

CONSUMER PROTECTION MECHANISMS IN EU REGULATORY SANDBOXES

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ABSTRACT

Regulatory sandboxes have emerged as pivotal tools in fostering innovation within the financial and technological sectors. This article explores the concept of regulatory sandboxes, focusing on their legal regulation under European Union (EU) law and the critical role of regulators in ensuring consumer protection. The EU's approach to regulatory sandboxes is characterized by a flexible yet robust framework that allows for the controlled testing of innovative products and services. This framework aims to balance the need for innovation with the imperative of safeguarding consumer interests. The article delves into the legal foundations of regulatory sandboxes within the EU, examining key legislative instruments and policy initiatives that support their implementation. It highlights the European Commission's efforts to harmonize the AI sandbox regulations across member states, promoting a cohesive and efficient regulatory environment. A significant focus is placed on consumer protection, detailing how regulators ought to implement safeguards to mitigate risks associated with new technologies. In conclusion, the article argues that regulatory sandboxes, when effectively regulated and supervised, can serve as powerful catalysts for innovation while maintaining high standards of consumer protection.

Keywords: regulatory sandbox, consumer protection, FinTech, innovation, artificial intelligence, EU law, regulators

JEL Code: K2, G280

1 INTRODUCTION

The rapid advancement of financial technologies (FinTech) presents a significant challenge for regulators who must balance the promotion of innovation with the need to ensure safety and protect consumer rights. The imminent risks of decisions taken without human intervention are already known and clear including misuse of the clients' collected data, surveillance capabilities potentially infringing on privacy rights, AI automation bias and discrimination especially when credit scoring, manipulative targeted financial products, limited recourse and accountability issues. Regulatory sandboxes have emerged as a potential solution to this dilemma. A regulatory sandbox is a framework that allows businesses to test innovative

<https://doi.org/10.11118/978-80-7701-047-4-0076>



products, services, or business models in a controlled environment under the supervision of a regulatory authority. This setup provides a structured context for experimentation, enabling companies to operate with some regulatory flexibility while ensuring consumer protection and compliance with essential regulations. Regulatory sandboxes were initially developed to promote innovation in the financial services sector. However, they are now beginning to appear in other fields, including energy market regulation, data protection, healthcare, and last but not least the AI regulation. Common goals of regulatory sandboxes are to enable innovation and to ensure safety through legal certainty, law enforcement, and regulatory flexibility. To achieve these objectives, regulatory sandboxes are typically endowed with legal authority to offer legal guidance, issue no-enforcement letters, and/or grant exemptions from certain legal regulations. (Buocza *et al.*, 2023) By leveraging their authority to provide legal guidance, the competent supervisory authority and the innovator can collaboratively determine whether the product or service in question adheres to current legal standards. If it falls short, they can work together to outline a design that meets all legal requirements. The regulator may also commit themselves to refrain from enforcement of generally applicable rules. This means that while the rules still apply, the regulator agrees not to enforce them for a specified period or under certain conditions. They may also provide exemptions from existing legal rules which in this case do not apply to the innovator. Consumer protection is achieved through this process by ensuring that new products and services are closely monitored and guided to comply with existing legal standards and safeguards. If exemptions are granted, strict conditions are imposed on the innovator to mitigate consumer risks. This approach minimizes risks to consumers while fostering innovation. However not all jurisdictions empower the regulators to do so. The aim of this article is to explore the safeguards and measures implemented to protect consumers during the testing of innovative products and services in regulatory sandboxes. Furthermore, the statutory rules that empower the regulators are studied.

2 LITERATURE REVIEW

“Using digital technologies such as artificial intelligence, blockchain and big data analytics, FinTech start-ups develop, test and deliver a wide range of innovative financial services (FS) like digital payment solutions, securing them new opportunities and disrupting the course of traditional banking.” (Alaassar *et al.*, 2023, p. 1) However, at the same time FinTech start-ups encounter significant developmental challenges due to the substantial costs associated with compliance and a deficiency in regulatory expertise. In response, regulatory authorities worldwide have actively sought appropriate regulatory solutions, including the implementation of regulatory sandboxes, to stimulate innovation, enhance market competition, and ensure financial market stability. One of the first, in 2016, the UK’s Financial Conduct Authority (FCA) established a regulatory sandbox to achieve these objectives. (Alaassar *et al.*, 2023, Brown and Piroška, 2022) Regulatory sandboxes are legal frameworks that enable limited testing of innovations under regulatory supervision. (Council of the EU, 2020) They represent a novel approach to overseeing the activities of financial market participants, with the oversight being carried out by regulatory agencies as they “provide a “safe space” for FinTech firms to offer real products to real customers with the benefit of a waiver, or a significant relaxation, of otherwise applicable regulations, while getting guidance and supervision from the regulators.” (Raudla *et al.*, 2024, p. 613) The sandboxes are to be designed also to ensure consumer protection. “Regulatory sandboxes include consumer protection measures, and allow NCAs to terminate the testing if a firm fails to comply with the agreed testing plan or testing parameters.”

Regulators that have established a regulatory sandbox typically possess the legal authority to provide guidance, issue no-enforcement letters, and grant exemptions from specific legal

regulations to the entrepreneurs who have successfully entered their sandbox. (Buocza *et al.*, 2023) Currently, there is no uniform approach to FinTech regulations or a standardized framework for regulatory sandboxes at the EU level, with the EU's efforts based on a comparative analysis of Member States' legislation. (Hesekova Bojmirova, 2021) However, there needs to be a legal basis in the law on which regulators can create a sandbox. Thus, "regulation should be guided by financial regulatory agencies' statutory mandates, which are typically drawn from the following menu: financial stability, consumer or investor protection, efficiency, competition, and the prevention of financial crime." (Allen, 2024, p. 1)

There is presently no regulatory sandbox or similar FinTech hub operated by the Czech financial regulator. Although the Czech National Bank generally adopts a liberal stance towards innovative financial services, it remains cautious about regulatory easing for specific market participants, such as FinTechs, compared to traditional financial service providers. (Handrlica *et al.*, 2023) Thus, the regulatory sandbox established by the National Bank of Slovakia, which oversees the Slovak financial market, can be used to illustrate the activities and domains that regulatory sandboxes generally cover. "From the point of view of the factual definition of the innovation hub in the conditions of the Slovak Republic, these are mainly the following business models: alternative payment methods, crowdfunding, automated advice, crypto-assets and ICOs, Insurtech, and algorithmic trading. The innovation hub was subsequently supplemented with new technological areas, including smart contracts, biometric authentication, big data a machine learning, blockchain, mobile wallet with NFC, cloud computing." (Hesekova Bojmirova, 2021, p. 405)

The sandboxes used to test new technologies have not yet been governed by a unified EU legal framework as mentioned above. However, this may change with the new EU AI legislation introducing the AI sandboxes. Updating regulations and ending regulatory uncertainty would make the jurisdiction a more attractive destination for technology developers and investors. (Truby *et al.*, 2022) AI is often used in the FinTech sector. The new AI legislation, the EU's AI Act¹, foresees the creation of regulatory sandboxes specifically for AI. These controlled environments will allow developers to test innovative AI technologies under the supervision of regulatory authorities, ensuring compliance with safety and ethical standards while fostering innovation. AI sandbox regulation, like AI regulation in general, should aim for uniformity since the use and effect of the AI technology would ultimately extend beyond each individual Member State. (Truby *et al.*, 2022)

Regulators can use the regulatory sandboxes to support the growth and development of the FinTech market in a safe manner that does not pose risks or cause negative effects for the financial system and consumers. However, the ESAs find that regulators perceive reputational and legal risks as the key risks of operating innovation facilitators. (European Supervisory Authorities, 2023) Reputational risks refer to the potential damage to a regulator's reputation if an innovation facilitator is associated with any negative outcomes, such as financial misconduct or failure of a FinTech company. Legal risks involve the possibility of legal challenges or liabilities arising from the activities of the innovation facilitators or the companies they support. Additionally, a robust consumer protection may be another challenge for the regulator. A crucial issue is the question of liability for damage caused to consumers during the implementation of these new technologies. Competing sandboxes treat the issue of liability in different ways, and some are silent on the matter. Generally, sandboxes only exclude businesses from enforcement action by the financial regulator and not from consumer liability. National laws on liability usually still apply. (Truby *et al.*, 2022) The most recent rules for AI regulatory sandboxes, which could serve as a source of inspiration, are similar in nature and do not introduce significant new elements in this respect. The EU views such a sandbox as

¹ Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence and amending various regulations and directives (Artificial Intelligence Act), Official Journal of the European Union, L 1689, 12 July 2024.

a pre-market deployment phase, but it does not exempt sandbox participants from AI liability. However, Article 58(1) of the AI Act stipulates that to prevent fragmentation across the Union, the Commission will adopt implementing acts detailing the establishment, development, implementation, operation, and supervision of AI regulatory sandboxes, including the terms and conditions for participants. This means that liability issues still may be addressed once these implementing acts are issued.

Regardless of whether the rules are harmonized, national regulators must ensure consumer protection by implementing safeguards to mitigate risks associated with new technologies. Thus, regulatory sandboxes designed to be a facilitator of innovations, bring together a number of benefits and challenges (European Supervisory Authorities, 2023).

3 METHODOLOGY

This study utilizes a comprehensive legal analysis to investigate the regulatory frameworks surrounding regulatory sandboxes and the benefits and challenges that follow from them. The approach includes a thorough examination of relevant legislation, case law, and regulatory guidelines from the perspective of EU law and Czech law. A comparative legal analysis is conducted to pinpoint similarities and differences in regulatory strategies. Additionally, doctrinal research is employed to interpret and evaluate existing legal provisions. This comprehensive methodology ensures a deep understanding of the legal environment and its impact on the implementation and efficacy of regulatory sandboxes.

4 RESULTS

A regulatory sandbox is according to the European Supervisory Authorities “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), but sandboxes do not entail the disapplication of regulatory requirements that must be applied as a result of EU law.” (European Supervisory Authorities, 2023) Regulatory sandboxes follow four phases: application, preparation, testing and exit/evaluation. During the application phase the regulators assess firms’ admission to regulatory sandboxes. The preparedness, innovativeness of products and potential benefits for consumers are usually tested. The preparation phase in some regulatory sandboxes may be combined with the application phase. When it is present it is used to establish a suitable test scenario that is approved by the regulator and KPIs identification. Throughout the testing phase the admitted entrepreneurs can test innovative activities in “live environment” while regulators provide them with guidance or legal and regulatory advice. Regulators often form ad hoc teams of internal experts to support sandbox participants. They sometimes participate as a remote observer in the most significant tests. Tests may be terminated by the regulator in the case of a breach of the testing parameters or if it is necessary to mitigate consumer detriment. The last phase is dedicated to drafting an exit report by the regulator. The possible outcome may also lead to proposed changes in legislation or regulatory mechanisms. Moreover, the evaluation might result in improved cooperation with other authorities, such as data protection office, consumer protection authorities or competition authorities.

4.1 Innovative products tested in FinTech and technology-driven regulatory sandboxes

Regulatory sandboxes are used to test a variety of innovative products in both financial and technological sectors. In the realm of financial innovations, blockchain solutions are developed for secure and transparent transactions, including digital currencies and smart contracts. Biometric services, such as fingerprint, facial, and voice recognition, are introduced for secure banking transactions. Additionally, automated financial advice platforms, or robo-advisors, provide personalized financial advice using algorithms and AI.

In terms of technology innovations, AI-driven products like chatbots for customer service and AI-based fraud detection systems are tested. Digital identity solutions are created to securely verify and manage digital identities for online transactions and services. Open banking initiatives use APIs to enable third-party developers to build applications and services around financial institutions. These innovations are crucial for advancing the capabilities and security of financial and technological services.

4.2 Role of the regulator in regulatory sandboxes

As follows from the above description of the regulatory sandboxes phases, the role of the regulator in regulatory sandboxes encompasses several key responsibilities. First, they are involved in framework design and implementation, setting the rules, criteria, and processes for participation. They also supervise and monitor the sandbox to ensure compliance with established rules and protect consumers. Additionally, regulators provide guidance and support to help firms understand regulatory requirements and navigate the testing process. They evaluate outcomes and provide feedback to refine products or services. Insights gained from sandbox testing are used for policy development, helping to develop or adjust regulations. Lastly, regulators implement safeguards to protect consumers participating in sandbox tests.

4.3 Consumer protection

Regulatory sandboxes usually incorporate specific measures to protect consumers. Participants must provide a comprehensive exit plan detailing how consumers will be treated upon exit, along with clear communication about the nature of the test and its implications for consumers. Compensation or redress mechanisms are often considered for any detriment experienced during testing. Regulators may also restrict testing to investors with a higher risk tolerance and non-retail clients. Additional safeguards include meticulous monitoring of each test phase and its outcomes.

For instance, consumers and participants must sign a 'single information document' to acknowledge their understanding of the nature and risks of the tests, including the liability guarantee regime, the withdrawal process, the handling of their personal data, and the confidentiality of the information obtained, along with provisions on industrial and intellectual property rights or trade secrets. Participants may also need to specify in their testing plan the target client group, primary risks, mitigation measures, and post-exit actions.

4.4 EU Commission's and ESAs' guidelines for creation of regulatory sandboxes

Existing regulatory sandboxes are typically limited to specific policy areas (e.g., financial services, energy, digital technologies) and are usually implemented locally for better control. A key challenge is scaling up results from the sandbox to the wider market. EU Commission

in its policy analysis in impact assessments and evaluations provides a general guidance² on setting up regulatory sandboxes when establishing and operating regulatory sandboxes is available. Furthermore, the guiding principles for the establishment and operation of innovation facilitators set out by the ESAs in Annex B of the joint ESAs report of 2019 may be applied. (European Supervisory Authorities, 2019) However, the responsibility and details of the regulation sandboxes stay with the national regulators.

The European Commission's AI Sandbox Initiative is a regulatory framework designed to facilitate the development, testing, and validation of innovative AI systems within a controlled environment. It is not a single sandbox run by EU institutions but rather a policy that encourages the establishment of multiple sandboxes across EU Member States.

4.5 Regulators' powers to create and operate regulatory sandboxes

National regulators utilize diverse frameworks to establish regulatory sandboxes. Several scenarios are possible for establishing regulatory sandboxes. In some instances, new legislation aimed at the digital transformation of the financial system has empowered regulators to create sandboxes. In other countries, a ministerial decree serves as the legal foundation for sandbox creation. Alternatively, some regulators have independently developed the legal framework and procedures to establish and manage sandboxes. Furthermore, regulatory sandboxes may be designed so that they do not grant any waivers to participants, eliminating the need for specific mandates or special external regulations. However, this approach may significantly diminish their attractiveness and undermine their fundamental purpose.

Regulators typically find the legal basis to create regulatory sandboxes in their respective statutory mandates, which typically include financial stability, consumer or investor protection, efficiency, competition, and the prevention of financial crime. However, this might be rather difficult in the Czech legislative framework. As mentioned above there is currently no FinTech regulatory sandbox in the Czech Republic. The Czech national bank is not planning to create a sandbox and instead it decided to establish a new specialised communication channel to receive FinTech-related enquiries from all financial market participants called the FinTech contact point. Still, the development of the Czech FinTech sandbox is part of the digital pillar of the National Recovery and Resilience Plan, which is focused on digital technologies and aims at creating sandboxes in regulated sectors in line with EU priorities (Ministerstvo průmyslu a obchodu České republiky, 2021).

4.6 Regulatory sandboxes in the AI Act – regulatory requirements and relevant authorities' empowerments

The new AI Act classifies the AI systems according to the risk they may cause. Some are prohibited, the other including high risk systems as described in Art. 6 and Annex III³ are to be deployed only under strict conditions. Meeting these conditions may be tested by a regulatory sandbox. The AI Act envisions the establishment of a regulatory sandbox in every Member State (or joining a sandbox in another Member State), which could serve as an inspiration for the development of FinTech sandboxes. According to Art. 3 (par. 55) of the AI Act an 'AI regulatory sandbox' means a controlled framework set up by a competent authority which offers

² 4 See 'TOOL #69. Emerging methods and policy instruments', pages 599–604. https://commission.europa.eu/document/download/0d32ee11-92da-434d-9c86-fd4579d95dc6_en?filename=BRT-2023-Chapter%208-Methodologies%20for%20analysing%20impacts%20in%20IAs%20evaluations%20and%20fitness%20checks_0.pdf

³ Most specifically in the financial services field those will include AI systems intended to be used to evaluate the creditworthiness of natural persons or establish their credit score, with the exception of AI systems used for the purpose of detecting financial fraud; and AI systems intended to be used for risk assessment and pricing in relation to natural persons in the case of life and health insurance.

providers or prospective providers of AI systems the possibility to develop, train, validate and test, where appropriate in real-world conditions, an innovative AI system, pursuant to a sandbox plan for a limited time under regulatory supervision. According to Art. 57 of the AI Act Member States shall ensure that their competent authorities establish at least one AI regulatory sandbox at national level, which shall be operational by 2 August 2026. That sandbox may also be established jointly with the competent authorities of other Member States. The Commission may provide technical support, advice and tools for the establishment and operation of AI regulatory sandboxes. The obligation under the first subparagraph may also be fulfilled by participating in an existing sandbox in so far as that participation provides an equivalent level of national coverage for the participating Member States.

As to the actual operation of the sandbox, the AI Act requirements are rather scarce. Article 14 of the AI Act seems to be the most crucial provision as it requires human oversight to mitigate risks of high-risk AI systems. It is understood that human oversight should occur not only during the verification of individual decisions but also throughout the design and training phases. Palmiotto (2024) classifies the human oversight as *ex-ante* (making sure the AI is programmed correctly) and *ex-post* (reviewing AI suggestions before implementing them and also the appealed decisions). Thus, the sandbox should ensure efficient oversight of the AI system. According to Art. 14 par. (2) the human oversight shall aim to prevent or minimise the risks to health, safety or fundamental rights that may emerge when a high-risk AI system is used in accordance with its intended purpose or under conditions of reasonably foreseeable misuse. The oversight measures shall be commensurate with the risks, level of autonomy and context of use of the high-risk AI system, and shall be ensured through either one or both of the following types of measures: (a) measures identified and built, when technically feasible, into the high-risk AI system by the provider before it is placed on the market or put into service; (b) measures identified by the provider before placing the high-risk AI system on the market or putting it into service and that are appropriate to be implemented by the deployer. According to Art. 14 (4)(b) of the AI Act persons supervising high-risk systems must be able to recognize the risk of automation bias. AI providers are obliged to deliver their systems to the deployers so that the natural person exercising the human oversight is enabled to stay aware of the possible tendency of automatically relying or over-relying on the output provided by an AI system (automation bias). The automation bias is a psychological phenomenon explaining the human tendency to overly and unjustifiably trust the suggestions of an automated system. The AI Act focus on the provider is a consequence of the European approach to product safety law and its focus on providers. (Laux and Ruschemeier, 2025) Still with regard to the use of AI in discretionary decision-making, the AI Act does not explicitly regulate or prohibit such applications.

Secondly, Art. 86 of the AI Act grants right to explanation of individual decision-making to persons who may be affected by decisions reached on the basis of the output from a high-risk AI system which produces legal effects or similarly significantly affects that person in a way that they consider having an adverse impact on their health, safety or fundamental rights. The deployer is obliged to provide clear and meaningful explanations of the role of the AI system in the decision-making procedure and the main elements of the decision taken. Therefore, the sandbox should also test the quality explanations provided in such situations when creditworthiness of the client be tested or similar.

The AI Act is enacted in the form of a regulation. Regulations, as stipulated by Art. 288 par. 2 of the Treaty on the Functioning of the EU (TFEU), are legal acts of general application that are binding in their entirety and directly applicable in all member states. While it may appear that EU regulations function as ‘European law’ requiring no additional implementation into national laws, this assumption is not universally applicable. (Whelanova, 2019) To ensure absolute uniformity of rules and their application across all member states, regulations cannot be transcribed into national legislation, according to established case law of the CJEU. However, subsequent case law has confirmed the necessity of adopting additional

implementing measures at the national level in connection with regulations, thus allowing such national legislation. This is since not all regulations are always formulated in such a way that they can produce the intended effects on their own, without further implementation in national law. This may be encountered in cases when national agencies are to make sure the regulation is applied. Their powers must stem from statutory laws, and they are not created by an EU piece of legislation. Thus, a statutory law empowering the agency (selected by the national legislator) must be adopted when a public authority is to be responsible for creation of a regulatory sandbox according to the AI Act in the Czech Republic. According to the Overview of all AI Act National Implementation Plans⁴ published in November 2024 there are three types of authorities in Member States which should be prepared to take action under the AI Act (a) a ‘market surveillance authority’, (b) a ‘notifying authority’ will be the national authority responsible for establishing and performing the procedure for assessment, designation and notification of conformity assessment bodies and for their monitoring, and (c) national public authorities that enforce the respect for fundamental rights obligation in Member States in relation to High-risk AI systems referred to in Annex III. Spain has established a Spanish Artificial Intelligence Supervisory Agency (AESIA) acting as a single market surveillance authority under the Spanish Department of Digital Transformation. In contrast, Finland has proposed a decentralized model appointing 10 already existing market surveillance authorities, including the Energy Authority, The Transport and Communications Agency, and the Medicines Agency. For the Czech Republic it is currently unclear which authorities shall be responsible.⁵ However, a ‘Digital Regulatory Sandbox’ under its National Recovery Plan. Ministry of Industry and Trade initiated the project and oversees it, while CzechInvest is the agency responsible for launching and coordinating the sandbox. At the same time Ministry of Finance provides input on regulatory design and financial supervision to ensure alignment with fintech sector needs.

4.7 Lithuania as a case study

While the Czech Republic is in the early stages of developing its regulatory sandbox framework, Lithuania established its FinTech sandbox already in 2018. Thus, the Czech Republic can benefit from insights into effective regulatory practices. While there isn’t a specific standalone law dedicated solely to the sandbox, it operates under the broader regulatory and supervisory framework of the Bank of Lithuania. This framework includes various regulations and guidelines that ensure the sandbox functions effectively while maintaining financial stability and consumer protection.

According to Raudla et. al (2024) there were two companies that “The most tangible benefit arising from the regulatory sandbox for the Lithuanian regulators so far has been the ability to draw up guidelines for companies that want to offer P2P insurance. P2P insurance is an insurance mechanism that works without a financial intermediary like an insurance company; instead, people insure each other, mutually.” When this new business model emerged, there was no legal basis for it. Testing the model in the sandbox allowed the regulators to delve into it and analyse whether a separate law or regulation was needed or whether some lower-level act offering guidance would suffice (Raudla, 2024).

The regulatory sandbox in Lithuania, established by the Bank of Lithuania, provides a controlled environment for financial market participants to test innovative financial products and services. The sandbox is open to both potential and existing financial market participants who wish to test financial innovations that are new to the Lithuanian market. The innovations must demonstrate clear consumer benefits, such as more convenient, safer,

⁴ Available at <https://artificialintelligenceact.eu/national-implementation-plans/>

⁵ AI Regulatory Sandbox Approaches: EU Member State Overview was published on May 5, 2025 at <https://artificialintelligenceact.eu/ai-regulatory-sandbox-approaches-eu-member-state-overview/>

and cheaper financial services. Participants can test their innovations in a live environment under the guidance and supervision of the Bank of Lithuania. This controlled setting allows for real-world testing while mitigating potential risks to consumers. The sandbox includes specific measures to protect consumers. Participants must provide a comprehensive exit plan detailing how consumers will be treated upon exit, along with clear communication about the nature of the test and its implications for consumers. Compensation or redress mechanisms are often considered for any detriment experienced during testing. The Bank of Lithuania requires participants to carry out an adaptability assessment, prepare a testing plan with clear objectives, testing conditions, and risk analysis, and allocate sufficient resources. This thorough preparation helps ensure that the testing is conducted safely and effectively. The Bank of Lithuania provides ongoing regulatory guidance to participants, helping them navigate compliance challenges and refine their business models. This support is crucial for ensuring that innovations meet regulatory standards and contribute to the sustainable development of the financial market. By incorporating these elements, the Lithuanian regulatory sandbox aims to balance the need for innovation with the imperative of safeguarding consumer interests. This approach helps foster a reliable financial system and supports sustainable economic growth.

5 DISCUSSION AND CONCLUSIONS

A regulatory sandbox should be a safe space for both innovation and regulation. Although there are FinTech sandboxes in neighbouring states such as in Slovakia or Poland, the Czech National Bank decided to establish instead of a sandbox a new specialised communication channel to receive FinTech-related enquiries from all financial market participants called the FinTech contact point. Establishing a sandbox may be rather difficult under existing Czech legislation. Under the Act No. 6/1993 Coll., on the Czech National Bank, Sec. 2, Par. 1 the role of the Czech National Bank is defined as ‘... ensuring price stability. The Czech National Bank also takes care of financial stability and the safe functioning of the financial system in the Czech Republic. If this does not affect its primary objective, the Czech National Bank supports the general economic policy of the government aimed at sustainable economic growth and the general economic policies in the European Union with the intention of contributing to the achievement of the European Union’s objectives.’ Although according to Sec. 1 Par. 3 of the same Act “The Czech National Bank is entrusted with the competencies of an administrative authority to the extent specified by this law and other legal regulations”, it would be difficult to create a sandbox, and empowerment would have to be found in every single piece of legislation governing the area of the FinTech new product.

Still, the AI Act foresees the creation of regulatory sandboxes for the providers of AI systems. The National Recovery and Resilience Plan, which is focused on digital technologies also aims at creating sandboxes. Although, the EU regulations should not be duplicated in national statutory laws, the CJEU case law leaves space to national legislators to create laws empowering their national agencies, regulators, or other administrative authorities to apply the common EU rules. Therefore, *de lege ferenda* a set of rules empowering the regulators in a form of new statutory law should be adopted making it at least feasible for the regulators to create the sandboxes. The current practice shows that they may contribute significantly to the development of innovations. The consumer protection (together with the liability of the sandbox participants) which is one of the key factors in drafting the principles and conditions of establishing of the sandbox, is currently left to the regulators. Still, this leaves them with enough room to deal with the issue in the most proper way adhering to the principles of civil law applicable in the respective jurisdiction.

Although, there is a risk of forum shopping (choice of a sandbox that will allow to be entered with the least requirements), till there is an EU common approach adopted, this has to be left to the national regulators. The AI Act does not limit the liability of enterprises participating in regulatory sandboxes; they remain fully liable under applicable EU and national laws for any damage caused during their experimentation.

Given the inherent tension between fostering innovation and ensuring safety and consumer protection, regulatory sandboxes may offer a viable solution. Key features of a regulatory sandbox include real-world testing with consumers, regulatory oversight for safety and compliance, temporary exemptions to foster innovation, and guidance from regulators to refine products or services. The purpose of a sandbox is not to deregulate. Therefore, even within a controlled environment, appropriate safeguards must be in place to maintain policy objectives and comply with legal requirements.

Consumer protection remains a critical focus within regulatory sandboxes. Participants are required to provide clear exit plans and transparent communication about the nature and implications of tests. Compensation mechanisms and regular monitoring are essential to ensure consumer safety. Furthermore, participants must acknowledge the risks and safeguards associated with the tests through comprehensive documentation. The AI Act adds specifically the necessity of human oversight of high-risk systems. It requires informing about recognition of possible automation bias and grants right to explanation of individual decision-making. Those further specific requirements for AI safety and risk mitigation should be implemented by regulatory sandboxes as well.

In conclusion, while regulatory sandboxes are a valuable tool for fostering innovation, they must be carefully managed to balance the benefits of innovation with the need for consumer protection and market stability. Ongoing coordination and refinement of these frameworks are essential to maximize their effectiveness and minimize potential risks. *De lege ferenda*, these should be the rules that should be in mind of the legislator empowering every single public authority that would be allowed to create a regulatory sandbox under Czech law.

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