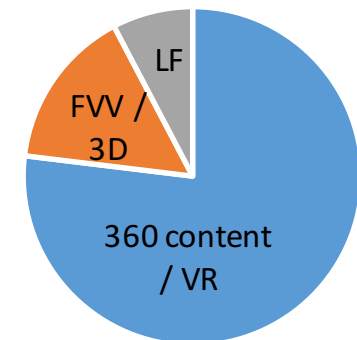


Immersive Media Group

- **Mission:** Quality assessment of immersive media, including virtual reality, augmented reality, plenoptic, stereoscopic 3DTV, multiview...
- **Goals:** Baseline quality assessment of today's systems
 - Using repurposed traditional content for virtual reality
 - **New content** captured specifically for virtual reality,
 - **Subjective test methods, presentation requirements, QoE guidelines**
 - Virtual reality gaming
- **Technologies:**
 - **Light field** processing also called plenoptic
 - Systems **with and without feedback** in response to the viewer's
 - **Multiview** technologies, including full parallax
 - Displays ranging from small devices to theater screens
- Email reflector: img@vqeg.org

Contributions in the last meetings



Main contributors:

Université de Nantes (France), Wuhan University (China), Intel (US), TU Ilmenau (Germany), RISE Acreo (Sweden), Universidad Politécnica de Madrid (Spain), Nokia Bell Labs (Spain), Ghent University (Belgium), etc.

Quality assessment for 360° content

- Points of interest: <https://docs.google.com/document/d/1xLxVeXYCegRHfPMWyilo0ELvR00pUsHGdLE6lWYhJOM/edit?usp=sharing>
 - **1. Content:** Identify and gather images and videos for subjective and objective testing
 - 1.1. Review of available datasets of images and videos.
 - 1.2. Content Characterization
 - 1.3. Possible contributors providing new content.
 - 1.4. Work towards a common dataset.
 - **2. Subjective assessment:** Provide guidelines/recommendations for subjective experiments
 - 2.1. Factors to evaluate and scales to use: Image quality, Immersiveness, discomfort, sickness, ...
 - 2.2. Methodology: presenting the content, duration of stimuli, rating, duration of the sessions, ...
 - 2.3. Testing environment settings.
 - 2.4. Equipment: HMDs, browsers/normal displays, mobile, Tracking devices, ...
 - **3. Objective assessment:** Identify useful metrics and provide guidelines to use them
 - 3.1. Possible existing metrics to use.
 - 3.2. Guidelines to apply them: Projections, ground truth, weighting according to head/eye tracking, ...
 - **4. Use cases:** Identify use cases to facilitate the design of tests
 - 4.1. Distortions to take into account: coding artifacts, adaptive streaming, ...

Quality assessment for 360° content

- Expecting contributions on any of those topics, especially:
 - **Datasets:** identify datasets, possibility of sharing content, detailed content characterization, ...
 - **Subjective assessment issues:** methodologies, factors to evaluate, ...
 - **Objective metrics:** possible metrics to use, how to use them, ...
 - **Use cases.**
- For the moment, available here: <https://drive.google.com/drive/folders/0B4K5KVGJNKEpOHd3cUZRRnppSDQ?usp=sharing>
- Discussion of the contributions in future audio calls/meetings.

Quality assessment for 360° content

- For the moment, available here: <https://drive.google.com/drive/folders/0B4K5KVGJNKEpOHd3cUZRRnppSDQ?usp=sharing>
 - Contribution from Pablo Pérez and Jaime Ruiz (Nokia Bell Labs):
 - Proposal for VQEG IMG Work plan: Use cases, subjective metrics & test plan.
 - Contribution from Zhenzhong Chen (Wuhan University) at VQEG Meeting in London
 - Test Plan for Subjective Assessment of VR Video Quality.
 - Google doc with a list of possible 360 image/video datasets (contributions are welcome)
 - 4 dataset for images and 5 for videos.
 - Some annotated datasets with tracking data. No quality scores!
- Future steps:
 - Discuss specific contributions
 - Get content
 - Provide guidelines, Test plan, ... → Joint work?

Immersive Media Group

Agenda @ Madrid Meeting – Tuesday 20/03/2018

- Presentation #18: “Output from ITU-T SG12 Q13 Interim meeting”, Rachel Huangyihong (Huawei)
 - Discuss documents of the baselines for G.QoE-VR (QoE factors related to VR) and G.360-VR (subjective methodologies for 360-degree VR) → Docs available in the Meeting Files
- Presentation #26: “Proposals for IMG work plan”, Pablo Pérez (Nokia Bell Labs)
- Presentation #19: “Quality of Experience for a Virtual Reality simulator”, Kjell Brunnström (RISE Acreo)
- Presentation #2: “Modeling Gaming QoE”, Saman Zadtootaghaj (Deutsche Telekom (T-Labs))
- Presentation #28: “Spherical Structural Similarity Index for Objective Omnidirectional Video Quality Assessment”, Zhenzhong Chen, Grace Zhang (Wuhan University)
- Presentation #30: “Salient360: Visual Attention for 360-degree content”, Jesús Gutiérrez, Patrick Le Callet (Université de Nantes)