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Title: A.13 justification of draft new Technical Report ITU-T YSTR.Acc-Tools “Tools for accessible interactions in IoT-enabled immersive environments and virtual worlds for smart sustainable cities and communities”, Q8/20 meeting (Geneva, 12-21 May 2026)

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Abstract: This document contains an A.13 justification of draft Technical Report on ITU-T YSTR.Acc-Tools “Tools for accessible interactions in IoT-enabled immersive environments and virtual worlds for smart sustainable cities and communities”, output of Q8/20 meeting on Geneva, 12-21 May 2026.

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Annex 1

A.13 justification for proposed draft new ITU-T Technical report on YSTR.Acc-Tools “Tools for accessible interactions in IoT-enabled immersive environments and virtual worlds for smart cities and communities”

Question:	Q8/20	Proposed new ITU-T Technical report	Geneva, 12-21 May 2026
Reference and title:	YSTR.Acc-Tools “Tools for accessible interactions in IoT-enabled immersive environments and virtual worlds for smart sustainable cities and communities”		
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Editor(s):	Pilar Orero, Universitat Autònoma de Barcelona, Spain, pilar.orero@uab.cat Yong Jick Lee, Korea Center for Accessible ICT, Korea (Republic of), ylee@caict.re.kr	Approval process:	Agreement
Purpose and scope This draft Technical Report outlines key input and output modalities – ranging from hand, face and eye tracking to bio-signals and haptic feedback. Understanding these technologies and their associated terminologies are essential to building XR systems that enhance accessibility, inclusivity and user engagement within virtual environments.			
Summary: The draft Technical Report introduces an interaction framework for accessible virtual environments in the citiverse, describing key interaction components that enable inclusive user experiences. It maps out key technologies, from hand tracking and haptics to brain-computer interfaces, and their relevance for designing user-centric, accessible environments. It explains how users perceive, navigate, and interact with virtual environments through mechanisms such as proprioception, object manipulation, communication, consent management, environmental customization, contextual guidance, and session persistence. The Technical Report emphasizes that these interaction elements must be designed with accessibility, usability, and interoperability in mind, allowing users with diverse abilities to participate effectively. It also highlights the importance of user-centric design, assistive technology compatibility, and adherence to international standards (e.g., ISO, W3C, WCAG) to ensure reliable, secure, and inclusive interactions. Overall, the Technical Report provides a structured model for designing accessible human–system interactions in AI-powered virtual worlds.			
Relations to ITU-T Recommendations or other documents (approved or under development): ITU-T Y.4204, ITU-T FSTR.FR-AcIn-VW			
Liaisons with other study groups or with other standards bodies: ITU-T Q1/21, IRG-AVA, JCA-AHF, JCA-MV, ISO/IEC JTC1 SC35, SC6, ASTAP EG AU			
Supporting members that are committing to contributing actively to the work item: UAB, Korea (Rep. of), China Unicom			