

TECHNOLOGY & INNOVATION

SUMMARY OF WORKPLAN 2013-2014



A control room at SWR - Südwestrundfunk, during an IMPS visit.

Our strategic priorities are based on our mission to be the indispensable partner for our Members, driving innovation and media integration by generating ideas and setting standards. The media landscape is changing radically - the EBU and its Members must also change.

Our long term vision, taking account of likely future media scenarios, can be encapsulated in four short statements:

“Media production as simple as a smartphone”

We are working towards an environment where production functionalities, running entirely in software, can be added to a platform just as easily as we install smartphone apps today.

“Media experiences to become increasingly immersive”

The technologies that will make deeply immersive video and audio experiences possible are in definition today. We will ensure that when the time is right for EBU Members to move to UHDTV and immersive audio, the eco-system is well adapted to their requirements.

“Broadcast and broadband hand-in-hand”

Media distribution will in future use a combination of broadcast technologies and broadband platforms, with hybrid strategies taking advantage of win-win possibilities at the device, service and network levels.

“One brand, one app, for multiple devices and contexts”

Each public service media organization will deliver an integrated experience under one strong brand accessed via an app that adapts to suit the consumption context.

The evolution of our strategic priorities is reflected in some changes to our working groups for 2013/2014.

- The **BeyondHD** Project Group has become a Strategic Programme, also taking over responsibility for the groups that previously reported to the SP on Future TV Formats and Production Systems. The latter SP has been discontinued.
- SP-SMR, on **Spectrum Management and Regulation**, has been created from a merger of the SP on Spectrum Management and the PG on Regulatory and Policy matters.
- The SP on Green Broadcasting is renamed **Sustainable Technology in Broadcasting**.
- The EBU will participate in a **Joint Task Force on Networked Media**, along with SMPTE and the VSF.

TASK FORCE

In April 2013, the creation of a new international **Joint Task Force on Networked Media** was announced. JT-NM is an initiative involving the EBU, the Society of Motion Picture and Television Engineers (SMPTE) and the Video Services Forum (VSF). The EBU Technical Committee will follow the work of JT-NM, providing contributions to ensure the requirements of Public Service Media are taken into account.

Working in an open, participatory environment, JT-NM will define a strategy to develop a packet-based network infrastructure for the professional media industry. This will facilitate new workflow possibilities, increased production efficiency, increase multiscreen programme output and eventually cost reduction.

The Technical Committee and the Technology & Innovation team will keep the EBU community informed about developments in JT-NM as its work progresses.

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STRATEGIC PROGRAMMES 2013-2014

Our annual workplan is developed by the Technical Committee and the staff of the Technology & Innovation Department. The chairs and vice-chairs of our Strategic Programmes (SPs) and Project Groups (PGs) are involved in the drafting of their respective sections and input from the wider membership is gathered via the Technical Liaison Officers.

Here we summarize the Workplan 2013-2014, providing a brief overview of the work to be undertaken by our SPs and PGs in the next 12 to 18 months.

For detailed information on objectives, deliverables and participation levels please see the complete Workplan 2013-2014.

MEDIA FUNDAMENTALS & PRODUCTION TECHNOLOGIES

SP-IMPS INTEGRATED MEDIA PRODUCTION STRATEGIES

IMPS aims to assist Members in the planning and implementation of integrated production facilities, addressing organizational, editorial and technical questions. Deliverables for the next 18 months include continued facilitation of experience-sharing via site visits to EBU Members. Visits to DR (Denmark) and SR (Sweden) are among those scheduled.

In Q4 2013 a follow-up Network & Learn event will be organized with the EUROVISION Academy and a set of best practice guidelines for integration will be developed. For 2014 a roadshow concept will be developed, designed to help Members embarking on tri-media integration.

SP-QC QUALITY CONTROL

Through this programme the EBU is facilitating the move towards robust, automated file-based QC processes. The deliverables of SP-QC will assist Members in planning their technical requirements, systems integration, programme workflow and business plan.

A set of criteria for all QC processes is being finalized so that, in Q3 2013, work can begin on a process map for integration of automated QC devices into production systems. Workflow mapping for file delivery and programme exchange is also planned. Internationally QC-SP is feeding the criteria into FIMS and MPEG activities.

SP-FNS FUTURE NETWORKS & STORAGE SYSTEMS

The work of FNS is handled mainly through a series of Project Groups focused on specific areas. Work on audio and video contribution deals with the implications of increased adoption of IP-based networking technologies. In the audio domain this includes revision of interoperability guidelines and best practices for Audio over IP. For video, plug tests on key VoIP standards will be organized with subsequent recommendations where relevant.

The SLA project will deliver both high level guidelines and technical parameters to help Members in negotiating media-optimized Service Level Agreements. The FSS group will deliver a number of reports to assist with the specification and selection of IT-based storage systems.



SP-MIM MEDIA INFORMATION MANAGEMENT

The objectives of SP-MIM include the provision of metadata-related solutions for EBU Members (with an emphasis on Service Oriented Architectures), development of guidance on emerging technologies in this domain, study of software for metadata management, and the exchange of experiences and problems in metadata and systems integration.

Planned future deliverables, through a series of project groups, include further work on acquisition metadata; updates to EBUCore plus other related schemas, data models and mapping tools; enhancement of the FIMS specification; continued study of tools for automated metadata extraction; and the maintenance of a knowledgebase on metadata and implementation. In the domain of subtitling, focus will move towards supporting the use of EBU-TT for online distribution and live subtitling.

SP-BHD BEYONDHD

Recognizing the growing interest in what are classed as beyond HDTV technologies – UHD TV, higher frame rates, higher dynamic range, extended colour gamut, etc. – the BeyondHD Project Group has become a Strategic Programme, in effect replacing the SP on Future TV Formats & Production Systems.

SP-BHD will investigate and evaluate relevant technologies, with a series of tests planned, leading to a strategic requirements report on UHD TV. SP-BHD also takes over the projects dealing with display-related issues and the assessment of LED lights.

SP-FAR FUTURE AUDIO FORMATS & RADIO PRODUCTION SYSTEMS

Changes in distribution and consumption of media content also have an impact on the way audio technology is handled, with new possibilities – and problems – created. The PLOUD group, that developed the EBU Loudness Recommendation (R 128), continues its work with updates to production guidelines and application of loudness normalization to radio in the pipeline.

The increased use of headphones with portable devices opens up possibilities for more immersive audio experiences, and a new 3D Audio group will deliver a report on these developments in Q4 2013. Other deliverables from projects under SP-FAR will include important updates to BWF, the broadcast wave file format.

MEDIA DELIVERY & SERVICES

SP-CTN COOPERATIVE TERRESTRIAL NETWORKS

SP-CTN aims to identify the most relevant media use cases for EBU Members and where work is required on the distribution

options to enable them. It also seeks to investigate and identify cases where hybrid technologies might enable these use cases, in particular looking at where broadcast receivers could be usefully integrated in broadband devices.

Reports on both of these areas will be delivered, with that on media use cases and related distribution options set for Q4 2013 and a report on opportunities for hybrid terrestrial broadcasting in Q2 2014. The delivery of broadcast content over LTE networks, the focus of a dedicated project group, will be the subject of a report targeted for Q4 2013.

SP-SMR SPECTRUM MANAGEMENT & REGULATION

This is a new SP, arising from the merger of the Spectrum Management programme and the Regulatory & Policy project. Its objectives are primarily related to preparations for WRC-15, defining and presenting messages that support a sustainable DTT platform. Deliverables include analysis and consultation on spectrum issues and related matters, involving regular liaison with European and international forums.

SP-SMR will also oversee its related project groups, with deliverables including frequency planning studies, EBU contributions to interference-related consultations, the study of relevant issues related to PMSE and spectrum use, and preparation of documentation on spectrum sharing between DTT and other services.

SP-BBN BROADBAND NETWORKS

The core activities of SP-BBN concern media delivery over the internet. Deliverables fall into three main areas: MPEG-DASH, broadband content delivery models and Net Neutrality, with the latter being handled by a dedicated project group.

EVENT CALENDAR

tech.ebu.ch/events

NETWORK TECHNOLOGY SEMINAR 2013

26-27 June • Geneva
The Media & IT Rendezvous

LIBRE SOFTWARE MEETING 2013

6-11 July • Brussels
Session on FOSS for media on 10 July

IBC 2013

13-17 September
• Amsterdam
Visit the EBU stand at 10.F20

FORECAST 2013

6-7 November • Geneva
Spectrum management and broadcasting

PRODUCTION TECHNOLOGY SEMINAR 2014

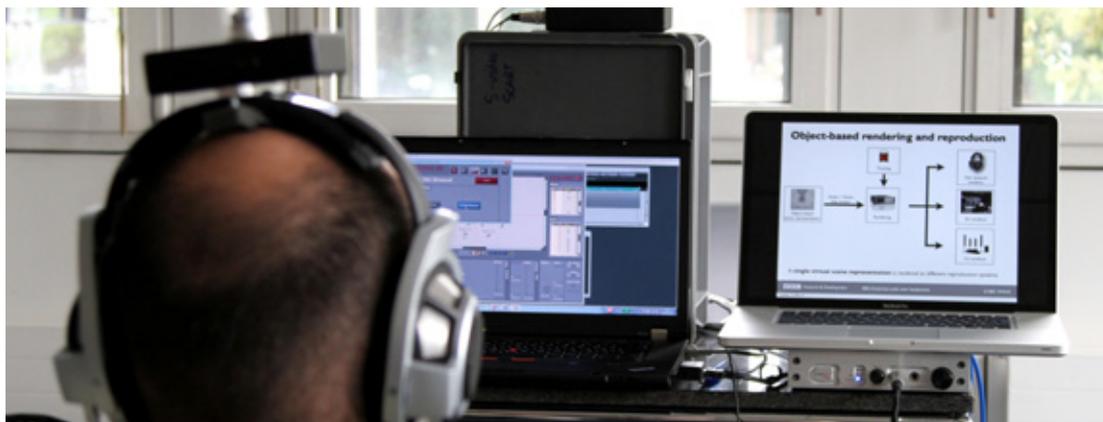
28-30 January • Geneva
The essential annual update on production technologies

DIGITAL RADIO SUMMIT 2014

12 February • Geneva
The centrepiece of EBU Radio Week

BROADTHINKING 2014

26-27 March • Geneva
Where broadcast meets broadband



Immersive audio technologies are the subject of a new 3D Audio group.

JOIN OUR WORK

The active participation of EBU Members is crucial to the delivery of this workplan – it cannot be done without them. Our Strategic Programmes rely on the expert contributions of those who deal with the challenges and problems on a daily basis.

Participation means joining discussions via the workspaces and email lists, attending online and face-to-face meetings, and collaborating on the creation of reports and recommendations.

While Strategic Programmes are open to EBU Members only, our Project Groups can also involve relevant non-members.

To explore the various groups visit the website. To join a group you should first create a website user account and sign into the site – then just click on the **Join This Group** button on the relevant page.

tech.ebu.ch/groups

KEEP IN TOUCH

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An overview of the potential of MPEG-DASH for broadcasters will be prepared, in parallel with engagement with the DASH Industry Forum, to ensure that broadcaster requirements are captured and delivered in the specifications. The investigation of broadband content delivery models is ongoing, including the development of a proof-of-concept to test the potential of a hybrid private/public cloud infrastructure.

SP-TVP TV PLATFORMS & SERVICES

SP-TVP concentrates on the front-end of IP-delivered media, covering areas such as second screen propositions, catch-up services, interactive overlays, etc. One set of deliverables targets application development, in particular investigating the potential of an open source testing layer for TV apps.

The group is also investigating the feasibility of developing a second screen synchronization proof-of-concept, an HTML5-based demo site, and a centralized user authentication system.

SP-HBB HYBRID BROADCAST BROADBAND TELEVISION

Hybrid TV helps Members find synergies between successful online services and mainstream linear broadcasts. SP-HBB is an interdisciplinary coordination group dealing with application level, regulatory and technical issues associated with hybrid TV service launches.

Objectives include the provision of input to the EC Green Paper on converged online media services, plus the coordination of projects aiding interoperability in hybrid TV, for example development of guidelines for the use of coloured remote control buttons for application functions.

SP-DRP DIGITAL RADIO PLATFORMS

SP-DRP works to assist Members in the transition to digital and hybrid radio services. The recent publication of an EBU Recommendation on Digital Radio Distribution, R 138, brought new momentum in this regard and the group will move forward on this basis.

The development of hybrid radio tools and software is a key activity. In addition to the maintenance of already deployed tools based on the RadioDNS specifications, further development will take place. The RadioHack community, overseen by SP-DRP, is a fertile environment for the exchange of knowledge and tools.

INTERDISCIPLINARY PROGRAMME

SP-STiB SUSTAINABLY TECHNOLOGY IN BROADCASTING

STiB was created to help Members understand, measure and mitigate their environmental impacts. This can also help to reduce costs and project a positive image in terms of Corporate Social Responsibility. With the Technical Committee, the group hopes to establish a sustainability facet across all EBU technology projects.

A specific deliverable planned for Q4 2013 is the publication of general guidelines for sustainable production, building on the experiences of participating Members and other key bodies around Europe. The standardization of carbon calculation for productions is a longer term aim that the group will investigate.