



MINISTRY OF ECONOMY AND  
FINANCE OF THE  
REPUBLIC OF UZBEKISTAN



# AI SANDBOXES IN UZBEKISTAN: A FRAMEWORK GUIDE FOR THE INITIATION STAGE

The views expressed in this report do not necessarily reflect the views of the United Nations, including UNDP, or the UN Member States. All reasonable precautions have been taken to verify the information contained in this publication. However, published material is distributed without any warranty, express or implied. UNDP is not responsible for the content of any external website. The designations and terminology used may not be in accordance with United Nations practice and do not imply the expression of any opinion by the Organization.

The study is conducted within the framework of the joint project of the Ministry of Economy and Finance of the Republic of Uzbekistan and the United Nations Development Programme (UNDP) "Empowering the Youth to Embrace the Digital Economy and Digital Entrepreneurship" with financial support from Swiss Agency for development and cooperation.

The United Nations Development Programme (UNDP) is the leading UN organization fighting injustice caused by poverty, inequality and climate change. Working with a wide network of experts and partners in 170 countries and territories, we help to create integrated, long-term solutions for people and the planet.

Find out more about us at [undp.org/uzbekistan](https://undp.org/uzbekistan) or follow @UNDP Uzbekistan on social networks. © UNDP 2025.

All rights reserved. The contents and information of this report may be reproduced elsewhere in whole and/or in part, provided the source is acknowledged.

Source citation: "AI Sandboxes in Uzbekistan: a Framework Guide for the Initiation Stage, UNDP, 2025".

# ACKNOWLEDGMENTS

This report was prepared within the framework of the UNDP project “Empowering the Youth to Embrace the Digital Economy and Digital Entrepreneurship”. It was prepared by the United Nations Development Programme (UNDP) in Uzbekistan, the Inclusive Growth Cluster (Ravshan Yunusov, Nargiza Khamidova, Abror Khodjaev, Bunyod Khoshimkhujayev, Jafar Fazilov, Oybek Yahshiyev, Rimma Mukhtarova, Luiza Mirzaeva and Mukhayyo Khasanova) and Datasphere Initiative (Sophie Tomlinson, Lorraine Porciuncula) and StratejAI team (Anastasiya Kiseleva, Stefano Sedola, Qobiljon Yunusov, Andrea Pescino, Enrico Sartor). We extend our deepest gratitude to Andreas Pawelke Learning, Systems Thinking and Digital Specialist at UNDP IRH/RBEC, the Ministry of Economy and Finance and the Ministry of Digital Technologies for their invaluable support throughout the study. Their collaboration was instrumental in the successful execution of this comprehensive study, providing us with the essential support, insights, and access necessary to conduct a thorough analysis.

# TABLE OF CONTENTS

<b>ACKNOWLEDGMENTS</b> .....	<b>3</b>
<b>1   INTRODUCTION</b> .....	<b>5</b>
<b>2   AI SANDBOXES AND GLOBAL LEARNINGS</b> .....	<b>7</b>
UAE TradeTech regulatory sandbox .....	9
Singapore’s Sandbox for Privacy-Enhancing Technologies .....	10
European Union AI Act regulatory sandboxes .....	11
<b>3   OPPORTUNITIES AND SECTORS WHERE AI SANDBOXES COULD BE TESTED IN UZBEKISTAN</b> <b>13</b>	
AI sandboxes could help support AI adoption across Uzbekistan’s priority sectors .....	16
AI Sandboxes could help support MSME’s access to finance in Uzbekistan. ....	20
AI Sandboxes could help address infrastructural & technical barriers faced by MSMEs in Uzbekistan. ...	21
AI sandboxes could help address human capital & AI skill gaps .....	23
AI Sandboxes could help address AI and data governance gaps .....	24
<b>4   GUIDELINES FOR AI SANDBOX INITIATION</b> .....	<b>26</b>
Clearly define the AI sandbox problem and objectives .....	27
Assess the sandbox suitability for the AI challenge. ....	30
Assess organizational readiness to sandbox .....	31
Ensure Policy/Regulatory Alignment .....	32
Evaluate resources and budgeting .....	34
Identify sandbox stakeholders .....	34
Secure initial buy-in .....	35
Conclusion .....	36
<b>5   ANNEX</b> .....	<b>37</b>
Annex I: Sandbox Survey .....	37
Questionnaire on Sandboxes to Uzbekistan Prepared by Datasphere Initiative .....	37
Phase 1 – Understanding the Context of Regulatory Sandbox Development .....	37
Setting the Scene for a Sandbox .....	37
WHY a sandbox? (Purpose, motivation, and problems to solve) .....	37
WHO would need to be involved? (Stakeholders and actors) .....	38
HOW should the sandbox be governed? (Design, implementation, resourcing) .....	38
Annex II: AI Sandbox State policy template .....	39
Chapter I – General Provisions .....	39
Chapter II – Institutional Roles and Responsibilities. ....	39
Chapter III – Common Framework for Sandbox Implementation .....	40
Chapter IV – Monitoring and Evaluation .....	41
Chapter V – Final Provisions .....	41
<b>TABLE OF FIGURES</b>	
Figure 1. Types of Sandboxes identified by the Datasphere Initiative .....	7
Figure 2. Sandbox Design Methodology by the Datasphere Initiative .....	26
Table 1. Sandboxes initiatives in Uzbekistan. ....	14

# 1 | INTRODUCTION

While sandboxes for Artificial Intelligence (AI) are relatively new, they are becoming a rapidly evolving tool for addressing the unique challenges posed by AI. Although the concept is gaining traction globally, determining how to structure and implement these sandboxes remains complex and unique to each country. AI regulation must balance innovation with risk mitigation, while navigating uncertainties around governance, ethical concerns, and technological advancements.

As Uzbekistan works to support AI adoption across sectors, it can explore how to use sandboxes to enable an accessible, innovative, and sustainable entrepreneurial environment that will also focus on providing incentives and support for Micro, Small and Medium Enterprises (MSMEs) to safely adopt AI technologies.

Understanding how to initiate an effective AI sandbox is critical for this process, as it will shape the way policymakers, businesses, and researchers experiment with AI solutions in a controlled environment. While some may consider sandboxes as solely about developing evidence about how a new product, technology, or business model works in practice<sup>1</sup>, a sandbox can also promote regulatory clarity, and if desired, foster cross-regulatory partnerships and international collaboration. However, the process is not straightforward, requiring each jurisdiction to tailor its approach to legal, economic, and technological contexts.

Based on desk research, interviews and surveys with local stakeholders, this document provides an overview of: 1) Global AI sandbox experiences gathered by the Datasphere Initiative's<sup>2</sup> leading research on sandboxes worldwide, with learnings for Uzbekistan, 2) An overview of current sandbox experiences in Uzbekistan and an analysis of the opportunities and sectors where AI sandboxes could be tested, including operational mechanisms, eligibility criteria and compliance pathways 3) Practical and general guidance for the initiation of AI sandboxes based on Datasphere Initiative's sandbox design methodologies that could be used by the Government of Uzbekistan, particularly the Ministry of Economy and Finance (MEF) and Ministry of Digital Technologies (MDT), as well as any related or subordinate organization who plans to develop an AI sandbox.

The analysis and recommendations issued are based on the research and expertise of the Datasphere Initiative with knowledge obtained through interviews and consultations with local stakeholders supported by StratejAI and UNDP. Over the period of August – October 2025 interviews were undertaken with 14 experts in Uzbekistan from the public and private sector. A Sandbox survey was also shared (see in Annex I: Sandbox Survey, version provided by the Datasphere Initiative). Out of the 5 survey responses, a high baseline understanding of sandboxes was reported with mixed lived experience. Respondents rate

---

<sup>1</sup> According to Consultative Group to Assist the Poor (CGAP), a regulatory sandbox is a tool for developing evidence about how a new product, technology, or business model (innovation) works and the outcomes it produces. They can also be used as a tool for developing and testing how a new regulation works and the outcomes it produces. Many countries use sandboxes with this dual purpose to better understand the impact of technologies but also regulations and policy guidance.

<sup>2</sup> The Datasphere Initiative is a think do tank with a mission to equip organizations to responsibly unlock the value of data for all. The organization has been undertaking leading research on sandboxes' impact, scope and best practices. The organization has designed methodologies and training for the design and implementation of sandboxes (<https://sandboxes.thedatasphere.org/>)

their understanding of sandboxes at 4/5 on average, and 3 of 5 report awareness of concrete sandbox implementations.

An important disclaimer is that while stakeholder insights gathered throughout the development of this document have been helpful, the writers have not had the opportunity to discuss AI sandboxes with officials of the Government of Uzbekistan, particularly with MoEF, Ministry of Higher Education, Science and Innovations (MHESI), MDT. Therefore, knowledge on Uzbekistan's current AI sandbox priorities remains limited. For this reason, the document intends to provide a general framework by outlining practical steps and proposals on how sandboxes could be used at the national level. By sharing examples of global sandbox best practices the document aims to harmonize understandings of what AI sandboxes are, how they work in practice and offer preliminary actions for the initiation stage in Uzbekistan.

With reference to the policy paper developed by StratejAI "Adoption of AI in the private sector in Uzbekistan: drivers, challenges, solutions", the document predominately focuses on the potential of sandboxes to support MSMEs' AI adoption in Uzbekistan. The document outlines several potential AI sandbox areas that could help tackle the AI adoption barriers experienced by MSMEs. Considering the limited sample of local stakeholder insights, the guidelines and proposals serve as a flexible and adjustable approach. Uzbekistan civil servants and regulators are invited to adapt and modify the guidance according to the reality and particular issues they face, thus ensuring a more effective sandbox implementation that is suited to the diversity of Uzbekistan's innovation and regulatory environment. The document is therefore useful for public officials, but also MSMEs and other actors who would like to learn more about AI sandboxes and how they can be used to support responsible AI adoption and innovation.

## 2 | AI SANDBOXES AND GLOBAL LEARNINGS

Sandboxes have emerged as valuable mechanisms for policy and technological experimentation, providing a safe environment and enabling regulatory and technical innovation. While they can be classified in different ways and there is still no consensus in the literature on how sandbox experiments can be organized and categorized, they are generally recognized as flexible tools that can adapt to different regulatory contexts and policy objectives.<sup>3</sup>

In the report “Sandboxes for data: Creating spaces for agile solutions across borders”<sup>4</sup> the Datasphere Initiative provides a generous definition to complement the various approaches to sandboxes around the world. Defining sandboxes as: “safe spaces to test new technologies and practices against regulatory frameworks or experiment with innovative uses and means of governing data”, the Datasphere Initiative has identified various types of sandboxes in action today being operational, regulatory, or hybrid (Figure 1).<sup>5</sup>

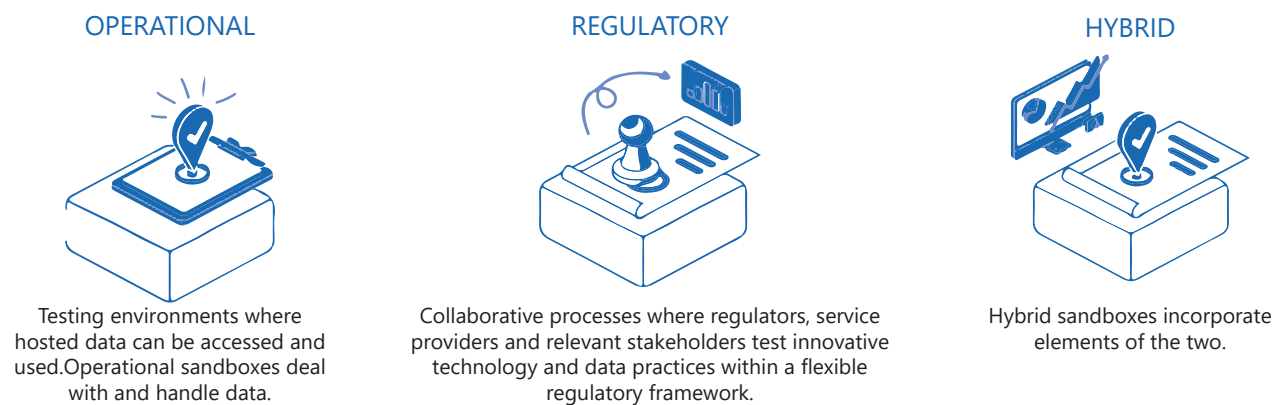


Figure 1. Types of Sandboxes identified by the Datasphere Initiative

Sandboxes can also be classified by their geographic scope, including cross-border, national, and sub-national (e.g., municipal) sandboxes. For example, local or municipal AI sandboxes address community-specific needs and contexts, like Zurich’s AI sandbox, which was launched through a partnership between public administration, research institutions, and the private sector.<sup>6</sup> By providing access to new data sources and fostering local collaboration, the initiative seeks to strengthen Zurich as a hub for AI innovation, receiving substantial financial support from the Zurich Metropolitan Area.<sup>7</sup>

<sup>3</sup> For example the [Organisation for Economic Cooperation and Development \(OECD\)](#), and the [World Bank](#) proposed definitions for regulatory sandboxes: “Regulatory sandboxes are controlled environments where firms can test products, services or business models under the supervision of a regulator. The idea is to allow for innovation to be tested with real users, while ensuring consumer protection and regulatory oversight.” (OECD, 2019), “Regulatory sandbox is a framework set up by a financial sector regulator to allow small-scale, live testing of innovations by private firms in a controlled environment under the regulator’s supervision.” (World Bank, 2019)

<sup>4</sup> Datasphere Initiative (2022), [Sandboxes for data: creating spaces for agile solutions across borders](#), Datasphere Initiative

<sup>5</sup> Datasphere Initiative (2025), [Sandboxes for AI: Tools for a new frontier](#), Datasphere Initiative

<sup>6</sup> Zurich (2024), [Innovation Sandbox for Artificial Intelligence \(AI\)](#)

<sup>7</sup> Zurich (2024), [Innovation Sandbox for Artificial Intelligence \(AI\)](#)

The sandbox approach has already been implemented in several countries, with numerous examples that have emerged, illustrating how regulatory and operational sandboxes are being used to test and understand the impact and nuances of digital services, technologies, and infrastructures across various sectors. In February 2025, the Datasphere Initiative identified 66 data and AI sandboxes across 44 countries<sup>8</sup>. Given the speed of technological change, the uncertainty surrounding potential risks, and the wide array of actors involved in the development of AI, these data points underscore a growing interest from the public and private sectors in experimentation through sandboxes to understand how best to balance AI innovation with the need for safeguards.

Several international organizations have explored how sandboxes can be used for testing and designing regulations and supporting the growth of novel technologies and business models in a safe environment. For example, the Organisation for Economic Cooperation and Development (OECD) produced a policy paper “Regulatory sandboxes in artificial intelligence” in 2023 which explores the positive impacts of AI regulatory sandboxes like increased venture capital investment in fintech start-ups, while also identifying several risks, and policy considerations such as interdisciplinary cooperation, building AI expertise, regulatory interoperability, and trade policy.<sup>9</sup> The OECD has produced a Regulatory Sandbox Toolkit<sup>10</sup> for regulators to establish and manage regulatory sandboxes effectively. The Toolkit aims to help regulators set-up and manage controlled environments where new financial products, services, or business models can be tested with real consumers under relaxed regulatory conditions, but with regulatory oversight.<sup>11</sup> The World Bank has also explored the use of regulatory sandboxes, not only with regards to AI but predominantly within the financial sector. The paper, “Global Experiences from Regulatory Sandboxes” analysis 73 sandboxes in 57 jurisdictions identifying detailed lessons learned.<sup>12</sup> As part of the implementation of the UNESCO Recommendation on the Ethics of Artificial Intelligence, adopted by 193 Member States in 2021, at the 3rd Global Forum on the Ethics of AI in June 2025, UNESCO officially launched the Global Network of AI Supervisory Authorities (GNAIS)<sup>13</sup>. This initiative is also exploring the use of AI sandboxes as a tool for AI Supervisory Authorities as they govern AI and emerging policies and practices.<sup>14</sup>

By facilitating safe experimentation, sandboxes can accelerate AI development while addressing ethical concerns and ensuring responsible AI use. This is critical in building trust and ensuring that AI technologies benefit society and local realities of a country like Uzbekistan as it explores whether and how to initiate AI sandboxes.

To help raise awareness of the different types of AI sandboxes that are possible and the corresponding impact and resource implications, the overview below presents three very different AI sandbox experiences. All three offer learnings for Uzbekistan to consider.

<sup>8</sup> Datasphere Initiative (2025), [Sandboxes for AI: Tools for a new frontier](#), Datasphere Initiative.

<sup>9</sup> OECD (2023), “Regulatory sandboxes in artificial intelligence”, OECD Digital Economy Papers, No. 356, OECD Publishing, Paris, <https://doi.org/10.1787/8f80a0e6-en>.

<sup>10</sup> OECD (2025), Regulatory sandbox toolkit: A comprehensive guide for regulators to establish and manage regulatory sandboxes effectively, OECD Publishing, Paris, <https://doi.org/10.1787/de36fa62-en>.

<sup>11</sup> OECD (2025), Regulatory sandbox toolkit: A comprehensive guide for regulators to establish and manage regulatory sandboxes effectively, OECD Publishing, Paris, <https://doi.org/10.1787/de36fa62-en>.

<sup>12</sup> Appaya, Mandepanda Sharmista; Gradstein, Helen Luskin; Haji Kanz, Mahjabeen. Global Experiences from Regulatory Sandboxes (English). Fintech Note|No. 8 Washington, D.C. : World Bank Group. <http://documents.worldbank.org/curated/en/912001605241080935>

<sup>13</sup> UNESCO (2025) [Global Network of AI Supervisory Authorities](#)

<sup>14</sup> Network of Centres (2025) [UNESCO event on AI sandboxes regulatory learning in action](#)

## UAE TRADETECH REGULATORY SANDBOX

While not only focused on AI, the UAE TradeTech regulatory sandbox provides Uzbekistan with an interesting use case to explore how to include financial institutions in a sandbox. Uzbekistan has already explored the use of sandboxes in the banking sector<sup>15</sup> and this sandbox offers an example of supporting digital trade through the testing and integration of emerging technologies.

The UAE TradeTech regulatory sandbox was set up to offer a controlled environment for testing innovative trade finance technologies in order to bridge the gap between regulatory frameworks and emerging technologies such as AI and blockchain<sup>16</sup>. The sandbox enables startups, financial institutions, and regulators to experiment with digital solutions in real-world settings, with the primary goal of improving efficiency, transparency, and compliance in trade finance processes.

The sandbox is the result of a multi-stakeholder approach, including a close public-private collaboration where government entities such as the Central Bank of the UAE, Abu Dhabi Global Market (ADGM), Dubai Financial Services Authority (DFSA), and RegLab from the Ministry of Cabinet Affairs provide regulatory oversight. While private-sector participants contribute technical expertise and practical solutions that address real market needs. This balanced approach has helped the sandbox practitioners to ensure that regulatory standards align with innovation, making it easier to integrate new technologies into the existing regulatory landscape.

The sandbox has established a regulatory reform roadmap to accommodate digital trade, producing insights that can shape international trade standards. Looking ahead, plans include establishing a dedicated sandbox in Africa to further support trade innovation on the continent.<sup>17</sup>

So far, the UAE sandbox has the potential to reshape trade regulation by showing how digital tools, such as AI and blockchain, can support streamlined and transparent trade finance practices. By aligning technology with regulatory standards, the sandbox could set new compliance benchmarks, lower costs, and enhance trust in global trade networks. This model could serve as a template for other countries, encouraging broader adoption of similar frameworks and advancing global regulatory modernization.

The sandbox has highlighted several key lessons. The critical role of strong collaboration between regulators and the private sector has been highlighted in ensuring that solutions address real-world needs. The sandbox illustrates how public-private partnerships can drive the evolution of regulatory frameworks alongside technological advancements, thereby minimizing friction for users. The implementation of the UAE TradeTech regulatory sandbox also highlighted the complexity of aligning multiple regulatory frameworks across jurisdictions with varying standards and maturity levels. Finally, it emphasizes that safeguarding data privacy and cybersecurity for sensitive trade finance data, particularly in cross-border contexts, remains critical.

Stakeholder engagement in the sandbox also required significant effort to align the diverse interests of regulators, startups, and financial institutions while balancing limited resources. Integrating emerging technologies like AI and blockchain into legacy systems has posed technical and scalability hurdles, compounded by tight timeframes

<sup>15</sup> Daryo (2024), [Bank of Georgia enters Uzbekistan's capital market sandbox – NAPP](#).

<sup>16</sup> [TradeTech Regulatory Sandbox](#).

<sup>17</sup> Datasphere Initiative (2025). [Africa Sandboxes Outlook: Thinking outside the box for responsible innovation in the age of AI](#), Datasphere Initiative

and resource constraints. Additionally, the lack of standardized metrics for measuring success has further complicated efforts.

Best practices highlighted include engaging both public and private stakeholders early to ensure alignment, and incorporating multiple regulators across jurisdictions for broader applicability. Focusing on one core area per cohort allows for varied use cases within that focus, while setting clear objectives and phased milestones helps track progress and make necessary adjustments. Designing adaptable regulatory frameworks that evolve with emerging technologies supports iterative improvement, and maintaining transparent, regular communication with participants fosters collaboration and manages expectations. Additionally, developing the sandbox with scalability in mind ensures it can be applied to various markets with similar needs, enhancing its replicability and impact.<sup>18</sup>

## SINGAPORE'S SANDBOX FOR PRIVACY-ENHANCING TECHNOLOGIES

Singapore's use of sandboxes for AI provides Uzbekistan with insights on how regulators can include technical testing within a sandbox in partnership with the private sector. For example, Singapore's regulatory model for AI is built on adaptability and collaboration, with a strong focus on fostering innovation while ensuring ethical and legal compliance. This approach requires significant commitment from government agencies, which must not only understand the specific challenges faced by companies but also proactively identify and address potential ethical and legal concerns that could arise within AI sandboxes. These controlled environments allow companies to test and refine their AI technologies, with regulators working closely to provide tailored solutions for each case. When necessary, the regulatory framework itself is adjusted to better align with emerging challenges and technological advancements.

Understanding Singapore's approach to sandboxes requires an appreciation of the broader national AI ecosystem. In 2019, Singapore launched its National AI Strategy (NAIS), which outlined key goals and principles for the development of AI in the country. The central objective of this strategy was to create a progressive and trusted environment for AI innovations, balancing technological advancement with ethical standards and public confidence. To support this vision, Singapore introduced its Model AI Governance Framework<sup>19</sup>, which set a global benchmark for companies and captured the attention of policymakers worldwide. Central to Singapore's approach is its collaboration with the private sector, which plays a role in shaping AI policy and ensuring that emerging technologies align with the public interest. Rather than adopting a single overarching law, Singapore's regulatory strategy for AI is sector-specific, allowing for tailored, industry-driven regulations that address the unique challenges posed by AI in areas such as finance, healthcare, and transportation. The Infocomm Media Development Authority (IMDA), which leads AI governance initiatives, works closely with companies and experts to develop effective guidance. This collaborative effort resulted in the creation of various initiatives, including the launch of a sandbox for Privacy-Enhancing Technologies (PETs) in 2022<sup>20</sup>. In 2023, IMDA and the AI Verify Foundation introduced the world's first Generative AI Evaluation Sandbox, designed to provide a common baseline

<sup>18</sup> Datasphere Initiative (2025). [Africa Sandboxes Outlook: Thinking outside the box for responsible innovation in the age of AI](#).

<sup>19</sup> Infocomm Media Development Authority (2024), [Singapore proposes framework to foster trusted Generative AI development](#), Infocomm Media Development Authority.

<sup>20</sup> Infocomm Media Development Authority (2022), [Launch of Privacy Enhancing Technologies Sandbox](#), Infocomm Media Development Authority.

for assessing large language models.<sup>21</sup> This initiative allows businesses to assess their AI systems for compliance with ethical and regulatory standards, ensuring that technologies are transparent, robust, and aligned with Singapore’s governance principles.

## EUROPEAN UNION AI ACT REGULATORY SANDBOXES

The use of sandboxes in the EU AI act provides a helpful example for Uzbekistan to understand how sandboxes can be included in a regulatory framework as a way to support business compliance and regulatory dialogue for refinement of AI regulation.

The EU AI Act requires member states to establish AI sandboxes as part of its comprehensive strategy to regulate AI across the EU. Article 57 of the Act details how these sandboxes are intended to provide a controlled testing environment in which innovators and regulators will work together to identify risks and ensure compliance with the EU AI Act and potentially other EU regulations.<sup>22</sup>

In the context of the EU AI Act, sandboxes aim to foster innovation and competitiveness, as well as support legal certainty, facilitating regulatory compliance, and promoting the sharing of best practices. The insights gained from these sandboxes are intended to better enable regulators to effectively apply the EU AI Act to emerging sectors and use cases, and where relevant, may be aimed at influencing policy amendments.<sup>23</sup>

Spain has been a pioneer of AI sandboxes in the EU, inaugurated by the enactment of Royal Decree 817/2023, which established the “RD Sandbox.”<sup>24</sup> This controlled environment enables the testing and evaluation of high-risk AI systems, offering participants guidance on compliance and fostering innovation. The insights from the RD Sandbox are expected to culminate in a report of good practices that will inform future national regulations. Additionally, Royal Decree 729/2023 has created the Spanish Agency for the Supervision of Artificial Intelligence (AESIA), a dedicated body tasked with ensuring compliance with AI regulations, conducting inspections, raising awareness, and providing expert advice.<sup>25</sup> AESIA will establish a regulatory sandbox under the AI Act, building on the RD Sandbox as its foundation. While specific AI laws in Spain are still under development, the National AI Strategy (2020–2025) provides a cohesive framework aligning state, regional, and sectoral strategies with EU policies. By embracing these measures and adhering to international principles such as those of the OECD, Spain has demonstrated its commitment to advancing ethical, innovative, and well-regulated AI development through its sandbox.

In the Netherlands, a proposal for a regulatory sandbox under the EU AI Act was published in March 2025 by the Dutch Authority for Digital Infrastructure (RDI) and the Data Protection Authority, coordinated with the Ministry of Economic Affairs. This sandbox aims to help AI developers navigate compliance challenges by offering regulatory guidance while preserving the authority of existing law, and in return, supervisory bodies gain deeper insights into evolving AI risks and innovation opportunities. Designed as a multi-sectoral, single-entry point model, it involves the participation of all supervisory authorities, enabling efficient and consistent interpretation of the AI Act tailored to each

<sup>21</sup> Infocomm Media Development Authority (2023), [First of its kind Generative AI Evaluation Sandbox for Trusted AI by AI Verify Foundation and IMDA](#), Infocomm Media Development Authority.

<sup>22</sup> EU Artificial Intelligence Act (2024), [Article 57: AI Regulatory Sandboxes](#), Future of Life Institute

<sup>23</sup> EU Artificial Intelligence Act (2024), [Article 57: AI Regulatory Sandboxes](#), Future of Life Institute

<sup>24</sup> White & Case (2024). [AI Watch: Global Regulatory Tracker – Spain](#).

<sup>25</sup> Ibidem.

authority's jurisdiction.<sup>26</sup> The proposal also clarifies the sandbox's supportive role, by providing legal and technical guidance rather than infrastructure or direct compliance guarantees, while leveraging existing innovation facilities. The goal is to establish a final sandbox by August 2026 – or potentially earlier – providing a structured environment for the safe experimentation and supervised testing of AI systems ahead of full AI Act rollout.

---

<sup>26</sup> Autoriteit Persoonsgegevens (2025), [Proposal Dutch 'regulatory sandbox' under the AI Act](#).

## 3 | OPPORTUNITIES AND SECTORS WHERE AI SANDBOXES COULD BE TESTED IN UZBEKISTAN

Uzbekistan’s digital economy is advancing with initiatives such as the Digital Uzbekistan – 2030 Strategy, providing a catalyst for investments in digital infrastructure and e-government services.<sup>27</sup> However, challenges around digital literacy, underdeveloped ICT regulatory frameworks, and low levels of private sector engagement persist.<sup>28</sup> Uzbekistan launched its first AI Strategy in October 2024, positioning itself between risk-based regulatory models like the EU AI Act and more flexible approaches.<sup>29</sup>

The National AI Strategy sets ambitious national targets for 2030, reflecting the government’s determination to build a globally competitive AI ecosystem. The Strategy defines priority areas for the introduction of AI technologies, including the banking and financial sector, tax and customs, healthcare, agriculture and managing energy resources.<sup>30</sup> While the National AI Strategy 2030 sets out guiding principles of fairness, transparency, and human oversight, they have not been translated into binding, testable requirements such as standardized documentation, explainability protocols, or evaluation benchmarks, leaving companies without a common framework for demonstrating “responsible AI” in practice.<sup>31</sup>

While AI adoption in Uzbekistan’s private sector is on the rise, with 57.9% of surveyed businesses reporting that they have integrated AI into their operations,<sup>32</sup> this uptake remains uneven, as many companies face significant challenges, including shortages of skilled personnel (57.9%), data quality issues (47.4%), and high implementation costs (36.8%).<sup>33</sup> Companies continue to face structural barriers to AI adoption including limited access to capital, talent shortages, weak digital infrastructure and fragmented regulatory support.<sup>34</sup>

Sandboxes could help address these barriers by opening a space for regulatory dialogue and clarity, enabling the use of infrastructure or data-sets in a secure environment and contributing to public and private AI capacity and knowledge sharing.

Before outlining the potential ways, AI sandboxes can be useful for Uzbekistan to support the adoption of AI across sectors and particularly by MSMEs, it is important to reflect on the current experience Uzbekistan has with sandboxes. Uzbekistan’s sandboxes have been designed and implemented predominantly in the financial sector (See Table 1). Many of these sandbox initiatives have been designed and developed to test the use or create regulatory pauses for the use of innovative technologies such as blockchain, crypto-assets or stablecoin,

<sup>27</sup> Ministry of Economy and Finance of the Republic of Uzbekistan and the United Nations Development Programme (UNDP) (2025), [Digital Economy of Uzbekistan: The State of Digital Entrepreneurship and Artificial Intelligence](#).

<sup>28</sup> Ministry of Economy and Finance of the Republic of Uzbekistan and the United Nations Development Programme (UNDP) (2025), [Digital Economy of Uzbekistan: The State of Digital Entrepreneurship and Artificial Intelligence](#).

<sup>29</sup> Ibidem.

<sup>30</sup> StratejAI (2025), Adoption of AI in the private sector in Uzbekistan: drivers, challenges, solutions.

<sup>31</sup> StratejAI (2025), Adoption of AI in the private sector in Uzbekistan: drivers, challenges, solutions.

<sup>32</sup> StratejAI (2025), Adoption of AI in the private sector in Uzbekistan: drivers, challenges, solutions.

<sup>33</sup> Ministry of Economy and Finance of the Republic of Uzbekistan and the United Nations Development Programme (UNDP) (2025), [Digital Economy of Uzbekistan: The State of Digital Entrepreneurship and Artificial Intelligence](#).

<sup>34</sup> StratejAI (2025), Adoption of AI in the private sector in Uzbekistan: drivers, challenges, solutions.

or through regional efforts supported by organizations like the Asia Development Bank. As the MoEF and MDT or any other public administration explores the use of AI sandboxes, starting exploration of the experiences and best practices from existing sandbox initiatives in the country (while not related to AI) may help identify important lessons and needs in terms of resource mobilization, staff management and local stakeholder engagement in sandbox processes.

Table 1. Sandboxes initiatives in Uzbekistan

Lead	Type of sandbox initiative	Status	Description
Cabinet of Ministers	Temporary procedure for the introduction of a special legal regime	Published	Cabinet of Ministers approved a temporary procedure for the introduction of a special legal regime ("regulatory sandbox") in several areas of business.
National Agency for Project Management under the President of the Republic of Uzbekistan (NAPU)	Uzbekistan Blockchain Valley	Announced	The Uzbekistan Blockchain Valley is the first regulatory sandbox in Central Asia to test and develop blockchain and crypto asset innovations under a special legal regime, fostering digital transformation while shaping national regulatory frameworks for emerging technologies.
Central Bank	Central Bank's Financial Services Sandbox	Launched	This regulatory sandbox allows fintech companies to test innovative financial products—including open banking, AI, SupTech, and RegTech solutions—under a special legal framework aimed at accelerating digital transformation and investment in the financial sector.
Central Bank	Uzbekistan's Capital Markets Regulatory Sandbox	In operation	This regulatory sandbox allows licensed foreign broker-dealers and custodians from approved jurisdictions to operate and test financial instruments in Uzbekistan's securities market under a simplified regime, easing entry for international investors and promoting cross-border capital flows.
Central Bank and National Agency for Advanced Projects (NAPP)	Pilot project for a digital som and stablecoin	Announced	The Central Bank of Uzbekistan began exploring a pilot project for a digital som and stablecoin within its regulatory sandbox, in partnership with the National Agency for Advanced Projects (NAPP), to test new digital payment instruments and assess public demand for central bank digital currencies.
National Agency for Perspective Projects (NAPP)	Uzbekistan's Crypto-Assets Regulatory Sandbox	In operation	Launched in January 2023 by the National Agency for Perspective Projects (NAPP), Uzbekistan's crypto-assets regulatory sandbox allows licensed entities to pilot blockchain and crypto projects—such as NFT certificates and crypto-linked bank cards—under tax exemptions and special legal conditions to foster innovation in digital finance.
Asia Development Bank	Uzbekistan A380 Road Design Pilot (under ADB's Digital Innovation Sandbox)	Completed	Launched under ADB's Digital Innovation Sandbox, the Uzbekistan A380 Road Design Pilot tested an AI-driven digital twin platform (ORIS) to optimize road sustainability, cost efficiency, and climate resilience, marking the first use of digital materials intelligence for infrastructure design in Central Asia, in collaboration with national authorities and supported by Korean and Chinese regional cooperation funds.

Lead	Type of sandbox initiative	Status	Description
Uzbekistan's International Centre for Digital Technologies	Decree for the creation of the International Centre for Digital Technologies (Enterprise Uzbekistan) and its regulatory sandbox	In operation	Established by a 2024 Presidential Decree, Uzbekistan's International Centre for Digital Technologies ("Enterprise Uzbekistan") created a sandbox-like experimental zone within the national IT Park, granting foreign digital firms a five-year special legal regime covering data protection, fintech, employment, taxation, and innovation testing, overseen by a high-level Coordination Council led by the Prime Minister.
Presidential Decree	Uzbekistan's Investment Platforms Regulatory Sandbox	Launched	This sandbox establishes a one-year experimental regime (Oct 2025–Oct 2026) allowing licensed local operators to pilot digital platforms for securities trading, venture and mutual financing, and limited partnership investments, aiming to simplify capital raising for entrepreneurs and attract up to \$1 billion in new investments annually.

Kazakhstan and Uzbekistan are the two countries leading financial innovation in Central Asia. In Kazakhstan, the Astana Financial Services Authority (AFSA) within the Astana International Financial Centre (AIFC) launched the region's first fintech-oriented regulatory sandbox, the "FinTech Lab", in January 2018.<sup>35</sup> The sandbox allows firms to test innovative financial services under a tailored, lighter regulatory regime until they either migrate to full authorization or cease operations.<sup>36</sup> More recently (July 2025) the country's central bank introduced a regulatory sandbox for digital assets—covering tenge-backed stablecoins, real-world asset tokenization and crypto OTC operations<sup>37</sup>—illustrating a push to position Kazakhstan as a regional hub for digital finance innovation.<sup>38</sup> This shows Kazakhstan placing strong emphasis on creating controlled environments where new technologies (including elements of AI and tokenization) can be piloted, regulated and gradually scaled.

In Uzbekistan, the government has been actively positioning itself in innovation and digital economy reforms. In early 2020 Uzbekistan announced the establishment of what was described as the first regulatory sandbox in Central Asia for blockchain technology and crypto-assets (the so-called "Uzbekistan Blockchain Valley" initiative).<sup>39</sup> Beyond that, in 2024 the IT Park Uzbekistan was tasked with launching a dedicated regulatory sandbox for digital technology as part of a presidential decree, expected to go into experimental mode by May 2025, offering simplified legal frameworks for digital firms.<sup>40</sup> Thus Uzbekistan's sandbox efforts are more broadly about creating innovation-friendly zones and legal regimes, signaling ambition to compete with neighbors like Kazakhstan in building an enabling ecosystem for AI, digital startups and fintech.

<sup>35</sup> AIFC (2020). [Fintech Market Entry to CIS, Central Asia, and Mongolia](#)

<sup>36</sup> IMF (2024). [Republic of Kazakhstan: Financial Sector Assessment Program-Technical Note on Regulation and Supervision of Crypto Assets](#)

<sup>37</sup> National Bank of Kazakhstan (NBK) (2022). [About meeting into questions of implementation of a development project of NBK regulatory sandbox for participants of financial market](#)

<sup>38</sup> Satubaldina (2025). [National Bank Launches Regulatory Sandbox for Digital Assets](#)

<sup>39</sup> Uz Daily (2020). [Uzbekistan creates the first regulatory sandbox in Central Asia on the development of blockchain technology and the sphere of crypto assets circulation](#)

<sup>40</sup> Euronews (2021). [Uzbekistan sets out an ambitious road map to becoming a key start-up hub](#)

In 2023, the government introduced a special legal regime for regulatory sandboxes under Cabinet of Ministers Resolution No. 617, as of November 23, 2023.<sup>41</sup> The framework creates a controlled environment for innovators to test solutions in five priority sectors: – e-commerce, transport and logistics, agriculture, industry, and construction – under temporarily relaxed regulatory conditions and with closer oversight from government agencies. Startups and technology firms can apply by submitting a proposal that should include details on the scope of the project, budget and funding sources, implementation techniques, customer protection measures, and performance evaluation metrics. Approved projects can operate in the sandbox for up to three years, with the application review process limited to 30 days. For startups, the sandbox is intended to reduce the regulatory and financial barriers of market entry.<sup>42</sup>

The sandbox allows participants to test innovative business models without the immediate burden of full compliance, while still providing a level of protection for consumers through monitored conditions. This can be particularly valuable for early-stage firms that would otherwise struggle to test products in highly regulated sectors such as payments, logistics, or agri-tech. By gathering operational data in a controlled environment, companies can refine their technologies and build a compliance track record, which in turn facilitates later scaling and investment. In principle, such a mechanism can also help regulators themselves by generating evidence to inform more proportionate, sector– specific rules.<sup>43</sup>

However, surveyed stakeholders generally emphasized a need for an AI specific sandbox design. While current sandbox initiatives lower entry costs and accelerate approval timelines for startups, they do not yet address unique AI challenges such as data access, algorithmic accountability, or model evaluation. Without these elements, according to surveyed stakeholders, the sandboxes’ ability to serve as a bridge between innovation and AI regulation remains limited.<sup>44</sup>

While sandboxes are not a “silver bullet” to all AI adoption challenges faced by MSMEs, they can help test appropriate regulatory approaches that balance guidance and risk with growth and innovation.

The section below offers a menu of areas where sandboxes could support AI adoption of MSMEs in Uzbekistan. The proposals offer several areas where sandboxes could support AI adoption across MSMEs and serve as basis for further refinement and consultations across the Government of Uzbekistan, particularly with the MoEF and MDT, as well as any related or subordinate organizations who intend to initiate an AI sandbox.

## **AI SANDBOXES COULD HELP SUPPORT AI ADOPTION ACROSS UZBEKISTAN’S PRIORITY SECTORS**

Uzbekistan’s National AI Strategy defines priority areas for the introduction of AI Technologies. For example, in the:

- banking and financial sector, AI adoption is seen as important to prevent fraud, assess users’ creditworthiness, and forecast market trends;
- tax and customs sectors, AI could reduce the share of the shadow economy, forecasting suspicious customs operations, and managing risks;

<sup>41</sup> Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No. 617 dated 23.11.2023 <https://lex.uz/pdfs/6674678>

<sup>42</sup> StratejAI (2025), Adoption of AI in the private sector in Uzbekistan: drivers, challenges, solutions.

<sup>43</sup> StratejAI (2025), Adoption of AI in the private sector in Uzbekistan: drivers, challenges, solutions.

<sup>44</sup> StratejAI (2025), Adoption of AI in the private sector in Uzbekistan: drivers, challenges, solutions.

- healthcare sector, AI could help diagnose diseases, determining treatment methods, analyzing medical images, and managing patient-related data;
- agriculture sector, AI applications could help forecast productivity, managing agricultural resources, monitoring the processes of growing crops, poultry, fish, and livestock;
- energy sector, AI is expected to help manage energy resources and optimize energy production and distribution, as well as developing the use of renewable energy.<sup>45</sup>

However as explained in the Policy Paper by StratejAI “Adoption of AI in the private sector in Uzbekistan: drivers, challenges, solutions”, AI adoption remains challenging and many businesses are experiencing unclear regulatory environments, a lack of data and technical infrastructure and minimum public awareness in the use and potential of AI. AI sandboxes could help address some of these AI adoption challenges particularly with regards to data access and regulatory clarity on AI adoption. The overview below provides some proposals for how AI sandboxes could be used to support AI adoption across some of these priority sectors.

## Health

Sandboxes could help gather evidence on the opportunities and risks of health-care technologies that use or are developed by AI and help MSMEs gain more regulatory clarity on their use and development. An AI health sandbox could also help policymakers and regulators better understand the opportunities and risks of AI technologies and adjust regulations or guidance as such. For example, the Ministry of Health may wish to develop a sandbox in cooperation with the Ministry of Digital Technologies to test emerging AI products and services within the health care system.

AI sandboxes could also be developed in collaboration with research institutions or universities to help MSMEs access novel health data and test their products in real-world environments. This could lead to useful market learnings and help MSMEs scale. At the same time, providing collaborative testing spaces that can also include health-care practitioners will support trust in emerging uses of AI and serve as an educational exercise for regulators, health policy officials as well as medical professionals in how they use AI and whether it is beneficial.

Global examples of health tech sandboxes such as those undertaken by Indonesian’s Ministry of Health could provide useful learnings. In 2023, they launched a regulatory sandbox to support the development of the digital health innovation ecosystem and telemedicine. The sandbox was a testing mechanism for digital health innovation led by the Ministry of Health in collaboration with various experts, and included both the public and private sector participants.<sup>46</sup> The regulatory sandbox assessed the reliability of business processes and models. The sandbox also encouraged service providers and regulators to jointly explore innovative business models and analyze risks to society while allowing the development of regulations that actively support the implementation of these new technologies in the health sector.<sup>47</sup> The test process generated learnings that resulted in solid recommendations for the development of evidence-based regulations in the health sector. The sandbox has been beneficial to health technology developers, as it has allowed for the issuance of temporary regulations in the form of recommendations and guidance for those who pass the supervision process, thereby strengthening the industry to test and evolve. The government

<sup>45</sup> StratejAI (2025), Adoption of AI in the private sector in Uzbekistan: drivers, challenges, solutions

<sup>46</sup> Antra (2023) [Health Ministry launches regulatory sandbox to secure telemedicine](#)

<sup>47</sup> Antra (2023) [Health Ministry launches regulatory sandbox to secure telemedicine](#)

also prepared recommendations to help the implementation of this mechanism that could develop more specific policies and regulations in the field of data-based health technology.

Uzbekistan may also consider using AI health sandboxes to test the use of AI in medical devices. This could be designed in cooperation with regulatory authorities and MSMEs who are exploring how AI can transform medical devices and holistic health-care processes. For example, in the UK, due to regulatory reform and a marked increase in innovative health devices entering the UK market, the Medicines and Healthcare products Regulatory Agency (MHRA) decided to set-up a regulatory sandbox to explore AI as a Medical Device (AlaMD).<sup>48</sup>

The goal of setting up the sandbox was to balance appropriate oversight to protect patient safety with the agility needed to respond to the particular challenges presented by these products to ensure regulation does not present undue barriers to innovation. Using real-world products, the first pilot of the AI Airlock brought together expertise from within the MHRA and key partners including the UK Approved Bodies, the National Health Service and other regulators. The results were companies having the ability to test their products in real-world environments, as well as insights for the MHRA to update their current regulatory guidance to tackle emerging risks posed by AI.

### Finance and banking

AI sandboxes in the finance and banking sector could play a critical role in accelerating responsible AI adoption in Uzbekistan's financial ecosystem. Financial institutions and fintech companies are increasingly exploring AI for fraud prevention, risk management, creditworthiness assessment, and personalized financial services.<sup>49</sup> However, regulatory uncertainty, limited access to high-quality financial data, and capacity gaps remain barriers that make experimentation costly and slow for MSMEs.<sup>50</sup> AI sandboxes can provide a controlled environment to address these issues.

AI sandboxes can help MSMEs safely develop and test AI-enabled financial solutions under the supervision of regulatory authorities. This includes experiments involving automated credit scoring models, generative AI for customer service, and cybersecurity tools for fraud detection.<sup>51</sup> Supporting testing at early stages can reduce market entry risks, increase the speed of innovation, and help local financial actors remain competitive as the sector undergoes rapid digital transformation.

Sandbox pilots can generate practical evidence for regulators regarding the systemic and consumer risks of AI tools used within finance. Experiments can assess fairness and accuracy

<sup>48</sup> Medicines and Healthcare products Regulatory Agency (2024) [AI Airlock: the regulatory sandbox for AlaMD](#)

<sup>49</sup> EY (2024) [How artificial intelligence is reshaping the financial services industry](#)

<sup>50</sup> Private Sector Investment Finance Division, Private Sector Partnership and Finance Department, JICA. (n.d.) [Ex-Ante Evaluation – Support Project for Micro, Small and Medium Enterprises in Uzbekistan](#); Gaybullaev, O. and Oliński, M. (2020). [Opportunities and challenges faced by small and medium enterprises in Uzbekistan](#). *Olsztyn Economic Journal*. 2020, 15(4), 285–299. DOI: 10.31648/oej.6852; OECD (2023), [Improving the Legal Environment for Business and Investment in Central Asia: Progress Report](#), OECD Publishing, Paris, <https://doi.org/10.1787/33a28683-en>; International Finance Corporation (2025). [MSME Finance Gap. An updated Estimation and Evolution of the Micro, Small and Medium Enterprises \(MSME\) Gap in Emerging and Developing markets](#).

<sup>51</sup> OECD (2023) [Regulatory Sandboxes for Artificial Intelligence](#). OECD Digital Economy Papers. No. 356; Goyal, K., Garg, M. & Malik, S. (2025), [Adoption of artificial intelligence-based credit risk assessment and fraud detection in the banking services: a hybrid approach \(SEM-ANN\)](#). *Futur Bus J* 11, 44; Karapetyan, G. (2025) [Regulatory Sandbox for Generative AI in Banking: What Should Banks Test & Regulators Watch For?](#); Metha, Shubham. (2025). [AI-Driven Fraud Detection: A Risk Scoring Model for Enhanced Security in Banking](#). *Journal of Engineering Research and Reports*. 27. 23-34; Satyadhar Joshi. [Gen AI in Financial Cybersecurity: A Comprehensive Review of Architectures, Algorithms, and Regulatory Challenges](#). *International Journal of Innovations in Science Engineering And Management*, 2025, 4 (3), pp.73-88.

of AI-driven lending decisions, impact on competition and interoperability, the robustness of data protection safeguards, and transparency of algorithmic decision-making.<sup>52</sup> These insights strengthen supervisory capacity and enable more appropriate and risk-proportionate regulation.

Through direct collaboration between innovators and regulators, sandboxes help clarify expectations for AI compliance across areas such as Anti-Money Laundering (AML) obligations, Know Your Customer (KYC) requirements, and consumer-protection obligations. This guidance reduces compliance uncertainty and costs for firms while ensuring products establish responsible practices from the outset. This supports both innovation and trust in AI-enabled financial services.<sup>53</sup>

Evidence gathered through sandbox participation can inform adjustments to existing frameworks or the development of new guidance aligned with global standards. This can ensure regulation keeps pace with emerging technologies and encourages responsible scaling. It also highlights where supervisory innovation is required, such as adapting audit and explainability requirements for algorithmic decision-making.

For example, a helpful example of how to combine data access and AI testing within an AI sandbox to support MSME adoption of emerging AI technologies is the [UK Financial Conduct Authority Super Charged Sandbox](#). The Supercharged Sandbox gives firms access to better data, technical expertise and regulatory support to speed up innovation. It is open to any financial services firm looking to innovate and experiment with AI. The sandbox aims to help companies in the discovery and experimentation phase with AI.

[South Africa's Intergovernmental FinTech Working Group \(IFWG\) Regulatory Sandbox](#) offers another compelling example of how coordinated oversight can unlock responsible financial innovation while strengthening regulatory capacity. Established to address gaps in regulatory clarity and promote meaningful engagement between innovators and authorities, the sandbox enables fintech firms to test novel financial products under temporary regulatory relief and direct supervisory guidance. Its collaborative, multi-regulator governance model has supported advancements in areas such as crypto-asset oversight and index insurance, while also improving regulators' understanding of data governance, cybersecurity, and consumer-protection requirements associated with AI-enabled solutions. The IFWG experience highlights the value of accessible sandbox structures that welcome startups, foster trust between financial actors, and generate evidence to inform future frameworks, offering lessons that could guide Uzbekistan in designing an AI sandbox that advances both innovation and financial inclusion.

Uzbekistan could consider a similar approach to facilitate secure data sharing, support innovation, and ensure that AI-enabled financial services advance both consumer protection and financial inclusion objectives.

## Energy

In the energy sector, AI sandboxes could help test how AI innovations can be incorporated into energy systems. By supporting the coordination of the different actors who may not have experience working together, a sandbox can help test and uncover information asymmetries before developing a longer-term AI-driven energy project. AI sandboxes in the energy sector can also support AI adoption by testing whether innovation responds to the

52 OECD (2024) [Regulatory Approaches to Artificial Intelligence in Finance](#). OECD Artificial Intelligence Papers. No. 24; Wang, Zhichao. (2025). [The Balanced Role of AI Regulatory Sandbox in Innovation Incentives and Competing Safety Values](#). Lecture Notes in Education Psychology and Public Media. 107. 109-114. 10.54254/2753-7048/2025.LD25883.

53 Nayaone (2025), [Why an AI sandbox for banks is critical for safe digital transformation](#).

needs of local communities and better understand the impact and risks of AI within real-world environments. This can help support dialogue between regulators, private sector and local communities in designing energy policies and uncover any challenges with AI products and services before larger investments and scaling.

A notable example is Canada’s Innovation Sandboxes Project.<sup>54</sup> A four-year project to encourage and enable the innovation needed to meet low-carbon targets through the use of innovation sandboxes in jurisdictions across Canada. The Innovation Sandbox is considered a “policy tool” that uses collaboration to create conditions for innovation to be integrated into the energy system, allowing for the examination of real (and often perceived) barriers as well as testing solutions in a real-world environment. The Sandbox uses tools such as Enquiry Services, Innovation Hubs, and Regulatory Trials, along with mechanisms that capture lessons learned, to inform the development of policies.

## AI SANDBOXES COULD HELP SUPPORT MSME’S ACCESS TO FINANCE IN UZBEKISTAN

Challenges identified: AI innovators face a dual set of constraints in Uzbekistan. First, they encounter structural weaknesses in Uzbekistan’s financial market, which limit capital flows for all types of innovative businesses. Second, AI startups bear unique, sector-specific financial burdens, stemming from the high costs and long-time horizons characteristic of AI development. These two dimensions interact to create a compounded financing gap that hinders the growth of a diverse and competitive AI ecosystem.<sup>55</sup>

Areas an AI sandbox could address:

### *Operational mechanisms:*

- Use cases for an AI sandbox could be guided by recommendations from investors, financial institutions and innovation hubs in Uzbekistan to identify potential sectors or services where particular funding is available.
- If resources allow, MSMEs could even receive funding to participate in the AI sandbox to help test their solutions within appropriate regulatory contexts or gain secure access to data. Such financial mechanisms for MSMEs could be in the form of grants, subsidies, and funds to participate in the sandbox. However, these avenues would need to be covered by necessary controls to support competition or address any potential market capture.

### *Eligibility criteria:*

- As noted above, use cases for the sandbox could align with national AI pilots and potential investor priorities. This would help MSMEs anchor clients (e.g., banks, hospitals, ministries), so that sandbox participants and pilots directly feed into procurement decisions and investor pitches. If this is to be factored, there needs to be appropriate market guidance to avoid distortion.

### *Compliance pathways:*

- An AI sandbox could include a formal verification or quality certification that enhances participating companies’ credibility and legitimacy, demonstrating to stakeholders—such as investors, and partners—that their solutions have been rigorously tested and validated within the framework of a regulatory sandbox. This approach would need to

<sup>54</sup> Quest (2020) [Enter the Sandbox: Developing Innovation Sandboxes for the Energy Sector](#)

<sup>55</sup> StratejAI (2025), Adoption of AI in the private sector in Uzbekistan: drivers, challenges, solutions.

consider how to address competition questions in the larger market for those firms who aren't able to participate in the sandbox.

- The sandbox could create industry-linked competitions such as hackathons in priority sectors (e.g., agritech, fintech, smart mobility), with winners fast-tracked into sandboxes or government-supported pilot programs.
- A sandbox could be structured to help AI firms, demonstrate compliance, safety, and value in real-world use cases. This could be initiated by documenting pilot results, engaging proactively with regulators, and publishing transparent learnings, paving the way for broader adoption and procurement opportunities.

#### *AI testing protocols*

- When testing the AI solutions, sandbox initiators should consider how they will be exiting or closing the sandbox to ensure results capture data points that could be of interest to investors. For example, organizers could publish transparent pilot results in accessible formats (e.g., performance metrics, user feedback, limitations) to build trust among investors, customers, and the broader AI ecosystem.
- As AI projects are technically complex and often difficult for generalist investors to evaluate, public communication of sandbox testing, results and learnings would help address knowledge and trust gaps between AI founders and investors.<sup>56</sup>

### **AI SANDBOXES COULD HELP ADDRESS INFRASTRUCTURAL & TECHNICAL BARRIERS FACED BY MSMEs IN UZBEKISTAN**

Challenges identified: costs of computing and the scarcity of shared technical resources are among the most significant barriers to AI innovation and adoption in Uzbekistan. These constraints slow down the development and scaling of AI solutions, particularly for MSMEs, which lack the capital and technical teams of larger corporations. The issue is compounded by delays in building national cloud infrastructure and limited access to local language datasets, which are critical for training AI models.<sup>57</sup>

Areas an AI sandbox could address:

#### *Operational mechanisms:*

- Including an operational<sup>58</sup> component to an AI regulatory sandbox in Uzbekistan could help MSMEs gain access to technical infrastructure and support data access for developing and scaling their AI solutions with regulatory oversight. Uzbekistan could consider developing a hybrid sandbox<sup>59</sup> by providing companies with access to a pool of data to help design AI models and applications. Such a safe space to test and refine their technologies in real-world conditions without fear of penalties could provide an opportunity to accelerate product development with access to new data or technologies.
- In October 2025, the President of Uzbekistan approved a package of investment incentives for foreign companies implementing AI infrastructure and data processing center projects in the Republic of Karakalpakstan. Uzbekistan could explore whether the

<sup>56</sup> StratejAI (2025), Adoption of AI in the private sector in Uzbekistan: drivers, challenges, solutions.

<sup>57</sup> StratejAI (2025), Adoption of AI in the private sector in Uzbekistan: drivers, challenges, solutions.

<sup>58</sup> For example, operational sandboxes, defined by the Datasphere Initiative as: testing environments where hosted data can be accessed and used

<sup>59</sup> Hybrid sandboxes combine elements of regulatory and operational sandboxes, offering a controlled and collaborative environment where innovators can test new technologies, datasets, and practices while navigating existing regulations under regulatory supervision.

AI sandbox could test the access and development of this infrastructure in collaboration with IT park, local companies and government officials as well as exporters of cloud and AI services.

#### *Eligibility criteria:*

- An AI sandbox could prioritize MSMEs whose technology, product, or service is requiring the use of particular sensitive data and needs access in a very secure environment. This could help prioritize sandbox testing to high-risk AI applications that lead to learnings across the market.
- An AI sandbox may wish to include specific types of eligibility criteria in their call for sandbox participants to identify the maturity levels of the MSMEs to ensure that they are at the developmental stage necessary for testing.

#### *AI testing protocols*

- An AI sandbox could also help address infrastructural & technical barriers faced by MSMEs in Uzbekistan by including mechanisms for collaboration with academia, innovators, and industry stakeholders. Surveyed stakeholders reported limited access to foundation models and testing environments, such as access to foundation models (such as GPT, Llama, or BERT derivatives) remains uneven. An AI sandbox could take inspiration from the Harvard AI sandbox model which allows for testing and use of models within the university.<sup>60</sup> For example, IT Park University (ITPU) Uzbekistan's first hybrid-format IT university, could supervise real-world projects where sandbox testing could be supported considering its focus on industry collaboration.
- The Research Institute for the Development of Digital Technologies and Artificial Intelligence (AIRI) as well as INHA University in Tashkent, could explore the use of operational sandboxes to facilitate data-sharing including providing access to anonymized datasets for AI training, validation as well as research and development. If a sandbox can facilitate these sort of partnerships it could help companies identify and address potential operational challenges before full-scale deployment.
- As explored in the policy paper "Sandboxes for data: Creating spaces for agile solutions across borders" by the Datasphere Initiative<sup>61</sup> a cross-border regulatory sandbox could be designed to test technologies and data practices that inherently operate across multiple jurisdictions and even require secure, cloud-based infrastructure for AI testing. In the current context where cloud services have proliferated worldwide, a cross-border sandbox could help address barriers to international data flows, such as regulatory uncertainty, fragmented standards, and the need for multi-disciplinary collaboration across borders. Considering whether or not an AI sandbox in Uzbekistan will have a cross-border component for addressing infrastructural and technical barriers faced by MSMEs will be important, while considering the current national data protection frameworks.

#### *Compliance pathways:*

- An AI sandbox could offer structured compliance pathways to guide MSMEs through the regulatory expectations associated with AI development and deployment. This may include phased compliance models, where firms meet a sequence of regulatory milestones as their technologies mature, enabling early innovation while ensuring responsible development. Clear requirements for algorithmic transparency, explainability, human

<sup>60</sup> <https://www.huit.harvard.edu/ai-sandbox>

<sup>61</sup> Datasphere Initiative (2022), [Sandboxes for data: creating spaces for agile solutions across borders](#), Datasphere Initiative

oversight, and cybersecurity could be defined at each stage, providing predictability for innovators. Sandboxes might consider certifying those innovators that have successfully followed the compliance phases, which can support market entry and overall compliance with existing regulatory frameworks.

- The sandbox could also establish formal channels for ongoing feedback between innovators and regulators, resulting in documented compliance learnings and pre-market assessments that later reduce approval bottlenecks. Creating standardized templates for algorithmic risk assessments, data protection impact evaluations, and model audit checklists would further strengthen regulatory readiness and reduce compliance costs for smaller firms. Uzbekistan can ensure that the scaling of AI innovation is aligned with strong consumer protections and international regulatory best practices by exploring and integrating compliance pathways into sandbox participation.

### AI SANDBOXES COULD HELP ADDRESS HUMAN CAPITAL & AI SKILL GAPS

Challenge identified: in Uzbekistan, there is a severe shortage of AI talent, low levels of AI literacy among business executives, and a persistent mismatch between education programs and market needs. These human capital and AI skill gaps represent some of the most urgent barriers to sustainable AI-driven growth.<sup>62</sup>

Areas an AI sandbox could address:

*Operational mechanisms:*

- An AI sandbox could enable testing to generate and publicly share evidence about how AI improves sectoral operations, enhancing understanding among CEOs and MSMEs.
- A sandbox could structure interaction between innovators, policymakers, and academia, fostering knowledge exchange and supporting a better match between education programs and real market needs.

*Eligibility criteria:*

- The sandbox could prioritize admission for firms whose solutions directly address critical skill gaps such as AI training tools, automated analytics for SMEs, or sector-specific AI literacy applications.
- It could also include criteria that ensure participating projects are positioned to generate learnings relevant to the workforce and adoption challenges outlined in the National AI Strategy.

*AI testing protocols:*

- An AI sandbox could integrate collaborative testing formats that include participation from technical universities and training institutions, turning sandbox activities into learning-by-doing environments.
- Access to the sandbox could require participants to assess the workforce skills needed to safely and effectively deploy their solution, creating data for policymakers on evolving skill demand.
- If Uzbekistan is interested in testing the integration of RegTech tools for real-time monitoring and reporting, an AI sandbox could explore the testing of these capabilities as part of the sandbox monitoring process.

<sup>62</sup> StratejAI (2025), Adoption of AI in the private sector in Uzbekistan: drivers, challenges, solutions.

*Compliance pathways:*

- Uzbekistan could consider establishing guidance mechanisms for AI sandboxes that help firms understand regulatory requirements related to responsible AI use, data governance, transparency, and oversight.
- AI sandbox initiators could also develop templates and checklists that MSMEs can use to ensure future compliance, reducing uncertainty and embedding responsible AI practices in talent development.

**AI SANDBOXES COULD HELP ADDRESS AI AND DATA GOVERNANCE GAPS**

Challenge identified: while AI moves into priority sectors across the country, there is no comprehensive AI law, no legal status for AI systems, and no codified processes for risk assessment, certification, or post-market monitoring in Uzbekistan. In October 2025, senators reviewed and approved the law “On Amendments and Additions to Certain Legislative Acts of the Republic of Uzbekistan in Connection with the Regulation of Relations Arising from the Use of Artificial Intelligence. The law establishes general rules for the use of AI technologies in the creation and operation of information systems and resources, while also setting measures to protect personal data during their use.<sup>63</sup> This is in addition to the National AI Strategy 2030 which sets out guiding principles of fairness, transparency, and human oversight. They have not been translated into testable requirements such as standardized documentation, explainability protocols, or evaluation benchmarks, leaving companies without a common framework for demonstrating “responsible AI” in practice. Stakeholders interviewed consistently cautioned that while regulation is necessary, it should be measured and proportionate, avoiding rigid rules that could stifle innovation at an early stage.<sup>64</sup>

Areas an AI sandbox could address:

*Operational mechanisms:*

- As Uzbekistan is in the process of navigating what future AI should look like, testing regulatory options through an AI sandbox could help ensure future laws prevent harm without over-regulating and seek to align with emerging international best practices such as the EU AI Act, to build a proportionate, risk-based approach. By exploring regulatory options through an AI sandbox, Uzbekistan can collect stakeholder feedback on existing and/or new laws and explore how prospective implementation will work in practice.
- While Uzbekistan’s AI regulatory frameworks remain under development, an AI sandbox could facilitate the sharing of feedback on current applicability of regulations through dialogues, consultations or practical workshops to help clarify compliance expectations for MSMEs.<sup>65</sup>

*Eligibility criteria:*

- MSMEs have reported experiencing regulatory uncertainty when considering how to adopt or develop AI solutions, a regulatory sandbox could invite specific MSMEs who are applying AI in certain sectors or circumstances that leads to multiple regulatory questions. This proactive approach could help reduce compliance risks and bring clarity once regulations are in place.

<sup>63</sup> <https://www.uzdaily.uz/en/senate-of-uzbekistan-approves-law-regulating-artificial-intelligence/>

<sup>64</sup> Ibidem.

<sup>65</sup> StratejAI (2025), Adoption of AI in the private sector in Uzbekistan: drivers, challenges, solutions.

- An AI sandbox could prioritize on MSMEs whose technology, product or service is leading to particular questions when it comes to compliance, eg. touching multiple regulators remit, exploring the boundaries of data re-use or tackling a novel AI challenge such as bias or hallucinations etc.

*Compliance pathways:*

- Regulatory sandboxes could provide an opportunity for MSMEs to engage directly with regulators and gain insight into potential regulatory expectations and align products with future legal frameworks.
- Sandboxes could also support regulatory clarity on AI by helping policymakers better understand the technology and market impacts, equipping them with knowledge and practical experience to develop clearly scoped, rules, and guidance on AI.

*AI testing protocols:*

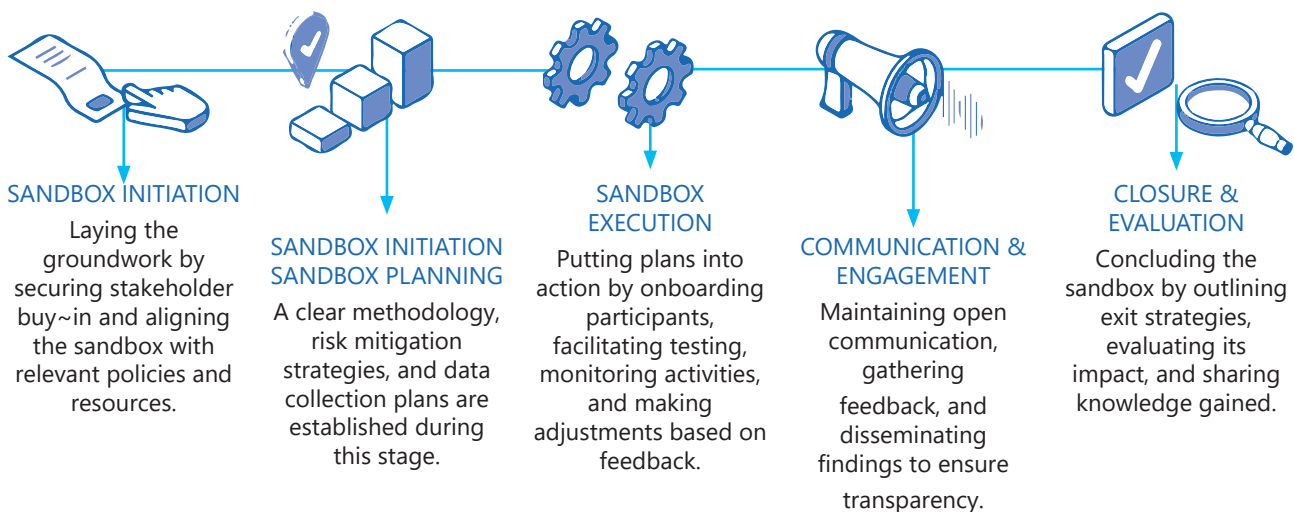
- AI sandboxes could help foster data privacy and protection by identifying how new AI technologies offer new risks or opportunities for data governance.
- A cross-regulatory AI sandbox could test and identify governance roles for either multi-agency regulation of AI in collaboration with data protection and justice experts. This would help identify roles and responsibilities of different government agencies when it comes to AI.
- In the absence of AI regulatory frameworks in Uzbekistan, a sandbox could be KPI-driven and supported by governance structures that use existing laws. This could help address operational bottlenecks faced by MSMEs by guiding terms of data access, interoperability, and testing under controlled conditions – while producing published outcomes that inform broader regulation.

## 4 | GUIDELINES FOR AI SANDBOX INITIATION

This section provides general recommendations on how Uzbekistan can foster good practices in AI sandbox conceptualization and initiation and proposes specific objectives an AI sandbox could cover. It offers guiding steps for the Government of Uzbekistan, particularly the MoEF and the MDT, and any related or subordinate organizations who intend to initiate an AI sandbox.

The recommendations are based on intelligence gathered by stakeholder interviews and survey respondents, desk research and the policy proposals included in the *StratejAI Policy Paper (2025)*.<sup>66</sup> They are also supported by the sandbox research and methodologies designed by the Datasphere Initiative, a global think and do tank working on data governance and leading research and training on sandboxes worldwide. The below diagram (Figure 3) provides a visual overview of the Datasphere Initiative's methodology from sandbox initiation to closure and evaluation as presented in the report: *Sandboxes for AI: Tools for a new frontier (2025)*.

Figure 2. Sandbox Design Methodology by the Datasphere Initiative



Considering that Uzbekistan appears to be in the scoping stage of AI regulatory sandboxes, with some initial projects exploring possibilities of sandbox initiation, the guidelines in this section focus on the initiation phase of an AI regulatory sandbox.

The sandbox initiation phase is a critical moment in sandbox conceptualization, design and implementation. It is an important framing exercise and largely conditions the ultimate success of the sandbox itself. With this in mind the guidelines below focus on providing Uzbekistan with recommendations covering how to initiate an AI sandbox following these steps:

- Clearly define the sandbox problem and objectives
- Assess the sandbox suitability

<sup>66</sup> An important disclaimer as mentioned in the introduction is that while stakeholder insights have been helpful writers have not had the opportunity to discuss sandboxes with officials of the Government of Uzbekistan, particularly with MoEF, MHESI, MDT. Therefore knowledge on current AI sandbox initiation and development remains limited.

- Assess organizational readiness to sandbox
- Ensure policy/regulatory alignment
- Evaluate resources and budgeting
- Identify sandbox stakeholders
- Secure initial buy-in

## CLEARLY DEFINE THE AI SANDBOX PROBLEM AND OBJECTIVES

A recurring concern highlighted by surveyed stakeholders is the limited effectiveness of the current sandbox framework introduced under the Cabinet of Ministers Resolution No. 617, as of November 23, 2023. While intended to enable experimentation, it is perceived by some stakeholders as overly broad, slow, insufficiently tailored to AI, and with unclear roles and responsibilities.<sup>67</sup> Therefore a primary recommendation for any Ministry interested in setting up an AI sandbox, is to clearly identify the problem and objectives that the AI sandbox will address.

Surveyed stakeholders generally emphasized a need for an AI specific sandbox design. While current sandbox initiatives in the country plan lower entry costs and accelerate approval timelines for startups, they do not yet address unique AI challenges such as data access, algorithmic accountability, or model evaluation. Without these elements, according to surveyed stakeholders, the sandboxes' ability to serve as a bridge between innovation and AI regulation remains limited.<sup>68</sup>

A common framing of the AI problem and objectives of the sandbox is an essential first step in aligning objectives and communicating to the wider public and affected stakeholders. Selecting the AI scope and the specific regulatory or operational issue will also help attract support and resources, motivating progress towards defined outcomes. The sandbox initiator whether that is the MoEF or MDT needs to carefully identify and delineate the core regulatory or operational question(s) that the sandbox needs to answer. These questions should be as specific and as refined as possible in order to help identify the types of data and stakeholders to include in the sandbox. The topic and challenge the sandbox will address will also determine the mechanisms and approach for how to exactly launch and maintain the sandbox.

For example, is the purpose of the sandbox to foster innovation and help companies test new AI models and services? Or, is the sandbox intended to support compliance with new or prospective regulations or laws. At the same time, the sandbox's main objective could be broader to foster regulatory learning and explore how new AI innovations challenge current regulatory understanding of the market. There are a range of objectives and challenges a sandbox may seek to address. Identifying the sandbox problem and objectives early on will help support a more refined and impactful AI sandbox experience in Uzbekistan.

Given Uzbekistan's commitment to digital transformation and alignment with global AI governance principles, establishing an AI sandbox to focus supporting responsible AI development, attracting investment, and facilitating regulatory learning are clear overarching goals and could be further narrowed to ensure an AI sandbox is most impactful.<sup>69</sup>

*For example based on desk research and suggestions from surveyed stakeholders an AI sandbox in Uzbekistan could focus on:*

<sup>67</sup> StratejAI (2025), Adoption of AI in the private sector in Uzbekistan: drivers, challenges, solutions.

<sup>68</sup> StratejAI (2025), Adoption of AI in the private sector in Uzbekistan: drivers, challenges, solutions.

<sup>69</sup> StratejAI (2025), Adoption of AI in the private sector in Uzbekistan: drivers, challenges, solutions.

Facilitating a consultation on how the government can best develop and scope rules and/or guidance on AI.

This would involve structured engagement between regulators, AI developers, MSMEs, legal experts, and civil society to support the government in defining clear and adaptive rules for responsible AI development and deployment. Activities could include iterative policy co-design exercises, public consultation rounds, impact assessments, and fostering the creation of expert advisory groups and digital citizen assemblies. An AI sandbox could be a key element to support this consultation and promote the AI innovation ecosystem in the country.

The AI sandbox could be similar to what has been initiated by the Government of Brazil's Data Protection Authority (ANPD),<sup>70</sup> which launched a regulatory sandbox pilot program focused on artificial intelligence and data protection. The initiative creates a controlled environment for companies to test AI technologies while ensuring compliance with personal data protection rules and fundamental rights. The sandbox is designed as a collaborative experiment that involves industry, academia, and civil society in developing risk mitigation practices and improving algorithmic transparency. ANPD opened the design phase to public and international contributions through the *Participa + Brasil* platform, reflecting a strong commitment to inclusion, transparency, and evidence-based policymaking. Insights and outputs generated by pilot testing informed the development of future norms and regulatory guidance, while also strengthening institutional capacity to supervise emerging technologies responsibly.

*Testing how emerging AI technologies present new risks or opportunities for data privacy and protection.*

This would involve allowing selected AI firms to test data-intensive or privacy-sensitive systems under enhanced supervisory and assessment conditions. Such a sandbox could support independent evaluations of model interpretability, personal data usage, and algorithmic risk management while creating a safe environment to experiment with privacy-enhancing technologies and quality assurance protocols. It could also enable the early identification of harms and support the validation of privacy-by-design features prior to commercial deployment.

Learning from relevant international experiences, the Norwegian Data Protection Authority's Regulatory Privacy Sandbox demonstrates how regulators can provide tailored, free compliance guidance to innovators working with advanced AI. Norway's approach links close collaboration with strong transparency obligations. Participating organizations receive structured support to navigate legal uncertainty in complex use cases such as generative AI, while publishing open reports on methodologies and risk mitigation strategies. These publicly available insights contribute directly to new guidelines and strengthen the regulator's internal expertise, resulting in iterative, evidence-based policy development.<sup>71</sup>

Another useful reference is the Privacy Innovation and Knowledge-sharing (PINK) Sandbox operated by the Office of the Privacy Commissioner of Bermuda, which focuses on supporting organizations that process personal information in novel or community-beneficial ways. The PINK Sandbox formalizes early regulatory engagement to encourage innovation without lowering data protection standards. It emphasizes privacy-by-design, collaborative problem-solving, and bespoke regulatory guidance, along with qualified statements of regulatory comfort that increase market confidence. Its model shows how smaller jurisdictions can

<sup>70</sup> Ministério da Justiça e Segurança Pública (MJSP) (2023), [ANPD's Call for Contributions to the regulatory sandbox for artificial intelligence and data protection in Brazil is now open](#).

<sup>71</sup> Datatilsynet (n.d.). [Regulatory privacy sandbox](#).

leverage tight stakeholder networks to accelerate learning cycles and deliver agile oversight for emerging technologies.<sup>72</sup>

*Identifying clear governance roles for multi-agency regulation of AI in collaboration with data protection and justice experts.*

This would involve structured collaboration between sectoral regulators, competition authorities, consumer protection bodies, and justice and data protection experts to clarify institutional responsibilities and establish coordinated oversight of AI systems. The sandbox could serve as a platform to rehearse supervisory cooperation models and identify legal or institutional gaps that require reform.

This AI sandbox could be inspired by how the Digital Regulators Forum in the UK is designing cross-regulator sandboxes to support coherent and multi-regulatory guidance on AI products and services. A particularly instructive development is the creation of cross-regulator sandboxes and Thematic Innovation Hubs, which provide innovators with a “one-stop-shop” for regulatory support in novel or complex AI applications. For example, the new Agentic AI hub focuses on emerging risks and opportunities associated with AI systems that operate with higher degrees of autonomy. Innovators can engage simultaneously with guidance from regulators responsible for data protection, competition, online safety, and financial or consumer rights. The transparency obligations attached to these engagements help improve public understanding and contribute directly to policy refinement and collaborative enforcement strategies.<sup>73</sup>

Drawing from this example, a multi-agency AI sandbox in Uzbekistan could facilitate consistent supervisory expectations and faster resolution of regulatory uncertainty. It would strengthen institutional coordination and provide AI developers and MSMEs with consolidated feedback on compliance pathways. Such an approach would also support capacity building within regulators, reduce fragmented regulatory processes, and contribute to trusted and accountable use of AI across priority sectors.

*Providing policy advice or technical infrastructure to help AI firms, demonstrate compliance, safety, and value in real-world AI use cases.*

This would involve enabling innovators to access high-quality datasets, domain expertise, documentation support, and cybersecurity and data management infrastructure that facilitate trust, verifiable performance, and responsible scaling of AI solutions. Regulatory advisors would help firms navigate approval pathways while generating shared learnings to strengthen oversight practices.

As shared earlier, this type of AI sandbox could explore learnings from the UK Financial Conduct Authority Super Charged Sandbox. The Supercharged Sandbox gives firms access to better data, technical expertise and regulatory support to speed up innovation. It is open to any financial services firm looking to innovate and experiment with AI. The sandbox aims to help companies in the discovery and experiment phase with AI. An existing AI Live Testing service helps those further along in development and ready to use AI.<sup>74</sup> If desired an feasible an AI sandbox could support the testing of foreign companies implementing AI infrastructure and data processing center projects. Uzbekistan could explore whether the AI sandbox could test the access and development of this infrastructure in collaboration with IT park, local companies and government officials as well as exporters of cloud and AI services.

<sup>72</sup> Privacy Commissioner (2025). [The PINK Sandbox: build your castle in Bermuda](#).

<sup>73</sup> [Digital Regulation Cooperation Forum](#).

<sup>74</sup> Financial Conduct Authority (2025). [FCA allows firms to experiment with AI alongside NVIDIA](#).

These suggestions offer concrete examples of the types of objectives an AI sandbox could address as basis for further refinement and consultations across the MoEF, and/or MDT.

After the sandbox objectives and scope has been identified the next step of the sandbox will be to tightly define the critical question(s). This preparatory work will provide the clarity and focus needed for success. However, as the chosen critical questions will impact the scope of the sandbox, it is important to ensure they are not too broad or too narrow. Sandbox questions that are too broad will be resource intensive and potentially difficult to meaningfully test and implement, whereas too narrow may lead to results that have limited applicability, reducing the potential for broader learning and scalability. Another important aspect when setting the objectives of the sandbox is to identify the type of outcome or documentation to be achieved. For example, will it be regulatory guidelines, accelerator infrastructure or data access pools for MSMEs or even certifications or opinion statements by regulators on a particular AI product, service or use case. Surveyed stakeholders in Uzbekistan proposed practical sandbox KPIs including: innovation uptake, time-to-policy-change, compliance/privacy outcomes, stakeholder engagement, and regulatory learning which are worth considering for any sandbox initiation.

### Summary

- Define the specific regulatory or operational problem to be addressed
- Develop a common framing – preliminary talks
- Identify how the problem relates to innovation, compliance, and/or public interest
- Define the scope and focus: sectors, technologies, and themes to be prioritized
- Establish the key objectives and expected outcomes

### ASSESS THE SANDBOX SUITABILITY FOR THE AI CHALLENGE

When considering a sandbox, the MoEF and MDT should start with a comprehensive assessment of whether a sandbox is the most effective tool for the policy or innovation challenge at hand.

It is also important to identify the risks, such as data protection and security aspects as well as whether or not the regulatory authority or ministry is ready to sandbox. Additional areas for careful assessment include potential harms to consumers or vulnerable populations, sector-specific safety concerns (for example, in health where patient well-being and privacy are highly sensitive), misuse of personal or sensitive data, unintended market distortions, and risks associated with inadequate transparency or accountability. In the specific context of Uzbekistan, further risk factors include misalignment with national AI strategic priorities, lack of clear liability and audit frameworks for AI systems in high-stakes environments, algorithmic discrimination in areas such as credit scoring or public-sector decision-making, regulatory capacity constraints that disadvantage smaller firms, as well as data sovereignty concerns and limited local-language datasets.

In terms of the risks of sandboxes, surveyed stakeholders shared privacy breaches, “black-box” opacity, bias/discrimination, reputational and regulatory risk from rules that are either too narrow or too vague as key sandbox risks to mitigate. Ensuring clarity in accountability, preventing experimental harms to vulnerable populations, and avoiding regulatory uncertainty that could discourage innovation will be critical. There is also a need to strengthen institutional capacity so that both regulators and smaller firms can meaningfully participate, and to ensure that sandbox outcomes translate into actionable guidance to maintain public trust and support responsible scaling.

While sandboxes can provide valuable environments for testing innovative technologies under controlled conditions, they are not always the most suitable or efficient mechanism to be implemented. Establishing and operating a sandbox demands significant resources, in terms of funding, expertise, and staff time. For issues where regulatory uncertainty is limited or where experimentation does not require temporary exemptions, Uzbekistan should also consider alternative instruments such as innovation hubs, policy prototypes, and living labs which may offer more appropriate frameworks for collaboration, learning, and policy development.

Innovation hubs such as IT Park in Uzbekistan, can serve as contact points between regulators and innovators, emphasizing dialogue and short consultations rather than experimentation with technology and legal provisions. Financial authorities, such as the UK Financial Conduct Authority, have established such spaces as single-entry points for exchanges that, depending on the complexity of the issue, may later evolve into sandbox projects.<sup>75</sup>

Policy prototypes enable stakeholders to iteratively design, test, and refine policy measures before formal adoption, promoting adaptability to emerging technologies. They foster connections between policymakers and technology developers to co-create effective, evidence-based governance approaches for emerging technologies. One notable example is Meta’s Open Loop programme, which has conducted several editions worldwide—including in Brazil, Singapore, India, the United States, and the European Union.<sup>76</sup>

A third alternative, **living labs**, focuses on integrating users and communities in co-creation processes – often in real-life settings – to better assess the societal implications of innovation. In Europe, the European Network of Living Labs (ENoLL) represents a vast ecosystem of such initiatives, facilitating knowledge exchange and collaborative experimentation across sectors.<sup>77</sup> Universities in Uzbekistan or the upcoming state institution “Digital Economy Research Centre” within the structure of the MDT and the prospective new state institution called the “Center for the Development of Artificial Intelligence and the Digital Economy” could help support the incubation of such living labs for continuous co-creation processes to support AI adoption.

These complementary instruments highlight that Uzbekistan should not consider AI regulatory sandboxes as “silver bullets” but rather one tool within a broader ecosystem of innovation governance, each suited to different stages, objectives, and levels of regulatory complexity.

### Summary:

- Analyze if a sandbox is the most appropriate tool for this particular problem
- Compare with alternative instruments
- Identify the why, the what and the how, the outcomes ....
- Conduct preliminary risk assessments (e.g., data privacy, safety)

## ASSESS ORGANIZATIONAL READINESS TO SANDBOX

Depending on the Ministry or regulatory authority overseeing the sandbox and whether or not there will be other public administrations leading and/or participating, assessing the organizational readiness to design and implement a sandbox will be a complex but important

<sup>75</sup> FCA Innovation Hub.

<sup>76</sup> Open Loop: A Global Experimental Governance Program.

<sup>77</sup> European Network of Living Labs (ENoLL).

task. This will help ensure the sandbox initiation meets objectives but also respects resource limitations.

In order to initiate a regulatory sandbox, a public sector official will need to find out whether they have an explicit mandate to do a sandbox. For example, is a sandbox prescribed in law? Often there may be a legal anchor to a regulatory sandbox project, such as an experimentation clause – a legal or regulatory provision that explicitly allows for testing, piloting, or experimenting with new technologies, products, or processes under a controlled environment.<sup>78</sup> In Uzbekistan, as mentioned in earlier sections of this document, the Cabinet of Ministers approved a [temporary procedure](#) for the introduction of a special legal regime (“regulatory sandbox”) in several areas of business.<sup>79</sup>

If there is not a specific mandate to do a regulatory sandbox in a particular sector, a first step would be to explore how much flexibility there is in establishing such a project. Whereas a legal mandate is likely not needed for operational sandboxes that are often run by the private sector, it is important to identify whether there are “champions” or supporters of a sandbox approach to avoid backlash at a later stage in the process.

Another key aspect of sandbox readiness is identifying the team who will help design and eventually manage and run the sandbox. While this may primarily fall to the internal staff of the administration setting up the sandbox, it can also be supported through outsourcing. However, it is important to identify and confirm early on who holds decision-making authority for running the sandbox and establishing its governance processes.

While not necessarily for all sandboxes, during the sandbox initiation stage, it is important to consider any specific infrastructure needs. For example, many surveyed stakeholders highlighted the need for MSME’s to gain access to varied data sources and technical infrastructure to help AI firms, demonstrate compliance, safety, and value in real-world AI use cases. Setting up a sandbox with these objectives will require systems to test or share data within the sandbox. Establishing the resources for technical infrastructure early on will inform the design and development of the sandbox and ensures adequate support is in place.

## Summary

- Confirm legal mandate or regulatory flexibility to initiate a sandbox and potentially allow exemptions (if regulatory sandbox)
- Assess internal human resource and expertise
- Identify technical infrastructure needs for a testing phase (e.g., data systems, testing tools), if relevant
- Evaluate institutional governance and decision-making capacity
- Identify and remediate internal readiness risks or gaps

## ENSURE POLICY/REGULATORY ALIGNMENT

A key part of the sandbox initiation phase for Uzbekistan is to ensure alignment with existing regulatory frameworks. Considering Uzbekistan’s desire to support the adoption of AI through a variety of sectors. Identifying the different types of sectoral regulation that may play a role in any AI sandbox initiation is important. What’s more, Uzbekistan has laid important foundations for AI regulation through its National AI Strategy 2030, the draft AI law, and the

<sup>78</sup> OECD (2025), [Regulatory Sandbox Toolkit: A Comprehensive Guide for Regulators to Establish and Manage Regulatory Sandboxes Effectively](#).

<sup>79</sup> StratejAI (2025), [Adoption of AI in the private sector in Uzbekistan: drivers, challenges, solutions](#).

regulatory sandbox framework introduced by Resolution No. 617. Yet, there is no specific AI law, or clear legal status for AI systems, codified processes for risk assessment, certification, or post-market monitoring. Policy alignment for a sandbox could therefore involve both an external assessment. Which would evaluate consistency with regulatory authority policies, innovation strategies, and legal requirements of related sectors.

For example, key sectoral regulators who may need to be included in an AI sandbox covering their sector include in the case of the financial sector: the MoEF, the Central Bank, TBC Bank. In the healthcare sector: the Ministry of Health (MoH) oversees the integration of AI into the Unified Medical Information System (DMED), including pilots for predictive analytics and digital medical assistants. In the trade and border management sector, the State Customs Committee has launched pilots of AI-driven analytics to streamline customs procedures and improve compliance.<sup>80</sup>

It is therefore necessary to assess the current regulatory framework early on before designing the sandbox so that stakeholders who are invited to participate in the sandbox are aware of the regulatory environment and their potential roles in the sandbox. A regulator may need to anticipate whether the sandbox will likely provide any regulatory leeway to participating entities and if so how the preparatory phase will explore how the sandbox will impact others in the market. In cases where a sandbox is being set up in the context of legal gaps and where there is no regulation at all, it is important to consider how interactions within the sandbox will be governed to provide legal certainty to the participating actors. Surveyed participants shared that in addition to any relevant sectoral based laws, a sandbox could test the applicability of broad principles into practical instruments such as sector-specific guidance, lightweight assurance tools.<sup>81</sup>

What is more, in the case where an AI sandbox may be providing access to data, relevant data protection and privacy frameworks will need to be factored into the sandbox governance structure. The foundations of the privacy and data protection regime in Uzbekistan are laid down by the Law of the Republic of Uzbekistan “On Personal Data” No. ZRU-547 as of July 02, 2019 (“The Law on Personal Data”), a cross-sectoral law governing the collection, processing, and protection of personal data. Uzbekistan has also demonstrated a commitment to the development and support of the data access and use framework through a series of initiatives. The National AI Strategy 2030 inventories socio-economic “big data” and tasked the MDT to create a national “Big Data” database by 1 September 2025 to support AI projects and research. Uzbekistan also operates an Open Data Portal and is a member of the Open Data Charter. The modalities of these initiatives should be considered when setting up an AI sandbox to support data governance and handling within the secure environment.<sup>82</sup>

## Summary

- Review alignment with current regulatory frameworks and possible requests for exemptions
- Coordinate needs with other regulatory agencies
- Support consistency with national innovation and digital strategies
- Identify any legal gaps that may need to be addressed
- Map existing obligations that remain applicable in the sandbox (incl. subsidiarity)

<sup>80</sup> StratejAI (2025), Adoption of AI in the private sector in Uzbekistan: drivers, challenges, solutions.

<sup>81</sup> StratejAI (2025), Adoption of AI in the private sector in Uzbekistan: drivers, challenges, solutions.

<sup>82</sup> StratejAI (2025), Adoption of AI in the private sector in Uzbekistan: drivers, challenges, solutions.

## EVALUATE RESOURCES AND BUDGETING

A crucial activity during the initiation phase is to evaluate the organization's preparedness to implement a sandbox, which includes identifying its strengths, weaknesses and areas for development. This evaluation helps determine whether the organization has the necessary financial, human, and technical resources to establish and operate the sandbox effectively. It also involves assessing if existing resources or initiatives can be leveraged or if additional funding, expertise or support are necessary to ensure the successful implementation of the sandbox. Resources and budgeting are dependent on the government agency leading the AI sandbox and this will likely be different across teams and departments. However, the question of resources and budgeting is especially important if Uzbekistan is considering a multi-year AI sandbox. Understanding the costs of existing sandboxes in Uzbekistan (even in the financial sector) could be helpful to set a benchmark. Explore the different options for sandbox funding is another important aspect. An AI sandbox could potentially be supported by alternative financing models such as (VC, and crowdfunding). While there are few examples worldwide of these models, Uzbekistan's sandbox experience in the financial services sector could help explore potential structures and interest. Typically an AI sandbox will be funded by the regulator/government body themselves or with grants from the wider government budget, but the Ministry of Economy and Finance could consider proposing an AI and digital transformation to cover AI sandbox initiatives.

### Summary

- Estimate the expected duration of the sandbox
- Identify how many people can be allocated to the project
- Verify if there is a need for external consultancy
- Evaluate if there is a need to buy equipment
- Don't forget to include the cost of the communication and engagement strategy

## IDENTIFY SANDBOX STAKEHOLDERS

A stakeholder and partner map needs to be developed to clarify roles and potential collaborations. Direct consultation with key stakeholders before launching the sandbox will also provide valuable feedback to shape the sandbox's future direction. Identifying issues of equal importance, uncertainty and public interest will help to prioritize the sandbox activities and resource allocation, while maintaining focus on the problems it is aiming to solve. In addition to the policies and legal frameworks it is important to identify who in the regulatory environment needs to be involved.

For example, engaging only a subset of stakeholders risks perceptions of bias, while attempting to involve everyone may make management unfeasible. Trade associations as well as Industry and Community Networks such as the Central Asia AI Association (AICA), could serve as intermediaries, representing both larger and smaller industry players. Within government agencies, it is important to identify internal departments that can provide support. Additionally, including external experts from civil society and academia — particularly during the early stages of sandbox design — can help bring in diverse perspectives, foster innovative ideas, and build trust and legitimacy from the outset.

Regarding who should lead a sandbox initiative, surveyed stakeholders suggested a multi-stakeholder model coordinated by the MDT, with strong roles for the Data Protection Authority, Ministry of Justice (Minjust), sectoral regulators, academia and civil society. Survey participants also shared that the private sector should co-design sandbox rules and pilot

projects in the sandbox rather than be consulted ex post. Sandbox capacity building and training could help support, relevant sandbox participants in the sandbox engagement process. Regulators and AI developers could participate in sandbox training to fully understand how to enrich and get the most out of the process.<sup>83</sup>

## Summary

- Prepare a general Stakeholder and Innovation Ecosystem Mapping
- Identify internal departments to involve early
- List potential participating companies or innovators
- Identify external experts, facilitators, and civil society actors
- Identify actors having conducted sandboxes on a similar issue
- Identify potential partners for funding, research, or technical support
- Classify actors by role: advisory, operational, strategic

## SECURE INITIAL BUY-IN

Communication guidelines and planning for the sandbox internally and externally is an important factor in securing initial buy-in. Due to the fact that sandboxes are collaborative by nature, it is critical that the initiation stage brings and considers all types of actors who may need to be involved in the sandbox. Public consultations can be useful tools to raise interest and collect feedback. Articulating the public value of the sandbox approach will be necessary to drive support and engagement across government, but also wider areas of society.

As elaborated in the *StratejAI Policy Paper (2025) "Adoption of AI in the private sector in Uzbekistan: drivers, challenges, solutions"* various local stakeholders could be prominent participants and/or actors to consult or connect within a sandbox initiative. For example: Startups and MSMEs, IT Park Uzbekistan, academic institutions such as INHA University in Tashkent, IT Park University, Research Institute for the Development of Digital Technologies and Artificial Intelligence, Industry and Community Networks such as the AICA and depending on the scope and topic of the sandbox, UzVC (National Venture Capital Fund of Uzbekistan), MDT, Center for the Development of Artificial Intelligence and the Digital Economy and Sectoral Regulators AI governance.

As businesses are critical participants in any sandbox, it is important to consider the different needs and knowledge gaps of prospective companies who may join a sandbox. Participating in either an operational or regulatory sandbox requires companies to evaluate several key factors and potential risk assessment covering:

How well a company's product or process aligns with the sandbox's testing goals, the alignment between the sandbox's objectives and the company's development stage, as well as the type of testing required. Uzbekistan could consider potential sandbox incentives that could resonate with local start-ups such as: a voucher scheme for evaluation/compute; fee waivers; fast-track regulatory consultations; optional cohort micro-grants for start-ups.<sup>84</sup>

Companies also need to ensure they have qualified personnel who can actively participate in the sandbox testing process. Effective involvement demands continuous commitment,

<sup>83</sup> The Datasphere Initiative has a range of training formats for sandbox capacity building and development. Examples include a [Sandbox Summer School](#), [Masterclasses](#) and [Co-creation Lab Workshops](#)

<sup>84</sup> Datasphere Initiative (2025), [Sandboxes for AI: Tools for a new frontier](#), Datasphere Initiative

expertise, and the flexibility to adjust the product based on feedback gathered throughout the testing phase.

Knowledge and assessment of the potential financial or associated costs of participating in a sandbox can also be a significant factor to assess confidentiality and competitive advantage. It is therefore crucial for companies to assess the level of access granted to the data shared with the regulatory authority.

Maintaining confidentiality and safeguarding competitive advantages is also vital for protecting a company's market position and avoiding potential misuse of proprietary information.<sup>85</sup>

## Summary

- Engage key internal and external stakeholders
- Obtain support or non-objection from top management
- Tout the sandbox value even before concrete impact
- Develop a communication strategy (briefs, workshops, alignment sessions)
- Host early consultations to test interest and gather input
- Secure political and institutional support / awareness

## CONCLUSION

The implementation of AI sandboxes in Uzbekistan has the potential to shape new regulatory paths, striking a balance between consumer protection, regulatory modernization and encouraging innovation. It is hoped that this document will support policymakers in Uzbekistan as they consider how and whether to leverage sandboxes for AI adoption across the country and particularly with regards to supporting entrepreneurship and the growth of MSMEs. As outlined in the introduction, this document has focused on the sandbox initiation stage due to levels of knowledge and insights obtained throughout the development of this project.

---

<sup>85</sup> Datasphere Initiative (2025), [Sandboxes for AI: Tools for a new frontier](#), Datasphere Initiative

## 5 | ANNEX

### ANNEX I: SANDBOX SURVEY

#### QUESTIONNAIRE ON SANDBOXES TO UZBEKISTAN PREPARED BY DATASPHERE INITIATIVE

RESPONDENT'S NAME:	
TITLE:	
ORGANIZATION:	
EMAIL:	

#### PHASE 1 – UNDERSTANDING THE CONTEXT OF REGULATORY SANDBOX DEVELOPMENT SETTING THE SCENE FOR A SANDBOX

1. Has there been a sandbox implementation in Uzbekistan (either regulatory or operational, and in any sector, such as finance, infrastructure, etc)? (Yes/No). If yes, please share details, along with sources and links for further information.

2. Are there any national/regional/international sandbox cases that you consider as helpful references/examples and relevant to your case? If yes, please share details, along with sources and links for further information.

#### **WHY A SANDBOX? (PURPOSE, MOTIVATION, AND PROBLEMS TO SOLVE)**

3. What are the main challenges or uncertainties around AI development or deployment in your country that a sandbox could help address?

4. What do you hope to achieve through an AI regulatory sandbox (e.g., regulatory clarity, responsible innovation, stakeholder engagement, other)?

5. What risks or harms (e.g., bias, misuse, data privacy violations) are most concerning in your context that a sandbox could help mitigate?

**WHO WOULD NEED TO BE INVOLVED? (STAKEHOLDERS AND ACTORS)**

6. Which public institutions (e.g., ministries, regulators, public agencies) should lead or participate in an AI sandbox?

7. What role do you expect private sector actors (startups, tech firms, industry associations) to play in the sandbox?

8. How would you expect academic and research institutions, civil society organizations to be involved in the AI regulatory sandbox (e.g., consultation, co-design, watchdog)?

**HOW SHOULD THE SANDBOX BE GOVERNED?  
(DESIGN, IMPLEMENTATION, RESOURCING)**

9. How would you expect success or impact of the AI regulatory sandbox be evaluated (e.g., KPIs, regulatory and policy learning)

10. What risks do you anticipate related to the development of an AI regulatory sandbox in Uzbekistan?

11. What risks do you anticipate related to the development of an AI regulatory sandbox in Uzbekistan?

**General comments**

## ANNEX II: AI SANDBOX STATE POLICY TEMPLATE

Draft Decree on AI Regulatory Sandboxes in the Republic of Uzbekistan

### CHAPTER I – GENERAL PROVISIONS

#### Article 1. Purpose

This Decree establishes the legal framework enabling competent public authorities to design and operate AI Regulatory Sandboxes, defined as experimental environments to test innovative AI systems in a controlled and time-bound manner. It aims to foster responsible AI innovation while preserving public interest, rights, and safety.

#### Article 2. Scope and Legal Basis

- This Decree applies to all sectoral ministries, regulators, and competent authorities intending to test or supervise AI systems in regulated domains.
- It is adopted pursuant to:
  - [Presidential Decree No. PP-25 \(2024\)](#) on digital innovation ecosystems;
  - The [Law on Personal Data \(2021\)](#);
  - [The forthcoming Law on Artificial Intelligence];

#### Article 3. Definitions

- “AI Regulatory Sandbox”: a set of temporary and controlled legal conditions, authorized by a competent authority, under which experimental AI systems can be tested for public benefit, with regulatory flexibility and oversight.
- “Sectoral Regulator”: any public authority legally empowered to regulate or supervise specific domains (e.g., healthcare, transport, finance, education).
- “Participant”: a legal entity selected to test an AI system in a sandbox environment.
- “Sandbox Coordination Mechanism (SCM)”: an interagency platform for joint coordination, sharing, and oversight across sandbox initiatives.

### CHAPTER II – INSTITUTIONAL ROLES AND RESPONSIBILITIES

#### Article 4. Sectoral Competency

- Each regulator or ministry is responsible for establishing and managing its own AI sandbox within its legal remit.
- This includes drafting sandbox regulations, launching calls for participation, granting temporary authorizations, monitoring, and evaluating AI experiments.

#### Article 5. Obligation of Cross-Sectoral Coordination

- Each public authority establishing an AI sandbox shall collaborate through the Sandbox Coordination Mechanism (SCM) to promote coherence across sectors, prevent regulatory fragmentation, and share lessons learned.
- The SCM is convened and maintained by the Ministry of Digital Technologies and includes representatives from the [Ministry of Justice, Personal Data Protection Agency,

sectoral regulators operating sandboxes, and representatives of academic, civil society and private sector organizations (as non-voting observers)]

- SCM's role is to facilitate information sharing and learning between sandbox projects; prevent regulatory fragmentation or duplication; issue annual reports with lessons learned and common recommendations; coordinate joint or cross-sectoral sandbox experiments when needed.

### **Article 6. Voluntary Alignment**

While each sandbox remains under its regulator's authority, sandbox implementers are encouraged to align with:

- Guidelines and indicators developed under the SCM;
- International AI ethics standards;
- National strategies on digital transformation and innovation.

## **CHAPTER III – COMMON FRAMEWORK FOR SANDBOX IMPLEMENTATION**

### **Article 7. Establishment of a Sandbox**

Each sectoral authority must ensure its sandbox includes:

- A clear objective tied to public interest and regulatory uncertainty;
- Transparent eligibility and selection criteria;
- Defined duration (typically up to 24 months);
- A monitoring and risk mitigation plan;
- Explicit terms for regulatory relief (if any);
- Rights and duties of participants;
- Indicators that will be used to measure the success of the sandbox;
- Clear information about the role of the authorities participating in the sandbox; experiment.
- Clear information on how the data collected will be handled;
- Clear information on the grounds for the exclusion of a participant from the sandbox

### **Article 8. Temporary Regulatory Relief**

- Regulators may, within their jurisdiction, suspend or modify specific rules to allow sandbox experiments.
- Any such derogation must be time-limited, transparent and reversible; and accompanied by adequate user safeguards.
- In the case of a cross-sectoral sandbox, efforts should be made to identify the need for regulatory derogations across multiple sectors in order to ensure the feasibility of the sandbox.

### **Article 9. Legal Safeguards**

All sandboxes must:

- Comply with applicable data protection laws;

- Respect constitutional rights and public safety;
- Include liability arrangements

## CHAPTER IV – MONITORING AND EVALUATION

### Article 10. Monitoring Obligations

- Participants must submit regular reports, including KPIs, incidents, and user feedback. Sectoral regulators must publish anonymized reports, unless confidentiality or IP protection applies.
- Sector regulators involved in the sandbox shall provide ongoing guidance to participating companies throughout the testing process. This activity does not constitute prior authorisation or validation of the solution being tested within the sandbox.

### Article 11. Closure and Learning

At the end of the sandbox period, the regulator must:

- Issue a regulatory impact assessment or summary;
- Decide whether to scale, adjust, or discontinue the tested innovation;
- Submit key findings to the SCM for consolidation.

## CHAPTER V – FINAL PROVISIONS

### Article 12. Entry into Force

- This Decree shall take effect upon its publication.