

# FinTech Partnerships

and the technologies that enable them

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For over 15 years, Amazon Web Services has been the world's most comprehensive and broadly adopted cloud platform. AWS has been continually expanding its services to support virtually any cloud workload, and it now has more than 200 fully featured services for compute, storage, databases, networking, analytics, Machine Learning (ML) and Artificial Intelligence (AI), Internet of Things (IoT), mobile, security, hybrid, virtual and augmented reality (VR and AR), media, and application development, deployment, and management from 81 Availability Zones (AZs) within 25 geographic regions, with announced plans to launch 18 more Availability Zones and six more AWS Regions in Australia, India, Indonesia, Spain, Switzerland and the United Arab Emirates. Millions of customers—including the fastest-growing startups, largest enterprises, and leading government agencies—trust AWS to power their infrastructure, become more agile, and lower costs. To learn more about AWS, visit [aws.amazon.com](https://aws.amazon.com).



Innovate Finance is the independent industry body that represents and advances the global FinTech community in the UK. Our mission is to accelerate the UK's leading role in the financial services sector by directly supporting the next generation of technology-led innovators.

Innovate Finance's membership ranges from seed stage startups and global financial institutions to investors, professional services firms, and global FinTech hubs. All benefit from Innovate Finance's unique position as the single point of access to promote enabling policy and regulation, talent and skills, business opportunity and growth, and investment capital.

By bringing together and connecting the most forward-thinking participants in financial services, Innovate Finance is helping create a global financial services sector that is more transparent, more sustainable and more inclusive.



Founded in 2013, Finch Capital's mission is to fund and support the entrepreneurs creating products that shape the future of finance. Finch Capital's team of 12 investment professionals are entrepreneurs (e.g. Adyen, Deliveroo, Deepmind) and investors (e.g. Accel, Atomico, Egeria) with deep industry backgrounds (e.g. Facebook, Google and McKinsey&Co), located across offices in Amsterdam, London and Jakarta. Its track record includes AccountsIQ, Aylien, BUX, Brytlyt, Fixico, Fouthline, Goodlord, Grab, Hiber, ScalingFunds, Twisto and ZOPA. Finch Capital produces original **research** including the State of European FinTech and the FinTech sector post Covid-19.

For more information see [www.finchcapital.com](https://www.finchcapital.com).

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## FOREWORD OF INNOVATE FINANCE

# IN THE FINANCIAL INNOVATION WORLD, COLLABORATION IS AS IMPORTANT AS COMPETITION

As the UK industry body for FinTech and financial innovation, we are keen supporters of more collaboration among players in the sector. Our FinTech Partnerships programme connects FinTechs to Banks, and FinTechs to other FinTechs, to help them find ways to develop new and exciting products and customer propositions.

The explosion of FinTech “enablers” in the last few years is as fascinating as the story of the growth of B2C-focused FinTech companies. The startups developing and providing cutting-edge technologies from core infrastructure, to customer onboarding solutions, to payments systems are disrupting financial services as much as new digital banks.

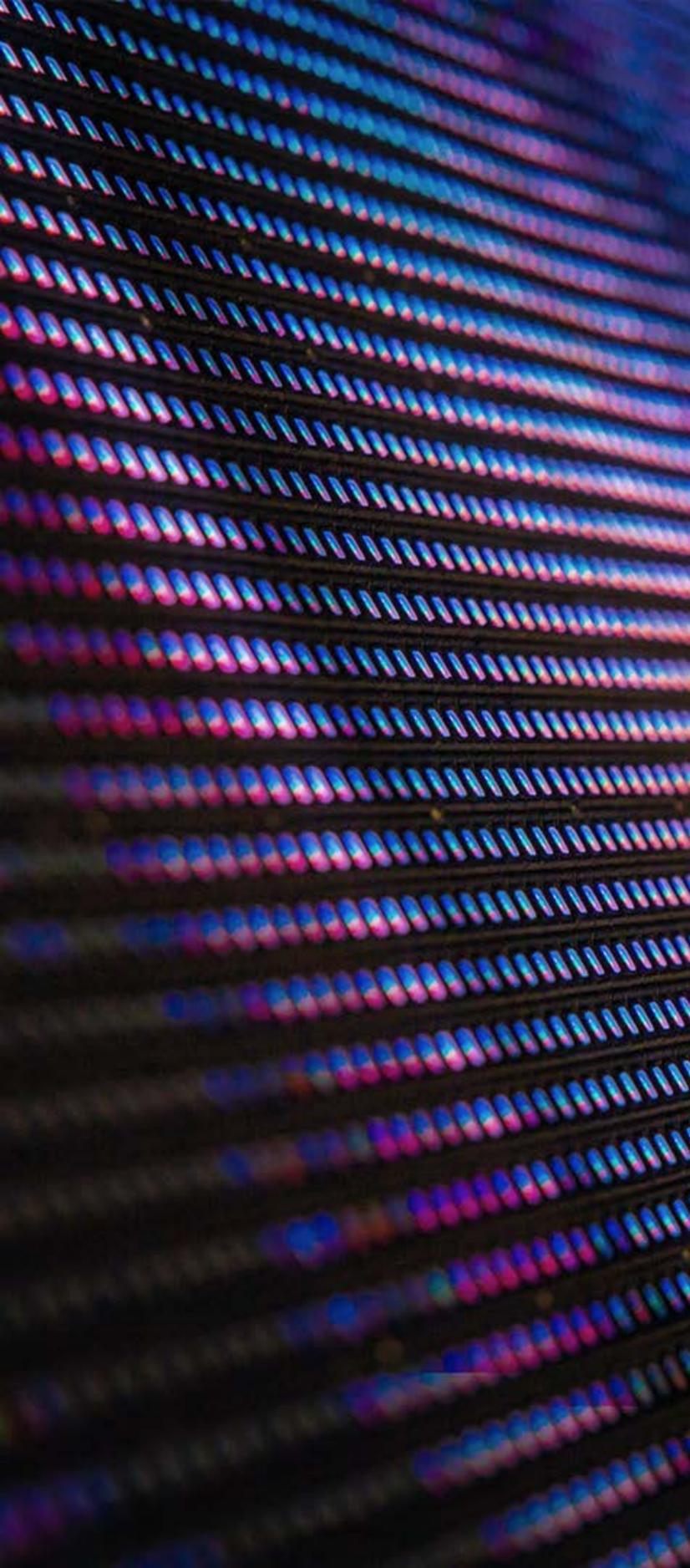
The key to the growth of these FinTech enablers is partnership. As an industry, we need to create an environment that enables FinTech’s partnerships to thrive. However, to support this, the industry needs to understand both the drivers and the barriers to successful partnerships, which are key to helping the UK’s global FinTech community to grow and scale.

FinTechs rely on partnerships to maintain focus on their end customers. FinTech partnerships matter because they are a vital enabler in creating better products and better services for consumers, financial institutions, and SMEs.

We are delighted that AWS, as one of Innovate Finance’s supporters, has taken the time to explore this subject. This report shows some interesting examples of FinTech partnerships in action and underlines how players in the sector are working with each other to great effect. It also highlights how regulatory innovation, particularly open banking, is leading to the formation of new types of partnership, which in turn are creating exciting new propositions. We look forward to further work with our members and partners in this important area.

Janine Hirt  
**CEO, INNOVATE FINANCE**

Investor view



## WHAT ARE FINTECH ENABLERS?

We are now arguably in the fourth wave of FinTech innovation:



The same monumental change that AWS brought to web infrastructure has come to financial services - Infrastructure "as a service" or the "AWS" era for Financial Services.

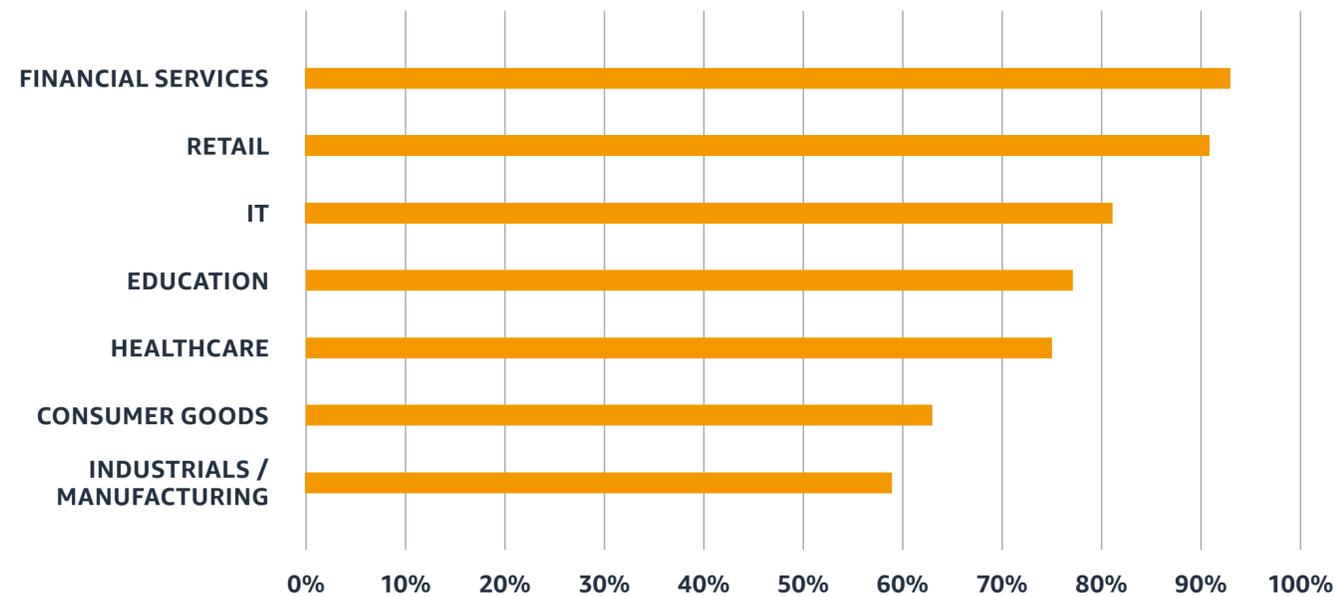
To date, innovation has come from digital challengers and existing financial institutions, but in the future a large percentage of it will come from existing companies (across the motor industry, e-commerce/retail, telcos and prominent consumer tech players) that are adding financial services for the very first time.

Empowering this evolution is a new wave of companies leveraging technologies like Artificial Intelligence and Machine Learning, IoT and blockchain, and middleware, like open banking APIs, to enable FinTechs and financial institutions to offer a superior customer experience (e.g. digital onboarding, KYC, etc.) and non-banks to leverage their brand and customer base to provide highly relevant financial products and services (e.g. card programmes, lending, etc.).

## WHAT TECHNOLOGY ENABLERS ARE THERE?

Enabling technologies, such as Artificial Intelligence and Machine Learning, are widely seen as the key to competitive advantage by businesses worldwide. A recent survey published by MIT Sloan Management Review found that 84% of organisations believe that AI will allow their organisation to obtain or sustain a competitive advantage. AI adoption has been encouraged by automation accelerating across industries, and nowhere has this acceleration been more notable than in financial services where digital transformation has always been on the innovation agenda but during Covid-19 it has become immediate and urgent.

Percentage of companies planning to accelerate automation initiatives due to Covid-19:



Source: Bain IT Buyers Survey, April 2020

Furthermore, for financial institutions and digital challengers, the benefits of running AI across the vast volumes of data that these firms hold include: achieving a better understanding of customers – personalisation of products and services, creating operational efficiencies, regulatory compliance, enhanced cybersecurity, and reduced risk (especially around fraud).

Given the long history of pioneering data analytics in the sector, financial services firms are primed to take advantage of this technology and the benefits it offers. The companies poised to take advantage in this new digital landscape will be defined by those that can best access this technology to process and analyse data, the speed with which they can react to such analysis, and their ability to enhance and streamline the customer experience by leveraging these technologies. It's likely that these technologies will continue to lead to a significant shift in both market structure and dynamics, delivering experiences that are both world class to the consumer and deliver value to the business. Taking AI based personalisation alone, according to McKinsey, personalisation at scale has the potential to create \$1.7 trillion to \$3 trillion in new value across industry with over \$1 trillion of that value creation attributable to the banking and insurance sectors.

## VERTICALIZATION OF AI & ML

Vertical applications of AI & ML address specific problems within financial services. Many startups in this category are doubling down on a particular industry problem or sector using software and integrating AI & ML to optimise some part of their product. These solutions typically differentiate based on the quality of the dataset used to train the industry-specific model and the industry expertise of the data scientists in identifying decision-making areas that can be enhanced by AI & ML models. As a result, many of these startups help automate specific functions within their specific sector using a variety of AI tools:

### PREDICTION

- Credit & Risk scoring
- Cash flow prediction
- Fraud detection
- Market prediction / robo investing

**Nethone**



### VISUAL TASKS

- Claim processing in insurance (e.g. looking at photos of an accident)
- Scale processing of satellite / aerial imagery (e.g. AVMs, insurance, etc.)
- Document processing (e.g. fraud detection)
- Photo and video verification (e.g. compliance)

**Hypatos**

**fourthline**

### TEXTUAL TASKS

- Enterprise search (including knowledge graph); legal search
- KYC, AML
- Credit scoring
- Risk Intelligence
- Customer service / chat
- Document Generation (Equity Research, Financial Statements)

**AYLIEN**



### AUDIO TASKS

- Audio processing for sentiment on earnings calls
- Call centre optimisation
- Generative audio for training
- Voice-enabled payments
- Biometrics - Voice in security and compliance



**BEHAVOX**



## EMERGENCE OF OPEN API

Open banking's time has arrived, and this will be the year when the tailwinds from increasing awareness, cultural attitudes towards using digital payment methods, and a more proactive role of the regulator will help to drive mass adoption across the ecosystem. Open banking usage has increased significantly since the start of the pandemic. In the UK alone, the OBIE reports that over 3 million consumers now use open banking-enabled products and services. Visa agreeing to acquire Tink for more than \$2 billion is also testament to the market opportunity.

API and infrastructure layers are now in place for the application layer to be built on top. Early problems particularly around poor user experiences are being addressed and more vendors are open to implementing open banking in some form or another. As we start to see the future of open banking unfold and account holder's data becomes accessible in a secure and elegant manner, there will be a dual focus on both user experience and developer experience. Banks will need to shift from simply offering their current products to adopting more sophisticated ways of enhancing the customer experience and driving loyalty.

The majority of use cases to date have included:

### SMART ONBOARDING

- Verifying accounts
- Verifying identity and accelerating KYC processes
- Estimating income, auto-filling forms and real-time affordability checks

**currensea**

### FINANCIAL MANAGEMENT

- Finance dashboards (account aggregation)
- Personal Finance & Smart budgeting

 **monese**

### CONSUMER & SME FINANCE

- Automated accounting
- Lending & access to credit

 **twisto**

### REWARD AND LOYALTY

- Cash-back schemes
- Customer insights for user segmentation and personalisation

**yoyo**

However, for FinTechs there are some other interesting opportunities; thin-file credit is one of the obvious first verticals (e.g. Koyo). There's also lots to be seen in the payments world where decades-old payment rails can be disrupted by open banking (hence why Visa and Mastercard are actively exploring M&A in the space).

## WHY IS THIS INTERESTING TO AN INVESTOR? WHY IS THIS IMPORTANT FOR FINTECH?

In late 2019, Andreessen Horowitz predicted that “Every company, even those that have nothing to do with financial services, will have the opportunity to benefit from FinTech for the first time.”

This fourth wave of innovation in FinTech is providing enabling technology and the Infrastructure “as a service” to not only democratise financial services but in turn expand the FinTech market opportunity by many multiples and in time it will become increasingly difficult to categorise FinTech as its own distinct sector. This trend is widely referred to as “Embedded Finance” and it is fast becoming one of the most disruptive trends across payments, banking and lending today. Marqeta’s successful IPO and expansion into Europe, as well as the recent launch of Stripe’s new issuing platform, signals the significant market opportunity that “Embedded Finance” brings to payments alone.

The past several years has seen financial services embedded into a wide variety of software applications and ecosystems developed by non-bank providers. Embedded finance is transforming the distribution model for financial services while creating new ways for technology companies to impact the financial lives of consumers and enterprises.

Financial services is becoming part of the tech stack for companies of all shapes and sizes, and will transform how brands are experienced by customers and clients in many sectors:

### **POINT-OF-SALE AND E-COMMERCE**

offering integrated payment processing and consumer credit (e.g., Twisto, Klarna).

### **GIG ECONOMY COMPANIES**

offering various financial products (e.g., prepaid cards, instant payouts) to both customers and drivers (e.g. Grab, Uber).

### **B2C FINTECHS**

expanding functionality and product offering, for example through installment loans, debit cards and instant lending disbursement (e.g. Revolut).

### **LARGE CONSUMER TECHNOLOGY COMPANIES**

offering digital wallets, P2P payment services, lending and credit and debit cards to their end users (e.g. Apple, Google, and Facebook).

### **TELCOS**

offering digital banking products, digital wallets and payment cards (e.g. 3 Money).

For example, Volkswagen Financial Services UK, part of Volkswagen AG, recently partnered with Scrive and Onfido, in order to launch their next-generation digital financing solution for UK dealerships. Scrive’s electronic signature service and Onfido’s digital identity verification services have been seamlessly integrated into a new process for quickly verifying customer identity and signing financing agreements either remotely or in person.

Venture capital firms will increasingly turn to invest in the capital-efficient B2B enablers that empower this trend.



## WHAT ROLE DO PARTNERSHIPS PLAY?

The power of collaboration and technology partnerships should never be underestimated.

Competition is intensifying in financial services, and we have already seen prominent consumer tech giants Google, Apple and Facebook all take their first steps to break into the financial sector (wallets, cards, obtaining E-money or Payment Institution licenses, etc.).

Partnerships are critical to staying ahead in a crowded market: partnering with the best companies specialising in particular technologies or verticals saves time and resources, improves product time to market, enhances user experience and reduces the overall learning curve.

However, partnerships must be aligned with the company's strategy, trajectory, and values; there should be a coincidence of wants in order to ensure long-term alignment and the longevity of the collaboration. There are multiple reasons as to why businesses and FinTech companies utilise partnerships to meet their strategic objectives:

### NEW OR IMPROVED TECHNOLOGY CAPABILITIES

This is the most common type of FinTech collaboration that is seen in the market, where a FinTech provides its infrastructure, platform or software to banks and other financial institutions - this could be branded or in the form of a white-label solution.

For the financial institutions, the partnership means they have immediate access to the latest cutting-edge technology, faster go-to-market or the ability to reach new customer segments without in-house development efforts or risk. To the consumer/end user, most of these integrations or partnerships are invisible! Most consumers have probably never heard of these companies, but they have almost certainly used their products through the partners that they enable.



### IMPROVED DIGITAL CUSTOMER EXPERIENCE

For established financial institutions, partnering with a FinTech offers an accelerated path to leveraging the latest tech and providing the best customer experience and journey, which can be challenging to develop in-house due to legacy systems and access to vertical-specific product and engineering talent:

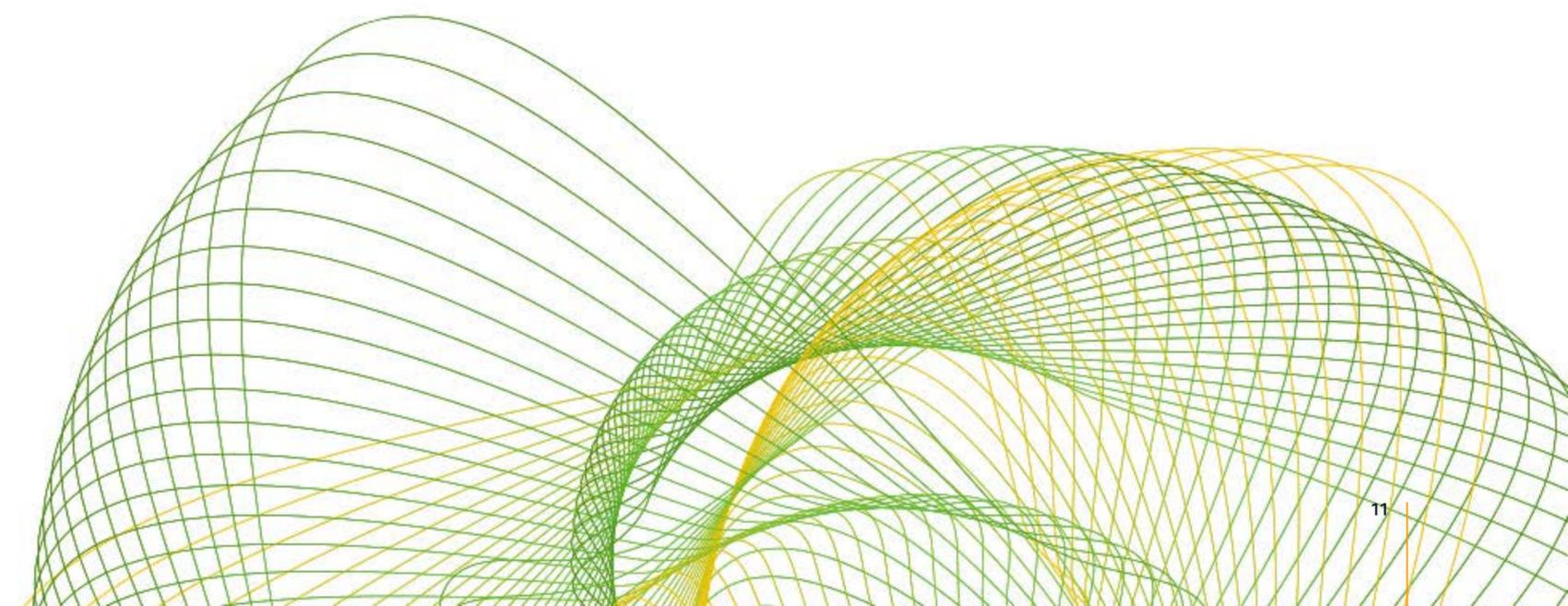


### NEW ACQUISITION CHANNELS

Think Embedded Finance! Partnering with organisations with an established brand and an existing, large customer base is appealing as it provides access to hundreds of thousands of customers that can benefit immediately from a relevant FinTech offering. Providing the brand with additional value to their customer base, adding the possibility of new monetization opportunities and ancillary revenue streams and increasing the market opportunity dramatically for all parties involved:



Finally, partnerships between tech companies are vital in this new era of financial services, and this is what is **ENABLING THE ENABLERS**. AWS providing enabling FinTechs with the ability to easily leverage sophisticated technology and infrastructure "on demand" to create serverless architecture whether it is leveraging cloud AI or the processing power of GPU at scale:



## Case Studies

Many of the most successful FinTech enablers build on AWS, leveraging the benefits of the cloud and the GTM opportunities that being part of the AWS community brings.

As we move into a new wave of FinTech innovation, AWS is proud to enable partnerships that are shaping the future of the financial services industry: between FinTechs, financial services incumbents, and increasingly into new verticals through embedded finance. Through AWS, FinTech customers are leveraging infrastructure and technologies such as open APIs and Artificial Intelligence and Machine Learning to drive success in their strategies and create new value propositions for consumers.

## SUCCESS THROUGH PARTNERSHIP AND INNOVATION

GPS and Currensea are two leading FinTechs that have built up their businesses through innovation and partnership. Currensea works with GPS to deliver a ground-breaking travel money solution. Both leverage modern platforms and APIs as enablers of their partnership strategies.

### currensea

Currensea is the UK's first direct debit travel card. It links to an individual's bank account allowing them to spend abroad without the normal overseas charges and fees, or the need to top-up a prepaid card. Acting as a layer in front of a current account, it saves the customer money and provides extra security.



Global Processing Services (GPS) is a trusted and proven go-to payments processing partner for today's leading challenger brands. Founded in 2007, GPS' highly flexible and configurable platform enables global FinTechs, digital banks and e-wallets, to deliver rich functionality to their cardholder users.

## MODERN INFRASTRUCTURE & API CASE STUDY: CURRENSEA & GPS

### MOVING AWAY FROM LEGACY MODELS

GPS works with AWS to move away from physical databases and onsite servers to embrace a modern, cloud-enabled architecture. The company's migration to AWS enables it to drive new business and expand into new markets – GPS is leveraging AWS's global infrastructure to scale globally, across multiple regions whilst retaining high availability and performance for its customers. According to Currensea Cofounder James Lynn, time to market is absolutely key and the AWS cloud-based approach has provided Currensea with execution time - an order of magnitude faster than setting up an on-premises equivalent.

### THE IMPORTANCE OF MODERN PLATFORMS & APIS

For Currensea, having a modern cloud-based platform and cutting edge API stack is essential for partnership and growth. Working with an organisation that has common APIs enables speed, security and ease of connectivity. GPS sees working with AWS as part of the digital transformation of financial services. As banks invest in modern platforms and embrace open banking, GPS benefits from more partnership opportunities.

## WORKING WITH AWS

### ENSURING PERFORMANCE & RESILIENCY

Resiliency is critical for Currensea. Building on AWS ensures continuity of service through strong platforms and provides seamless failover solutions.

### REGULATORY COMPLIANCE IS CRITICAL

As a payment processing platform, GPS is working in a highly regulated sector. The company's collaboration with AWS means it is better prepared to meet the strict regulatory requirements placed on outsourced providers.

"Banks that haven't fully embraced open banking and have taken a less optimal API approach are missing out in a big way on hundreds of FinTech opportunities."

James Lynn  
CO-FOUNDER, CURRENSEA

"We really wanted access to different services across the technical landscape and to have greater geographic flexibility, which is what AWS facilitates. This was never going to be just a lift and shift. The cloud is the future for GPS – for our development, testing and everyday services."

Jerome Gudgeon  
GROUP CHIEF TECHNOLOGY OFFICER, GPS

## CLOUD NATIVE INNOVATION IN FINANCIAL SERVICES

Thought Machine and Monese are innovators in financial services. Thought Machine's core banking platform enables banks and financial technology companies to migrate from legacy systems and deliver tech-enabled cloud-based services to their customers. Monese offers a new type of money service: an account that can be opened instantly and used via mobile. Monese has selected Thought Machine, running on AWS, as the core of its proposition, and together the three companies will deliver new exciting propositions to customers.



Thought Machine delivers core banking through Vault, an API-first, cloud-native platform. Built with a microservice architecture, Vault can be configured easily to suit the needs of any bank.



Monese is a mobile money account provider that offers current accounts and money transfer services without credit checks or residency restrictions. Monese's innovative services have been built on a cloud-native platform.

## MODERN INFRASTRUCTURE & API CASE STUDY: THOUGHT MACHINE & MONESE

### GROWTH PARTNERSHIPS FORMED IN THE CLOUD

Monese has selected AWS Cloud for its ease of use and flexibility. The company recently moved to multi-tenant architecture, taking Thought Machine's core ledger engine, wrapping it and providing to third parties as an overall solution. This was made possible as Monese and Thought Machine both use AWS.

### THE IMPORTANCE OF A MODERN, NON-LEGACY PLATFORM

Thought Machine's platform Vault is built entirely in the cloud. Vault's real-time architecture enables microservices to talk in a secure fashion with one another, ensuring data is fully encrypted in transit and at rest. This would not have been possible with a traditional core system. For Monese, building on-premise was never an option. Leaving aside the legacy and cost issues, building on a modern, open platform enables Monese to innovate rapidly and scale internationally, whilst retaining performance.

## WORKING WITH AWS

### THE EASE OF A CLOUD-BASED PLATFORM

The Thought Machine and AWS partnership brings together the best of next generation core banking software with the scale and global reach of AWS. Together, they enable transformative change, particularly for banks and financial technology companies wanting to break away from the shackles of legacy platforms. With Thought Machine's Vault and the support of AWS architecture, financial institutions can transform and scale at pace, while building exciting new customer experiences.

### POWERING MICROSERVICES ARCHITECTURE

Microservices are critical to Monese and Thought Machine's partnership strategies, and a key factor in choosing to build on AWS: Monese has up to 70 different partners linking into its architecture, all needing to work with each other. According to Monese, their highly customisable and flexible tech platform allows them to integrate new partners, products, and services at scale. Ultimately, this approach allows their customers to access an unparalleled range of flexible financial services and support across Europe.

"Our recommendation to banks is always to start their cloud journey. Financial institutions can only unlock their full potential and attain future-ready systems with cloud native infrastructure."

Travers Clarke-Walker  
CCO, THOUGHT MACHINE

With Thought Machine's Vault being on AWS, we've been able to deploy in record time and do all the DevOps stuff ourselves."

Atul Choudrie  
CCO, MONESE

## DISRUPTING THE FINANCIAL WORLD THROUGH CLOUD-NATIVE INNOVATION

The founders of Mambu identified a key market opportunity: traditional banking applications were designed for legacy systems and didn't adequately meet the needs of all customers. Their solution was to develop agile, cost-effective software delivered via the cloud rather than banks' own data centres. Having a modern, open platform is a critical enabler of Mambu's success.



Mambu is a Software-as-a-Service (SaaS) cloud banking and financial services platform that was born in the cloud. The company enables its customers to leverage new technologies to deliver more reliable, intuitive and accessible financial services. Mambu's unique composable approach means that independent components, systems and connectors can be assembled in any configuration to meet business needs and end user demands.

## MODERN INFRASTRUCTURE & API CASE STUDY: MAMBU

### DELIVERING SaaS VIA AN OPEN PLATFORM

To differentiate itself from other banking software providers, Mambu needs to have a core product that customers can tailor to their needs. By adopting a single code base hosted in the cloud—rather than individual deployments on a huge range of customer-owned hardware— Mambu can offer a flexible, fast and cost-effective SaaS alternative. Leveraging the opportunities of open banking and an API-first cloud-native platform, Mambu is experiencing award-winning business growth. The benefit for its customers is that updates are available immediately and available out to all customers.

### LEVERAGING A MODERN PLATFORM FOR BUSINESS ADVANTAGE

Having a modern platform enables Mambu to disrupt a market dominated by software from well-established vendors. One of its key requirements is high availability, as its customers expect 99.99% uptime. Mambu now has multiple servers running with live requests coming in all the time, which it can manage without any interruption to users.

## WORKING WITH AWS

### PEACE OF MIND WITH PERFORMANCE & SECURITY

By using different AWS Regions, Mambu supports customers across five continents. And it also benefits from AWS's high level of investment in security and compliance.

### SCALING BUSINESS IN THE CLOUD

The flexibility of being in the cloud enables Mambu to support clients across non-financial institutions, neo banks, big banks and FinTechs, across 65 regulatory environments and all running on a single code base. With AWS there are no barriers to scaling its operations.

"Mambu has hundreds of customers and over 40 million end-users, and we are handling more than 60 million API calls a day. This would be impossible without the single code base operating on top of the AWS services."

Ben Goldin

MAMBU'S CHIEF TECHNOLOGY OFFICER

"Using AWS, there are no barriers to scaling our operations tenfold, which we plan to do over the next few years."

Ben Goldin

MAMBU'S CHIEF TECHNOLOGY OFFICER

## LEVERAGING OPEN BANKING OPPORTUNITIES IN THE CLOUD

A leading open banking platform, Tink's technology is behind some of the most successful financial services provided by the likes of PayPal, Lydia, and NatWest. Tink's Machine Learning capabilities stand at the heart of the value created for the end-users. Using Amazon Sagemaker, Tink has developed training infrastructure for the creation of hundreds of Machine Learning models.



Tink is Europe's leading open banking platform that enables banks, FinTechs and start-ups to develop data-driven financial services. Through one API, Tink allows customers to access aggregated financial data, initiate payments, enrich transactions, verify account ownership and build personal finance management tools.

## OPEN BANKING & AIML CASE STUDY: TINK

### OPEN BANKING SERVICES THROUGH A POWERFUL API

Tink has quickly established its reputation as a leading European open-banking platform for the development of data-driven financial services. The European Union's PSD2 directive is a critical business enabler for Tink, as it ensures that banks allow FinTechs and other third parties to access account holders' transaction data via secure technology. Through one API, Tink's clients can access aggregated financial data, initiate payments, enrich transactions, and build personal finance management tools for a range of clients.

### MACHINE LEARNING DEPLOYMENT ON A MODERN PLATFORM

Machine Learning is a critical technology for Tink enabling them to categorise aggregated payment data in real time to provide a seamless experience for their customers. For this, Tink uses Amazon SageMaker, facilitating enhanced ML modelling and the identification of transaction patterns in rapid time. This time-saving technology means that Tink's engineers can build, train and deploy ML models in a matter of hours.

## WORKING WITH AWS

### FOCUSING ON CUSTOMER VALUE

The AWS Cloud ensures performance, security and resiliency without the need to hire an infrastructure team to manage IT. This lets Tink focus on delivering real value to customers.

### SPEED OF SERVICE FOR CUSTOMERS

With AWS Cloud, Tink is able to set up a dedicated environment on its platform for new customers in just a couple of days. Tink uses Amazon Relational Database Service to streamline the onboarding process.

"We chose AWS because of its managed services, so that instead of hiring an entire infrastructure team to maintain our IT services, we could focus on delivering value to our customers."

Mattias Appelgren

TECHNOLOGY LEAD FOR INFRASTRUCTURE AT TINK

"Using Amazon SageMaker, Tink saves time training its ML models. In hours, engineers can build, train, and deploy ML models that reach millions of end users."

Mattias Appelgren

TECHNOLOGY LEAD FOR INFRASTRUCTURE AT TINK

## POWERING INNOVATION IN FINANCIAL SERVICES

Yapily builds open banking infrastructure to power the next wave of financial innovation. The company's wide feature set enables its partners to focus on what they do best: product innovation. Yapily's tech is built from the ground-up, and as a member of the Amazon Partner Network, Yapily works with AWS to drive its partnership strategy, using AWS compute, storage, network, monitoring and security services to deliver scalable and reliable solutions.



Yapily is a scalable and robust open banking infrastructure designed to power innovation in financial services. Customers access financial information and payment infrastructure seamlessly and securely from Yapily's API-first platform.

## OPEN BANKING & AIML CASE STUDY: YAPILY

### LEVERAGING OPEN BANKING WITH AWS

Yapily has open banking at the heart of its business model and is the only 100% PSD2 coverage provider, with technology that is built on fully-tested and compliant connectivity. Working with AWS as their cloud platform partner, Yapily can connect to more than 1,500 direct integrations across the UK and Europe, and is working directly with European banking regulators to shape the future of open banking.

### DRIVING FINANCIAL INTELLIGENCE THROUGH AIML

Through Amazon SageMaker, Yapily uses Artificial Intelligence and Machine Learning to drive innovation and enhance financial products and services. Open banking provides financial data in many different formats, and Yapily builds Machine Learning models to categorise transaction data and derive actionable insights and intelligence for its clients.

## WORKING WITH AWS

### HIGH PERFORMANCE AND RELIABILITY

AWS provides Yapily with a high performance and reliable infrastructure allowing Yapily to focus on using modern techniques with infrastructure as code and gitops, operating multiple data centre regions with access to hundreds of AWS's secure services.

### AN API THAT RELIES ON CLOUD SECURITY

Yapily works with AWS to ensure a continuously secure environment, following best practice through the well-architected framework and completing a foundational technical review. By working with AWS, Yapily also benefits from strict, standardised methods of measuring risk and ensuring compliance from all partners.

"Harnessing Amazon SageMaker, Yapily is accelerating innovation within its data enrichment capabilities, unlocking richer insight for companies."

Christian Ball

HEAD OF PARTNERSHIPS AT YAPILY

"Working with AWS, Yapily is equipping organisations with a highly secure and efficient API infrastructure to leverage open banking data."

Christian Ball

HEAD OF PARTNERSHIPS AT YAPILY

## A PIONEERING APPROACH TO ID VERIFICATION

Onfido is a leader in the field of digital identity verification with pioneering use of Artificial Intelligence and Machine Learning and facial biometric verification. For Onfido, providing these services to more than 1,500 companies—from car-sharing services to cryptocurrency exchanges—requires computing that is agile, scalable, robust, and secure. And, importantly, it requires a dedicated approach that is supported by its cloud provider.



Onfido is an automated identity verification platform, helping companies see real identity using Artificial Intelligence, government IDs and facial biometrics. Onfido's automated service enables companies to onboard more users, more quickly while reducing risk and preventing fraud, and offering customers a better experience.

## OPEN BANKING & AIML CASE STUDY: ONFIDO

### POWERING MACHINE LEARNING IN THE CLOUD

Both AI and ML are critical to Onfido's business model. Every time users take a photo of themselves to verify their identity, Onfido runs a complex series of automated tasks powered by ML, including: document verification, optical character recognition, biometric verification and face matching.

### PARTNERSHIP AT THE HEART OF ONFIDO'S APPROACH

Partnerships are critical to Onfido's strategy of setting new identity standards for digital access. As a member of the AWS Partner Network (APN), Onfido benefits from the opportunity to work with other AWS customers, such as Mambu.

### ENABLING INNOVATION THROUGH AIML

Onfido uses AIML to combat fraud, automatically verifying the identity of a user through a combination of document recognition, optical character recognition, biometric verification, face matching, and "liveness" detection in a selfie, powered by Amazon Sagemaker.

## WORKING WITH AWS

### SUPPORTING ONFIDO'S CUSTOMER FOCUS

With Amazon EC2 reducing the complexity of Onfido's on-premise configurations, its researchers are free to focus on designing ML tests, with support from AWS.

### SECURITY

For a company like Onfido, data security is paramount, and AWS offers the level of security it needs. AWS CloudTrail provides Onfido with a robust suite of services to detect security breaches, including governance, compliance, operational auditing, and risk auditing; AWS Key Management Service (AWS KMS) makes it easy for customers to create and manage cryptographic keys. Onfido encrypts now on AWS KMS using Amazon S3 batch operations, and the associated AWS Lambda enables it to do this easily across hundreds of millions of bits of media.

"Partnerships are critical to Onfido's strategy. Onfido's mission is setting the new identity standard for digital access and we cannot do this in a vacuum. Our partnership with AWS allows us to co-sell to customers alongside AWS account teams, market our services more effectively and access technical expertise which enhances our offering."

Ed Ackerman

**DIRECTOR ALLIANCES & PARTNERSHIPS AT ONFIDO**

"If there's one service that helped us to scale, it's Amazon EC2. It enabled us to train more models much faster than we had before."

Ruhul Amin

**COFOUNDER AND CHIEF ARCHITECT AT ONFIDO**

## BREAKING NEW GROUND IN CONTEXTUAL FINANCE

With the shift to contactless payments and the recent surge in online transactions, companies are now looking to banking-as-a-service (BaaS) providers in order to offer customers banking solutions through their own platforms. This has led to the growth of contextual or embedded finance, which is being driven by cloud-based technology and modern APIs. Solarisbank is a pioneer in contextual finance and is the first bank in Germany to fully migrate to the cloud with AWS.



Solarisbank is a tech company with a full banking license that is taking banking into new contexts. It enables businesses to offer their own financial solutions through its banking-as-a-service (BaaS) platform, which handles all the regulatory and technological complexities of banking.

## CONTEXTUAL FINANCE CASE STUDY: SOLARISBANK

### DRIVING BaaS IN THE CLOUD

While FinTech firms are operating in the cloud, many traditional banks are still migrating to the cloud and operate with legacy infrastructure. As a result, non-financial players are turning to BaaS and embracing contextual finance through companies like Solarisbank. Enabling online businesses to leverage data and create a superior customer experience, Solarisbank provides e-money, lending and other digital banking services.

### REDUCING FRICTION WITH CLOUD-BASED AIML

Solarisbank embraces Artificial Intelligence and Machine Learning to reduce friction for customers. Using ML modelling, it is able to analyse behavioural patterns to authenticate card transactions and eliminate usernames and passwords. Solarisbank securely analyses anonymised data points in real time to detect anomalous activity and proactively intervenes before a fraudulent transaction occurs.

“We operate in a very young market built on trust. Combining a banking license with a cutting-edge tech stack allows us to be a fully-fledged Banking-as-a-Service provider.”

Hima Mandali  
CTO AT SOLARISBANK

“For us, AWS is more than just our cloud provider – it’s a strategic collaboration which we want to continue to deepen our business ties going forward. Security, scalability, high performance, and reliability of AWS gives us the ability to innovate faster and offer our customers secure access to our banking-as-a-service platform, providing them with everything they need to build their own banking products.”

Hima Mandali  
CTO AT SOLARISBANK

“Financial services should be an organic part of life, not hidden behind brick walls and reams of paperwork. Contextual finance is helping to change this.”

Hima Mandali  
CTO AT SOLARISBANK

## WORKING WITH AWS

### FAST OPEN APIS POWER CONTEXTUAL FINANCE

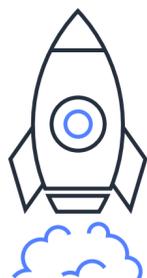
AWS Cloud enables Solarisbank to collect data with open APIs and to react to customer behaviour in real time while simultaneously launching and adapting services.

### A SECURE, CUSTOMER-CENTRIC APPROACH

A cloud-based platform affords Solarisbank essential security, critical for BaaS: building secure APIs, storing large amounts of data in the cloud, and leveraging an array of data analytics capabilities.

# Build and Scale with AWS

## AWS PROVIDES FINTECHS WITH WHAT THEY NEED TO SCALE AND COMPETE



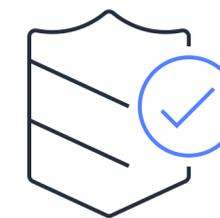
### **BUILD FASTER**

Efficient allocation of resources, lower cost and a plethora of technology capabilities.



### **MAKE FAST DATA-DRIVEN DECISIONS**

70+ AWS analytics, AI and ML services.



### **MASSIVE SCALABILITY**

81 Availability Zones and 25 Regions with powerful computing capabilities.



### **STRENGTHEN SEC-COMPLIANCE**

Security infrastructure built to satisfy military, global financial institutions, and other high-sensitivity organisations.



### **HIGH AVAILABILITY**

Easy access to computing across multiple regions with strong operational performance.



### **DEEP FINANCIAL SERVICES EXPERTISE IN EUROPE**

Partnered with start-ups including Stripe, Monzo, Starling Bank, OakNorth, global financial institutions like Barclays, BBVA, Allianz, and AXA.

# BUSINESS ADVANTAGE FOR FINTECH COLLABORATION ON AWS

## SECURITY AND SIMPLICITY

Partnerships on AWS provide a single consistent view of all your security commitments to customers. This results in simplicity and uniformity of your security posture.

## COMPLIANCE AND GOVERNANCE

FinTech to FinTech partnerships on AWS have access to a suite of robust compliance tools that enable secure processing of customer data and transactions. AWS also enables partners to create reports to help them audit their infrastructure. A central, consistent approach to compliance means the customer can ensure that all data and processing adheres to regulatory requirements.

## SPEED AND RELIABILITY

FinTech to FinTech partnerships on AWS benefit from reduced latency, secure transfer of data between entities, global reach and scalable infrastructure. As FinTechs grow, their partners can scale with them, preventing potential disruption to the end-to-end customer journey and experience.

## ARCHITECTURAL SIMPLICITY

Using modern APIs and services like [Amazon API Gateway](#), partners benefit from an enhanced engineering process that enables better testing and delivery of new features. Following the five pillars of Security, Reliability, Operational Excellence, Security and Cost Optimisations, customers can trust their partners have architectures that facilitate unrestricted growth.

## PROGRAMMES FOR GTM

### AWS Partner Network

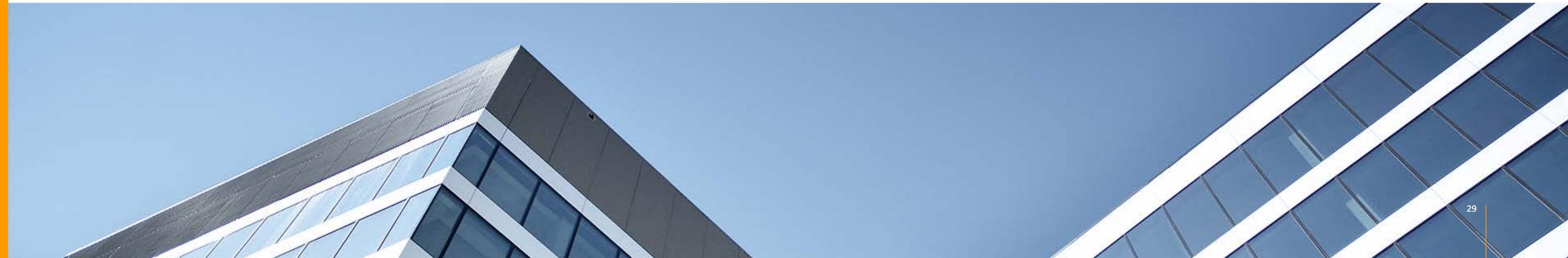
- Tiered funding benefits
- Technical training
- Sales and business enablement
- Co-marketing

### AWS Marketplace

- Streamlined go-to-market on AWS's software marketplace
- Integrated billing with AWS

### AWS Connections

- Introduction to enterprises with a specified solution need



## BUILD & SCALE WITH AWS ACTIVATE

AWS Activate provides start-ups with a host of benefits, including AWS credits, AWS support plan credits, and training, to help grow your business. Activate benefits are designed to give you the right mix of tools and expert support so you can succeed with AWS while optimising performance, managing risk, and keeping costs under control. Apply [here](#) today.

## SIGN UP TO THE AWS START-UP LOFT

[Get access](#) to upcoming events and book 1:1 time with an AWS expert.

## CONTACT US

If you have any questions or want further details and want to speak to a member of our team, you can [contact us here](#).

