

BIOS

TUESDAY 23 March 2021 (10:00 – 17:00 CET) PLATFORMS

10:00 Household remarks EBU event chair



Before the EBU **Bram Tullema**s worked as senior policy advisor research and development at the Dutch public service broadcast organisation NPO. He developed strategies on a conceptual level and their practical implementations on topics like interactive services, second screen, connected tv's, adaptive streaming, p2p, visual radio, device specific video distribution and strategic policy work related to network neutrality and open source development. Prior to his activities in the broadcast sector he was director of the Dutch cross media department at the international publishing house IDG Communications, worked as journalist for both ICT business and consumer publications and wrote a book about digital video. Bram studied at the University of Amsterdam and Liverpool in the fields of Philosophy, Television & New Media and Computer Science.

10:05 Welcome notes by Director EBU Technology & Innovation



Antonio Arcidiacono is Director of Technology & Innovation at the European Broadcasting Union. He has extensive experience in conceiving, developing and taking new products and services to market. Since joining the EBU in September 2018, Antonio has launched several initiatives designed to leverage the collective expertise and momentum of the EBU Membership for technology innovation, deliver key building blocks for the digital transformation of public service media, and strengthen collaboration between PSM, European policy initiatives, start-ups and academic institutions. Two of Antonio's most recent initiatives are the 5G Media Action Group (5G-MAG) and EuroVOX. 5G-MAG currently counts 40 members from the industry and aims to ensure future 5G standards are fit for purpose in media production and distribution. EuroVOX is a collaborative project of the EBU and several of its Members that aims to break down language boundaries for users and content. It consists of an open framework upon which services can be built, and a set of tools for media creators, such as speech-to-speech translation. Antonio previously worked

as Director of Innovation and a Member of the Management Committee at Eutelsat; the European Space Agency; Telespazio, and Selenia Spazio

10:10 Introduction by chair of EBU Strategic Programme Platforms



Anssi Komulainen, Chief Innovation Officer, Finnish Broadcasting Company Yle. Anssi has over 15 years of experience from innovation, strategy, media production and creative management. As the founder of Yle inhouse innovation startup Yle Beta he is constantly on a quest for something new. His job is to test the possibilities of emerging technologies and to find out what they can offer to public service media in the future. Previously Anssi has also worked as a media development specialist in South East-Asia.

SESSION 1: Platform Trends – Market Perspective

10:15 - Introduction by the moderator - Anssi Komulainen (YLE)

10:20 Connected TV Gateways - UK market dynamics and the challenge for PSBs



Mathew Horsman is one of the most respected analysts of the media sector with an incisive understanding of how finance, content and rights management interact. He has worked across all areas of the industry, covering digital TV, commercial radio, independent television production, print and new media and was formerly Head of Media Research at Investec Securities. Prior to joining Investec, Mathew was Media Editor of The Independent, following a career in financial journalism spanning 10 years on both sides of the Atlantic. He is a graduate of Harvard and the Sorbonne, and is the author of Sky High: the Inside Story of BskyB

Prior to joining Mediatique, **Luke Boyd** worked for PwC in Northern Ireland, supporting both the research and strategy departments on domestic and international projects. He's also worked at the management consultancy Circus, specialising in purpose and proposition. Luke studied English Literature at the University of Bristol.



10:45 OTT-platforms trends within and outside the EBU Membership



Léa Besson is Senior Media Analyst in EBUS's Media Intelligence team, she focuses on research in the digital area. Holder of a Masters in Management, Major Product Marketing by the Burgundy School of Business, Léa's most recent work experiences include roles as International Media Consultant at Eurodata TV Worldwide, Senior Marketing Analyst at NextRégie, and Media Intelligence Manager at JTI.

11:10

Break

SESSION 2: Towards Findability - Segmentation and Live Recommendations

11:20 Introduction by the moderator

Overview of the Modular Content and Segmentation Group and the impact on Content Findability



Paolo Casagrande, Ph.D in Computer Science, is R&D Area Coordinator at Rai CRITS. He is currently involved in the application of AI to automated metadata extraction and segmentation, and in the vocal assistants' ecosystem. He chairs the EBU Modular Content and Segmentation Group.

11:25 Segmenting linear productions for on demand use and findability

Miles Bernie, Ben Nuttall (BBC)

11:45 Recommendations for Live streams using PEACH and EuroVOX

Discover how we use EuroVox live transcription capabilities together with PEACH recommendation engines to deliver content recommendation on Live streams.



Active since 2012 in the Broadcasting industry, first at RTS, the french-speaking Swiss National Broadcaster as a software developer, **Sébastien Noir** evolved to lead the development of multiple digital products and mobile applications. He then became the Product Manager of the VOD Platform PlaySRG for Switzerland, coordinating development teams and delivering multilingual products for the different linguistic regions in close collaborations with audience measurement experts and UX designers.

Since November 2017, Sébastien Noir joined the European Broadcasting Union to work as Product Owner for PEACH, the Personalisation and Recommendation System developed by Broadcasters for Broadcasters.

He now acts as head of Software Engineering in EBU Technology and Innovation Department, coordinating teams and developments effort of innovative Services like PEACH, EuroVOX, and the EBU News Pilot.

SESSION 3: Connected Cars

12:05 Introduction by the moderator



Ben Poor is Project Manager for Digital Radio at the EBU, having joined Technology and Innovation in 2017. Prior to this, he worked in UK commercial radio in various roles around digital innovation, digital radio user experience and hybrid radio. One of the founding members of RadioDNS, he is now chair of their Technical Group and also a member of the WorldDAB Steering Board.

12:10 Strategic overview and car platform expectations

Roger Lancot (Strategy Analytics)

12:35 Hybrid radio – the broadcaster’s perspective

Hybrid radio receivers have arrived in the US and more are on the way. Broadcaster support of this platform is vital for its success and broadcasters are responding to this in a number of ways, including a more-than-ever-before effort to reach out to and work with auto manufacturers, tier 1 providers and others on auto radio technology. In this session Mr. Layer will provide an overview of how broadcasters are working to embrace hybrid radio technology with a focus on the hybrid radio rollout in the US.



David Layer has been with NAB since 1995 focusing primarily on the radio technology and standards setting area. David’s principal responsibilities include serving as a project manager for technology projects being conducted by PILOT (NAB’s innovation initiative), and as principal administrator of the NAB Radio Technology Committee, a group of technical executives from NAB member companies that advises NAB on technology development and technical regulatory matters.

13:00 – 14:00 – Lunch Break

SESSION 4: Interactive services with HbbTV and DVB-I

14:00 Introduction by the moderator



Christian Klöckner has been with WDR since 1998, he’s currently involved in application of AI for HbbTV based live subtitling and leading the 360 extension of ARD player. Beyond this he is co-chairing the EBU HbbTV & DVB-I group.”

14:05 HbbTV state of the art - State of the development of HbbTV wrt standardisation and practical usage with Germany as an example



Klaus Merkel (IRT) graduated from the Technical University Munich in telecommunications engineering in 1992 and then joined the IRT as scientific engineer. Since 1995 he is engaged in various working groups in the definition and market introduction of open and interoperable platforms for digital interactive television. With various standardisation activities being an important part of this work, he was deeply involved in the launching phase of the HbbTV initiative in 2009. He coordinates IRT’s activities related to HbbTV and is still active in contributing to the further development of the HbbTV standard. Beyond standardisation, many of his activities are related to the practical application of HbbTV in operational market environments. This includes support for both public and commercial broadcasters in all questions related to the practical use of HbbTV, specifically in the context of new service types or new HbbTV features.

14:30 What DVB-I can add to HbbTV

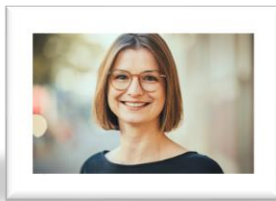
Implementation examples of using HbbTV and DVB-I together



Mika Kanerva has 20 years of experience in Digital Television and special knowledge about DVB broadcasting technologies and creation of added-value services for television. He has unique global experience about digitalization of the TV, development of new TV / OTT services and delivering solutions for HbbTV, Smart TV environment and other video enabled applications over the Internet and broadcast.

14:55 HbbTV on Android TV

Zattoo's implementation of HbbTV on AndroidTV



Franziska Kleemann (Zattoo), product owner at Zattoo, will present how they successfully implemented HbbTV on AndroidTV and with this added an interactive layer to their linear content proposition.

15:20 – 15:35 *Break*

SESSION 5: Platform essentials

15:35 Introduction by the moderator



Hemini Mehta (EBU) Experienced Technical Professional in all things digital (video on demand, live streams, websites, mobiles, TV, STB & games consoles) with an angle on Sustainability. Capable to bridge business with technology. Intrapreneurial/entrepreneurial spirit. Presence in academia, from lecturing, examining to mentoring PhD candidates.

15:40 Programme-specific content protection and multi-DRM workflow considerations



Stefan Pham studied Computer Science at the Technical University of Berlin (TUB). He received his diploma degree (Dipl.-Inf.) with the completion of his thesis "Design and Implementation of a Test and Assessment Suite for CE-HTML" at Fraunhofer Institute for Open Communication Systems (FOKUS) in 2011. Currently, he is employed as Project Manager at the Business Unit Future Applications and Media (FAME) and specializes in the R&D of topics dealing with Internet-delivered media, TV and cross-platform Web apps

16:00 Web Technologies that Need to be on the Agenda of Broadcasters

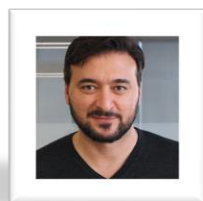
Francois Daoust (W3C)

16:15 Designing an accessible media player at the BBC

Tom Anderson, Nigel Megitt (BBC)

16:40 Sustainability for Infrastructures, Software and Online services: The Beginning of a Long Journey

The presentation will give an overview of the various activities ARTE has launched in relation to more sustainable value chains.



Kemal Görgülü (Arte) studied media economics at the Hochschule Rhein Main and film direction at the Ecole Supérieure d'Audiovisuel (ESAV) in Toulouse. Between 2004 and 2019 he was Partner at FLYING EYE Management Consulting GmbH where he built in numerous projects the bridge between the organizational, process-related and technical requirements of the classic broadcasting world and the infrastructural and editorial realities of an online-based distribution of video content. Since January 2020 Kemal Görgülü has been the new Chief Technology Officer (Directeur des Technologies) of the European cult channel ARTE. He is responsible for all technical facilities for production, management and distribution of the entire ARTE content via all distribution channels in Germany and France. Kemal

Görgülü is fluent in five languages (German, French, English, Spanish, Turkish) and has extensive management experience of interdisciplinary teams in an intercultural context.

17:00

End of day 1

WEDNESDAY 24 MARCH 2021 (10:00 – 16:45 CET) ONLINE DISTRIBUTION

10.00 **Household remarks EBU event chair - Bram Tullema** (EBU)

10:05 **Introduction by chair of EBU Strategic Programme Platforms**



Roland Beutler studied Physics at the University of Stuttgart, Germany, and went on to receive a Ph.D. in Mathematical Physics from the Max-Planck-Institute for Metal Physics, also in Stuttgart. Between 1995 and 1996 he worked at the Università degli Studi di Lecce, Italy, under a Fellowship of the European Commission. In 1993 he joined SWR to work in the frequency planning department and is currently responsible for programme distribution strategy.

Dr Beutler has been participating in EBU technical activities for more than 15 years and has chaired several EBU groups dealing with the future of broadcast distribution systems. He was chair of the several of EBU's Strategic Programmes and Project Teams. Currently he acts as chairman for the Strategic Programme on Distribution. This group coordinates the engagement of European broadcasters in 3GPP, the global standardization organization of mobile technology. Roland Beutler is actively participating in

different 3GPP groups to support the requirements of broadcasters for 4G and 5G developments. He is also a member of the Steering Group of the 5G Media Action Group.

Roland Beutler is also involved in ITU and CEPT work and has been responsible for several of their working groups, both radio and TV related. He participated in WRC-12, WRC-15 and RRC-06 and was deeply involved in the preparation of the latter conference. Moreover, he has published several articles and four books on frequency and network planning for digital terrestrial broadcasting systems, the digital dividend of broadcasting and the evolution of broadcast content distribution.

SESSION 6: Keynote

10:10 **SALTO, how TV and SVOD can reconcile**



Danielle Attias (SALTO) pursued a 15 year career in strategy consulting, both in global firms like Accenture and EY, and a specialised boutique like Greenwich Consulting. She conducted numerous digital transformation projects, mainly in the media industry.

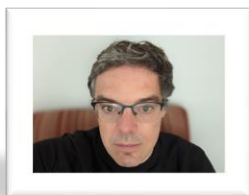
In 2017, she joined France Television SVOD as Deputy Director and was in charge of the développement of the Group's SVOD project. She took part in the negotiations with TF1 and M6 to create SALTO. In 2019, she joined SALTO as Secretary General.

She studied business at the École supérieure de commerce de Paris and holds a PhD in economics.

SESSION 7: PANEL – The State of Play in PSM Online Services

10:45 **Introduction by the moderator - Roland Beutler** (SWR)

10:50 **RTVE Play: rebuilding our video service**



Ignacio Gomez Hernandez (RTVE)

11:00 **ARD distribution strategy**

Overview on ARD's digital distribution and platform strategy



Tanja Hüther is Head of ARD Distribution Board since 2018. The board is dedicated to optimizing the presence of ARD in digital media. This includes collaborations with platforms such as Amazon, Google, Spotify and TuneIn or social media platforms such as Facebook and YouTube. The board is also entrusted with the development of ARD's longer term digital platform and distribution strategies. Tanja Hüther is an expert in digital media and has worked in internet and telecommunications industry for 20 years. Before joining BR, she was deputy head of the business unit 'OTT Video' at Siemens, that offered a B2B OTT Video streaming solution for media and telecommunication companies. Previously, she was responsible for media and internet

partnerships at Telefonica O2 Germany. In her early career she co-founded a start-up for content syndication. Tanja is a passionate observer and designer of digital media transformation.

11:10 RTÉ's OTT strategy



As Director of Operations, Technology and Transformation at Raidió Teilifís Éireann (RTÉ) in Ireland, **Richard Waghorn** is responsible for all production, broadcast and media operations, directing and controlling the delivery of technology, and leading change initiatives across the organisation. Richard manages Saorview, the free to air television platform, and is a Board Director of 2RN, RTÉ's transmission company. Prior to joining RTÉ, Richard was the Chief Technology Officer at the South African Broadcasting Corporation (SABC), and held a number of positions at the BBC, including Controller of Distribution where he developed the BBC's national digital switchover programme.

11:20 NPO Start, public service and more



Marc Poppenk (NPO) studied Applied Physics at the University of Twente, Enschede, The Netherlands. Now, he is working for NPO, the Dutch public service broadcast organisation. As an advisor to NPO's board and manager of NPO's distribution department, Marc is responsible for optimizing the availability and findability of NPO's channels and app on Pay TV operators' platforms. Traditionally the team had its focus on 'classic' distribution (cable, IPTV, satellite, DTT, DAB+ and FM). Today, the team is also involved in liaison with OTT technology providers and OTT service providers. Marc is one of the concept developers of NPO's subscription-based video on demand service and worked on the start of NLziet, the joint OTT service provider of NPO, RTL Netherlands and Talpa Network (the latter formerly known as SBS Nederland).

11:30 Panel discussion

12:05 – 12:15 *Break*

SESSION 8: Why is 5G relevant for Media?

12:15 Introduction by the moderator - Roland Beutler (SWR)

12:20 Unlocking 5G potential for the media industry

The development of 5G offers an opportunity for the media industry to change the way content is created and consumed



Jordi J. Gimenez is Head of Technology at the 5G Media Action Group (5G-MAG). 5G-MAG is a platform for collaboration towards 5G solutions for the media industry in the domain of content production and media distribution. Before, Jordi was Project Manager and Research Engineer at the Institut für Rundfunktechnik (IRT), the research and innovation centre of ARD, ZDF, Deutschlandradio, ORF and SRG/SSR, based in Munich. He has been actively contributing to the 3GPP RAN1 working group on LTE and 5G technologies for TV and radio distribution. Jordi obtained a Ph.D. degree in Telecommunications from the Universitat Politècnica de València (UPV) in Spain.

12:40 5G Media Streaming architecture explained



Thorsten Lohmar graduated from the Technical University of Aachen (1997), where he also received his PhD (2011) in Electrical Engineering. Thorsten joined Ericsson in Germany in 1998 and was working for several years in different Business and Ericsson Research units. He worked on a variety of topics related to mobile communication systems and led research projects specifically in the multimedia technologies area. He is focusing on video delivery (downlink and uplink) and delivery optimizations, including broadcast distribution of media. He is currently working as Expert for Media Delivery.

13:00 – 14:00 *Lunch Break*

SESSION 9: Optimise your Content Delivery Networks

14:00 Introduction by the moderator - Bram Tullema (EBU)

14:05 Low Latency and HESP in multi-CDN

WHERE BROADCAST MEETS BROADBAND

How to achieve ultra low latency streaming and fast channel zapping combined with multi-CDN



Wilfried Dudink is Managing Director, at Leaseweb CDN B.V. Based in Amsterdam, he is responsible for the Content Services, including the Multi CDN and security solutions.. Prior to this he spend 7 years at CenturyLink (Level 3) as Director Content Solutions, where he was responsible for selling services such as Content Delivery Networks (CDNs), Website Acceleration, Media Delivery, in the EMEA region, and he also acted as a product specialist for these services. Before that, he held several sales and channel development management roles at companies including Deutsche Telekom, Telia International Carrier and Limelight Networks, and over the years he gained market and product experience on CDNs and Internet infrastructure. He was also chairman of the Amsterdam Internet Exchange. He is a regular speaker and panellist on Broadcast Technology, CDN's, OTT, and Edge Computing

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Bart Snoeks (THEO Technologies) Working in broadcast media industry for 24 years in combined technical/sales roles and specializing in OTT streaming business since 8 years.



14:25 Integration of Satellite Systems in Content Distribution Networks

Overall system approach allowing CDNs to get the intrinsic benefits of satellite solutions in terms of improvement of user experience, cost reduction and reach extension.



Jean-Pierre Choffray (SES) I'm currently Vice President, Systems Engineering at SES, leading a team responsible for the engineering of innovative satellite systems aligned with SES business targets.

Since joining SES, I've triggered multiple initiatives having led to impactful technological developments.

As a last step of gradual progresses I pushed, I've led the SES-Next initiative, driving major satellite manufacturers to develop software defined satellites with a mission programmed in orbit. These satellites have to use very advanced technologies, reaching imposed aggressive business metrics thanks to industrial processes enabled by the satellite standardisation. Airbus' OneSat, Thales' Space Inspire and Boeing's 702x have been triggered by this initiative.

I've also been the initiator of the development of the SES' Astra2Connect broadband service in Europe, based on a technology initially targeting interactive TV and repurposed to address residential broadband thanks to the very low cost of the associated customer terminal.

14:45 Open caching and other best caching practices for video

Jason Thibeault (SVA)



Eric Klein is Director of Media Distribution at Disney Streaming Services focusing on video content delivery and optimization technology. Eric is also an avid member of the Streaming Video Alliance, acting as Co-Chair of the Open Caching Working Group. Eric graduated summa cum laude from New York University with a bachelor degree in Film Studies.

15:05 – 15:20 - Break

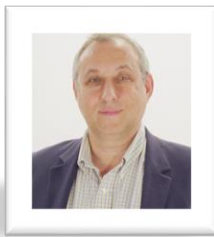
SESSION 10: Pushing the quality boundary

15:20 Introduction by the moderator - **Bram Tullemans** (EBU)

15:25 **Optimised distribution chain for UHD delivery**

I will present the different ways to deliver UHD OTT and analyse the different possible delivery architectures

WHERE BROADCAST MEETS BROADBAND



Thierry Fautier is Vice President of Video Strategy at Harmonic where he defines and drives the execution of innovation and standards for the company's video business. He is also responsible for building strategic partnerships through active participation in industry groups such as the Streaming Video Alliance (co-chair of the VR group), the Ultra HD Forum (co-founder and past president), the VR Industry Forum (co-founder and past board member), the IABM, and the 8K Association. Additionally, Fautier is part of the team honored with the 2020 Technology and Engineering Emmy® Award for its pioneering work in AI optimization for real-time video compression, and is included in TVB Europe's 2021 list of the top 25 people to watch in the media industry.

15:45 DVB-I, the new spec for broadcasters' online services

Overview of DVB-I, how it can deliver TV services at scale and how broadcasters can use it to achieve various attractive user experiences.



Peter Lanigan works in various standards bodies and other industry associations on behalf of TP Vision, the manufacturer of Philips TVs for Europe and other territories. Topics covered include broadcast and IP technologies, smart TV, advanced picture quality, content security, and national and European regulation. He sits on the Board of CI Plus LLP and chairs the DVB CM-I group, which manages the commercial requirements for the new DVB-I standard for linear TV delivery over IP networks.

16:05 Audio video codecs for online distribution

Latest developments in audio and video codecs for streaming, including update on work in DVB



Jason Power is Senior Director, Commercial Partnerships and Standards at Dolby, based at the European headquarters in London. In this role, he works to enable ecosystems for new content experiences, working with partners in content production, service distribution, consumer electronics and standardisation. His current activities focus on enabling the market success of next generation audio and high dynamic range video. Jason is an active contributor to several industry forums including DVB, HbbTV and DTG, and currently chairs the DVB Commercial Module subgroup on Audio Video Content, CM-AVC.

16:25 What was not in the programme and closing notes

Bram Tullemans (EBU)

[16:45 End of BraodThinking 2021](#)