

RJIL/TRAI/2023-24/133

31st July 2023

To,

Shri Sanjeev Kumar Sharma,
Advisor (Broadband and Policy Analysis),
Telecom Regulatory Authority of India
Mahanagar Doorsanchar Bhawan
Jawaharlal Nehru Marg, New Delhi - 110002

Subject: RJIL's comments on TRAI's Consultation Paper dated 19.06.2023 on "Encouraging Innovative Technologies, Services, Use Cases, and Business Models through Regulatory Sandbox in Digital Communication Sector".

Dear Sir,

Please find enclosed the comments of Reliance Jio Infocomm Limited (RJIL) on the consultation paper dated 19.06.2023 on **"Encouraging Innovative Technologies, Services, Use Cases, and Business Models through Regulatory Sandbox in Digital Communication Sector"**.

Thanking you,

Yours Sincerely,

For **Reliance Jio Infocomm Limited**

Kapoor Singh Guliani

Authorized Signatory

Enclosure: As above

**Reliance Jio Infocomm Limited's comments on TRAI's Consultation Paper on
"Encouraging Innovative Technologies, Services, Use Cases, and Business Models through
Regulatory Sandbox in Digital Communication Sector" dated 19th June 2023.**

Preface:

1. Reliance Jio Infocomm Limited (RJIL) thanks the Authority for issuing this consultation paper to deliberate on the framework for creating regulatory sandbox in the Digital Communication Sector.
2. Creation of regulatory sandbox has been discussed as part of Research and Development strategy under the Propel India mission of National Digital Communications Policy- 2018 (NDCP-2018) and was also one of the issues deliberated under draft Indian Telecommunication Bill, 2022.
3. We submit that the Reliance Jio Infocomm Limited (RJIL) has always supported innovations and development of new technologies and we understand that **introduction of a regulatory sandbox will be an important step in fostering new innovations, use cases and business models in the sector.**
4. As a nation, we have already seen some success of regulatory sandbox in Fintech and related sectors, where Reserve Bank of India (RBI) and Securities and Exchange Board of India (SEBI) already have such frameworks in place. **While there are similar Fintech related use cases in a few countries across the globe, there are not many successful use cases of Government led regulatory sandbox being deployed in telecom sector despite of it being the harbinger of innovation and technology.**
5. One major reason for this can be the necessity of rigorous testing requirements in telecom sector across the globe and exacting standards services as well as telecom equipment. These requirements ensure that only well-tested services are offered by Telecom Service Providers (TSPs).
6. From the perspective to introducing new services and products in telecom sector, we understand that there can be two broad categories of such new products and innovations as discussed below:

A. TSP products and services

7. These are the products and services that are developed by the TSP under scope of license agreement. As far as these products and services are concerned, the licensing framework ensures that the TSPs are required to extensively test the same before offering the same

to customers. The licensing framework permits the TSPs to test all products and services as well as provides for checks and balances in the form of license conditions and policies of network testing and equipment testing.

8. Under Clause 7 of Chapter-1 General Conditions of Unified License, TSPs are required to intimate the licensor of commencement of any service and to demonstrate the compliance with the scope of the License and requisite lawful interception and monitoring facilities within 90 days of the intimating the launch of a new service. The relevant clause is extracted and reproduced herein below:

7. Provision of Service:

The Licensee shall be responsible for, and is authorized to own, install, test and commission all the Applicable systems for providing the Service authorized under this License agreement. The Licensee shall intimate to the Licensor well in advance before the proposed date of commencement of any service in any Service Area containing the details of network and required facilities for monitoring of the service installed by the Licensee. Any service, permitted under the scope of this License Agreement, shall be commenced by the Licensee after giving an intimation to do so to the Licensor. However, the compliance to the scope of the License and requisite monitoring facilities will be demonstrated to the licensor within 90 days from the date of receipt of such intimation from the Licensee.

9. Evidently, the license agreement already provisions for testing and implementation of new services by TSPs and there is no requirements for Regulatory Sandbox framework for such products and services.
10. Similar provisions in the form of Mandatory Testing and Certification of Telecom Equipment (MTCTE) around equipment ensure that all telecom equipment to be deployed in the networks are meeting the standards.
11. Clearly, these conditions do the job of eliminating all possible risks associated with a **service or an equipment and simultaneously ensure that the TSPs have their own testbed of test environments to ensure compliance before offering the service to the consumers and for testing by Government agencies. Accordingly, we reiterate that there is no need of Regulatory Sandbox policy framework, as far as TSP products and services are concerned.**

B. Non- TSP products and services

12. We submit that innovations and new ideas can flow from anywhere in the world and from any person and entity. We believe that there should be a space for all new ideas and innovations for the betterment of Indian customers of digital communication services.
13. However, there will always be a need to ensure that these new products and services are compliant with regulatory framework or can be developed in such a manner to ensure compliance. Thus, all such new ideas need to be tested vigorously to test their usefulness to the consumers and sector. Therein comes the requirement of setting up Regulatory Sandbox.
14. We submit that aforementioned license requirements can have an enabling effect on DoT's and Authority's initiative to foster innovation **by permitting testing of use cases designed and developed in India and testing of global use before implementation in India, without making the sandbox regulation heavy.**
15. We submit that the Regulatory Sandbox in Digital Communication sector should be free of the limitations of FinTech sector, **especially in view of the access control already in place through Unified License conditions.** With an assurance that any new product/service can be brought to market only in compliance with Unified License conditions, the **Authority can recommend a much liberal framework for Regulatory Sandbox leveraging its successful principles of Forbearance and Light touch Regulation.**
16. We believe that the Indian Digital Communications sector is already evolving at a rapid pace and the prohibitive Sandbox, as suggested in draft framework with the consultation paper, may not be the optimum approach. The Authority can instead utilize the considerable expertise of TSPs in testing new products and services by permitting them to set-up a Regulatory Sandbox, that can be used by external stakeholders to test and refine their products within the prevailing framework subject to Sandbox related exemptions.
17. We further understand that there should be a space for small and medium enterprises and independent innovators to develop their products and services beyond the influence or control of TSPs and for that purpose a separate Regulatory Sandbox can be created by the Government.
18. Accordingly, we recommend that the Authority should recommend a two types of Regulatory Sandbox, viz.

I. TSP set-up Regulatory Sandbox

II. Government Regulatory Sandbox

19. These two models of Regulatory Sandbox should exist in parallel, **where the TSPs will be permitted to set-up their own Sandbox with limited restrictions and can onboard partners or applicants for testing new and innovative processes that may lead to new services or improve the existing services and processes.**
20. While the Government controlled Sandbox will be open to all interested parties like Educational Institutions like IITs and Universities and may or may not require a participation by a TSP, thereby eliminating the concepts like principal applicant, as there will be a single product level application.

I. Features of TSP Controlled Regulatory Sandbox

21. As the TSPs already have compliance obligations under the license conditions, we request the Authority to provide for a light touch over-arching framework for TSP set-up and manage Regulatory Sandbox. All TSPs with access services authorization under the Unified License should be permitted to set-up their own Regulatory Sandbox for non-TSP products and services, within these broad parameters.
22. It is a proven fact that **implementation of any permission approval mechanism leads to unwanted delays and never-ending queues for approval.** In telecom, a service can be offered to a customer in live environment only post rigorous testing and compliance mechanism, therefore once the TSP set-up and managed ,on **end-to-end basis, Regulatory Sandbox, has been approved by the Government/Authority, it should be kept out of the purview of permission-approval mechanism for every test case.**
23. Once a TSP has taken a permission to set up its Regulatory Sandbox, it should not be required to take permission for testing any use case on Sandbox from either DoT or TRAI, **an intimation to the relevant Authorities should suffice to meet the requirements.**
24. The TSPs would be permitted to monetize the sandbox by offering the same at competitive rates to the applicants approaching the TSPs for testing their services or products. There should be no restrictions on the applicants, and it should be left to discretion of TSP to accept the use-cases.
25. It is further submitted that historically many innovations have come out as by-product or as an unplanned outcome, **therefore, we do not feel that subjective criterion like genuineness of innovation or the need to test should be a part of any Regulatory Sandbox application process. When the whole concept is based on going out of the box**

while staying in a controlled environment, such requirements will only act as a dampener and would end up defeating the purpose.

26. There may not be a requirement to create case to case regulatory exemption scenario. The Authority can recommend the general exemptions for a Regulatory Sandbox maintained by a TSP, and if anything beyond this set of exemptions is required for a particular Use Case, then TSP can apply for such exemption to TRAI or DoT, as applicable.

27. The suggested list of exemptions for regulatory sandbox are as below:

- a. **Subscriber verification requirements:** The subscriber verification requirements should be waived off with a condition that the test users of Regulatory Sandbox cannot interact outside the controlled environment using their test connections. The TSPs will be required to transparently inform these conditions to test users.
- b. **LIM requirements:** The Lawful interception requirements become applicable only when a use case is implemented in live public or private network environment and therefore should not apply in a Regulatory Sandbox.
- c. **Remote Access requirements:** As one of the objectives is to ensure that globally successful use cases are implemented in India, as well. There can be a requirement of Remote Access for such use case. However, considering the excruciatingly extensive process for Remote Access approvals, the same should be waive of in Regulatory Sandbox.
- d. **Quality of service requirements:** The QoS requirements should be waived off with a condition that the test users of Regulatory Sandbox are transparently informed of these conditions.
- e. **Compliance with Tariff orders:** As in the case of FinTech, many use cases can pertain to improvement and innovation in existing services, therefore tariff related restrictions should be removed under Regulatory Sandbox.

28. We submit that in case the test environment requires to interact with telecom consumers in a live network environment, **then all these exemptions should cease to be applicable and such testing will have to be done withing the prevailing regulatory framework for telecommunication services.**

29. We submit as the aforementioned regulatory requirements for launching a new service will be always applicable, therefore, there is no requirement of monitoring of test processes. **Therefore, for TSP controlled Regulatory Sandbox, the monitoring and**

evaluation requirements should not be applicable. The TSP should be required to intimate the Authorities of successful sandbox testing, as and when applicable.

30. We are enclosing a draft framework applicable for TSP controlled Regulatory Sandbox, as Annexure-A for kind consideration of the Authority.

II. Features of Government Regulatory Sandbox

31. As mentioned above, there can be entities beyond the TSPs that might be interested in participating in Regulatory Sandbox and there should be space for such entities. **We submit that the draft framework for encouraging innovative technologies, services, use cases, and business models, suggested by the Authority would be more suitable for such users.**

32. However, the Authority may implement its policies on Forbearance and light touch regulations in this aspect as well. The Authority can simplify the framework by omitting the need for a TSP to be part of this framework.

33. Further, the conditions on genuineness of innovation and/or genuine need for testing; realistic scenarios etc. should be retracted and there should be a free flow of ideas and thought processes in the Regulatory Sandbox.

34. Introduction and invocation of indemnities and boundless protections for Government Authorities and customers can only have a chilling effect on small scale innovators and inventors and should be avoided. Similarly, onerous and unrelated conditions like approval and review by DoT/TRAI even for termination of tests should be avoided.

35. It is also submitted that over-regulation and oversight goes against the Ease of Doing Business policies of the Government and the Authority. The Authority is aware that Indian telecom success story owes much of its success to forbearance and light touch regulatory regime. This approach has fostered innovations and brought about revolutionary changes in the sector and the Authority should implement the same on Regulatory Sandbox as well.

36. We submit that the proposals of Government funding for use-case testing in Regulatory sandbox is a welcome step, however, this funding should come from Government receipts and should be in no way linked with the Universal Services Obligation Fund (USOF). Further, the Funding by the Government should be based on the merits of the use case and seeking funding should not become a disadvantage for the applicant.

37. To summarize, we submit as under:

1. TSPs are already required to test their own products or services to be introduced in their network under the license conditions and all TSP products should be kept out of the proposed Regulatory Sandbox framework.
2. Regulatory Sandbox is an important intervention; however, it should be modulated to comply with the policies Forbearance, light touch regulation and minimum government and maximum governance.
3. For all other products and services, the TSPs should be permitted to set their own Regulatory Sandbox with minimal requirements and intervention.
4. The TSP controlled Sandbox should have well defined regulatory exemptions.
5. The TSP will be responsible for all activities and use case testing under its Sandbox with only intimation requirements for all testing under this Sandbox.
6. No need for a regulatory oversight beyond compliance with license conditions and Sandbox exemptions.
7. Customer protection should be based on transparency and explicit consent.
8. The concepts like indemnity and limitation of liability have no relevance in Regulatory Sandbox and should be removed.

**DRAFT FRAMEWORK FOR
ENCOURAGING INNOVATIVE TECHNOLOGIES, SERVICES, USE CASES,
AND BUSINESS MODELS THROUGH TELECOM SERVICE PROVIDER CONTROLLED
REGULATORY SANDBOX (RS) IN
DIGITAL COMMUNICATION SECTOR**

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I. THE REGULATORY SANDBOX

1. In view of new technological developments, varieties of complementing technologies, number of probable product/service/application providers and constantly evolving requirements, a test environment needs to be established where new functions and processes can be tested, or existing functions or processes can be refined. This test environment may also provide possibilities to explore new ways and means to meet regulatory requirements or new service offerings. Such test environments in regulatory space are commonly known as “Regulatory Sandboxes”.
2. The Regulatory Sandbox (RS) usually refers to live testing of new product/service/application in a controlled/test regulatory/licensing environment for which regulators/licensors may (or may not) permit certain regulatory/licensing relaxations for the limited purpose of the testing. The Regulatory Sandbox allows the regulators/licensor, the innovators, the service providers (as potential deployers of the technology) and the customers (as final users) to conduct field tests to collect evidence on the benefits and risks of new innovations, while carefully monitoring and containing their risks. It can provide a structured avenue for the Licensor/Regulator to engage with the ecosystem and to develop innovation-enabling or innovation responsive framework that facilitate delivery of relevant, low-cost service products. The Regulatory Sandbox is an important tool which enables more dynamic, evidence-based regulatory/licensing environments which learn from, and evolve with, emerging technologies.

II. OBJECTIVES AND SCOPE:

3. The sandboxing framework for the Digital Communication (DC) sector in India is aimed at promoting innovation, protecting consumer interests, and mitigating potential risks associated with new technology and business models. The objectives of the framework are to encourage innovation, reduce regulatory burden on small and medium-sized enterprises (SMEs), and ensure consumer protection. Under this sandbox framework, entities shall be granted certain facilities and flexibility to experiment with telecom products/services/application in a live environment and on limited set of real customers for a limited time frame. These features shall be fortified with necessary safeguards for customer protection and risk mitigation. Various stakeholders can prototype product/service/ application solutions and evaluate processes and functions in the test environment.
4. The scope of the sandboxing framework includes any new DC service or technology that requires testing in a controlled environment. This framework is applicable to all entities or individuals concerned to test products or services or applications related to DC technology.

III. ELIGIBILITY:

5. Any licensed Service Provider, called Principal Applicant, shall be eligible for setting up the regulatory sandbox subject to fulfillment of laid conditions.
6. The other entities, called Applicant, willing to utilize the Sandboxing facilities of any licensed service provider may engage with it as Principal Applicants.

IV. ESSENTIAL CONDITIONS TO BE FULFILLED BY PRINCIPAL APPLICANT AND APPLICANT:

7. The essential conditions required for testing under Sandbox regulations and details to be provided in applications are as follows:
 - i. **Only Indian entities eligible:** Principal Applicant should be a Unified License holder with access services authorization.
 - ii. **Risk Mitigation:** The product/service/application should have proper risk management strategy to incorporate appropriate safeguards to mitigate and control potential risks to any market participants/users/customers/government that may arise from the testing of the product/service/application and shall propose appropriate safeguards to manage the risks and contain the consequences of failure.
 - iii. **Scope of testing:** To prevent any negative impact on the wider telecom market or the customers, the Sandbox environment should have a finite scope which is appropriate enough for testing the application/product/service.

- iv. **Transparency:** The application for regulatory sandbox for a product/service/application should provide transparency to all stakeholders, including customers, about the nature and scope of the testing.
- v. **Regulatory compliance & exemptions sought:** The Principal Applicant should ensure that the testing is being carried out only under the permitted regulatory exemptions without any deviations.
- vi. **Consumer protection:** Principal Applicant should ensure that the Sandbox testing would prioritize the protection of consumer interests and prevent any harm to consumers. Only such customers will be allowed to be on boarded who have given specific consent voluntarily.
- vii. **Monitoring and evaluation:** The Applicant/Principal Applicant should precisely define the test parameters, control boundaries, testing site, significant milestones, and anticipated outcomes for the technological proposal. The Sandbox testing should include a mechanism for monitoring and evaluating the testing process to ensure that the objectives of the testing are met and to identify any areas for improvement.
- viii. **Testing readiness of the product/service/application:** For conducting tests scientifically, test protocols and outcome indicators must be designed and set in advance. The interoperability of networks and services with envisaged functions and changes required, if any, needs to be identified for the testing. The Applicant/Principal Applicant should have the necessary resources to support testing in the sandbox and must demonstrate well developed testing plans with clear objectives, parameters, and success criteria. During the testing phase, additional steps which may be required to be taken to address regulatory concerns (when the system goes live) may also be identified and spelt out in advance.
- ix. **Exit strategy:** The Sandbox regulations should include a clear exit strategy that outlines the process for exiting the testing phase and launching the product/service/technology in the wider market. The impact of exit on on-boarded customers should be clearly defined in application and also be informed to such customers. Documented proof of the same will be required.
- x. **Deployment post-testing:** Applicant/Principal Applicant should demonstrate the intention and ability to deploy the product/service/application on a broader scale. To this effect the Applicant/Principal Applicant should share a proposed transition strategy along with sandbox exit strategy.
- xi. **Statutory and Legal Issues:** DoT/TRAI is not and shall not be liable for any acts of omissions, commissions, breaches, or any kind of culpability arising out of or in relation to the sandbox process and any liability arising as such will be borne by the Principal Applicant/Applicant.
- xii. **Publication of information:** The Regulator/Licenser shall reserve the right to publish any relevant and generic information about the Regulatory Sandbox applicants on its

website, for the purposes it deems fit, which may include, but are not limited to, knowledge transfer, collaboration with other national and international regulatory agencies, etc., without revealing any proprietary/intellectual property rights related information.

V. SUPPORTING DOCUMENTS REQUIRED TO BE SUBMITTED WITH APPLICATION

- i. A copy of Unified License
- ii. Certificate of Incorporation and Registration with the Registrar of Companies of Principle Applicant/Applicant.
- iii. Details of Scope of the Sandbox environment and its limitations.
- iv. Details of the process for taking customer and other participants consent and conditions to be communicated to such customer and other participants before taking consent.
- v. Details of safeguards planned for protection of consumer interests and prevents any harm to consumers.
- vi. Testing plan, test parameters, control boundaries, testing site, significant milestones, and anticipated outcomes for the technological proposal
- vii. Exit strategy and proposed transition plan after Sandbox testing.
- viii. Details of the impact of Sandbox exit on on-boarded customers.
- ix. Details of proposed transition strategy and ability to deploy the product/service/application on a broader scale.
- x. Undertaking indemnifying DoT/TRAI about any risk or damage caused to any stakeholder due to any direct or indirect action taken by principal applicant/applicant during sandbox testing.

VI. APPLICATION AND APPROVAL PROCESS:

- i. Once the Principal Applicant of TSP has set up a Sandbox post due intimation to DoT and TRAI, it should be responsible for approving applicants for testing in sandbox environment.
- ii. The duration of the sandbox testing stage shall be a maximum of twelve months.
- iii. Principal Applicant must undertake to keep record of all testing steps/consent records for the period not less than one year after exit from Sandbox environment.

VII. WAIVERS OR MODIFICATIONS TO RULES

8. DoT/TRAI shall have the right to waive or modify conditions for the purpose of the test on a case-to-case basis.

VIII. VALIDITY PERIOD

9. The regulatory sandbox can be set up by the TSPs, under intimation to TRAI and DoT, till the validity of its license.

IX. FUNDING OF INNOVATION FOR INCLUSIVE SOCIETAL ADVANCEMENT AND GROWTH OF ECONOMY

10. The government can play a crucial role in promoting innovations in Digital Communication sector for the advancement of society. Some innovations, which might be very promising, may lack adequate funding support. Financial incentives and operational support needs to be provided to Innovative products/services/applications having potential to bridge the digital divide and bring socio-economic advancement to underprivileged sections of society, if deployed on a wider scale. Therefore, DoT/TRAI are open to proposals for providing funding support to deserving products/services/applications during Sandbox Testing. The Applicants who desire to avail such funding may indicate so along with the details of funding sought. Such proposals will be evaluated by a panel of experts appointed by DoT/TRAI.

**DRAFT FRAMEWORK FOR
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I. THE REGULATORY SANDBOX

1. In view of new technological developments, varieties of complementing technologies, number of probable product/service/application providers and constantly evolving requirements, a test environment needs to be established where new functions and processes can be tested, or existing functions or processes can be refined. This test environment may also provide possibilities to explore new ways and means to meet regulatory requirements or new service offerings. Such test environments in regulatory space are commonly known as “Regulatory Sandboxes”.

2. The Regulatory Sandbox (RS) usually refers to live testing of new product/service/application in a controlled/test regulatory/licensing environment for which regulators/licensors may (or may not) permit certain regulatory/licensing relaxations for the limited purpose of the testing. The Regulatory Sandbox allows the regulators/licensor, the innovators, the service providers (as potential deployers of the technology) and the customers (as final users) to conduct field tests to collect evidence on the benefits and risks of new innovations, while carefully monitoring and containing their risks. It can provide a structured avenue for the Licensor/Regulator to engage with the ecosystem and to develop innovation-enabling or innovation responsive framework that facilitate delivery of relevant, low-cost service products. The Regulatory Sandbox is an important tool which enables more

dynamic, evidence-based regulatory/licensing environments which learn from, and evolve with, emerging technologies.

II. OBJECTIVES AND SCOPE:

3. The sandboxing framework for the Digital Communication (DC) sector in India is aimed at promoting innovation, protecting consumer interests, and mitigating potential risks associated with new technology and business models. The objectives of the framework are to encourage innovation, reduce regulatory burden on small and medium-sized enterprises (SMEs), and ensure consumer protection. Under this sandbox framework, entities shall be granted certain facilities and flexibility to experiment with telecom products/services/application in a live environment and on limited set of real customers for a limited time frame. These features shall be fortified with necessary safeguards for customer protection and risk mitigation. Various stakeholders can prototype product/service/application solutions and evaluate processes and functions in the test environment.

4. The scope of the sandboxing framework includes any new DC service or technology that requires testing in a controlled environment. This framework is applicable to all entities or individuals concerned to test products or services or applications related to DC technology.

III. ELIGIBILITY:

5. Any ~~licensed Service Provider, Innovator, Educational Institute or other entity~~, called Principal Applicant, shall be eligible for testing in the regulatory sandbox subject to fulfillment of laid conditions. The other entities, called Applicant, willing to utilize the Sandboxing facilities ~~of any licensed service provider~~ may engage with it as Principal Applicants. ~~In case licensed service providers are applying in their own capacity they need to fulfill conditions meant for Principal Applicant and Applicant both.~~

6. In cases where the Applicants find difficulty in associating with a Principal Applicant OR the product/service/application does not necessitates associating with a Principal Applicant, the Applicant can apply directly. However, in such cases they will have to give sufficient justifications for applying directly. The Applicant will also be required to provide documents indicating the efforts made by them to tie-up with a Principal Applicant.

IV. ESSENTIAL CONDITIONS TO BE FULFILLED BY PRINCIPAL APPLICANT AND APPLICANT:

7. The essential conditions required for testing under Sandbox regulations and details to be provided in applications are as follows:

i. **Only Indian entities eligible:** Principal Applicant/ Applicant should be a company incorporated and registered in India.

ii. **Required financial and technological capability:** Applicant shall have a minimum net worth of Rs. 25 lakhs as per its latest audited balance sheet. In addition, Applicant/Principal Applicant should demonstrate in the application that they possess the required financial and technological resources to take part in the sandboxing process.

~~iii. **Genuineness of innovation:** The product/service/application should be innovative enough to add significant direct or indirect value to the existing offering in the market. The same should be explicitly brought out in the application by the Applicant/Principal Applicant~~

~~iv. **Genuine need to test:** The Applicant/Principal Applicant should have a genuine need for live testing the product/service/application on real customers. Further, the Applicant/Principal Applicant should demonstrate that the product/service/application cannot be developed without relaxing certain regulations, if any, being sought.~~

v. **Limited prior testing:** Before applying for testing in sandbox, limited offline testing of the product/service/application should have been carried out by the applicant. The details of the same should be provided in the application by the Applicant/Principal Applicant.

vi. **Direct benefits to users:** The product/service/application should offer identifiable benefits (direct or indirect) to the retail or enterprise customers. The same should be explicitly brought out in the application by the Applicant/Principal Applicant.

vii. **Risk Mitigation:** The product/service/application should have proper risk management strategy to incorporate appropriate safeguards to mitigate and control potential risks to any market participants/users/customers/government that may arise from the testing of the product/service/application and shall propose appropriate safeguards to manage the risks and contain the consequences of failure. In case any deviation in the behavior of the product/service/application is observed during trial, compared to the expected behavior, the Applicant/Principal Applicant must clearly specify the measures that may be required to be undertaken to contain the impact within the live system.

viii. **Scope of testing:** To prevent any negative impact on the wider telecom market or the customers, the Sandbox environment should have a finite scope which is appropriate enough for testing the application/product/service.

~~ix. **Realistic scenarios:** The Sandbox testing environment should simulate realistic scenarios and conditions that the product/service/technology is likely to face in the real world. The same should be explicitly brought out in the application by the Applicant/Principal Applicant.~~

x. **Transparency:** The application for regulatory sandbox for a product/service/application should provide transparency to all stakeholders, including customers, about the nature and scope of the testing. Since there may be uncertainties involved in testing these new products/services/technologies, the transparency requirements, if any, should be clearly spelt out in the application by Applicant/Principal Applicant.

xi. **Regulatory compliance & exemptions sought:** The Applicant / Principal Applicant should expressly spell out what regulatory requirements are being complied with and what exemptions from the existing regulatory regime pertaining to the product/service/application are sought under Sandbox testing. It should also mention the authority which is responsible for permitting the required exemptions. Any other facilitation or resource sought, including spectrum, for the sandbox testing must also be specified.

xii. **Consumer protection:** Applicant/Principal Applicant should demonstrate in application as to how the Sandbox testing would prioritize the protection of consumer interests and prevent any harm to consumers. If the case so requires, only such customers will be allowed to be on boarded who have given specific consent voluntarily. ~~The Principal Applicant/Applicant shall be required to undertake indemnity insurance of an adequate amount and period, to safeguard the interest of the consumers. The adequacy of insurance cover shall depend on determination of the maximum liability based on, among others, the following factors~~

~~—(A) maximum exposure to a single consumer~~

~~(B) the number of claims that could arise from a single event~~

~~(C) number of claims that may be expected during the policy coverage period. The policy cover shall extend to the period beginning from the start of testing stage and end two months after exit from the regulatory sandbox.~~

xiii. **Demonstrate additional protections needed:** The Applicant/Principal Applicant should sufficiently describe the various protections that will be required to put in place in addition to those prescribed herein.

xiv. **Monitoring and evaluation:** The Applicant/Principal Applicant should precisely define the test parameters, control boundaries, testing site, significant milestones, and anticipated outcomes for the technological proposal. The Sandbox testing should include a mechanism for monitoring and evaluating the testing process to ensure that the objectives of the testing are met and to identify any areas for improvement. The Applicant/Principal Applicant should provide an acceptable reporting schedule to report to the Licensor/Regulator on the status and progress of development and testing of its technological proposal.

xv. **Testing readiness of the product/service/application:** For conducting tests scientifically, test protocols and outcome indicators must be designed and set in advance. The interoperability of networks and services with envisaged functions and changes required, if any, needs to be identified for the testing. The Applicant/Principal Applicant should have the necessary resources to support testing in the sandbox and must demonstrate well developed testing plans with clear objectives, parameters, and success criteria. During the testing phase, additional steps which may be required to be taken to address regulatory concerns (when the system goes live) may also be identified and spelt out in advance.

xvi. **Exit strategy:** The Sandbox regulations should include a clear exit strategy that outlines the process for exiting the testing phase and launching the product/service/technology in the wider market. The impact of exit on on-boarded customers should be clearly defined in application and also be informed to such customers. Documented proof of the same will be required.

~~xvii. **Deployment post testing:** Applicant/Principal Applicant should demonstrate the intention and ability to deploy the product/service/application on a broader scale. To this effect the Applicant/Principal Applicant should share a proposed transition strategy along with sandbox exit strategy.~~

xviii. **Statutory and Legal Issues:** DoT/TRAI is not and shall not be liable for any acts of omissions, commissions, breaches, or any kind of culpability arising out of or in relation to the sandbox process and any liability arising as such will be borne by the Principal Applicant/Applicant. The Principal Applicant/Applicant will be required to submit an undertaking to this effect.

xix. **Publication of information:** The Regulator/Licensor shall reserve the right to publish any relevant and generic information about the Regulatory Sandbox applicants on its website, for the purposes it deems fit, which may include, but are not limited to, knowledge transfer, collaboration with other national and international regulatory agencies, etc., without revealing any proprietary/intellectual property rights related information. Principle Applicant/Applicant would be required to submit an undertaking to this effect and/or should submit details of such information which can't be put under public domain.

8. Applicant must provide necessary supporting documents and undertaking to substantiate its claim of fulfillment of above Essential Conditions. However mere fulfillment of Essential Conditions doesn't automatically qualify Principal Applicant/Applicant for Sandbox testing. An application fulfilling all essential conditions can be rejected even later at Evaluation Stage post assessment of various aspects including potential risks, exemptions sought, direct/indirect benefits etc.

V. SUPPORTING DOCUMENTS REQUIRED TO BE SUBMITTED WITH APPLICATION

i. Certificate of Incorporation and Registration with the Registrar of Companies of Principle Applicant/Applicant.

ii. The latest audited Balance Sheet showing a net worth of at least Rs. 25 lakhs of Principle Applicant/Applicant.

~~iii. Document explicitly bringing out the innovation and identifiable benefits (direct or indirect) of the product/service/application offered to retail or enterprise customers.~~

iv. Explanation of the need for live testing and how certain licensing/ regulations need to be relaxed for testing purposes.

v. Provide the complete list of regulatory and/or licensing exemptions required and the extent of such exemptions.

vi. Report on prior lab/field testing carried out on the product/service/application.

~~vii. Explanation as to how the product/service/application offers identifiable benefits to retail or enterprise customers.~~

viii. Details of the potential risks to market participants/users/customers/government due to any exemption granted or otherwise and Risk management strategy and proposed safeguards to mitigate such potential risks.

ix. Details of Scope of the Sandbox environment and its limitations.

~~x. Details of realistic scenarios and conditions that the product/service/technology is likely to face in the real world and how these conditions are to be simulated during Sandbox testing.~~

xi. Details of the process for taking customer and other participants consent and conditions to be communicated to such customer and other participants before taking consent.

xii. Details of safeguards planned for protection of consumer interests and prevents any harm to consumers.

xiii. Testing plan, test parameters, control boundaries, testing site, significant milestones, and anticipated outcomes for the technological proposal

xiv. Exit strategy and proposed transition plan after Sandbox testing.

xv. Details of the impact of Sandbox exit on on-boarded customers.

xvi. Details of proposed transition strategy and ability to deploy the product/service/application on a broader scale.

~~xvii. Undertaking indemnifying DoT/TRAI about any risk or damage caused to any stakeholder due to any direct or indirect action taken by principal applicant/applicant during sandbox testing.~~

VI. APPLICATION EVALUATION CRITERIA

9. The applicant may be evaluated based on the parameters given below:

i. Complete Application form along with all supporting documents

ii. Profile of the applicant

iii. Arrangement between Principal Applicant and Applicant, if any.

iv. Required financial and technological capability to take part in the sandboxing process.

v. How the innovative product/service/application adds significant direct or indirect value to the existing offering in the market.

vi. Identifiable benefits (direct or indirect) to the retail or enterprise customers.

vii. Potential benefits of the product/service/application to the disadvantaged sections of the society, such as women and tribal populace, role of the said product/service/application in empowerment of the masses, and the impact of product/service/application in furthering digital inclusion.

viii. Offline testing of the product/service/application and results thereof prior to requesting sandbox.

ix. Defined mechanism for monitoring and evaluating the testing process including the test parameters, control boundaries, testing site, significant milestones, and anticipated outcomes

x. Proposed strategy for exiting the testing phase and launching the product/service/technology in the wider market.

xi. Ability to deploy the product/service/application on a broader scale and proposed transition strategy for same.

xii. Defined grievance redressal mechanism and user rights.

xiii. Mechanisms suggested for disclosure of the potential risks to participating users and process suggested to take explicit consent from participants.

xiv. Any other factors considered relevant by DoT/TRAI. Provided that failure to fulfill one, or more than one, of the essential eligibility conditions as outlined in Part IV above, may entail outright rejection of the sandbox application.

Provided further that DoT/TRAI or its designated agency, may waive off any essential condition(s) on need basis if it finds that the product/service/application may have substantial positive impact on society/economy, if deployed on wider scale after successful sandbox testing.

VII. APPLICATION AND APPROVAL PROCESS:

10. The application and approval process will be as follows:

i. Applicant or Principal Applicant, as the case may be, desiring to test under Regulatory Sandbox in India shall make an application to the DoT/TRAI electronically in the specified form.

ii. The application shall be accompanied by a non-refundable processing fee of ten thousand rupees.

iii. The Principal Applicant/ Applicant shall ensure that the specified eligibility criteria are satisfied while submitting the application to DoT/TRAI. The necessary supporting documents and undertaking to substantiate its claim of fulfillment of Essential Conditions as detailed above should be provided with the application. The application form shall be signed by the officer duly authorized by the company board. The complete application must be submitted to: XXXXXX or by email at XXXXXX.

iv. DoT/TRAI will transparently communicate with the applicant during evaluation phase of the sandbox application, and during the testing phase.

v. At the “**Application Stage**”, DoT/TRAI shall review the application and inform of its potential suitability for a sandbox within 30 working days from the submission of the complete application. DoT/TRAI may issue appropriate instructions to the Principal Applicant/ Applicant according to the specific characteristics and risks associated with the proposed product/service/application. DoT/TRAI, if necessary, may also consult Service Providers, domain experts, etc. to evaluate the application. If the product/service/application has significant impact on any sector, then consultations may be held with the concerned ministries and sectoral regulators also.

vi. At the “**Evaluation Stage**”, DoT/TRAI shall work with the Principal Applicant/ Applicant to determine the specific regulatory requirements and conditions (including test parameters and control boundaries) to be applied to the proposed product/service/application in question. The Principal Applicant/ Applicant shall then assess if it is able to meet these requirements. If the Principal Applicant/ Applicant is able and willing to meet the proposed regulatory requirements and conditions, the applicant shall be granted permission to develop and test the proposed innovation(s) in the sandbox. However, in case there are certain conditions licensing or regulatory which may not be fulfilled due to design aspect of that product/service/application, DoT/TRAI shall evaluate the possibility of granting exceptions for limited period so that to fulfill testing requirements. DoT/TRAI will establish a mechanism to grant such exemptions expeditiously, if feasible, within 45 days or communicate the reasons of rejection. The exemptions are to be granted considering potential of product/service/application, risk of causing potential harm to consumer or government interests, risk of misusing the exemption etc. In certain cases, exemptions may be required from other ministries or sectoral regulators or other entities, in such cases DoT/TRAI shall establish mechanism to approach such entities and coordinate for grant of exemptions to Principal Applicant/Applicant in time bound manner preferably 60 days. However, Applicant or Principal Applicant may not claim any right on an exemption granted by any entity on pretext that it has been granted in a previous case. DoT/TRAI decision on granting exemptions by itself or by other entities and duration for granting such exemptions, shall be final.

vii. Upon approval, the application shall proceed towards the “**Testing Stage**”. The participant shall disclose to its users that the product/service/application shall operate in a sandbox and the potential key risks associated with the product/service/application. The Principal Applicant is also required to obtain the user’s acknowledgement that they have read and understood the risks. The Principal Applicant shall define a clear mechanism to take explicit consent of participating users, if required. Documentary proofs of such communications/consents may be submitted to Licensor/Regulator.

viii. During the testing stage, the applicant shall take prior approval from DoT/TRAI to affect material changes, if any, to the product/service/application.

ix. DoT/TRAI will designate one officer who will have primary responsibility of coordinating the sandbox testing. Each applicant shall assign a contact person to coordinate with a designated officer of DoT/TRAI.

x. The duration of the sandbox testing stage shall be a maximum of twelve months. In exceptional cases which demonstrate requirement for longer durations in their application, the duration of more than twelve months may be allowed. On request of the applicant, DoT/TRAI can extend the duration on case-to-case basis after detailed examination.

xi. In case an application is rejected at any stage, the applicant shall be informed accordingly. The reasons for rejection could include failure to meet the objective of the sandbox or any of the eligibility criteria. The applicant may re-apply for the sandbox when it is ready to meet the objective and eligibility criteria of the sandbox, subject to an appropriate cooling off period, if any, as decided by DoT/TRAI.

xii. Principal Applicant/ **Applicant** must undertake to keep record of all testing steps/consent records for the period not less than one year after exit from Sandbox environment.

VIII. WAIVERS OR MODIFICATIONS TO RULES

11. DoT/TRAI shall have the right to waive or modify conditions for the purpose of the test on a case-to-case basis.

IX. VALIDITY PERIOD

12. The permission granted under the regulatory sandbox will have a validity period of up to 12 months for the applicant to test its product/service/application. At the end of the validity period, the applicant will stop testing his product/service/application. The approval of product/service/application for testing under regulatory sandbox does not mean (or guarantee) approval from DoT/TRAI to use this product/service/application after the testing period.

13. An extension of validity period can be granted by competent authority based on prevalent conditions of tests, potential benefits, cost involved, complexity of test etc.

X. REVOCATION OF PERMISSION

14. DoT/TRAI may revoke the permission so granted at any time if it is of the view that

i. The permitted applicant is failing, or is likely to fail, to satisfy the conditions established above; that guarantee qualification to the Regulatory Sandbox.

ii. The permitted applicant has committed a contravention of the regulations, or any rules, guidelines, or standards or exemptions allowed if any.

iii. The conducted test conflicts with the exigencies of the public interest.

iv. The activities carried out do not meet the conditions given in the permission letter or are in violation of the provisions of the applicable laws.

v. The Applicant/Principal Applicant has submitted forged undertakings/records/documents.

Provided that before revoking the permission, the applicant shall be given an opportunity of being heard.

15. An applicant may also file for early termination of the proposal in DoT/TRAI if it is felt that the proposal shall not be able to meet the desired objective. ~~DoT/TRAI shall consider the request on merits and advise the applicant accordingly subject to such conditions as it deems fit.~~

XI. COMPLETION OF THE RS TESTING AND REPORTING

16. On completion of the allocated time or size of the proposal specified, the applicant shall submit a report to the DoT/TRAI within 60 days on how the proposal met the objectives along with feedback from the stakeholders and such other information or details as specified. The applicant shall also submit a plan of action as to what amendments in the extant licensing/regulatory framework are required, along with a time frame for proposed commercial launch of the product/service/application.

XII. OVERSIGHT AND GOVERNANCE BODY

17. DoT/TRAI or any other entity so authorized by it will oversee the sandboxing process and ensure that it is conducted in a transparent and accountable manner.

18. The oversight and governance of the sandboxing framework will be crucial to ensure its effectiveness and accountability. The overseeing body will establish a monitoring and evaluation framework to assess the performance of each sandboxing project and provide recommendations for improvement. ~~The overseeing body may also provide necessary directions on potential regulatory implications of an innovative product or business model that is at an early stage of development. The Principal Applicant/Applicant must make necessary arrangements to make the Sandbox product/service/application accessible during testing, both physically and online, and provide all necessary tools, testers, and software necessary to monitor the product/service/application by the overseeing body. This will ensure that the sandboxing process is conducted transparently, and the overseeing body has the necessary resources to effectively oversee and evaluate the testing of innovative product/service/application.~~

XIII. FUNDING OF INNOVATION FOR INCLUSIVE SOCIETAL ADVANCEMENT AND GROWTH OF ECONOMY

The government can play a crucial role in promoting innovations in Digital Communication sector for the advancement of society. Some innovations, which might be very promising, may lack adequate funding support. Financial incentives and operational support needs to be provided to Innovative products/services/applications having potential to bridge the digital divide and bring socio-economic advancement to underprivileged sections of society, if deployed on a wider scale. Therefore, DoT/TRAI are open to proposals for providing funding support to deserving products/services/applications during Sandbox Testing. The Applicants who desire to avail such funding may indicate so along with the details of funding sought.

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~~Such proposals will be evaluated by a panel of experts appointed by DoT/TRAI. The Applicants may note that proposals that do not seek Government funding will have higher chances of acceptance and therefore Applicants should make their own arrangements for funding the proposal. Proposals not found deserving enough for funding support, will be summarily rejected.~~