

**Sibos Issues** | Sibos 2018 Sydney | 22-25 October

# Enabling the digital economy



[www.icbc-ltd.com](http://www.icbc-ltd.com)  
Visit us at Stand A10

Your Global Partner.  
Your Reliable Bank.





## Welcome to Sibos 2018 Sydney

With Sibos 2018 barely a month away, we hope you enjoy this preview of some of the themes and topics that will be discussed and debated in Sydney. We hope your preparations go smoothly and look forward to welcoming you to what promises to be an informative and inspiring week.

**Chantal van Es**  
Head of Sibos

SECURITIES

### Delving into the data

page 38 →

TECHNOLOGY

### Proof of concept

page 44 →

INNOTRIBE

### Securing the future

page 50 →

OPENING PLENARY

### Learning from each other

page 4 →

DOMESTIC PAYMENTS

### The opportunities of disruption

page 8 →

CROSS-BORDER PAYMENTS

### Learning from the past, facing up to the future

page 14 →

STANDARDS

### A clear case for change

page 56 →

SWIFT at Sibos  
REGIONAL CEO WELCOME

### Innovate and differentiate

page 64 →

SWIFT at Sibos  
gpi

### Corporates use gpi to end cross-border payment pain

page 66 →

INNOVATION IN ASIA

### Asia leads the way

page 20 →

CYBERSECURITY

### Hope for the best, prepare for the worst

page 26 →

COMPLIANCE

### Time for tech

page 32 →

SWIFT at Sibos  
COMPLIANCE

### Sharing best practice and common resources

page 68 →

SWIFT at Sibos  
CSP

### Tackling cyber threats on three fronts

page 70 →

# Learning from each other



**We want to build a bank that is responsive, adaptable.**

Shayne Elliott, ANZ Bank

ANZ Bank's CEO addresses Sibos 2018's key theme and shares his perspective on what it means to be a digital bank.

**Sibos Issues: 'Enabling the digital economy' is the central theme for Sibos 2018 in Sydney. What role should banks play in supporting clients as they adjust to new realities?**

**Shayne Elliott:** We have to start with ourselves. Before we can properly help our customers we have to be a digital bank - and I'm pleased to say we're well down that path. But that's not an internal project - it's about learning from our partners, our customers, and them from us. The pace of

change is now so fast we have to become better at learning from each other.

Being digital is essential if we are to keep pace and that applies to the world we operate in and the world where our clients are. As the realities of the digital economy unfold, it's clear that banks can't do everything themselves - we need to collaborate and partner with others in a way that makes sense for our customers, bringing in skills, technology, innovation.

**GLOBAL  
TRANSACTION BANKING  
& SECURITIES SERVICES**

**WE OFFER YOU  
SHARP EXPERTISE  
TO SUPPORT  
YOUR BUSINESS**

**MEET US  
AT SIBOS  
STAND G20**

Meet our  
Special Guest  
**Matt Giteau\***  
on October 24th

\*FORMER INTERNATIONAL AUSTRALIAN RUGBY PLAYER  
& OUR SOCIETE GENERALE AMBASSADOR



THIS COMMUNICATION IS INTENDED FOR ELIGIBLE COUNTERPARTIES AND PROFESSIONAL CLIENTS ONLY AND IS NOT DIRECTED AT RETAIL CLIENTS. Societe Generale is a French credit institution (bank) authorised and supervised by the European Central Bank (ECB) and the Autorité de Contrôle Prudentiel et de Résolution (ACPR) (the French Prudential Control and Resolution Authority) and regulated by the Autorité des marchés financiers (the French financial markets regulator) (AMF), as well as by certain other authorities in the jurisdictions in which the bank operates. Societe Generale, London Branch is authorised by the ECB, the ACPR and the Prudential Regulation Authority (PRA) and subject to limited regulation by the Financial Conduct Authority (FCA) and the PRA. Details about the extent of our authorisation, supervision and regulation by the above mentioned authorities are available from us on request © Jeff Crow.





# The biggest challenge is simply the pace of change.

Shayne Elliott,  
ANZ Bank

## Sibos Issues: ANZ established a digital banking division in 2016. How has this helped to deliver a superior user experience to customers?

Shayne Elliott: The key element here was shifting the mindset of all our people. While establishing a digital division has definitely been a catalyst, it hasn't just been left to one division to drive our transformation. This is not about getting a group of people "over there in the digital division" to solve the problem, rather it is a challenge and a priority for all our divisions.

Being digital is not just about technology and tools and process efficiency, it's about thinking differently about what customers want. Part of that of course is improving the user experience but we also want to build a bank that is responsive, adaptable.

All large organisations, banks included, can be like oil tankers - they take a long time to change direction. When I became CEO I realised ANZ needed to be more responsive and adaptable. Everything is changing at such a great pace - we don't know what the future will hold - so we need to ensure we can anticipate and react quickly.

For me that shows the crucial importance of mindset, of people (and an organisation) who encourage different ways of thinking, and can see a way to better processes or organisational structures. We need to be an organisation that can work in new ways.

I wanted us to be different and that takes some boldness. Interestingly, it also means doing less - simplification, concentration on doing fewer things better is essential. That's also why we have focused on becoming an agile organisation. And that too has been a major cultural transformation.

Put simply, digital banking relies on people and technology. We are developing people who have a growth mindset, who understand how the world is changing around them, that we need to be open to different ways of doing things and what our customers will need in the future.

That also means building the technology platform that will enable us to move at pace well into the future.

## Sibos Issues: The New Payments Platform (NPP) has put Australia at the forefront of payments innovation. How should banks and other service providers leverage NPP and what lessons should other jurisdictions take from the Australian experience?

Shayne Elliott: We're pleased we can offer our customers in Australia access to near real-time payments through the NPP. We know that's what they want. That's also why we moved early to offer Apple Pay: our customers wanted it.

But we're really at the beginning. I would liken it to the internet: the first era was putting the protocols in place, then the innovation erupted in ways we could never have predicted. With NPP, we now have the protocols in place. The rails are there for innovation which I'm sure will surprise us all.

NPP has been a challenge; I think that's one key lesson. Programmes of this scale and complexity inevitably are. It involved industry-wide collaboration and is now being rolled out by more than 60 banks, building societies and credit unions across Australia. From our perspective, NPP gives us the flexibility to tailor the experience to best meet the needs of our customers.



Technically, another important feature of NPP is it uses ISO 20022, so it is compatible with international messaging standards.

We have also had the benefit of learning from other real-time systems - like Faster Payments in the UK - before this next-generation platform was built. And I'm pretty sure other jurisdictions will have the benefit of seeing what we've done in Australia.

## Sibos Issues: How do you see banks' relationships with the fintech sector evolving over the next 5-10 years? Will they be characterised by more collaboration than competition?

Shayne Elliott: This is a radical new world. Fintechs are disruptive - it's not a question of 'if', it's a question of 'now'. We're ready, we're engaged, but without a doubt there are threats to us in this world; yet it is also inspiring and challenging in a positive way.

The interesting development we've seen over the last 18 months or so is a shift to the view banks will work with fintechs - rather than fintechs replacing banks. We don't see an Uber or an Airbnb of banking, rather innovative fintechs working in partnership with innovative banks. It's good for them as we bring scale and trust and it's good for us because they bring radical thinking and different mindsets.

Again, these changes are coming about because customer expectations are changing and technology can provide greater opportunities. Our customers don't compare banking experiences, they compare what they get from Amazon or Alibaba or Apple.

At ANZ, we want to be the best partner for these dynamic start-ups, helping them - which in turn helps us to evolve the bank to be better for customers. We're focused on selecting the best ideas and technologies and then partnering with the relevant firms to apply those ideas and technologies in a banking context - and some of those partners may be fintech, some may be from quite a different realm.

The other fascinating dimension to this is how does our traditional role as a bank work in this new world? These startups don't have fixed assets, property, or the other usual collateral for lending. We really have to think differently about how we bank them because we do want to bank them.



# We are developing people who have a growth mindset.

Shayne Elliott,  
ANZ Bank

## Sibos Issues: What are the biggest challenges to banks' ability to deliver value-added, differentiated services to customers - geo-political, competitive, technological, cultural - and what can they do to tackle these?

Shayne Elliott: Fundamentally, the biggest challenge is simply the pace of change. We need to move much, much faster to adapt.

That's a cultural challenge, a mindset change. That has its own risks and as part of our cultural transformation we have placed a lot of emphasis on our values and purpose. In the face of so much rapid change, I believe the most successful organisations will have a strong sense of purpose, which will be a critical compass to help guide them in addressing the challenges of the future. —

#Plenary  
#Payments  
#Fintech  
#Digitisation



←  
Opening plenary:  
Learning from each  
other

→  
Cross-border  
payments: Learning  
from the past, facing  
up to the future

DOMESTIC PAYMENTS

# The opportunities of disruption

New technologies, regulations and customer expectations are propelling mould-breaking initiatives such as instant payments. How are banks and service providers looking to handle disruption?

“

**The payment needs to become an embedded function.**

Thomas Egner, EBA

Domestic payments markets around the world are undergoing a fundamental transformation, driven by a combination of: new regulations aimed at enhancing transparency, access, competition, innovation and the customer experience; heightened consumer expectations and demographic changes; new platforms, networks and entrants; and technologies that can simplify and streamline the end-to-end payment process.

The exploration and adoption within the payments arena of open APIs, distributed ledger technology (DLT), cloud platforms, artificial intelligence (AI) and advanced data modelling and analytics sees the industry repositioning around the core digital imperatives of personalization, enhanced speed of response, transparency, and frictionless delivery of services.

Central to this shift are client expectations, which have been irrevocably changed by day-to-day exposure to real-time, client-centric business models predicated on highly tailored, responsive user experiences (the 'Amazon effect'). This dynamic is also driven by demographic change - new needs from millennials and the Asian middle class, for example - which is transforming how millions, if not billions, want to manage their finances, again with the onus on speed, certainty and transparency.

"The rise of e-commerce, mobile payments and the gig economy means that consumers are increasing their digital footprint and consequently providing tech companies with access to enormous amounts of data," says David Watson, global head of digital cash products and head of cash management for the Americas at Deutsche Bank. "This access to data is further leading to new innovative value-added digital services being offered."

#### Catching up to commerce

Mobile technology and digital commerce are driving the need for safer and faster payments systems. Within the past year, new platforms for payments innovation have been launched in the US, in the shape of The Clearing House's Real-Time Payments system, and Australia, which saw its New Payments Platform (NPP) go live in February.

"In the retail world, real-time is all about facilitating more efficient, effective person-to-person and mobile payments - a real-time account-to-account transfer mechanism will speed adoption of mobile wallets and touchless payment mechanisms across the board," says Vinay Prabhakar, head of market strategy for payments at financial technology provider Finastra. "In the commercial world, it is all about domestic payments catching up to the 24/7 speed of commerce, and eliminating the

#BigIssueDebate  
#Payments  
#MarketInfrastructures  
#Cryptocurrencies







## You will see increasing use of APIs, in tandem with the rise of real-time payments.

error and onerous effort associated with receivables tracking and reconciliation.”

Manish Kohli, global head of payments and receivables at Citi's treasury and trade solutions unit, notes that the creation of new bank-led payment schemes designed to deliver a 'digital-age experience' has coincided with the emergence of alternate payment networks built around points of consumer loyalty - including retail platforms, e-commerce giants, mobile operators, etc - which offer enhanced, consumer-centric payment experiences. "These networks are increasingly becoming open loop, with strong interoperability between various bank and non-bank payment networks," he says.

### From batch to API

The emergence of open APIs heralds a fundamental transformation of payment processes and data flows, not least for banks. "In the future, where we will have a lot more e-commerce businesses and new emerging business models in the shape of shared economies, there will be a very high volume of micropayments which will need to get from A to B almost instantly," says Umar Farooq, head of channels, analytics and innovation for treasury services at JP Morgan. "Many of the payments that now take place in batch formats will move over to APIs. Clients will want the ability to do all types of money movement transactions within their own workflows, and so you will see increasing use of APIs, in tandem with the rise of real-time payments."

Thomas Egner, secretary general at the Euro Banking Association, which launched its RT1 instant payments system last November, says the industry must focus

on implementation and interoperability to optimise the potential of APIs. "The key questions are: do the banks follow the standardisation initiatives to reduce the workload for third-party providers regarding access to account? How many different APIs can third-party payment providers handle? And how much harmonisation are we going to see?"

Egner maintains that developments in areas such as AI, e-identity, cyber-security and fraud prevention must be assessed in a holistic fashion, not each in isolation. "How does the payments piece fit into this overall perspective? Ultimately, the payment needs to become an embedded function in an overall designed process flow and not remain a separate function to be triggered outside an end-to-end value chain."

When it comes to the application of DLT in the domestic payments space, the consensus is that its potential lies in addressing new areas of opportunity rather than reinventing the wheel. "For the foreseeable future, existing infrastructure will be the most efficient and scalable way to make payments," says JP Morgan's Farooq. "That said, we see the value in using blockchain as a technology that can supplement core money movement and actually facilitate and speed up money movement, rather than move the money itself."

### Healthy competition?

Similarly, the near-term use of AI and machine learning is likely to focus on ensuring the security and integrity of domestic payments - i.e. using pattern recognition to identify and flag unusual transactions - rather than fundamentally reshaping the core money movement process. That said, AI has strong potential



to optimise flows across networks and improve process efficiencies.

Incumbent players view new entrants - be they fintechs or large retail platforms like Amazon - as an opportunity as much as a threat. "I see them as clients, competitors and collaborators - and competition in and of itself is always healthy; it drives us forward to improve, whether as individual firms or as an industry," says Deutsche Bank's Watson.

What kind of threat do newcomers really pose? After all, trying to replicate the entire front-to-back transaction banking environment would be extremely complex, with perhaps the main barrier to entry for new players being the range of products already on offer. "However they don't need to look at it this way," says Watson. "Rather, they are looking to identify areas where they can solve existing problems or gaps. Those new entrants can focus in and cherry-pick areas in spaces where they can improve upon existing products and services."

There is "massive" opportunity for collaboration, he adds: "The top 10 correspondent banks all compete with one another, but they are also one another's clients, and they also collaborate on different products and in different segments. There is that similar mindset when it comes to large fintech movements into this space." ■



## Greater diversity, richer functionality

**The NPP has been built from the ground up as a platform for innovation.**

Australia's New Payments Platform (NPP) lowers barriers to entry and opens the way for greater diversity of products and enriched functionality.

With NPP's launch in February, Australia became the latest market to embrace instant payments. Set in motion by a 2012 strategic review by the Payments Systems Board, and the fruit of collaboration involving 12 deposit-taking institutions (including Australia's 'big four' banks: Commonwealth Bank, NAB, ANZ and Westpac) and the Reserve Bank of Australia (RBA), the NPP introduces real-time clearing and settlement for simple or complex payments using a distributed architecture and ISO 20022 data standards. SWIFT helped to design, build, test and deliver the NPP and will play a key role in operating the infrastructure.

Critically, the NPP has been built from the ground up as a platform for innovation. Third-parties can develop and offer 'overlay services' to realise the benefits of faster, data-rich payments and the platform's PayID simple addressing service, which enables transaction accounts to be identified by a simpler payment address such as an email address, phone number

or an Australian Business Number. The first such offering to go live is OSKO from electronic bill payments provider BPAY, one of Australia's four existing payments systems.

NPP's fast interbank payments are facilitated by the RBA's new RITS Fast Settlement Service, enabling any payment made on the platform, regardless of size, to be settled in central bank funds in under a second, 24/7. ■



## The ABC of CBDCs

The rise of cryptocurrencies has prompted governments and central banks in many countries, including the US (Fedcoin), Sweden (E-Krona) and Singapore (Project UBIN), to start exploring central bank digital currencies (CBDCs).

The debate around CBDCs is driven by a number of factors: the declining use of cash; the focus on technological innovation within the financial sector; the emergence of new entrants into payments and intermediation services; and the growing interest in private digital tokens.

Advocates of CBDCs highlight potential benefits, which include: broadening the range of available monetary policy tools; reducing liquidity risk and credit risk in payment systems via settlement in central bank money; encouraging innovation and competition in the payments space; and supporting ongoing money creation in the face of increased peer-to-peer lending.

In a paper published in March, the Bank for International Settlements (BIS) explored the potential implications of wholesale (limited participant) and general purpose (widely accessible) CBDCs on payment systems, monetary policy and the structure and stability of the financial system. In particular, it considered questions raised around the future role of central bank money, the scope of direct access to central bank liabilities and the structure of financial intermediation.

Central banks are taking different views. Tony Richards, head of the Reserve Bank

of Australia's payments policy department said in June the RBA saw no strong case for issuing a new form of central bank money but observed, "We have an open mind."

The BIS sees pros and cons. Its March paper argued that wholesale CBDCs, combined with the use of DLT, may enhance settlement efficiency for securities and derivatives transactions, and the provision of CBDCs could bring substantial benefits where cash is disappearing. But caveats included the need for fulfilment of financial crime requirements, and the legal authority of certain central banks to issue a CBDC.

**Central banks are taking different views.**

sibos

Download the Sibos app to see the full conference programme and plan your agenda for the week at Sibos!





Domestic payments:  
The opportunities of  
disruption



Innovation in Asia:  
Asia leads the way

# Learning from the past, facing up to the future

Not only SWIFT but also Sibos is synonymous with correspondent banking. Launched in 1978 in Brussels, the SWIFT International Banking Operations Seminar quickly became the 'must-attend' event for correspondent banks. Sibos provided the perfect opportunity for bankers to meet over a drink for an annual reappraisal of the reciprocal links on which they relied to effect client payments beyond their branch networks.

Forty years ago, correspondent banking was a practical example of collaboration between competitors, but the international payments paradigm failed to evolve with events. For more than a decade, it has been weighed down by spiralling costs and has struggled to live up to expectations raised by the digital consumer experience. Banks have long since realised that correspondent banking relationships and services need more responsiveness and transparency than is possible via a 12-monthly catch-up. But are they doing enough to defend their corporate and institutional payment franchises from competitors?

"In the past, many correspondent banking relationships and networks were a mile wide but only an inch deep," says Anurag Bajaj, global head of correspondent banking at Standard Chartered. "That's changed and many correspondents are now looking to concentrate their efforts and resources in markets and on relationships that play to their core strengths. As the average number of correspondent banking relationships is declining, the value-add of service providers must increase: banks must disseminate knowledge and advice to their partner banks, helping them to address the fast-evolving challenges facing their customers in this era of global digital transformation."

#### Friend or foe?

Many consumer-to-consumer flows have migrated to fintechs and business-to-business flows are not immune to disruption, with under-served SMEs susceptible in an era of easy credit. But in a complex international payments landscape, competitors can also be collaborators.

Correspondent banking is undergoing transformation to keep pace with new customer demands.

#BigIssueDebate  
#Payments  
#CorporateTreasuryAndTrade  
#GPI



New areas of demand are springing from economic, technological and demographic change.

Anurag Bajaj, Standard Chartered





INTL FCStone developed its expertise in local currency payments servicing international development agencies which operated in dollars, but needed to make payments in local currency to support those in need. Agencies needed to make local payments cheaply, efficiently and reliably, i.e. similar criteria to banks' corporate and institutional customers. Since 2006, the firm has been making cross-border local currency payments for banks that want a more cost-effective way of servicing B2B clients than opening a nostro account with a local counterparty. The diminishing risk/reward ratio of maintaining an extensive network of correspondent banking relationships is a key factor, but not the only one. Certain jurisdictions are increasingly keen to facilitate wider use of their own currencies, while the growth of ecommerce has super-charged demand for small, frequent payments to geographically remote counterparties.

"The ability of consumers worldwide to buy from a Kenyan basket weaver via Amazon, for example, puts pressure on costs, efficiency and service quality of payment service providers," says global head of payments Carsten Hils. "Corporate clients are realistic about the speed of payments to developing markets, but they want transparency and certainty, knowing the payment will arrive in full and fixing all related fees in advance."

Hils believes the future of international payments is likely to be characterised by specialisation, with niche participants playing a key role in non-core services. He acknowledges the role of SWIFT gpi in helping banks and corporates to increase international payment transparency, but says many banks still struggle with the cost of cross-border local currency payments across multiple correspondents. "Rather than carrying increasing infrastructure costs, more banks are looking to outsource non-core payment capabilities to firms such as us, and winding down their number of correspondent banking relationships," he says.

#### A shared vision

Correspondent banks might be reappraising how they facilitate international payments, but they are not on the defensive. Changing regulatory frameworks, technologies and business models give rise to opportunity too.

In a fluid environment, HSBC global head of payments, global liquidity and cash management Tom Halpin says correspondent banking relationships must be reviewed regularly to ensure alignment



**The solutions we build for the future must be standardised and universal.**



Paula da Silva  
SEB

with banks' client propositions. As data plays an ever bigger role in value creation, HSBC is "actively exploring" new ways to use and provide payment information, for example looking at the implications of transaction flow dynamics for liquidity management purposes. "Increasingly, the ability to share payment information with counterparty banks and underlying customers is a crucial consideration," he says. "But there are many other factors, including currency volumes, customer experience, risk models, cyber-security policies and ability to adapt to demand. Correspondent banks can and must play an advisory role to each other to support client needs."

Banks must overhaul their internal processes and external partnerships, says Paula da Silva, head of transaction banking at SEB. But she believes industry-level infrastructure initiatives are also necessary, arguing the case for greater onboarding efficiency and advocating adoption of market-wide digital identity solutions, rather than banks individually conducting KYC and AML checks on a per client or per transaction basis. A number of Northern European markets already have digital corporate identity solutions in place that could be adopted for payment user authentication purposes, and which could interoperate with other markets across Europe and beyond. "The solutions we build for the future must be standardised and universal, which also means embracing collaboration with fintechs to build a strong collaborative ecosystem," she says. "Reciprocity between correspondent banks has not always promoted the most innovative solutions for customers and will eventually be replaced by an all-to-all environment."

#### Seamless infrastructure

The pace of change may frustrate some, but investments are bearing fruit, often calibrated to deliver short- and long-term benefits. Lisa Lansdowne-Higgins, vice-president for business deposits and treasury solutions at Royal Bank of Canada, asserts we are "closer than ever" to a seamless global payments infrastructure, thanks to a generational renewal of market infrastructures, including all-but-universal adoption of ISO 20022, as well as other innovations which also increase the end-to-end exchange of transactions and data. "Connecting these domestic investments will result in a seamless global payment infrastructure. But we cannot expect customers to wait while we build. As an industry, we must have the purpose and vision to deliver value incrementally to meet evolving customer need as we construct this new framework," she says.

This agile approach to developing new capabilities and services might be unfamiliar to the correspondent bankers of Brussels in 1978. But it is necessary if banks are to look forward to Sibos 2019 in London with confidence. "Existing revenue streams and margins are being reduced, but there are also new niche areas of demand springing from economic, technological and demographic change," notes Standard Chartered's Bajaj. "As well as the evolving need to make small cross-border payments in real-time for platform-based businesses, middle-class Asian parents increasingly need cross-border payment solutions to pay university fees for their children in the US and elsewhere."

## Data is the key to new efficiencies

### Firms wish to leverage insights on aggregated patterns of payment flows to improve operational efficiency.



Pascal Augé  
Societe Generale

Client needs are front and centre throughout Sibos 2018, with corporate trade and treasury to the fore in the Corporate Forum. Many corporates are looking to leverage banks' emerging payment data analytics capabilities to improve flexibility and transparency of cash flows and working capital. The more actionable information they can get from banks, the more efficient they can be from a funding perspective. Better information flows can also help build stronger supply chain partnerships.

According to Pascal Augé, head of global transaction and payment services at Societe Generale, growing demand for payment factories among large corporates is being accompanied by increased interest in transaction flow analytics. "This trend is still in its infancy, but we're being approached more frequently by firms that wish to leverage our insights on aggregated patterns of payment flows to improve operational efficiency and reduce costs," he says.

Noting the importance of accurate, timely payment data to firms receiving payments in terms of managing working capital efficiently, RBC's Lansdowne-Higgins sees SWIFT gpi as an agent of customer value. "The transparency provided to the customer by payment status updates will accelerate and enhance the decision-

making capabilities of customers," she says. "Initiatives such as gpi help overcome legacy issues to provide differentiated services which can, for example, improve the quality of cash flow forecasts."

While Augé sees scope for SWIFT gpi to add further insight into payment flows for corporate customers in the near future, he also points to opportunities to leverage data and technology in trade and supplier finance. Societe Generale has witnessed a notable increase in demand for reverse factoring, with large corporates looking to offer financing options to suppliers across time zones, on an increasingly seamless basis. "This trend started in retail, but now a wide range of firms are looking to develop closer relationships with suppliers, including through reverse factoring. This relies on close relationships between banks, specifically industrialised processes and automated information flows," he says.



Anne Boden  
Starling Bank

## A platform for success

How different will the bank of the future be? Sibos Issues asked Anne Boden, CEO and founder of Starling Bank, the UK-based, mobile-only challenger bank.

**Sibos Issues: What core characteristics will be fundamental to the bank of the future?**

Anne Boden: Success will come to those that deliver excellent customer experience and can operate efficiently at scale. Anything that puts customer interests second to the banks' interests will become redundant. Banks were first created to act as a facilitator between people who had money and wanted to deposit it and people who didn't and wanted to borrow it. They were not created to offer expensive and inefficient products that customers don't need.

**SI: What are the key challenges for incumbents?**

AB: Absolutely everything the incumbents have always done is being reinvented by fintech companies, including products and services, but also internal processes and infrastructure. The banking old guard understands this and are trying to remain relevant, but they are weighed down by banking practices that don't allow for this and are underpinned by cumbersome legacy systems and bureaucracy.

**SI: Is the platform business model the best way ahead for banks of the future?**

AB: We like to describe Starling as an engineering-led technology and financial services platform. We believe in banking as a platform service. We have a set of public APIs ranging from read-only information

to instructing payments, even creating an account. In our developer portal, potential partners can find our API documentation and test their applications in our sandbox before requesting access to the public API. We select our development partners carefully to ensure any company that has public API access has successfully completed a due diligence process. The incumbents may try to replicate this model, but it's not in their usual toolkit.

**SI: What more can regulators do to support growth of new banks and service providers?**

AB: Many of the banks authorised since the UK established a new bank authorisation framework in 2013 are not truly new but derived from other types of institution. A genuinely new entrepreneur-led bank, offering true innovative competition, is a rarity. Supporting the growth of such banks must be a priority and this can more easily be accomplished by competitive authorities than regulators. —

**A genuinely new entrepreneur-led bank, offering true innovative competition, is a rarity.**



Enabling the digital economy

#Sibos

We're not just providing transaction services.

We're helping create a new banking ecosystem through cross-industry collaboration.

#PositiveImpact

Deutsche Bank

Find out more: [cib.db.com](http://cib.db.com)

Follow us on [@TalkGTB](https://twitter.com/TalkGTB)

Visit us at stand F02



This advertisement is for information purposes only and is designed to serve as a general overview regarding the services of Deutsche Bank AG and any of its branches and affiliates. The general description in this advertisement relates to services offered by Deutsche Bank AG Global Transaction Banking and any of its branches and affiliates to customers as of August 2018, which may be subject to change in the future. This advertisement and the general description of the services are in their nature only illustrative, do neither explicitly nor implicitly make an offer and therefore do not contain or cannot result in any contractual or non-contractual obligation or liability of Deutsche Bank AG or any of its branches or affiliates. Deutsche Bank AG is authorised under German Banking Law (competent authority: German Banking Supervision Authority (BaFin)) and, in the United Kingdom, by the Prudential Regulation Authority. It is subject to supervision by the European Central Bank and by BaFin, Germany's Federal Financial Supervisory Authority, and is subject to limited regulation in the United Kingdom by the Prudential Regulation Authority and Financial Conduct Authority. Details about the extent of our authorisation and regulation by the Prudential Regulation Authority and regulation by the Financial Conduct Authority are available on request. Copyright © August 2018 Deutsche Bank AG. All rights reserved.





Cross-border payments: Learning from the past, facing up to the future



Cybersecurity: Hope for the best, prepare for the worst

# Asia leads the way

Banks are taking multiple roles as flexible infrastructures support demand for new solutions.



Payments users across the region are extremely tech-savvy.

Oliver Kirby-Johnson,  
partner, KPMG

Innovation in Asia takes many forms and may be found in many places. "There are the core hubs - China, India, Singapore, Hong Kong - and we also see a tremendous amount of innovation happening, perhaps a little more quietly but nonetheless effectively, in some of the smaller countries by GDP," says Lisa Robins, global head, transaction banking, Standard Chartered. How do we explain - as well as support and participate in - the rise of Asia? And what are the implications of innovations such as the super-app?

First, the region's diversity is an advantage, as is the relative lack of legacy systems in a number of fast-growing economies. Robins continues: "What could have been a weakness is in fact a great strength. For an established bank, that gives us an opportunity to work very closely with some of the big companies that are trying out new technologies. We are in a great position to work with very innovative companies."

Even more so than elsewhere in the world, there is a ready supply of such companies in Asia. Robins cites Standard Chartered's recent initiative with Alibaba, Ant Financial and GCash to facilitate safe and rapid remittances between Hong Kong and the Philippines - banking expertise combining with corporate reach and technology innovation to solve a real-world problem.

#BigIssueDebate  
#Banking  
#Payments  
#SWIFTInstitute

"That gives a really good indication of how we can all work together," says Robins.

**Rise of the super-app**

Innovation in Asia is also underpinned by Asian consumers' ease with technology and readiness to accept innovative solutions. "Asia was once regarded as a cash and trading economy; in reality, payments users across the region are extremely tech-savvy," says Oliver Kirby-Johnson, partner, KPMG. The region does not have a common banking system or currency - as is the case in the US and the European Union - but its populations are highly mobile.

So-called super-apps, combining integrated, contextual transaction and investment services within a broader range of mobile consumer functionality, have become pervasive; functionality continues to be developed at dizzying speed - the issue of financial inclusion has thus been addressed via digital inclusion. China's WeChat, for example, developed by Tencent, enables utility payments, social-media interaction, entertainment bookings, fast-food ordering and remittances among other services.

Cross-border activity within Asia is also a factor driving innovation. "Asian countries are naturally trading a lot more now with each other. The number of innovative solutions seems to have exploded across Asia," says Kirby-Johnson. This "explosion"





# Banks can be innovators. Banks can be partners.

**Lisa Robins,**  
Standard Chartered



is detonating on at least two levels: individuals and corporates now have the ability to make payments - "using just about any mechanism you can think of" - as Kirby-Johnson puts it, while central banks are working together to develop more coherent, faster methods of sending money across national boundaries.

"They are innovating nationally, in terms of the central banks, and they are innovating in the private sector. In terms of core infrastructures, a number of countries now have real-time domestic payment networks," says Kirby-Johnson. KPMG is currently engaged in guiding the ongoing development of Australia's New Payments Platform (NPP), which is at once an innovation in itself, and a driver of further innovation.

The NPP is a collaboration between 13 Australian financial institutions, aimed at "changing the way Australian businesses and consumers handle transactions". Integral to its design is the capacity to support "overlaid" value-add services offered by NPP-user institutions. Kirby-Johnson says: "The NPP will support a massive amount of innovation in the consumer- and business-banking marketplace."

These are early days, not least because


banks and other service providers will have to amend their own systems and channels to support new products, but the NPP will enable a range of new payments solutions that are more flexible, more sophisticated and richer in data than current products. "Creating new products for the NPP is at the level of soft configuration rather than hard build, which is not the case on conventional single-purpose infrastructures," says Kirby-Johnson.

### **Freedom to innovate**

The region perhaps benefits from greater freedom to innovate than elsewhere - freedom from legacy; freedom from dependence on both the preconceptions and the hard builds of the past. Significantly, there is also opportunity for collaboration and partnership. Robins says: "When I think of how banks can respond to support innovation, I think of these questions: Where can we partner, and who can we partner with? What aspects of this do we need to build? What aspects do we outsource? All of these are possibilities in this new world."

Across Asia today, innovation is triggering further innovation. What does this bode for the future? What will be the role of the banks, going forward? At a time of few certainties, it seems likely they must become participants and partners in a

multi-player financial-services evolution. Kirby-Johnson says: "When you combine inherently flexible infrastructures with the advent of open-banking APIs, you're allowing fintechs and others to provide the innovation in the customer channel, and to do it much faster than the banks could."

That's not to say, though, that the banks won't be playing a full part in the continuing rise of Asia. Finally, Robins says: "Banks can be innovators. Banks can be partners. Banks can act in many different ways in the new world to help lead the charge and make everything easier, faster and safer for our clients. We are innovating - a lot." 

## Who will follow the naked leader?

"Everybody agrees that technology has changed our lives dramatically in just the last five to seven years. But when I ask - do you agree that large organisations around the world are keeping pace with that change, when it comes to evolving their leadership and management practices? Nobody agrees." Rajeev Peshawaria, CEO of the Iclif Leadership and Governance Centre and author of books including 'Open-Source Leadership', continues: "Management practice is still stuck in models that were developed in the fifties. We now live in the open-source era, which offers amazing opportunities to a lot of people. But the flip-side is: this also creates new challenges."


How do we, and our organisations, navigate the open-source era? In the SWIFT Institute session 'Open-Source Leadership: Leading in a Tech and Millennial Age', Peshawaria will discuss, first, leadership and the concept of 'inner engineering', and secondly, ideas of leadership style. "What kind of leadership do we need? Pick up any of the literature, and you read that the democratic, all-inclusive style is best. But I can cite autocrats who have rocked the business world. Which style is correct for today?" Peshawaria will present research, and also discuss the impact of technology.

## Management practice is still stuck in models that were developed in the fifties.

**Rajeev Peshawaria,**  
Iclif Leadership and Governance Centre



"Ordinary people are more empowered today than ever in human history, thanks to connectivity. On the other hand, leaders are completely naked. Every mis-spoken word and deed is out there. How can you be autocratic even if you want to be?" This is the twenty-first century leadership dilemma, and Peshawaria will discuss the 'five keys' to a practical solution. "Then I will talk about innovation, focusing on how to speed up innovation in an organisation, because today, you can't be slow. I'll also talk about talent development and succession planning. How can you be sure that you're investing in people who will stay with you?"

And in the era of increased process automation and robotics, Peshawaria will consider effective techniques for managing and motivating people. "There is a clear trend away from employment towards free agency. I will show through data how to increase your organisation's productivity." 



# Learning from the outperforming unicorns



“China’s fintech unicorns tend to focus on customer-oriented business models. In the West, the focus is on business-to-business models,” says Bonnie Buchanan, Howard Bosanko professor of international economics and finance, Seattle University, discussing her SWIFT Institute session, ‘Quo vadis? Fintech in China versus the West’. The presentation will be based on a paper co-written for the SWIFT Institute by Buchanan and Xuying Cathy Cao, an associate professor at Seattle University. “I will also look at the rise of the Chinese fintech market and how it has been different. I teach a number of students from China, and many of them have grown up never knowing a credit card. They’ve gone straight into mobile and cashless payments,” she observes.

China’s fintech market has grown more rapidly than fintech markets in the West, partly because it has not been hampered by legacy hardware and software. “China also has a very much larger pool of big data to access. If you look at the number of AI patents submitted, this is the first year in which China has surpassed the US. AI, cloud computing and big data have worked really well for China in generating that meteoric rise in fintech.”

There’s no history of formal credit scoring in China, for example, but every interaction with WeChat creates a data point for use

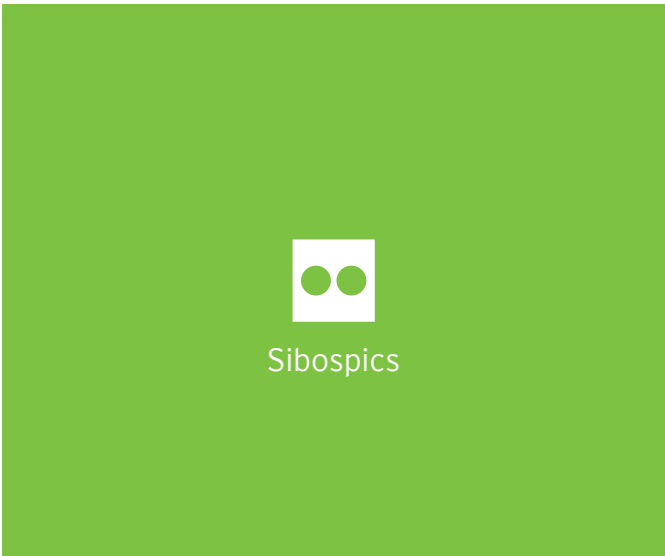
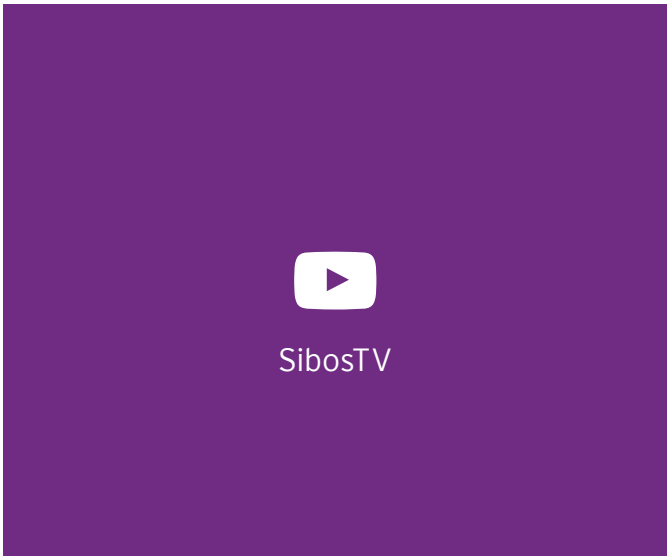
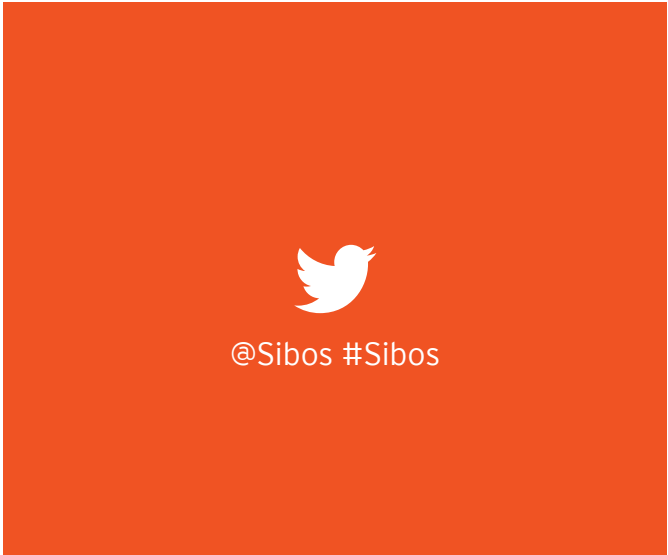
in a credit-scoring model. “The big three fintech parent companies in China – Baidu, Alibaba and Tencent – are generating their own credit-scoring models based on every data point they can gather about a customer.”

Buchanan will also discuss barriers to entry to the Chinese fintech market and how these have reduced over time. “In China, fintech is addressing a completely under-served market. If you’re the owner of a Chinese SME, historically, you couldn’t get a business loan; the same is true for individuals. By contrast, there is a lot of disenchantment with the banks in the West, after the crisis of ten years ago.” If fintech is helping the Chinese to love finance, could it rekindle trust in banks elsewhere? —



**In China, fintech is addressing a completely under-served market.**

## Join the conversation





Innovation in Asia:  
Asia leads the way



Compliance:  
Time for tech

# Hope for the best, prepare for the worst

“Cyber is the thing that keeps me up at night,” said Euroclear CEO Lieve Mostrey at last year’s Sibos in Toronto. At the time, the chief of the Brussels-based international central securities depository was referring to the growing threat of cyberattacks – attempts by individuals or organisations to breach the security of a computer network or system – on the world’s increasingly interconnected financial ecosystem.

A year on, the stream of attacks is constant. In the run-up to Sibos 2018 in Sydney, is cyber still giving financial services executives sleepless nights? “Yes, it is,” says Yves Dupuy, the recently-appointed chief information officer for Euroclear. “The challenge remains, and cyber threats are becoming increasingly complex, sophisticated and targeted on the financial sector.”

**A global risk**  
The World Economic Forum (WEF) concurs. Earlier this year, it named cybersecurity as one of the biggest risks currently facing

not just the financial services industry, but the world, coming in just behind extreme weather events and natural disasters. “Cybersecurity risks are also growing, both in their prevalence and in their disruptive potential,” said the WEF’s 2018 Global Risks Report. “Attacks against businesses have almost doubled in five years, and incidents that would once have been considered extraordinary are becoming more and more commonplace.” The WEF – which launched a Global Centre for Cybersecurity in January with the aim of providing a platform for collaboration among governments, companies and organisations to prevent and lessen the impact of attacks – estimates that cybercrime’s cost to the global economy could rise to US\$500 billion.

“I completely agree with WEF’s assessment that cybersecurity poses a significant threat to the global financial sector,” says Mark Morrison, chief information security officer (CISO) at the US Options Clearing Corporation, ex-CISO of global custodian State Street and former deputy

Rising concerns about a ‘cyber 9/11’ event are spurring collaboration across banks, regulators and market infrastructure operators.

[#BigIssueDebate](#)  
[#Cyber](#)  
[#MarketInfrastructures](#)  
[#Culture](#)







## We must assume that one of the major market infrastructures will be targeted.

Yves Dupuy, Euroclear

chief information officer for the US Department of Defense. “We have seen significant increases in the frequency and sophistication of cyberattacks being aimed directly at various financial sector firms.”

In addition to what Morrison calls “generic cybercriminal activity”, there is an uptick in attacks by nation state actors against financial firms for reasons as myriad as financial gain, market disruption or a secondary attack linked to a ‘real world’ manoeuvre. “Since the worldwide financial system is now inextricably reliant on cyberspace, a cyberattack that adversely impacts system availability or introduces degraded confidence in the financial data will significantly undermine the financial markets,” he adds.

Marc Bayle de Jessé, director general, market infrastructure and payments at the European Central Bank (ECB) believes the stakes for are very high. “The financial ecosystem has become increasingly interconnected. Cyberattacks on market infrastructures (MIs) have the potential to impact it as a whole,” he says. “Therefore, the safe and efficient operation of MIs is essential to maintaining and promoting financial stability and economic growth. If not properly managed, MIs can be sources of financial shocks, such as liquidity dislocations and credit losses, or a major channel that transmits these shocks across domestic and international financial markets.”

Euroclear’s Dupuy adds, “We must assume that one day one of the major MIs will be

targeted. Of course, we hope for the best, but we must prepare for the worst.”

The worst, according to cybersecurity experts, would be a large-scale, crippling attack on a critical infrastructure - the US has designated 16 of these, including financial services - often referred to over the years as a ‘cyber 9/11’ or ‘digital Pearl Harbor.’ The WEF report noted this rising concern. “Another growing trend is the use of cyberattacks to target critical infrastructure and strategic industrial sectors, raising fears that, in a worst-case scenario, attackers could trigger a breakdown in the systems that keep societies functioning,” it said.

In this new world of anticipating worst-case scenarios amid a near-permanent stream of attacks, how should the financial services industry best prevent and respond to breaches, especially to major centralised infrastructures?

### Collective action

As security hacks became more prevalent in recent years, finance sector firms have been investing in improvements to their specific information security controls to better identify, detect, protect, respond and recover from these pervasive attacks, says OCC’s Morrison.

“The financial sector is being extremely proactive in identifying and implementing collective policies and procedures to thwart individual or sector-level cyberattacks through the real-time sharing of actionable cyber threat intelligence information and indicators of compromise,” he says.



In addition to peer-to-peer relationships, information is shared and analysed through organisations and utilities such as the Financial Services Information Sharing and Analysis Center, which established the Financial Systemic Analysis & Resilience Center in 2016. “The US Treasury Department and Department of Homeland Security have sponsored several sector-wide exercises that explored the regulatory, legal, technical, and procedural aspects of dealing with a large-scale cyberattack targeting the financial sector,” says Morrison. “These have been extremely useful and have provided all the participating firms, including OCC, and government organisations with relevant and practical information, to respond to a security incident or breach.”

Fostering more collaboration and information sharing is a key component of the Eurosystem’s cyber resilience strategy for MIs, according to Bayle, noting that the ECB is responsible for a number of critical financial infrastructures and oversees systemically-important payments systems in the euro area. “The complexity of our ecosystem further accentuates the need to ensure collaboration among all relevant stakeholders, including major centralised infrastructures, MIs, banks and regulators,” he says. “They should all make sure to embed strong protective measures within their respective institutions; enhance their detection capabilities; and work collectively to respond to cyber incidents and breaches.”

Morrison says a key component to reducing cyber risks is improving an organisation’s information system security hygiene. “Currently, the vast majority of security incidents are occurring through the exploitation of known and existing security vulnerabilities or poorly configured information systems using known and well-documented cyberattack tactics, techniques and procedures,” he says. “Implementing appropriate processes and controls will go a long way to reduce a firm’s cyber risk even in today’s high-threat environment.” (See ‘Human Firewall’.)

### War for talent

Complicating matters is the well-acknowledged talent gap in the cybersecurity workforce that, according to a recent white paper by PricewaterhouseCoopers (PwC), will widen from 1 to 1.5 million open positions by 2019 in the US alone. The global need could surge to 6 million by next year.

“The ability to recruit and retain technically skilled and motivated individuals with relevant cybersecurity experience is a persistent challenge in today’s very competitive market,” says Morrison. Despite robust career channels for cybersecurity professionals via academia, government and the armed services, “the demand for these skills is clearly outweighing the supply,” he warns.

This shortage can create systemic risk if organisations, especially mid-tier and smaller ones, are unable to hire or retain enough qualified professionals. Like any

network, the financial industry is only as strong as its weakest link. “Cyber adversaries are quite adept at identifying and targeting the weakest link in the financial environment,” says Morrison. “Given the high interdependence of the financial ecosystem, any security vulnerability introduced into the sector impacts everyone. As the classic adage says, a risk accepted by one is imposed on all.”

Euroclear’s Dupuy says the shortage cuts across the industry. “Attracting top notch cybersecurity experts is a challenge for all financial institutions, and there is really a war for talent in that space,” he says.

Despite the risk of sleepless nights, however, Dupuy says the finance sector’s cybersecurity experts are highly committed and motivated by a sense of being a part of something bigger than their individual organisations. “That’s what gets me up in the morning, and I’m sure it’s inspiring to many of my colleagues as well,” he says. “Working to keep Euroclear cyber-secure and future-proof, means working to keep the wheels of the financial industry turning.”



## The complexity of our ecosystem further accentuates the need to ensure collaboration.

Marc Bayle de Jessé, European Central Bank



## Human firewall

While there are many different types of cyberattacks, 85-90% involve a human element, according to industry estimates. "Cyber adversaries have learned that it is easier to defeat a human than exploit a system technical vulnerability," says OCC CISO Mark Morrison.

Through comprehensive training, employees at all levels must be aware that their actions - for example, falling for malicious email phishing or clicking on a compromised web site that steals legitimate credentials or deploys malware - can cause irreparable harm to the enterprise information systems and data, he adds.

What does training look like at OCC? "OCC security attempts to influence user behaviour by conducting phishing email campaigns, and through an aggressive security awareness program, clean desk audits, cybersecurity exercises, and comprehensive event and activity monitoring."

At Euroclear, practice makes perfect, according to CIO Yves Dupuy. "Training is extremely important to turn knowledge into automatic reflexes. Security is the basis of Euroclear's licence to operate, and our people have a vital role in keeping Euroclear safe: They are our human firewall."

**It is easier to defeat a human than exploit a system technical vulnerability.**

**Mark Morrison,**  
Options Clearing Corporation

Cyber resilience is about more than technology, tools, and applications, he adds. "It's about having a natural instinct to secure the environment in which you work. First and foremost, it's about people, awareness and behaviours." New technologies such as big data and machine learning are beginning to be utilised as well, Duvuy says.

The Eurosystem has developed a range of tools that can be used by banks and other financial entities to enhance cyber resilience, according to Marc Bayle de Jessé, director general, market infrastructure and payments at the European Central Bank, including the European framework for Threat Intelligence-based Ethical Red Teaming (TIBER-EU). Red teaming - or 'ethical hacking' - is a way to test the security and vulnerabilities of a network by mimicking the tactics and techniques of real cybercriminals.

"The TIBER-EU Framework aims to embed a new mindset within the industry," says Bayle. "By conducting a more sophisticated form of red-team testing, we believe that financial entities will learn more about the types of threat actors that may target them, the tactics, techniques and procedures that may be used against them, and the steps that need to be taken to counter such cyberattacks."

sibos

**Explore the new Discover zone and stage at Sibos in Sydney!**





Cybersecurity:  
Hope for the best,  
prepare for the worst



Securities:  
Delving into the data

# Time for tech



Technology innovation and information-sharing move to the fore as banks pursue greater efficiency and effectiveness.

Financial crime compliance could benefit from enhanced use of technology to improve outcomes, drive effectiveness and increase efficiency in the battle to thwart criminal activity. But even the most advanced banks are still in testing mode.

Filtering relevant intelligence from millions of transactions and multiple data sources in a timely manner is a challenge across many aspects of banking operations. In financial crime compliance, there is widespread recognition that inefficiencies have spiralled out of control. In short, the nettle must be grasped.

Advanced technologies such as artificial intelligence (AI) and robotics show significant potential to improve compliance effectiveness. To ensure superior outcomes and lasting impact, rigorous but time-consuming testing, implementation and transition processes are essential.

#### **New threats, new tactics**

Banks have invested tens of billions of dollars in their compliance efforts and the number of suspicious activity reports (SARs) submitted to financial intelligence units has skyrocketed in recent years. But a large proportion of SARs generate little immediate value for law enforcement agencies or actionable feedback to banks. SAR reporting practices have not always

kept pace with evolving criminal activity and law enforcement tactics, dimming their effectiveness.

“There is a lot of effort going into filing all sorts of reports and intelligence to government agencies, but it is not often apparent whether or not it generates the required outcomes in terms of law enforcement, asset confiscations and the disruption of criminal activity. There is an opportunity to automate manual processes and bring greater efficiencies,” says Guy Boyd, group general manager, financial crime portfolio, ANZ Bank.

Regulators recognise the need for new approaches, particularly as new threats emerge. The rising sophistication of cyber attackers, fraudsters and terrorist financing operations demands continuous investment in defences and reappraisal of tactics.

Some banks are already advanced in testing the application of AI and robotics, recognising that technology can be used to reduce false positive alerts, cut resources spent on manual operations and free up analysts to focus their efforts on rigorous analysis and risk mitigation.

“We have tested machine learning technologies in anti-money laundering (AML) and other functions and the results have been very promising in reducing



**If you don't get your data into a good format, you probably won't get the results you want.**

David Howes, Standard Chartered

#Compliance  
#Technology  
#Data  
#Cryptocurrencies





## Regulators need to see strong evidence that any automated model will work as required.

Jan-Gerrit Iken, Commerzbank



the number of false positives and manual effort, empowering our analysts to focus on the relevant transactions that require investigations. Our regulators are supportive but they need to see strong evidence that any automated model will work as required," says Jan-Gerrit Iken, divisional head of global financial crime, AML/sanctions at Commerzbank.

### Better outcomes

The possibility of using human resources more efficiently is a leading incentive for implementing new technologies, given the time currently spent sifting through alerts to weed out false positives. Iken is clear, however, that the ultimate goal is using technology to achieve better outcomes in terms of identifying risk and preventing crime.

"The real promise of machine learning and other advanced technology is not to replace headcount but rather to allocate the resources we have to the really relevant cases that pose the most risk. From what we have seen so far in testing, it really does seem that machine learning and robotics could be the best way to achieve this," he says.

Getting it wrong can have serious consequences, of course, and while the promise of AI might be enticing, both regulators and banks need to be

absolutely confident that new risks will not be created by handing over responsibility for key compliance functions to machines.

"If you automate badly and risks are not detected or managed and something goes wrong with automation, it can go wrong very fast, leading to major issues which can be costly to fix. It can also lead to a risk averse approach to trying new and better ways in the future," says Boyd.

"Technology solutions such as AI often over promise and under deliver," he adds. "We have explored basic-level AI where a machine is trained to make fact-based decisions and there is clear potential, but the consequences of getting it wrong are so severe that it would be brave to let an unsupervised model loose in this space."

Testing advanced technologies is far from simple, not least because it needs to be trialled in parallel with existing processes, leading to duplication of effort in the short term. Using AI and robotics effectively not only depends on the quality of the technology, but also on a bank's internal processes and its ability to get to grips with large volumes of data. While effective use of these technologies might enable resources to be redeployed, it relies on reliable, clean data as the basis of automated decision making.

"The buzz around AI is similar to the buzz that existed around transaction monitoring systems 10 years ago. It does have the potential to add value, but if you don't get your data into a good format to feed into the systems, you probably won't get the results you want," says David Howes, deputy head of financial crime compliance at Standard Chartered.

### Targeting resources

Attitudes towards the use of technology in financial crime compliance will inevitably vary depending on an individual firm's priorities and its appetite for innovation. But compliance requirements are now clearer and better understood than in the past. This presents the industry with an inflection point at which technology-enabled opportunities are grasped or further time, effort and money are wasted through inefficiency.

"The recurring challenge is in determining where to concentrate limited resources, because testing of new technologies requires targeted investment and shifting of talent, which has to be supported by management and regulators. Machine-made decisions also have to be very transparent and well understood if they are to be widely approved and adopted," says James Freis, chief compliance officer at Deutsche Börse Group.

## Building bridges, tackling crime

### Public-private partnerships offer real value in bringing together multiple perspectives.

James Freis, Deutsche Börse Group



Few would argue that collaboration between the public and private sectors is anything but positive in the fight against financial crime, and so the development of public-private partnerships (PPPs) in multiple jurisdictions in recent years should be welcomed.

From the Joint Money Laundering Intelligence Taskforce (JMLIT) in the UK to Australia's Fintel Alliance, these initiatives typically have similar intentions to bring industry participants together with law enforcement agencies and regulators to more effectively combat money laundering, fraud, terrorist financing and other forms of financial crime.

"One of the biggest myths is that governments know who the bad actors are and they just need to find them. In reality, there are names under investigation but law enforcement needs to work with the industry to make a difference. Public-private partnerships offer real value in bringing together multiple perspectives and institutions to tackle criminal behaviour in the sector," says James Freis, chief compliance officer at Deutsche Börse Group.

The Fintel Alliance was launched by AUSTRAC, the Australian government's financial intelligence agency, in March 2017. Its operational objectives focus on

helping the private sector to identify and report suspicious transactions, helping law enforcement agents more quickly arrest and prosecute criminals, and working with academia to build knowledge and gather insight.

Simon Norton, analyst at the Australian Strategic Policy Institute, believes the Fintel Alliance is one of the more ambitious of the PPPs because it involves private sector analysts being seconded to government to work proactively with law enforcement officials. The project also comprises an innovation hub through which participants can look collaboratively at new technologies.

"Legal frameworks are critical in the context of public-private partnerships because they govern what can be shared between agencies and organisations. However great the potential of technology and data, its use will be limited if there is no framework and arrangements in place for dialogue and information sharing between the public and private sectors," says Norton.





## Cryptocurrencies: the next frontier?



**This is a growing vulnerability that needs to be closely watched.**

Guy Boyd, ANZ Bank

Until fairly recently, it was common for cryptocurrencies to be dismissed as a passing fad. As a new and unregulated market, cryptocurrencies attracted criminal elements, but the impact on the stability of the financial markets was seen as limited, as investment was confined to niche, fringe groups.

These assumptions ended definitively with the great price move of late 2017, with Bitcoin surging from \$7,000 to nearly \$20,000 in just a few months. While the price of Bitcoin has since retraced back to less than \$6,000, the move made it look more like a fiat currency, with conventional market participants taking greater interest in trading digitised assets.

It is too early to say exactly what role cryptocurrencies might play in future financial markets, but financial crime practitioners recognise the need to keep track of this evolving asset class. Cryptocurrencies could well be a target for fraudsters, especially as their user/investor base broadens, so stronger defences are therefore needed to make sure robust transaction monitoring extends to this fast-evolving space.

“There is little evidence at this point of crypto assets being misused by criminal

gangs, but this is a growing vulnerability that needs to be closely watched. An open ledger is actually very traceable so transaction monitoring shouldn't be too complicated, but education is critical as we need to make sure we understand this developing asset class,” says Guy Boyd, group general manager, financial crime portfolio, ANZ Bank.

The industry's existing detection and monitoring systems have been naturally tailored towards conventional assets and will need to be adjusted or even overhauled if there is a substantive threat of fraudulent activity on the distributed ledgers on which cryptocurrency transactions are recorded. This may be the next frontier to which financial crime defences will need to be tailored.

“Crypto assets are still relatively small in the broader context of financial markets, but we need to address them with appropriate risk mitigation tools. Given the ease with which retail investors can buy cryptocurrencies in comparison to fiat currencies, proper AML and robust identification requirements must be deployed,” says James Freis, chief compliance officer at Deutsche Börse Group.

## Sibos Big Issue Debates 2018

**MONDAY 22  
OCTOBER  
14:00**

Re-engineering international payments for a fast digital age

**TUESDAY 23  
OCTOBER  
11:00**

Is a Cyber 9/11 event inevitable?

**WEDNESDAY  
24 OCTOBER  
11:00**

Disruption in the payments landscape

**THURSDAY  
25 OCTOBER  
11:00**

The rise of Asia as a source of Innovation



# Delving into the data

Despite technology challenges, security fears and the constraints of regulation, practitioners are leveraging data to reduce risk and inefficiencies, while enhancing decision-making.



**Banks cannot get to grips with the aggregation and analytics required to create actionable information.**

Tim Lind, DTCC

Data is the lifeblood of financial markets and efficient access to reliable data sets is critical to ensure streamlined, automated processes throughout the trade lifecycle. In front-office trading functions, new data analytics can enhance decision-making, while back-office operations and processing benefit from greater efficiency, reduced risk and more cost-effective compliance. Nevertheless, collecting and making sense of large volumes of data has long been a challenge for securities market practitioners.

With the evolution of industry practices, new regulations and advanced technology, there has been an explosion of data over the past decade, with ever greater volumes of granular information generated, collected and reported. But data in isolation adds little value without enrichment, aggregation and analysis tools, and proliferating data sets represent a growing challenge for market participants

“Across all major parts of the securities value chain, everyone is looking to develop new techniques to mine and interpret data to realise its full potential both for institutions and their clients. We’re seeing increasing levels of confidence to tackle this and more new products and solutions are becoming evident,” says Margaret Harwood-Jones, global head of securities services at Standard Chartered.

#### Opportunity from insight

The intrinsic value of data lies in its potential to reveal valuable insights and opportunities. The recurring challenge is to convert raw data into a format that can be used as the basis for enhanced insight and action. Clearly it is the responsibility of individual institutions to manage their own data, but market infrastructures (MIs) are also well placed to extract and aggregate data for the benefit of the whole industry.

In January 2018, the Depository Trust & Clearing Corporation (DTCC) appointed industry veteran Tim Lind as managing director of data services with a mandate to leverage the vast amounts of data derived from the company’s processing platforms and advance its data strategy. Lind believes MIs have a critical role to play in capturing, aggregating and exploiting the unique value of data.

“Bankers often say they are flooded with data but starved of insight. Masses of data flow through banks’ infrastructures and they recognise it has value, but they cannot get to grips with the aggregation and analytics required to create actionable information and enhance decision-making,” Lind explains.

Some service providers are more advanced than others and are already leveraging data to identify how and when assets

#Securities  
#Data  
#MarketInfrastructures  
#Regulation







## Everyone is looking to develop new techniques to mine and interpret data.

Margaret Harwood-Jones, Standard Chartered

have historically been invested, offering that insight for the purposes of enhanced packaging and distribution of funds. Meanwhile, in the front office, forward-looking asset managers are using a wider range of data to make more informed investment and trading decisions.

“With access to data from hundreds of information providers, asset managers are able to canvas and track market sentiment around a particular stock and decide whether or not to execute a trade. Data can also be used to gain a clearer oversight of trading counterparties and markets for optimal execution,” says Paul Stillabower, global head of product management at RBC Investor & Treasury Services.

The potential benefits flow throughout the trading and investment process. “An investment manager may need to access data to determine how often their trades fail with a particular broker and under which circumstances, in addition to how much a failed trade may have cost,” adds Stillabower. “This information can then be used to decide which counterparty they should trade with under certain market conditions and on which market to achieve the best price.”

### Supporting core services

In the middle and back office, MIs are continuing to explore opportunities to use data to improve critical processes. With its central position in trade processing, clearing and settlement, the DTCC

recognises its potential role in enabling data-driven insights. Among the many functions that stand to benefit, Lind cites liquidity management, market risk, trade decision support, capital adequacy and regulatory compliance.

“This shouldn’t be about creating new lines of business for MIs but supporting core services with additional data,” Lind explains. “Aggregated historical data is the baseline for quantitative analytical models looking for patterns in trading activity and liquidity, which should ultimately benefit front office, research and risk functions.”

In parallel, financial institutions are also dealing with the growing threat of financial crime, fraud and terrorist financing – areas in which better management of data and use of advanced technologies (e.g. AI-based systems to recognise unusual data flows) stands to drive considerable new process efficiencies in identifying and deterring multiple forms of malicious behaviour.

Extracting, aggregating and making more effective use of large volumes of data comes with its share of challenges, including privacy, integrity and security. Financial institutions tend to be naturally protective of their proprietary data, which can raise barriers to market-wide exploitation, as can legacy differences in market practices, rules and infrastructure across geographies.



Given the potential to drive enhanced performance and remove duplicative sub-optimal processes, practitioners believe now is the time to embrace innovation and challenge the status quo. Tackling questions around data ownership and privacy will naturally be part of this process.

“There is an opportunity here to radically rewrite the way we operate in the securities market,” says Harwood-Jones of Standard Chartered. “As new operating models emerge and we find enhanced ways to meet client needs, the pace and scope of change will be far superior if there is proper collaboration between banks, custodians, clients and regulators, bringing different perspectives together to evaluate opportunities and solutions.”

## The case for buy-side reinvention



Historically, asset management firms haven’t often stood at the bleeding edge of technological change. Overall, they’ve preferred to focus on managing money and delivering returns for investors, leaving technology providers to blaze the trail with new systems and processes, with banks taking the role of early adopters or fast-followers.

That might be about to change. Fuelled by record growth in assets under management and seeking greater efficiencies from service providers, many asset managers are taking bolder steps to reduce or replace manually intensive operations and embrace machine learning, robotics and advanced analytics.

“The increased use of artificial intelligence and analytics is driving change in the way asset management firms are organised, because few have the scale to deploy technology on a desk-by-desk basis. Firms will have to think about data and analytics at an enterprise level so that all desks can leverage it – this is where the most disruption will occur,” says Sumitra Karthikeyan, head of the securities servicing practice at the Boston Consulting Group (BCG).

Global assets under management grew by 12% in 2017 to US\$79.2 trillion, the strongest uptick since 2009, according to BCG’s 16th annual report on the industry, published in July. Reflecting the changing contours of the global economy, this expansion was led by China and North America, with China registering 22% growth last year, becoming the fourth largest asset management market after the US, UK and Japan.

## Firms will have to think about data and analytics at an enterprise level.

Sumitra Karthikeyan, Boston Consulting Group

“Given the huge share of growth of emerging markets such as China, asset managers have to follow the money. The US is still growing but the next generation of investors is much more focused on new markets, so firms are having to rethink their distribution strategies and make sure they are fully attuned to the regulatory and structural demands of key markets,” says Karthikeyan.

“Digitisation and tech-driven innovation is shaping the Chinese market in an unprecedented way, such that it creates both higher barriers to entry and also opportunity for digitally savvy asset managers,” she adds.

While many asset management firms already have a digital agenda that might involve hiring technologists or experimenting with analytics and data, BCG suggests the industry as a whole must capitalise on its recent growth and invest further in digital and analytics. In five years’ time, asset managers should look, think and behave very differently from the way they do today, the group predicts.

“The most innovative firms are those that are very demanding about the flexibility and malleability of the data underlying their operations and are investing in this area. There is an opportunity to do this strategically and in a scaled way at an enterprise level. At the moment, we see greater investment on an ad hoc basis in experimental siloes,” says Karthikeyan.



## A time to reflect, but not relax

### Regulators and industry participants have acknowledged the need to take stock.

Ten years on from the collapse of Lehman Brothers, the processes of the global securities markets have been completely reshaped by the swathe of new regulations implemented to shore up the industry and protect it (and its customers) from further shocks. From heightened capital and collateral requirements to reform of execution, clearing, settlement and reporting, barely any part of the transaction lifecycle has been spared.

Driven by global standards set by the Financial Stability Board, the Basel Committee on Banking Supervision and other international bodies, most G-20 jurisdictions have implemented major capital, liquidity and market reforms since the crisis. Taken together, these changes represent the biggest industry overhaul in history.

With so many regulations drafted and implemented in a relatively short period of time, both regulators and industry participants have acknowledged the need to pause and take stock of what has been achieved, what works, and what needs a rethink.

Following its progress report on regulatory initiatives last November, the International Securities Services Association recently

issued an update, evaluating the main changes impacting the securities services industry and stakeholder responses.

The report concludes broadly that while end-investors benefit from better protection of their assets and greater financial system resilience, reform implementation has been expensive for market participants. Moreover, the new framework has not yet been tested by events.

Already, some regulators have started to make modifications to rulebooks to ensure greater consistency and effectiveness - notably the European Commission's Capital Markets Union initiative - and further changes may be necessary as market practices evolve. While the past decade was one of breathless rule writing and implementation, the next is likely to be one of consolidation and review.

**sibos**

**MONDAY  
22 OCTOBER**

## Networking events at Sibos - open to all

**17:00  
New Payments Platform (NPP)  
cocktail  
SWIFT stand**

**18:00  
Discover zone launch event  
Discover zone ICC Level 4**

**WEDNESDAY  
24 OCTOBER**

**06:00  
Sibos 5K Fun run and walk**

**17:00  
WOW (Women of the World)  
networking drink  
ICC Level 5**

**19:00  
Innotribe party  
Wild Life Sydney Zoo**

**THURSDAY  
25 OCTOBER**

**17:00  
'Celebrating Sydney' - Sibos closing  
event  
ICC Level 5**





# Proof of concept

Banks are increasingly realising the potential of digital technologies.

In 1984, the first film in the 'Terminator' franchise imagined the height of future technology as an autonomous, lumbering hunk of robot. By 1991, the franchise had imagined the future to be menaced by a more streamlined shape-shifter. If only replacing legacy technology was that simple.

Banks, market infrastructures and other financial service providers have been ramping up investment in digital technologies for the past decade, starting with cloud, but rapidly expanding to artificial intelligence (AI), distributed ledger technology (DLT) and beyond. But for firms with complex existing processes, a wide range of services and customers, and tough, evolving regulatory obligations, the effort required to move the needle is considerable.

#### Moving the needle

Kirsty Roth, global head of operations at HSBC, says that for an AI system to be able to spot patterns in a field such as fraud detection, it has to be trained on enormous data sets, which must be aggregated and normalised. "We're talking a couple of hundred thousand datapoints before you can do anything," she says.

Typically, when using datasets of the necessary size to develop and test a new system, firms are finding that cloud technology is a pre-requisite in order to provide computing capacity as needed,

rather than creating a fixed cost with dedicated servers which would then have to be repurposed afterwards. HSBC has recently reached an agreement with regulators that allows it to use customer data on the cloud, enabling it to train AI for tasks such as reading cheques.

It has already scored success in developing AI systems in areas that focus on analysis of transactions not personal data, where patterns of behaviour can be tracked such as spotting activity that might lead to non-compliance.

"We have a system in payments screening that takes into account elements like sanctions on a third party that might affect whether we want to transact with them," says Roth. "We are looking at patterns between the clients, any third parties, the jurisdiction and the location they are currently in. When we do a screening, the payment has to pass both the level one and level two checks to be validated to ensure we haven't released a payment that supports something like money laundering."

False positives can be a major issue, particularly in countries where many names are common, and therefore innocent citizens share names with sanctioned persons. For example, where 250,000 payments were being processed a month in the Middle East, one in five were being held up, prior to using the new payments screening tool.

#Technology  
#DLT/Blockchain  
#Data  
#Regulation





## You need a couple of hundred thousand datapoints before you can do anything.

Kirsty Roth, HSBC

“We put in a machine learning solution which has been applied to level one testing, and it has eliminated 70% of those hold ups, while also the quality of its work measured by error rate is at 99%, where a human checking was at 92%,” notes Roth.

But HSBC’s use of AI reaches across its operations. For example, the bank has also used AI to develop chatbot technology, with natural language processing to understand requests more easily. That has allowed it to automate responses to 20% of internal operational enquiries, with an accuracy rate of 70%.

### Cloud cover

Cloud technology has the capacity to improve service levels by allowing the use of large data sets not only for AI, but also in testing and development of new technologies, back-testing risk models and creating flexibility in compute-heavy tasks. Increasingly, vendors offer purely cloud-based back-office services, such as CloudMargin, which allows firms to manage collateral.

According to ‘Cloud Adoption’, a white paper published by HTF Research in June 2018, globally just 5% of banking applications are currently sitting in the public cloud, but that is expected to increase significantly. The proposed use of public cloud by banks globally is predicted to climb from just over 10% within one year to over 40% in five years’ time.

The use of private cloud is much higher. Nearly 70% of North American tier-one bank applications, internal compute farms and mainframes, sit on the private cloud, falling to just over 30% for tier 2 US firms. By contrast the banks across the rest of the world see between 20-25% of applications on the private cloud.

“The regulatory environment plays a part in that [geographical difference],” says Andrew Rossiter, head of technology engineering services at banking consultancy GFT, who also cites the location of major cloud providers in the US and a stronger technology culture in US banks. But announcements from major UK and European banks suggest the sizeable US lead in cloud may not last. “Big European banks are looking to leapfrog ahead,” says Rossiter.

### Making new connections

European firms are also pressing ahead with digital technology innovation in other areas of the corporate banking market, for example in the growing use of DLT, a shared, encrypted database of transactions that can only be changed when a genuine transaction is validated on the ledger. The most well-known example of DLT is the blockchain, a publicly accessible ledger that allows the bitcoin cryptocurrency to be transacted securely in an anonymous, trustless environment. But its value in the trade finance space is as a framework for passing documents,

assets or payments between parties, in a validated and secure manner.

Mariana Gomez de la Villa, DLT programme director at ING, says the bank ran its first successful proof of concept (PoC) using DLT in 2017, when it worked with Societe Generale and Mercuria, a Swiss commodity trading group, to make three transfers of ownership for a cargo of oil, travelling from Africa to China.

Called ‘Easy Trading Connect’, the project required the participants to build a private network based on the Ethereum DLT, using smart contracts to trigger an exchange of ownership, as the maturity of enterprise-grade DLT was still relatively low at that point. Using DLT across multiple jurisdictions can be challenging, according to de la Villa.

“The smart contracts are not legally enforceable everywhere, so we had to mirror the process in paper, to compensate any potential problem with the trial and to keep the contract legally enforceable,” she says.

Under ING’s in-house innovation methodology called ‘Pace’, which is used to set performance parameters around new projects, Easy Trading Connect has been assessed against the manual processing of documentation. In its pilot it was found to be three times faster, rising to four times in later tests for commodity finance.

ING has extended use far beyond trade finance to balance sheet and collateral management. In January 2018 the bank ran a pilot in which it swapped US\$25 million of high-quality liquid assets for non-high quality liquid assets. Taking a lesson from Easy Trading Connect, a custodian was included in the process which ensured the transaction was legally enforceable.

“That is a huge leap,” de la Villa says. “With our exchange of high-quality liquid assets, we facilitate ‘atomic’ delivery by digitising baskets of assets as collateral receipts using DLT; this makes it faster for securities to be liquid and tradable. Previously, one could redistribute and manage collateral liquidity within the day; now, you can do it more efficiently and even within hours.” Atomic delivery denotes simultaneous transaction and settlement.

Not only is the bank realising operational advantages, but in pushing forward these developments, it is helping to drive forward regulatory change. Each PoC allows the bank to demonstrate that technology has moved further into the realm of transforming financial services. “Creating minimum viable systems is so important because then you have leverage and influence in discussions with regulators, for example, as to whether a digital bill of lading should be an official recognised document,” says de la Villa. “We now have weight to put behind that discussion.”



## Creating minimum viable systems gives you leverage in discussions with regulators.

Mariana Gomez de la Villa, ING



# Innovation under a cloud?



Global banks seeking to use artificial intelligence, distributed ledger technology and cloud-based systems or services across borders will need to negotiate a range of regulatory approaches, in the absence of global standard approaches. For example, sharing data across borders is often challenging due to the nature of data protection rules, which protect citizens by ensuring that their information is kept within their own jurisdiction.

As the major cloud providers are US-headquartered firms, non-US firms may find it harder to use cloud services even if they are operated as private networks. Techniques such as collating and masking data before it goes on the cloud, running processes over that masked data, then extracting the results and mapping them back to the original clients, can be used to overcome some regulatory concerns.

As local capacity increases across jurisdictions, the ability to engage will improve. For example, the European Commission is developing a long-term strategy to build a European Cloud, starting with the 'European Open Science Cloud' a pilot for which is due to complete on 31 December 2018. This is ultimately intended to support the Digital Single Market, as "the data produced by EU research and industry is often processed elsewhere and European researchers and innovators tend

to move to the places where high data and computing capacity is more immediately available".

New ideas and concepts can also be interpreted differently by authorities. Defining the tokens issued on distributed ledgers as 'securities' or 'utility tokens' will determine how they must be treated by regulators and professionals. Clear guidance began to be issued in late 2017 and early 2018 across all major jurisdictions, ranging from outright bans on initial coin offerings in China, to clear categorisation in Switzerland, to rules being applied by swathes of regulators and state authorities in the US.

Understanding the way that a technology-led service or security might be interpreted within jurisdictions now and in the future is key to supporting sustainable innovation. ■■■

**New ideas and concepts can also be interpreted differently by authorities.**

sibos

NEW!

## Sibos breakfast keynotes

TUESDAY - THURSDAY  
09:00

Join us at 09:00 from Tuesday to Thursday at the plenary room for a light breakfast and inspiring keynote speeches from three well known experts. **Parag Khanna** will take a look at mega-trends shaping the macro environment, AI expert **Ayesha Khanna** will cover technology shifts and Olympic Gold medal winner **Cathy Freeman** will speak about how human determination is key in obtaining results.

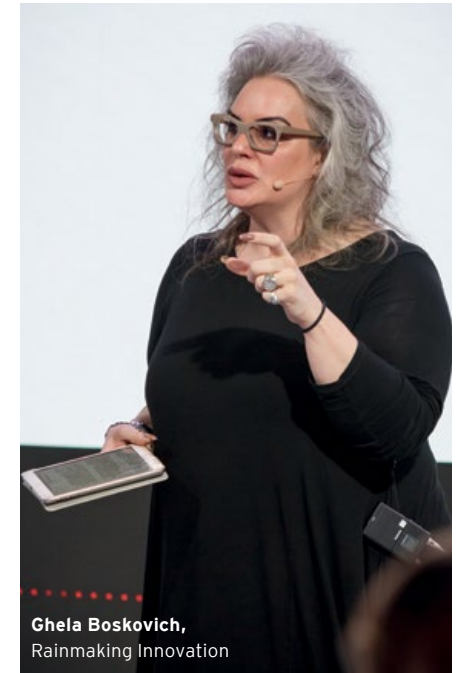
More information on [www.sibos.com](http://www.sibos.com)



# Securing the future



**We need a conversation around sovereign portable identity.**



**Ghela Boskovich,**  
Rainmaking Innovation

Questions of trust, identity and privacy must be tackled if the digital technology revolution is to have positive outcomes.

This year, Innotribe takes us further into the future than ever before. What changes will technology innovation have wrought by 2030? Will there still be bankers?

Yes, and we may even recognise them as such, but they'll be working in a transformed industry, serving transformed markets. The coming decade promises more challenge, more opportunity, more technology - and much closer engagement in our customers' lives and work. What can we do now to secure the future for the benefit of our customers, and for the benefit of society as a whole?

**Embracing change**

We could start by embracing the idea and the reality of change. We will only be able to move forward with our customers, working and sharing with them, building their future and ours, if we're both open to change, and ready for it. After all, the future is with us already.

"This year, we'll hear from speakers outside our industry, who do this for a living, for real, at scale, now," says Leda Glyptis, chief innovation officer, Qatar National Bank, and day anchor for Tuesday's sessions on quantum computing. The future will neither wait for us, nor adapt to our established practices.

It's also clear that the present is not an easy starting point. "First, we have to solve one of the bigger crises of banking," says Ghela Boskovich, head of fintech and regtech partnerships, Rainmaking

Innovation, and day anchor for Monday. Delegates enjoying their first coffee - or tea; there's tea this year - may expect to hear solutions to the current crisis around identity and personal data. This is partly a regulatory-driven issue, based on the EU General Data Protection Regulation and the second Payment Services Directive. Boskovich adds: "Identity is a fluid concept, and in the larger scheme of things, we need a conversation around sovereign portable identity."

That very conversation will take place at Innotribe as part of Monday's overall theme of the decentralisation of trust. By the end of the day, we'll have at least some potential answers to a wide array of questions around identity, trust and doing business together. If distributed ledger technology already offers us a vision of a world in which trust is distributed, how will we form relationships with each other and with our customers without a form of centralisation? "We need also to worry about privacy constraints, and about access to private information," says Boskovich.

Tuesday will then take us into the realm of quantum computing. "The time to be working on this is now. It's moved past the purely theoretical and into an experimental phase," says Bob Stolte, head of post-trade technology at JP Morgan. Quantum computers exist (see 'Quantum is coming'), and while they're not operational at scale, now's the time to be discussing what they can do for us, what they might disrupt, and

#Innotribe  
#ArtificialIntelligence  
#Data  
#Digitisation







# Social media companies have been able to do so much analysis because they normalise data.

the possible constraints we might impose on their use.

### Big data, bigger questions

If the future is a place where identity has quantifiable market value as Boskovich suggests, and privacy remains a contentious issue, it follows that the (computing) power to conduct minutely detailed analyses of every aspect of our customers' behaviour may not be viewed as unambiguously positive. There are moral considerations, as well as the straightforwardly pragmatic issue that if we invade our customers' privacy, however inadvertently, we may lose both customers and reputation whilst attracting a legal liability. To know all is not necessarily to gain a competitive advantage.

In terms of making ourselves future-ready, moral and practical issues can overlap. "Everybody talks about big data; what's really relevant is the small data that comes out of it, that enables humans to make decisions and do better work," says Diana Paredes, CEO, Suade Labs, day anchor for Wednesday's sessions on artificial intelligence and interconnectedness. "The data in financial services is so messy that privacy is a side issue. Social media companies have been able to do so much analysis because they normalise data; they put it in one format."

Unlike almost all banks, this means they already know their customers sufficiently intimately to identify likely purchases. But if we're talking about preparing for the future, should we not be reflecting on a much broader set of questions: do we, and

our customers, understand each other? By our disclosures, do we obtain true consent? Paredes says: "You can have as much disclosure as you like, but if nobody's going to read it, there's no point to it. There's a responsibility to turn those disclosures into something that people can digest."

The customers of the future will be much more aware of their privacy and the value of their data than today so perhaps they'll also take a view on - so to speak - the size of the small print. Paredes says: "In place of terms and conditions, maybe you want something useful - a way to vote on who you want to have your data." Or a way, perhaps, to drill down to narrow permissions for specific usages.

### Finance in context

Throughout the sessions on Monday and Tuesday, we will be building an understanding of the relationship between future banks - quantum-enabled, data-rich, analysis-capable, regulated and responsive - and future corporate and retail customers - the latter free agents, owners of their own identities and data, protective of their privacy. Taking these underlying themes forward, Wednesday starts with this year's 'Future of Money' session, which will discuss the trend towards contextual finance.

Moderator Udayan Goyal, co-founder and managing partner, Apis Partners, says: "We'll be discussing open banking, and how it enables the provision of contextual financial services. You don't wake up in the morning and buy a loan; you buy a car and finance it. Increasingly, firms are going to be embedding their financial products



Diana Paredes, Suade Labs

at the point of sale. If you think about the large technology companies, they are well-placed to sell you financial services at the right contextual point."

Self-evidently, the moment you decide to buy the car is the moment you need the financial products to support the purchase. Goyal says: "We're heading towards a situation where the banks and insurance companies will hold the capital, because anybody who touches money needs to be regulated, and once the APIs become available, the holders of the customer touchpoint can repackage financial products, keeping the money in the regulated institution but controlling the customer relationship."

As Goyal says, technology is a "gigantic enabler to get access to customers". As we all check our mails, texts and other communications throughout the day, we periodically spend time in, for example, "the Apple environment", albeit perhaps only semi-consciously. Goyal continues: "The technology companies have share of mind; they're converting this to share of wallet. This is being enabled by regulators pushing open access to banking." Again, for the banks, this is not unambiguously positive. "This has very significant consequences for the industry as a whole," says Goyal.

On Thursday, we will pull all the threads of thought together. As Glyptis says: "The question will be: what does this mean for the world? This is not just about banks experimenting with contained technologies. This is real, it's happening; it's going to change your business." —



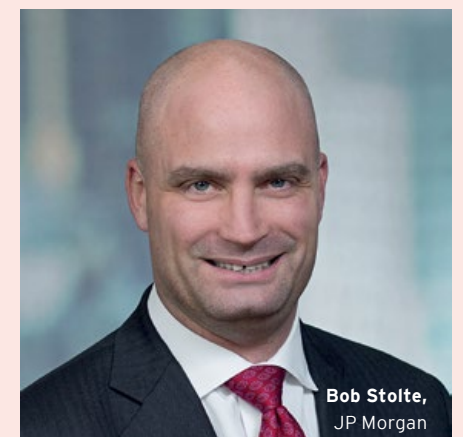
## Quantum is coming

Today's computers use bits, which can be 1 or 0. Quantum computers use qubits, which can be in more than one of those states; the key term to describe this phenomenon is superposition. Qubits can impact the behaviour of other qubits through entanglement. Quantum computers are effective when their qubits achieve a state of quantum coherence. "This delivers exponential growth in the amount of compute that's available to you," says Bob Stolte, head of post-trade technology, JP Morgan.

Quantum computers operate now, but not at scale; quantum coherence is impacted by "noise" interference introduced by today's materials, making operation at scale a challenge for materials science. The opportunity now is to experiment and test, allowing us to be better prepared for when today's challenges are overcome. "A very large part of what we do - valuation, risk management, portfolio construction - all of these rely on probabilistic algorithmic computing, which should lend itself nicely to quantum computing," says Stolte.

Quantum computing has the potential to reframe many of today's challenges - encryption, for example - but computing as we know it will not be disrupted. "It is a

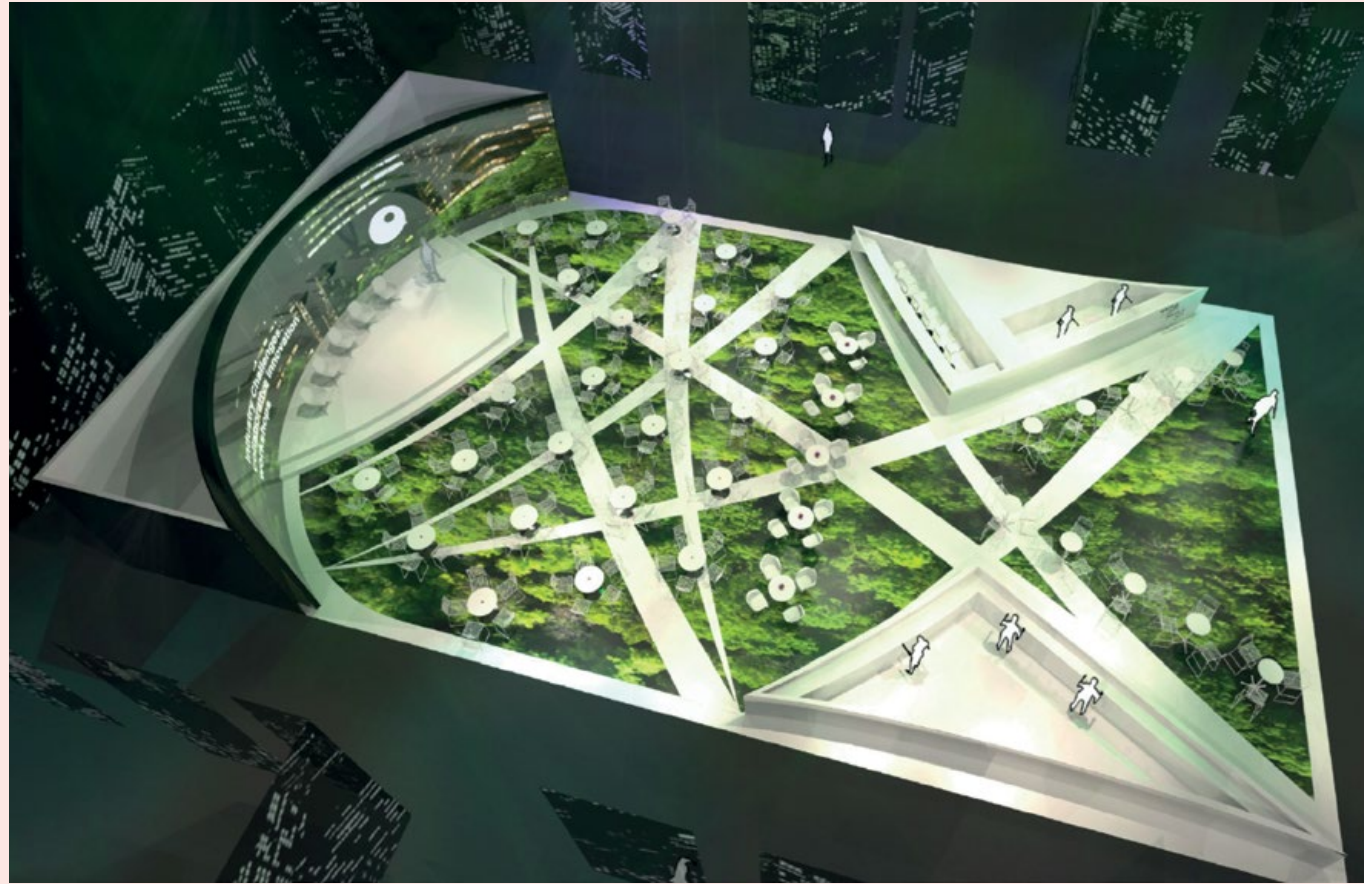
very narrow use case. I don't see quantum computing invalidating classical computers. It's very much an augmentation, a new tool but not one that would replace classical computers," says Stolte. —



Bob Stolte, JP Morgan

### I don't see quantum computing invalidating classical computers.





## Discover Innotribe, discover innovation

If you want innovation, go to Innotribe and look around you. This year's Innotribe space is located right at the heart of the fantastic creative cluster of fintechs, universities and bank innovation labs that populate the Discover Zone. Innotribe itself will serve as the free-spirited Central Park within Discover Zone's Manhattan - and be the meeting point for their exchange of ideas.

There'll be tea and coffee throughout the day, on-point speakers from IBM Research to liven up the lunchbreaks (with 'Sensemaker' sessions), and curated networking sessions in the afternoons. Innotribe itself will be structured around three main sessions per day, with keynote speakers including Brett King, futurist, CEO of Moven, and author of books including 'Augmented' and 'Breaking Banks'. This year's 'Future of Money' session, on open banking and contextualised financial services, has itself been placed in context - back on the Innotribe stage, on Wednesday morning.

To close this year's programme, Joseph Lubin - CEO of Consensus and co-founder

of Ethereum - will share his thoughts on the future influence of decentralised structures, and many other topics, during an in-conversation event with SWIFT CIO Craig Young.

How can we secure the future? Find out at Innotribe. —

sibos

### CLOSING PLENARY

Professor **Genevieve Bell**, an Australian cultural anthropologist, technologist and futurist, will deliver the closing plenary address at Sibos 2018.





# A clear case for change



It's not just moving to a new standard - it's an opportunity to rethink business processes.

Dominik Vogel, UBS



Migration of payments messaging to ISO 20022 offers many significant benefits - in the long run.

The next generation of payments infrastructure is waiting in the wings. By 2023, all major high-value payments systems will be using ISO 20022 messaging and cross-border payments traffic will likely follow suit. SWIFT has recently consulted users on a migration plan for MT messaging in recognition of the need to develop both an operational timeframe and a robust business case.

For many, there is no longer any debate; ISO 20022 is the de facto foundation for payment systems (progress is more uneven in securities, but growing). The tipping point came when migration timetables were announced for the Federal Reserve's FedWire and the Clearing House Interbank Payments System (both US), TARGET2 in the Euro-zone and RTGS renewal in the UK, joining market infrastructures (MIs) in China, Japan, Switzerland and others already using the standard. If announced deadlines are met, ISO 20022 will dominate high-value payments by 2023, supporting 79% of transactions worldwide by volume and 87% by value.<sup>1</sup>

#StandardsForum  
#ISO20022  
#Payments  
#Digitisation

<sup>1</sup> SWIFT ISO 20022 Migration Consultation Study, April 2018.

The standard is also widely used for instant payment systems (for example, in Australia, US, Canada and for European instant payment services TIPS and RT1), and is preferred by many large corporates for communicating with their banks. This all builds the case for replacing MT with ISO 20022 for cross-border payments. But what benefits can banks and their customers expect to reap from the considerable investment required?

#### Compliance and transparency

Major MIs and regulatory demands are driving this change and so, it might be said, the industry must follow. But MIs' choices reflect market needs: the ability to carry extended, structured data is indeed very valuable for banks' own operations. Dominik Vogel, director of service management for payments at UBS, says: "ISO 20022 solves many problems in the banking environment by providing transparency of data, no loss of data across the payment chain, no truncation, and so on. Real savings will come from easier compliance with Financial Action Task Force guidelines on anti-money laundering (AML) and with future regulatory requirements." Paula Roels, head of market infrastructure



# ISO 20022 will help to transform our industry.

and industry initiatives, cash management, Global Transaction Banking, Deutsche Bank, agrees: "Sanctions screening and AML due diligence are already quite automated, yet the lack of structure and reach in information currently leads to significant false positives, needing manual intervention."

And for banks' corporate customers, ISO 20022 helps to provide the extended remittance data they need for automated account reconciliation and fewer payment enquiries. Indeed, many banks have been providing ISO 20022 messaging to their corporate customers for some years (as well as for all SEPA payments). As Roy DeCicco, industry issues executive at JP Morgan's treasury services division, points out: "this co-existence is inherently inefficient". As co-chair of the Payments Market Practice Group, DeCicco is aware of the requests from the payments community to enhance the legacy environment - for example, to accommodate additional information in the originator and beneficiary party fields. "ISO 20022 can handle these sorts of requirements - and others, like use of legal entity identifiers, payment purpose codes and so on - so much better than MT," he says.

**Streamlining market practice**  
Switzerland decided against costly co-existence of standards in 2016 and

is pushing ahead with new efficiencies that benefit end-users. Since then, a phased programme coordinated by SIX Interbank Clearing (SIC) has achieved the harmonisation of disparate payment processes, with domestic and cross-border, customer-to-bank and inter-bank payments all moving to ISO 20022. In July this year, a key milestone was reached when SIC announced 80% of corporate customers in Switzerland are now submitting payments in ISO 20022 format. A next step is the planned introduction of a standardised paying-in slip, the QR-bill, for all payments whether manual, mobile or online. It will include a digitally-readable QR code carrying rich structured data (e.g. IBAN, payer and beneficiary data) which will ensure transparency and STP of payments, replacing seven different paying in slips used across the Swiss market.

If the benefits of a harmonised ISO 20022 environment for payments are increasingly clear, it is nevertheless true that the implementation costs will be significant and banks must make multi-year budget commitments. A study by Deloitte for the Swiss financial industry suggested banks would collectively contribute some CHF550 million of overall investment costs, resulting in some CHF65 million per year of savings. "There really is no short-term business case for migration. The payback is several years



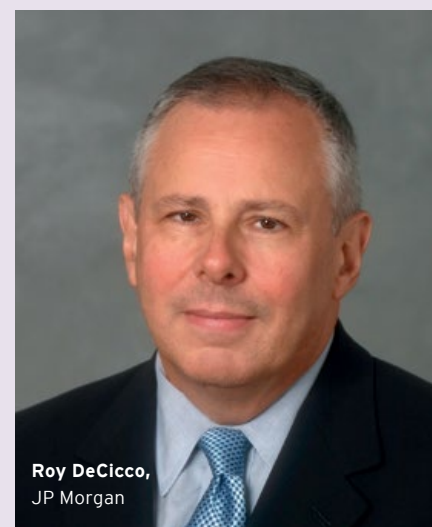
Paula Roels,  
Deutsche Bank

down the line," says UBS' Vogel, adding: "But it's not just moving to a new standard - it's an opportunity to rethink business processes."

Deutsche Bank has begun a global migration project with a clear governance structure and Roels urges others to start putting the necessary resources and expertise in place now. "ISO 20022 will help to transform our industry, but migration will impact operating models and the legacy applications," she says.

## The mechanics of migration

### It doesn't make sense to invest in legacy.



Roy DeCicco,  
JP Morgan



By the end of 2021, banks will start to use ISO 20022 messages to communicate with major high-value payment systems. Instant payment systems in many jurisdictions also use ISO 20022. So the time was considered right to consult the industry on moving to the standard for cross-border traffic over SWIFT.

The consultation, which closed at the end of June, was industry-wide, encompassing SWIFT national member groups, banks, central banks and vendors. According to Tanja Haase, ISO 20022 programme manager at SWIFT, 19 of the top 20 national member groups responded, with 95% of respondents wanting SWIFT to move forward with migration to ISO 20022 for payments messaging, including SWIFT gpi.

The community's position was less clear-cut for securities messaging, with around 50% of the community favouring migration, and others contending that the ISO 15022 standard used for the bulk of securities processes remains fit for purpose. Many acknowledged that regulation imposing ISO 20022 would be the likeliest driver for migration. Respondents also agreed that there is little business case today to adopt ISO 20022 for trade finance or treasury/FX business.

**ISO 20022 - the new normal**  
Small banks must recognise that ISO 20022 is "not a nice-to-have alternative standard; it is the foundation for our digital future", says Craig Ramsey, head of real-time payments product management at ACI Worldwide, a payments solutions company. Individual institutions will have to gauge where to invest in technology and

infrastructure, but Ramsey believes ISO 20022 investments will not be wasted.

With ISO 20022-based instant payments solutions being rapidly adopted worldwide, the standard will be "the new normal" within five years, with the potential to radically change the customer proposition. "The standard doesn't provide business opportunities in itself, but it makes it possible to deliver them," suggests Ramsey. For example, the introduction of a request-for-payment function could reduce dependency on costly direct debits and also change the online payment proposition from being card-based to bank-based. Estimates suggest companies can save up to 8% of their reconciliation costs if good quality invoice data is carried along with the payment.<sup>1</sup>

Will banks have to change their legacy systems to get the benefits? Not necessarily. "Payment hub solutions will enable some data to be sent to legacy systems while other parts of the message are handled elsewhere," says Ramsey.

When it comes to MT migration plans, JP Morgan's DeCicco thinks it will be important for different market participants to stay in step and this will inevitably mean some compromise between the needs of smaller and larger banks. But, he says, "It's clear this is where the market is going and the entire industry can save costs with this. It doesn't make sense to invest in legacy."

<sup>1</sup> Economics of Request for Payment, Accenture, 2017



# APIs: From compliance to innovation



Open application programming interfaces (APIs) are the building blocks of open banking - the means by which banks and payment service providers can, with our permission and strict security, access our financial data to deliver a range of customised, digital services. "It's the next wave of digital banking, yet banks are currently focused on the compliance aspect, instead of seeing it as a strategic business opportunity," says Tony McLaughlin, head, emerging payments and business development at Citi's treasury and trade solutions business.

To achieve interoperability, comparability or end-to-end processes, APIs require standardised data exchange, but the current lack of defined standards is leading banks to implement them in a somewhat proprietary (and some would say defensive) manner, resulting in the fragmentation of API development and inhibiting innovation. Recently, the Emerging Payments Association wrote to the UK's Open Banking Implementation Entity sharing concerns that could inhibit fintechs from engaging with Open Banking - including API and data standards.

"Banks need to be able to offer lending through a standardised API; otherwise there's a risk merchants will go to alternative providers instead," says McLaughlin, citing the success of online lenders.

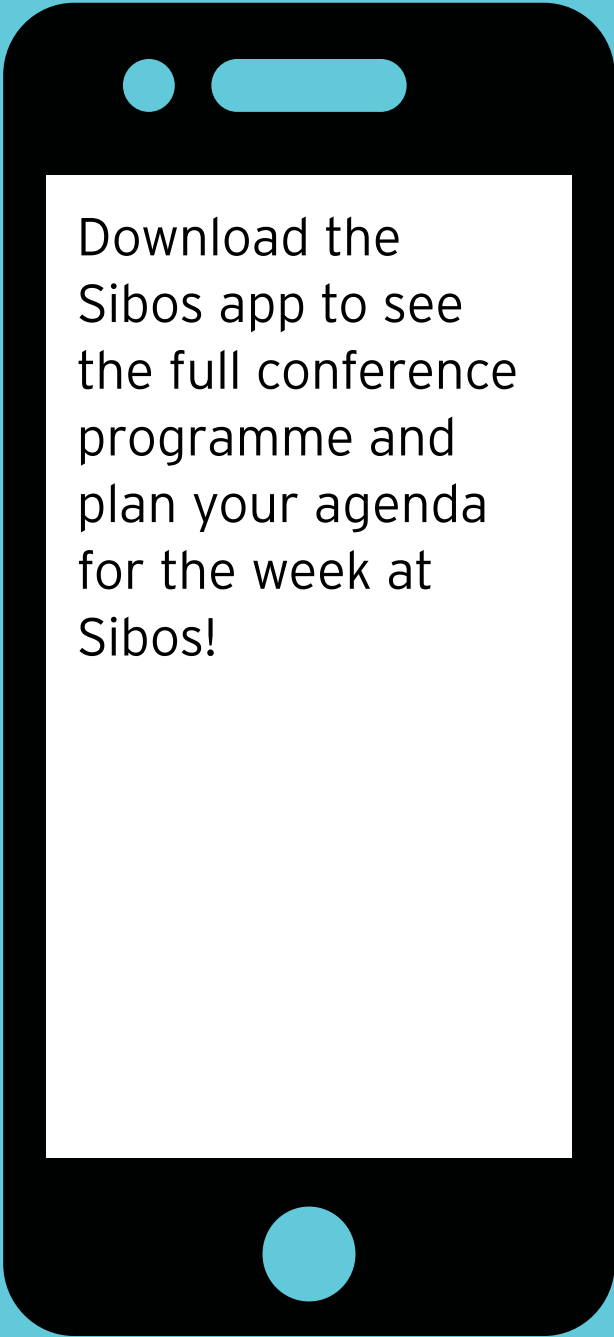
Citi is one of a group of banks working with merchants and SWIFT to develop a draft

specification for a 'transactional finance' API, based on ISO 20022 and JSON standards, that goes beyond compliance to deliver real added value. The API would make it possible for any bank to offer merchants a standardised Pay Later service which would be revenue-generating for the bank and offer a frictionless customer experience, resulting in fewer lost sales for online merchants.

Developing API specifications is a new departure for SWIFT, but it uses a standardisation approach similar to messaging standards, where SWIFT has so much expertise. "The intention is that SWIFT would manage the specification and eventually this could become an industry standard. Pay Later is just one of many potential use cases," says Stephen Lindsay, SWIFT's head of standards.



**Banks need to be able to offer lending through a standardised API.**





# SWIFT at Sibos

#SWIFT



# Regional CEO welcome Innovate and differentiate – the key to supporting customers in the digital economy



Alain Raes, SWIFT's chief executive for EMEA and Asia Pacific, reflects on the dynamic and creative forces that will be showcased at Sibos 2018.

“  
**Change is most evident in the retail space, but the corporate and institutional markets are evolving fast.**

Alain Raes, SWIFT

The theme for Sibos 2018 – Enabling the digital economy – could not be better suited to its host region. After all, Asia-Pacific offers more examples than any other region of financial service providers adapting their services to support the new needs of consumers, businesses and institutions.

From Sydney to Shanghai to Singapore and beyond, firms are collaborating to develop new solutions that leverage technology innovation to meet needs inspired or reshaped by the digital transformation of the global economy. While much has rightly been made of the deepening partnerships between banks and fintechs, SWIFT is also playing a key part in supporting innovation – in this region and globally.

A key element of the new business models brought to life by recent waves of technology innovation is the use of digital platforms that can be used by multiple constituents to serve a range of related needs; these bring suppliers and providers together in new and often unpredictable ways. Similarly, financial service providers and market infrastructure operators are developing and leveraging platforms for innovation as part of the industry's push to offer new service propositions and customer experiences in response to emerging needs and competitive forces.

To date, change is perhaps most evident in the retail space, but the corporate and institutional markets are also evolving fast. In China, technology giants such as Ant Financial (which owns Alipay) and Tencent now dominate retail financial services, including credit, payments, investments, virtual banking and wealth management, aided by their ability to offer fast, personalised and highly integrated customer experiences via smartphones and other digital devices. One of the responses of Chinese banks has been an enthusiastic exploration of SWIFT gpi. Recognising its potential as a platform on which to innovate and differentiate their cross-border wholesale payment services, more than 60 Chinese banks have signed up to implement SWIFT gpi, many hoping to expand their international footprint in support of China's One Belt, One Road infrastructure policy.

In Australia, banks have responded to the fintech challenge in the retail payments space by building their own platform for innovation. Developed with design, testing and operational support from SWIFT, the New Payments Platform delivers instant payments, but also provides a foundation for a wide spectrum of overlay payment-related

services. This model – in which multiple types of financial service provider (i.e. banks, fintechs and 'big techs') compete on a level playing field using a combination of skills and expertise – could well be a template in many other markets.

Across the region, further examples of innovation abound, from Singapore-based DBS Bank's award-winning digital banking services<sup>1</sup> to India's Unified Payments Interface, which enables API-based interoperability across the country's myriad payment systems, offering users a more flexible, function-rich, yet secure, customer experience.

Sibos, of course, provides the ideal opportunity to keep up-to-date with how individual firms, markets and product lines are evolving in this era of disruption and innovation. Delegates can also take advantage of the many different options for finding out how SWIFT can support their evolving strategies. Having gone live last year, SWIFT gpi is evolving fast. Whilst SWIFT will continue to respond to user need by adding to functionality, much of gpi's future value lies in how banks themselves adapt and innovate using the service, integrating into their business models and strategies. Delegates can find out more on both fronts in Sydney, at the SWIFT stand and at the SWIFT Hub.

But instant payments and SWIFT gpi are not the only ways in which SWIFT is supporting banks' ability to innovate and differentiate. From the development of standards to support API-based services to exploring the potential of data to improve operational efficiencies, SWIFT is partnering with the industry to deliver the services and capabilities that will enable the digital economy. At the same time, we are always vigilant to the risks to which banks and their customers are exposed in a digitised operating environment. As such, Sibos will also highlight our expanding financial crime compliance suite and provide practical guidance on the evolution of SWIFT's Customer Security Programme in the fight against cyber-security threats.

Whatever your priorities and however you plan to spend your week in Sydney, all of us at SWIFT look forward to welcoming you to Sibos 2018! —

1. World's Best Digital Bank - Euromoney Awards for Excellence 2018

# SWIFT gpi

## Corporates use gpi to end cross-border payment pain



As bank adoption of gpi accelerates, corporates are finding many ways to explore its benefits.

“  
**The traceability offered by the gpi Tracker is a game changer on the corporate side.**

Sebastian Rojas, SWIFT

SWIFT's global payments innovation (gpi) has made huge advances in scope and reach since last year's launch, facilitating millions of same-day, fee transparent cross-border payments between correspondent banks. Now, one of the key areas of focus is on further extending gpi's benefits to corporates.

More than 250 financial institutions, including 49 of the top 50 banks on SWIFT, have signed up for gpi (30 have joined since July). Many are already live, with the rest preparing for implementation. More than 30% of all SWIFT customer payments are facilitated by gpi, with over USD100 billion in payments in 120 currencies delivered daily around the world. One hundred new payment corridors went live during July alone, taking the total to over 600; gpi now accounts for 54% of SWIFT payment traffic in major corridors such as US-China.

Through its integration with corporates' cash management and treasury systems and the provision of 'track and trace' capabilities via bank portals, gpi is now firmly on track to become the new normal for corporates' cross-border payments.

The potential benefits of gpi for corporates are compelling, including reduced payment times for international goods and services, shortened supply chain cycles, minimised FX exposures, optimised liquidity and improved cash forecasting. Further, treasurers will be able to view the end-to-end progress of their cross-border payments in real time, receiving confirmation on completion.

“Cross-border B2B payments was a painful process, not only for the corporate but also for the bank,” says Sebastian Rojas, senior market manager and head of SWIFT's 'gpi for corporates' programme. “Many corporates are investing to make their treasury systems and workflows bulletproof, from a security and business processes perspective. However, even with the most sophisticated treasury management system, once you hit 'send' your payment goes into a 'black hole', as any treasurer will tell you.”

That was yesterday's problem. Now, gpi's tracking facility provides real-time progress updates from initiation to confirmation. The service is accessible to banks via APIs, enabling them to offer different integration capabilities in customer channels such as e-banking and host-to-host. Moreover, SWIFT's November 2018 standards release introduces mandatory unique end-to-end transaction reference (UETR) for all payment

instructions making all SWIFT payments trackable, even when there are non-gpi banks in the correspondent chain.

“The traceability offered by the gpi Tracker is a game changer on the corporate side,” says Rojas. “It is taking off very quickly. Fifteen leading banks are already integrating it into their portals – and in each case, as many as 30,000 corporates benefit from that enhanced functionality. That is an incredible level of penetration.”

For multinational corporates that already use highly automated systems to manage multiple banking relationships globally, a more sophisticated approach is required. SWIFT has been piloting with banks and corporates a multi-bank solution, fully integrating gpi into treasury applications, allowing corporates to use the same workflows across all banks to retrieve consistent, standardised payment data.

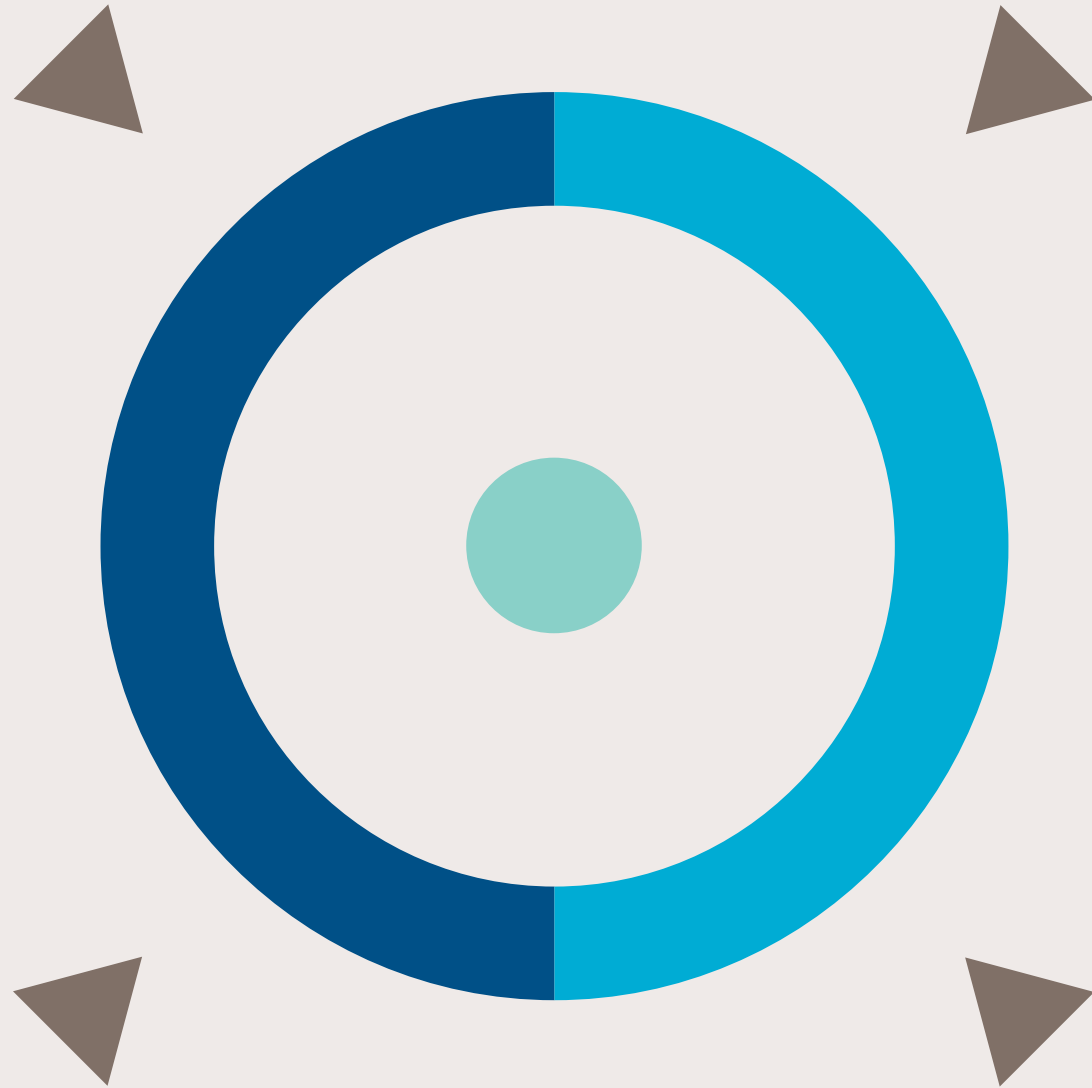
During 2018, 12 leading banks and 11 corporates – Microsoft, GE, Roche and LVMH Moët Hennessy Louis Vuitton among them – have worked to define new standards for a multi-bank layer within gpi, allowing a corporate to directly initiate a gpi payment and generate a tracking number. The receiving gpi bank then processes the payment, delivering real-time progress updates, confirming when it reaches the beneficiary and providing transparency-related details on cost and routing.

Following the successful pilot scheme, some participants are already exchanging gpi payment instructions and tracking payment status in production. Additional corporates and banks are expected to join as early adopters through to the end of 2018, at which point the multi-bank functionality will be opened up to all qualifying gpi banks and corporates. “Corporates are very pleased to be part of gpi,” says Rojas. “It was created specifically to take into consideration the end-user experience and ultimately it is the end-users who will reap the benefits. Interested parties can find out more on the SWIFT stand, at participating banks' stands and during the dedicated sessions at the SWIFT Hub.”



# Compliance

## Sharing best practice and common resources



New models and new ways of working are integral to banks' financial crime compliance strategies.

“  
**Our unique alignment with the Wolfsberg Group due diligence questionnaire keeps our service in step with industry best practice.**

Marie-Charlotte Henseval, SWIFT

All banks face different challenges when tackling financial crime and complying with evolving regulatory and law enforcement requirements. Variations in footprint, product range, customer profile and counterparty relationships inevitably expose them to a unique set of risks and rules.

In Asia-Pacific 2018 has witnessed three convergent financial crime compliance (FCC) themes: regulator-driven sanctions controls assurance; the ongoing risk of payment fraud; and the growing understanding that client behaviour, not static KYC profiles, denotes risk most accurately. The Hong Kong Monetary Authority's thematic review into sanctions filter assurance has sent “ripples across the pond”, driving large banks to accelerate sanctions testing programmes and prioritise investment, says Guy Sheppard, SWIFT's head of APAC FCC intelligence and initiatives. “Understanding behaviour is key to addressing FCC threats; whether analysing payment activity norms to highlight fraud or end-to-end flows via correspondents to benchmark actual market practice versus on-boarding assessments. Regtech is also helping banks define and model ‘profiles’ across disparate and diverse data sets.”

But a unique mix of threats doesn't mean banks need to fight criminals alone. FCC is increasingly seen as a collaborative effort, not least because threats quickly spread across the transaction chain. New models and new ways of working, such as sharing best practice and utilising common resources, are growing elements of banks' compliance strategies. And utilities are now viewed as well placed to create common standards, improve agility and reduce internal IT burdens. SWIFT's expanding suite of FCC solutions is focused on sharing the burden of compliance, using universally accessible platforms, workflows and tools to tackle individual challenges. And because criminal threats and regulatory requirements continue to evolve, so does SWIFT's product suite, extending its reach, functionality and level of integration.

The capabilities of SWIFT's KYC Registry are growing rapidly, on advice from its user group. Already used by more than 5,000 banks, representing more than 80% of SWIFT traffic, The KYC Registry has significantly accelerated and simplified the exchange of due diligence information between correspondent banks. Recent innovations include the option to make bulk requests to streamline information requests across multiple counterparties. As well as plans to integrate the Registry with SWIFT Name Screening to automatically check the names of beneficial owners and senior

management, SWIFT is also exploring use of APIs to automatically update users when information is updated in the Registry. “Our unique alignment with the updated Wolfsberg Group correspondent banking due diligence questionnaire keeps our service in step with industry best practice and therefore further reduces costs and simplifies onboarding for correspondent banks. In the future we hope to bring similar benefits to other parts of the community,” says Marie-Charlotte Henseval, SWIFT's head of KYC compliance services.

The addition of Name Screening to SWIFT's sanctions services underlines the importance of minimising friction and maximising common experience. As payment times collapse, banks need fast, accurate screening of databases and customer names across multiple lists. Both SWIFT's name and transaction screening solutions are fully hosted, enabling users to benefit from evolving common standards and best practice. “The more transactions that pass through our filters, the more effective we can be in fine-tuning the service to improve accuracy,” says Nicolas Stuckens, SWIFT's head of sanctions compliance services. “The end-goal is for transactions to be screened once, not at every step.” Around 1,000 institutions have already adopted SWIFT's hosted model for delivering sanctions screening and testing tools. Stuckens expects this to increase, both due to an expansion of message types, including support of securities messages, and increased regulatory focus on filter testing and assurance.

Whilst best practices are maturing in sanctions screening, this is not yet the case in preventing fraudulent wire payment flows. The nature of fraud threats varies across geographies and sectors, but SWIFT is helping banks to meet this challenge by launching its new hosted Payment Controls service. Designed to help protect its entire community and support compliance with SWIFT's Customer Security Programme, Payment Controls screens payment flows for suspicious or out-of-policy transactions in real time, based on subscriber-defined parameters, as well as prior traffic patterns. “Whether used as an independent secondary control by major banks or the main line of defence for smaller banks, Payment Controls will contribute significantly to payment risk management processes across the SWIFT network,” says Roy Belchamber, fraud detection for Payment Controls product manager at SWIFT. At Sibos, interested delegates will find not only practical demonstrations, but a range of sessions on cyber-security and fraud risks. —

# CSP

## Tackling cyber threats on three fronts



Monitoring counterparties and working with the wider community should be critical elements of cybersecurity defences.

“  
Securing your own environment is not a silver bullet.

Pat Antonacci, SWIFT

“With each passing year, not only has the sheer volume of threats increased, but the threat landscape has become more diverse.” The 2018 Internet Security Threat Report from Symantec offers a sobering reminder of the need for vigilance against evolving cybersecurity threats.

It also underlines the requirement for banks to look beyond their own operations, as recommended by the Customer Security Programme (CSP) launched by SWIFT in 2016 to reinforce users’ own controls.

“The CSP framework encourages users to focus on three realms: their internal operations, their counterparts and their community. To date, users have made a lot of progress on securing their own environments, but that is not enough to guarantee their security,” says Pat Antonacci, CSP global program director at SWIFT.

Alongside the measures contained in the CSP controls framework, SWIFT has developed tools to support prevention and detection of security threats arising from interaction with counterparties.

At one level, they are increasingly focused on understanding counterparty risks and reappraising their relationships accordingly. This effort can be supported by information sourced from SWIFT’s KYC Security Attestation application, which lists CSP controls compliance levels for SWIFT users, and can be easily incorporated into risk management policies.

At another level, it is increasingly possible to incorporate security controls into day-to-day operations, allowing users to detect and prevent threats, without interference to legitimate transaction flows. SWIFT’s new Payment Controls service, for example, provides users with a real-time view of potentially dangerous transactions.

“We’re leveraging a range of capabilities to improve security, via coordination with other product initiatives, such as SWIFT gpi and our financial crime compliance suite. Users of gpi can stop and recall funds via its tracker capability at the network level,” explains Antonacci.

Beyond counterparty risk, Antonacci also underlines the importance of combatting cybersecurity risks at the community level, with information sharing on the emergence of new threats regarded as paramount. The SWIFT ISAC (information sharing and analysis centre) is increasingly central to industry efforts to maintain vigilance and develop best practice.

### CSP timeline: securing your SWIFT environment

- **March 2017** – Launch of Customer Security Controls Framework (CSCF) of 16 mandatory and 11 advisory controls
- **31 December 2017** – Initial deadline for self-attestation of compliance with CSP mandatory controls
- **H1 2018** – Start of reporting to supervisors of non-attestation by users, followed by reporting to counterparties from June 2018
- **June 2018** – New controls change process released, explaining how to update and adjust controls, based on 16-18 month implementation timeline
- **August 2018** – Release of v2019 CSCF, composed of 19 mandatory and 10 advisory controls (three existing advisory controls are now mandatory)
- **31 December 2018** – Deadline for re-attestation and confirmation of compliance with mandatory security controls V1
- **January 2019** – Failure to self-attest compliance with CSP mandatory security controls will be reported to counterparties and regulators
- **31 December 2019** – Deadline for self-attestation against v2019 mandatory controls

When a threat or a breach has been identified, the SWIFT CSI team works with the compromised institution, analysing relevant data and publishing information considered useful to other users in the SWIFT ISAC. The ISAC also continually adds further automated data feeds to its site and works with third-parties to provide availability to a wider range of tools.

Attestation levels are close to 100%, but Antonacci cautions against complacency. “Certain controls can be harder to implement in certain jurisdictions, and can thus require a level of retesting and checking. Overall, we see a growing level of engagement on a bilateral and community basis and continue to provide support in many different ways, for example listing a wide range of consultants that can assist banks’ security programmes,” he says.

“The basics remain crucial: updating software; using attestation data; and deploying anti-fraud tools. But securing your own environment is not a silver bullet. Sibos is the perfect opportunity to engage with others on how you might update and refine your approach to the evolving threats.”





Visit us at the SWIFT  
stand. Join us in the  
SWIFT Hub.

#SWIFT

**sibos**

**SYDNEY**  
22 - 25 Oct 2018

**#Sibos**







## **Sibos Issues**

Sibos 2018 Sydney

22-25 October

# **Enabling the digital economy**

**PREVIEW EDITION**

**Publisher:** Chantal van Es, SWIFT

**Managing editor:** Alan Rowan, SWIFT

Sibos Issues is written and produced by  
Making Markets on behalf of SWIFT

**Advertising contact:** Stephanie Gerniers, SWIFT

[stephanie.gerniers@swift.com](mailto:stephanie.gerniers@swift.com);

+32 2 655 4734

**Legal notice:** SWIFT © 2018

Reproduction is authorised with acknowledgement of source. All other rights reserved. SWIFT, the SWIFT logo, Sibos, Accord, SWIFTReady, and SWIFTNet are registered trademarks of SWIFT. Photographs feature SWIFT employees, customers and partners.