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WBR INSIGHTS

CMIS Capital Markets Innovation Summit

OPERATIONS MANAGEMENT IN 2020:

How Capital Markets Can Transform and Innovate Operations during the COVID-19 Pandemic

“With every one of the top 20 global investment banks represented, this is THE Capital Markets innovation event.”

Stephane Malrait,
MD, Head of Market Structure and Innovation,
ING Financial Markets

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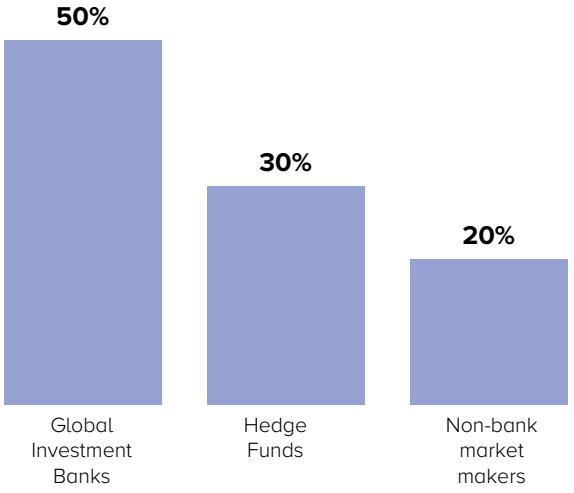
METHODOLOGY

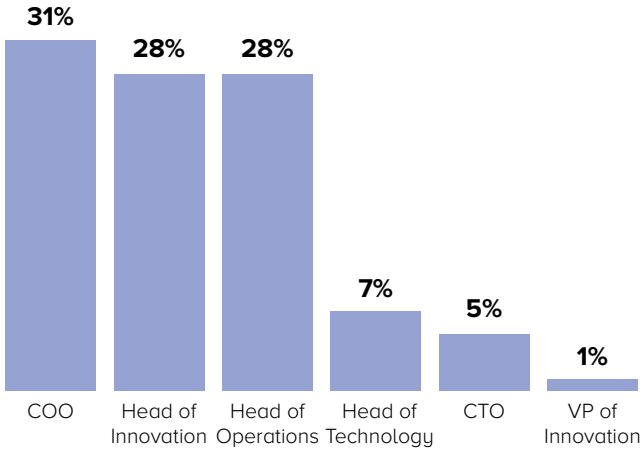
In Q2 of 2020, WBR Insights and InterSystems surveyed 100 Heads of Innovation and similar from capital markets firms across Europe and the USA, to find out more about the challenges they're facing when implementing innovative technology and updating legacy systems during the COVID-19 crisis.

The survey was conducted by appointment over the telephone. The results were compiled and anonymised by WBR Insights and are presented here with analysis and commentary by InterSystems and the capital markets community.

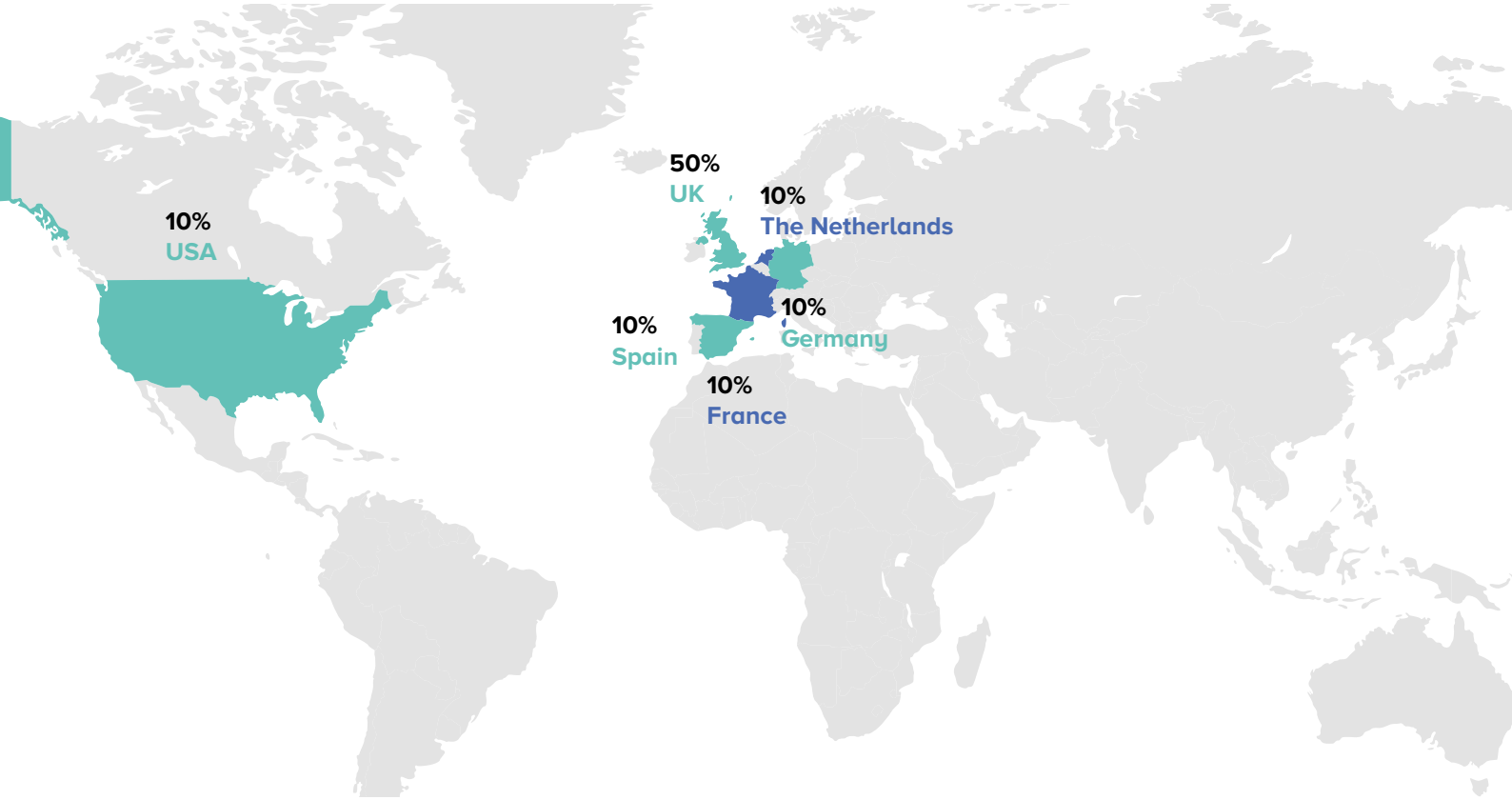
What is your primary market?



What is your job title?



Which country are you based in?



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Financial services firms are facing several critical challenges, particularly in terms of market and trading volume volatility in light of the COVID-19 pandemic. It is promising to see that many of the organisations surveyed felt prepared for the move to remote working, however, it has highlighted the importance of having robust infrastructures in place to handle unexpected demands in front, middle and back end operations and rapidly respond to market changes.

Capital markets businesses are dealing with huge volumes of data, therefore, at the heart of their infrastructure should be a data platform that offers real-time, accurate and an enterprise-level view of the data, stored in one place to optimise their use of it. Integration, compliance, delivering value to customers and improving operational efficiency are all key priorities for these organisations and the right data platform will help with each of these areas.

As competition within the market increases and the landscape continues to change, it's vital that capital market firms begin to digitally transform and adapt their existing solutions to become more agile organisations. Key to this will be implementing data platforms that can combine a real-time view of enterprise data with powerful real time-analytics. This requires the use of new technologies like Artificial Intelligence (AI) and Machine Learning (ML) that can access the real-time data and provide the insights needed to make quick business decisions, take intelligent programmatic actions, rapidly deliver value back to their clients and respond to changes in the market faster, all of which are crucial to their organisations.

The right technology infrastructure must also offer speed and agility, as well as elasticity and scalability, helping firms to scale efficiently up or down to meet both normal and unexpected fluctuations in volume, which is particularly pertinent in current climates. However, many financial institutions still have several different and legacy systems in place so any new solution should be based on interoperability to remove siloes and so businesses can connect to existing data and applications, enabling them to leverage investments, rather than ripping and replacing. Ultimately, these features will also help to improve operational efficiency, enable firms to run experiments and quickly meet new and changing requirements.

While introducing the right technology is paramount, capital market firms have expectations of technology providers also fulfilling the role of trusted partners. Technology plays such a vital role in these high-pressured environments where data, reliability, and security are all mission-critical, therefore, companies need to be confident that vendors have proven track records of meeting their customers' needs and are not just commodity technology vendors. As a result, vendors should be invested in the success of their customers and provide the support needed to get the most from their technology infrastructure.

In the coming years, as capital market firms implement new technology, AI and ML will play an increasingly integral role and could even underpin organisational survival. These technologies will help firms make better use of the vast volumes of data at their disposal and exploit new opportunities, such as faster and better algorithmic trading, that improves business results without requiring scaling of resources.

By beginning to adapt and embrace new solutions that better leverage data and complement existing technology investments, firms will be better able to outperform competitors, grow their customer base and share of wallet, increasing market share, revenue, and margins.

Michael Hom is a technology executive with over 25 years of experience working in the Financial Services industry. Prior to joining InterSystems, Michael was a Managing Director managing Global Rates, Securitized Products, and Municipals Technologies at Royal Bank of Canada Capital Markets. Previously, he was an Executive Director overseeing Cross Product Technologies including Risk, Sales and Trade Management at Nomura Securities. Michael started his career at Lehman Brothers, building systems in the Rates, Foreign Exchange and Emerging Markets areas. Later on, he became Senior Vice President leading Securitized Products – Whole Loans, Real Estate, and Principal Finance Technologies. He holds a Bachelor's degree in computer science from Columbia University School of Engineering and Applied Science.

Part One

STRATEGIC PRIORITIES FOR IMPLEMENTING NEW TECHNOLOGY IN 2020

In recent years, the sell-side banks operating in capital markets have been investing heavily in innovative technology to cut costs, increase their operational efficiency and to offer the best products to their clients. Those banks that have successfully overhauled their outdated legacy IT systems, have found themselves ahead of the curve and are better able to adapt to volatile markets.

However, there are still some banks who have fallen behind their peers when it comes to adopting innovative technology, which has impacted their agility during times of increased volatility, such as the COVID-19 global economic crisis.

According to our research findings, our respondents ranked clearance and settlement technology 5.12 out of 7 as the most important innovative technology for their organisations in 2020.

The top three priorities when implementing new technology this year were ensuring regulatory compliance which ranked at 5.08, maximising revenue generation and value delivery to their clients at 5.07 and improving operational efficiency across the entire organisation was ranked 3.75.

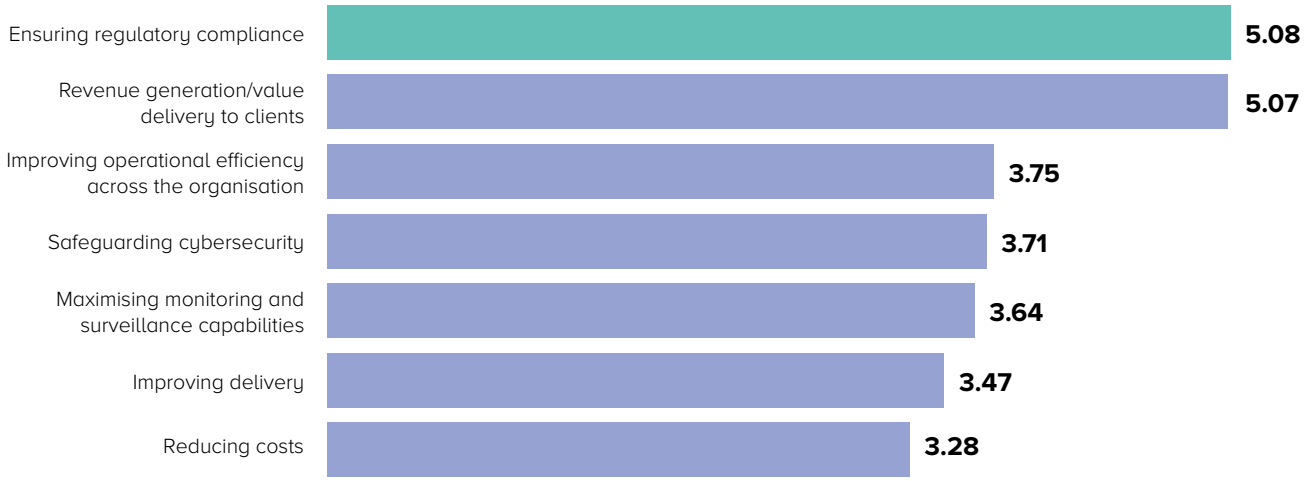
68% of our respondents are looking for new technology that can seamlessly integrate with their existing technology infrastructure when assessing third-party technology providers. This was closely followed by agility to adapt to new regulatory requirements and ensuring compliance according to 57% and enhancing risk management protocols at 54%.

It's essential that any new technology that has been recently implemented in 2020 will be able to keep up with the ever-changing and complex nature of capital markets regulatory compliance. The last thing the sell-side needs is for their recently implemented and costly new technology, to cause them headaches further down the line if trades and operations aren't monitored accurately for risk and compliance breaches.

Looking ahead to the future, 28% of our respondents cited Blockchain and DLT (Distributed Ledger Technology) as the biggest opportunity for technological innovation for their organisations in the next two to five years. Blockchain/DLT technology came into the fore with the advent and astronomical rise of the Bitcoin digital currency and it's now being rolled out across multiple industries to enhance the use of data across sell-side organisations.

OUR RESPONDENTS RANKED REGULATORY COMPLIANCE AS THEIR MOST IMPORTANT KEY PRIORITY WHEN IMPLEMENTING NEW TECHNOLOGY THIS YEAR

What are your key priorities when implementing new technology in 2020?



Respondents were asked to rate in order of importance from 1 – 7, 7 the most important and 1 the least

Regulatory compliance is still at the top of the priority list for most market participants as the implementation of complex regulations is still needed. but for the first year, we have started to see more focus on re-thinking the value delivery to clients that have suffered from under-investment since the financial crisis in 2008.

Stephane Malrait, MD, Head of Market Structure and Innovation, **ING Financial Markets**

The post-COVID-19 environment will put pressure on generating new revenue streams as financial institutions will need to keep up with sluggish growth and a historically low and negative interest rates environment. The COVID-19 pandemic will, therefore, accelerate digital transformation and contribute to the creation of a new digital product offering and service for institutional clients.

Jacek Wieclawski, Director Markets Innovation, **Rabbobank**

It's unsurprising that the majority of respondents cited ensuring regulatory compliance, considering that this continues to have such a huge impact on CIB operations, innovation and the wider capital markets value chain. There continues to be a raft of regulations and guidelines imposed on the industry; primarily focused upon driving greater transparency, and with significant operational implications.

With the new changes to IBOR reforms coming into effect by the end of 2021, as both the UK and the USA plan to phase out IBOR to move towards a new benchmark, Alternate Reference Rates (ARR). As many other countries are also planning to make the change to ARR, the sell-side will have to ensure that their internal processes and technology infrastructure are able to keep up. This will be challenging considering that many products will still be referencing the IBOR index once the 2021 deadline has passed.

William Robinson, Conference Director, **Capital Markets Innovation Summit**

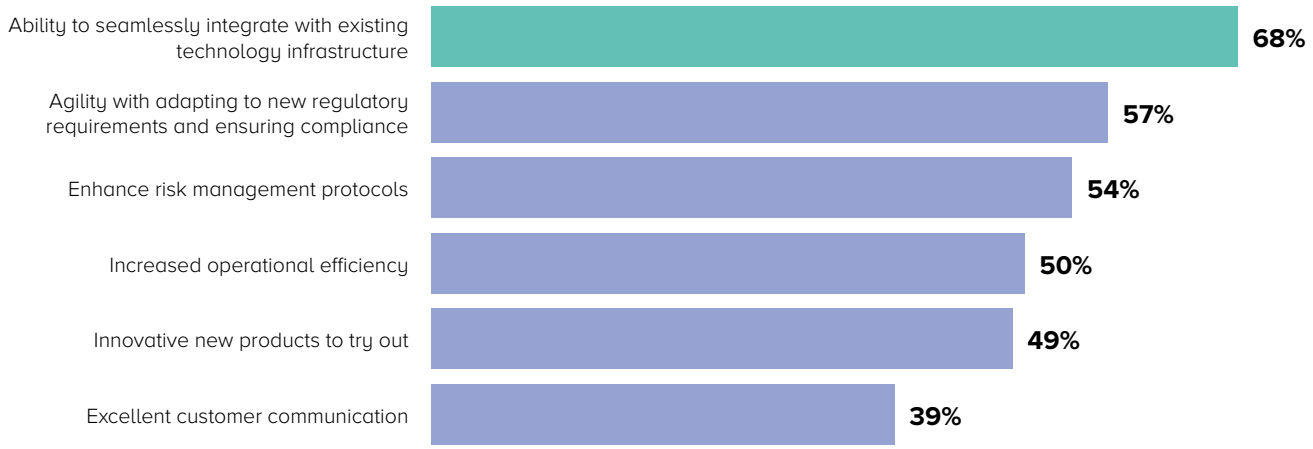
If you look at the responses collectively, there are some clear requirements which highlight what companies are actually after when it comes to implementing new technology. One is gaining a real-time, accurate view of all enterprise data, with the agility to ask new questions of the data in response to new market events, requests from regulators and new ideas for services, for example.

The second is speed and agility to improve operational efficiency, run experiments, quickly be able to connect and change up a set of existing services in order to meet new and changing requirements to offer new services and deliver value to clients in new ways. The final requirement is automation and data-driven decisioning using analytics to create intelligent services that can act faster and smarter to take advantage of market displacements along with providing safeguards. Ultimately, firms want to achieve all of this, while at the same time reducing infrastructure, development, and maintenance costs.

Michael Hom, Head of Financial Solutions, **InterSystems**

What are you looking for from your third-party technology providers?

BEING ABLE TO SEAMLESSLY INTEGRATE WITH EXISTING TECHNOLOGY INFRASTRUCTURE WAS RANKED AS THE MOST IMPORTANT FACTOR WHEN LOOKING FOR THIRD-PARTY VENDORS



Seamless IT integration is critical to swiftly capitalise on business trends, developments and opportunities. The digital transformation has to be fast-tracked, thus any solutions making this happen would catch management's attention. I'd have the following advice for anyone to follow: in innovation, speed is critical and whatever problem you aim to solve, remember your customer always sits at the heart of innovation.

Jacek Wieclawski,
Director Markets Innovation,
Rabbobank

Since most of the effort is still being focused on regulatory compliance and the need to innovate on the client's side is more important, we see a strong demand for solutions that have a minimal integration impact to the existing and complex technology architecture. Bank systems have complex interactions between each other which makes it difficult to connect to new systems.

Stephane Malrait,
MD, Head of Market Structure and Innovation,
ING Financial Markets

One of the key challenges the sell-side has when assessing new technology vendors is the sheer scale of options available to them at the start of the process. It can often be challenging to properly define the subtle differences between each vendor's technology platform and service they're offering, as many will often claim to achieve the same goals through similar strategies. The data above clearly defines the 'needs' the sell-side has when assessing new technology from vendors but without expert knowledge they might find themselves struggling to choose the best solution for their organisation. The level of quality being offered by a third-party vendor is key for the sell-side to make their decision.

Susanne Chishti,
CEO,
FINTECH Circle
& Bestselling Co-Editor The FINTECH Book Series
(focused on WealthTech, InsurTech, PayTech, AI and LegalTech)

Financial institutions tend to have several different and legacy systems in place, so it follows that they want any new solutions to be seamlessly integrated with their existing technology infrastructure. Integration will help remove data siloes and facilitate the sharing of information between systems by connecting people, processes, and applications. By implementing a system based on interoperability, it is possible to connect to existing data and applications, enabling these organisations to leverage investments, rather than ripping and replacing. This is also likely to increase operational efficiency and help capital markets businesses become more agile, two of the other considerations these institutions look for in third-party technology providers. To achieve this level of integration, I expect firms would also look for third-party solutions that are both location and cloud agnostic with the ability to run anywhere and on any platform, are service-based with a set of open APIs, scalable, flexible and simple to build, integrate, change and manage.

Aside from technical abilities, organisations report they want excellent customer communication too, which indicates that firms look to their technology providers to be true partners, not just providers of technology. Having a true partner that does what is needed to ensure success is a critical factor in choosing a vendor to work with, especially for mission-critical data management infrastructure.

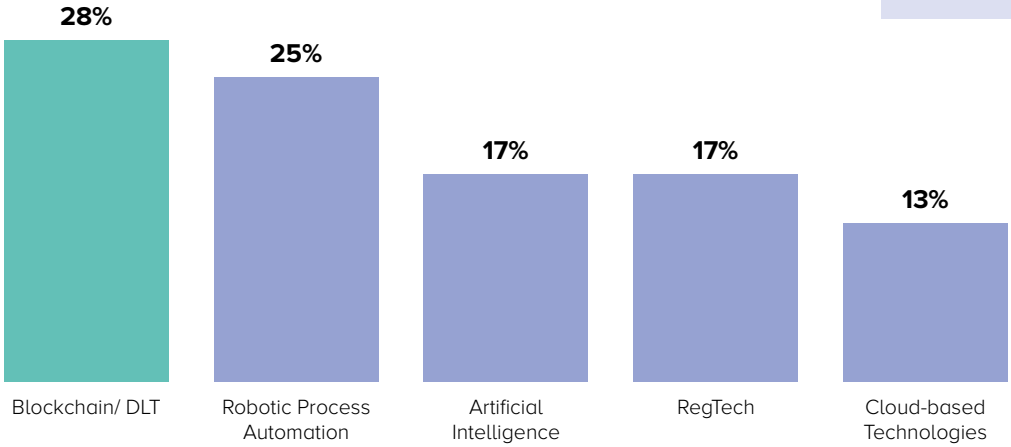
Michael Hom,
Head of Financial Solutions,
InterSystems

The sell-side is having to swiftly adopt new technologies, drive innovation across the front to back operations and upgrade their existing infrastructure. Many of these institutions have legacy systems that are sometimes decades old, and those who wrote the programmes and designed the IT infrastructure have long since left the banks, making interoperability and integration a significant issue. It comes as no surprise that the majority of respondents cited the ability to seamlessly integrate with their existing technology infrastructure was the top facet that they were looking for in their prospective partners.

William Robinson,
Conference Director,
Capital Markets Innovation Summit

What do you think the biggest opportunity in technology and innovation will be for your organisation in the next 2-5 years?

28% SAID BLOCKCHAIN/DLT TECHNOLOGY WOULD BE THE BIGGEST OPPORTUNITY FOR TECHNOLOGICAL INNOVATION WITHIN THEIR ORGANISATIONS IN THE NEXT TWO TO FIVE YEARS



It's interesting that Blockchain/DLT was ranked as the biggest opportunity for technology innovation for the next two to five years. One of the key benefits of Distributed Ledger Technology (DLT) is that it can help take the pain out of data management as it provides a way to decentralise, enhance the security and ensure a consistent way of storing and sharing data.

Blockchain supports smart contracts by providing instructions for downstream processes and enabling grater automation of manual processes, such as payment transactions for example. It has the capability to enable different areas within the sell-side organisation to share automatically reconciled and sensitive data sources between multiple participants across complex systems involving the buyer, seller, broker, clearance, settlement and any other potential parties involved in a single capital markets transaction.

The key things that DLT requires (whether in clearance and settle activities, tokenisation of assets, or elsewhere) is clear regulatory guidelines and a critical mass of uptake in order to work. So far this is yet to happen in any truly meaningful way, but for those who believe these challenges can be overcome the general consensus is that this technology has the potential to completely transform the financial value chain and CIB operations in the process.

William Robinson,
Conference Director,
Capital Markets Innovation Summit

After many years of research, pilots and proof of concepts, we are starting to see that DLT creates many opportunities to simplify the exchange of information between financial institutions. The investment in this area is now clear and regulators are also looking at it for their CBDC (Central Banks Digital Currencies).

Stephane Malrait,
MD, Head of Market Structure and Innovation,
ING Financial Markets

Artificial Intelligence (AI) and the capabilities it delivers are playing an essential part in the financial services sector and this technology can even underpin organisational survival. The industry has a huge volume of data at its disposal and AI will help capital markets companies to make better use of this data and turn this back into value for their clients. The pragmatic and disciplined use of AI will enable these organisations to run their business better and exploit new opportunities, such as faster and better algorithmic trading, while sales chatbots could be used to automate interactions with customers.

Applications that integrate AI will help these organisations to get the most from the technology. Machine Learning (ML), a subset of AI is offering a significant opportunity to financial institutions. By identifying patterns within underlying data sets, ML can be used to spot anomalies in data sets for fraud prevention, for instance, and even to predict likely scenarios and outcomes in advance, such as opportunities to increase alpha and to analyse risk scenarios. As organisations amass more data, ML will become more accurate, and is likely to become fundamental to more organisations and more operations.

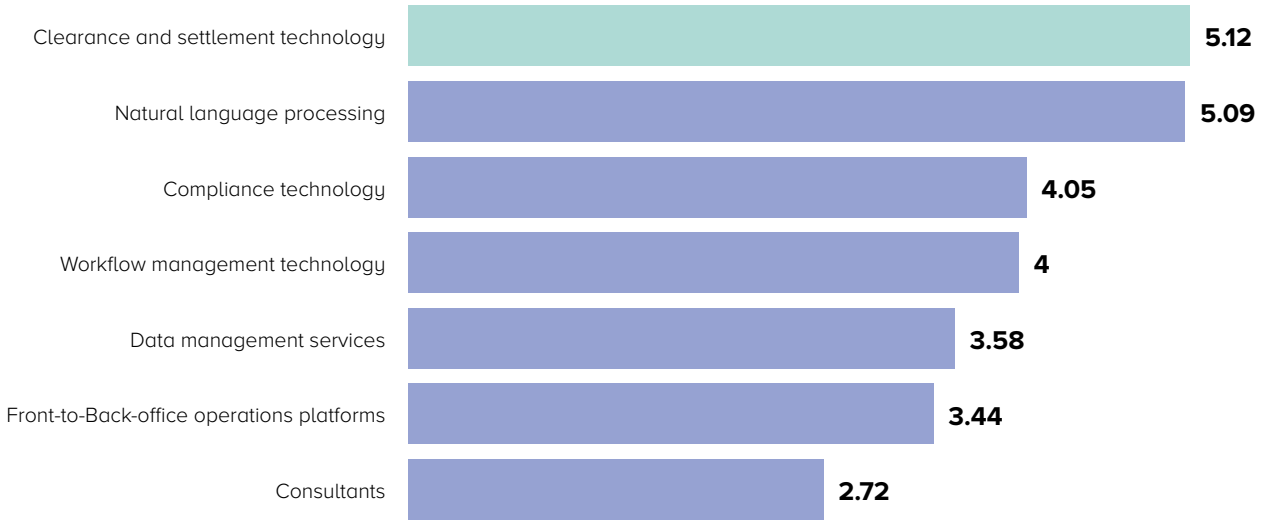
Michael Hom,
Head of Financial Solutions,
InterSystems

A development of digital assets and especially digital securities could be the biggest beneficiaries of Blockchain. After electrification of FX, equities and debt are now catching up, with the majority of trades now being run on electronic venues. But securities issuance remained largely untouched with many manual processes adding to a paper-intensive exercise. When deals are launched, investors are usually flooded with emails and phone calls. This flood of information keeps institutional clients from performing their job of deciding where to put their investors' money, especially for public deals. A consolidation of this process with an option of real-time distribution and settlement is something the capital markets have long waited for where Blockchain technology could add the most value.

Jacek Wieclawski,
Director Markets Innovation,
Rabbobank

43% SAID CLEARANCE AND SETTLEMENT TECHNOLOGY WAS RANKED AS THE MOST IMPORTANT FOR THEIR ORGANISATION

Rank the following in order of importance to your organisation



Respondents were asked to rank from highest priority to the lowest priority

The cumbersome and time-consuming process of settling securities is a headache for any financial institutions, especially in 'fast markets' where high volatility makes it challenging to manage liquidity and risk. Real- or near real-time risk management would add great value in choppy markets, thus digitalisation of the settlement and clearing process is more critical than ever to make this possible.

Jacek Wieclawski,
Director Markets Innovation,
Rabbobank

NLP is a very interesting space but it's still at an early stage of development for the financial industry, so it's very important that we still see a lot of focus to optimise and reduce costs on the back-office services in clearance and settlement.

Stephane Malrait,
MD, Head of Market Structure and Innovation,
ING Financial Markets

We all know that the settlement process is an area which takes up a lot of valuable time and it can be a cause of huge frustration across the finance industry. It makes sense that the sell-side within capital markets are also keen to utilise their technology infrastructure to enhance this process internally, as well as ensure consistent results across the front, middle and back-office with regards to workflow management, data management and automating other time-consuming areas within their organisations.

Susanne Chishti,
CEO,
FINTECH Circle
& Bestselling Co-Editor The FINTECH Book Series
(focused on WealthTech, InsurTech, PayTech, AI and LegalTech)

The sell-side has been affected by many factors which has led them to re-think their operating models and considering updating them with innovative tech solutions. The post-trade activities are no exception and we can see from our results that clearance and settlement technology is high on the list for importance when upgrading existing IT infrastructure.

In recent years, many banks have considered outsourcing their post-trade processing in order to drive down their operating costs. However, for those banks who've been unsatisfied with their outsourced post-trade processing in the past, bringing it back in-house and investing in new clearance and settlement technology could achieve positive results. As mentioned, DLT has huge transformative potential here, with the capability to deliver significant efficiencies, regulatory compliance improvements and greater client service if realised.

William Robinson,
Conference Director,
Capital Markets Innovation Summit

We can see from these results that capital markets companies are trying to balance several issues with their technology infrastructure. Rather than looking at each in isolation, many organisations are looking to reduce their reliance on multiple systems and vendors, to handle multiple initiatives. This approach will help financial institutions to streamline their infrastructure and optimise their systems.

These responses all point to a need for operational effectiveness and efficiency, such as being able to handle core functions during a period of crisis. Automation can be beneficial here, helping to automate workflows and compliance checks, for example.

Michael Hom,
Head of Financial Solutions,
InterSystems

Part Two

OPERATIONS MANAGEMENT DURING THE COVID-19 PANDEMIC

2020 has seen unprecedented disruption to the capital markets financial sector, amid the wider economic impact caused by the coronavirus pandemic. Even more concerning is how the global economy will adapt to life after lock-down, with many fearing the financial situation will be worse than the Great Depression of the 1930s.

The negative impact of this pandemic has hit trading capabilities very hard, either by causing an increase of traders being off work due to being sick or trading operating technology becoming overwhelmed with new orders as clients attempt to keep up with the economic effects of the global pandemic. Interestingly, the majority of our respondents (67%) felt their firms were well prepared for working from home during the COVID-19 pandemic, whereas 33% said they weren't.

Each sell-side firm has adopted a different approach based on their own business continuity plan. Looking at our survey data, some firms have downsized their trading team and temporarily re-distributed their traders to other areas of the business and others have still maintained a trading presence as their front-office is working effectively from home.

As businesses across the world have been forced to adapt to life under lockdown and work from home, having the right IT solutions and business continuity plans in place, have become more important than ever before for the investment banks. Those capital markets firms that have found working from home during lockdown challenging, have frequently cited their technology and IT infrastructure has been the root cause.

Common challenges faced by our respondents whilst working from home have included client-facing operations.
Prior to the pandemic most client-facing appointments were conducted fact-to-face, but this has been overcome by introducing innovative digital client engagement technology solutions. From installing video conferencing software, such as Microsoft Teams or Zoom, sell-side organisations have been able to effectively communicate with their colleagues internally and with their clients.

In spite of sell-side firms being well prepared for working from home, there are still challenges. Some of which include building and maintaining morale, managing outsourced third-party relationships based abroad, such as India for example, as the virus impacted other nations at different rates and dealing with new operational problems, such as failing trades.

What's been highlighted by our research is that there is still a lot the sell-side can learn during this unprecedented time and it has also demonstrated the many ways that innovative technology can help the sell-side to continue operating at the same level prior to lockdown.

We asked our respondents how the impact of COVID-19 has affected their organisation's operations management whilst working from home. Some of their answers are included below.

"We are operating sub-optimally in a time where markets are highly volatile."

"The transparency we have in an office environment is not available anymore."

"We haven't found a solution for the fieldwork and some of the front-office operations. The middle and back-office operations have been well managed by the respective teams."

"We have made working hours for non-essential departments a bit more flexible. Altered a few work policies to ease the pressure of working from home."

"Making operational hours flexible and adding a few cash incentives have made it easier to address operational challenges."

"Because data and information from foreign markets is not up to the mark, this has made operations a bit brittle at the moment."

"Since foreign trade is at the lowest it could ever be, we have faced major challenges in terms of operations across the origination and industry."

"Outsourcing a few activities and cross-training certain team members is how we have begun overcoming our challenges."

"Certain aspects of operations like analysis and confirmations are taking a bit longer, as we have shifted operations to individual employee's houses and the setup there is not the same as within our offices."

"Client-facing operations have taken the worst hit. However, the introduction of digital engagement and flexibility in operations has made this challenge a bit easier to handle."

"COVID-19 has impacted operations in the worst manner we have ever witnessed. A bunch of our development projects are now on hold."

"Each department has been given a separate protocol of things to do while working from home."

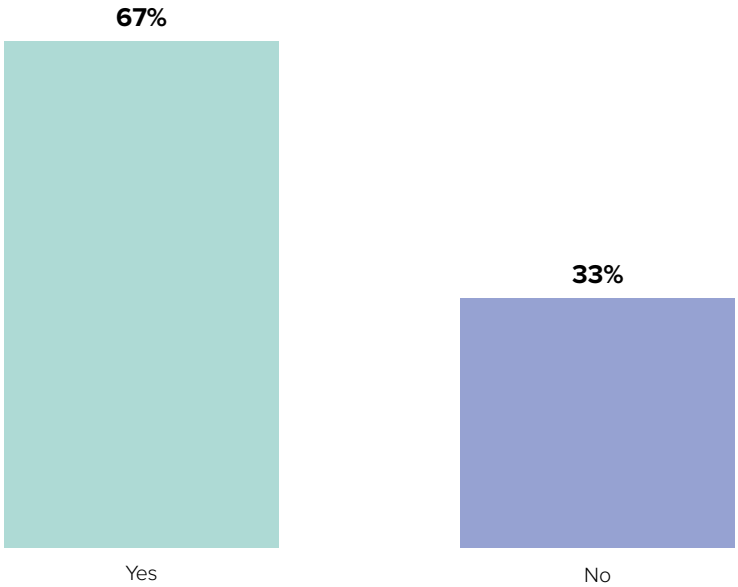
These organisations have faced widespread disruption to their operations in light of COVID-19 and many have been operating sub-optimally. Challenging periods such as these highlights the need to be agile and capable of adapting.

As a result, organisations need to have the ability to handle unexpected volumes and volatility in the front, middle, and back-office operations while avoiding service interruptions, reliability, or performance issues, and without increasing costs. It also points to the need for real-time visibility to manage risk, since wildly fluctuating asset prices or mark-to-market calculations can create unexpected risk profiles that must be managed quickly.

Michael Hom,
Head of Financial Solutions,
InterSystems

Do you think your organisation was well prepared for working from home during the COVID-19 pandemic?

67% OF RESPONDENTS THINK THEIR ORGANISATION WAS WELL PREPARED FOR HOME WORKING DURING THE CORONAVIRUS OUTBREAK THIS YEAR



Companies who had implemented a work/life balance program were better prepared to move to full-time working from home with solutions already in place for most of their staff. The industry moved very fast to adapt and will learn from this experience to develop new ways of working.

Stephane Malrait,
MD, Head of Market Structure and Innovation,
ING Financial Markets

It is great to see that the majority of organisations were prepared to move to home working. This indicates many had the technology in place to handle this shift in operations. For those that weren't well-prepared, investing in remoting infrastructure will allow them to provide appropriate hardware for their employees to use at home to ensure they maintain operations.

Michael Hom,
Head of Financial Solutions,
InterSystems

It's fantastic to see that the majority of sell-side capital markets firms have been in a strong position to work from home during the global COVID-19 pandemic. This shows forethought from previous years of implementing innovative technology to enhance their workflows. However, in some cases this had to be facilitated at incredibly short notice and that in itself could have posed some extreme challenges and disruption to trading for those firms less equipped for this. So, it's completely understandable that some firms would have been challenged by implementing this so quickly, if they weren't already set up for working from home as and when their respective countries enforced the lockdown.

Susanne Chishti,
CEO,
FINTECH Circle
& Bestselling Co-Editor The FINTECH Book Series
(focused on WealthTech, InsurTech, PayTech, AI and LegalTech)

After an uncertain start of working from home, I believe the way we will work and live post Covid-19 will change dramatically. Many financial institutions proved that working from home could be equally if not more efficient and productive. I believe the Covid-19 outbreak accelerated the digital transformation and working from home will now become a semi- or permanent solution for the majority of employees. Working from home is no different than working from the office, but I would advise to communicate regularly with your colleagues and clients, and avoid short-lived distractions whenever possible.

Jacek Wieclawski,
Director Markets Innovation,
Rabbobank

I think it's very encouraging to see that the majority were happy with their organisation's response to working from home during the COVID-19 pandemic. This clearly demonstrated the importance and benefits of having a robust approach towards adopting innovative technology and how it can have a positive impact on the workforce, especially during these turbulent times.

I would say that those respondents who felt their organisations faced challenges from a technological point of view during the lockdown would probably find that they've been either in the process of upgrading their existing technology or this hasn't been a priority for their firms yet.

William Robinson,
Conference Director,
Capital Markets Innovation Summit

We asked our respondents to elaborate on their answers further, some of which are listed below.

Those who thought their organisation **was not well prepared** for working from home during the coronavirus pandemic:

"We were not well prepared as it was difficult to measure the impact of the situation on the market and then on our operations."

"We weren't fully prepared and had to consider a list of activities post-lockdown."

"We weren't prepared for the pandemic's level of chaos."

"We were not prepared for the virus to affect the USA or us to this extent."

"I would say no, not entirely! We were not ready to unplug from our offices and shift to a work from home system."

"We found it difficult to move all the departments to work-from-home from the word go."

"Our organisation had to rush to make important decisions and arrangements."

"The magnitude of the pandemic was underestimated and we had to put in extra efforts to help shift the entire operations to work from home."

"Operating from home is not easy and we were not prepared to shift the entire operations to work-from-home."

Those who thought their organisation **was well prepared** for working from home during the coronavirus pandemic:

"Since the COVID-19 was not an overnight situation we had enough time to mitigate this risk, test and prepare our work-from-home systems."

"Working from home is a new norm and most of our staff are used to it. The time taken by the pandemic to reach our market made it easy to take necessary steps of initiating work-from-home."

"The virus did take time to reach the UK and disrupt markets here. We made good use of this time to setup work-from-home operations."

"I believe so, yes! Although this situation escalated post-January and the UK government did take longer to enforce a lockdown, so we had enough time to facilitate our work-from-home activities."

"The operations are set up in a way where it can be carried out on an office or personal device."

"Business like ours have to be prepared to work from home as we cannot halt operations for more than 3 days in a row."

"Yes! The organisation has plans for such situations in place to be tweaked as per the actual situation."

We asked our respondents to share some examples of how their organisations have overcome the operational challenges of working from home during the impact of the coronavirus.

"We didn't abandon our facility quickly and had a backup team working until the lockdown was made compulsory. Most of these team members were from the technical department to assist in facilitating work from home systems."

"Introduction of a couple of new systems which we purchased from technology vendors have helped in reducing communication and other operational barriers."

"Adding more members from the front-office team to the back end operations has been a good solution."

"We have installed all the necessary upgrades and security measures to assist all our members to contribute from their homes."

"Increasing the number of times work gets reviewed to assure that we have better accuracy in operations."

"We were well prepared to shift all our critical operations as part of the BCP. We also had time to make arrangements to move other non-critical but important operations to shift working base."

"Extending deadlines for non-critical work has been proving to be an effective solution."

"Utilising most of our non-operational staff to work on analysis and future strategy development."

"We did seek some assistance from our technology partners on reducing our operational challenges."

"Outsourcing a few activities and cross-training certain team members is how we have begun overcoming our challenges."

Among the new systems firms have introduced, I expect there have been more deployments of algorithmic trading engines which analyse and execute in place of human traders to make faster and better decisions, with humans taking responsibility for monitoring and control. Macro and micro hedging could also be automated to mitigate any further risks. It's also likely they'll have implemented real-time or near real-time business management reporting to provide a global view on security concentration levels, customer concentration, market risk exposure, balance sheet utilisation and capital allocation.

Michael Hom,
Head of Financial Solutions,
InterSystems

Part Three

CONTINUING INNOVATION AND DIGITAL TRANSFORMATION IN CHALLENGING TIMES

Capital markets banks have already made gains from their prudent investment in new technology in recent years. Many firms are now focusing on how they can incorporate new processes and the latest technology to improve their operational efficiency, which will become increasingly valuable as the financial impact of COVID-19 is felt in the next two to five years or more.

Our research suggests that in spite of increased market volatility, the sell-side is still interested in investing in technology. 59% of our respondents cited the main benefit of adopting a more innovative approach to their data management would be a faster time to market for their new financial products. This was closely followed by optimising and improving their customer experience 55% and managing risk more effectively across multiple products and regions 51%.

As mentioned earlier, Blockchain and DLT technology is becoming increasingly popular with the sell-side as they are starting to look at how they can continue to improve the day-to-day management of their middle and back-office. Other benefits of implementing Blockchain and DLT technology are from a regulatory compliance and risk management perspective.

When we asked what measures their organisations have in place to increase transparency with reporting, 72% of our respondents cited Blockchain/DLT is providing consistent tracking of all party input throughout the deal process. 65% of respondents are using the regulatory library and analysis available to their front-office to ensure their trades are compliant and 52% are using AI (Artificial Intelligence) to monitor processes more efficiently.

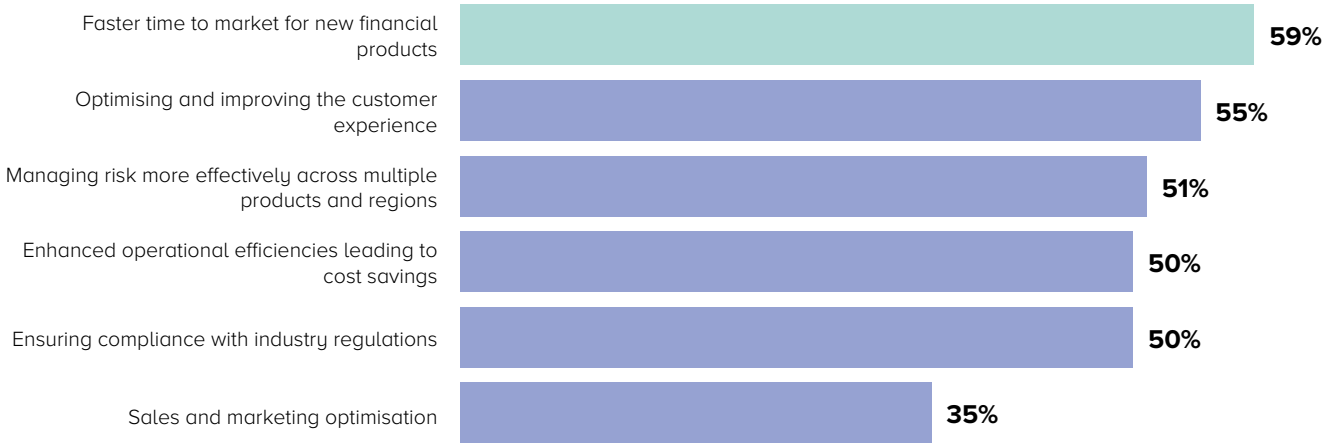
In terms of regulatory compliance reforms that would have the biggest impact on the sell-side in 2020, the majority of our respondents cited planning for LIBOR reforms to ARR (Alternative Reference Rates). Following the UK's FCA announcement that from the close of 2021, LIBOR will be discontinued, capital markets banks have had to start moving from the use of IBORs to ARR – alternative benchmark rates.

It's predicted that these changes will affect some interest rate benchmarks to function differently or to disappear altogether. The risk of this happening is that many sell-side firms will have to adjust their products and services accordingly as well as re-design new ones for the future. Added to that the current uncertainty caused by the COVID-19 pandemic, capital markets banks are under a lot of pressure this year to prepare for this change.

Our data has revealed that there are still some barriers for sell-side firms when it comes to operational transformation. The majority of our respondents (26%) said their biggest inhibitor was lack of funding for innovative technology projects within their organisations. This was closely followed by 24% citing changing company/colleague mind-sets and 19% cited lack of a cohesive strategy across the entire organisation and 16% said the level of risk associated with engaging in financial technology.

What would be the main benefits your organisation would get from adopting a more innovative approach to data?

THE TOP THREE MOST POPULAR BENEFITS FROM ADOPTING A MORE INNOVATIVE APPROACH TO DATA WERE FASTER TIME TO MARKET FOR NEW FINANCIAL PRODUCTS, OPTIMISING AND IMPROVING CUSTOMER EXPERIENCE AND MANAGING RISK MORE EFFECTIVELY



Of course, there are several benefits for the sell-side when it comes to implementing new, innovative technology to help upgrade their existing IT legacy architecture. With increased competition from non-bank market makers and hedge funds as well as rising costs, improving in-house technology can really help banks to meet their business goals in 2020 and in the years to come. Ensuring a faster time to market can help the banks stay ahead of the curve and increase their market share in a challenging environment, so it's no wonder that this was ranked so highly.

William Robinson,
Conference Director,
Capital Markets Innovation Summit

In a time of increased competition from non-traditional market makers operating across the capital markets side, the banks need to ensure that they can reduce their costs and increase automation of time consuming processes when assessing and integrating new technology infrastructure across their organisations. Data management is increasingly important in order to leverage their unique data which when used effectively, can strengthen their position as liquidity providers to the buy-side.

Susanne Chishti,
CEO,
FINTECH Circle
& Bestselling Co-Editor The FINTECH Book Series
(focused on WealthTech, InsurTech, PayTech, AI and LegalTech)

I believe this is the key factor given that financial institutions sit on a goldmine of client, market and transactional data but very few can capitalise on it. By better understanding data, you can produce better client and market insights thus enhance revenue maximisation by cross-selling opportunities.

Jacek Wieclawski,
Director Markets Innovation,
Rabbobank

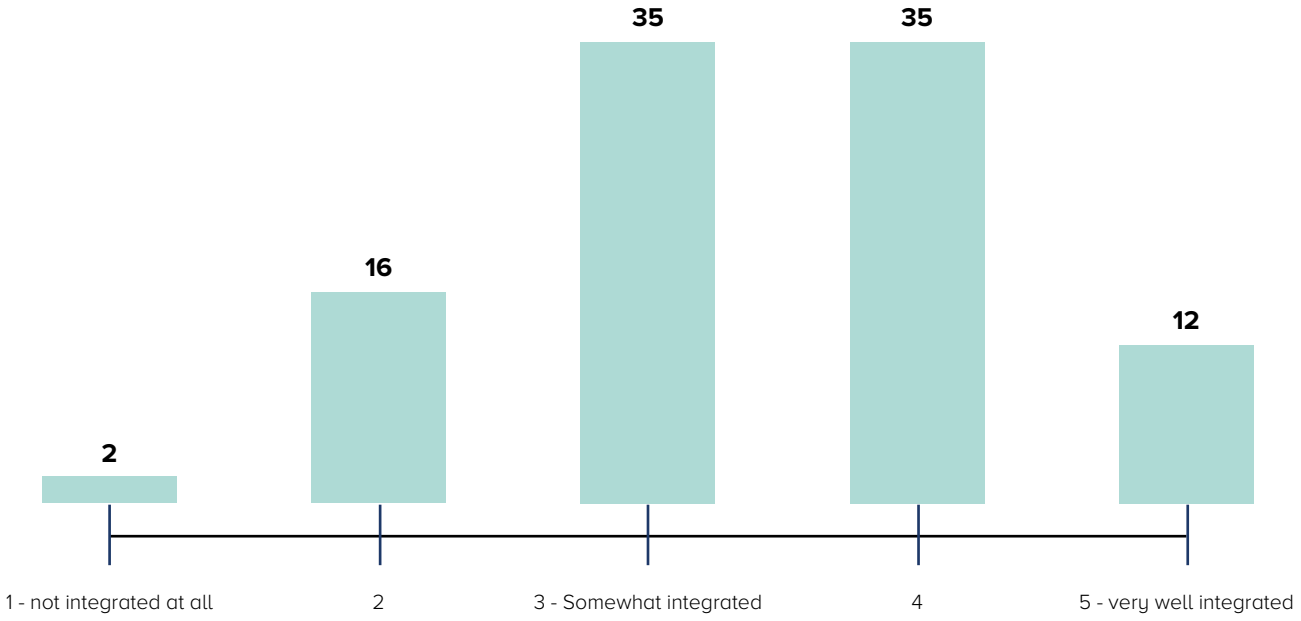
As well as offering a faster time to market, an innovative approach to data improves agility, while also providing the organisation with access to clean and trusted data for a wide range of use cases. For example, to understand more about each customer to drive better interactions through every channel, to optimise their experience.

Managing risk and complying with regulations is dependent on having a real-time accurate enterprise view of the data, coupled with powerful real time-analytics, therefore, firms need to implement the technology that will grant them this. This also can require the use of AI to gain the analysis and insights needed to make better business decisions. Implementing the technology to build and operationalise AI models and take a more innovative approach to data should be a consideration for all capital market firms. This will allow them to derive more value and insights from their data in a timely manner, and action those insights faster to gain the benefits of being able to get products to market fast, improving the customer experience and reducing operational inefficiencies.

Michael Hom,
Head of Financial Solutions,
InterSystems

How well integrated would you say processes across multiple applications are across your organisation today?

70% OF RESPONDENTS CITED THEIR PROCESSES ACROSS MULTIPLE APPLICATIONS IN THEIR ORGANISATIONS WERE SOMEWHAT INTEGRATED



Respondents were asked to rank on a scale of 1 to 5 where 5 = very well integrated and 1 = not integrated at all

Redesigning the process is a major challenge but sooner or later the integration has to happen thus why not start working on it now? It is a daunting task for sure but it can be achieved by working with fintechs and/or start-ups. Start-ups often have a fresh and independent view on banks infrastructure thus working closely with them could be very beneficial.

Jacek Wieclawski,
Director Markets Innovation,
Rabbobank

Companies are making progress in this area, but it's still a challenge. Top organisations are implementing specific projects that expose and integrate data silos for reporting, and for streamlining processes in order to receive some return on investment, while incrementally improving overall enterprise-wide integration and visibility.

Michael Hom,
Head of Financial Solutions,
InterSystems

It's very encouraging to see that many banks have already taken the positive steps towards ensuring greater unification across their organisations from a technology standpoint. However, the data here suggests that this is an area which can be encouraged and increased in order to increase this even further. Of course, there are several challenges along the way towards becoming a very well integrated organisation, which include overcoming cumbersome silos and legacy architecture, encouraging senior management buy-in and ensuring that data management is well integrated across each new project.

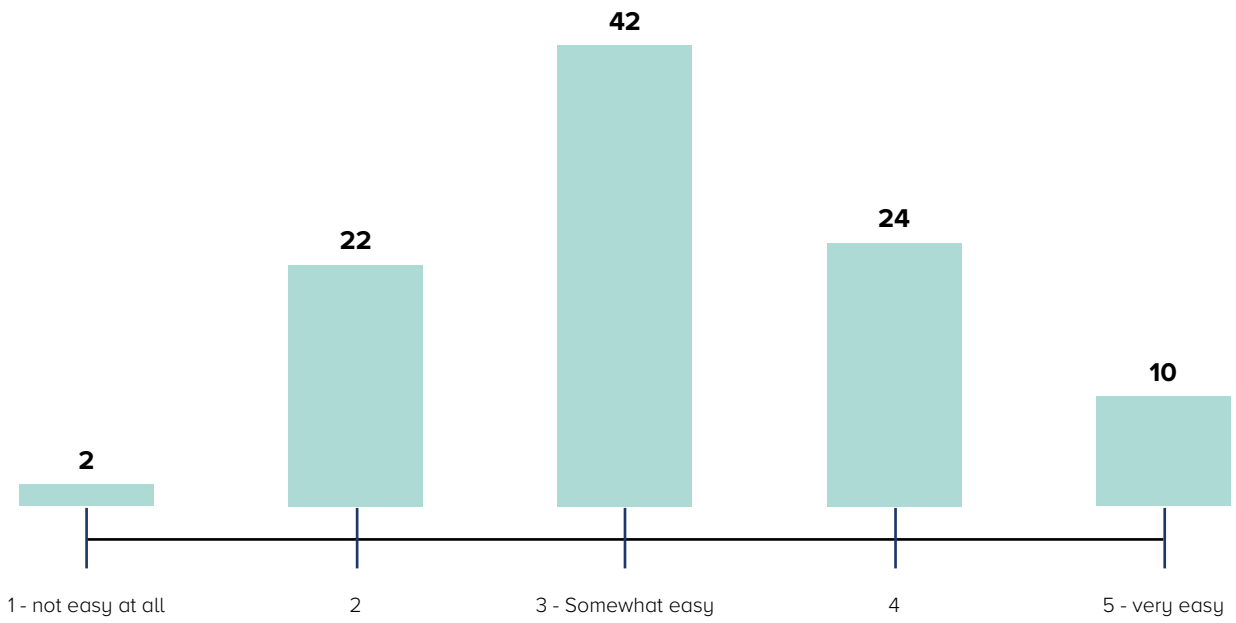
Susanne Chishti,
CEO,
FINTECH Circle
& Bestselling Co-Editor The FINTECH Book Series
(focused on WealthTech, InsurTech, PayTech, AI and LegalTech)

Banks are already some way along the journey of unification, offering a better service to clients in the process and driving greater efficiencies internally in the process. The legacy of disparate siloes within the organisation does, however, continue to be a huge challenge that must be overcome. Rome wasn't built in a day, however, and so I'm sure we'll see integration of desks, the operations that support the organisation, and the offering to clients, continue to rise in the coming years.

William Robinson,
Conference Director,
Capital Markets Innovation Summit

How easy would you say it is for your organisation today to obtain a complete and accurate, enterprise-level view of all its data?

42% SAID IT WAS SOMEWHAT EASY FOR THEIR FIRMS TO OBTAIN A COMPLETE AND ACCURATE, ENTERPRISE-LEVEL VIEW OF ALL OF THEIR DATA.



Respondents were asked to rank on a 1 to 5 scale, where 5 = very easy and 1 = not easy at all

It's encouraging to see that three-quarters of respondents find it somewhat to very easy to do this. The benefits of having an enterprise-level view of data are numerous, allowing capital markets businesses to make informed decisions to drive their businesses forward and to deliver value back to their customers, lower risk and reduce regulatory compliance penalties.

Michael Hom,
Head of Financial Solutions,
InterSystems

Cross-assets data integration is challenging but can gradually be achieved. The key is to move out of silos by building a (mini) data lake and assess the progress as you go. However, it is easier said than done, thus the exercise requires superb coordination and project management across all departments from the front, middle to back-office. The end result could, however, yield in exponential business growth by capturing a unique client and market insight.

Jacek Wieclawski,
Director Markets Innovation,
Rabbobank

It's interesting to see that the majority are able to fairly easily obtain a complete and accurate enterprise-level view of their data. In a time of increased market volatility and competition from non-bank market makers, it's going to be even more important in the months and years ahead for the sell-side to master their use of data management to stay ahead of the curve.

Susanne Chishti,
CEO,
FINTECH Circle
& Bestselling Co-Editor The FINTECH Book Series
(focused on WealthTech, InsurTech, PayTech, AI and LegalTech)

It's become vitally important for the sell-side to establish themselves against their competitors as the capital markets industry faces down the oncoming financial crisis. Having an effective and successful data management protocol in place will help the sell-side to build enormous potential going forward.

One example of the benefits data management can have is with managing their customers especially if this has been shrinking in recent months. Through the analysis of big data, banks can help to increase customer retention for their inactive customers and discovering microsegments to quickly adapt and make the necessary changes to counter this.

Looking at the data here, it's not surprising that the majority of respondents are still admitting it's only somewhat easy or not very easy at all for their organisations to obtain a complete and accurate view of all of their data.

This isn't necessarily a bad thing. An encyclopaedic view of all data sets across the enterprise is both staggeringly large and of limited use in itself. The key thing that banks need to do is to gain visibility and focus upon the data sets that are going to drive the greatest value; both for them and their clients. It's about leveraging the right data, as opposed to having access to all the data and not knowing where to look within it.

William Robinson,
Conference Director,
Capital Markets Innovation Summit

What have you found is the biggest inhibitor to operational transformation?

THE MAJORITY OF OUR RESPONDENTS SAID THE LACK OF FUNDING FOR INNOVATIVE PROJECTS WAS THEIR BIGGEST INHIBITOR WHEN IT COMES TO OVERHAULING THEIR OPERATIONS MANAGEMENT

I would say that for those firms who aren't setting aside some funding for investing in innovative technology could be down to a variety of reasons. One of which that is fairly common is struggling with convincing the C-suite buy-in to setting aside budget for upgrading existing technology infrastructure and this can also be attributed to changing colleague and company mind-sets.

Current global events will inevitably drive the purse strings of many organisations even tighter, meaning this inhibitor has the potential to become even more significant. In turn, the key focus of driving ROI from new technological innovations in CIB operations will be of even greater significance, and vendors and technologies that are truly delivering this return will be invaluable.

William Robinson,
Conference Director,
Capital Markets Innovation Summit

For operational transformation, lack of funding and organisational issues are the top challenges. We have seen that organisations are most likely to succeed when they combine top-down governance with bottom up implementations, organisational buy-in and lower-cost infrastructure. It's also essential that they deploy incremental implementations that deliver quantitative value, rather than big bang implementations that can take years, are expensive and have high risk before delivering results.

Competition is growing and the landscape is changing, so capital market firms need to begin to adapt and embrace the change as if they don't, they could be outpaced by their competitors. Unfortunately, slow movers are likely to lose market share, profitability and, ultimately, their existence.

Michael Hom,
Head of Financial Solutions,
InterSystems

It's often the case that organisations' operational transformation is held back due to challenges with sourcing budget from the C-suite. Building stronger internal relationships and communicating with other departments that can also benefit from the investment of new technology can help to make your case heard by senior management. However, those sell-side firms that are struggling with securing this budget can take advantage of the sheer amount of expertise that's on offer to help them to persuade the C-suite to invest in new technology.

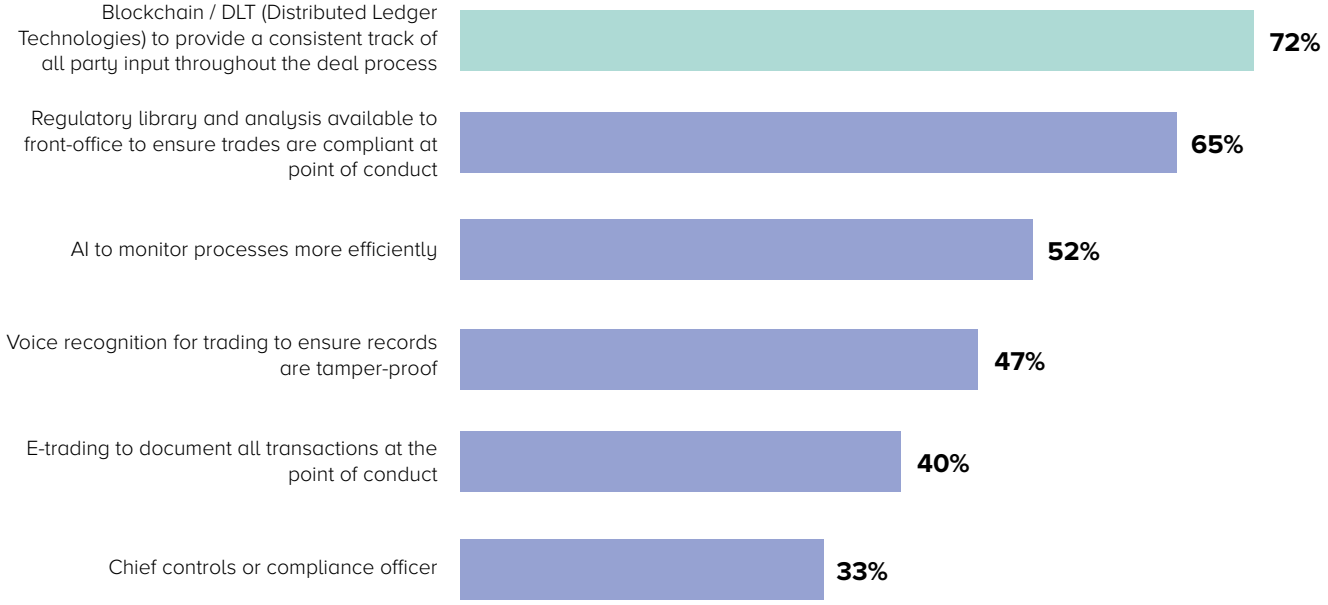
Susanne Chishti,
CEO,
FINTECH Circle
& Bestselling Co-Editor The FINTECH Book Series
(focused on WealthTech, InsurTech, PayTech, AI and LegalTech)

Sourcing innovation budget is a day-to-day battle and requires excellent relationship, communication and negotiation skills. Not everyone can be successful here but the wealth of market and business experience usually helps, because the front-office staff by nature has an entrepreneurial mind-set and always puts the client needs first.

Jacek Wieclawski,
Director Markets Innovation,
Rabbobank

What measures do you currently have in place to help increase transparency and reporting in line with regulation?

BLOCKCHAIN AND DISTRIBUTED LEDGER TECHNOLOGIES ARE THE MOST POPULAR MEASURES TO INCREASE TRANSPARENCY AND REPORTING IN LINE WITH REGULATIONS



Blockchain is all about decentralisation, thus enabling the enhancement of transparency and trust. By 'decentralising' the transparency, it would foster the way of exchanging information in real-time, reducing the risk of 'malicious players'.

Jacek Wieclawski,
Director Markets Innovation,
Rabbobank

As I previously mentioned, Blockchain and DLT has many key benefits for the sell-side, namely when it comes to maximising data management across their organisation. Data management will become a key business discipline in the next few years for the sell-side during a time of exceptional volatility for the capital markets industry as the economic impact of the coronavirus is felt. Data management technology is rapidly re-shaping how the banks are operating today and those firms who fail to implement a robust strategy will find themselves falling behind the curve.

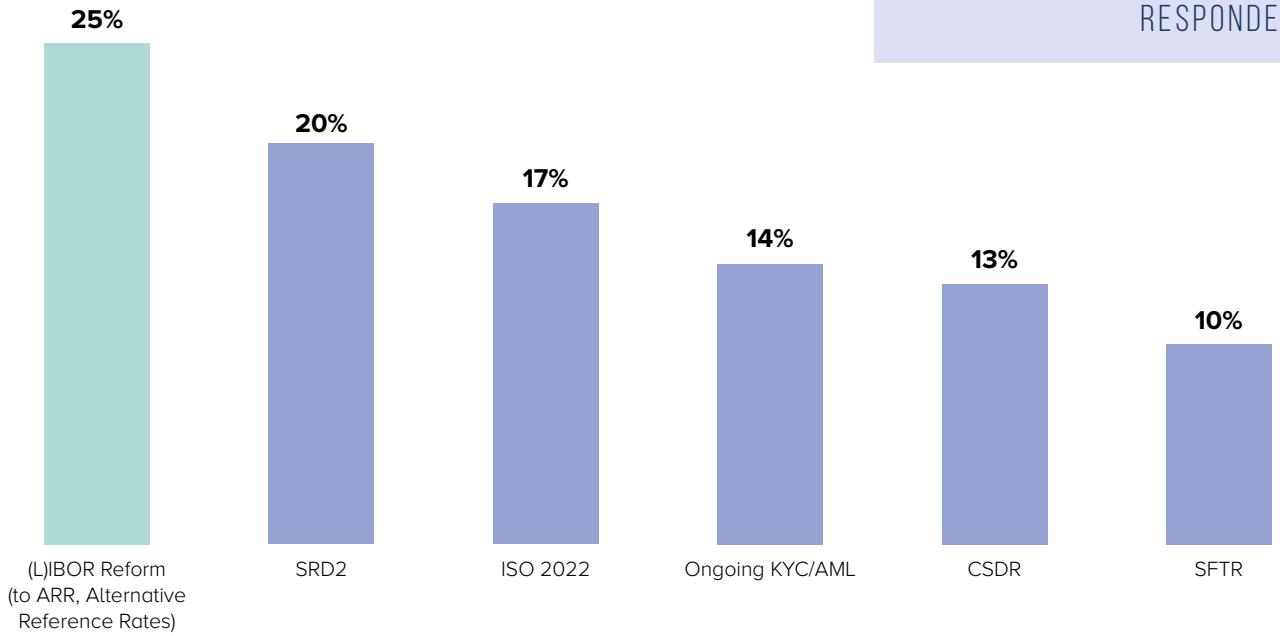
William Robinson,
Conference Director,
Capital Markets Innovation Summit

In addition to the measures that have been outlined, firms also need to ensure data lineage and governance. Firms need to be able to map data and have a trail of where it's come from and what data was used in order to make decisions. Data management plays a key role in this by providing access to clean, accurate data and better analytics.

Michael Hom,
Head of Financial Solutions,
InterSystems

Which of the below regulations are going to have the biggest operational impact on your organisation in 2020?

LIBOR REFORMS TO ALTERNATIVE ARR WILL HAVE THE BIGGEST OPERATIONAL IMPACT ON THEIR ORGANISATIONS ACCORDING TO THE MAJORITY OF RESPONDENTS



The benchmark rates are the heart of financial products pricing mechanism, thus it must have the biggest impact for sure. They underpin the worldwide trade in financial products from bonds and loans to derivatives which are the largest market. The correct transition is therefore critical and must be completed carefully.

Jacek Wieclawski,
Director Markets Innovation,
Rabbobank

Again, (L)IBOR RFR (Risk-Free Rate Reforms) to ARR (Alternative Reference Rates) are going to be impacting the sell-side until the deadline of September 2021. This transition to ARR due to the rigging scandals and a lack of relevant transactions for LIBOR has become a key priority for the financial services sector.

In recent years the capital markets sector has had to adapt to multiple regulations changes since the fallout of the 2008 financial crisis. The advent and implementation of reg tech (regulation technology) has definitely helped many banks keeping up to date with their risk management and regulatory compliance protocols.

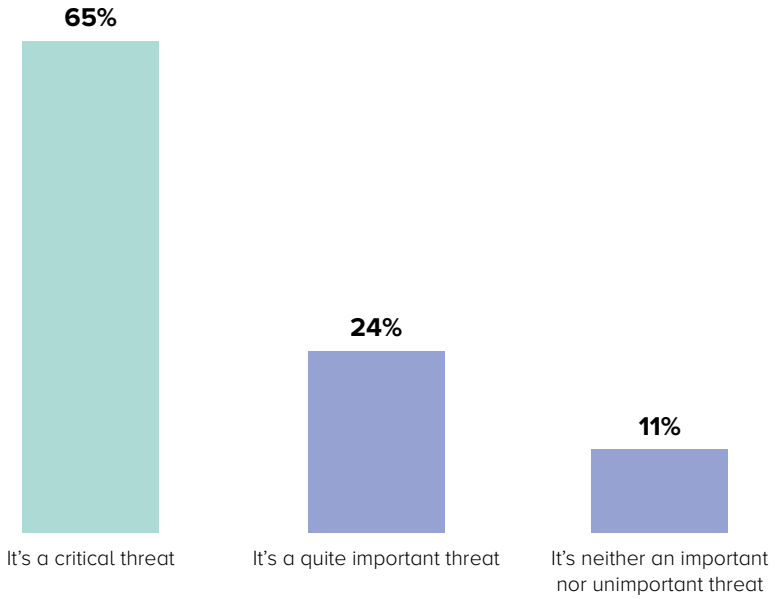
William Robinson,
Conference Director,
Capital Markets Innovation Summit

All of these regulations require capital markets firms to have access to clean, harmonised enterprise data. It makes sense that IBOR Reform would have the biggest impact seeing as LIBOR has been used for decades and moving away from it touches a large number of systems. Conversely, SRD2 poses challenges due to the fact it touches upon an area that hasn't been covered by regulation before and it can be far-reaching.

Michael Hom,
Head of Financial Solutions,
InterSystems

65% OF RESPONDENTS RANKED CYBERCRIME AS A CRITICAL THREAT FOR THEIR ORGANISATION

How much of a threat is cybercrime to your organisation?



We asked our respondents to provide a further explanation as to why cybercrime is such a critical threat for their organisations this year. Some of their answers are listed below.

"If we don't give it a critical classification we could become complacent with it and this could lead to a damaging consequence to the organisation."

"Cybercrime is a constant threat. The sophisticated manner and sheer size of the threat keep changing and are disguised with better efficiency now, which is why we have to maintain it with critical accuracy. Classifying it as a critical threat allows us to be one step ahead of any possible future attack."

"There are still some unseen vulnerabilities to every organisation and we have to be one step ahead of the criminals to identify these vulnerabilities and protect our organisation."

"We believe our customers are highly vulnerable during this time and have made cybercrime a critical priority."

"It's a critical threat because we are dealing with data that is directly linked with money and we cannot take a risk here. With the amount of money that we manage and handle, it's important from a regulatory point of view to treat cybercrime as a critical threat."

Security in data management is always in the top requirements of all our customers, so it's unsurprising to me that overwhelmingly capital markets businesses view cybercrime as a threat to their organisations, too. The unpredictability of this type of crime, paired with the critical assets at stake is at the root of this worry for many organisations. This result shows that these organisations aren't becoming complacent and continue to recognise the risk cybercrime poses.

As capital firms look to mitigate this risk, they should augment existing security tools with integration and ML or AI to help security analysts identify gaps and anomalies in their existing defences. A further consideration should be investing in data management software that encrypts sensitive data at rest on disk and in-memory as well as in transport/transmission. They must also ensure that they have proper network firewalls and update security measures and that the endpoints and edges of their networks are secure, as well as the applications.

Michael Hom,
Head of Financial Solutions,
InterSystems

Conclusion

2020 has been a year of unprecedented change to the capital markets industry due to the impact of the COVID-19 pandemic. The sell-side has been behind the buy-side when implementing innovative technology and in some cases, has had to quickly adapt to their workforce working from home during the lockdown, updating any gaps in their existing IT infrastructure as the need has arisen.

Despite this, it's telling that the majority of our respondents cited their firms were well prepared for the operational impact of working from home and many firms have already started to look beyond the IT side to further enhance the overall health and wellbeing of their staff. Some respondents have cited their firms have started to become more flexible with their set working hours and they are moving staff who have been more affected by the operational impact, most notably the front-office in some cases, to other areas of the business that has needed more support.

It seems in times of crisis, the sell-side is capable of quickly working towards increasing their operational efficiency. It's no surprise that the majority of respondents cited client-facing operations were the most challenging when working from home. However, with more innovative advances in digital client engagement technology available to facilitate the joining up of that can link up sales and marketing teams to the middle and back-office more effectively, it will be interesting to see if these technologies will still be used once lockdown is lifted.

Our research reveals that Blockchain and DLT are frequently the most valued technology innovations for the sell-side in 2020 for effective data management and regulatory reporting. However, 42% of our respondents ranked three out of five, as it's somewhat easy and just 10% ranked five out of five, as very easy for their organisations to obtain a complete and accurate enterprise-level view of their data.

Our research reveals there are a number of sell-side organisations that are still struggling to implement a centralised hub of data and to obtain a clear data management procedure across the entire organisation. 35% of our respondents ranked how well their data processes were integrated across multiple applications within their firms. The verdict was three out of five ranked them as 'somewhat integrated'. Just 12% ranked five – very well-integrated – again, this data suggests there is still some work the sell-side has to do to join-up their technology and operational processes.

Cybercrime still remains a critical threat, especially during the current situation where the majority of sell-side organisations have their workforce or part of their workforce working from home. As the technology advances to prevent security breaches, the banks are in a never-ending war with the criminals as each side upgrades and adapts their technology in a desperate bid to out do one another. 65% of respondents ranked cybercrime as a critical threat to their organisation – compared to just 11% citing it as neither an important or unimportant threat.

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