



VIL/AH/RCA/2024/001

January 15, 2024

**Advisor (CA&IT)**

**Telecom Regulatory Authority of India,**  
Mahanagar Doorsanchar Bhawan,  
Jawaharlal Nehru Marg (Old Minto Road),  
New Delhi – 110002

**Kind Attn: Shri Anand Kumar Singh**

**Subject:** Comments on the TRAI's Consultation Paper on "Encouraging R&D in Telecom, Broadcasting, and IT (ICT) Sectors" dated September 22, 2023

**Dear Sir,**

This is in reference to the TRAI's Consultation Paper on "Encouraging R&D in Telecom, Broadcasting, and IT (ICT) Sectors" dated September 22, 2023.

In this regard, kindly find enclosed herewith comments from Vodafone Idea Limited on the above-said consultation paper.

We hope our comments will merit your kind consideration please.

Thanking you,  
Yours sincerely,

**For Vodafone Idea Limited**

**Anjali Hans**

**Senior Vice President – Regulatory & Corporate Affairs**

**Enclosed:** As stated above



**VIL Comments to the TRAI Consultation Paper on  
“Encouraging R&D in Telecom, Broadcasting, and IT (ICT) Sectors”**

At the outset, we are thankful to the Authority for giving us this opportunity to provide our comments to the TRAI Consultation Paper on “Encouraging R&D in Telecom, Broadcasting, and IT (ICT) Sectors” dated September 22, 2023.

In this regard, we would like to submit our comments to select questions for Authority’s kind consideration, as follows:

**Q.7. What role do you envisage for the service providers and industry in facilitating indigenous R&D in the ICT sector respectively? How can industry participation in R&D in the ICT sector be further improved? Please support your answer with justification and best practices in India and abroad in this regard.**

**And**

**Q.14. How can participation of private sector in R&D be encouraged? Which incentivization model(s) or combination thereof would produce better results:**

- (i) Tax-break model, or**
- (ii) Product-Linked Incentivization model**
- (iii) Any other model.**

**Please provide details of the suggested model(s) in terms of structure, functioning, monitoring, and evaluation.**

**And**

**Q.27. What should be the regulatory framework for R&D efforts in the ICT sector for establishing an outcome-based measurable system? Please suggest changes required in the present laws or creating new policies or regulatory frameworks with regard to carrying out R&D, testing of products allotment of spectrum and commercializing of products in ICT Sector.**

**And**

**Q.35. Is there a need for additional tax or fiscal incentives to support R&D activities in emerging technologies in ICT sector? If yes, please give suggestions with justifications and best practices in India and abroad in this regard.**



## VII Comments to Q.7, 14, 27 and 35

1. With digital growth across the globe, countries are witnessing enhanced role of telecom services in enabling and supporting Governance, public utilities delivery, defense, finance, healthcare, etc. and thus, security and scalability of the telecom networks plays a vital role like never before.
2. World over telecom sector is going through technological advancements at a rapid pace, with continuous innovations, mostly driven by global vendors. Such technological advancements aid growth and innovations in almost all other sectors, spurring economic activities and thus, giving multiplier effect to the economic growth.
3. With regard to new technologies, the collaboration between private sector and academia has already started to find its way as many companies are joining hands with universities and institutions for innovation as well as research and development pertaining to newer technologies like 5G, AI/ML, etc.
4. **Incentivization for R&D:** The development of robust manufacturing sector in long run in the country is dependent on development of strong R&D capabilities in the country along with the push required for hardware manufacturing. Hence, push to R&D in the country through incentives is vital for long-term development of manufacturing capability in the country.
5. **Cross-sector Collaboration:**
  - a. The Government, being a common entity across sectors, should foster an enabling environment for cross sectoral and cross technology research related collaborations to facilitate the indigenous R&D across sectors. The same can be facilitated by funding the public private collaborations during the initial stages, creating fully funded forums and initiatives that bring cross-section of researchers, startups, innovators and industry on a single platform.
  - b. The creation of a supporting ecosystem and incentive-based approach will yield the desired results in the long-run in the field of R&D in the private sector, making it competitive in terms of quality, technology and cost. Further, with a mix of right government policies and incentives, R&D activities will enhance the fruits of emerging technologies in ICT sector in India.
  - c. Also, it is important that there is an effort to develop whole spectrum of manufacturing in the country, i.e. finished goods, sub-assemblies, components including semiconductor and supporting software. Even though the components are a large fraction of product cost, still very few are made in India at present. Many are still imported and assembled in India, leading to increase in final product cost for Indian manufacturers.



**6. Incentivization of R&D without any purchase mandate:**

- a. From a long-term perspective, it is important that the policies should encourage R&D as well as subsequent manufacturing of products which are of robust quality, secured, scalable, interoperable and commercially viable so that they are able to compete in global as well as Indian markets with products manufactured outside India. Such encouragement should be through fiscal and non-fiscal incentives and, not through any short-term restrictive policies of mandating purchase of products manufactured based on R&D in India, similar to the view that there should not be any mandate for purchase of products manufactured in India.
- b. The long terms benefits of domestic R&D will arise only when manufactured products are able to demonstrate and compete with any other products being manufactured with R&D outside India, without compromising on the quality, cost-competitiveness, security and resilience of networks. Moving away from commercially competitive products to mandatory purchases, would bring in inefficiencies, affect security and resilience of the telecom networks and also increase costs for telecom operators.
- c. Push should be given to both supply and demand, through suitable incentives. Basis incentives, once there is supply of competitive and quality products that are manufactured in India based on domestic R&D, the telecom operators should be given incentives with suitable reduction in licensee fee for purchase of such equipment.

**7. Effectiveness of Policies:**

- a. The Government has initiated efforts to attract global leaders to manufacture in India through significant steps like vision of 'Atmanirbhar Bharat' and schemes like PLI. Substantial capital investments are already being made in setting up manufacturing facilities in India which can be further sustained by relaxing PLI scheme threshold for new investment for existing OEMs.
- b. The scope of R&D is diverse as it includes designing and developing the products, establishing the infrastructure to test the advanced technologies, building the core competence and much more. And to promote domestic R&D, huge effort is required to ensure growth and development of domestic manufacturers in the sector.
- c. To further support existing manufacturers and OEMs, the R&D policies need to be devised considering the scope and their earlier investments and such policies must apply equally to all OEMs who have already set up R&D facilities in India.
- d. In addition to above, beyond the development of a domestic manufacturing industry in the country, the manufacturers also need a sustainable market to remain relevant. The Government should support their R&D pertaining to demand for products that are made in India through provisions of incentivizing players in domestic market and



extending credit lines to support cash flows of domestic and global buyers, in line with global practices.

- e. Hence, a bottoms-up approach should be taken for encouraging and developing world class R&D centers, skilled talent leading to domestic patents, designing, certifications and manufacturing. Also, as manpower forms a big chunk of R&D expense, the R&D investments should include the same.
- f. We would like to submit that the Indian telecom industry should continue to benefit from the said technological advancements and innovations happening across the globe. The same can be done by extending flexibility to the telecom operators for purchasing products/equipment which are manufactured basis domestic R&D, both from global suppliers (at times, having manufacturing in India) or from domestic suppliers (largely, made in India). This will ensure both competition and choice, thus ensuring that the consumers enjoy world class and superior service experience, over Indian telecom networks.

**8. Therefore, we recommend that:**

- a. **There should not be any retrograde policy step of mandating telecom service providers or industry for facilitating indigenous R&D in the ICT sector.**
- b. **Telecom operators should be encouraged through graded incentives of reduction in license fees, for procurement of products which have been developed and manufactured basis domestic R&D. TSPs should be free to purchase product or equipment manufactured/made in India or elsewhere and there should not be any penal provisions for non-procurement of any defined value/quantity from indigenous sources.**
- c. **The incentives to telecom operators for procuring domestically manufactured products, should apply equally for Indian suppliers as well as for foreign suppliers, who are manufacturing in India.**

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