

Europäische Kommission
Generaldirektion Finanzstabilität,
Finanzdienstleistungen und Kapitalmarktunion

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BEREICH Integrierte Aufsicht
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EK-Konsultation: New Digital Finance Strategy for Europe / FinTech Action Plan

Sehr geehrte Damen und Herren,

bezugnehmend auf die öffentliche Konsultation der Europäischen Kommission zu einer / einem

„New Digital Finance Strategy for Europe / FinTech Action Plan“

erlauben wir uns Ihnen anbei die offizielle gemeinsame Stellungnahme des österreichischen **Bundesministeriums für Finanzen (BMF)**, der **Österreichischen Nationalbank (OeNB)** und der **Österreichischen Finanzmarktaufsichtsbehörde (FMA)** zukommen zu lassen.

Die Stellungnahme wurde zur leichteren Auswertung ebenso im Rahmen des Online-Fragebogens zur gegenständlichen Konsultation eingebracht (siehe: Contribution ID 29743bf-3e74-4571-8039-316c54012e5c).

Wir ersuchen höflich um Berücksichtigung unserer Anregungen und stehen für Rückfragen gerne zur Verfügung.

Finanzmarktaufsichtsbehörde
Bereich Integrierte Aufsicht

Für den Vorstand

MMag.a Dr.in Julia Lemonia Raptis, LL.M LL.M

Dr. Jan Suesserott, Bakk.

elektronisch gefertigt

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Consultation on a new digital finance strategy for Europe / FinTech action plan

Fields marked with * are mandatory.

Introduction

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This consultation will soon also be available in 23 European Union official languages.

If you wish to respond in one of these languages, please wait until then to provide your replies.

1. Background for this consultation

Digitalisation is transforming the European financial system and the provision of financial services to Europe's businesses and citizens. In the past years, the EU and the Commission embraced digitalisation and innovation in the financial sector through a combination of horizontal policies mainly implemented under the umbrella of the Digital Single Market Strategy, the Cyber Strategy and the Data economy and sectoral initiatives such as the revised Payment Services Directive, the recent political agreement on the crowdfunding regulation and the [FinTech Action Plan](#). The initiatives set out in the FinTech Action Plan aimed in particular at supporting the scaling up of innovative services and businesses across the EU, for example through enhanced supervisory convergence to promote the uptake of new technologies by the financial industry (e.g. cloud computing) but also to enhance the security and resilience of the financial sector. All actions in the Plan have been completed.

The financial ecosystem is continuously evolving, with technologies moving from experimentation to pilot testing and deployment stage (e.g. blockchain; artificial intelligence; Internet of Things) and new market players entering the financial sector either directly or through partnering with the incumbent financial institutions. In this fast-moving environment, the Commission should ensure that European consumers and the financial industry can reap the potential of the digital transformation while mitigating the new risks digital finance may bring. The expert group on Regulatory Obstacles to Financial Innovation, established under the 2018 FinTech Action Plan, highlight these challenges in its report published in December 2019.

The Commission's immediate political focus is on the task of fighting the coronavirus health emergency, including its economic and social consequences. On the economic side, the European financial sector has to cope with this unprecedented crisis, providing liquidity to businesses, workers and consumers impacted by a

sudden drop of activity and revenues. Banks must be able to reschedule credits rapidly, through rapid and effective processes carried out fully remotely. Other financial services providers will have to play their role in the same way in the coming weeks.

Digital finance can contribute in a number of ways to tackle the COVID-19 outbreak and its consequences for citizens, businesses, and the economy at large. Indeed, digitalisation of the financial sector can be expected to accelerate as a consequence of the pandemic. The coronavirus emergency has underscored the importance of innovations in digital financial products services, including for those who are not digital native, as during the lockdown everybody is obliged to rely on remote services. At the same time, as people have access to their bank accounts and other financial services remotely, and as financial sector employees work remotely, the digital operational resilience of the financial sector has becoming even more important.

As set out in the Commission Work Programme, given the broad and fundamental nature of the challenges ahead for the financial sector, the Commission will propose in Q3 2020 a new Digital Finance Strategy/FinTech Action Plan that sets out a number of areas that public policy should focus on in the coming five years. It will also include policy measures organised under these priorities. The Commission may also add other measures in light of market developments and in coordination with other horizontal Commission initiatives already announced to further support the digital transformation of the European economy, including new policies and [strategies on data](#), [artificial intelligence](#), platforms and cybersecurity.

2. Responding to this consultation and follow up

Building on the work carried out in the context of the FinTech Action Plan (e.g. the EU Fintech Lab), the work of the European Supervisory Authorities and the [report issued in December 2019 by the Regulatory Obstacles to Financial Innovation Expert Group](#), and taking into account the contribution digital finance can make to deal with the COVID-19 outbreak and its consequences, the Commission has identified the following four priority areas to spur the development of digital finance in the EU:

1. ensuring that the EU financial services regulatory framework is fit for the digital age;
2. enabling consumers and firms to reap the opportunities offered by the EU-wide Single Market for digital financial services;
3. promoting a data-driven financial sector for the benefit of EU consumers and firms; and
4. enhancing the digital operational resilience of the EU financial system.

In this context and in line with [Better Regulation principles](#), the Commission is launching a consultation designed to gather stakeholders' views on policies to support digital finance. It follows two public consultations launched in December 2019, focusing specifically on [crypto-assets](#) and [digital operational resilience](#).

This consultation is structured in three sections corresponding to the priorities areas 1, 2 and 3 presented above. Given that the ongoing consultation on digital operational resilience fully addresses the issues identified as part of this priority area, questions on this priority area are not reproduced in this consultation. As for priority area 1, this consultation includes additional questions given that this priority area goes beyond the issues raised in the currently ongoing consultation on crypto-assets. In addition, the Commission will also be consulting specifically on payment services. Payment services and associated technologies and business models are highly relevant for the digital financial fabric, but also present specificities meriting separate

consideration. These considerations are addressed in a specific [consultation on a Retail Payments Strategy](#) launched on the same day as this one. Finally, and specific to financial services, the Commission is also supporting the work of a High Level Forum on Capital Markets Union, that is expected to also address key technology, business model and policy challenges emerging from digitalisation.

The first section of the consultation seeks views on how to ensure that the financial services regulatory framework is technology neutral and innovation-friendly, hence addressing risks in a proportionate way so as not to unduly hinder the emergence and scaling up of new technologies and innovative business models while maintaining a sufficiently cautious approach as regards consumer protection. While an in-depth assessment is already on-going on crypto-assets, assessment of whether the EU regulatory framework can accommodate other types of new digital technology driven services and business models is needed. Looking at a potentially more complex financial ecosystem - including a wider range of firms, such as incumbent financial institutions, start-ups or technology companies like BigTechs - the Commission is also seeking stakeholders' views on potential challenges or risks that would need to be addressed.

The second section invites stakeholder views on ways to remove fragmentation of the Single Market for digital financial services. Building on the preparatory work carried out in the context of the 2018 FinTech Action Plan, the Commission has already identified a number of obstacles to the Single Market for digital financial services and is therefore seeking stakeholders' views on how best to address these. In addition, the consultation includes a number of forward-looking questions aiming to get stakeholders' feedback as regards other potential issues that may limit the deepening of the Digital Single Market and should be tackled at EU level.

Finally, the third section seeks views on how best to promote a well-regulated data-driven financial sector, building on the current horizontal frameworks governing data (e.g. General Data Protection Regulation; Free Flow of Data Regulation) but also on the recent sectoral developments such as the implementation of the revised Payment Services Directive in the EU. Considering the significant benefits data-driven innovation can bring in the EU across all sectors, the Commission recently adopted a new European Data Strategy and a White Paper on Artificial Intelligence. Building on these horizontal measures, the Commission is now seeking stakeholders' views on the potential additional measures that would be needed in the financial sector to reap the full benefits of the data economy while respecting European values and standards. Responses to this consultation will inform forthcoming work on a Digital Finance Strategy/FinTech Action Plan to be adopted later in 2020.

Please note: In order to ensure a fair and transparent consultation process **only responses received through our online questionnaire will be taken into account** and included in the report summarising the responses. Should you have a problem completing this questionnaire or if you require particular assistance, please contact fisma-digital-finance@ec.europa.eu.

More information:

- [on this consultation](#)
- [on the consultation document](#)
- [on digital finance](#)
- [on the protection of personal data regime for this consultation](#)

General questions

Europe's strategic objective should be to ensure that European consumers and firms fully reap the benefits stemming from digital finance while being adequately protected from the potential new risks it may bring. To achieve that, the European financial sector needs to be at the forefront of innovation and its implementation in a market and production environment in order to better serve consumers and firms in an efficient, safe, sound and sustainable manner. Strong and innovative digital capacities in the financial sector will help improve the EU's ability to deal with emergencies such as the COVID-19 outbreak. It will help to further deepen the Banking Union and the Capital Markets Union and thereby strengthen Europe's economic and monetary union and to mobilise funding in support of key policy priorities such as the Green Deal and sustainable finance. It is also essential for Europe to safeguard its strategic sovereignty in financial services, and our capacity to manage, regulate and supervise the financial system in a way that promotes and protects Europe's values and financial stability. This will also help to strengthen the international role of the euro.

With a view to adopt a new Digital Finance Strategy/FinTech Action Plan for Europe later this year, the Commission is now seeking your views to identify the priority areas for action and the possible policy measures.

Question 1. What are the main obstacles to fully reap the opportunities of innovative technologies in the European financial sector (please mention no more than 4)?

Please also take into account the [analysis of the expert group on Regulatory Obstacles to Financial Innovation](#) in that respect.

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

As we perceive market sentiments obstacles come only to a minor extent from regulatory issues. And although the Covid-19-crisis may prove to have a strong influence on the reception of innovative technologies, the main obstacles will be:

- **Relevant skills and education:** It is important that all relevant stakeholders have the necessary skillset to reap the opportunities of innovation. Financial and digital literacy is key in this respect. But not only users need to have a certain skillset: Creating, monitoring and enforcing law is the essential crossroad between building innovative environments and hampering innovative activities. It is important for supervisors and regulators to build up adequate levels of relevant knowhow among SSM supervisors to better understand and assess different forms of and risks inherent to technology. In hiring technical experts, often management is challenged to understand *what kind* of specialists it should even be on the lookout for. For the market, on the other side, lack of education and expertise as well as a lack of relevant experts will certainly lead to major challenges for hiring skilled staff. Differing levels of financial education in the EU may also lead to different levels of entry barriers across Europe.

- **Fragmented regulation and tax schemes.** Different tax and regulatory schemes make it difficult for companies to develop technologies that can be used EU-wide under a “one size fits all” model. Currently, several initiatives on European level have addressed this and other associated risks. The goal should be to create homogenous, risk-adequate, proportionate and well-regulated environments without gaps or overlaps (e.g. in incident reporting) that comprehensively encompasses the aspects of ICT risk and digital financial service issues. Standardization of legal terminology and tackling legal fragmentation is therefore key. At the moment, a complex landscape of different supervisory regimes can be observed, even among the harmonized areas (e.g. the new crowdfunding regulation will only regulate certain services and instruments, others are subject to payment / securities / banking regulation, national supervisory laws or national commercial law; the most complex issue in this regard is definitely crypto assets).
- **Cyber risk and resilience:** Innovative forerunners may be prone to risks and dangers in terms of data security, cyber crime and other unwelcome risks (not least reputational risks on behalf of customers, partners and the sector as a whole). Adding to that there is also a lack of digital standards, classifications, data formats, APIs, protocols, as well as a inhomogeneous use of different programming languages.
- **Maturity level of IT risk management in enterprises.** As dependence on ICT continues to grow, risks become more complex and threaten to have far more widespread consequences than in the past. It is of utmost importance that financial institutions reach and maintain adequate levels of IT governance and technological expertise at the appropriate management level, including, where appropriate, at board level.

Barriers to digitalization exist not only due to the regulatory environment, but also to some extent because of fragmented and out-of-date IT environment, due to customer conduct, as well as due to the (lack of) digital competence of customers. (Refer to “FMA, Digitalisation in the Austrian Financial Market, Call for Input: Results; January 2020”)

Question 2. What are the key advantages and challenges consumers are facing with the increasing digitalisation of the financial sector (please mention no more than 4)?

For each of them, what if any are the initiatives that should be taken at EU level?

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including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Advantages:

- Financial inclusion through technology: The COVID-19 crisis has shown how important it is to access financial services not only via personal contact at local branches. However, digital financial services have to be accepted by all kinds of

customers – e.g. old and young. EU should aim at harmonized and intuitive access.

- Payment processes can be faster, more efficient and less costly for all parties involved, especially with respect to cross border payments.
- New forms of investing (eg: smaller investment tranches with crowd investing) and financing (eg: Initial Coin Offerings, Security Token Offerings) can reduce complexity, costs and give access to a broader range of participants.
- speed and convenience (accessibility 24/7, wherever you want), economy of time
- lower costs
- better overview and comparison of products and services
- multi-channel communication with the customer service
- tailored financial services due to increased data processing
- supporting understanding of customer needs
- optimized and demand-oriented customer contact
- enabling individual and modular product design (by use of big data/AI)

Initiatives to harvest advantages: competition should be fostered but serving the overall principle of customer benefit. The advantages could be rapidly extinguished by destructive competition if markets are driven by price erosion, speed and excessive use of data against the will of the customer.

- Initiatives to promote harmonized, intuitive access to financial services
- Financial education
- Modernized regulatory frameworks

Challenges:

- Intransparent markets, adapting regulation to new challenges and new potential areas for criminal activities. Mostly this comprises possible loss of ownership (eg: identity theft), assets (eg: theft of tokens) or sensible data (eg: security breaches of gatekeepers and account holders). These can be overcome, for instance, with broader technical education and modernized regulatory frameworks.
 - Speed of technical development, usability (e.g. smooth-working front-ends)
 - decreasing variety of products and services due to market concentration
 - transparency and liability, especially due to split-up of contractual relationships (not one clear counterpart anymore)
 - data protection and securing personal rights
 - Involvement in cyber incidents and cyber crime
 - biased algorithms
 - exclusion through digitalization
 - lack of traceability and insufficient documentation of decisions
 - increase of cross-border-business of firms that do not comply with laws and standards or even are unauthorized; increase of financial fraud
 - increase of targeted and sensational/ manipulative advertisement via social media (e.g. proactive distribution of consumer credit)
 - cross-selling
 - Distribution/Customer interface
- Where necessary, adaption of regulation to be designed in such a way that enables a purely digital conclusion of business without the necessity to have the customer physically present.

- **Cyber security**
Where necessary, strengthening of regulatory and supervisory convergence (e.g. by EIOPA Guidelines on Information and Communication Technology [ICT] security and governance)
Addressing where necessary fragmentation in cyber incident reporting requirements: Enabling the enlargement of the data basis and early detection of trends
Promotion of cyber insurance and of related risk mitigation measures: Evaluation of respective data basis for calculating cyber incident insurance and increasing awareness of consumers
Where appropriate, further strengthening of cyber resilience of undertakings e.g. by increased TIBER-EU-testing
Evaluation of third party risk concentrations and of the need to establish respective guidance or if necessary regulatory requirements also in respect to third country third party risks.
- **Product design**
Rules could be drawn up in relation to technical processes to ensure that no parameters for decision-making are used that are discriminatory and/or do not comply with data protection regulation.
The development of comparison portals should be monitored.

Initiatives to cope with challenges:

Companies should be encouraged to emphasize transparency and the compliance with data protection regulation. Market concentration should be avoided, for example by contributing with open source technologies and by cooperating closely with the competition authorities. Best practice examples of e.g. the use of cloud services should be published and publicly discussed. Responsibility of senior management regarding soundness and legality of technologies, algorithms and data processes should be clear. Lessons learned from cyber incidents should be discussed and cyber-incident-trainings and simulations could be conducted and developed further.

Last but not least it is important that consumers are neither forced to use certain technologies nor de facto forced to use them (e.g. due to cost reasons).

Building on previous policy and legislative work, and taking into account the contribution digital finance can make to deal with the COVID-19 emergency and its consequences, the Commission services are considering four key priority areas for policy action to spur the development of digital finance:

1. ensuring that the EU financial services regulatory framework is technology-neutral and innovation friendly;
2. reaping the opportunities offered by the EU-wide Single Market for digital financial services for consumers and firms;
3. promoting a data-driven financial sector for the benefit of EU consumers and firms; and
4. enhancing the operational resilience of the financial sector.

Question 3. Do you agree with the choice of these priority areas?

Yes

No

Don't know / no opinion / not relevant

Question 3.1 Please explain your answer to question 3 and specify if you see other areas that would merit further attention from the Commission:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

We agree to a good extent but perceive the wording as not fully balanced, emphasizing only opportunities and innovation friendliness. What is missing is the perspective of investors/users/data safety, especially in bullet point 3. A dedication to a data-driven financial sector is sensitive and should only be promoted to the extent and under the condition that it actually is beneficial to consumers and firms. For instance, through digitalization insurance undertakings gain the opportunity to create individualized products to better serve their customers on the one hand but on the other hand, the increasing individualization of products could impair access to insurance protection for some customers.

As an alternative wording for bullet point 3 we would propose: promoting a data-driven financial sector and *applying a proportional risk-based regulation* for the benefit of EU consumers and firms.

With regard to bullet point 1 we would propose as an alternative wording adding a half-sentence: “ensuring that a *harmonized* EU financial services regulatory framework is technology-neutral and innovation friendly *while taking into account the risks that new technologies pose to customers, investors and markets*”.

Furthermore, what in our view is missing is the perspective of sustainability. New technologies can be energy consuming and can have high development costs. Regarding the production of components sustainability should be key.

I. Ensuring a technology-neutral and innovation friendly EU financial services regulatory framework

In order to be fit for the digital age, the EU financial services regulatory framework should neither prescribe nor prevent the use of particular technologies whilst ensuring that regulatory objectives continue to be satisfied. It should also not hinder the emergence and scaling up of innovative business models, including platform-based ones, provided that the new risks these new business models may bring are properly addressed. The Commission undertook an in-depth assessment of these issues in the context of the FinTech Action Plan and is already acting on certain issues. Even so, in this fast-moving and increasingly complex ecosystem, it is essential to monitor technological and market trends on a regular basis and to identify at an early stage whether new regulatory issues, including e.g. prudential ones, are emerging and, if so, how to

address them in a proportionate manner.

Question 4. Do you consider the existing EU financial services regulatory framework to be technology neutral and innovation friendly?

Yes

No

Don't know / no opinion / not relevant

Question 4.1 If not, please provide specific examples of provisions and requirements that are not technologically neutral or hinder innovation:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Generally, we agree on a technological-neutral and innovation-friendly basic intention of EU regulatory frameworks. However in certain areas there are distinctive, practical exceptions to this.

A concrete example for lack of legal innovativeness is the Settlement Finality Directive (SFD) which only allows licensed banks to participate in designated systems. In our view, the planned revision of the SFD should enable certain types of licensed institutions (such as those according to PSD2 and to EMD2) a direct participation in case compliance with the Principles for Financial Market Infrastructures or the SIPS-Regulation is ensured. This would ensure a level playing field also for tech-savvy market players.

With regard to the CSDR, the mandatory book-entry in a dematerialized form pursuant to Art. 3 (1) seems to be technology friendly and a valid starting point for the tokenization of securities. Nevertheless for the application of a decentralized distributed ledger technology (DLT) further discussions about legal certainty would be necessary.

Regulatory impediments, which hamper digitalisation, include existing regulations that are not befitting of the era of digitalisation, such as the obligation of credit institutions to make certain documents available in paper form and obsolete signature rules.

(Refer to “FMA, Digitalisation in the Austrian Financial Market, Call for Input: Results; January 2020”, p 9)

Question 5. Do you consider that the current level of consumer protection for the retail financial products and services established by the EU regulatory framework is technology neutral and should be also applied to innovative ones using new technologies, although adapted to the features of these products and to the distribution models?

Yes

No

Don't know / no opinion / not relevant

Question 5.1 Please explain your reasoning on your answer to question 5, and where relevant explain the necessary adaptations:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

We believe there is more work to be done to reach technology-neutrality. Examples for improvement:

- Introduction of measures to ensure that no decision-making parameters are used that are discriminatory and/or contravene data protection law (e.g. regarding robo advice).
- Extension of applicability of electronic identities and proof of identity/legitimate forms of ID: an option for identity verification by digital means using digital certificates (qualified certificates) would provide several advantages, e.g. in the areas of identification for AML purposes or the declarations of creditworthiness.
- Clarity on using personalised websites as “durable media” According to some sectorial legislative acts, personalised websites which fulfil certain criteria may be used no matter whether they can be considered as durable media (“sophisticated website”) within the meaning of the ECJ definition. Other rules/sectorial legislative acts explicitly require the use of durable media. In the latter case, in a strict sense, personalised websites could only be used if they fulfil the criteria of a “sophisticated website” (in contrast to an “ordinary website”) within the meaning of the ECJ (and a preceding EFTA court decision). We believe that personalised websites should be allowed as default media, if adequate safeguards are applied and provided that there is a right to require information on paper instead.

(Refer to “FMA, Digitalisation in the Austrian Financial Market, Call for Input: Results; January 2020”, p 5 and 19)

Identify areas where the financial services regulatory framework may need to be adapted

The use of Distributed Ledger Technology (DLT), and in particular the use of one of its applications, the so-called crypto-assets, have been identified as an area where the European regulatory framework may need to be adapted. A public consultation on crypto-assets is on-going to gather stakeholders' views on these issues. Beyond the area of crypto assets, and looking at other technological and market developments, the Commission considers that it is important to identify potential regulatory obstacles to innovation at an early

stage and see how to best address these obstacles not to slow down the uptake of new technologies in the financial sector.

Question 6. In your opinion, is the use for financial services of the new technologies listed below limited due to obstacles stemming from the EU financial services regulatory framework or other EU level regulatory requirements that also apply to financial services providers?

Please rate each proposal from 1 to 5:

	1 (irrelevant)	2 (rather not relevant)	3 (neutral)	4 (rather relevant)	5 (fully relevant)	N. A.
Distributed Ledger Technology (except crypto-assets)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cloud computing	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Artificial Intelligence/Machine Learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Internet Of Things (IoT)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Biometrics	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quantum computing	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

If you see other technologies whose use would be limited in the financial services due to obstacles stemming from the EU financial services legislative framework, please specify and explain:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Distributed Ledger Technology faces issues of lacking legal clarity (or lacking rules) regarding certain aspects of legal quality of transactions, from the quality of ownership transfer up to questions of indispensability of liable intermediaries for certain transactions (e.g. a CCP for security exchanges). The principles of territoriality (jurisdiction and applicable law) and liability of the supervisory laws do not fit to fully decentralized DLT-systems. Addressing designers or nodes, which are likely subject to different jurisdictions in different countries and who are not contractually responsible in the traditional conception, poses practical problems.

It's also unclear whether a DLT could be a data medium fit to be used for storage and documentation purposes which companies are obliged under supervisory laws (e.g. a "durable medium" according to article 4 (35) PSD2). This is especially the case if external nodes are involved – flow of data and storage involving external nodes has to comply with applicable data protection laws (which are located only in part in the supervisory laws).

Furthermore, it is unclear how decentralized financial instruments are treated under supervisory law, which have no legal issuer (e.g. are issued through a fixed protocol / function similar to Bitcoin).

These are only exemplary issues where supervisory law in general is tailored to centralized services and does not fit to decentralized structures. Generally, uprising new technologies – especially decentralized services like DLT – need to be properly embedded into the European financial market legislation. A risk-based and proportional approach needs to be applied, which takes into account the features of emerging technologies, the needs of market participants as well as appropriate protection for consumers and investors.

In this respect, COM could analyze Liechtenstein's specific legal DLT-framework and evaluate a potential similar framework for the EU area. It would be interesting if there are beneficial effects, for instance in respect to token ownership (and its transfer), cross border activities, smart contracts and customer protection.

With regard to quantum computing certain aspects of traceability of decisions and documentation could create problems. This can be the case where quantum technology is used for encryption purposes, which is likely to be the first major field of application. Generally, everywhere were the superposition of states and simultaneity leaves no space for comprehensible and causal connection of transactions / decisions / processes, regulatory requirements need to be defined (e.g. for example a bias in an algorithm needs to be traceable to be able to eliminate it). This could impede control, responsibility and risk management duties of the management of a supervised firm. Another important aspect is that in cases where no latency at all is left in transactions, surveillance and necessary interventions can be difficult or even impossible to impose (for example the observation and stop of fraudulent transactions, or circuit breakers on exchanges and similar mechanisms). Areas would have to be identified where instantaneity could not be desirable and quantum computing technology would have to be shaped according to the regulatory needs.

Outsourcing provisions limit the potential to utilize cloud computing further. Cloud computing, like many other modern technologies, can be managed as service on global scale which allows market players to easily adapt to national regulation (eg: by relocating data centers to more advantageous locations). Although EU has reacted to initial lack of legal frameworks in respect of cloud computing, nevertheless broad harmonization of guidelines and if appropriate regulation should be considered. In this respect, it should be noted that if service providers are acting on a global scale conflicts and risks with regard to third country providers should be taken into account. Due to Brexit this will be prevailing in the near future.

All these examples show that the perspective cannot be simply phrased as “identifying and eliminating obstacles to innovation”. This statement seems incorrect and serves the narrative of some providers who see supervisory laws as obstacles per se. The emphasis should be more on how technologies can be adapted to and contribute to regulatory requirements (e.g. using a Blockchain for documentation purposes but still by a centrally liable intermediary; using quantum entanglement for encryption *for the sake* of data protection or quantum computing for internal cyber surveillance purposes for debugging of algorithms)

Question 6.1 Please explain your answer to question 6, specify the specific provisions and legislation you are referring to and indicate your views on how it should be addressed:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Thematic reviews on big data conducted by EIOPA, also analyzing the benefits and potential risks to fair treatment of consumers, including assessing the boundaries of potential ethical and privacy issues arising from enhanced consumer profiling techniques and more granular risk assessment could form a basis for further considerations.

Question 7. Building on your experience, what are the best ways (regulatory and non-regulatory measures) for the EU to support the uptake of nascent technologies and business models relying on them while also mitigating the risks they may pose?

Please rate each proposal from 1 to 5:

	1 (irrelevant)	2 (rather not relevant)	3 (neutral)	4 (rather relevant)	5 (fully relevant)	N. A.
Setting up dedicated observatories to monitor technological and market trends (e.g. EU Blockchain Observatory & Forum; Platform Observatory)	Ⓒ	Ⓒ	Ⓒ	<input checked="" type="radio"/>	Ⓒ	Ⓒ

Funding experimentation on certain applications of new technologies in finance (e.g blockchain use cases)	©	©	©	©	©	©
Promoting supervisory innovation hubs and sandboxes	©	©	©	©	©	©
Supporting industry codes of conduct on certain applications of new technologies in finance	©	©	©	©	©	©
Enhancing legal clarity through guidance at EU level for specific technologies and/or use cases	©	©	©	©	©	©
Creating bespoke EU regimes adapted to nascent markets, possibly on a temporary basis	©	©	©	©	©	©
Other	©	©	©	©	©	©

Please specify what are the other ways the EU could support the uptake of nascent technologies and business models relying on them while also mitigating the risks they may pose:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Potential initiatives could be:

- Supporting financial and technological literacy;
- supporting training and internship programs to foster the qualification of experts;
- Applying Regulatory Sandboxes
- simplifying regulation;
- creating a publicly accessible information web / database on legal / regulatory issues regarding FinTech;
- developing own prototypes of technological applications and infrastructures like TIPS (Target Instant Payment Settlement) and providing technical resources e.g. a secure European data storage facility;
- Inviting Start-Ups for coding competitions on specific technologies while providing the necessary public and secure setting.

The European Commission should, in particular, follow a path of coordinated legal action among member states, thus ensuring a level playing field. While initiatives by individual member states are aimed at fostering innovation, they may also give rise to

market fragmentation.

Furthermore, a European Facilitator (e.g. Single Point of Entry) could be an incentive for Start-Ups and incumbents to test and promote innovations.

Assess the need for adapting the existing prudential frameworks to the new financial ecosystem, also to ensure a level playing field

Financial services providers are increasingly relying on technology companies to support delivery mechanisms for financial services. Technology companies are also increasingly entering financial services directly. Such trends will have an impact on the customers, the supply chain, incumbent financial institutions and their regulators and supervisors. Big technology companies are able to quickly scale up services due to network effects and large user bases. Their entry may accordingly over time significantly change market structures. This may require a review of how the EU financial legislative framework regulates firms and activities, in particular if technology companies were to become direct providers of specific services (e.g. lending) or a broader range of financial services or activities. This may also require a review of how to supervise the overall risks stemming from financial services of such companies.

Financial regulation should harness the opportunities offered by digitalisation - e.g. in terms of innovative solutions that better serve customers - while protecting the public interest in terms of e.g. fair competition, financial stability, consumer protection and market integrity. The Commission accordingly invite stakeholders' views on the potential impact of technology companies entering financial services and possible required policy response in view of the above public policy objectives.

Question 8. In which financial services do you expect technology companies which have their main business outside the financial sector (individually or collectively) to gain significant market share in the EU in the five upcoming years?

Please rate each proposal from 1 to 5:

	1 (very low market share below 1%)	2 (low market share)	3 (neutral)	4 (significant market share)	5 (very significant market share above 25%)	N. A.

Intra-European retail payments	©	©	©	©	©	©
Intra-European wholesale payments	©	©	©	©	©	©
Consumer credit provision to households with risk taking	©		©	©	©	©
Consumer credit distribution to households with partner institution (s)	©	©		©	©	©
Mortgage credit provision to households with risk taking	©	©	©	©	©	©
Mortgage credit distribution to households with partner institution (s)	©	©	©	©	©	©
Credit provision to SMEs with risk taking	©	©	©	©	©	©
Credit distribution to SMEs with partner institution(s)	©	©	©	©	©	©
Credit provision to large corporates with risk taking	©	©	©	©	©	©
Syndicated lending services with risk taking	©	©	©	©	©	©
Risk-taking activities in Life insurance products	©	©	©	©	©	©
Risk-taking activities in Non-life insurance products	©	©	©	©	©	©
Risk-taking activities in pension products	©	©	©	©	©	©
Intermediation / Distribution of life insurance products	©	©	©	©	©	©

Intermediation / Distribution of nonlife insurance products	©	©	©	©	©	©
Intermediation / Distribution of pension products	©	©	©	©	©	©
Other insurance related activities, e.g. claims management	©	©	©	©	©	©
Re-insurance services	©	©	©	©	©	©
Investment products distribution	©	©	©	©	©	©
Asset management		©	©	©	©	©
Others	©	©	©	©	©	©

Please specify in which other financial services you expect technology companies to gain significant market share in the EU in the five upcoming years:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

At this point in time no other financial services can be identified where technology companies may gain significant market shares.

Question 8.1 Please explain your answer to question 8 and, if necessary, describe how you expect technology companies to enter and advance in the various financial services markets in the EU Member States:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

With the exception of BigTechs and their mostly autonomous infrastructure, typical smaller technology companies enter the market first and foremost by selling technology to financial service providers. They will play a vital role by doing so, while not providing financial services in their own name. However, larger companies that have their major business outside the financial sector can already be found in many areas of traditional financial markets, like automobile companies that own small banks for credit and leasing business and retailers that provide long payment periods for product purchases that are advertised as consumer credits.

Following developments in the payment area, we reckon that both Intra-European retail payments and maybe even Intra-European wholesale payments could generally gain

more prominent market shares in the near future. Many tech companies are seen to be focusing on development of new payment technologies, which promise more efficiency in comparison to legacy systems. In this regard for launching new payment technologies they can rely on a large EU-wide and global user base. This however, could bear risks especially with regard to consumer protection and potentially with regard to financial stability. Furthermore this puts incumbent financial market participants at a disadvantage.

As a matter of fact, non-financial players like BigTechs that step into financial services gain momentum. As complimentary part of their services, they successfully engage heavily in retail payment markets. Internationally some providers can also be observed to gain significant market share in consumer credits which obviously could also be of interest for European providers.

Consumer credit provision to households, even with risk taking, are well within reach of BigTech companies. The majority of them are experimenting in this area to supplement their business lines and have relevant licenses with passporting capabilities for the EU area. SME FinTechs generally can provide credit services only with cooperating partners with an appropriate license (eg: credit institutions).

Besides that, financial services that are further away from core business models of BigTechs, retailers or other non-financial firms are not expected to grow significantly during the next years due to complexity of regulation (and as a consequence: staff resources within the European member states) and profitability / risk – relation.

There is still a lot of potential for asset management activities. As of now, it is mostly US and Canadian Tech companies that are dominating markets with robo advice services and huge trading volumes. Comparable volumes in Europe cannot be seen for this kind of technology but European robo-advice-investment volumes have still doubled in recent years.

Insurers assess both financial services providers as well as large established technology groups as being their most significant competitors. (Refer to 'Digitalisation in the Austrian Financial Market – Status Quo, Outlook and Call for Input, June 2019', p. 11)

Question 9. Do you see specific financial services areas where the principle of “same activity creating the same risks should be regulated in the same way” is not respected?

Yes

No

Don't know / no opinion / not relevant

Question 9.1 Please explain your answer to question 9 and provide examples if needed:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Currently we see some near-financial activities that either do not fall under financial markets regulation or where there is legal uncertainty regarding the regulatory scope. Therefore, where appropriate such services and financial actors should be included under the regulatory umbrella with a view to ensuring a comprehensive level playing-field in the whole sector.

- Exchange services for cryptocurrencies can be assumed to create similar risks as traditional exchanges, but as this business area is not properly and homogeneously regulated, among other problems substantial financial loss can result for consumers and firms alike.
- Crypto-asset-payments and corporate finance via utility tokens, settlement in crypto assets vs cash settlement (however, a European regulation is already under discussion)
- Peer-2- Peer- Lending
- White Labeling (the contractual partner of a service is a company which the customer often does not know)
- Certain marketing operations of financial products, especially retail-trading of CFDs or Forex-contracts, take the form of impersonal recommendations via telegram-channels, YouTube-videos or seminars, which are not investment advice according to MiFID II and therefore completely unregulated, but prone to customer risks. The classical regulated investment advice, where a human adviser sits in front of the potential customer, seems to be more and more replaced by such new acquisition channels.
- While PSD2 requires objective and non-discriminatory access to payment systems also for payment institutions, the SFD makes access dependent on statutory criteria. This should be adjusted in an upcoming revision of the SFD by granting also payment institutions access to systems designated according to the SFD.
- Upcoming alternatives regarding the traditional insurance concept of centralized risk-pooling need to be monitored. E.g. developments regarding peer-to-peer (P2P) insurance and use of blockchain technology have already emerged.

Question 10. Which prudential and conduct risks do you expect to change with technology companies gaining significant market share in financial services in the EU in the five upcoming years?

Please rate each proposal from 1 to 5:

	1 (significant reduction in risks)	2 (reduction in risks)	3 (neutral)	4 (increase in risks)	5 (significant increase in risks)	N. A.

Liquidity risk in interbank market (e.g. increased volatility)	©	©	©	©	©	©
Liquidity risk for particular credit institutions	©	©	©	©	©	©
Liquidity risk for asset management companies	©	©	©	©	©	©
Credit risk: household lending	©	©	©	©	©	©
Credit risk: SME lending	©	©	©	©	©	©
Credit risk: corporate lending	©	©	©	©	©	©
Pro-cyclical credit provision	©	©	©	©	©	©
Concentration risk for funds collected and invested (e.g. lack of diversification)	©	©	©	©	©	©
Concentration risk for holders of funds (e.g. large deposits or investments held in a bank or fund)	©	©	©	©	©	©
Undertaken insurance risk in life insurance	©	©	©	©	©	©
Undertaken insurance risk in non-life insurance	©	©	©	©	©	©
Operational risks for technology companies and platforms	©	©	©	©	©	©
Operational risk for incumbent financial service providers	©	©	©	©	©	©

Systemic risks (e.g. technology companies and platforms become too big, too interconnected to fail)	©	©	©	©	©	©
Money-laundering and terrorism financing risk	©	©	©	©	©	©
Other	©	©	©	©	©	©

Please specify which other prudential and conduct risk(s) you expect to change with technology companies gaining significant market share in financial services in the EU in the five upcoming years:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Since the term “Technology companies” has not been defined, we also try to encompass this point on BigTechs. The different business models of BigTechs (primary goal is not the profitability of the offered services but the collection of customer data, thus enhancing their primary business models) puts them at a competitive advantage vs incumbent players in European Financial markets (most notably banks and insurances). We therefore see a high risk that incumbent players are increasingly priced out of the market and lose market share. Thereby, the dependence on US companies (BigTechs) rises, undermining the efforts of the EU to become an international leader in innovative financial technologies.

Question 10.1 Please explain your answer to question 10 and, if necessary, please describe how the risks would emerge, decrease or increase with the higher activity of technology companies in financial services and which market participants would face these increased risks:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Due to an ongoing increasing trend in digitalisation and digital channels (e.g. mobile banking), the supervisory focus on FinTechs will strongly increase and risk types such as Cyber, IT and concentration risks will be strong on the regulatory radar in the upcoming five years. This is expected to align with concerns about consumer protection and compliance risk which might pop up due to a higher number of inexperienced new market entrants as well as an intensified market competition which on the other hand reduces costs for clients. Furthermore, risks from concentration in specific technology and data service providers will also increase (e.g. stemming from cloud service providers). In respect to systemic cyber risks, the financial sector seems to be vulnerable with regard to cyber incidents (eg: malware attacks with prominent media coverage). Cyber

incidents with contagious effects (eg: technological concentration risk, malware attacks on great scale, crippled critical IT infrastructure, media coverage, sinking trust in infrastructure and institutions) could potentially even result in financial crisis of systemic proportions.

In the context of liquidity management, it can be assumed that business models like crowdfunding will provide fundamentally new ways to access liquidity for businesses. In effect, liquidity risk could be reduced by spreading risk on big scale and small tranches.

Indicators (https://www.bis.org/publ/qtrpdf/r_qt1809e.pdf) show that Tech Companies in Europe have rising potential but still do not have a strong impact on credit provision by far compared to traditional credit providers. It can be assumed that pro-cyclical risks are therefore somewhat limited. Generally, it can be said that FinTech credit provision is significantly more common in well-developed economies with regulatory stringency than in technologically less favorable environments which should also be taken into account.

Liquidity risk remains probably relatively unchanged by the entry of BigTechs: Most of them are entering the Financial Markets primarily in the payments space and – while some of them are starting to offer current accounts – it is unlikely that they will have a huge impact on the availability of liquidity in Financial markets in the next 5 years.

In the area of lending a particular concern might be that BigTechs with their massive stores of big data and extensive experience of using it (e.g.: analyzing customer behavior), might use their customer insights to push products that are ultimately not beneficial for the customers. In particular, the behavior of BigTechs consumer and SME credit should be subject to ongoing scrutiny by supervisors and consumer protection agencies..

Another factor that needs to be taken care of is potential procyclicality: Since BigTechs' AI models have not been assessed yet through any cycle, there is an imminent danger that more current trends are over exaggerated by machine learning techniques (sample bias). As a consequence, this might amplify already existing over- and undershooting of loan provision.

The entry of BigTechs into insurance might increase consumer protection risks, as data on individuals (e.g. data from health apps, sleeping times, social environment, ...) might lead to strong price differentiation and thus potentially to some groups facing significantly higher costs. In this regard effective Chinese Walls between BigTechs' insurance arms and their other operations are essential.

An increase in systemic risk is possible, since with the entry of BigTechs into financial markets, their importance would rise even further and their failure could have severe consequences if a BigTech becomes a significant provider of financial services.

Generally, technology companies entering the market should be subject to the same regulatory standards as established market participants as the principle "same business, same risks, same rules" should apply. If this principle is well applied risks could be limited. However, technology companies may displace established market participants.

Question 11. Which consumer risks do you expect to change when technology companies gain significant market share in financial services in the EU in the five upcoming years?

Please rate each proposal from 1 to 5:

	1 (significant reduction in risks)	2 (reduction in risks)	3 (neutral)	4 (increase in risks)	5 (significant increase in risks)	N. A.
Default risk for funds held in non-banks and not protected by Deposit Guarantee Scheme	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Liquidity risk	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Misselling of insurance products	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Misselling of investment products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Misselling of credit products	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Misselling of pension products	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inadequate provision of information	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inadequate complaint and redress process and management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use/abuse of personal data for financial commercial purposes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Discrimination e.g. based on profiles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

Operational risk e.g. interrupted service, loss of data	©	©	©	©	©	©
Other	©	©	©	©	©	©

Please specify which other consumer risk(s) you expect to change when technology companies gain significant market share in financial services in the EU in the five upcoming years:

5000 character(s) maximum
including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

As long as technology-companies have to adhere to the same conduct rules as incumbent banks no significant additional risk of misselling seems apparent. On the one hand such companies may have more information about the client and their financial status which could reduce the risk of misselling. On the other hand IT-companies running platforms with integrated financial services (e.g. post-lending) have better/more possibilities for potentially detrimental cross-selling practices.

Cross-selling with non-financial products has to be strictly monitored especially in the area of consumer-credits at the POS.

IT-companies have to adhere to the same conduct rules. In general, online sales do not pose a higher risk of inadequate provision of information. The use of innovative ways of communication (videos, tutorials, tests) can make up for the lack of human interaction. This can also be achieved with hybrid-models (e.g. online-advice by human adviser in demand etc.).

The sales-channel or background of the supervised entity does not necessarily impact this area. Complaint processes are already online in many cases (via E-Mail, complaint forms). Tech-Firms can also make use of existing customer information infrastructure (e.g. call-centers etc.). Training-requirements apply regardless of background of the supervised entity. It has to be noted though that supervisory experience shows that online providers without physical presence are sometimes harder to contact for consumers.

The wealth of data, aside from strictly financial data, available to such firms may open up detrimental possibilities e.g. to target especially vulnerable clients or discriminate against certain groups. Another issue is connected to the use of robo advice, where decision-making parameters can be discriminatory.

IT and especially IT-security has been the core business of technology companies for a long time. Existing Know-How and infrastructure provide significant advantages especially compared to smaller traditional players on the financial markets. However, to realize this potential such firms need to make sure, that their existing infrastructure and security conforms to the rules and regulations specific to financial markets law.

Question 11.1 If necessary, please describe how the risks would emerge, decrease or increase with the higher activity of technology companies in financial services and which market participants would face these increased risks:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Risks could emerge regarding the demands of consumers (customers, who cannot reach a service provider by phone but instead have to rely on service desk employees or automated agents writing to them via email or calling them back; lack of cooperation with regulators – e.g., a BigTech’s unwillingness to let banking supervision inspect their cloud services, etc.). As a consequence of this, we would expect consumer risks to rise.

Insufficient agent liquidity: Few liquidity prevents customers from transacting and accessing their money.

Confusing user interfaces: Non-intuitive interfaces can force for intensive and time consuming service support and at worst result in financial loss when sending money to wrong accounts.

Non-transparency of fees and terms: Misunderstanding of transactions and terms for transactions can lead to misconduct and price fraud.

Fraud perpetrated on customers: Providers of new technologies may gain access to accounts and use of personal information for dishonest purposes; external fraudsters may also gain access to sensible information through social engineering scams.

Default risk for funds held in non-banks and not protected by a Deposit Guarantee Scheme could arise if, for instance, surrogate currency concepts like the Libra “stablecoin” gain great acceptance with markets and customers and these concepts currently remain beyond the scope of any financial market regulation. However, we are aware that it is currently discussed how such concepts could be regulated.

Question 12. Do you consider that any of the developments referred to in the questions 8 to 11 require adjusting the regulatory approach in the EU (for example by moving to more activity-based regulation, extending the regulatory perimeter to certain entities, adjusting certain parts of the EU single rulebook)?

Yes

No

Don't know / no opinion / not relevant

Question 12.1 Please explain your answer to question 12, elaborating on specific areas and providing specific examples:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Same business, same risks, same rules:

When reviewing rules for banks and for near-banking services provided by FinTechs, it should be ensured that same rules and regulations apply for the same activities. FinTech activities are usually subject to more stringent regulation when they are performed within a banking group than if they are provided by other types of (unregulated) institutions. Where appropriate, the legal framework should therefore be amended in order to ensure a level playing field that applies – on a risk-based basis – similar licensing and prudential rules, rules on deposit insurance and recovery as well as resolution requirements to all relevant actors. It would be useful to also consider if any potential system-wide issues could arise, bearing in mind that new actors often tend to choose an optimized legal structure to avoid any heavy regulatory burden of the financial sector. Small structures may be more exposed than credit institutions to some kinds of risks (e.g. cyber risks). In the same vein, it is of utmost importance to obtain information by FinTechs about their provided activities in order to regulate the same businesses with the same rules.

Level Playing field:

Furthermore, policy makers should explore existing rules to ensure if they indeed set the right incentives for innovation in financial technology and provide a level playing field between sectors and jurisdictions. In that regard, the capital treatment of investments in software and the treatment of internet access accounts in the Liquidity Coverage Ratio under the Capital Requirements Regulation (CRR) might be mentioned.

Outsourcing:

The establishment of an appropriate oversight framework for monitoring critical service providers to the extent that their activities may impact relevant entities could be considered. Outsourcing rules should be evaluated based on this new trend. IT companies often partner with incumbents, but the majority of business is conducted de facto by the non-supervised entity. In this regard the focus of further discussions could be a comprehensive picture of the supervision of the insourcing entity. This becomes especially important when Tech-Companies cooperate with multiple market participants. At this point, it might be mentioned that outsourcing rules with regard to third country service providers will be more prevailing in the near future due Brexit.

Software investments:

Banks contribute strongly to digitalisation efforts of the EU economy. Likewise, software has become a core asset for banking business models around the world. We currently experience that credit institutions are often forced to invest in software development to remain competitive. In difficult times, cybercriminals are taking advantage of the increasing amount of time that people spend online. It is therefore evident that with increases in global user activities during the COVID19 pandemic there will also be increased cybercrime activity.

In this respect, it is also important to mention that the Capital Requirement Regulation II amends Article 36(1)(b) - software investments, being intangible assets, aren't penalised anymore in Europe (being deducted from CET 1), which can be seen as very beneficial development.

Internet deposits and higher outflows in the Liquidity Coverage Ratio (CRR):
The use of internet based distribution channels has increased substantially. The popularity of digital channels is such that almost all banks see this as a key area where they can better serve their clients' needs, by offering them such service, independent of usual time- or location-restraints. Many banks have stated that they will be focusing on enhancing web based service portfolios in the years to come in order to be more agile and adaptive to client needs. This is also underlined by the popularity of mobile banking on smartphones and tablets which is also reflected in current crisis times when working remotely is becoming increasingly important.

According to the '*EBA Guidelines on retail deposits subject to different outflows for purposes of liquidity reporting under Regulation (EU) No 575/2013, on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012 (Capital Requirements Regulation – CRR)*', banks still see themselves somehow disadvantaged compared to international and non-regulated competitors; therefore an appropriate Liquidity Coverage Ratio calculation could be considered with regard to 'internet-only access banks'. This position has been partly acknowledged under Art. 25 (2)(b) of the Commission Delegated Regulation (EU) 2015/61 on the liquidity coverage requirement. Against this backdrop, we note that the availability of internet as a channel to interact with the customer should in itself not result in higher outflows.

Enhance multi-disciplinary cooperation between authorities

The regulation and supervision of Digital Finance requires more coordination between authorities in charge of regulating and supervising finance, personal data, consumer protection, anti-money-laundering and competition-related issues.

Question 13. Building on your experience, what are the main challenges authorities are facing while supervising innovative/digital players in finance and how should they be addressed?

Please explain your reasoning and provide examples for each sector you are referring to (e.g. banking, insurance, pension, capital markets):

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Since the financial industry is transforming rapidly, the challenges are manifold. One of the fundamental challenges of the future will be to ensure a level playing field for all market participants including companies currently outside the "regulatory perimeter" in order to hamper regulatory arbitrage. See also comments above (Q9, 10, 11, 12). Appropriate supervision of critical third-party providers would be advisable. Moreover,

cross-border business models and activities make it a challenge for national supervisors to adequately monitor relevant risks and stakeholders.

Another major challenge for supervisors and regulators is an adequate understanding of a large number of innovative technologies, to better recognize inherent risks and possible implications. Without specific skillsets and broad in-depth knowledge, supervisors will be at a severe disadvantage and maybe not able to ask the right questions, identify important facts and evolve necessary legal frameworks. This problem is applicable to all areas of supervised innovations and should be coped with through a bundle of complimentary initiatives to help competent authorities and EU member states.

In this respect, the labour market can be an uneven battleground for supervisors. To keep pace with market developments and to be able to attract skilled workforce, skilled specialists are urgently needed, however salary schemes of tech companies are usually substantially higher and a lot more attractive than at supervisory institutions.

In the sector of Asset Management the lack of human resources, the room for enhancement concerning knowledge and training offers regarding technological innovations are the main challenges.

Question 14. According to you, which initiatives could be put in place at EU level to enhance this multi-disciplinary cooperation between authorities?

Please explain your reasoning and provide examples if needed:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

A number of supranational initiatives would be conceivable. For instance, one of the first things which come to mind are initiatives which would be relatively easy to establish like supervisory expert hubs, guidance on best practice (with examples and use cases), comprehensive overviews and constant monitoring of legal frameworks as well as joined initiatives with institutions like the ESAs and ECB, in general.

Development of a common European database (in anonymized form and not legally binding) on innovative business models in financial services / securities markets which can be accessed by all NCAs. With such a database NCAs could share information about business models in real time, exchange their views, enhance their knowledge and potentially also work in documents together with comments etc.

Furthermore, more complex to establish but also worthwhile activities would be comprehensive state-of-the-art supervisory training programs, comprehensive guidance on the implementation of regulatory sandboxes (as well as mutual information exchange about lessons learned between sandbox operating institutions), harmonization of relevant supervisory standards and methodologies.

II. Removing fragmentation in the single market for digital financial services

Removing Single Market fragmentation has always been on the radar of EU institutions. In the digital age, however, the ability of firms to scale up is a matter of economic productivity and competitiveness. The economics of data and digital networks determines that firms with substantial network effects enjoy a competitive advantage over rivals. Only a strong Single Market for financial services could bring about EU-wide businesses that would be able to compete with comparably sized peers from other jurisdictions, such as the US and China.

Removing fragmentation of the Single Market in digital financial services while maintaining an adequate level of security for the financial system is also essential for expanding access to financial services for consumers, investors and businesses across the EU. Innovative business models and services are flourishing in the EU, with the potential to bring greater choice and better services to consumers. Traditional players and start-ups are both competing, but also increasingly establishing partnerships to innovate. Notwithstanding the opportunities provided by the Digital Single Market, firms still face obstacles when scaling up across the Single Market.

Examples include a lack of consistency in the transposition, interpretation and application of EU financial legislation, divergent regulatory and supervisory attitudes towards digital innovation, national 'gold-plating' of EU rules, cumbersome licensing processes, insufficient funding, but also local preferences and dampen cross-border and international ambition and entrepreneurial spirit and risk taking on the part of business leaders and investors. Likewise, consumers face barriers in tapping innovative digital products and being offered and receiving services from other Member States other than of their residence and also in accessing affordable market data to inform their investment choices. These issues must be further addressed if the EU is to continue to be an incubator for innovative companies that can compete at a global scale.

Question 15. According to you, and in addition to the issues addressed in questions 16 to 25 below, do you see other obstacles to a Single Market for digital financial services and how should they be addressed?

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

On a general note, as a basic principle AT tries to prevent any kind of 'gold-plating' when transposing EU financial services legislation. Often national authorities don't provide information in English, sometimes even regarding their company registers. Innovation hubs of National Authorities struggle with language issues where some providers expect answers to FinTech-requests in another than the authorities residual language, which either requires additional resources for official translations or bears language uncertainty risks regarding legal details.

Cross-border facilities for assessing FinTech-cases and innovative technologies of cross-border-incumbents are still improvable. However, the European Forum of Innovation Facilitators (EFIF) is discussing some of those issues at the moment.

Facilitate the use of digital financial identities throughout the EU

Both start-ups and incumbent financial institutions increasingly operate online, without any need for physical establishment in a particular jurisdiction. Technologies are enabling the development of new ways to verify information related to the identity and financial situation of customers and to allow for portability of such information as customers change providers or use services by different firms. However, remote on-boarding relies on different technological means (e.g. use of biometric data, facial recognition, live video) to identify and verify a customer, with different national approaches regarding their acceptability. Moreover, supervisory authorities have different expectations concerning the rules in the 5th Anti-Money Laundering Directive permitting reliance on third parties for elements of on-boarding. The Commission will also consult shortly in the context of the review of the EU Anti-Money Laundering framework.

Question 16. What should be done at EU level to facilitate interoperable cross-border solutions for digital on-boarding?

Please rate each proposal from 1 to 5:

	1 (irrelevant)	2 (rather not relevant)	3 (neutral)	4 (rather relevant)	5 (fully relevant)	N. A.
Harmonise rules governing customer due diligence requirements in the Anti-Money Laundering legislation	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Harmonise rules governing the acceptable use of remote identification technologies and services in the Anti-Money Laundering legislation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Broaden access for obliged entities to publicly held information (public databases and registers) to enable verification of customer identities	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Provide further guidance or standards in support of the customer due diligence process (e.g. detailed ID elements, eligible trusted sources; risk assessment of remote identification technologies)	©	©	©	©	©	©
Facilitate the development of digital on-boarding processes, which build on the e-IDAS Regulation	©	©	©	©	©	©
Facilitate cooperation between public authorities and private sector digital identity solution providers	©	©	©	©	©	©
Integrate KYC attributes into e-IDAS in order to enable on-boarding through trusted digital identities	©	©	©	©	©	©
Other	©	©	©	©	©	©

Please specify what else should be done at EU level to facilitate interoperable cross-border solutions for digital on-boarding:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

In general, the CDD requirements are harmonized. To facilitate cross-border solutions for digital on-boarding the (remote) identification measures need to be harmonized.

Regarding the access for obliged entities to publicly held information (public databases and registers) to enable verification of customer identities the gain for interoperable cross-border solutions depends on which databases and registers would be accessible.

Extension of applicability of electronic identities and proof of identity/legitimate forms of ID: an option for identity verification by digital means using digital certificates (qualified certificates) would provide several advantages, e.g. in the areas of identification for AML purposes, declarations of creditworthiness.

(Refer to: FMA, Digitalisation in the Austrian Financial Market, Call for Input: Results, January 2020, p 5)

Question 17. What should be done at EU level to facilitate reliance by financial institutions on digital identities gathered by third parties (including by other financial institutions) and data re-use/portability?

Please rate each proposal from 1 to 5:

	1 (irrelevant)	2 (rather not relevant)	3 (neutral)	4 (rather relevant)	5 (fully relevant)	N. A.
Make the rules on third party reliance in the Anti-Money Laundering legislation more specific	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Provide further guidance relating to reliance on third parties for carrying out identification and verification through digital means, including on issues relating to liability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Promote re-use of digital identities collected for customer due diligence purposes in accordance with data protection rules	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Promote a universally accepted public electronic identity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Define the provision of digital identities as a new private sector trust service under the supervisory regime of the eIDAS Regulation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Please specify what else should be done at EU level to facilitate reliance by financial institutions on digital identities gathered by third parties (including by other financial institutions) and data re-use/portability:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Confidence in digital identities as well as their re-use on the one hand depends on the prescribed authentication methods (key word: two-factor authentication) and on the other hand the service providers that have made them available.

For banks and insurance companies, trustworthiness is a “core component of their brand”, and accordingly such entities might be able to extract an advantage where they are able to offer such identities themselves, as they already possess online identities with a good reputation. In contrast, social networks first have to win such confidence, but have the advantage of being able to exploit economies of scale through the amount of time users spend on them, as well as on the depth of their networks. From our point of view, it would make most sense, if provisions regarding digital identities would be anchored as a new private sector trust service under the supervisory system of the eIDAS Regulation, or if a generally recognised public electronic identity is encouraged (e.g. In Austria the citizens card (“Bürgerkarte”). By doing so, the necessary confidence in those service providers that provide such identities would be ensured.

Question 18. Should one consider going beyond customer identification and develop Digital Financial Identities to facilitate switching and easier access for customers to specific financial services?

Should such Digital Financial Identities be usable and recognised throughout the EU?

Which data, where appropriate and in accordance with data protection rules, should be part of such a Digital Financial Identity, in addition to the data already required in the context of the anti-money laundering measures (e.g. data for suitability test for investment services; data for creditworthiness assessment; other data)?

Please explain your reasoning and also provide examples for each case you would find relevant.

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

From our point of view, solid, authentic Digital Financial Identities could, in the field of payment services, likely have very beneficial effects for markets, public institutions (eg: ministry of finance) and supervisors. It would build a concrete base for advanced data usage or portability and could be built in accordance with data privacy and security principles. In Austria, acceptance for a unified, comprehensive wholesale identity solution seems to be very low among banks whereas retail solutions (outside of the

AML/CFT obligations) are well received and show heavy usage by banks and customers (<https://eservice.stuzza.at/en/kundenservice/e-identifikation-e-id-bank-ident.html>). Based on this experience, we strongly agree to an EU initiative for EU-wide digital identities.

Extension of applicability of electronic identities and proof of identity/legitimate forms of ID: an option for identity verification by digital means using digital certificates (qualified certificates) would provide several advantages, e.g. in the areas of identification for AML purposes, declarations of creditworthiness. Doing so could permit a digital identity to not just be used in the form of a digital signature towards authorities, but also in the form of a qualified certificate between private legal and natural persons. (Refer to: FMA, Digitalisation in the Austrian Financial Market, Call for Input: Results, January 2020, p 5)

An ECB proof of concept in December 2019 showed the theoretical possibility to partly anonymized programmable money. Although facilitation and promotion of a Digital Financial Identity framework should be encouraged, such concepts should also take into account combinability with concepts of digital anonymity (for the sake of future discussions about smart contracts and programmable money).

It has to be remembered, though, that digital financial identity databases would be an object of great interest to criminals. By creating high identity security standards this challenge could potentially be solved, making data hacks less attractive in the long run.

Question 19. Would a further increased mandatory use of identifiers such as Legal Entity Identifier (LEI), Unique Transaction Identifier (UTI) and Unique Product Identifier (UPI) facilitate digital and/or automated processes in financial services?

Yes

No

Don't know / no opinion / not relevant

If yes, in which framework(s) is there the biggest potential for efficiency gains?

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

In general, it can be assumed that clear identifications facilitate digital and/or automated processes. For example, the use of LEIs seems generally useful. However, inflationary use of various identifiers should be avoided, as an unnecessary increase in complexity would be counterproductive to achieve higher efficiency.

Make it easier for firms to carry out technology pilots and scale up across the Single Market

Currently, three national competent authorities have established regulatory sandboxes with five more under development. Regulatory sandboxes are most often schemes to enable firms to test, pursuant to a specific testing plan agreed and monitored by a dedicated function of the competent authority, innovative financial products, financial services or business models. Besides, almost all competent authorities have established innovation hubs. Innovation hubs provide a dedicated point of contact for firms to ask questions to competent authorities on FinTech related issues and to seek non-binding guidance on regulatory and supervisory expectations, including licensing requirements. The European Forum of Innovation Facilitators (EFIF) is intended to promote greater coordination and cooperation between innovation facilitators established by financial sector supervisors to support the scaling up of digital finance across the

Single Market, including by promoting knowledge-sharing between innovation hubs and facilitating cross-border testing in regulatory sandboxes.

Question 20. In your opinion (and where applicable, based on your experience), what is the main benefit of a supervisor implementing (a) an innovation hub or (b) a regulatory sandbox as defined above?

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Ad (a): Since 2016, FMA and OeNB are both operating Innovation Hubs. In the FMA it is called FinTech point of contact, which is an Innovation Hub as described above. The establishment of the FinTech contact point enables the FMA to come into contact with technology-driven companies at an early stage and thus to gain a good overview of the market. The issues submitted to the FMA require a more in-depth examination of technical issues and promote technical understanding within the FMA, whereby, of course, complementary steps in training and recruitment of staff are necessary.

The business models submitted to the FMA also make it possible to deal with the legal framework conditions at an early stage and lead to legal interpretations, which in turn can be communicated to the market in an abstract form via events, publications, and on the website of the FMA. All of this creates caution and awareness in the market, since some companies may not have been aware that they potentially fall within the scope of financial market supervision law. In this way, the unauthorized operation of services requiring a license can also be prevented.

In the OeNB, an Expert Hub under the designation “FinTech Core Group” functions as formal node for Innovation, Sup/Regtech and FinTech. Experts from all business lines frequently discuss, support and promote innovative agendas and initiatives in and around the OeNB. Regular contact with market participants and industry helps the expert innovation hub to keep in touch with the Austrian market in general and the financial sector in particular. In the future, it is planned to further expand Innovation Hub activities of OeNB.

Ad (b): There are plans to set up a regulatory sandbox within the FMA. A key principle of the planned sandbox is that there will be no reduction of regulatory or supervisory requirements. The sandbox is intended to promote innovation, but is also useful for the FMA itself, as FMA staff will gain in-depth insights into ongoing technological developments. To this end, an official clarification of new, innovative business models in accordance with EU and national requirements will be tested by the FMA. The tests

are conducted on the basis of certain test parameters, which the FMA designs with the sandbox participant.

A draft sandbox law was publicly consulted in 2019 and recently submitted to parliament for adoption. The law would come into force on 1 September 2020.

Question 21. In your opinion, how could the relevant EU authorities enhance coordination among different schemes in the EU?

Please rate each proposal from 1 to 5:

	1 (irrelevant)	2 (rather not relevant)	3 (neutral)	4 (rather relevant)	5 (fully relevant)	N. A.
Promote convergence among national authorities in setting up innovation hubs and sandboxes, through additional best practices or guidelines	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Facilitate the possibility for firms to test new products and activities for marketing in several Member States ("cross border testing")	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Raise awareness among industry stakeholders	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ensure closer coordination with authorities beyond the financial sector (e.g. data and consumer protection authorities)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Promote the establishment of innovation hubs or sandboxes with a specific focus (e.g. a specific technology like Blockchain or a specific purpose like sustainable finance)	©	©	©	©	©	©
Other	©	©	©	©	©	©

Please specify how else could the relevant EU authorities enhance coordination among different schemes in the EU:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

FMA would welcome the opportunity to exchange concrete legal interpretations at technical level – this would be a very valuable convergence contribution, in particular via a web-based solution. The overarching goal has to be the creation of a common understanding of European legislation in the FinTech context to create a European level playing field for FinTech business models. A cross-sectoral approach could counteract fragmentation and sectoral silo approaches, which is welcomed by FMA.

Question 21.1 If necessary, please explain your reasoning and also provide examples for each case you would find relevant:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Convergence in the setup of Sandboxes and Innovation Hubs should be facilitated by a neutral, central party, for instance the EU Commission, and with a mid-term horizon: while a common scheme in Europe is needed and beneficial to provide a level playing field, COM should not take this step too early, in order to allow for experimentation with different approaches and thereby derive best practices. These best practice activities could then be adopted by other countries (ideally also facilitated by COM).

Cross border testing: Startups, in particular in a digital sector, need sufficiently large markets for their business models to be able to grow. This is a direct consequence of relatively low costs of rolling out digital services – the main cost block here is the development which can be distributed among more customers if targeted markets are big enough. Therefore, EU-FinTechs need to be able to early-on and quickly scale up in size to make them competitive with, for instance, international competition. While the EU is often a difficult, fragmented region for start-ups (different languages, partially different legal requirements such as tax systems, ...), the EU should do all it possibly can to facilitate growth comparable to global examples.

Awareness: Since industry participants are already active in the field of FinTech and actively scanning their environment, specific initiatives to raise awareness are likely not necessary.

Interconnection between different authorities: One of the biggest problems for startups is that they aren't able to gain complete overview over the often very complex legal environment that they are supposed to adhere to. Stronger interconnection between the different authorities should not hamper ideas where authorities provide a one-stop-shop that facilitates market entry for startups. An additional challenge in this respect is, however, the fragmented regulatory landscape that is divided between supranational (e.g., EBA, ESMA, EIOPA) and national authorities.

Technology-specific Innovation Hubs and Sandboxes: In general, Hubs and Sandboxes could provide good means to solve more specific requests of specialized FinTechs, even on EU-level. However, it needs to be carefully weighed whether it makes sense to implement these institutions in technologically themed regional hubs (e.g., for Blockchain your startup should ideally relocate to Finland, for AI to France, ...) or if bespoke hubs or competence centers should mainly support national Innovation Hubs/Sandboxes.

Question 22. In the EU, regulated financial services providers can scale up across the Single Market thanks to adequate licenses and passporting rights. Do you see the need to extend the existing EU licenses passporting rights to further areas (e.g. lending) in order to support the uptake of digital finance in the EU?

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Payment systems: There is no harmonized licensing regime for payment system operators so far in the EU. Only certain member states have licensing regimes in place and the existing national regimes diverge in scope and content. The introduction of a harmonized licensing regime for payment system operators could further improve the level playing field.

Virtual Assets: As Virtual Asset Service Providers (VASP) are newly obliged entities under the 5th AMLD regime, VASP should be part of the common EU passporting regime.

Ensure fair and open access to relevant technical infrastructures for all financial service providers that wish to offer their services across the Single Market

(It should be noted that this topic is also included, from the payment perspective, in the [Retail Payments](#))

[consultation](#))

The emergence of providers of technical services supporting the provision of financial services bring both opportunities and challenges. On the one hand, such providers can facilitate the provision of cross-border services. On the other hand, they may in certain cases limit access to the platform or relevant devices' interface, or provide it under unfair and non-transparent terms and conditions. Certain Member States are starting to take measures in this respect.

Question 23. In your opinion, are EU level initiatives needed to avoid fragmentation in the Single Market caused by diverging national measures on ensuring non-discriminatory access to relevant technical infrastructures supporting financial services?

Please elaborate on the types of financial services and technical infrastructures where this would be relevant and on the type of potential EU initiatives you would consider relevant and helpful:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Currently we are not aware of major problems, which could be traced back to a discriminatory access to relevant technical infrastructure. However, diverging national approaches pose the real risk of market fragmentation in regards to the non-discriminatory access to technical infrastructure. A European solution would be welcomed, as different national regimes will lead to practical barriers for cross-border businesses. Furthermore, European data centres with integrated APIs would facilitate the digitalisation of the Single Market.

Also, a common European standard or at least additional standardization and an interoperability framework for technologies used to initiate payments such as QR codes would be a helpful addition to contactless payment methods. Barriers like exclusive access to NFC functionality for payment services on mobile phones should be generally removed.

Empower and protect EU consumers and investors using digital finance across the Single Market

An increasing number of new digital financial products and services expose consumers and retail investors to both opportunities and risks: more choice, more tailored products, more convenience, but also bad advice, mis-selling, poor information and even discrimination. Accordingly, it is important to carefully consider how to tap the potential of innovative products, services and business models while empowering and protecting end-users, to ensure that they benefit from a broader access to, and range of innovative products and services across the Single Market in a safe and sound manner. This may also require reviewing existing legislation to ensure that the consumer perspective is sufficiently taken into account. In addition, promoting financial education and digital financial skills may be important to ensure that consumers and retail investors are able to make the most of what digital finance has to offer and to select and use various digital tools, whilst at the same time increasing the potential size of the market for firms.

Question 24. In your opinion, what should be done at EU level to achieve improved financial education and literacy in the digital context?

Please rate each proposal from 1 to 5:

	1 (irrelevant)	2 (rather not relevant)	3 (neutral)	4 (rather relevant)	5 (fully relevant)	N. A.
Ensure more affordable access at EU level to financial data for consumers and retail investors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Encourage supervisors to set up hubs focussed on guiding consumers in the digital world	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Organise pan-European campaigns and advisory hubs focusing on digitalisation to raise awareness among consumers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Collect best practices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Promote digital financial services to address financial inclusion	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Introduce rules related to financial education comparable to Article 6 of the Mortgage Credit Directive, with a stronger focus on digitalisation, in other EU financial regulation proposals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Please specify what else should be done at EU level to achieve improved financial education and literacy in the digital context:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Financial education should be integrated into the educational material in schools to prepare young people as early as possible for financial and economic issues of all kinds. Since today kids grow up as digital natives, digital financial literacy is of particular importance for educational purposes.

Question 25: If you consider that initiatives aiming to enhance financial education and literacy are insufficient to protect consumers in the digital context, which additional measures would you recommend?

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Information exchange between Member States, but also with European Institutions is essential. Thus we recommend the creation of a platform for the exchange of information on best practice examples in the field of financial education, in order to implement effective financial education measures. Of course, such a platform should be simple and easy to use to provide low-threshold access. Especially the exchange of information concerning more vulnerable groups or groups that are more difficult to access would be very helpful. The European Commission could take a greater role in establishing and coordinating the platform.

III. Promote a well-regulated data-driven financial sector

Data-driven innovation can enable better and more competitive financial services for consumers and businesses, as well as more integrated capital markets (e.g. as discussed in the on-going work of the High-Level Forum). Whilst finance has always been a data-intensive sector, data-processing capabilities have substantially improved over the recent years, enabling fast parallel computing at low cost. Large amounts of data have also become available as computers and their users are increasingly linked, supported by better storage data capabilities. These developments have enabled the use of artificial intelligence (AI) applications to make predictions about future outcomes at a lower cost. Following on to the European data strategy adopted on 19 February 2020, the Commission services are considering a number of steps in this area (see also the parallel consultation on the Mifid review).

Question 26: In the recent communication "A European strategy for data", the Commission is proposing measures aiming to make more data available for use in the economy and society, while keeping those who generate the data in control.

According to you, and in addition to the issues addressed in questions 27 to 46 below, do you see other measures needed to promote a well-regulated data driven financial sector in the EU and to further develop a common European data space for finance?

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

The idea of a data driven financial sector is interesting and a in a well-regulated manner needs both – legal clarity regarding the applicable financial market supervisory law as well as clear guidance on how financial market participants are supposed to comply with data protection provisions. Adequate supervision and monitoring of activities in this regard could be evaluated. Some questions arise, though. . Should applications, sources and databases be open source? Could centralized data become center of attraction for criminal activities and how should this possible risk be best addressed?

Facilitate the access to publicly available data in finance

Financial institutions are currently required to make public a wealth of financial information. This information e.g. allows investors to make more informed choices. For example, such data include financial reporting and non-financial reporting, prudential disclosures under the Capital Requirements Directive or Solvency II, securities market disclosures, key information documents for retail investment products, etc. However, this data is not always easy to access and process. The Commission services are reflecting on how to further facilitate access to public disclosures of financial and supervisory data currently mandated by law, for example by promoting the use of common technical standards. This could for instance contribute to achieving other policies of public interest, such as enhancing access to finance for European businesses through more integrated capital markets, improving market transparency and supporting sustainable finance in the EU.

Question 27. Considering the potential that the use of publicly available data brings in finance, in which areas would you see the need to facilitate integrated access to these data in the EU?

Please rate each proposal from 1 to 5:

	1 (irrelevant)	2 (rather not relevant)	3 (neutral)	4 (rather relevant)	5 (fully relevant)	N. A.
Financial reporting data from listed companies	Ⓒ	Ⓒ	Ⓒ	<input checked="" type="radio"/>	Ⓒ	Ⓒ
Non-financial reporting data from listed companies	Ⓒ	Ⓒ	Ⓒ	<input checked="" type="radio"/>	Ⓒ	Ⓒ
SME data	Ⓒ	Ⓒ	Ⓒ	<input checked="" type="radio"/>	Ⓒ	Ⓒ

Prudential disclosure stemming from financial services legislation	©	©	©	©	©	©
Securities market disclosure	©	©	©	©	©	©
Disclosure regarding retail investment products	©	©	©	©	©	©
Other	©	©	©	©	©	©

Please specify in which other area(s) you would see the need to facilitate integrated access to these data in the EU:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

A cyber incident-reporting database with integrated access to the data in order to strengthen the cyber resilience could be evaluated. Such a database might enable insurance undertakings to evaluate the risks for cyber insurances. In the context of sustainable finance, it is important to mention that the introduced disclosure obligations might lead to an increased demand of sustainability data of financial market participants. Easily accessible public databases regarding ESG factors would reduce the costs to integrate sustainability risks into the financial market participant's risk management and reduces the reliance on external ESG data providers.

As part of the [European Financial Transparency Gateway \(EFTG\) project](#), the Commission has been assessing since 2017 the prospects of using Distributed Ledger Technology to federate and provide a single point of access to information relevant to investors in European listed companies.

Question 28. In your opinion, what would be needed to make these data easily usable across the EU?

Please rate each proposal from 1 to 5:

	1 (irrelevant)	2 (rather not relevant)	3 (neutral)	4 (rather relevant)	5 (fully relevant)	N. A.
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Standardised (e.g. XML) and machine-readable format	©	©	©	©	©	©
Further development of the European Financial Transparency Gateway, federating existing public databases with a Single EU access point	©	©	©	©	©	©
Application Programming Interfaces to access databases	©	©	©	©	©	©
Public EU databases	©	©	©	©	©	©
Other	©	©	©	©	©	©

Please specify what else would be needed to make these data easily usable across the EU:

5000 character(s) maximum
including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

A common European database with easy access and API integration is certainly needed to facilitate a data-driven digitalized single market.

Consent-based access to personal data and data sharing in the financial sector

The Commission is reflecting how to further enable consumers, investors and businesses to maximise the benefits their data can bring in the financial sector, in full respect of our European standards and values, in particular the European data protection rules, fundamental rights and security.

The revised Payment Services Directive marked an important step towards the sharing and use of customer- permissioned data by banks and third party providers to create new services. However, this new framework is limited to payment data held by payment services providers, and does not cover other types of data relevant to financial services and held by other firms within and outside the financial sector. The Commission is reflecting upon additional steps in the area of financial services inspired by the principle of open finance. Any new initiative in this area would be based on the principle that data subjects must have full control over their data.

Better availability and use of data, leveraging for instance on new technologies such as AI, could contribute to supporting innovative services that could benefit European consumers and firms. At the same time, the use of cuttingedge technologies may give rise to new risks that would need to be kept in check, as equally referred to in section I.

Question 29. In your opinion, under what conditions would consumers favour sharing their data relevant to financial services with other financial services providers in order to get better offers for financial products and services?

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Retail clients might be enticed to share data for:

- Price reductions / cashbacks etc. (problematic since financial data itself is a valuable good that clients may not be able to properly understand or price)
- Targeted product offerings
- Improved product functionalities

Question 30. In your opinion, what could be the main benefits of implementing an open finance policy in the EU?

Please rate each proposal from 1 to 5:

	1 (irrelevant)	2 (rather not relevant)	3 (neutral)	4 (rather relevant)	5 (fully relevant)	N. A.
More innovative and convenient services for consumers/investors, e.g. aggregators, comparison, switching tools	Ⓒ	Ⓒ	Ⓒ	<input checked="" type="radio"/>	Ⓒ	Ⓒ
Cheaper traditional services for consumers/investors	Ⓒ	Ⓒ	Ⓒ	<input checked="" type="radio"/>	Ⓒ	Ⓒ
Efficiencies for the industry by making processes more automated (e.g. suitability test for investment services)	Ⓒ	Ⓒ	Ⓒ	<input checked="" type="radio"/>	Ⓒ	Ⓒ
Business opportunities for new entrants in the financial industry	Ⓒ	Ⓒ	Ⓒ	<input checked="" type="radio"/>	Ⓒ	Ⓒ

New opportunities for incumbent financial services	©	©	©	☑	©	©
firms, including through partnerships with innovative start-ups	©	©	©	☑	©	©
Easier access to bigger sets of data, hence facilitating development of data dependent services	©	©	©	☑	©	©
Enhanced access to European capital markets for retail investors	©	©	☑	©	©	©
Enhanced access to credit for small businesses	©	©	☑	©	©	©
Other	©	©	©	©	©	☑

If you see other benefits of implementing an open finance policy in the EU, please specify and explain:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Question 31. In your opinion, what could be the main risks of implementing an open finance policy in the EU?

Please rate each proposal from 1 to 5:

	1 (irrelevant)	2 (rather not relevant)	3 (neutral)	4 (rather relevant)	5 (fully relevant)	N. A.

Privacy issues / security of personal data	©	©	©	©	©	©
Financial exclusion	©	©	©	©	©	©
Poor consumer outcomes (e.g. unfair pricing strategies)	©	©	©	©	©	©
Misuse of consumers' financial data	©	©	©	©	©	©
Business confidentiality issues	©	©	©	©	©	©
Increased cyber risks	©	©	©	©	©	©
Lack of level playing field in terms of access to data across financial sector activities	©	©	©	©	©	©
Other	©	©	©	©	©	©

If you see other risks of implementing an open finance policy in the EU, please specify and explain:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Question 32. In your opinion, what safeguards would be necessary to mitigate these risks?

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

European legislation needs to ensure that both targets – facilitating a data-driven digitalised single market as well as protecting consumers / investors – are met. Especially if personal data according to the GDPR is processed, a high standard of consumer / investor protection needs to be applied. For instance in the context of insurance undertakings health insurance might become prohibitively expensive for certain groups of policy holders if granular health data needs to be provided (e.g. by using wearables) to gain access to moderately priced insurance products. On the other hand tailored insurance products have the potential to reflect the individual risks and thus are better suited to satisfy the specific needs of the policy holder. This example showcases that access to more data can result in better services and products but

poses the risk to facilitate financial exclusion if not regulated properly.

Recent data breaches have shown that data security is difficult to establish and maintain, even for big, resourceful companies. On a technical level, therefore, decentralization of data, compartmentalization of information and the creation of confidentiality areas ("Chinese Walls") may, for instance, be necessary to mitigate risks and reduce damage.

Question 33. In your opinion, for which specific financial products would an open finance policy offer more benefits and opportunities?

Please rate each proposal from 1 to 5:

	1 (irrelevant)	2 (rather not relevant)	3 (neutral)	4 (rather relevant)	5 (fully relevant)	N. A.
Savings accounts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Consumer credit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
SME credit	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mortgages	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Retail investment products (e. g. securities accounts)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Non-life insurance products (e.g. motor, home...)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Life insurance products	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pension products	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

If you see other financial products that would benefit of an open finance policy, please specify and explain:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

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Question 33.1 Please explain your answer to question 33 and give examples for each category:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

The success of an open finance policy will generally depend on how risks are addressed and how the access to data is handled. It has to be ensured that an improved data access does not lead to discriminatory practices.
--

Question 34. What specific data (personal and non-personal) would you find most relevant when developing open finance services based on customer consent?

To what extent would you also consider relevant data generated by other services or products (energy, retail, transport, social media, e-commerce, etc.) to the extent they are relevant to financial services and customers consent to their use?

Please explain your reasoning and provide the example per sector:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

From a supervisory standpoint, especially ESG data needs to be provided to enable financial market participants to fulfill their regulatory requirements according to the disclosure regulation.
--

Question 35. Which elements should be considered to implement an open finance policy?

Please rate each proposal from 1 to 5:

	1 (irrelevant)	2 (rather not relevant)	3 (neutral)	4 (rather relevant)	5 (fully relevant)	N. A.

Standardisation of data, data formats	©	©	©	©	☑	©
Clarity on the entities covered, including potential thresholds	©	©	©	©	☑	©
Clarity on the way data can be technically accessed including whether data is shared in realtime (e.g. standardised APIs)	©	©	©	☑	©	©
Clarity on how to ensure full compliance with GDPR and e-Privacy Directive requirements and need to ensure that data subjects remain in full control of their personal data	©	©	©	©	☑	©
Clarity on the terms and conditions under which data can be shared between financial services providers (e. g. fees)	©	©	©	©	☑	©
Interoperability across sectors	©	©	©	©	☑	©
Clarity on the way data shared will be used	©	©	©	©	☑	©
Introduction of mandatory data sharing beyond PSD2 in the framework of EU regulatory regime	©	©	☑	©	©	©
If mandatory data sharing is considered, making data available free of cost for the recipient	©	©	☑	©	©	©
Other	©	©	©	©	©	☑

Please specify what other element(s) should be considered to implement an open finance policy:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Support the uptake of Artificial intelligence in finance

Artificial intelligence (AI) can bring considerable benefits for EU citizens and businesses alike and the Commission is committed to support its uptake with appropriate frameworks and investment. The White Paper on Artificial intelligence details the Commission's vision on a European approach for AI in Europe.

In the financial sector, AI and machine learning solutions are increasingly applied throughout the entire value chain. This may benefit both firms and consumers. As regards firms, AI applications that enable better predictions can result in immediate cost savings due to improved risk analysis or better client segmentation and product price differentiation. Provided it can be achieved, this could in the medium term lead to better risk management and improved profitability. As an immediate effect, AI allows firms to save on costs, but as prediction technology becomes more accurate and reliable over time, it may also lead to more productive business models and entirely new ways to compete.

On the consumer side, the use of AI applications can result in an improved price-quality relationship of financial services, better personalisation and in some cases even in financial inclusion of previously excluded consumers. At the same time, AI may entail new risks such as opaque decision-making, biases, discrimination or loss of privacy.

The Commission is seeking stakeholders' views regarding the use of AI and machine learning solutions in finance, including the assessment of the overall opportunities and risks it could bring as well as the specificities of each sector, e.g. banking, insurance or investment services.

Question 36: Do you/does your firm already deploy AI based services in a production environment in the EU?

Yes

No

Don't know / no opinion / not relevant

Question 36.1 If you/your firm do/does already deploy AI based services in a production environment in the EU, please specify for which applications?:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Question 37: Do you encounter any policy or regulatory issues with your use of AI?

Have you refrained from putting AI based services in production as a result of regulatory requirements or due to legal uncertainty?

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

While policy and regulatory issues were not the main reason why OeNB did not put AI based services into action yet, there are several dimensions around AI that require an intelligent and carefully balanced approach. Among the most important dimensions to be taken into account are ethics and customer protection: As AI becomes more and more powerful, how can it be ensured that customers are not tricked/manipulated into decisions without their consent. Related but one step earlier, this requires also a distinction between (allowed) persuasion and (forbidden) manipulation. How exactly can good as well as bad practice be defined? Where is the line between (legal) cross-selling of for instance financial instruments to satisfy customer needs and tricking customers into the purchase of goods that they don't need?

Question 38. In your opinion, what are the most promising areas for AI-applications in the financial sector in the medium term and what are the main benefits that these AI-applications can bring in the financial sector to consumers and firms?

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

AI is promising in areas where value is created by analyzing huge amounts of data and which transcend human processing capabilities or could only be realized with huge costs. Business areas for which this technology can be equally interesting would most probably be trading, post trading, risk management and generally all areas of financial data analysis.

The use of AI can also bring benefits in finding solutions to quantitative questions in, for instance, statistics or science. However, final expert judgment is necessary to verify results before using them in practice.

Such quantitative applications can also be used for customer profiling. AI might serve to better understand specific needs and behavior of financial customers in different life phases and circumstances. Thus, it can help provide tailored solutions for investment portfolio selections (risk/return tradeoffs) and insurance products. Similarly, if AI can detect unserved needs of customers, it might enable cross-selling as a win-win-interaction between firms and customers. For risk attached business activities, AI can help to design a more tailored hedging portfolio for financial risks.

Another very important area of application is the detection of conspicuous patterns (i.e. suspicious payment transactions). AI solutions can help to highlight potential criminal activities in the areas of money laundering, terrorism financing and tax evasion. The same mechanisms can also be used to analyze anonymized ledger technology environments, whether for the same reasons above or to help identify specific structures in or motivations of crypto community activities.

Areas for application of A.I would be:

Asset-Management, RegTech, SupTech, AML, Robo-Advice, fraud detection, process optimization, chatbots, financial market forecast, risk management, marketing & sales

/ cross selling.

Functions for A.I. applications would be:

Improved individually-tailored products, enablement of new products (such as behavior-based insurance), offering more focused information to the customers, prediction of probabilities of sales (also refer to FMA, Digitalisation in the Austrian Financial Market, Status Quo, Outlook and Call for Input, June 2019, p 57 et seq)

Question 39. In your opinion, what are the main challenges or risks that the increased use of AI- based models is likely to raise for the financial industry, for customers/investors, for businesses and for the supervisory authorities?

Please rate each proposal from 1 to 5:

1. Financial industry

	1 (irrelevant)	2 (rather not relevant)	3 (neutral)	4 (rather relevant)	5 (fully relevant)	N. A.
1.1. Lack of legal clarity on certain horizontal EU rules	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
1.2. Lack of legal clarity on certain sector-specific EU rules	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.3. Lack of skills to develop such models	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.4. Lack of understanding from and oversight by the supervisory authorities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
1.5. Concentration risks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
1.6. Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Please specify what other main challenge(s) or risk(s) the increased use of AI- based models is likely to raise for the financial industry:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Lack of skills: Hiring sufficiently skilled staff (data scientists, programmers) is of importance in order to keep up with the pace of AI innovations.

Concentration risks: Obviously, the use of the same methodologies, algorithms, programming languages (incl. libraries or programming languages like e.g. Python) provides concentration risks in terms of vulnerabilities, procyclical behavior/unwanted feedback loops between similar algorithms and the like.

2. Consumers/investors

	1 (irrelevant)	2 (rather not relevant)	3 (neutral)	4 (rather relevant)	5 (fully relevant)	N. A.
2.1. Lack of awareness on the use of an algorithm	Ⓒ	Ⓒ	Ⓒ	Ⓒ	Ⓒ	Ⓒ
2.2. Lack of transparency on how the outcome has been produced	Ⓒ	Ⓒ	Ⓒ	Ⓒ	Ⓒ	Ⓒ
2.3. Lack of understanding on how the outcome has been produced	Ⓒ	Ⓒ	Ⓒ	Ⓒ	Ⓒ	Ⓒ
2.4. Difficult to challenge a specific outcome	Ⓒ	Ⓒ	Ⓒ	Ⓒ	Ⓒ	Ⓒ
2.5. Biases and/or exploitative profiling	Ⓒ	Ⓒ	Ⓒ	Ⓒ	Ⓒ	Ⓒ
2.6. Financial exclusion	Ⓒ	Ⓒ	Ⓒ	Ⓒ	Ⓒ	Ⓒ
2.7. Algorithm-based behavioural manipulation (e.g. collusion and other coordinated firm behaviour)	Ⓒ	Ⓒ	Ⓒ	Ⓒ	Ⓒ	Ⓒ
2.8. Loss of privacy	Ⓒ	Ⓒ	Ⓒ	Ⓒ	Ⓒ	Ⓒ

2.9. Other	©	©	©	©	©	©
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Please specify what other main challenge(s) or risk(s) the increased use of AI- based models is likely to raise for customers/investors:

5000 character(s) maximum
including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

On A.I. in general:
Even now, consumers often do not fully understand, how and by whom decisions are made in regards to financial services provided to them. Many of these decisions (e.g. credit-scoring) are already heavily automated and/or prescribed by strict rules. Information on the criteria leading to a decision are valuable information for clients to understand. This is e.g. important for clients when being denied an application for credit to be able to tackle the underlying issues.

As soon as multiple AIs operate in a market and base their decisions on market data it is possible that these AIs could collude with each other without explicit knowledge of the operating firms. Such behavior could not only create systemic risks to financial stability, but could also impact retail clients – e.g. when AIs are responsible for pricing specific products, they could manipulate prices to the detriment of clients thus creating a de facto cartel on highly integrated markets.

It is common knowledge that biases can be imported via the data used to train an AI but also via the data model the AI is based on. Both issues have to be documented and solved. Exploitative behavior could become an issue based on how the AI is calibrated.

Regarding data it has to be mentioned that clients already have to give up a significant amount of personal information to access financial services. It is currently not foreseeable which additional information AI may require to function properly. The use of information gathered via other channels / platforms is a separate issue (e.g. for cross-selling) and has to be addressed appropriately.

Items 2.1-2.4:
The use of algorithms in financial services (potentially in the background and without the knowledge of customers) might put consumers in a difficult situation where the use of algorithms might result in unfavorable or problematic outcomes for them. Although, AI does not in itself pose an entirely new challenge, its omnipresent use and imposed objectivity might make the decisions of (hidden) algorithm more prevalent and may thus pose an inherent risk for customers.

Item 2.5 Bias:
Like most algorithms, (supervised) AI algorithms are calibrated on a training set where the outcomes of the AI algorithm are compared to “true” results. If these “true” results have a bias in them, this is engrained deeply into the AI algorithm. Wrongly calibrated AI algorithms might put whole population groups at a disadvantage in their access to financial products and services. It should be carefully weighed by the Commission,

how other factors beyond statistics and business reasoning weigh into this discussion and how they should be taken into account (together with the results of AI algorithms) in order to define a sensible course of action.

3. Supervisory authorities

	1 (irrelevant)	2 (rather not relevant)	3 (neutral)	4 (rather relevant)	5 (fully relevant)	N. A.
3.1. Lack of expertise in understanding more complex AI-based models used by the supervised entities	Ⓒ	Ⓒ	Ⓒ	Ⓒ	Ⓒ	Ⓒ
3.2. Lack of clarity in explainability requirements, which may lead to reject these models	Ⓒ	Ⓒ	Ⓒ	Ⓒ	Ⓒ	Ⓒ
3.3. Lack of adequate coordination with other authorities (e.g. data protection)	Ⓒ	Ⓒ	Ⓒ	Ⓒ	Ⓒ	Ⓒ
3.4. Biases	Ⓒ	Ⓒ	Ⓒ	Ⓒ	Ⓒ	Ⓒ
3.5. Other	Ⓒ	Ⓒ	Ⓒ	Ⓒ	Ⓒ	Ⓒ

Please specify what other main challenge(s) or risk(s) the increased use of AI- based models is likely to raise for the supervisory authorities:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Supervisory skill-set:

Sufficient trainings and improvement of knowledge of employees as well as adequate resources are key to enable supervisory authorities to properly supervise AI-based business models. Crucial are skills in data science etc. However, it can be challenging for supervisory authorities to attract and retain such domain experts in practice. Many supervisors traditionally come from legal or business backgrounds rather than IT.

Explainability requirements:

If explainability requirements are not clear enough, then they should be overhauled (mostly by supervisors).

Coordination with other authorities:
This does not pose a fundamental challenge.

Biases:
The detection of biases requires much scrutiny and testing of the outcomes of models. For supervisors, this could represent a major challenge regarding the significant amount of time such examinations would take and the sheer quantity of possible bias manifestations a model might have.

Question 40. In your opinion, what are the best ways to address these new issues?

Please rate each proposal from 1 to 5

	1 (irrelevant)	2 (rather not relevant)	3 (neutral)	4 (rather relevant)	5 (fully relevant)	N. A.
New EU rules on AI at horizontal level	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
New EU rules on AI for the financial sector	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Guidance at EU level for the financial sector	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Experimentation on specific AI applications under the control of competent authorities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Certification of AI systems	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Auditing of AI systems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

Registration with and access to AI systems for relevant supervisory authorities	©	©	©	©	©	©
Other	©	©	©	©	©	©

Please specify what other way(s) could be best to address these new issues:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

In general, regulatory clarity and scrutiny of AI models helps to keep the according risks under control. However, on the other hand, this must not lead to unnecessary delays in the development and application of AI models, otherwise this would counteract the EU strategy to become the leading digital zone in the world. Therefore, as a first step guidance would make very much sense, as long as they qualitatively cover most important aspects and do not become a simplified box-ticking exercise. Similarly, also auditing and certification need to strike the right balance between security for market participants (in particular customers) and not hampering innovation in the sector.

Certain rules (e.g. about supervisory powers, rules for reproducible and transparent decision-making logics) which are specific to financial markets law, could be addressed on an EU-level. In order to create a well-functioning regulatory framework interconnection with other sectors could be considered.

Before a comprehensive framework is considered, emerging business models and supervisors would need guidance in the interim to facilitate the growth of such technologies while ensuring the safety and stability of the single market. European guidance is a valuable transitory tool and if a comprehensive framework is considered necessary guidance would be able to ensure a common understanding on how it should be interpreted.

NCA's have greatly varying levels of know-how, resources and differing remits. AI experimentation and testing initiatives should be realized on an EU – ESA level to ensure a level playing field. That being said, NCA's should be supported to utilize AI solutions to improve supervision (RegTech).

Certification of an AI system creates an incentive for compliance with regulation and improves clients trust in the market (if implemented properly). E.g., as stated in the COM White Paper on artificial intelligence – A European approach to excellence and trust (Feb 2020), Malta has introduced a voluntary certification system for AI. However, an EU-wide approach should be set up.

It is inconceivable that AI systems take over certain functions in supervised entities from humans that until that point have been subject to audit without being subjecting the AI systems to audit themselves. This would also go against the principle of technology neutrality.

There are already cases where decision makers are registered/notified to NCAs, e.g. key function holders/management board in the Fit&Proper context. Where AI takes over responsibilities from such functions NCAs need to know about the process and have access to the AI to properly supervise the relevant rules of EU financial market law. Registration and access should however only be necessary where such functions or similar regulatory issues (e.g. trading systems – market stability) are concerned. In the spirit of technology neutrality, registration and access should not be based on the technology applied but on the goal and necessities of regulation and supervision.

Harness the benefits data-driven innovation can bring in compliance and supervision

RegTech tools that are emerging across Europe can bring significant efficiencies for the financial industry. Besides, national and European supervisory authorities also acknowledge the benefits new technologies can bring in the data-intensive supervision area. Following on the findings of the Fitness Check of EU supervisory reporting, the Commission is already acting to develop a supervisory reporting that is fit for the future. Leveraging on machine learning technology, the Commission is mapping the concepts definitions and reporting obligations across the EU financial services legislation to identify the areas where further standardisation is needed. Standardised concept definitions and reporting obligations are a prerequisite for the use of more automated processes. Moreover, the Commission is assessing through a Proof of Concept the benefits and challenges recent innovation could bring in the reporting area such as machine-readable and machine executable legislation. Looking at these market trends and building on that work, the Commission is reflecting upon the need for additional initiatives at EU level to facilitate the uptake of RegTech and/or SupTech solutions.

Question 41. In your opinion, what are the main barriers for new RegTech solutions to scale up in the Single Market?

Please rate each proposal from 1 to 5:

Providers of RegTech solutions:

	1 (irrelevant)	2 (rather not relevant)	3 (neutral)	4 (rather relevant)	5 (fully relevant)	N. A.
Lack of harmonisation of EU rules	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of clarity regarding the interpretation of regulatory requirements (e.g. reporting)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Lack of standards	©	©	©	©	©	©
Lack of real time access to data from regulated institutions	©	©	©	©	©	©
Lack of interactions between RegTech firms, regulated financial institutions and authorities	©	©	©	©	©	©
Lack of supervisory one stop shop for RegTech within the EU	©	©	©	©	©	©
Frequent changes in the applicable rules	©	©	©	©	©	©
Other	©	©	©	©	©	©

Please specify what are the other main barrier(s) for new providers of RegTech solutions to scale up in the Single Market:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Reporting from a market participants' viewpoint:

Fragmentation and lack of harmonization in respect to Regtech reporting standards within the Single Market makes it very complicated and expensive for new market participants to roll out their business across borders.

Reporting from an OeNB's viewpoint (as gatekeeper of Austrian banking reporting):

The OeNB cooperates closely with the ECB and other ESCB central banks in order to harmonize the collection, storage and documentation of data needed to provide statistics at the European level in line with an integrated approach. The long-term goal is to organize all ECB and EBA data requirements vis-à-vis banks in the EU in a European Reporting Framework (ERF), with a view on ensuring data integration and consistency across countries and across sectors. The uniform ERF framework is meant to replace the national reporting requirements. Together with representatives from the financial industry, work is ongoing on developing uniform definitions, modeled on the integrated data model used in Austria, for the data to be reported by reporting agents (Banks' Integrated Reporting Dictionary – BIRD) as well as for all reports to be produced on the basis of such data (Single Data Dictionary – SDD).

Financial service providers:

	1 (irrelevant)	2 (rather not relevant)	3 (neutral)	4 (rather relevant)	5 (fully relevant)	N. A.
Lack of harmonisation of EU rules	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of trust in newly developed solutions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of harmonised approach to RegTech within the EU	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Please specify what are the other main barrier(s) for new Financial service providers solutions to scale up in the Single Market:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Fragmentation (lack of harmonization) within the Single Market makes it very complicated and expensive for new market participants to roll out their business, especially across borders. Moreover, because of a strong interdependence with third party providers in the area of Regtech, the costs to acquire and implement innovative technology and Regtech solutions can be very high. In combination with inherent risks of using new, probably not sufficiently tested technologies (eg: bugs and faulty software), this may also affect the appetite of financial institutions negatively towards innovation.

Question 42. In your opinion, are initiatives needed at EU level to support the deployment of these solutions, ensure convergence among different authorities and enable RegTech to scale up in the Single Market?

Yes

No

Don't know / no opinion / not relevant

Question 42.1 Please explain your answer to question 42 and, if necessary, please explain your reasoning and provide examples:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

To facilitate the deployment of RegTech within the EU a harmonised approach to RegTech has to be applied. RegTech will be needed to keep pace with the rapid digitalisation of the financial industry. It has to be expected that efficient supervision will depend on automated processes and AI solutions to be able to assess the ever-increasing amount of supervisory data properly in the future (e.g. in the context of investigative procedures). The EU could proceed especially with focus on the harmonization of rules in the areas of AML/CTF, Digital ID and KYC amongst others.

Question 43. In your opinion, which parts of financial services legislation would benefit the most from being translated into machine-executable form?

Please specify what are the potential benefits and risks associated with machine-executable financial services legislation:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Improved machine-readability of data generally strengthens the European Single Market and can create a competitive advantage compared to other regions of the world. Due to the inherent advantages of machine readability any steps, which improve the access to machine executable legislation are seen as positive.

For instance, regulatory reporting requirements in the financial sector would be an excellent example for the usefulness of machine-executable forms. Interpretation of comprehensive and complex reporting legislation leaves room for misinterpretation and high investment costs in software, especially for smaller organisations or FinTechs. Precise and clear machine-interpretable information, on the other hand, reduces compliance and reporting costs of market participants and authorities by providing homogeneous, consistent data without negative scaling effects.

Question 44. The Commission is working on standardising concept definitions and reporting obligations across the whole EU financial services legislation.

Do you see additional initiatives that it should take to support a move towards a fully digitalised supervisory approach in the area of financial services?

Please explain your reasoning and provide examples if needed:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

As FMA has pointed out in the past repeatedly, it is important to overcome silo approaches, especially in reporting. For financial market participants it is key that the “file only once” – principle is fully adopted across sectors. Furthermore, the emergence

of technology driven business models lead to similar supervisory questions in all financial market sectors. Applying an integrated supervisory approach, ensuring a level playing field among financial market participants across all sectors, is how European financial market policy should react to these technological advancements. However, where appropriate sectorial differences have to be taken into account. Digitalisation driven by emerging technologies leads to supervisory challenges, which are best addressed on a horizontal level by applying an integrated supervisory approach, which in turn actively counteracts regulatory fragmentation.

Question 45. What are the potential benefits and drawbacks of a stronger use of supervisory data combined with other publicly available data (e.g. social media data) for effective supervision?

Please explain your reasoning and provide examples if needed:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

It should be noted that the use of supervisory data for other purposes than supervision is expressly forbidden by law.

Austrian supervision is registering an increase of fraudulent activities linked to marketing activities through social media channels. An increased integration of publicly available data for supervisory purposes enables supervising authorities to expose fraudulent activities faster and therefore increase customer / investor protection as well as creating a level-playing-field with established market participants which comply with financial sector legislation.

IV. Broader issues

Question 46. How could the financial sector in the EU contribute to funding the digital transition in the EU? Are there any specific barriers preventing the sector from providing such funding?

Are there specific measures that should then be taken at EU level in this respect?

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Legal certainty for innovative business models is seen as the foundation which facilitates the scaling up of FinTech businesses. It is expected that taking account of emerging technologies through a fully-fledged European financial markets regulatory framework and thus creating legal certainty will lead to a higher probability of

successful funding by established investors. Furthermore, Regulatory Sandboxes can play an active role in order to accelerate market readiness and attractiveness of funding.

Also, the COVID-19 crisis will make it very difficult for banks to fund EU initiatives in the next years, as their profitability will be severely burdened and midterm focus may be given to other more pressing needs in the next two to three years.

Question 47. Are there specific measures needed at EU level to ensure that the digital transformation of the European financial sector is environmentally sustainable?

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Currently one of the main challenges regarding sustainability (E, S and G factors) is the lack of publicly accessible sustainability data. The current reliance on third-party ESG data providers and the lack of public machine-readable European data bases, which offer application programming interfaces (APIs), seems to be a major and currently underdeveloped opportunity for the European Union.

Digital finance and especially FinTech is able to facilitate sustainability and has the potential to be an important building block to reach the ambitious European sustainability goals. With the help of FinTech, complex data volumes from various sources can be linked together and the automation of the financial system can be cost-effectively driven forward. Especially in the area of monitoring and reporting, FinTech could help to reduce the transaction costs of green investments by using blockchain and thereby monitor the compliance with sustainability criteria such as the EU Taxonomy Regulation more efficiently. Therefore, any European initiatives, which facilitate improved data availability and quality in the context of ESG have to be supported.

Additional information

Should you wish to provide additional information (e.g. a position paper, report) or raise specific points not covered by the questionnaire, you can upload your additional document(s) here:

The maximum file size is 1 MB.

You can upload several files.

Only files of the type pdf,txt,doc,docx,odt,rtf are allowed