

**TELECOM REGULATORY AUTHORITY OF INDIA**

**TRAI releases Consultation Paper on Encouraging R&D in Telecom, Broadcasting, and IT Sectors.**

**New Delhi, 22<sup>nd</sup> September 2023** - Telecom Regulatory Authority of India (TRAI) has released a Consultation Paper on 'Encouraging R&D in Telecom, Broadcasting and IT (ICT) Sectors' today 22<sup>nd</sup> September 2023. The purpose of this consultation paper is to develop a comprehensive ecosystem for enhancing R&D in ICT Sector of the country, wherein there are well established processes for generating a pool of R&D scientists/engineers, duly supported by the Government and Private Partners for development and innovation of ICT products and services for making India Atmnirbhar and promoting exports in the ICT Sector.

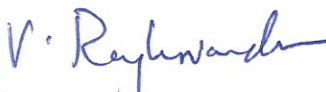
2. R&D has played a crucial role in shaping today's world. The advent and evolution of R&D over the years have been pivotal in developing and applying new technologies, shaping economic systems, and improving people's lives through several industrial revolutions. As recognized world over, R&D ecosystem of a nation is linked to its economic growth and overall progress. It has a positive impact on the quality of life of its citizens by increasing availability, accessibility, and affordability of products and services. Furthermore, R&D and innovation is also important for a nation's self-reliance and its security.
3. India has made remarkable progress in R&D and innovation, emerging as the highest ranked economy in the "Central and Southern Asia" region, 40<sup>th</sup> in the Global Innovation Index 2022. The country has experienced significant growth in the generation of Intellectual Property Rights (IPRs) by the residents. The government's initiatives such as "National Education Policy 2020", "National Policy on Electronics 2019", "National Digital

Communications Policy 2018”, “Make in India”, “Digital India”, “Startup India” etc. have played significant roles in strengthening R&D ecosystem in the country. Further, recent initiatives like “Atmanirbhar Bharat”, “Telecom Product-Linked Incentives (PLI) scheme”, “Digital Communication Innovation Square” have also been encouraging steps in this direction.

4. However, in the existing R&D ecosystem in India, there are areas of further improvement in promoting R&D in ICT sector, learning from the international best practices in R&D and apply relevant learnings in India and also to identify the issues which require interventions in terms of policies and incentives to improve the R&D in the ICT sector and help India emerge as a world leader. In view of this and in accordance with the TRAI Act 1997 on measures for orderly growth of ICT industry with indigenously developed products and services, the Authority decided to take up issues of encouraging R&D ecosystem for ICT sector in the country on suo-moto basis for consultation with the stakeholders with a view to make recommendations to the Government of India on this important subject matter.
5. In the consultation paper prepared based on the online brainstorming session and inputs from academia and industry experts from IIT Madras, IIT Kanpur and IIT Hyderabad etc., TRAI has analyzed the important issues which require intervention in the existing R&D ecosystem in India under the three focus elements: “Education & Training System”, “Science System” and “Regulatory Framework”. The third focus element “Regulatory Framework” has been divided into two parts, namely, “Policies and Programs” and “IPR Framework”. Proactively prioritizing R&D and innovation can create a favourable environment for budding entrepreneurs and innovators in the country. In the consultation paper, TRAI emphasizes the need to build a robust R&D ecosystem and discusses potential issues which need to be addressed to enable the same.
6. Technological advancements and convergence in Telecom, Broadcasting

and IT sectors are taking place at a rapid pace. Some of the emerging trends in these sectors are 5G, 6G, Open-RAN, Internet of Things (IoT), AI and ML, Distributed Ledger Technology (DLT), Augmented Reality (AR), Virtual Reality (VR) and Metaverse, Quantum Computing, Cloud Services, Edge computing, Network Function Virtualization (NFV), Software Defined Networking (SDN), Over-The-Top (OTT) services and Hybrid Set Top Box (STB) etc. As discussed in the consultation paper, issues related to government-industry-academia collaboration, commercialization of research, encouragement of private investment, patent approval cycles, IPR protection and IP-based finance etc. need to be focused to capitalize on these emerging trends and unleash the full potential of India's R&D and innovation efforts.

7. In this Consultation Paper, TRAI has also explored the R&D ecosystem of leading countries in R&D and innovation space. These include Israel, Republic of Korea, United States, Sweden, Japan, Switzerland, Germany, Denmark, Finland etc. International best practices in R&D may act as key learnings for India in its ambition to strengthen its R&D ecosystem and become a \$5 trillion economy.
8. The Consultation Paper, for seeking inputs from the stakeholders, has been placed on TRAI's website ([www.trai.gov.in](http://www.trai.gov.in)). Written comments on the issues for consultation are invited from the stakeholders by 23<sup>rd</sup> October 2023 and counter comments by 6<sup>th</sup> November 2023.
9. The comments and counter-comments may be sent, preferably in the electronic form by email to [advisorit@trai.gov.in](mailto:advisorit@trai.gov.in) and with a copy to [jacativ@trai.gov.in](mailto:jacativ@trai.gov.in). For any clarification/information, Shri Anand Kumar Singh, Advisor (CA, IT & TD) may be contacted at Tel.No.+91-11-23210990.

  
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