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| **Abstract:** | In line with WTSA Resolution 1, this report provides updates about the SG12 lead study group activities. |

In the reporting period, SG12 held one study group meeting, and one Working Party plenary as follows:

– SG12 meeting: Geneva, 14-23 January 2025
Attended by 162 participants from 54 countries
Executive summary: <https://www.itu.int/en/ITU-T/studygroups/2025-2028/12/Pages/2501-summary.aspx>

– WP1/12 “*Terminals and multimedia subjective assessment*”: E-meeting, 25 March 2025
Attended by 13 participants from 5 countries
Executive summary: <https://www.itu.int/en/ITU-T/studygroups/2025-2028/12/Pages/2503-summary.aspx>

## Lead study group on quality of service and quality of experience

The SG12 work programme was updated with the addition of three new work items: one new project related to telecommunication service quality regulation and two draft new Recommendations on video quality assessment. The status of work items identified as stale was also reviewed, resulting in the discontinuation of one stale work item.

In its role as lead study group on QoS and QoE, SG12 liaised ITU-internally with

– ITU-T SG15 – on the impact of backhauling on quality indicators,

– ITU-T SG21 – on acoustic performance of microphones and video performance assessment in vehicles,

– SCV and ITU-R WP1A and 5D – on vocabulary matters,

and externally with VQEG.

SG12 also updated its liaison representatives and informed the relevant ITU-T Study Groups and JCAs.

ITU-T Study Groups are encouraged to continue close collaboration with SG12 on any ongoing or future work related to QoS, QoE and performance. They are also invited to adopt ITU-T P.10/G.100 as the primary reference for terminology related to performance, QoS, and QoE, and to ensure alignment of definitions across related work. Study Groups are further encouraged to inform SG12 of any terms currently not included in ITU-T P.10/G.100, to support its continued development and ensure comprehensive and consistent terminology across the ITU-T.

## Lead study group on performance and quality assessment of speech and multimedia communication systems, including vehicle communication systems

SG12 approved revised Recommendations ITU-T P.501 “*Test signals for use in telephony and other speech-based applications*” and ITU-T P.570 “*Artificial noise fields under laboratory conditions*” related to speech quality assessment.

Work progressed on speech quality assessment for:

– **vehicle communication systems:** draft new Recommendation ITU-T P.ASR “*Performance requirements for automatic speech recognition (ASR) in vehicles*” and revision of Recommendations in the ITU-T P.1100 series on hands-free communications in vehicles

– **hands-free terminals:** revision of ITU-T P.340 “*Transmission characteristics and speech quality parameters of hands-free terminals*”

SG12 highlights the instruction in WTSA-24 Resolution 104 “*Promoting and strengthening standardization activities for vehicular communications*” which mandates SG12 to “…foster standardization activities of QoS and QoE in relation to vehicular communications, such as V2X and ITS, including vehicular communications to support automated driving…”. ITU-T Study Groups are therefore encouraged to engage with SG12 at an early stage on any new or emerging work items related to quality assessment of speech and multimedia communication systems, particularly those relevant to vehicle communication systems.

## Lead study group on video quality assessment of communications, applications and system components

In the reporting period, SG12 adopted new Recommendation P.1211 “*Derivation procedure of contribution values for quality degradation of adaptive audiovisual streaming services*”, one new Supplement “*Subjective quality evaluation of audiovisual communication in videotelephony services*” and two new Technical Reports PSTR-GCMVTQS-A1 “*Alternative computational model used as a quality monitor to assess videotelephony services based on machine learning*” and PSTR-GCMVTQS-A12 “*Alternative parametric computational model used as a quality monitor to assess videotelephony services*” on videotelephony.

New work was also initiated on objective quality assessment for panoramic video (P.PV-OQAM) and AI-enhanced video content (P.OQAI).

Ongoing activities continue to advance work items related to quality assessment of video communications and applications mainly related to video streaming quality (P.1204.1, P.1204.2, P.NATS-ph3, P.NATS-Codec-Ext), quality assessment of cloud gaming services (P.BBQCG) and quality modelling for XR services (PSTR-OQMXR).

ITU-T Study Groups are also encouraged to engage with SG12 at an early stage on any potential new work items related to quality assessment of video communications and applications, including emerging areas such as immersive media quality assessment.

SG12’s longstanding collaboration with the Video Quality Expert Group (VQEG) continues to yield results, as seen in the collaborative development of draft new Recommendations P.IXC on immersive media quality and J.noref on video quality measurement for digital cable TV. This cooperation is strengthened through joint sessions of the Intersector Rapporteur Group on Audiovisual Quality Assessment (IRG-AVQA), convened alongside VQEG, with the latest session held in May 2025.

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