



Financial Innovation: a challenge and an ambition for the CSSF

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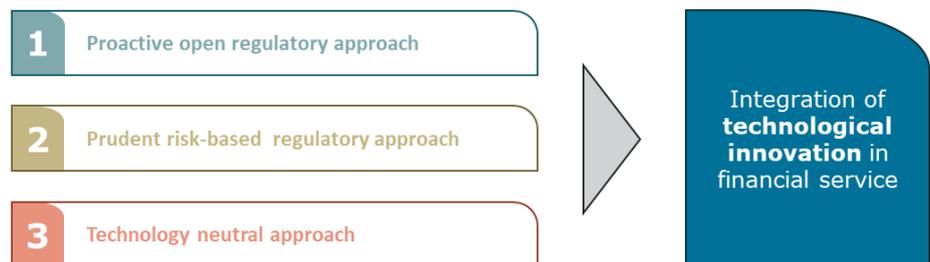
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1. Introduction

Financial innovation affects all financial sector activities and increasingly reshapes the way these activities are carried out and how the related financial services are used by clients.



Integration of technological innovation in financial services and markets is a continuing challenge for regulators such as the CSSF. To embrace this major challenge, the CSSF relies mainly on three approaches:

- a **proactive open regulatory approach** to avoid hindering new opportunities and benefits by creating excessive regulatory barriers for innovation;
- a **prudent risk-based regulatory approach** in order to safeguard the role of prudential supervision of the financial sector in ensuring the safety and soundness of the financial sector with a special focus on consumer protection, market confidence and AML considerations; and
- a **technology neutral approach** which ensures that each project presented to the CSSF is assessed on the basis of the services effectively provided, regardless of the technology used.

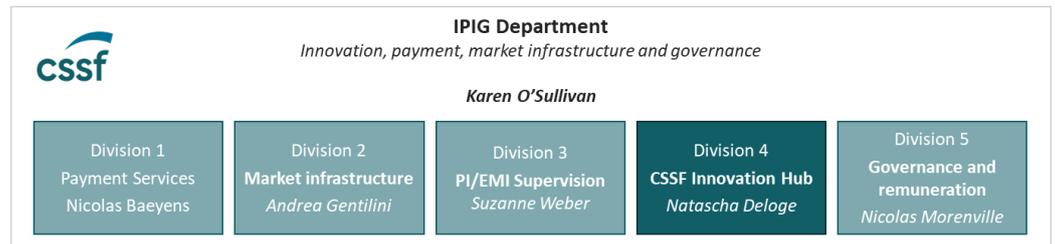
It is also important for the CSSF to raise awareness on the financial innovations currently impacting the industry and to communicate its position to both the public and the industry. It is for this reason that the CSSF regularly publishes documents on financial innovation topics such as [Artificial Intelligence](#), [Cloud Computing](#), [Robo-Advice](#) and [Digital on-boarding](#).

This document aims at further describing the involvement and the work of the CSSF regarding the Financial Innovation.

2. CSSF Involvement in Financial Innovation

2.1 CSSF Innovation Hub

Within the Innovation, Payments, Market Infrastructures and Governance (IPIG) Department of the CSSF, a division dedicated to Financial Innovation has been created. This division constitutes the “Innovation Hub” of the CSSF.



It constitutes the **single point of contact** of the CSSF for any person seeking to present an innovative solution, initiate an open dialogue or raise any question related to Financial Innovation. It can be contacted via the following e-mail address: innovation@cssf.lu.

Thanks to this Innovation Hub, the CSSF is in **permanent contact with market players** which enables the CSSF to gain the best possible understanding of FinTech developments and expectations and to address the forthcoming challenges. The CSSF is thus promoting a **constructive and open dialogue** with the FinTech industry represented by both incumbent and startup firms to, among others, enable **concrete realisation of Financial Innovation projects**.



2.1.1 Constructive and open dialogue

The CSSF aims at establishing a constructive and open dialogue with market actors wishing to discuss:

- the **development and application of regulations**;
- the **concrete issues and challenges** faced by the entities in the provision of their services;
- the **development of innovative financial solutions** which could fall under a licensing or registration regime. Discussions on the products and services to be developed are of utmost importance, to ensure that such products and services will be provided in full compliance with the applicable regulatory regime; but also

- the **development of any innovative solutions** that might indirectly fall under the scope of the CSSF's competences. The CSSF values the importance of keeping up to speed with rapid changes in technology as well as the opportunities arising from new technologies. Even if a provider of innovative solutions does not fall directly under the CSSF's remit, such solutions may be used by entities it does supervise. In this respect, the CSSF wants to promote an exchange with these providers to gain the best possible understanding of any innovative solution.

The CSSF believes that such dialogues could be highly valued by its supervised entities but also by the other market actors wishing to trigger or leverage on the Financial Innovation.

2.1.2 Concrete realisation of Financial Innovation projects

- **Preliminary assessment of the project**

In case of concrete project involving Financial Innovation, a first meeting will be organised with the CSSF Innovation Hub and the appropriate internal experts of the CSSF, and the necessity to obtain a license or to be registered to provide the intended services will be assessed.

To facilitate the discussions, the person or entity is strongly recommended to provide the CSSF Innovation Hub with a detailed presentation of its project, including, where available:

- A scheme detailing the flow of funds;
- A description of the clients' profile;
- A description of the partners, including technical partners, involved in the provision of the services; and
- An analysis of the legal qualification of the services provided.

The CSSF recommends the person to seek the assistance of an advisor in the legal qualification of his / her project.

If necessary and depending on the nature of the project and the type of services to be provided, follow-on meetings may be organised with internal experts from the different departments of the CSSF to focus on specific regulatory points. The CSSF Innovation Hub will be the dedicated point of contact in charge of the coordination of the discussions and to assist the person in finding the appropriate internal experts.

- **Procedure in case of license or registration requirement**

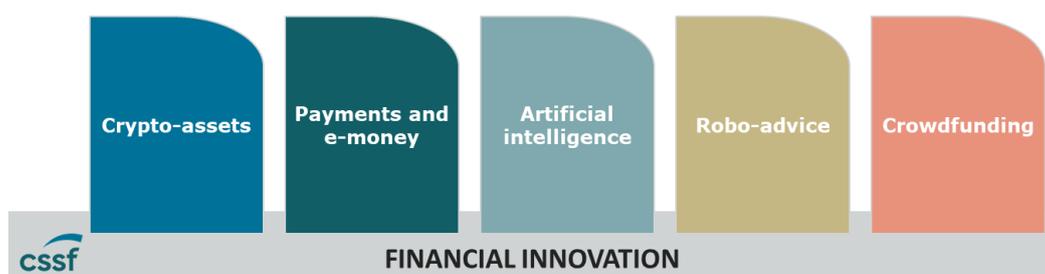
Should a license or registration be needed, the person will be put into contact with the appropriate department of the CSSF in charge of the authorisation or registration of such type of entity. Information related to the required documents and elements to be provided in the application file can be found on the [CSSF website](#).

The department in charge of the authorisation or registration will then be your dedicated point of contact for the entire process. This process is further described in following sections for virtual asset service providers, payment institutions, electronic money institutions and account information service providers.

2.2 CSSF work on Financial Innovation

The CSSF conducts research on several new technologies and concrete application of these new technologies in the financial sector. The CSSF currently focuses its efforts on, namely, the distributed ledger technologies, virtual/crypto assets and virtual/crypto asset service providers, the emergence of new payment services providers, the use of artificial intelligence, the provision of robo-advice and crowdfunding services.

The purpose of the following information is to provide the market with details of the CSSF's position on the different matters and to explain the registration or authorisation procedure, if any.



2.2.1 Crypto-assets

- **Introduction to crypto-assets and their regulatory framework**

The development of new technologies like distributed ledgers and cryptography have resulted in the creation of various types of crypto assets that may be referred to as “virtual currencies”, “cryptocurrencies” or “tokens” (e.g. so-called “payment tokens”, “investment tokens” or “utility tokens”).

On 24 September 2020, the European Commission published a proposal¹ of regulation on markets in crypto-assets as part of a global digital finance strategy. A finalized text has not been agreed at EU level. The CSSF continues to actively follow the discussions on the finalization of this proposal and its impact on the financial sector.

In parallel to the future developments of the European regulatory framework, Luxembourg introduced in March 2020 a specific regime applicable to the virtual asset² service providers which must be registered with the CSSF.

- **Registration of Virtual Asset Service Providers (VASP)**

According to the AML/CFT Law, entities who are established or provide services in Luxembourg, have to register³ with the CSSF and comply with the professional obligations defined in the AML/CFT Law, where they are providing one or more of the following services on behalf of their clients or for their own accounts:

- exchange between virtual assets and fiat currencies, including the exchange between virtual currencies and fiat currencies;
- exchange between one or more forms of virtual assets;
- transfer of virtual assets;
- safekeeping and/or administration of virtual assets or instruments enabling control over virtual assets, including custodian wallet services;
- participation in and provision of financial services related to an issuer’s offer and/or sale of virtual assets.

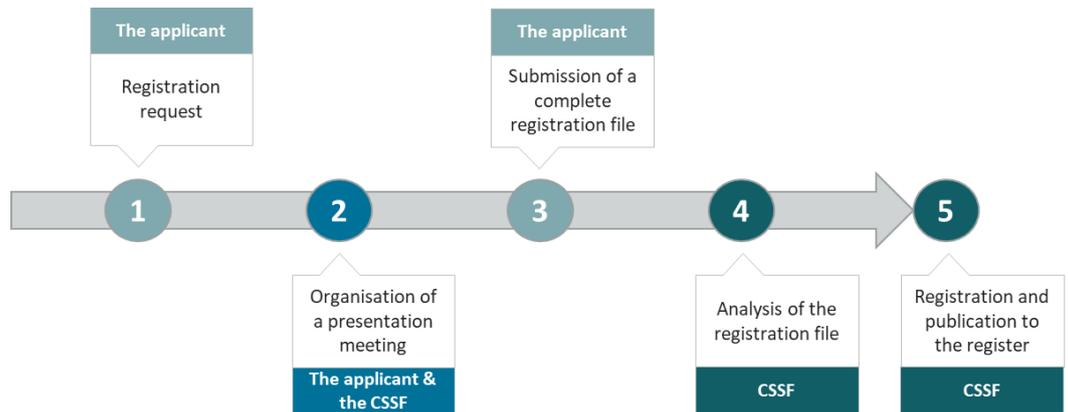
¹ The European Commission regulation proposal is available here: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0593>

² **Virtual assets** are defined in the AML/CFT Law as a digital representation of value, including a virtual currency, that can be digitally traded or transferred and can be used for payment or investment purposes, with the exception of the virtual assets which qualify as electronic money under the Law on payment services, and the virtual assets which qualify as financial instruments as per point (19) of Article 1 of the Financial Sector Law.

³ This registration requirement is without prejudice to any other license/registration or other status required either in Luxembourg or by other European or third countries for any other activities performed by the applicant.

CSSF’s role for the VASPs registered in Luxembourg is currently limited to registration, supervision and enforcement for AML/CFT purposes.

The registration procedure can be broken down into the following steps:



1. The **registration request is addressed to the CSSF** through the dedicated email address (ipiq@cssf.lu), where the applicant outlines its operations and structure;
2. **A meeting is organised** at the CSSF premises aiming to present the applicant and its project. Depending on the activities of the project, registration as a VASP may be necessary;
3. In case the registration is necessary, the **complete registration file is submitted** to the CSSF in an electronic form via the MFT (Managed File Transfer) system of the CSSF. It should include all the documents and information required by using the relevant forms made [available on the CSSF website](#).
4. The **CSSF then examines the registration file** by analysing it, exchanging letters and, where appropriate, organising meeting(s) with the relevant stakeholders;
5. When the analysis is finished and a formal registration decision has been taken by the CSSF, the registration⁴ is completed and **published in the national public register** by the CSSF.

⁴ The fact that a VASP is entered in the register of the CSSF cannot be considered or used in any way whatsoever as a positive assessment made by the CSSF of the quality of the services provided by the VASP. Similarly, the registration, or indeed its submission and/or the CSSF AML/CFT supervision may not be invoked or used for advertising or possible solicitations for business.

The CSSF has the right to withdraw the entity from the register in case of non-compliance with certain obligations as provided for in Article 7-1(4) of the AML/CFT Law.

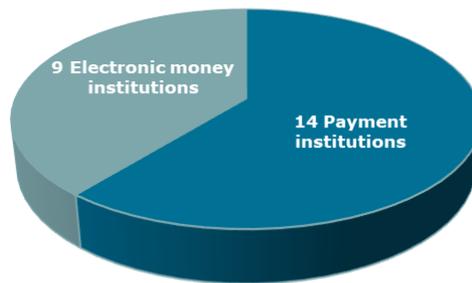
VASP are subject to annual supervisory fees.

2.2.2 Payment Service Providers (PSPs)

- **Introduction to PSPs and their regulatory framework**

Payment Service Providers, including payment institutions, electronic money institutions and account information service providers are governed by the Law on payment services⁵.

Entities authorised or registered in Luxembourg under Law of 10 November 2009 on payment services

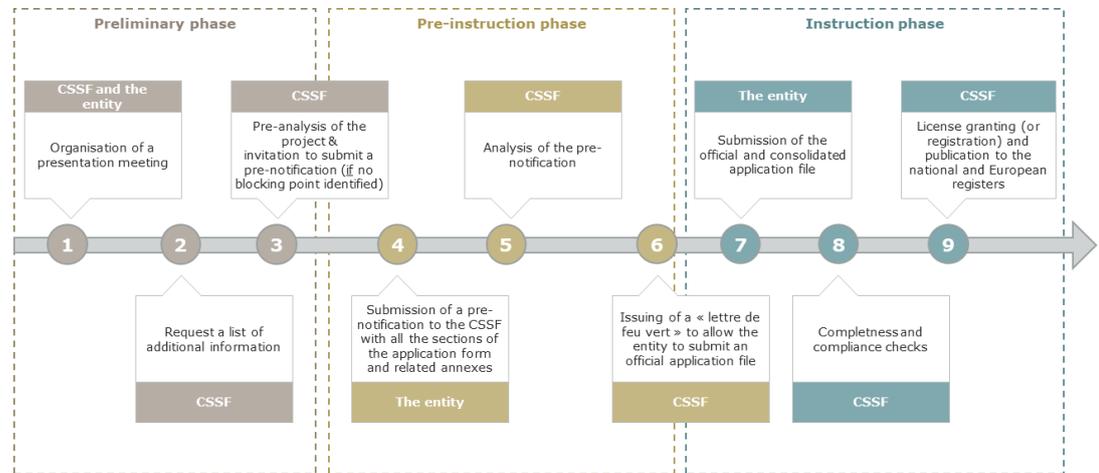


Statistics retrieved on 29 June 2022

- **Authorisation and Registration of Payment Service Providers**

According to the Law on payment services, the payment institutions (PI) and electronic money institutions (EMI) must be authorised by the CSSF, while the account information service providers (AISP) must only be registered. The authorisation and registration procedures include the following steps:

⁵ Law of 10 November 2009 on payment services, on the activity of electronic money institution and settlement finality in payment and securities settlement systems



- **Preliminary phase**

1. After contacting the CSSF regarding an **authorisation or registration** project (i.e. through the dedicated email address: ipiq@cssf.lu), a presentation meeting is organised between the CSSF and the entity. It is requested that the entity provides the CSSF with the presentation documentation at least one week in advance of the meeting;
2. Following the presentation meeting, the CSSF, in case needed, contacts the applicant **to request further information** on the project and more specifically on the following topics:
 - the projected activities;
 - the financial forecasts;
 - the structural organisation, governance and internal control arrangements; and
 - the shareholding structure.
3. Once the required information received, a pre-analysis of the project is carried out by the CSSF. In cases where no blocking point are identified regarding the topics listed above during this phase, the applicant is invited to submit a pre-notification to launch the pre-instruction phase.

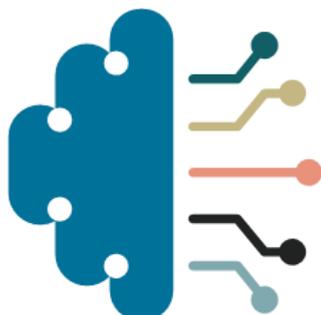
- **Pre-instruction phase**

4. Upon CSSF's invitation, the applicant submits a pre-notification to the CSSF by providing the application form respectively dedicated to **PI**, **EMI** and/or **AISP** and the relevant annexes in electronic form via the MFT (Managed File Transfer) system of the CSSF;

5. The **CSSF then examines the pre-instruction application file** for authorisation or registration, and communicates with the applicant via email, letter, conference calls or face to face meetings as appropriate. This step can take, at least, a minimum of 6 months and highly depends on elements such as:
 - the **quality and completeness of the information** given in the initial application file submitted and during the review process;
 - the **complexity of the services provided** and the related legal qualification; and
 - the **reactivity of the applicant** in addressing CSSF's questions and concerns.
6. When the CSSF considers the pre-instruction application file as being complete and sufficiently compliant, it issues a "lettre de feu vert" allowing the applicant to submit a formal application file to launch the instruction phase;
 - **Instruction phase**
7. Once the pre-instruction phase completed, the applicant will **submit its formal and consolidated application file to the CSSF**;
8. The CSSF carries out completeness and compliance checks to ensure that the formal and consolidated application file duly reflects the information and documents agreed on during the pre-instruction phase;
9. If the completeness and compliance checks are positive, the CSSF grants the authorisation (or registration) and **publishes the applicant on the national public register** maintained by the CSSF and the **electronic central register** maintained by the European Banking Authority.

The CSSF is authorised to collect instruction fees and, following the granting of the license, annual supervision fees, payable by the payment service provider.

2.2.3 Artificial intelligence



Today, Artificial Intelligence (“AI”) is one of the most promising technologies, and different kinds of practical applications, especially in the financial sector, are emerging. This topic attracts a lot of attention, but at the same time, there is still a sense of ambiguity about the underlying technology behind this term. The potential benefits that AI can bring are enormous, but these can only be achieved if the fundamentals of this technology and its underlying risks are well understood and an adequate control framework is put in place.

In this context, the CSSF has performed a research study in order to better understand what Artificial Intelligence is and the related risks. The result is a document which intends to provide some basic knowledge about Artificial Intelligence and describes the different types of AI and some practical use cases for the financial sector.

Furthermore, the study covers the analysis of the main risks associated with AI technology and provides some key recommendations to be taken into account when implementing AI inside a business process. Given the increasing adoption of AI in the financial sector and the relative lack of practical guidance from a risk perspective, the CSSF has decided to share the results of this study with the public, for the benefit of the financial sector.

The document is published in the form of a “white paper” and has no binding value vis-à-vis the supervised institutions. Nevertheless, it provides the foundations for a constructive dialogue with all the stakeholders of the financial sector for a deeper understanding of the practical implementations of AI technology and its implications.

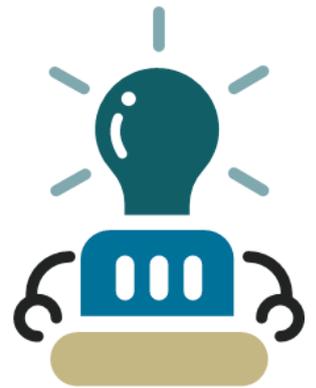
We refer to the [White paper on artificial intelligence](#) published by the CSSF on its website for further information.

Any question related to AI should be sent to the CSSF Innovation Hub’s email address: innovation@cssf.lu.

2.2.4 Robo-advice

In recent years, the CSSF has seen a growing number of financial institutions providing investment advice or portfolio management services to investors, in whole or in part, through automated or semi-automated tools, often referred to as “robo-advice”. Robo-advice can range from the provision of investment recommendations to services providing investment advice and automated monitoring and rebalancing of investment portfolios.

At present, robo-advice appears to be generally based on automated structured questionnaires to gather and analyse customer preferences in relation to the investment horizons, risks, investment sectors and objectives to determine the investor’s risk profile and propose an investment strategy. Robo-advisors also use algorithms to automatically invest into a broad universe of funds, usually ETFs, including rebalancing investments to remain in line with investor risk profiles as determined by the questionnaires. In the future, advancements in machine learning and artificial intelligence may further improve the automated decision-making of robo-advisors.



The CSSF has issued a [position paper](#) which describes robo-advice services, the business model of robo-advisors and the regulatory framework.

Any question related to robo-advice should be sent to the CSSF Innovation Hub’s email address: innovation@cssf.lu.

2.2.5 Crowdfunding



Crowdfunding is an alternative form of financing that connects those who can give, lend or invest money directly with those who need financing for a specific project. It usually refers to public online calls to contribute finance to specific projects. Several crowdfunding models have emerged within the European Union over the past few years (donation-based, lending-based, investment-based, reward-based, etc.) but only some of them currently fall within the scope of the laws and regulations of the financial sector, depending on the characteristics of the platform, on a case-by-case basis.

In order to foster the development of crowdfunding platforms within the European Union, the European Parliament approved new rules on 5 October 2020, implemented via a new Regulation on Crowdfunding⁶ and a Directive⁷ amending MiFID⁸ that will enable crowdfunding platforms to easily provide services across the EU single market.

This new Regulation on Crowdfunding creates a new legal status of European Crowdfunding Service Providers (ECSP) and will allow ECSP to apply for an EU passport, based on a single set of rules. The investors on crowdfunding platforms will benefit from a strengthened protection regime based on clear rules on, namely, information disclosures for project owners and crowdfunding platforms, in the form of a “key investment information sheet”, marketing communication, governance and risk management and harmonised supervision.

Any question related to Crowdfunding should be sent to the CSSF Innovation Hub’s email address: innovation@cssf.lu.

⁶ Regulation (EU) 2020/1503 of the European Parliament and of the Council of 7 October 2020 on European crowdfunding service providers for business, and amending Regulation (EU) 2017/1129 and Directive (EU) 2019/1937

⁷ Directive (EU) 2020/1504 of the European Parliament and of the Council of 7 October 2020 amending Directive 2014/65/EU on markets in financial instruments

⁸ Directive (EU) 2014/65 of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments



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