

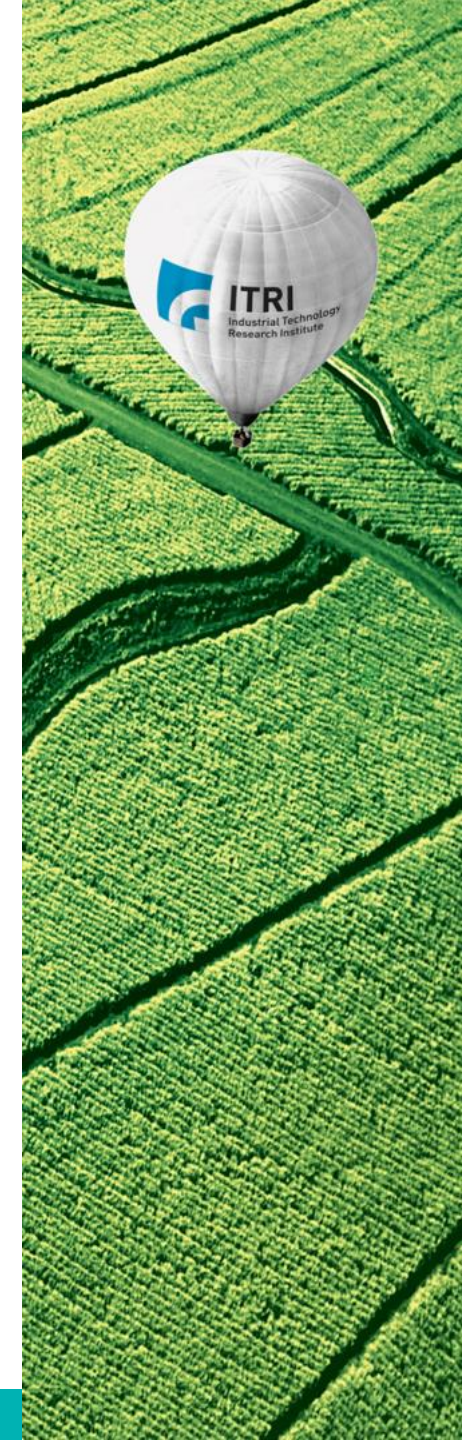
ITRI

Industrial Technology
Research Institute

MPEG 視訊標準資訊分享

王聖博

17th June 2022



Outline

- MPEG news
- Technology Exploration for H.267
- MPEG 3D Graphics Coding

MPEG news

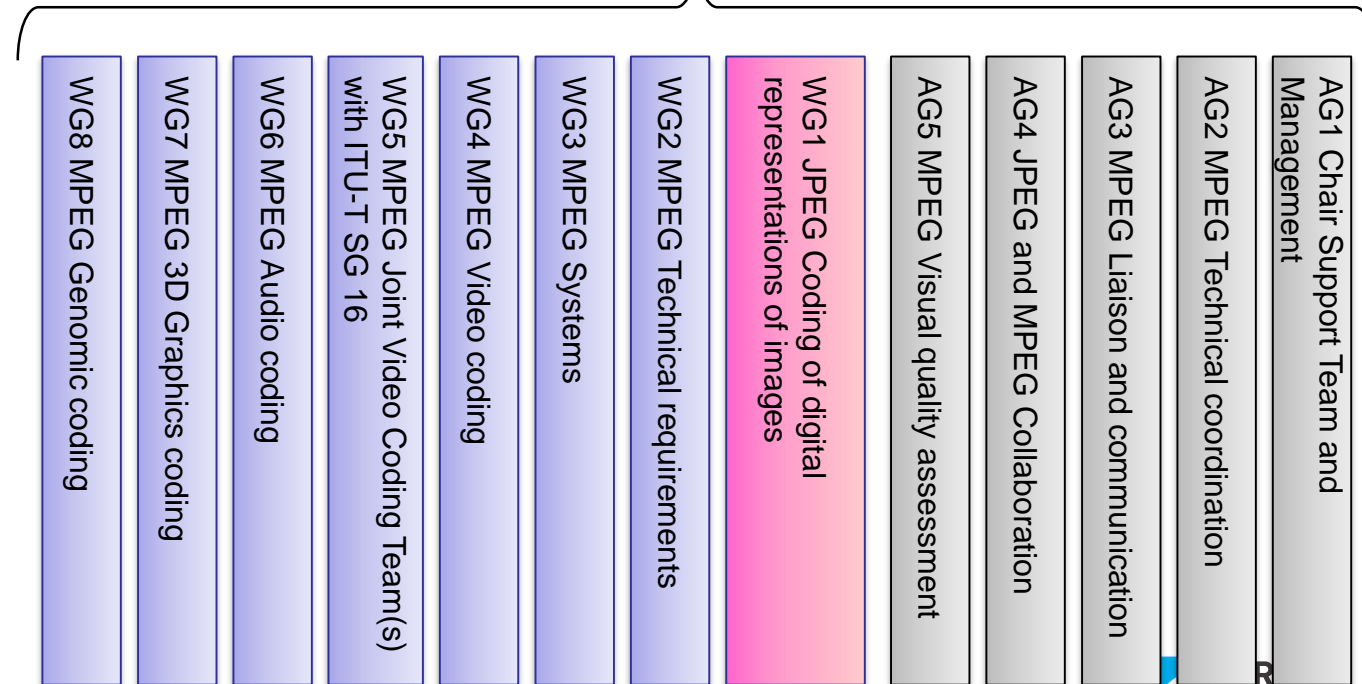
MPEG Meetings

- MPEG(Moving Picture Experts Group)
ISO/IEC Joint Technical Committee 1, Subcommittee 29
- Meetings
 - MPEG#137 2022-02/17-21 (OnLine)
 - MPEG#138 2022-04/25-29 (OnLine)
 - MPEG#139 2022-07/18-22 (OnLine)
 - **MPEG#140 2022-10/24-28 (Antalya / hybrid)**
 - MPEG#141 2023-01/16-20 (OnLine)
 - MPEG#142 2023-04/TBD
 - MPEG#143 2023-07/TBD
 - MPEG#144 2023-10/TBD
- WGs 3, 5, and 8 and AGs 2 and 5 request permission to hold a face-to-face meeting in October 2022



SC29

(Multimedia)

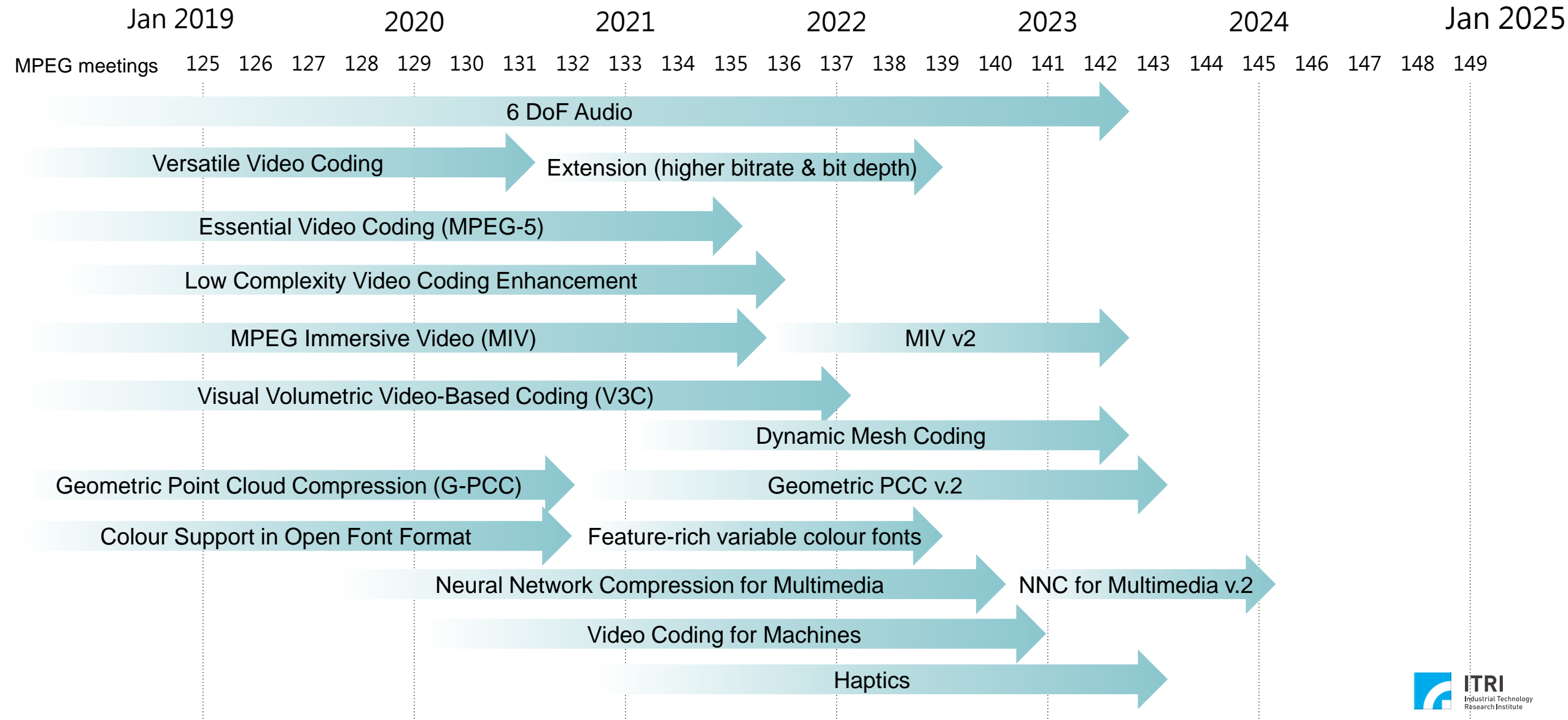


MPEG Systems receives two Emmy® Awards

- In its 73rd annual ceremony on April 26, 2022, the National Academy of Television Arts & Sciences (NATAS) awarded ISO/IEC MPEG Systems Working Group (WG 3) with two Technology & Engineering Emmy® Awards for its MPEG-DASH and Open Font Format standards.



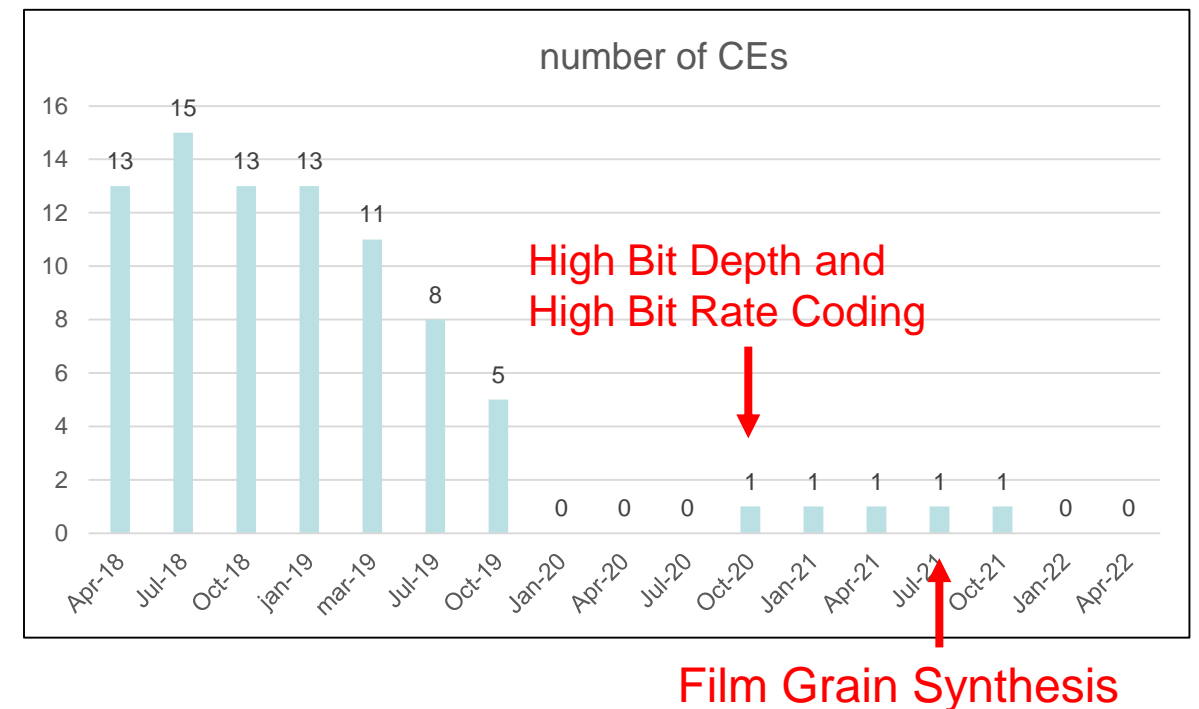
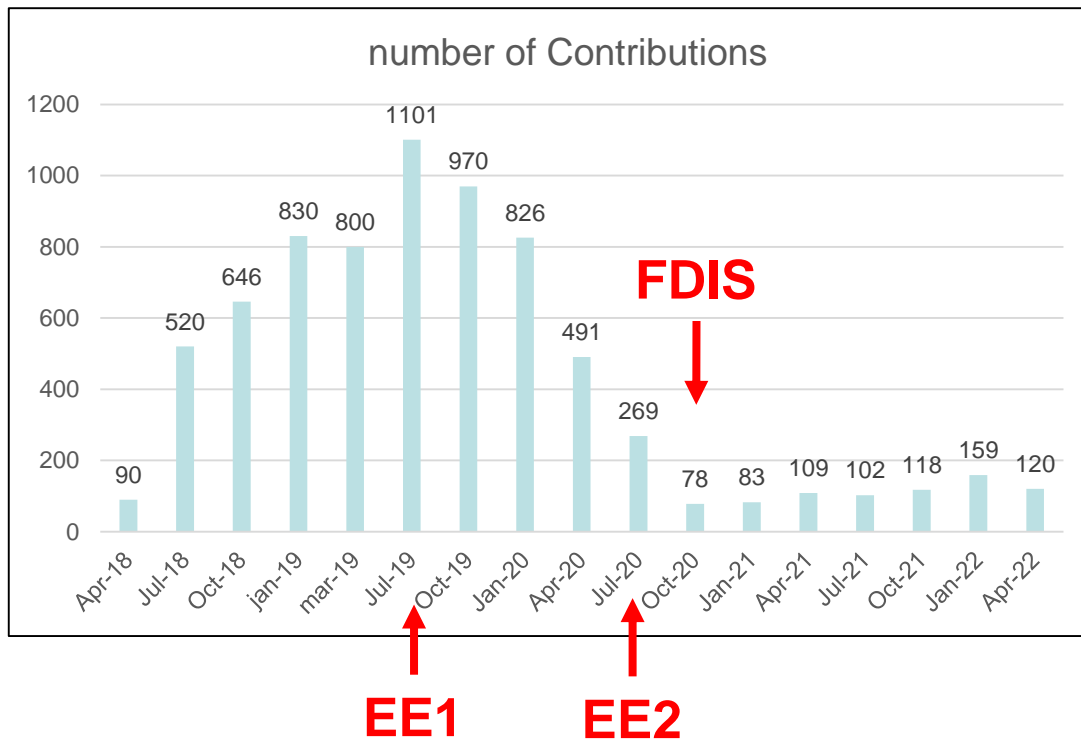
MPEG Roadmap



Technology Exploration for H.267

Number of JVET contributions and CEs

- Number of proposals remains about 100+ after FDIS, most of these proposals are regarding exploration experiments

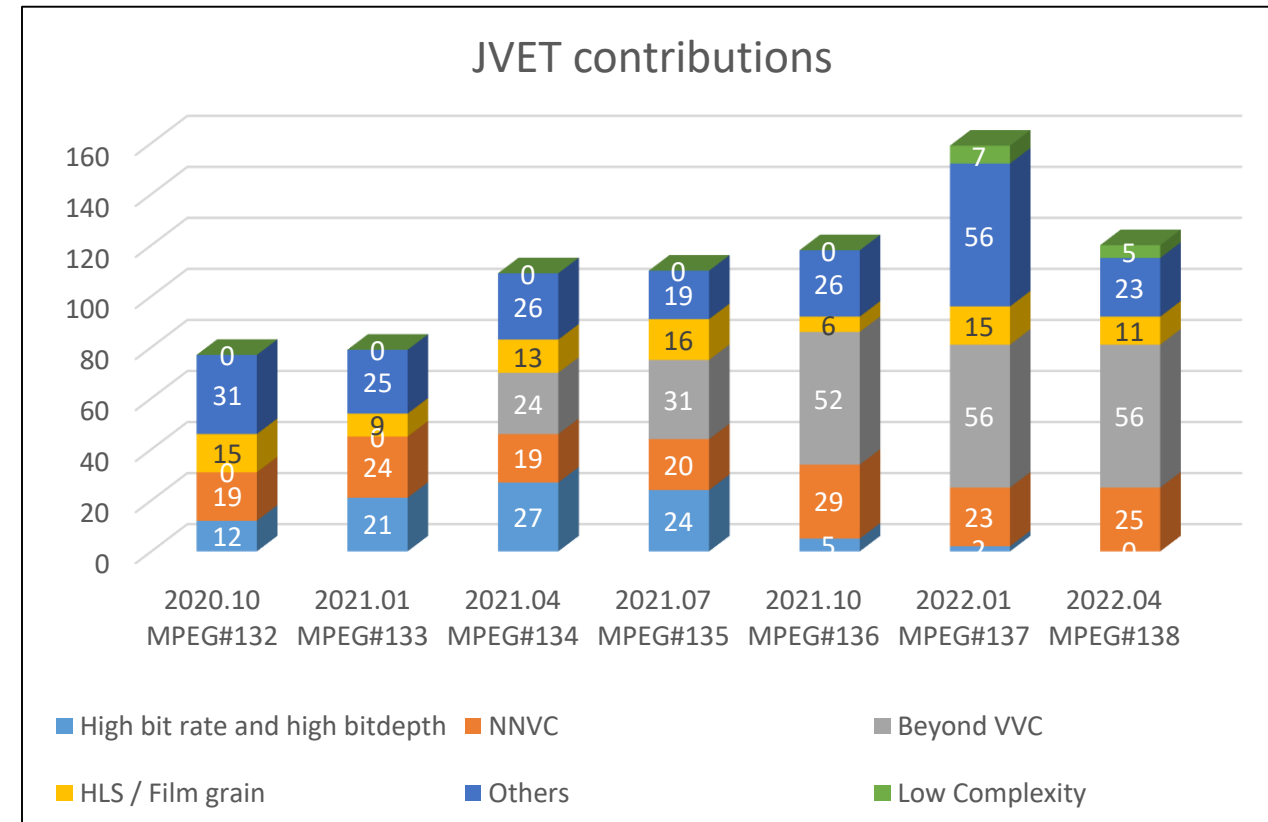


EE1: Exploration Experiments on Neural Network-based Video Coding

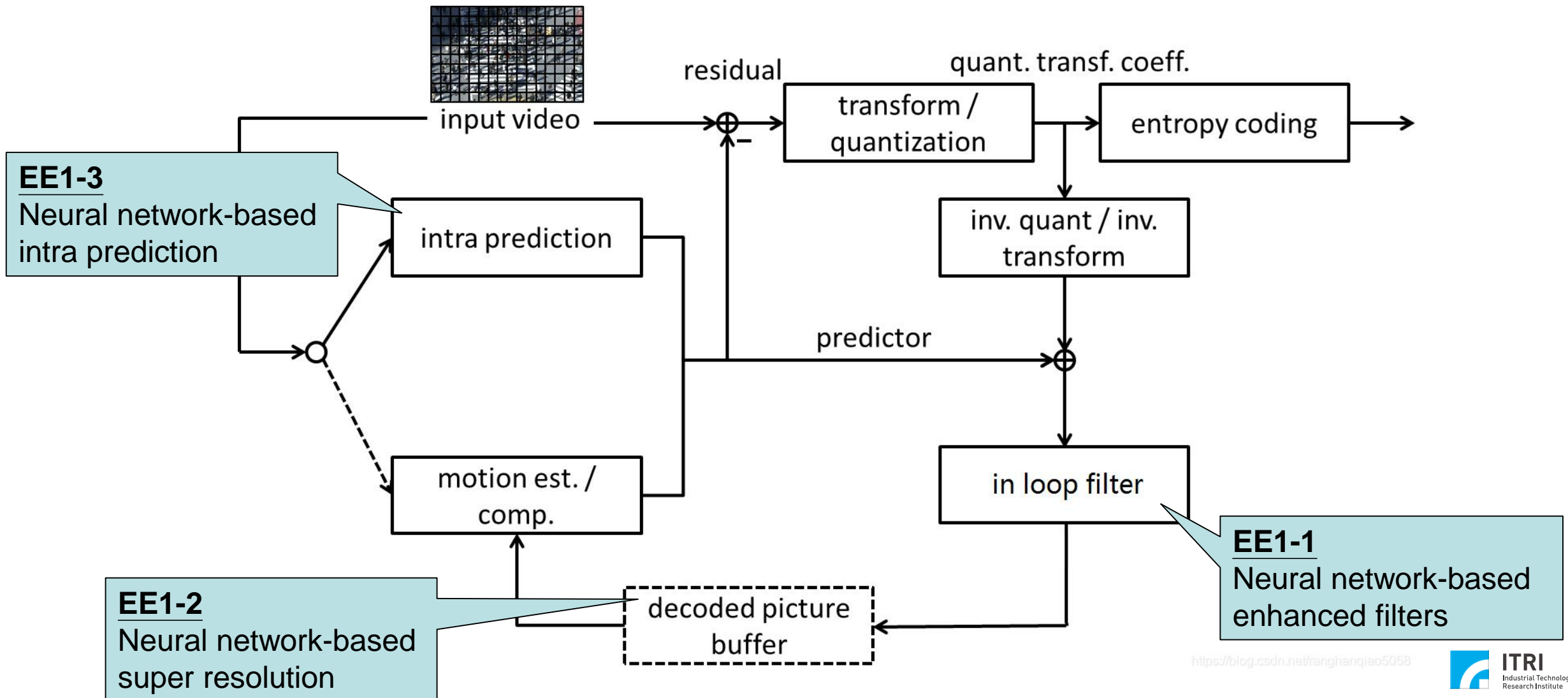
EE2: Exploration Experiment on Enhanced Compression beyond VVC capability

Joint Video Expert Team (JVET)

- 26rd Meeting of JVET (9th Virtual meeting)
 - Date: 20–29 April 2022
 - Approximately 250 participants
 - Roughly 120 contributions
 - 25 Neural network based video coding
 - 56 Enhanced compression beyond VVC capability
 - 11 High level syntax / Film grain
 - 5 Low Latency & Constraint Complexity
 - 23 CTC / SEI / Profile / Deployment / others / encoder optimization

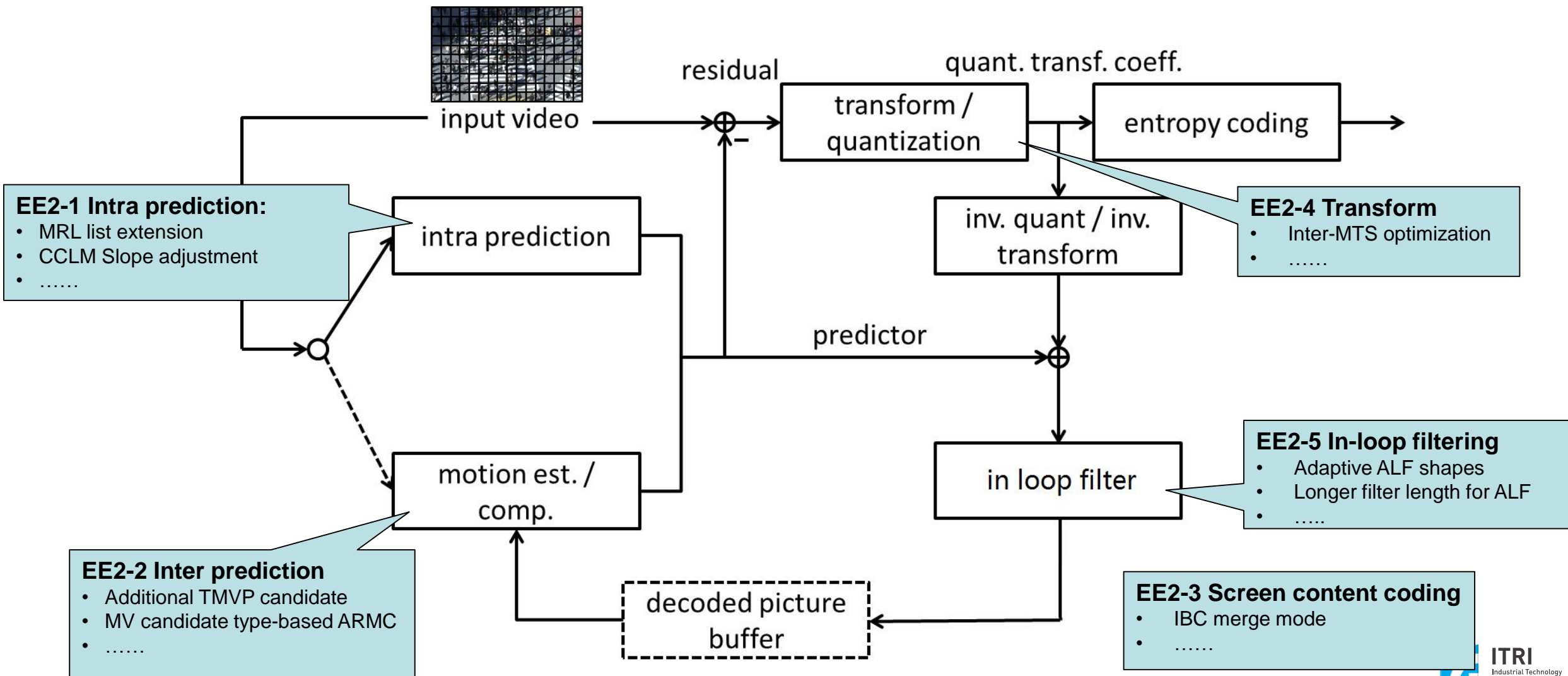


EE1: Exploration Experiments on Neural Network-based Video Coding



<https://blog.csdn.net/ranghuanqiao5058>

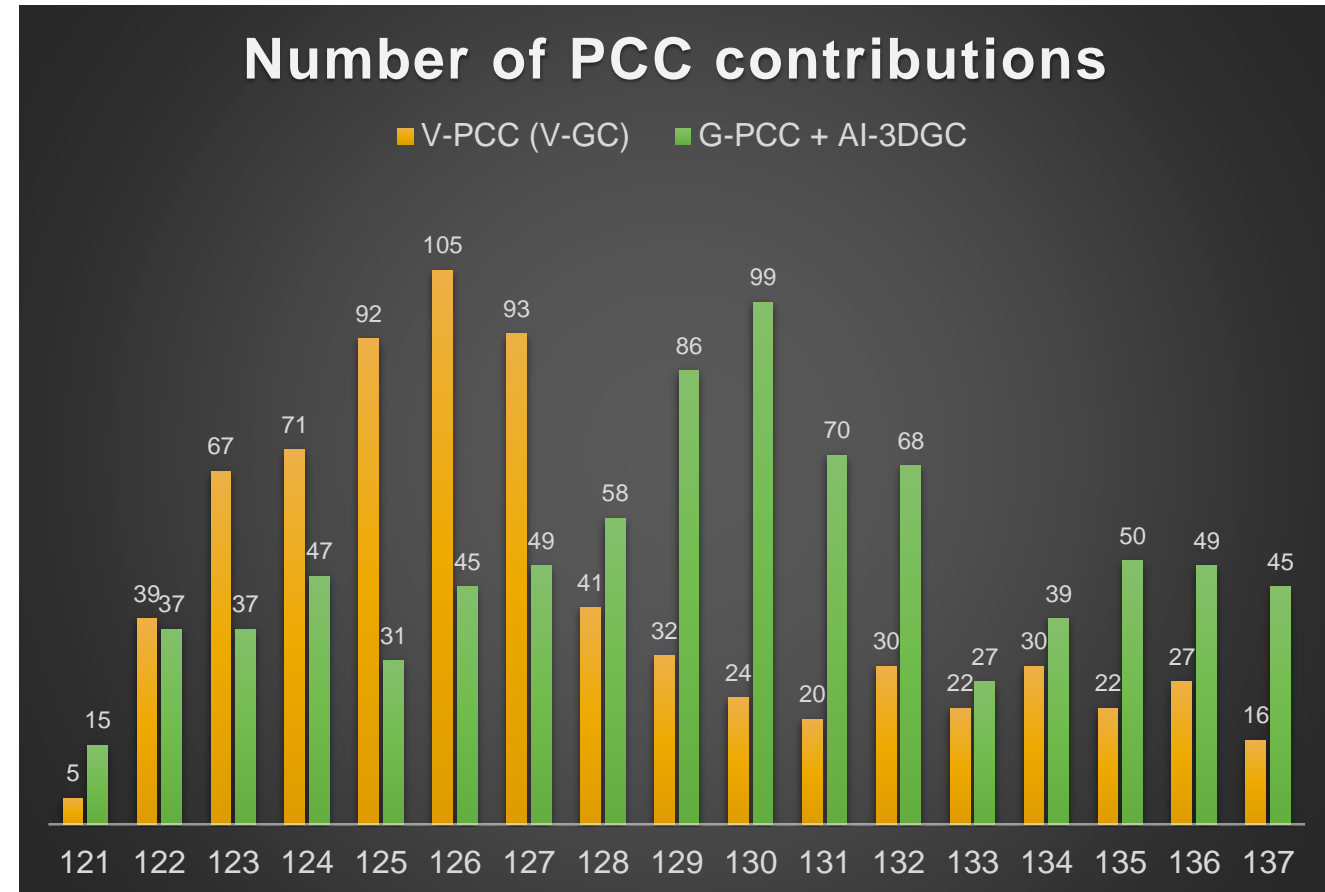
EE2: Exploration Experiment on Enhanced Compression beyond VVC capability



3D GRAPHICS CODING (3DG)

PCC meeting

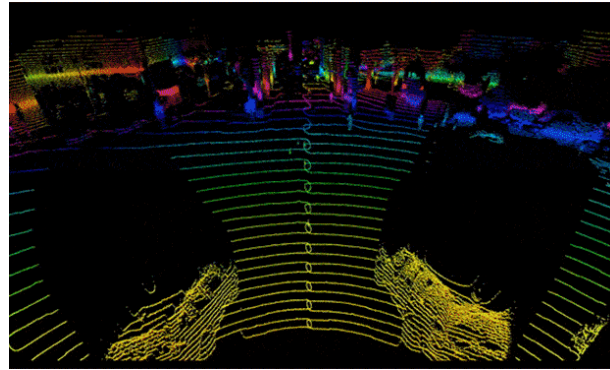
- Point Cloud Compression
 - ISO/IEC 23090-5 and -9
 - ISO/IEC 23090-19, -20, -21, -22
- Approximately 60+ participants



PCC Activities



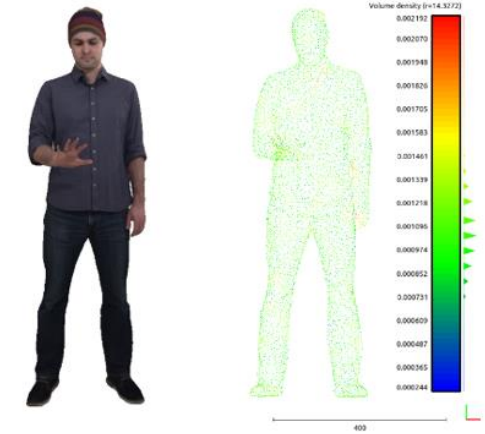
V-PCC



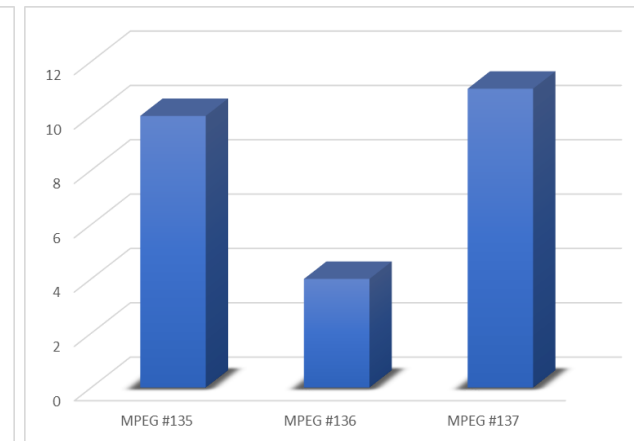
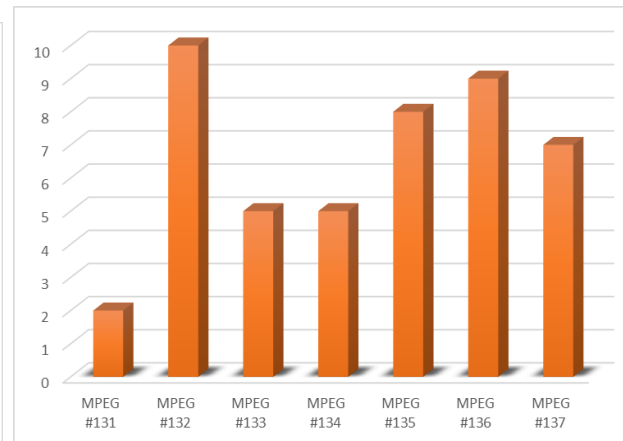
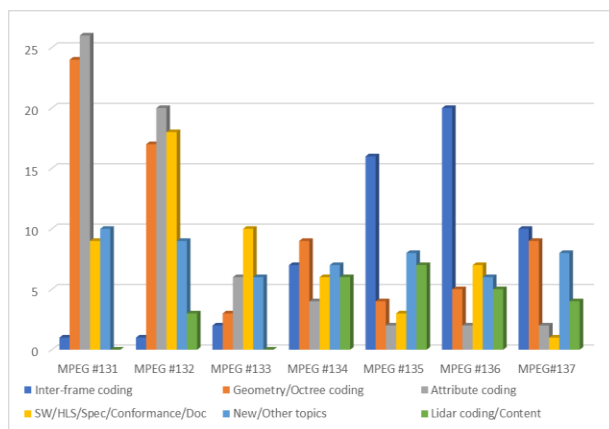
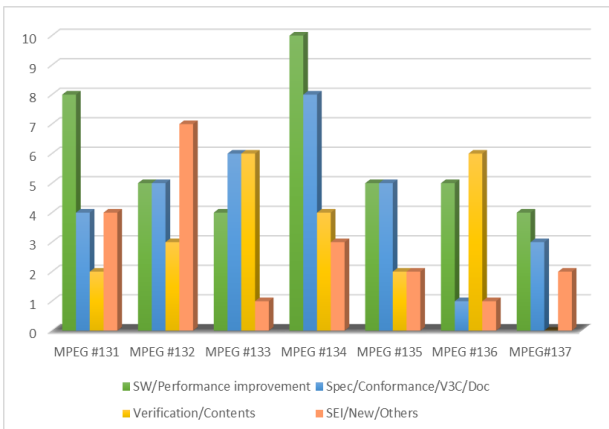
G-PCC



V-Mesh

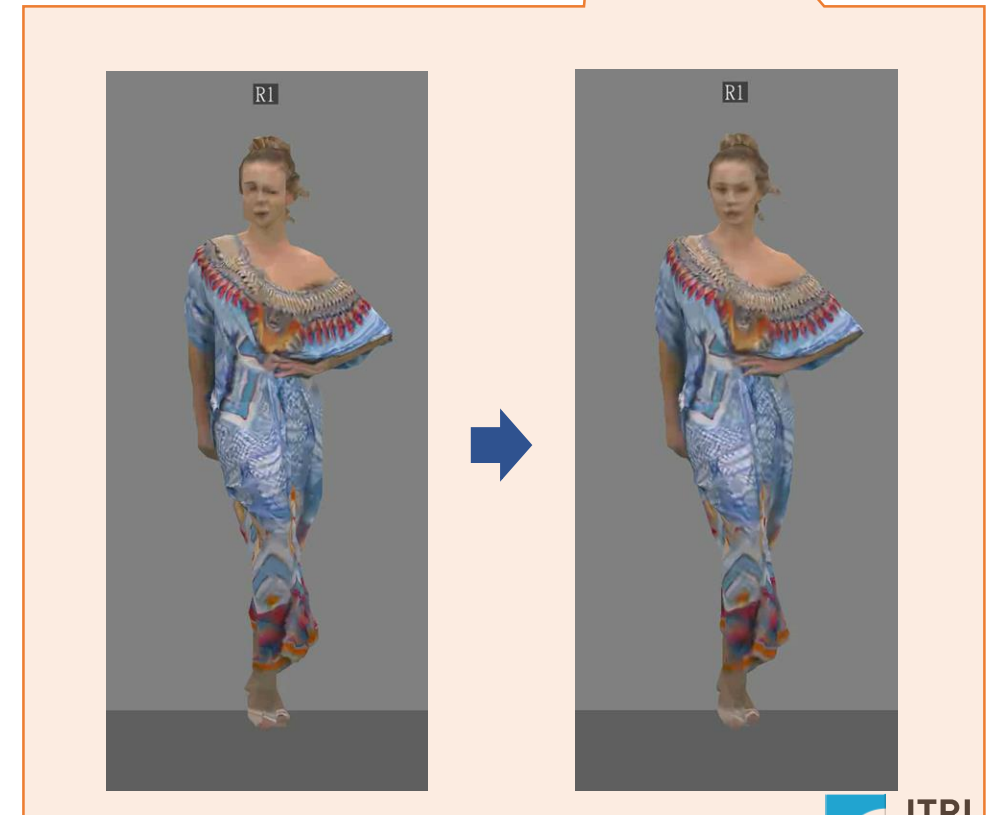
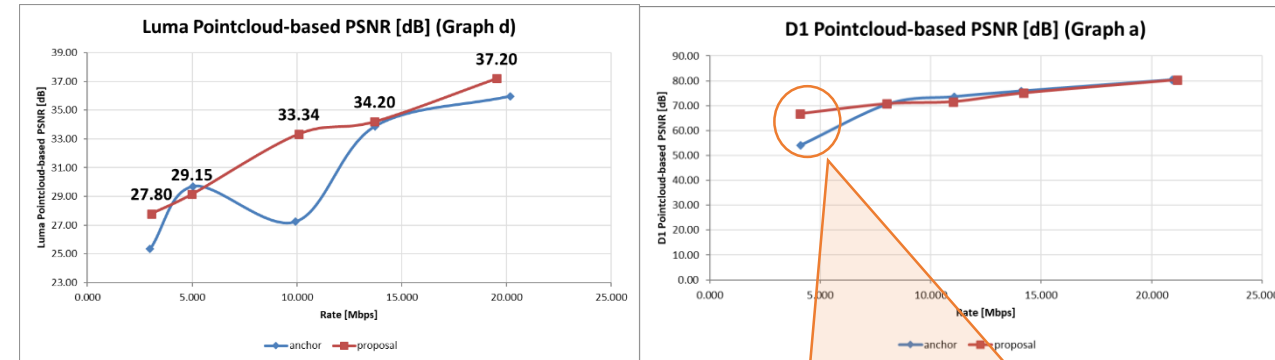


AI-3DGC



Dynamic Mesh Coding

- Anchors
 - MPEG AFX (lossless) and Draco (lossy)
- Release the CfP Corrections
 - Rate points and parameters refining
 - Jointly with AG5 for visual verification
 - Alignment for visual quality and metrics
- About 6 declarations of intention received
- Timeline
 - **2022.04 Review CfP**
 - 2022.07 Establish first test model
 - 2023.04 Approval of CD
 - 2024.01 Approval of DIS
 - 2024.10 Approval of FDIS



Thank You



INNOVATING A BETTER FUTURE!