Dear Sibos delegates

We hope you enjoyed attending Sibos 2018 as much as we enjoyed hosting it. The attendance and networking metrics speak for themselves: more than 7,500 delegates attended the conference and exhibition, sharing their contacts via their Sibos badges 100,000 times. Some things can’t be measured, of course, such as the value of the unique insights gained by delegates from their individual Sibos experience. We can only hope that the opportunities to understand industry trends and develop business opportunities in Sydney will bear fruit in the months and years to come.

The Sibos team always looks to learn from one year to the next to ensure we continue to enhance the experience of delegates and exhibitors. Personally speaking, three elements made Sibos in Sydney a special occasion: a great location, with the light-filled venue set in a spectacular and welcoming host city; a dynamic industry buzz, animated by exciting future opportunities driven by demographics and technology; and an insightful content programme, in which experts from across the industry and the wider business community shared their perspectives on multiple hot topics.

In truth, there was simply too much going on for any participant to experience all the different aspects of Sibos in just four days. For this reason, we have made it even easier to catch the sessions and presentations you might have missed in Sydney. As well as the articles in this wrap-up edition of Sibos Issues (including video clips of featured sessions), delegates can relive many of the highlights of Sibos 2018 with conference sessions and Sibos TV interviews available via the Sibos app and on sibos.com.

All in all, Sibos 2019 has a lot to live up to! But if anywhere can follow Sydney, London can. We’re already working hard to ensure that Sibos 2019 will offer a valuable and memorable experience to everyone who wishes to take part in our continuing conversation on collaboration and innovation in the finance industry. London in autumn may offer less sunshine than Sydney in spring, but Sibos promises you a warm welcome.

Best wishes
Chantal Van Es
Head of Sibos
Expect the unexpected

Banks must work together to keep ahead of the pace of change.

In a world of growing uncertainty, the ability to adapt at speed and scale will be paramount, delegates were told in Sibos 2018’s Opening Plenary. All three speakers emphasised the need for banks to have the tools, technologies and – above all – mindset to respond to new sources of competition, evolving trends in customer demand and changes in the regulatory landscape.

“It is not just the speed of change but also the diversity of change – from technology to product relevance to risk management to the geo-political environment – that we must manage well,” said SWIFT chairman Yawar Shah, in his opening address.

Fast-paced, far-reaching

Taking up the theme of fast-paced and far-reaching change, SWIFT CEO Gottfried Leibbrandt pointed to the speed of new developments in the payments sector.

“Innovation is everywhere. Especially in payments – especially in Asia,” he said. “We have never seen such levels of investment in new financial technology, especially in payments, nor such speed in development and change as we have over the last couple of years.”

Enabling instant payments

In domestic payments, the use of open platforms to support innovative solutions is already firmly established. Australia’s New Payments Platform (NPP) went live in February 2018, enabling consumers to make real-time payments using just an email address or mobile phone number.

NPP is a key component of SWIFT’s global instant payments strategy – a strategy that also includes the provision of an instant payments messaging service for the euro area. Launching in late November 2018, to coincide with the launch of TARGET Instant Payment Settlement (TIPS) service,
SWIFT’s new messaging service will enable instant payments across Europe.

Even as instant payment systems are being implemented around the world the underlying technologies are being refined and augmented to deliver new features and functionality, with minimal disruption to service providers and their end-clients. “All these initiatives use new SWIFT technology. NPP is built on a peer-to-peer architecture with all the intelligence at the edge. Our European solution goes a step further and delivers an intelligent edge using container technology from Docker. That means we and our customers can easily add new functionality to the edge, instead of waiting for the next upgrade or software release. It is like downloading an app on a smart phone,” Leibbrandt explained.

To respond quickly and positively to changing customer demand, service providers, including SWIFT, are rapidly exploring and expanding the capabilities of digital technologies. But they need to do so in a way that does not add excessive cost and complexity for end-users whilst also allowing for interoperability and competition. SWIFT gpi is a great example of how to build on secure, tested infrastructure, argued Leibbrandt, while incorporating and leveraging new technologies such as APIs to improve the customer experience. Banks can easily move to gpi, embed it in their customer applications, and consult the tracking database through an API, he explained.

“We are investing heavily to allow access to all our services through APIs,” said Leibbrandt. “We are using our expertise to standardise API calls between banks, and we are running proofs of concept to carry interbank API calls over our infrastructure.”

Duty of care

Shah also emphasised the potential of APIs to enable innovation, customisation and collaboration, and to facilitate data exchange and system interoperability. But he also reminded delegates of their collective responsibilities in relation to the careful management and protection of data – often derived and collected from clients – even as they look to enable greater data access, integration and analysis.

“SWIFT has tremendous data and information. Leveraging it for your business purposes in a collective way with confidentiality and integrity is an important job – and one that SWIFT takes seriously,” he said.

Cybersecurity is of course a critical element of effective and responsible data management for financial service providers. Shah pointed out that strength of information security arrangements is an increasingly important factor in determining commercial success. “Those firms that are able to work with their customers to protect, detect and recover will be competitively advantaged in the future,” he said.

While banks are beginning to factor cybersecurity attestations under the Customer Security Programme (CSP) into their due diligence when reviewing their banking partnerships with smaller institutions, SWIFT customers are due to submit their re-attestations by the end of the year. Failure to self-attest their compliance with CSP’s mandatory security controls will result in customers being reported to their regulators.

“Many global transaction banks are already looking at your self-attestations,” Shah warned. “But early next year they will begin incorporating them into their risk management processes and start to decide whether and how they will continue to do business with you in the context of cyber-risk.”

Raising the bar

Shah outlined how new SWIFT services are helping banks to keep ahead of cybersecurity threats, through new transaction monitoring services such as Daily Validation Reports and Payment Controls, emphasising the need for banks to continually upgrade their capabilities. “The bar on the CSP mandatory controls will continue to rise as this threat evolves,” he observed.

But cybersecurity is far from the only area in which banks must remain alert to change. In concert with his fellow speakers, Shah underlined the need for banks – and SWIFT itself – to evolve their strategies and capabilities on an ongoing basis. “SWIFT is moving fast, engaging, and increasingly working with the coalition of the willing: banks that want to innovate and partner with SWIFT as their fintech,” he said. “In this dynamic environment, seizing the opportunity with speed is important.”
Exposing ourselves to different ways of thinking and different skills makes us stronger.

Shayne Elliott, ANZ Bank

The future of banking will have a human face

In conversation with Sibos TV’s Juliette Foster, ANZ Bank CEO Shayne Elliott sketched out a future of banking in which human qualities could become more, rather than less, important. Further, he suggested that more banks could switch focus to fewer areas of excellence and expertise, shifting away from the once-dominant universal banking model.

While acknowledging the growing importance of technology in delivering services to clients, Elliott said cultural attributes would become an increasingly critical factor in the future success of the industry and individual institutions. “The only way to be better is to have a culture that enables us to constantly adapt to customer needs.”

Human needs, technological means

According to Elliott, the ideal bank culture of the future would incorporate a growth mindset, a willingness to learn and experiment, an ability to listen to customers, and an approach to partnership that can adapt experiences from other industries to banking. “All of these things are human, they’re not done by robots,” he observed.

“Customers want a better user experience and increasingly engage with us using technology. But all the research shows that customers still want to talk to someone when they’re doing something of real importance to them, like buying a home, saving for retirement or starting a business. That’s a fundamental human need and I don’t think it’ll ever disappear,” he asserted.

Nevertheless, understanding and deploying technology effectively is also important. “Even if you have the most brilliant ideas in the world, you still need to be able to implement them. Do you have the technology to move at pace and respond to the changing environment? That requires a different architecture both in a technical sense and in how you run the company,” said Elliott.

Elliott referenced the SWIFT-designed and built New Payments Platform (NPP) - Australia’s recently-launched instant payments infrastructure - as an example of how new technology can encourage further collaboration and innovation. “More important than the real-time payments are the data capabilities that come with it. As banks, we haven’t fully explored all the doors that this technology will open up, both for us and fintech providers. It’s an exciting first step,” he said.

“Australia is among the early adopters, joining a club of around 40 countries. Part of the next stage is how we join these systems together and make it a global capability. In Australia, we’ve also got a lot to learn from observing how this has been adopted elsewhere and the innovation it has seeded in other economies.”

Elliott characterised NPP as one of two key ingredients shaping the future of payments in Australia, alongside open banking, which is already exposing banking services to greater competition from non-traditional sources, and offering users access and ownership of their data. “When these two come together, we’ll see an explosion of new business models, revenue streams and customer experiences.”

Further, Elliott suggested that NPP and open banking could provide the catalyst for a new type of banking model. “In the past, the universal banking model was very attractive, with banks essentially looking to broaden customer relationships by adding more services,” he explained.

“Over time, we’ve found that the cost and complexity of doing lots of things well has made that model less efficient for many banks. As we move to the open banking era, the cost of digital opportunity has reduced dramatically; it has begun to throw the universal model into doubt. At ANZ, we think that the only way to win in the future is to do fewer things, and do them really well.”

In future, more banks will choose either vertically or horizontally integrated models, suggested Elliott, increasingly partnering in areas where they feel it is inefficient to develop internal expertise. “Banks will look less alike than we’ve been used to over the past 20-30 years.”

Mindset shift

Banks have already proven themselves able to partner in the back office, said Elliott, but now need to collaborate to deliver a superior customer experience, bundling services together that might not necessarily all be manufactured in-house. “We’ve chosen that path at ANZ and are looking to partner with people who are really good at what they do. Exposing ourselves to different ways of thinking and different skills makes us stronger,” he said, acknowledging that this approach required banks to undertake a shift of mindset, and an honest assessment of strengths and weaknesses.

Ultimately, banks will require a “blend” of human skills and technology capabilities to succeed at a time of uncertainty and opportunity, Elliott suggested. “The people who survive in a disrupted world are those that can adapt at scale and speed,” he said. “Large organisations are difficult to change, in terms of culture, strategy and direction. To survive, banks must be agile, move at pace, and respond to changing customer needs.

“We’re not in a position to say what the future looks like; we’ve just got to be ready. The only way to be ready is to have people who are capable of learning, adapting quickly, and are open to new ideas.”
Few sectors of the finance industry are undergoing more profound or rapid change than international payments. Demand for cross-border retail payments is soaring, driven by demographic shifts, facilitated by super-apps and wallets. The wholesale payments sector is reinventing itself in response to heightened customer expectations, risks and costs, warding off the threat of disintermediation. Technology-based innovation is critical to survival as distinctions between low- and high-value channels fade. But other skills and assets will also be needed to keep up with demand and ahead of the competition. Sibos 2018’s payments sessions indicate the pace of change will not relax for some time.

In Monday’s big issue debate, ‘Re-engineering international payments for a fast, digital age’, panellists highlighted the importance of customer focus, collaboration in service development and delivery, and the potential for data analytics to enhance customer experience.

Philippe Henry, global head of corporate, financial and multinationals banking at HSBC, said banks must reimagine payments as a service, not a product. “Clients are facing up to the consequences of the fourth industrial revolution. They are revisiting how they work with customers and suppliers. If we understand these changes, we can offer more tailor-made services. Payments is a part of that challenge, if not necessarily at the centre,” he said.

The new business models of the digital age are also driving change at the retail level, observed Jennifer Boussuge, treasury fulfillment, service and operations executive at Bank of America Merrill Lynch. “The gig economy, the sharing economy is generating huge volumes of small-value payments, which require the development of cost-effective cross-border, cross-currency options,” she said, citing forecasts by Accenture that the value of cross-border payment volumes will rise by 5.6% per annum to 2022.

To provide these options, neither banks nor their fintech competitors are attempting to fly solo, instead partnering to meet specific customer needs with a tailored mix of capabilities. China’s Ant Financial, for example, partners with local banks in nine countries to provide digital wallet and other smartphone-based services that bring payments and micro-credit to the previously unbanked. “We work with local partners to deliver wallets, but we work with banks on many other fronts. It’s a collaborative relationship,” explained Clara Shi, head of financial institution strategic partnerships in Ant Financial’s international business group. The firm develops partnerships with merchants across Asia in order to supply payment services to Chinese consumers abroad, she added.

In response to the burgeoning market for low-value cross-border payments, Western
Intelligent automation will empower clients.

Jennifer Boussage, Bank of America Merrill Lynch

Union has invested heavily in digital transformation over the past decade. According to Molly Shea, global manager for global money transfer, Asia Pacific at Western Union, the firm is reaping the rewards with 40% annual growth in digital revenues, as mobile and wallet payment volumes multiply.

“Customer expectations are very advanced. As service providers, we have to keep catching up,” admitted Shea. “The future will be about collaboration and partnership. Fintechs are good at the customer experience, but more established providers really understand customer needs when moving cross-border payments securely and efficiently.”

In the corporate market, emerging business models not only require upgraded cross-border payment services but new information services. “Clients are more demanding today due to the pressure they face to revisit their business models. We now have solutions that utilise and share information across the ecosystem - partly driven by (EU Directive) PSD2 and the new service providers it brings in. Banks can offer new services by being better informed,” said HSBC’s Henry.

Acknowledging the role of APIs in facilitating the development of new value-added payment services and greater access to payment-related information, Henry also noted the security implications of open banking. “When banks offer open access to our systems, via mobile apps etc, we have to have appropriate security features too, including biometrics,” he observed.

BAML’s Boussage said corporate customers were already beginning to benefit from new initiatives in cross-border payments - such as the greater speed and transparency being delivered via SWIFT gpi - but insisted more innovation was needed, citing the use of real-time data sets to develop self-service models. An increasing number of banks are already using AI to support customer service teams, for example, to reply to simple client queries or refer complex ones on to staff. Boussage suggested technology would help to offer greater flexibility to clients and efficiency to providers.

“Intelligent automation will empower clients to access services where, when and how they want,” she said.

Ant Financial’s Chi agreed that new use cases and customer experiences would continue to emerge. “The journey is just at the beginning,” she said. “We’ve completed 100 metres of a 10,000-metre run. We need contributions from all parties to build a more transparent, inclusive and reliable financial ecosystem.”

Virtual reality?

The twin need to reduce costs and increase service levels to corporate and institutional customers is leading correspondent banks to rethink the mechanisms underpinning cross-border payments. The linear nature of the correspondent banking transaction chain has led to increased duplication and inefficiency in recent years, with KYC and other compliance checks being applied multiple times. Although SWIFT gpi now sheds greater light on a payment’s status, helping to identify bottlenecks and thus increase speeds, could a more radical shift also eliminate duplicated effort and cost?

Some have proposed solutions that leverage distributed ledger technology. But in “Cross-border payments over a virtual centralised ledger - future or utopia?”, panelists considered the merits of a cloud-based service layer across correspondent banking networks. In this model, banks and other service providers would use APIs to provide and/or access services via a central cloud utility, not only tracking transaction status, but applying KYC checks or other services.

“Instead of messages flowing back and forth between institutions for cross-border payments, banks could call into the cloud via API to determine transaction status. This approach solves some operational efficiency problems, but we can also overlay third-party solutions to address other pain points around sanction screening and account validation in a more comprehensive way than at present,” explained Ashish Sharma, chief operating officer for global payment services in the financial institutions group at Wells Fargo.

Niall Cameron, global head of corporate and institutional digital, HSBC, added that a virtual ledger could help correspondent banks to meet their compliance obligations in the era of instant payments. “When payments become instant, our approach to screening and compliance has to change, in concert with regulators,” he said. “With this model, all messages could go up to the cloud layer where the sanction screening process is executed at a higher standard, with more information.”

“Visibility and speed”

Two further sessions - both focused on the needs of corporates - suggested transparency is one of several cross-border payments needs not being met satisfactorily.

In “Service matters - how can banks better serve corporates on the seller side?”, delegates heard how a payment from a Swedish subsidiary to an Australian parent could take up to seven days. Dan Birdseye, group treasury manager at Cochlear, said the firm had started to take a highly conservative approach to month-end reconciliation. “Visibility and speed is what we’re after. I will only rely on what I can see in my account, rather than including expected in-bound payments,” said Birdseye. “We don’t need payments sent in a matter of seconds: same-day value would be good.”

In this context, panelists welcomed the greater transparency on cross-border payments offered by SWIFT gpi, noting that gpi tracking for multi-banked corporates went live in October. In a subsequent session, centring on the potential benefits of open banking to corporates, Mark McNulty, global head of clearing and FI payments at Citi, said the combination of open banking and instant payments could yield new collection opportunities for firms switching to direct-to-consumer sales models in the digital age, especially in Asian markets where card penetration is less comprehensive. “You can request a payment through open banking, then get the payment by immediate return in a country that has implemented instant payments,” he said, adding that Citi is working with various bodies to define a new API standard that enables payment requests and micro-credit.
Cross-border payment volumes might be surging, but the outlook for trade finance transactions - and the commercial flows they support - is clouded by geo-political tensions. Introducing ‘Trade wars and technology - A new era for trade finance’, Coriolis Technologies CEO Rebecca Harding said US-China disagreements were just the most prominent example of trade becoming “weaponised”.

Panellists noted the challenges of financing global supply chains in an uncertain political climate. Rajkiran Rai, CEO, Union Bank of India, said the 180-day trade cycle left banks highly susceptible to interest rate and currency movements. “Banks are exposed to huge risks, due to a lack of confidence in the system,” he said.

But they welcomed the potential for smarter use of data to increase credit risk appetite, by enhancing visibility across counterparties and intermediaries. In particular, this could accelerate international expansion by SMEs.

“If we can change the way we share data, and permission others to see that data, we can begin to change where the risk sits,” said Jason Kelley, general manager at IBM Blockchain Services. Not only can innovation improve credit access, it has significant governance implications. “The system is the challenge. How do we get beyond the system that is keeping us anchored in yesterday’s capabilities?” he added.

The multilateral institutions of trade’s established governance framework had failed to resolve bilateral disagreements, panellists agreed. Further, the US dollar’s role as dominant settlement currency brought global trade within oversight of a jurisdiction with increasingly unpredictable trade policies.

Could the World Trade Organisation and the US$ be replaced by a new trade paradigm, based on the blockchain and a country-neutral crypto-currency? Daniel Schmand, global head of trade finance at Deutsche Bank and chairman of the International Chamber of Commerce’s (ICC) banking commission, said it was possible to make trade governance more independent from geo-politics. The ICC is already exploring the potential of technology to reform world trade, but Schmand acknowledged the need for support from other bodies to raise the subject at a G-20 summit. “First, we need to create an ecosystem in which technology is able to come to its full fruition, perhaps starting with a closed loop, and then branch out. It may be possible also to agree on a new currency and settlement system outside of the traditional currencies. But we need to start with baby steps,” he said.

On the same morning, an optimistic view of the global trading environment was offered by Parag Khanna, a renowned author and advisor on international relations. In his breakfast keynote, Khanna argued that accelerating investment in cross-border infrastructure and connectivity - digital and physical - would ensure governmental disagreements did not lead to open conflict or outright isolation. “The more the world becomes an integrated marketplace, the more we compete over supply chains,” he observed.

Rather than a war, Khanna characterised current struggles as a tug-of-war in which nations compete for influence over the links that connect their economies. Further, he explained that the rise of China had been achieved by a well-established template that was increasingly being pursued by other countries in Asia and beyond. This approach relies on the development of an increasing number and complexity of interactions with trading counterparts to bring an economy and its workers up the value chain.

“The import-displacement industrial policy is how America became a super-power in the 19th century. China is no different and now India is doing it too,” he observed.

Whilst these policies are pursued for self-interest, they also strengthen the broader ecosystem for the benefit of all, added Khanna, citing China’s One Belt, One Road initiative, which is creating much-needed physical trading infrastructure across Asia and into Europe. From energy to finance to the internet, the connectivity between domestic capabilities through globalisation bolstered overall system resilience, he said.

“Being big doesn’t make you important, being connected makes you important,” he concluded. “All countries are realising that connectivity is how you enhance your influence.”

If we can change the way we share data, we can begin to change where the risk sits.

Jason Kelley,
IBM Blockchain Services

The more the world becomes an integrated marketplace, the more we compete over supply chain.

Parag Khanna

Can technology release trade from legacy technology and governance?
A problem shared ...

Cross-border payments: Catching up with the customer

Domestic payments: Meshing new with old

CYBERSECURITY

From large-scale threats to the entire industry to the response tactics of smaller firms, greater coordination can reduce cybersecurity risks.

Financial institutions and market infrastructures are more vulnerable to a 9/11-style, black swan cybersecurity event than other critical infrastructures on which society relies, such as telcos or even power grids. Sibos 2018's big issue debate on cybersecurity grappled with how global market operators and participants should collaborate, innovate and work to improve resilience against cybersecurity threats.

Jacqueline McNamara, head of cybersecurity at Australian telecommunications giant Telstra, explained how her firm runs scenario testing in order to plan and test responses to attacks on network resilience or network outages. She said the company's Network 2020 plan focuses on resilience, pointing out that the imminent arrival of fifth generation mobile phone networks would reduce vulnerability of systems hitherto dependent on a single cable or physical installation.

Noting the efforts made by Australia to implement collaborative frameworks between business and government to protect critical infrastructure against security threats, McNamara explained how her firm runs scenario testing in order to plan and test responses to attacks on network resilience or network outages. She said the company's Network 2020 plan focuses on resilience, pointing out that the imminent arrival of fifth generation mobile phone networks would reduce vulnerability of systems hitherto dependent on a single cable or physical installation.

The biggest threat of a black swan cybersecurity event in the financial service industry comes not from state-sponsored cyberwarfare, terrorists or hackers, but rather from organised criminals, via the dark web, said Dmitry Samartsev, chief executive officer of BI.ZONE, a Russian cybersecurity firm. Organised cybercrime is increasing every year, he asserted, and is absorbing more resources to develop tools that leverage artificial intelligence for use in more sophisticated attacks.

Samartsev also noted that cybercriminals will collaborate in ways that institutions and governments do not.

“The worst case scenario is when cybercriminals attempt several attacks simultaneously,” he said. “For example they’re making DDoS attacks and then at the same time they’re making huge informational attacks on social networks - spreading fake news claiming that the biggest banks are going down. Can you imagine the domino effect it will have? This will lead to troubles with liquidity, troubles with central banks or troubles with the government. Cybercrime has no borders and there must be cooperation between countries and companies.”

The worst case scenario is when cybercriminals attempt several attacks simultaneously.

Dmitry Samartsev, BI.ZONE

“Is a ‘cyber 9/11’ event inevitable?"
Significant barriers are associated with sharing material, from the point of view of customer relationship management.

David Pegley,
Australian Financial Crimes Exchange

Business risk
By treating cybersecurity threats as a business risk, rather than an IT consideration, organisations are better able to manage the potential repercussions throughout the organisation. Sibos delegates were told in the SWIFT Institute session titled ‘Cyber - How you can mitigate the business risk?’ Dr Maria Milosavljevic, government chief information security officer for the Australian state of New South Wales, suggested that while the understandable initial organisational response to cyber risk is to focus on putting controls on technology access, a more holistic view would seek to put in place mitigation strategies as well.

“What else increases your likelihood of something going wrong?” she asked. “Poor contact management arrangements, not being able to hold people to account when things go wrong, buying from the wrong suppliers, not knowing where your critical assets are.”

A persistent message across all the cybersecurity sessions at Sibos 2018 was that organised crime is already collaborating and sharing information, and thus has a potential significant knowledge advantage over financial institutions if the sector does not step up its efforts to collaborate. However, speakers acknowledged that there are real barriers to sharing information across institutions, such as privacy regulations and the protection of customer data.

“Significant barriers are associated with sharing material, from the point of view of customer relationship management and ensuring there is appropriate focus on privacy,” said David Pegley, managing director, Australian Financial Crimes Exchange, a non-profit, cross-industry organisation. “The challenges within each institution lie in their legal and compliance requirements – the interpretation of the law between different jurisdictions is important in considering sharing of material. We do our best to deal with this within constituencies, primarily through standardising exactly what we share, how we share and, more importantly, the behaviours recipients of that information will adopt.”

Experts emphasised the need for greater collaboration on a number of fronts: at a pre-competitive level between financial institutions themselves; between institutions and government and regulators; and across supply chains. This can take up significant resource for global organisations, but there are also complex issues facing smaller and medium sized institutions, which can be less prepared and thus more vulnerable to attacks that can spread throughout the supply chain.

Kathryn Taylor, a researcher with the Cyber Policy Initiative at the Carnegie Endowment for International Peace, presented research commissioned by the SWIFT Institute in a session entitled ‘Protecting the ‘long-tail’ of smaller organisations from cyber attacks’, in which she noted that governments are attempting to build resources and processes for smaller firms. In one example, Taylor cited the UK’s National Cyber Security Centre, which has issued a guide for smaller businesses outlining governance and operational approaches to managing cyber risks.

Incident response
Managing how staff responds to risks, in addition to managing technology controls, is an area that organisations, large or small, can address, said Andrew Pade, chief information security officer (CISO) at the Reserve Bank of Australia, noting that the majority of cybersecurity breaches occur due to staff action, such as clicking on a link in a phishing attack.

“Cybersecurity is not just about technology, it’s about behaviour,” Pade said. “The technologists love to buy technology, because it solves problems,” Pade said. “[But] if you’re in a small organisation, you can educate your staff on how to identify the typical phishing campaigns. Not only are you securing your organisation, but you’re also securing your home life.”

Incident response training is also a key part of any organisation’s cybersecurity strategy, due to the importance of managing the aftermath of an attack to its impact and recovery, said Chris Hockings, CTO for IBM Security in Australia and New Zealand, in the same panel discussion. To help clients improve incident response, IBM has built a truck, the interior of which serves as a simulation room in which executive teams and CISOs test their response plans to a cyberattack, Hockings explained.

“When we started, we thought people would be doing exercises on computers, but in reality they needed to realise how would they coordinate during an incident,” Hockings said. “Panic can set in. You [must] work out who your leaders are when you immerse them into an unfamiliar circumstance: ‘Your response plan is not there. Your systems are offline. What are you going to do? You don’t know until you test it. Compliance is necessary, practice is essential.’

This level of immersive training may not be available to smaller organisations, acknowledged Hockings, but the principle of running simulations and testing plans is still possible.
Solving the identity crisis

The good guys have to exert caution around who they share information with, and the bad guys don’t.

Victoria Richardson,
Australian Payments Network

In the time of Sigmund Freud, solving an identity crisis necessitated a therapist and a couch. But in the 21st century, an identity crisis has different implications - and demands a different response – compared with an existential loss of self. Identity theft is a growing aim of cybersecurity attacks, requiring banks to invest and plan accordingly.

In a session entitled “How do we solve the identity crisis in a digital world?”, representatives from banking, payments, market supervision and the legal world considered the risks and possible solutions to identity theft.

The stakes are high and the probability is rising. Michael Bui, head of identity and access management at Commonwealth Bank of Australia, noted that a person has a one in 15 chance of having their identity stolen or being a victim of a data breach each year.

“We are in a world where the opportunity of identity theft is quite high,” admitted Marc Bayle de Jessé, director general for market infrastructure and payments at the European Central Bank, noting also the cross-sectoral nature of the threat as more of our daily lives become digitised.

In terms of the legal and regulatory framework, Bayle noted the efforts of EU member state governments to coordinate on the introduction of electronic identities, adding that legislation such as Europe’s recent Payment Services Directive (PSD2) is already playing a role in protecting customers and payment service providers.

“PSD2 helps to increase interaction between actors in a digital payments world,” Bayle de Jessé said. “This also creates the necessity to strengthen standards to make sure people are well identified when they initiate payments or circulate information about their accounts. There are already a range of authentication techniques available; fintech can bring more and we are open to that. As a central bank, we support innovation and believe that is good for the development of our economy.”

As with broader cybersecurity threats, panellists suggested that coordination between organisations can increase the ability of institutions and individuals to respond in the event of identity theft. A recent Australian industry-wide review, cited by Victoria Richardson, chief strategy officer at the Australian Payments Network, highlighted the need for real-time sharing of actionable information, consistent incident response management and awareness generation.

“The good guys have to exert caution around who they share information with, and the bad guys don’t,” Richardson said. “They share the information with everyone.”

To address this issue, the Australian federal government is leading an initiative to support cross-industry collaboration and secure information sharing through the establishment of a network of Joint Cyber Security Centres (JCSC).

I think we’ll become much more comfortable with biometrics.

Nick Abrahams,
Norton Rose Fullbright

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In terms of innovative solutions, Nick Abrahams, global head of technology and innovation at Norton Rose Fulbright, called facial recognition technology a “game changer” to protect identity.

“I think we’ll become much more comfortable with biometrics,” Abrahams said. “We’ve seen a lot of startups trying to solve the identity issue with blockchain. But it’s going to be very difficult for one organisation to own the solution. It needs to be a consortium. The government obviously has a significant role to play, and the banks.”

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As new technologies offer greater choice and convenience, the payment mechanisms of the past must also be accommodated.

To many, making a payment by cheque might seem as old-fashioned as travelling on a steam engine or listening to a vinyl record. But one of the surprises of Sibos 2018’s big issue debate on disruption in the domestic payments landscape was the revelation that personal cheques are still widely used. In fact, 25% of respondents to an audience poll had written a cheque within the past six months.

While the domestic payments industry is gradually being reshaped by new technologies, from application programming interfaces (APIs) to distributed ledger technology, the poll reminded panellists and delegates of the need to accommodate legacy payment mechanisms when implementing fresh innovations.

“As new technologies are introduced, the old ones don’t go away. The challenge for everybody is: how do you build technology for diversification of payments or systems; and how can you handle legacy along with new products? We have to start from what the customers want, because they are demanding payment systems that are efficient, seamless and instant,” said Ulku Rowe, technical director of financial services at Google Cloud.

In a debate that challenged payments professionals to think and work more disruptively, while respecting and maintaining the payment mechanisms on which customers still rely, panellists acknowledged that the pace of change has not always been rapid.
Customers are demanding payment systems that are efficient, seamless and instant.

Ulku Rowe, Google Cloud

As the digital revolution took shape, quickly spreading from IT and consumer electronics to many other retail-facing sectors, most banks were dealing with the aftermath of the financial crisis, which put them on the back foot in embracing new technologies.

“It took banks slightly longer to put a strategic focus on innovation, but we are catching up and technology offers huge opportunities,” said Michael Spiegel, global head of cash management at Deutsche Bank. “We don’t know where payments will land because the space is so innovative and disruptive. Settlement of payments probably won’t change much, but the communication and the way you get there will change a lot.”

Ripe for change

Other payments specialists agreed that the proliferation of new technologies and innovative challenger organisations have combined to create a payments landscape that is now ripe for change.

“There is tremendous opportunity for both incumbent banks and non-traditional players to take a role in the distribution and manufacturing of products,” said Leila Fourie, chief executive of the Australian Payments Network. “The objective of non-traditional players is to keep people on their platform. Moving money is not always central – payments happen in the periphery - so the pricing and value that is attributed to payments might be fundamentally different to the traditional banking model.”

Asked in a second audience poll to rate the most important feature of any changes to a payment system, 46% of respondents cited ease of use, while security and regulation came in second with 30%, followed by stability and speed.

Australia has become something of a poster child for payments innovation, following the launch of the New Payments Platform (NPP) in February 2018. Informed by a core mission to provide domestic consumers, businesses and government departments with a means of making payments faster and more efficiently, the NPP has become a reference point in the industry, demonstrating the transformative power of bringing new technologies to conventional processes.

“The most important thing in meshing different technologies is making sure you take a regulatory enabling environment, robust and scalable technology and focus on the customer,” said Fourie. “With NPP, there was an enormous amount of collaboration between regulators and participants, and between the fintech and banking industries.”

Acknowledging their impact on client expectations, payments professionals have sought to learn lessons from consumer technology giants such as Apple and Amazon, which have thrived by developing platforms that give third-party providers access to a global customer base, also giving customers easy, standardised and cost-effective access to a wide range of services.

The NPP was built on a similar premise with a basic infrastructure, a fast settlement service provided by the Reserve Bank of Australia that allows every payment to be settled in real time, and an overlay that enables products and services to leverage the NPP to provide tailored payment experiences.

With eight banks connected directly and another 70 indirectly, the NPP has embraced the concept of open access, working with SWIFT to develop an infrastructure that ensures availability to non-bank organisations. But keeping the barriers to entry as low as possible is not always easy, said Adrian Lovney, chief executive of the NPP.

“One of the challenges for us is to think about how we extend the ecosystem in a way that allows as many different people to connect to that infrastructure as possible. Market participants were looking for consistency, standardisation and interoperability in terms of the access methods. In response, we developed an API framework that provides this consistency and harmonisation,” Lovney explained, speaking during a SWIFT Institute panel discussion.

Optimising data

For banks seeking to remain relevant in this fast-changing payments environment, one of the core challenges is to extract value from data in a similar way to their more nimble non-bank competitors. Just as banks may have been slow off the mark in embracing technological innovation in payments, they are also playing catch-up with fintechs in leveraging and optimising customer data to refine and tailor their services.

“Banks have such a big amount of data but we have never exploited it, so it’s an asset for the future, with respect to data privacy legislation as a trusted third-party,” said Fabrice Denele, senior vice president for partnerships and interbank relationships at Natixis Payments. “Banks have millions of customers and this creates some constraints; we cannot act as a fintech and test and run a new product for a small customer base. When we decide to launch a product or service, it has to be reliable, dedicated to everyone, and it has to work every single day.”

But other speakers took issue with the concept that banks cannot compete with the same agility as fintechs, suggesting that a large incumbent customer base...
The evolution of central bank digital currencies (CBDCs) is a positive example of the public sector embracing new technologies and disruption in the payments landscape, but industry participants also have a role to play in demonstrating use cases and tackling associated challenges.

During a panel discussion on the prospects for this emerging asset class, Reserve Bank of Australia assistant governor Michele Bullock explained that while digital currencies are not expected to replace standard bank notes in Australia, they might still have a significant role in the payment systems of the future.

“We have more of an open mind on whether or not a CBDC could play a role in assisting with supply chains and cross-border payments, for example,” said Bullock. “It remains for the industry to demonstrate to us why what we have got available in terms of payment systems and what is still coming onboard can’t actually deliver that already. How would a CBDC make things more efficient and competitive?”

Financial inclusion and the extension of banking to the world’s poor is one area where session participants felt digital currencies might ultimately play a valuable role, by offering a more accessible and secure form of tender. A digital currency could have a more challenging impact in a future systemic crisis scenario, however, as large numbers of people might look to hold value in CBDCs rather than withdrawing cash, which could put new strains on the financial system.

While some countries such as Sweden and Singapore are already in the advanced stages of exploring CBDCs, there is clearly still some way to go before they become widely accepted. Despite conceptual and practical challenges, discussions at Sibos reflected a high level of interest in potential benefits.

“From a commercial banking point of view, we see the potential opportunity to address a few challenges we have seen in the traditional settlement networks. The ability to address availability, ubiquitous access to markets, no time-zone, and the settlement mechanism can all be achieved. However, to succeed technology must also be accompanied by other changes, such as a consistent approach by regulators,” said Lewis Sun, regional head of product management for global liquidity and cash management in Asia-Pacific at HSBC.

Industry urged to lead the way on digital currencies should not be a barrier to innovation. Thomas Nielsen, chief digital officer for Deutsche Bank’s global transaction business, argued that the industry is moving away from a model of ‘walled gardens’ – where banks owned and operated the entire stack of payments technology and services – towards an open access model.

Nielsen illustrated his point with reference to the way that Nokia’s dominant position in the mobile phone sector was quickly overturned by the new partner-based business model introduced by Apple’s iPhone and App Store, warning of similar consequences for banks. But he insisted that banks have the assets and capabilities to respond positively to the challenges ahead.

“What banks and financial institutions can bring to the table is the knowledge of a global network, customer experience and understanding how to do business in multiple regions in a trustworthy and compliant way,” said Nielsen.

Data is an asset for the future.

Fabrice Denele, Natixis

We see the potential opportunity to address challenges in the traditional settlement networks.

Lewis Sun, HSBC

How would a CBDC make things more efficient and competitive?

Michele Bullock, Reserve Bank of Australia
Asia’s great leap forward

Innovation is being fuelled by the dynamism of a new generation, and aided by a lack of legacy.

“Mobile-wallet adoption in the Asia-Pacific markets is far higher than in the US, the UK and Germany. In domestic payments, the Australians have embraced contactless as a way of life. Objective academic studies show that Asia-Pacific is a hotbed of innovation. What’s the secret?” asked Oliver Kirby-Johnson, partner, advisory, KPMG, introducing Thursday’s big issue debate, ‘The rise of Asia as a source of innovation’. “Is it the availability of low-cost smartphones? Rising internet penetration? A growing awareness of mobile payments? I’m not sure it’s that simple,” he continued.

Playing leapfrog

Two significant factors were identified early on. First, the situation in Asia is unprecedented, and second, Asia has “leapfrogged” the West. “On the consumer side, this is a once-in-a-hundred-years, perhaps unique, change. We have so much technology in our hands, and it is completely democratised. The growth has been absolutely phenomenal. Users have access to information and to banking that’s relevant to them,” said Madhur Deora, CFO and senior vice president, PayTM, an Indian digital payments provider. The consumer market now accessible in Asia via technology, Deora pointed out, simply didn’t exist until recently. “This is different from the West, where consumers have been through several technology curves, from desktop computers onwards; in Asia we have leapfrogged all that.”

The West’s relatively slow development and adoption of new, digital technologies reflects embedded mindsets and practices as much as legacy systems, suggested Peter Hiom, deputy CEO of the Australian Securities Exchange (ASX). “With legacy comes legacy business models. It’s not just about the technology, but also the challenge of customers transitioning from old business models to new ones.” Later, Deora pointed to the “intuitive expectation” among some of PayTM’s merchants that money would move instantly into their accounts rather than over three to five days. “Going forward, more than anything else, it is the culture of the company that will matter. You can always ride the next technology wave; what’s going to matter is whether you can make fast decisions,” he observed.

Push and pull

Noting the diversity of Asian markets, Kirby-Johnson asked whether take-up of mobile

Asia’s entrepreneurs are young, well-educated and inspired by the success of pioneers.

James Ma,
JD Finance

Asia’s entrepreneurs are young, well-educated and inspired by the success of pioneers.

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We’re really looking at how we can co-create, looking for areas where people are innovating in big ways.

Linda Robins, Standard Chartered

payments was predominantly attributable to the ‘pull’ of consumer demand, rather than regulatory ‘push’, as exemplified by Singapore’s Smart Nation initiative, recognised as a driver of innovation. Linda Robins, global head of transaction banking at Standard Chartered, said: “To generalise, the population is younger, and very used to mobile technology. Mindset is also perhaps a factor here: there’s the ability and desire to change rapidly and put the work in to get things done.” The needs and energy of a new generation were also acknowledged by James Ma, vice-president, JD Finance, a Chinese provider of mobile-based financial services, including consumer loans. “I see a rise in entrepreneurship in Asia. I meet a lot of new founders. They are young, well-educated and inspired by the success of pioneers such as Tencent, Alibaba, JD.”

The expectations of China’s consumers and entrepreneurs were explored earlier in the week, in ‘Quo Vadis? Fintech in China versus the West’, presented at the SWIFT Institute by Bonnie Buchanan, Howard Bosanko Professor of International Economics and Finance, Seattle University. Buchanan’s research indicated China is a “huge underserved market” in which expectations are changing, particularly among the millennial generation. “China has an expanding middle class with an unprecedented tolerance for technological innovation, particularly when it comes to financial services. There’s also a huge funding gap in part of the Chinese population,” she explained. In the plenary room, Ma emphasised widening opportunities: “Even a young person without much experience, as long as they have good ideas, can easily get financial support from venture capitalists.”

Robins noted the scope for co-operation between service providers: “When you look at what a big bank does, a legacy institution, you can co-create, looking for areas where people are innovating in big ways and we can innovate together.” Exchange and analysis of data is central both to these collaborative efforts and to delivering value to customers. “We look at data as the new engine. We see the whole industry becoming much more focused on how we can extract data to enable companies to do what they’ve always done better. The better the information we can get, the better we are able to service our customers,” Robins added. The theme of leveraging new capabilities to meet timeless objectives was echoed by ASX’s Hiom. Discussing market infrastructures, he said: “Lots of things remain true, regardless of these new technologies. We continue to provide infrastructure that enables our customers to do business.”

Strong appetite

And what of innovation in Asia’s cross-border financial services to corporate and institutional clients? In the Wednesday session on ‘The Trade Finance drive towards digitisation’, the panel was surprised by the outcome of an audience vote that indicated ambivalence. As moderator Raphael Barisaa, global co-head of trade and market capital solutions, UniCredit, put it: “There are so many options in the market, but our clients just don’t use them.” Soumyo Dutta, treasurer, Reliance Industries, explained the reservations of multinational corporates: “Unless the whole ecosystem develops towards this process, people are not going to benefit.” Nevertheless, it is clear that appetite is strong among corporate clients for greater convenience, transparency and flexibility. “We’re seeing treasurers wanting to use their mobiles to see real-time information and make decisions,” said Standard Chartered’s Robins. “Why would your expectations at home be different from what they are at work?”

Consumers are setting the pace, but perhaps we’ll see trade finance leapfrogging in Asia in the near future. Last word on the rise of Asia goes to JD Finance’s Ma, who noted that the drivers of change are more deep-seated than the desire to get the latest upgrade on our smartphones. “This is how we innovate. It’s not only about the technology; we’re trying to build a sustainable business model.”

It’s not just about the technology, but also the challenge of customers transitioning from old business models.

Peter Hiom, Australian Securities Exchange
With Asian markets leapfrogging the West in terms of financial service innovation, how should we re-adjust our world view? “Let’s get some assumptions out of the way first,” said Chris Hamilton, CEO, Banks for Africa, opening the session, ‘Emerging and developed: terminology of the past?’ "The terms ‘developed’ and ‘emerging’ are no guide to the level of technological sophistication in a market,” he said, embarking on an assessment of differences and similarities between the priorities of financial market infrastructures across the globe.

Probably the easiest consumer payment experience in the world today is found in China, despite still being regarded as an emerging market. The largest issue of crypto-assets is Venezuelan petro-dollars. Thus, emerging markets can be at least as technologically sophisticated or innovative as developed markets. “That said, I suggest that developed/emerging is still a useful and interesting distinction to draw,” said Hamilton.

Emerging markets might be evolving fast, but developed markets are far from static. Hamilton invited Walter Verbeke, global head of business model and innovation, Euroclear, to give his perspective on the distinction. Verbeke said: “The way we look at markets, the experience we have, is - they're all developing. In our world, we see a lot of development triggered by new technology, enabling new business cases to arise that need to be accommodated. Technology drives change in our world.”

A timely reminder: even developed markets aren't static; technology innovation impacts all markets.

Verbeke went on to make a thought-provoking point about innovation: it is no longer about activity diversification, "Now, there is so much going on in our core activity - the CSD (central securities depository), plus collateral, plus fund services, plus data - that we focus our attention there. As a financial market infrastructure, market participants look to us to provide safety and efficiency." Technology impacts the core remit. With these caveats in place, the session went on to vindicate Hamilton’s suggestion that the developed/emerging distinction is still useful.

First, there is a distinction in terms of priorities. Sebastien Kraenzlin, head of banking operations, Swiss National Bank, said: “When it comes to innovation, we distinguish between the core of the market infrastructure – the stock exchange, the clearing house, the CSD, the RTGS system - and the outer layer, which is the interface between customers and banks. Several central banks are experimenting with new technologies and on how to interconnect existing core elements, such as the RTGS system, with potential new DLT-based systems. Several initiatives in Switzerland have so far concentrated on the core of the FMIs; more could be done on the outer layer.”

Hamilton suggested that emerging markets will tend to place greater emphasis on financial inclusion. Breno Lobo, advisor, Banco Central do Brasil, agreed, adding: “We are trying to improve our electronic means of payments and give consumers the opportunity to use mobile payments more than they do now. We still have all the problems associated with cash.” Electronic payments – and especially instant payments - can address structural problems, said Lobo.

The technology is primed for service. “We have to create an alternative for people. Low-income people don’t have credit and debit cards. They are not part of the financial system, but they do own phones. Everybody has a smartphone with an internet connection,” said Lobo. The role of the central bank is to construct – or to allow the banks to construct – the infrastructure and “let the players play the game”.

Maria Krasnova, deputy chair of the executive board of NSD, the Russian CSD, suggested her domestic market’s experience and priorities were more akin to Brazil than Switzerland. “Recently, the situation has improved a lot. There is a special cashless-economy programme, conducted by the Bank of Russia and the Russian authorities, with the result that more than 50% of retail payments are now conducted via mobile applications. There are still efforts to be made, but we have reached the last mile.”

Emerging or developed, all market infrastructures are leveraging technology innovation, but the way they do so is highly informed by local economic realities.
Differentiation through data

How are investment managers, investors and service providers responding to the growing status of data as an asset?

New cost pressures, technologies and asset classes are applying such an eye-watering squeeze on investment managers’ margins as to warrant new business models too. This phenomenon harbours inevitable implications for securities service providers, which must prove their mastery of technology, data and other assets to defend and grow their franchises.

Buy-side clients are seeking best-of-breed approaches to provider selection, according to Diane Teed, head of intelligent automation and change management, Brown Brothers Harriman.

“Clients should always have a choice to work with whoever is providing the best quality of service or the best capabilities,” Teed said. “As business complexity increases, asset managers will want more specialist providers and more ability to use a best-of-breed mode. That’s how we’re positioning ourselves in an open architecture model that is provider agnostic. We think our role is to be the provider that can solve client problems, rather than focusing on traditional segmentation.”

Best of breed

In a panel discussion, ‘Inside capital markets: Do new asset management business models have the power to disrupt the post-trade ecosystem?’, Teed cited an example in which Brown Brothers Harriman worked with a US$400 billion global asset manager operating across diverse markets, segments and asset classes to streamline reconciliation using a hosted platform to gather information from multiple systems and external providers. “We helped them achieve a higher match rate - 95% - than they could achieve on their own, using our subject matter expertise to solve one of their biggest problems, without needing to service every asset class for them.”

Sinclair Scholfield, head of sector solutions and consultant relations at State Street, suggested that even the largest securities services firms were no longer looking to be sole suppliers to their buy-side clients.

“The approach that we’ve taken is really to ensure interoperability,” Scholfield said. “Best-of-breed is fundamental. I don’t think that organisations are trying to be everything to everyone. Certainly some clients may wish to go with one provider for everything, but the best-of-breed mindset is pretty prevalent in the asset management, asset owner, and institutional investor communities.”

In response to this trend, custodians are expanding from their traditional areas of expertise. State Street, for example,
recently acquired order management system vendor Charles River Development as part of the firm’s efforts to provide services across the front, middle and back offices, with a particular emphasis on management of data flows, Schofield explained.

Utility plays

Speakers across the securities sessions at Sibos 2018 agreed that while costs are dropping, margins are also tighter. This is leading asset management and asset servicing businesses to apply a range of strategies - technology integration, new product development and innovation, and development of utilities - involving collaboration to a greater or lesser extent.

Utilities can increase disintermediation and reduce risk, but there are challenges, noted Stella Clarke, chief marketing officer at technology vendor Murex, speaking in the panel session ‘Capital markets: Is the enemy within?’

‘Utility-based approaches can bring a lot of benefit to the industry and could allow banks to accelerate their own transformation by outsourcing certain ‘non-compete’ aspects of securities processing, for example. The challenge lies in standardisation. While we’re starting to see some pockets of standardisation in the industry, many processes are still done very differently,’ she observed.

Philip Goffin, global chief technology officer at investment platform provider FNZ, said there are potential opportunities to achieve new efficiencies through securities clearing and settlement utilities, but also expressed a degree of scepticism.

‘I’ve seen utilities fail massively in the asset management industry historically, because they tend to become an inefficient collective mechanism. But with clearing and settlement, new opportunities are being created, particularly around blockchain and tokenization. Both new and existing parties may morph into new clearing and settlement models as part of the changing landscape over the next five years,’ he said.

The use of data as an asset could be a key differentiator for asset managers and securities services providers. Schofield said State Street is working on a sophisticated data provision service for multiple stakeholders, including asset owners, other custodians and regulators. Goffin suggested that the asset management industry overall needed to improve its data management capabilities to take full advantage of new innovations.

‘Asset management firms don’t use data as a differentiator,’ he remarked. ‘There have been a number of great data offerings in the asset management marketplace for some time. The problem is not that the offerings aren’t sophisticated, rather the asset managers don’t understand the value of their data and are not willing to look at how it can create value for their organisations. Traditionally, they haven’t needed to do that because they haven’t faced the kind of margin pressure and new entrants as today.’

Strategic significance

In a separate session, ‘The Golden Age of information: How can new technology break big data challenges?’, Shahmir Khalig, global head of direct custody and clearing, Citi, asserted that attitudes are changing, with data management increasingly becoming a strategic concern for clients.

‘During our client meetings here, a number of financial institutions have referenced their increased business need and focus on receiving and reviewing business data as close to real time as possible - including the ability to use such information to make more informed business decisions,’ Khalig said. ‘These expectations have led to a growing recognition that meaningful information delivery is now seen as a primary strategic objective for many clients and partners. Our goal as a core partner is to facilitate this key business requirement through an increased use of interactive information tools, allowing clients to make the most informed decisions possible.’

We have a love-hate relationship with data.

Tim Lind, DTCC Data Services
While the highly regulated nature of the real and good focus on privacy.” of personal information have resulted in a General Data Protection Regulation and Analytica episode created a visceral data,” Lind said. “The Facebook Cambridge Data Services, DTCC, in that same session. noted Tim Lind, managing director, DTCC comes a more urgent need to protect it, With growing strategic significance of data Indeed, the more customers banks have, the more data they have. Anytime an asset is moved or transferred, it creates a record of that transaction. This record can provide valuable insights into market trends, customer behavior, and other critical information. Additionally, with the rise of digital assets, the demand for data services has increased exponentially. For example, with the advent of cryptocurrencies, banks and financial institutions require sophisticated tools to manage their exposure to these assets. Banks are also seeking to leverage data to offer more personalized and targeted services to their customers. This has led to a best-of-breed mindset being adopted in asset management. “The best-of-breed mindset is pretty prevalent in asset management.” - Sinclair Schofield, State Street

We look to identify how regulation impacts us directly but also the whole value chain around us.

Justin Chapman, Northern Trust

With growing strategic significance of data comes a more urgent need to protect it, noted Tim Lind, managing director, DTCC Data Services, DTCC, in that same session. “We have a love-hate relationship with data.” Lind said. “The Facebook Cambridge Analytica episode created a visceral reaction to the handling of personal information. The regulatory environment has become more stringent, with companies now facing higher fines and reputational risks for data breaches. This has led to a best-of-breed mindset being adopted in asset management, as firms seek to leverage data to offer more personalized and targeted services to their customers. “The best-of-breed mindset is pretty prevalent in asset management.” - Sinclair Schofield, State Street

Protecting consumers, while driving innovation

Since the Global Financial Crisis, the aim of new regulation across the securities markets has been to improve investor protection and reinforce risk management, while also increasing transparency and the overall safety level of assets, thus creating a stable environment for market growth and competition. To what extent have reforms succeeded so far? In a panel entitled ‘Who is regulation for in securities markets?’ After all that investment, who has benefited the most?’ experts were guided through recent developments and toward future opportunities by moderator Graham Ray, head of sales and relationship management for financial intermediaries at BNP Paribas Securities Services.

The panel’s regulatory representative took a cautiously positive view of the direction of travel. “The global community has sought to identify features of exchange-traded activity – namely greater data, transparency, and risk management in the post-trade infrastructure space – and looked to impose that across the non-trade traded and non-securities market,” said Oliver Harvey, senior executive leader, market integrity group, Australian Securities and Investments Commission. “That’s a benefit for the entire industry, both on the buy- and sell-side, asserted Palatinck, who also spoke favourably of the wider use of standards such as ISO 20022 in the post-crisis securities market ecosystem, noting that regulation around transparency had helped to make platforms more stable and better able to recover from disruptive events. Further, standardisation initiatives such as legal entity identifiers had improved quality and consistency of data, thus supporting today’s efforts to derive more intelligence and value from transaction data, he added.

Holistic approach

Whilst reforms are broadly seen as necessary and positive for systemic stability and consumer confidence, the cost of implementing and complying with so many rule changes in such a short space of time has taken its toll on individual market participants, especially those operating in multiple jurisdictions. Justin Chapman, head of market advocacy and innovation research at Northern Trust, said his firm tried to take a ‘holistic approach’ to regulation that impacts both clients and the bank itself. “We look to identify how regulation impacts us directly but also the whole value chain around us. That’s probably the starting point for any opportunity,” Chapman said. “We’ve also tried to look not only at current regulation, but also to position ourselves – on behalf of our clients and our organisation – for future regulations as well.”

Prompted by a question from Ray on how product innovation had evolved alongside service providers’ responses to regulatory reforms, Chapman added that regional regulatory initiatives – for example the EU’s Central Securities Depository Regulation – had led to greater account structure optionality, at first in Europe and then beyond. Chris Brycki, CEO of robo-advisor Stockspot, registered as a financial advisor in Australia, said the ultimate test for regulation was its impact on choice and value for end-users. If the combination of new technology and regulatory openness to competition is making investment advice and other services more accessible and efficient, lower in cost and with better outcomes, a decade of unprecedented change will have been worthwhile, he argued.

Concluding, Ray noted that the whole industry could draw benefits from the regulatory overhaul, not least due to the stable platform it provided for growth and innovation.
AI stakes claim for supporting role

The Sibos 2017 compliance stream in Toronto made a clear case for the deployment of advanced technology and greater collaboration with law enforcement agencies to improve the efficiency and effectiveness of banks’ financial crime compliance efforts. In Sydney, the compliance sessions at Sibos 2018 revealed that encouraging progress is being made on multiple fronts, suggesting good reason for a positive outlook.

Taking sanctions screening as an example, HSBC global head of correspondent banking Barbara Patow recognised that bank processes are not always as efficient as they could be, and staff resources can be drained very quickly without adequate support from technology. But screening has become much more effective in recent years, she said, and HSBC has seen positive results from the use of artificial intelligence (AI).

“We’re now in the phase where we are getting more efficient and there is greater awareness with regard to how we can actually do this,” said Patow. “At HSBC, we screen 1.2 million payments a day – we stop 75,000 payments a day and we are now applying machine learning and AI to about 35,000 of those alerts. We still have human intervention to work those final alerts, but that’s a huge step forward to ensure we can meet demand in real time.”

Banks are beginning to embed advanced technologies at the heart of financial crime compliance.

The aim is to empower staff and refocus resources on problematic cases and risk assessments.

Adrien Delle-Case, Institute of International Finance

Sibos 2018 highlights:
Compliance
Technology
Data
SWIFT Institute

Accelerating momentum
Many banks are still in the testing phase with new technologies, but momentum has clearly accelerated, thanks in part to the need to alleviate pressure on human resources involved in transaction monitoring and sanctions screening. banks and other institutions are demonstrating increased enthusiasm for AI and robotics to tackle financial crime, panellists observed, noting also that such technologies can be bolted onto existing systems, providing a fix to incumbent solutions.

“Most of the industry is working on use of machine learning as an additional filter to existing rules-based systems that are producing false positives. The question is whether one can use enhanced analytics and machine learning to look at the results and enhance the quality before you put them to your analysts,” said
Adrien Delle-Case, policy advisor for digital finance regulation and policy at the Institute of International Finance (IIF).

A survey of 59 financial institutions (largely banks) published by the IIF prior to Sibos revealed that 69% of respondents are already using or experimenting with machine learning techniques in their AML-related analysis, while only 2% have no plans to do so. Machine learning will not fundamentally change AML but rather it should lead firms to enhance and rethink their processes, the report suggested.

“Financial institutions need to communicate so that staff understand they will not be replaced by machines. These people are trained; they are experts in their field and they know how to recognise suspicious activity. The aim is to empower them and refocus their processes,” said Delle-Case.

Encouragement also came from Miles Ward, global head of solutions for Google Cloud, who said that while the challenges in banking might seem insurmountable, other sectors actually operate on a much larger scale with even greater volumes of data. Nevertheless, higher levels of automation did not equate to obsolescence, he reiterated.

“Tool after tool is being built not just to simplify the automated work of identifying bad actors and criminal activity, but also to improve the work experience of every one of the professionals trying to solve those problems. Some of this is about replacing people, but it is also about augmenting people and giving them superpowers,” said Ward.

In the near term, banks must continue to test new technologies to determine their merits as well as exploring the extent to which human intervention will still be required for efficient, effective compliance. Handing over complete responsibility and autonomy to machines might present stiff challenges in the area of financial crime, given humans can very often disagree on what constitutes suspicious activity.

Michelle Neufeld, head of compliance and operational risk for Wells Fargo’s financial institutions group.

“We can’t continue to put bodies against the enormous amount of data we have coming in. We can’t continue to put bodies against the enormous amount of data we have coming in, so we need to find solutions. One of the challenges here is that reasonable people can disagree on the outcome of a scenario. There are a lot of grey areas,” said Neufeld.

Real-time compliance

Meanwhile, transaction banking as a whole is embracing new technologies and faster, more automated processes. With the current proliferation of new payment channels, the rise of cryptocurrencies and the move towards real-time payments around the world, the challenge of dealing with financial crime shows little sign of diminishing in the near future. If anything, banks will need to be even faster and more innovative in meeting their compliance obligations if they are to maintain resources and budget at a manageable level.

“Many global financial institutions are spending more than US$1 billion on financial crime compliance. We can’t continue to put bodies against the enormous amount of data we have coming in, so we need to find solutions. One of the challenges here is that reasonable people can disagree on the outcome of a scenario. There are a lot of grey areas,” said Michelle Neufeld, head of compliance and operational risk for Wells Fargo’s financial institutions group.

Natalie Hall, general manager for financial crimes compliance at Commonwealth Bank of Australia, emphasised the need to know your customer’s behaviour, rather than concentrating only on standard know-your-customer routines.

“We want to understand our clients’ policies and programmes so that we can look at our output from transaction monitoring and sanctions screening and check that it aligns with what the client told us about their AML programme and their risk profile. The difficulty for banks is to then verify that information in a meaningful way and demonstrate to our regulators that we truly understand the risk,” said Hall.

“The difficulty for banks is to demonstrate to our regulators that we truly understand the risk.”

Natalie Hall, Commonwealth Bank of Australia.

“Many global financial institutions are spending more than US$1 billion on financial crime compliance. We can’t continue to put bodies against the enormous amount of data we have coming in, so we need to find solutions. One of the challenges here is that reasonable people can disagree on the outcome of a scenario. There are a lot of grey areas,” said Michelle Neufeld, head of compliance and operational risk for Wells Fargo’s financial institutions group.

Real-time compliance

Meanwhile, transaction banking as a whole is embracing new technologies and faster, more automated processes. With the current proliferation of new payment channels, the rise of cryptocurrencies and the move towards real-time payments around the world, the challenge of dealing with financial crime shows little sign of diminishing in the near future. If anything, banks will need to be even faster and more innovative in meeting their compliance obligations if they are to maintain resources and budget at a manageable level.

Natalie Hall, general manager for financial crimes compliance at Commonwealth Bank of Australia, emphasised the need to know your customer’s behaviour, rather than concentrating only on standard know-your-customer routines.

“We want to understand our clients’ policies and programmes so that we can look at our output from transaction monitoring and sanctions screening and check that it aligns with what the client told us about their AML programme and their risk profile. The difficulty for banks is to then verify that information in a meaningful way and demonstrate to our regulators that we truly understand the risk,” said Hall.
Collaboration between law enforcement agencies and financial institutions in the fight against financial crime is far from a new concept, but the recent wave of public-private partnerships (PPPs) highlights the progress that has been made in sharing information and breaking down barriers to catch the bad actors.

James Freis, chief compliance officer at Deutsche Börse Group, referred to a PPP 2.0 model; a more structured way of sharing information with greater resources than the informal entities that existed a decade ago. Such groups operated in a more ad hoc and low profile way than the PPPs that have been established in recent years.

“The difference now is the resourcing and the structure,” said Freis. “We have dedicated resources and better people, there are 10 times the compliance staff we had a few years ago, and people with different backgrounds have been brought in to take this to a higher level. We also have better access to data than ever before, we can look at data in a different way, and in certain jurisdictions we have a clearer legal basis to share information.”

Following on the heels of the UK’s Joint Money Laundering Intelligence Taskforce (JMLIT) and the development of PPPs in Canada, the US, Hong Kong and Singapore, Australia formally launched its own PPP, Fintel Alliance, to combat money laundering and terrorist financing in March 2017.

With the backing of AUSTRAC, the Australian government’s financial intelligence agency, and participation from the top four Australian banks as well as HSBC, Paypal, Western Union and other official agencies, Fintel Alliance has been lauded for physically seconding experts from the public and private sectors, rather than simply meeting intermittently to share information. A forthcoming SWIFT Institute report will explore Fintel Alliance’s role and structure in more detail, and provide guidance to jurisdictions planning to establish their own PPPs.

“Fintel Alliance is quite unique,” said Simon Norton, analyst in the strategic policing and law enforcement program at the Australian Strategic Policy Institute, and author of the SWIFT Institute paper. “In other PPPs, people essentially get together for meetings and then go back to their usual roles, but we have co-location of professionals, which is really important.”

Norton believes the key criteria for an effective PPP include voluntary participation - his report will feature organisations that chose not to be involved and explain their reasoning - and proper resourcing. In a highly-concentrated banking market, the participation of Australia’s four largest banking groups has also been critical to Fintel Alliance’s success, Norton added.

While there are inevitable legal and operational issues that need to be tackled to make a PPP work successfully, the biggest challenge may be cultural. “We still have a cultural issue which is the risk and unintended consequences of information sharing – both in the private sector and in law enforcement, some are more reticent than others and this is something PPPs have to work through,” said Norton.

Evidence is already mounting on the wider benefits of information sharing between the private and public spheres. During a session dedicated to PPPs, for example, details were revealed of how Fintel Alliance participant Western Union had raised concerns about small credit card transactions that it suspected were linked to child exploitation. By pooling data and intelligence among participants, the PPP identified previously unknown offenders and made more than 20 referrals to law enforcement agencies.

“There was a 36% increase in child exploitation-related suspicious matter reports and suspicious activity reports over 12 months, but critically it advanced awareness of the issue within the financial services industry and it got people talking, because no one wants to see children exploited,” said Paula Chadderton, international counter-terrorism adviser at the Australian Department of Home Affairs’ Centre for Counter-Terrorism Coordination.
Three keys to enabling digital migration

Digital native businesses pose an existential threat to traditional financial services firms, giving banks a limited lifespan if they do not evolve. Artificial intelligence (AI) and distributed ledger technology (DLT) are transformative, offering competing new approaches to solving mission-critical problems. Cloud and APIs are force multipliers, increasing data accessibility and thus allowing business to scale. Understanding these capabilities can help banks to pivot towards new client service and product development models.


Knowing that digital giants are capable of deploying services rapidly, through the application of lightweight and flexible technology, financial services firms need to respond. However, replicating the efficiency and agility of fintech and big tech innovators poses many challenges for institutions with legacy characteristics. To elevate every part of the business simultaneously, to manage migration onto new technologies, and crucially to run the bank effectively whilst managing transformation requires the ability to handle three key dynamics. These were explored in depth across Sibos 2018’s technology-focused sessions.

Managing change

The first key challenge for senior management is coming to terms with the way technologies can change working practices, and to disseminate that understanding throughout the business.

Banks must not underestimate the complexity of evolution, when responding to the fourth industrial revolution.

Eli Rosner, chief product and technology officer at technology vendor Finastra, said APIs and cloud should be viewed as the means of building innovation capabilities, the starting point for firms to better leverage data, regardless of function. “If you have more users you have more data, if you have more data, you can develop more sophisticated applications,” he said.

Taking a strategic view of technology is not easy without reference to specific, practical applications that are supported by a realistic analysis of the potential return on investment. There are many uncertainties as projects evolve along an extended time line. Typically, a firm will need to take a specific technology from the proof of concept stage to a working model before going live, after which it may be adopted more widely across other functions.

For example, JP Morgan’s adoption of DLT has begun at the point of information exchange rather than exchange of value, with a use case that will test the efficiency of the system. “We ended up analysing the factors that stopped cross-border payments in the correspondent banking chain, and we found that information exchange around payer or payee was a point to address,” said Christine Moy, executive director and blockchain program lead, JP Morgan. “We recently moved our Treasury Services blockchain into production; this is the Interbank Information Network, essentially a peer-to-peer network for correspondent banks to connect and exchange information.”
If you have more data, you can develop more sophisticated applications.

Eli Rosner, Finastra

Ralph Achkar, managing director for digital product development and innovation at State Street, explained how his firm is engaging with the use of AI around data capture. “We are using AI in the review of legal documents, including contracts, for example,” he said. “The other capability that we have today on the reconciliation of information sets, spotting where there are breaks in the data.”

Understanding data

The second challenge is to lay the groundwork for change with data. High levels of process automation, whether through robotic process automation (RPA) or DLT, can only succeed if the information fed into the process is of sufficient quality to be used as the basis for decision-making. Banks have wrestled with data management and governance issues for many decades, but the challenges of cleansing, storing, integrating and analysing are fundamental to success in the digital age.

“Many enterprises, including banks, set out to establish central data repositories referred to as data lakes, yet what we see today are disjointed stores of data that I like to call data puddles,” said Ramneek Gupta, managing director and co-head of venture investing at Citi Ventures. “The reason is threefold: first, data has gravity, which makes moving large amounts of data very challenging; second, data has residency, which means it’s often not possible to cross geographic boundaries due to regulatory and other constraints; and finally, data reflects organisation structure and can amplify the silos of the parent. Relatively new tech companies like Facebook or Google have been built on a centralised data architecture from the beginning, so these challenges seem to be more of an issue for incumbents who are competing with the tech upstarts.”

State Street has been addressing these challenges by building a unified data architecture. The aim is to guarantee that anyone in the firm who requests information will be presented with exactly the same data regardless of where they sit in the business. RPA, a form of AI, has eliminated reliance on staff in this area.

“Today there are systems that have been in place for decades, and they are built into silos,” says Achkar. “Historically, we have had to use a lot of human intervention to try and pull all of that data together. So we are putting in RPA to pull information from these silos more efficiently.”

Engagement across the board

The final challenge is to bring together all stakeholders impacted by a transformation project – when they are ready and on their own terms, to make the change a positive one and to minimise disruption. This can involve a staggered migration, as used by the Australian Securities Exchange (ASX), which in 2021 will move AUD$2 trillion dollars of securities onto its localised DLT-based platform. The ASX is enabling its new system to interoperate with existing messaging technologies, so that firms that migrate later are not disadvantaged.

“For those that are not yet ready to move and adopt distributed ledger, they can continue to interact via messages based on ISO 20022. But those who are ready can take a node and interact directly,” explained Cliff Richards, executive general manager of equity post-trade services at ASX.

Communication and consultation are crucial as these processes provide consensus around the end goal, even if users or clients are moving toward it at different speeds.

“You have to have a clear view of where you want to go, across the product range, and then pursue it forcefully,” said Claus Richter, head of TxB solutions at Nordea.

Data has gravity, which makes moving large amounts of it very challenging.

Ramneek Gupta, Citi Ventures

You have to have a clear view of where you want to go, across the product range.

Claus Richter, Nordea

We’re not just providing transaction services.

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

#PositiveImpact
The disruption caused by geo-political tensions can impact innovation within banking on several levels, according to participants in Tuesday’s session, ‘The Fourth Industrial Revolution & Geo-politics’. If two countries are fighting a trade war, their innovators may find themselves among the casualties. There is the potential for one state to harm the financial system of another state via cyberattack. While that threat exists today, the importance of data in a more automated environment will create new challenges for banks to manage.

“As machine learning models learn using data, you have to be wary of the possibility that data might be corrupted,” warned Norm Judah, CTO for digital services at Microsoft. “If a virus is injected into an AI system, the signatures that you traditionally look for in cybersecurity are no longer valid. If you get that level of penetration, would you be able to rebuild and restart?”

There are also concerns about computer chips that can transmit data to a third party, embedded onto servers which are sold commercially. If these fears continue to rise, they could spark a reassessment of purchasing policies, with firms potentially preferring domestic suppliers, thus adding tensions to existing trade wars.

According to Josh Kallmer, executive vice president for policy at Information Technology Industry Council, there will be no higher legislative priority in the next US Congress than protecting the security of the country’s supply chains. “There continue to be concerns about countries seeking to procure advanced technologies in a way that escapes review of national authorities... including proliferation of things like blockchain,” he said.

When market infrastructure operators engage in transformation it can impact an entire industry, which potentially creates systemic risk. Faster payments projects are ongoing in many countries around the world. In the UK, for example, the Faster Payments infrastructure is being replaced at the same time as the country’s batch payments infrastructure (BACS), and as the Bank of England is replacing its real-time gross settlement system (CHAPS).

“The only way we will do that successfully is to ensure all the participants in the ecosystem have the right level of representation,” said Simon Eacott, head of payments innovation and business development at NatWest.

As well as supplying utility services to market participants, market infrastructure operators play a key role in providing governance at the point at which new players and technologies are introduced to the market. As such, they hold a pseudo-regulatory role, with responsibility for systemic stability, which must be weighted in any upgrade or migration project.

“There is robustness around the system so that when new ideas come along there is a very firm foundation through which they operate,” added Eacott.

Building the right governance must also take into account the time it takes to get to market, argued Mehdi Manaa, deputy director general of the European Central Bank (ECB), acknowledging the challenges faced by major projects, such as the ECB-backed securities settlement system, TARGET2-Securities (T2S).

“The lesson we learned from the rollout of T2S is that running a project across a decade is not optimal. Now we are running the roll-out of TARGET Instant Payments Settlement, and the consolidation of TARGET2 and T2S, as well as the consolidation of collateral management systems, following a very different timeline to T2S,” he said. “We have built on the success of T2S - specifically its governance - but have also tried to optimise interaction with the market.”

Mehdi Manaa, ECB

There continue to be concerns about how countries procure advanced technologies.

Josh Kallmer, Information Technology Industry Council

Building the market infrastructure of tomorrow

We have built on the success of T2S - specifically its governance - but have also tried to optimise interaction with the market.
Getting ready for a smarter world

Technology:
Three keys to enabling digital migration

Standards:
Communicate, collaborate, co-ordinate

We came to Innotribe 2018, and found the future. “Welcome to 2030,” said Jane Frankland, managing director, Cyber Security Capital, opening the Thursday morning session on ‘Securing the future state’. By then, we had already fixed the crucial flaw in the internet, learned how to secure our identities (and trust each other), got to grips with quantum computing and discussed the future role of artificial intelligence (AI) - so the challenge of securing the future state seemed well within our grasp. “In 2030, there is more peace, more stability and more distributed wealth in the world,” said Frankland.

The week began with Brett King’s keynote. “I want to give you some disruptive themes,” said the author of ‘Augmented: Life in the Smart Lane’, and CEO of mobile financial services provider Moven. “Make no mistake. Banking is going to get disrupted by the technologies we’ll be talking about.” So-called ‘strong AI’ – machines with equal or superior intellectual capacity to humans – is coming soon, and by the early 2030s, we’ll be outnumbered by robots. But King’s core theme was less about the “systemic shift” arising from the recent and ongoing “infusion” of technology into society, and more focused on the difficulties we create for ourselves through our reactions to disruption.

“In 200 years, we haven’t learned to accept change from technology,” said King. We’re linear thinkers, and technology-driven change is too fast for us, he asserted. Just as once there were Luddites, so now there are Paris taxi drivers burning Uber drivers’ cars. But change doesn’t stop happening just because we resist it. “We have zero historical precedents for the proposition that we can stop AI from changing the way we work and live, so we had better get used to it and we had better get ready to adapt,” said King. By 2030, we will be living in “a world that is smart”, and our jobs and lives will have been transformed. “In banking, it’s not being a good bank any more that makes you competitive; it’s being good at the technology that underlies banking,” said King.

Fixing a hole

No wonder Tuesday’s sessions on quantum computing were so well attended. But there was a lot more of Monday still to come. “The internet is fundamentally broken,” said Monday’s day anchor, Ghela Boskovich, founder of Femtech Global. “There are certain things that do not work and there are protocols that are missing.” Fixing the internet was the focus of the session ‘Beyond the bubble’ – and there was an important reason for fixing it. “The base-layer need for identity was not satisfied by an open protocol. Almost all the problems we are seeing now emerge out of this missing piece,” said Stephen Berlin Johnson, author of ’Where Good
Ideas Come From’, discussing the original architecture of the world wide web.

Solution: blockchain. “For the first time now, we can create that massive, decentralised database of interactions, of trust, of identity, without any person or organisation controlling and owning the database itself,” said Johnson. Trust was the theme of the day, decentralisation the route to achieving trust, and in the session entitled ‘If trust is in the network, what’s the point of you?’ we began to learn what that means for us. “We’re coming from a very governed, very structured, highly regulated industry, and now we’re looking at a technology that asks us to completely revisit the value of centralisation,” said Boskovich. Technology gives options; trust is contextual. “In a radically decentralised context, blockchain fosters trust; it can also be used in less decentralised contexts to foster trust. It’s incumbent on us to figure out ways to use the technology,” said Joseph Lubin, CEO, ConsenSys.

On Tuesday, the technology under discussion was quantum computing. In the morning and early afternoon, we drilled deep into the present and future science, and in the afternoon came a debate on the practical applications, during ‘The impact of quantum computing on financial services’. Day anchor Leda Glyptis, chief of staff, 11FS, asked about the time horizon for financial service providers to start thinking about quantum. “It’s within the realm of possibility that this will happen more quickly than we think,” said Stacey Jeffery, senior researcher, CWI. “Maybe the first area where it will matter is security. A lot of the security solutions we have now will be broken by quantum computers.”

Uh oh. Alejandro Perdomo-Ortiz, senior research scientist, Rigetti, was not fazed: “This is the best time to throw these difficult problems to the scientists. We’re very excited to take the challenge and work with you.” Overall, the day gave us a clear understanding of quantum computing and its role in financial services, but also a definite sense that banks and financial institutions cannot and should not try to tackle its challenges alone. “We’re left with a promise of hope,” said Glyptis, in her closing summary.

Hope, and perhaps also reinforcements, given the potential of strong AI. Wednesday’s session on ‘The ethical side of AI’ offered a practical guide to working with artificial intelligences - and understanding the perspective of regulators. “Computers cannot be wrong; they can only do what you ask,” said Tony Fish, founder, AMF Ventures. AI is a system, not a finite piece of technology, the panel agreed, and the people behind the technology hold the liability. “Algorithms have parents,” Clara Durodie, founder and chief executive, Cognitive Finance, reminded us. “Do ask the hard questions at the point of buying an AI system,” Durodie added.

Explainability is key, panellists suggested, but it’s less about explaining precisely how an AI tool came up with a specific recommendation than understanding the broader framework for the decision, including the data inputs.

After all that, how on earth do we secure the future state? On Thursday morning, Cyber Security Capital’s Frankland detailed a wide range of cybersecurity and related threats, and reached a reassuring, if perhaps surprising, conclusion. To secure the future state, with all of its reliance on new technologies, we should look after our people. “We need to be investing, training, having the career pivots. Technology offers quick wins, but it makes sense in the long term to focus on the people,” she said. We need our people to be both clever enough to manage strong AI, and motivated. Will we be ready for 2030? In the closing ‘fireside chat’, ConsenSys’ Lubin seemed to think we are giving ourselves a strong chance: “This is an exquisite, beautifully curated experience up here. I think it’s incredibly encouraging that the finance industry is exposed to this sort of innovative thinking.” And that concluded Sibos 2018’s comprehensive introduction to 2030. We’d had ‘Sensemaker’ sessions every lunchtime, and in the late afternoon, ‘Curated Networking’, at which the day’s speakers were available for further discussion. In the closing moments, as if to remind us that we should be preparing for Sibos 2019 before Sibos 2031, Innotribe bowed out of Sydney to the sound of ‘London Calling’ by The Clash.
This year’s ‘Future of Money’ session began with a hand-drawn animation. We watched as ‘Miss Tech’ entered the traditionally product-centric world of financial advice and, via the use of data, moved it towards an ‘experience consumption’ approach, thereby growing first share of mind, and in due course, share of wallet. In the digital economy, “We no longer think about buying products, but about consuming experiences,” said moderator Udayan Goyal, co-founder, Apis Partners.

We’re all customers of technology companies, and those technology companies have a massive amount of data on us. “What those companies are largely trying to do is customise experiences and provide those experiences to us,” said Goyal - thus, converting share of mind to share of wallet. “If you’re already a customer of a big data company, the cost of acquiring you, to sell you a financial product, is close to zero. Think about how they can price those products relative to somebody who actually has to acquire you as a customer.”

A sobering thought. How do incumbent financial service providers and users respond? One option is collaboration.

“Here we have the consumption of experiences in which the financial products are embedded in the experiences. This is how many people see the future of money,” said Goyal, indicating the happy-ever-after closing scene in the animation – the well-advised family celebrates in their family-size house with a family-size car parked outside. As Goyal pointed out, nobody decides to buy a mortgage; people decide to move house.

The end point may be clear but the journey is far from straightforward. “All our industry’s IT, all the processes, all the people are still product-aligned. A good first step is to mask that from the customer with a new front-end, customer-journey-based experience,” said Neal Cross, chief innovation officer, DBS. The past doesn’t have to hinder the future, and the priority is to contextualise banking within customers’ lives. Jie Song, senior director, Ant Financial Service Group, said: “When we talk about strategy, at Ant Financial we’re really talking about user values.”

A key route to the future involves open banking, suggested the panel, but taken in its widest sense – using digital technologies such as cloud and APIs to connect more easily and flexibly to customers and other service providers - rather than in relation to regulatory-driven initiatives.

“Last year DBS launched the world’s largest API platform, without the regulator mandating it or telling us what to do. Why? Because it’s good for business. We can have thousands of partners, staff and clients helping to make us successful,” said Cross. The future isn’t a new obligation or cost; it’s where the money is. Invited to give one piece of advice to the audience, Cross added: “Make new friends, new partnerships: your greatest asset is your staff; look after your customers; run quickly.”
Standards are at the heart of the ongoing transformation of the global payments landscape that is being shaped by regulatory change, new technology and fresh competition between incumbent players and disruptive entrants. This transformation touches upon the full spectrum of payment services, from retail-led instant payments schemes and open API-based payment initiation services, to new high-value payment systems, and innovations aimed at improving the speed and transparency of correspondent banking.

ISO 20022 has been adopted by market infrastructures (MIs) in more than 70 countries, and further key infrastructure operators including the Federal Reserve, European Central Bank and Bank of England will adopt the standard from 2021. Across the Asia-Pacific region, key markets such as Australia, India, China, Japan and Singapore have already adopted it for all or part of their domestic payments infrastructure. Following an extensive consultation, the SWIFT board approved the facilitation of an industry migration of cross-border payment messages (MT categories 1, 2, and 9) aligned with the adoption plans of major high-value payments systems in the euro area, currently scheduled for November 2021.

MT messages will coexist with ISO 20022 for a period of four years and SWIFT will provide a central utility to translate between ISO 20022 and MT standards, enabling interoperability for the community. While the board recommended that SWIFT provide an ISO 20022 capability for cross-border securities flows for institutions to use on an opt-in basis, it does not propose to set an end-date for the use of ISO 15022 (MT category 5 messages).

As ISO 20022 becomes universal, it will yield major long-term reductions in operational cost and risk alongside improved compliance and transparency. MIs will be able to interoperate more easily, and banks will be able to access ISO 20022-based MI services through a standard interface.

Coordinated action

For all this upside potential, migration is not without its challenges. As Stephen Lindsay, head of standards at SWIFT, noted in ‘ISO 20022 migration: Will it be a marathon or a sprint?’, the move to ISO 20022 for cross-border flows will require stakeholders – MIs, banks, SWIFT – to work together to ensure interoperability. Recognising that fragmentation of ISO 20022 deployments threatens to undermine the standard’s intrinsic value, SWIFT’s Payments Market Practice Group has been ensuring coordinated industry action to align and enhance global market practices across countries and ISO domains.

Communicate, collaborate, co-ordinate

Sibos 2018’s Standards Forum highlighted the need for industry-wide collaboration when preparing for migration of cross-border payment messages to ISO 20022.

Sibos TV:
Adoption of ISO 20022 - 25 Oct 2018

#StandardsForum #ISO20022 #Payments #Digitisation

Provide as much guidance as possible about how the new messages can be used.

John Jackson, Bank of England
Inevitably, local migration projects progress at different speeds, incorporating diverse priorities. Hong Kong’s newly launched faster payments infrastructure uses ISO 20022 and its RTGS system will do so next year. According to Stéphan Levieux, head of deposit, payments and cash management strategy at Hang Seng Bank, Hong Kong regulators are keen to move quickly beyond initial migration toward use of ISO 20022 to achieve greater integration with mainland China. When it comes to the migration strategy, key lessons to draw from the experience of MIs include the importance of building from the needs of business users inwards to the centre, rather than the centre - the message format itself - outwards; and participants should initially be prepared to explore flexibility within the ISO 20022 standard framework.

Marc Bayle de Jessé, director general for market infrastructure and payments at the European Central Bank, stressed that there is no good or bad way of migrating, whether an ISO 20022 transition takes place in multiple steps, first on a ‘like for like’ basis and then only in a second step to the full enhanced functionalities, or moves straight to full implementation: “Each community must find the best way to migrate depending on their context, maturity and requirements. In Europe we will move directly to full implementation to benefit from the enhancements brought by this new standard.” Nevertheless, to ensure harmonised migration and end-to-end interoperability, observance of market practices - centred on a common set of business data and the way that data should be used - will be vital to the success of global ISO 20022 migration.

Outlining a clear timeline for any implementation is also an imperative. Patricia McSweeney, director of industry relations at CIBC, underlined the importance of communication in general - including tools to be provided by MIs, availability of translation rules and market practice guidance, and robust channels to keep banks informed from a timeline and a service perspective. In turn, banks themselves have a key role in communicating effectively with their own customers and to relevant third parties to manage required changes within their system infrastructures.

Market-wide benefits

Difficult choices and compromises inevitably lie ahead, and engagement across constituencies will be critical to ensure informed decisions are reached and the outcome of those decisions is accepted by all. When the Bank of England looked at moving to ISO 20022 for wholesale payments as part of its blueprint for renewing the UK’s RTGS system, it adopted a community-wide approach to determining how the standard could change businesses and drive innovation.

As explained by John Jackson, policy lead for its RTGS renewal programme, the Bank of England identified three key benefits: more structured data, ensuring that transactions flowing through the payments chain are more standardised and predictable, and hence easier to process; richer data via a bigger data load, allowing the overlay of added-value data services and the creation of new products based on the flow of payments information; and harmonisation, through a common credit message for all payment systems in the UK.

The project goal should be benefits for the whole market, not just direct participants, through harmonisation, said Jackson. “That way, the cost of entry for your payments system is as low as possible, because people will be using the same standards that they have already built for all the other systems they need to access. You also want to provide as much guidance as possible about how the new messages can be used – it goes beyond the syntax of the messages into the business processes that sit around them, and how those are harmonised,” he said.

The inclusion of corporates in particular was highlighted by Sean Mouton, chief technology manager at ABSA Bank. “They bring a different view on how the business actually happens. As part of the MyStandards platform, we are now incorporating ‘South African standards’ for corporates to communicate to the banks – we are looking to create a messaging standards community involving many individuals and banks and corporates, large and small,” he said.

The bank’s decision to move immediately to enriched messaging has given rise to some temporary interoperability issues when dealing with entities outside South Africa, added Mouton: “We expect to start seeing real benefits when everyone is in the same domain and exchanging the same data and using that data for ancillary services, which will be around 2023 or 2024.”
The onward march of application programming interfaces (APIs) continues unabated in financial services. Multiple new service initiatives involve designing and exposing APIs, as institutions look to provide single points of entry across diverse underlying systems and ensure interoperability across channels.

APIs provide “building blocks for new business functionality and user experiences”, noted Deniss Kascejevs, API product manager at SWIFT. APIs allow the creation of applications, facilitate the integration and organisation of business flows between counterparties, and provide a unique opportunity to bring a number of elements together within a single concept – standards, interfaces and products. Kascejevs added: “It gives users the opportunity to build their own value-added services around SWIFT’s offering.”

Paul Franklin, general manager for payments at National Australia Bank, flagged the ability of APIs “to deliver a richer interaction than is possible with a message-based interaction”, which is particularly valuable in the context of Australia’s New Payments Platform (NPP). “Now that we can do real-time payments between banks, APIs are a good way for customers to have real-time interactions when it comes to instigating payments, making payment requests and receiving notifications of payments.”

However, the proliferation of APIs does raise questions and challenges for the industry. A reappraisal of funding models and APIs – to reflect the product- or channel-based nature of APIs, rather than a traditional ‘project’ – were two aspects raised. Another was the need to reorganise internal teams to create more cross-functional units, allowing technology and business functions to work together in a more integrated fashion.

Consultation and collaboration are key, both inside and outside an organisation, noted David Andrzejek, responsible for API ecosystems at Google. “There can be resistance and suspicion about APIs at the business level, but they should not simply be delegated to IT,” he said. “View it like building a physical branch office, which is a tool for the business to acquire and service clients. The business should be involved in design and location and other technical decisions. APIs are just the same.” From an external perspective, “Innovation happens in the bazaar, not back in the temple – standards designed in a locked room away from customers struggle to survive in the face of market forces,” he added.

Meaning and consistency

While regulators globally are mandating use of a relatively narrow set of open APIs, banks are putting pressure on development teams to quickly deliver APIs that solve specific problems, with less regard to standardisation.

“Standards help provide extra meaning and consistency and harmonisation to the data we are sharing with people within our ecosystem via APIs,” noted Dan Chesterman, CIO at the Australian Securities Exchange. His recognition of the need for standards was echoed by Hans Tesselaa, executive director at the Banking Industry Architecture Network: “Do we need standards? Yes. To increase adoption rates, how do we persuade people to use our APIs? We fully aligned them with ISO 20022, because people know it - the fact we are linked into a huge ecosystem of existing standards is a big plus, in terms of reassuring users.”

Taking up this theme in the context of the NPP’s API framework, Lisa O’Connor, SWIFT’s head of standards for Asia Pacific, noted the tension between the creativity and agility of APIs in responding to client requirements and the need for interoperability through standardisation. “The agility to deliver the right service to the right people at the right time will remain important,” O’Connor said. “Within the NPP framework, as long as you agree on the business meaning of what is used in the API with reference back to the ISO 20022 dictionary, the API not only works for NPP but can also be reverse compatible back into the banks.”

Growing pains
Throughout Sibos 2018, presentations and panel discussions served to demonstrate that innovation is not only a case of building the right technology stack and redesigning operational architecture, but equally about the human aspects of managing change.

Innovation is a global phenomenon, noted Alain Raes, SWIFT chief executive for the Asia Pacific and Europe, Middle East & Africa regions, in Thursday’s closing plenary. But, he observed, it is often more visible and perhaps growing at a faster pace in Asia Pacific, due to the “booming” nature of the region’s economics and demographics.

“Tens of millions are moving to the middle class,” said Raes, referring to a shift which is driving unprecedented demand for financial services in the region, preferably delivered by smartphone. In addition, governments are playing a key role in ensuring the finance sector delivers new services, often to the previously unbanked.

“Governments and central banks are pushing for innovation. In India, for example, the government has been involved in creating a unique digital ID,” explained Raes. The roll out of digital IDs to 1.3 billion
Innovation in action

The closing plenary also provided a live example of Asia Pacific innovation in action. Bill Doran, SWIFT’s head of Oceania, helped Australian delegates to use the country’s recently launched New Payments Platform to make charitable donations via their smartphones in real time. Thanks to the new instant payments service, delegates added AUD4,000 during the closing plenary to the AUD40,000 donation already pledged by SWIFT to Australia’s Girls and Boys Brigade, which provides educational, recreational and other opportunities to disadvantaged children.

As Raes acknowledged, “Asia also has its fair share of challenges.” Alongside the sheer pace of growth and innovation, cyber-security risk has steadily moved up the curve of concerns for banks and their users. And yet, as Raes observed, some 75% of the banking community still feels unprepared to manage this threat.

“The single main pillar of the banking industry is trust,” he said. “Therefore to me if the industry is not bringing the right response to this, globally and collectively, then trust will be under attack.” Raes suggested communication would be critical to retaining customer trust. “It’s about making sure that banks are changing and sharing experiences and trying together to take lessons from what is happening in the industry.”

In conversation with Raes, Stephan Zimmermann, SWIFT deputy chairman, noted the absence of a common global legal framework for dealing with the cybersecurity threats faced by banks, making coordination within the industry all the more important. “Banks are already in a trusted network and they know how to share information with each other,” he said. “We have to collaboratively get our act together and collectively answer to these challenges. Collaboration is not only important now to fight cyber-crime, but also in other aspects of our business.”

Closing speaker Genevieve Bell, distinguished professor and director of the 3A Institute at the Australian National University, believes it will present challenges in our work lives, but also in our lives as citizens and consumers.

Professor Bell’s initial interest in the space began while at Stanford University, taking her PhD in cultural anthropology. A chance encounter with an Intel employee led to her being employed in Palo Alto at a time when Intel was realising that innovation had to be spurred on not only by what is technically possible, but also by what makes sense to human beings.

“Listening to human beings and then infusing what it is that they care about into how we make technology - that’s always been my job,” she said.

Part of that process means thinking about the kind of technical systems that need to support voice or facial recognition, to machine learning systems to find patterns in data sets too large for humans to process. Closing speaker Genevieve Bell, distinguished professor and director of the 3A Institute at the Australian National University, believes it will present challenges in our work lives, but also in our lives as citizens and consumers.
The final set of questions will need to address how it feels for people when these systems exist. Humans will need to know whether these systems are what they appear to be, and may need a signal that the system is operating autonomously.

“We are talking about systems that could be ambient or invisible,” Bell said. “All the metaphors we have for human computer interactions don’t scale that way.”

As such, Bell suggested that our conversations around AI need also to be conversations about ourselves. “What it means to think about that fourth wave of the industrial revolution isn’t just thinking about the next generation of technologies, it’s thinking about the next generation of human/social technical systems. It’s about thinking about who we are, the people who are going to help shepherd that world into existence; what technologies, skills and regulations will we need? What are the checks and balances we will need? And, from where I sit, what are the conversations we will need in order to be prepared for the world that is coming?”