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Mahanagar Doorsanchar Bhawan  
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New Delhi – 110 002**

**Subject: Tata Communications Ltd. comments to TRAI Consultation Paper on  
'Encouraging Innovative Technologies Services Use Cases and Business Models through  
Regulatory Sandbox in Digital Communication Sector'**

Dear Sir,

This is with reference to the TRAI Consultation Paper No. 09/2023 dated 31-07-2023 on  
'Encouraging Innovative Technologies Services Use Cases and Business Models through  
Regulatory Sandbox in Digital Communication Sector'.

In this regard, please find enclosed herewith Tata Communication Limited's comments for your  
kind consideration as Annexure.

We request you to kindly consider our submissions while finalizing the recommendations and  
would be happy to provide any additional information, if required.

Thanking You,

Yours Sincerely,  
**For Tata Communications Limited,**

**Praveen Sharma  
Authorized Signatory**

Enclosed: As mentioned above

**TATA COMMUNICATIONS**

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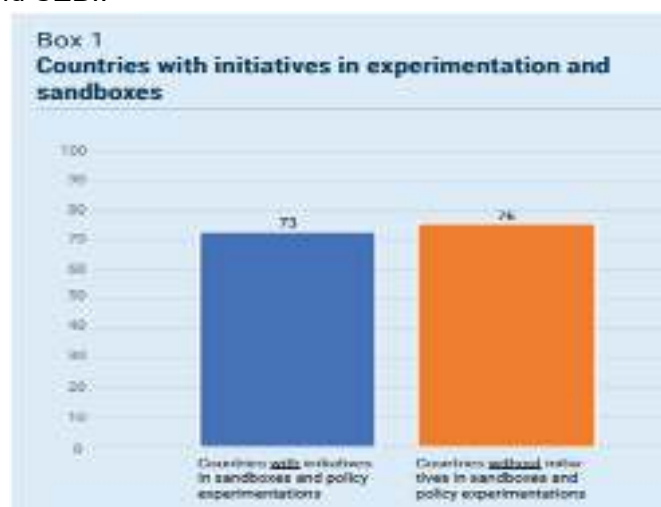
**Tata Communications Limited Response to TRAI Consultation Paper on ‘Encouraging Innovative Technologies Services Use Cases and Business Models through Regulatory Sandbox in Digital Communication Sector’**

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At the outset, we thank TRAI for providing us an opportunity to share our comments/inputs on this futuristic consultation paper which will shape regulatory and licensing sandbox framework to promote innovations for Digital market in India. We welcome this initiative which would be instrumental to test new digital applications and related Use Cases to boost Digital Economy model for India. TRAI in its paper has rightly pointed out that a robust and well-defined regulation framework that provides access to resources under real-time conditions for testing innovative products and services in digital communication sector is essential especially for the success of 5G/6G and for enterprise segment use cases. Such an initiative will also enhance Government and Industry collaboration.

With the evolution in technology, traditional regulations have also need to be updated in line with the technology advancements. Globally, Regulators have evolved from traditional regulation of telecommunications towards regulating artificial intelligence, Internet of Things, Blockchain, Big Data, neurotechnology, quantum technologies and virtual or augmented realities. Policymakers and Regulators are increasingly incorporating new and agile regulatory tools which facilitate a dynamic, evidence-based regulatory environment to test new products, services, and technologies for which existing regulatory framework across varied sectors need to be tested.<sup>1</sup>

A number of countries have started deploying the Regulatory Sandboxes in sectors such as Fin Tech, Energy, connectivity, digital economy and transport. Out of the 149 responses to UN Department of Economic and Social Affairs (DESA)’s Member State Questionnaire in preparation of the 2022 UN E-Government Surveya, 73 countries (over 48 per cent of responses) indicated there is some measure or initiative in policy experimentation and/or regulatory sandboxes in the use of digital technologies in the public sector.<sup>2</sup> India has also started implementing Sandbox framework for Fintech and Insurance sectors under the framework of RBI and SEBI.



<sup>1</sup> <https://digitalregulation.org/a-case-for-ict-regulatory-sandbox/>

<sup>2</sup> [https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/publication/PB\\_123.pdf](https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/publication/PB_123.pdf)

Regulatory sandbox approach can allow Enterprises and companies to experiment and innovate with new technologies and business models, with access to large customer base in real time conditions while ensuring that risks to businesses and consumers are managed and mitigated. Therefore, while the digital communication industry may have an established ecosystem for innovation, a sandboxing framework can be a complementary approach which offers far richer testing environment. The Sandbox analysis is presently at a nascent stage and still evolving. Therefore, the regulatory framework for Sandbox facility for digital communication sector should be of light touch regulatory framework so that various use cases and experiments with new products and service offerings can be tested in a controlled environment and validated for promoting use of Sandbox facility exponentially for other entities to promote innovation in the digital communication sector.

TRAI in its paper has mentioned that a robust and well-defined regulation framework that provides access to resources under real-time conditions for testing innovative products and services in digital communication sector is essential especially for the success of 5G/6G and for enterprise segment use cases. However, in our view, a light touch regulatory approach is sufficient at this evolution stage for implementation of Regulatory Sandbox so that large number of different kinds of Enterprises can access the sandbox platform to experiment their various uses cases and avail optimal benefits from the Regulatory Sandbox facility.

Under the light tough regulatory framework, it is suggested that the Application process should be online and simple to enable larger participation of Enterprises / MSMEs and regulatory burden should be minimal by way of waiving certain regulatory requirements essential for testing new products and services in order to promote innovation among Enterprises / MSMEs. Further, it is also pertinent to mention that the access to requisite resources required for Regulatory Sandbox testing would also be made available to them in terms of supporting for faster testing of their products and services.

In view of above context, Tata Communications comments on the proposed draft framework for Regulatory Sandbox are as follows:

## **I. The Regulatory Sandbox Response:**

As depicted in TRAI consultation paper, Regulatory sandbox refers to live testing of new products or services in a controlled regulatory environment. It acts as a "safe space" for business as the regulators may or may not permit certain relaxations for the limited purpose of testing.

In this regard, we wish to submit that the primary driver of the Regulatory Sandbox concept is the realization that traditional regulations and regulatory processes cannot keep up with the speed of today's business demands for technology advancements. In other words, a Regulatory Sandbox is a platform where regulators allow technology solutions – mostly in the fintech space – to be tested without having to fit into an existing regulatory framework.

In our view, the regulatory sandbox approach should ensure that the outcome emerged from live testing of new products and services in a control manner with certain relaxations in the present regulatory framework, should be approved in same manner

provided that the customer interest is being fully protected. This will help in further promoting innovation and would also be instrumental in simplifying the present regulatory / licensing framework in line with market dynamics and technological innovations.

Further, TRAI may classify the regulatory sandboxes as suggested by World Bank in its study<sup>3</sup> as mentioned below:

- (i) Policy focused - Policy focused Sandboxes use the process to evaluate specific regulation types or policies.
- (ii) Product or innovation focused- Innovation Sandboxes encourage innovation by lowering the cost of entering the regulated marketplace, allowing firms to test the market viability of new business models.
- (iii) Thematic- A thematic Sandbox's objective is to accelerate the adoption of a specific policy or innovation, or products aimed at specific population sectors.
- (iv) Cross-border - Cross-border Sandbox objectives are to improve cross-border harmonisation and the fintechs' ability to scale more rapidly on both a regional and global basis.

Please also refer the Appendix containing various global examples on implementation of Regulatory Sandbox with specific purposes with a light touch framework.

## **II. Objectives and Scope**

### **Response:**

It is suggested that the proposed framework of Regulatory Sandbox should also have the objective to further simplify the existing regulatory / licensing framework basis the outcomes emerged from the live testing of new products and services. This will promote innovation and also help in simplifying the regulatory framework.

## **III. Eligibility**

### **Response:**

It may be clarified in the proposed framework that licensed service provider can also engage any other third-party in designing and implementation of the Regulatory Sandbox based within India / outside India depending on the use cases / technical conditions.

## **IV. Essential Conditions to be Fulfilled by Principal Applicant and Applicant**

### **Response:**

It is suggested that a light touch regulatory approach is sufficient at this evolution stage for implementation of Regulatory Sandbox so that large number of different kinds of Enterprises can access the sandbox platform to experiment their various uses cases and avail optimal benefits from the Regulatory Sandbox facility. In our view, there is a need to review the proposed qualification criterion, evaluation criterion etc. which can be further simplified to avoid paperwork/documentation coming in way of agility required for these regulatory sandbox testing environments.

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<sup>3</sup> <https://documents1.worldbank.org/curated/en/912001605241080935/pdf/Global-Experiences-from-Regulatory-Sandboxes.pdf>

It is further suggested that under the light touch regulatory framework, it is suggested that the Application process should be online and simple to enable larger participation of Enterprises / MSMEs and regulatory burden should be minimal by way of waiving certain regulatory requirements essential for testing new products and services in order to promote innovation among Enterprises / MSMEs. Further, it is also pertinent to mention that the access to requisite resources required for Regulatory Sandbox testing would also be made available to them in terms of supporting for faster testing of their products and services.

- Para 7(i) - The regulatory sandbox testing should also be allowed to entities who are based outside India as well on case-to-case basis so the optimal use of Sand box can be done.
- Para 7(ii) – The proposed minimum net worth requirement of Rs 25 Lakh is very high and would likely to restrict the entry of Start-ups, smaller business entities etc. and would deprive these to take benefit from the regulatory sandbox. It is suggested that the same may be reviewed downward to Rs 5 lakh so that more entities can participate in Regulatory Sandbox and be able to test their products and services and participate in further promoting innovation.
- Para 7(v) – While determining the period of testing, factors like the nature of product and its impact on market and existing regulatory framework should also be considered.

#### **V. Supporting Documents required to be submitted with Application**

##### **Response:**

- As mentioned in the above response, we reiterate that the proposed framework should be governed by light touch regulatory framework.
- The requirement of indemnifying / providing undertaking by the Principal Applicant / Applicant should be done away with considering the fact that the product is being provided to customer in a sandbox testing environment after duly informing him about the same with the associated risk / impact with the testing of the product and services.
- It is also submitted that the Principal Applicant / Applicant should not be mandated for obtaining explicit consent from the selected customers as the product / service offered to them are only for testing purposes and moreover associated risk of using such product is also being conveyed to such customers.

#### **VI. Application Evaluation Criteria**

##### **Response:**

A nominal processing fee of Rs 1000/- should be charged for any sandbox testing irrespective of the classification as proposed in our response to para-I to cover administrative expenses.

#### **VII. Application and Approval process**

##### **Response:**

- Considering the fact that the sandbox testing is still a nascent stage in India, the

entire evaluation process should be online and only intimation to DoT / TRAI should suffice for sandbox testing of products / services / applications except in those cases where there is adverse impact on Customers / Society at large. Further, if any material change is being made during the testing stage, intimation to DoT / TRAI should suffice.

- As submitted above, the Principal Applicant / Applicant should not be mandated for obtaining explicit consent from the selected customers as the product / service/ application offered to them are only for testing purposes and moreover associated risk of using such product is also being conveyed to such customers. Only intimation about selection of such customers for testing new products/ services should suffice.
- The Principal Applicant / Applicant may have the necessary mechanism in place for capturing end user / customers feedback on new product/ service/ application being tested in sandbox testing.
- Period of one year for keeping record of all testing steps after exit from sandbox environment should not be mandated. Instead, it should be left to the Principal Applicant / Applicant to decide depending upon the type of sandbox testing and nature of product / service/ application. Alternatively, a minimum of period of three months may be recommended for keeping the testing record by Principal Applicant / Applicant.

In addition to above, we would also like to submit as follows:

- Appropriate wireless spectrums should be allocated for any requirements to test wireless technologies such as 5G/6G etc. under sandbox testing environment for a minimum period of one year for a nominal fee in line with the current Trial and Experimental spectrum licenses policy framework.
- Such spectrum allocation should not be linked with any specific equipment from an OEM and rather broad guidelines can be issued by DoT/WPC for conforming to the radiation norms. This provides an opportunity for the entity who is doing sandbox testing to test multiple OEM equipment and technologies without any hinderance.
- Align some of the regulatory requirements of License based services with the ordering and documentation collection for the product / service / application under sandbox testing. Ordering/Consuming these services digitally in B2B environment can further speed up the Digital adoption in India.

#### **VIII. Waivers or Modifications to Rules**

#### **IX. Validity Period**

#### **X. Revocation of Permission**

#### **Response to para VIII, IX and X:**

No Comments

## **XI. Completion of the RS Testing and Reporting**

### **Response:**

The standard template for report submission by Principal Applicant / Applicant should be issued by DoT/ TRAI.

## **XII. Oversight and Governance Body**

### **Response:**

To begin with, having multiple layers of approval / reviewing the innovative product / service / application may lead to inordinate delay in completion of sandbox testing and eventually delay the commercial rollout of such product / service / Application.

Instead, applicant should be mandated to send status report with observations of testing through DoT/ TRAI or any other entity on periodic basis in a standard template through online portal. In case of any observation / issue observed in the report, DoT/ TRAI may intervene to such specific testing accordingly.

## **XIII. Funding of Innovation for Inclusive Societal Advancement and Growth of Economy**

### **Response:**

No Comments

## Appendix - Global Examples on Implementation of Regulatory Sandbox

### 1. Objectives pursued by various countries for establishing the Regulatory Sandbox

There are some general objectives and principles that could apply to any regulatory sandbox and, while there will be some differences between country approaches, these general objectives offer a useful starting point:

- Digital inclusion
- Fast-track digitalization
- Stimulate and support innovation
- Market development and consumer benefit
- Enhance competition and protect consumers
- Economic growth

The table below illustrates a sample of the objectives that have been cited in various regulatory sandboxes implemented in different regions<sup>4</sup> these are amongst other objectives:

<b>S.No.</b>	<b>Name of the Country</b>
1.	<b><u>Rwanda</u></b> <ul style="list-style-type: none"><li>• Reduce regulatory barriers in order to encourage innovation in the interest of consumers and driving competition.</li><li>• Reduce time-to-market at potentially lower cost.</li><li>• Increase number and range of innovative products in the market.</li><li>• Ensure appropriate consumer protection safeguards in innovative products.</li></ul>
2.	<b><u>Kenya</u></b> <ul style="list-style-type: none"><li>• Support evidence-based approach to the regulations of emerging technologies.</li><li>• To enhance commercialization of technology as products and services developed out of research.</li><li>• To deepen the growth of the ICT market.</li><li>• To ensure sufficient safeguards are provided for privacy and consumer protection.</li></ul>
3.	<b><u>Colombia</u></b> <ul style="list-style-type: none"><li>• To foster innovation.</li><li>• Increase the pace of adaptation.</li><li>• To inform future regulatory frameworks.</li><li>• An alternative regulatory tool that allows for testing of new products, services, and solutions in any aspect of the ICT sector.</li></ul>
4.	<b><u>France</u></b> <ul style="list-style-type: none"><li>• To facilitate the launch of piloting 5G in France.</li><li>• To create a conducive environment for new market players to test use cases, innovative technologies, and services.</li><li>• To facilitate the integration of 'vertical industries' such as health, energy, smart cities etc.</li><li>• To encourage a working model for infrastructure sharing between existing licensees and new 'Outside parties'.</li></ul>

<sup>4</sup> <https://digitalregulation.org/a-case-for-ict-regulatory-sandbox/#post-3004491-footnote-3>



## 2. Application of sandboxes in various sectors

Box 2  
Applications of sandboxes in various sectors\*



**Sandbox in digital currency<sup>5</sup>:** In the pursuit of developing its digital economy, the Government of the **Maldives** has sought to establish a regulatory sandbox for the adoption of digital currency as a key component of its digital economic development. Through digital currency implementation led by its Central Bank, the Ministry of Environment, Climate Change and Technology Government seeks to promote more convenient and confidential financial transactions with lower fees, along with financial transaction privacy and identity protection. Providing a cost-effective alternative to the traditional financial system will also potentially support the “unbanked” populace by providing affordable and easy access to formal financial services. Furthermore, the Government seeks to establish a monetary policy that is more transparent, while promoting and facilitating safe online transactions and easier currency exchange, all in the pursuit of achieving a cashless society in the digital economy.

**Sandbox in the energy sector:** In **Kazakhstan**, the implementation of a regulatory sandbox in the energy sector is expected to achieve three broad goals: (i.) decentralization, (ii.) digitalization, and (iii.) decarbonization. The proposed sandbox aims to tackle the lack of commercial interest in introducing energy-efficient and cost-saving technologies while resolving the high level of amortisation of electrical networks and shortages in electrical grid capacity in a number of regions. It is envisioned that electricity generation sources will be decentralised through the development of requisite network infrastructure. In order to achieve digitalisation, a centre of technological competence will be created, and the information security of modernised trading platforms will be strengthened. In order to achieve decarbonisation, the focus

will be on both the decarbonisation of the energy generation sector as well as the development of the renewable and alternative energy sources sectors.

**Sandbox in digital economy:** In **Bangladesh**, a sandbox is being proposed by the Aspire to Innovate (a2i) Office, the ICT Division and the Cabinet Division, with the overarching objective of enabling the digitalization, market access and financial access of cottage, micro, small and medium enterprises (CMSMEs), which form the backbone of the national economy of Bangladesh. In the business sector, CMSMEs have suffered the most during the COVID-19 pandemic because of poor market access since most are not digitally enabled, despite various government’s relief measures such as subsidies in the form of low-interest loans. The proposed sandbox, under the theme of “leaving no business behind”, aims to inform policy reform and regulatory change, ensuring CMSMEs’ access to information about new businesses, new types of skills, markets (especially digital markets), finance, technology and innovation, and business support services.

The UN Development Account Project “Frontier Technology Policy Experimentation and Regulatory Sandboxes in Asia and the Pacific” has been conceived and approved, with the objective to enhance the institutional capacity of selected countries in special situations to understand and develop digital technologies’ policy experimentation and regulatory sandboxes. The Project is jointly implemented by UN DESA and UN ESCAP. Since the inception of the Project, the implementation has gained traction in all three target countries, namely Bangladesh, Kazakhstan and Maldives, with political leadership and substantive commitment from all three countries.

\* UN DESA, 2021. Ministerial Kick-off Event “2024 Frontier Technology Policy Experimentation and Regulatory Sandboxes in Asia and the Pacific”, 16 November 2021. Available online <https://publicadministration.un.org/mis/news-and-events/calendar/ModuleD/1145/ItemID/301/mct/EventDetails>

5. UN ESCAP, UN DESA, 2020. National Consultation on “Frontier Technologies Policy Experimentation and Regulatory Sandboxes” in the Maldives. 5

## 3. Thailand’s National Broadcasting and Telecommunications Commission (NBTC)

Responsible Entity: Thailand’s National Broadcasting and Telecommunications Commission (NBTC)

Description: The NBTC has established a sandbox programme to facilitate technology testing for the adoption of 5G in Thailand. This entails an area-based regulatory sandbox, whereby experimentation in locations designated by the NBTC are not subject to existing regulations and requirements. While aiming to facilitate 5G technology trials using 700MHz, 2600MHz and 26GHz frequency bands, this regulatory sandbox is open to interested parties beyond the ICT industry. The testing of this new technology can open up new avenues for digital businesses such as tele-medical services, smart agriculture, remote monitoring, smart power grids and autonomous vehicles.<sup>6</sup>

<sup>5</sup> [https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/publication/PB\\_123.pdf](https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/publication/PB_123.pdf)

<sup>6</sup> Read more: <http://www.nbtc.go.th>

#### **4. Arcep's regulatory sandbox**

Responsible Entity: French Telecommunications Regulation Authority for Electronic and Postal Communications (Arcep)

Description: Arcep has deployed a regulatory sandbox allowing players to experiment with innovations supported by 5G technology under a temporarily relaxed regulatory framework for a period of up to two years. Innovative projects are based on the frequency band allocated by Arcep, which is looking to identify new use-cases for the technology. Examples of the regulatory sandbox include using the 2600 MHz TDD frequency band to allow real time video streaming from RATP trains to the control station with long-term evolution broadband technology (Arcep, 2018[59]).<sup>7</sup>

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<sup>7</sup> Read more: <https://archives.arcep.fr/index.php?id=13816>