



BANKING AND FINANCE

Public consultation on FinTech: a more competitive and innovative European financial sector

Fields marked with * are mandatory.

Introduction

Thank you for taking the time to respond to this consultation on technology-enabled innovation in financial services (FinTech). Our goal is to create an enabling environment where innovative financial service solutions take off at a brisk pace all over the EU, while ensuring financial stability, financial integrity and safety for consumers, firms and investors alike.

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-fintech@ec.europa.eu.

More information:

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

1. Information about you

*Are you replying as:

- a private individual
- an organisation or a company
- a public authority or an international organisation

*Name of the public authority:

Finnish Financial Supervisory Authority (Fin-FSA)

Contact email address:

The information you provide here is for administrative purposes only and will not be published

*Type of public authority

- International or European organisation
- Regional or local authority
- Government or Ministry
- Regulatory authority, Supervisory authority or Central bank
- Other public authority

*Where are you based and/or where do you carry out your activity?

Finland

*Field of activity or sector (*if applicable*):

at least 1 choice(s)

- Accounting
- Asset management
- Auditing
- Banking
- Brokerage
- Credit rating agency
- Crowdfunding
- Financial market infrastructure (e.g. CCP, CSD, stock exchange)
- Insurance
- Investment advice
- Payment service
- Pension provision
- Regulator
- Social entrepreneurship
- Social media
- Supervisor
- Technology provider
- Trading platform
- Other
- Not applicable



Important notice on the publication of responses

*Contributions received are intended for publication on the Commission's website. Do you agree to your contribution being published?

([see specific privacy statement](#) )

- Yes, I agree to my response being published under the name I indicate (*name of your organisation /company/public authority or your name if your reply as an individual*)
- No, I do not want my response to be published

2. Your opinion

1. Fostering access to financial services for consumers and businesses

FinTech can be an important driver to expand access to financial services for consumers, investors and companies, bringing greater choice and more user-friendly services, often at lower prices. Current limitations in traditional financial service markets (e.g. opacity, lack of use of big data, insufficient competition), such as financial advice, consumer credit or insurance, may foreclose access to some categories of individuals and firms. New financial technologies can thus help individuals as well as small and medium-sized enterprises (SMEs), including start-up and scale-up companies, to access alternative funding sources for supporting their cash flow and risk capital needs.

At the same time, potential redundancy of specific back-office functions or even of entire market players due to automation via FinTech solutions might have adverse implications in terms of employment in the financial industry, even though new jobs would also be created as part of the FinTech solutions. The latter, however, might require a different skill mix.

Question 1.1: What type of FinTech applications do you use, how often and why? In which area of financial services would you like to see more FinTech solutions and why?

Artificial intelligence and big data analytics for automated financial advice and execution

Please [refer to the corresponding section of the consultation document](#)  to read some contextual information before answering the questions.

Question 1.2: Is there evidence that automated financial advice reaches more consumers, firms, investors in the different areas of financial services (investment services, insurance, etc.)?

- Yes
- No
- Don't know / no opinion / not relevant

If there is evidence that automated financial advice reaches more consumers, firms, investors in the different areas of financial services, at what pace does this happen? And are these services better adapted to user needs? Please explain.

It is presumable that the automated financial advice reaches more users, but it is challenging to estimate at what pace. At the moment there is one service provider licensed by FIN-FSA that is offering solely automated financial advice. The use of automated advice is likely to be utilized also when providing insurance products e.g. for the tailoring of products.

Question 1.3: Is enhanced oversight of the use of artificial intelligence (and its underpinning algorithmic infrastructure) required? For instance, should a system of initial and ongoing review of the technological architecture, including transparency and reliability of the algorithms, be put in place?

- Yes
- No
- Don't know / no opinion / not relevant

Please elaborate on your answer to whether enhanced oversight of the use of artificial intelligence is required, and explain what could more effective alternatives to such a system be.

ESAs have already done a lot of work in the area. The joint committee of ESA's report (from December 2016) concluded that the evolution of automated advice should be monitored further, also in view of its regulatory treatment. The report has concluded that additional cross-sectoral requirements are not necessary at this stage, but the ESAs should continue to monitor the evolution of this innovation separately, in each of their respective sectors (banking, investment and insurance).

The Fin-FSA recognizes the importance of especially initial, but also ongoing review of the technological architecture used in automated advice. On the other hand, it is challenging to estimate, when such a framework should be put into place. Therefore the Fin-FSA suggest that the Commission observes the ongoing work of ESAs in this area, before making any decisions on the initial and ongoing review and on the schedule of putting possible requirements in place.

If a review system is put in place at some stage, it could be based on the assessment done by independent conformity assessment bodies (either accredited or non-accredited) whose competence is evaluated based on pre-defined common criteria.

Question 1.4: What minimum characteristics and amount of information about the service user and the product portfolio (if any) should be included in algorithms used by the service providers (e.g. as regards risk profile)?

The Fin-FSA sees that the MiFID II regulation gives many answers to this question. The characteristics and amount of information should be technology neutral i.e. the information should be the same whether it is being processed by algorithms or real people. ESMA is currently considering how to provide some further guidance on this topic in the context of the review of the ESMA Suitability Guidelines.

Question 1.5: What consumer protection challenges/risks have you identified with regard to artificial intelligence and big data analytics (e.g. robo-advice)? What measures, do you think, should be taken to address these risks/challenges?

The ESAs are carrying out a lot of work in the area of consumer protection with regard to artificial intelligence and big data. ESMA is considering concern the way in which clients are informed of the provision of advice through automated tools and the organizational arrangements adopted by firms to take into account the specific features of automated advice, such as the reliance on algorithms and the limited human interaction, if any, with clients.

EBA has also undertaken an extensive analysis of the use of innovative uses of data by financial institutions, highlighting the potential benefits and risks of the innovative uses of consumer data. The EBA aims to publish later this year its final report on this topic. The EBA's preliminary assessment indicates that further policy actions should focus on raising consumer awareness, supervisory convergence and encouraging further dialogue and cooperation between NCAs across policy boundaries, in order to ensure consistency in the application of the legal framework and provide more legal certainty to market participants.

EIOPA will also continue to monitor the market. This year's EIOPA Consumer Trends report will specifically assess the use of automated advice tools in the pensions sector.

The Fin-FSA has not yet encountered any consumer protection challenges in its supervision, but on the other hand there is currently only one service provider authorized to offer solely robo-advice in Finland. Potential questions or challenges could related to the questions about

- parametrization i.e. how different parameters have been drafted
- the questions asked by the robo-advisor and how to ensure that the robot is asking the right and sufficient information
- how to observe and react to changes in the answers provided by the consumer
- documentation of the process.

Social media and automated matching platforms: funding from the crowd

Please [refer to the corresponding section of the consultation document](#)  to read some contextual information before answering the questions.

Question 1.6: Are national regulatory regimes for crowdfunding in Europe impacting on the development of crowdfunding?

- Yes
- No
- Don't know / no opinion / not relevant

Please elaborate on your reply to whether there are national regulatory regimes for crowdfunding in Europe impacting on the development of crowdfunding. Explain in what way, and what are the critical components of those regimes.

Lending based crowdfunding is regulated in national regimes in many member states. On the other hand, investment based crowdfunding will be based on the requirements defined in MiFID II, even though some member states might also have national legislation on the subject. Due to the fact that there are several national regimes for lending based crowdfunding, it might be challenging to offer platforms for lending based crowdfunding across member state borders.

Question 1.7: How can the Commission support further development of FinTech solutions in the field of non-bank financing, i.e. peer-to-peer/marketplace lending, crowdfunding, invoice and supply chain finance?

The Fin-FSA refers to the answer provided by ESMA and concludes that the development of an EU-level crowdfunding regime would contribute to the CMU. It would be useful if EU legislators would investigate means to address the gaps and issues that exist in the current EU-framework, as they raise investor protection concerns and prevent crowdfunding from reaching its full potential.

The Fin-FSA sees that the harmonization of minimum requirements for investor and consumer protection in lending based crowdfunding services would be welcome. The Fin-FSA would also welcome a joint terminology and minimum regulatory requirements for lending based crowdfunding. Fin-FSA does not see the regulation of other types of crowdfunding, such as reward based, as a necessity.

If the commission decides to draft regulation for lending based crowdfunding, the Fin-FSA hopes that the regulations will be implemented into the existing regulation. The Fin-FSA does not see the need for a specific crowdfunding regulation, since some of the areas are already regulated in other directives, such as MiFID II that applies to investment based crowdfunding.

Question 1.8: What minimum level of transparency should be imposed on fund-raisers and platforms? Are self-regulatory initiatives (as promoted by some industry associations and individual platforms) sufficient?

The Fin-FSA would welcome common minimum standards for the level of transparency and the use of self-regulatory initiatives. The Fin-FSA refers to the answer provided by EBA and to the EBA Opinion on lending-based crowdfunding, which identifies a number of ways in which the risks identified could be mitigated. This includes, among others, a number of disclosure requirements with which crowdfunding platforms should comply.

Sensor data analytics and its impact on the insurance sector

Please [refer to the corresponding section of the consultation document](#)  to read some contextual information before answering the questions.

Question 1.9: Can you give examples of how sensor data analytics and other technologies are changing the provision of insurance and other financial services? What are the challenges to the widespread use of new technologies in insurance services?

Question 1.10: Are there already examples of price discrimination of users through the use of big data?

- Yes
- No
- Don't know / no opinion / not relevant

Please provide examples of what are the criteria used to discriminate on price (e.g. sensor analytics, requests for information, etc.)?

Other technologies that may improve access to financial services

Please [refer to the corresponding section of the consultation document](#)  to read some contextual information before answering the questions.

Question 1.11: Can you please provide further examples of other technological applications that improve access to existing specific financial services or offer new services and of the related challenges? Are there combinations of existing and new technologies that you consider particularly innovative?

2. Bringing down operational costs and increasing efficiency for the industry

Please [refer to the corresponding section of the consultation document](#)  to read some contextual information before answering the questions.

FinTech has the potential of bringing benefits, including cost reductions and faster provision of financial services, e.g., where it supports the streamlining of business processes. Nonetheless, FinTech applied to operations of financial service providers raises a number of operational challenges, such as cyber security and ability to overcome fragmentation of standards and processes across the industry. Moreover, potential redundancy of specific front, middle and back-office functions or even of entire market players due to automation via FinTech solutions might have adverse implications in terms of employment in the financial industry, even though new jobs would also be created as part of the FinTech solutions. The latter, however, might require a different skill mix, calling for flanking policy measures to cushion their impact, in particular by investing in technology skills and exact science education (e.g. mathematics).

Question 2.1: What are the most promising use cases of FinTech to reduce costs and improve processes at your company? Does this involve collaboration with other market players?

Question 2.2: What measures (if any) should be taken at EU level to facilitate the development and implementation of the most promising use cases? How can the EU play its role in developing the infrastructure underpinning FinTech innovation for the public good in Europe, be it through cloud computing infrastructure, distributed ledger technology, social media, mobile or security technology?

Question 2.3: What kind of impact on employment do you expect as a result of implementing FinTech solutions? What skills are required to accompany such change?

RegTech: bringing down compliance costs

Please [refer to the corresponding section of the consultation document](#)  to read some contextual information before answering the questions.

Question 2.4: What are the most promising use cases of technologies for compliance purposes (RegTech)? What are the challenges and what (if any) are the measures that could be taken at EU level to facilitate their development and implementation?

Recording, storing and securing data: is cloud computing a cost effective and secure solution?

Please [refer to the corresponding section of the consultation document](#)  to read some contextual information before answering the questions.

Question 2.5.1: What are the regulatory or supervisory obstacles preventing financial services firms from using cloud computing services?

There is a growing need to use cloud computing services for implementing innovative and scalable service. At the same time, it is important to ensure that cloud computing service are implemented in a safe manner and that the privacy of data is guaranteed. The EBA has developed draft Recommendations on outsourcing to cloud service providers which were published for public consultation in May.

The Fin-FSA sees that the recommendations provided by EBA together with generic security and privacy regulations provide a sufficient basis for regulating cloud computing services. The Fin-FSA does not see any specific regulatory or supervisory obstacles that would prevent financial services firms from using cloud computing services as long as the financial service providers require that their cloud computing service provider complies with the financial sector specific regulations and ensures that the NCAs' rights to perform inspections are guaranteed through contractual arrangements made with the cloud computing service. Naturally the requirements coming from the generic regulation, such as the general data protection, e-privacy regulation and NIS directive have to be taken into account.

Question 2.5.2: Does this warrant measures at EU level?

- Yes
- No
- Don't know / no opinion / not relevant

Please elaborate on your reply to whether the regulatory or supervisory obstacles preventing financial services firms from using cloud computing services warrant measures at EU level.

See answer in 2.5.1.

Question 2.6.1: Do commercially available cloud solutions meet the minimum requirements that financial service providers need to comply with?

- Yes
- No
- Don't know / no opinion / not relevant

Please elaborate on your reply to whether commercially available cloud solutions do meet the minimum requirements that financial service providers need to comply with.

There is a wide range of commercially available cloud computing services and not all of these meet the requirements that financial service providers need to comply with. However, the Fin-FSA does not see the need for any specific guidance in this area.

Question 2.6.2: Should commercially available cloud solutions include any specific contractual obligations to this end?

- Yes
- No
- Don't know / no opinion / not relevant

Please elaborate on your reply to whether commercially available cloud solutions should include any specific contractual obligations to this end.

This is a matter to be taken into account in the contracts between financial service provider and cloud computing service provider. It is important to ensure that supervisors are able to conduct supervision and audits. EBA has published draft guidelines on the use of cloud computing service, which give guidance on access and audit right in cloud outsourcing. The Fin-FSA finds the draft guidelines together with article 28 of the general data protection regulation sufficient at the moment and does not see the need for any additional European regulation regarding the content of contractual obligations.

Disintermediating financial services: is Distributed Ledger Technology (DLT) the way forward?

Please [refer to the corresponding section of the consultation document](#)  to read some contextual information before answering the questions.

Question 2.7: Which DLT applications are likely to offer practical and readily applicable opportunities to enhance access to finance for enterprises, notably SMEs?

Question 2.8: What are the main challenges for the implementation of DLT solutions (e.g. technological challenges, data standardisation and interoperability of DLT systems)?

The standardization of blockchain and DLT solutions has just recently started at ISO (International Standardization Organization, <https://www.iso.org/committee/6266604.html>). Standards are important for the interoperability of DLT systems and they enable widespread DLT solutions. The Fin-FSA suggest that the Commission continues to follow the work done at ISO.

Question 2.9: What are the main regulatory or supervisory obstacles (stemming from EU regulation or national laws) to the deployment of DLT solutions (and the use of smart contracts) in the financial sector?

It is too early to estimate the regulatory questions related to DLT. The Fin-FSA sees that time should be given for DLT standards to be drafted and services to evolve. The Fin-FSA also refers to the answer provided by ESMA where also ESMA thinks that it is premature to fully assess the changes that the technology could bring, and the regulatory response that may be needed, given that the technology is still evolving and there are not many practical applications

Outsourcing and other solutions with the potential to boost efficiency

Please [refer to the corresponding section of the consultation document](#)  to read some contextual information before answering the questions.

Question 2.10: Is the current regulatory and supervisory framework governing outsourcing an obstacle to taking full advantage of any such opportunities?

- Yes
- No
- Don't know / no opinion / not relevant

Please elaborate on your reply to whether the current regulatory and supervisory framework governing outsourcing is an obstacle to taking full advantage of any such opportunities.

The Fin-FSA not see any obstacles in the current framework. The use of outsourcing is a standard procedure and all the regulatory requirements have to be taken into account when making the contracts between the financial service provider and its subcontractors.

Question 2.11: Are the existing outsourcing requirements in financial services legislation sufficient?

- Yes
- No
- Don't know / no opinion / not relevant

Please elaborate on your reply to whether the existing outsourcing requirements in financial services legislation are sufficient, precising who is responsible for the activity of external providers and how are they supervised. Please specify, in which areas further action is needed and what such action should be.

The Fin-FSA refers to the answer provided by EBA and concludes that the responsibility for outsourced functions must always be retained by the outsourcing institution (such as credit institution). The outsourcing partner is subject to generic requirements such as the data protection regulation and in some cases the NIS directive.

Other technologies that may increase efficiency for the industry

Question 2.12: Can you provide further examples of financial innovations that have the potential to reduce operational costs for financial service providers and/or increase their efficiency and of the related challenges?

3. Making the single market more competitive by lowering barriers to entry

Please [refer to the corresponding section of the consultation document](#)  to read some contextual information before answering the questions.

A key factor to achieving a thriving and globally competitive European financial sector that brings benefits to the EU economy and its society is ensuring effective competition within the EU single market. Effective competition enables new innovative firms to enter the EU market to serve the needs of customers better or do so at a cheaper price, and this in turn forces incumbents to innovate and increase efficiency themselves. Under the EU Digital Single Market strategy, the EU regulatory framework needs to be geared towards fostering technological development, in general, and supporting the roll-out of digital infrastructure across the EU, in particular. Stakeholder feedback can help the Commission achieve this goal by highlighting specific regulatory requirements or supervisory practices that hinder progress towards the smooth functioning of the Digital Single Market in financial services. Similarly, such feedback would also be important to identify potential loopholes in the regulatory framework that adversely affect the level playing field between market participants as well as the level of consumer protection.

Question 3.1: Which specific pieces of existing EU and/or Member State financial services legislation or supervisory practices (if any), and how (if at all), need to be adapted to facilitate implementation of FinTech solutions?

The Fin-FSA refers to the answer provided by ESMA where ESMA believes that actions from the European Commission aiming at making the regulatory framework more proportionate to support innovation in financial markets should not be done at the detriment of investor protection and fair competition across various types of actors. The principle of technological neutrality should also be kept in mind.

Question 3.2.1: What is the most efficient path for FinTech innovation and uptake in the EU?

Question 3.2.2: Is active involvement of regulators and/or supervisors desirable to foster competition or collaboration, as appropriate, between different market actors and new entrants?

- Yes
- No
- Don't know / no opinion / not relevant

If active involvement of regulators and/or supervisors is desirable to foster competition or collaboration, as appropriate, between different market actors and new entrants, please explain at what level?

The Fin-FSA sees that it is important that the supervisors are easily approachable and present. The Fin-FSA has established an Innovation HelpDesk, which provides advice for fintech companies and makes it easier to approach the supervisor. The Fin-FSA has had good experiences in this type of work. The earlier the new service ideas are presented to the supervisor the better. The Fin-FSA thinks that there are good working models for innovation help desks or innovation hubs in Europe. It is also important to recognize that supervisors have varying resources and therefore a common model for innovation hubs should not be forced from the EU level. The commission should encourage innovation hubs, but let the supervisors decide the best way to establish and run such hubs in each member state.

FinTech has reduced barriers to entry in financial services markets

Please [refer to the corresponding section of the consultation document](#)  to read some contextual information before answering the questions.

But remaining barriers need to be addressed

Please [refer to the corresponding section of the consultation document](#)  to read some contextual information before answering the questions.

Question 3.3: What are the existing regulatory barriers that prevent FinTech firms from scaling up and providing services across Europe? What licensing requirements, if any, are subject to divergence across Member States and what are the consequences? Please provide the details.

Question 3.4: Should the EU introduce new licensing categories for FinTech activities with harmonised and proportionate regulatory and supervisory requirements, including passporting of such activities across the EU Single Market?

- Yes
- No
- Don't know / no opinion / not relevant

Question 3.5: Do you consider that further action is required from the Commission to make the regulatory framework more proportionate so that it can support innovation in financial services within the Single Market?

- Yes
- No
- Don't know / no opinion / not relevant

If you do consider that further action is required from the Commission to make the regulatory framework more proportionate so that it can support innovation in financial services within the Single Market, please explain in which areas and how should the Commission intervene.

Instead of discussing specific licensing categories for Fintech, the Fin-FSA sees that the Commission should find means to ease the possibilities for entering market for piloting purposes in a controlled way for a small number of users. Fintech specific licenses might be difficult to define and there is also danger that Fintech license categories today might be outdated in a couple of years.

Question 3.6: Are there issues specific to the needs of financial services to be taken into account when implementing free flow of data in the Digital Single Market?

- Yes
- No
- Don't know / no opinion / not relevant

Please elaborate on your reply to whether there are issues specific to the needs of financial services to be taken into account when implementing free flow of data in the Digital Single Market, and explain to what extent regulations on data localisation or restrictions on data movement constitute an obstacle to cross-border financial transactions.

The Fin-FSA does not see that there is regulation on data localisation or data movement that constitute an obstacle for cross-border financial transactions. These issues are regulated in the general data protection regulation and more guidance will be given by WP 29 for example on data portability. The Fin-FSA does not see the need for sector-specific involvement in this area.

Question 3.7: Are the three principles of technological neutrality, proportionality and integrity appropriate to guide the regulatory approach to the FinTech activities?

- Yes
- No
- Don't know / no opinion / not relevant

Please elaborate on your reply to whether the three principles of technological neutrality, proportionality and integrity are or not appropriate to guide the regulatory approach to the FinTech activities.

In addition to the three principles mentioned, the Fin-FSA sees that also cyber security, privacy and consumer protection are highly important and should be in the key focus of the work carried out by the Commission.

Role of supervisors: enabling innovation

Please [refer to the corresponding section of the consultation document](#)  to read some contextual information before answering the questions.

Question 3.8.1: How can the Commission or the European Supervisory Authorities best coordinate, complement or combine the various practices and initiatives taken by national authorities in support of FinTech (e.g. innovation hubs, accelerators or sandboxes) and make the EU as a whole a hub for FinTech innovation?

The Fin-FSA refers to the answer given in 3.2.2 and emphasizes that the national authorities have varying resources that can be used for innovation hubs, accelerators or sandboxes. Therefore a common model should not be forced from the European level. The exchange of information and especially of best practices between innovation hubs in different member states would help to develop these functions even better and enable their efficient operation. Therefore the Commission could encourage the cooperation between innovation hubs and other initiatives in member states. The cooperation could be done at ESAs and it has already taken place.

The Fin-FSA sees that it would be important to acknowledge the possibility to carry out controlled service pilots and experiments for financial services before fully entering the market. This requires proper authorisation to be implemented into the current regulatory framework. Without such authorisation, innovation hubs and sandboxes remain focused on tailored and personalised advice, which is naturally helpful, but not sufficient for reaching the full potential of European fintech.

Question 3.8.2: Would there be merits in pooling expertise in the ESAs?

- Yes
- No
- Don't know / no opinion / not relevant

Please elaborate on your reply to whether there would be merits in pooling expertise in the European Supervisory Authorities.

Some expertise could be pooled in the ESAs, especially in the areas that are common for all financial services. These include at least cloud computing services, questions related to big data and cybersecurity.

Another area where pooling expertise in ESA would be helpful is the interpretation of the scope of the most important cross-sectoral definitions in the financial regulation. For the cross-border offering of fintech it is crucial to have a common understanding on the scope of e.g. payment service, lending based crowdfunding, when shadow-banking becomes banking etc.

Question 3.9: Should the Commission set up or support an "Innovation Academy" gathering industry experts, competent authorities (including data protection and cybersecurity authorities) and consumer organisations to share practices and discuss regulatory and supervisory concerns?

- Yes
- No
- Don't know / no opinion / not relevant

Question 3.10.1: Are guidelines or regulation needed at the European level to harmonise regulatory sandbox approaches in the MS?

- Yes
- No
- Don't know / no opinion / not relevant

Please elaborate on your reply to whether guidelines or regulation are needed at the European level to harmonise regulatory sandbox approaches in the MS?

The Fin-FSA refers to the answers given in 3.2.2. and 3.8.1 and concludes that all member states have different resources in this area and therefore guidelines and regulations in this area should not be given. The Commission should rather encourage cooperation between different Sandbox initiatives and sharing information on best practices.

Question 3.10.2: Would you see merits in developing a European regulatory sandbox targeted specifically at FinTechs wanting to operate cross-border?

- Yes
- No
- Don't know / no opinion / not relevant

If you would see merits in developing a European regulatory sandbox targeted specifically at FinTechs wanting to operate cross-border, who should run the sandbox and what should be its main objective?

Question 3.11: What other measures could the Commission consider to support innovative firms or their supervisors that are not mentioned above?

Role of industry: standards and interoperability

Please [refer to the corresponding section of the consultation document](#)  to read some contextual information before answering the questions.

Question 3.12.1: Is the development of technical standards and interoperability for FinTech in the EU sufficiently addressed as part of the European System of Financial Supervision?

- Yes
- No
- Don't know / no opinion / not relevant

Please elaborate on your reply to whether the development of technical standards and interoperability for FinTech in the EU is sufficiently addressed as part of the European System of Financial Supervision.

ESAs are already developing technical standards that FinTechs and other companies can utilize for example in the area of PSD2. On the other hand, some of the standards that FinTechs might be using are not specific for the financial sector. For example the standardization work of blockchain is carried out at ISO (International Standardization Organization).

Question 3.12.2: Is the current level of data standardisation and interoperability an obstacle to taking full advantage of outsourcing opportunities?

- Yes
- No
- Don't know / no opinion / not relevant

Please elaborate on your reply to whether the current level of data standardisation and interoperability is an obstacle to taking full advantage of outsourcing opportunities.

Question 3.13: In which areas could EU or global level standards facilitate the efficiency and interoperability of FinTech solutions? What would be the most effective and competition-friendly approach to develop these standards?

Question 3.14: Should the EU institutions promote an open source model where libraries of open source solutions are available to developers and innovators to develop new products and services under specific open sources licenses?

- Yes
- No
- Don't know / no opinion / not relevant

Please elaborate on your reply to whether the EU institutions should promote an open source model where libraries of open source solutions are available to developers and innovators to develop new products and services under specific open sources licenses, and explain what other specific measures should be taken at EU level.

Challenges

Please [refer to the corresponding section of the consultation document](#)  to read some contextual information before answering the questions.

Question 3.15: How big is the impact of FinTech on the safety and soundness of incumbent firms? What are the efficiencies that FinTech solutions could bring to incumbents? Please explain.

4. Balancing greater data sharing and transparency with data security and protection needs

Please [refer to the corresponding section of the consultation document](#)  to read some contextual information before answering the questions.

Question 4.1: How important is the free flow of data for the development of a Digital Single Market in financial services? Should service users (i.e. consumers and businesses generating the data) be entitled to fair compensation when their data is processed by service providers for commercial purposes that go beyond their direct relationship?

Storing and sharing financial information through a reliable tool

Please [refer to the corresponding section of the consultation document](#)  to read some contextual information before answering the questions.

Question 4.2: To what extent could DLT solutions provide a reliable tool for financial information storing and sharing? Are there alternative technological solutions?

Question 4.3: Are digital identity frameworks sufficiently developed to be used with DLT or other technological solutions in financial services?

- Yes
- No
- Don't know / no opinion / not relevant

Please elaborate on your reply to whether digital identity frameworks are sufficiently developed to be used with DLT or other technological solutions in financial services.

Question 4.4: What are the challenges for using DLT with regard to personal data protection and how could they be overcome?

The power of big data to lower information barriers for SMEs and other users

Please [refer to the corresponding section of the consultation document](#)  to read some contextual information before answering the questions.

Question 4.5: How can information systems and technology-based solutions improve the risk profiling of SMEs (including start-up and scale-up companies) and other users?

Question 4.6: How can counterparties that hold credit and financial data on SMEs and other users be incentivised to share information with alternative funding providers ? What kind of policy action could enable this interaction? What are the risks, if any, for SMEs?

Security

Please [refer to the corresponding section of the consultation document](#)  to read some contextual information before answering the questions.

Question 4.7: What additional (minimum) cybersecurity requirements for financial service providers and market infrastructures should be included as a complement to the existing requirements (if any)? What kind of proportionality should apply to this regime?

The Fin-FSA does not see the need for additional cybersecurity requirements for financial services at the moment. A lot of work in this area is done by the ESAs and Fin-FSA is taking part in this work. EIOPA is currently looking at the topic of cyber risk in the context of the EU-US insurance project. The EBA has given guidelines and regulatory standards in the field of security. In addition to the work done by the ESAs, the NIS directive has to be taken into account.

Cybersecurity is one of the main focus areas in the SSM and it is taken into account both in supervision and audits. Common ways to operate will also affect the LSI banks.

Question 4.8: What regulatory barriers or other possible hurdles of different nature impede or prevent cyber threat information sharing among financial services providers and with public authorities? How can they be addressed?

The NIS directive provides a framework for sharing information with public authorities. In addition, there are national arrangements for information sharing that operate on a voluntary basis. The Fin-FSA does not see the need to address this issue by the Commission.

Question 4.9: What cybersecurity penetration and resilience testing in financial services should be implemented? What is the case for coordination at EU level? What specific elements should be addressed (e.g. common minimum requirements, tests, testing scenarios, mutual recognition among regulators across jurisdictions of resilience testing)?

Other potential applications of FinTech going forward

Please [refer to the corresponding section of the consultation document](#)  to read some contextual information before answering the questions.

Question 4.10.1: What other applications of new technologies to financial services, beyond those above mentioned, can improve access to finance, mitigate information barriers and/or improve quality of information channels and sharing?

Question 4.10.2: Are there any regulatory requirements impeding other applications of new technologies to financial services to improve access to finance, mitigate information barriers and/or improve quality of information channels and sharing?

- Yes
- No
- Don't know / no opinion / not relevant

Please elaborate on your reply to whether there are any regulatory requirements impeding other applications of new technologies to financial services to improve access to finance, mitigate information barriers and/or improve quality of information channels and sharing?

3. 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:

Useful links

[More on the Transparency register \(http://ec.europa.eu/transparencyregister/public/homePage.do?locale=en\)](http://ec.europa.eu/transparencyregister/public/homePage.do?locale=en)

[Consultation details \(http://ec.europa.eu/info/finance-consultations-2017-fintech_en\)](http://ec.europa.eu/info/finance-consultations-2017-fintech_en)

[Specific privacy statement \(https://ec.europa.eu/info/sites/info/files/2017-fintech-specific-privacy-statement_en.pdf\)](https://ec.europa.eu/info/sites/info/files/2017-fintech-specific-privacy-statement_en.pdf)

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