

USISPF Counter Comments on TRAI Consultation Paper on “Digital Transformation through 5G Ecosystem”

USISPF welcomes the opportunity to submit feedback on the TRAI Consultation Paper on the “Digital Transformation through 5G Ecosystem”. Please see our counter comments below.

Q.16. What are the policy measures required to create awareness and promote use of metaverse, so that the citizens including those residing in rural and remote areas may benefit from the metaverse use cases and services to create new economic activities and increase employment opportunities and thereby promote economic growth of the country?

USISPF Response: Policymakers should focus on the following to promote the growth and use of the metaverse:

- **Awareness and Accessibility:** As the metaverse is at a nascent stage of development, efforts to educate policymakers, industry and consumers on the metaverse is likely to promote adoption. Campaigns to demonstrate positive use cases, benefits and protections against potential harms could be effective ways to raise awareness. Moreover, metaverse products and virtual worlds should account for linguistic, cultural, and socio-economic diversity in India, and be accessible to those with disabilities, to the extent possible.
- **Integration with existing systems:** Integration of metaverse in existing digital and physical ecosystems can play a crucial role in ensuring service delivery to the last-mile. Policymakers and implementing entities/agencies should work with industry stakeholders and developers to determine how best to integrate these technologies into existing IT systems. For instance, metaverse may be used in several sectors, including training and tourism.
- **Skilling for the metaverse:** With the growth of the metaverse, new job profiles such as metaverse architects, virtual event planners, AR/VR Software Engineers will emerge and create opportunities for large-scale employment. Innovation in the metaverse must be accompanied by upskilling of the workforce to meaningfully participate in the growth of the industry. In addition to skilling initiatives, educational curriculum must be revised to meet the needs of emerging technologies such as AR,VR,MR and Artificial Intelligence. Public-private partnerships may be leveraged to curate innovation-focused curriculums and provide students hands-on experience and practical learning to improve their employability and industry readiness. For example, through internships and skill-development programmes.
- **Improving digital infrastructure:** Continued efforts to enhanced digital connectivity and roll out 5G will play a critical role in promoting adoption of the metaverse. In rural areas, where individuals may not have the financial wherewithal to seek access to the digital infrastructure and hardware required to access the metaverse, setting up of digital infrastructure in the form of community centres may be helpful. Setting up community centres equipped with high-speed internet, computers with adequate specifications and metaverse supporting hardware such as AR/VR headsets can help bridge the digital divide. These centers can serve as hubs for digital literacy training, metaverse awareness programs, and skill development workshops.

- Other factors to consider:
 - Improving the affordability of hardware in India will enable the Indian ecosystem to reap the benefits of the metaverse economy and underlying futuristic technologies.
 - Increased adoption and promotion of XR technologies.

Q.17. Whether there is a need to develop a regulatory framework for the responsible development and use of Metaverse? If yes, kindly suggest how this framework will address the following issues:

- i. **How can users control their personal information and identity in the metaverse?**
- ii. **How can users protect themselves from cyberattacks, harassment and manipulation in the metaverse?**
- iii. **How can users trust the content and services they access in the metaverse?**
- iv. **How can data privacy and security be ensured in the metaverse, especially when users may have multiple digital identities and avatars across different platforms and jurisdictions?**

USISPF Response: The existing Indian legislative and regulatory framework adequately addresses issues in connection with the metaverse or relating to the development and use of the metaverse. There is no requirement to develop a separate regulatory framework to specifically govern the responsible development and use of metaverse. Most countries are not looking to introduce a metaverse-specific legal-framework.

The indicative list below demonstrates the adequacy of existing laws, regulations, standards, and guidelines in India that govern the development and use of metaverse.

- Devices: Several laws and regulatory frameworks in India, including telecommunication laws, certificatory frameworks such as the Mandatory Testing and Certification of Telecom Equipment (MTCET) regime, Electronics and Information Technology Goods (Requirements for Compulsory Registration) Order, 2021, impose mandatory licenses, certification and testing requirements for various devices and equipment (for example, AR/VR headsets) that may be used to access and use the metaverse. Such frameworks dictate specifications and prescribe technical configuration standards for the development of various emerging technologies used to access metaverse.
- Data protection: India's new digital personal data protection regime (i.e., the Digital Personal Data Protection Act, 2023 (**DPDP Act**)) includes various mechanisms to provide users with autonomy over their personal data. As such, users will now have greater control over their personal data, including the right to access, correct and erase personal data. This would enable users in the metaverse to assert control over how their personal information and various identities are featured in the metaverse. For instance, certain key principles outlined in the new law will apply to the metaverse as well. These include: (i) lawfulness, fairness and transparency; (ii) accountability; and (iii) limitations on purposes of collection, processing, and storage.

Considerable international guidance and standards on the use of user data are also in place. These serve to govern the activities of operators through the adoption of responsible and protective practices across the data collection and processing chain within the metaverse, to reinforce user safety and individual privacy. For instance, the Metaverse Standards Forum has

a dedicated working group on Privacy, Cybersecurity and Identity which develops standards and technical frameworks across jurisdictions and metaverse use cases.

- Payments: Several regulations, directions, schemes and notifications implemented by the financial sector regulators, including the Reserve Bank of India (**RBI**) offer adequate recourse to individuals in relation to any digital payments made by them. These would continue to apply to any payments made to avail services or make purchases within the metaverse using regulated payment methods.
- User Safety and trust: Various acts that may jeopardise user safety are regulated under criminal laws. For instance, the Indian Penal Code, 1860 (**IPC**) penalises the distribution and circulation of obscene material, defamatory content or content that causes disharmony or feelings of enmity or hatred or ill-will between specific groups of members. This serves to strengthen metaverse users' trust in the content they access within metaverse. The IPC further penalises theft, dishonest and fraudulent concealment and destruction of property which would equally apply to online activities. Various laws on content moderation also serve to protect users in the metaverse, as further described in our response to Question 21. Additionally, the Indian Computer Emergency Response Team (**CERT- In**) has also been set up to prevent, forecast and coordinate responses to a variety of cyber incidents which may affect user safety online.

With respect to children's safety, the (Indian) Protection of Children from Sexual Offences (**POCSO**) Act, 2012 prescribes punishment for the use of a child in pornographic material, thereby ensuring that the content accessible in the metaverse is not obscene. Information technology laws also specifically prohibit the handling of any sexually explicit electronic material relating to children. Similarly, the DPDP Act imposes certain restrictions on entities that process children's data such as prohibiting them from undertaking any processing that is likely to have a detrimental effect on the well-being of a child and tracking, monitoring the behaviour of, or directing targeted advertisements at children. These regulations ensure that the content and services that children may access in the metaverse are strictly regulated. Recommendations issued by international agencies are also relevant and can act as voluntary guidance for operating entities. For instance, the United Nations Children's Fund has listed various recommendations in its rapid analysis report titled '*The Metaverse, Extended Reality and Children*'.

The (Indian) Consumer Protection Act, 2019 (**CPA**) governs the marketing, sale and purchase of goods and services in India in order to safeguard the interest of consumers. A specialized central authority created under the CPA is empowered to regulate illegal conduct and consumer harm including certain unfair trade practices such as making false representations about the standard, quality, characteristics, uses or benefits of services, giving warranties/guarantees that are misleading etc. Such provisions under law would ensure users in the metaverse are protected against any deficient digital services and any technical issues with digital assets.

Existing information technology and cybersecurity laws read with data protection laws in India also govern a multitude of cyber incidents including identity theft, data breaches etc., which would empower users in the metaverse to seek redressal and shield themselves against cyber-attacks or threats to their identity.

Moreover, the Government is currently formulating the Digital India Act, which seeks to replace the Information Technology Act, 2000. It is proposed that this law will outline a regulatory framework to enable and safeguard the development of emerging technologies and address the consequent risks. This legislation is envisaged as a principles based legislation, which will encourage innovation while ensuring safety and security. We will be submitting detailed feedback once the draft legislation is opened up for public consultation.

As the metaverse develops and technology evolves, ongoing multi-stakeholder consultations between policymakers, industry, academia, consumers and civil society will be helpful to evaluate any risks or challenges on a case to case basis. This may take the form of consultations, which are already extensively carried out by various regulators in India to seek public opinion on upcoming regulatory issues. Multi-stakeholder committees and task forces may also be set up, with wide representation.

Q.18. Whether there is a need to establish experimental campuses where startups, innovators, and researchers can collaborate and develop or demonstrate technological capabilities, innovative use cases, and operational models for Metaverse? How can the present CoEs be strengthened for this purpose? Justify your response with rationale and suitable best practices, if any.

USISPF Response: The metaverse creates an independent market for new technology products and services, while also serving to enhance and digitally transform existing markets. The creation of new products and services requires a supportive environment for research, experimentation, innovation, value creation and constant development. Given the potential complexities of new technologies, ecosystems such as regulatory sandboxes are ideal to allow metaverse developers to offer products to limited numbers of consumers in a more controlled environment or to engage in experimental governance programs.

Regulatory sandboxes allow policymakers to assess potential risks and benefits of a new technology while allowing industry participants the flexibility to reiterate as required. Experimental ecosystems also enable start-ups and small businesses to test products and gain an early advantage in the market. Jurisdictions globally are looking to regulatory sandboxes to support metaverse innovation. We recommend that more such initiatives be encouraged and introduced in India to enable active industry participation in the growth of this industry.

Centres of Excellence (**CoEs**) bring together the public and private sector to drive co-creation, problem-solving, nurturing innovation and disseminating best practices. Accordingly, they are well positioned to facilitate these ecosystems in India. While some public-private partnerships have been announced towards the creation of CoEs for metaverse in India, policymakers may strengthen CoEs for the metaverse by promoting their creation and increasing investments in such initiatives. Regulators such as the Securities and Exchange Board of India have developed an overarching framework and guidelines for how their regulatory sandboxes should function. A similar approach may be adopted to streamline and strengthen the priorities, operations and functioning of CoEs. CoEs can also be strengthened by enabling ongoing platforms for long-term dialogue and cooperation with industry stakeholders, to share knowledge and ensure a shared understanding of these technologies as they are developed. The introduction of accelerator programs within CoEs can also enable support for industry participants to build partnerships and access resources within the metaverse market.

Q.19. How can India play a leading role in metaverse standardization work being done by ITU? What mechanism should be evolved in India for making effective and significant contribution in Metaverse standardisation? Kindly provide elaborate justifications in support of your response.

USISPF Response: The metaverse will reach its full potential only if built on a foundation of common technical standards and protocols empowering both businesses and people to seamlessly navigate and travel between multiple destinations and experiences.

Given that emerging technologies such as the metaverse are at a nascent of development, global industry-wide cooperation on interoperable standards will be critical to build the metaverse. Initiatives to formulate such standards will bring together companies and organizations that have a shared interest to develop, define, and evolve open standards that will drive a truly interoperable metaverse.

Indian stakeholders, including developers, experts, companies, start-ups, academia should look to actively participate and contribute to the global standard setting process.

Moreover, policymakers in India can consider various measures to support, contribute and lead efforts towards the evolution of the global standard setting process, including: (i) supporting international, multi-stakeholder efforts to develop baseline technical standards on an evolving basis; and (ii) aligning domestic requirements with globally agreed standards.

Q.20(i). What should be the appropriate governance mechanism for the metaverse for balancing innovation, competition, diversity, and public interest? Kindly give your response with reasons along with global best practices.

USISPF Response: As highlighted in the response to Question 19 above, there is no separate need for a regulatory framework to govern the development and use the metaverse as the metaverse does not exist in a regulatory vacuum. The current legislative framework goes a long way in effectively governing the industry and adequately addresses issues arising out of or in connection with the metaverse.

The government may consider policy mechanisms and incentives to drive holistic development and inclusive adoption of the metaverse.

Moreover, as the metaverse develops and technology evolves, it will be important for the Government to engage in a multi-stakeholder consultation process with industry participants, civil society, technology experts, users and other relevant stakeholders to: (i) discuss governance; (ii) enable sharing of information and best practices; (iii) develop standards or guidelines for effective governance; and (iv) promote dialogue, discussion and awareness.

Q.,20(ii). Whether there is a need of a national level mechanism to coordinate development of Metaverse standards and guidelines? Kindly give your response with reasons along with global best practices.

USISPF Response: Policymakers may consider the creation of a multi-stakeholder agency to coordinate and build a consensus on domestic priorities and interests in relation to metaverse standards and guidelines. The endeavour of policy makers should be to support industry-led,

consensus-based multi-stakeholder approaches to the development of technology standards, which promote interoperability. Please refer to our responses to Question 17 and 19 above.

Q.21. Whether there is a need to establish a regulatory framework for content moderation in the metaverse, given the diversity of cultural norms and values, as well as the potential for harmful or illegal content such as hate speech, misinformation, cyberbullying, and child exploitation?

Q.22. If answer to Q.21 is yes, please elaborate on the following:

- i. **What are the current policies and practices for content moderation on Metaverse platforms?**
- ii. **What are the main challenges and gaps in content moderation in the Metaverse?**
- iii. **What are the best practices and examples of effective content moderation in the Metaverse or other similar spaces?**
- iv. **What are the key principles and values that should guide content moderation in the Metaverse?**
- v. **How can stakeholders collaborate and coordinate on content moderation in the Metaverse?**

USISPF Response: There is no requirement for the development of a regulatory framework to specifically govern content moderation in the metaverse as existing laws on content moderation, will apply to content in the metaverse as well. Please see below an overview of some of these laws below.

- **Information Technology and Intermediary Laws:** The (Indian) Information Technology Act, 2000 read with the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021 (**Intermediary Rules**) prescribe content related due-diligence requirements for intermediaries and require them to inform the user to not host, display, upload, modify, publish, transmit, store, update or share a variety of information that may be harmful including information that belongs to another person, is obscene, pornographic, paedophilic, invasive of another's privacy, is insulting or offensive, is harmful to child, deceives or misleads the reader, threatens national security, contains any harmful code or virus, or is otherwise violative of any laws in force. These rules can be effectively relied upon to govern content in the Metaverse.

As highlighted above, the Government plans to replace the existing IT Act, 2000 with the Digital India Act. The proposed legislation places a considerable emphasis on content moderation. It looks to introduce regulation to protect users of digital spaces, including measures to prevent cyber-bullying, misinformation, and regulate content targeting children.

- **Criminal Laws:** The IPC prescribes penalties for, *inter alia* the distribution, public exhibition or circulation of 'obscene' material and the participation in a business in the course of which one knows/has knowledge to believe that obscene material may be conveyed. These provisions are likely to cover a range of content and user behaviour that may be harmful in the Metaverse. The IPC also prescribes penalties for defamation and harm to reputation. As mentioned above, interests of women and children in relation to content on the metaverse are also protected through the POCSO and the Indecent Representation of Women (Prohibition) Act, 1986. Separately, the Constitution of India provides individuals with the fundamental

right to privacy and the right against discrimination, while tort law provides sufficient legal recourse to individuals in instances where their personal information or proprietary information is misused or create ‘obscene’ material. Information technology laws also prescribe criminal penalties for the publishing or transmission of any sexually explicit content, particularly those relating to children.

Therefore, restrictions under existing laws allow for considerable content moderation in connection with any content displayed or transmitted in the metaverse or services availed in the metaverse.

In addition to legislation, there exist various self-regulatory codes and guidelines that also serve to regulate content and ensure user safety. For example, Advertising Standards Council of India (ASCI) is an industry organization, which has issued a voluntary Code for Self-Regulation (ASCI Code) to advertisers that acts as a model of conduct in connection with advertisements. The Guidelines for Prevention of Misleading Advertisements and Endorsements for Misleading Advertisements, 2022 (Misleading Ads Guidelines) also contain conditions for a valid advertisement and advertisements targeted at specific sets of individuals such as children and is applicable to all advertisements regardless of form, format or medium. Any advertising content in the metaverse would fall within the purview of these codes.

The Intermediary Rules contemplates a three-tier regulatory framework for grievance redressal (including grievances related to content in the metaverse), primarily comprising self-regulatory bodies. A Code of Ethics under these rules also indicates guidelines in relation to restricting certain content in the case of children and classifying content for various age-grounds based on its nature. Separately, most metaverse platforms are likely to implement internal community guidelines as well as robust top-down content moderation systems to keep a close watch on the content hosted and transmitted by these platforms.

Further, in order to assess the application of these existing laws to the metaverse and analyse new risks that may arise in relation to content moderation, a multi-stakeholder approach to assess the need for regulation or intervention may be adopted, as described further in our response to Question 17 and 20 above.

Q.23. Please suggest the modifications required in the existing legal framework with regard to:

- i. Establishing mechanisms for identifying and registering IPRs in the metaverse.**
- ii. Creating a harmonized and balanced approach for protecting and enforcing IPRs in the metaverse, taking into account the interests of both creators and users of virtual goods and services.**
- iii. Ensuring interoperability and compatibility of IPRs across different virtual environments. Kindly give your response with reasons along with global best practices.**

USISPF Response: The existing legal framework in India for intellectual property rights (IPR) applies to the metaverse as well.

The Indian Copyright Act, 1957 penalises the act of knowingly infringing or abetting infringement of copyright or any other right granted under the Copyright Act. Similarly, under the Trademarks

Act, 1999, the registered proprietor of the trademark is entitled to certain exclusive rights in relation to the use of the trademark for the goods and services it was registered for. Further, the Patents Act, 1970 grants an exclusive right to a patentee to prevent third parties from using the patented product or process without any authorisation. These protections would equally extend to the IPR involved in activities within the metaverse or for the development of metaverse. We have briefly addressed the adequacy of these laws below. However, while existing the IPR framework applies to the metaverse, enforcement of IPRs in the metaverse may require additional resources, capacity-building and training of personnel.

Moreover, instruments such as international multilateral treaties may be critical in ensuring the enforcement of a cohesive global agreement on IPR protection in the metaverse. As various international organisations open dialogues to consider emerging IPR related issues in the metaverse, India should participate in global conversations and agreements around protection and enforcement of IPR in the metaverse. This will enable adoption of global best practices and ensure that domestic needs are addressed.

Q.24. Please comment on any other related issue in promotion of the development, deployment and adoption of 5G use cases, 5G enabled IoT use cases and Metaverse use cases in India. Please support your answer with suitable examples and best practices in India and abroad in this regard.

USISPF Response: The 6 GHz band is much wider than the 2.4 GHz and 5 GHz bands and supports low latency, high throughput, security services and better speeds. These features are critical for the metaverse which involve multiple users and congested networks. Wider channels also enable a better user experience and longer battery life for AR/VR head mounted displays. However, use of the 6 GHz band is currently limited, as it is a licensed band in India.

Delicensing the 6GHz band will enable domestic developers to compete with their counterparts in other jurisdictions and will ensure that India remains competitive in the metaverse market. Service provision in unlicensed bands is likely to spur further innovation by small businesses and start-ups. Policymakers should consider delicensing these bands as it would have varied benefits including mobility, cost effectiveness, and seamless compatibility with smart devices and will unlock untapped economic value in the Indian market.