

Roadmap on FinTech

European Banking Authority (EBA)

List of abbreviations

Abbreviations	Meaning	
ADR	Alternative Dispute Resolution	
Al	Artificial Intelligence	
AMLD	Anti-Money Laundering Directive	
AML/CFT	Anti-Money Laundering and Countering the financing terrorism	
BCBS	Basel Committee on Baking Supervision	
BSG	Banking Stakeholder Group	
CAs	Competent Authorities	
CDD	Customer Due Diligence	
CEBS	Committee of European Banking Supervisors	
CRD	Capital Requirements Directive	
CRR	Capital Requirements Regulation	
DLT	Distributed Ledged Technology	
EBA	European Banking Authority	
eIDAS	Electronic identification and trust services for electronic transactions in the internal market	
EC	European Commission	

Abbreviations	Meaning		
EIOPA	European Insurance and Occupational Pensions Authority		
ESAs	European Supervisory Authorities		
ESMA	European Securities and Markets Authority		
FSB	Financial Stability Board		
GDPR	General Data Protection Regulation		
GL	Guidelines		
ICT	Information and Communication Technology		
KYC	Know Your Customer		
ML/FT	Money Laundering and Financing Terrorism		
PSD2	Payment Services Directive 2		
RTS	Regulatory Technical Standards		
SREP	Supervisory Review and Evaluation Process		
TIBER – EU	European Central Bank's Threat Intelligence Based Ethical Red Teaming		
VCs	Virtual Currencies		





Introduction

Executive summary

Detail



Introduction

The EBA published in March 2018 a Roadmap on FinTech setting out its priorities for 2018/2019 as well as the establishment of a FinTech Knowledge Hub to enhance knowledge sharing and foster technological neutrality in regulatory and supervisory approaches

Introduction

- For many decades, innovative technologies have been developed and applied to support the provision of financial services. However, over recent years, the range of financial innovations, the prevalence of their use and their pace of evolution have increased substantially. In light of these developments, there is a challenge for regulators and supervisors to allow opportunities presented by FinTech to be fully and properly realised without undermining consumer protection, the level playing field, the integrity of the financial markets and the stability of the financial system taken as a whole.
- In August 2017, the EBA published a **Discussion Paper on its approach to Financial Technology** ('FinTech'), which requires the EBA to contribute to enhancing consumer protection, promoting a sound, effective and consistent level of regulation and supervision, preventing regulatory arbitrage and promoting equal competition.
- In this context, the EBA published in March 2018 a **Roadmap on FinTech** setting out its priorities for 2018/2019. This Roadmap also sets out the establishment of a FinTech Knowledge Hub to enhance knowledge sharing and foster technological neutrality in regulatory and supervisory approaches. In particular, this document sets out the following:

Priorities for 2018/2019



Monitoring sandboxes and regulatory perimeter



Monitoring emerging trends and impacts



Promoting practices on cybersecurity



Addressing consumer issues from FinTech



Identifying ML/TF risks

Additionally the EBA will leverage knowledge and expertise in the EBA's new FinTech Knowledge Hub.

This **Technical Note** summarises the EBA's FinTech Roadmap and shows an indicative timeline on the work carried out by the EBA for each aspect.



Introduction

Executive summary

Detail



Executive summary

The EBA's Roadmap focuses on authorisation and regulatory perimeter issues relating to FinTech, the impact on incumbent institutions' business model and prudential risks, cybersecurity, consumer protection, AML and CFT and the creation of a FinTech Knowledge Hub

Executive summary

Scope of application

European Supervisory
 Authorities (ESAs: EBA, EIOPA, and ESMA).

Regulatory context

- **FinTech Action Plan**, published by the EC in March 2018.
- Risk Factor GL, published by the EBA in June 2017.

Next steps

 The EBA will issue publications spanning all priority policy areas identified in this Roadmap in 2018.

Main content

The EBA will form a Fintech Knowledge
 Hub that will provide an overarching
 forum bringing together CAs.
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6. FinTech Knowledge Hub 1.Authorisation and regulatory perimeter

The EBA will monitor the **regulatory perimeter**, (including authorisation and licencing approaches

to FinTech firms) and will analyse regulatory sandboxes and innovation hub.

- The EBA will identify and assess AML/CFT risks associated with regulated FinTech firms, technology providers and FinTech solutions.
- The EBA will address consumer issues arising from FinTech and related disclosure to consumers.

5. AML/CFT

Roadmap on FinTech¹

2. Impact on institutions' models and risks

4. Consumer protection

3. Cybersecurity

- The EBA will monitor emerging trends and the impact from the use of FinTech.
- The EBA will analyse how institutions are responding to these risks and how they adopt their internal governance, control and risk management frameworks.
- The EBA will promote best supervisory practices on assessing cybersecurity and a common cyber threat testing framework.



Introduction

Executive summary

Detail







The EBA will monitor the regulatory perimeter, carrying out an assessment of the current authorisation and licencing approaches to FinTech firms,...

Regulatory perimeter

Regulatory perimeter issues

- During the course of the EBA's 2017 FinTech work, CAs reported a sample of FinTech firms that were not subject to any identified regulatory regime. Accordingly:
 - The EBA will analyse in further detail the nature of the **services being provided by FinTech firms**, and will assess **prudential requirements** and conduct of **business requirements**.
 - The EBA will map the **authorisation and licensing** approaches and procedures applied by CAs when authorising firms adopting innovative FinTech business models (e.g. how proportionality is applied).
 - Further, the EBA will engage with **CAs** and **other relevant authorities** (e.g. consumer protection and data protection authorities) in the Member States in **assessing the regulatory status** of FinTech firms.
 - The EBA will proceed with the consideration of **resolution-related issues** as part of a wider analysis of FinTech firms. The EBA will keep this under review bearing in mind FinTech and FinTech firms may have an impact on the resolvability of institutions.

EBA indicative timeline

2017

The EBA identified some **FinTech firms** as **carrying out financial services pursuant to EU law or to a national authorisation or registration regimes**, or were reported as not being subject to any identified regulatory regime.



The EBA will issue a survey to the CAs with the analysis of responses.

The EBA expects to finalise its assessment of the **regulatory treatment of FinTech firms** carrying financial services outside the framework of EU law, authorisations and perimeter issues with a report or an opinion.

2019

2018

The EBA will perform a **follow-up work** as appropriate.







...and analysing regulatory sandboxes and innovation hubs with a view to developing a set of best practices to enhance consistency and facilitate supervisory coordination

Regulatory sandboxes

Regulatory sandboxes

- The EBA recognises that regulatory sandboxes and innovation hubs can offer a range of benefits. Indeed, over half of the Member States already have in place some form of regulatory sandbox, innovation hub or similar regime to capitalise on these benefits. Accordingly:
 - The EBA will conduct a further analysis of the features of regulatory sandboxes with a view to defining common features and best practices and assessing compatibility with EU law, in order to ensure that firms can enter and participate in the internal market for financial services on an equal footing.
 - This work will be informed by a further survey of the CAs, which, building on the work already undertaken at the EU and international levels, will extend to an assessment of operational aspects of sandboxes, the use of discretions by Member States and CAs in developing and operating sandboxes, the number and types of firms participating in sandboxes, any legal constraints to establishing sandboxes, and any opportunities and risks arising from sandboxes.

EBA indicative timeline

2017

The EBA identified some FinTech firms as carrying out financial services pursuant to EU law or to a national authorisation or registration regimes, or were reported as not being subject to any identified regulatory regime.



The EBA will issue a survey to the CAs with the analysis of responses.

The EBA will report on the outcome of this work, including where appropriate EBA GL. In carrying this work, the EBA will work in close cooperation with the other ESAs.

2019

2018

The EBA will perform a **follow-up work** as appropriate.





Impact on institutions' models and risks



Moreover, the EBA sets out the priority of monitoring emerging trends and analysing the impact on incumbent institutions' business models as well as prudential risks and opportunities arising from the use of FinTech

Impact of FinTech

- The use of new technologies and innovations to support the provision of financial services also brings new prudential risks and opportunities for incumbent institutions. This has supervisory implications with regard to understanding these changes and adjusting existing supervisory approaches. Accordingly:
 - The EBA will continue working on developing a better understanding and analysing these aspects. To the largest extent possible, this work will take into account and leverage on existing work produced at the international level (such as the BCBS and the FSB)1.
 - The work related to incumbents' business models intends to cover the current and prospective relationship between incumbent institutions, new entrants institutions and other FinTech firms; the potential threats in view of FinTech evolution, and the adapted and new business models emerging in the financial sector as a result of FinTech.
 - The EBA will also continue working on the identification and assessment of prudential risks and opportunities stemming from the use of FinTech (e.g. use of biometric technology, DLT, and AI).

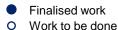
EBA indicative timeline

The latest EBA Risk Assessment Report (November 2017), noted that upcoming competition from FinTech firms may 2017 result in changes in incumbent institutions' business models to ensure profitability. This appeared to be noted both as risk to revenues in some business lines along with amplified risks in cybersecurity and data security but, at the same time, as an opportunity to rethink customer interactions, enlarge customer bases and improve cost efficiencies. Report on impact of FinTech on the business models of institutions. 2018 Report on prudential risks and opportunities for institutions. Additional Thematic Reports (e.g. employment in FinTech, trends or monitoring).

The EBA will perform a **follow-up work** as appropriate.



2019



Cybersecurity



The EBA's Roadmap focuses on promoting best supervisory practices on assessing cybersecurity and on creating a common cyber threat testing framework

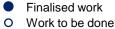
Cybersecurity

Cybersecurity

- Risks stemming from cybersecurity fall under the broader scope of ICT security, meaning that cyber threats are a type of threat to ICT security. From the EBA's work in cybersecurity to date, it is evident that there are differing degrees of supervisory engagement on cybersecurity in the EU. Accordingly, the EBA will focus on:
 - Producing ICT risk Guidelines addressed to credit institutions and investment firms, providing guidance for evaluating and mitigating ICT risk, including cybersecurity risk.
 - Producing harmonised supervisory practices for assessing the management of cybersecurity risk in credit institutions, investment firms, payment institutions and electronic money institutions.
 - Evaluating the development of an intelligence-led cyber threat-testing framework in alignment with other EU initiatives such as the ECB's Threat Intelligence Based Ethical Red Teaming (TIBER-EU)1 and promoting best practices.

EBA indicative timeline The EBA published the following documents: 2017 Final RTS on strong customer authentication under PSD2 (Feb.17). Final RTS on strong customer authentication under PSD2 (Feb.17). Final GL on ICT risk assessment under SREP (May.17). Final GL on major incident reporting under PSD2 (Jul.17). Final Recommendations on Cloud for institutions under CRD/CRR (Dec.17). Final Guidelines on security measures for operational and security risks under PSD2 (Dec.17). 2018 The EBA will publish the Guidelines on ICT risk, and the harmonised supervisory practices on cybersecurity. The EBA will perform a follow-up work in relation to EBA security-related mandates under PSD2 2019 The EBA will perform a follow-up work as appropriate.





Consumer protection



The EBA also establishes the priority of addressing consumer issues arising from FinTech, in particular in the areas of unclear regulatory status, potential national barriers or the current regulatory framework for VCs

Consumer protection

Consumer protection

- The EBA recognises the need to conduct follow-up work relating to: i) clarify the application of consumer protection requirements when engaging with FinTech firms; ii) consumer rights in the case of the cross-border provision of financial services; iii) complaint handling requirements; and iv) disclosure to consumers in a digital environment.
- Regarding VCs, the ESAs published a warning on risks in buying VCs in February 2018. This document
 warn consumers that VCs are highly risky and unregulated products and are unsuitable as investment,
 savings or retirement planning products.
- According with this follow-up work, the EBA will focus on the following aspects: unclear regulatory status, cross-border issues, disclosure, automation in advice¹, ADR, and financial exclusion in the context of Big Data algorithms. Further, the EBA will continue to monitor: Big Data, national financial literacy initiatives, developments concerning the interaction between PSD2 and GDPR, and the eIDAS Regulation.

EBA indicative timeline

The EBA did not published any document related to consumer protection and FinTech.

The EBA will conduct work on the regulatory mapping of the current requirements on VCs.

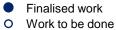
The EBA will publish a Report on cross-border issues identifying potential national barriers from consumer, etc..

The EBA will issue a Report on consumer related disclosure aspects.

The EBA will make a consideration of consumer and conduct of business related aspects.

The EBA will assess the applicability of the ADR Directive to FinTech firms whether or not the risk of financial exclusion in the context of big data algorithm may need and immediate action; and will perform a follow-up work as appropriate.





AML/CFT



Regarding AML/CFT, the EBA's Roadmap focuses on identifying and assessing money laundering and terrorism financing risks associated with regulated FinTech firms, technology providers and FinTech solutions

AML/CFT

AML/CFT

- The EBA and the other ESAs have been working on creating a common understanding on the responsible and effective use of FinTech by institutions. In this context, they published Risk Factors Guidelines, which will incorporate changes introduced by the fifth AML Directive (when published) and will address ML/TF risks associated with some FinTech firms and services (e.g. providers engaged in exchange services between virtual currencies and fiat currencies and custodian wallet providers.
- The EBA is working to address the knowledge gap between FinTech firms, technology providers and AML/CFT CAs by facilitating the sharing of knowledge among them and AML/CFT CAs.
- The EBA is working closely with the EC on the use of electronic identification and authentication tools provided in the eIDAS Regulation in remote customer on-boarding processes.
- · Regarding regulatory technology (RegTech), ongoing monitoring will be key as firms rely on new RegTech instruments to facilitate their compliance functions both in relation to customers and in relation to prudential monitoring.

EBA indicative timeline

2017 2018 The ESAs worked in the Joint Opinion on the ML/TF risks affecting the EU's financial sector, published in Jan'18.

To date, the EBA has considered only some aspects of RegTech as part of the ESA Joint Opinion on the use of innovative solutions as part of the customer due diligence processes.

The EBA will perform a fact-finding exercise ML/TF risk associated with FinTech solutions and providers.

The EBA will issue a consultation paper amending Risk Factor Guidelines.

The EBA and the supervisors are expected to monitor RegTech solutions that could weaken ML/FT safeguards.

2019

The EBA will perform a **follow-up work** as appropriate.



Finalised work Work to be done

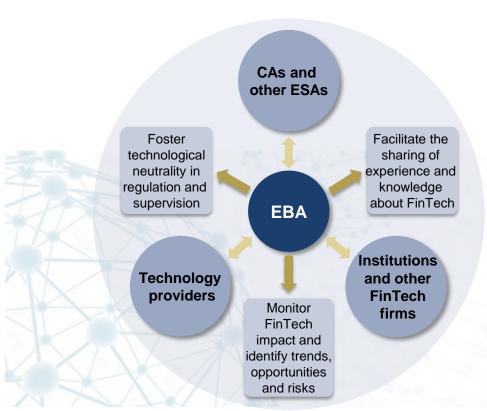
FinTech Knowledge Hub



The EBA will also establish a FinTech Knowledge Hub to foster dialogue and enhance knowledge sharing between supervisors and regulators about FinTech

FinTech Knowledge Hub

Definition and rationale In 2018, the EBA will form a **FinTech Knowledge Hub**, which will provide an overarching forum bringing together CAs in a common setting to facilitate information and experience sharing, to raise awareness and to support transfer of knowledge on FinTech.





- Promoting knowledge and experience sharing related to FinTech within the EU and the global community.
- Facilitating the exchange of information between CAs. ESAs. incumbent and new entrant institutions. technology providers and other market players.



Identifying emerging trends and monitoring the impact of FinTech on the whole financial ecosystem, changes in business models, risks and (including opportunities ML/TF), consumer protection and other areas under the EBA's competence.



- Supporting the supervisory community practical guidance on FinTech and producing publications¹ on regulatory treatment and supervisory aspects of FinTech to promote technology neutrality.
- Developing policy issues to the EBA standing committees on the regulatory treatment of financial services ensuring technological neutrality and a level playing field.



Other issues and concluding remarks

Finally, the EBA's Roadmap also covers other issues such as the use of DLT, the update of the CEBS Guidelines and the monitoring of FinTech, and includes some EBA's concluding remarks

Other issues and concluding remarks

Other issues

- The EBA will monitor developments to assess risks and opportunities arising from the use of DLT (and its underlying technology) not only in the area of payments, as indicated in the FinTech Discussion Paper, but from a wider perspective covering different use cases.
- Further, in 2018 the EBA will update the CEBS Guidelines on outsourcing and expand the scope beyond credit institutions to cover, in addition, payment institutions and electronic money institutions.
- The EBA will continue to monitor FinTech and financial innovations more generally and, as appropriate, adjust its work programme in line with its assessment of any additional emerging opportunities and risks.

Concluding remarks

- In addition to taking forward the work identified in this Roadmap, the EBA will continue to engage in EU and international FinTech initiatives in order to promote consistent and robust standards for AML/CFT. consumer protection and prudential regulation.
- In this regard, the EBA will also continue to monitor FinTech developments and, as appropriate, carry out additional tasks with a view to policing effectively the regulatory perimeter and fostering neutrality in regulatory and supervisory approaches to new technologies.
- The EBA will engage with CAs, resolution authorities, the EC, ESMA, EIOPA, institutions, other FinTech firms, and technology providers as appropriate to inform its work.

Introduction

Executive summary

Detail



Next steps

The EBA sets out an indicative timeline for the work on its identified priorities for 2018/2019

2018/2019 Timeline



Topics	2018	2019
Authorisation and regulatory perimeter	 Survey issued to CAs, EBA analysis and responses. Report (and if appropriate Opinion) issued. 	Follow-up work as appropriate.
Regulatory sandboxes and innovation hub	 Survey issued to CAs, EBA analysis and responses. Report (if appropriate Opinion) issued, including Guidance to enhance supervisory consistency and facilitate supervisory coordination in the operation of regulatory sandboxes. 	Follow-up work as appropriate.
Impact on business models, prudential risks and opportunities	 Report issued on impact of FinTech on the business models of institutions. Report issued on prudential risks and opportunities for institutions focusing on several use cases. 	Follow-up work as appropriate.
Cybersecurity	 GL on ICT risk addressed to institutions providing guidance for evaluating and mitigating ICT risks, including cybersecurity risk. Harmonised supervisory practices on cybersecurity. Follow-up work on EBA security-related mandates under PSD2. 	 Follow-up work as appropriate (e.g. cyber threat testing framework alignment).
Consumer and conduct issues	 Regulatory mapping of the current requirements on VCs. Report issued on cross-border issues identifying potential national barriers from consumers. Report issued on consumer related disclosure aspects. Consideration of consumer and conduct business related aspects (authorisation/perimeter work). 	 Assessment of potential financial exclusion and of the applicability of the ADR Directive. Follow-up work as appropriate.
AML/CFT	 Fact-finding exercise ML/TF risk associated with FinTech. Amended Risk Factors GL issued. Joint Opinion on the risks affecting the financial sector. 	Follow-up work as appropriate.