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Report

FinTech: Regulatory sandboxes and innovation hubs

Contents

Executive Summary

In recent years competent authorities in the EU have adopted various initiatives to facilitate financial innovation. These initiatives include the establishment of 'innovation facilitators'.

Innovation facilitators typically take the form of 'innovation hubs' and 'regulatory sandboxes'. Innovation hubs provide a dedicated point of contact for firms to raise enquiries with competent authorities on FinTech-related [1] issues and to seek non-binding guidance on regulatory and supervisory expectations, including licensing requirements. Regulatory sandboxes, on the other hand, are 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.

In this report the European Supervisory Authorities (the ESAs) set out a comparative analysis of the innovation facilitators established to date in the EU, further to the mandate specified in the European Commission's March 2018 FinTech Action Plan.[2]

The ESAs also set out 'best practices' regarding the design and operation of innovation facilitators, informed by the results of the comparative analysis and the experiences of the national competent authorities in running the facilitators. The best practices are intended to provide indicative support for competent authorities when considering the establishment of, or reviewing the operation of, innovation facilitators. Accordingly, the best practices are intended to promote convergence in the design and operation of innovation facilitators and thereby protect the level playing field.

The ESAs also set out options, to be considered in the context of future EU-level work on innovation facilitators, including in conjunction with the European Commission's future work, to promote coordination and cooperation between innovation facilitators and support the scaling-up of FinTech across the EU. These options comprise:

- the development of Joint ESA own-initiative guidance on cooperation and coordination between innovation facilitators;
- the creation of an EU network to bridge innovation facilitators established at the Member State level.

[1] 'FinTech' is defined at the EU and international standard-setting levels as 'technologically enabled financial innovation that could result in new business models, applications, processes or products with an associated material effect on financial markets and institutions and the provision of financial services'. FinTech also includes 'InsurTech' referring to technology-enabled innovation in insurance, regardless of the nature or size of the provider of the services (in line with the approach of the FSB: http://www.fsb.org/what-we-do/policy-development/additional-policy-areas/monitoring-of-FinTech/).

[2] See: https://ec.europa.eu/info/publications/180308-action-plan-fintech_en.

The ESAs will continue to monitor national developments regarding innovation facilitators and take such steps as are appropriate to promote an accommodative and common approach towards FinTech in the EU.

Introduction

In recent years, competent authorities in the EU have adopted various initiatives to facilitate financial innovation.

These initiatives are designed to promote greater engagement between competent authorities and firms about financial innovations with a view to enhancing firms'[3] understanding of regulatory and supervisory expectations and increasing the knowledge of competent authorities about innovations and the opportunities and risks they present.

Two main categories of innovation facilitator can be identified:

1) *Innovation hubs*: these provide a dedicated point of contact for firms to raise enquiries with competent authorities on FinTech-related issues and to seek non-binding guidance on the conformity of innovative financial products, financial services or business models with licensing or registration requirements and regulatory and supervisory expectations.

2) *Regulatory sandboxes*: these provide a scheme 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. Sandboxes may also imply the use of legally provided discretions by the relevant supervisor (with use depending on the relevant applicable EU and national law)[4] but sandboxes do not entail the disapplication of regulatory requirements that must be applied as a result of EU law.

The majority of Member States have established innovation hubs and a small number have established regulatory sandboxes. In some Member States, both forms of innovation facilitator have been implemented.

In each case, general and pre-existing powers available to the competent authorities are applied for the purposes of the operation of the innovation facilitators, but they are applied within the context of the designated scheme of the innovation hub or, as the case may be, the regulatory sandbox.

For example, as a matter of routine, competent authorities respond to queries relating to licensing and other regulatory requirements or supervisory expectations whereas innovation hubs establish a clear point of contact to raise the visibility of the enquiry function to firms that may not have a high degree of familiarity with the competent authorities. Innovation hubs are also supported by specialist resources relating to innovative propositions that create efficiencies in responding to enquiries.

[3] In this report, references to 'firms' or undertakings are intended to refer to both legal and natural persons as, for example, innovation facilitators may respond to queries from individuals.

[4] See BCBS *Sound Practices: Implications of FinTech for banks and bank supervisors*, February 2018: https://www.bis.org/bcbs/publ/d431.pdf.

Similarly, competent authorities can adopt more intensive supervision to scrutinise particular activities of a firm in order to gain a closer insight into the opportunities and risks presented and to develop an appropriate regulatory or supervisory response through the proportionate application of supervisory powers and tools. However, within the schemes of regulatory sandboxes, again, specialist resources are made available enabling the relevant competent authorities to devise specific testing parameters, scrutinise the test and develop lessons learned from the test outcome from a specialist perspective. These lessons learned may be applied for the benefit of the competent authorities and industry.

In view of the emergence of these initiatives, the European Commission, in its March 2018 FinTech Action Plan, tasked the ESAs with carrying out a comparative analysis of the existing innovation facilitators in the EU and identifying best practices.

To this end, the ESAs have prepared this report, the legal basis for which is Article 9(4) of the founding regulation for each of the ESAs which requires each to establish a committee on financial innovation '*which brings together all relevant competent national supervisory authorities with a view to achieving a coordinated approach to the regulatory and supervisory treatment of new or innovative financial activities and providing advice … to present to the European Parliament, the Council and the Commission*'.

A comparative analysis of the features of existing innovation hubs and regulatory sandboxes is set out in this report, drawing on information gathered by the ESAs from competent authorities and from financial institutions (both incumbents and new entrants), other FinTech firms and technology providers.[5] Based on the results of this comparative analysis, a set of operating principles that can be regarded as best practice has been identified to:

a. promote consistency in the design and operation of innovation facilitators;

b. promote transparency of regulatory and supervisory policy outcomes resulting from interactions between competent authorities and firms in the context of innovation facilitators;

c. facilitate cooperation with appropriate authorities (including consumer protection and data protection authorities).

In order to facilitate cooperation and coordination between innovation facilitators, further work may be carried out by the ESAs in 2019 aimed at accelerating access to market for, and facilitating the scaling up of, FinTech across the EU.

[5] Most information presented in this report was collected through the surveys issued to the competent authorities byf EBA, EIOPA and ESMA. However, the field of innovation facilitation is developing very dynamically and a number of new innovation facilitators have been announced since the commencement of the comparative analysis in spring 2018. This reports refers to all innovation hubs established and operational in the Member States at the date of this report.

1. Innovation hubs

1. An innovation hub is defined as a scheme whereby regulated or unregulated entities can engage with competent authorities on FinTech-related issues and seek non-binding[6] guidance on the conformity of innovative financial products, services, business models or delivery mechanisms with licensing, registration and/or regulatory requirements. [7]

1.1 Introduction

1. Based on the responses to the surveys launched by the ESAs, innovation hubs have been established by competent authorities in 21 Member States and 3 EEA States: AT, BE, CY, DE, DK, EE, ES, FI, FR, HU, IE, IS, IT, LI, LT, LU, LV, NL, NO, PL, PT, RO, SE, UK (see Annex A for the list of hubs). Generally one innovation hub has been established per jurisdiction and each is broad in scope, but in some cases more than one hub has been established, reflecting the architecture of the regulation of the financial services sector in the jurisdiction concerned. Two competent authorities (BG and PT) reported an intention to establish an innovation hub within the next six months.

2. The first innovation hubs were established in 2014. However, the majority became operational in 2016 and 2017.

3. A comparative assessment of the reported innovation hubs is set out in this chapter. Overall, the reported innovation hubs are very similar in terms of overall objectives and scope. However, some variations have been observed in terms of:

    a. the mode of interaction between competent authorities and firms (e.g. telephone, online, physical interactions);

    b. the nature of the advice and assistance provided (e.g. binding or non-binding advice, support with the process for authorisation);

    c. record keeping and transparency of outcomes (ranging from publicising frequently asked questions (FAQs) to nil disclosure of outcomes).

[6] With the exception of one competent authority (in PL), which was empowered to provide guidance to unregulated firms on a 'binding' basis.

[7] For further details see: https://www.eba.europa.eu/documents/10180/1919160/EBA+FinTech+Roadmap.pdf (especially footnote 11).

1.2 Comparative analysis of reported innovation hubs

1.2.1 Objectives, legal basis and scope

a. Objectives

4. The main purpose of all reported innovation hubs is to enhance firms' understanding of the regulatory and supervisory expectations regarding innovative business models, products and services. This is done by providing firms with a contact point for asking questions of, and initiating dialogue with, competent authorities regarding the application of regulatory and supervisory requirements to innovative business models, financial products, services and delivery mechanisms. For example, innovation hubs commonly provide firms with non-binding guidance on the conformity of their proposed business models with regulatory requirements, including aspects relating to the regulatory perimeter (specifically, whether or not the proposition would include regulated activities for which authorisation is required).

b. Legal basis and powers

5. The competent authorities cited their general statutory objectives (e.g. promoting financial stability, protecting consumers, encouraging effective competition (UK Financial Conduct Authority (FCA) only) and mitigating risks of regulatory arbitrage) as sufficient to enable the establishment of innovation hubs.

6. As innovation hubs provide a contact point for firms to pose questions, to which typically non-binding responses are provided, competent authorities cited their general supervisory powers and practices as being sufficient to establish and operate the hubs. Some authorities referred to specific powers to provide individual (and non-binding) guidance to firms. Others considered that the ability to respond to enquiries is inherent in their role as effective regulators and supervisors.

7. Indeed, the functions of innovation hubs do not differ substantially from the long-standing practices of competent authorities to respond to ad hoc queries, particularly those about the regulatory perimeter. However, the uniqueness of the innovation hubs derives from the specialist technical expertise attached to the hubs enabling efficient and tailored responses to queries relating to products, services and business models that go beyond propositions that are more familiar to the supervisory community, and from the fact that this is made more visible, for instance, to firms that may not carry out financial services activities (e.g. technology companies).

Box 1: Operating models

The organisation of innovation hubs varies across jurisdictions. Broadly speaking, two operating models can be observed.

Some competent authorities have established dedicated FinTech/innovation hub teams (also partially relying on experts throughout the authority), whereas other authorities have adopted a 'hub and spoke' model with a dedicated coordinator drawing on additional expertise throughout the authority.

Usually the headcount of these innovation hubs is between one and nine experts involved in the activity of the hub on a flexible basis in addition to their other responsibilities at the competent authority. However, two competent authorities have reported that their innovation hubs involve over 30 experts working on a flexible basis (IT) as well as full-time employees dedicated solely to the activity of the innovation hub (UK).

8. In one jurisdiction (PL) an innovation hub was established on the basis of an explicit mandate to establish the hub in order to enable the authority, in the context of the hub, to give binding advice to firms, including those that do not hold a licence to carry out regulated activities.

c. Scope

9. The reported innovation hubs are open to all firms (incumbents and new entrants; regulated and unregulated) adopting, or considering the adoption of, innovative products, services, business models or delivery mechanisms.

1.2.2 Phases

10. The response process of the reported innovation hubs involves several key phases (albeit the precise nature of these phases varies to some extent, particularly in the mode of interaction between competent authorities and firms). These can be summarised as follows.

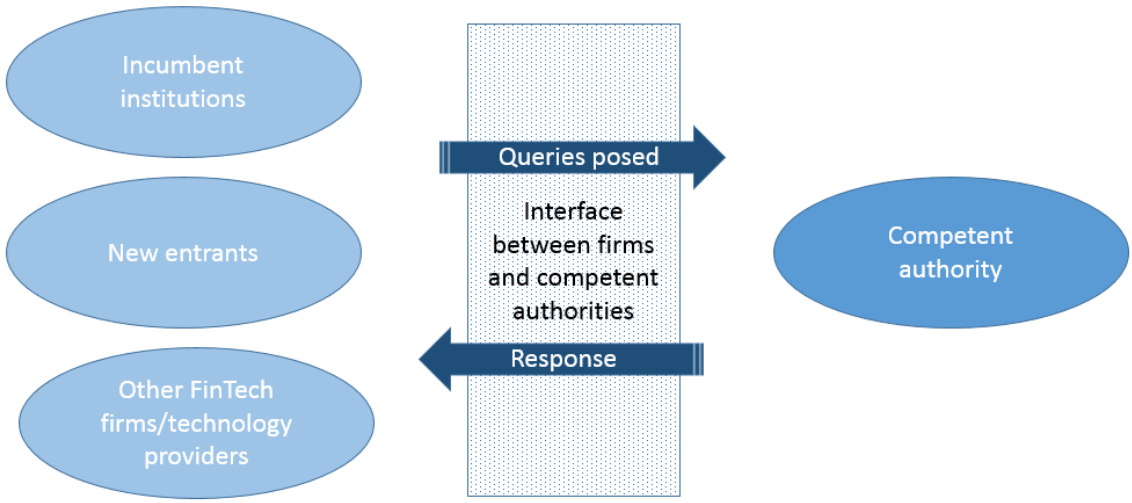
a. Submission of enquiries: interface between competent authorities and firms

11. A core feature common to all reported innovation hubs is the interface provided by the competent authorities for firms to use as dedicated contact channels for questions regarding the conformity of innovative financial products, services, business models or delivery mechanisms with regulatory and/or licensing requirements.

12. These communication channels take the form of dedicated contact points such as telephone and/or electronic interfaces, online meetings and/or websites. Some competent authorities also offer the possibility of organising physical meetings to initiate interactions with the innovation hub.[8]

[8] For example, some competent authorities invite the industry to discuss FinTech and innovations. The discussions can, in turn, lead to further communications when needed.

Diagrammatic representation: innovation hubs



13. Some competent authorities provide standardised application forms for firms to provide descriptions of the general characteristics of the innovative products, services, business models or delivery mechanisms subject to enquiry, including the technology used to deliver them (e.g. blockchain, artificial intelligence, machine learning, big data analytics). Some competent authorities note that this approach can enable the nature of queries to be understood and dealt with in a more timely manner; others urge caution in that too restrictive an approach could constrain the nature of the enquiries presented.

b. Assigning queries to the relevant points of contact in the competent authorities

14. Once a firm has made contact with the competent authority using the interface, typically the authority conducts a screening process to determine how best to deal with the queries raised. The authority considers factors such as the nature of the query, its urgency and its complexity, including the need, if any, to refer the query to other authorities or to engage with other authorities, such as data protection authorities, in preparing the response. This may comprise a 'pre-screening' by a dedicated team prior to submission to relevant experts, or direct submission either to the relevant working groups or multi-disciplinary teams in the authority or to other competent authorities, in accordance with the organisation of financial supervision in the Member State concerned.

c. Providing responses to the firms

15. Depending on the nature of the enquiries raised and the need for further information, several information exchanges between competent authorities and firms may take place, either by means of email or telephone calls or in physical meetings prior to the finalisation of a response to the firm.

16. Responses to firms may be routed through different channels such as meetings, telephone calls or emails. Some competent authorities also choose, on a case-by-case basis, to publish questions and answers or to issue public statements on specific innovation-related issues identified as a result of enquiries raised through the innovation hubs.

17. Typically, the responses provided via the innovation hub are to be understood as 'preliminary guidance' based on the facts established in the course of the communications between the competent authorities and firms.

d. Record keeping and transparency

18. Overall, few record-keeping and transparency actions were reported. Some competent authorities noted the publication of structured reports, studies, etc. while others reported the publication of statistics on touch points (internal or external).

e. Follow-up actions

19. Some competent authorities complement their innovation hubs with specific 'follow-up' schemes in order to facilitate and support firms. In particular, in cases where a firm seeks to advance a concept for a business model, and its interactions with the innovation hub have identified that the model requires the carrying out of a regulated activity for which authorisation is required, some competent authorities may provide support with the authorisation process (e.g. dedicated points of contact, guidance on the completion of the application form).

20. In addition, some competent authorities conduct specific reviews of the enquiries raised and the responses provided via the innovation hubs in order to assess the need for clarifications of, or changes to, regulatory and supervisory requirements to ensure that they take account of the opportunities and risks presented by financial innovations and the desirability of ensuring technological neutrality.

1.2.3 Interaction between competent authorities and other authorities (e.g. other competent authorities and third country authorities)

a. Interaction between domestic authorities

21. Based on the responses to the surveys, interactions among competent authorities differ from jurisdiction to jurisdiction.

22. First, differences can stem from the organisation of financial supervision in jurisdictions.

    a. Those with integrated financial services supervisory authorities by nature of design do not have a need for interaction with other domestic competent authorities, whereas Member States with different authorities involved in the supervision of the financial sector have established specific memoranda of understanding (MoUs) among competent authorities to facilitate coordination on financial innovation issues, including the operation of innovation hubs.

b. In two jurisdictions where financial supervision is organised in the 'twin peaks' model (BE and NL), joint innovation hubs between the central bank and the financial markets authority have been established. This arrangement is seen as having the advantage that the information exchange can happen in a coordinated and fast way with continuous dialogue between both authorities.

23. Second, differences can be observed regarding the scope of the interactions of competent authorities with the domestic authorities responsible for other relevant aspects of regulation such as consumer protection, competition or data protection.

a. In some Member States no specific cooperation agreements with other domestic authorities have been established in relation to the innovation hubs (but, of course, cooperation may take place in accordance with existing procedures).

b. In other Member States competent authorities are also engaging or planning to engage with other relevant domestic authorities in a common forum underpinned by memoranda of understanding (MoU).

Box 2: Reported advantages of joint initiatives

Joint initiatives give rise to several key advantages.

First, automatic sharing of information with all relevant authorities (e.g. National Bank of Belgium (NBB) and Financial Services and Markets Authority (FSMA) in Belgium) facilitates efficiencies in responding to incoming enquiries. By way of example, in Belgium if a FinTech credit provider authorised by the FSMA wishes to obtain information on account information services, the FSMA is able to provide direct contact with the relevant persons within the NBB.

Second, by having a common platform for information exchange, all relevant authorities can keep track of the type of questions that arise within the industry and can adopt a consistent approach to providing responses.

Third, joint initiatives enable cross-sectoral issues to be more efficiently monitored, and facilitates the effective monitoring of the regulatory perimeter. In Belgium, with respect to regulated activities, the most frequently observed cross-sectoral issues relate to the combination of providing payment services (a power of the NBB), granting consumer credit (a power of the FSMA) and activities related to investment firms (a power of both the NBB and the FSMA). Looking beyond the functions of financial supervision authorities, joint initiatives with other authorities such as consumer and data protection authorities can also offer benefits, particularly for firms looking to explore innovative business models, products and services that may give rise to considerations in multiple policy areas. Such initiatives can speed up the process for determining the most appropriate structuring by allowing simultaneous information exchange among all relevant authorities.

ACPR and AMF Innovation Hubs steer the work of the FinTech Forum, which is a consultative body gathering representatives from FinTech, incumbent players, lawyers and consultancy firms. Given that the digital transformation is associated with innovative uses of data and the reshaping of financial circuits, the French cybersecurity agency (ANSSI), the French data protection authority (CNIL) and the

French Financial Intelligence Unit (TRACFIN), as well as the French Ministry of Finance, are also associated with the Fintech Forum. Thanks to an open and innovative dialogue with the industry, this body identifies the challenges and the issues associated with financial innovation and can make proposals on the regulation and supervisory practices regarding Fintech and innovation.

b. Interaction with third country authorities

24. On the whole, competent authorities rely on their general supervisory MoU to facilitate cooperation on FinTech-related issues, including those raised in the context of the innovation hubs. However, some competent authorities are considering bespoke cooperation arrangements to further strengthen their interactions regarding FinTech issues (see for example paragraph 85).

1.3 Overview of entities using the innovation hubs

25. As outlined above, innovation hubs are generally available to all market participants who intend to adopt, or to consider the adoption of, innovative financial products, financial services or business models.

26. The surveys have revealed three main categories of participants using the services provided by competent authorities through innovation hubs:

    a. unlicensed entities considering entering the market for financial services ('start-ups');

    b. regulated entities (such as credit institutions, insurance companies or payment institutions, insurers) that are already supervised by competent authorities and are considering innovative products or services;

    c. technology providers offering technical solutions to institutions active in the financial market.

27. In terms of predominant users, it appears that start-ups comprise the biggest group of firms utilising innovation hubs, with regulated firms often continuing to address any queries on innovation to their traditional dedicated points of contact in the competent authorities instead of using innovation hubs.

1.4 Experiences

28. The lifespan of the reported innovation hubs is fairly limited, with most having been established relatively recently (ranging from 6 months to 2 years); therefore, evaluations of user experiences are necessarily preliminary. However, the competent authorities reported varying (but on the whole strong) interest and support from firms for innovation hubs, particularly from new entrants seeking to understand better their potential supervisory and regulatory obligations.

Box 3: Commonly posed questions

Firms are typically using innovation hubs to seek information about whether or not a certain activity needs authorisation and, if so, information about the licensing process and the regulatory and supervisory obligations.

The majority of firms raise queries about (i) regulated activities involving payment and credit services, and (ii) new technologies cited, including customer digital identification tools, distributed ledger technology (DLT), online platforms (e.g. for crowdfunding, peer-to-peer transfers or peer-to-peer insurance), robo-advice, electronic personal financial management tools, big data analytics, smart contracts and cloud technology.

The main areas in which competent authorities respond to enquiries are the following:

a. whether a certain activity needs authorisation or not;
b. whether or not anti-money laundering issues arise;
c. the applicability of consumer protection regulation and the means to secure conformity;
d. proportionality issues in the application of regulatory and supervisory requirements (e.g. systems and controls).

In some cases, innovation hubs are also being used by firms to raise concerns about the regulatory treatment of innovative technologies and to suggest possible changes in the legal framework to facilitate more innovative businesses. On occasion, gaps may also be identified.

29. Although statistics vary significantly between the competent authorities (not least reflecting the time periods for which each of the hubs have been operational), the hubs have been well used with authorities reporting monthly enquiry volumes ranging from dozens to hundreds.

30. In some instances, competent authorities have had to reject enquiries on the basis that they fall out of the scope of the innovation hub, for instance because they fall outside the responsibilities of the competent authority (e.g. enquiries relating to data privacy). Typically, in such cases competent authorities provide the contact details for the appropriate authorities or forward the queries to them.

Box 4: Levers to achieve proportionality available under EU financial services law

Embedded in EU financial services measures are tools to enable the proportionate application of regulatory and supervisory requirements taking account of factors such as the risk profile, size, complexity and interconnectedness of the firms concerned. These tools are available to, and used by, the competent authorities whether or not they have an innovation hub or regulatory sandbox.

For example, in the sphere of EU banking law, institutions are required to have 'robust governance arrangements, which include a clear organisational structure with well-defined, transparent and consistent lines of responsibility, effectives processes to identify, manage, monitor and report risks… adequate internal control mechanisms … that are consistent with and promote sound and effective

risk management' (Article 74(1) Directive 2013/36/EU (CRD)). These arrangements shall be 'comprehensive and proportionate to the nature, scale and complexity of the risks inherent in the business model and the institution's activities' (Article 74(2) of the CRD). In line with these rules, the EBA's Guidelines on Internal Governance[9] state that 'all requirements within the guidelines are subject to the principle of proportionality, meaning that they are to be applied in a manner that is appropriate, taking into account in particular the institution's size, internal organisation and nature, and the complexity of its activities.' For example, with respect to corporate governance, the Guidelines on Internal Governance provide for simpler requirements for smaller institutions. Similarly, the European Central Bank's (ECB's) guide to assessments of FinTech credit institution licence applications contains provisions that take into account the principle of proportionality when assessing the adequacy of institutions' applications.[10]

By way of another example, in the sphere of EU Insurance law, institutions are required to have 'in place an effective system of governance which provides for sound and prudent management of the business. That system shall at least include an adequate transparent organisational structure with a clear allocation and appropriate segregation of responsibilities and an effective system for ensuring the transmission of information. It shall include compliance with the requirements laid down in Articles 42 to 49' (Article 41(1) of Directive 2009/139/EC (SII)). [11] These arrangements shall be 'proportionate to the nature, scale and complexity of the operations of the insurance or reinsurance undertaking' (Article 41(2) of the SII).

Within this context, when taking account of innovative propositions discussed in the context of an innovation hub, a competent authority can provide appropriate guidance regarding the expectations for risk-mitigation measures (e.g. appropriately experienced staff, robust IT systems, ring-fence arrangements). In the context of regulatory sandboxes, in addressing preparation for testing (see Chapter 2), the competent authority will seek assurances that appropriate risk-mitigation measures are in place before permitting the commencement of the test.

[9] https://www.eba.europa.eu/regulation-and-policy/internal-governance/guidelines-on-internal-governance-revised-.

[10] https://www.bankingsupervision.europa.eu/ecb/pub/pdf/ssm.201803_guide_assessment_credit_inst_licensing_appl.en.pdf.

[11] https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=celex%3A32009L0138.

2. Regulatory sandboxes

31. A regulatory sandbox is a scheme set up by a competent authority that provides regulated and unregulated entities with the opportunity to test, pursuant to a testing plan agreed and monitored by a dedicated function of the relevant authority, innovative products or services, business models, or delivery mechanisms, related to the carrying out of financial services.

32. The aim is to provide a monitored space in which competent authorities and firms can better understand the opportunities and risks presented by innovations and their regulatory treatment through a testing phase, and to assess the viability of innovative propositions, in particular in terms of their application of and their compliance with regulatory and supervisory requirements. As noted by the Basel Committee on Banking Supervision (BCBS), sandboxes may also imply the use of legally provided discretions by the relevant supervisor (with use depending on the relevant applicable EU and national law). However, the baseline assumption for regulatory sandboxes is that firms are required to comply with all relevant rules applicable to the activity they are undertaking.[12] Therefore, like innovation hubs, regulatory sandboxes can enhance firms' and competent authorities' understanding of relevant issues.

2.1 Introduction

34. Five competent authorities reported operational regulatory sandboxes at the date of this report (DK, LT, NL, PL and UK), of which one (PL) was launched shortly before the conclusion of this report.[13] One jurisdiction (LT) announced on 26 September 2018 an intention to open a regulatory sandbox to applications from mid-October 2018.[14] Another jurisdiction (NO) noted that preparations are underway to establish a regulatory sandbox operational in 2019.[15] Three other competent authorities indicated an intention to establish a regulatory

[12] See BCBS Sound Practices, *Implications of FinTech for banks and bank supervisors*, February 2018: https://www.bis.org/bcbs/publ/d431.pdf.

[13] The PL sandbox (on which see the KNF's statement: https://www.knf.gov.pl/knf/en/komponenty/img/KNF_REGULATORY_SANDBOX.pdf) operates using a decentralised model under which IT test environments are made available by start-up accelerators, financial institutions, foundations and/or other qualified entities. The operators' test environments may be either virtual (e.g. in the form of a computer system simulating market behaviours) or real (involving interaction with real clients) but do not have the option to use client funds. Both test environments will be monitored by the supervisory authority.

[14] Further details can be found on the website of Lietuvos Bankas (the Bank of Lithuania): https://www.lb.lt/en/news/lithuania-s-financial-regulator-launches-its-regulatory-sandbox.

[15] The Norwegian Ministry of Finance has tasked Finanstilsynet (FSA-N) with establishing a regulatory sandbox for the FinTech industry. The sandbox will enable Norwegian FinTech start-ups to test innovative products, technologies and services on a limited number of customers for a limited period of time under the strict supervision of the FSA-N. The aim is to (i) help FinTech entities handling a complex legal regime and supervising authorities, (ii) provide the FSA-N with a better understanding of the challenges posed by new business models and technologies, and (iii) increase technological innovation and entities within the financial industry. The FSA-N are asked to liaise with relevant industry associations in Norway, and to learn from other sandbox-initiatives in Europe. The sandbox will start accepting applications during 2019.

sandbox within 12 months of the date of the issuance of the surveys (i.e. by April 2019) (AT, ES and HU) and have detailed preparations under way.

35. Spain issued, under public consultation,[16] the Draft Law on Measures for the Digital Transformation of the Financial System, which includes the creation of a regulatory sandbox. This regulation aims to promote the innovation process by eliminating obstacles and articulating agile and transparent channels of collaboration between public authorities and private initiatives. At the same time, safeguards are proposed ensuring that digital transformation neither affects the levels of consumer protection, financial stability and market integrity nor facilitates the use of the financial system for illicit purposes.[17] The public consultation ended on 7 September 2018 and the law is expected to enter into force at the beginning of 2019. This law details the procedure for projects included in the sandbox.

36. In Hungary an analysis of practices has been carried out to inform a set of suggestions relating to modifications of the domestic legal framework in order to facilitate the establishment of a regulatory sandbox. Magyar Nemzeti Bank (the Central Bank of Hungary) has carried out an in-depth analysis to determine the most suitable scope of the regulatory sandbox. As the desired scope is wider than the legislative mandate of the Magyar Nemzeti Bank, consultation with other relevant authorities is under way to explore the maximum possible scope for the legal framework. Meanwhile the Magyar Nemzeti Bank intends to operate a regulatory sandbox within its legislative mandate from 2019. Its scope will cover numerous provisions of the Decrees of the Governor of the Magyar Nemzeti Bank where there is a potential to give meaningful exemptions while, at the same time, consumer protection, market integrity and financial stability objectives are not to be negatively affected.

37. A comparative assessment of the reported regulatory sandboxes is set out in this chapter. No significant differences were observed. Indeed, the sandboxes have a significant number of common features which are described further in this chapter. In summary, they:

    a. are not limited to a specific part of the financial sector but are cross-sectoral (e.g. banking, investment activities and services, and insurance);

    b. are open to both incumbent institutions (firms that are already present in the market), new entrants (firms that are proposing to enter, or have just entered, the market), and other firms (e.g. technology providers partnering with financial institutions (see paragraph 64));

    c. are not limited to the testing of regulated financial services, but may also include other products or services that enable or facilitate the provision of regulated

16 http://www.mineco.gob.es/stfls/mineco/ministerio/participacion_publica/audiencia/ficheros/ECO_Tes_180711_AP_Ley_transformacion_digital_sistema_financiero_fin.pdf.

17 For example, it is expected that tests within the sandbox will be carried out under three conditions: (i) monitoring by relevant authorities, in particular financial supervisors; (ii) prior delimitation of the scope, duration and characteristics of the tests; (iii) maximum protection for the participants.

financial services by another party or facilitate compliance solutions (e.g. anti-money laundering (AML), blockchain and compliance technologies or regulatory technologies (RegTech)), or new products and services that are relevant for customer protection or financial stability reasons (e.g. the use of crypto-assets to enable access to blockchain technologies);

d. do not allow, even in the testing phase, the carrying out of regulated financial services without a licence;

e. do not involve the disapplication of regulatory obligations that are required to be imposed on the participating firms as a result of EU and/or national law, but can involve the exercise of supervisory powers or levers for proportionality already available to the competent authorities in relation to the application of regulatory requirements during the testing phase;

f. provide specific entry conditions against which applicants to participate in the sandbox are assessed in order to determine eligibility;[18]

g. are not limited to specific financial innovations but do require genuine innovation to be demonstrated in order to enable participation in the sandbox;

h. involve the imposition of testing parameters, determined on a case-by-case basis, as part of the conditions to enable participation in the sandbox;[19]

i. provide for a controlled exit from the sandbox with either the continuation or the discontinuation of the proposition.

2.2 Comparative analysis of reported regulatory sandboxes

38. The reported regulatory sandboxes have been established relatively recently. Specifically, regulatory sandboxes were established in the United Kingdom in May 2016 by the Financial Conduct Authority, in the Netherlands in January 2017 by De Nederlandsche Bank in a joint initiative with the Autoriteit Financiële Markten, in Denmark in October 2017 by Finanstilsynet (the Danish Financial Supervisory Authority), in Lithuania (Lietuvos Bankas) in September 2018 and in Poland (Komisja Nadzoru Finansowego) in October 2018.

2.2.1 Objectives, legal basis and scope

a. Objectives

39. The competent authorities cited the following common objectives underpinning the establishment of the regulatory sandboxes:

[18] Typically a series of 'entry criteria' as elaborated in this chapter.

[19] For example, number of clients and characteristics of the clients.

- to enhance firms' understanding of regulatory expectations, in particular the applicability of the existing regulatory framework to innovative business models, products and services;

- to increase the knowledge of the authorities about financial innovations, the risks posed and the opportunities provided (e.g. regarding consumer protection), and to inform their approach to the regulation and supervision of financial innovations through direct testing;

- to foster innovation.

40. One competent authority (UK FCA) also identified as a specific objective reducing the cost and time to enter the market for innovative business models. Testing in the regulatory sandbox provides firms with an opportunity to trial their product or service and make changes before they commit to a full market launch. Furthermore, firms generally gain a deeper understanding of supervisory expectations and processes in the course of their preparation for and participation in the sandbox, thereby enhancing their preparedness for supervision should the proposition be continued and scaled up on exit from the sandbox.

41. Another competent authority (PL KNF) emphasised that the enhanced monitoring of test solutions and business models, and the substantive support provided by the competent authority helps firms adjust to the appropriate regulatory scheme.

b. Legal basis

42. The competent authorities reporting regulatory sandboxes (DK, LT, NL, PL and UK) cited their statutory objectives of contributing to financial stability, promoting confidence in the financial sector in their jurisdictions and consumer protection as the foundation for their initiatives. These authorities explained that, because regulatory sandboxes can be used by authorities and firms to gain a good understanding of the opportunities and risks presented by innovations through the testing process, the lessons learned can inform the appropriate regulatory and supervisory response. That response could, for example, take the form of a new set of supervisory rules relating to the disclosure requirements for the sale of a specific new financial product in order to ensure an appropriate degree of protection for consumers or, indeed, a prohibition on the sale of the product if the risk of serious consumer detriment is identified.[20] Given this, the authorities, in reporting regulatory sandboxes, view the sandbox process no differently from any other tool available to them in developing regulatory and supervisory policies in relation to emerging activities.

43. One competent authority (UK FCA) also cited its statutory 'competition' objective (the authority is required to promote effective competition in the interests of consumers as one of its three operational objectives). The other competent authorities that have established regulatory sandboxes do not have such an objective but, in their view, this did not act as a

[20] The competent authorities noted that, as a precondition for testing in a sandbox, an applicant must have in place appropriate measures to restore consumers in the event that they suffer any detriment in the course of the sandbox test. The authorities also have powers to end the test in the event that detriment were to arise.

barrier to the establishment of their regulatory sandboxes, as they placed reliance on other statutory objectives referred to in paragraph 42, which they interpreted as sufficient to enable the establishment of the sandbox through the application of existing supervisory powers.

44. Another competent authority (PL KNF) cited its statutory objective of carrying out activities aimed at supporting innovation in the financial market.

45. No changes to the law were required to establish the regulatory sandboxes because each one involves the use of the 'general' supervisory powers available to the competent authorities.

46. The differentiating feature (compared with 'normal' supervisory practices) is simply the scheme of the sandbox – namely the framework within which eligibility for testing is determined and testing parameters can be specified (see further below) that enable close proximity between the authorities and the firms for the purposes of testing. In particular, during the testing phase, competent authorities provided more dedicated supervisory cross-disciplinary resources, to allow more intensive scrutiny of the test (in terms of hours spent/intensity of monitoring), than the level of resources typically extended to monitor firms' activities.

47. The competent authorities reporting regulatory sandboxes emphasised that the sandboxes do not allow the carrying out of regulated activities without authorisation (see further Box 7). These competent authorities also emphasised that their sandboxes do not provide a space for 'light touch' regulation and supervision. Rather, all the 'normal' supervisory powers, procedures and tools apply.[21] To put it differently, the reported regulatory sandboxes do not involve the disapplication of regulatory obligations that are required to be imposed as a result of EU and/or national law (e.g. prudential standards), but can involve the exercise of supervisory powers or levers for proportionality that are already available to the competent authorities in relation to firms inside or outside the sandbox (see Box 4).

48. For all firms participating in the regulatory sandboxes, as part of the assessments of eligibility for participation in the sandboxes (see further below) and readiness to test, the competent authorities reporting regulatory sandboxes indicated that they have regard to 'normal' supervisory elements such as:

    a. whether or not the firm intends to carry out a regulated activity for which a licence is required (see Box 7);

    b. whether or not the firm will conform to the relevant supervisory requirements to satisfy the normal conditions for licensing or ongoing supervision, such as the requirements to have members of the management body with appropriate

[21] For example, if a credit institution participating in a regulatory sandbox were to be subject to a change in control during the course of the sandbox participation, the normal procedures for the assessment of any qualifying holding would apply pursuant to the CRD/CRR.

experience, knowledge and skills; taking account of the innovative nature of the proposition for testing; appropriate operational and structural organisation; and including appropriate systems and controls arrangements (including, where relevant, robust outsourcing arrangements) to mitigate appropriately any risks involved.

49. If the firm does not satisfy the relevant requirements, the firm will not be admitted to test. If a firm is admitted to test, then testing parameters will be specified by the competent authority by way of the attachment of limitations or restrictions to the licence of the firm concerned and/or a testing agreement (see Box 6), breach of which may trigger enforcement or supervisory action.

50. None of the competent authorities referred to powers directly derived from EU law, nor did any consider that the absence of any such powers represented a direct impediment to the establishment and operation of regulatory sandboxes.

c. Scope

51. All five of the reported regulatory sandboxes open their selection to incumbent institutions, new entrants and other firms. Moreover, the regulatory sandboxes are not limited to a certain part of the financial sector; rather, they are cross-sectoral (e.g. banking, investment services, payment services, insurance, market infrastructure). In Poland, the KNF emphasised that firms in their regulatory sandboxes shall not collect from test clients any funds or any other financial benefit.

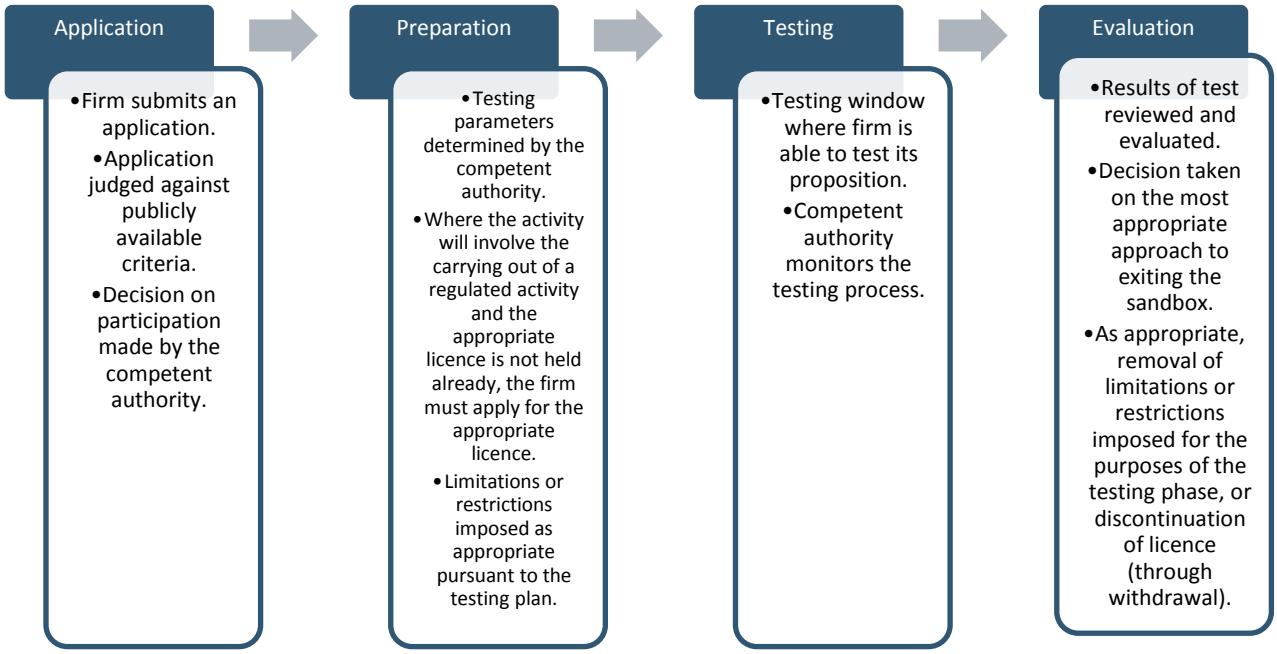
52. If an applicant found to be eligible to participate in a regulatory sandbox wishes to test a proposition that would involve the carrying out of a regulated activity, and the firm does not already hold the relevant licence, the licence is required to be acquired as a part of the preparation phase for entering the sandbox (see Box 7). If the relevant licence for carrying out regulated activities is not acquired, the firm cannot progress to the testing phase.

53. As regards firms that seek to provide technology services that do not entail regulated financial services (e.g. mobile phone applications, RegTech or other compliance solutions) to regulated financial institutions, these may participate in the regulatory sandboxes provided they have in place relevant agreements with a regulated financial institution (see paragraph 64). Generally, the agreements put in place between such a firm and a financial institution will ensure that, to the extent that testing parameters are imposed, these can be enforced against the financial institution, to which competent authorities can direct their supervisory powers, with the financial institution relying on arrangements with the firm in question to ensure compliance with any necessary regulatory obligations (such as those akin to outsourcing arrangements).

2.2.2 Phases

54. Typically, regulatory sandboxes involve several phases. These can be loosely described as an application phase, a preparation phase, a testing phase and an exit or evaluation phase with a decision on the approach to the exit from the regulatory sandbox (with either the continuation or the discontinuation of the activities).

Diagrammatic representation: Regulatory sandbox phases



d. Application to participate in the regulatory sandbox

55. In three jurisdictions (LT, NL and PL), firms may submit an application to participate in the regulatory sandbox at any time. In two jurisdictions (DK and UK), to date, the competent authorities have run 'cohort' processes under which applicants are able to apply for testing during designated periods. The application window is typically open for a period of up to two months and applicants are able to apply for testing in the regulatory sandbox by completing and submitting a standardised application form. However, in one of these jurisdictions (DK) consideration is being given to an open application process (rather than cohorts) in view of the fact that it may be inefficient to require firms to have to wait for the next cohort and, instead, firms should be able to approach the authority at the time at which they are ready to test a proposition.

56. Applications are judged by the competent authorities against set, transparent, publicly available criteria. All applications are judged against these criteria, and only propositions that meet the criteria will be accepted for testing.

57. In three jurisdictions (DK, LT and UK), the criteria refer to the following:

a. The scope of the proposition – does the proposition involve regulated financial services, or could it support the provision of regulated financial services in the domestic market?

b. The innovativeness of the proposition – see paragraph 60.

c. Customer benefits (whether retail, institutional or wholesale) – could the proposition offer identifiable customer benefits? These could be direct (e.g. in terms of improving the consumer interface with the firm or reducing the time it takes, for example, to open a new bank account) or indirect (e.g. RegTech solutions that may enhance the efficiency of or reduce the costs involved in back-office processes of firms from which the consumer may benefit).

d. The need for testing in the regulatory sandbox – put simply, where the proposition does not fit easily into the existing regulatory framework, there is no alternative means of engaging with the competent authority or achieving the testing objective in a live environment.

e. Readiness of the firm to test the proposition – has the firm developed a business plan and suitable governance, operational and other risk control framework (see further below)?

58. In one jurisdiction (NL), the competent authority requires the applicant to demonstrate that:

a. the innovative product, service or business model contributes to one or more of the objectives of the financial supervision laws (e.g. the stability of the financial system or the safety and soundness of financial institutions);

b. it has run into policy or legal barriers that the firm cannot reasonably overcome although it does meet with the underlying aims of such policies or laws;

c. it has corporate processes that help protect the viability of the firm and that protect the interests of its customers and other stakeholders.

59. In one jurisdiction (PL), the applications for the regulatory sandbox will be reviewed according to specific criteria for participation in the programme, such as the following:

a. The range of the solution – the regulatory sandbox is open to the entities which offer financial products and/or services with the required features of a KNF-supervised activity, and/or solutions designed for direct support, and/or the development of activities of supervised entities.

b. The innovative nature of the solution – the new solution should be innovative or, at least, different from the existing solutions available on the market. In addition, the product or service should support the development of the local financial innovation sector.

c. The real need to participate in the regulatory sandbox – the entity's need to use the regulatory sandbox should be justified, i.e. the entity must meet the condition that placing a product or service on the market involves significant costs and that there is no guarantee of the return of funds that were invested in obtaining the required authorisations. In addition, the innovator must meet the condition that the solution clearly does not fit into the existing legal framework, which prevents it from being placed on the market.

d. The readiness to test the solution – an important issue which should be noted by applicants is their readiness to conduct the tests and their consent to the testing being performed by a third party or by the supervisory body.

60. Determining whether or not a proposition is genuinely innovative is typically a subjective assessment by the competent authority based on the information provided by the applicant (e.g. in terms of the description of the proposition and the market data). The burden is placed squarely on the firm to demonstrate that the proposition is innovative. However, staff assigned to the regulatory sandboxes examine the information to assess its accuracy. In some cases staff also carry out a desk-based analysis and discuss the proposition internally and, as appropriate, with other authorities, to help determine if something similar to the proposition is already applied widely in the financial services sector within the jurisdiction.

61. In assessing readiness, the competent authorities will take into account factors such as whether or not the firm has:

a. developed its business plan;

b. identified customers or potential customers for the purposes of the test;

c. staff with appropriate skills and expertise;

d. obtained the appropriate software licences;

e. put in place appropriate governance and systems and controls processes;

f. proven that it is capable of demonstrating its proposition at an appropriate stage before acceptance to the sandbox (or at the least before the commencement of the testing phase) and can show that it is sufficiently developed to be fit for use in a realistic environment.

62. In the case of applications from unregulated firms looking to offer, for example, RegTech solutions to financial institutions, as noted above, the applicants will need to demonstrate that they have agreed a partnership with one or more institutions for the purposes of the test.

e. Preparation

63. During the preparation phase, the competent authorities (DK, LT, NL and UK) work with the firms deemed eligible to participate in the regulatory sandboxes to determine the following.

a. Whether or not the proposition to be tested involves a regulated activity. If such a determination is made and the firm does not already hold the appropriate licence, the firm will be required to seek the appropriate licence in order to progress to the testing phase. This is done by submitting an application for authorisation using the general authorisation process applicable to all firms seeking to carry out the regulated activity concerned (see further below).

b. If any operational requirements need to be put in place to support the test (e.g. systems and controls, reporting).

c. The parameters for the test (e.g. limitations on the volumes, number of clients, restriction on serving specific clients, restriction on disclosure, restriction on appointing an agent or representative to carry out the test) (see further below). Typically, the applicant and the competent authority will enter into a dialogue regarding the testing parameters. However, the testing parameters are ultimately determined by the authority.

d. The plan for the engagement between the firm and the competent authority during the testing phase (e.g. calls, on-site visits, sharing of information).

e. The appropriate disclosures to or communications with the relevant customers of the firm, the competent authority and other relevant authorities (such as data protection or customer protection authorities) during the testing phase. For example, in two jurisdictions (DK and UK) firms may be required to use standardised wording to inform consumers at the outset that the firm is participating in the sandbox. DK requires firms to include wording that makes clear the authority has not endorsed the proposition, and explains the potential risks involved and the rights of recourse against the firm is the consumer suffers detriment as a result of the test. As for the testing parameters, a breach of the agreed communications arrangements can result in the termination of the test, or other enforcement or supervisory action.

f. The framework for assessing the success of the test.

g. An exit plan, including, as appropriate, the measures referred to above regarding the treatment of consumers (this can be updated, as appropriate, as the test evolves).

h. Appropriate arrangements for restoring consumers if they suffer any detriment as a result of the test (e.g. in DK as a condition for participation there needs to be a

plan to show how customers would not be left worse off as a result of testing, for example, payment innovations).

64. For those firms that wish to test a proposition in the form of a product or service for a regulated institution (e.g. a DLT or RegTech solution), the firm will need to show that a suitable arrangement is in place to ensure that a partnership exists (i.e. readiness to test). This also goes to inform the parameters of the test. It does not matter if the firm is unregulated, provided that the partnership firm(s) is/are regulated and that, therefore, the testing parameters can be enforced against the regulated firm by the application of general enforcement/supervisory powers and of additional governance/tools of the authority (accepted by firms when entering the sandbox).

Box 5: Testing parameters

Specific testing parameters such as limitations, restrictions and/or other safeguards are set prior to the admission to the testing phase on a case-by-case basis.

In one jurisdiction (UK), the testing parameters may be attached to the licence of the firm (by way of an exercise of the competent authority's general powers to grant licences subject to specific limitations or restrictions[22]); therefore, the staff assigned to the sandbox will liaise with staff in the authorisation team. In other cases, the parameters are set out in an agreement issued by the competent authority to the firm.

By way of example, in two jurisdictions (DK and UK) testing can be limited, pursuant to the testing plan, to consumers in the local market. The rationale for such restrictions is that, to the extent that testing within the regulatory sandbox involves cross-border activity, an absence of any prior coordination or interaction with the host authority could present risks, for example with regard to compliance with local customer disclosure and other consumer protection requirements. Moreover, the competent authority scrutinising the sandbox test may not have sufficient proximity to monitor the testing outside the jurisdiction. The authorities explained that the imposition of such a testing parameter does not give rise to legal issues. Put simply, by agreeing to participate in the sandbox in accordance with the testing parameters set out by the authority, the firm voluntarily agrees to carry out the test with customers in only the local market.

In the event of a breach of the testing parameters, the test may be stopped and the appropriate supervisory or enforcement action taken (the most serious result being the withdrawal of the firm's licence to carry out the relevant regulated activity). Overall, the imposition of testing parameters, coupled with the close monitoring by the competent authority, enables the mitigation of risks involved in the testing in a proportionate matter.

65. If any steps in the preparation phase are not completed, the firm will not proceed to testing (e.g. where a firm fails to put in place the appropriate systems and controls arrangements or fails to agree to a communications plan specified by the competent authority).

[22] See sections 55L to 55M of the Financial Services and Markets Act 2000.

f. Testing

66. The testing phase allows sufficient opportunity for the proposition to be fully tested and for the opportunities and risks to be explored.

67. In two jurisdictions (DK and UK), the testing phase typically lasts for up to 6 months. In the Netherlands there is no 'typical' testing period – rather, it is determined entirely on a case-by-case basis.

68. In one jurisdiction (PL), the sandbox operator may conduct tests in the regulatory sandbox for a period of between 3 and 9 months. Subject to the KNF's approval, this period may be extended up to a maximum of 12 months.

69. During the testing period, the firm is able to test its proposition in a 'live' context within the agreed parameters of the test (e.g. the firm can apply the innovation in the context of dealing with customers up to the threshold specified by the competent authority).

70. Throughout the testing phase, the firm is expected (in accordance with the agreed engagement plan) to communicate with the competent authority through a direct on-site presence, meetings, regulator calls or pre-agreed written reports. Competent authorities experience this close interaction throughout the testing phase as more intense supervision than the usual supervisory engagement, and pursuant to the engagement plan agreed at the preparation stage.

71. Testing can be terminated by the competent authority (or at the request of the firm) at any point during the testing phase if:

- the firm fails to comply with the designed testing parameters;
- necessary to mitigate consumer detriment (see further Box 6);
- there is no demand for the proposition, or the proposition fails to work as expected.

72. If the testing parameters are exceeded, the competent authorities have their full suite of enforcement and supervisory powers available. These can be applied proportionately in line with the duration and seriousness of the breach. For instance, the authority may issue a warning requiring immediate remedial action; if the firm does not respond appropriately the authority could, for example, require the termination of the test, issue a fine or withdraw the licence to carry out the relevant regulated activity. In cases where the testing has involved a partnership agreement between a regulated firm and an unregulated firm, the enforcement and supervisory powers can be directed to the regulated entity.

73. From the perspective of those competent authorities reporting regulatory sandboxes, the value of the testing phase can be found in the opportunity to understand the application of the regulatory framework with regard to the innovative proposition and in the opportunity to build in appropriate safeguards for innovative propositions, for example with regard to consumer protection considerations. This may involve a reassessment of the regulatory

perimeter (in the context of determining how the proposition fits within the regulatory framework) or a recalibration of the regulatory requirements within the existing framework to ensure proportionality and technical neutrality.

74. The value for the firms can be found in gaining a better appreciation of the application of the regulatory scheme and supervisory expectations regarding the innovative proposition. Some firms have also reported deriving some benefit, in terms of the interaction with potential investors and consumers, from being able to demonstrate that they have thought out fully, and adjusted to, the regulatory and supervisory approaches in the context of the admission to the sandbox and the testing phase.

Box 6: Protecting consumers during the testing phase

Throughout the testing phase it is vital that any consumers to which a product or service will be provided in the context of the proposition to be subject to testing (whether those be retail or institutional clients) are appropriately protected.[23]

The means of appropriate protection will vary from case to case depending on the nature of the proposition being tested and the customers involved. However, by way of example, the following elements may be considered:

1) clear communications explaining the nature of the test and the implications for consumers, including on exit from the testing phase, in order that consumers can make well-informed decisions regarding the propositions subject to testing;

2) testing parameters that mitigate risks, including consumer suitability tests (e.g. certain propositions are limited to testing with only non-retail clients or investors with a higher risk appetite);

3) a clear exit plan setting out how consumers will be treated on exit (e.g. in the event of the discontinuation of the proposition subject to testing);

4) compensation or redress measures should any detriment be suffered in the context of testing.

g. Evaluation

75. At the end of the testing period, in two jurisdictions (DK and UK) the firm submits to the authority a final report so that an assessment of the success of the test (against the previously determined framework) can be carried out (in one jurisdiction, the report is prepared jointly by the competent authority and firm). The assessment may also take into account elements that come to light during the test (e.g. market reactions to the proposition). In another jurisdiction (NL), the competent authority will evaluate the success

[23] See, for example, the remarks of the EBA Banking Stakeholder Group (section 2.3 of the BSG's July 2017 report on regulatory sandboxes: https://www.eba.europa.eu/documents/10180/807776/BSG+Paper+on+Regulatory+Sandboxes_20+July+2017.pdf).

of the test, as appropriate, drawing on inputs provided by the firm. It should be noted that 'success' can be measured in many ways (as agreed during the pre-testing phase) and may include determining quickly that it is not possible for a proposition to be viably applied in the light of the existing regulatory and supervisory obligations to mitigate the risks identified.

76. If the test is terminated prematurely owing to issues identified during the testing, the agreed exit plan comes into effect. This may involve the discontinuation of the product or service being tested, continuation outside the regulatory sandbox or continuation inside the sandbox if a prolonged testing period is agreed. Importantly, the firm will be required to implement any measures to protect the interest of consumers (e.g. to arrange for a smooth offboarding of consumers, the payment claims, etc.) and, if any consumer detriment has arisen, to take such remedial steps as are considered appropriate.

77. Where appropriate limitations or other restrictions (set out in an agreement issued by the competent authority – see Box 5 on testing parameters) are to be removed, this may be done over a phased period if the competent authority and the firm agree a plan for the firm to expand the proposition or the business model but fully in accordance with any necessary enhancements, for instance in terms of governance processes/systems and controls, etc., to ensure that risks are suitably mitigated in line with the expanded business.

78. If limitations or restrictions have been attached to the licence for the purpose of participating in the sandbox, then any removal of these must be done through the normal process, i.e. by way of an application to the team responsible for authorisations (in which case the application will be assessed against the normal criteria to determine whether the firm meets all of the necessary requirements in order to justify the removal of the limitations or restrictions).

Box 7: Licensing

In all cases, to the extent that participation in the regulatory sandbox involves the carrying out of a regulated activity, the appropriate licence is required to be held.[24]

Accordingly the firm concerned will need to submit an application, in accordance with normal authorisation procedures, for the appropriate licence as part of the preparation phase for participation in the sandbox (i.e. this aspect is not dealt with by the personnel of the competent authority responsible for the operation of the regulatory sandbox; rather, it is dealt with by the regular function of the authority in charge of authorisations).

In terms of assessing compliance with the conditions for authorisation, the competent authorities emphasised that, for firms requiring licences to carry out a regulated activity in respect of a proposition to be tested in the regulatory sandbox, no 'light touch' approach applies. Put another way, the firm, like any other firm applying for the same licence, will need to demonstrate that all the conditions are satisfied in order for the licence to be granted. In the event that, at the end of

[24] The type of licence required is determined by reference to the regulated activity/activities to be carried out (e.g. credit institution, investment firm, insurance undertaking).

the test, the relevant regulated activity is discontinued, the licence to carry out that activity may be withdrawn at the request of the firm or on the initiative of the competent authority.

In line with normal authorisation practices, a proportionate approach may be applied for the assessment of conformity with the conditions for authorisation (e.g. in terms of the expectations regarding governance processes and systems and controls requirements) (see Box 4).

Competent authorities may, in the exercise of general powers, also impose limitations or restrictions on firms as an additional risk mitigation tool to support a more proportionate approach to the assessment of compliance with the conditions for authorisation or with ongoing supervision.

In this context, the ability of the competent authorities to impose limitations or other restrictions can be regarded as a lever for proportionality in the licensing or supervision process.

79. In one jurisdiction (PL), participants in the regulatory sandbox who intend to conduct supervised activities following their participation in the regulatory sandbox may, at the time of the tests in the regulatory sandbox, apply for authorisation to conduct supervised activities. The KNF, for example, noted that it provides support for applicants in this context.[25] When assessing an application for authorisation to conduct supervised activities or for an entry into the relevant register of supervised businesses, the KNF shall follow the principle of proportionality in public administration as the primary principle of conducting procedures with respect to the sandbox participant. As part of the assessment of the applications for licences submitted by sandbox participants, the KNF shall use the checklists of documents and topics which are publicly available on the KNF website. The information and documents contained in the checklists shall constitute an exclusive and exhaustive list of documents and information to be reviewed during the licensing procedure.

h. Transparency

80. In one jurisdiction (UK), a lessons-learned report was issued at the end of the first year of the sandbox, covering the proposition tested, the perceived opportunities and the limitations.

81. In Denmark, the outcome of each test will be reported (in summary form) on the competent authority's website. In Lithuania, the Netherlands and Poland, aspects relating to reporting outcomes are under consideration by the authorities.

[25] For example, the KNF clarifies the applicable regulatory and supervisory requirements and supports firms in the application process (including as regards the preparation of application documents). Moreover, considering the need to launch a solution that would simplify and speed up the process of obtaining the KNF's authorisation to conduct supervised activities, and would ensure the safety of consumers and compliance with capital requirements and requirements regarding the experience of management, the KNF is planning to draft and publish the so-called 'Licensing Checklists'. The checklists will form an exclusive and exhaustive list of issues to be raised and clarified in the course of the licensing procedure so that, before applying for authorisation, each entity is familiar with the range of questions that may be asked.

2.2.3 Interaction between competent authorities and other authorities (e.g. other sectoral regulators, other competent authorities, third country authorities)

a. Domestic authorities

82. As noted above, in one jurisdiction (NL) the regulatory sandbox was established on a joint basis between the DNB and the AMF and, as such, is underpinned by a joint policy document.

83. In one jurisdiction (UK), bespoke cooperation agreements or MoUs have been put in place between competent authorities and other authorities (e.g. data protection, customer protection and authorities in third country jurisdictions) regarding the operation of the regulatory sandbox. However, general supervisory cooperation agreements or MoUs typically extend to activities within the scope of the regulatory sandboxes (as these tend to be broadly defined) and are relied on by all three authorities reporting regulatory sandboxes.

b. Third country authorities

84. In one jurisdiction (DK), a cooperation agreement with a third country authority has been agreed with regard to FinTech but no specific reference is made to the sandbox.

85. In one jurisdiction (UK), the competent authority has made 'Fintech Cooperation Agreements' with authorities in eight third country jurisdictions. Although these agreements do not directly reference the regulatory sandbox, the information-sharing element and the commitment to work more closely and more collaboratively includes topics such as sharing approaches to respective sandboxes as well as lessons learned. In one case, the 'Fintech Cooperation Agreement' is termed an 'enhanced' agreement, as it includes commitments to exploring closer alignment in a number of areas including the regulatory sandbox. The agreement commits the two signatory authorities to exploring ways in which sandbox participants in one jurisdiction can be more easily accepted into the other jurisdiction's sandbox.

2.3 Participating entities

86. Reflecting on the regulatory sandboxes that have been operational for the longest periods (DK, NL and UK), it is clear that a wide range of firms have participated in, and a wide range of innovations have been tested in, the sandboxes. For instance, the UK FCA's first cohort (in 2017) involved 18 firms, including payment institutions and electronic money institutions, and a wide range of innovations including DLTs, online platforms for consumers to manage financial products, and a software platform to streamline the overall initial public coin offering (ICO) distribution process.[26]

87. In two jurisdictions (ES and PT), the securities and markets authorities have entered into a multilateral agreement for collaboration, consultation and exchange of information on FinTech projects with supervisory bodies, all of them part of the Ibero-American Securities

[26] For further information see: https://www.fca.org.uk/firms/regulatory-sandbox/cohort-1.

Market Institute (IIMV). The agreement will enable the mutual exchange of information, experience and expertise on FinTech, while allowing cooperation in joint initiatives related to the development of the FinTech ecosystem, including, sandboxes, where appropriate.

3. Concluding observations: observed practices and next steps

88. Limited experience has been acquired in the operation of the innovation facilitators referred to in this report as most were established relatively recently. However, some observations can be made further to the results of the comparative analysis and the engagement between the ESAs, the competent authorities and the industry,[27] informing a set of operating principles set out in Annex B. These practices can be applied by competent authorities to inform the establishment or review of existing innovation facilitators, thereby promoting convergence in their design and operation. Further potential steps to promote coordination and cooperation between national innovation facilitators are also identified in this chapter.

3.1 Innovation facilitators: perceived opportunities and risks

3.1.1 Opportunities

89. The majority of competent authorities reported that innovation facilitators offer opportunities for the authorities to gain a better understanding of innovation in financial services, and for firms to understand better the regulatory and supervisory expectations against the backdrop of rapid technological advancement.

90. In particular, innovation facilitators can help competent authorities to keep pace with developments by gaining near 'real time' insights into emerging technologies (such as distributed ledger technologies, big data analytics, artificial intelligence and machine learning) and their application in the financial sector. Competent authorities can apply these insights for the purposes of anticipating regulatory and supervisory issues and responding proactively.

91. For instance, competent authorities may react by building up supervisory expertise and resources in relevant areas, confirming and clarifying the application of the regulatory framework to financial innovations and, as appropriate, informing timely updates of regulatory and supervisory practices. In addition, the insights can enable the authorities to adopt a preventative approach, identifying supervisory issues early on, such as emerging risks to consumer protection, and to develop a good understanding of potentially undue regulatory barriers to financial innovation.

92. Innovation facilitators can help enhance the accessibility of competent authorities for firms, particularly for new entrants and technology providers, enabling participants to obtain clarifications regarding regulatory and supervisory issues at an early stage and within a

[27] Engagements with the industry took place, for example, in the context of roundtables arranged by the EBA and EIOPA (see https://www.eba.europa.eu/news-press/calendar?p_p_id=8&_8_struts_action=%2Fcalendar%2Fview_event&_8_eventId=2270868).

reasonable timeframe. For example, technology providers aiming to offer services (e.g. RegTech or supervisory technology (SupTech)) to regulated entities can obtain clarifications of supervisors' expectations in such contexts. Firms can also use innovation facilitators as platforms to raise policy matters with the competent authorities, for instance regarding areas in which clarifications may be required in the application of the regulatory framework to financial innovations.

3.1.2 Operational challenges or risks

93. On the whole, competent authorities with innovation facilitators did not identify any issues that differ from those arising in the course of more traditional interactions with firms in the context of performing traditional supervisory tasks. However, some competent authorities felt that some operational challenges or risks could be slightly increased by innovation facilitators.

a. Innovation facilitators: general

94. In relation to all types of innovation facilitator, some competent authorities cited the following challenges.

    a. Keeping pace with industry: some authorities noted the difficulties in finding and retaining staff with the appropriate knowledge and experience of FinTech, noting the pace of change in the financial sector and variety of innovations proposed.

    b. Domestic coordination: some authorities noted that enquiries raised through the innovation hubs, and propositions tested in regulatory sandboxes, often involve cross-cutting issues going beyond their direct sphere of responsibility (e.g. queries giving rise to data protection and regulatory perimeter issues). They also noted challenges in providing complete and prompt responses in this context. Many, in the absence of multi-disciplinary innovation facilitators, referred firms to other relevant domestic authorities, so firms needed to initiate separate discussions.

    c. Cross-border cooperation: some competent authorities noted that the current framework guiding interactions between authorities on issues giving rise to cross-border considerations might not be fully adapted to financial innovations (e.g. where a firm may wish to apply an innovative product or service in more than one jurisdiction and seeks guidance from the competent authorities about the appropriate regulatory treatment in each jurisdiction) and could give rise to delays in providing coordinated and holistic responses.

95. Competent authorities also cited concerns about the impact on the level playing field if material divergences were to emerge between the approaches of the competent authorities to the design and operation of innovation facilitators. They noted that different approaches could affect the relative attractiveness of jurisdictions as centres for financial innovation (e.g. in terms of accessibility of the supervisors for assistance with the

orientation around regulatory obligations), could create the risk of regulatory arbitrage and could potentially create barriers to the cross-border provision of innovative financial services.

96. In view of these considerations, the need for enhanced cooperation, coordination and knowledge sharing between relevant authorities (both domestically and across borders) is underlined.

b. Innovation hubs

97. Some competent authorities noted that firms could potentially mistake indicative guidance from the competent authorities as being binding or final, resulting in the risk of legal challenges against the competent authority if the authority were to shift its view (e.g. in the period prior to a firm submitting an application for authorisation and in the context of the consideration of an application for authorisation). To avoid this situation, the need for clear articulation of the nature of the guidance provided by the competent authorities in the context of innovation hubs is underlined.

98. Some competent authorities raised concerns regarding the process for providing guidance to firms, noting that bilateral engagements via the hub could be perceived as giving preference to those firms who benefit from guidance in the context of the innovation hub. In this context, the benefits of the public articulation of general policy stances adopted by the competent authorities (e.g. regarding the applicability of a specific EU legal instrument such as the Revised Payment Services Directive (PSD2) to an innovative business model) further to interactions with firms in the context of innovation hubs is underlined to ensure that all firms can benefit from emerging regulatory and supervisory expectations and policies.

c. Regulatory sandboxes

99. Some competent authorities raised concerns about the possibility that propositions tested in a regulatory sandbox may be perceived by consumers and/or the market as 'endorsed' by the competent authority, resulting in:

    a. potential preferential access to financing and/or preferential market positioning;

    b. legal risk to the competent authority in the event that consumers were to suffer detriment as result of services provided in the course of sandbox participation.

100. To mitigate these risks, it is underlined that firms participating in a regulatory sandbox should be subject to (i) a requirement for appropriate disclosures to consumers or an appropriate communication plan (e.g. this may include standard language making it clear that the competent authority has not endorsed and has no responsibility for the test but that the plan should be considered by the competent authority on a case-by-case basis); and (ii) a requirement to have in place appropriate measures to mitigate appropriately any potential

risks from the test. Moreover, regarding the legal liability of competent authorities with regard to sandbox propositions (and also access to financing by firms), participating firms should not be permitted to communicate at any stage that there has been any endorsement of the proposition by the competent authority; rather, it should be disclosed that the authority is simply monitoring the testing in line with the parameters of the test and therefore has no liability with regard to the test. In terms of customer engagement, disclosures should be made regarding the nature of the test.

101. Some competent authorities queried if the active guidance and close monitoring of the participants in the regulatory sandboxes could give rise to level playing field issues, creating two tiers between those firms in the sandbox and those outside it. As for innovation hubs, the need for the public articulation of general policy stances adopted by the competent authorities and wider lessons learned from sandbox test outcomes (e.g. regarding the applicability of a specific EU legal instrument to an innovative service) is underlined to ensure that all firms can benefit. It is also emphasised that the objective of the regulatory sandboxes and the entry criteria should be clear and made public in order to ensure a high degree of transparency in the entry process.

3.1.3 Legal issues

102. On the whole, competent authorities did not identify legal barriers to the establishment of innovation hubs in their jurisdictions. However, one competent authority (PL) noted that the national regime was updated in order to enable the competent authority to provide guidance in a 'binding' format.

103. In the case of regulatory sandboxes, some competent authorities queried the extent to which their mandates permit the establishment of sandboxes in the absence of an express remit to promote innovation or competition.

3.1.4 Other issues

104. Several competent authorities noted that there are limits to what can be achieved through innovation facilitators. For example, none of the reported innovation facilitators confer new powers enabling the disapplication or modification of regulatory and supervisory requirements under EU law that may not be well adapted, for example, to innovative business models or delivery mechanisms. In turn, some competent authorities observed that further measures may be warranted to help support innovation while balancing other public policy interests (e.g. consumer protection) and these may entail legislative changes even at the EU level, for example by enhancing the levers for proportionality and flexibility applicable in the licensing process.

3.2 Observed practices

105. In the light of the foregoing, the ESAs set out in Annex B a set of observed practices or operating principles which can be regarded as best practices to address the operational challenges and risks identified above.

106. Annex B has been prepared pursuant to the mandate prescribed by the European Commission in its FinTech Action Plan [28] and has been informed by the results of the comparative analysis of the innovation facilitators established to date and the experiences of the competent authorities in applying the facilitators, noting the relatively limited experience acquired in the operation of the schemes.

107. Annex B is intended to provide indicative support for competent authorities when considering the establishment of innovation facilitators (whether in the form of regulatory sandboxes or innovation hubs). Competent authorities who have already established innovation facilitators may also choose to take into account the principles identified in Annex B in the course of the review of existing facilitators.

108. The principles identified in Annex B are designed with a view to ensuring sufficient flexibility, taking account of the variations in the national markets, the fast-evolving nature of financial innovations and the structure of financial sector supervision, and the objectives, powers and resources available to the competent authorities in Member States. For these reasons, they are intended to be capable of being interpreted flexibly.

3.3 Enhancing cross-border coordination and cooperation between innovation facilitators

109. The reported innovation facilitators currently operate on a national level. This is one factor that has the potential to impede the scaling up of financial innovations across the EU – an issue cited by the European Commission,[29] competent authorities and firms.[30]

110. For example, firms may find that different competent authorities adopt different regulatory and supervisory stances towards the same innovation leading to challenges in extending the innovation in more than one Member State. This may also present risks in terms of 'forum shopping' and regulatory arbitrage, undermining the level playing field.

111. By way of another example, at present firms who have tested successfully innovations in a regulatory sandbox may face practical barriers to the application of these innovations in other Member States. For instance, firms may have to enter into extensive

[28] See Box 3: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52018DC0109.

[29] See, for example, the April 2018 speech of Vice President Dombroskis available here: https://ec.europa.eu/commission/commissioners/2014-2019/dombrovskis/announcements/vp-dombrovskis-keynote-speech-financial-forum-innovations-2018_en.

[30] For instance, at the EBA's industry roundtable on regulatory sandboxes and innovation hubs held on 3 September 2018.

dialogue to explain again the concept of the innovation and measures to mitigate any risks, and may even be required to test again the proposition causing delays to roll-out.

112. Two possible areas for further development have been identified in the work to date to contribute to addressing the above mentioned issues, as well as the potential obstacles:

a. the development of Joint ESA own-initiative guidance on cooperation and coordination between innovation facilitators;

b. the creation of an EU network to bridge innovation facilitators established at the Member State level.

113. On the other hand, the limitations and challenges observed regarding the scaling of financial innovations across the EU may not be solved either through guidance or by the activities of a network, but may stem from barriers deriving from, for instance, variations in regulatory requirements which cannot be solved via innovation facilitators (paragraph 104).

3.3.1 ESA guidance

114. Where competent authorities choose to agree on bilateral or multilateral coordination/cooperation arrangements, it is important that a common approach is adopted to support collaboration between innovation hubs and regulatory sandboxes so as to allow for the exchange of information as to the emergence of specific financial innovations.

115. Accordingly, the ESAs could promote a common approach by developing guidance in these areas, whilst recognising the need to maintain appropriate flexibility for competent authorities to put in place arrangements as appropriate in line with the scope, functions and resources of their innovation facilitators.

3.3.2 Network of innovation facilitators

116. As a potential complement to the guidance referred to above, an EU network of innovation facilitators could be established, with participation open to all competent authorities in the EU. This could provide a platform for practitioners/experts to support participating authorities in reaching common approaches to firm-specific questions elevated to the network about regulatory and supervisory expectations regarding the treatment of financial innovations. In this sense it could promote greater convergence and support scaling-up (with firms receiving, as a result of network discussions, coordinated responses).

117. Additionally, the network could serve as a forum among competent authorities and the ESAs to enhance financial innovation technical capacity while sharing knowledge as to the operation of innovation facilitators

118. This cooperation may come in the form of, for example, taking common approaches to specific innovations and, sharing testing results of selected innovations by competent authorities in case of sandboxes and providing feedback to participants as to lessons learned.

3.3.3 Potential impediments

119. Whether EU-wide measures as described above are going to be meaningful and an effective convergence instrument in practice needs to be further considered. The fact is that many reported impediments to scaling are derived from national provisions that determine definitions of financial instrument/services which are based on the directives transposed differently into national Member State laws, or conduct of business requirements that may differ across Member States. These differences, may make it difficult to have a shared understanding of what is subject to authorisation and licensing when it comes to innovative firms, products and processes and the applicable regulatory and supervisory requirements. Accordingly, a multi-pronged approach is needed as issues of this nature cannot be solved effectively through guidance or network arrangements, albeit such arrangements may support information exchange on particular innovative practices in relation to specific products, services or business models.

3.3.4 Way forward

120. The ESAs will continue to monitor developments regarding national innovation facilitators in the EU and take such further steps as are considered appropriate to promote an accommodative and common approach towards FinTech in the EU. The ESAs will explore the options available for enhancing cross-border coordination and cooperation between national innovation facilitators, in conjunction with the European Commission's and the ESAs' further work on FinTech and define further steps, as appropriate, in 2019.

121. This work will be done in the context of the overall EU work programme on FinTech, including further European Commission-led work on regulatory sandboxes as outlined in the FinTech Action Plan, and the ongoing work of the European Commission and the ESAs on the identification of obstacles to the scaling up of FinTech in the EU (e.g. the European Commission's Expert Group on Regulatory Obstacles to Financial Innovation).

Annex A: List of regulatory sandboxes and innovation hubs

Country	Facilitator Type	Link to Innovation-Facilitator	Name and link to official website	Industry		
				Banking	Insurance	Securities and Markets
Austria	Innovation Hub	Kontaktstelle FinTech / FinTech - Point of Contact	FINANZMARKTAUFSICHTSBEHÖRDE (FMA)	X	X	X
Belgium	Innovation Hub	Fintech Contact Point	Financial Services and Markets Authority (FSMA)	X	X	X
Belgium	Innovation Hub	Fintech Contact Point	NATIONAL BANK OF BELGIUM (NBB)	X	X	X
Bulgaria	Innovation Hub	Planned	FINANCIAL SUPERVISION COMMISSION (FSC)		X	X
Cyprus	Innovation Hub	Innovation Hub	Cyprus Securities and Exchange Commission			X
Germany	Innovation Hub	Kontaktformular für Unternehmensgründer und Fintechs	BUNDESANSTALT FÜR FINANZDIENSTLEISTUNGSAUFSICHT (BaFin)	X	X	X
Denmark	Sandbox	FT Lab	FINANSTILSYNET	X	X	X
Denmark	Innovation Hub	Fintech-team	FINANSTILSYNET	X	X	X
Estonia	Innovation Hub	FinTech working group	FINANCIAL SUPERVISION AUTHORITY (FI)	X	X	X
Spain	Sandbox	Under discussion in "Law on Measures for the Digital Transformation of the Financial System"	Ministerio de Economía y Empresa	X	X	X
Spain	Innovation Hub	FINTECH PORTAL / INNOVATION PORTAL	Comission Nacional del Mercado de Valores			X
Finland	Innovation Hub	FIN-FSA Innovation Helpdesk	FIN-FSA	X	X	X
France	Innovation Hub	Pôle ACPR FinTech Innovation or in English ACPR FinTech Innovation Unit	AUTORITÉ DE CONTRÔLE PRUDENTIEL ET DE RESOLUTION (ACPR)	X	X	X
France	Innovation Hub	Division Fintech Innovation Compétitivité	AUTORITE DES MARCHES FINANCIERS (AMF)			X
Hungary	Sandbox	Planning ongoing	CENTRAL BANK OF HUNGARY (MAGYAR NEMZETI BANK - MNB)	X	X	X
Hungary	Innovation Hub	MNB Innovation Hub	CENTRAL BANK OF HUNGARY (MAGYAR NEMZETI BANK - MNB)	X	X	X

Ireland	Innovation Hub	Central Bank of Ireland (CBI) Innovation Hub emailinbox	CENTRAL BANK OF IRELAND (CBI)	X	X	X
Iceland	Innovation Hub	Þjónustuborð vegna fjármálatækni (e. FinTech).	FINANCIAL SUPERVISORY AUTHORITY (Fjármálaeftirlitið - FME)	X	X	X
Italy	Innovation Hub	Canale FinTech	BANCA D'ITALIA	X		
Italy	Innovation Hub	IVASS Working group on Insurtech	ISTITUTO di VIGILANZA SULLE ASSICURAZIONI (IVASS)		X	X
Liechtenstein	Innovation Hub	RegLab (Regulierungslabor)	FINANCIAL MARKET AUTHORITY (FMA)	X	X	X
Lithuania	Sandbox	Regulatory sandbox Lithuania	BANK OF LITHUANIA	X	X	X
Lithuania	Innovation Hub	Innovation Group	BANK OF LITHUANIA	X	X	X
Luxembourg	Innovation Hub	Innovation, payments, market infrastructures and governance (IPIG) Department	COMMISSION DE SURVEILLANCE DU SECTEUR FINANCIER	X		X
Latvia	Innovation Hub	INNOVATION CENTRE	FINANCIAL AND CAPITAL MARKET COMMISSION	X	X	X
Netherlands	Sandbox	Regulatory Sandbox	DE NEDERLANDSCHE BANK (DNB)	X	X	X
Netherlands	Innovation Hub	Innovation Hub	DE NEDERLANDSCHE BANK (DNB)	X	X	X
Norway	Innovation Hub	Finansiell teknologi (FinTech)	FINANSTILSYNET	X	X	X
Poland	Sandbox	KNF Regulatory Sandbox	POLISH FINANCIAL SUPERVISION AUTHORITY (KOMISJA NADZORU FINANSOWEGO - KNF)	X	X	X
Poland	Innovation Hub	KNF Innovation Hub Programme	POLISH FINANCIAL SUPERVISION AUTHORITY (KOMISJA NADZORU FINANSOWEGO - KNF)	X	X	X
Portugal	Innovation Hub	Portugal Finlab	BANCO DE PORTUGAL COMISSAO DO MERCADO DE VALORES MOBILIARIOS AUTORIDADE DE SUPERVISAO DE SEGUROS E DE FUNDOS SE PENSOES	X	X	X
Romania	Innovation Hub	InsurTech HUB	FINANCIAL SUPERVISORY AUTHORITY (ASF)		X	X
Sweden	Innovation Hub	Finansinspektionen's Innovation Center	FINANSINSPEKTIONEN (FINANCIAL SUPERVISORY AUTHORITY - FI)	X	X	X
United Kingdom	Sandbox	Regulatory Sandbox	FINANCIAL CONDUCT AUTHORITY (FCA)	X	X	X
United Kingdom	Innovation Hub	Innovation Hub	FINANCIAL CONDUCT AUTHORITY (FCA)	X	X	X

Annex B: Principles for establishment and operation of innovation facilitators

Pre-establishment principles

1. Prior to the establishment of innovation facilitators, rigorous analysis should be carried out to identify the appropriate expertise, powers, processes, and structures required in light of local market conditions and the resources available to the competent authority. The structure of the supervision of the financial sector in the Member State concerned, should also be taken into account and such coordination/referral or other arrangements developed as appropriate, including with other relevant domestic authorities.

   Explanatory notes:

   It is important for rigorous analysis to be carried out before innovation facilitators are established in order to ensure they are designed appropriately in light of local market conditions, including FinTech and innovation developments. This analysis may include engaging with stakeholders such as start-up and incumbent firms, industry associations and other authorities.

   In the event it is concluded that the establishment of an innovation facilitator represents as appropriate step, the information may be applied to inform the appropriate functions, scope and operational structure of the facilitator.

   For instance, it may be considered appropriate to establish a dedicated unit to manage the innovation facilitator (and, potentially, other FinTech and innovation-related initiatives under the umbrella of the authority), to rely on existing team(s), or to adopt a hybrid approach enabling appropriate expertise and resources to be drawn upon effectively.

   Additionally, it may be appropriate to put in place arrangements enabling cooperation with other relevant domestic authorities (e.g. consumer or data protection) to provide a holistic approach to consideration of issues of a cross-cutting nature or of a variety falling outside the statutory responsibility of the competent authorities.

   Continued stakeholder engagement following the establishment of innovation facilitators can provide useful inputs for the purposes of the review of the functioning of the facilitators and, as appropriate, inform modifications.

Operating principles drawn from the experience acquired with the innovation facilitators established in the EU at the time of the preparation of this report

General operating principles for innovation facilitators

2. Innovation facilitators should be made suitably visible to relevant market participants, including regulated financial institutions and other firms (e.g. through a dedicated website page, and external communications, such as industry roadshows, press releases, press interviews).

3. Innovation facilitators should provide clearly defined points of contact for firms.

> *Explanatory notes:*
>
> *In order that all firms eligible to use innovation facilitators have opportunity to take advantage of the services offered, efforts to reach out to communicate the existence and explain the mission of the facilitators to relevant firms, in particular, to those firms that may fall beyond the traditional remit of the competent authority, such as technology providers may be beneficial.*
>
> *In any case, user-friendly interfaces should ensure that innovation facilitators are suitably visible and provide sufficient information on the services offered and clearly defined points of contact for firms.*

4. Innovation facilitators should have clearly defined objectives, functions and tools that are made public.

5. The scope of entities eligible for/served by innovation facilitators should be clearly defined and made public. In general, scope should be as broad as possible, extending to incumbent institutions (firms that are already present in the market and regulated), new entrants (firms that are proposing to enter, or have just entered, the market), and other firms (e.g. technology providers partnering with financial institutions).

6. The nature of firm-specific communications between competent authorities and firms in the context of innovation facilitators should be clearly defined.

> *Explanatory notes:*
>
> *It is important that the expectations of firms regarding the objectives, functions and tools are in line with those of the relevant authorities. Therefore, these elements should be communicated clearly. In addition, it is important that firms understand the nature of communications from the competent authority in the context of innovation facilitators – in particular, whether the communications are to be regarded as indicative non-binding guidance or if the communications are to be regarded as binding on the firm and/or authority.*

7. Appropriate internal records relating to the operation of innovation facilitators should be maintained (e.g. on enquires raised via innovation hubs).

8. Learnings from innovation facilitators should be disseminated to relevant functions of the authority/ies concerned. In addition, where appropriate, communications should be made to the market on the regulatory and supervisory approaches to issues identified in the context of interactions via innovation facilitators (e.g. in the form of published frequently asked questions/FAQs, authorisation decision trees, e-learning platforms, industry roundtables).

Explanatory notes:

Internal records of interactions between competent authorities and firms in the context of innovation facilitators can provide a useful resource to:

3) *help ensure consistency of responses,*

4) *enable the authorities to identify market and technology trends and areas of common concern or confusion/areas of the regulatory/supervisory framework warranting clarification;*

5) *support, as appropriate, external reporting of the activities of innovation facilitators.*

The outcome of interactions between competent authorities and firms in relation to regulatory and supervisory policy issues raised in the context of interactions in innovation facilitators may be of relevance to the wider market. In such cases, it may be appropriate for steps to be taken to publish a statement of the regulatory or supervisory outcomes. Such publications could, for example, take the format of FAQs and/or articles setting out information on:

- *the navigation of the licencing regime in the Member States so as to simplify and accelerate authorisation procedures of new financial sector entities; and*
- *clarifications of the application of supervisory and regulatory requirements to products, services and business models subject to regular consideration via innovation hubs.*

9. The operational functioning and resourcing of innovation facilitators should be reviewed and, where appropriate, revised from time-to-time to ensure that they remain fit for purpose.

Explanatory notes:

The functioning and resourcing of innovation facilitators may need to change over time, reflecting the nature of evolutions in the application of FinTech/financial innovation in the local market. Accordingly regular reviews are beneficial to ensure that facilitators remain fit-for-purpose.

Operating principles for innovation hubs

10. The key information required from firms submitting enquiries via the innovation hubs should be defined clearly, whilst making clear that additional information may be required, in order to enable a response via the hubs within a reasonable timeframe.

11. A response to enquiries received via innovation hubs should be provided within a reasonable timeframe.

Explanatory notes:

Guidance on the information to be submitted with enquiries can help speed up the response process by ensuring that the enquiries can be directed to the most appropriate expertise/resource.

Although the novelty/complexity of issues raised in the context of innovation hubs may limit a competent authority's ability to commit to a response time service standard, authorities should endeavour to respond promptly to enquiries received.

12. Where enquiries raise issues that fall outside the scope of the authority/ies responsible for innovation hubs, where appropriate, a referral should be made to other relevant authorities.

Explanatory notes:

From time to time enquiries raised via innovation hubs may give rise to issues beyond the scope of the competent authorities (e.g. data protection issues). In such cases, steps should be taken as appropriate to engage or refer to other relevant authorities.

Operating principles for regulatory sandboxes

13. Specific and clear entry conditions/criteria against which applicants to participate in regulatory sandboxes are assessed should be specified and made publically available.

14. The information required to support applications for participation in regulatory sandboxes should be defined clearly and made publically available.

15. All applications for participation in regulatory sandboxes should be acknowledged in writing and, within a reasonable timeframe following the date of application, a decision to decline or permit participation should be taken and transmitted to the applicant.

Explanatory notes:

In order to promote fairness and transparency in the process for determining eligibility for participation in regulatory sandboxes it is highly desirable for the entry criteria, and application process to be accessible and clear.

16. As part of the conditions to enable participation in the regulatory sandboxes testing parameters, determined on a case-by-case basis, may be imposed on successful applicants (i.e. participating firms) to mitigate any risks identified in the application and preparation stages.

17. Participating firms should disclose to any consumers who will receive from the firms services within the scope of the regulatory sandbox the fact the services are being provided in the sandbox, and the implications for the consumer (e.g. in terms of measures to mitigate risks from testing and on exit from the sandbox).

18. Participating firms should be required to develop plans to provide for a controlled exit from regulatory sandboxes, including to ensure an appropriate degree of protection for consumers, with either the continuation or discontinuation of the test propositions.

> *Explanatory notes:*
>
> *Appropriate testing parameters and exit plans are effective tools for mitigating risks arising from the testing of propositions in regulatory sandboxes.*
>
> *Moreover, transparency is important to allow customers to make informed decisions, mostly since participation in the testing phase of a regulatory sandbox requires a high degree of innovation of the business model / product.*

19. Regulatory sandboxes should not allow the disapplication of regulatory requirements under EU law. However, levers for proportionality available to the relevant authority/ies may be made available in the context of regulatory sandboxes and applied in the same way as to firms outside the sandbox.

> *Explanatory notes:*
>
> *Regulatory sandboxes may not be used as a mechanism to dispense with requirements under EU law, such as the requirement to obtain a licence before carrying out certain financial services, such as payments services, insurance services etc. Levers for proportionality embedded into law, for instance with regard to systems and controls requirements, may be applied in the context of firms participating in a regulatory sandbox in the same way as to firms outside the sandbox.*