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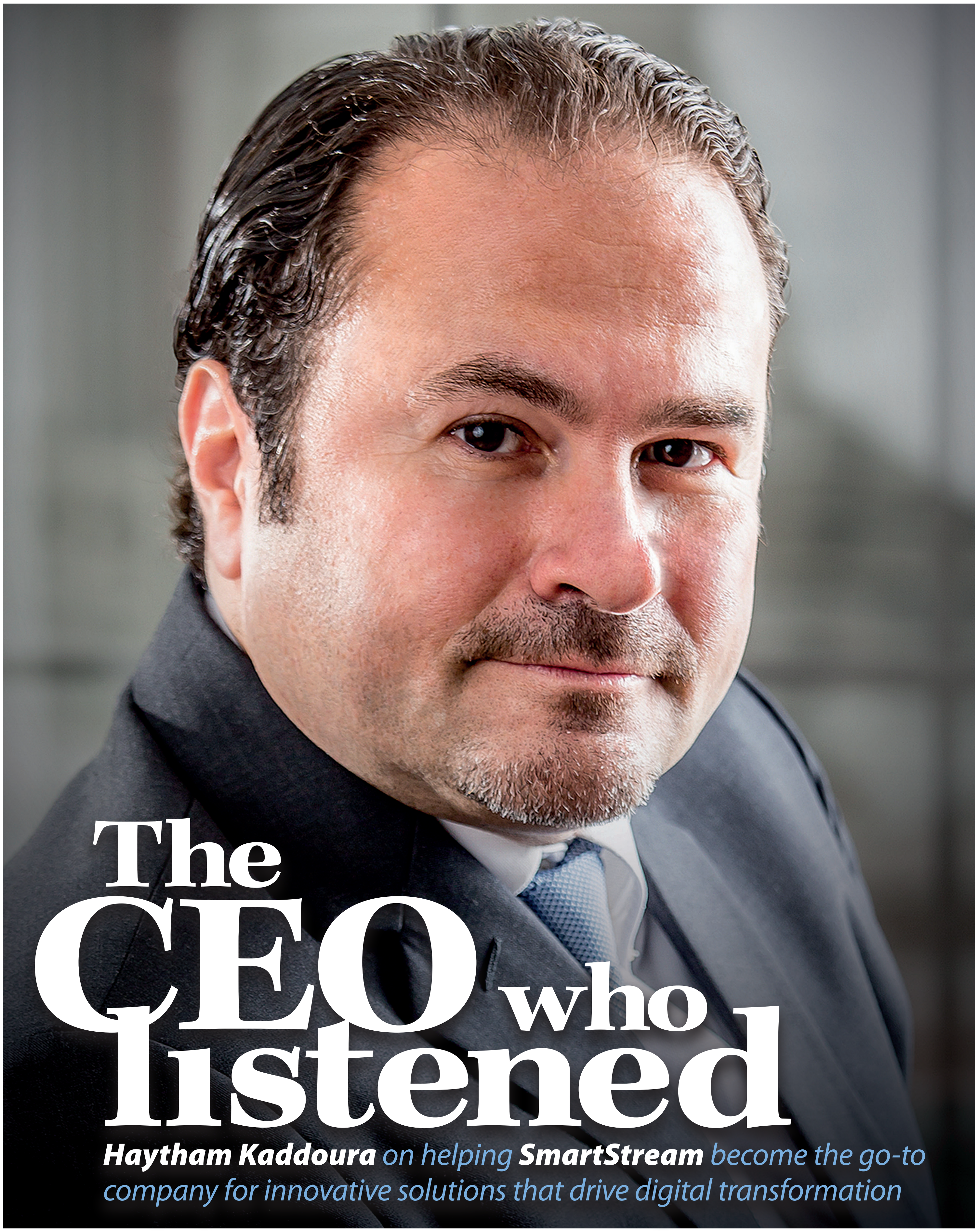
THE WORLD'S FINTECH NEWSPAPER



The CEO who listened

***Haytham Kaddoura** on helping **SmartStream** become the go-to company for innovative solutions that drive digital transformation*

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THE FINTECH TIMES

BRINGING FINTECH TO THE WORLD

Editorial Enquiries
editor@thefintechtimes.com

Chief Executive Officer
Jason Williams

Editorial Director
Mark Walker

Editor
Claire Woffenden

Editor-in-Chief
Gina Clarke

Art Director
Chris Swales

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Callum Blackwell
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Ania del Rosario
Adam Snyder
Maxwell Cooper

Digital
Manisha Patel
Megan Palton

Journalists
Polly Jean Harrison
Tyler Smith
Francis Bignell

Published by
DISRUPTSMEDIA LIMITED
Rise London, 41 Luke Street,
London EC2A 4DP, UK

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The DIGITAL CURRENCY Opportunity

Ever since the onset of the Covid-19 pandemic, businesses and governments have depended on technological innovation more than ever before, leading to the acceleration of digital transformation across many industries.

Purchases and transactions have increasingly moved away from cash and towards digital solutions and central banks across the world have stepped up efforts to develop their own digital currencies to modernise financial systems and speed up domestic and international payments.

El Salvador caused a brouhaha in September as it became the first country to adopt a cryptocurrency, introducing Bitcoin as legal tender. In this issue of *The Fintech Times*, we delve into the reasons behind the Central American's foray into Bitcoin and the subsequent reaction from the rest of the world (page 12).

As of July 2021, more than 80 countries were in various stages of exploring central bank digital currencies (CBDCs), according to the Atlantic Council think tank. China has been leading the pack and on page 18 we look at its efforts as well as other countries trailblazing Asia's development of central bank digital currencies.

We also look closer to home and the possibility of a CBDC in the UK (page 13). The Bank of England (BoE) and the Treasury launched a joint task force earlier this year to explore the creation of the UK CBDC, which was followed by the BoE Governor Andrew Bailey expressing optimism about the project at a banking industry event in June.

> Central banks across the world have stepped up efforts to develop their own digital currencies to modernise financial systems and speed up domestic and international payments

For this issue, we've also probed industry leaders for their 'view from the top', to gain their insights into the past 12 months and their predictions for the future of fintech in 2022.

Haytham Kaddoura, CEO at SmartStream, shares his thoughts on the importance of security, especially disaster recovery, with various forms of instability expected to be with us for quite some time. While Francesco Simoneschi, co-founder and CEO at TrueLayer, discusses how open banking and real-time payments will go into the mainstream and replace 'card not present' use cases.

They're joined by Mariana Goche, CEO of Sentifi, who discusses current and future trends of digital banking, and Alex Latham, CMO and co-founder of Chip,

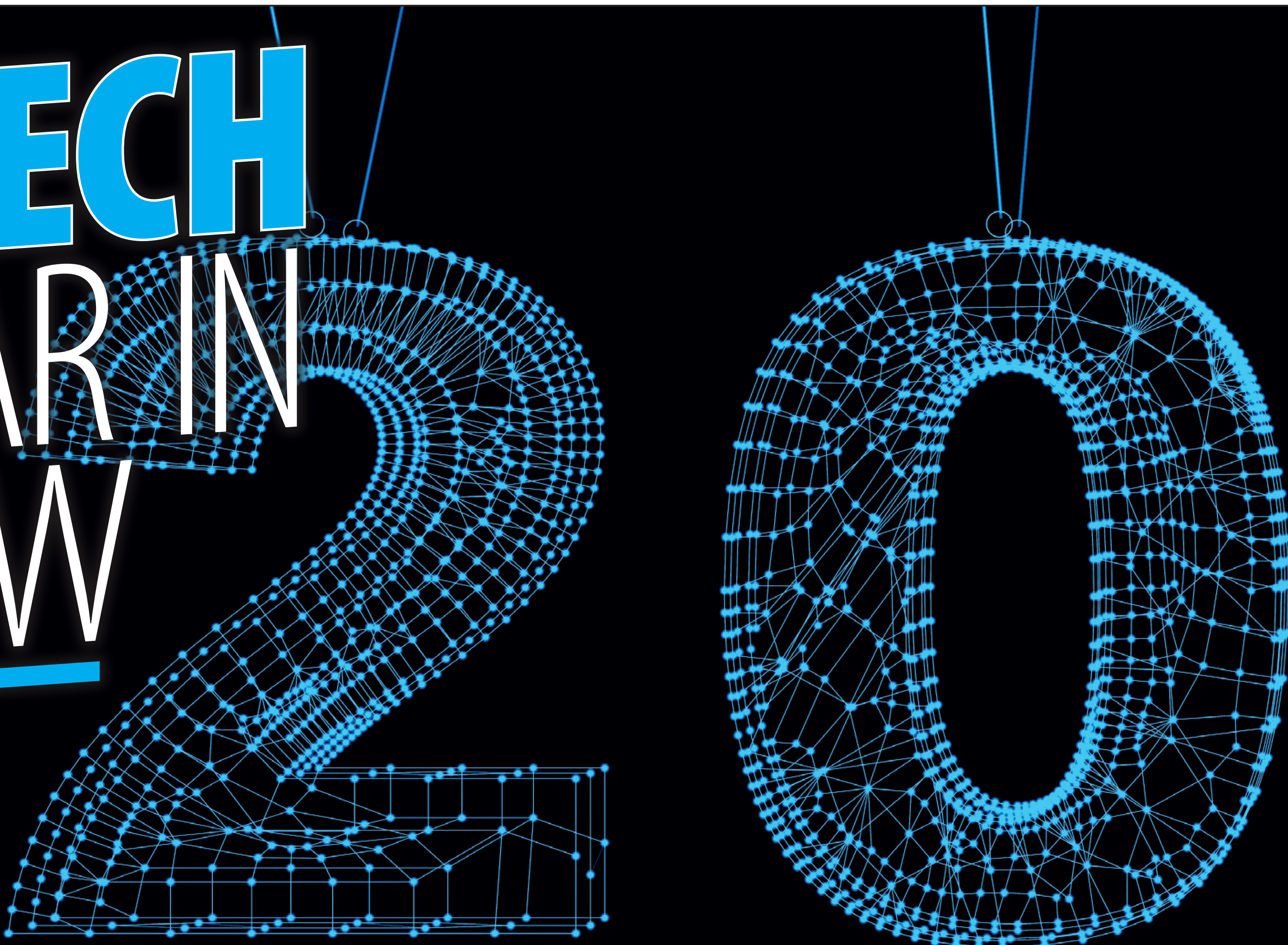
on the evolving public interest in investing.

Later, on page 10, we chat to SmartStream's Kaddoura in more detail, as he provides a fascinating insight into developments at the company since he took charge, including a soaring demand for its Cloud and managed services since Covid.

We hope you enjoy this edition of *The Fintech Times* – the final newspaper for 2021. We wish you all a fantastic festive season and look forward to sharing more of the latest and brightest ideas from the fintech world when we return in the New Year. Here's to a prosperous 2022! TFT

Claire Woffenden, Editor
The Fintech Times

FINTECH
A YEAR IN REVIEW



We take a look back at 10 technology trends and key moments from the past 12 months

KALIFA REVIEW CALLS FOR FINTECH SHAKEUP

February saw the publication of a government-commissioned review of UK fintech, carried out by former Worldpay chief Ron Kalifa. It identified a £2billion fintech funding gap in the UK, suggested the implementation of dual share structures that are more favourable to entrepreneurs and called for the development and growth of fintech clusters through further investment, such as in R&D.

Another recommendation was the setting up of a new retraining programme, which would see further education colleges offering short courses to help workers get to grips with new, essential tech skills.

A separate government-backed report, led by former EU commissioner Lord Jonathan Hill, published shortly after the Kalifa Review, also called for widespread reform of the London Stock Exchange to encourage investment in UK businesses and increase the number of companies choosing to float in the UK.

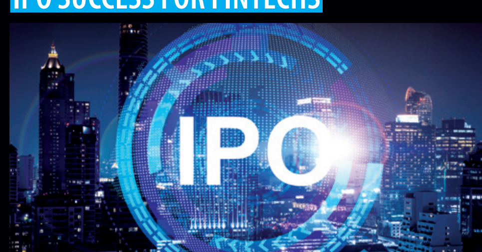
THE RETURN OF FINTECH WEEK LONDON

After months of digital-only events, Fintech Week London in July marked a return to 'normality' as the first in-person fintech event of the year.

The week-long event saw senior decision-makers, industry thought leaders and fintech experts come together in the UK capital to discuss and share insights on all things fintech.

Topics under discussion included green finance, financial inclusion, the evolution of blockchain and digital identification. Plus, issues such as coopetition between banks and fintechs, open banking, NFTs, cryptocurrencies and a wider look at the fintech scene worldwide.

IPO SUCCESS FOR FINTECHS



Global IPOs have smashed records in 2021, both in terms of funding raised and the number of companies going public.

In July, cross border payments firm Wise – formerly known as TransferWise – floated on the London Stock Exchange and became its biggest ever tech float, pricing shares at £8 each and valuing the company at £8billion.

Marketplace lender SoFi also became a publicly traded company after its merger with Social Capital Hedosophia Holdings, a special purpose acquisition company. The stock closed up more than 12 per cent to $22.65 after making its public debut.

FINTECH INVESTMENTS SKYROCKET

The fintech sector has received a record amount of venture capital investment this year. In the third quarter alone, it secured £3.6billion – more than double the whole of 2020.

Forty-two fintech companies became unicorns in the third quarter alone, making up a third of total unicorn births, according to the most recent *CB Insights' State of Venture Report*.

After raising $800million in a funding round in July, the UK's Revolut became the biggest 'unicorn' in the country as well as the highest-valued fintech company at $33billion.

The CB report highlights Tiger Global Management and Coinbase Ventures as the leading fintech investors this year, with the US making up 38 per cent of global fintech deals.

BOOM IN BUY NOW, PAY LATER

Buy now, pay later (BNPL) deals have exploded over the past 18 months and it's predicted that by 2026, shoppers will be spending close to £40billion a year by this method, while nearly two-thirds of people who have taken up BNPL credit have done so five or more times. Shoppers are attracted to BNPL due to the ease of making part-payments for products they bought online or at stores, without additional costs or fees.

In February, the UK government announced that buy now, pay later products would be regulated by the Financial Conduct Authority (FCA) and in October it launched a consultation on buy now, pay later services for the first time ever. The BNPL market has become increasingly crowded as more established players including Mastercard and Visa unveiled schemes in the latter half of this year to compete with leading BNPL firms Klarna, Affirm Holdings, Afterpay and PayPal.

CHINA CRACKS DOWN ON CRYPTO

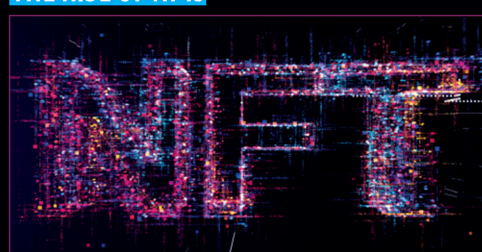
In May, China – one of the world's largest crypto-currency markets – banned financial institutions and payment companies from providing services related to cryptocurrency transactions. It also warned buyers they would have no protection for continuing to trade Bitcoin and other currencies online.

Then in October, the country's central bank went further and announced that all transactions of cryptocurrencies are illegal, effectively banning digital tokens.

> Global IPOs have smashed records in 2021, both in terms of funding raised and the number of companies going public

The ban has coincided with the rise of decentralised finance (DeFi) in China, which lets users trade with each other without any intermediary, such as a bank or broker, and makes it harder to block. According to research, the DeFi exchange Uniswap is now the second biggest exchange in East Asia by transaction volume.

THE RISE OF NFTs



Non-fungible tokens (NFTs) have seen a meteoric rise this year – the last quarter saw more than $10billion in NFT trading, an increase of 38,000 per cent on the previous year. Coinbase is said to be planning to launch an NFT marketplace by the end of this year.

If an asset is non-fungible, it means it has unique properties so it can't be interchanged with something else – a bit like certificates of ownership for virtual or physical assets with a record of who owns what stored on a blockchain.

In March, Christie's auction house netted £50million for the artist Beeple in the first NFT-based work of art sale by a major auction house, and set a new world record for digital art. While Twitter co-founder Jack Dorsey listed his first ever tweet for sale as an NFT with bids reaching £1.8million.

However, there's also growing consternation about the massive electricity use and environmental impacts of NFTs.

It's estimated that Bitcoin mining in China generates more greenhouse gas in a year than in countries such as the Czech Republic and Qatar.

CYBERSECURITY CONCERNS

The acceleration towards 'cashless societies' during the pandemic, along with the rise of remote working and a reliance of Cloud infrastructure, has led to an increased focus on cybersecurity for both consumers and companies.

Cybercrime cases soared 125 per cent in the first half of 2021 and research suggests financial damages from cybercrime will reach $6trillion by the end of this year.

According to KPMG, cybersecurity is on pace to see a record level of annual investment by the end of 2021, driven by growing M&A in the space, including the $2.7billion acquisition of Canadian anti-financial crime management solution provider Verafin by Nasdaq.

A Bank of England-backed initiative to test the UK financial sector's cyber defences is currently in progress. Immersive Labs and the Cross Market Operational Resilience Group (CMORG) announced the exercise in October to help technical teams and business-level decision-makers at financial services firms across the entire industry mitigate the impact of an advanced cyberattack.

EYES ON EMBEDDED FINANCE

Embedded finance, the integration of API-driven banking or payments software with commercial services not strictly focused on finance, is one of the industry's hot trends as companies focus on their core service by selecting third-party partners to deliver the financial infrastructure.

A 2021 report by Lightyear Capital estimates that embedded finance will rise to £164billion in revenue by 2025, soaring from just £16billion in 2020.

Although it's not a new concept, companies are increasingly looking for ways to create more convenient and customised experiences for their customers. While research from OpenPayd, the global payments and banking-as-a-service platform, suggests 73 per cent of brands plan on launching embedded financial services within the next two years.

The top three most appealing aspects of embedded finance were named by respondents as – retaining front-end customer experience (85 per cent), increasing the number of customer touchpoints with their brand (84 per cent) and offering mobile wallet or current account options to customers (79 per cent).

DOING IT FOR THE CLIMATE

The last year has witnessed an explosion in climate-focused fintech products and companies with capital increasingly being deployed into the green economy. Insight suggests that in 2021, more than a third of financial professionals were using or recommending environmental, social and governance (ESG) funds, with nearly a third of financial professionals planning to expand their use or recommendation of ESG funds over the coming year.

In September, carbon tracking app Doconomy raised $17million in a funding round led by CommerzVentures – billed as the largest climate fintech investment round in Europe. Then, a few weeks later, carbon footprint tracking expert Cogo launched a $20million funding round.

September also saw New Energy Nexus launch its inaugural Climate Fintech: Cards & Payments Challenge to catalyse innovation across the financial sector to address climate change. The innovation programme united multinational financial institutions and fintech leaders to nurture cross-collaboration with startups that offer digital financial climate solutions – supported by, Barclays US; Rise, created by Barclays; Mastercard; Doconomy; and Patch. TFT

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ON LATIN AMERICA

FRANCESCO SIMONESCHI, CO-FOUNDER AND CEO AT TRUELAYER

This year we've really seen fintech continue its global boom. In Latin America investment is pouring into the region, particularly Mexico and Brazil, with leading firms such as Tiger Global Management and General Atlantic participating in rounds. Meanwhile more North American and European fintech firms are reaching scale and maturity with a number of high-profile IPOs, such as Coinbase and Robinhood in the US, and Wise in the UK.

We've also seen open banking payments gaining momentum and adding value to a much wider range of businesses – anywhere where card processing fees and manual bank transfer processes are stinging merchants. Merchants appreciate that open banking can deliver a better experience by alleviating the issues of fraud and chargebacks associated with cards. It also offers higher conversion rates that can equate to millions or even hundreds of millions in revenue a year for businesses.

Open banking and real-time payments will go into the mainstream and replace 'card not present' use cases. With all the benefits they provide to merchants – low fraud, low cost, instant settlement – I expect more businesses who transact online to integrate open banking payments into the checkout throughout 2022.

FAVOURITE FOOD I'm Italian, so I can't say no to homemade pasta and the traditional Roman dishes.

FUN FACT I used to be a professional singer in the Vatican choir, performing in a few hundred concerts around the world.

ON FINANCIAL INCLUSION

DUNCAN STEVENS, CEO OF GRETEL

A trend emerging before the pandemic, but which has accelerated tenfold is utilising technology to enhance the socially responsible aspects of business, particularly in financial services.

In 2021 the FCA put vulnerable customers at the forefront of planning for financial companies. The re-definition of vulnerability by the FCA and the vast number of people – approximately 24 million – who are now considered vulnerable made it among the most pressing priorities to be addressed in financial institutions in 2021. For us, it is crucial that financial institutions use this lens of vulnerability to assess how they can support these customers.

As an industry, fintechs can offer the solutions which support improved customer outcomes for the good of all. For example, we estimate 19.6 million people in the UK have become disconnected from financial services products. Based on Gretel's calculation, there are approximately 10 million bank accounts, 2.5 million life insurance policies and 1.6 million pensions, with a collective value of over £50billion that are unclaimed – we want to help people connect with these savings pots they have 'lost' or that have been forgotten.

A good outcome from the pandemic would be the financial services industry working collaboratively to deliver solutions to those who need it most.

FAVOURITE FILM *Aliens* – I love scary movies and this is one of the few films that still has me on the edge of my seat.

FUN FACT My first job after leaving school was working for INXS and U2 on tour – an amazing job to blag – and occasionally finding myself on stage in front of upwards of 100,000 people.

The VIEW FROM THE TOP

*With another year coming to a close, the fintech industry has once again seen huge leaps, with rapid digitalisation, an increased interest in crypto and the ever-evolving capabilities of open banking. Industry leaders have shared with **The Fintech Times** their insights into the past 12 months as well as their predictions for 2022*

ON DIGITAL PAYMENTS

PHILIP FAYER, CHAIR & CEO AT NUVEI

One thing we've noticed is increased simplicity in digital payment experiences in all corners of the world. E-commerce, naturally, has exploded after the events of 2020 and beyond. And digital payment experiences aren't just taking off in online retail, either.

Merchants are continuing to expand into new geographies and new verticals as customers become more engaged with digital payments around the globe.

Also, with the rise in the gig economy and sharing economy, smooth and seamless payouts have become a growing focus. It is also growing in importance for fast refunds in e-commerce. Customers and end users are starting to expect the same speed and experience they are used to for making payments. Payouts are something we're experts at and have been deploying for years.

There's going to be even wider geographical expansion next year, as merchants are more comfortable selling across borders, and emerging markets expand their local fintech offerings. Our turnkey, easy-to-onboard solution will be on hand to help them navigate an increasingly complex global environment, with access to 204 markets, 150 currencies and 500 different payment methods.

People choose to transact with payment methods most relevant and accessible to them, so it's our job as an innovative payments technology partner to make sure we offer them.

ON SECURITY

HAYTHAM KADDOURA, CEO OF SMARTSTREAM

There has been a greater adoption of Cloud technologies while artificial intelligence continues to be the topic of the moment, alongside distributed ledgers and blockchain.

At the beginning of the year there was a great deal of discussion related to the co-mingling of data, however, now that institutions have seen its success in practice, they seem to adopt a more holistic view of their data and its value in providing insights to their customers and internal operations.

Security will continue to be a big issue, especially disaster recovery, as nobody wants to be caught off guard. The feeling is that the pandemic is probably not going to end soon, and various forms of instability could very well be with us for quite some time. So, everything around operations, processes, technologies and infrastructure designed to enable quick disaster recovery will be at the forefront of any CEO's agenda.

FAVOURITE BOOK When it comes to reading, I have a lot of favourites but if I were to choose my go-to books, they would be *The Alchemist* and *Who Moved My Cheese*. In general, I love to read and watch stories that deliver a message within its context.

FUN FACT I love animation and the imagination that comes through in highly designed films like some of those from Disney.

ON INVESTING

ALEX LATHAM, CMO & CO-FOUNDER OF CHIP

2021 has been the year of the retail investor. It started with a bang in January this year when the GameStop saga hit just about every news outlet and became the hottest topic in fintech and beyond.

Undoubtedly, it's a big subject to unpack, but I only want to highlight the impact it had on the interest in investing. Instead of kicking off a boom in 'meme stock' trading among Gen Z and younger millennials, it actually led them to adopting more traditional investing tactics. It's the spark that lit the flame, showing that you don't have to be super-rich or have a background in finance to invest.

I think the trend for investing will continue into investment funds, and not just crypto and 'meme' stocks. People are now seeing the benefits of investing but they want a more long-term, sustainable option, so I'd expect that passively managed, diversified funds will be in very high demand.

I think we'll see more and more people of all demographics – not just the young, tech-savvy city dwellers – adopting fintech as their go-to default financial providers. As physical bank branches are disappearing, crypto is becoming ubiquitous, and digital banks and apps are able to offer far more competitive products than the incumbents, fintech's share of the financial market pie is about to increase even more.

FAVOURITE FILM *Moulin Rouge*: It's an absolute masterpiece and – I'd argue – the best film Baz Luhrmann has ever made.

FUN FACT I got this close to playing Harry Potter. I made it to the last 10 but, unfortunately, the role ended up going to Daniel Radcliffe.

ON REBUNDLING

YANN MURCIANO, CEO AT BLEND NETWORK

Partly as a result of the pandemic, we've seen consumers' willingness to try new digital financial services grow rampantly, therefore leading to the increasing speed of innovation within the fintech industry.

Since the start of the pandemic, banking has become more business-oriented, payment cards have given way to mobile apps, transactions have become more 'invisible' – and that's just a small part of how the fintech industry is evolving.

But I'd say the biggest trend we've seen in the fintech sector in recent months is the acceleration of strategic partnerships and what at Blend Network we've called the 'rebundling' of banking and fintech. What I mean by rebundling is that we've started to see a subtle change in the trend whereby newcomer fintechs were competing with financial institutions, and there's now a sense of collaboration in the water.

The impact of this new rebundling is likely to be incredibly beneficial to the whole industry, fostering collaboration between fintechs and traditional financial organisations. I personally believe that collaboration and partnerships are the name of the game in this business, the more collaboration we see, the better it is for everybody. These are exciting times for our sector.

FAVOURITE FOOD Well, being French, my favourite food has got to be herb buttered snails.

FUN FACT Blend Network was conceived after a French restaurateur made the headlines after forbidding bankers from entering his Paris restaurant when he was refused a small loan to expand his soaring business. I realised that something was deeply wrong with banking when a good entrepreneur was unable to get funding to grow his business, and so the company was born.

ON DIGITAL BANKING

MARIANA GOCHE, CEO AT SENTIFI

Amid the global pandemic, fintech trends in 2020 continued to play out and accelerate in some instances in 2021.

From a digital banking perspective, established/mature retail and institutional banks continued to create or grow existing digital channels in recognition of their customer preferences to avoid branches. To support these digital retail channels, banking-as-a-service providers continued to develop their offerings with greater investment flowing to back-end providers in 2021.

From a payments perspective, the focus on facilitating real-time, cross-border payments continued, along with the growth and use of digital wallets.

From a lending perspective, the appetite for buy-now-and-pay-later models amongst retail customers and retailers increased with new buy-now-and-pay-later challengers entering the space as well as the growth of lending marketplaces.

The re-opening of international borders as covid vaccination rates accelerate globally will continue to drive the trends outlined above.

Consumers will have greater choice with respect to conducting their financial transactions completely online with various providers competing for their business. Providers that can demonstrate their ability to provide secure transactions will be rewarded with added scale.

From a payments and lending perspective, there will be greater convergence between these models as providers look to expand their offering to monetise the consumer base acquired through 2021.

FAVOURITE FILM Classical music or any music with Afro or Latin beats

FUN FACT I have a 10.5-year-old who happens to have launched an online toy store and I enjoy helping him source new toys for his store.

ON OPEN BANKING

MARIEKE FLEMENT CEO OF METTLE

The continued rise of open banking APIs has created a flurry of new fintechs and new digital capabilities. Instead of having to do 'everything under one roof', banks and companies can leverage others to build their customer propositions.

As companies and banks have continued their digitalisation journey and moved to the cloud, there's been a 'platformisation' of everything, such as embedded lending, banking as a service, software as a service, identity as a service and payment as a service in fintechs.

The role of traditional banks will continue to evolve and be challenged from all angles – by both new and old fintechs but also non-traditional fintechs and big tech (eg. blockchain, CBDC, stablecoins).

Neo banks have come out of 2021 with major funding, but the jury is still out on who will be the winners and losers – and capital in the market might dry up.

Some challenger banks aren't making much money yet, but are market-leading. Eventually, investors will look for returns and over time, some might face tougher challenges, such as increased regulatory scrutiny and increased costs to remain compliant. Many also need to focus on building everything from the ground up – from their brand identity to the features they offer.

On the other end, traditional banks are more stable and can foster innovation from within. Banks can innovate and create neo banks internally (such as Mettle) or leverage the emergence of technologies like open banking APIs, AI and blockchain which offer innovative solutions to adapt to customer needs.

FAVOURITE FILM My favourite film is *The Last Dance* - I'm a huge basketball fan

FUN FACT I speak three languages fluently (French, Spanish, English) and another two at a decent level (Italian and Mandarin).

The Asia CBDC Race

Who's trailblazing Asia's development of central bank digital currencies?
***Tyler Smith**, Junior Journalist at **The Fintech Times**, investigates*

Defined in its simplest and purest form, a central bank digital currency (CBDC) is a digital form of fiat or local currency. It's an electronic token of a national ledger that can be issued for retail, wholesale, or international payments, and is regulated by a central banking body. And, although interest in this contemporary form of digital payment suffers no restrictions in terms of international interest, nowhere is the development of such more prominent than in the Asia Pacific (APAC) region.

CAMBODIA

Cambodia's 'Project Bakong', launched in October 2020 in collaboration with Japan's Hyperledger Iroha blockchain, stands as the only live example of retail CBDC in Asia. Unlike other similar initiatives, Project Bakong does not utilise digital native money. Instead, users can make payments through their own reserves of either riel or the US dollar. To achieve this, Cambodians can use either their own telephone numbers or a QR payment system to connect with digital wallets over the blockchain. As of January 2021, Project Bakong had successfully transacted more than $20million via 50,000 users and 20 banks.

CHINA

Despite the lack of a nationwide rollout, neighbouring China appears to be very much leading the way in the development and adoption of CBDCs. The People's Bank of China (PBoC) heavily signalled its arrival in the technological landscape, when in April 2021, it issued the e-CNY, or digital yuan; becoming the very first major economy in the world to do so. Although the e-CNY is issued by the PBoC, it's distributed by the country's leading commercial banks and payment platforms.

For example, Alipay – which boasts an impressive collection of 1.3 billion users – added the e-CNY to its platform in May 2021; although the payment option is only currently available to a proportion of certain users as use of the currency continues through its pilot phase. The e-CNY pilot is currently being trialled across four major cities in China – Shenzhen, Chengdu, Suzhou and Xiong'an. And despite these geographical limitations, the PBoC has reported that the e-CNY has successfully completed 70.75 million transactions as of September 2021, an achievement that has been spread across almost 21 million personal wallets and 3.5 million enterprise wallets.

JAPAN

Running a little bit behind its neighbours in the development of CBDCs is Japan. And, despite the lack of any official implementation, the Bank of Japan made a statement in April 2021 when it

announced the commencement of preliminary trials to develop a retail-focussed digital yen; which are expected to run until March 2022. In an official statement, BoJ said that it would focus on 'the basic functions that are core to CBDC as a payment instrument, such as issuance, distribution, and redemption'. Although two additional phases of testing are scheduled post the completion of the trial period, the BoJ is still yet to announce any official launch.

HONG KONG

The Hong Kong Monetary Authority (HKMA) outlined its intention to strengthen CBDC research in Hong Kong through its Fintech 2025 strategy, which included cross-collaboration with the Hong Kong Centre of the Bank for International Settlements Innovation Hub (BISIH) and the PBoC. Under its strategy, the HKMA is undertaking the mBridge project, whereby it will work closely with its aforementioned collaborators to further understand and refine the cross-border payment capabilities of the e-CNY, while also testing the waters for the introduction of an e-HKD.

In a recent statement, Howard Lee, Deputy Chief Executive of the HKMA, said: "The mBridge project builds on our existing strengths and network in the global financial system, and helps keep Hong Kong in the forefront as digitalisation continues. The HKMA would continue to collaborate closely with the BISIH and peer central banks to broaden and deepen the research, which could also contribute to the global exploration for using CBDC to expedite cross-border payments."

SINGAPORE

2016's 'Project Ubin' kickstarted the Monetary Authority of Singapore's (MAS) interest in CBDC development. MAS partnered with JPMorgan and Temasek to finish its fifth testing phase in July of 2020; which incorporated blockchain-based payment tests across 40 institutions. Following this, Singapore is now undertaking 'Project Dunbar', which is developing a common platform for multi-currency CBDC settlements. MAS has also expressed its interest in collaborating with other central bodies, most notably China's PBoC.

SOUTH KOREA

The Bank of Korea is also taking tentative steps towards developing its own form of CBDC. The Bank is currently testing a new form of e-Won within a limited capacity, and two main areas of focus for the trials are functionality and security. To do this, the Bank is simulating real-world financial services, including mobile payments, money transfers and fund deposits. However, any full-scale rollout of the e-Won appears to remain someway off for the citizens of South Korea.

HOW HAS CHINA EDGED AHEAD?

When we consider the data available for CBDC development in Asia, it's clear that out of all the competitors, China is very much coming out ahead.

But why is this, and how has China managed to achieve such a feat? Firstly, the development and adoption of CBDCs has been exacerbated by China's large unbanked population. According to the recent data of Finbold, around 278 million Chinese citizens remained without access to a bank account as of Q1 2021; equating to roughly 20 per cent of the country's population.

However, this alarming figure is counteracted by China's large proportion of mobile phone users. As detailed in *GSMA's 2021 Mobile Economy Report*, the country supported 992 million mobile users in 2020, penetrating 67 per cent of the total population. This figure is expected to increase to 80 per cent by 2025, when the country is forecast to see 1.2 billion users. Not only will such an increase facilitate a higher level of mobile banking, but it also cultivates promises for a prosperous future in CBDC adoption.

> The development and adoption of CBDCs has been exacerbated by China's large unbanked population

One of the central benefits to CBDCs is that they're handled and processed through both online and offline mobile devices, and with the forecast of 1.2 billion mobile users by 2025, China is perfectly positioned in terms of CBDC adoption. When considering more timely developments, China's recently imposed ban on all cryptocurrency transactions has been interpreted by some as a strategic move to further the reach and promotion of the e-CNY.

By completely removing crypto and its permissionless nature, China and the PBoC have the opportunity to fill the gap with their newest digital ledger, while also taking a step against private forms of digital currency. China's implementation process of the e-CNY has also pointed to the central governing body's interest in a more regulated approach. The pilot phase offered users the chance to establish a digital wallet for expenses of up to 5,000 RMB using just their mobile number. However, if said users wanted to increase the capability and volume of their wallet, stringent security and identity checks would be required.

One of the most noteworthy ways through which China's CBDC came out ahead is by the central bank's involvement in international CBDC development, and especially in the development of neighbouring countries. For example, the PBoC expectedly had a hand in the development of Hong Kong's e-HKD, and even tested the viability of its own digital currency within the state. The cross-border capabilities of China's e-CNY have even been tested further afield. The PBoC recently formed a partnership with the Central Bank of the United Arab Emirates (CBUAE) to test cross-border foreign currency payments under the m-CBDC Bridge initiative. The likes of the HKMA and the Bank of Thailand are also involved in the initiative. This interconnectivity between projects and governing bodies on an international scale has allowed China to test the waters for its new digital currency, while also providing an opportunity to size up the competition and ensure efficient cross-functionality between other blooming digital currency ecosystems.

With this much wind in their sails, it appears that China's central banking body is perfectly poised for a successful rollout of a e-CNY digital currency. And what's more, public enthusiasm towards its adoption also appears to be promising. For instance, trials of the currency have cultivated a largely positive response.

A 2020 trial in the Luohu district of Shenzvhen granted more than 47,000 people with access to digital freebies that would test the practicality of the CBDC. There was a total of 1.9 million applications to this programme. Each freebie – or 'red envelopes' as they were known – gifted 200rmb (roughly around £22 each) to the recipient, and in the short space of a week-long trial, citizens spent the equivalent of 8.8 million yuan spread across 62,000 successful transactions.

In addition to this, China's central banking body also applied for more than 120 patent applications for its official digital currency; more than any other central banking body in the world. It's clear that the appetite for China's CBDC is already proving to be insatiable, and with the arrival of an accessible digital currency into a population that yearns for more financial inclusion, the PBoC and its collaborators very much appear to be able to drive their developments home to success.

The real test however is soon to come, as the country's Central Bank has announced that it is preparing the e-CNY for widespread use at the 2022 Winter Olympics, which is due to be held in Beijing. Across many of the various live initiatives within Asia's CBDC development, we're seeing thorough and comprehensive research being translated into practical experimentation.

The region's central banking bodies have cultivated an opportune and singular environment for this to happen, and when set alongside the cultural and societal need for their implementation, Asia, if they haven't already felt it, could very soon find themselves leading the world in exactly how to develop and use CBDCs with a positive end result. TFT

THE CEO WHO LISTENED

Inspired by discussions with employees and clients, ***Haytham Kaddoura****'s strategic foresight has helped cement* ***SmartStream*** *as the go-to company for innovative solutions that drive digital transformation*

At the end of last year, SmartStream unveiled a new brand identity to better reflect the company's mission to spearhead technological innovation and cement its role as a trusted partner to the financial industry. The company has almost 40 years of market expertise within the industry and its technology is now used by institutional banks, buy-side firms, neo-banks, payments service providers, corporates and telcos, across the world. But the onset of the Covid-19 pandemic truly highlighted the effectiveness of SmartStream's Cloud and managed services strategies to their clients – it was a case of business as usual, just from different locations – with the subsequent appetite and interest in these services now at an all-time high.

SmartStream's success and burgeoning reputation are largely due to the vision of Haytham Kaddoura, who took on the role of CEO in 2016 after serving as a member of the board of directors since 2007. In 2018 he set up an Innovations Lab in Vienna, bringing together highly skilled mathematicians, applied data scientists and IT specialists to investigate ways AI, machine learning and blockchain could support the company's growth in client innovations. *The Fintech Times* sat down with Kaddoura to discuss his CEO tenure at SmartStream and how his decisions have helped the company evolve.

THE FINTECH TIMES: Why did you take on the role of CEO at SmartStream five years ago and how have you helped drive the company's recent success?

HAYTHAM KADDOURA: Before becoming CEO, I advised the board and the shareholders at SmartStream for a number of years so when I stepped into the role, I had a rough idea of what success could look like. SmartStream, given its history, clearly had a great deal to offer but I could see there was a lot of work to be done and though it would require effort, the impact of the change would be phenomenal. While I don't really like to toot my own horn, what I bought to the table was the ability to listen to people, creating an environment that would help ideas materialise and challenging those that were not promising.

I've seen in multiple instances where the CEO believes they know everything, and I've also seen the type of CEO that is willing to sit and listen, is open to fixing things and adopting solutions, and they're flexible. The difference is night and day. I was lucky enough to have the support of our shareholders which made it possible for me to take on this radical change. One of the first things I noticed was that we had team members who had been with the company for almost 40 years, which is astonishing, and something rarely seen these days.

They've seen the company in various stages and were phenomenal at contributing ideas as only they could because they knew the heritage, what worked well and what had gone wrong. I was lucky I could begin the transformation with such a strong underlying team that supported and shared my vision. However, I can't minimise the value of the young talent we had. They were full of ideas and very keen to help in the company's transition. So, we had no shortage of ideas and there was a continuous set of opportunities, but it was about building the right environment that not only started the process but helped it continue and flourish.

I think a good CEO is willing to consider when to direct and give advice, when to satisfy people and please the crowd, when to really lead them from behind and when to act and be the spearhead.

TFT: What achievements or experiences over the past five years stand out most for you?

HK: In some ways it feels like these five years have been decades long, as so much has changed and the world has certainly moved on, but in others it feels like my appointment to CEO just happened yesterday. Within the first six months, the results started to show – not aggressively, but at least in the right direction. It just kept on building from there, like a snowball that just keeps picking up momentum. A few months after I joined, we launched our managed services, and that team has expanded since then to several hundred individuals serving Tier 1 institutions. We later launched the Innovations Lab from which exciting products have already emerged.

Our clients are also not shy in supporting us with ideas of where to grow to support their strategies and speaking with them has become an indispensable part of how we plan the attributes and functionality of our solutions and services. We've held innovation summits with our key clients, ensuring that we devote an event to listening to our users to make sure we share a common vision. Certainly, the growth I've seen in some of the businesses we've worked with is something to be proud of. Irrespective of the Covid pandemic, we're working with clients in a much deeper way than we were historically and, honestly, it's amazing.

> WHILE I DON'T REALLY LIKE TO TOOT MY OWN HORN, WHAT I BOUGHT TO THE TABLE WAS THE ABILITY TO LISTEN TO PEOPLE, CREATING AN ENVIRONMENT THAT WOULD HELP MATERIALISE IDEAS AND CHALLENGE THOSE THAT WERE NOT PROMISING

TFT: What issues have kept you up at night since becoming CEO?

HK: Certainly, in the early stages we lost people who I wish were still around, but they were unfortunately already in the process of leaving before I joined so I didn't get the opportunity to know them or try to change their mind. Although I've been on the board since 2007, and I've seen the company in different stages, I never truly realised the potential the company had until I stepped in. Frankly, I wish that I had that realisation a few years before. I often say this to my shareholders and the board, that if by some miracle we were able to push back time, the company would be even more phenomenal than it is now. But as they say, hindsight is 20/20.

TFT: How have you led and adapted the company through the pandemic?

HK: SmartStream is like a big family, where we take care of our people on an individual basis. So, they were our priority as Covid started spreading and impacting different countries in different ways. We had some employees that wanted to get out of the cities and stay with their families, for example in places like Mumbai and Bangalore where we had young developers working in the city but suddenly, the places they were living in shut down and they had to leave and work remotely. Making that transition as easy as possible, then supporting them with the infrastructure they needed once they got there was challenging but important and ultimately something we knew we had to do and I'm happy to report something I think we did well.

In most instances, it took literally minutes to transition into business continuity mode and to ensure everything was in place, especially for our big development centres but once done it was all about doing our best to minimise impact on our clients. In many of these instances, we were back online much faster than our clients and ready to help them maintain their operations.

Some of our clients, but particularly the managed services, have now expanded their level of involvement with us, with bigger teams and more functional coverage. Financial organisations realised they needed to move fast to ensure they had full coverage with no sacrifice in service which was especially challenging due to the new normal which often entailed employees working from home, institutions experiencing record growth, especially in digital payments and treasury transactions, all during the turmoil presented by the Covid pandemic.

Our Cloud native applications and AI solutions, which had been purpose built and planned well before the pandemic was even a thought, helped ease some of those spikes and demands. AI learns quickly and automates the task seamlessly and that's exactly what was needed to ease some of the volume pressures and resource constraints our main service clients were facing. Looking back at this time in hindsight, I think the adage luck favours the prepared is appropriate, we had the right solutions and services at the right time. We helped clients in a way no one could have imagined because we built these products with an eye towards the future. We just had no idea the future would come this soon in the form of a pandemic causing a global disruption to the way business is conducted in a very short period, really changing the fundamentals of the way business is done and was being done for decades.

TFT: The Innovations Lab has already led to development of exciting products, such as SmartStream Air – how has the Lab evolved and what else can we expect to see in the coming year?

HK: I originally set the Innovation Lab up to be a bit like a Formula One team where they design new technologies, they test them out, and then they are commercialised through the core of the organisation. Increasingly that team is becoming more involved in commercial decisions simply because of the value they bring to any financial institution; and their technologies are quickly and easily proven. We sit with our clients, discuss what we're doing and, in more cases, than none, you've landed and expanded into multiple teams.

I didn't envision the Innovations Lab to be so successful this quickly and frankly the learning curve has been steep. The Innovations Lab is not populated with industry experts; they are data scientists and mathematicians and the way they look at a problem is completely different to how anyone else would which is precisely what we wanted. The level of entrepreneurship and creativity coming in, in terms of modelling and predictive analysis are being felt by our clients day in and day out.

What they are doing in the whole machine learning environment is certainly exciting. One of our products set to make its debut is Affinity Plus. It is unique in that it not only learns from what a user manages to do, but it also tries to justify and learn from what users don't do. That expedites the education process for an AI engine tremendously.

I don't think there's any other industry today that's changing at the same pace as the financial service industry. The pandemic has clearly illustrated the need to modernise, especially for Tier 1 institutions which have a heritage of resisting change in the middle and back-office. While they were already facing competition from typically non-industry players, like Google Play, Apple Pay and digital Neobanks, Covid has reenforced the point that changes are needed, whether in terms of upgrading their services and infrastructure or modernising the entire experience. Everything is becoming more simplified and automated at a pace that has never been experienced. It has been and continues to be an interesting journey. TFT

AT A GLANCE

WHO WE ARE: SmartStream is a recognised leader in financial transaction management solutions that enables firms to improve operational control, reduce costs, build new revenue streams, mitigate risk and comply accurately with regulations. It provides a range of solutions for the transaction lifecycle with artificial intelligence and machine learning technologies embedded.

COMPANY: SmartStream
FOUNDED: 1988
CATEGORY: Financial Transaction Management
KEY PERSONNEL: Haytham Kaddoura, Chief Executive Officer
HEAD OFFICE: London, UK
ACTIVE IN: New York, Singapore, Vienna and Dubai
TEL: +44 (20) 7898 0600
WEBSITE: www.smartstream-stp.com
LINKEDIN: www.linkedin.com/company/smartstream-technologies
TWITTER: @SmartStream_STP

El Salvador's crypto foray: innovation or regression?

The historic adoption of Bitcoin has not been all plain sailing for the Latin American country, so far

Francis Bignell, Junior Journalist
The Fintech Times

In early June, El Salvador announced that it was going to be the first country in the world to accept Bitcoin as legal tender. The cryptocurrency would no longer serve solely as an investment, but rather work alongside the US dollar, as the country moved forward with its aims of digitising finances for a largely unbanked population and making them more accessible.

Money being sent back from abroad currently makes up 20 per cent of the country's gross domestic product (GDP). Its implementation in September has been a turbulent process though, as many Salvadorans do not agree with the change, voicing their opinions through protest on the streets in the capital San Salvador, burning tires and setting off fireworks in front of the Supreme Court. Despite this, others believe that this is a crucial step in digitising finance and moving towards a cashless economy and therefore will be a great change.

Why Bitcoin?

The aim of the announcement was to help stabilise El Salvador's economy. With more than $4billion being sent back to the country through remittances each year, the government wanted to find a way in which those abroad would not be charged a portion of their earnings to send money back. Using Bitcoin would be a viable option as it could be transferred fee free from country to country as it has the same value everywhere across the globe – though this value is constantly changing.

When proposed by President Nayib Bukele, the Salvadoran parliament allegedly only discussed the idea for five hours before passing the law, according to Bukele's political opponent, Johnny Wright Sol. Following a vote that saw 62 out of a possible 84 votes favour the proposal, it was agreed that 90 days would pass before accepting Bitcoin as legal tender was made law.

On 7 September, this came to pass, but it was not met with open arms as was expected. This was in large parts to the government backed app Chivo failing to support the amount of user registrations it faced. Apple and Huawei did not have the app in their stores at the start of the day leaving many frustrated. This came as the president promised $30 of Bitcoin for each user that downloaded the app, as a way of encouraging Bitcoin adoption.

Ahead of the launch, El Salvador bought 400 Bitcoins worth around $20million, helping drive its price above $52,000 for the first time since May. Hours later, Bitcoin had weakened and last traded down 0.51 per cent at $46,561.74. There was a further dip when the law launched in El Salvador with Bitcoin's price dropping to below $43,000. As this happened, the government bought a further 150 Bitcoin, worth $7million, with president Bukele offering advice to the public, "they can never beat you if you buy the dips."

> Bitcoin being recognised and traded globally, means visitors in the country can come prepared having bought Bitcoin in their own countries

Is Bitcoin the solution?

As the world looks to become cashless, it seems only inevitable before transacting with digital currencies becomes the norm. When looking internally, 70 per cent of Salvadorans are unbanked with no access to financial services. This change of tender towards Bitcoin would provide them a route to these services they would not have previously had access to before. One must also look at the current situation in the world and how the pandemic has affected cash first countries. By introducing Bitcoin, not only will people have access to financial services, but it will also decrease the spread of the virus as the transfer of cash was a very potent way of spreading it.

Bitcoin being recognised and traded globally, means visitors in the country can come prepared having bought Bitcoin in their own countries. This means they do not have to worry about currency exchange rates. Should this idea be adopted in other countries going forward, El Salvador will be recognised as the initiative leader that took the first step. Matt Blom, head of sales trading at EQONEX said: "The people of El Salvador are now carrying the flag for crypto. Utilising a digital currency as a means to transact outside the banking system for daily activities is a watershed moment."

Could Bitcoin be a problem?

Despite the positive possibilities that could come of the new legislation, there are some reasons this passing of law is not necessarily a step in the right direction. In the lead-up to the implementation, the El Salvador government reached out to The World Bank for help to prepare the country for Bitcoin. The World Bank rejected this request for fear of climate concerns. Bitcoin like all crypto requires the blockchain to work – but running blockchain on such a large scale involves a lot of electricity. Bill Gates told journalist Andrew Ross Sorkin that Bitcoin 'uses more energy per transaction than any other method known to mankind'.

Other concerns are that many Salvadorans do not own a smartphone, and are therefore unable to access the new app. Without making the service more accessible, the poor remain poor and are not able to benefit from these changes.

Those in favour of the crypto law would argue that 200 Bitcoin ATMs have been installed throughout the country to make it more accessible, however, once the gratis $30 worth of Bitcoin has been spent, without a mobile to use the app, nothing will have changed. This is especially true as Trading Economics statistics suggest only 33.8 per cent of the Salvadoran population have access to the internet and, even then, it may not be a solid connection. Therefore, it seems like El Salvador has skipped a step in its digitisation path: making the proposed idea accessible.

Insight from Nolvia Serrano

The Fintech Times sat down with Salvadoran born Nolvia Serrano (CMO at BlockBank, left) to hear what she thought of the announcement following her experience of being in the capital at the official launch. She said: "It's not just about accepting Bitcoin, it's that people can have the right tools to convert it instantly if they want."

Serrano continued by explaining that the two main priorities for Bitcoin success and to overcome its challenges were transparency from the government and education. "There are many concerns surrounding the Chivo app as people are worried they will be monitored by the government. Businesses do not want to disclose their expenses to the government. Additionally, users want clarity on how the app works – is each transaction recorded on the blockchain or does it work individually? But most importantly, they want reassurance that the app will work.

"Education is one of the most important things. Salvadorans can't see and use Bitcoin as a casino. The initial dip in Bitcoin on the release date acts as a good lesson on how the asset's value fluctuates. Banks must help the adoption in order to help teach the public, the vast majority of which don't know much about Bitcoin, how to use it properly.

"People don't need to understand the ins and outs of Bitcoin as a technology. They don't need to understand how blockchain works. They just want a way to transfer money for low fees. Communities are teaching kids on how to use a computer, teaching them a new NET language, and this has been so impactful, there has been a major decrease in young people joining gangs because they now have hope. They may not understand all the technology behind what they're doing, but they know how to use it." TFT

How likely is a 'Britcoin'?

The UK's journey to a central bank digital currency

By **Polly Jean Harrison**,
Journalist at *The Fintech Times*

The Bank of England reports that around 95 per cent of the funds that people hold to make payments are now held as bank deposits rather than cash.

This, combined with the increasing interest in digital assets like cryptocurrencies, means that surely now is as good a time as any to be thinking about the digital pound, and whether the UK will introduce a central bank digital currency (CBDC) in the near future.

THE STORY SO FAR

Our story somewhat begins with the Kalifa Fintech Review released earlier this year. The hugely anticipated report was conducted by Ron Kalifa OBE, chairman of Network International and former Worldpay CEO, to identify priority areas to support the UK's fintech sector as commissioned by the government.

One of the key takeaways from the report is the recommendation to promote the digitisation of financial services, specifically in order to improve the environment for fintech, provide better services to consumers and drive efficiency in the financial sector.

A Treasury spokesperson said: "We've set out a roadmap to sharpen the UK's competitive advantage and deliver a more open, green, and technologically advanced financial services sector. The UK is already known for being at the forefront of innovation, but we're going further to support UK fintech by introducing new visa routes, enhancing our pioneering regulatory sandbox, reforming our listing rules and exploring a central bank digital currency."

This, clearly, is where CBDCs come in, with the report advising that 'the introduction of a central bank digital currency would be a significant development which could help support the development of new technologies'.

To that end, Chancellor Rishi Sunak followed the review by announcing 'ambitious' new plans to help fintechs scale, including the creation of a new joint task force from HM Treasury and the Bank of England to explore the possibilities of a UK CBDC.

The task force will engage widely with stakeholders on the benefits, risks and practicalities of engaging in a CBDC, and will explore and evaluate opportunities and risks of a potential UK CBDC.

OPPORTUNITY OR THREAT?

The benefits of a UK 'digital sterling' certainly have the appeal, at least to the typical consumer. For starters, it will come as no surprise to anyone that the number of cash transactions are dwindling. The majority of payments made in the UK are through cards or other digital means, and notes and coins are becoming more unloved. It is this irrelevance that has some people concerned. People seem to be turning to Bitcoin and other cryptocurrencies to have a decision in how their money is spent.

However, these assets can be incredibly volatile as well as having some environmental concerns. Stablecoins are a great 'middleman', backed against something tangible like gold but not pegged to anything. Though there is very little evidence to suggest that people are turning to other digital currencies there is a fear that the costs of transactions in sterling could leave the currency vulnerable to stablecoins that could undermine financial stability in the UK.

A CBDC would be automatically guaranteed by the state, exactly the same as cash reducing the risks involved. It's also hoped that a CBDC would reduce the cost of payments as well as increase the inclusivity of digital payments, which are currently not accessible to everyone.

NEW TECHNOLOGIES

One of the biggest opportunities, however, is the potential a CBDC would have to support new emerging technologies. With the wave of digitalisation over the past few years that's only gotten bigger with the Covid-19, there is still much of fintech yet to explore.

Not only would a CBDC have application in fintech ideas, such as blockchain, it could also completely transform the payments industry as a whole. A CBDC would be an innovation in terms of both how money is provided to the public and also the infrastructure on which payments can be made. It would also increase transparency, allowing you to know exactly where your money had come from and help to eliminate financial scams, particularly when buying things like houses or stocks and shares. A CBDC would work alongside cash and bank deposits, but the clear decline in cash usage over the past 10 years makes it all the more enticing in order to tap into the potential of a new payments system and the fintech that could develop with it.

Not only would a CBDC have application in fintech ideas, such as blockchain, it could also completely transform the payments industry as a whole

RISKY BUSINESS?

However, as with any new developments, there are also risks. And with CBDC's, the main concerns revolve around the fact they are a centralised form of currency and may infringe on the privacy of citizens.

Jasmine Mirtles, CEO of MoneyMagpie, is particularly concerned about this – she said: "My big concern about CBDCs is the total control that governments will have over our lives through the central bank. The idea of a CBDC is that all transactions and all money flow will go through the central bank and the central bank (government) will know everything about our earning and spending at all times.

"They will know where we earn our money, how and when and will be able to tax us at source before we even get the money. They will then know where we spend it, how and when. They will also be able to 'disappear' our money at will, forcing us to spend it within a certain timeframe and on certain goods and services or simply switching the money flow off at the source. It will, essentially, destroy democracy and usher in a digital dictatorship. It cannot do otherwise."

Legal and regulatory concerns also arise when thinking about CBDCs, as currently it isn't really known who will regulate them. There are many questions surrounding this, pertaining to know your customer (KYC), money laundering and other hot topics in the regulation field that currently people don't have the answers to. In order for CBDCs to be accepted as well as do their job, compliance risks must be answered.

CBDCS ACROSS THE GLOBE

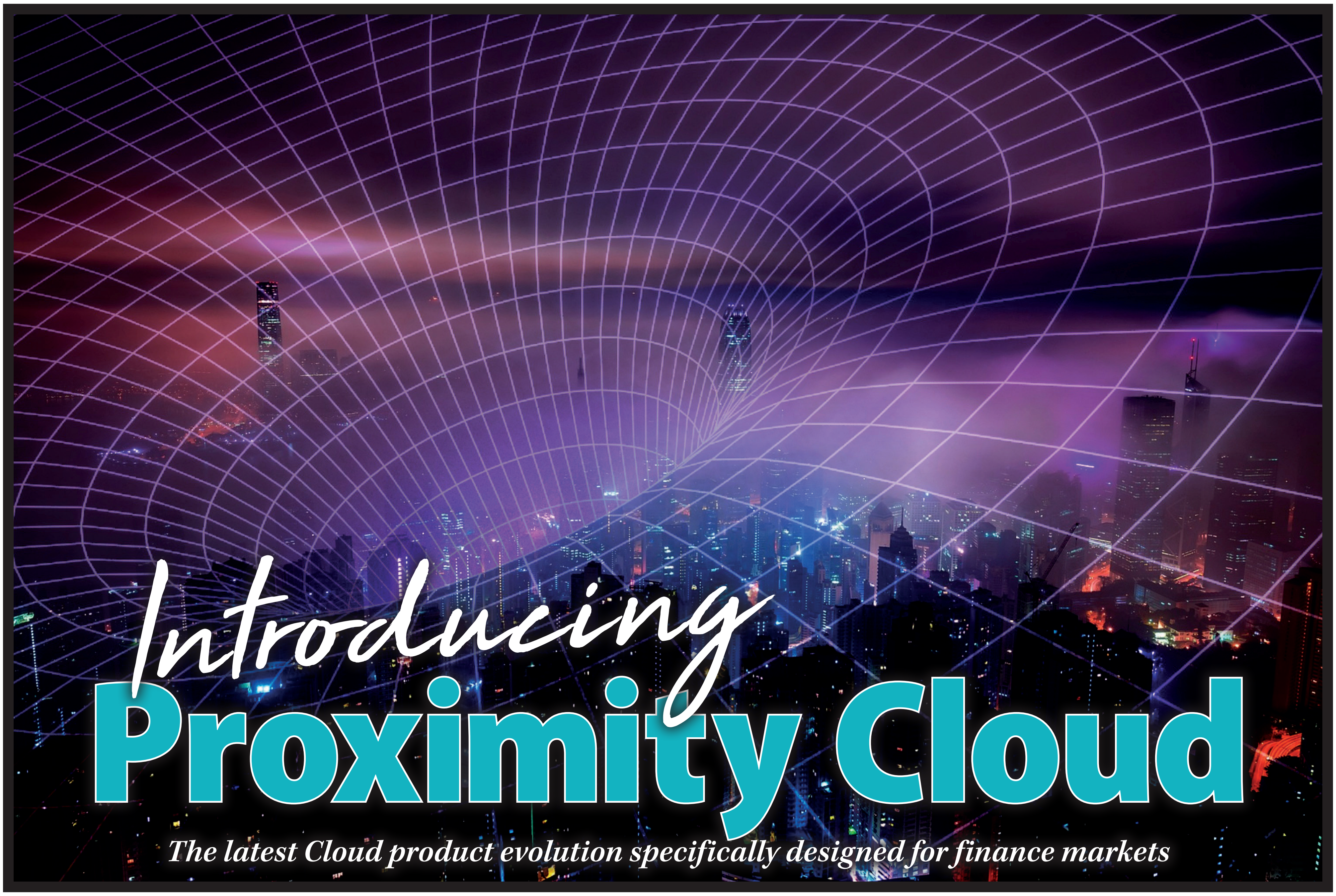
While no country has officially launched a CBDC, yet, it's not just the UK that are dipping their toes into the possibilities of the digital currency. As of July 2021, more than 80 countries were in various stages of exploring CBDCs, according to the Atlantic Council think tank, ranging from first inception to having actually been launched.

It's no secret that China is the big name in the game when it comes to CBDC and is currently trialling its own digital yuan that has been in development for years. There are hopes that the Digital Currency Electronic Payment (DC/EP) will help accelerate the move to a cashless society and bring unbanked populations into the mainstream economy.

The central banks of Canada, Uruguay, Thailand, Venezuela, Sweden and Singapore, to name a few, are all also looking into the possibility of introducing a CBDC and are at various stages in development.

THE FUTURE IS DIGITAL

Ultimately, a CBDC would function as a true fiat currency, providing the convenience and security of digital cryptocurrencies with the regulated reserve backed money of traditional banking. A best of both worlds scenario will in theory bring a number of benefits to any country implementing it. While the UK government is still undecided as to whether they are moving forward with it, the treasury have made it clear that a CBDC – or 'Britcoin' is in our future. TFT



Introducing Proximity Cloud

The latest Cloud product evolution specifically designed for finance markets

To coincide with its end of year results 2021, Beeks – a managed Cloud computing, connectivity and analytics provider in global capital markets and financial services – launched its latest product evolution, Proximity Cloud.

Since 2011, Beeks Group has honed its infrastructure provision and software development approach in direct response to its customers' needs and requirements. Its mission, under CEO Gordon McArthur, is to deliver ultra-low latency compute power, ensure maximum security and optimise performance in the exceedingly fast-moving capital markets sector.

Proximity Cloud is a pre-configured trading environment platform dedicated to the demands of capital trading markets and financial institutions.

UNIQUELY TAILORED FOR FINANCIAL MARKETS

While managed Cloud service providers offer generic Cloud computing solutions, Proximity Cloud has grown out of the knowledge, expertise and experience of exclusively supporting financial trading companies.

"We've got a long and unique history of delivering on-demand compute in financial services," says McArthur. "We know the pain points our customers encounter and Proximity Cloud is our most comprehensive offering to date. We aim to eliminate some of the risks and a lot of the costs that come with in-house infrastructure solutions and to make it a lot easier to get value to the business."

PRE-BUILT SOLUTION

Proximity Cloud is a low latency private cloud product pre-built into a physical cabinet and delivered to site in a stand-alone rack.

It comprises the whole range of functionality to be expected from Beeks private Cloud, including resource management automation, full stack and trading analytics, packet capture, latency monitoring, high precision time services and support for MultiCast and UniCast datasets.

The problems that Proximity Cloud helps to solve are far-reaching and include everything from security risk to opportunity blocks, measuring performance analytics and reducing local supply chain issues.

"Up until now Beeks has provided a private Cloud product with a level of shared network infrastructure hosted in the Beeks' domain," explains McArthur. "Although we were having great meetings with banks and the bigger financial institutions who love our message and our agility, we kept bumping our head against the issue of internal controls using shared networks."

The shared infrastructure platform caused problems with security, data access and data sovereignty. While these may not be so significant in the generic Cloud, they are show-stoppers in the financial sector. Replacing shared infrastructure through a dedicated, client-owned environment was key.

LOCATION FLEXIBILITY

Not only do financial organisations wish to deploy quickly in new trading regions globally, they also have their own data centres where they wish to have control of their infrastructure.

Commenting on the flexibility of Proximity Cloud, Alan Samuel, Beeks' head of sales, says: "Our other products to date have been prescriptive in terms of location. Our customers have had to engage with Beeks Cloud within our own footprint in our global locations. Proximity Cloud enables us to deliver the product in any location."

Proximity Cloud doesn't have to locate in LD4 or NY4, customers can have it in their own building in London, New York, Singapore or literally anywhere in the world they require it to be.

INTEGRATION

Things can change in the financial sector very quickly and financial markets need optimised systems that flex under load and market demand. Proximity Cloud lets customers to adapt and scale up or down without having to fork out a substantial amount in CAPEX.

Financial businesses who have attempted their own infrastructure builds know only too well the pain of integrating low latency, virtual compute with analytics and execution engines.

So many banks and brokers have invested a great deal of time and money on platforms that never got off the ground. Not only that, it's likely that successful implementations would be compromised on some area of security or performance monitoring.

The value of Proximity Cloud over alternative Cloud providers lies in its integration of security, connectivity, low latency and analytics. This means that trading organisations can focus on what they do best instead of spending lots of man hours piecing things together before they can give any value to the business.

Furthermore, Proximity Cloud integrates quickly with public Cloud for a hybrid solution, enabling financial teams to select where workloads are processed.

"One of the biggest logistical nightmares for our customers is having to buy component parts remotely for the 10 or 20 locations around the world where they need to have computing infrastructure," says McArthur."

Beeks solves this problem by taking responsibility for the sourcing, support and component replacement through their regional supply chain hubs and service level agreements. Customers can leave all the logistics to Beeks and take delivery of a fully pre-configured, pre-cabled Proximity Cloud cabinet.

ENGINEERING SUPPORT

Security protocols and performance analytics are the most important thing for IT to think about.

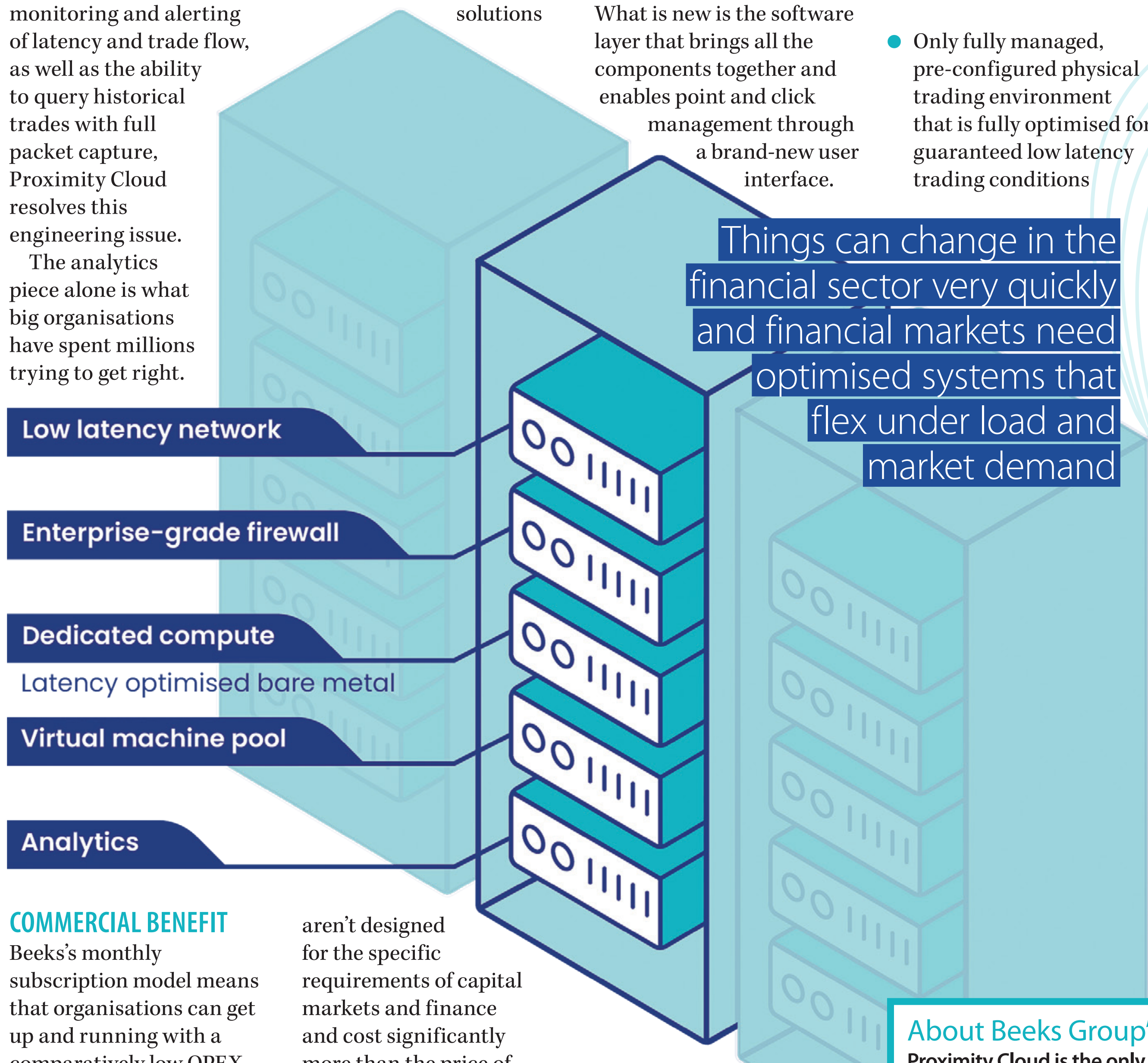
There are so many layers involved, including processes, procedures, certifications, specific software and hardware as well as manpower. Organisations need a dedicated security team monitoring 24/7 against cyberattacks, denial of service and any incidents and events on the periphery of the network. Also, of utmost importance are best-in-class performance monitoring tools and expertise, which can be difficult to achieve in-house.

Having the ability to monitor connectivity, third party networks, bandwidth utilisation and micro-bursts of network activity ensure that trades are made at the expected calibre and any third-party liabilities can be swiftly pinpointed.

Troubleshooting and issue resolution can be extremely time consuming and costly without collating accurate recordings and evidence. This needs expert resourcing and focus to enhance trading confidence in the platform.

Otherwise, engineers have to carry out a deep dive into the servers and still don't necessarily identify the right information. There are often mistakes and risks to security with holes left open. However, with comprehensive real-time monitoring and alerting of latency and trade flow, as well as the ability to query historical trades with full packet capture, Proximity Cloud resolves this engineering issue.

The analytics piece alone is what big organisations have spent millions trying to get right.



> Things can change in the financial sector very quickly and financial markets need optimised systems that flex under load and market demand

COMMERCIAL BENEFIT

Beeks's monthly subscription model means that organisations can get up and running with a comparatively low OPEX spend, rather than the huge CAPEX investment associated with traditional solution development and implementation contracts.

"We've always known how to get the technology off the ground cost effectively," comments McArthur. "Proximity Cloud is the latest addition offering immediate value."

Converting CAPEX spend to OPEX is a significant enabler in financial institutions' technical expansion and transforms both total cost of ownership and return on investment. Engineering costs can be enormous in a traditional environment. But these are mitigated by the built-in analytics included in Proximity Cloud.

In terms of alternative suppliers there is no real competitor in the space that includes all the sector-specific functionality of Proximity Cloud.

Alan Samuel comments: "In a nutshell, competitor solutions aren't designed for the specific requirements of capital markets and finance and cost significantly more than the price of Proximity Cloud. The overall costs of Proximity Cloud is significantly cheaper than using existing Cloud service providers when you consider things like ingress and egress charges – and night and day compared to the cost of developing it in-house."

EVOLUTION OF PROXIMITY CLOUD

Emphasising the maturity of the product's core functionality, McArthur says: "All the components within Proximity Cloud are tried and tested over the last decade. We are one of the only firms in the world with dedicated expertise in building, networking and automating private virtual machines and analytics for the financial markets."

In that sense Proximity Cloud is not a new product. It's an iteration of all the components Beeks has spent the last 10 years building and automating, all brought together in a plug-and-play package. What is new is the software layer that brings all the components together and enables point and click management through a brand-new user interface.

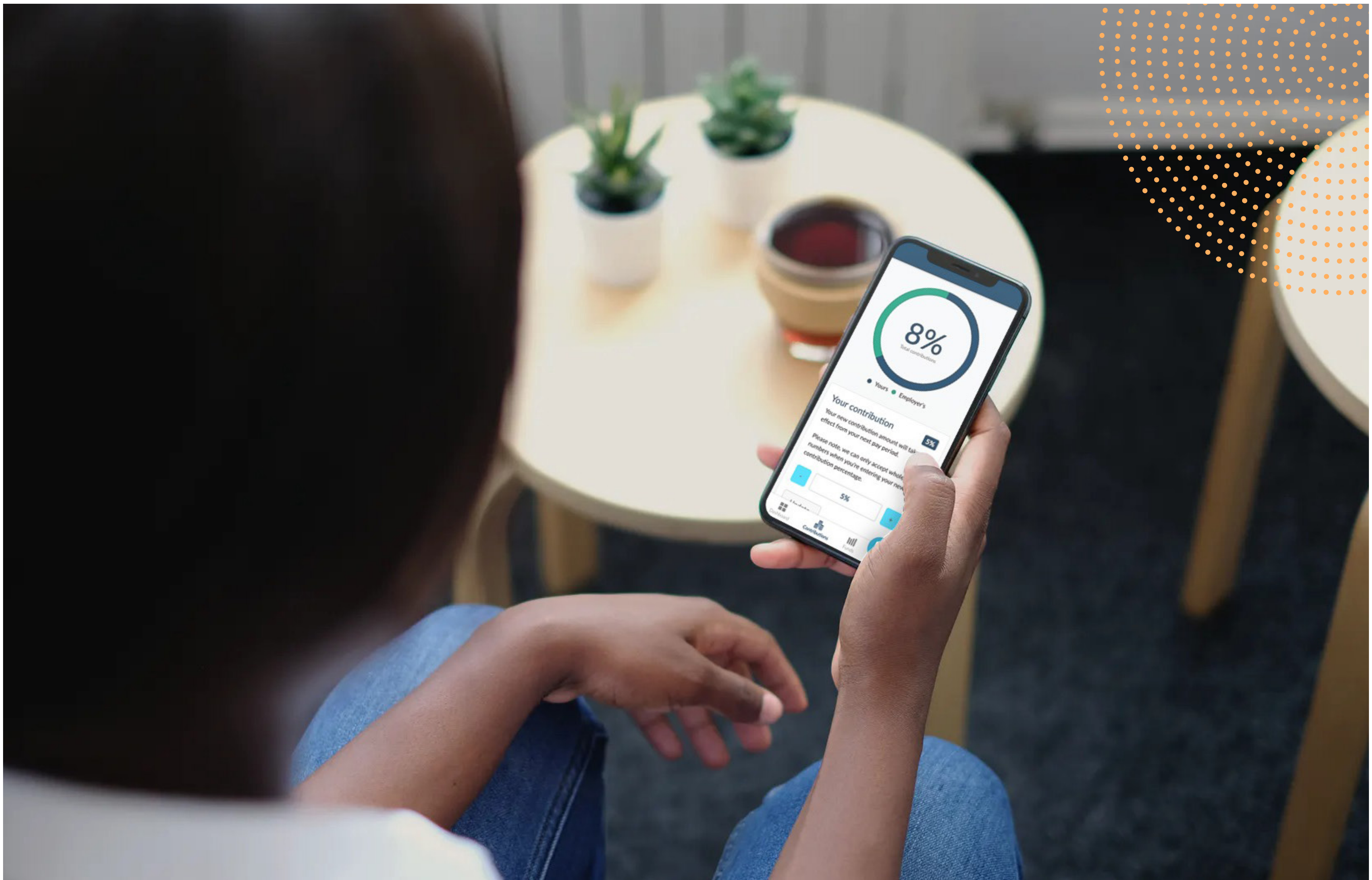
Software development now forms 25 per cent of Beeks' engineering base and is growing year on year as the automation and orchestration layer becomes more sophisticated – it is already planning the next two phases of Proximity Cloud.

WHAT PEOPLE ARE SAYING

"It's very encouraging – and quite unusual – that we already had a couple of pre-launch expressions of interest in Proximity Cloud from a range of financial organisations, including a small technology firm and one of the largest stock exchanges in the world," says McArthur. "Almost everyone we've spoken to has given us very positive feedback – so there's definitely something in this product and we are excited to see how it is received."

The Beeks Proximity Cloud at a glance:

- Only fully managed, pre-configured physical trading environment that is fully optimised for guaranteed low latency trading conditions
- Specifically designed for connectivity rich environments using components from all low latency vendors, including optimised switching and analytics
- Ideal solution for financial enterprises looking for the ultimate secure and scalable low latency environment
- Support for multicast and unicast
- High precision time stamping included in specific sites
- Can be rolled out anywhere around the world into your own site or hosted by Beeks Financial Cloud capability
- On premise workloads capable of connecting to all the hyperscalers – you select the workloads you want on private and public cloud
- Can integrate quickly to public Cloud for hybrid solution
- No shared infrastructure therefore no data security risks as everything is dedicated to you in a completely client-owned environment
- Delivered fully populated with PDUs and pre cabled
- Fully installed so no further hardware procurement required
- Backed by one of the largest cloud providers in financial services, it supports multicast data, and PTP time stamping in full regulatory approved environments TFT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THE BUY NOW, PAY LATER WAVE: NOT A NOVELTY BUT A GLOBAL TAKEOVER

***Angelo Dimarakis**, Head of Business Development and Payment Advisor to fintechs at **Radar Payments**, discusses the boom in BNPL*

The coronavirus managed to shift consumer preferences in many aspects; and modified payment trends topped that chart. The need to provide consumers with the most convenient and contactless payment methods quadrupled the number of transactions that were done through e-wallets, tap-to-phone and QR codes, to name a few. On the other hand, the pandemic equally stole the opportunity of being employed and left them with diminishing bank balances. This is what escalated the concept of 'subscription lifestyle' – a term that Doug Bland, senior vice president and manager of global credit at PayPal, gave to buy now, pay later (BNPL).

The boom in BNPL is mainly due to the flexibility of being able to pay for a commodity on an instalment basis; it is like a Netflix subscription. The BNPL's nature of paying in bits has had a favourable effect on revenue and market growth. As the world watched BNPL take over the entire of Europe with giants like Klarna, startups such as Affirm, Square, Afterpay, Visa, PayPal and, most recently, MasterCard joined the bandwagon in order to make consumers to buy more and pay at their convenience. Many experts suggest that it is a win-win situation for both, the consumers as well as the retailers.

WHERE IT ALL STARTED

Although BNPL has become popular within the last few years, it has been around for much longer under different terminologies, instalment payments, point-of-sale financing (POSF), POS lending and more. The instalment option was often chosen at the point of sale, today it comes much earlier in the purchase journey.

HOW IT HAS PICKED UP IN EUROPE

Klarna, the Swedish BNPL fintech set to be valued at €300billion in Europe alone by 2025, is the big winner in the BNPL market. It made the option popular at the right time when the pandemic hit, and purchase behaviours started to shift. With more than 250,000 merchants integrated with its platform, Klarna is the most known BNPL provider within the region, acting as a one-stop-shop for all users. Currently, its valuation ($45.6billion) is four times more than what it was last year as it continues to work on an initial public offering by the year 2022. Earlier in August, noticing an indefinite growth in e-commerce sales, it also announced its expansion into Poland, partnering with the global brand H&M. Monzo, a UK-based challenger bank also introduced a BNPL service (Monzo Flex) in competition to Klarna, providing services for purchases above £30 and up to £3,000, with repayments done without any additional interest fee. PayPal's decision to enter the BNPL may have been late, but it's strong as it also lifts delayed repayment fees to secure its market share.

A DRIFT WITHIN THE APAC REGION

In comparison to Europe or the Americas, the APAC region has highest numbers of the unbanked and underbanked, which results in many consumers sticking to cash on delivery and offline shopping. Atome's entry since 2019 has been a major disruptor in countries like Singapore, Vietnam, Indonesia, Thailand, Hong Kong, China, Malaysia, Taiwan and the Philippines. There have been more than 3,000 merchants onboard, with each of them

> The boom in BNPL is mainly due to the flexibility of being able to pay for a commodity on an instalment basis; it is like a Netflix subscription

experiencing a 25 per cent hike in sales ever since the inception of Atome's BNPL service. Other South Asian players also include Grab, Razer and Oriente, which provide attractive features like no interest rates, or weekly and bi-weekly payment options. Even in a nation like India, where there is limited access to credit and financial literacy, BNPL has proved its potential.

In 2020, e-commerce giant Amazon introduced Amazon Pay Later which provided consumers to pay in instalments with Amazon India web and mobile applications. Looking at bigger names indulging into this lending trend, many fintechs have emerged in order to provide more convenient payment options.

THE DISRUPTORS WITHIN THE MENA REGION

Countries, such as Saudi Arabia, United Arab Emirates and Bahrain, have heavily shifted their focus to e-commerce platforms. Industry experts saw the BNPL industry to be of massive potential and more than 10 fintechs emerged within the market ever since the pandemic. These include names like Tabby, Tamara, PostPay, and Spotii, who then partnered with major e-commerce platforms and retail brands such as Namshi, improving regional sales and conversion. Tabby, the Gulf born BNPL raised $50million in a new equity round after which, the company is now valued at $300million. Its services are available to more than 2,000 merchants that include brands like IKEA. This model of paying in pieces also gives merchants the chance to drive its customers away from the discomfort of cash-on-delivery. Tabby is also the first BNPL provider to launch a cashback programme that provides rewards to shoppers. As they create an account on the tabby platform, they are eligible to earn a 20 per cent cashback which they can settle in their upcoming payments. The region is seeing immense growth in such platforms and customer offerings to engage shoppers in a delightful e-commerce journey, driving them away from cash.

MOMENTUM IN THE US AND LATIN AMERICA

Many fintech giants have gained motion in rolling out their own buy now, pay later offerings such as Apple Inc., after PayPal's big announcement on Pay in 4, using the banking solutions from the giant Goldman Sachs Group Inc. These fintechs who provide instalment services claim to be more transparent compared to the traditional way of credit cards. Unlike the tech savvy users that are updated with top-notch services all over the US, there are more than 1.7 billion unbanked people in Latin America, according to the World Bank. Nelo, a BNPL fintech is a company formed by two ex-Uber employees, and already has 75 merchants within their ecosystem. Nelo has started its services in Mexico first, in an attempt to bridge the gap between digital commerce and traditional mode of payments. More LATAM based players, such as Alchemy, Addi, dlocal, Dinie and Kueski are other names on the list, but definitely not the only ones.

HOW CAN BANKS WIN AMID VARIOUS CREDIT PROVIDERS?

The world has seen BNPL service providers take the world of credit by storm. The biggest threat in e-commerce is probably Amazon, which won the trust of consumers globally. The rise of various services may seem like a threat to many financial institutions, but banks can really leverage their existing relationships with their consumers. Banks have two options to secure their market share of the BNPL market. Partnering with fintechs – by partnering they will be able to take full advantage of a bank's trust and viability. Or deploying their own BNPL – within an acceptable timeframe this can also help banks secure their position.

BNPL can be built from the ground up or leveraged from white label payment partners to speed time to market. These options will help banks fix the gap between the customer's actual demand and supply. Gone are the days where banks would imply the one size fits all model with all users; banks need to either jump onto the bandwagon or miss the train! TFT

About Radar Payments

Radar Payments is a leading innovative payment processing provider dedicated to financial institutions, including payment service providers (PSPs), banks, acquirers, issuers and fintech. Connecting payments to commerce is what we do best, while eliminating the complexity of payments.

Website: www.radarpayments.com

LinkedIn: www.linkedin.com/company/radar-payments

TWITTER: @RadarPayments

RADAR PAYMENTS

Is your engineering team ready for The Remote Future?

***Andela** is the first long-term global talent network that connects companies with vetted, remote engineers in emerging markets. Its recently released whitepaper, **Is Your Engineering Team Ready for the Remote Future**, examines how more companies than ever are making the shift to remote work and analyses how they mitigate challenges by leveraging quality engineering teams*

By **Polly Jean Harrison**, Journalist at *The Fintech Times*

Five years ago, no one would ever have thought that working from home would be the norm across industries, and yet with the Covid-19 pandemic that is exactly what's happened. This shift to home offices and online meetings makes sense from both an employer and employee perspective.

For the employers, Boston Consulting Group estimates that remote working models lead to a 20 per cent cost reduction in real estate and resource usage, as well as a 15 to 40 per cent increase in productivity. And this increase in productivity is true on the employee front, where a *PwC US Remote Work Survey* found that more employee respondents say they're more productive than they were before the pandemic. There's also an increase in quality of life, with 97 per cent of people who started working remotely as a result of the pandemic confirming that they would choose to continue doing so for the rest of their careers.

However, with this shift also comes challenges, and while companies can get the benefit of accessing talent from all over the world, they are now grappling with how to improve processes, teamwork and technology to continue being successful in this new area. In light of this, Andela's whitepaper provides insights from its *Technology Leadership Survey on Remote Maturity* and establishes its 'remote maturity model' for assessing how ready a company is for hiring and managing global talent.

The whitepaper identifies some of the common challenges that companies face as they transition to working remotely by looking across multiple industries, with a focus on financial services, to identify issues and propose solutions. It also advises how companies can increase their global hiring maturity to stay competitive and reap the benefits of remote work while tapping into talent across the world.

An influx of demand for remote engineers

Interestingly, in this new remote forward world, the demand for software engineering talent has never been higher. Andela found that most of the companies shifting to remote or flexible working practices can be found in the software industry, a sector with a history of remote work already. Working from home can lead to greater productivity and efficiency, and this is particularly true for tech and engineering teams. Nick Branstator, CTO at Playwire Media, comments within the whitepaper: "Remote contractors are part of the innovation process and can provide technical leadership like architectural work. They can be part of the strategic conversations."

Tapping into global talent

According to an article from ZDNet, one of the most in-demand jobs across the UK is software developer, 'for which there were nearly 10,000 vacancies in April 2021 alone. The problem? There aren't nearly enough candidates to fill all of the empty roles'.

This is particularly true where hiring remotely with a global talent network becomes truly beneficial, enabling you to tap into talent wherever it may be found. The whitepaper notes that a 'huge number of other industries that once had primarily office-based work cultures are now planning on becoming much more flexible, which will create new competition for engineers outside of traditional technology industry hubs'.

Andela's data further shows that though companies are prioritising hiring talent in the EMEA region, the engineering talent from the LATAM region presents a huge opportunity for companies as there is a sizable and talented workforce that is comparatively overlooked.

The benefits of exploring other countries' talents are clearly seen, with 30 per cent of those surveyed by Andela saying that working with engineers around the world makes them a better remote workforce. An additional 44 per cent responded that engineers outside of the US provide more global and diverse perspectives to their products.

It's clear that the remote first economy is increasing the competition for talent, with Andela's research finding the number of companies sourcing talent from more than 10 countries will increase from three per cent to eight per cent over the next two years.

The challenges of remote working

As explored throughout the whitepaper, the benefits of remote working are vast. Andela identifies faster time-to-hire, more quality talent to choose from and diverse perspectives as just some of the advantages of working from home. A study from McKinsey, referenced in the whitepaper, also said: "Considering only remote work that can be done without a loss of productivity, we find that about 20-25 per cent of the workforces in advanced economies could work from home between three and five days a week."

While this figure represents four to five times more remote work than before the pandemic, there is still some reluctance to fully embrace remote work due to the challenges involved with its implementation. According to Andela's research, only 21.5 per cent of companies surveyed said they could hire talent from anywhere, with 62 per cent set up to hire across a variety of regions that are still bound by 'red tape, legal hurdles and processes that slow them down from true competitive global hiring'.

Some of the major challenges to becoming a fully global remote organisation include hiring logistics, such as paperwork, taxes and other HR and legal hurdles; management, such as ensuring effective communication across languages, cultures and time zones; and Diversity, where companies may have difficulty in ensuring a diverse and inclusive workforce.

This reluctance can be particularly seen in the financial services sector, with Andela's research finding that the industry is one of the more reluctant globally to pivot to a remote work model. Only 9 per cent of those surveyed said that they expect to be fully remote after the pandemic, and this hesitation is likely largely attributed to the vast amounts of sensitive data handled in the industry and the possible risk of a breach when remote working.

The financial services sector lags behind

It is thought that the financial services sector is likely to be the most data-intensive sector in the global economy. Financial services firms must adhere to strict and complex regulatory environments including access to customer data such as payments made online, withdrawals at ATMs and even personal profile data collected for KYC compliance. Finance companies have access to a lot of sensitive material, and a breach could be devastating both for the customer as well as the organisation itself, so it does make sense as to why there is a hesitancy to move to a digital world and embrace working remotely.

However, the extreme digitalisation seen over the last few years and the sheer volume of technological innovations created as a result mean that the right engineering teams can innovate within financial services while also complying with the necessary regulations and minimising risk.

The regulatory landscape in financial services is constantly changing. However, with an understanding of how to manage regulation and compliance risks, engineers can effectively showcase their technical expertise. Andela engineers in particular place an emphasis on building modular, configurable and easily automated applications that can evolve quickly and seamlessly. Utilising the cloud is another way financial services firms can help mitigate risk. Not only do Cloud environments offer lower costs, enhanced scalability and security, but can also help facilitate remote working in a compliant and secure way, no matter how much sensitive data is at stake.

Though financial services organisations are right to be concerned about the shifting nature of remote working and the potential risks associated with the practice, it's time for them to take the leap. As outlined in the whitepaper, 'more and more companies are realising that the barriers to scaling the remote workforce are challenges that need to be solved'.

With the right technology and teams behind them, companies will be all but forced to expand remotely due to a huge increase in competition for talent, particularly when recruiting outside the US. The whitepaper says 'this combined pressure on available talent and the cost of talent will change the equation for companies that have resisted solving the remote hiring challenges they faced in the past'.

How to gain remote maturity

In the conclusion of the whitepaper, Andela encourages readers to 'take the first step' into gaining remote maturity and encourages readers to assess their own level of remote maturity with a questionnaire and checklist.

Though the move to embrace global remote work involves new challenges, their research shows that the first step many companies need to take is to identify the gaps in their current team structure and assess the hiring strategy that would provide the most effective path to filling those gaps.

Creating a strong digital work culture is of particular importance in remote environments. Though tricky, it can be done with focus and planning to ensure workers and management don't 'hit a wall'. Teams need opportunities to get to know one another and build rapport, with services such as Slack, Microsoft Teams and Jira being key to encouraging digital communication and productivity.

The opportunities of remote work are endless, and as the whitepaper concludes: "Every company that hires remotely has the chance to be an impactful organisation, and by overcoming cultural boundaries, we'll all play a role in bringing the world a little closer together." TFT

> Though financial services organisations are right to be concerned about the shifting nature of remote working and the potential risks associated with the practice, it's time for them to take the leap

TAKING CONTROL OVER CONTACTLESS

With concerns over increased fraud and people spending more than they can afford, what are banks doing to help shoppers set their own contactless limits?

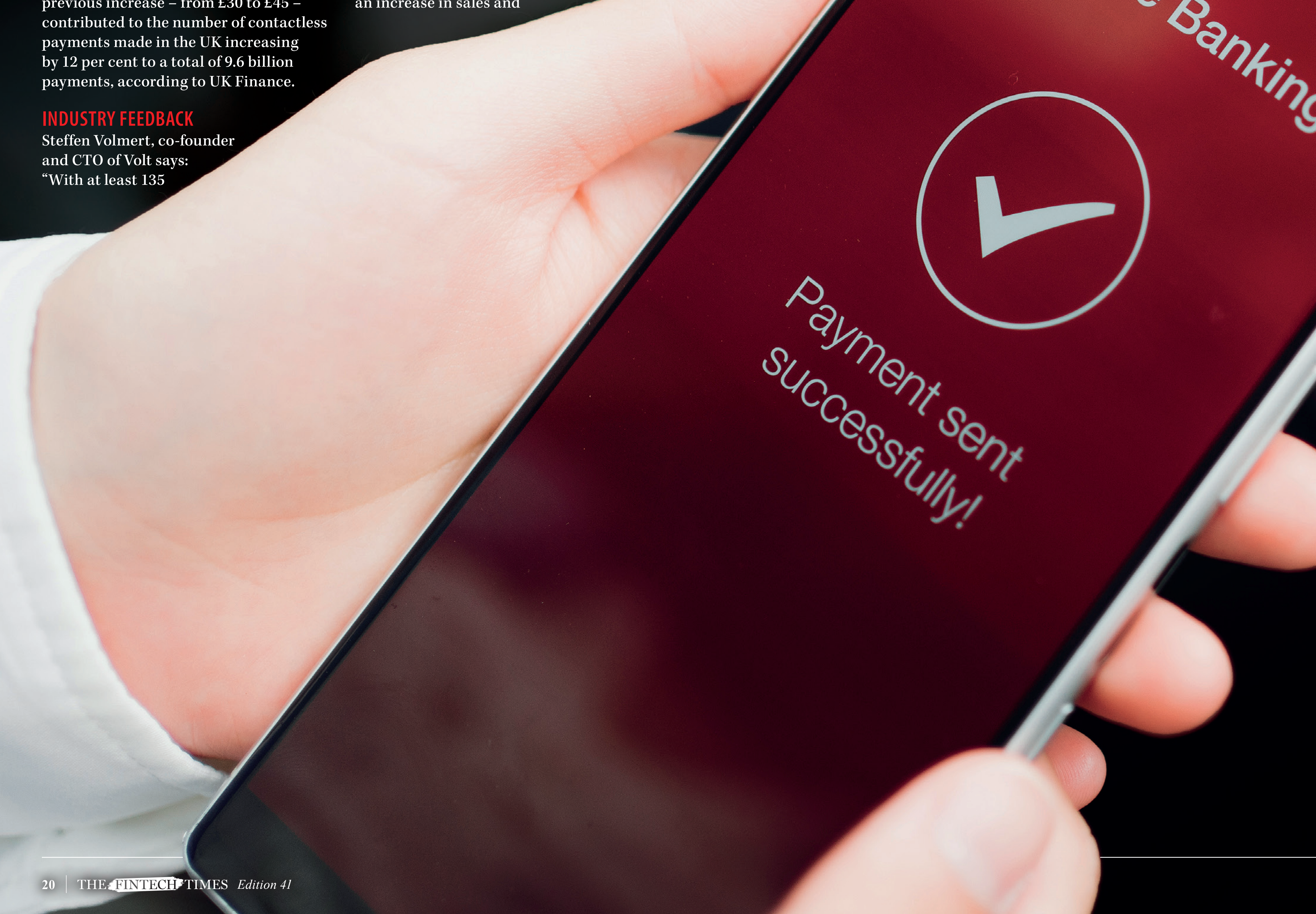
Tyler Smith, Junior Journalist, *The Fintech Times*

Consumers in the UK can now spend up to £100 using their contactless cards, without the need to enter a PIN. The higher limit – rising from £45 – came into force on 15 October in a move finalised by the UK government and HM Treasury.

More than 7.4 million people are living a cashless lifestyle in the UK and a previous increase – from £30 to £45 – contributed to the number of contactless payments made in the UK increasing by 12 per cent to a total of 9.6 billion payments, according to UK Finance.

INDUSTRY FEEDBACK

Steffen Volmert, co-founder and CTO of Volt says: "With at least 135 million contactless cards in circulation and the technology accounting for 9.6 billion payments a year, there's no doubt that the new contactless limit brings new opportunities for many. Consumers will benefit from greater flexibility and convenience; merchants could see an increase in sales and



operational efficiencies; payment service providers might experience an uptick in transaction volumes.

"However, concerns that the increased limit will make it easier for fraudsters to steal larger sums of money from cardholders are valid, and should not be disregarded. During the first six months of this year alone, contactless fraud – covering cards and mobile phones – totalled £7.6million, according to UK Finance.

"Certainly, steps are being taken in the right direction to combat card fraud. After 14 March 2022, issuers in the UK will have a legal obligation to implement SCA on card transactions under the FCA's PSD2 requirements, for example. But this doesn't solve the issue of contactless transactions, or card fraud itself. As a result, the increased limit could accelerate the growing demand for an equally fast, but more secure payment method, which can be realised via open banking. Direct account-to-account payments in real-time eliminate card fraud altogether, whilst providing a single-click checkout experience for the consumer and substantially reduced fees for the merchant. It will take time for open banking payments to become mainstream. But could the increased contactless limit be the catalyst for a transition away from card payments? Only time will tell."

Brad Hyett, CEO of phos, adds: "Businesses must embrace digital payments or risk getting left behind. A quarter of all UK smartphone users are predicted to make in-store payments using a mobile phone by 2023. The move to increase the contactless spending limit is an inevitable response to that fact. The pandemic has accelerated the move towards cash-free payments and consumers now expect to make convenient and quick payments without entering a pin code.

"As contactless payments become more popular, the finance industry must step up to the challenge of ensuring that merchants are equipped with the right payment solutions to accept payments in a secure, efficient, and simple manner. Those that are too slow to move away from cash as a primary mode of receiving payments will have the viability of their businesses significantly threatened as they won't be able to compete."

> During the first six months of this year alone, contactless fraud – covering cards and mobile phones – totalled £7.6million

Altay Ural, chief product and technology officer for the UK fintech Modulr, says: "Raising the contactless limit to £100 is a good move. We need to make spending in stores as easy as possible to get the economy back on its feet. This starts with taking the friction out of paying that comes with lower limits (£45) and replacing it with convenience for customers.

"And no, we can't ignore the very real threat of fraud. But the truth is, the risk of this type of fraud is fairly small and consumers are well protected. With secure, in-built technologies like virtual cards (on smartphones) to customer controls like card freezing, as well as customer compensation like chargebacks.

"There is a real opportunity here to promote greater consumer spending across UK stores, especially in busy locations like supermarkets, petrol stations and DIY stores where you can easily spend more than £45 in one go."

HOW BANKS ARE SUPPORTING THE NEW CONTACTLESS LIMIT

HSBC

Currently, HSBC customers are not able to set their own preference for a contactless spending limit. However, the bank has assured customers that they can retain full control over the use of their card through the HSBC digital banking app; with the ability to block transactions or report a stolen card for example.

Despite the lack of user control in regards to the spending limit, the bank has also stated that as an alternative, customers can request a contactless-free card should they so wish, while also reminding customers that they are fully protected against any unauthorised card fraud.

NATIONWIDE

Customers have the ability to turn off the contactless functionality of their card if it is their preference. In addition, customers can also set a daily spending limit for their contactless payments, after which a PIN will be required to resume its functionality. Despite reports that Nationwide is planning to let customers set their own contactless limit within the £100 window, no official launch date for this initiative has yet been announced.

BARCLAYS

Barclays customers are not able to customise the limit to suit their own needs, however its card services do benefit from a high level of user control. Customers can set daily spending limits, which includes the use of contactless, and can set regulations in regards to internet transactions and ATM withdrawals. Barclays' contactless cards are also covered by the same anti-fraud technology as its chip and PIN transactions.

TSB

Customers cannot set a contactless limit for themselves. However, as an added layer of security, TSB says customers will be 'prompted to enter their PIN for user-verification measures; while they can also switch to a non-contactless card should they prefer.

SANTANDER

Santander says it is developing technology that lets customers set a contactless limit themselves although there's no official launch date as yet. Currently, only Santander Mastercard users can halt the contactless functionality of their card through the digital banking app however non-contactless card options will be made available upon request for both Santander Mastercard and Santander Visa users.

LLOYDS BANK, HALIFAX, AND BANK OF SCOTLAND

Debit card customers of these banks can deactivate the contactless functionality of their cards and also have the ability to set their own contactless limit, between £30 and £95, in increments of £5. A similar scheme for credit card customers; including accounts with the bank MBNA, is mooted for a launch in coming weeks.

NATWEST AND RBS

Although NatWest and RBS banking customers cannot vary the new £100 limit, the contactless functionality of cards can be restricted and controlled through their digital banking app. No non-contactless card options are currently available. Customers will be required to enter their PIN once the total spending limit for contactless transactions has been met; however, the banks have not disclosed the exact figure.

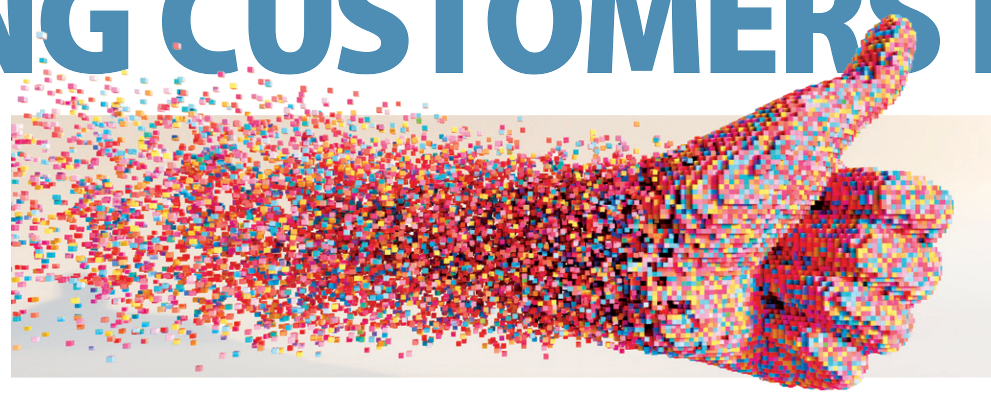
MONZO

Monzo is not offering a non-contactless alternative to its card offerings. However, customers will be alerted instantly to any transactions being made through their account – including both chip and PIN, and contactless – and customers will be required to enter a PIN once they reach the value of £100 across multiple contactless transactions.

STARLING

Starling customers can set their own contactless limit through the bank's mobile app – anywhere between |0 and £100, in increments of £10. They also have the option to shut the function off completely, while a cap can be placed on consecutive contactless payments limit, so if customers make more than one transaction in a row, the limit for all of these payments added together will be £300. Anything above this will require customers to use chip and pin. However, unlike the contactless limit, this amount cannot be adjusted. TFT

CREATING CUSTOMERS FOR LIFE



A guide to solving digital transformation's customer engagement problem

At Relay, we've been helping organisations digitally engage with their customers for over a decade. The primary lesson we've learned in that time is that all business objectives ultimately roll up to a single, universal outcome: creating customers for life – it's the best single investment a business can make, because a customer for life is deeply invested in a brand.

Customers for life feel a personal attachment to a brand, it's 'theirs' – it adds value to their world, and, ideally, customers for life become brand advocates. But to create customers for life we need to build trust. After all, how can we create customers for life if they don't trust us?

1 PERSONAL vs PERSONALISED

In the age of digital transformation, the R in CRM has become an orphan. And it is that while financial institutions have invested trillions of dollars in digital transformation and have admirably created digital analogues of their branches on the web and in mobile apps, they have inadvertently shifted the onus of service from themselves onto their customers. Analyst firm IDC estimates that 70 per cent of digital transformation initiatives do not achieve their desired business outcomes. Digital transformation leaders tend to think of 'self-service' as a desirable outcome of digital transformation, but customers still want to feel serviced and known. There is a major difference between personal vs. personalised engagement. Marketing automation is personalised. "Hello %firstname%!" doesn't fool anyone into a sense of intimacy with the sender. Personalisation only tells a customer a business knows their name, it doesn't make them feel known – a trusted brand should know what their customers care about, and what they need based on transactional data and previous engagements.

The intent of a personal experience is to establish a deeper relationship with a customer – done correctly it builds trust. True engagement means remembering customer choices and metadata in a way that demonstrates understanding throughout a brand's role their lives. By deeply understanding the customer and applying personal data to that understanding, Relay creates human-centric digital experiences that foster trust and build confidence.

2 CONTINUOUS vs TRANSACTIONAL

Traditional customer engagement tools are transactional in nature. They entice customers to complete a singular business-outcome-driven action that doesn't necessarily map to a customer's needs. Relay provides a dedicated 1:1 feed from the business to the customer that is continuous – providing multiple, engaging, relevant experiences to customers that sit at the intersection of customer needs and business outcomes. Throughout the lifetime of the customer relationship, Relay uses intelligence and data from previous experiences to serve up contextually relevant, logical next-step experiences in the feed that align with customer life events and catalyse them to action. Understanding engagement fatigue and the prevalence of push notifications also plays a significant role in creating an optimal engagement experience. Knowing the exact right time to engage a customer is just as important and understanding a brand's role in their lives so that a customer doesn't experience engagement fatigue. Using the same intelligence, Relay understands that natural conclusion and will pick back up at the next important customer interaction.

3 FRICTIONLESS vs HIGH EFFORT FOR CUSTOMERS

In its research note 4 Actions to Improve Customer Loyalty by Reducing Customer Effort, analyst firm Gartner notes that only nine per cent of customers who had low-effort service experiences are likely to change vendors or merchants, compared to 96 per cent who had high-effort service interactions. People are increasingly loyal to the retailers, products, brands and devices that consistently provide exceptional value with minimum friction or stress. Many traditional engagement tools put the onus on the customer to engage and then require additional effort to complete an action. Barriers such as having to remember login information, driving customers to other apps or portals, and having to manually plug in personal data to complete the transaction all take significant effort for the customer and therefore represent moments of fall off in the process. The Relay feed delivers frictionless experiences all within the personal, 1:1 channel that includes the tools necessary to complete any transaction right within that experience. Easy, one-click transactions are quickly becoming the standard that many customers expect from the companies with which they interact.

4 FRICTIONLESS vs HIGH EFFORT FOR EMPLOYEES

Financial institutions commonly assign product and service groups to cost and profit centres who adopt their own tools and best practices for customer engagement. These silos often end up inadvertently sabotaging each other when trying to engage with customers – at worst, their outreach could lead to brand communications being perceived as spam. In addition, the high effort of repurposed tools and the associated repetitive, overly complex, and unnecessary work have the potential to create a bad employee experience which then negatively affects the end customer experience. Relay is a no-code engagement solution that seamlessly plugs into any CRM or CDP technology stack, packaged with a library of out-of-the-box experiences proven to drive the highest value for customers and the best outcomes for businesses. Relay clients can rely on those experiences to kick off their program without having to bring in additional resources. Because we at Relay see ourselves as partners to our customers rather than vendors, a core part of our solution is access to the industry experts in our client success team who can assist with every aspect of a customer engagement program from rationalisation and implementation through optimisation and company-wide deployment. These experts understand the high value experiences that both satisfy the needs of the financial customer and how they map to business outcomes for each company.

Relay maximises customer lifetime value by driving the highest quality business outcomes at the fastest pace. A recent Gartner analysis found that while a high proportion (87 per cent) of B2C companies are focused on customer engagement as a key strategic priority for growth, they lack a clear definition of successful engagement. When asked, 61 per cent of customers reported enjoying the process of researching new products and services and 58 per cent reported loving to seek out new products and services to try. For traditional marketers, these dynamics challenge established beliefs about marketing's ability to maintain and deepen customer relationships.

As a result of these challenging dynamics, most customer experience leaders are focused on increasing engagement to deepen relationships with existing customers and drive growth. The problem is that most tools being used for engagement today are not built to foster a deep relationship with the customer. Workflows are not personal. Clickthroughs are not meaningful. Omnichannel messages are not synchronous. Landing page visits do not translate to loyalty.

ARE YOU USING THE WRONG TOOLS FOR CUSTOMER ENGAGEMENT?

It's well established that the cost of losing a customer is greater than the cost of acquiring a new one. This is why customer experience leaders must focus an engagement approach based on a solid understanding of the customer, balancing immediate brand benefits, such as revenue and cost savings, with the strength and quality of customer relationships.

At Relay, the 'own' cycle begins at the point of purchase and ideally never has a logical end. Meaning, it's an ongoing pursuit of maximising customer lifetime value. The goal of the cycle is to build a framework to ensure your customers aren't merely satisfied with your product but have developed a strong brand affinity for it. Your brand is theirs – they've become a loyal customer; an outcome that doesn't manifest unless your brand provides the features, products and services customers need and want. In the digital age, the own cycle encompasses steps such as:

Receive: Give control to customers over the channel through which they interact with your brand; and use the moment of delivery to immediately foster mutually beneficial engagement.

Onboard: Begin to foster the post-purchase relationship by welcoming the new customers to your brand. Make them aware that your brand cares as much about them after purchase as before and help them quickly and immediately derive the value they expect from your product or service.

Use: Ensure your customer is satisfied and educated on using your product in a way that permits your brand to deliver its full value. Using the Relay feed, customers can be engaged to use and learn products and features based on when those are relevant to their needs.

Deepen: Nurture customers to attain stronger relationships. Cater to their interests, earn their trust, provide more value, encourage greater loyalty and use knowledge of their needs to offer additional products and services that enhance their lives and drive affinity. TFT

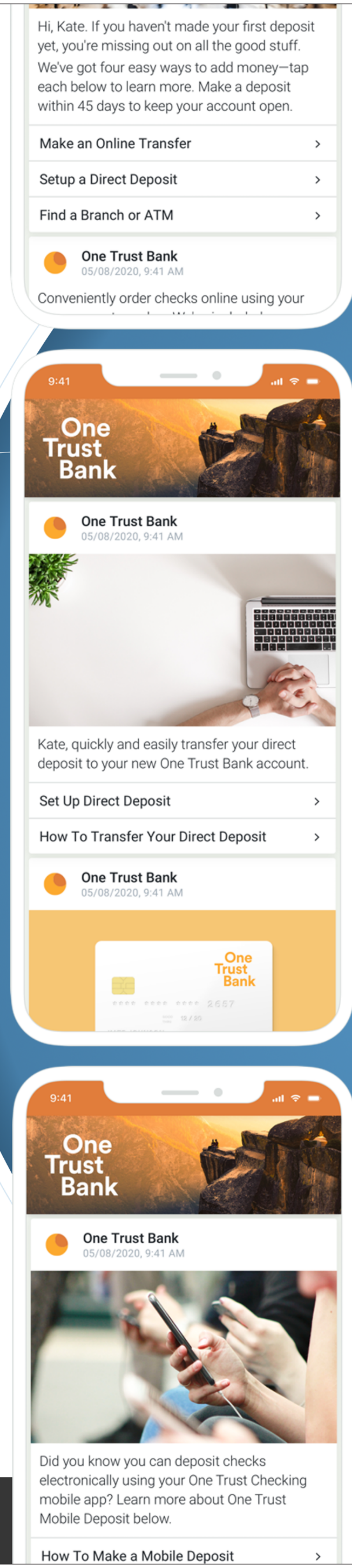
RELAY

WE HELP BANKS CREATE CUSTOMERS FOR LIFE

Over the eleven years we've been helping our customers engage with their customers, we've learned that "true" engagement is the only way to establish trust with customers. The litmus test for true engagement is that it mustn't be purely transactional. That is, true engagement doesn't merely benefit some business outcomes, like increasing revenue and reducing costs, it is mutually beneficial for a business and its customers—anticipating and meeting their needs like feeling known, feeling like their time is valued—not making them navigate links and forms to get something done.

To address this need for true engagement, we've created a digital channel through which businesses and customers can meaningfully engage. It's a personal 1:1 feed for each customer that contains the experiences which are most relevant to their life. In our world, experiences don't merely map to outcomes like revenue and cross-sell, we believe that fostering and deepening customer relationships through education and information are just as important as getting them through the next most revenue generating hoop. We've partnered with several of the top financial institutions in the world to identify the key, mutually beneficial experiences that foster customer trust in banking. These experiences are natively built into our software, making it easy for multiple product silos to integrate the delivery of those experiences with their existing tech stacks. We can start driving more of the highest value experiences that matter to you and your customers at the highest rate on day one.

Relay starts with 100% customer enrollment—we bring experiences to the customer rather than the other way around. Imagine your customers deepening their relationships with you while delivering the business outcomes that are most important to you—directly within their personal Relay Feed. Our software unifies the customer engagement needs of all your business silos; delivering the most outcomes at the highest rate while ensuring the highest user sentiment. At Relay, we help you create customers for life.



JOBS IN FINTECH

The Fintech Times selection of TOP fintech jobs this month

Manager, Financial Advisory at Deloitte.

COMPANY OVERVIEW: DELOITTE

Deloitte offers global integrated professional services that include Audit & Assurance, Consulting, Financial Advisory, Legal, Risk Advisory and Tax Consulting. Its approach combines intellectual leadership, industrial expertise, insight, consulting & problem-solving capabilities whatever the role, technology revolutions and innovation from multiple disciplines to help clients excel anywhere in the world.

ROLE OVERVIEW: FINANCIAL ADV. MANAGER

Working on high profile assignments with some of the best in the field, you will have the opportunity to work on a wide variety of projects, with a mix of both corporate and private equity transactions, within a highly commercial, client focussed environment.

YOUR RESPONSIBILITIES & REQUIREMENTS

- Quickly develop an understanding of the target business and its drivers
- Interpretation and analysis of information memorandum, business plans, publicly available information on the target business
- Review and analysis of historical trading, cash flow and balance sheets, projections, and underlying assumptions
- Previous experience within financial due diligence and transaction services
- High level report writing and reviewing skills, with an appropriate focus on attention to detail, conciseness and risk management
- Good problem solving and analytical skills
- Exceptional academic background or equivalent experience
- An ACA qualification (ideally first time passes) or equivalent /experience

THE BENEFITS:

Cultural fit and purpose-led leadership is crucial for Deloitte. Its leaders always set an example and inspire their colleagues. They make quality time for people and take an interest in them. They know what matters to people – both inside and outside work – and value them as individuals; always finding opportunities to develop them while showing respect and appreciation.

Senior Manager, Data Management at Grant Thornton

COMPANY OVERVIEW: GRANT THORNTON

Grant Thornton UK LLP is part of a global network of independent audit, tax and advisory firms, made up of some 58,000 people in over 135 countries. It has a team of independent thinkers who put quality, inclusion and integrity first. All around the world it brings a different experience to clients. A better experience. One that delivers the expertise they need in a way that goes beyond. Personal, proactive, and agile. That's Grant Thornton.

ROLE OVERVIEW: DATA MANAGEMENT

The work that you will do has a major impact on clients and the firm as a whole. It prides itself on the high-level standards that it has for the work that it does. If you enjoy working on a wide-reaching range of projects that will help businesses and communities flourish, you'll fit right in.

YOUR RESPONSIBILITIES & REQUIREMENTS

- Developing and refining data strategies for FTSE 250 organisations
- Sound understanding of BCBS 239 and experience executing BCBS 239 programmes
- Undertaking data maturity assessments and familiarity in EDM Council DCAM Assessments
- Undertaking data assurance capabilities
- Undertaking data governance reviews
- Worked within a chief data office or provided consulting services for a chief data office
- Worked in or had exposure to BCBS239
- Understanding of data strategy
- Worked with in or have an understating of EDM Council DCAM assessment

THE BENEFITS:

Families, children, sports, night classes…the things you do and the people you're with outside work matter. They can inspire, motivate and energise you. Inside the office and out. So if you'd like to work flexibly, let them know. Grant Thornton is happy to look at flexible working options for all our roles, and they'll always do our best to keep your work and life in balance.

Senior Service Delivery Engineer at tandem

COMPANY OVERVIEW: TANDEM

Tandem is a language exchange app on iOS and Android that connects language learners with native speakers. Members can search for language exchange partners to talk to by either text or voice chat. As of July 2020, the app supports 300 languages including 20 sign languages, 20 indigenous languages, and six fictional ones such as Mandalorian or Klingon.

ROLE OVERVIEW: DATA MANAGEMENT

Tandem is looking for an experienced second line engineer looking for that next step, who's keen to grow and learn in a fast-paced scale up. You'll need drive, initiative and a willingness to learn quickly and in exchange you'll get to learn from a talented group of people who have a wealth of industry knowledge.

YOUR RESPONSIBILITIES & REQUIREMENTS

- Managing incidents and requests through the service management tool – categorisation, prioritisation, triage and resolution
- Provide support for a wide range and constantly evolving set of applications, software and hardware
- Maintaining governance standards across all IT service management processes
- Onboarding new starters
- Previous experience in a service desk/delivery role
- Proficient in Active Directory
- Knowledge of Windows Server Infrastructure; 2012R2/2016/2019
- Exposure to PowerShell
- Exposure to network and firewall configuration/management
- Experience in a customer-oriented environment
- Passion for technology

THE BENEFITS:

Tandem has fostered an environment that nurtures growth and development where culture is key, and you're provided a platform to accelerate your career.

VISIT THE FINTECH TIMES JOB BOARD – HTTPS://THEFINTECHTIMES.COM/JOB-BOARD/

SHARING THE SAME GOALS

Sokin, founded by Vroon Modgill in 2019, is headquartered in London and has 10 offices globally. *The Fintech Times* chats to the CEO about the company's collective aims and the importance of recruiting the right talent.

Q Tell us a little bit about Sokin...

A Sokin was born from humble roots with a need to build better financial services for economic migrants with families to support across the world.

As a first-generation immigrant, I watched first-hand as my father struggled with sending money back to India through a well-known remittance platform. The whole experience was stressful, expensive, and time-consuming. Unfortunately, this was a process repeated religiously for many years. It was clear to me the existing old-fashioned, not-fit-for-purpose system needed a reboot, yet the remittance landscape was slow to evolve. As a result, Sokin has built something better and on a much larger scale.

Sokin has taken the popular subscription model (just like Spotify and Netflix) and uses it for money transfers on a global scale. In fact, we are the only payments provider enabling global payments for a fixed monthly fee, giving consumers the power to make unlimited payments and transfers in 38 currencies to more than 200 countries and territories. There are no additional costs or hidden fees just straightforward currency exchange and money transfers.

Q What makes Sokin such a great place to work?

A Our culture is the number one priority alongside product innovation, business growth and fundraising.

People are our greatest asset, and our company culture evolves organically as the business grows. We understood from day one how we engage with employees can be the difference between success and failure, so we quickly embodied a positive company culture to garner good employee engagement and gain a competitive edge.

One of the most important aspects of this is to simply listen. Each of our employees has a unique voice. And that's why we encourage everyone – no matter position or level of seniority – to share feedback without fear of judgement. We found this gives individuals a sense of agency that enhances effective decision-making and innovation, as well as foster empathy and compassion.

We nurture an inclusive, healthy company culture and a part of that is to give people the space to share honest feedback, propose new ideas and suggest improvements. It's important the business is not hierarchical as we are all working towards the same goal and as one team. It is this attitude in which we have been able to attract and retain our people as well as cultivate satisfaction in the workplace and drive high performance.

Sokin is an incredibly exciting place to be. Not only are we an agile startup with fire in its belly to make a change, but our global expansion roll-out plan means that things are moving very quickly. And we couldn't do it without the support of the Sokin workforce.

Q How have the last 18 months changed your office structure and environment?

A Sokin had an unusual start. We were founded in 2019 as a fully remote business. The pandemic forced us into a way of working which is normal for us, but even today, still feels unnatural to many legacy businesses.

It is a way of working which has been built into our culture from the very beginning and we quickly learned that location doesn't define the quality of work produced. Working from home gives employees more autonomy, accountability and nurtures trusted relationships between one another.

Remote working continues to give us unrestricted access to the global talent pool. For example, we have employees across the world in countries such as Canada, Singapore, India, the USA, Australia, to name only a few. Our hiring process transcends borders and has resulted in us being able to tap into the best minds in the industry as well as grow a diverse, culturally rich, and inclusive workforce which is growing exponentially.

The majority of Sokin's employees have only met through a screen, but this hasn't prevented the business from scaling extraordinarily quickly, nor stopped the workforce from thriving. For Sokin, 'how' we do our jobs is more important than 'where' we do them.

Q What successes have you had?

A The launch of our core consumer product offering – global currency account and global travel cards – in August 2021 was a major milestone for the business.

It was a tremendous effort by the Sokin team who worked hard to create a product which will make a difference to people around the world, especially to those who typically haven't had easy access to their money before. Each employee played a vital part in making what was only an idea two years ago into a tangible product now in the hands of consumers.

The team launched a product remotely, across borders and in different time zones – no easy feat and something I am personally very proud of. The team spirit and genuine belief in what we're trying to do is highly infectious. We all believe in the same vision and share the drive to make the impossible possible. And it makes Sokin a very exciting, energetic, and dynamic place to be.

Q What is your growth strategy for the future?

A As a young startup, growth is very important to us. Sokin's geo expansion and speed is very competitive. It is expected our Sokin debit cards will be worldwide within 12 months and on a much larger scale compared to other providers in the market. Our global roll-out plan is very aggressive, however, Sokin is an agile startup supported by a highly experienced team with a combined total of 150 years in payments expertise.

I wanted to create a business which was truly global and accessible to millions of people. The world of global payments needed to change and remove the barriers which historically hindered financial inclusion and accessibility; to give financial power back to those looking to send money around the world. And that's what Sokin has done.

Alongside the corporate growth plan, is the need to quickly recruit the right talent and grow Sokin's workforce. We have dedicated internal resource whose role is to obtain new talent and ensure they are embedded into the business in the right way.

Q How would you describe your overall culture?

A Startups are sometimes known to be fierce, highly competitive and stressful places to be. In some cases, this may be true, but at Sokin, we have worked hard to break this stereotype. And the proof is in the pudding. So, I asked Sokin employees for their thoughts, sentiments included: 'transparent', 'autonomous', 'innovative', 'purposeful' and 'empowering'. TFT

About Sokin

Sokin is a global currency account provider focused on creating an open and transparent payments platform. It is the only payment provider enabling global payments for a fixed monthly fee, giving consumers the power to make unlimited payments and transfers. There are no additional costs or hidden fees just straightforward currency exchange and money transfers, simplifying and democratising the process. Sokin is the official FX global payments provider for football clubs including Arsenal, Everton, Fulham FC and AS Monaco and has partnered with Mastercard in Europe, Asia and Singapore.

Website: www.sokin.com
Twitter: @SokinGlobal
LinkedIn: linkedin.com/company/sokin

SOKIN

INTERESTED IN FINTECH? YOU'D BE A 'DUMMY' NOT TO READ THIS

The 'for Dummies' range of books has been available for more than two decades now so it's no surprise that with over 300 books in the series, there's now one with a focus on fintech. *Fintech for Dummies* is published by Wiley and co-authored by Steven O'Hanlon, president and CEO of Numerix, LLC (2016's Fintech Person of the Year) and Susanne Chishti, the CEO of FINTECH Circle.

From the outset, it looked like the book could easily span more than one subject area, with the prevalence of Cloud, AI and blockchain technologies underpinning many areas of fintech. Indeed, Chishti is an author of other guides, such as *The PAYTECH Book*, *The INSURTECH Book* and *The AI Book*. But actually, as a one-stop shop, *Fintech for Dummies* is broken down remarkably well.

There's a nice bit of scene setting at the start, with a comprehensive introduction for beginners that discusses just why fintech has risen to become such a growth area, and what subsections it incorporates. If you're already familiar with its beginnings, then this is a chance to skip elsewhere as the book doesn't need to be read chronologically and, with a detailed timeline, it's easy to see which pages will serve to highlight your interest.

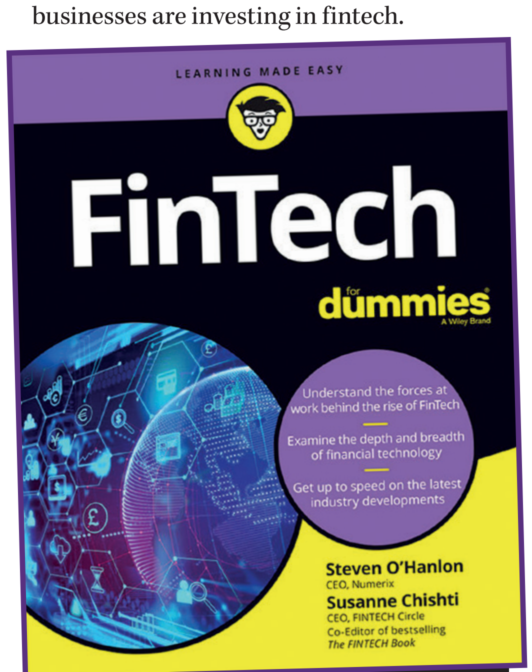
Chishti was an obvious choice for co-author; her previous work *The Fintech Book* has been translated into 10 languages and sold across 107 countries. Chishti herself was working for a fintech company in Silicon Valley more than 20 years ago (a long time before fintech was coined as a phrase) and went on to work across Deutsche Bank, Lloyds Banking Group, Morgan Stanley and Accenture in London and Hong Kong. She now runs the fintech ecosystem FINTECH Circle, Europe's first Angel Network focused on fintech opportunities and founder of the FINTECH Circle Institute, offering innovation workshops to C-level executives and online courses.

Meanwhile her co-author Steven O'Hanlon is no newcomer to the industry himself. As president and CEO of Numerix, a leader in risk technology, O'Hanlon is very much a speaker for the industry, but it wasn't always that way. On launching the book, he said: "As a serial entrepreneur in enterprise software, I did not find my start in the fintech industry. When I joined Numerix in 2002 it was in a new technology sector for me personally, but what was evident was the opportunity to bring the best practices of Silicon Valley to fintech. This thinking shaped the way we developed our business model, the way we used new technologies and ultimately drove the way we developed our corporate culture. This book is an opportunity to share some of

By **Gina Clarke**,
Editor-in-chief at *The Fintech Times*

those experiences and provide others with a fast-track to lessons learned over the years."

What this book serves to highlight is that fintech has really taken everyone by surprise. In the world of emerging fintech two phrases are commonly used – digital transformation and disruption. As one of the fastest growing sectors globally since the financial crisis in 2008, both startups and market incumbents have embraced the collision between finance and technology which has seen the main financial services sector innovate faster than ever before. With a common goal to work towards better customer experiences, more sophisticated risk monitoring and moreover, an ability to provide new financial services options, it's easy to see why so many businesses are investing in fintech.



FINTECH FOR DUMMIES
by Steven O'Hanlon and Susanne Chishti
Available: Kindle and Paperback

This is where *Fintech for Dummies* really serves as the go-to source for everything entrepreneurs, bankers and investors need to confidently navigate the ever-changing scene of this booming industry. In the book the authors have teamed up to explore:

- The drivers of disruption
- What it takes to run a successful fintech company
- The new technologies emerging and how are they being utilised
- Who is the next unicorn and the drivers for getting them there

Explaining more, Chishti says: "*Fintech for Dummies* is the perfect book to fully understand the booming fintech sector globally which will make it an invaluable source of information for anyone working in or interested in this space."

So, what has it got right? As you run through the chapters, you'll find that there's no extra info here, each page is short and concise and you really feel as though you've learnt something by the end of the page. What's more, you can watch out for handy tips that are easily displayed. With a good range of topics, the authors have left you to get as technical as you like. Dive into DApps, get close with the Cloud or understand what it really means to work with legacy infrastructure. All of these issues and more are broken down well. Not only is the range good, but the topics covered are logical, and make sense in terms of what was selected. Although it's interesting to note that even since its launch, the industry has evolved further, so I'm sure additional chapters on the metaverse and NFTs are coming.

On the downside, as the two authors are both well-respected in the industry, a lot of the case studies focus on their 'day jobs'. If you are able to familiarise yourself with the authors before reading *Fintech for Dummies* then this will understandably make sense, but if you just happen to pick it up and keep reading then it might look a little disingenuous.

But that aside, this really is a great book for any office to have on the shelf with points worthy of interest from developers to CEOs. If you're looking for a quick guide on understanding blockchain or how to develop an API strategy then the short, concise bursts of information between these pages will give you some indication of where to start. And, of course, for any deeper dives, Chishti has a further range of books also published by Wiley to help you understand those areas in more detail.

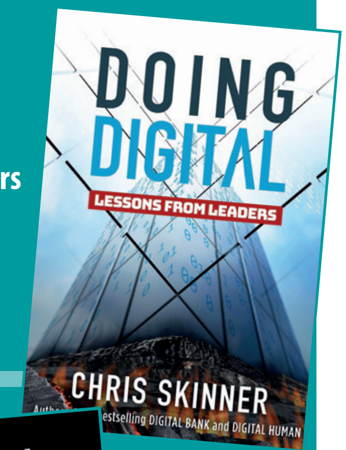
After all, that is one of the most confusing factors about fintech; how its overspill from one technology – and indeed, one sales opportunity to another – can mean that businesses often race to keep up with the general technology trends. And having a bible such as this on the shelf should help a CEO or investor to understand which way to pivot the boat.

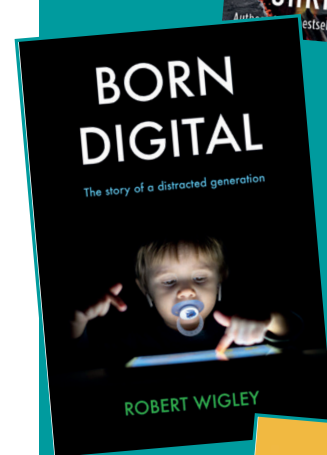
So, whether you're interested in learning more about how fintech can aid payments or how it can be used for security integration, there's definitely something in this book for you. Is it bedtime reading? Not quite. While it is well condensed, each topic within each chapter is tabled individually – which makes it perfect for dipping in and out of.

If you're after a comprehensive guide to fintech as it is right now, then definitely rush out and buy it. But remember, at the pace fintech is moving, don't be surprised if a few more chapters need to be added in the not so distant future. TFT

5 BOOKS TO GET AHEAD IN FINTECH

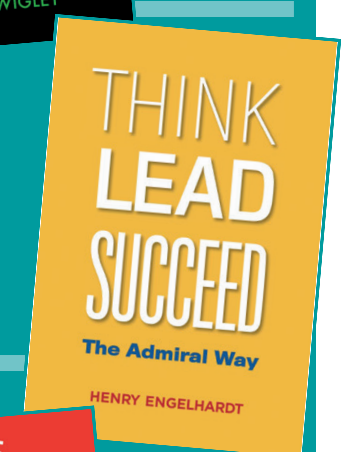
Doing Digital: Lessons From Leaders
by Chris Skinner
Available: Kindle and Hardback





Born Digital: The Story of a Distracted Generation
by Robert Wigley
Available: Audiobook, Kindle and Hardback

Think Lead Succeed
by Henry Engelhardt
Available: Kindle and Paperback



Cashless: China's Digital Currency Revolution
by Richard Turrin
Available: Hardback, Paperback and Kindle

3F: FUTURE FINTECH FRAMEWORK
by Kartik Swaminathan
Available: Kindle and Paperback


See you again in
2022
FINTECH WEEK
LONDON
11-14 JULY 2022
STAY TUNED FOR MORE INFORMATION
AT WWW.FINTECHWEEK.LONDON