

UHD, HDR & NGA

The EBU is promoting a set of best practices for UHD, HDR and NGA to clear the path for new services.

THE CHALLENGE

Sound and picture quality improve continuously, but no organization can upgrade entire facilities every time a new feature becomes available. For broadcasters, the current challenge is to “pick and mix” from the following list of technical options:

UHD	MORE PIXELS
NGA	NEXT GENERATION AUDIO
HDR	MORE LUMINANCE LEVELS
WCG	MORE COLOURS
HFR	MORE FRAMES PER SECOND

HOW THE EBU HELPS

The EBU community provides technical specifications and guidelines, performs tests, and shares practical experience. Some recent work:

EBU Tech 3372

UHDTV service parameters enabling maximum interoperability with CE displays in the European market from 2020. Eurofins has associated the following compliance logo with Tech 3372:



- EBU Tech Report 050** Subjective evaluations of 100 Hz HFR, showing that HFR can significantly improve image quality, but that CE display processing alone can do a lot, too.
- EBU Tech 3320** THE document which specifies when a professional monitor can be called Grade 1/2/3. Version 4.1 includes lessons from the 2018 monitor testing work ([EBU Tech Report 047](#)).
- EBU Tech 3325s1** Supplement on new 10-bit HDR colours, including “**Lush Green**”, “**Blueish Purple**” and “**Luminous Bright Red**”.
- EBU Tech 3392** Audio Definition Model (ADM) metadata profile that enables interoperable NGA content production.
- EBU Tech 3388** The EBU ADM Renderer (EAR) natively interprets ADM metadata (ITU-R BS.2076), as demonstrated by its reference implementation.
- EBU Tech Report 045** Call for a broad adoption of ADM-based NGA throughout the entire production chain, with transparent conversions.

NEW EBU HDR COLOUR BARS



The EBU colour bars will help to measure luminance response and visualize saturation, hue shifts, and near-black performance. It will also have a test for correct Quad-3G-SDI and 2SI installation.

FIND OUT MORE

Contact: dejong@ebu.ch
Visit: tech.ebu.ch/uhdte