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| **Date: 15 June 2012** | |  |  | | |  | |
| **Source: VQEG** | |  | | | | |
| **Title: VQEG 3DTV work related to ITU-T SG9 activities** | | | | |  | |
| **LIAISON STATEMENT** | | | | | | |
| **For action to:** | |  | | | | |
| **For comment to:** | |  | | | | |
| **For information to: ITU-T SG 9** | |  | | | | |
| **Approval: VQEG, Rennes meeting, 11-15 June 2012** | |  | | | | |
| **Deadline: None.** | |  | | | | |
| **Contact:** | Arthur Webster  NTIA/ITS  USA | | | Tel: +1 303 497 3567  Fax: +1 303 497 5969  Email: webster@its.bldrdoc.gov | | |
| **Contact:** | Name: Kjell Brunnström  Acreo AB  Sweden | | | Tel: +46-8-632 77 32  Fax: +46-8-632 77 10  Email: kjell.brunnstrom@acreo.se | | |
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VQEG would like to thank ITU-T SG9 for sending us an update on their progress related to their work items related to 3D video quality assessment.

VQEG would like to inform ITU-T SG9 on the following on-going 3DTV work, which is related to your on-going work items (P.3D-sam, J.3D-disp-req, J.3D-fatigue).

The VQEG 3DTV group is working on 3 projects:

* Investigate the influence of viewing environment, test set-up and display equipment on subjective quality:
  + A unique set of 3D test sequences (COSPA dataset) will be used by different research labs
  + This set of video sequences will not contain depth effect impairments and use a reduced set of degradations (spatial and coding degradation)
  + Each test lab will study variables related to viewing environment/display equipment, and report experimental results for comparison with other labs’ results.
* Methodologies for subjective quality assessment of stereoscopic 3D video:
  + This work will use a large set of 3D test sequences (NAMADS1), including impairments that will affect several aspects of 3D quality such as visual quality, depth rendering (depth quality), visual comfort
  + The first step will be to conduct a large-scale experiment using the pair-comparison methodology, as we are confident that subjects can provide easily a judgment of overall preference.
  + The second step will use the results of the pair-comparison testing as a groundtruth database to investigate which more time-efficient subjective testing methodology can be used to predict the results of the pair-comparison test.
* Objective video quality metrics for stereoscopic 3D:
  + We are starting an evaluation work of objective video quality metrics for measuring 3D visual quality. 3D quality of experience is related to several perceptual dimensions such as visual quality, depth rendering (depth quality, depth quantity), and visual comfort. This first phase of evaluation will focus on the visual quality dimension and evaluate full-reference media-layer metrics (use of decoded pixel information) to predict/monitor this visual quality at the head-end. We will conduct this work in parallel with the work on subjective testing methodology.