



THE EXPERIENCE IN CREATING EXPERIMENTAL LEGAL REGIMES IN RUSSIA AND FOREIGN STATES

To implement innovative solutions, states resort to using experimental legal regimes (ELR), which provide an opportunity to test various types of technologies and, if successful, to improve legislation for their widespread implementation and development. ELR thematic areas can be very different such as financial technologies, neurotechnologies, artificial intelligence, distributed ledger systems, technologies for working with Big Data, wireless communications, virtual and augmented reality, the Internet of things, robotics, quantum computing technologies, and others.

This study researched the current ELRs in the financial sector, agriculture, industry, energy, medicine, transport, science, education, and public administration.

The purpose of the study was to identify both the most successful examples of the creation of ELRs and their features and to analyze the possible problems in their implementation.

During the study, the regulatory framework of 19 jurisdictions for the creation of ELRs in various sectors at the regional and national levels was analyzed:

- the European Union and the Eurasian Economic Union as the supranational entities with the basic regulation;
- member states of the European Union with the extensive experience of creating experimental regulation such as France and the Netherlands shown by an example;
- member states of the Eurasian Economic Union with the relevant regulation - Belarus, Kazakhstan, Russia - from the point of view of defining common approaches and difficulties within the approximation of legislation;
- countries with the experience of creating financial and other regulatory sandboxes: Australia, the United Kingdom, India, Malaysia, UAE, Singapore, USA, the special administrative regions of China - Hong Kong and Taiwan;
- countries with advanced experimental regulation in the sphere of sustainable urban development: China, the Netherlands, Singapore, Japan;
- countries with advanced experimental regulation in creating the special development zones: India, Canada, China, the Netherlands, Japan.

The study results can be used to develop the international and national experimental instruments for implementing innovations (including creating financial sandboxes, programs for introducing artificial intelligence, unmanned vehicles, smart cities, scientific and innovation clusters, technological platforms of international organizations). Moreover, the world's advanced practices can also be used to develop the national strategies to increase the efficiency and competitiveness of Russian economy and the attractiveness of Russian jurisdiction.





Conclusions

General issues of creating ELR

1. **The purposes of ELR** introduction usually are:
 - building a base of experience for the adoption of permanent laws (for example, for the introduction of financial technologies);
 - creating the infrastructure and environment for testing innovative products (for example, in the field of telemedicine, education);
 - promoting reforms in different areas of the economy (for example, the use of artificial intelligence in agriculture, financing through green bonds, analysis of Big Data in industrial production);
 - testing technologies in the field where a socio-political consensus has not been reached (for example, unmanned vehicles, public administration using artificial intelligence, special educational organizations).
2. Within the framework of ELR, the regulatory requirements that impede the innovative development are temporarily not applied for testing technology. Based on the results of the experiment, a decision can be made to improve the legal regulation.
3. In addition to ELR, another type of special regime for the entrepreneurial activity is a preferential legal regime. However, **unlike ELR, preferential legal regimes** are not aimed at conducting experiments within a limited time but stimulating the entrepreneurial activity providing different benefits and advantages.
4. **The national legal basis** for the creation of ELR in the states considered is based on:
 - the constitutional amendments on the experimental legal regulation, allowing the exclusion from the principles of the binding rule of law and equality to all before the law (Kazakhstan, the UAE, France);
 - a basic law on the procedure for creating ELR (Russia);
 - the special laws and by-laws of regulatory bodies and acts of organizations on the creation of ELR in a specific area (in most of the legal orders under examination).
5. **The Principles of ELR functioning are:**
 - innovation;
 - limited time (as a rule 1-3 years);
 - providing the necessary and sufficient legislative preferences for the regime's participants;



- ensuring the safety of all the persons affected by ELR, protecting their personal data, property, and personal interests;
 - focus on a specific, measurable result.
6. **The territory of ELR action** can cover:
- **several states:** there are the global sandboxes regulated by the international and intergovernmental organizations in the field of financial technologies that allow the participants to test a particular technology or business model in different jurisdictions and assess its potential at various markets (for example, the Global Financial Innovation Network, created by the central banks and the main financial regulatory agencies of Singapore, Australia, Bahrain, Quebec (Canada), Guernsey, Hong Kong, Kazakhstan, the United Arab Emirates, and the United Kingdom);
 - **supranational formation:** for example, the tax regime for certain categories of entrepreneurs is being tested in the European Union, and a European sandbox in the field of financial technologies is being elaborated; within the framework of the Eurasian Economic Union, a regulatory basis has been prepared for the creation of the following instruments: 1) regulatory sandboxes — a mode of elaboration and piloting of solutions, including regulatory ones, in any new area within the framework of digital initiatives and projects, 2) Eurasian technology platforms — the objects of innovative infrastructure allowing to provide effective communication and the creation of perspective commercial technologies, high-tech, innovative and competitive products based on the participation of all interested parties (business, science, government, social organizations) from at least 3 EAEU member states;
 - **the state as a whole:** in particular, an **umbrella ELR system** can be created for a federal state, when the regulator allows to extend the special regime to various states of the country (Canada);
 - **a particular territory** of the state;
 - **a virtual space**, when any individual or legal entity can participate in the sandbox regardless of physical location and registration.
7. **ELR management** and control over the activities of its participants in the overwhelming majority of cases are carried out by:
- state government regulator at central or regional levels;
 - another body or organization that has created ELR, such as a municipality / innovation center / university / participants of a non-profit organization.
8. The following **requirements** can be established for **ELR potential participants** - depending on the goals, territory action, and other features of a particular ELR:
- the product or activity of the participant is new and useful and has the potential for promotion at the market;
 - testing is necessary before large-scale implementation of the technology;



- the application of the product by the participant encounters the political, economic, ethical, and legal barriers that the participant cannot reasonably overcome without participating in ELR;
- the participant has a good business reputation, has no secret beneficiaries and arrears of obligatory payments to the budgets;
- the exemption of the participant from licensing and other requirements will benefit the society and will not provide him an unreasonable advantage over the competitors;
- the participant has provided a clear testing program and determined the expected results of the experiment;
- a monitoring or insurance system has been created for the timely elimination of the consequences of the possible incidents during the experiment;
- in some cases, registration is required in a particular territory; there are the restrictions on the types of activities.

9. **The success criteria** for the experiment can be:

- the compliance with the UN Sustainable Development Goals and national sectoral strategies;
- the absence of the fixed cases in human and civil rights and freedoms violation, causing harm to people's life, health or property, state's interests, damage to state's defense and security;
- the profitability of ELR participants;
- the possible commercialization of scientific researches.

10. **The possible difficulties** associated with the implementation of ELR can be:

- the development of the clear and measurable criteria for the regime's effectiveness by the controlling bodies and the subsequent assessment of its results requiring or not requiring changes in the current regulation;
- the development of such a legal regulation that would serve the interests of various social groups based on the results of ELR, especially when the technologies are tested on which a socio-political consensus has not been emerged;
- the economic, political, social, and moral justification of the subsequent widespread adoption of the tested technology.

Features of ELR in various countries and sectors

11. Scrutinizing the existing practice of testing various technologies and streamlining regulation following the experiment results allows to highlight some features of the creation and functioning of ELR in certain countries and sectors.





Approaches of certain countries

12. The mechanism of the regulatory sandboxes and technology platforms of the **EAEU** will allow to implement the design solutions in conditions that are not the same as the legal regime within its member states. It is assumed that until the final approbation of the experimental regulation within the sandbox or platform, it will not be fixed in the general legal framework of the participating countries. ELRs are intended to solve the problems of a low rate of innovation, innovations commercialization, and difficulties in engaging investors in researches.

13. **The EU Court of Justice** has formulated a general legal position regarding the creation of any EPR: "The differentiation which experimental legislation inevitably entails is compatible with the principle of equal treatment only if two criteria are satisfied: the temporary character of experimental laws and the definition of "the trial measure by certain objective criteria."

14. **In the Netherlands**, the experimental regulation, including creating pilot projects, zones free from municipal requirements, regulatory sandboxes, has been developed since the 1970s. ELRs are incredibly widely represented in the sphere of education and urban planning. The basis for creating ELR is the justification of the necessity and proportionality of the limitations of the equality principle to the set development goals.

15. **In France**, the **methodological deficiencies of ELR** were identified: the definition of controversial goals and the unclear organization of interaction between ELR participants and the public, which is interested in the experiment. In this regard, it is recommended to pay more attention to the preparation and planning of the experiment, to allocate sufficient resources, and to involve in the experiment the interested parties, from the public and labor organizations to government officials, with the maximum transparency.

16. There is a broad but fragmented experimental regulation **in the UK** ELR includes the experimental clauses in the main legislation; the experimental order ("predecessor" of permanent regulation); the experimental decision-making arrangements; experimental zones; the private regulatory exceptions for subjects using the experimental schemes; the regulatory sandboxes (e.g., in the financial, healthcare, and energy sectors).

17. The experience of the **Russian Federation** in the adoption of the Federal Law "On Experimental Legal Regimes in the Field of Digital Innovations in the Russian Federation" dated July 31, 2020, No. 258-FZ is a unique example of developing the universal regulation that establishes the foundation for the creation and functioning of ELR, as well as defining the sectors, where the creation of ELR is excluded. The legislator updates a presupposed list of sectors based on the proposals from the business entities.

18. **In India**, in addition to ELR in selected areas, there is an initiative to define the entire territory of Karnataka as a testing ground for any technology.

19. A specificity of Mainland **China** is that all experiments are initiated only by the state in any sector of the economy and extended to its entire territory. Experimentation is a long-standing practice accumulated by the regulator over the years of reforms and formed the basis of Chinese legal system. The policy's goal is to reduce China's dependence on the import of foreign technologies, to increase the investment in developing its innovations, and to create enterprises that can compete in domestic and international markets.

20. The successful implementation of ELR in **Singapore** is primarily caused by the principle of soft law, which is not legally the binding instrumentation. The recommendations and concepts of government



regulators create a context for the application of new technologies, the functioning of which is not regulated because of the qualitatively new nature of these technologies.

21. Since the 2000s, **Japan** has been adopting the laws aimed at creating certain territories with the favorable legislation for introducing innovations to provide the world leadership in various fields. Meanwhile, most of the countries considered have actively begun to apply ELR since the 2010s. In addition, Japan accumulated the negative experience of ELR functioning when testing innovations did not lead to their implementation.

22. In **Canada**, special ELRs (superclusters) that bind all the interested parties have been created in various innovative sectors: from developers and scientists to financiers and potential consumers of technologies. The state invests a lot of money in superclusters and supports their development. At the same time, there are sectors where innovations are funded and effectively carried out not on an experimental basis but due to financial support for the motivation of students, scientists, and industrial enterprises in implementing innovations. Thus, the terms of the program, encouraging business research and innovative development, do not provide for ELR creating. Still, subjects involved in the development of innovative technologies receive tax benefits and preferences.

Best sectoral practices and features

a. Law

23. Hi-Tech Park — a large "laboratory" for experiments, the object of which is the law and its legal structures in particular — was created in Belarus. Among the project participants, legal institutions such as a representation, a convertible loan agreement, an option for concluding an agreement, an option contract, a smart contract, and others are tested. As a result of the Hi-Tech Park's activities, the first crypto-exchange in the CIS members was launched, digital symbols (tokens) were introduced as new means of payment and an object of property rights, and making a deal through smart contracts exceeded the Park.

24. In June 2019, the first business accelerator of legal technologies, GLIDE, in Asia was created in Singapore, aimed at attracting and promoting the development of startups in the field of trailblazing information and legal technologies (artificial intelligence, blockchain, Big Data).

b. Finance и public administration

25. Testing new technologies in finance and public administration often occurs within the regulatory sandbox. The first of them was established in Australia, the United Kingdom, Singapore, and the USA (independent in different states) aimed at the development of crowdfunding, comprehensive credit reporting, access to Big Data, guidance on Robo-advice, digital currency, blockchain technology, government procurement and service delivery (ProcTech), cyber security, as well as solving problems in the world economy caused by COVID-19.

26. Creating ELR in this area is based on the most flexible approach: depending on the tested financial service, the financial regulator determines the specific regulatory requirements in a unique way that he is ready to reduce or "freeze" in each particular case.

27. The most successful regulatory sandbox models (the UK, Singapore, Australia) follow the principles of technology neutrality (testing a wide range of technologies) and primarily focus on small businesses. At the same time, small companies, which are starting to make an experiment, often do not



have a strong client base and face up a lot of difficulties with implementing the relevant innovations; a partnership between large firms and startups within a sandbox is a successful way of solving this problem.

28. Based on the example of the creation of various options for financial sandboxes in Australia, it can be seen that the effectiveness of introducing innovations depends not so much on the formal establishment of ELR but on the participants' opportunity for constant exchange information with the regulator and receiving feedback, as well as on the power of the regulator to predict the future direction of developing the fintech sphere and its decisions.

29. In the UAE, the initiator and active driver of regulatory sandboxes is the government and regulatory agencies, but not the financial sector. As a result, few companies successfully complete testing because there is often no demand for the product being developed, as well as the rules to allow the exit or norms allowing partnerships with an existing financial institution and technology companies. In addition, there is a problem of lack of interaction and mutual recognition of results between ELRs in Abu Dhabi and Dubai.

c. Energy

30. ELRs in the energy sector (the UK, Singapore, the Netherlands) are quite common.

31. To participate in ELR, the project has to be innovative, to contribute to the development of the decentralized generation of sustainable electricity or sustainable "green" gas, to meet safety requirements, to give benefits to the final consumer, as well as to provide for the ways and terms to prevent and eliminate the possible negative consequences.

32. In 2020 in the UK, a sandbox has been created for fighting against climate change and achieving zero emissions by 2050, within which the development of a platform has been approved that allows the consumers to generate energy from their equipment (such as solar panels), to sell excess electricity at the market.

d. Healthcare

33. Testing new healthcare technologies by companies through creating ELRs is often initiated and controlled by the state.

34. In Russia and Belarus, there is already the normative regulation in telemedicine technologies, but such technologies are only being tested at the ELR level in many foreign countries. For example, in Singapore and Great Britain, the state introduces a special regime, as a rule, in telemedicine, mastering the latest methods of diagnosis and treatment.

35. In the UK, an experiment in digital medicine triage tools in healthcare facilities was successfully completed in 2019, and the recommendations for the possible legislative reforms were made to the UK Department of Health and Social Care.

36. In India, a sandbox in the field of medicine has been open since 2020 for all firms or organizations established, or registered, or licensed, and provides an opportunity, without violating consumer protection legislation, to use the electronic services and mobile apps for collecting data and monitoring the health status of patients.



e. Transport

37. ELRs in the transport field are used to test unmanned vehicles (the USA, Russia, Singapore) or improve the situation on the roads (Canada, China, the UK).
38. In the UK, they experimentally restrict the movement of heavy goods vehicles in the residential areas, parking in the city center, traffic for parades, and other events.
39. China is developing the energy-efficient public transport and high-capacity transport hubs.
40. In Canada, the use of electronic shipping documents is tested with a view of transporting dangerous goods. To participate in this program, it is necessary to meet several criteria characterizing the subject's focus on ensuring safety for both the participants' in the experiment and the persons interacting with them.
41. The basis for testing the unmanned vehicles in Russia is safe for others. In light of this fact, it is carried out under the complete control of the state with the participation of military departments.
42. In the United States, the unmanned vehicles are tested on public roads using special driver's licenses in various states. In addition, the driver has to be able to interfere in the vehicle's movement at any time. The requirement for the participants, which is common for all states, is the need to ensure the possible damage that may be caused during the experiment.
43. Since 2017, Singapore has legislated the possibility of testing the unmanned vehicles for passenger transportation: thus, the technology, on which not all countries have reached a public consensus, is already available for the widespread use in the area, where there is a potential risk for human life and health.

f. Urbanism and the environment

44. In Russia, until 2025, there is an ELR for introducing artificial intelligence technologies in Moscow to improve the life quality of the city's population, the efficiency of state / municipal management, etc. The key problems of implementing ELR are related to the compliance of the constitutional rights of citizens to privacy and the prohibition on the collection, storage, use, and dissemination of information about a person's private life without his consent.
45. Within the Skolkovo Innovation Center, a pilot city has been created - a project for the practical implementation of advanced technologies in key areas of functioning modern urban environment, including the 5G network, unmanned vehicles, and environmental monitoring systems.
46. In the Netherlands, since 2010, there have been development areas where temporary deviations from environmental legislation can be made to test the latest technologies for achieving sustainable development in the country without the detrimentation of the overall quality of the environment. The examples of these projects include, in particular, the huge urban development plans and projects concerning the central infrastructure (highways, railways, airport extensions, and the renovation of bridges). For further improving regulation in 2022, the large-scale amendments in environmental legislation will come into force.
47. In China, after the 2008 financial crisis, about 800 pilot programs for effective urban development have been initiated, which are currently at the planning or implementation stages, in particular, such as the program of smart transport, smart school, smart urban economy, city safety, smart IT infrastructure, high energy efficiency.



48. In Singapore, which was one of the first to receive the status of a “smart” city and set the goal of achieving zero waste production, are being tested, in particular, the latest technologies for waste gasification, converting them into heat energy, as well as experimental logistics programs in the field of domestic services.

g. Agriculture

49. In Russia and Belarus, in agriculture, innovation development is carried out by states and a few companies.

50. In the United States, the innovations in this field through the special programs and incubators that provide financial, academic, and legal assistance are launched by the universities.

51. In Singapore, a special innovation park is being built to introduce new technologies, uniting enterprises cultivating plants, insects, and feed production. Mainly, this initiative, which arose against the backdrop of the COVID-19 pandemic, aims to increase the state’s food sustainability.

52. In France, the experiments are being carried out in agricultural aviation, and in the UK, there is testing the pesticides, which requires special authorization and testing under a special regime.

53. The UK has removed some regulatory barriers and approved the experimental regimes that may contribute to sustainable agricultural resource management.

54. In China, there are such projects in this sector as the creation of a comprehensive monitoring system for ground and airspace and the introduction of Big Data technologies at all stages of producing the primary agricultural products, the creation of an integrated digital platform for providing the services for the agricultural complex and rural areas.

h. Science and education

55. In science and education, ELRs are most often launched by the universities with the help of the government (including financial) support for innovative initiatives.

56. In China, the experimental platforms for education in the fundamental sciences (physics, mathematics, chemistry, etc.) are created. Also, the pilot programs are underway to reform the student’s recruitment process for secondary and higher education.

57. The universities (Belarus, the USA) take an active part in the life of innovative enterprises and young entrepreneurs, provide them with an access to academic knowledge and their experts, financing, and office space at their own expense and assist students and teachers in starting up their own business.

58. In France, within ELR framework, since the 2000s, technologies such as RLANs, in particular Wi-Fi, have been successfully tested and entered the market; since 2018, the regulator for telecommunications allowed the distribution of the authorized frequencies for 5G on an experimental basis. Starting in November 2020, the primary schools have been running the “Thirty minutes of sports per day” experiment, developed in the context of preparations for the 2024 Olympic Games in Paris.

59. In Kazakhstan and the Netherlands, the special experimental kindergartens, schools, and universities are being created; based on the analysis of such experience, further reforming the entire education system is being carried out.





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