

ESMA response to the Commission Consultation Paper on Fintech: A more competitive and innovative financial sector

1. Introduction

1. ESMA welcomes the opportunity to respond to the Commission Consultation paper on Fintech: a more competitive and innovative financial sector (hereafter “the Consultation”).
2. Fintech and, technological innovation in general, have been the drivers of a number of developments in the financial sector in recent years. Indeed, new forms of services and businesses such as automated advice or crowdfunding have emerged. ESMA sees these developments as a positive evolution as long as they are aimed at improving consumer financial experience and facilitate financial inclusion. ESMA would also want to stress that it adheres to the core principles (technological neutrality, proportionality and market integrity) highlighted by the Commission and agrees that any EU policies aiming to ensure the financial sector takes advantage of cutting-edge technologies, while remaining sound and safe for investors, need to integrate these principles.
3. In this response, ESMA wishes to share with the Commission some reflections on a number of topics mentioned in the Consultation which appear relevant to ESMA:
 - Artificial intelligence and big data analytics for automated advice and businesses;
 - Crowdfunding;
 - Reg Tech;
 - Outsourcing and cloud computing;
 - Distributed ledger technology;
 - Role of regulation and supervisors; and
 - Role of industry: standards and interoperability

2. ESMA’s views on a selection of topics mentioned in the Consultation Paper

2.1. Fostering access to financial services for consumers and businesses

- *Artificial intelligence and big data analytics for automated advice and execution*

4. ESMA takes this opportunity to draw attention to the Joint Committee's work stream on the use of Big Data by financial institutions. The ESAs' recently closed a public consultation (launched in December 2016) aimed at getting a deep understanding of the phenomenon and to what extent the existing financial regulatory framework fosters the potential benefits identified by the ESAs while also mitigating any risks for investors as well as firms themselves.
5. ESMA is pleased that the Commission identified the same areas included in the December 2016 ESAs' consultation, such as the impact that Big Data technologies may have on automated advice, on credit scoring and financial analysis (such as SME analysis), or on the provision of certain insurance products. The ESAs are currently reviewing the extensive feedback received¹ and assessing whether, if any, actions may be needed. ESMA therefore hopes that any further thinking by the Commission on this topic would take into account the outcome of the ESAs' work.
6. This being said, ESMA acknowledges that evaluating the existing and future benefits of the use of such recent and fast-growing technologies is a difficult task. However, the ESAs have undertaken such a preliminary assessment and identified some potential benefits. For instance, Big Data technologies could improve the quality and accessibility of services for users of financial services, including from a cross-border perspective. Such technologies could also contribute to the provision of certain services at a reduced cost, such as in the case of automated advice.
7. While ESMA welcomes these potential benefits and shares the belief that Fintech can be a driver for better financial services, it also agrees that the use of big data may trigger a number of concerns from a market integrity or an investor protection standpoint which will need to be carefully monitored. The ESAs consultation has also identified certain risks associated with the use of big data technologies.
8. The increased granularity of the segmentation of markets could lead to restrictions with respect to the access of services for certain consumers of financial services classified as "undesirable". The collection and analysis of behavioural data could also lead to firms charging different prices for similar services to customers in the same target group (e.g. their inertia to changing providers or their ability to pay a higher fee). An enhanced segmentation of products and services would enable services more tailored to the needs of customers but would conversely also limit the ability of customers to compare products/services. The ESAs have also noted that a very precisely segmented marketing material has the potential of being perceived by customers as a personalised recommendation (e.g. financial advice) while it is not, raising concerns from a regulatory standpoint.

¹ A high number of stakeholders have responded. The ESAs Consultation and the non-confidential responses (from various financial sectors as well as representatives of consumers, think tanks, IT services providers, data protection authorities, etc.) are accessible at <https://www.esma.europa.eu/press-news/consultations/joint-committee-discussion-paper-use-big-data-financial-institutions>.

9. The other risks mentioned in the Commission Consultation are also shared by ESMA, as discussed in the ESAs' consultation on Big Data (e.g. difficulty for consumer to access or even understand the analysis process her/his data are subjected to; ability to spot and rectify errors in data or algorithms used; ability to hire staff with the required technical skills; cybersecurity, etc.).
10. With reference to automated advice, ESMA also wishes to draw attention to the Joint Committee Report on this matter which had extensively considered the potential benefits and risks in relation to advice using automated tools². Following the joint work, ESMA is currently considering how to provide some further guidance on this topic in the context of the review of the ESMA Suitability Guidelines.
11. Some aspects that ESMA is considering concern the way in which clients are informed of the provision of advice through automated tools and the organisational arrangements adopted by firms to take into account the specific features of automated advice (such as the reliance on algorithms and the limited human interaction, if any, with clients).
12. ESMA hopes that any further Commission action on this topic would also take into account the outcome of this work.
13. At last, ESMA would also like to comment on some aspects mentioned in the Consultation. While ESMA believes that new technologies may reduce certain operational costs for firms, it is indeed important to ensure these cost savings are effectively passed on to consumers. Also, ESMA would like to note that financial markets have a long history of innovation while coping with existing regulatory framework and therefore believes that any specific legislation in this field (such as on a potentially new licensing regimes for Fintech activities) should be underpinned by a thorough assessment, in terms of feasibility and likely impact (including on competition and ensuring that the same activities are regulated by the same rules)
 - *Crowdfunding*
14. The Commission asks stakeholders how crowdfunding could be further developed across the Union and how the potential risks it could create could be best regulated. ESMA would like to draw the attention of the Commission on the fact that a significant amount of work is already underway in the EU in relation to crowdfunding.
15. In particular, in December 2014, ESMA issued an Advice to the EU legislators in which it sets out its analysis of the key components of an appropriate regulatory regime for crowdfunding. The Advice also highlighted the gaps and issues in the current EU rules that would require consideration by policymakers. More recently, in the context of the mid-

² The JC Report are accessible at [https://esas-joint-committee.europa.eu/Publications/Reports/EBA%20BS%202016%20422%20\(JC%20SC%20CPFI%20Final%20Report%20on%20automated%20advice%20tools\).pdf](https://esas-joint-committee.europa.eu/Publications/Reports/EBA%20BS%202016%20422%20(JC%20SC%20CPFI%20Final%20Report%20on%20automated%20advice%20tools).pdf)

term review of the Capital Markets Union (CMU) by the Commission, ESMA stated that these recommendations remained valid and that the development of an EU-level crowdfunding regime would contribute to the CMU. In our view, it would be useful if EU legislators would investigate means to address the gaps and issues that exist in the current EU-framework, as they raise investor protection concerns and prevent crowdfunding from reaching its potential.

16. These gaps and issues include:

- the ease with which one can structure business models that fall outside of EU regulation (e.g. through the use of instruments which are not regarded as financial instruments and hence fall outside the scope of MiFID);
- the different thresholds that apply to the obligation to produce a prospectus across Member States; and
- the capital requirements likely to be imposed on crowdfunding platforms and the manner in which the MiFID optional exemption has been used.

Further details about those gaps and issues and possible ways to address them are provided in the crowdfunding Advice that ESMA published on 18 December 2014³.

17. Since the publication of our Advice and in the absence of an EU-wide regime, ESMA has observed an increase in the number of bespoke national crowdfunding regimes. ESMA is aware of at least eleven countries that have implemented a national regime already and more can be anticipated. While these national regimes may mitigate some of the risks attached to crowdfunding activities, they naturally do not provide for passporting and therefore reduce the ability to raise capital throughout the EU.

18. In November 2016, ESMA launched a survey to national competent authorities on regulated crowdfunding platforms in the EU. The findings of the survey are presented in Annex. In particular, the survey confirmed the continued disparity in the extent to which platforms are currently regulated in different Member States and the challenges it poses from a level playing field and regulatory/supervisory convergence perspective.

19. ESMA takes the opportunity of this consultation to restate that particular consideration should be given to the possible development of a specific crowdfunding EU-level regime, which would ensure investors across the EU are equally protected and would enable crowdfunding platforms to operate cross-border based on a common regulatory framework.

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

³ See https://www.esma.europa.eu/sites/default/files/library/2015/11/2014-1378_opinion_on_investment-based_crowdfunding.pdf

- *Reg Tech*

20. Reg Tech can be defined as technology-based solutions whose aim is to facilitate the compliance with regulatory requirements. Unlike Fintech, Reg Tech is not specific to the finance sector because Reg Tech can be used in any regulated sector. In addition, while the objective of Fintech is to create new business opportunities by changing the way financial markets operation, the aim of Reg Tech is to help market participants and regulators to comply with regulation in a more efficient manner.
21. Moreover, it is important to stress that the use of technology for compliance purposes is not new. Market participants have already been using and developing bespoke applications to help them comply with their legal obligations. For example, fund managers use software to comply with legal concentration rules or leverage limits and banks use complex IT tools to calculate their capital requirements. Also, regulators rely on technology to detect fraudulent activities such as insider trading via trading reporting systems.
22. Even if Reg Tech is not new, there may be significant benefits if market participants and regulators use more of this technology in order to facilitate compliance with recent set of legislation developed after the global financial crisis. These new legislations, among others, aimed at increasing transparency in the markets and enhanced reporting requirements. ESMA acknowledges that regulators too need to be adequately equipped to collect and analyse all the data they receive in order to achieve these new policy objectives.

- *Outsourcing and Cloud computing*

23. ESMA acknowledges that outsourcing arrangements (including to the Cloud) can provide a number of significant benefits (in terms of costs or flexibility) to firms. However, outsourcing can also pose a number of challenges for financial firms and supervisors, particularly when the outsourcing of certain functions risks introduces unacceptable operational risks to the functioning of the firm and to NCAs ability to effectively supervise the provision of financial services, especially when the service provider is located outside the EU.
24. ESMA shares the view expressed in the Consultation that the use of outsourcing or cloud computing should in no way restrict the ability of financial regulators to pursue their supervision mission and should guarantee full compliance with the European legal requirements applicable in terms of consumer protection, data protection and market integrity. Notably, ESMA believes that a high level of clarity on the terms, nature and scope of outsourcing arrangements should be guaranteed. Moreover, ESMA would like to mention that while the use of cryptography may be a secure and reliable method of storing and sharing information, any encryption keys should be made accessible to the supervisor, upon request, to allow them to perform their supervisory roles.
25. Also, ESMA is of the view that cloud computing should be implemented in a manner that complies with applicable European legislation, including data security and data protection

rules. The technology used should not alter the regulatory obligations imposed on firms in order to aim for a level of security, compliance, and data protection equal to the one applicable to IT systems not based on cloud computing.

- *Distributed ledger technology (DLT)*

26. As mentioned by the Commission in the consultation paper, in February 2017, ESMA has already started analysing the potential of DLT applied to securities markets published a report⁴ setting its view on the technology applied to financial markets. The report analyses the potential benefits and risks of DLT and its interactions with the EU financial market rules, with a focus on post-trade activities.
27. ESMA believes that DLT could bring a number of benefits to securities markets, notably more efficient post-trade processes, enhanced reporting and data management capabilities and reduced costs. However, a number of challenges will need to be addressed before these benefits could materialise. These challenges include interoperability and the use of common standards, access to central bank money, governance and privacy issues and scalability. Importantly, despite a number of interesting proofs of concept, DLT is still at an early stage and it remains unclear if the technology will overcome all of these challenges.
28. As far as SMEs are concerned, and provided a number of conditions are met, DLT could in theory facilitate the issuance of securities by those firms, thereby potentially reducing the cost of access to finance. It could also facilitate the record of ownership of unlisted securities, by eliminating duplicate records and the need for multiple reconciliations.
29. ESMA anticipates that the early applications of DLT will focus on optimising processes under the current market structure. Less automated processes in market segments with low volumes of transactions with minimum regulatory requirements, such as private shares markets, are likely to be first targets. Meanwhile, over time, DLT may allow for the reconsideration of suboptimal aspects in the existing market structure.
30. At this stage, ESMA believes that it is premature to fully assess the changes that the technology could bring, and the regulatory response that may be needed, given that the technology is still evolving and there are not many practical applications.
31. Regarding possible regulatory obstacles to the deployment of DLT solutions, ESMA has not identified any major impediments in the existing EU regulatory framework that would prevent the emergence of DLT in the short term. However, a number of concepts, such as the legal certainty attached to DLT records or settlement finality, may require clarification. Also, broader legal issues, such as corporate, contract or insolvency laws, which are not harmonised at EU level, may have an impact on the deployment of DLT.

⁴ https://www.esma.europa.eu/sites/default/files/library/dlt_report_-_esma50-1121423017-285.pdf

32. ESMA continues to monitor market developments around DLT to assess whether its analysis needs to be updated and whether a regulatory response may become necessary.

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

- Role of regulation and supervisors

33. First, according to its founding regulation⁵, ESMA is in charge of ensuring a coordinated approach to the regulatory and supervisory treatment of new or innovative financial activities in the securities markets for Europe. Over the past years, ESMA has put in place a framework to analyse financial innovation. This framework encompasses a dual perspective. On the one hand, ESMA tries to understand what advantages a given innovation may introduce and identify potential barriers to the emergence of those benefits and how such barriers can be addressed. On the other hand, ESMA also aims at ensuring that potential risks are identified and analysed and that mitigating measures are developed to ensure that the potential advantages of the innovation outweigh its disadvantages.
34. As stated in the Consultation, in most cases, legislation aims at being technology neutral (i.e. not prescriptive in terms of innovation) which means that market participants are able to compete on same terms and are free to use the technology they want as long as they comply their legal obligations. ESMA supports this approach which ensure a level playing field among stakeholders operating in the digital and 'traditional' markets as well as ensuring a similar level of protection for consumers of financial services. For that reason, ESMA believes that actions from the European Commission aiming at making the regulatory framework more proportionate to support innovation in financial markets should not be done at the detriment of investor protection and fair competition across various types of actors. Moreover, ESMA would also note that such an approach would run the risk of being outpaced by future technological developments.
35. Regarding how best to regulate Fintech start-ups, one should be cautious about the idea of regulating and supervising these companies in a different manner for the reason that they are start-ups and they would need more flexibility to develop. What should be regulated is the provision of a service or an activity independent of the form of the firm providing this service or activity. The aim should be to regulate and supervise entities providing the same type of service on an equal foot. Therefore, we do not see a strong case for the creation of specific licensing categories for Fintech start-ups.
36. However, Fintech start-ups might need more advice or help from supervisors to navigate the applicable legal framework. In that sense, innovation hubs or other dedicated structures recently created in some national competent authorities and that are aimed at guiding and advising Fintech start-ups are interesting and should be encouraged.

⁵ Regulation 1095/2010/EU

- *Role of industry: standards and interoperability*

37. ESMA strongly supports the objective of data standardisation and harmonisations, in particular for the purpose of regulatory reporting by market participants. Achieving this objective facilitate implementation efforts and leads to diminishing compliance burden by the industry. It equally permits for more efficient and effective use of data by regulatory community for monitoring of the orderly functioning of the markets and activities of investment firms, market abuse surveillance, systemic risk and financial stability assessment, detection and response to risks in the financial markets.
38. However, the idea that standardisation can be competition-friendly is highly questionable, due to the significant complexity and associated costs it creates both for market participants and for the regulatory community. These costs might significantly outweigh any benefits from competition among reporting standards. Based on regulatory and implementation work in respect of various reporting regimes carried out in the last several years, ESMA firmly believes the successful introduction of any harmonised reporting regime primarily depends on choosing a single, appropriate standard. Suitable governance should also be in place to ensure the concerned entities can use the standard on a fair, reasonable and non-discriminatory basis.
39. In particular, the European regulatory framework in relation to any reporting should consider adapting a particular standard that is most appropriate for the given data reporting regime. Selection of the relevant standard could, for example, be based on a due process of assessment of existing standards and could rely, among others, on the following selection criteria:
- a) scope of standard;
 - b) level of compliance;
 - c) implementation feasibility (e.g. cost);
 - d) non-functional requirements (e.g. extensibility);
 - e) openness;
 - f) reusability;
 - g) level of adoption in other regulatory framework;
 - h) governance and change management.
40. At the same time, it is important to stress that greater harmonisation and standardisation of data (as well as interoperability of any relevant systems) is only feasible when the relevant sectoral legislations are being developed with sufficient coordination and consistency between themselves.

Annex

Investment-based crowdfunding: Insights from regulators in the EU

Background

- i) In November 2016, ESMA launched a survey to National Competent Authorities (NCAs) to collect up-to-date information on regulated investment-based crowdfunding platforms in the European Economic Area (EEA). The survey follows on a first survey launched in December 2014.⁶
- j) This report presents the key findings of the 2016 survey. It first looks at the regulatory status of the investment-based crowdfunding platforms in the EEA, including the rules under which they are regulated, the type of services that they offer and the capital requirements that they need to meet, and how this compares with the situation in 2014. It then analyses the investment instruments, structures and remuneration models that those platforms are using.

Scope of analysis

- k) We have received responses from 28 NCAs.⁷ However, some NCAs have not been able to provide responses to all questions for all platforms. Therefore, representativeness of results may vary depending on the questions considered. Furthermore, there may be a number of platforms that are operating outside the scope of regulation or outside the supervisory remit of some of the NCAs, which would not be captured by the survey.
- l) By 'regulated platforms' we mean platforms that are directly authorised/registered under EU or national law, or are tied agents of authorised/registered firms.

Overview of results

- m) Ten NCAs, to be compared with seven in 2014, have reported that regulated investment-based crowdfunding platforms are operating in their territory (although not necessarily based there). These are France, Germany, Italy, the Netherlands, Spain and the UK, which had reported platforms in 2014 already, and the Czech Republic, Finland, Norway and Sweden, which are new to the list. Noteworthy, the single regulated platform active in Austria put back its license and restricted its business to non-licensed activities, meaning that Austria had no longer regulated platforms to report this time. In addition, Greece have indicated that they were

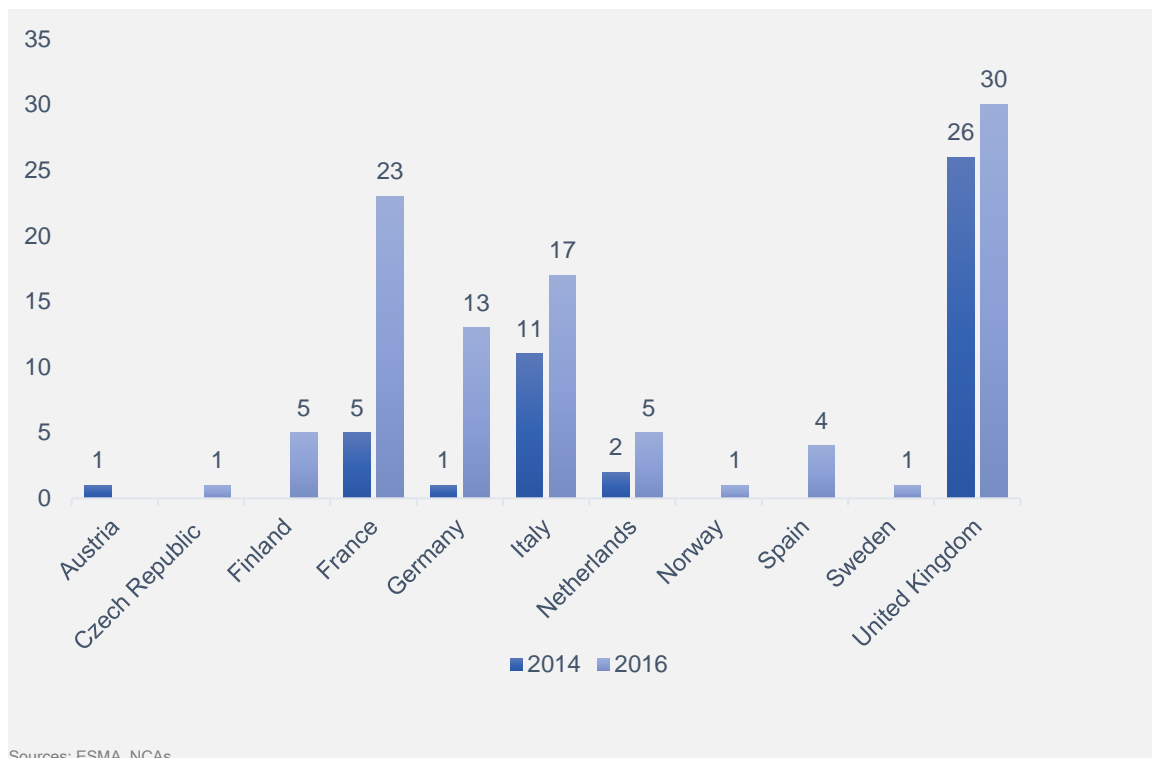
⁶ See https://www.esma.europa.eu/sites/default/files/library/2015/11/esma-2015-856_ann_1_esma_response_to_ec_green_paper_on_cmu_-_crowdfunding_survey.pdf

⁷FMA-AT, FSMA-BE, FSC-BG, HANFA-HR, CNB-CZ, FSA-DK, FSA-EE, FINFSA-FI, AMF-FR, BaFIN-DE, HCMC-EL, MNB-HU, CBoI-IE, Consob-IT, FMA-LI, BoL-LT, CSSF-LU, MFSA-MT, AFM-NL, Finanstilsynet-NO, KNF-PO, CMVM-PT, ASF-RO, NBoS-SK, SMA-SL, CNMV-ES, FI-SE, FSA-UK. We have not received responses from Cyprus, Iceland and Latvia

reviewing their first application for authorisation, which would bring the number of NCAs with regulated platforms to eleven provided the application is successful.

- n) NCAs reported a total number of 99 regulated platforms, up from 46 in 2014, i.e. a 115% increase over two years (see list in Appendix).⁸ This figure may be an underestimate though, considering that those crowdfunding activities performed, for instance, by firms operating under a general MiFID licence may not be separately defined or identified.
- o) An overview of the regulated platforms by country is provided in chart 1 below.⁹

Chart 1: Regulated platforms by country in 2016 versus 2014



- p) The UK still has the highest number of regulated platforms in the EEA but it is now more closely followed by France, Italy and Germany. The number of regulated platforms has boomed in France (+360%) over the last two years, although starting from a low base. In Germany, the Retail Investors' Protection Act (Kleinanlegerschutzgesetz) passed in 2015 has altered the regulatory requirements for platforms. As certain aspects now fall under BaFin-supervision, many platforms are now considered as "regulated", hence the marked increase in the number of regulated platforms since 2014.¹⁰

⁸ The figure does not include those platforms that have applied for authorisation but are not authorised yet. We are aware of at least five platforms in that situation in Finland, Greece and the Netherlands

⁹ Note: the sum of the platforms reported by each NCA exceeds the total number of regulated platforms as some platforms may be operating in more than one country.

¹⁰ In Germany, crowdfunding platforms are authorised and supervised by local trade authorities. Since 2015, because they are required to file a Key Investor Document at BaFIN for each crowdinvesting-instrument, they have been classified as regulated, which was not previously the case.

- q) Only a handful of platforms reported in 2014 have formally ceased operations, including one in Italy. However, it seems that a number of platforms have limited activities, including some of those recently set up.

Regulatory status

- r) Charts 2 and 3 below provide an overview of the regulatory framework under which regulated platforms operate and how this maps to the different countries.

Chart 2: Regulatory status

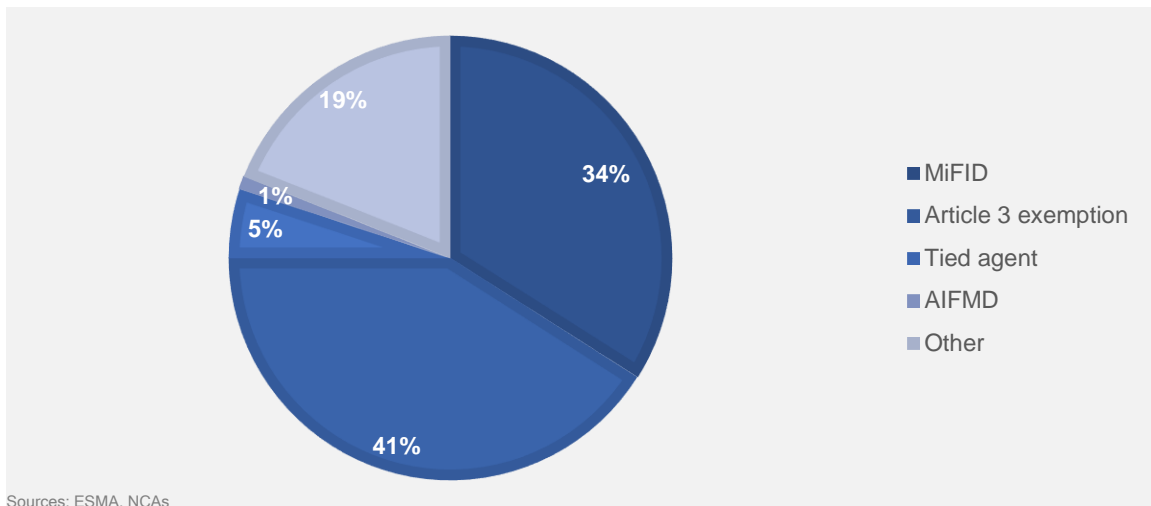
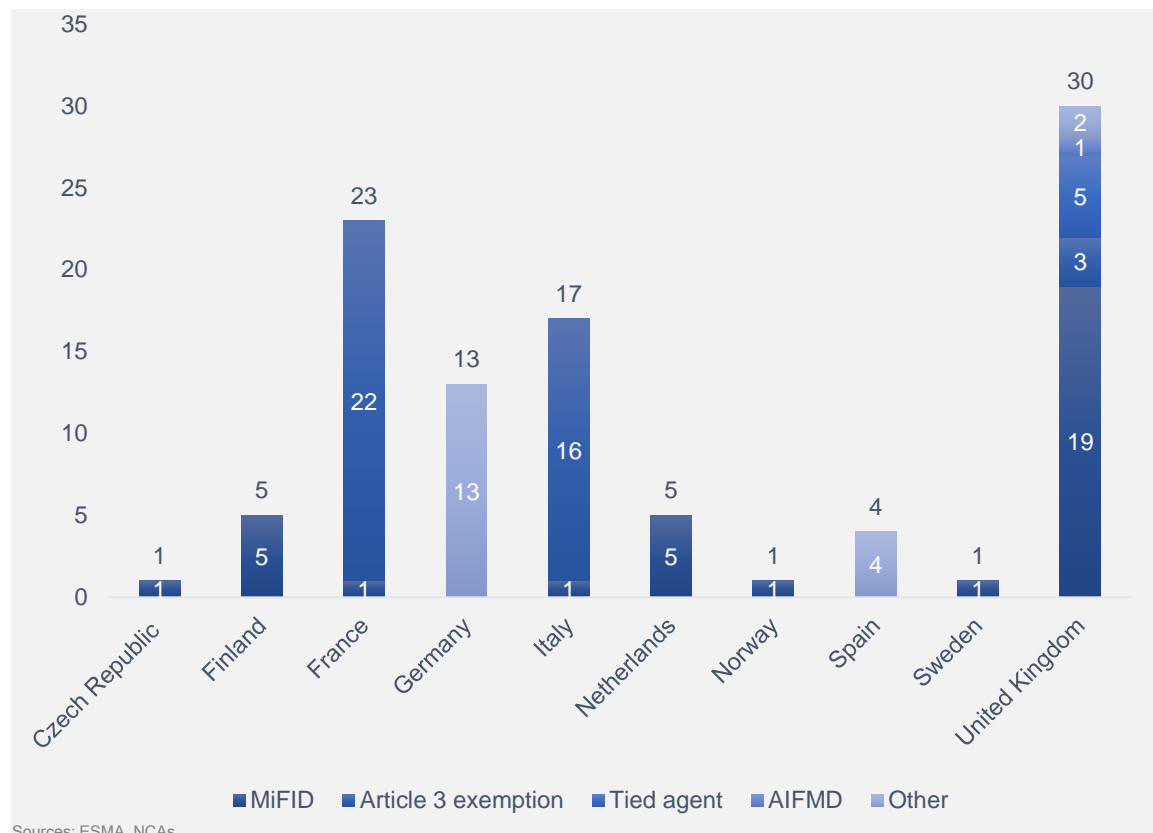


Chart 3: Regulatory status by country



- s) Out of the 99 regulated platforms that were reported, 41 platforms operate under the Article 3 exemption of MiFID. Most are in France (22) and Italy (16) and the rest in the UK (3).
- t) 33 platforms have a MiFID license. These platforms are concentrated in the UK (19), followed by the Netherlands (5) and Finland (5). The Czech Republic, France, Italy, Norway and Sweden each reported one MiFID regulated platform operating in their territory.¹¹ Two of these platforms have been reported as authorised under AIFMD as well, both in the UK. One was reported as having assets under management below the threshold above which such joint authorisation is not permitted. The second was reported as being authorised to carry on the regulated activity of managing an unauthorised AIF.
- u) Five platforms, all in the UK, act as tied agents of a MiFID investment firm. These platforms are not directly authorized but operate under the responsibility of a MiFID authorised firm. Two of them are tied agents of the same MiFID firm.

¹¹ The same MiFID platform was reported both by Norway and Sweden and only counted once in the total.

- v) One platform operates under AIFMD in the UK.

- w) Finally, 19 platforms were reported as authorised under national law. These include 13 platforms in Germany that do not use MiFID instruments, four platforms in Spain that operate under the national bespoke crowdfunding regime and two platforms in the UK that were reported as excluded from MiFID scope by virtue of Article 2.

Cross-border activities

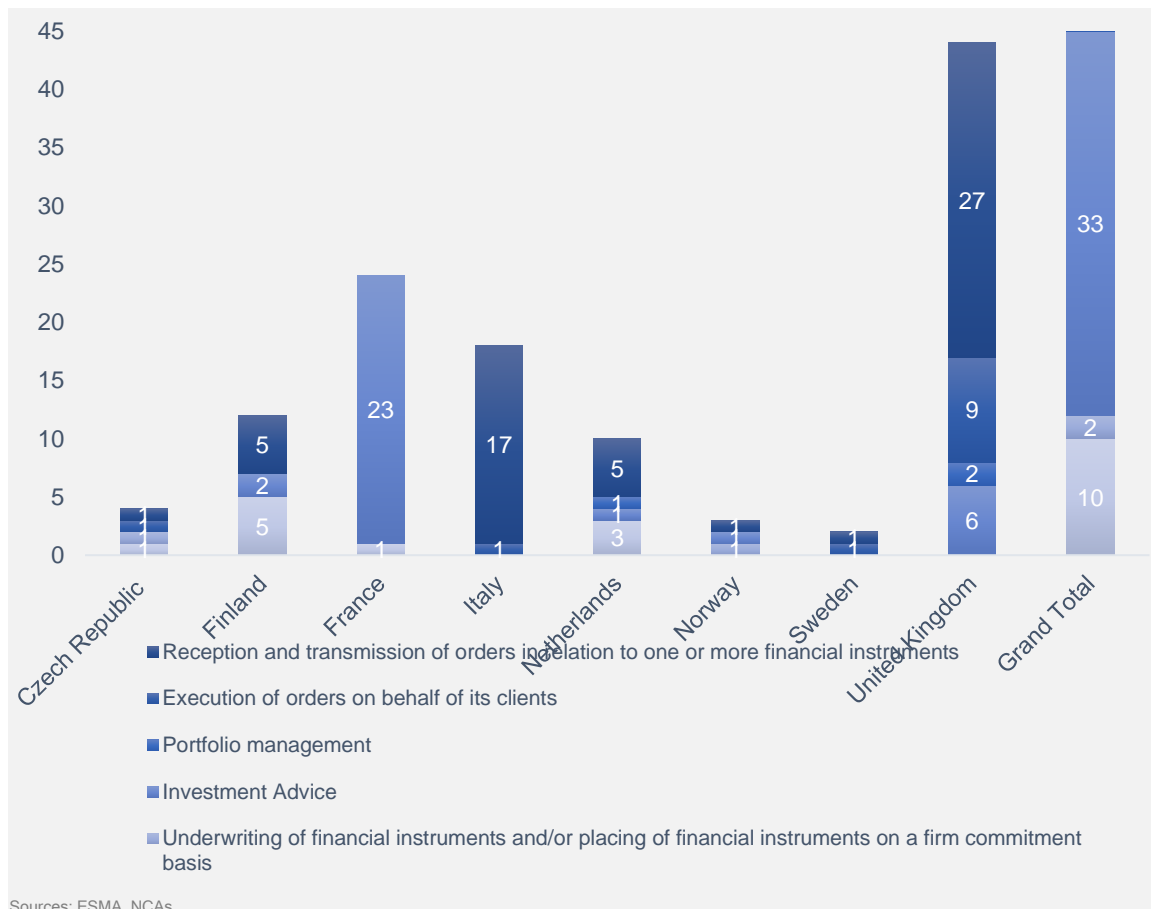
- x) Two NCAs, namely Finland and the UK, have reported that platforms have notified them of the use of the MiFID passport, for a total of 12 platforms. These platforms have typically notified use of the MiFID passport for most if not all EEA countries.

- y) Noteworthy, based on the information reported, one NCA only was aware of a platform authorised in another country being active in its territory by virtue of a MiFID passport, suggesting that cross-border activities are not easily identified.

Services/activities provided

- z) The MiFID services/activities carried out by regulated platforms and how this maps by country are as follow:

Chart 4: MiFID activities/services by country



- aa) 'Reception and transmission of orders' (RTO) continues to be the most common service/activity offered by around 70% of the MiFID regulated platforms. 'Investment Advice' comes second but mostly because of France.
- bb) 12 platforms in the Czech Republic, Italy, Sweden and the UK offer 'Execution of orders on behalf of clients', all in addition to RTO. Ten platforms are reported to carry out 'Placing of financial instruments without a firm commitment basis'. All but one in France carry out this service in addition to RTO. In France, the platform carries out investment advice in addition to 'Placing of financial instruments without a firm commitment basis'. Three platforms, two in the UK and one in the Netherlands, provide 'Portfolio management', again all in addition to RTO. Two platforms, in the Czech Republic and Norway, offer 'Underwriting of financial instruments and/or placing of financial instruments on a firm commitment basis', in addition to several other activities, including RTO. No platforms are reported to provide the services of 'Dealing on own account' nor 'Operation of multilateral trading facility'. The five tied agent of MiFID firms only offer 'Reception and transmission of orders', despite being also authorised to provide 'Placing of financial instruments' and 'Investment advice'.

- cc) Noteworthy, the vast majority of platforms in France and Italy carry out only one type of MiFID services/activities, whereas platforms in other countries tend to have a broader range of activities. This is consistent with the national exemption regimes developed under Article 3 of MiFID in those countries. Indeed, in France the national exemption regimes requires platforms to carry out the service of investment advice, while in Italy the regime requires platforms to carry out RTO.
- dd) Only 17 platforms were reported as holding client money. The majority of these platforms are located in the UK (9), the rest in Czech Republic, Finland, and Sweden, and they are operated by MiFID investment firms, except in one case where the platform is authorised under AIFMD. Consistent with the restrictions imposed by MiFID, none of the entities operating within the Article 3 exemption of MiFID were reported as holding client money.

Initial capital requirements

- ee) Those platforms regulated under the Article 3 exemption of MiFID regime (41 platforms) have no initial capital requirements, with the exception of the UK where those platforms (two entities) have an initial capital requirement of €50,000.
- ff) The initial capital requirements of the MiFID platforms (33 entities) vary as follows:
- 17 were subject to base capital requirements of €50,000, reflecting the limited activities they carry out.
 - 13 were subject to base capital requirements of €125,000, reflecting the fact that they have permission under MiFID to hold client money. Two of them, located in UK, are authorised both under MiFID and AIFMD.
 - Three were subject to base capital requirements of €730,000 or more, reflecting the fact that they are carrying out a wider range of activities (including underwriting/placing on a firm commitment basis).
- gg) Initial capital requirements for platforms regulated under national law (19 platforms) are the following: in Spain, the initial capital requirements for crowdfunding platforms are set at €60,000, while in Germany as a minimum the requirements set by corporate law apply, e.g., €25,000 for limited companies and €50,000 for stock corporations. One of the UK platforms excluded from MiFID scope by virtue of Article 2 had a capital requirement of €5,000 when the other had a capital requirement of €125,000. None of these platforms is allowed to hold client's money.
- hh) Those that are tied agents (five entities, all in the UK) do not themselves have any initial capital requirements. While the firm of which they are a tied agent would probably have some initial capital requirements, those requirements may not be specific to the crowdfunding activity.

Investment instruments and structures used

- ii) Direct investment in equities is still the most popular offering among regulated platforms. More than half of the platforms (53) offer that form of investment. Around a fifth of these platforms provide direct investment in bonds as well. Noteworthy, in Italy all the platforms provide direct investment in equity, as was already the case in 2014.
- jj) 11 platforms offer direct investment in bonds or other types of debt instruments exclusively, to be compared with eight in 2014. Several of them focus on investment

in sustainable development projects, particularly in relation to solar or wind energy. Presumably, debt is a more attractive proposition than equity in such cases, because of the long term nature of the project and the income stream that it can generate.

- kk) The share of platforms using an indirect investment model has increased relative to 2014, mainly because of France where this model is fairly widespread. Nine platforms in France offer indirect investment through a 'holding company', one holding company being typically established for each project. This enables project owners to deal with only one counterparty and investors to act as a single block. Seven platforms in the UK and one in Sweden use a similar set-up but based around a special purpose vehicle in the case of the UK. A handful of platforms are also offering investment funds, as sole investment vehicle or alongside equity or debt.
- ll) In Germany, the platforms use instruments that are not deemed financial instruments under MiFID but fall under the scope of national law, such as 'profit participation rights'. The latter provide investors with a share of the profits but no ownership rights. In Spain, the platforms offer direct investment in non-transferable stakes of limited liability companies, which are generally not freely transferable.
- mm) Noteworthy, there has been an increase in the number of platforms offering real estate related projects (20 platforms) in France, Germany, the Netherlands, Spain and the UK. These platforms may focus on real estate projects exclusively or not and use direct or indirect investment frameworks.

Remuneration models and fee levels

- nn) The remuneration model where the project owner only remunerates the platform still dominates by far. Both investors and project owners remunerate the platform in around a third of cases. Remuneration by the investor only remains the exception, with only two platforms using this model in the UK.
- oo) When compared to 2014, it seems that fees charged by platforms have rather trended upward, even if it is difficult to draw firm conclusions from relatively small samples in several countries. We have also observed few cases of platforms changing their remuneration model. As an example, in the UK a handful of platforms are now charging variable fees to both project owners and investors, instead of fixed fees charged to project owners only. In Italy, one platform now applies different levels of fees to project owners, depending on the type of investor, reflecting the fact that handling a large number of small investments by retail investors is more cumbersome.
- pp) Another observable trend is that platforms offering real estate projects tend to charge higher fees and often includes a fixed fee in their remuneration. This situation may be explained by the fact that many offer bond instruments where there is no profit made at exit.

Platforms remunerated by project owners only

- qq) As discussed above, this remuneration model, whereby the platforms receive a percentage of the amount raised when the fundraising campaign is successful is the most popular. This model is dominant in Italy (where it is effectively the only model in place) but also in Germany, Spain and the UK. The percentage charged varies between 5-8% on average, slightly above the figures observed in 2014. Some platforms charge a significantly higher fee, up to 20%. Noteworthy, for real-estate

projects, fees are generally higher (7-10%) and a fixed fee, which typically ranges from €2000 to €4500, often comes on top.

- rr) In the case where fixed administrative or listing fees come on top (less than half of the platforms that use this remuneration model), those fees range from €1000 to €6500 but may go up to more than €8000. None of the regulated platforms following this remuneration scheme seems to be remunerated by taking a share in profits from the project owner.

Platforms remunerated by both project owners and investors

- ss) This remuneration model represents almost one third of the platforms. It is particularly widespread in France.
- tt) The part of the fees charged to project owners typically takes the form of a percentage of the amount raised, as is usually the case when the platform is remunerated by the project owner only, as we discussed above. These fees typically range between 5-6% of the amount raised, but can go up to 10%. Some platforms charge other administrative fees in addition, which vary between €1000-€8000 but may be as high as €30,000 as we observed in one case. We have identified only two platforms that charge variable fees on the amount of profit made by project owners, 5% and 10% respectively.
- uu) Looking at the part of the fees charged to investors, some platforms charge a percentage of the amount invested, where the campaign was successful, ranging between 2%-6%. Other platforms take a share in profits, around 15% on average with variations between 5 and 20% and sometimes even 50%. Few platforms charge both.
- vv) It appears that charging fees to investors as well as project owners does not reduce the fees paid by project owners, or at least not to the extent that might be expected. Overall, the income received by those platforms that use this remuneration tend to be higher than in the other remuneration systems. This could be regarded as justified, if effectively these platforms are providing distinct services for the two parties paying fees (project owners and investors).

Platforms remunerated by investors only

- ww) This remuneration model continues to be the exception. Only the UK reported two platforms using this remuneration model: the first deals with real estate projects only and charges investors a one-off fee equal to 2% of the amount invested; the second, which provides investments in equities, charges 7.3% of the amount invested.

Implications for platforms

- xx) Because of the predominance of 'success' fees linked to successful achievement of a fundraising campaign, coupled with administrative or other charges collected at the same stage, much of the platforms' revenue is linked to the initial raising of funds, rather than the ongoing performance of the investment. This means that platforms may have an incentive to market projects aggressively and be less selective on the projects that they advertise, at least up to a point where they may face reputational risk. Because most of the fees are charged up-front once and for all, platforms also need to maintain a pipeline of new projects on an ongoing basis. This also means that they have little visibility on their future profitability and could face viability issues over time.

Implications for clients

- yy) From a project owner perspective, the payment of fees on successful completion of fundraising seems to be aligned with the initial objectives of the project owner. In terms of the cost of using platforms relative to other forms of finance it is hard to draw firm conclusions as the comparison is not straightforward. There may be financial and operational disadvantages for a project owner to use platforms relative to other funding means, e.g., because of the challenges involved in dealing with a high number of small investors.

- zz) From an investor perspective, only where the platform benefits from a share of the investor's profits is there an incentive for the platform to promote the success of the investment and therefore a strong alignment of interest. Where the platform co-invests there may also be an alignment of interests, but also the potential for conflicts of interests between groups of investors (i.e., the platform vs the investors) depending on how the co-investment is carried out.

- aaa) Costs to investors remain difficult to assess at this stage. Investors could more cheaply have access either to listed equities or to funds of such equities, but depending on investor objectives this may not be the right comparator as few such companies would raise finance through crowdfunding platforms. It is not uncommon in private equity to see asset managers retain a substantial portion of the profit made on investments through performance fees. However, asset managers provide selection and monitoring services that crowdfunding platforms tend not to offer, not to mention the diversification benefits attached to investments in funds.

Appendix

Regulated entities

Number	Entity Name	Country	Website
1	Fundlift	Czech Republic	www.fundlift.cz
2	Invesdor	Finland	www.invesdor.com/finland/en
3	Innovestor	Finland	www.innovestor.fi/en/
4	Kansalaisrahoitus	Finland	www.kansalaisrahoitus.fi/
5	Nordea Crowdfunding	Finland	https://crowdfunding.nordea.fi/
6	Around	Finland	www.around.fi
7	1001PACT	France	www.1001pact.com
8	AB FUNDING	France	www.ab-funding.com
9	Anaxago	France	https://www.anaxago.com
10	Bulb in Town	France	www.bulbintown.com
11	CANBERRA IMMO	France	www.canberra-immo.fr
12	ClubFunding	France	www.ClubFunding.fr
13	CROWDFUNDING IMMO	France	www.crowdfundingimmo.fr
14	ENERFIP	France	www.enerfip.fr
15	EOS Venture	France	www.letitseed.com
16	FEDELIOS	France	http://www.feedelios.com/fr/home
17	FUNDIMMO	France	WWW.FUNDIMMO.COM
18	HAPPY CAPITAL	France	www.happy-capital.com
19	INVESTBOOK	France	https://www.investbook.fr/
20	Kaalisi	France	www.kaalisi.fr
21	LUMO	France	https://www.lumo-france.com
22	LYMO	France	www.lymo.fr
23	MY NEW STARTUP	France	https://www.mynewstartup.com
24	PROXIMEA	France	www.proximea.net
25	RAIZERS	France	www.raizers.com
26	SmartAngels	France	www.smartangels.fr
27	SORA EQUITY	France	https://sora-equity.com/
28	Sowefund SAS	France	https://www.sowefund.com
29	WiSEED	France	www.wiseed.com
30	BERGFÜRST AG	Germany	www.bergfuerst.com
31	Bettervest GmbH	Germany	www.bettervest.com
32	Companisto GmbH	Germany	www.companisto.com
33	CONDA Deutschland Crowdinvesting GmbH	Germany	www.conda.de
34	Exporo AG	Germany	www.exporo.de
35	Kapilendo AG	Germany	www.kapilendo.de
36	Civum GmbH	Germany	zinsland.de
37	DMI Deutsche Mikroinvest GmbH	Germany	www.deutsche-mikroinvest.de/
38	Aquarius Schwarmfinanz GmbH & Co. KG	Germany	www.aquarius-schwarmfinanz.de
39	Bürgerzins GmbH	Germany	www.buergerzins.de
40	GESEKA GmbH	Germany	www.geseka-kapitalanlagen.de
41	wiwin GmbH	Germany	www.wiwin.de
42	Seedmatch GmbH	Germany	www.seedmatch.de
43	StarsUp	Italy	www.starsup.it
44	Assiteca Crowd	Italy	www.assitecacrowd.com
45	Wearestarting	Italy	www.wearestarting.it
46	Tip equity	Italy	www.equity.tip.ventures
47	Nextequity	Italy	www.nextequity.it

48	CrowdFundMe	Italy	www.crowdfundme.it
49	Muumlab	Italy	www.muumlab.com
50	Mamacrowd	Italy	www.mamacrowd.com
51	Fundera	Italy	www.fundera.it
52	Ecomill	Italy	www.ecomill.it
53	Unicaseed	Italy	www.unicaseed.it
54	Equinvest	Italy	www.equinvest.it
55	Investi-re	Italy	www.investi-re.it
56	Equity Startup	Italy	www.equitystartup.it
57	Crowd4Capital	Italy	www.crowd4capital.it
58	Opstart	Italy	www.opstart.it
59	Cofyp	Italy	www.cofyp.com
60	Crowdabout now B.V.	Netherlands	https://www.crowdaboutnow.nl/voorpagina/
61	Duurzaaminvesteren	Netherlands	https://www.duurzaaminvesteren.nl/
62	Monefy B.V.	Netherlands	www.monefy.nl
63	Anders Financier	Netherlands	https://www.andersfinancier.nl/
64	Lendahand	Netherlands	https://www.lendahand.com/en-nl/
65	Invesdor OY	Norway	invesdor.com
66	LA BOLSA SOCIAL	Spain	https://www.bolsasocial.com/
67	SOCIOSINVERSORES	Spain	https://www.sociosinversores.com/
68	LIGNUM CAPITAL	Spain	http://www.lignumcap.com/
69	Adventure Network	Spain	http://www.adventurenetwork.org/
70	Pepins	Sweden	http://www.pepins.com/
71	Abundance	UK	www.abundanceinvestment.com
72	Crowdcube Capital Limited	UK	www.crowdcube.com
73	Seedrs Limited	UK	www.seedrs.com
74	Code Investing Ltd	UK	www.codeinvesting.com
75	Growthdeck	UK	www.growthdeck.com
76	InvestingZone Limited	UK	www.investingzone.com
77	Angels Den Funding Ltd	UK	www.angelsden.com
78	Social Stock Exchange Ltd	UK	www.socialstockexchange.com
79	Share-In Limited	UK	https://platform.sharein.com/
80	Ice Dragons Ltd	UK	www.icedragons.co.uk
81	Syndicate Room Limited	UK	www.syndicateroom.com
82	Volpit Limited	UK	www.volpit.com
83	Funding Tree (UK) Limited	UK	www.fundingtree.co.uk
84	Crowd for Angels (UK) Limited	UK	www.crowdforangels.com
85	Crowd2Fund Limited	UK	www.crowd2fund.com
86	London House Exchange Limited/ Property Partner	UK	www.propertypartner.co
87	VentureFounders Limited	UK	www.venturefounders.co.uk
88	Quintessentially Ventures Limited	UK	http://www.qventures.co/
89	AngelList Limited	UK	https://angel.co
90	Gamcrowd Ltd	UK	www.gamcrowd.com
91	Eureeca Ltd	UK	www.eureeca.com
92	Investden	UK	www.investden.com
93	Propnology Limited	UK	www.propnology.co.uk
94	Equity Spark Limited	UK	http://www.equityspark.com/index.php
95	Vestd Limited	UK	www.vestd.com
96	Envestors Limited	UK	www.envestors.envestry.com
97	Cogress Limited	UK	www.cogressltd.co.uk
98	iBondis Ltd	UK	www.ibondis.com
99	British Pearl Ltd	UK	www.britishpearl.com



100	Property Crowd Limited	UK	https://www.propertycrowd.com/
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* Country of operation as reported by NCAs. Please note that this list includes both platforms that are directly authorised/registered and those which are tied agents of authorised investment firms.