



ITU-APT/L/23-24/931
January 06, 2025

Shri Jyotiraditya Scindia
Minister of Communications
Department of Telecommunications
Sanchar Bhawan
New Delhi- 110001

Subject: Strategic Spectrum Allocation for R&D and Regulatory Sandbox to Propel India's Leadership in 6G

Respected Scindia Ji,

On behalf of the ITU-APT Foundation of India (IAFI), I extend our greetings and express our gratitude for your continued efforts in advancing India's telecommunications sector. We write to you with a vision to position India at the forefront of global technological innovation, particularly in the evolving domains of 6G, industrial automation, and connected mobility. This letter outlines critical spectrum-related proposals to support India's R&D in the area of 6G that warrant urgent consideration.

India has the unique opportunity to lead the global 6G revolution. To facilitate this, we recommend the immediate opening of spectrum bands including 7025-7125 MHz, 7125-8400 MHz, and 14.8-15.35 GHz for initial testing. These bands hold immense potential for enabling the development and deployment of robust 6G networks. Early access to these bands will foster cutting-edge research, facilitate the creation of scalable networks, and support applications ranging from ultra-fast internet to advanced IoT solutions. This proactive measure aligns with global trends, ensuring India's leadership in setting 6G standards and regulatory frameworks. Furthermore, enabling early testing will attract investments, foster innovation, and provide Indian researchers and enterprises with a head start in the global 6G race.

To stimulate innovation and cater to industry-specific needs, we propose delicensing frequency bands for private networks and specific applications. The 4940-5000 MHz band should be allocated for industrial localized usage. This will empower industries to deploy secure and efficient communication infrastructures, enabling the implementation of advanced technologies such as IoT, AI, and automation, which will drive productivity and safety across sectors. Similarly, the 5875-5925 MHz band should be dedicated to Cellular Vehicle-to-Everything (C-V2X) technology, which has the potential to revolutionize road safety and traffic management. C-V2X facilitates real-time communication between vehicles, infrastructure, and pedestrians, enabling applications like collision avoidance, emergency braking, and optimized traffic flow. Another critical band, 5925-6425 MHz, should be delicensed for indoor use cases. This will accelerate the deployment of technologies like AR/VR, high-speed RLAN, and AI-driven applications, promoting innovation and economic growth while ensuring seamless digital transformation across industries.

To encourage research, experimentation and innovation, we propose the establishment of a regulatory sandbox. This framework should reserve specific bands such as parts of 6425-7125 MHz and 14.8-15.35 GHz exclusively for Regulatory sandbox experiments, including launch of services in limited areas. It should also introduce spectrum-sharing mechanisms like Licensed Shared Access (LSA) or Dynamic Spectrum Access (DSA) to optimize spectrum utilization and provide temporary and cost-free licenses to participants of the sandbox. Such a framework will provide a controlled environment for innovators to test and refine their technologies, ensuring readiness for commercial deployment.

As part of the Bharat 6G Alliance initiative, it is imperative to focus on research and development in the 7125-8400 MHz spectrum band. This band is pivotal for achieving high-speed, low-latency communication essential for advanced applications such as extended reality (XR), AI-driven services, and real-time IoT solutions. By emphasizing R&D in this range, India can develop technologies that combine physical, digital, and virtual realms, support the creation of smart industries and digital twins, and ensure alignment with international standards and trends. This focus will reinforce India's position as a leader in 6G innovation.

These proposals reflect IAFI's commitment to advancing India's telecommunications landscape. By adopting these measures, the Ministry of Communications can lay the groundwork for a future-ready India, driving economic growth, fostering innovation, and ensuring global competitiveness.

We would be honoured to discuss these proposals in detail and extend our support in their implementation.

Thank you for your attention and consideration.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'Bhatia', is written above a horizontal blue line.

Mr Bharat Bhatia

President

ITU-APT Foundation of India (IAFI)

Vice Chairman for Asia Pacific, Wireless World Research Forum