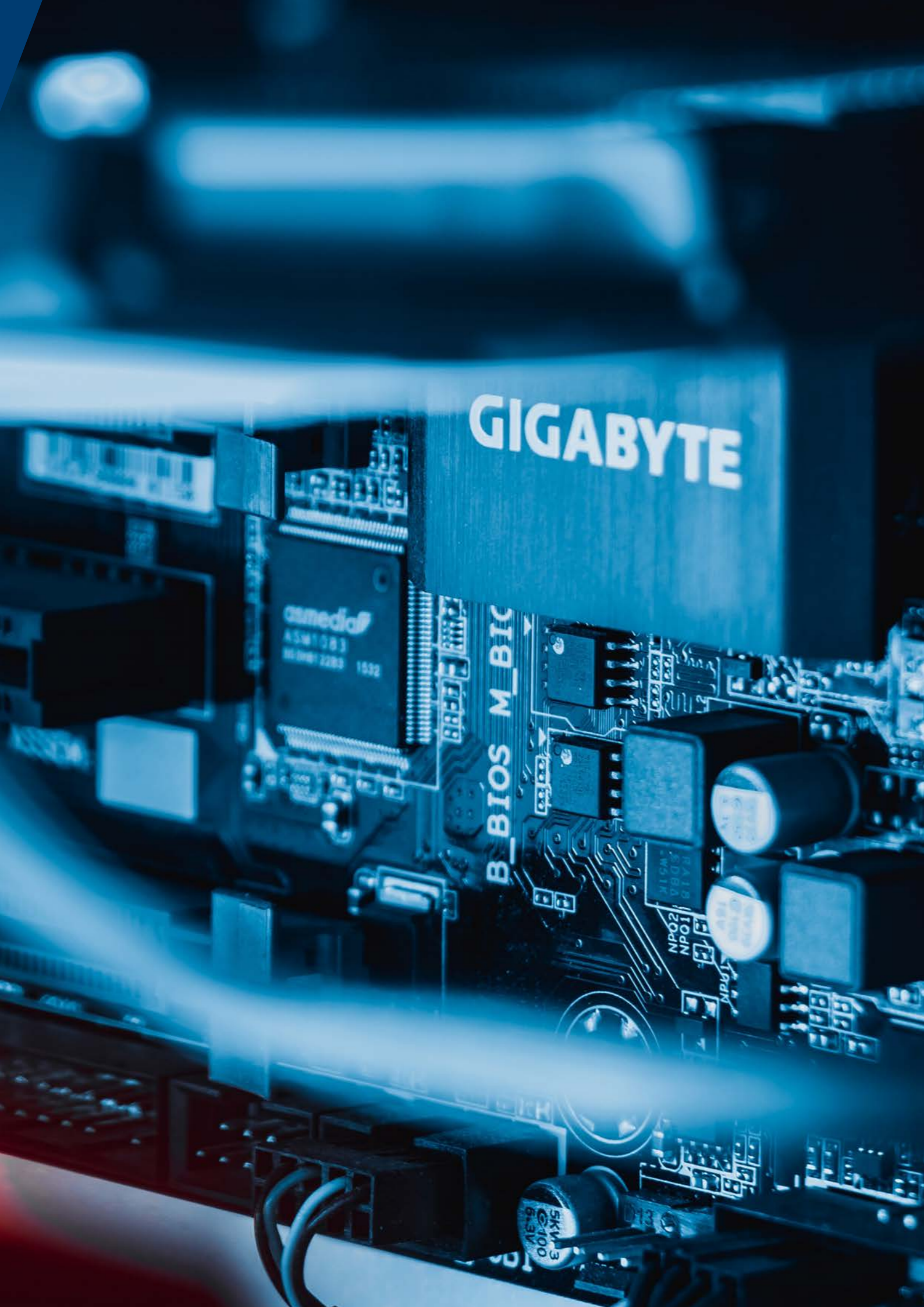
Data Enablement

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FinCrime Dynamics
Kore Labs
Lukango
Verifoxx

FinCrime Dynamics

Enabling customers to test their systems against both existing and emerging inbound authorised push payment (APP) frauds

Project Summary
FinCrime Dynamics offers leading independent control testing services using crafted behavioural data sources, along with recurring testing services that incorporate updates on recent emerging APP fraud threats. Customers benefit from industry peer control performance data for benchmarking, user access to a custom reporting and dashboard system, and resources designed to help teams build industry-leading controls or calibrate vendor solutions to reduce APP fraud exposure proactively.

The Innovation
APP fraud, which now constitutes about 40% of fraud in the UK, is a rapidly evolving threat. Fraud controls are relatively new, and fraudsters adapt faster, with controls often based on known frauds that change rapidly. Additionally, fraudsters frequently shift their tactics as controls are implemented, making it crucial to stay ahead of the curve. Data sharing has shifted from a question of "should we?" to "how do we?" as it becomes clear that information sharing is a major limiting factor in combating fraud. Simulations and synthetic data enable firms to share insights on suspicious activity patterns without revealing personal information. FinCrime Dynamics have developed the world's most comprehensive library of fraud behavioural simulations, and a synthetic data generation engine tailored for anti-financial crime applications. Addressing emerging threats by bridging the knowledge gap - covering unknown unknowns - and creating forward-looking simulations for proactive testing.

The Benefits
With access to a range of APP fraud behavioural techniques is available through the Synthetizor® FinCrime Simulation Library and its wider community, users benefit from a specially designed reporting and dashboard system for monitoring control performance and have access to data resources that empower teams to develop industry-leading controls or calibrate vendor solutions to proactively reduce APP fraud exposure.

Data Used
Authorised Push Payment Fraud synthetic data.

FINCRIME DYNAMICS

Daniel Turner-Szymkiewicz
CPO & Co-Founder

Daniel is a strategic product leader with expertise in machine learning and financial system modelling for financial crime prevention. He specialises in data sharing, intelligence synthesis, and integrating complex technologies into customer systems. His current focus is on transforming criminal behaviours within unstructured data into structured data for machine learning systems to learn from.

Martyn Higson
VP of Engineering

Martyn is an experienced technology leader in financial crime prevention, known for building multinational teams and delivering complex products. His tech-focused leadership, combined with strong commercial insight, drives holistic solutions and enhances user experience. He values simplicity, efficiency, and continual learning to foster innovation.
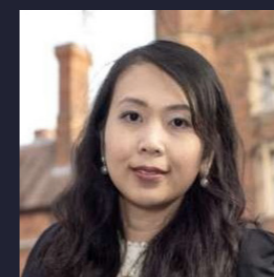
Sharon Lee
Lead Data Scientist

Sharon is a seasoned expert in fraud detection, biometrics, and machine learning, with extensive experience in evaluating AI models and advising senior executives on data governance. She has led industrial research projects, driven innovation, and fostered collaborations with universities and spinouts. Sharon was a finalist for the Women in Tech Excellence Awards 2021 for Innovator of the Year: SME.

"We have gained substantial value from accessing various mentorships through this service. Their feedback has been instrumental in shaping our product and value proposition during its beta phases. Additionally, access to data has enhanced our understanding of different systems and applications within financial ecosystems."

Kore Labs

WikiKore, the first ever open-content platform to deliver a standardised ontology for global financial services

Project Summary

WikiKore is the world's first decentralised, AI-augmented financial services ontology, utilising a dynamic and collaborative platform that crowdsources expertise from global practitioners, consumers, and interested parties to create and refine its content. Its rigorous governance framework and AI-augmented curation process ensure accuracy and relevance, while a rating system evaluates contributions based on attributes like source credibility and description quality. WikiKore supports real-time updates to stay aligned with market developments and trends.

The Innovation

There is no equivalent solution to WikiKore - this is the first platform of its kind to attempt to create an all-encompassing, crowdsourced, technology-enabled, real-time ontology for the global financial services industry. Despite increasing global financial interconnectedness, the major barrier to mutual understanding among firms, regulators, practitioners, and consumers is ontological rather than linguistic, as the £14 trillion industry lacks a universal classification scheme, leading to a proliferation of localised, incomplete, and often incomprehensible standards, which WikiKore addresses by uniting financial institutions, regulators, and end users to co-create a trusted open-content classification system.

The Benefits

A globally shared financial services ontology will benefit society by shifting the power balance between providers and consumers, enhancing transparency and efficiency, and reducing product creation and management costs. This efficiency directly impacts value for money in competitive markets, such as financial services. By simplifying technical language, eliminating jargon, and allowing best practices to emerge, the ontology will make financial products easier to understand, access, and compare, thereby accelerating social fairness.
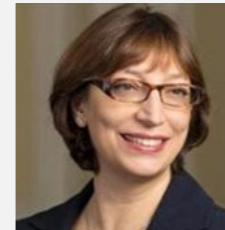
Sabrina Del Prete
Founder and CEO

Sabrina has over 30 years of experience in financial services, including senior roles at JPMorgan, Barclays and RBS. For the last four years, she has been included in Innovate Finance's Women in Fintech Powerlist, and in 2023 she won the EISA "Entrepreneur of the Year" award.

**John Liver**
Strategic Advisor

John is a leading voice in financial services regulation with 30 years of senior experience at the FSA, Barclays, and EY, now serves in nonexecutive and advisory roles, recently joining the board and board risk committee of Barclays.

**Liz Dionisio**
Chief Product Officer

Liz, with over 20 years of experience in technology consultancy across roles at Transport for London, Deloitte, and Barclays Capital, specialises in managing the full software project lifecycle, from scoping and planning to agile execution and milestone tracking.
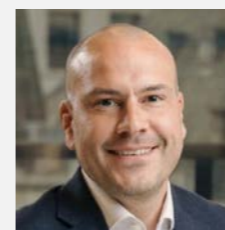
Jon Newman
Consultant

Jon brings over 15 years of financial services experience, with roles at the FCA, EY, and major banks, where he led remediation programs and managed Alpha FMC's UK Insurance Consulting's Conduct Risk and Compliance proposition.
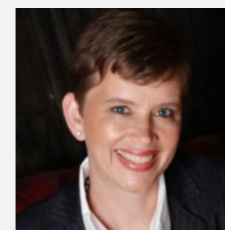
Sally Vernon-Evans
Client Relationship Managing Director

Sally, with over 20 years in financial services at Barclays, Citibank, and the Bank of England, specialises in portfolio sales and management, capital markets, and expanding client relationships.

Phil Pond
Solution Architect

Phil has over a decade of experience in software development, specialising in custom PHP and Laravel web applications, Angular and Vue SPAs, and frameworks such as PHP, HTML, Java, Android, iOS, AWS, and MySQL.

Lukango

Providing small businesses the right-sized insurance fuelled by data, empowering them to dream big

Project Summary
Small businesses are currently underserved by one-size-fits-all, statically priced insurance products that fail to account for their fluctuating and unpredictable nature, leading to significant underinsurance issues. Lukango addresses this problem with its innovative Flex product, which leverages open finance and machine learning to provide faster, more precise protection and increased profitability. By connecting to customer data, Flex not only enhances immediate coverage but also offers unique insights from additional data points that the market does not currently collect, allowing for the identification of new rating factors and the development of an improved underwriting model over the long term.

The Innovation
Business insurance pricing is currently based on static, one-off estimates of metrics like turnover and number of employees, which fails to account for the fluctuating or seasonal performance of small businesses. This approach leaves small businesses vulnerable to protection gaps and underinsurance as they evolve, with no current solution to manage these fluctuations. Current insurance offerings require customers to predict their turnover, staff wages, and expenses for the year ahead, placing the burden on them to keep this information up to date, often hidden in the small print. Due to the unpredictable nature of small businesses, this approach frequently results in customers being either underinsured or overinsured. Lukango's product addresses this issue by regularly and automatically checking for updates, providing a more accurate and adaptive solution.

The Benefits
Lukango's goal is to make insurance more inclusive by creating a product that is easy to understand and use, providing fairer pricing, adequate coverage, and eliminating confusion in the buying decision. With Flex, they aim to ensure that small business owners always have the right coverage, giving them confidence that they will receive the appropriate financial payout in the event of a loss.

Data Used
Accounts_receivables_synth_data, Directors_synth_data and Amazon_ecommerce_data.

Joanne Safo
Co-Founder & CEO

Joanne, formerly the CIO of Munich Re's insurtech engagement vehicle, Digital Partners, played a key role in launching over 20 insurtechs globally. As an operator with deep domain expertise, she is a leader at the forefront of technology in the insurance industry.

Selina Bilton
Co-Founder & CMO

Selina, who served as Chief of Staff at IKEA Digital, played a crucial role in developing their digital strategy, increasing online revenue from 7% to 31% within two years. As a strategic thinker, she focuses on understanding customer mindsets and decision-making.
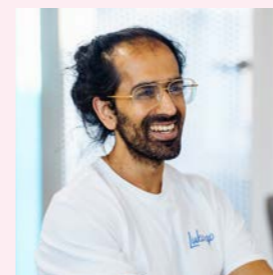
Jinny Gill
Technology Lead

Jinny manages and leads technology based projects at Lukango. He has a background in leading web/technology projects over the past 15 years.

"Utilising the Digital Sandbox enabled us to access data so we could: further develop our POC, prove some of our hypothesis and build a working demo we could use for customer validation."

Verifoxx

Identity verification that puts privacy first

Project Summary

Verifoxx is a privacy preserving, cross compatible layer that enables companies to securely query each other's data - such as querying red flags, customer activity, or KYC outcomes - without any data ever leaving its owner. Instead of sharing raw data, verified insights are exchanged, enforcing GDPR instead of putting it at risk. Our prototype inside the FCA's Digital Sandbox focused on two key use cases: combating money laundering by enabling banks to securely exchange intelligence on suspicious transactions and addressing Authorized Push Payment (APP) fraud by facilitating intelligence sharing between banks and telecommunications companies to improve fraud detection.

The Innovation

Sharing data externally, or even internally within large companies, is difficult due to privacy, security and internal controls, particularly when sensitive data is involved. The general belief is that to stay compliant, data should not be shared. Verifoxx solves this problem using multiple privacy enhancing technologies (PETs) such as trusted execution environments and zero knowledge proofs, to unlock secure intelligence sharing between companies. Verifoxx is built on the principle that no single PET can address the complex privacy and performance needs of modern data ecosystems. Its key difference is the integration of multiple PETs into a cross-compatible framework that works with diverse data formats. Unlike traditional solutions, Verifoxx ensures no data ever leaves the owner's environment, and even Verifoxx cannot access raw data. This universal, privacy-first approach allows secure querying and verified insights across industries, making it more flexible and secure than siloed, domain-specific PET solutions.

The Benefits

Unlocking financial intelligence sharing in the UK would greatly benefit consumers by reducing fraud, which costs £7 billion annually. Enhanced data sharing between banks and institutions would help prevent crimes like money laundering and fraud more effectively. Consumers would enjoy stronger protection of their finances, while the broader market would experience reduced societal and economic costs.

Data Used

Authorised Push Payment Fraud dataset.

VERIFOXX

Roisin McCarthy
CEO and Founder

Róisín holds a B.Commerce degree and a Masters in Business Studies from the National University of Ireland, Galway. She previously managed multi-million-dollar brands for global firms like L'Oreal and JTI in the UK, Switzerland and South Africa before founding Verifoxx after recognising that the need for privacy preserving data sharing exists across sectors. She won TechUK's Cyber Innovator award in 2023 and is on the Innovate Finance Women in Fintech Powerlist '23 in the Senior Leaders category.

Bala Subramanyan
CTO and Co-Founder

Bala leads the development and innovation of the company's cutting-edge technology. With over 11 years of UK-based experience in financial services, geoscience, and ed-tech, Bala has expertise in cryptography, secure enclaves, confidential computing, and machine learning solutions. He has led teams in developing MPC-based key derivation and vulnerability analysis. Bala holds a Master's in Telecommunications from Aston University and a Bachelors (BE) in Telecommunication.

"As well as access to high quality synthetic data that has allowed us test and improve our product's performance, we have had the opportunity to showcase our solution in front of our target audience, get feedback on our pitch as well as leverage our Digital Sandbox participation to engage the industry."

See you at the 2024 FCA Innovation Services Autumn Expo!

FCA Innovation

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