Government of India

Ministry of Communications

Department of Telecommunications

Wireless Planning & Coordination (WPC) Wing 6th Floor, Sanchar Bhawan, 20 Ashok Road, New Delhi-110 001

No. R-11014/08/2021-NT

OFFICE MEMORANDUM

Date: 11.03.24

Subject: Guidelines to establish and operate "Spectrum Regulatory Sandbox/ Wireless Test Zones (WiTe Zones)" -reg.

Considering the requirements of emerging new radiocommunications technologies, to promote R&D activities, outdoor testing/experimentation in the field of wireless radiocommunications and also to promote Make in India in wireless products, the competent authority has decided to issue the following guidelines to establish and operate 'Spectrum Regulatory Sandbox' (SRS) or 'WiTe Zones (Wireless Test Zones)':

- **1. Purpose:** Testing of wireless products and technologies for research & development or experimentation in specified spectrum bands.
- 2. Eligible entities for establishment of WiTe Zones: National Academic or Research institutes (e.g. Universities, Technical Institutions, CDoT, CDAC, IITs, ITI, BEL, ECIL, SAMEER etc., R&D Labs, Central/State Government/UTs departments or their PSUs), Technology Parks, TSPs, incubators, industry partners, Original Equipment Manufacturers (OEMs).

3. License:

An applicant is required to apply for a WiTe zone license. On receipt of WiTe Zones application from the prospective entities, DoT/ WPC would examine the proposals and issue a license. The license would be valid for a period of 10 years, renewable in multiple of 5 years.

4. Fees:

- (i) There will be no fee for establishment of WiTe zones
- (ii) Fee @ Rs. 1000/- per spectrum band per annum to be paid by the users of the WiTe Zones facility to the Government on Saral Sanchar portal.

5. Spectrum use authorisation for WiTe Zones categories:

There shall be two categories i.e, Category-I and Category-II to be permitted, as detailed below:

Category-I: In this WiTe Zones category, The experimentation/testing shall be permitted in those spectrum bands which have not yet been assigned to any user (in that area). The tests or experiments in this Zone shall be permitted till such time as the said bands are not assigned in that particular area. The continuity of usage of such spectrum permitted in this Zone shall be subject to the condition that the spectrum, if subsequently assigned for regular use will entail termination of any test or experimentation being carried out in the said spectrum. However, reasonable period of time, say 6 months may be allowed to complete the ongoing testing, if feasible with co-existence measures such as reduced power levels etc, in coordination with the regular assignees. The testing would be terminated, if it is practically not possible to continue the testing without impacting the licensed use.

Category-II: In this category, WiTe Zones in interior/uninhabited areas shall be authorised for experimentation/testing in assigned spectrum bands including IMT/Satellite/Broadcasting bands, subject to the following conditions:

(i) The Area requirements vis-à-vis the frequency bands shall be as under:

| Sl. No. | Type of Band testing | Testing Zone size | | |
|---------|----------------------------|-------------------|--|--|
| | | (indicative) | | |
| 1 | HF (3-30 MHz) | 10 X 10 km | | |
| 2 | VHF (30-300 MHz) | 5X5 km | | |
| 3 | UHF (300 Mhz to to 1 GHz) | | | |
| 4 | MW Bands (1-10 GHz) | | | |
| 5 | MM wave bands (10-100 GHz) | 1.5X1.5 km | | |
| 6 | > 100 GHz | | | |

- (ii) New spectrum assignments, if any, in the vicinity of the identified and functional WiTe Zones, may be made by DoT after due diligence to ensure the protection of the operations of concerned WiTe Zones.
- (iii) In case an existing licensed user desired to expand his network/deploy new network elements, it shall take all measures to mitigate interference in coordination with WiTe Zones.

6. Users of WiTE Zones

- i) Users of the WiTe Zones may be any Indian national or any Indian entity including WiTe zones holder.
- ii) The Entity will charge user fee from the applicants who are testing their wireless products in the WiTe Zones, which should be nominal and reasonable towards facilities and test environment offered. These fees shall be published and updated from time to time by the Entity on Saral Sanchar.
- iii) The relevant provisions of this Ministry's OM no. R-14016/01/2019-NT(Pt) dated 23rd July 2019, regarding requirements of licenses for experimental & demonstrations shall not be applicable to such WiTe Zones and their users. Accordingly, there shall be NO need for a separate license or approval from DoT for testing of the products in the WiTe Zones by the users.

7. General Conditions:

- i) The details of all approved WiTe Zones will be published on DoT's Saral Sanchar portal. Approved WiTe Zones shall be shared with State Government and UTs for suitable notification along with geo-fencing etc.
- ii) Entities whose campuses/facilities are approved by the DoT for WiTe Zones testing will nominate a WiTe Zones coordinator, called as the "Coordinator".
- iii) The Coordinator will liaison with DoT / WPC on spectrum related issues in WiTE Zones. CDOT and SRI Division of DOT may also be approached by Coordinators/ Users of WiTE Zones for Technology related support, while TEC will provide support on testing and certification.

- iv) The Entity may establish and develop such test facilities and amenities including connectivity (for any network testing) as may be necessary in WiTe Zones.
- v) Test facilities in the WiTe Zones should have no adverse impact on the "existing Radiocommunication Services" including Terrestrial and satellite networks. An undertaking to this effect should be furnished by "Coordinator" of WiTe Zones. In case of any adverse impact on "existing Radiocommunication Services", the WiTe Zones Coordinator should ensure/ resolve the issue and until such time the outdoor testing by WiTe Zones should be put in abeyance.
- vii) The Coordinator shall ensure that in the testing zones, all the licensed services including Mobile services don't get impacted, blocked or disturbed. The Outdoor power levels should be such that respective harmonics, out of band emissions, spurious signals shall in no manner affect Radiocommunication Services in other bands. If any harmful interference to existing radiocommunication services is noticed, the testing shall be immediately suspended till the final resolution of the interference issue.
- vi) The Entity shall ensure that the testing facility should comply with all the terms and conditions of DoT. In any case of violation, permission would be liable to be withdrawn without any prior notice and appropriate action would be initiated by DoT.
- vii) No Radiocommunication service shall commercially be offered to any entity/individual from the WiTe Zones. Testing facility/test bed shall not have any connectivity with PSTN/Public commercial network/satellite for the purpose of testing/R&D.
- viii) As part of a monitoring mechanism to ensure that facilities such approved including the spectrum which has been permitted for testing/experimentation etc. is being adequately utilised, the Coordinators shall update on a quarterly basis on the Saral Sanchar Portal about their activities online.
- ix) In the cases where the testing of products requires approvals/ permissions from other Ministries/ Departments/ authorities, e.g. DGCA for Unmanned Aircraft System (UAS), Cabinet Secretariat for Jammers, etc, the applicant shall produce such permissions/authorisations to WiTe Zones coordinators before start of such testing.

- x) WPC Wing has published an allocation/assignment data in Saral Sanchar of IMT/mobile access spectrum bands, which is allotted on LSA/ Wide-Geographical area basis and the same shall be updated regularly.
- xi) Maximum EIRP permitted in WiTE zones shall be upto the level permitted for commercial operations in such band under the respective license granted under Indian Telegraph Act 1885.
- 8. All interested entities may apply for establishment of WiTe Zone-I and WiTe Zone-II approvals in the prescribed format as attached at **Annexure-I.** The facility for online application shall be available on SaralSanchar portal of DoT.
- 9. These guidelines issues with the approval of the competent authority.

Encl: a/a

(A K Patel)

Deputy Wireless Advisor to the Govt. of India

To

All Concerned

APPLICATION FOR ESTABLISHMENT OF SPECTRUM REGULATORY SANDBOX (SRS)/WITE ZONEs

| 1. | Name of Entity/Applicant (In Block Letters) | : |
|-----|--|--|
| 2. | CIN/TIN/Accreditation/Approval No. (Not required in case of State Govt./UTs) | : |
| 3. | Category of WiTe Zone applied for | : WiTe Zone-I / WiTe Zone-II |
| 4. | Status of Entity PSU/Academia/Autonomous/Other | : Government/ |
| 5. | Postal Address | : |
| 6. | State | : |
| 7. | Core activity of the Entity | : |
| 8. | Location of Premises offered for WiTe Zone | : |
| 9. | Area offered for WiTe Zone : Area (Enclose a map mentioning geo coordinates of | (Km) and dimensions (LXW) all corner points) |
| 10. | Proof of ownership of the area being planned a (Attach copy) | as WiTe Zone: |
| 11. | Nearest Airport/ Railway Station to Location | : |
| 12. | Personal Details of Co-coordinator (Attach Govt. ID proof) | :As per Annexure A |
| 13. | Attach a Brief about entities including availa | able facilities e.g. Electricity, IT |

connectivity, water, Road-connectivity etc.

DECLARATION

| I S/o | working | in the | post | at | | | |
|---|-----------------|----------|--------|-------------------|--|--|--|
| Certify that I have been | authorized by . | (t | he ent | ity) to apply for | | | |
| Spectrum Regulatory Sandbox / WiTe Zone to be established as per the guidelines | | | | | | | |
| dated issued by Ministry of Communications and declare that (i) details above | | | | | | | |
| are correct & factual to the best of my knowledge and belief; (ii) the conditions | | | | | | | |
| imposed for the grant of permission for WiTe Zone shall be observed. | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | (SI | GNA | ΓURE) | | | |
| | Name & Design | nation o | f Auth | orised Signatory | | | |
| Place & Date | Office stan | np | | | | | |

ANNEXURE A

PERSONAL PARTICULARS OF COORDINATOR, APPOINTED FOR THE SPECTRUM REGULATORY SANDBOX (SRS) / WITE ZONES

Name in full
 Designation
 Nationality
 Date of birth
 Permanent address

6. Present address

- 7. Passport No./Any National ID Proof (attach copy)
- 8. Contact details (email/mobile Office/ Residence)

(Signature) With Seal