

# THE FINTECH TIMES

THE WORLD'S FINTECH NEWSPAPER

## FEATURE STORY

**Fintech evolution in banking – the virtual bank** by WeBank *page 7*

## REGULATION

**Do you want to play in the sandbox?** *page 20*

## ARTIFICIAL INTELLIGENCE

**The promise and peril** by EY *page 37*

## TECHNOLOGY

**The convergence of technology in financial services** by Huawei *page 34*

# The Leapfrog Economies

*Europe & America are failing to keep pace with countries that embrace technology.*

**DIGITALISATION** demands a whole new business model from financial institutions but are they ready to make the **CHANGE?**

## GUEST EDITOR

## Living in a leapfrog world

By **Chris Skinner**,  
CEO of The Finanser Ltd  
*page 3*



## Scratching the surface of artificial intelligence and the future of fintech

With **Haytham Kaddoura**, CEO of SmartStream Technologies *page 10*

## The changing payments landscape in Asia Pacific

By **Marcus Hughes**, Head of Strategic Business Development at Bottomline Technologies *page 30*

## Why are fintechs trying to shame incumbents into innovating?

With **David Joyce**, CEO UK for CREALOGIX *page 38*

## Trust & transparency: The future of AI

By **Hani Hagras**, Chief Science Officer at Temenos *page 13*



WOULD LIKE TO THANK ALL OF ITS  
SPONSORS, PARTNERS AND INFLUENCERS



rise

Created by  
BARCLAYS

METRO  
BANK

DLA PIPER

EPN  
EMERGING PAYMENTS  
ASSOCIATION

THE  
FINTECH  
TIMES

FINTECH  
SANDPIT

THE ASIAN BANKER  
STRATEGIC BUSINESS INTELLIGENCE FOR ASIA'S FINANCIAL SERVICES COMMUNITY

SkyParlour

JUMIO

Funding  
Options

contis

EMQ

SmartStream

PENGUIN  
PORTALS

boss  
INSIGHTS

SERRALA

BANKING  
CIRCLE

modularbank

novastone

OakNorth

FORM3  
FINANCIAL CLOUD

CREALOGIX

Currencycloud

IDnow

Grab

bud

OpenPayd  
UNLOCKS BANKING

Flybits

Konsentus

Currencycloud

W2

tide

OneConnect Financial  
Technology Co., Ltd.

nanopay

meniga

token

Bottomline

W2

tide

SALTEDGE

SPHONIC

GPS  
global processing services

wesure

FINGO PAY

Wing

GALILEO

Keepabl

BANKIFI

RESPONSIVE

CMNICO

Bankable

# THE FINTECH TIMES

## BRINGING FINTECH TO THE WORLD

**Editorial Enquiries**  
editor@thefintechtimes.com

**Chief Executive Officer**  
Jason Williams

**Editorial Director**  
Mark Walker

**Business Development Manager**  
Deepakk Chandiramani

**Business Development Manager - Asia**  
Terry Ng

**Editor**  
Claire Woffenden

**Art Director**  
Chris Swales

**Design**  
Brendon Ward

**Digital**  
Manisha Patel

**Published by**

**DISRUPTSMEDIA**

LIMITED  
Rise London  
41 Luke Street  
London  
EC2A 4DP  
United Kingdom

## CONNECT WITH US

 /fintech-times

 /thefintechtimes

 /thefintechtimes

 thefintechtimes.com



This Newspaper was printed by  
**Park Communications Limited**,  
London using its environmental print  
technology, on 100% recycled paper

**Copyright The Fintech Times 2020.**

Reproduction of the contents in any manner is not  
permitted without the publisher's prior consent.  
'The Fintech Times' and 'Fintech Times' are registered  
UK trademarks of Disrupts Media Limited.



# Living in a leapfrog world



**W**hen I was asked to be guest editor of the spring edition of *The Fintech Times*, I felt quite honoured. I'm not a journalist, editor or media guy, although many people view me that way. I'm actually a commentator, as I call it. An opinion person. Writing a blog is not the same as running a magazine or newspaper, but this is the job that I was asked to do and so I've done it.

At the time we set out to do this, the focus was on many of the Asian events coming up this spring. Then some big bug hit us all and everything got cancelled, postponed or generally disrupted. In fact, the coronavirus is what a real disruption means. I find it funny how many people talk about banks being disrupted by technology, but technology has not been the coronavirus of banking. More like a summer cold. It's made the banks sneeze a bit, but they're not laid flat on the doctor's table as many predicted. In fact, many banks are thriving, and that's something that I've spent the last two years

working on by studying banks that are going through digital transformation. It's not easy – in fact, it's really hard – but they are doing it.

So, as this was originally targeted at looking at Asian fintech, we have a number of great contributions from friends in my network. Brandon Chung of 11:FS gives a great perspective on Asian fintech development and the way in which technology giants are taking over customer relationships while

across Asia and the fact that 'virtual banks must show a path to sustainability that profits from higher-volume, smaller ticket-sized transactions'. Dr. Jidong Chen, who leads all aspects of Ant Financial's biometric identification technology business, talks about all things to do with customer authentication and onboarding, and how to overcome that awesome or awful challenge of 'know your customer' (KYC).

The Fintech Power 50, an

I've been all over Asia, Africa the world and truly believe we are seeing a world of change driven by leapfrog economies coming from the southern hemisphere

financial firms provide product. Zennon Kapron, founder of Kapronasia, questions the froth of fintech in Asia as new virtual bank licences are offered in Hong Kong, Singapore and Malaysia, while Henry Ma, the chief information officer of WeBank, discusses the rise of virtual bank licensing

annual guide to the most influential, innovative and powerful figures in the fintech industry, includes two heavyweights, alongside me, namely Jim Marous and Brett King, who both recently travelled to China and saw the Chinese phenomenon of big tech giants in banking in action. Jim reflects on this in his

write-up of how tomorrow's banking exists today. Meanwhile, Brett takes a wider perspective and looks at the paradox of whether fintech unicorns are really worth their multibillion-dollar valuations when they're hardly making any money today.

I'm sure you will find something in this issue that makes you think. Overall, to be truthful, I hope you find something in this issue that makes you go aha! I like aha moments. We don't have enough of them. I had an aha moment years ago, when I first visited China. Since then, I've been all over Asia, Africa, the world and truly believe we are seeing a world of change driven by leapfrog economies coming from the southern hemisphere and Asia. You'll find that this is the theme of my contribution to this issue, and the theme overall: we are living in a leapfrog world.

Thanks again to *The Fintech Times* for inviting me along, and trust you enjoy this special Asian edition. **TFI**

**Chris Skinner**

# The Leapfrog Economies by Chris Skinner



*New countries and new regions are implementing technology in this century, and leapfrogging Europe and America. Digitalisation demands a completely different business model from financial institutions but business leaders need to understand how to make the change if they are to thrive in this financial and technological revolution.*

**I** talk a lot about how North America and Europe are legacy economies. Asia, Africa and South America are internet economies. The difference is clear and stark.

The US and Europe evolved from the Industrial Revolution of the 19th century with railroads, electricity, water and telephones. They then had further revolutions as the automobile and televisual media of the 20th century took over. All of this powered by electricity.

Then the computer age began after the Second World War and the US led this revolution with IBM as its poster child. Banks, airlines, manufacturers and retailers all committed to the technologies of IBM and its brethren in the 1960s and, by the end of the 20th century, they had built a huge technical legacy.

Rarely upgrading or replacing core systems, the US and European economies were built upon and run upon technologies that had layer over layer of infrastructure added but

rarely replaced. This is a core issue today, as it means the economies of these countries are severely constrained by technology legacy.

Other economies had businesses with similar constraints, but such companies were limited in power. Then, as the 21st century began, these economies unleashed growth and change of a nature that was new and fresh and built for the internet. China is an obvious example of an economy built for the internet age. It is why the country is almost cashless in most major cities and connected globally through digital structures. It is why India has seen

unprecedented change, especially in recent years, to create the 'unified stack' and to give everyone access. India has moved from 35 per cent of citizens banked in 2010 to more than 80 per cent in 2020. It is why African nations have seen financial inclusion through the mobile network with a revolution in most countries during the last decade through digital reach. It is why 2.5 billion people were unbanked in 2010 and now there's less than 1.5 billion people, according to the World Bank.

What this demonstrates is that the countries who are smart and digital will see far more expansion in the next decade than the countries that are dumb and industrial. This will see a shift of balance of power from America to Asia, and that shift has been happening for almost a quarter of a century and will continue.

In that shift, we are seeing many new models of finance emerging. As mention, the unbanked are getting banked and those who were excluded are now

included. This is creating new ways of doing many things, from being able to pay with a QR code to creating digital identities using mobile technologies and biometrics.

All of these new things are creating cheap financial networks using technology platforms that can transact a \$1 transaction

for the same cost as a \$1million transaction.

In all of this, however, the idea of banks being destroyed by technology is not the case. Banks have been built over centuries as trusted intermediaries of value. They act as a trusted transactor between people and businesses that have no trust, and they act as a trusted store for holding value for the long term. They are an integral part of economic infrastructure and government, and will survive and thrive throughout the next centuries as that core part of how our world runs.

The issue banks have is that most of them, including those in Asia, were built for the industrial era as distributors of paper in a localised network of buildings and humans. Banks now need to redefine their business models to become distributors of data in a globalised network of software and servers. That is a tough call, but many are making that call.

I recently spent time talking to banks that are doing just that – from JPMorgan Chase in the US to ING and BBVA in Europe to DBS and China Merchants Bank in Asia. The consensus among all of the banks is that if they don't transform, they will die.

Through our talks we have identified more than 30 key steps that are being taken to transform and

these generally fall into four big buckets. The key is working out what to do, how to do it, doing it and then doing it better forever. Those first steps are the most difficult. As Charles Darwin is frequently quoted: the key to survival is not being the fittest, fastest or strongest, but being the most adaptable to change. But what to change and how to change is the hardest thing to get right.

If you change in the wrong way or in the wrong direction, then you don't survive. How banks are changing to be digital is that hardest part. As one bank's chief financial officer said to me, the previous CEO and chair knew the bank had to change, but they couldn't work out what to change and how. Therefore, this is the most critical aspect of digital transformation: working out what to change and how to change in the right way.

Of the banks I met, they all seemed to take the same track to work out the what and how to change. They would spend a year or two visiting with companies that they recognised as successful digital firms. They would visit with the likes of Amazon, Google, Alibaba and Tencent. They would meet with Netflix, Spotify, TikTok and Ping An. They

would find out how these companies organise and structure, how they do things and how they manage. Then, after that exploratory period of working out what to do by visiting the companies that they think are doing digital well, the banks would internalise that and identify the ways in which they could bring those external learnings into their own business model and structure. That would give them the how to do it, which would then lead to doing it, as in implementing the ideas and changes needed. The implementation takes time and often things go wrong or ideas need tweaking. This leads to the final phase which is when you have your house in order, you've made the changes and you've implemented the ideas, you don't stop. You keep changing. Change is the only constant. That's why you need to keep doing it better forever.

So, what is digital transformation in banking and what are these banks doing to transform?

Working out what to change and how to change takes two or three years; implementing the change takes another two or three years; and doing it better keeps going forever. In other words, a bank's digital transformation programme takes at least five years to get to that last phase of continuous improvement.

This is where the ticking time bomb of digital transformation really sits today. The banks that are already five years or more into their digital transformation programme are five years ahead of the banks that are just starting. This means that in a few years from now, we will see large-scale

mergers and acquisitions of banks that are failing, because they started too late, with banks and technology firms that are years ahead of the game.

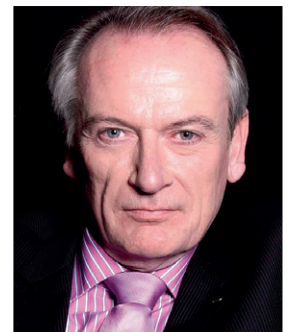
By the end of the 2020s, I fully expect to see two key things emerging. Banks will still be here doing banking, but they will do it digitally and other players may also be offering banking services, from telecommunications firms to internet giants to visionary fintech firms. The second is that there will be a whole raft of new financial services that look nothing like banking emerging from markets that previously did not serve citizens because it was uneconomic to do so. These new markets and new services will range

from financial inclusion to financial wellness to financial support services. And a massive range of new companies and new businesses will have emerged to serve these areas digitally.

These are exciting times indeed. In the meantime, the hardest thing any industrial era firm is facing is how to do digital well. I would suggest you buy my new book, *Doing Digital: Lessons from Leaders*, to find out how. **TFT**

#### About Chris Skinner

Chris Skinner is a globally known keynote speaker on the future of finance and technology, and the CEO of The Finanser Ltd.



# BEYOND A TECHNOLOGICAL DRIVER OF EFFICIENCY

## Transforming banking and increasing financial inclusion through e-KYC

*What can financial institutions do to make services more inclusive, bring access to greater numbers of the underserved and unbanked – especially in emerging economies – while making sure they comply with intensifying regulations worldwide?*

By **Dr. Jidong Chen**,  
General Manager of ZOLOZ,  
an Ant Financial company

Increasingly, we see financial institutions tackling the challenge of financial inclusion by adopting electronic know-your-customer (e-KYC) technology to help them meet complex compliance requirements, especially in the areas of anti-money laundering (AML) and counter-terrorist financing (CTF). This is as they endeavour to keep the customer onboarding experience as pain free and efficient as possible.

The technology has already been shown to significantly reduce the burden of authenticating customer identities. In India, for example, the use of the Aadhaar digital ID for e-KYC was estimated to cut onboarding costs for financial institutions from about \$5 to just \$0.70 per customer, according to a report by the consultancy McKinsey.

The World Bank estimates that more than 1.7 billion individuals are currently financially excluded, with nearly one in five attributing the situation to a lack of necessary identification documents. For these countries, there are clear benefits of e-KYC, where illiteracy rates are high and people living in remote areas have difficulties accessing financial services.

Bangladesh is a prime example of an emerging



market that has seen growing benefits from adopting e-KYC. Although some 70 per cent of its population lives in rural areas, about half of the country's adults own a bank or mobile money account thanks to the growing adoption of mobile banking, according to the World Bank's Global Financial Inclusion Index.

In July last year, Bangladesh's largest mobile financial service provider bKash, a local e-wallet partner of Alipay, introduced an e-KYC function to its mobile banking app, allowing customers to open a bKash bank account by themselves – simply by scanning their national identity card and taking a photo.

Thanks to the simplicity of e-KYC, customers do not

need sophisticated technology skills, nor are they required to visit physical branches to fill out forms, benefiting illiterate individuals. This would help put Bangladesh closer to its goal of total financial inclusion by 2024.

While e-KYC helps facilitate the acceleration of digital financial inclusion in many markets, it can also be applied to solve other challenges faced by financial institutions globally.

For example, the technology can protect banks by detecting identity fraud and monitoring transactions and portfolios, especially as increasingly sophisticated criminals leverage technology to steal from companies and customers. According to KPMG's *Global Banking*

*Fraud Survey*, 61 per cent of banks have reported an increase in external fraud by both value and volume over the past three years.

It can also help reduce the number of in-person checks and manual exchanges, an example highlighted by bKash. This minimises the potential errors and enhances the allocation of resources to other customer experience enhancing activities.

Such a focus on efficiency is important as financial institutions around the world face higher need for resources and growing costs to satisfy regulatory requirements, such as combating money laundering and terrorist financing activities. For them, the impact of non-compliance can be significant.

control systems using a real-time ID network.

Compared with traditional processes, such a platform provides financial institutions with an automated self-service process with ID, face-capturing and liveness detection features. Information provided by a customer can then be verified against data sources from the authorities, saving significant amounts of time.

Based on our observations in Indonesia, nearly half of the customers on an e-KYC platform could have their services successfully processed within three minutes, compared with a typical waiting time of at least two hours through systems that required manual review.

The benefits of adopting e-KYC in developed countries are already clear from a commercial and regulatory standpoint. Given what we are now seeing in emerging markets, the positive impact, especially in the critical issue of promoting financial inclusion, is set to be much more far-reaching and momentous. **TFT**

According to industry research, some \$26 billion in fines were imposed on financial institutions in the decade since 2008. Furthermore, about a third of financial institutions admitted their biggest challenge is the lack of resources in conducting KYC and customer due diligence processes, a study by analytics firm Refinitiv showed.

Thus, the benefits of adopting e-KYC by financial institutions are clear from a commercial and regulatory standpoint. Current technology allows us to build e-KYC platforms with three core advantages: 1) financial-grade facial recognition, 2) proprietary ID identification and anti-counterfeiting, and 3) multi risk signal-based security

About Dr. Jidong Chen  
Dr. Jidong Chen is general manager of ZOLOZ, the trusted identity platform of Ant Financial Services Group. He is responsible for research and development, as well as the application of biometric identification technology for the group.



# Fintech evolution in banking – the virtual bank

**Henry Ma, Chief Information Officer, WeBank**

*With the rise of digitalisation, customers have come to expect more from financial services.*

**A**s customer preferences in banking shift towards on-demand, contextualised services, many financial institutions are now having to adapt. However, flexible operations and quick-to-market delivery is proving a challenge for incumbents who must first transform from years of outdated technologies and paper-based operations to a modern banking stack. Amid this change, fully digital banks have emerged in an attempt to win digitally savvy customers with a strong technical back-end and sleek user interface.

These digital banks or ‘virtual banks’ are most typically defined as licensed banking institutions that use online or electronic channels instead of physical branches as their primary servicing channel. They not only appeal to many mobile-first customers, but also to regulators who increasingly look to position their respective geographies as leaders in the future digital economy.

Following the successes of China’s and South Korea’s digital banks, the Hong Kong Monetary Authority (HKMA) took matters one step further by issuing eight new virtual bank licences under a distinct regulatory scheme in 2019.

The Monetary Authority of Singapore (MAS) and Bank Negara Malaysia are now following suit with their own unique virtual banking frameworks.

Virtual banking is accelerating the competitive dynamic in Asia. These initiatives all centre around creating newly licensed businesses – unburdened by legacy infrastructure – that encourage technological and business innovation to foster greater competition. The expectation is that this will allow more diverse and accessible financial services to flourish, especially for mass market, long-tail individuals and small- and medium-sized businesses (SMEs), who have traditionally been underbanked.

Achieving this outcome remains far from certain, however. Removing the branch network can reduce certain costs, but substantial costs remain in operations, maintenance, compliance and technology acquisition. Furthermore, the lack of a physical outlet and the offering of round-the-clock services means reliability of services is paramount to building trust with customers.

Instead, virtual banks must show a path to sustainability that profits from higher-volume, smaller ticket-sized transactions. To achieve this the bank must exhibit in its technology stack what is referred to as the ‘four highs and two lows’ – high performance, high elasticity, high availability, high uniformity, low cost and low risk.

In China, WeBank is known for its fully digitalised system across infrastructure, procedures and products. It has applied artificial intelligence, blockchain, cloud computing and data technologies to a great extent in its day-to-day business operations. For instance, a fully straight-through processing framework has been built upon a big data architecture to reduce risks, such as credit underwriting, fraud detection and anti-money laundering detection, and improve services, such as recommendation and personalisation of products.

“It’s not the strongest or the most intelligent who will survive but those who can best manage change”

Data-driven operations also support a more objective view on product development as well. Agile development, which encourages frequent and sometimes irregular product updates and releases, allows product owners to review usage and performance indicators to inform decisions made within each short, iterative cycle. This ensures products develop in the direction of what customers want. Likewise, it reduces the expense of any new ideas which may prove less successful.

Underpinning all of this is an elastic infrastructure that meets the reliability standards required by financial services.

Cloud computing or distributed infrastructures deployed on-premise can now easily allow new products to be released to only a small portion of customers and then scale the service as the product matures. This type of infrastructure is similarly capable of so-called ‘A/B testing’, which involves using multiple product versions across different customers at the same time to identify which version is more effective.

This combination of iterative improvement and new infrastructure are what allow virtual banks to adapt so quickly and efficiently while keeping services available to customers 24 hours a day.

Moving forward, it seems almost certain that more countries will release policies supporting the creation of new virtual banks. While virtual banks tend to be born out of unique partnerships between both banks and non-bank institutions alike, they all share an aspiration to apply new technologies and alternative data to create seamless, context-based financial services. With financial services becoming ever more intuitive and accessible, the result likely spells better finance for all. **TFT**

About Henry Ma

Henry Ma is chief information officer at WeBank, the banking subsidiary of Tencent’s WeChat. He oversees all of the strategic planning and development of fintech business at WeBank.

# Why you should pay attention to how Asia's digital services are developing

*Challenger banks and startups have been the protagonists of the fintech landscape, unbundling financial services (FS) and delivering better customer services at a fraction of the cost. But there's a different narrative in Asia.*

**Brandon Chung**, Product Manager, 11:FS

Instead of startups and digital challengers, it is non-FS digital players that have been the market movers. These are the technology companies with a large customer base that are digitally and geographically native – think Alibaba, WeChat, Ping An Technologies, Kakao, LINE, Grab and GoJek.

These firms have reshaped the way billions of people manage their financial lives in less than a decade, abruptly shifting the competitive dynamics. This will not be an anomaly in Asia. We shouldn't be surprised to see a similar shift in competitive dynamics in the West over the next three years.

Two factors allow these companies to advance and should be a model for both incumbents and challengers to consider.

## **They don't start with financial products in mind**

Customers fundamentally don't want a 'bank' – the financial product is just an enabler to making progress in other areas of their lives. This is the 'jobs to be done' approach to product design.

Big technology companies have been experts at applying this theory. Alibaba understood that the progress customers want is to buy goods cheaply online through Taobao (the Amazon of China owned by Alibaba), for example:

'make me feel secured throughout the purchasing journey' and 'make sure I am treated fairly'.

In a traditionally low trust society, such as China, where transactions were primarily made in-person with cash, buyers worried Taobao sellers would take their money without delivering the product. So, Alibaba introduced an escrow service. Sellers informed Alibaba when an order was raised and Alibaba funnelled money from buyers to an escrow.

Once buyers received the order in good condition, they informed Alibaba and their money in the escrow was released to the sellers. This addressed those two customer jobs and enabled Taobao to gain trust with early adopters and grow users exponentially. In 2018, Alibaba.com (B2B), Taobao (B2C) and Tmall (B2C) had 693 million active consumers – more than 10 times the population of the United Kingdom.

## **They partner to expand at speed**

In order to grow revenues, expand customer base and increase customer loyalty, technology companies need to help customers make progress across their lives – one service alone is not enough.

Grab, Southeast Asia's dominant ride-hailing company, decided to look

at payments; a daily necessity for customers and a common denominator across customers' lives. There are two problems to solve. On one side is customer adoption in heavily cash-based societies – an embedded credit card rewards culture for countries with more advanced infrastructure. How do you switch customers from their existing solutions – the inertia of the old – to the new in the form of GrabPay?

The other side is merchant adoption. How would Grab minimise the effort, complexity and investment required for merchants to accept payments from GrabPay? A more risk averse culture in Asia also furthers inertia and anxiety and localising a go-to-market approach was key.

One solution was to partner with banks across the region: UOB in Singapore, Maybank in Malaysia, BDO in the Philippines and KBank in Thailand. These partnerships helped

Grab access the banks' key merchants through a recognised brand, widened the channels which customers can top-up their mobile wallet from, and increased the value of reward schemes for both customers and merchants. These partnerships lowered the barrier of product adoption and improved the customer's end-to-end journey.

## **What does this mean for the incumbent financial institutions?**

The three fundamental competitive moats for banks have been a) brand; b) sticky customer base; and c) the know-how and regulatory permission to manufacture products. What's happening now is big technology companies are disintermediating a bank's relationship with customers and eroding the first two moats. They've been doing this very quickly in Asia.

If this trend continues, the logical conclusion will be for banks to excel in product manufacturing.

As technology companies own the customer relationship, banks are starting to compete on manufacture and distribution cost as a survival strategy. LINE, Japan's messaging platform with 82 million monthly active users, already offers investment products from FOLIO (asset management startup) and non-life insurance policies from Sompo Japan Nipponkoa Insurance.

Incumbent financial institutions understand how this story could end and are working to craft an alternate ending. As they provide technology companies with product manufacturing capabilities and digitising existing processes to reduce cost, they are also building standalone challenger brands to reclaim relationships with customers. Mizuho Finance is building a new challenger bank with LINE in Japan, while UOB is launching TMRW in Thailand.

## **A model for global success**

While the East and the West differ drastically in language, culture and infrastructure, the human need for services is universal. Grab, Alibaba, LINE and other technology firms in Asia have been designing and launching wildly successful propositions with this principle.

Their success in financial services will undoubtedly inspire technology companies in the West to attempt to follow suit. As an increasing number of incumbent financial institutions realise the importance of this approach, we should expect to see more challenger banks to launch in both the East and the West, from a variety of incumbent and technology players. **TFT**

About Brandon Chung  
Brandon Chung is a product manager with 11:FS, the world's leading fintech advisory and challenger consulting firm.



# Tomorrow's Model for Banking Exists Today

*There was a time not long ago that the West was deemed the centre of the banking universe. However, the combination of big data, advanced analytics, modern digital technology and an innovation culture has resulted in spectacular growth of innovative financial services in China. The question is: will the West ever catch up?*

Jim Marous, Financial Industry Strategist

As part of a recent week-long trip to Shenzhen, China, I visited some of the most technologically advanced organisations in the world. The tour included a manufacturing firm that is expanding into financial services (Huawei Technologies), a financial behemoth that is focused on techfin growth (Ping An Financial Services), a start-up fintech (WeLab), a retailer that is now one of the largest financial institutions in the world (Alibaba) and a big tech firm that has expanded into digital banking (WeBank founded by Tencent).

These meetings provided an unfiltered perspective into the future of technology and how financial services can be delivered. Beyond allowing an experience into how a city of the future operates, each stop greatly expanded my horizon of what has been achieved by businesses in this region. It also enlightened me on the potential of what can be achieved if financial and non-financial organisations followed the lead of China in the areas of data analytics and privacy, building an innovation culture, committing to ongoing research and development, focusing on

financial inclusion and taking advantage of the potential of collaboration.

Each organisation made a digital infrastructure and the application of data and insights a foundation for growth. This was not about cost savings as much as it allowed each firm the opportunity to reach more consumers with better services that had a positive impact on their life. In a country where work hours are 9am to 9pm, six days a week, creating easy to use, time saving apps was a benchmark expectation.

More importantly, each firm placed research and development (R&D) and an innovation culture at the centre of its banking model. At Huawei, its R&D campus was a massive recreation of European cities where 25,000 employees created new ideas. At WeBank, 20 to 30 product and service updates were introduced each month, with the journey from new product ideation to implementation taking only 11 days. This is a stark contrast to the old-world slowness of digital innovation in the West.

Underlying all of our visits was the question of whether these innovative

organisations will expand beyond China? With an underlying tenet for acceptance of a financial service partner being trust, will consumers beyond mainline China open a product or service supported by these exceptional organisations?

Alternatively, will traditional or non-traditional organisations outside of China ever be capable of deploying services with the functionality, personalisation and speed of innovation that we saw in China? One challenge is that the culture of China supports a worker focus and mentality which is not as prevalent in the West. In addition, while organisations that we saw in China have large components of their workforce committed to research and development, most banking institutions outside China have a much more modest support.

We hear countless discussions about the Goldman Sachs' Marcus and Apple credit card in the US, and yet WeBank has grown at about 10 times that of Marcus and any other challenger bank. "Alipay and WeChat Pay now annually process more mobile payments than the world's plastic cards," says financial

futurist Brett King. "Shenzhen is one of the most innovative cities in the world and an epicentre of China's fintech revolution."

It is clear that the Chinese have taken data analytics and design thinking principles to the next level. The successful founders and operators of China's largest and fastest growing tech and modern financial firms understand, empathise with and offer tailored solutions that are contextual and embedded into wider customer experiences. These services are seamless and don't impede the Chinese consumer from getting on with their life.

Finally, it was striking the correlation between the digital efficiency of the services and products deployed in China and the ability to provide financial inclusion across product lines. With the combination of high-tech back offices and digital supported delivery, no consumer is left out of the equation in financial services or any other industry vertical. The commitment to inclusion is paramount among all of the firms we visited.

The question then becomes, how will banking organisations globally respond to the amazing potential in front of us? **TF**

## About Jim Marous

Jim Marous is an internationally recognised financial industry strategist, speaker, author and the publisher of both the retail banking strategies section of The Financial Brand and the Digital Banking Report.



# “We’ve barely scratched the surface of the capabilities of AI”

*Chris Skinner chats to Haytham Kaddoura, CEO of SmartStream Technologies, about artificial intelligence, knowledge sharing and the future of fintech*

**CHRIS SKINNER:** How do you see fintech affecting the transaction lifecycle and where do you see the sweet spots?

**HAYTHAM KADDOURA:** Fintech is at the core of a lot of the developments in the trade posting world today. Whether you’re looking at a piece of best execution management, cash and liquidity and other collateral management or corporate action; banks and regulators are increasingly looking for greater transparency, much more timely availability of information and fintech is at the heart of it. It’s quite different from what we used to see five to seven years ago.

With artificial intelligence enabled technology now we’re effectively pushing the boundary on where fintech used to be important to more strategic and more critical decision-making areas of financial institutions.

**CS:** There’s lots of chatter about artificial intelligence (AI), machine learning, blockchain, and cryptocurrencies. How do you see these technologies developing?

**HK:** I think it is the next best thing to sliced bread that has affected the industry. Three to four years ago everybody was talking about AI, blockchain and machine learning, but it wasn’t anything solid. It was a new concept and new theory that looked nice on paper, but there were very few entities that actually had products out there or that could really utilise this technology. Since then, the impact of AI on understanding masses of data and analysing it and enabling institutions to

process the massive volumes of data very quickly is so valuable. For example, using predictive analytics – in terms of looking at trends in payment and treasury operations – has a massive influence on every bank’s decision-making capabilities today. Aside from creating efficiency, cutting costs and having met the requirements for regulatory reporting, the impact of AI in this very short period of time has had massive impact and we are only seeing the tip of the iceberg. As AI starts to roll out in different entities and different functions, it will have significant impact and great value for different stakeholders, whether it’s the shareholders, the regulators or us as consumers.

**CS:** JPMorgan Chase is investing in blockchain and other technologies and has highlighted the long-term potential of distributed ledger technology (DLT). But would you agree that, currently, the best developments are from the outside community that services the banks?

**HK:** Yes, 100%. What I’ve seen with a lot of our clients, is that they were very trigger happy – many institutions jumped on the idea of investing in new technologies, they set up innovation labs and allocated quite significant budgets to deal with it. With all due respect, a lot of these have failed in handling critical areas. You have to leave AI to the experts.

In the reconciliation space, where we operate, we work closely with both innovation teams and the institutions. It’s the

difference between surgically tackling an issue and putting a Band-Aid on it. So, when you enable artificial intelligence in a thought process, it is completely different to putting a generic solution on top of a problem. What we do, is embed AI in what we provide. And, I should think that a lot of the fintech providers are in the same situation. It’s completely different than building a shell around a solution.

**CS:** In a recent blog I wrote – *Build or Buy to Build and Die – I highlighted how specialist companies were offering open APIs and interfaces to banks that could provide them with beautiful code to transact and do things that the bank just couldn’t do five to 10 years ago. In areas, such as open banking and payment, we’ve seen a big impact but less so in the capital market space. What’s your observations?*

Aside from creating efficiency, cutting costs and having met the requirements for regulatory reporting, the impact of AI in this very short period of time has had massive impact and I think really, we are only seeing the tip of the iceberg

**HK:** We still have the old value of tried and tested. So, when your building expertise is for something you’ve seen across multiple institutions, it does add value to any one institution that tries to newly dive into a process. What we’ve seen across Asia, the US, the UK and other European

markets, is that every time you are able to transfer knowledge, it is much better than when a particular financial institution looks at it from their own particular window. There’s tremendous value in synergy and knowledge sharing and that’s certainly one of the key value propositions that global fintech providers bring to the table.

It is surprising and somewhat mindboggling that even in today’s world, when you talk to a Tier 1 institution in New York and then you talk to the same institution in Europe, there’s very little sharing of knowledge. You’d think that things would be discussed more on a global front. But unfortunately, the institution is still heavily driven by local geographically constrained operations. We bring value to a normalised process across the globe within an institution. Unlike, say, a bank or an institution, we’ve

done this for so long and we’ve seen everything. And, with our history, we’ve built with that in mind, and we’re ready for it – empowering a whole new way of thinking, new capabilities, new way of doing things.

**CS:** Goldman Sachs has reportedly shrunk its

trading floor in the last 12 years from hundreds to a few. With less traders, there’s also less need for management, so we are now seeing highly lean organisations going from investing \$12 in humans and \$1 in technology to eventually switching the other way around. Do you see that as a bleak prospect for most people’s jobs and futures?

**HK:** Well, we’ve seen this many, many times before. When newspapers started getting published online, it didn’t kill their processes like it was initially feared. I think people get skilled and they get geared up for other areas. Let’s not forget, millennials are increasingly looking for a relaxed working environment. They want to have a healthier life-work balance more than our generation. So, the odds of having somebody doing a 12 to 15-hour shift is going to diminish as we progress. And, that’s what technology these days is enabling: giving people a stronger work-life load. But at the same time, there’ll be new avenues that are going to open up where people will be more smartly utilised. And, you’re also discounting expansion.

Your argument is predicated that if I’m working smarter and more efficiently and more streamlined then my side stays the same side. You’re not saying, well, I’m doing better, then why wouldn’t I grow more? You know, nature abhors a vacuum. I would see more people relying on technology more because we can service more.

**CS:** When you’re looking over the next cycle horizon of what’s coming downstream with technology, what are the top things that are on your agenda?

**HK:** For us and others in general, we’ve barely scratched the surface of the capabilities of artificial intelligence, and machine learning will be an even hotter topic in the next couple of years. There are a lot of other new technologies coming up. I don’t know the situation with neural computing but there’s a lot of talk about it these days and neural networks. But technology is advancing every day and fintech space is just trying to keep pace. At the end of the day, the aim is to make operations much more efficient and institutions more capable in meeting client-to-client needs. Every day the march towards excellence is relentless. Without sounding brass, 100 years ago when somebody made the best wagon wheel, Ford then didn’t say, I love these wagon wheel makers, I have to stop making cars. Things are redeployed. Maybe it goes into research, maybe it goes to the personal relationship and the real logging of the work that technology now does better, faster, cheaper. That’s left to the computers or our solutions and the people doing what they’re good at, which is relating to people. It’s just like robots assembling cars instead of allowing people to get repetitive injury, as they used to say 50 years ago. This is the way of the world at the departures board.



**CS:** The growing automation of corporate actions processing has left some CFOs and COOs concerned at the dilution of their power base and fearful that automation is inferior to human team administration. Is it difficult politically to get people to vote for Christmas if they are a turkey?

**HK:** Yes, 100% but at the same time, regulators are not making it easy today. The impatience that regulators have with human error is quite strong, given that we have the technologies to overcome the need for any human to be involved.

We have jurisdictions where regulators are mandating specific solutions for the fintech organisation that's providing us. And this is what we expect to see if somebody decides to make or to do the same reports on Excel and there is an error, guess who is going to lose their job.

The question is that, 10 years is a long time, can we afford not to do something now? **TFT**

#### About Haytham Kaddoura

Haytham Kaddoura has been the CEO of SmartStream Technologies Group since May 2016 after serving as a member of its board of directors since 2007.

Bringing more than 20 years of experience in investment advisory, asset management, corporate restructuring, strategy formulation and execution for boards of some of the most prominent corporations across the GCC and the greater Middle East and North Africa region.

He holds a Masters Degree in Finance and International Business and a Bachelors Degree in Computer Sciences.

 **SmartStream**

# The Asia Pacific Digital Banking Opportunity

*Although Asia Pacific is set apart from the rest of the world through a myriad of languages, customs, cultures and governments, one similarity is the lack of banking competition.*

Zennon Kapron, Director for Kapronasia



In most Asian markets, not unlike Europe or North America, three to five banks handle 80 per cent or more of the market's retail deposits. Although this is, of course, good for the banks, it leaves customers with relatively uncompetitive banking offerings from a set of typically complacent banks.

This is set to change. Taking a page out of the UK, Europe and Australia digital banking books, governments within the Asia Pacific region have started down the digital banking path. Hong Kong already has live digital banks following in the footsteps of Australia. Singapore and Malaysia are not far behind and should see launches in 2021.

The financial industry is undoubtedly excited about the opportunity. From the

consultants who are helping to pull together applications and define business models, to the financial technology providers that are helping new entrants develop core banking platforms, there has been a tremendous amount of money made across the space.

The real question of success, however, will be how they can meet the needs of the customers themselves. Initial results globally are mixed unless you view 'valuation per customer' supported by the fact that you have a metal debit card as an indicator of success. Many see China as a successful case study.

Ant Financial and Tencent, through their digital banks, have provided financial services to hundreds of millions of individuals and small and medium-sized enterprises

(SMEs). Their success points to a critical difference between Asia and the rest of the world: financial inclusion. A significant percentage of the Asia Pacific population is considered underbanked or completely unbanked, with no access to traditional financial services.

Of course, digital banks will bring a new level of competition in the banked segments of the market, they will also help bring individuals and companies into the economic fold as many borrowers are just too costly to lend to. A loan from a traditional Chinese bank can cost the bank \$250 and a month to process. A loan from Ant Financial's MyBank can be completed in a couple of minutes and costs less than a dollar, a stark difference even before considering the

cost of servicing loans and any write-offs.

However, getting a licence isn't easy as governments are taking the space very seriously. In Singapore, 21 would-be banks are vying for just five licences. Those that are eventually successful will have their work cut out for them: the paid-up capital required for a Singaporean bank starts at a miserly SGD\$15million (USD\$10.5million) but ramps up quickly to SGD\$1.5billion (USD\$10.5billion) to become a full digital bank.

For whatever reason, the larger fintechs in Singapore, including Revolut and Transferwise, have shied away from applying for a licence and now are feeling the squeeze. The new Payment Services Act limits these companies, which effectively act as payment

processors, with tighter customer requirements in terms of aggregate payments and balances. This may only continue as the space gets more crowded, leaving both today's successful fintechs also fighting more fiercely for a share of the market.

The critical question in all of this is how the new digital banks will differentiate and find success in the market. MyBank and Tencent's WeBank initially struggled to attract deposits and started to include institutional funding to pad their balance sheet. In many ways, they were trying to disrupt themselves. Around the launch of WeBank, a colleague commented: "Why would I get a WeBank account? I can already do everything on WeChat." Indeed.

Further, subsidising customer acquisition is hard and expensive work. At the start of 2020, Grab and its subsidiary Grab Financial have devalued their rewards programme significantly. What was once a three per cent return on spend is now only one per cent. Spending so much on attracting and retaining customers just isn't an option in the long run, especially with how thin payment margins have become.

The launch of digital banks has once again increased the froth of the Asia Pacific fintech industry and it is, for many, an exciting time. It just remains to be seen if we can get beyond 'valuation per customer' and finally get to more traditional measures of success. **FTI**

# The convergence of technology in financial services innovation

*5G is expected to drive the development of innovative technologies that will enable financial institutions to offer new services. But, according to Huawei's William Genovese, it is fintech that is driving 5G, not the other way round.*

**William Genovese**, Vice President of Corporate Strategy Planning for Banking and Financial Markets, Huawei

**S**uperfast fifth generation, or 5G, may be a telecom term but in my view, and for many of us at Huawei at least, it will become widely adopted first to meet the needs of fintech and other industries through the application of mobile and digital next generation financial services. These will apply emerging technologies that will converge to provide faster, cheaper and better services for more people that did not have them before.

Fintech is going to drive 5G, not the other way around. Huawei, widely perceived as the leader in commercial 5G, and other companies are working on next generation digital financial services. These, as opposed to traditional banking, will need the kind of speed and connectivity of superfast wireless communications to meet the further expanding demands of edge computing leveraging artificial intelligence (AI), blockchain and internet of things (IoT).

5G will enable network downloads as fast as 20 gigabits. Today, most broadband is through fixed lines and fibre optics, but 5G will enable this enormous volume of data to move via mobile. It will also accelerate the ability of machines to share data, ultimately meaning every device in an urban area can be connected. And, it allows latencies so low that machines will be able to conduct operations accurately, from autonomous driving to stock trading.

Most of these use cases are speculative, however. Telecom operators are rolling 5G out in hundreds of cities worldwide but without a clear path to profitability. The current business case is to give consumers superfast downloads of video and games.

However, cross industry generic video or consumer gaming won't be the things that drive real adoption, or further provide a solid return of investment (ROI), or even at a more macro-economic sense further contribute to gross domestic product (GDP) growth. Consider instead emerging markets lacking even 3G today; they can leapfrog straight to 5G.

There's no bank branches in some of these places, so as their economies grow, digital banks will need virtual tellers and virtual advisors, micro branches all requiring higher bandwidth and latency. The coming era is one of 'ubiquitous or embedded financial services', in which banking becomes an embedded utility within many other industries, supporting lifestyle choices.

## Convergence of digital industry business models and emerging technologies

5G is not occurring in a vacuum. On the contrary, it is part of a convergence of cross industry business models and other technologies – with fintech at the centre driving mobile disruption in the areas of three core needs we have as humans to 'consume' financial services:



- 1. Payments:** We need to pay for goods, services and to survive we need to pay our bills – anytime, anyplace and from any device
- 2. Credit and lending:** If we don't have enough money to pay for things, we need to borrow; ideally, on the spot, with very quick rapid credit approval, and in some locations where there is no standard credit bureaus or data available
- 3. Investments and insurance:** When we have excess money beyond our core savings, we invest or buy asset protection and insurance products. All of these new expectations to meet our needs 24/7 anywhere will require mobile and the convergence of AI, blockchain, IoT and advanced cybersecurity which will need 5G for the best performance. To drive this convergence from a mobile and digital perspective requires additional bandwidth and latency.

Although traditional banks and insurance companies are working to take advantage of what 5G will bring, the advantage will tilt toward companies that are experienced with business models that cut across many sectors. In other words, the likes of Alibaba, Tencent, Amazon, and Google (big tech,

consumer tech), which are in a position to combine myriad technologies to power financial services.

## Is 5G really a threat or an improved safety blanket?

Today, banks are scrambling to adopt more security measures, such as biometrics and two-factor authentication. Risk experts worry that as more functions go digital, we are creating new 'surface areas' for hackers to exploit. The spectre of an explosion of more connectivity, more APIs, more data, is more crime and less trust.

But 5G's speed will enable e-commerce players, consumer tech companies, fintechs and virtual banks to offer a dazzling array of services that will overwhelm many incumbent banks

However, 5G, combined with other technologies, such as biometrics, will make digital services safer – that we are today experiencing peak cybercrime, and 5G will allow institutions to detect fraud, authenticate users, trace funds and defend their data much more effectively through the convergence of technologies (AI facial recognition and biometrics), Blockchain and IoT.

**Consumer experience** 5G will just further increase consumer expectations,

which is a challenge for financial institutions. It will also enable scale for more market data and transactions, which should benefit capital-market players, but also give non-bank tech companies the opportunity to crack these services and become investment banks in all but name.

This is not actually a new trend: PayPal, the original payments fintech, now offers loans to small businesses. In a world still dominated by classical financial infrastructure, PayPal isn't a threat to corporate banks; like many Chinese 'techfins', it is

playing in a space that big banks don't want to be in.

But 5G's speed will enable e-commerce players, consumer tech companies, fintechs and virtual banks to offer a dazzling array of services that will overwhelm many incumbent banks.

## Choices are narrowing for traditional incumbents and there is a new dawn driven by 'fincumbents'

Banks and insurers will need to deepen collaboration with third

parties if they want to remain relevant. Huawei, in the meantime, is looking to provide its 5G capabilities to clients that want to use digital mobile banking and open APIs to create a broad financial proposition (from payments to investments to lending) connected to e-commerce, telecoms, or other consumer-facing lifestyle businesses.

Fintech, until now, has been less disruptive and more about financial inclusion, helping lenders, insurers and asset managers reach the underserved. The likes of Alibaba and Tencent have likewise grown huge in services ignored by banks. It's made it possible for software companies and traditional tech companies that are becoming fincumbents to serve the industry and financial institutions to partner, or at least pursue their ambitions in separate spheres.

Regulation protects incumbents today, but the potential of moving at 5G speed means non-banks and other fincumbents may combine various technologies to provide even better security and consumer protections. It might take a global financial crisis to prove the point. Today, virtual banks are untested and may well fold from a panic, but at some point – five years or 10? – they might well be the safest place to put your money. **ITF**



# Opportunities & challenges in the financial industry

Andreas Burner, CIO, SmartStream Technologies

**T**he *Fintech Times* chats to Andreas Burner, chief innovation officer at SmartStream, about the incentives, barriers and risks to adoption of artificial intelligence, and the importance of applying the right technology to the right problem.



**TFT:** How do you see the banking sector utilising artificial intelligence?

**Andreas:** In the banking sector, it's quite new to use machine learning and artificial intelligence (AI), but it's a great place to apply it. The reason why it is so great for banks is if you look at how much data is processed and stored it's absolutely enormous. By law, banks must keep all data for audit purposes for many years. In that data there is a lot of knowledge, not only the application data but also the counterparties data. Furthermore, there are recorded user actions, for

example, what is considered to be a regular situation or what is an exception and requires a manual intervention. Also, there is data for how a user specifically reacted to a certain exception. And that's great when applying AI to the banking sector as machine learning needs lots of data and it is stored and ready to use because of these audit requirements.

**TFT:** What are the main risks of AI adoption and how can these be tackled?

**Andreas:** There are two main risks, I think. Firstly, many big corporates try to apply AI and machine

learning on data that is distributed throughout their organisation. Their goal is to consolidate their data and make sense of it. The hope is to better understand the clients and products and then be able to fine tune their offerings. What we see at the moment is that many AI projects are failing, however, it's not so much AI or machine learning that causes the problems. Lots of big projects fail as it's really tough in big corporates to get the data in good quality to one place. I think what we see in the news about machine learning or AI projects failing is based

on that. It's really hard to get the data consolidated and reconciled.

In SmartStream, we have a different and very focused approach. Our goal is to incorporate AI technology very specifically into our products. By doing so, the AI technology we have developed is extracting knowledge from our own application and making sense of data that we already know and possess. There is no need to consolidate data from different locations and therefore it's a much leaner approach that's easier to manage. Our current AI projects work great and

can be very harmful. In SmartStream we feel very lucky that in our Innovation Lab we have highly skilled and experienced people to work on this subject.

Also, there is this ongoing discussion about interpretability, as many AI methods are like a black box. They will give results but they do not provide reasoning and why they came up with that response. In banking, that's dangerous. You can't just have AIs making decisions without explanation. Developers need to be extra careful in applying the right technology to the right problem. There is a high demand of good developers and the market

SmartStream's cloud offering is being used more now than ever before. It proves that if there is a business case and if the technology is used in the right way, it will find acceptance.

At the moment it's the same with AI and machine learning. A few years ago, everyone argued that we cannot let AI make decisions in the financial industry, it might be too risky. Since then data scientists have proven that applying AI in the right way causes no danger. We are at a point now where banks understand AI has a huge business potential. It typically allows quicker response times than ever

**TFT: How will your clients benefit from AI?**

**Andreas:** SmartStream has a very nice and lean approach for delivering innovations to our customers. Currently, more than 2,000 financial institutions are using our software products and the main question we have been asking ourselves is how can we bring the benefits of AI to all of our customers? The strategy we chose is to prototype our innovations with a small number of clients and if these projects are successful, we integrate the newly developed technology into our existing products so that a wide range of clients can

Our goal is to incorporate AI technology very specifically into our products. By doing so, the AI technology we have developed is extracting knowledge from our own application and making sense of data that we already know and possess

## AT A GLANCE

**WHO WE ARE:** SmartStream is a recognised leader in financial transaction management solutions that enable firms to improve operational control, reduce costs, build new revenue streams, mitigate risk and comply accurately with regulations.

By helping its customers through their transformative digital strategies, SmartStream provides a range of solutions for the transaction lifecycle with artificial intelligence and machine learning technologies embedded – which can also be deployed in the Cloud or as managed services.

As a result, more than 2,000 clients, including 70 of the world's top 100 banks, rely on SmartStream Transaction Lifecycle Management (TLM®) solutions to deliver greater efficiency to their operations.

**COMPANY:** SmartStream Technologies

**FOUNDED:** 2000

**CATEGORY:** Technology solution provider

**KEY PERSONNEL:** Haytham Kaddoura, CEO

**HEAD OFFICE:** London

**ACTIVE IN:** Global

**CONTACT:** +44 (0)20 7898 0600

**WEBSITE:** [www.smartstream-stp.com](http://www.smartstream-stp.com)

**LINKEDIN:** [www.linkedin.com/company/smartstream-technologies/](https://www.linkedin.com/company/smartstream-technologies/)

**TWITTER:** @SmartStream\_STP

  
**SmartStream**



the big benefit is that we can offer our clients a good business case by just upgrading their applications to the latest version.

The second risk is that there are many developers that want to go into AI and machine learning technology, but they do not have much experience. There are lots of quick start courses to learn AI, however, mastering AI requires years and it is tough for companies to find skilled people that know where to apply what AI technology. Applying the wrong technology

of competent and skilled people is very small.

**TFT: How keen are your clients to apply AI?**

**Andreas:** Interestingly, that's a bit like the cloud discussions in the beginning, where banks argued that they will not use cloud applications because their data is then outside of their control. In the meanwhile, that has changed and almost every bank is using cloud infrastructure because it is now understood that it is making things easier, better and faster. Also

before, can predict data, can increase the quality and gives a better understanding of workflows, data, and customers. Banks are profit oriented and they are continuously looking for potential business cases, and there are a lot when applying AI. We see plenty of interest in our innovation projects and if we can give our customers the confidence that we apply AI and machine learning in the right way and showcase how it is useful for them, then they will adopt our innovations.

benefit from it. By now we have done several AI prototypes that performed very well, and the projects have been very successful.

For example, at the end of 2019, we released SmartStream Air which uses transformative artificial intelligence algorithms to auto-configure reconciliations of any data structure. This means our clients will see a boost of their matching rates as the integrated AI is continuously optimising the matching logic to compute better results.

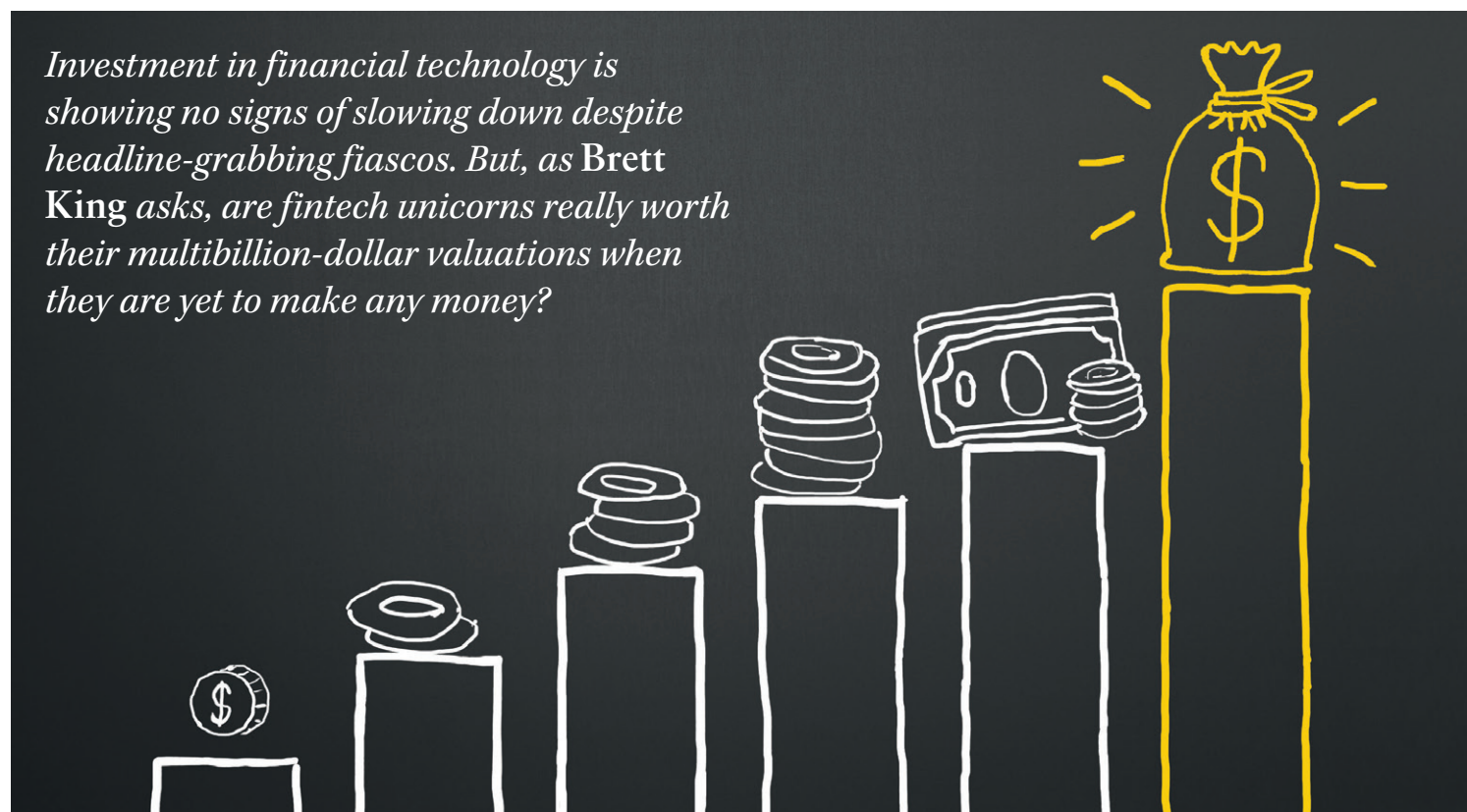
**TFT: Can you tell us about SmartStream's current investments?**

**Andreas:** Our biggest investment at the moment is SmartStream's Innovation Lab in Vienna where our researchers have the freedom to rethink how our products can be used in daily business and then try to inject modern technology at the right points. Using clever technology in the background has severe consequences for the whole design of an application. For example, a user interface for an AI powered

application has to be designed in a smart way that it hides the underlying complexity from the user and only shows useful information. During the last year SmartStream has been working on AI, machine learning and blockchain and its related technologies. We are now at the stage where we see that our ideas are working and we get very positive feedback from our customers who have been developing and testing our prototypes. At the moment we're busily integrating the successful prototypes into our standard products and releasing this fantastic technology so that all our customers can benefit from it. **TFT**

# The Fintech Profitability Conundrum

*Investment in financial technology is showing no signs of slowing down despite headline-grabbing fiascos. But, as Brett King asks, are fintech unicorns really worth their multibillion-dollar valuations when they are yet to make any money?*



Challenger banks, such as Chime, Monzo, N26 and Starling, were compared to WeWork and Uber in a *Financial Times* article in January 2020 – with the *FT* suggesting that despite these notable failures, investors were still funding fintech startups in droves.

For the incumbent market, pushing back at the increasingly aggressive market share grab that fintech startups are making, the call for profitability is one often heard. But an honest discussion about profitability on startups is likely to raise just as many questions about the ongoing financial models of incumbent banks, as it is to expose margins at startups.

## DO PROFITS MATTER AT THIS STAGE?

When WeWork backed out of its initial public offering (IPO) plans, the whole house of cards looked as if it was about to fall over. CNBC reported that leasing activity ‘plunged 93 per cent in the fourth quarter [of 2019] after [its] failed IPO attempt’.

Adam Neumann was ousted, not that he’s complaining, and a replacement CEO was appointed. Many news outlets drew comparison with WeWork and the host of challenger banks rapidly raising capital that are yet to draw a profit. And yet, maybe WeWork isn’t the right comparable here.

It took 14 years (58 consecutive quarters) for Amazon to turn its first real profit. Today, it makes more profit in a single quarter than it made between May of 1997 (IPO) and 2001. Amazon’s first profit was \$5million for the fourth quarter of 2001. In Q3 of 2019, Amazon posted a profit of \$2.1billion, off of \$70billion in revenue. In 2005 when Amazon posted a profit lower than analyst expectations, many argued they were on the road to failure.

“[Chime] was the latest example of how US venture capitalists are jostling to pour money into the hottest start-ups even in the wake of last year’s high-profile stumbles by the likes of Uber and WeWork, which remain unprofitable after spending billions of dollars on growth”

**‘US investors throwing money at hottest startups’ Miles Krupa, FT.com**

At the time, CNN Money quoted Scott Devitt, analyst with brokerage Legg Mason Wood Walker with: “Amazon is really getting hit from both sides. The business environment, especially in the United States, is very, very competitive.”

CNN referred to Walmart and Target aggressively pursuing the online market and eating into Amazon’s growth. Yet in 2019, Amazon joined Microsoft and Apple as the top three companies in the world.

Amazon traded off profit for growth, increased share of wallet and market share over the space of a decade and a half before it became massively profitable. Today, there are some challenger banks and fintechs creeping into the same marginal profitability space, and some that are already extraordinarily profitable.

WeBank, the world’s largest challenger bank, posted profit of \$350million in 2018,

but we’re expecting double that when 2019 results are released. Ant Financial, another Chinese fintech unicorn, posted a \$611million profit in Q2 of 2019, on track for close to \$3billion in profit for the year.

But the criticism aimed at the likes of N26 (its UK exit prompting debate),

JPMorgan Chase or HSBC. Venture capitalists don’t invest in challengers based on their growth as a bank, they invest based on their ability to scale as technology-based consumer businesses.

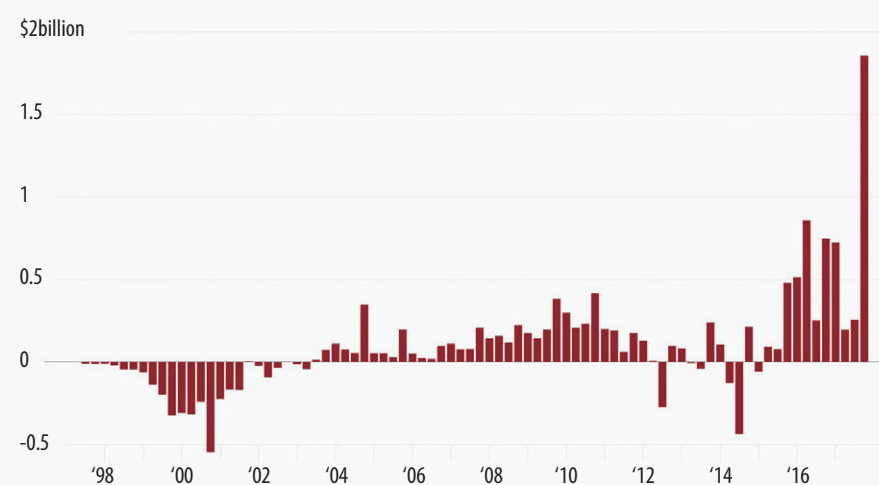
The second issue is that once you peel back the operating structure, the core economics would actually significantly hurt traditional banks. WeBank, the largest challenger mentioned earlier, spends just 50 cents per year managing an average customer account annually. In 2018, Wells Fargo spent almost \$1.6billion on advertising and promotion, postage, stationery and supplies, or roughly \$600 per new checking account.

Retail banks regularly pay between \$350 and \$1500 to acquire new customers, or \$925 on average. In stark contrast, Square, the company behind one of the most popular digital wallets in the US, the Cash App, acquired new users for fewer than \$20 in 2018, and acquisition costs for challengers are even lower.

While we’re waiting for challengers to make money, they’re quietly doing exactly what Amazon did for the first 14 years of its post-IPO existence. Grabbing market share with a better consumer experience that they’ll use to generate monster profits in the coming years.

The question of whether challengers will survive comes down not to whether they are profitable, but whether they can get

Figure 1 - Amazon’s slow march to profitability (source: ATLAS/Quartz)



Monzo, Chime, Varo, Revolut and others is that they are a long way from profitability. Many incumbent critics will argue that these challengers need to start being measured like ‘real’ banks with deposits, net interest income, return on equity and so forth – hoping that this will create a more level playing field.

The problem with measuring challenger key performance indicators (KPIs) and economics in the same way as incumbents is that they’re not primarily banks. Challengers are primarily technology companies and, as such, their valuations and their operating structures much more closely resemble Amazon than they do

enough market share to worry about long-term profitability post-IPO. They will IPO well before investors hold their feet to the fire on profits. When they do start posting profits, analysts will be asking very tough questions of incumbents and their old models of assets under management (AUM), net investment income (NII) and return on equity (RoE) won’t matter. The core economics of banking will – on top of a tech stack, or a bank stack. **FTI**

About Brett King  
Brett King is a best-selling author and keynote speaker, and founder of neobank Moven.

# Doing Digital:

## An interview with Chris Skinner



**B**est-selling author *Chris Skinner* is relaxed and engaged. His 16th book, *Doing Digital*, is about to be released and he's excited. After spending decades dealing with finance and technology, the book encapsulates all that experience and more. *TFT* met up with Chris to discuss the key themes.

**Q: What's the new book about?**

It's about banks that are transforming to be truly digital. The issue today for any business is that it must convert to the internet age and yet so many businesses were built in the analogue age. We've seen the impact that's had on entertainment, music, travel, photography and more. The internet has transformed every business in the world. Now, it's time for banking and finance to go through that transition, and so I interviewed several of the biggest banks in the world who are doing this well – JPMorgan Chase, BBVA, ING, DBS and China Merchants Bank – to find out what they are doing and how. The lessons from these banks are laid bare in the book for all to see.

**Q: And what would you say are the key lessons they learned?**  
Number one is that the company must have a

licence to change. You cannot change a company from analogue to digital if it's business as usual. You need business as unusual and all these banks got mandate from their board of management to focus upon transformation. Then you need to have burning platform that ignites all the people in the company and a destination of where the company has to go. I guess, overall, the main lesson is that these companies realised that digital transformation is nothing to do with a project or a function, but a fundamental cultural change and restructuring of the organisation.

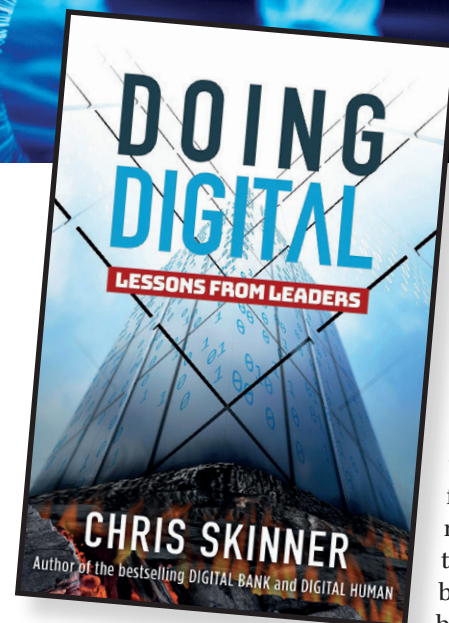
**Q: Is this a simple process?**  
Not at all. It takes years. Interestingly some of these banks have been changing for more than 20 years to embrace the internet. But the book outlines more than 30 key lessons from these

banks, combined with my own immersion in this industry since the 1980s, and shows how change can be successfully achieved. The summary of that is that it takes place in four key phases: working out what to change, how to change, changing and then changing better. Those first two phases take one to three years; the implementation takes two to five years; and the process thereafter lasts forever.

**Q: The book sounds like it's just about banking?**  
Yes and no. I've spent my life in technology in the financial industry and dealing with change and transformation of business processes in this industry. However, the lessons can be applied to any company. It's interesting, for example, that I saw a great write-up about how Walmart was trying to change to compete with Amazon. The lessons in that story are

just as interesting for a bank dealing with digital transformation as it would be for a retailer. I feel this new book is the same. The lessons are centred around big old banks from the industrial era trying to become digital, but it could just as easily be applied to any firm trying to deal with the digital age.

**Q: You've written many books about this theme. How have your opinions changed in your new book?**  
Well, I got fed up with everyone saying that banks are dead, banks are stupid, banks don't get the internet, banks are boring. Whatever. Banks are challenged fundamentally by the internet and new digital players – there are more than 12,000 new companies in the world gaining billions of dollars of investment to compete with boring old banks – but the



banks aren't dead, stupid or boring. They're just trying hard to change and adapt. And the hardest thing is knowing that you're changing and adapting in the right way. I think *Doing Digital* provides them with the blueprint and answers to make sure they can do that.

**Q: Finally, you're known by some as Mr Fintech. How did that come about?**  
By mistake if I'm honest. I've worked in finance and technology for decades and

was made redundant in the early 2000s. While trying to find a proper job I started writing about how finance and technology would look in the future for a variety of media platforms and then, in 2007, began blogging. I write a blog every single day on my personal platform thefinanser.com and, out of that, became known as the guy who knew where the future roadmap would be for finance and technology or, as it's now known, fintech. I just happened to be the right guy in the right place at the right time, for a change. **TFT**

About Chris Skinner  
Chris Skinner is a globally known keynote speaker on the future of finance and technology, and the CEO of The Finanser Ltd.

# Why your bank needs to think about data alliances

By Hossein Rahnama, Founder & CEO, Flybits

*Leveraging data through partnerships will ensure customers enjoy hyper-personalised experiences*

**H**yper-personalisation on a 1:1 scale is changing the face of digital marketing. By unifying proprietary data with third-party data sources, leaders in financial services can create experiences that meet individual customers' needs in real time. Banks can push this evolution forward even further by creating alliances with other non-competitive brands and playing the role of 'concierge' to tailor meaningful experiences down to the individual consumer.

North American bank TD partnered with Flybits, the contextual experience design platform for the financial sector, in 2016 to create hyper-personalised experiences that would increase engagement and deepen TD's relationships with customers.

It was looking for a digital solution that would allow it to take its app from a channel confined to transactions to one that would allow it to offer relevant information, services and offers that customers would find useful and valuable. One unique data alliance it built to support its strategy was with GO Transit, a regional transportation provider in and around Toronto, Canada. Relevant GO Train alerts, such as delays, are relayed directly to TD customers through their mobile device (if they are opted into this service).

When banks partner like this with other companies, they're able to develop insights about their shared customers that can be used to create highly targeted outreach. This increases consumer engagement and conversion rates, while also boosting customer loyalty with the bank and associated brands.

For example, if a rewards card customer who enjoys fine dining experiences is traveling to London, her bank could send

her a 'Welcome to London' message upon arrival, recommending a top partner restaurant that serves her favourite cuisine. She could also be offered a discounted spa package at her hotel, given her status in the hotel's loyalty programme. These contextually relevant and valuable moments create an enormous opportunity for banks and partners to deepen their relationships with their customers and increase those customers' lifetime value.

However, security and privacy concerns often stand in the way of this vision. Personalised outreach requires sharing extremely sensitive, proprietary information that most companies zealously protect. With no control over a partner's data governance policies or security measures, sharing any data of value can be an enormous risk. This is especially true for banks; whose handling of sensitive financial data is highly regulated by the government.

Fortunately, new edge-of-the-cloud technology is making it easier for banks to safely create shared insights from data, without having to actually share the data itself. Its potential goes beyond simple one-to-one partnerships. This ability will catalyse the formation of data alliances in which large trust networks of associated companies work together to cross-promote products and build a valuable ecosystem around customers. And banks are uniquely positioned to be at the centre of it.

## THE RISE OF BANKS AS DATA VAULTS

Banks that want to leverage a partner's capabilities to gain insights from sensitive data no longer have to co-locate that data on the partner's servers. Instead, through data tokenisation, they can share

anonymised representations of the data, which can then be used for various forms of analysis. That analysis can take place at the edge of the cloud, in the no man's land between the organisations' respective firewalls, yielding useful insights without sacrificing privacy or security.

Especially when combined with decentralised technologies like blockchain, tokenisation also opens the doors to creating new data marketplaces where customers gain greater access and control of their personal data. Customers are used to trusting banks with sensitive information and often turn to banks for guidance on major life decisions like buying a home or taking out loans. As such, banks are ideally suited to become data vaults that store not only financial assets, but also customer data from any sources a customer opts in to share, like web browser histories, college transcripts, health records and social media profiles.

Banks could then leverage their existing trust networks to create data alliances with other companies. Customers could select which of their banks' data alliance partners they want to share data with in exchange for personalised experiences, offers and content. Then based on those instructions, banks could share anonymised, tokenised data with partners without putting customers' privacy at risk. At the same time, partners would be able to leverage a key digital communications channel – the bank's mobile app – to send timely, hyper-personalised messages to customers.

## HOW WOULD A DATA ALLIANCE WORK?

Cross-promotion within data alliances would look very different from old-school referral programmes and simple reciprocal

discounts. Banks could use the data in their vaults and tokenised data from their partners to hyper-personalise digital and in-person experiences in creative ways.

For example, a bank could partner with a telecoms firm. Thanks to tokenised data, the bank knows which of its customers are also customers of the telecom and which of those customers regularly pay their bills late. It could offer to send habitual late payers a nudge via their mobile banking apps when their bills are close to due. The bank could also invite those customers to set up autopay so their bills would be paid on time automatically each month.

Data alliances could also draw in airline partners that want access to high-net-worth customers of a bank's wealth management division. Imagine that a customer has recently booked a flight to Japan. Their wealth manager can be prompted to reach out and offer them an invitation to an exclusive shopping experience in Japan, courtesy of the bank and the airline.

## A MORE CUSTOMER-CENTRIC FUTURE

The rise of decentralised data marketplaces will open up a new world of possibilities for banks. By forming alliances mediated by technologies, such as blockchain and data tokenisation, financial services providers can share insights with partners and deliver hyper-personalised experiences to customers without compromising on security or privacy.

Banks and their partners will soon see the fruits of closer cooperation, including deeper relationships with customers. All it takes is the right infrastructure – and a customer-centric focus on offering more meaningful and valuable experiences. **FTI**

# COMPOUND DATA: THE KEY TO ACCESSING 'DATA-DRIVEN OIL'

*Laying the pipes to the best insight will empower financiers to meet their customers' needs in minutes not months*

**W**hen discussing business financing one phrase is heard above all others: 'data is the new oil'. That has been the key takeaway from panels, conferences and articles for the past few years. To the tune of \$5trillion globally and growing at a rate of 19 per cent compound annual growth rate (CAGR) from 2019 to 2025 in the United States alone. What's less covered is how to get access to that oil.

A typical banker is tasked to grow their book of business 10 per cent in an economy that grows an average of one to three per cent annually and where loan rejections are high: 72 per cent in small and medium-sized businesses (SMB) and 40 per cent in commercial. It's a head-scratcher. With all the numbers tossed around, it's easy to forget that each loan represents a business with a personal story. As a commercial banker, Boss Insights' CEO Keren Moynihan experienced this daily, saying: "At times businesses faced cash-flow challenges and I remember one orthodontic practice specifically. Providing support required a deep understanding of the business and the bank. The industry simply doesn't allow for this type of deep dive anymore. Even then, it happened only if the client was willing to share, the banker cared to understand and the credit department was cooperative. That's a

lot of variables to rely on to ensure customer delight, a main goal of financial institutions at the moment."

In today's market, banks, credit unions and alternative lenders are held to challenging regulatory standards and high customer expectations thanks to the advances of big tech players, such as Amazon, Instagram and LinkedIn. They're expected to offer a complete offering and personalised service at the same time. That's a tall order. On top of that, the cost of loan underwriting is expensive and because the revenue is a percentage of the loan amount, it's more lucrative to run larger commercial, rather than SMB departments. The oil people are talking about gets more elusive each year.

In reality, it's not the data, but insights that are the oil. The more data sources the better the insights. At industry events, many lenders purport financial information and at times payment information to be a complete 360-degree understanding of a business. Financial information is very important, however it does

not provide a complete picture of the borrower. At best it's a 360-degree view of the financials. It leaves the lender in the dark on management, operations, support, sales and analytics. A true 360-degree view of the business looks at all of these areas and provides insights on them. It's the key to getting access to that elusive oil.

The orthodontist is one of millions of businesses and, in his case, the integration to customer relationship management software would have demonstrated that after a seasonal lull, patients

were booked for six months, supporting a short-term increase in an operational loan. Without it, the lender has no view into this information unless the relationship manager has developed a particularly strong connection. With the pace of the market, it's not realistic to assume that a relationship manager would have the bandwidth to do so and the result would be that the facility would not be offered, even though it meets the risk metrics. More importantly, the borrower would experience frustration instead of delight.

The reasons to understand more about a customer are endless but to summarise a few:

- Quick decisioning in SMB and commercial loans
- Creating business delight by proactively meeting businesses' needs in deposits, cash management, treasury, foreign exchange and employee benefits
- Providing businesses with insights on their own company

The conventional oil is aiming to grow a book 10 per cent every year. That target is only met some of the time. With compound data, lenders create customer delight while growing their books. In short, lenders and the businesses they support get access to the oil.

Financial institutions have historically devoted resources to creating single not compound data sets. With a limited understanding of the business comes a limited understanding of the customer and their needs. Compound data empowers lenders with insights so they can empower

## About Boss Insights

In an era where tech giants have increased the expectations on the consumer front, lenders and private capital providers are challenged to offer complete and personalised solutions.

Boss Insights' Compound Data Platform provides a real-time understanding of the business client to lenders, enabling them to offer customer delight while accelerating capital from months to minutes and proactively offering ancillary services.

Our mission is to enable businesses to be measured on their merit as opposed to their collateral or personal credit.

**Website:** [www.bossinsights.com](http://www.bossinsights.com)

**LinkedIn:** [www.linkedin.com/company/bossinsights](https://www.linkedin.com/company/bossinsights)

**Twitter:** @bossinsight



borrowers. In the race towards the best artificial intelligence and best understanding of the borrower, compound data provides a key strategic advantage – enabling customer delight. **TFT**



# Do you want to play in the sandbox?

*Evolving tools for innovators in financial services to transform society*

Lawrence Wintermeyer, Digital Finance Advocate

**Y**ou don't have to go far back in history to a time when innovators in financial services didn't have the support of forward looking regulators, such as the UK's Financial Conduct Authority (FCA), to 'test' a new business model or product, and service proof of concept in a safe space, potentially 'on market' with real customers. The FCA's Regulatory Sandbox helped to launch regulatory sandboxes around the world with estimates of 30 now live and more in development.

The first generation of UK financial services challengers following Thatcher's so-called Big Bang in financial markets used the telephone and a world class service proposition to revolutionise insurance (Direct Line, founded in 1985 and funded by Royal Bank of Scotland) and banking (First Direct, formed in 1989 by Midland Bank, now part of HSBC).

In the 90s, many building societies demutualised, setting up new subsidiaries for credit card, pensions and insurance product manufacturing and distribution while many mutual life firms demutualised and 'freed-up estate assets' for policyholders.

The 90s also brought a wave of .com challengers in banking with the likes of Egg Banking (Prudential) and ING Direct (now part of Capital One 360), and a plethora of new brand and product subsidiary launches by institutional incumbents. The most notable winner from this era is Nick Odgen's

Worldpay (founded in 1997 and partnered with Natwest, now part of RBS) which heralded the birth of fintech and was recently bought by FIS for \$35 billion.

Many of these initiatives focused on transforming the customer's experience by providing access to existing or new products and services. The innovation in the legal, governance and operating models in financial services was breathtaking, as was the consolidation of firms coming into the new millennium.

During this era, the regulator was not champing at the bit to help your firm with a new and innovative playbook. Regulators and government departments granting approvals, authorisations and licences were very formal, complex and often expensive barriers to overcome to launch new plays – 'innovative' would not have been a word used to describe them, 'bureaucratic' was more likely.

It took the financial crisis and the failure of two large UK high street banks to bring about change. The financial services regulator was reorganised with a 'conduct' focus and was given a mandate to promote competition – a great antidote to the financial crisis

and the concentration of retail and SME banking across the four (large) high street banks.

From the early days of the FCA Innovation Hub, led by Anna Wallace and Bob Woodward, a sandbox strategy was developed. This followed recommendation eight of the most excellent report by Sir Mark Walport, the government's chief science officer, and a team of fintech industry leaders: *FinTech Futures: The UK as a World Leader in Financial Technologies*, published in 2015.

This report was an important part of my playbook as the new CEO of Innovate Finance, the not-for-profit UK fintech members association set up by industry with the encouragement of the UK government. Having come from industry, I surfed the steep learning curve of 'what is a' membership/trade associations, and this report was a brilliant primer to our programme roadmap thinking.

## Sandbox collaboration

In 2016, Innovate Finance was appointed by the FCA

to lead the Industry Sandbox Consultation, led by the indefatigable Dea Markova, which I had the privilege of chairing. The final report focused on creating a global open environment to collaboratively solve 'wicked problems' like fraud, digital identity and financial inclusion. The original mandate sought to create an entity with a delegated (limited) authority to authorise new fintechs under an 'umbrella'. This was way ahead of its time and we had to descope the delegated authority.

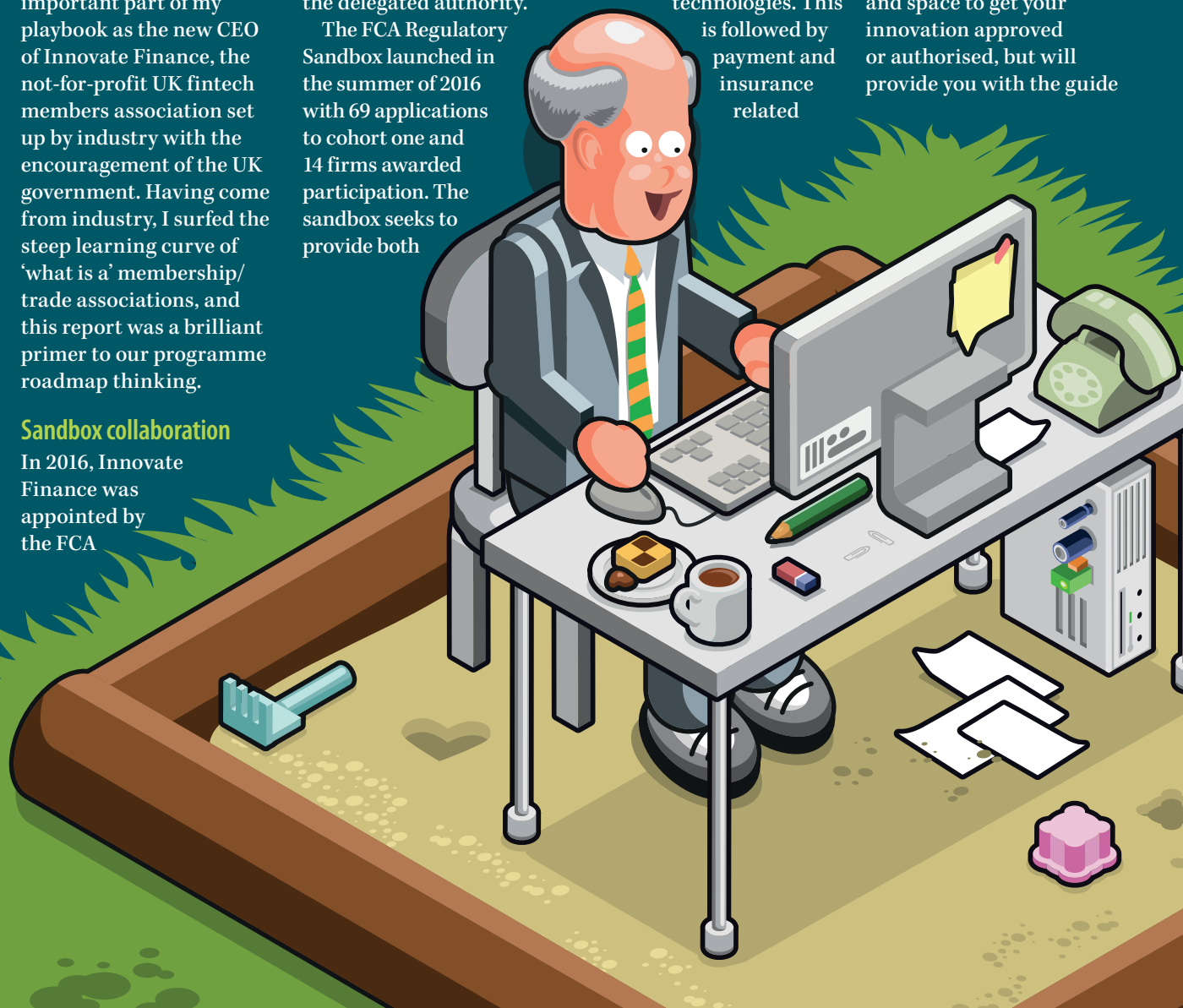
The FCA Regulatory Sandbox launched in the summer of 2016 with 69 applications to cohort one and 14 firms awarded participation. The sandbox seeks to provide both

unauthorised and authorised firms a safe space to pilot new innovative products and services on-market with real customers, with constraints and under supervision. From 2016 to date, there have been five cohorts in the FCA Regulatory Sandbox with a total of 375 applications made and 121 accepted into the sandbox programme, an average acceptance rate of 32 per cent.

Capital markets projects lead cohort intakes, with an orientation towards distributed ledger technologies. This is followed by payment and insurance related

projects. The sandbox is dominated by earlier stage companies, however, financial institutions have been accepted from the very first cohort. The fifth cohort had six institutional participants in addition to two associations.

While the FCA published its (early) lessons learned in 2017, industry learning is not as easy to reference and is more anecdotal and widely distributed across industry participants and stakeholders. What is important to note here is that the regulator is not going to move time and space to get your innovation approved or authorised, but will provide you with the guide



rails necessary to understand the constraints you must operate under to get your innovation to market (expediently), or not. As part of this journey, EVERYONE is learning and are mostly the better for it.

For early stage firms, the regulatory sandbox can range from an existential experience that contributes to an inflection point or a possible pivot, to a go/no-go decision for an innovation. Most notably, acceptance to a regulatory sandbox offers bragging rights and gives your VC and investors an opportunity for an enhanced valuation based on a 'legitimacy claim'. Importantly, the application and engagement in the regulatory sandbox require a discipline of focus and immediacy of engagement that can really expedite the pace and develop your innovation.

An estimated 15 to 20 per cent of the regulatory sandbox participants are institutions (or associations). In theory, speed to market with a new and innovate proposition is the big incentive for institutions, however, the tangible benefits are less clear as it can be resource intensive for innovation teams and require executive sponsorship that is often difficult to gain. Most institutions participating in the regulatory sandbox will

already be regulated in one form or another.

Industry labs and sandboxes continue to develop as a tool of choice for institutions focused on speed to market and acceleration of innovative development, though to date the 'selfish sandbox' model consisting of institutions offering little more than access to their own application programming interface (API) suite of tools like Open Banking APIs has been most prevalent. There are a few notable exceptions.

EY was ahead of its time in 2018 launching a 'thematic lab' with the Advanced Technology Tax Lab in partnership with MIT Media Labs, focused on distributed ledger technology (DLT) and artificial intelligence (AI) in the development of solutions to (global) tax challenges. JPMorgan has just announced that it has reduced the time it takes to evaluate a fintech partner from nine months to three weeks with the help of an Amazon Web Services (AWS) sandbox. This involved a new framework of tools and synthetic data to enter rapid proof of concept (RPOC).

### Testing developing technologies

The Fintech Sandpit is a new industry sandbox startup to keep an eye on. It is a financial services API catalogue in a portal, enabling user firms to access industry wide APIs and provides synthetic data and testing. These new sandboxes are signalling a significant

change in institutional focus and pace.

Regulators have now become very interested in digital (industry) sandboxes as a means of 'scaling' beyond regulatory sandboxes and offering new tools and synthetic data to allow the entire financial services sector to 'share, innovate, test and grow'. The ADGM Digital Fintech Lab is such an environment enabling the entire ecosystem to access APIs, synthetic data, images and reference architectures. Richard Teng and his team should be applauded for what appears to be both a comprehensive and quality environment.

## If you are an innovator in financial services, you now have an increasing number of innovative sandbox tools emerging globally to consider using as part of your journey

The ASEAN Financial Innovation Network (AFIN), launched the API Exchange or APIX in 2018. It is a digital sandbox bringing together fintechs and institutions to 'integrate' and test solutions. It is an interesting model in that it is a not-for-profit supported by the Monetary Authority of Singapore (MAS) and the International Finance Corporation (IFC), part of the World Bank, in partnership with corporate founding and consortia members like Mastercard and Deloitte. I am a big fan of not-for-profit models sponsored by (non-exclusive) industry actors. Regulators and governments in many countries often do not have the budgets for the talent or infrastructure required to ensure these entities can function successfully.

Nick Cook, the innovation director of the FCA, made reference to the agency's interest in digital sandboxes in a recent speech. Nick also chairs the coordination group of the Global Financial Innovation Network (GFIN), which has more than 50 jurisdictional regulators and agencies in the network. GFIN would be advised to take a look at some of the industry and digital sandbox solutions emerging in their aim of supporting industry's growing requirement for synthetic data and cross border simulation and testing rather than be overly focused on the regulatory sandbox model

(SEC) has proposed a 'safe harbour' for the decentralised crypto and token sector to ensure it is not thwarted by current securities laws in the US. Following the application of The Howey Test, which is perceived to be preventing these innovations from further developing and gaining mainstream adoption, many firms have been the subject of SEC enforcement actions. The safe harbour would open a three-year grace period to enable developers to demonstrate maturity of their networks and decentralised token functionality, in a fully transparent way. Industry has welcomed this and many of us are working on constructive proposals in response to support Pierce's case.

As industry and regulatory sandboxes evolve, I anticipate we are heading towards a world of greater integration and convergence between models, a world we envisioned when conducting the FCA Industry Sandbox Consultation years back. A focus on greater scaling of thematic applications that benefit consumers and the whole of the industry, sub-sector by sub-sector, will better enable solutions to today's complex industry problems. Greater integration and global solution scaling of our 'sandbox thinking' would benefit the whole of society and not just the financial services sector if regulators and industry come together to collaborate on complex problems, such as digital identity, asset custody, leverage, derivatives and settlement finality.

An example of this would be in supporting the crypto and digital assets sector implement the Financial Action Task Force (FATF) 'R16 Travel Rule' requiring virtual asset service providers (VASPs) to provide a know your customer (KYC) on and off ramp for each crypto exchange transaction. This is a rule that all exchanges must find solutions to meet

and would appear to me to be an excellent application for a multi-jurisdictional sandbox to help test technical solution viability and scalability, not just for industry, but for the implementing countries responsible for overseeing the implementation of the FATF rule and registration of VASPs.

If we could better prioritise and put into a usable and workable context some of humanity's greatest social and environment challenges, such as poverty, diversity, inclusion and sustainability, as part of our urgent priorities for regulatory and industry sandboxes, we may see an overall greater utility and speed in the outcome of industry solutions using the new (better integrated) sandbox solutions. Industry often leads government by a fair stretch in these matters, so it would be wise for regulators to better and more effectively engage.

If you are an innovator in financial services, you now have an increasing number of innovative sandbox tools emerging globally to consider using as part of your journey. The best guidance you can get is to speak to a few firms that have experience with these resources, most of which are publicly available, or speak to your industry or trade association for guidance. [TFI](https://www.thefintechtimes.com)

You can contact me at [lawrence@elipses.co.uk](mailto:lawrence@elipses.co.uk)

### About Lawrence Wintermeyer

Lawrence Wintermeyer is a globally recognised digital finance advocate, working in alternative investment. For more than 20 years he has been running and advising businesses from startups to global brands.





# Accelerator



Established in 2014, the Barclays Accelerator, powered by Techstars, is one of the industry's leading FinTech Accelerator programmes.

It is an intensive 13-week programme designed to fast-track the next generation of fintech businesses, while also bringing innovation and application opportunities to Barclays.

With help from Barclays, Techstars and a team of high-level mentors, participating companies aim to evolve their business propositions and solve problems at the cutting edge of fintech. The programme operates from our global Rise, created by Barclays, workspaces.

We're delighted to showcase our 2020 London class, graduating on 21 April, as part of UK FinTech Week and we encourage you to contact us at [BarclaysAcceleratorpoweredbyTechstars@barclayscorp.com](mailto:BarclaysAcceleratorpoweredbyTechstars@barclayscorp.com) if you would like to learn more about any of the companies. For more information on the programme, please visit [barclaysaccelerator.com](https://barclaysaccelerator.com).



1,500+

companies apply to the programme each year

200+

mentors from Techstars, Barclays and our wider Rise ecosystem support the startups

170+

startups have successfully graduated from the Accelerator

Find out more about our Accelerator companies and our latest news by visiting [barclaysaccelerator.com](https://barclaysaccelerator.com) [#BarclaysAccel](https://twitter.com/BarclaysAccel)



## 2020 London Class



**Cachet**

[cachet.me](https://cachet.me)

Cachet provides a trustee data layer between gig economy platforms and financial services providers aggregating across platforms to enable businesses like insurance companies to sell better priced and personalised coverage.



**Docsumo**

[docsumo.com](https://docsumo.com)

Docsumo provides intelligent workflow automation for financial services companies to save back office costs by up to 70 per cent through document data capture, analytics and fraud detection.



**EquipmentConnect**

[equipmentconnect.co.uk](https://equipmentconnect.co.uk)

EquipmentConnect is an asset finance marketplace hosting equipment vendors and funders that offer small businesses access to lease finance, resale and lifecycle management of assets.



## Accelerator



**Inspektlabs**

[inspektlabs.com](https://inspektlabs.com)

Inspektlabs uses inspection-as-a-service software to automate photo- or video-based inspection of any asset using artificial intelligence.



**Muse Corporation**

[getmymuse.com](https://getmymuse.com)

Muse Corporation is a cash flow management tool offering small business owners working capital analytics and access to invoice finance.



**Offr**

[offr.io](https://offr.io)

Offr uses secure and transparent bidding technology for the property industry providing a swift digital experience for property transactions on a smartphone.



**Oper Credits**

[opercredits.com](https://opercredits.com)

Oper Credits is a software-as-a-service solution that helps lenders digitise mortgage processes from contact to contract.



**Pryml**

[pryml.io](https://pryml.io)

Pryml uses software that allows data scientists to deploy machine learning models and pipelines onto data that cannot be disclosed externally due to regulations and privacy concerns.



**The Accountancy Cloud**

[theaccountancycloud.com](https://theaccountancycloud.com)

The Accountancy Cloud is a challenger accountancy service offering cloud-based software to automate bookkeeping.



**Toucan**

[usetoucan.com](https://usetoucan.com)

Toucan is a digital service for banks to protect their financially vulnerable customers by providing tools for carers that are in line with new emerging regulations.

THIS DOCUMENT PROVIDES A HIGH LEVEL OVERVIEW OF THE BARCLAYS ACCELERATOR, IS FOR INFORMATION PURPOSES ONLY, AND IS SUBJECT TO CHANGE. Barclays is not offering to sell or seeking offers to buy any product or security or enter into any transaction, and is not offering or arranging any financing. Barclays has not independently verified the financial and other information contained herein and have not assumed responsibility or liability for any independent verification of such information. Certain numerical information may speak as of an earlier date and are approximations. Barclays is not responsible for the use made of this document other than the purpose for which it is intended. © Barclays 2020

# Trust and transparency: The future of AI

*Artificial intelligence needs to explain itself in order to earn the trust and confidence of both companies and their customers, says Hani Hagras, Chief Science Officer at Temenos*

**D**uring the 1980s and 1990s, artificial intelligence (AI) was a concept that featured in many science fiction movies – one that was often used to instil panic and depict a future dystopia where humanity struggles at the whim of advancing technology. Fast forward to today and we find ourselves living in a new era defined by data; and one in which AI is already playing a major role across many sectors.

This evolution has come about thanks to our ability to efficiently store, organise and analyse data, and has been further compounded by the internet of things (IoT), which provides yet more data and information about our everyday lives. Essentially the availability of data, and our ability to leverage it with higher powered and cheaper computing, has changed the game.

More and more people have come to realise the value that AI can bring to an increasingly data-rich world. Despite this, a new need is emerging as consumers question how trustworthy AI really is: the need for Explainable AI (XAI).

After all, how can people trust the insights and decisions provided by AI systems if they do not understand the process that underlies them and

cannot access the data that determines them?

If AI is not transparent, can we really be sure that these decisions are accurate and not biased? This is an important question that needs an answer and it's one that XAI technology can help address.

We have recently seen some of the world's leading companies come under the spotlight amid accusations of 'AI bias'. Perhaps the most high profile of these cases came to light recently in relation to some credit cards, where it was alleged that men were receiving 10 to 20 times higher credit ratings than their wives.

The resulting outcry led to an investigation by the New York State Department of Financial Services. Outside of the financial industry, other major players have also come under scrutiny for using biased AI systems.

If we consider the fact that most companies today work with 'black box' AI systems, it's not surprising that many consumers today don't fully trust AI yet. This scepticism is more than justifiable too, when you consider that these opaque AI systems rely on data, learn from each interaction and can thus rapidly accelerate poor decision-making if fed

corrupt or biased data. These black box systems also leave the end customer in the dark, doing nothing to instil trust in the technology. Compounding the problem, most companies don't usually have the privilege of finding out that their AI is biased until it's too late.

The solution to all this is 'white box' XAI systems which explain in plain language how the software operates, how decisions have been made and are able to answer follow-up questions aimed to maximise the customer's wellbeing.

Transparency is key to building trust and by explaining how and why certain decisions have

**If AI is not transparent, can we really be sure that these decisions are accurate, and not biased?**

been made, XAI can help both customers and companies understand what they need to do get a different outcome. In practice, this could mean turning a rejected loan or mortgage application into an acceptance.

XAI creates win-win scenarios for both the company and the customer. On one hand, the customer can use the insights

provided by XAI technology to improve his or her situation, while the company can leverage the additional customer information to suggest products or services that are better suited to a particular customer or even launch entirely new business lines.

In addition to added transparency, XAI models are built around causality. This means they can be easily analysed and augmented using human intervention, rendering them fairer and safer to deploy as imperfections

can be ironed out incrementally over time. These XAI platforms are unique in that they do not solely rely on data but are in fact elevated by the human experience.

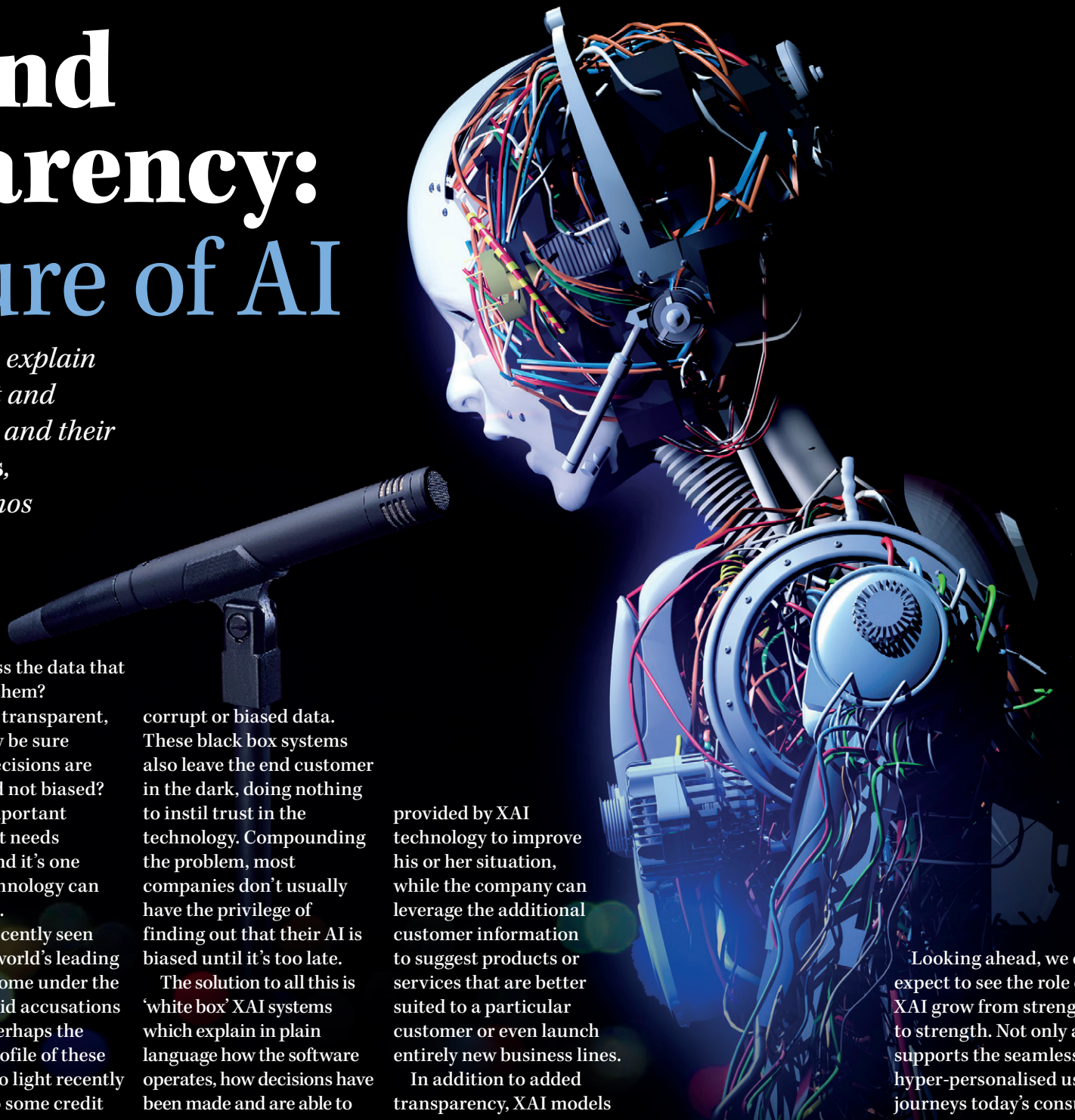
In the banking industry alone, the potential that XAI has to improve the customer experience is massive. Important decisions are already made today by AI on credit

risk, wealth management and even financial crime risk assessments. Other important applications of AI include robo-advisory, intelligent pricing, product recommendation, investment services and debt collection.

From a regulation perspective, there is also a lot to gain in the era of Open Banking and the second Payment Services Directive (PSD2), as there is a real need to provide a framework in which the vast amounts of data being shared can be used to provide customer-centric solutions. As a result, we should anticipate more stringent regulations in the future focused on ensuring AI algorithms do not apply bias and remain as transparent as possible.

Looking ahead, we can expect to see the role of XAI grow from strength to strength. Not only as it supports the seamless and hyper-personalised user journeys today's consumers expect, but because it delivers the critical data-driven insights necessary to win the trust of consumers and regulators alike. In short, XAI is no longer a 'nice to have', but a 'must-have'. **TFT**

About Hani Hagras  
Hani is Chief Science Officer at Temenos, which provides software to financial institutions, of any size, anywhere in the world.



# Fintech investment in 2019:

## A world of opportunity and growth

*Innovate Finance recently launched its annual Fintech Investment Landscape report – a review of the previous year's investment numbers and trends.*

**T**he analysis provides a global picture, but since our work focuses on supporting UK fintech, we're always most excited by the British numbers! 2019 brought us reasons to be cheerful, with overall investment in the UK up 38 per cent and many of Europe's biggest raisers being headquartered here.

Numbers do tell a good story, but you have to turn to industry experts for richer analysis. To add flavour to the data, we spoke to the venture capitalist (VC) firms in our network to understand what's happening in the sector and get a sense of what 2020 has in store.

### UK fintechs finish the decade with investment boost

The UK smashed its previous record for fintech investment, notching up \$4.9billion of capital raised in 2019. Surpassing 2018's figure of \$3.6billion, the UK moved up to second in the global rankings for VC investment into fintech.

This achievement is amplified given Britain's economic growth was, like much of Europe, a disappointment. Then there was the 'B' word that brought political paralysis and the nervous unpredictability of a general election.

"The fintech sector continues to go from strength to strength," said Tim Levene, CEO of Augmentum Fintech. "Despite huge growth, the opportunity is still nascent and there are still significant capital

requirements, particularly at the mid- and late-growth stages, which is only growing in demand as fintech companies are staying private for longer."

Ben Marrel, co-founder and managing partner of Breega, pointed to Open Banking creating a raft of new fintechs ready to scale. "These new actors, whether they be challenger banks, consumer-orientated fintechs or providers of business solutions are challenging and disrupting a whole range of financial sectors."

Tim Levene's view is highlighted by the enormous sums raised in 2019's mega deals by UK fintechs. Greensill led the way with its huge \$800million round. OakNorth and Checkout.com were the next biggest fundraisers, picking up \$440million and \$230million respectively.

### The European capital for capital

The UK remains the heart of fintech in Europe. Fintechs in the UK attracted more capital and completed more deals than the rest of the top 10 European countries combined. Seven of the top 10 deals in Europe involved UK fintechs.

Though the UK is leading, that's not to say there isn't impressive growth in other parts of Europe. Total investment in European fintech reached \$8.5billion, up from \$5.7billion in 2018.

Ben Marrel credited rapid technological change and uptake, combined with regulatory shifts like the Second Payment Services Directive (PSD2), for creating



'a very fertile environment for fintech in Europe'.

There were three massive deals for European fintechs in 2019: German challenger bank N26 raised \$470million in a Series D round; Swedish headquartered Klarna raised \$460million, and Berlin-based insurtech wefox secured \$235million in its Series B.

Ben reflected: "If progress across the different countries is not, as yet, completely homogeneous, markets are progressively opening and allowing for a wealth of innovation and new actors."

### US takes the global crown as China drifts downwards

The US and China have been vying for top spot in the last five years. In 2018, China was top of the global rankings by some margin with \$26billion of investment into fintech, buoyed by the giant \$14billion Ant Financial investment, but saw a dramatic drop to \$1.8billion in 2019. Meanwhile, the US experienced 23 per cent growth reaching \$16.3billion.

The sharp decline in

China seems to be a major driver for the global investment figure dropping 28 per cent on 2018 to \$35.7billion.

Nonetheless, there is strong growth in other markets. Indian fintech investment reached \$3.8billion, bringing it to third in the world. Brazil more than doubled its investment figure to reach \$859million, taking it to sixth in the global rankings.

The number of fintech mega deals in 2019 leapt to 86 from 70 in 2018 – a sure sign of a maturing market.

That maturation is coupled with an overall shift in global fintech innovation, according to Manuel Silva, partner at Santander InnoVentures. "Fintech went from trying to reinvent the basic pillars of the banking-industry-as-we-know-it to newer innovators focusing on reinventing the boundaries of financial services, as the early players have now overcrowded their niches and banks have reacted competitively."

### So, what's next?

2019 showed us that fintech is growing and so is the demand for investment capital in the sector. We expect that to continue into 2020. However, the areas of growth will shift, so say the VCs we asked to gaze ahead.

Vinoth Jayakumar, investment director at Draper Esprit, said: "We have seen a surge of investments in the business to consumer side of fintech in recent years but it is becoming increasingly apparent that the business to business side of fintech – the invisible layer behind these financial services behemoths – is rising. Three core areas of innovation are likely to be in fraud, payments and core banking systems."

Manuel Silva from Santander InnoVentures, sees the next wave of fintech innovation at the 'cross-over of several industries, stepping outside of the banking comfort zone'. This in turn, Manuel says, will 'redefine the role of corporate investors. Together with a higher bar on financial discipline to align to founders and VCs, giving access to the corporate sponsor is key.'

Ruth Foxe Blader, partner at Anthemis, is looking for growth in 'emerging technologies aimed at improving the financial services infrastructure, including the sourcing and trading of risk'.

Breega's Ben Marrel is also excited by disruption in insurance. He says: "Up until now it has known very little change, [but] is being shaken up by the arrival of startups who are developing innovative solutions for individuals and companies and rebuilding traditional models making them more accessible, flexible and transparent."

Finally, Tim Levene thinks there will be more inroads into verticals of financial services that have seen limited change. Tim says that 'numerous examples remain of those with legacy tech, sub-optimal customer service and overpriced propositions'. He adds that 'the spotlight will remain on challenger banking in 2020'.

Opportunity for investors and fintechs alike is clearly out there. After another year of growth, there is plenty of optimism. **IFT**

**You can read the full report at [innovatefinance.com/capital](https://www.innovatefinance.com/capital)**

About Innovate Finance  
Innovate Finance is the independent industry body that represents and advances the global fintech community in the UK. Our mission is to accelerate the UK's leading role in the financial services sector by directly supporting the next generation of technology-led innovators. Innovate Finance's membership ranges from seed-stage startups and global financial institutions to investors, professional services firms and global fintech hubs. All benefit

from Innovate Finance's unique position as the single point of access to promote enabling policy and regulation, talent and skills, business opportunity and growth, and investment capital. By bringing together and connecting the most forward-thinking participants in financial services, Innovate Finance is helping create a global financial services sector that is more transparent, more sustainable and more inclusive.

INNOVATE/FINANCE

# Shaping the future of sustainable investment

*Fintechs with promising technology can lead the charge towards sustainability-driven financing*

By **Danielle Bistacchi**,  
Sustainability Consultant,  
designportfolio

**W**hen Larry Fink, BlackRock's CEO and the world's largest fund manager, says that 'we are on the edge of a fundamental reshaping of finance' due to climate change risks, investors listen. The evidence surrounding the long-term impacts of climate change is increasing and investors are beginning to recognise that climate risks are investment risks. For instance, if lenders can't model economic growth of food production, because productivity is declining due to extreme heat and other climate impacts, what happens to inflation and interest rates?

So, what does sustainable investment really mean for investors, businesses, consumers, or even global financial institutions as we know them? The 2020s are fast becoming known as the 'decade of change' or the 'decade of delivery' and the demand for sustainable investments is poised to accelerate, with a number of large banks launching their green finance solutions. HSBC, for example, has introduced a range of new loans and a green revolving credit facility (RCF) that are available for small to medium enterprises (SME) through to large corporates. There are, however, a number of unknown challenges to overcome first before any dramatic shifts in investment and lending are seen.

Sound confusing? It does to me too. To help, I've answered three key questions to simplify the perplexing sustainable investment landscape.

## What is sustainable investment?

Sustainable investment is a broad term for



investment that considers environmental, social and governance (ESG) factors and their impact on society. Traditionally, sustainable investment was viewed as a trade-off between financial returns and 'doing the right thing'. Yet in today's modern world, where consumers have a more sophisticated understanding of the risks posed by a changing climate, they are demanding investments are made in sustainable portfolios and strategies that do not compromise financial returns.

Investors have had to quickly reassess the way they approach investments and how ESG factors can be tied into reducing risk and enhancing long-term growth.

## Why are investments not already sustainable?

Asset managers, pension schemes and even universities have all traditionally invested in companies that provide healthy financial returns, with no thought as to how these companies operate or to their impact on society and the environment. This includes huge investments in the oil and gas,

manufacturing and transport industries, which are all carbon intensive and large contributors to climate change.

However, the winds of change have begun to blow, with more than half of UK universities committing to divest all of their investments away from fossil fuels in 2020, which campaigners say is a significant blow to the 'social licence' of big oil and gas firms.

In addition, so-called shareholder activism is also being used to pressure big energy firms to adopt greener policies and to increase their own investment in a low carbon future. One of the most successful activist groups is Climate Action 100+, a group of 370 asset owners and managers, including BlackRock and Aberdeen Standard, that advocates for environmentally friendly shareholder proposals and pushes companies to align their business with the Paris climate agreement.

In March 2019, for example, the group forced the oil giant Shell to make a legally binding commitment to use a broader definition of greenhouse gas emissions in its carbon reduction targets.

## What does the future of sustainable investment look like?

Sustainable investing has experienced phenomenal growth in recent years and sustainable investing assets stood at \$30.7trillion at the start of 2018, a 34 per cent increase in two years according to the *Global Sustainable Investment Review*. While the push from private sustainable investments is set to outperform traditional investments in the future, there are still a number of challenges to overcome in the market.

This is where fintech has a part to play; to be able to solve a modern-day problem, requires a modern-day solution. Digitisation changes the way financial institutions do business and fintechs need to seize the opportunity and provide new innovative and flexible sustainable finance solutions.

## Time to act

The spotlight on sustainability and sustainable investment was recently highlighted at the World Economic Forum in Davos, and the message is clear – the time to act is now!

In the UK, there are a number of recent key policy changes by the government that are setting the direction of travel. The Green Finance Strategy, launched in July 2019, for example, sets out what action is needed to accelerate the growth of green finance, from greening the financial system and catalysing the investment needed for green projects, to driving innovation in financial products and building skills across the financial sector.

To help build a sustainable finance system in the UK, Boris Johnson has recently appointed Mark Carney, the ex-governor for the Bank of England as finance advisor for the United Nations Climate Change Conference (COP26) – taking place in Glasgow in November 2020. Mark Carney has been championing sustainable investments for many years, and he is one of the co-authors of the Task Force on Climate-related Financial Disclosures (TCFD), a valuable tool for evaluating and reporting climate-related risks and for companies to thoroughly understand the potential financial implications of a changing climate.

More recently, the Bank of England unveiled plans to introduce a mandatory and uniform climate risk test for major banks and insurers in 2021.

How we bank and how we make it sustainable is expected to cause a dramatic shift in the way we manage money moving forward: the fintech industry must seize this opportunity and capitalise on these emerging innovative business models. **TFT**

About Danielle Bistacchi  
Danielle Bistacchi is a sustainability consultant at Design Portfolio, a specialist communications agency which advises on strategic direction, creates engaging narratives and ensures that each client's story is told consistently. Danielle has worked with a wide range of companies over the years to help them change their mindset and realise the powerful impact they can have in creating positive societal changes and developing healthy environments.

Danielle's unique experience working directly for FTSE 100 companies and as a consultant, means



she is able to offer clients practical and helpful advice to overcome corporate hurdles experienced in developing their sustainability message. Danielle helps companies identify, break down and manage complex environmental, social and governance issues, understand what is material to them, and showcase their sustainability story in a vibrant and dynamic way.



# The Changing Payments Landscape in Asia Pacific

*In Asia Pacific non-cash payment transactions are growing faster than anywhere else in the world, with this growth comes innovation*

**Marcus Hughes**, Head of Strategic Business Development at Bottomline Technologies

**M**uch like the rest of the world, the payments landscape in Asia Pacific is a fast-changing environment. The region has more than 60 per cent of the world's population and in payment terms, its non-cash payment transactions are growing at more than 30 per cent a year. That's faster than anywhere else in the world.

The scale and pace of economic growth in the Asia-Pacific region are impressive.

According to McKinsey's *Global Payments Report*, Asia Pacific is the growth engine of the recent 11 per cent increase in global payment revenues and constitutes almost half of the value.

Marcus Hughes, head of strategic business development at Bottomline Technologies, visited Australia, Singapore, Hong Kong and China to explore this fast-growing regional payment landscape in more detail. "All these countries are exciting and for different reasons," comments Hughes. "It's a centre of innovation in payments, creating a new generation of digital banks and payment institutions."

One thing that stands out is how the introduction of the new rules and payment systems is reflected in already-established schemes and innovations in the UK. Given the rise of fintechs, the adoption of real-time payments and the introduction of Open Banking, there are many parallels

with the rapidly-changing payments landscape of the UK market.

## **The adoption of Open Banking**

Although Open Banking initiatives across the Asia-Pacific region are fragmented and at different points of evolution, they are all heading in a similar direction of travel. Many Asia Pacific countries already have some form of application programming interfaces (APIs) in place, but in most cases, these schemes are unregulated and without common API standards. For this reason, the Asia-Pacific region is attractive for UK technology companies. Being able to export our expertise in Open Banking and real-time payments from the UK to countries, such as Australia, Hong Kong and Singapore, offers exciting opportunities.

However, it's not just a matter of replicating the UK and European tactics elsewhere. Instead, Asia Pacific countries are developing their own approach to

Open Banking, reflecting their markets and policy objectives, and in some cases developing cross-industry strategies beyond financial services, like in Australia.

Hughes goes on to suggest that Open Banking initiatives fall into two broad categories: market-driven and regulatory-driven. In some countries, such as Australia, Open Banking is driven by the government to increase competition within a regulatory framework. In other parts of Asia Pacific, such as Singapore, Open Banking is primarily driven by banks and fintechs that want to remain competitive or grow market share. And this is backed by gentle encouragement from the regulators, but not new regulations.

## ■ **Looking at market-driven countries:**

India, Japan and Singapore do not currently have formal or compulsory Open Banking regulations. But their policymakers are

introducing a range of measures to promote data sharing in banking

■ **Looking at regulatory-driven initiatives:** Outside the EU, two jurisdictions have opted for a regulatory-driven approach and framework: Hong Kong and Australia

Australia's Open Banking API standards are based mainly on the UK model. But in several other ways, Australia's Open Banking programme stands out for its innovative approach and ambition, compared to other countries. Australia's new Consumer Data Right (CDR) legislation gives consumers the right to access and control data held by service providers. CDR improves the customer's ability to compare and switch between products and services and encourages greater competition between service providers.

An important feature of CDR is that it is a data policy initiative, and not purely a financial services regulation. Banking is the first industry to come under CDR, but in due course, the regulation will extend across the energy and telecommunications sectors.

### Real-time payments in Asia Pacific

The same goes for real-time payments processing, which also differs across the region. Australia launched its New Payment Platform (NPP) in February 2018. To date 85 banks, credit unions, building societies and fintechs are connected to the NPP, either directly (13 in total), or indirectly for the remainder. NPP made a slow start but processed 1.1 million transactions (at AUD\$1.1billion) per day in November. Adoption has therefore been way faster than the UK's Faster Payments Service (introduced 10 years earlier) or any other real-time payment system around the world.

Australia also has four times as many banks connected to NPP compared to the 20 banks using Singapore's real-time payments system, known as FAST. Running since 2014, adoption by banks has been low, partly because the many foreign wholesale banks in Singapore do not provide Singapore dollar retail payment services and have therefore not been candidates for FAST until recently. But with the transaction limit for this payment system now being SGD\$200,000, this should encourage greater use for B2B payments. Furthermore, Singapore is about to allow a new generation of non-bank payment institutions to access FAST, without needing to hold an account at the central bank. These changes are likely to drive further growth in FAST membership.

Turning to Hong Kong, its Faster Payment System was launched in September 2018 and is available 24/7 for payments in both Renminbi and Hong Kong Dollars. Payments are made using the beneficiary's phone number, email or QR code, as well as their name, account number and bank code. All banks and e-wallet operators in Hong Kong can participate in the FPS. Processing payments in real time has already attracted 38 banks and 11 stored-value facilities

(non-bank payment institutions, such as Alipay, WeChat Pay and Octopus). Although the statistics indicate that real-time payments are gaining traction, it is curious to note that usage of cash is still increasing in Hong Kong.

### China in comparison

A large and complex market, China is not as open as many other markets in Asia Pacific. That said, it's too big and fast-moving to be ignored. At present, China has a clear preference to avoid using the SWIFT network for its payments systems and, unsurprisingly, has created Chinese controlled payment systems on proprietary networks not only for Renminbi globally but also for payments in major foreign currencies within China. Interestingly, ISO 20022 is already widely used in Chinese payments systems, due to the ability to use Mandarin characters which do not work on MT FIN messages. This use puts China ahead of most of the world, which is only now embarking on an ambitious ISO 20022 migration programme between 2020 to 2025.

China is beginning to adopt cloud technologies, but these are generally concentrated on bank-owned private 'fintech subsidiary' clouds, always within China, limiting the ability of independent fintech providers to provide cloud-based solutions from outside China.

China is beginning to adopt cloud technologies, but these are generally concentrated on bank-owned private 'fintech subsidiary' clouds, always within China, limiting the ability of independent fintech providers to provide cloud-based solutions from outside China

China's two mobile payment giants, Alipay and WeChat Pay, have leapfrogged credit and debit cards, outstripping Western rivals in terms of integration with ecosystems, technology, user-friendliness, number of users and ubiquity. To put its scale into perspective, each organisation handles more payments in a single month than PayPal does in an entire year.

### Comparing new and challenger banks

In 2019, the Monetary Authority of Singapore (MAS) invited applications for new digital bank licences. Its objective is to ensure that Singapore's banking sector continues to be resilient, competitive and vibrant.

These new digital banks will operate alongside other digital banks which incumbent Singaporean banks are already

creating under the MAS' existing regulatory framework. Singapore's digital banking plans have already prompted collaboration discussions between traditional banks and non-bank newcomers.

When asked how these new banks compare with UK challenger banks, Hughes highlights a few unique features of digital banks in Asia Pacific, compared with those in the UK. Unlike the UK, large technology platforms and telco giants back many digital banks in Asia Pacific and the Chinese tech payment giants Alipay and Tencent have created new digital banks in China and Hong Kong, with plans to expand into Singapore.

He goes on to say that, much like the UK, the influx of digital banks has created much pressure on the incumbent, traditional banks to keep their service offerings relevant and evolve to the demands of a tech-savvy customer base.

While digital banks, known as neobanks, are growing in Australia, their banking sector is still dominated by the 'big four banks', which enjoy 85 per cent of the local market, leaving minimal choice regarding banking alternatives. Both the Australian government and consumers have been vocal about the need for more competition and innovation in the Australian banking sector. As such, we're beginning to see the emergence of a growing number of new neobanks, banks and non-bank fintechs, replicating the challenger bank situation in the UK.

### Great rivals: Hong Kong vs. Singapore

Like Hong Kong, Singapore offers a transparent common law legal system, low levels of corruption, and a low tax and business-friendly environment. Hong Kong and Singapore's many similarities have made them rivals battling for the title of Asia's leading financial centre. Crucially, Singapore now holds advantages in terms of political stability and freedom from outside interference. In response to the unrest in Hong Kong, many investors have shifted billions of dollars from Hong Kong to Singapore to reduce their risk exposure.

But Singapore is not just useful as a hedge against risk in Hong Kong. Instead, one can argue that Singapore – already enjoying a leadership role in Asia Pacific – is closer than Hong Kong to future growth opportunities. Although Hong Kong provides access to China, Singapore is well-positioned as a springboard for accessing the rest of Asia Pacific as a whole.

### Other parallels to the UK

The payments industry's migration to ISO 20022 is a significant initiative in Asia Pacific, just as it is in other regions. The opportunity in Asia Pacific is complicated by its geographical scale and by the modest size of most of its banks, with the obvious exception of the Chinese giant commercial banks. This means there is often a lack of understanding of what is required and

what are the deadlines. Bottomline has excellent experience in ISO 20022 migrations, having worked efficiently through the challenging adoption of the single euro payments area (SEPA) and the more recent migration to ISO 20022 for domestic payment systems in Switzerland, now over a year ago. So, we are well-placed to help Asia Pacific banks and corporates with this migration. The adoption of this new international messaging standard will bring many benefits: the new standard carries richer data than many older payment formats, and therefore makes anti-money laundering compliance and payment reconciliation considerably easier.

"I was struck by the growing convergence in the way businesses there pay and get paid, compared with the UK," says Hughes. "This trend spans hot topics, such as real-time payments, Open Banking, the emergence of digital banks and the adoption of ISO 20022. Each country I visited in Asia Pacific is creating its own particular flavour for these initiatives."

Hughes adds that although the digital transformation is not as well coordinated across the region as it could be, the resultant payments landscape across Asia Pacific is likely to become much more homogenous than the disparate payment systems that are currently in place. He says: "It certainly is an area of exciting opportunity!" **TFI**

## AT A GLANCE

**WHO WE ARE:** Serving hundreds of customers across 20 countries in the Asia Pacific region, Bottomline delivers cloud-based solutions to help businesses and banks pay and get paid, and manage their financial documents more efficiently. We have a presence in the highest-profile countries: Australia, Singapore, Malaysia, Indonesia, Thailand and China.

**COMPANY:** Bottomline Technologies

**CATEGORY:** Business payments technology

**FOUNDED:** 1989

**HEADQUARTERS:** New Hampshire, USA

**ACTIVE IN:** North America, UK, Australia, Switzerland, Germany, France, Singapore

**CONTACT:** +1 603 436 0700

**WEBSITE:** [www.bottomline.com](http://www.bottomline.com)

**LINKEDIN:** [www.linkedin.com/company/bottomline-technologies](http://www.linkedin.com/company/bottomline-technologies)

**TWITTER:** @bottomlinetech



# Accelerating innovation in financial services

## Is Faster Payments doing enough?

*Can we really tick competition achieved in UK real-time payments?*

**Ryan Jackson**, Head of UK High Growth at Form3



A foundation has been laid and now is the time to double down to accelerate innovation.

The concept of real-time payment processing both from an operational and cost advantage is big news yet only 36 per cent of all electronic payments in the UK are now via the Faster Payments Service (FPS). One could argue that FPS has fundamentally changed the nature of payments, user experience and the real economy. But in reality, the race to real time has been slow and steady rather than a gold rush.

There are daily reminders of the great business innovations made possible by FPS, such as ordering and paying for your daily decaf latte before you get to the café, receiving real-time payments as part of the gig economy or adding funds to your teenagers' pre-paid card. How many more ideas could be realised from those

little life-enhancers to huge game-changers, if it was easier for innovators to access FPS.

In a June 2019 report, Accenture summarised the aims of FPS as 'boosting speed, competition and innovation in UK payments' and concluded that it has 'delivered on every count'. But that risks sounding like job done. As if we've reached our destination, when really the journey has only just begun.

**The need for speed:** near-instant payments and the 'always-on consumer' sound like perfect partners. Previously, consumers would expect payments to take up to three days to process. Today, a transaction is expected to be instantaneous, ubiquitous and convenient on any device. Likewise, businesses want and expect the same instant service and not have to wait until the next day or worse for funds to appear.

Given that 36 per cent of all electronic payments in the UK are now in real time via FPS, why are the other 64 per cent going much more slowly? There is evidence that suggests financial institutions are now getting closer towards real-time payment processing; in January 2020, Faster Payments service volumes (223 million) outstripped Bacs credits (171 million) and it seems the trend in Faster Payments adoption continues on an upwards trajectory.

Looking ahead, what is the next, big innovation milestone in the payments landscape?

**Boosting competition:** With a potential UK pool of more than 3,000 regulated entities, is 36 directly connected FPS participants (only 10 of those are non-banks) enough to tick the competition box just yet? And, do potential indirect participants have the optimum variety of potential agency banks to choose from? Perhaps the reason behind the sluggish gold rush of becoming direct

participants is that the new breed of indirect real-time service providers offer few downsides in terms of speed and a good deal of upsides in terms of cost.

**Empowering innovation:** FPS's New Access Model of 2016 set out to level the playing field for the provision of technology for access between the 'usual suspects' and the 'bright young things' by creating an aggregator model. This model enables accredited tech vendors to offer payment service providers (PSPs) more ways of accessing FPS. But, even when the vendor's end-to-end solution is the same platform for each new participant (the very definition of multi-tenant aggregation), FPS Scheme Rules require that each new participant is re-audited with every application resulting in an attestation process that takes weeks or months. Could we not simplify the process of onboarding and empower innovation by reducing admin and cost of services that are already live and proven?

Furthermore, having a clearer and more predictable view of the long-term plan for FPS would help aggregators to make longer-term plans and investments for their customers.

The most significant growth in the uptake of FPS, and the most exciting innovation in leveraging the UK faster payment rails, has been in the past three years since challenger banks and non-bank regulated financial organisations were allowed to get on board.

To drive future innovation that has far reaching impact on the real economy, we need to all work harder to speed up the route to market for potentially great new business to business (B2B), business to consumer (B2C) and consumer to consumer (C2C) business models to access real-time payments. And that means giving more of the forward-thinking companies easy,

flexible and cost-effective access to Faster Payments. Let's begin by removing the barriers around technical access and easing the legislation around clearing, settlement and liquidity.

Looking ahead, what is the next, big innovation milestone in the payments landscape? Most likely it is the introduction of New Payments Architecture (NPA) which promises a more rapid adoption of real-time payments and richer payments data sets, insights and automation all served up through simple, secure and accessible application programming interface (APIs).

Whatever comes next, one thing is certain, business as usual just isn't enough. **FF**

# FORM3

## FINANCIAL CLOUD

Form3 is committed to making payments faster, easier and more cost effective so our customers can focus on driving innovation and delivering new propositions faster. As the market leading provider of cloud-native, real-time payment technology, Form3 offers the widest and most flexible range of FPS access solutions – as well as simple access to a growing universe of UK, European and international payment schemes – via a single, reliable and secure API. Our community of loyal customers includes Ebury, N26 and PPS.

# 3S MONEY CLUB: A challenger bank actually making money

TFT chats to **Ivan Zhiznevskiy** and **Andrei Dikouchine**, founders of 3S Money Club – one of the best-kept secrets of Barclays' Rise

**C**hallenger banks are old news now. The first wave paved the road to new ones, who can grow more quickly and cost efficiently by mixing and matching bits of existing infrastructure.

Without the need to invest in unproven tech, newcomers can shift focus to market needs and make money. Which is significant in a new, more demanding post-WeWork startup reality.

## What made you start 3S Money Club?

We saw gaps in business banking while running our other more mature ventures. When talking to high street banks we realised that they couldn't understand businesses. They don't get fintech or cross-border activities. And if anything falls outside of their box-ticking process you get rejected.

## What are the main problems that high street banks can't solve?

There are two major problems. First, high street banks are either focused on very large PLCs, or are happy to run with some very simple domestic business activities. When it comes to something slightly more complex, they don't have the resources or the knowledge to assess those businesses.

Second, their business banking functionality is quite limited. Even a small fund like us had to use two banks! Why should a small business with five employees need to do that, and worry about liquidity management?

## What have you built?

Firstly, we see business banking as a relationship business with technology at its core. We marry the best tech solutions with an intelligent human approach.

The main problem of scaling in banking is

know-your-customer (KYC); it is a very complicated procedure. Nik Storonsky, a former Credit Suisse trader and the founder & CEO at Revolut, once said that all KYC will be AI-driven in two years' time. That was two years ago, and it's still not the case, not even in business to consumer (B2C). Our KYC professionals 'X-ray' each new client. It's inefficient, some might say. But, what we can do – very few can. We ask intelligent questions. And our clients don't mind answering these for as long as it makes sense. In fact, business banking clients often need someone to talk to them. When you talk to people, you can really solve their issues. Clients appreciate that, they want this experience.

Secondly, we have accumulated a vast amount of expertise in tech, payment methods, and we keep learning more every day. As traditional payment rails are being replaced at the local level with things, such as Faster Pay, someone needs to have the knowledge of how to charter payments from one country to another.

Equally important is to support clients in investigating why things went wrong. And, as anyone with global payment experience would attest, things do go wrong as wires bounce. We look at each case, fix it and tell clients what to improve in processes on their end. Again, huge appreciation from clients for this approach. That's 3S Money Club, a relationship, and knowledge-based business. Business banking with a human touch.

## What is your solution?

We support businesses with cross border activities. Many clients, by the time they come to us are already banking with three or four banks! It's 2020, and still, one bank was not enough to



We see business banking as a relationship business with technology at its core.

we marry the best tech solutions with an intelligent human approach

support cross border activities. It's madness. One bank can pay to China but can't accept money from China. The other one can transfer to India but can't accept US dollars. Cross border businesses use different payment channels and different distribution channels. Even moving funds between your own accounts at different banks may trip an anti-money laundering (AML) check and cause a hold-up.

We are the new digital merchant bank to service them. We can bring all these channels together and combine all these accounts into one on the 3S Money platform. With one account, you can get different sets of bank details that you can use for your business. A business that banks with us can

provide their clients with the bank details that are easy for the client to pay into in the country and currency they want.

## Could you describe a use case?

You can set different bank details to suit your clients' needs. As an example, a UK business sells goods in Russia. The clients in Russia need to pay in local currency without international payment fees. What is the usual way? The business would need to open a Russian entity, a Russian bank account, hire the accountant and a director in Russia, and create this incredibly complicated, and expensive structure – all just to be able to trade with that market. Using the 3S Money Club platform this UK business can easily share

the Russian bank details with their clients to receive money. Once the money has arrived, this business can easily transfer funds to their GBP bank account to pay their UK employees, or to their Euro bank account to pay suppliers in Germany. All within one platform. It's a seamless journey for everyone.

## Where does the human approach come in?

The 3S Money Club's onboarding process is driven by humans and it's designed differently compared to any other bank. The first thing a high street bank usually asks for is a passport. That's the risk model they act upon. If you have a foreign passport, and your business trades internationally, this will most likely lead to a lot of waiting, no one talking to you and then, quite likely, they won't open an account anyway.

We ask for business accounts and bank statements. We base our assessment on the company's business activities, not the nationality of the owner, or countries they trade with.

## Why won't high street banks do it?

High street banks closed their doors to international businesses for a reason. There is a lot of money laundering going on out there. It's a real problem. They just don't have the resources to assess medium-sized international businesses, so they don't risk it.

## Why do you focus on mid-sized businesses?

Large businesses are well-staffed and work with big banks. Small businesses are sufficiently covered by the first wave of challenger banks while transaction volumes are low.

Mid-sized international businesses are currently underserved. Try transferring £20,000 to a

Revolut bank account! It will sit there for weeks until that chatbot finally gets you on the phone with a human who will tell you that this transaction is blocked somewhere higher up the food chain. They just don't have the KYC resources and they can't serve these business clients. This used to force mid-sized businesses to pay for multiple banking relationships, create subsidiaries in different countries to get access to new markets. That's where we come in.

## Aren't all companies becoming global these days?

Yes, that's the trend, all trade is now becoming global. A study shows that more than 40 per cent of SMEs considered starting trading internationally but gave up because it's too complicated and too expensive! We are on a mission to change this.

It's the 21st century! You don't need to create a business branch in a foreign country just because you need a local bank account. With 3S Money Club, you don't have to establish different relationships with different banks. You can have all the functionality in one platform. We are an aggregator: you don't need several contracts with all those banks. You just need to have an account with us and get the benefits of all international bank accounts connected through our platform.

## Where do you see yourselves in five years?

In one year, we will start lending money to businesses. In five years, we will be coming after HSBC. We are building a business to business 'HSBC' cross border. With a human touch. **TFT**

# Money in the 'bank' for all

*BankiFi's Mark Hartley on helping businesses get paid quicker while saving time and money in chasing late payments*

**A**ll of my professional life has circled around pragmatic problem solving of real needs. Not innovation for innovation sake, but innovation with a purpose to solve the real problems that people and businesses experience in their world and words. One such problem is late payments. It is a problem that has probably 'always' been around and that we have found hard to solve as an industry and society.

However, my passion for the subject has never waned and, in these two pages, I am going to try to articulate why very pragmatic innovation can solve this problem. One does not have to turn the world upside down to have massive, relevant and fast impact. Often the secret lies in taking a step back and looking differently at what you already invested in and build a use case around that. Open banking, instant payments – all good stuff 'waiting' for use cases with a return. Remember: massive, relevant, fast!

For many years the issue of 'late payments' has been a sore topic to say the least for business and the economy at large. There is no need to emphasise this point, we all know how late payments to businesses trickle down the entire chain funding and even survival issues in the industry. In 2019, *The Times* columnist Patrick Hosking wrote: "Late payments tip thousands of small firms into insolvency each year and ties up countless others into the time-wasting distraction of invoice-chasing." Hitachi Capital UK issued a research paper in September 2019 and calculated that late payments cost the UK SMEs some £51.5 billion a year. This is money that's due anyway and will – for a very large part – be settled; it's the lateness that causes the problem.

Part of this is strategy: pay at the last possible date (pretty useless in a zero per cent environment); part of it is cultural (from paying when the invoice hits the doormat to paying when you get three reminders) and plain hassle. The hassle of sitting down, going through the invoice, rekeying the data and having the discipline to do it on time. The best

**Mark Hartley, CEO and Founding Partner, BankiFi**

solution would be to offer something that wraps around all three of those elements: strategy, culture and hassle. Or to put it positively: comply with any agreed payment terms, follow or improve culture and make it easy.

## **BUILDING ON INVESTMENTS MADE: OPEN BANKING, INSTANT PAYMENTS AND ADD A LITTLE 'MAGIC'**

We all know the draw of wanting to buy something totally new for it is 'this season' or 'the better model'. Companies from fashion and sports brands to gadgets know how to lure us into the latest and the greatest. Yet, when you take a step back and have a good rummage through the 'closets' or garage, you appreciate that really, you don't need anything new. Something savvy and smart might lift it into a totally new lease of life. Much of this applies too to innovation; making the most of what you've already invested in is not what large systems vendors or disruptive fintechs will advise you to do, but it surely is good innovation practice. Build on what you've got, with the premise of course that the fundamentals are open to innovation and not a closed single 'bastion'.

Banks have invested formidably in open banking by creating open application programme interface (API) infrastructures ready to share data for and on behalf of their customers with a number of relevant parties: fintechs that reside in their appstore, but also accounting packages, financial planning tools and other departments inside the bank that run lending or investment advice. After the initial – what my business partner calls the 'happy appy' stage – banks are increasingly aware that it is the business customer that needs and deserves their attention. Fintechs are aiming at this underserved market segment with lean point solutions that each in their own right make a lot of sense but do not solve the problem of the entrepreneur: saving time and making admin less of a hassle from end to end.

Turning late payments into on-time payments is one thing, but with instant payments on the menu, we can make instant business payments the 'new norm'. An overlay RTP scheme, where you have to win two sides over to a sign-up is not needed to achieve this. Simply follow the payers in using what they already use, offering what works for them.

## **WHAT WORKS? MAKE IT WORK BETTER – FOR BOTH**

Neo banks in the UK are embracing the business customer and this issue of collecting monies. In Europe too, initiatives around the late payments issue

are emerging, each with their own focus and approach: MobilePay in Denmark, Vipps Faktura in Norway, Swish in Finland and Tikkie (by ABN AMRO) in the Netherlands. At peak moments ABN AMRO processes 350 Tikkies per minute, it is easy, fun and deployed through a communication channel friends use: WhatsApp. It is free for consumers, a paid service for business customers. On the business side Tikkie had around 4,000 customers about one year ago, all on the same principle, making payments easy and 'fun'. The consumer success though outshines the business result today.

So, what could it possibly take to let request to pay also really 'explode' on the business side? In my opinion: build on this great idea with a lot of relevance for the business customer besides 'ease'. Relevance to a business owner is really a two-pronged fork: does it save me time, or does it save me money? And preferably both, for those elements will lead to him or her being able to pay more attention to their core existence: doing their job.

## **SAVING TIME AND MONEY**

What can existing banks and payment service providers do today to include request to pay relevance in their offering – along – or inside the existing brand? Imagine having a request to pay solution whereby the trader can send an invoice with the payment request for full or partial payment. The bank sends it on his behalf and collects the money, puts in the desired (virtual) account and alerts the payee that the money is in. The bank can go further and set aside the taxes due in that amount and run an easy bookkeeping service in their bank channel too. This reconciliation as we paytech gurus call it, or 'running between bank app, bookkeeping and invoices matching up monies in and outstanding' as businesses experience it, is the most valuable and sticky service a bank can offer. 'We bring down your late payments', now that is 'a bank that puts my needs first'.

Banks do not have to invest in grand new schemes to be able to do this. They will reuse the investment they made in open banking – ah, yes, the customer can therefore also pay from a non-sender bank account. They re-use the investment made in instant payments by clearing and settling in real time, getting higher volumes going through an existing 'pipe'.

## **GOING WAY BEYOND REQUEST TO PAY**

Creating relevance for the business users in a banking world is superbly important as those business owners are the true backbone of our society; the taxpayers and employers that keep the economy turning, not to mention the value of their services we need and use every day. In good times they build and expand, in bad

**BANK**



times they need time and capital to tie them over. All the time they need focus on their business and a partner that offers them insights that are useful at the right moment and in the right context. What I am describing here is a far cry from the traditional credit registers that search through their past looking for 'signs and sins'. Credit history matters but what matters much more is the current state of a business: how many active customers, how fast do they pay, how many recurring customers. A request to pay business solution gives the bank and the customer exactly that. You see the flow coming in, going out, there is an active dialogue on the back of an invoice between the seller and the buyer. With those instant insights, banks can offer funding for a few days or weeks in any way they see fit for that particular customer and so prevent him or her from wandering around in an app jungle of lenders and risk losing the relationship.

Businesses will get a higher and faster return on their invoices for they can offer the invoice and the request through any channel a customer likes: email, SMS, WhatsApp, QR code, the choice is theirs. And they can get paid by IBAN, direct debit, card. Their choice. For years banks have been trying to gauge people to the payment product of their choice (lowest cost, least risk for the bank). We are now at a point where we can save those marketing euros, dollars, pounds. Follow the customer, let them choose and collect from whichever payment instrument. Why change people's behaviour if you can follow them and get all their business?

### AH, THE 'BUT' WORD

I bet that at this point, some 'buts' have popped up in your mind. But, aren't we working on an scheme around an EBA Clearing request to pay? But, isn't PayUK doing the same? Swift, European Payments Council (EPC)? All correct, and without going into minute scheme comparisons let me tell you what banks can do, without or before joining a scheme today.

The most important element is that all of the above are indeed schemes, requiring the payer and payee bank to be part of that same scheme and demanding an 'opt-in' from payee and payer. For many payers in particular, this is often a step too far. Weary of data collection points, having too many sign ups in their life, it is an additional mental bridge, that contradicts the 'ease of experience' you want to offer to get high volumes. Also, most of the request to pay initiatives really focus on the messaging element and as such do not offer the ability to add and consolidate invoices with bookkeeping. Some are tied to a specific payment products, others are country specific or specific only to the banks in the consortium. Others, like the Swift global payment initiative (GPI) initiative is aimed at large corporates and inherently part of an existing tracker. We see encouraging overlay services like the RTP service offered by the new payments platform (NPP) in Australia or Hong Kong's Faster Payment System

(FPS). All of these are movements in the right direction, but why wait and be dependent?

You might argue that e-wallets and peer-to-peer (P2P) solutions can offer the same. True, yet tied to a payment type and merchants are typically charged around two to three to five per cent, it is not instant, and consolidation is challenging in these environments unless hard wired. The same goes for cards, one to three per cent of fees and yes cards have their benefits in terms of chargeback facilities and loyalty, insurance services. Request to pay can catch the fraud detection or prevention benefit from a card scheme by offering confirmation of payee, or IBAN name check as it is being called on the continent. And finally, Direct Debit, a payment type that has very differing ranges of acceptance across Europe. Whereas the payee here has total control, the payer has hardly any, and always in hindsight. Also, the Single European Payments Area (SEPA) regulation has made mandate management a lot more complex and as such it has really become an instrument for vital recurring mass volume payments like utilities.

Obviously, we are very aware that as and when the EPC/EBA and other industry schemes become operational, it might still be relevant for banks to join the scheme because it will widen their reach beyond their own customer base. Their customers will also be the 'buyer' in some cases and then it will be driven by the seller bank's approach. And the buyer (at another bank) might feel more confident paying through their own bank which is reached via one of the RTP schemes. In the payments race to the bottom in terms of fees and a red ocean of suppliers, banks need to differentiate themselves now, and wrap what businesses want around the payment, not make the payment the core battleground.

### IMAGINE

In times of innovation one always goes through an explosion of initiatives and point offerings before seeing the cloud literally lifting and getting a clear view on what is there to stay and what is not. Banks and payments service providers are there to stay. Apps will try to get at the business segment revenue, for they too have found out that consumers are fickle and not ready to pay for what they perceive to be their 'right'. 'Swishes' and 'Tikkies' will hopefully thrive and add real relevant business stuff. Single request to pay solutions sound attractive but businesses do not want to add business partners, they want fewer. SME-focused neo banks are doing very relevant things and those are the ones to watch.

Yet banks have the ability to rise above all of that and embed these services in their own bank channel to keep the sticky and bi-side profitable relationship with their customers. They have the volume customers and the trust and are demonstrating today that in tough times they might be the solution rather than the cause for entrepreneurs. Any large biller can get a licence and take the relationship away from the bank and just use them as a 'settlement and clearing' account. I am not a horror movie fan, but it is a scenario that must be considered over and beyond the friendly version of 'who might disrupt our business and where'?

### LET'S GET MOVING

By utilising the trust element that is still very much alive today, most banks can create business-centric request to pay services for themselves with a bit of additional cloud-based tech. For banks are the trusted party and the label businesses have a connection with. Schemes, payment types, and even request to pay are words that are part of 'our world', no one else cares. Businesses care about saving money and time, happy customers and money in the 'bank'. Being able to talk and deliver that trust element, banks build sticky relationships with their business customers who in turn have an easy, relevant dialogue with their clients and money in the bank. With massive impact, relevant and fast. **TFT**

### AT A GLANCE



Mark Hartley

**WHO WE ARE** Before founding BankiFi, Mark Hartley has held a wide range of general management, sales, innovation and strategy roles in the technology industry for the financial services segment since the early 1990s in the APAC region and Europe, most recently at Clear2Pay and FIS. His vision around open payments lead to the creation of the Open Payment Hub, the 'stable' product that lead to the acquisition of the company in 2014 by FIS. A renowned innovator and thought leader on the subject of payments & open banking, he served until mid 2019 as advisor to the board of Nationwide Building Society.

**COMPANY:** BankiFi

**FOUNDED:** 2018

**CATEGORY:** Technology provider to banks

**KEY PERSONNEL:** Founding partners Mark Hartley (above) and Conny Dorrestijn

**HEAD OFFICE:** Manchester, UK

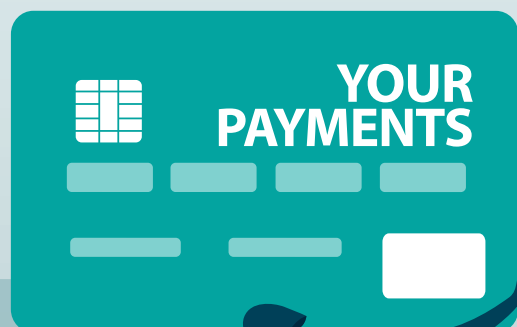
**ACTIVE IN:** Global

**WEBSITE:** [www.bankifi.com](http://www.bankifi.com)

**LINKEDIN:** [www.linkedin.com/company/bankifi/](https://www.linkedin.com/company/bankifi/)

**TWITTER:** @Bankifi\_global

# BANKiFi



# The ethics of AI

*Addressing artificial intelligence in the financial services sector: grand opportunities and great challenges*

**Robin Jose, CTO, Scorable**

**A**rtificial intelligence (AI) has been finding its way into the financial services industry for some time, and there's no denying that the technology offers immeasurable benefits. AI can increase efficiency, optimise processes, reduce costs and enrich the customer experience. Possible applications range from customer service and marketing to asset management, portfolio management, treasury and securities trading.

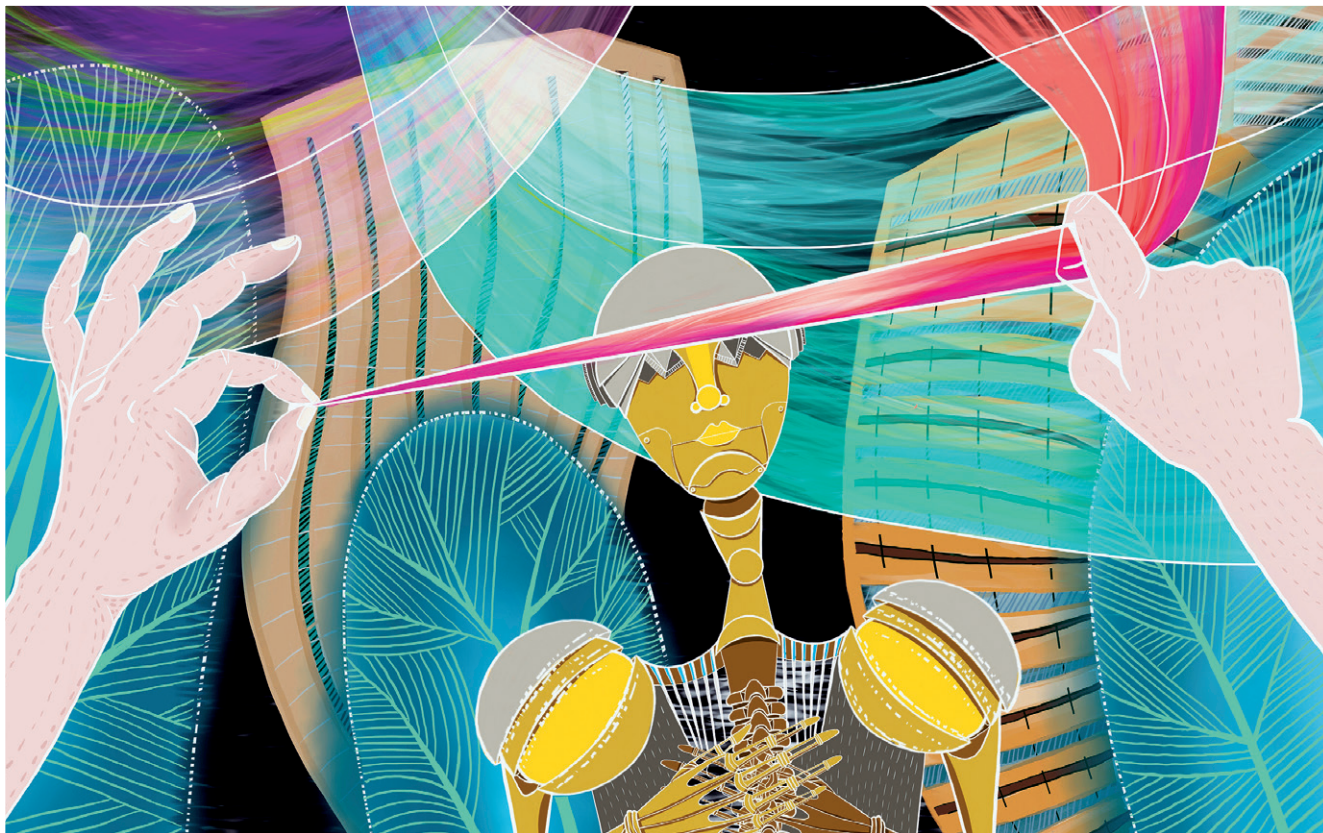
In areas such as fraud detection, risk management, credit rating and wealth advisory, AI is already augmenting or even replacing human decision-makers. In fact, not deploying AI capabilities in these fields can be considered disastrous. With the ever-increasing amounts of data that needs to be processed, AI systems are a must-have to improve accuracy.

As technological capabilities continue to improve, the amount of available data grows, and competitive pressures mount, the use of AI in finance will be pervasive. However, as with any new technology the adoption of AI brings its very own set of challenges. There are a number of concerns often cited by regulators, customers and experts which can be grouped into the following categories:

**Bias**

**Accountability**

**Transparency**



## Where does AI bias come from and how can we resolve it?

An AI model is biased when it takes decisions that can be considered as prejudiced against certain segments of the population. One might think that these are rare occurrences – as machines should be less 'judgmental' than humans – but unfortunately, they are not. And AI failures can happen to even some of the largest companies in the world. In November 2019, Apple attracted a lot of unwanted (social) media attention when David Heinemeier Hansson, creator of the programming tool Ruby on Rails, accused them on Twitter of gender discrimination. He and his wife had applied for Apple credit cards together and he received a credit limit 20 times higher than his wife, despite the fact that they file joint taxes and she had a better credit score. When they approached Apple, the company couldn't pinpoint the issues driving this result – a clear lack of understanding how the algorithm makes decisions. The financial regulator launched an investigation

into Goldman Sachs, who runs the Apple card.

How do these biases happen? One reason why algorithms go rogue is that the problem is framed incorrectly. For instance, if an AI system calculating the creditworthiness of a customer is tasked to optimise profits, it could soon get into predatory behaviour and look for people with low credit scores to sell subprime loans. This may be frowned upon by society and considered unethical, but the AI does not understand such nuances.

Another reason for unintended bias can be the lack of social awareness: the data fed into the system already contains the biases and prejudice that manifests the social system. The machine neither understands these biases nor can it consider removing them, it just tries to optimise the model for the biases in the system.

Finally, the data itself may not be a good representative sample. When there are low samples from certain minority segments, and some of these data points turn out to be bad, the

algorithms could make some sweeping generalisations based on the limited data it has. This is not unlike any human decisions influenced by availability heuristics.

## The AI accountability challenge

Another challenge with regard to AI usage is the question of who is responsible if AI makes a wrong decision. If a self-driving car causes an accident, should it be the fault of the owner who didn't maintain the car correctly, or didn't react when the algorithm made a bad call? Or is it purely an algorithmic issue? What about our previous example of predatory pricing: within which time frame is the firm employing this algorithm supposed to know that something is amiss and should fix it? And to what extent are they responsible for the damages?

These are very important regulatory and ethical issues which need to be addressed. There are risks related to the technology which need to be carefully managed, especially when consumers are affected. This is why it's important to employ the

concept of algorithmic accountability, which revolves around the central tenet that the operators of the algorithm should put in place sufficient controls to make sure the algorithm performs as expected.

## The lack of transparency

An issue often cited when it comes to AI is that many algorithms suffer from a lack of transparency and interpretability, making it difficult to identify how and why they come to particular conclusions. As a result, it can be challenging to identify model bias or discriminatory behaviour. It's fair to say that the lack of transparency and the prevalence of black box models is the underlying cause for the two challenges outlined above.

## Explainable AI can be a game changer

For financial institutions, it is clear that guidelines need to be put in place to help avoid bias, ensure safety and privacy, and to make the technology accountable and explainable. AI doesn't have to be a black box – there are ways to make it more intuitive to humans, such as Explainable AI (XAI).

XAI is a broad term which covers systems and tools to increase the transparency of the AI decision-making process to humans. The major benefit of this approach is that it provides insights into the data, variables and decision points used to make a recommendation. Since 2017, a lot of effort has been put into XAI to solve the black box problem. DARPA has been a pioneer in the effort to create systems which facilitate XAI and it has since gained industry wide as well as academic interest. In the past year, we have seen significant increase in the adoption of XAI, with Google, Microsoft and other large technology players starting to create such systems.

There are still challenges to XAI. The technology is still nascent. And there are concerns that explainability compromises accuracy, or that adopting XAI compromises the intellectual property protection. However, the success of AI will depend on our ability to create trust in the technology and to drive acceptance among users, customers and the broader public. XAI can be a game changer as it will help increase transparency and overcome many of the hurdles that currently prevent its adoption. **IFTI**

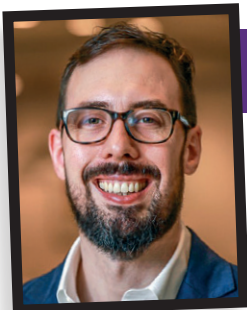
About Robin Jose  
Berlin-based Robin is a writer, speaker and recognised expert in the field of AI. Currently CTO at Scorable ([www.scorable.com](http://www.scorable.com)), a fintech that uses AI to predict credit risk of fixed income securities. Prior to this, he worked as Chief Analytics Officer in wefox and leadership roles in large corporations, including Siemens and Cisco.





# AI: The promise and peril

*Understanding the potential, possibilities and boundaries of artificial intelligence in finance*



**Tom Bull, UK FinTech Sector Leader at EY**

**If there's one area that excites more conversation with our clients than any other**

**recently, it's artificial intelligence (AI). With ever larger volumes of data available, amazing increases in the availability of computing power and demand from customers for more personalised experiences, the case for investing in AI to respond to these trends seems obvious.**

But at the same time our personal experiences can often feel less 'intelligent' than we would like, from product recommendations that miss the mark, to repeatedly providing the same data into our 'smart' phones, or to struggling to hunt down information quickly. And what are we to make of concerns around bias, either in input data or in AI itself, or that by adding AI and its consequent complexity to business processes, we risk losing control. The picture is therefore a confusing one; while there is huge promise around some obvious progress, there remain some major questions.

To understand more, we recently teamed up with Cambridge Centre for Alternative Finance and World Economic Forum to support global research on this topic. This led to the development of *Transforming Paradigms*, a report covering data from 151 financial services firms globally, including a mix of financial institutions and fintechs.

Views on the future importance of AI are very clear, with 77 per cent of all respondents anticipating AI to possess high or very high overall importance to their businesses within two years. And this use appears set to be widespread within firms, as 64 per cent of surveyed respondents anticipate employing AI in all of the following categories – generating new revenue potential through new products and processes, process automation, risk management, customer service and client acquisition – within this time frame.

The current state of adoption is a much more mixed picture, with fintechs currently leading financial institutions in the adoption of AI. The biggest gap between the two groups is in the use of AI for risk management, with 56 per cent of fintechs having implemented this compared with 43 per cent of financial institutions. Cloud is a major enabler for fintechs, with 88 per cent of firms using cloud-based solutions to train and run AI systems compared with 62 per cent of financial institutions. According to ambitions stated in the survey, the adoption is expected to close, with 90 per cent of all firms expecting to have adopted AI across most of the given categories in the next two years.

The current impact of AI on the investment management market and the potential for further gains show that respondents are optimistic about future impact. AI already has significant adoption within the investment processes of firms surveyed, including portfolio risk management (61 per cent), portfolio structuring (58 per cent) and asset price forecasting (55 per cent). While only 10 per cent of respondents currently perceive AI to contribute 'highly' or 'very highly' to their investment returns, this figure grows to almost 70 per cent in the long-term (five-year) outlook.

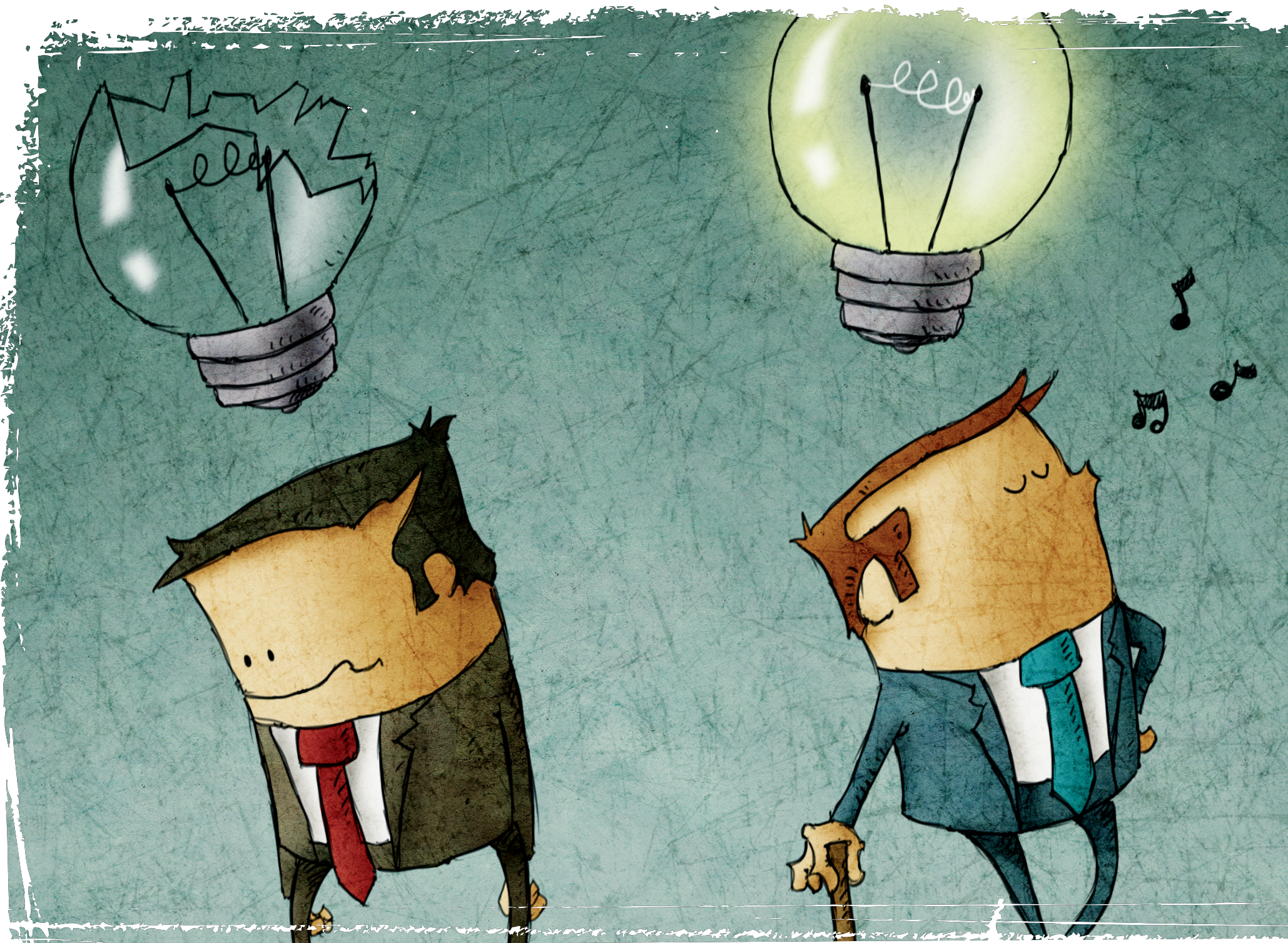
**Views on the future importance of AI are very clear, with 77 per cent of all respondents anticipating AI to possess high or very high overall importance to their businesses within two years**

Bias has been highlighted as a very real concern in the use of AI, which deserves deeper analysis than the scope of this article. It also raises questions on how free from bias our existing processes and systems are, as AI will tend to learn from historical decisions and outcomes. In fact, only 15 per cent of responses believed that bias does not currently exist, but AI-supported decision-making will create

new bias. Therefore, most respondents believe that bias already exists, with 38 per cent of the view that AI-supported decision-making will not exacerbate the basis, and 47 per cent believing it will do. However, the adoption of AI-supported decision-making presents a golden opportunity to more rigorously and critically evaluate the design of decision-making processes, embed ethical frameworks, rigour and control.

So, what is holding us back from seeing wider adoption of AI in financial services? Perhaps unsurprisingly, it's not a lack of computing power or suitable algorithms. Firms cite quality of data as the number one hurdle to the adoption of AI (91 per cent of firms), followed by access to talent (84 per cent) and access to data (82 per cent). A range of solutions are being deployed to address these challenges, including data integration platforms that connect multiple systems and platforms to support the 'citizen data scientist', business analysts who are able to use complex AI with the support of software tools.

Overall, I'm hugely optimistic for the benefits that AI can bring to the financial services industry. Recent decades have resulted in services becoming largely less personalised, as the human touch of local branch staff has been replaced by digital and mobile channels. AI provides the potential for more personalised digital services and for the human interactions we have to be more tailored, personalised and insightful. **ITF**



# Why are fintechs trying to shame incumbents into innovating?

*Banks and fintech partnerships may start from widely different positions but by trying to understand each other more, a shared purpose can be achieved*

— David Joyce, CEO UK, CREALOGIX —

**T**he relationship between finance and fintechs is unique. Unlike in other industries, such as healthcare, automotive or manufacturing, in the world of financial services, technology always seems to mean something extrinsic. Rather than being part of the operating model, constantly seeking efficiencies and competitive innovations, 'tech' seems more often stated in opposition to 'fin'. Fintech has become a word loaded with an implied culture clash. Why is this?

Looking introspectively on the tech side, there can be an element of inverted snobbery in software and IT. While we may

believe everything we are doing is new and cool, banks and wealth management firms don't necessarily view either novelty or fashion as their primary aims. In banking, stability and reliability are the essential things and these are seemingly at odds with those who want to 'move fast and break things'.

The resulting view among digital firms, that established banks or managers are 'dinosaurs', is rather widespread and doesn't help the industry at all. Seeing themselves perhaps as apostles of the cult of Silicon Valley, fintechs often act like they are preaching and teaching, not listening,

despite the usually vastly superior size and experience of the financial institutions they are working with.

It's not only the technology 'side' with prejudices. In our own business, I've seen the flip side of this culture clash: too often, financial institutions want to keep software vendors at arm's length, siloed away from other technology partners – I suppose in case they gang up and force unwanted modernisation? At the mere mention of 'mobile' or 'APIs' boardrooms can trigger defence mechanisms and hinder open communication between stakeholders.

I would argue that the solution to this is

The short-term aim is a kind of focused disruption but not necessarily a full-frontal challenge to established firms' business models. Many of them aim to integrate with incumbents or get acquired (or 'acqui-hired'). This makes type-two fintechs potential competitors but also potential partners or mergers and acquisitions (M&A) targets.

**3. Enablers** – Finally, there are the fintech enablers, the role we play at CREALOGIX, acting as tech allies for established financial brands. This is fintech which works for, not against, incumbents. Our business model is to align on shared goals to improve services for the end clients, and this is why it's such a problem if we are viewed as competitors or disruptors.

### Why are fintech enablers stumbling?

Because many fintechs actually are in direct, or potential, competition with incumbents, this can fuel misunderstanding when enabler fintechs advise established firms. A lot of the themes driving technology and innovation across the different types of fintech are the same and this can make allies sound too much like challengers.

Describing what needs improving can certainly require pointing out what is broken or out of date, i.e. things to change! Unfortunately, strident advocacy for modernisation can easily come across as 'shaming' financial services incumbents. Not surprisingly, trying to shame incumbents into innovating is not a particularly persuasive communication strategy.

This perception problem is most visible in the case of financial services for wealthy clients, i.e. wealth management and private banking. Their business models are based on trust, careful relationship management and often complex, bespoke services. In this context, heritage, stability and long-standing ways of working are all things holding intrinsic value. It's all too easy for digital natives to miss this value.

When a financial technology provider blows in, preaching that all things old need to be swept away, advocating for disruption and blindly insisting on digitalising everything – and if there's something that doesn't translate into digital, then chuck it out – can they expect a welcoming audience?

The second part of this rhetorical trap is that, in the mind of technologists, everything should be solved with technology and things solved with technology are better. The views of the people actually doing the work within established financial institutions can be very different. Experts in high-quality financial services talk about, well, the quality of the service and the expertise required to deliver it: human things, not purely technology.

Technology providers love to talk about efficiency gains, automation, and – I can picture the head of high-net worth relationship management starting the eyeroll already – artificial intelligence. This is another area where there's an

automatic resistance to the vocabulary on the part of wealth management and private banking executives. Given the critical importance of relationships and human expertise in their business model, people arguing for digitalisation can easily come across as wanting to abolish key parts of how these firms run.

So, while there are many financial technology providers whose primary mission is to support incumbents, many are failing to see how badly their messaging can get misconstrued. As a result, I believe many in banks and wealth management firms have come to see all fintechs as subversive elements. Even would-be allies seem to risk going 'against the grain' of their complex but proven business models.

### Perceptions of fintech that we need to correct

Looking at this problem from the side of the financial institutions, these two key miscommunication themes are exacerbated when technology is perceived as an outside force and not an ally. There are two false dichotomies: firstly that their established ways of working are threatened by digital initiatives, which seem to want to change everything in an indiscriminate attitude. The 'new is better' ethos of technologists always feels like a risk if your focus is stable business operations.

The second issue is more or less a fear that the jobs which are currently done by people will be automated away and that there will be no more human relationships in finance. The very term 'robo-advisory' in digital wealth management provides a good example: robots cannot replace human advisors – but it's a complete misnomer because this was not the point of the software in the first place. Anyone trying to implement robo-advisory for people who were actually seeking advice, is targeting the wrong customer. Besides, no actual robots are involved!

If intelligent, expert people in financial services can confuse algorithms with robots then it means the technology providers are failing at their job of establishing a clear and collaborative conversation about software and innovation.

### Agree on a shared focus: client experience

Done well, software design seeks insights into the first-person needs of the users and discovers what motivates them in a more holistic way than just using the tool in question. In financial services, I find this always comes back to trust: your 'job to be done' with money usually revolves around not losing your money!

This viewpoint is completely aligned with the traditional values of established financial institutions, for whom trust is the key competitive strength, hard won and carefully defended. Misapplied or poor-quality technology can certainly put that trust at risk. Any organisation is right to be cautious about changing what works.

By respecting the domain experience and expertise of incumbents, technology providers can learn to understand better how they have built trust and loyalty with their end customers, and in turn come up with higher quality software and IT solutions. This will enable both the financial institution and its fintech allies to agree on a shared purpose, so we can get away from trying to do innovation by shaming incumbents for being old-fashioned. **TFI**

## AT A GLANCE



David Joyce

### WHO WE ARE

David Joyce is CEO of CREALOGIX in the UK. David drives our vision of product innovation and champions the closely collaborative delivery approach which has been valued by our wealth management and private banking clients for more than two decades. More than 550 banks and wealth management firms worldwide are able to boost their business growth and profitability by leveraging CREALOGIX software to modernise and continuously improve their end users' digital customer experience.

**COMPANY:** CREALOGIX

**FOUNDED:** 1996

**CATEGORY:** B2B software product vendor

**KEY PERSONNEL:** David Joyce, CEO UK, CREALOGIX (above)

**HEAD OFFICE:** Zurich, Switzerland

**ACTIVE IN:** Europe & UK, Middle East, Asia Pacific.

**CONTACT:** contact-UK@crealogix.com

**WEBSITE:** crealogix.com

**LINKEDIN:** www.linkedin.com/company/crealogix

**TWITTER:** @CREALOGIX\_en



to stop fixating on these largely unavoidable differences in world view. Both sides need to recognise that we all have the same end goal: a better service for the end customer.

### Fintech: competitors or allies?

When it comes to making technology conversations less adversarial, we've found that it helps to define three main types of fintech which financial institutions are going to encounter:

- 1. Challengers** – Challengers are built as direct competitors of traditional financial institutions and seek to unbundle and disintermediate established markets. While I would argue that incumbents still need to keep an open mind about what digitally native challengers can teach them, it's certainly rational to have a defensive attitude towards this type of fintech.
- 2. Specialists** – Specialist tech providers devise purely digital solutions, looking to re-engineer specific services or features within a target industry niche.

# JOBS IN FINTECH

*The Fintech Times* selection of  
TOP fintech jobs in LONDON this month

## Chief Financial Officer at



➡ Having completed our Series A and off the back of winning a £5million grant from the RBS (BCR) Capability & Innovation Fund, we are looking for a Chief Financial Officer (CFO) to take on a career-defining role in our London based, high growth scaleup fintech.

We are a rapidly changing company with revenue of several million and highly regarded with increasing brand recognition. We have supportive private equity shareholders and a clearly defined strategy to dominate our chosen market both in the UK and internationally.

You will be a commercially minded CFO, leading a finance function with experience of guiding scaleup technology companies through growing pains and international expansion. Transaction experience is essential. You will have the gravitas and leadership qualities to act as a key member of a highly motivated management team, but also enjoy rolling your sleeves up and using detailed analysis to refine processes and drive profitability.

### THE CHALLENGES WILL BE:

- Provide systems, procedures and controls to support the continued rapid growth of the company
- Build robust reporting and monitoring systems around the unique technology solution currently in development
- Work closely with sales and operations to maximise profitability across multiple channels
- Lead Series B funding round and liaise with potential investors, legal and professional advisors
- Support international growth across several territories
- Evaluate and implement new revenue opportunities, leveraging existing customer relationships
- Ultimately, maximise shareholder value on exit within the next three to five years
- This is a fast-paced, entrepreneurial environment, and this role is unlikely to suit candidates with only large company or corporate experience

### THE GOOD STUFF!

- Competitive salary, bonus and equity participation
- Your choice of hardware (Mac or Windows)
- Flexible working
- Career development budget
- 25 holiday days (excluding bank holidays)
- Access to all workspace facilities
- Paid volunteering day
- Employee assistance and wellbeing support plan
- Free breakfast, fruit, filtered water and organic coffee!

## Account Executive - Enterprise SaaS Sales - AI/ML Identity Verification Market Leader at



➡ Want to maximise the earning potential of your enterprise sales skills? Being an Account Executive at Jumio offers unrivalled earning potential thanks to a market leading AI/ ML SaaS product and a rapidly expanding market. If Danish beer companies did sales jobs! This is a rare opportunity to sell an innovative and market-leading product that solves a core use case (digital identity) to global customers that truly need and value the solution you have. It's a chance to capitalise on a fast growth market and monetise your ambition to hunt and close business.

### YOU'LL NEED:

- Outstanding skills in identifying, pitching and closing new B2C enterprise customers
- A record of exceeding new logo revenue quotas above \$1.5million ACV for successive years
- Enjoy managing E2E direct sales processes with average deal sizes above \$100,000
- Happy to be based in our London office and to travel to clients across the UK and EMEA
- Interest in eKYC, AML/KYC and ID verification – you'll be helping to eliminate identity fraud

### YOU'LL GET:

- Uncapped commission with multiple accelerators resulting in outstanding (and achievable) earning potential
- To sell the market leading product in ID verification with clear differentiation – that makes a real difference to digital onboarding experiences
- Flexibility to sell into any vertical or geography in EMEA
- To be part of a high calibre, high performance sales team with great best practices
- A powerful range of referenceable case studies from world renowned brands
- Excellent marketing and SDR support – with 50% of new 2019 business originating as an MQL (you should want to self-gen too though!)
- Excellent technical support from our engineers
- A multi-award-winning product that covers more identities, platforms and countries with higher accuracy than any other provider on the market
- An innovative and fast growing company that retains a scrappy startup culture – every voice is heard and everyone can make a big difference
- To work in a global and social organisation with an innovative and collaborative environment
- Frequent opportunities to stroke Dexter the office dog

## Contracts Manager at



**GPS**  
global processing services

➡ Interested in a career in fintech? Want to work for a market leading company? Keen to be part of a team disrupting an entire industry?

Then join us at Global Processing Service (GPS) as a Contracts Manager. We're looking for a passionate, diligent and proactive individual to join us here.

GPS is helping to change the face of the fintech landscape by delivering industry-leading solutions to the payment and finance sectors. At the heart of our capability is our award-winning payments platform (GPS Apex), which powers some of the world's most high-profile challenger banks, disruptors and fintech innovators. When we say we're global, we mean it; the flexibility of our platform has enabled us to work with more than 100 clients, in more than 60 countries operating across 150 different currencies.

Working within our legal team you'll join an integral part of our business. You'll work closely with our UK-based sales team and be responsible for reviewing, advising and drafting commercial contracts.

### WHAT YOU'LL DO

- Manage the contract process from end-to-end
- Support the management team in the negotiation and execution of contracts
- Liaise with clients with regards to the negotiation, review, analysis and summary of legal and commercial documentation
- Resolve legal queries of varied nature relating to all aspects of the business as required
- Assist in the general legal, commercial and regulatory compliance matters as well as ensuring administration and commercial accuracy of all contracts
- Mitigate risks and liability exposure
- Assist with administrative activities as required, such as updating the business CRM salesforce

### WHAT YOU'LL HAVE

- LPC or equivalent common law certification (dual common law and civil law certification is a plus)
- Have contract manager or paralegal experience (experience in the payments industry is a plus)
- Knowledge of UK contract law
- Excellent communication skills, both oral and written in English (other languages are a plus)
- Creative, energetic, resourceful, takes initiative, self-motivated and a team player
- Proficient at using Office suite, including Word and Excel

# Focus on @ token

## Meet Nikita Septucha

Head of Technical Sales and Implementation



### Tell us a bit about Token?

In a nutshell, Token is shaping the future of banking-enabled commerce by putting a bank in every app. We provide standardised, API-based access to more than 4,000 banks across Europe; providing our customers with the ability to securely access data that consumers have consented to sharing, as well as to initiate payments directly through consumer's bank accounts. This improves payment checkout experiences and opens doors to enhanced consumer propositions based on the transactional data available to clients from consumer's banks. In addition, we help banks and other regulated financial institutions clear the decks of regulatory complexity.

### What is your role at Token?

I look after technical sales and implementation. This means I speak to our customers on a daily basis about our product and technical propositions, guiding them through our APIs and how they can be used to implement the transformational use cases open banking is powering. Every day is different, and my work is hugely varied. As well as working with our customers directly, I also work very closely with our product development teams to ensure customer feedback is incorporated into our technical roadmaps,

and that Token stays true to our customer and market-centric approach.

### What turned your head... why did you choose Token?

I wanted to join a smaller company where I have a meaningful impact. I was also fascinated by the opportunities open banking has to offer. Having worked in payments for a number of years, I can see how open banking is revolutionising the industry and with Token, I can be a central part of this movement. Not to mention our amazing team of experts, which is pretty much an endless source of motivation for me to be on top of my game.

### What do you do when you're not pioneering the future of banking?

My two young daughters occupy most of that time! Besides conquering the local playgrounds, zoos, farms and soft play centres, you'll also find me on mountain biking trails in the local woods or hiking somewhere in good weather. I am also a big motorsport fan, so if you want to talk about rallycross or touring cars – I am your man! If anyone is up for challenging me to a go-kart race, drop me a line.

### Your team is growing! Tell us a bit about why and the exciting times ahead.

With open banking now truly open for business, Token is seeing unprecedented demand from our existing customers as well as business in new sectors that want to leverage its potential, so this is a natural stage of growth for us. The future is very

exciting! Open banking is maturing in Europe, which means we will need to cover more customers and use cases, hence the need to grow our technical sales and implementation teams, and bolster our team of open banking experts. From an industry perspective, we are leading the charge, educating and exciting our clients about how open banking unlocks growth opportunities and how we can work together to accelerate the development of new use cases.


### Token in 3 words for you...

Technology. People. Revolution.

### Why is Token a great place to work and the home for global fintech talent?

One of the great things about Token is the cultural diversity of both the business and the people who are part of the team. We have offices in London, San Francisco, and Berlin and employ people from all over the globe. At last count, we had employees from 12 different countries. For a company with less than 100 people, we are proud to have created a team where we have such rich cultural diversity. In addition to this, we also buck the trend when it comes to female talent. Our marketing and people functions are led by seasoned female talent, and we are incredibly lucky to have Anna on our engineering team. We are innovators who are pioneering the future of banking and we also want to create the future of work. The team will be sharing more on the culture that we're building and why Token is a great place to build a career – keep an eye on our website and social channels. **TFT**

## New roles at Token

 Token is a Silicon Valley-based tech company, with offices in San Francisco, London and Berlin, serving the financial industry. We have developed the technology needed to create a standard internet protocol to securely and instantly exchange value on the internet.

Our software provides APIs for open banking Initiatives to third-party providers (TPP) and banks/financial institutions. Ready to change how the world pays for goods & services? Token is. We are a company of highly talented and driven professionals committed to providing the best solutions possible to our customers. Our impressive team combines years of highly successful execution and innovation in both the technology and banking sectors.

### Technical Sales Director

You will be working alongside the Sales team helping articulate Token's technical proposition; leading technical workshops with clients ensuring we recommend best possible ways to integrate Token's solutions in their environment. You will be working very closely with product and engineering departments feeding back client requirements and working on defining new features. <https://jobs.lever.co/token/afdab6f6-62eb-4773-81be-4844d4c222d1>

### Implementation Manager

You will be responsible for dealing with clients' technical queries acting as first line of contact. You will get to advise clients on the best integration practices and help them navigate through our APIs and SDKs. <https://jobs.lever.co/token/6d73d2fc-f723-4b6f-973a-5746fc060e08>



## MEET THE TEAM

### Rebecca Wright

VP of People Operations

Hailing from Yorkshire, Rebecca joined Token in January 2020 as our VP of People Operations. Her favourite place in the world is Austria and she adores being by the sea – sailing, paddle boarding and anything active. Rebecca loves a new challenge and is constantly looking for ways to test her physical and mental resilience.

**What was your last role before you joined Token?** Chief People Officer for a health insurance company.

### Why did you join Token?

I started my career working for First Direct – at the time a disruptor in the banking world as the first telephone and branchless bank. I love working with pioneers, professional disruptors and people who have off the scale levels of curiosity and always ask 'why?'.

Token's mission and the amazingly talented people I met prior to joining really sold it for me.

### If you could switch jobs with anyone at Token, who would it be?

Engineer, Calvin Sanghera. While I don't have the technical capability, I absolutely love solving problems. I also love the fact that everything that Calvin does makes our customers lives better.

### What has surprised you the most about working in our industry?

I'm on day three so I'm still knee deep in educating myself about the industry. From a banking perspective, as a consumer I'm surprised how very little banking has evolved in the last 20 years!

**What's your one prediction for the future of technology?** I read a prediction that we'd see our first AI machine board of corporate

directors by 2030. That certainly got me thinking about what that means from a talent attraction perspective.

### What would you be doing if you pursued another career?

Absolutely anything sporty, such as a professional runner or cyclist.

**Dogs or cats?** Cats

**Facebook or Instagram?** Instagram

**Chicken or egg?** Egg

**iOS or Android?** iOS

# 5 BOOKS TO GET AHEAD IN FINTECH

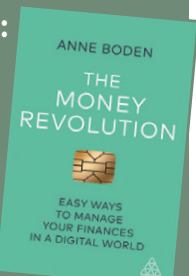
**The Financial Services Guide to Fintech: Driving Banking Innovation Through Effective Partnerships**  
by Devie Mohan  
Available: Kindle, Paperback & Hardcover



**A Guide to Financial Regulation for Fintech Entrepreneurs**  
by Stefan Loesch  
Available: Kindle & Paperback



**The Money Revolution: Easy Ways to Manage Your Finances in a Digital World**  
by Anne Boden  
Available: Kindle, Audiobook, Paperback & Hardcover



**Blockchain: Ultimate Beginner's Guide to Blockchain Technology – Cryptocurrency, Smart Contracts, Distributed Ledger, Fintech and Decentralized Applications**  
by Matthew Conno  
Available: Kindle, Audiobook & Paperback



**The PAYTECH Book: The Payment Technology Handbook for Investors, Entrepreneurs, and FinTech Visionaries**  
by Susanne Chishti, Tony Craddock, Robert Courtneidge and Markos Zachariadis  
Available: Kindle & Paperback



# DOING DIGITAL

“Two years ago, people talked... last year, they were still talking... This year, they are still talking... The question is: show me what you are doing here? Show me your work... show me results,” said Chen Long, chief strategist at Ant Financial, in an interview in Chris Skinner’s last book, *Digital Human* (2018). In Chris’s new book, *Doing Digital*, he tackles this question of talk versus action in a strongly worded critique of the state of transformation and strategy in our industry.

While *Digital Human* took a wide-angle view of ‘a revolution of humanity through digitalisation with technology, *Doing Digital* adjusts the lens to examine the idiosyncratic world of banking. In fact, in this book it often feels like a magnifying glass is being held in the sun so as to burn a hole in an industry that clearly frustrates the author with its complacency and slow rate of change, despite being besieged by obvious and massive competitive forces.

Outlining the competitive pressures from fintechs, challengers, big tech, regulation and internal inertia, Chris calls for ‘drastic action, not an evolution’ – and woe to anyone trying to get away with half measures: ‘any bank that has not embraced digital as a transformational process, but just as an evolutionary process, will sleepwalk into history’. As you can tell, Chris does not hold back – the book is packed with pithy indictments of the state of the industry: ‘the business model of the banking industry is completely broken’ and ‘we need to rip that structure apart’.

Change in the industry is too often reactive: ‘banks do change, but most of it is stimulated by fear’. In Chris’s view, change must be strategic and proactive. Instead of being primarily led by the moves of regulators, competitors, or even their investors, banks should organise around a greater respect for their customers: ‘technology and digital change... is about customers and service. Technology has placed the customer in control’.

As this point about customer-centricity illustrates, despite his harsh words about banking leadership, in this book Chris sets out a positive, even idealistic call to action, including several sections organised like checklists, e.g. ‘seven new ways in which finance delivered by technology is changing the game’, ‘five areas of change’... five clear areas that are forcing transformation’. The strongest sections of the book take aim at common corporate excuses, countered in a highly critical but also highly optimistic voice that will be familiar to readers of Chris’s blog The Finanser.

Chris quotes from a variety of industry leaders whom he feels are setting a good example: in fact, he considers there to be – ‘a mere nine large banks worldwide that I thought were making digital

**George Baily, Marketing Manager, CREALOGIX**

transformation happen’! Their success stories are contrasted with the all too common scenario of overspend and bureaucratic activity that fails to deliver.

Pure technology competitors do have an obvious head start: ‘if a bank is just sticking apps on the front end, how is it meant to keep up with its competitors’ deep learning projects?’ Fintechs are unburdened by any technological legacy, whereas banks are too often ‘firmly rooted in last-century technologies’. Old technology creates its own vicious cycles. Readers who work within large financial institutions will no doubt read with a mixture of despair and amusement how ‘a

of the past can hardly be relied on to take financial institutions into the future ahead: ‘banks have plenty of legacy: legacy systems, legacy vendors, legacy staff, legacy customers, and, worst of all, legacy leadership’. The answer in this book is to address the latter, with Chris pulling no punches: ‘most banks are led by bankers... with no technology experience or digital background’ and ‘dealing with technology is very different to dealing with money’.

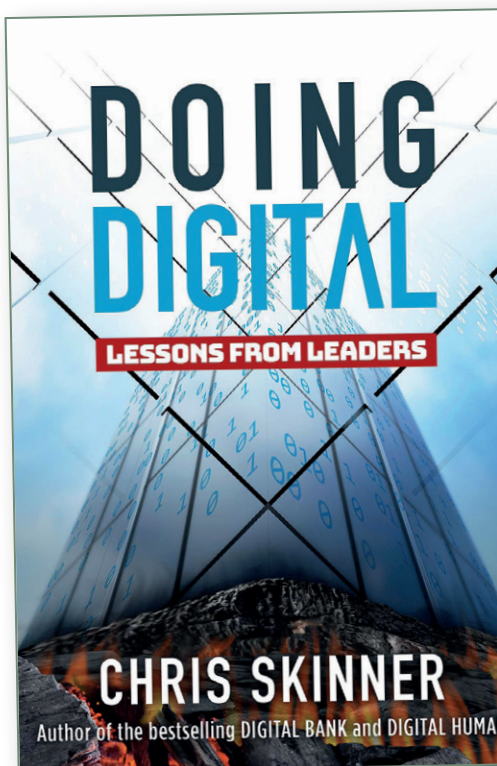
Using wide-ranging examples of innovation both from digitally-native startups and Chinese ‘techfin’, as well as the more progressive incumbents, Chris emphasises the existential challenge old-fashioned banks face: ‘in five years, banks will make no money from what they do today and will need to be competitive in [a] new, proactive, augmented world.’

With such an urgent challenge, it’s perhaps counter-intuitive to find that Chris asserts that leaders in financial institutions need ‘room to breathe’. A key observation arising from Chris’s look at digital success stories is that attempting major institution-wide change is not something achieved with normal management horizons but a longer view.

Shareholders themselves need to take a longer view: ‘protecting the leadership of the bank from worrying about those financials and giving them the mandate to focus on the change’. So, in one sense, boards being too risk averse about change in the digital era could prove to be the riskiest strategy. The world of banks ‘is built around maximum stability and minimal change. That is not a good recipe for digital transformation’.

Chris gets to the heart of the matter when commenting: ‘there is a huge difference between ‘doing digital’ and ‘being digital’ – the question being, can the incumbents change who they are, in order to revolutionise what they do?’

This means, the book title notwithstanding, that ‘doing digital’ is really the outcome of a more fundamental change of *raison d’être*, rather than superficially seeing how much technology the organisation can adopt. As Chris explains: “It is a book about change. How to make dramatic change happen... how to turn an age-old institution into one that is nimble and refreshed for the digital age... how to make the elephant dance.” This image is certainly a more positive alternative to the two more common elephant metaphors I hear in conferences: eating elephants one bite at a time or there being elephants in the room. The real question is... ‘whether banks have recognised the real need to change’. Chris’s polemic book suggests that the answer is still too often ‘no’. If you work in fintech, particularly within or alongside incumbent institutions, buy two copies – one for the boss’s desk and the other for yourself to help ‘deal with the revolution’. **TFI**



**Doing Digital: Lessons From Leaders** by Chris Skinner  
is published by Marshall Cavendish International (Asia) Pte Ltd  
Available: Kindle, Hardcover

big bank will often waste 20 to 30 per cent of its investments on internal politics’, and if they are themselves change advocates will likely recognise this analogy for organisational resistance: ‘innovation was like a virus that had entered the organisation and challenged it. As with any virus, the white blood cells soon gathered to squeeze it out’! Technology work in the ‘spaghetti bank’ is thus unrewarding, while ‘the innovators are already a mile down the road of taking out the banking system as we know it’.

And that, Chris explains, is the more fundamental issue than any specific technological change: the necessity to throw out a business model designed around banks and paper. Throughout this book we are reminded how the strengths

# You need access to Instant payments but how do you know which approach is best for your business?

Connecting to instant payments has never been easier than with Form3. We help you navigate through the multiple access models to deliver an integrated solution that works best for your business.

Whether you connect directly with or without a sponsor bank, your experience with us is the same. And, critically as you scale, you can seamlessly move from one access model to another and add payment schemes as required.

Talk to us. We know payments.



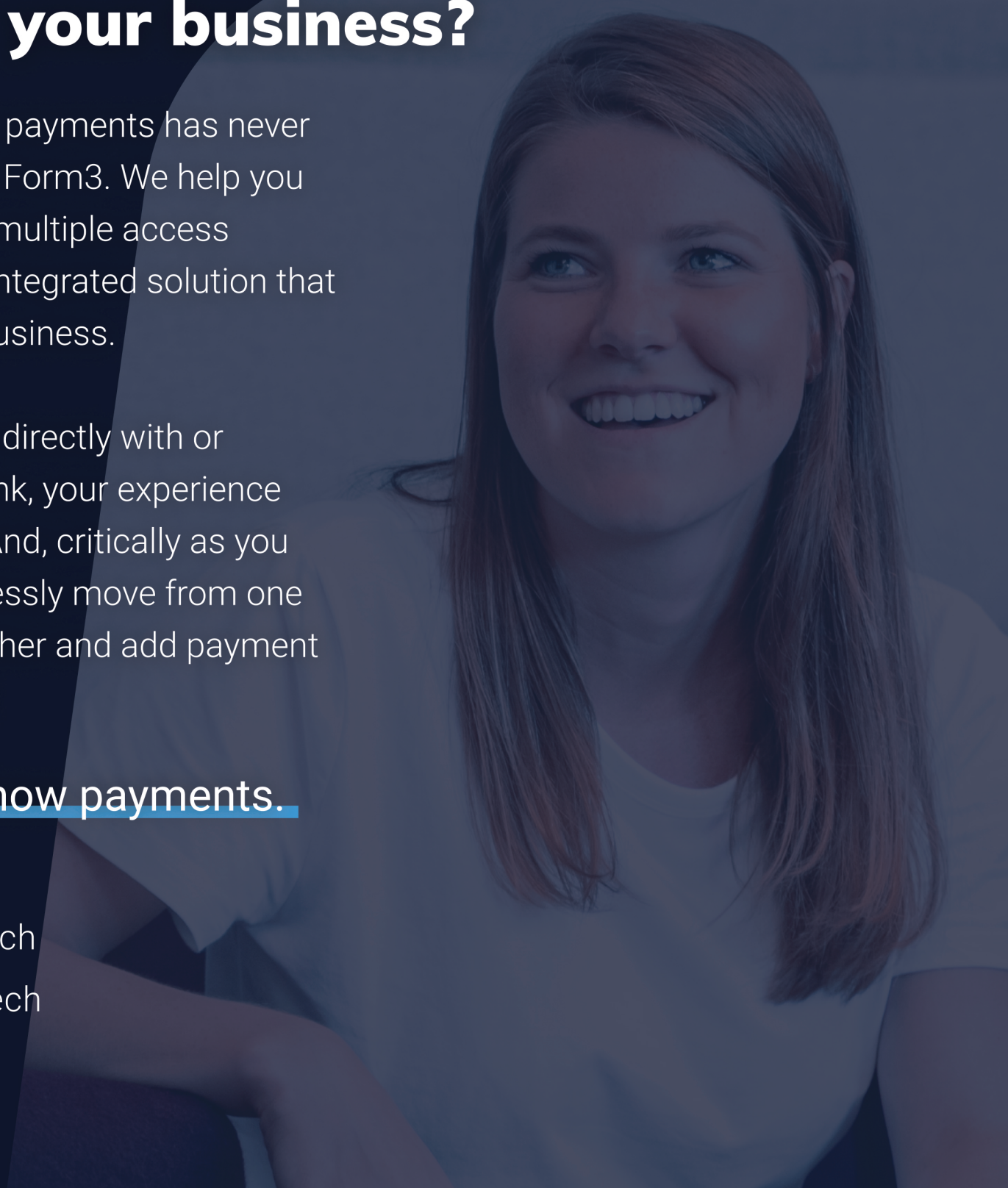
[www.form3.tech](https://www.form3.tech)



[info@form3.tech](mailto:info@form3.tech)



[@f3fincloud](https://twitter.com/f3fincloud)



# BANKIFI

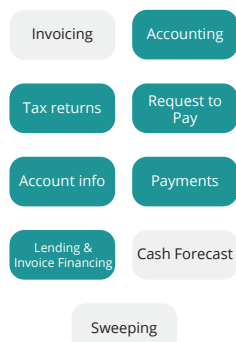
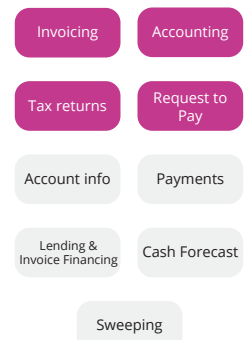
BANK ACCOUNT-ING FROM GIG TO BIG:  
FOR THE BUSINESS BY THE BANK



## BUSINESS CUSTOMERS FIRST- FROM GIG TO BIG

**Taking out the hassle for for the self employed**  
Create, send and collect invoices, do your tax return

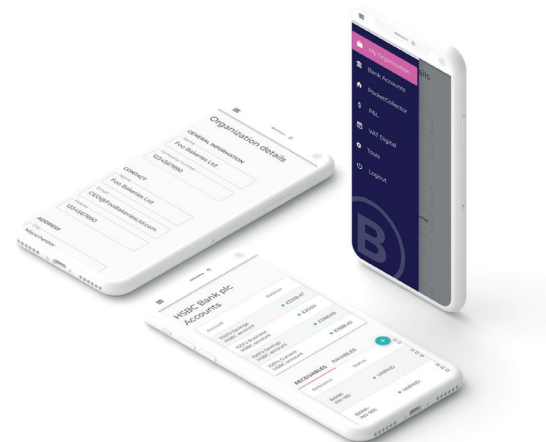
Bank account-ing: let the bank work for you!



## EMPOWER THE SME

**A new bank experience for SME**  
Open banking through access to accounting packages, lenders and more.

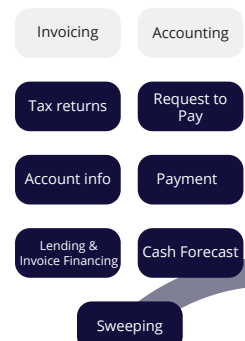
**REQUEST TO PAY TODAY:**  
COMMUNICATE, CHOOSE, COLLECT, CONSOLIDATE



## GROW WITH YOUR CLIENTS

**A growth hacking bank for expanding businesses**  
Connect to the ERP, manage multiple bank accounts, access to tailor made credit, forecasts and nudges – facilitating finance and data in one place:

Bank account-ing: let the bank work for you!



[www.bankifi.com](http://www.bankifi.com)

