



2024 UN PUBLIC SERVICE FORUM AND AWARDS CEREMONY

WORKSHOP 4

Fostering Innovation through Digital Transformation – AI
Regulatory Sandboxes

CONCEPT NOTE

Organiser: Digital Government Branch (DGB) / Division for Public Institutions and Digital Government (DPIDG) / United Nations Department of Economic and Social Affairs (UN DESA)



Introduction

The 2024 United Nations Public Service Forum will take place in Incheon, the Republic of Korea from 24-26 June 2024 under the theme 'Fostering Innovation amid Global Challenges: A Public Sector Perspective'.

The Forum will be comprised of a series of workshops where various elements related to the overall theme will be explored in more detail. Workshop 4 will explore policy options and use cases on how countries can leverage on innovations through digital transformation, enhancing the institutional, policy and technical capabilities and capacities in the process.

Objective

The workshop aims to showcase Artificial Intelligence (AI)-related regulatory sandboxes and policy experimentations as an innovative approach to digital transformation in the public sector for effective delivery of high-quality public services for all in pursuit of the Sustainable Development Goals (SDGs). It will examine necessary steps, key elements, and required institutional capabilities for conceptualising and implementing regulatory sandboxes in the public sector.

Focus

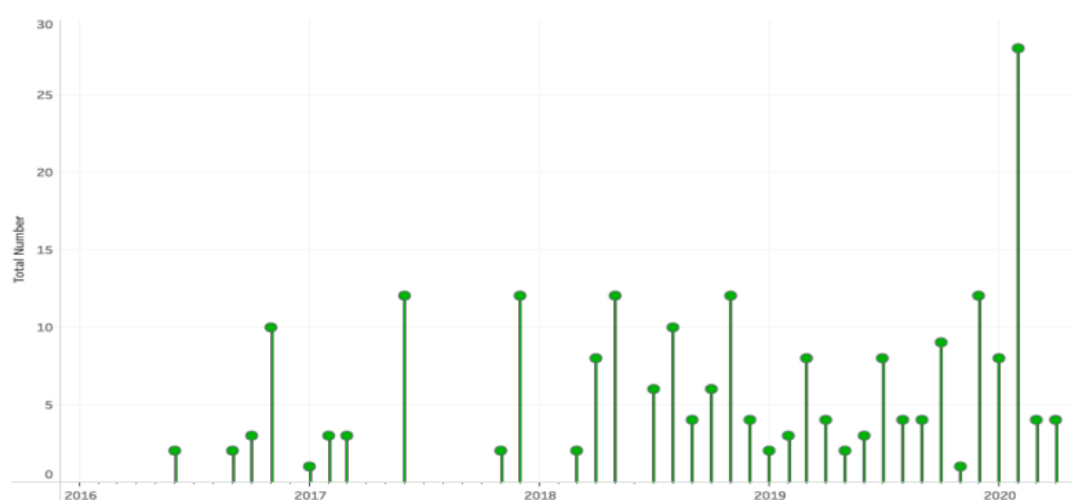
The workshop aims to distil lessons from both success cases and challenges in applying innovation strategies in the public sector in the age of digital transformation using examples of AI-related regulatory sandboxes and policy experimentations in areas related to sustainable development. Workshop participants will also learn from good practices adopted by recent winners of and nominees for the United Nations Public Service Awards.

The [United Nations](#)¹ defines the sandbox as follows: A sandbox is a framework or environment that allows for the *live testing of technologies, services and business models* in the market with real consumers, while benefiting from *relaxed or flexible regulatory requirements*, often at a smaller scale and on a time-limited basis, and with appropriate supervision and safeguards in place. As such, regulatory experimentation tools are used to test new economic, institutional and technological approaches, and legal provisions, outside of existing regulatory structures. Participating entities obtain a waiver from specific legal provisions or compliance processes to innovate. In this regard, governments, are often encouraged to “consider using experimentation to provide a controlled environment in which AI systems can be tested and scaled up” (OECD, 2023)², in part because the nature of AI applications often affect different fields of regulations, such as privacy law, tort law, sectoral safety and quality laws. The growing number of sandboxes and related mechanisms helps shape a global regulatory ecosystem that encourages innovation.

¹ See [Sandboxing and experimenting digital technologies for sustainable development \(un.org\)](#)

² See, [Regulatory Sandboxes in Artificial Intelligence](#), OECD Digital Economy Papers, July 2023, No 356.

Figure 1. Number of regulatory sandboxes 2016 to mid-2020



Source: (World Bank, 2020_[21])

Source: OECD, Regulatory Sandboxes in Artificial Intelligence, 2023.

AI is not new to public administration. Image recognition methods have been used operationally in post offices to improve mail sorting and routing efficiency for decades, and AI-powered chatbots have recently been embraced by many governments to improve service delivery for efficient and personalised assistance to citizens. In recent years, however, we have witnessed a phenomenal proliferation of AI solutions in digital government across all sectors and across many countries. This most recent wave of AI developments, building on top of and amplifying previously existing digital government efforts, is fast transforming public sector work and the public sector workforce. If properly guided and thoughtfully and responsibly managed, the transformative potential of enhancing and expanding digital capabilities with AI, especially with the wide-ranging applicability of generative AI, can have a significant impact in the public sector for delivering public value and for ensuring inclusion and service delivery for the SDGs. This has the potential to lead to quality and capability improvements in public service delivery in a number of ways, including service personalisation and a better understanding of the characteristics and needs of various population segments, leading to enhanced responsiveness of the public sector.

Complex analytics, deep machine learning applications and Large Language Models (LLM) solutions can be used as stand-alone applications or in combination to better identify and understand the needs of the more vulnerable and disadvantaged segments of the population. It has already been demonstrated in a few countries that these types of capabilities can in fact lead to some types of useful predictive and precision healthcare to help older people and population segments with chronic diseases (e.g. diabetes). Such efforts help with progress towards SDG 3 on health. There has also been a larger scale demonstration where AI-based personalised tutors in public school settings have been shown to be helpful to both students and teachers for selected subjects such as math and language arts, giving school systems a margin of extra capacity, which can be deployed to work with students requiring special attention or who have special needs related to learning or physical disabilities. Such efforts

help with progress towards SDG 4 on education as well as with SDG 10 on reducing inequality. There are earlier stage efforts in progress across various countries towards the development of legal aid platforms that provide situation relevant, tailored legal information, resources, and assistance to those in need, supporting progress towards SDG Target 16.3 on access to justice.

At the same time, AI's complexity, speed of development, broad applications and dual-use potential present inherent challenges for governance in today's slow and siloed policy-making context. The use of AI in e-government creates governance challenges because its speed of capability development and organisational deployment (public and private sector) far outpaces the speed of traditional policymaking. This is compounded by the scale of AI's potential positive and the simultaneously occurring scale of potential negative impacts which must be acknowledged and carefully addressed. These challenges play out in every sector, including public sector. Because governance structures, including regulatory regimes, tend to be siloed, governments must grapple with the challenge of how to integrate AI-related matters across existing structures, or whether to create new structures to deal with them.

To support the governments in applying sandboxes in the public sector, since 2021 UN DESA/DPIDG and UN ESCAP have been jointly implementing a project on "Frontier Technology Policy Experimentation and Regulatory Sandboxes in Asia and the Pacific" through Development Account funding (DA2124B) in Bangladesh, Maldives, and Kazakhstan. In February 2024, the project team held a Global Workshop in Bangkok during the Asia-Pacific Forum on Sustainable Development to disseminate the findings and outcomes of the project implementation in these three target countries with other countries especially among the LDCs, SIDS and LLDCs. During the workshop participants learnt about practical approaches in policy experimentation and regulatory sandboxes and shared the guidance toolkit that map out the necessary steps and key elements for the designing and operationalising policy experimentation and regulatory sandbox, in the areas of empowering MSMEs through digitalisation (Bangladesh), digitalisation of the energy sector (Kazakhstan); and central bank digital currency and FinTech (the Maldives). The recommendations from these sandboxes and the project implementation will be shared with the participants of this UNPSF workshop.

The workshop will strive to promote the use of AI sandboxes in an enabling environment with agile and learning-through-experience-based transition from the research and development stage to the controlled pilot stages of various scales and further onwards to the large-scale deployment and operation stage for AI systems as well as for any type of digital government system that incorporates supporting AI modules. The challenge is to do this in a trustworthy and responsible way, carefully navigating the inherent trade-offs between risk management, innovation, economic viability, and social trust.

To this effect, the workshop will showcase good cases of AI sandboxes and lessons learnt on establishing systematic and well governed approaches to experimentation and/or sandboxes in a controlled, time-bound environment in which the behaviour and outputs of AI systems used as part of government digital services can be tested, refined and scaled-up, as appropriate. In this context, AI sandboxes are identified as a means to chart the path forward in guiding the effective, inclusive and accountable use of AI in the public sector and to achieve the overarching aims of the SDGs.

Structure

This workshop will be composed of four sessions. At the closing of each session, the rapporteur will present key messages.

Session 1: AI Regulatory Sandboxes and Policy experimentation as an innovative approach to digital transformation

The session will address the main trends in AI development and use of sandboxes and policy experimentation to support technology adaptation in public sector through expert presentations and panel discussions.

Guiding questions:

- 1. How can recent breakthroughs in AI technology and especially generative AI be applied in the public sector and improve service delivery for all?*
- 2. What are the key elements of the AI sandboxes and policy experimentations and what are the key lessons from the joint UN DESA-ESCAP project?*

Session 2: Presentations from UNPSA Initiatives or country case-studies in AI sandboxes (e.g. Republic of Korea, Lithuania, Colombia):

Guiding questions:

- 1. What problems have been addressed through AI-solutions in each country?*
- 2. What were the key challenges?*
- 3. What are the key recommendations?*

Session 3: Lessons learned from applying regulatory sandboxes and policy experimentation in Bangladesh, Maldives, and Kazakhstan

Guiding questions:

- 1. What are the key take-aways from the implementation of the joint UN DESA-ESCAP project on regulatory sandboxes?*

Session 4: Conclusion and Recommendations

This session will draw on conclusions and outcomes as well as key messages and recommendations from all the sessions of the workshop. The workshop Rapporteur will lead a discussion, among participants, to identify key messages that will feed into the Forum's Rapporteur's Report on the last day of the UNPS Forum.

Organisational Details

- This workshop is organised by the Division for Public Institutions and Digital Government (DPIDG) / Digital Government Branch (DGB).

- Participants are expected to come from central and local government officials, policymakers, public government experts, public sector institutions, practitioners, civil society, academics, and media.
- The workshop will be conducted in English.

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