

Information notes to the Press (Press Release No. 19/2024)

For Immediate Release

Telecom Regulatory Authority of India

TRAI releases recommendations on "Encouraging Innovative Technologies, Services, Use Cases, and Business Models through Regulatory Sandbox in Digital Communication Sector"

New Delhi, 12th April 2024: The Telecom Regulatory Authority of India (TRAI) today released its recommendations on "**Encouraging Innovative Technologies, Services, Use Cases, and Business Models through Regulatory Sandbox in Digital Communication Sector**". In view of new technological developments in 5G/6G, Machine to Machine Communications, Artificial Intelligence, the Internet of Things, Virtual Reality, and others, there is a need to provide an environment in which new technologies, services, use cases and business models can be tested in live networks, or existing functions or processes can be refined. To address this pressing need, the Department of Telecommunications wrote to the Telecom Regulatory Authority of India on March 10, 2023, requesting, TRAI's recommendations regarding a regulatory sandbox framework for new services, technologies, and business models in the digital communication industry. In consideration of the DoT reference, the TRAI published a Consultation Paper (CP) on June 19, 2023, inviting feedback from stakeholders.

2. Regulatory Sandbox (RS) makes real-time but regulated access to telecom network and customer resources, something that is not possible in conventional methods of lab testing or pilots. Specific and generic exemptions in regulations, valid only for RS testing, are granted for testing of new ideas. Regulatory bodies in many countries have established such sandbox frameworks. Providing such a framework for live testing in India will encourage more entrepreneurs to develop solutions for the digital communication industry of the country as well as the world.

3. Subsequently, the Central Government *inter-alia* made following provisions in the Telecommunication Act' 2023 notified on December 24, 2023:

*"The Central Government may, for the purposes of encouraging and facilitating innovation and technological development in telecommunication, **create one or more regulatory sandboxes**, in such manner, and for such duration, as may be prescribed.*

Explanation. — For the purposes of this section, the expression "regulatory sandbox" refers to a live testing environment where new products, services, processes, and business models which may be deployed, on a limited set of users, for a specified period of time, with certain relaxations from the provisions of this Act."

4. DoT has also issued guidelines on 11.03.2024 to establish and operate 'Spectrum Regulatory Sandbox' (SRS) or 'WiTe Zones (Wireless Test Zones)' to promote R&D activities, outdoor testing/experimentation in the field of emerging new radio communications technologies. However, these guidelines do not provide for any connectivity with PSTN/Public commercial network/satellite, for the purpose of testing/Research & Development (R&D) i.e. testing in WiTe Zones does not allow exposure of products to live network environments. Beyond offline/laboratory/WiTe Zone testing, there will be a requirement for testing the products in actual live network environments. Also, apart from exemptions that are related to spectrum, some products may require other types of regulatory relaxations for testing in live network requirements.

5. Based on the reference received from DoT, stakeholder feedback, and in line with the definition of Regulatory Sandbox as provided in the Telecommunication Act' 2023, which emphasize on testing of new products, services, processes, and business models in live testing environment on a limited set of users for a specified period of time after obtaining certain regulatory relaxations, the Authority has finalized its recommendations.

6. The recommendations outline all the relevant components in detail and offer a comprehensive framework for conducting Sandbox testing for the Digital Communication sector. As part of the recommendations, the Authority has outlined the objective and boundaries of the RS framework. The recommended RS framework for Digital Communication sector details the qualification to take part in the RS testing, essential requirements that participants must meet, supporting paperwork needed to demonstrate eligibility, the application, evaluation & approval procedure, the authority to waive or amend rules, validity period, procedures for authorization revocation, and the reporting requirements.

7. Indian companies or partnership firms, limited liability partnerships or a research institute who have done limited prior testing of their products/services/applications and meet all conditions mentioned in the framework can apply for regulatory sandbox testing. As the RS testing will be carried out in live networks on certain set of users, the framework has kept the security of networks and protection of customers in mind. Accordingly, it has been provided in the RS framework that the applicants will have to, inter-alia, provide details of regulatory exemptions sought, risk mitigation safeguards proposed, consumer protection mechanism suggested, and a well-defined exit strategy as part of their application. To ensure accountability on part of Government agencies involved, strict timelines have been provided for completing the application evaluation process.

8. The regulatory framework includes clear documentation requirements and application, evaluation & approval procedures to ensure transparency throughout the RS process. Additionally, a detailed reporting mechanism has been defined to monitor the progress and outcomes of regulatory sandbox testing effectively. The framework provides that permission granted under the RS will have a validity period of up to 12 months for testing its product. However, provisions have been incorporated for extending the validity period or to early close/terminate the testing, if so required. An overseeing body has been proposed to monitor and

evaluate regulatory sandbox testing so as to keep it on track and take necessary corrective measures, if required.

9. The Telecommunication Act' 2023 has already extended the scope of *Digital Bharat Nidhi* to facilitate innovation and experimentation in the telecom sector by extending suitable financial support. As part of the regulatory sandbox framework, the authority has recognized that some of the innovations can have potential to bridge the digital divide and bring socio-economic advancement to under privileged sections of the society, if deployed on wider scale. However, despite being very promising, such innovation may lack adequate funding support and, therefore, the authority has recommended that such deserving innovations may be considered to get funding support for testing under RS Framework under Clause 25 (b), (c) and (d) of the Telecommunication Act' 2023.

10. The recommended Regulatory Sandbox framework is expected to give the Digital Communication industry's startup ecosystem access to real network environments and other data of telecom network to help test the reliability of new applications before bringing them to market. The framework provides for using cross-sector cooperation in carrying out RS testing with the help of other ministries and agencies. By providing a RS framework that enable various digital communication sector entities to work together in a structured manner, these recommendations are expected to synergize the efforts of innovators, startups, telecommunications companies, government agencies, and regulators to boost innovation and start-up eco system.

11. The recommendations have been placed on TRAI's website www.trai.gov.in. For any clarification/information, Shri Sanjeev Kumar Sharma, Advisor (Broadband and Policy Analysis), TRAI may be contacted at Tel. No. +91-11-23236119.



(V. Raghunandan)
Secretary, TRAI