# 23RD TECHNICAL ASSEMBLY

# **PROGRAMME**

### **THURSDAY 8 JUNE**

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09.00	Opening address	Egon Verharen (NPO)
09.10	Welcome speech by the SWR Director General	Peter Boudgoust (SWR)
	Keynote presentation by the SWR CTO	Michael Eberhard (SWR)
09.40	Managing the change as we move to an online future	Jatin Aythora (BBC)
10.10	Introduction to demonstrations	Hans Hoffmann (EBU)
10.30	– Tea, coffee & networking –	

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11.00	The current state of Live IP video production	Markus Berg (IRT)
11.20	LiveIP Production – a joint project of the EBU, IRT and SWR	Dominique Hoffmann (SWR)
11.40	Live IP production at the BBC – present and future	Peter Brightwell (BBC)
12.00	SR's Next Gen and Audio Contribution over IP	Lars Hedh & Hasse Wessman (SR)
12.30	– Networking Lunch –	

## 3. PROUD TO PRESENT CHAIR: PETER MAC AVOCK

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14.00	Project Nebula – RTE's purpose-built private cloud infrastructure	Conrad Gouws (RTE)	
14.10	EBU Flow	Bram Tullemans (EBU)	
14.20	Euroradio visual service CMS	Christophe Pasquier (EBU)	
14.30	Rai Bridge – a workflow for companion screen applications	Gino Alberico (RAI)	
14.40	IABM – Industry Status Report	John Ive (IABM)	
14.50	Culture is the key to technology transformation	Mirette Kangas (YLE)	
15.00	Micro:bit – digital education in action	Gunnar Örn Guðmundsson (RUV)	
15.10	– Tea, coffee & networking –		

## 4. INNOVATION STRATEGIES & HOW TO FEED THE LINEAR MONKEY

15.40	SRF News Lab	Konrad Weber (SRF)
15.50	Panel discussion: Live and linear in the digital age, multi-linear workflows, insights drawn from the VRT/EBU LiveIP project and new roles such as CDOs	Gunnar Örn Guðmundsson (RUV) Mirette Kangas (YLE) Karl Petermichl (ORF) Mick De Valck (VRT) Konrad Weber (SRF)



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5. WHA	AT IS NEXT IN SOUND AND RADIO	CHAIR: PAOLA SUNNA
16.30	Making radio relevant in a connected world	Ben Poor (EBU)
16.50	Object-based audio – hype or real added value?	Michael Weitnauer (IRT)
6. EBU	TECHNOLOGY & INNOVATION AWARD	
17.10	Award ceremony	Simon Fell (EBU) & Egon Verharen (NPO)
17.30	– End of day 1 –	
17.30	Guided tour of SWR studios (1 hour)	
19.00	Evening event in Stuttgart	

## **FRIDAY 9 JUNE**

09.00	Technical Committee Chair progress report and plans for '17–'19 (including endorsement of the '17–'19 Workplan)	Egon Verharen (NPO)
09.30	EBU Technology & Innovation report	Simon Fell (EBU)
10.00	Co-development and InnerSource	Anselm Eickhoff (BR)
10.30	– Tea, coffee & networking –	
8. PSM	I DISTRIBUTION – DTT, 5G, BROADBAND	CHAIR: DARKO RATKAJ
11.00	Broadcast content on mobile devices – Broadcasters' requirements for 3GPP systems	Roland Beutler (SWR)
11.30	Interactive panel discussion: Future PSM content distribution, the role of existing distribution networks and opportunities and threats associated with 5G	Galina Fedorova (RTR) David Hemingway (BBC) Olli Sipilä (YLE) Egon Verharen (NPO) Roland Beutler (SWR)
12.30	– Networking Lunch –	
9. Al, L	IGHTFIELD & NEW REALITIES – THE VALUE 1	ΓΟ PSM CHAIR: HANS HOFFMANN
13.30	Artificial Intelligence and Machine Learning – commercial trends and drivers	Michael Feindt (Blue Yonder)
14.00	Smart Al and ML applications for PSM – challenges and opportunities	Aleksi Rossi (YLE)
14.30	Lightfield, Virtual Reality & Augmented Reality	Howard Lukk (SMPTE)
15.00	Conference wrap-up	Simon Fell (EBU)
16.00	– End of the Technical Assembly –	

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#### **DEMONSTRATIONS**

## 1. RHEIN-MAIN UNIVERSITÄT, MEDIA TECHNOLOGY PROGRAM

- liaHDR (Live Immersive Adaptive HDR): 360° HDR capture and backwards compatibility with non-HDR
- **IMF Tool:** Public-domain software that supports versioning workflows and previews for the Interoperable Master Format (IMF)
- Comparison of HEVC and the Joint Exploration Model (JEM)

### 2. INSTITUT FÜR RUNDFUNKTECHNIK (IRT)

- HbbTV 2.0 with UHD, Second Screen and A/V synchronisation between TV and tablet
- Augmented and Mixed Reality with Microsoft Holo Lens
- Broadcast apps for DAB+ and DVB-T2 HD
- Object-Based Audio with headphone playback

### 3. HOCHSCHULE DER MEDIEN STUTTGART

- Open Film Tools: Optimized colour profiles for improved alignment of multiple cameras
- Tracking Microphone: Non-mechanically adjusted directivity to follow a moving sound source
- UHD/HRD/WCG (Rec.2020) TV-studio infrastructure: A multi-vendor setup

# 4. EUROPEAN BROADCASTING UNION (EBU)

• Peach RecSys: Recommendation engine co-developed by EBU Members