

# Standing tall in the digital age

Murex, Finastra and FIS take the top spots in this year's rankings, as financial institutions embark on journeys towards business transformation and digitisation



Guy Otayek, Murex Asia-Pacific

Technology is both driving and facilitating major change in financial services. Consequently, the role of capital markets technology providers is metamorphosing from that of specialist product vendors to essential partners, as financial institutions embark on journeys towards business transformation and digitisation.

There are many stages to these journeys, but an early step is the rationalisation and consolidation of functionality on a consistently flexible and modern central technology platform.

Murex, which has topped the technology rankings for 2018, decided early on to adopt a platform model for its software, creating a cross-asset, front-to-back-office system with a centralised repository and a unified calculation engine for pricing and risk. It backed this with high-performance technology, including GPU parallel processors, computing grids and cloud capabilities.

Murex's platform model is proving popular with institutions revamping their technology infrastructure as part of a business transformation. Such projects are often substantial and multi-year, and cut across the organisation. In anticipation of this, Murex invested significantly in its support network across the region, both within the company and with implementation partners and advisory firms.

"A deepening relationship with our clients is at the heart of our strategy today," says Guy Otayek, chief executive officer of Murex Asia Pacific, who is based in Singapore. "As our clients embark on these big transformation projects, which can be painful and not cheap, our objective is to make sure they maximise the value they get from our platform. Having a large team in Asia is essential to address this."

A critical element of the business transformation challenge is banks' need to digitise their capital markets business, says Otayek. Retail banks have largely achieved this, using data to improve customer experience, drive new revenue sources and increase productivity. However, for those facing capital markets, digitisation is particularly challenging, because of the complexity of the business and fragmentation of products and business functions such as trading and risk.

"Despite these challenges, there are already some leading banks in the region that are well advanced in the simplification of their ecosystems and are strategically ready for the digitisation of their services," says Otayek. The banks are turning to Murex to overcome some of the hurdles.

These banks are working to offer customers access to many of the tools and services that have until now belonged internally to the dealing room. Doing so will remove the need for traditional intermediaries and improve banks' margins, as well as help increase productivity for the banks and their customers. The services include advisory, news, products, pricing and portfolio analytics.

"We think we are not too far away from seeing institutional customers using an app that leverages a bank's core capital markets platform for all their needs, and Murex is the technology partner many banks are turning to drive the multi-year digitisation programmes that will deliver these kinds of transformational customer experiences," says Otayek.

## Overall: All categories

	Provider
1	Murex
2	Finastra
3	FIS
4	Calypso
5	Bloomberg
6	IHS Markit
7	Numerix
8	Moody's Analytics
9	IBM Risk Analytics
10	Thomson Reuters

**Overall: Risk management**

	Provider
1	FIS
2	Murex
3	Finastra
4	Moody's Analytics
5	Calypso

**Overall: Derivatives pricing and risk analytics**

	Provider
1	Murex
2	Finastra
3	Calypso
4	FIS
5	Fenics

**Overall: Trading systems**

	Provider
1	Finastra
2	Murex
3	Calypso
4	FIS
5	Bloomberg

**Innovation and collaboration**

For Finastra, business transformation implies openness, innovation and collaboration and technology needs to reflect this, says Arnaud Picut, global head of risk practice at Finastra, who is based in Hong Kong. “Implementing an open and collaborative platform is critical to achieve the essential digital transformation that helps banks stay competitive, meet new client expectations and build a strong ecosystem to cope with culture shift,” he says.

However, this does not mean a bank has to junk all its existing systems. “The objective is to leverage proven legacy back-office systems and make them open to new innovative technologies such as artificial intelligence, machine learning and other predictive techniques,” he says.

To this end, Finastra recently introduced FusionFabric.cloud – a cloud-based platform-as-a-service that opens up the company’s core systems, so third parties, including banks, fintech firms and consultants, can develop applications on top. This has struck a chord in the industry, with the company leading the systems architecture, open banking platform and implementation efficiency categories in the rankings. At the same time, Finastra is continuing to satisfy banks’ core business requirements, winning the trading systems categories overall.

“On the trading side, banks are not only looking for consolidation and simplification to maximise efficiency to trade standard products, but also for flexibility and openness to enable them to launch more sophisticated products faster,” says Picut.

Finastra sees the individual institutional transformations taking place against a structural

shift in the industry – from a three-layer banking model, with large, regional and small players, to two layers comprising big consolidated global institutions and a number of smaller dynamic niche market players. This has dramatic implications for institutions, especially regional banks, which need to choose which way they want to go and speed up their transformation.

“Technology is and will be the life saver for many banks if they understand and adopt it fast enough. The flip side of the coin is that those who are slower to adopt new technology and

bring in new talent, and innovate and collaborate, will find their troubles accelerate significantly,” warns Picut.

**Digitisation challenges**

FIS, which topped risk management and came third overall, agrees technology is key to the future success of many institutions, particularly given the challenge of digitisation. It points to the changing relationship between banks and their technology providers.

“In the last decade, technology companies were providing solutions to fix financial institution issues and business problems,” says Singapore-based François Denimal, managing director, capital markets, Asia-Pacific, for FIS. “Today, traditional financial institutions listen to and rely more on technology providers to drive their innovation, so the ability to innovate is a key factor, and it will be up to technology to lead institutions on their digital journeys.”

Most Asian banks are transforming their counterparty credit risk assessment processes by reviewing front-to-back-office operating models and the organisational alignment of finance, front office and risk, says Denimal. “The goal is to ensure capital structure efficiency and

readiness for [new] international financial reporting standards, while also continuously developing [the institution’s] people and driving cultures of risk and compliance,” he says.

Denimal says UnionBank in the Philippines is using a number of FIS solutions to re-engineer its commercial lending processes, including origination and credit assessment, liquidity and capital charge of loans and portfolios, data management and reporting. The bank is also using an integrated platform of FIS solutions across asset liability management (ALM), liquidity risk and capital management to help it comply with regulatory requirements, such as Philippine Financial Reporting Standards, and proactively manage enterprise risk.

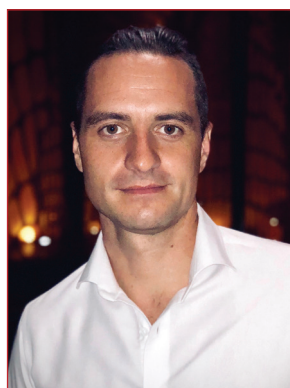
“FIS technology also has enabled the bank to take advantage of advanced third-party data analytical tools through the use of open application programming interfaces. The result has been improved credit risk monitoring and a greater ability to capitalise on growth opportunities in business lending,” says Denimal.

**Reducing costs**

Moody’s Analytics identifies the need for significant efficiency improvements and cost reductions as key drivers of the trend towards integration and consolidation of technology platforms.

“Banks are undertaking large initiatives to implement a centralised system that can be used across the various middle office operations,” says Singapore-based Shailendra Jain, senior director-general manager, enterprise risk solutions for Moody’s Analytics. “Our clients are able to effectively integrate ALM, liquidity, stress testing, credit risk and financial planning and analysis into the system without having to manage multiple instances of the system.”

An integrated consolidated platform is a key initial step towards ensuring future success for financial institutions. Other areas that need to



François Denimal, FIS

be addressed include developing responsiveness to evolving customer demands, competing with unconventional credit disintermediaries and collaborating with fintech innovators, says Jain.

All these factors will require institutions to transform the way they have historically organised themselves and to prepare for a dramatically different future. Careful change management will be a critical factor, as will effective deployment of advanced technology.

“The customers financial institutions will serve in the future will be technologically savvy and will expect very quick turnarounds and highly personalised service. Providing all of this, while keeping costs in check, is only possible through the innovative use of technology,” says Jain.

From its experience with clients over the years, Moody’s Analytics concludes any institution wanting to revamp its front office and become more customer-friendly, agile, responsive and fit-for-purpose must first transform its middle- and back-office systems.

“At Moody’s Analytics, we are increasingly working with our clients on their risk and finance transformation journeys, and we firmly believe in the power of combining expertise, data, insight and technology to help them get prepared for the future,” says Jain.

### Forex pressure

The move to digitisation is especially marked in foreign exchange. “Market participants are under pressure from customers, both institutional and retail, as well as from regulators and from their competition to digitalise their forex business,” says Richard Brunt, London-based managing director of Fenics, which was voted best FX technology provider as well as innovative specialist.

Fenics kACE TS enterprise forex platform enables firms to incorporate electronic liquidity from banks and trading platforms into their workflows, digitise their price-making, internally and externally, with customised quoting logic and workflows, and provides turn-key connectivity to venues for additional liquidity.

“The platform has helped our clients deliver significant workflow efficiencies and the electronification of their client experience,” says Brunt. This digitisation is not a passing fad, he notes. “We anticipate an acceleration in investment in this [electronification] technology.”

Another area where Fenics has been working with clients is enabling them to market-make selective currency pairs, as global liquidity

provision has become increasingly fractured. This has allowed regional institutions to compete in these niches against traditional forex liquidity powerhouses. The company also sees the trend to increased flows, both OTC and listed, through multi-dealer platforms extending to Asia. Among recent client signings is Hong Kong’s Dah Sing Bank, which is using Fenics’ pricing engine to provide market pricing for forex options across the institution, including integration with third-party and proprietary front-ends for different user groups, enabling the bank to have consistency of pricing through a single interface.

### Standardisation

Margin and collateral management and clearing are good examples of areas where new regulation is pushing institutions towards more integrated and standardised platforms, as well as to considering outsourced options, such as managed services, for reducing total cost of ownership of technology.

Phases 4 (effective September 2019) and 5 (effective September 2020) of the Basel Committee on Banking Supervision (BCBS)/ International Organization of Securities Commissions (Iosco) rules on initial margin for non-centrally cleared derivatives will bring many more institutions in the region into the scope of the regulations, and they will need to start implementing margin and collateral solutions soon if they have not already done so, says Boon Huat Lee, Singapore-based managing director, APAC, for Calypso.

Calypso has been at the vanguard of developing functionality for margin and collateral management and clearing – the company topped the clearing and collateral management categories and came fourth overall in the rankings – successfully helping BCBS/Iosco’s initial margin phase 1 institutions meet their compliance deadlines in 2016, and many others in phases 2 and 3 since. “Our clients are able to leverage a single integrated system for risk calculation, collateral management and processing with full straight-through processing. Furthermore, the front office is able to calculate margin costs before they execute trades,” says Lee.

Functional coverage is clearly one aspect institutions need to consider when evaluating

technology to support their businesses. The other critical aspect is to adopt a standardised and open platform that will enable firms to innovate and introduce new products and services, leveraging a software-as-a-service model and progressively embedding artificial intelligence and machine learning techniques to reduce total cost of ownership and transform the client experience, says Raj Manghani, global head of product management at Calypso, who is based in

California. “We view capital markets technology as a key innovation enabler in the evolution of financial markets in APAC, as in other regions,” he says.

### Compliance matters

While institutions strive to make progress on their business transformation and digitisation journeys, they must also meet the immediate demands of regulatory compliance. With the implementation of

regulation comes the need to prepare and deliver what are often extensive, complex and time-critical reports. IHS Markit, which won the regulatory reporting category, grew its reporting capabilities out of its experience as a data provider and its successful MarkitServ trade processing and workflow service. The company now has 30 significant institutions on both the buy and sell side using its regulatory reporting service, says Ross Allen, Asia-Pacific managing director, IHS Markit who is based in Singapore.

“The fragmentation in the region in terms of markets, regulators and regulation creates extra problems for reporting compared with the US or Europe, and leads institutions to look for cost-efficient services and third-party solutions. Through our data, analytics and trade processing services, we are already a trusted partner for many institutions, and they have been looking to us to extend into reporting,” says Allen.

Clients who already rely on IHS Markit for mainstream capital markets information are now also approaching the company for alternative data sets they can use for data-driven decisions, says Allen. For example, the company provides real-time satellite tracking data on marine vessels, both current and historical. From this, trade finance departments can track whether vessels have entered restricted ports or carried restricted goods and should therefore be avoided. ■



Boon Huat Lee, Calypso

## Risk management

### Credit risk management (CVA, counterparty limits, collateral, netting, PFE, credit value-at-risk, etc)

	Provider
1	Murex
2	FIS
3	Calypso
4	Finastra
5	Numerix

### Market risk management (price simulation, stress testing, etc)

	Provider
1	Murex
2	FIS
3	Finastra
4	Moody's Analytics
5	Calypso

### Operational risk management

	Provider
1	FIS
2	SAS
3	IBM Risk Analytics
4	Oracle
5	RSA

### Liquidity risk management

	Provider
1	Finastra
2	FIS
3	Murex
4	Moody's Analytics
5	SAS

### Enterprise-wide risk management/ cross risk integration

	Provider
1	FIS
2	IBM Risk Analytics
3	Moody's Analytics
4	SAS
5	RSA

### Economic capital calculation and management

	Provider
1	Moody's Analytics
2	Finastra
3	FIS
4	Murex
5	IBM Risk Analytics

### Regulatory capital calculation and management (eg, Basel III, Pillar I)

	Provider
1	Moody's Analytics
2	FIS
3	Finastra
4	Murex
5	IBM Risk Analytics

### Asset and liability management

	Provider
1	Moody's Analytics
2	FIS
3	Calypso
4	Murex
5	Finastra

### FRTB

	Provider
1	Murex
2	FIS
3	Calypso
4	Finastra
5	Moody's Analytics

### Limit management & compliance

	Provider
1	Finastra
2	Murex
3	FIS
4	SimCorp
5	RSA

## Derivatives pricing and risk analytics

### Commodities

	Provider
1	Openlink
2	Murex
3	FIS
4	Bloomberg
5	Finastra

### Credit

	Provider
1	Murex
2	FIS
3	Finastra
4	Bloomberg
5	Numerix

### Equities

	Provider
1	Murex
2	Finastra
3	FIS
4	Numerix
5	Imagine Software

### Foreign exchange

	Provider
1	Fenics
2	Finastra
3	Murex
4	Thomson Reuters
5	ION

### Interest rates

	Provider
1	Murex
2	Calypso
3	Bloomberg
4	FIS
5	Finastra

### Hybrids

	Provider
1	Murex
2	Finastra
3	Numerix
4	Calypso
5	FIS

## Trading systems

### Commodities (front-to-back office)

	Provider
1	Openlink
2	Murex
3	Finastra
4	FIS
5	Thomson Reuters

### Credit (front-to-back office)

	Provider
1	Finastra
2	Murex
3	Calypso
4	FIS
5	Bloomberg

### Equities (front-to-back office)

	Provider
1	Finastra
2	Murex
3	FIS
4	Numerix
5	Bloomberg

### Foreign exchange (front-to-back office)

	Provider
1	Fenics
2	Finastra
3	FIS
4	Murex
5	Thomson Reuters

### Interest rates (front-to-back office)

	Provider
1	Murex
2	Finastra
3	FIS
4	Calypso
5	Bloomberg

### Hybrids (front-to-back office)

	Provider
1	Finastra
2	Calypso
3	Murex
4	FIS
5	Numerix

### Clearing

	Provider
1	Calypso
2	Murex
3	Finastra
4	FIS
5	IHS Markit

### Collateral management

	Provider
1	Calypso
2	Murex
3	Finastra
4	FIS
5	Lombard Risk

### Cross-asset

	Provider
1	Finastra
2	Murex
3	Calypso
4	FIS
5	Bloomberg

### IFRS 9

	Provider
1	FIS
2	Finastra
3	Murex
4	IBM Risk Analytics
5	Wolters Kluwer

### XVA management

	Provider
1	Murex
2	Finastra
3	Bloomberg
4	FIS
5	Numerix

### Back office

	Provider
1	Finastra
2	Calypso
3	Numerix
4	FIS
5	Temenos Group

## Others (support services, data and innovation)

### Application service provider

	Provider
1	Murex
2	FIS
3	Calypso
4	Finastra
5	Bloomberg

### Best cloud-based services provider

	Provider
1	Amazon Web Services
2	Microsoft
3	Oracle
4	SAS
5	IBM Risk Analytics

### Mifid II

	Provider
1	Thomson Reuters
2	Bloomberg
3	IHS Markit
4	BearingPoint
5	Axiom SL

### Data vendor

	Provider
1	Thomson Reuters
2	Bloomberg
3	IHS Markit
4	S&P Capital IQ
5	FactSet

### Best innovative specialist vendor

	Provider
1	Fenics
2	ActiveViam
3	ION
4	Numerical Technologies
5	Vector Risk

### Regulatory reporting

	Provider
1	IHS Markit
2	Axiom SL
3	Wolters Kluwer
4	BearingPoint
5	Moody's Analytics

### Implementation efficiency

	Provider
1	Finastra
2	Murex
3	Calypso
4	FIS
5	Moody's Analytics

### Open banking platform

	Provider
1	Finastra
2	Temenos Group
3	FIS
4	SAP
5	MuleSoft

### Alternative data

	Provider
1	IHS Markit
2	Neudata
3	Convergence
4	Thasos Group
5	Quandl

### After-sales service

	Provider
1	Murex
2	FIS
3	Calypso
4	Numerix
5	Finastra

### Cyber security

	Provider
1	RSA
2	BAE Systems
3	Darktrace
4	Thomson Reuters
5	Oracle

### System architecture

	Provider
1	Finastra
2	Murex
3	Calypso
4	FIS
5	IBM Risk Analytics

### IFRS 9 system

	Provider
1	Moody's Analytics
2	FIS
3	Wolters Kluwer
4	Oracle
5	Finastra