

# FOSTERING DIGITAL DISTRIBUTION AND FINTECH INNOVATION

## I. The current situation

### 1.1. Game-changing technologies and players

An industry representative explained that at a recent financial services conference in Dublin 70% had agreed that they are living in a digital revolution in financial services. Five years previously, very few people would have agreed. The digital revolution in financial services is happening and it is real.

In answer to which technologies are game-changing, it is a combination of all of them. It is not possible to select a top winner today. Blockchain, or digital ledger technology, is another technology development critical for the financial services industry. It is an alternative way to reduce intermediaries in the value chain. There is a big opportunity with this in the bond market, and blockchain has been implemented in digital payments and tokens, as well as areas like tax services on cross-border investments. In the European asset management industry, a working group has been created on blockchain and tax, to see how taxation on cross-border investments can be simplified. There are many areas of opportunity with blockchain.

Robotics and automation are technology tools that are more mature in the private than in the public sector, but they are fundamental tools where as much as possible is being automated, and robotics incorporated into operational functions. This is what is happening; it is real and growing.

APIs are changing the manner of client communication. At the representative's organisation there are more than 300 APIs, and it is not a retail banking institution. APIs are an area of real growth. Five years ago, their organisation would have had less than 100 APIs. There is exponential growth. It will keep growing and the client experience will keep improving.

Cloud-services are another fundamental area of efficiencies in client experience, although from a security perspective, the right tools and controls need to be in place.

Data is the new oil; it is a critical foundation of everything done in financial services. There are plenty of different ways of articulating data, including big data, structured data and alternative data. At the end of the day, good data will help the use of technology tools to provide clients with services. Most private sector organisations now have a chief data officer. Data is talked about as a service and as a business, which is also new. Data is the foundation of digital transformation and translating data into information is the key thing.

A final area is artificial intelligence and machine learning. Machine learning in particular, in combination with humans, is very powerful. Some in academia are talking about artificial intelligence in the financial services as the 4.0 revolution. Whether this will be the case is unclear, but artificial intelligence in financial services will clearly change strategy and business models. Machine learning is happening today, in portfolio management and the Exchange Traded Fund (ETF) business. At the representative's organisation, they are exploring machine learning for surveillance and risk management. It is also attractive in horizon scanning and the analysis of regulation. There is much opportunity.

These are fundamental developments, but one cannot be placed above the others. All of them in combination are making the digital revolution very important. It is not possible

to close one's eyes and say that the digital transformation is not impacting one's organisation.

An industry representative agreed that there is a revolution underway, and it is not clear what the final consequences will be. It is the consequences that are important, rather than the technologies or conjunctions of technologies. Many technologies are essential and changing the way that finance is done. The conjunction of technologies is changing the way in which customers interact with the banks, and in which competitors interact.

The market is changing radically in terms of efficiency, convenience and growth, which is affecting the industry as a whole. There are two current trends in terms of competitive landscape players. The first is the change in behaviour of fintechs. In the beginning, fintechs had taken an approach as niche players, in a position of specialised products with a limited range. They are now changing their mind, perhaps because they are not as profitable as they had hoped to be; they now want to be broader players with a full range of products. The other trend is to do with the big tech companies, entering the financial market with the use of their most valuable asset: data. The use of this asset is from a position that nobody else can reach in the short-term. These two trends will have a significant impact on the financial industry.

To begin with, the proposal of fintechs had been to unbundle financial services; to go to a specific segment, most likely peripheral in the financial industry, and be a specialised player. Fintechs are now moving from personal finance management and payments to lending and asset management, and some are expressing a desire to re-bundle financial services and provide global financial services. Some are even asking for fully-fledged bank licenses.

This is a significant move. One successful German bank does not provide only basic accounts anymore but provides a full range of financial products. Revolut is moving in different directions from its beginnings, providing pre-paid credit cards. Mobile-only banks like Monzo or Starling are partnering with other fintechs, to provide personal finance "chatbots" with Bloom, personal finance apps with Money Dashboard, a mortgage broker with Habito, pension management with PensionBee, and so on.

The aim should be to provide customers with an experience comparable to or better than these providers. Partnerships had been entered and acquisitions made to improve the quality of experience for customers and to be a competitive player against these fintech companies that now want to become global.

The approach of Bigtech companies is based on the use of data, with bigtech companies creating their own digital ecosystems with unique access to whole customer data. This fuels two-sided marketplaces, with significant impact on competition, and accelerates the Uber-isation of financial services.

### 1.2. The (necessary new) regulatory approach

An industry representative noted a need to rethink competition policies and laws, and to be firm in the right use of the customer's data, allowing customers to be owners of their data and to get the benefits of the use of that data.

There also needs to be a level playing field in the use of data, which is not currently the case. With PSD2, banks have to share the data of payments with third providers, immediately, with technical standards that are available instantaneously. This is not the case the other way around; banks cannot access data from utilities or bigtech companies which they could use in the interests of customers. Insistence is needed that data is the property of customers and has to be used in their own interests, to provide better financial services and products.

A regulator felt there is not one single game-changing technology. All of them are having an effect. Supervisors want to embrace new technologies and innovations but looking at new things tends to also making them see risks. That is their core business: to identify the risks in the operations and to see that they are managed and tackled. On innovation, this is good for consumers, good for society, with on the one hand technology and innovations and on the other the most important core values that supervisors are there to protect, such as financial stability, consumer protection and operational risk management. There is usually a race with new services and technologies, as to who gets to the market first and gets the consequent Public Relation benefit. Supervisors want to ensure that product development lifecycles are not shortened at the cost of operational or cyber-risk management. They want to see them going forward, but in a balanced way.

An official said that there are a number of game changers and there are completely new competitors, in terms of big companies entering the field. There are very new technologies and new capabilities to deal with data. Data has always played a role in financial services, but how there are new technologies to deal with them, and the next Commission needs a broader agenda. This is always about how things are advertised, and fintech is probably the right word for the current mandate.

Indeed, for the mandate for the new Commission, an ambitious, broader agenda is needed on digitalisation, expected to create a single, digital financial market. This is key, because there are a number of challenges that can only be dealt with on a European-level. One is the arrival of bigtech companies, from the United States and from China, into financial markets. Amazon are doing loan finances and other areas. There are issues around a level playing field, and an issue around equal access to data, as well as access to technology; such as who is allowed access to Apple's NFC technology'. Conversations need to be engaged in with competition authorities in Europe about what they can do in this field. The sense is that some things can be done in terms of looking at mergers or acquisitions by big tech companies. This needs to be considered in terms of competition law, but that is not enough. In other areas, especially those ensuring equal access, the faster approach may be specific financial services regulation, including in how data is dealt with. This should be a big objective in the next Commission's agenda.

There are other topics as well. European rules are needed to clarify for financial services companies on a European level. There is a need to think more broadly and deeply around the issue of artificial intelligence, as this will fundamentally change how any company will work. It will have a massive impact on how supervisors work, legislators think, and what rules and methods of control there should be for algorithms. What burden can be placed on companies working with AI? This is broader than financial services and needs to be part of a broader digital single market agenda for the Commission, but there are many specific applications and issues for financial services. AI is one. Treatment of data and data privacy is particularly relevant for financial services companies. At the core of the next Commission should be a plan for a

digitalisation agenda for financial services, going far beyond fintech and specific new companies.

An industry representative observed that great things are being done in Europe. There is a great deal of focus from the Commission on the fintech action plan, but acknowledgement is needed that Europe is running a bit behind; the Americas the US and Canada are strong on fintech and financial services digital transformation. APAC<sup>2</sup> is moving much faster than Europe. Europe is taking steps to move forward and embrace the digital transformation and innovation, although this is already a reality. To catch up, Europe needs to keep doing what it is doing, and move both quickly and furiously. It is critical that both private and public sectors continue working together. All of the initiatives mentioned are great, but there is a need to continue pushing.

An industry representative agreed that Europe is lagging behind. All of the mentioned initiatives point in the right direction and are welcome but are not going to fill the gap. It should be questioned why relevant innovations have always come from outside the boundaries of the regulated industry, and the significant innovations have come from outside the boundaries of Europe. This should be changed, for Europe not to lag behind and be resigned to copy what is done elsewhere.

A change of mind is necessary in terms of supervision from an entity-based risk approach to an activity-based approach. On sandboxes, there has been hesitation in saying that there should be a sandbox for a new type of company or business model. It is not clear that it is the right way forward. It is difficult to explain to a consumer why they do not need to be protected against a risk simply because it is coming from another company or a new business model. There is a need to be more open to innovation, though, when talking about new technologies. There are areas where consideration is needed about specific cases of lowering regulatory burdens or thresholds for an initial period of experimentation with new technologies.

Indeed, in terms of regulatory sandboxes, bolder activity is needed. It does not matter with AML if new online onboarding is approved, since nothing happens if it is applied to only 5,000 transfers. This should be relaxed to see if it does or does not work. Applying AML rules to one single customer is not the way to advance. It can be recognised that fintechs always come from outside and they harness new technologies. They are not charged with regulatory capital if they invest in software and they are not required to apply the CRD IV remuneration policies, and so they have an advantage. It is logical that they innovate more. A bolder position is needed.

## 2. The EU fintech action plan

A policy-maker noted that the comments made about data are well-rehearsed in the EU fintech action plan. The European Commission is thinking along the same lines regarding the positive aspects of blockchain.

It is a year since the EU fintech action plan was adopted. Hopefully it is introducing the capacity-building element of the regulatory sandbox. The fintech labs where the regulators are looking at things like the cloud, artificial intelligence, and robo-advice can be brought together to ensure better take-up of the technologies in Europe. Standardisation is also moving forward. There are a lot of possibilities around management of data coming from sensors and going to analytics, as well as artificial intelligence or machine learning, which a smart contract can control in the interests of the consumer and the citizen and keep it from being siloed. There are a lot of possibilities, and the European Commission is working with the industry in areas related to data.

Another thing emerging from the action plan is the European blockchain partnership, which has 30 countries: all 28 EU member states, as well as Liechtenstein and Norway. This year a European blockchain services infrastructure will be implemented, including regulatory tech, regulatory reporting, value added tax and customs excise. The declaration includes very specifically a public/private partnership option. With the financial sector, there are already proposals to do Know Your Customer and Anti-Money Laundering, as a possibility to reduce compliance burdens and have data move between those serving the customer and the regulatory authorities, in the interests of efficiency for the customer.

To ensure that European values and the interest of Europe's traditional industry as well as start-ups are considered, this week there has been the foundation of an international association of trusted blockchain applications, founded and legally present in Brussels, but in association globally. This would have a financial working group, with the idea to have users and developers of blockchain together to develop these data spaces which could again be run by smart contracts, which may require legal clarity in the future. All of the banks, insurance companies and others are welcome to join and participate in discussions with regulators at the IMF.

There would be a conference at yearend in Malaga to address some of these issues. It is up to companies to ask for the subjects they want on the table. The OECD will be there, along with the European Bank for Reconstruction and Development and the World Bank, to look at data challenges and how to give citizens more control. Blockchain is not a panacea, without the legal frameworks and control by citizens; this is an opportunity for Europe to play a leading role.

Those are a few things on the table resulting from the fintech action plan. DG CNECT is working closely with DG FISMA on crowdfunding regulation and other initiatives. There is more around innovation hubs and regulatory sandboxes as well.

On the digitalisation of all European industry, traditional and new, the spirit that the action plan shares with the digital single market, is one of policy innovation and technology moving together, leveraging EU values to design human-centric services, and addressing social needs but improving economic competitiveness. Some of these technologies, managed correctly, can give more control to the individual, and help with a decentralised model fitting the spirit of Europe, rather than siloes of data concentrated in one place and under the control of one entrepreneur.

### 3. Evolving regulatory and supervisory approaches

#### 3.1. Sandboxes

A policy-maker noted that the European Commission put together the sandbox approach and innovation hubs but cannot as part of their mandate prescribe what member states should do. There is agreement with those countries using sandboxes in the EU that consumer protection should not be lowered at all. Its uses are apparent for new technologies such as blockchain; in the original sandbox for the Financial Conduct Authority at one point it had been 50% of the proposed collaborations in the experimentation.

The Commission is obviously not a supervisor, but brings the national supervisors together, which is a positive in some of the sandbox implementations in that it raises the knowledge of the supervisors – less so with the bigger and better-equipped ones, but with smaller ones – on what is in the market and what might be introduced. With the fintech lab, this is the part with the most modern and newest market innovations under discussion.

A new network has been set up to share best practice. Consumer protection should not be lowered at all. It is a question of utilising the proportionality. Currently in progress is a research and innovation project bringing together universities, regulators, supervisors and fintechs on coordinated training support on risk management and new technologies, focusing on compliance-side, regulatory and supervisory tech. This can be utilised without compromising any consumer protection, working in a regulatory, innovative way.

There is a greater need to look across boundaries. There are issues of data regulation, cyber-security regulation across multiple sectors, and with multiple supervisors who might be implicated in introducing a new technology. This is something where more effort can be made in the next Commission, to bring the European Data Protection Board and member states responsible together with sectoral regulators and stakeholders, as well as the European blockchain services infrastructure, in implementing regtech applications.

A regulatory sandbox is also being undertaken together in a way that is not weakening the rules; this is completely new. It is just a new way of doing something, in which errors may be made along the way. Hopefully this will not happen, and it has not happened yet, but in this way, they can be identified as quickly as possible with software developers working with policymakers and supervisors responsible for, for example, ensuring that data does not leak and that there are no breaches.

A regulator noted that all European supervisors have an innovation hub, which is essentially a dedicated contact point for firms to raise questions related to innovation and technology. There are five sandboxes in Europe, and these are environments in which new types of services can be tested in a controlled way. Sandboxes are based on application, and only for a select number of participants.

From experience, much has been learned. Through the innovation hub, there are signals of what types of services are being planned; supervisors are learning a great deal. They are challenged to think about how the law is applied to new services, and the questions received are not at all simple, as these services are new and innovative. It is a learning experience for everyone.

What is faced often is misunderstandings related to sandboxes; some still think that sandboxes are environments where almost everything can be done and there is no need for compliance with the rules. This is not the case. In a sandbox programme, one is subject to all of the rules, but with hands-on guidance from the supervisory side to explain how to comply with the rules. Another misunderstanding is that there are no consequences for violating the rules. This is another myth.

Supervisors need to engage more with the fintech community. Even with dedicated points for contact, the feedback is still that there is a certain threshold to approach the supervisor. Supervisors still seem remote and even scary and need to go out and speak at events and signal to fintech companies to come and speak with them. Start-up entities have good skills in technology and user experience, but lack knowledge on regulation. If they miss something important, it may even be that the service they are building is not compliant with regulation and cannot go to market. This is why they need to be encouraged to speak to supervisors as early as possible. Experiences also need to be exchanged between supervisors.

A question from the audience was related to whether there is scope for developing fintech bridges across Europe, connecting existing sandboxes to allow fintechs access to a wider market. Hopefully sandboxes would not end up as a jungle of sandboxes, where nobody understands what is going on. They questioned how a broader legislative or regulatory

approval would be handled and whether it is necessary to handle it inside the financial regulations in parallel with something else, or whether the specific financial regulation has to be given up in some sense.

An official felt that it depends on the specific area. Sandbox bridges are not needed; a sandbox can be done in one country. The underlying issue is how quickly fintechs can scale up in the single market. However, critical areas of regulation need to be identified, mostly financial services regulation, that prevents this. One is AML KYC. In theory there is single European legislation on this, but it is implemented through 27 separate national rules. The national administration needs harmonisation, as it is an important issue for a fintech that wants to grow quickly.

There are other areas where discussion is needed, specifically about financial services legislation or regulation, such as APIs and the access to financial services data. Whereas with areas like data privacy or AI, it will need to happen in a broader discussion of how it is handled in the digital single market. Both approaches are needed.

### 3.2. AML KYC

A policy-maker noted that on AML KYC, the Commission is building a regtech European blockchain service infrastructure cross-border with all member states. It will have a public/private partnership and some of the first suggestions are coming from the financial sector around connecting the processes of banks and other players with the supervisors. All member states will be online as nodes. This can be explored together, with an industrial policy element. It is an opportunity to lower compliance costs and come up with new models of regtech that can be exported.

### 3.3. Digital education

An industry representative noted that there is an opportunity in Europe for education on the digital space. This is something for the incoming Commission to think about; is Europe strong enough in educating new generations on technology chains? This is a long investment, but a worthwhile one. Starting early would mean that talent will grow internally in the European market.

A policy-maker noted that looking at this approach in the next Multi-Annual Financial Framework, the digital Europe programme is coming, which will include skills and AI. The financial sector is already involved, but for those interested there is a possibility.

An industry representative observed that there is not a 'magic bullet' to tackle this. It would not be a bad idea to think about recommendations from the Commission to member states about education in the digital space. Non-European countries are teaching children how to programme from the very early stages, particularly in APAC. To be leaders in digitalisation and to implement the right technologies in financial services, the right talent is needed in the region.

A regulator noted that it is everybody's responsibility to educate consumers on digital skills, and their rights as data subjects. Payment data on their accounts say a great deal about consumers, so they need to be educated to read carefully through the main points of what they are consenting to.

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1. Near Field Communication (NFC) enables devices within a few centimetres of each other to exchange information wirelessly.
  2. APAC is the region that includes the following nations in Asia: Bangladesh, Bhutan, British Indian Ocean Territory, Brunei, Cambodia, China, East Timor, India, Indonesia, Japan, Laos, Malaysia, Maldives, Mongolia, Myanmar, Nepal, North Korea.