

Unleashing data driven innovation

1. Trends and opportunities

1.1 Key trends related to data and technology use in the financial sector

An industry speaker remarked that data is considered as the 'new oil', but unlike oil, it will never run out. Data innovation is fundamentally intertwined with technological advancements. Open banking, which came before open finance, initiated the first wave of data-driven innovation in the financial sector by standardizing APIs. The widespread penetration of traditional AI, including machine learning (ML), has driven data-led innovation further with the creation of applications to manage and analyse structured and unstructured data for example in the areas of trade finance and insurance claims management. Generative AI (Gen AI) is now changing the landscape. Gen AI applies a right brain perspective to the left brain of traditional AI. It introduces context, correlation, creation and summarisation. This combination of traditional AI and Gen AI facilitates the creation of new applications that derive even more value from data. In fields like anti-money laundering (AML) and know your customer (KYC), multiple institutions can pool data to build foundational models for detecting anomalies and combating fraud. Furthermore, this technology can help develop new services that allow users to interact seamlessly using natural language. The most exciting developments are yet to come, with cross-industry data models being developed, enabling shared insights between sectors like financial services and retail distribution without the need to share actual data.

The progressive mainstream adoption of scalable AI and cloud services is facilitating a democratisation of technology due to transform the landscape further, with AI integration in personal devices and applications becoming widespread. The evolution of AI models encompasses both global large language models for enterprise applications—where privacy is a key consideration—and specialised local models tailored to specific industries. Innovations in augmented reality and hyper-personalisation are leading to disruptive scenarios like virtual relationship managers and augmented contact centres.

Beyond AI, several other technological advancements are driving the digital transformation of financial services, the industry speaker added, influencing areas like security, identity management, computing power, data analytics, and innovation. Blockchain is improving identity management, transaction security, distributed responsibilities, and digital asset management. The Internet of Things (IoT) plays a role in real-time risk management and sustainability initiatives. Quantum computing promises a paradigm shift, offering exponentially increased computational power through cloud services. Together, these trends aim to accelerate business value for financial institutions by enhancing customer experiences through personalisation and real-time insights, improving risk management with predictive analytics and fraud detection, increasing operational

efficiency via automation, and fostering new business models through open finance initiatives that encourage collaboration between traditional banks and fintech companies.

A regulator agreed that data is the 'lifblood' of financial markets. This is evident in the value investors place on data as a key asset in driving profitability and growth.

A public representative added that data is now central to all industries, including financial services. Leveraging data is a key objective in the development of open finance frameworks in particular, such as the European Commission's Financial Data Access (FiDA) proposal.

1.2 Opportunities of AI in the financial sector

An industry speaker emphasised the significant opportunities presented by data and AI in the financial sector. Banks have vast amounts of data and have been utilising AI for many years with their own data, particularly in areas such as fraud detection, obtaining good results. Integrating financial data with external sources from various sectors, such as ESG, behavioural, personal, and geographical data, will yield even more valuable insights, support decision-making and help to maximise the potential of AI, provided the data is of high quality. For example, AI can help advisors to better understand the needs and behaviours of their clients, allowing them to provide more personalised service. The use of external data will become even more crucial in the future, as banks are increasingly required to ensure that their financing aligns with ESG goals and customers' investment objectives.

A second industry speaker explained that the use of internal and external data in AI systems helps to deliver value in three main ways: first, by driving operational efficiency through intelligent operations, risk scoring and risk management, providing short term benefits; secondly, by driving business and revenue transformation notably via personalisation and the creation of new services, providing benefits in the short to medium term; and, thirdly, by enabling new business models to be created through new developments in marketplaces, aggregation and white label offerings, providing medium to long term benefits.

A third industry representative noted that AI and the leveraging of data are core strategic priorities for banks, as demonstrated by the increasing number of chief data and analytics officers appointed at the highest organisational levels. The question is not whether data and AI create opportunities, but how best to capitalise on them. There are immediate opportunities from AI driven solutions in the optimising of operations and risk management to address financial risks and also operational and compliance risks. The next step will be to leverage AI to transform the way banks interact with customers. While digital banking has increased convenience and accessibility, allowing customers to transact 24/7, it has also reduced proximity and the 'personal touch', with

customers often feeling underserved. Banks also risk losing a deeper understanding of their customers. AI could help banks regain the broader understanding of their customers by combining their internal structured data with data from other institutions and all the information gathered during customer interactions. There is a huge opportunity to make the customer experience truly personalised, which would be a game changer for the banking industry.

A regulator added that supervisors are also using AI. The FCA is using natural language processing to assist with the management of serious cases and machine learning for predictive financial data analysis in consumer finance for example.

1.3 Opportunities associated with open finance

An industry representative noted that there is support for increased data sharing in the financial sector, which is the purpose of FiDA. This should bring greater competition and ultimately benefit consumers. Banks have handled internal data for a long time, but there is now a growing volume of external data in areas such as sustainability, which can enrich financial models and decision making processes. Because financial institutions often do not have a complete view of their customers who tend to have several bank accounts, data sharing is becoming an essential tool for banks to gain deeper insights and better serve customers.

However, an ambitious cross-sectoral framework for data sharing is lacking and represents a missed opportunity, according to the industry speaker. Indeed, sectoral regulations such as the Payment Services Directive (PSD2) or FIDA only impose data sharing obligations on financial sector players and allow non-financial third parties to access such data without imposing similar obligations on their own customer data, creating an asymmetric situation.

A public representative stated that financial service firms have different expectations from open finance. Some firms will try to leverage shared data from other sectors, such as energy and automotive, to drive innovation further, while others will focus on the financial sector. The EU has adopted a strategy of establishing sector specific data spaces; these data spaces need to be interconnected to drive broader innovation. Open finance will also enable financial institutions to share data amongst themselves, which will lead to better data access and data quality, which in turn will drive innovation.

The public representative also highlighted the synergies between open finance and AI. Open finance will help generate the data necessary for the development of AI models, which in turn can support the creation of open finance services. It is hoped that the regulatory framework and also the way it is implemented will support the effective use of data in both cases without hindering innovation.

A regulator stated that the use cases of data sharing under FiDA need to be further assessed. For example, while it was hoped that FiDA could enable the creation of pension dashboards, it seems unlikely that this will be possible with the data that is available and can be shared under FiDA. EIOPA also developed a use case for an insurance comparison tool, but it remains to be seen whether there

is a business case for it. Data sharing can also be used to make targeted offers, such as offering pet insurance to customers who buy dog food, but it is not clear whether this will actually benefit consumers or make them feel that they are being watched.

2. Challenges posed by data sharing and AI use and implementation conditions

2.1 Customer related challenges and risks

A public representative noted that it is necessary to balance the opportunities created by the enhanced use of data with the potential risks. The risks need to be adequately mitigated and sufficient safeguards need to be put in place.

A regulator commented that the impact of the PSD2, which aims to improve data access and sharing, has been limited so far, largely due to trust issues. Currently, data sharing happens regularly online, but consumers do not have enough control. It is important to ensure that data sharing does not undermine consumer trust, otherwise, the goals of data-driven innovation will not be achieved. Given the risks of data sharing, it is important to define what data can be shared by financial institutions and how it can be shared with customer consent. The logic of FiDA is that a company can share data that a consumer would have shared if asked, which excludes data that has been enriched by the financial service provider. The European Supervisory Authorities (ESAs) are to determine what type of data is raw and can be shared with customer consent, and what type of data is generated by internal processes and should remain private. One issue relates to data used in conjunction with AI, and the extent to which it can be shared.

Consumers' consent should be well-informed and voluntary, stressed the regulator. Those who choose not to share data should not have to pay a higher price or be excluded from essential services, such as insurance. The function of insurance is to enable society to share risks collectively. Overly individualised risk assessments enabled by AI and data sharing could undermine this model. It will be important to strike the right balance between data granularity and consumer protection. One of the key benefits of FiDA is its potential to give consumers greater control over their data, through the mandatory provision of dashboard tools that can enable individuals to manage their consent to data sharing.

A second regulator observed that it will be hard to police whether consumers who do not share their data pay a higher price for insurance. Hyper personalised products will be developed across the financial sector and insurers will argue that the data allows them to price more accurately. Regulators will need to consider when to intervene and whether politicians should deal with such societal issues.

An industry speaker agreed that maintaining customer trust in the use of data is paramount, adding that European consumers' data must be used in a way that benefits them,

with data sovereignty principles and appropriate controls reflected in the regulations, if needed.

An official stressed that this is not just a question of regulation and supervision. Consumers should be able to use technology to protect themselves. For example, AI can already be used to check the terms of reference of products. It would be positive if consumer protection organisations developed AI tools that would allow customers to check contracts using a smartphone. For this to happen, it will be necessary to make data available and accessible. If consumers were given easier access to data held by traditional financial institutions, they could also gain a better overview of their financial situation and better identify financial opportunities and challenges.

2.2 Challenges for regulators and supervisors

A regulator remarked that financial regulators are gradually turning into data regulators. This evolution means a top to bottom change in operations, systems, skills, capability and culture. One of the key challenges for regulators is the range and pace of technological development across a variety of technologies such as DLT, AI, cloud computing, quantum computing, etc. Regulators have difficult choices to make about how to build their supervisory capacity and appropriately allocate resources and how to regulate areas that even the industry does not fully understand. It is important to be humble, open to experimentation and ready to test different approaches. This also requires a shift in the way that regulators are held accountable in the external political debate.

There is also a risk around regulatory silos, the regulator stressed. The UK has created the Digital Regulation Cooperation Forum bringing together the UK regulators of different sectors to ensure a coordinated interaction with large tech players and address common issues concerning citizens in a consistent way. It is also important to note that data sharing is even more difficult in the context of law enforcement due to the sensitivity of the data being shared. Public sector entities often underestimate the level of investment required to secure their perimeters and make full use of the available data. Finally, it is worth remembering that cultural issues can influence the approach of regulators. For example, the approach to dynamic pricing is totally different in the US and in the UK. Each country has different societal expectations that should be considered when implementing new technologies.

2.3 Conditions for the effective implementation of AI and open finance systems

An industry speaker outlined four key priorities for successfully implementing AI systems. The first priority is aligning execution with a clear strategy that integrates AI and is consistent with the institution's goals, focusing on practical application rather than mere experimentation. Financial institutions must go beyond proof of concepts (PoCs) and aim to develop scalable minimum viable products (MVPs) in collaboration with tech companies to move faster.

The second priority is leveraging high-quality data, as effective AI depends on well-structured, ingested, and

cleaned data. Organising the data estate within financial institutions is essential for deriving actionable insights. Advancements in technology, such as cloud computing and Gen AI, can help to achieve this at scale in a reasonable timeframe and also create real-time, auditable algorithms that run on the data that has been structured.

The third priority is change management, which involves acquiring specialized talent, such as data scientists and data architects, and fostering collaboration across departments. Breaking down internal silos within firms is crucial for facilitating innovation through better data sharing.

The final priority for leveraging the opportunities from AI is working on ethics, governance, and regulatory compliance, the industry speaker added. Financial institutions should proactively develop responsible AI frameworks to navigate ethical dilemmas in the use of AI and data, before regulatory intervention is required. Adopting a proactive stance towards regulation, rather than just complying at minimum and ticking boxes, will allow firms to move faster and more confidently, seizing the opportunities that AI and digital transformation offer.

The Chair observed that data helps improve knowledge and support decisions, but without control and governance, data is either useless or dangerous. To support data led innovation, there must be proper governance and an objective decision making process. In the end, the board and the directors of a company remain accountable to customers and shareholders.

3. Regulatory and supervisory priorities

3.1 Ensuring an effective implementation of EU digital regulatory frameworks

A public representative emphasised that the implementation of the existing digital regulations should be the main priority. The frameworks that have been adopted, such as the AI Act, now need to be tested in practice to identify potential loopholes and gaps. Work also needs to continue on the FiDA proposal. It is also critical for the public authorities to continue to develop their expertise to ensure an effective implementation of these regulations, given the complex supervisory mandates introduced by recent regulations. Regulators must invest in state-of-the-art technology and expertise in order to oversee the sector effectively and stay up to date with industry developments. Efforts must also be made to reduce the regulatory burden related to reporting in particular.

A regulator pointed out that questions remain regarding the regulation of high risk AI systems. In the insurance sector, these systems will be regulated by the AI Act and Solvency II, while other systems will fall under Solvency II. The dual regulation of high-risk systems needs to be streamlined into a single set of rules to avoid conflicts and inefficiencies. Requirements should also be aligned at the global level by working with international standard setters.

An industry representative highlighted the cost and complexity of implementing FiDA for the financial industry. It will require significant investment to bring together players from different parts of the industry to create the infrastructure to share data and implement open finance. Implementation should be gradual, using a market-based approach, based on strong evidence of demand for specific data sets before any commitment is made, otherwise investment could be partly lost.

Another industry speaker remarked that policy makers and regulators should conduct thorough impact assessments before digital regulations are implemented to ensure an effective implementation. There should also be a phased and pragmatic implementation of requirements to ensure that the regulations support adequate innovation.

3.2 Preserving the capacity of the EU financial services sector to innovate

An industry speaker stressed the importance of fostering innovation within the EU. Regulations should not impede companies' ability to innovate. While stringent regulations on AI and data are understandable, there is a clear trade off: the stricter the regulations, the less room to innovate. It is crucial to be mindful of the constraints imposed by regulation and the combined effect of multiple regulations. There is a real risk that Europe could face 'gridlock' in the digitalisation of its financial system due to the overwhelming number of regulations.

Market concentration among non European digital players and data localisation issues are also key challenges to consider when implementing open finance and AI solutions, the industry speaker added. Europe could become a marginal player in certain sectors, if the true holders of data and value are concentrated outside the region. A regulator agreed that there is concentration risk in the AI sector and risk in data localisation, given the small number of major AI actors.

A public representative argued that the classification of some AI applications as high risk under the AI Act is questionable. It is uncertain whether this will truly protect consumers, and it may unintentionally obstruct innovation. It is important that regulators and financial institutions work together, through sandboxing and other initiatives, to assess potential risks and implement requirements in a way that does not hinder the provision of advanced AI models in Europe. In the next phase of regulatory work, EU regulators should explore the possibility of moving towards more principles-based regulation, which will allow for more flexibility and creativity in industry practice.

A second industry representative added that clear rules are needed to support innovation. The potential overlaps in the regulatory framework for high-risk use cases need to be clarified, because without clear rules, the implementation of the AI Act could be delayed and Europe risks falling further behind China and the US. This is also important for Gen AI and large language models. The introduction of some large language models in Europe has been delayed for regulatory reasons. Given the pace of progress in Gen AI, even a delay of 6 or 12 months would represent a significant opportunity cost for European financial institutions.

3.3 The need for public private and international collaboration

Several panellists emphasised the importance of collaboration between the public and private sectors to support innovation.

A regulator observed that with the ubiquitous use of data, collaboration among regulators and between regulators and industry is becoming increasingly important. The FCA launched sandboxes and innovation hubs several years ago. Subsequently, the Global Financial Innovation Network (GFIN) was launched, bringing together approximately 90 regulators worldwide to share insights on innovation services and the use of new technologies for regulation. This kind of mutual interaction enables regulators to learn from the operational experience of other regulators and facilitates decisions when deploying new solutions.

Another regulator noted that the EU Digital Finance Platform, a collaborative space bringing together innovative financial firms and national supervisors to support innovation in the EU's financial system is operational. In this sandbox, EU companies can work with supervisors on a cross sectoral and cross border basis within the EU and cooperation mechanisms are in place between the ESAs. However the uptake is slow. This shows that what is needed now is to put technologies in place in practice rather than fine-tuning the rules and experimenting.

An official commented that cross border data sharing and processing issues have long been intertwined with trade and are embedded in the World Trade Organization (WTO) agreements, which means they should be reviewed taking trade policy into account. The UK Singapore Free Trade Agreement for example has three pages on financial services, all of which concern digital finance. In terms of regulation, Europe should update existing frameworks to adapt them to the use of AI and other new technologies and defend its approach to the regulation of digital activities in global trade agreements and digital cooperation agreements, otherwise it will end up being isolated. In the area of trade finance for example the United Nations Commission on International Trade Law (UNCITRAL) recently set out a model law on automated contracting. The UNCITRAL Commission has reviewed existing trade rules and proposed modifications related to automatic and AI contracting, which are important to consider.

The Chair commented that the transformation of the value chain with technology means that the current regulatory and supervisory perimeters might no longer be fit for purpose. Risks need to be tackled irrespective of where they arise in the value chain. A greater degree of collaboration among supervisors and with the industry is needed to achieve this. There must also be an integrated assessment of the risks, which can potentially arise outside traditional financial intermediaries or due to the interaction between different players.