MP22 Standardisation Roadmap

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For an explanation of the (many) acronyms in this presentation, see

https://mpeg.chiariglione.org/docs/mpeg-strategic-standardisation-roadmap
Why a Standardisation Roadmap?

- MPEG has created, and is still producing, media standards that enable huge markets to flourish
- MPEG works on requirements from industry
- Many industries represented in MPEG, but not all of MPEG’s customers can or need to participate in the process
- MPEG wants to inform its customers about its long-term plans (~ 5 years out)
- ... and collect feedback and requirements from these customers
- ... including in this session
What is in the Roadmap

- Our roadmap is a short document.
- It briefly outlines MPEG’s most important standards
What is in the Roadmap

• Our roadmap is a short document.
• It briefly outlines MPEG’s most important standards
• It then gives an overview of MPEG’s activities
MPEG’s Areas of Activity

- **MPEG-1,2,4,H,I**: Compression of video, audio and 3DG
- **MPEG-7**: Description of video, audio and multimedia for content search
- **MPEG-21**: Multimedia Application Formats (combinations of content formats)
- **MPEG-B,C,D,DASH**: Multimedia Platform Technologies
- **MPEG-E,M**: Systems, video, audio and transport
- **MPEG-U,V**: Device and application interfaces

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What is in the Roadmap

• Our roadmap is a short document.
• It briefly outlines MPEG’s most important standards
• ... it then gives an overview of MPEG’s activities
• ... and then an overview of all MPEG’s standards
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Significant Developments Shape MPEG’s Roadmap

• The relentless increase of IP-distributed and Mobile media
• Higher quality
• More immersion media (UHD, VR, AR)
• The Internet of Media Things & Wearables
• Cloud-based media processing, storage and delivery
coding

internet video coding

CDVA (video analysis)

cloud-based media processing

AR/VR audio extensions

point cloud compression

New & immersive video codec

New codec with lightfield

HDR TR

HDR TR 2

OMAF v2

Omnidirectional media format

CMAF

IoMT

Media orchestration

Augmented media AF

Immersive media AF

Systems and tools
Coding

2017
Jan

2018

2019

2020

2021

2022

Internet Video Coding

Genome Compression

Omnidirectional Media Format

New codec with Lightfield

New & Immersive Video Coding

Network-Distributed Video Coding

Audio Wave Field Coding

AR/VR Audio extensions

Point Cloud Compression

CDVA (Video Analysis)

Audio Wave Field Coding

OMAF v2

Cross-platform Media Distribution

Augmented Media AF

IoMT

Media Orchestration

Systems and Tools

Cross-platform Media Distribution

Omnidirectional Media Format

CDVA (Video Analysis)
Coding

2017

- Internet Video Coding
- HDR TR
- HDR TR 2
- Cross-platform Media Distribution
- IoMT
- Media Orchestration

2018

- Genome Compression
- Network-Distributed Video Coding
- AR/VR Audio extensions
- VR360, on-demand and live (3 DoF)

2019

- CDVA (Video Analysis)

2020

- Point Cloud Compression
- Audio Wave Field Coding

2021

- New & Immersive Video Coding
- Augmented Media AF

2022

- Immersive Media with 6 Degrees of Freedom
- Combining Natural and Synthetic content
- New codec

Immersive Media

- New & Immersive 3D Audio
- New codec

Systems and Tools

Combining Natural and Synthetic content
MPEG-I

New MPEG project: ISO/IEC 23090 – Coded representation of immersive media
5 parts currently planned
1. Architectures
2. Omnidirectional Media AF
3. New & Immersive Video Coding
4. New & Immersive Audio Coding
5. Point Cloud Coding
Further considering:
6. Metadata for Immersive Services and Applications
7. Metrics for Immersive Services and Applications

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