

# DVB World 2023 – session reports

For each session:

- Title & host
- Goal
- Link to report
- Next steps

Statistics

127 registrations; 5 no-shows

36 session pitches

27 sessions (with merging and sharing)

Access all session reports, the full agenda, photo gallery and the participant list in the [Unconference Hub](#).

Maritime Room

Classroom

Kitchen

Orangerie

Music Room

Machine Room

Living Room

10:45-11:45

SVTA OPENCASTING  
+  
DVB-MADR  
- OPENCASTING  
Guillaume Bichot

DVB-I Updates, next  
steps, Q&A  
Peter Lugin  
Paul Hagg

Haptics  
Ralf Scharf

DUSAN STATELOV  
DOOSTING SFN  
BY D B ENHANCED  
SATELLITE VIDEO

DVB  
ACADEMY?  
BRING THE NEXT  
GENERATION IN

VIDEO CONTENT SECURITY  
- BEYOND DRM  
- OTT WATERMARKING  
- THREATS APPROACH  
JAN FRIEDRICH

11:45-12:45

DVB-I  
A LONG WAY  
MARKET  
STEFANO

Launch DVB-I Services  
& Products with  
CONFIDENCE!  
Ralf Scharf, DVB-I

Film grain synthesis  
Ralf Scharf  
DVB-I

ARE YOU READY  
TO SERVE  
HELP ME  
PCM RE

(Further...)  
Raising DVB's  
profile - where  
and how  
Emily Debs

BRONKHORSTING HBR  
WITHOUT DUPLICATING COPIES:  
EXEMPLES FROM BROADCAST, SATCOM  
AND SOCIAL MEDIA  
GUTTO HERRAS  
MUSIC ROOM

Closing the gap with  
Amazon Prime  
NATIVE IP  
Yann Berthelette (eulabid)

JOINED UP DVB-  
SPONSORING A SET OF  
LIVE/LINEAR SET  
SERVICES USING  
DVB SPECS  
SON PIERING

12:45-13:45

Lunch

Lunch

13:45-14:

RESILIENT  
SUSTAINABLE  
AND THE GLOBAL  
HUBBING  
MARNOCK

Ben  
Can  
content be more  
SUSTAINABLE?

DVB-I SERVICE  
How do we move from  
to service the streams  
WILLIAM COOPER  
SERVICE NOT RESULTS

DVB-I SPEC SERVICE  
DISCOVERY BY CONTENT  
RAT PATE

Volumeetric Video  
Chance & challenge of DVB  
for next revolution in video  
experience.  
more immersive more interactive  
more social (HUBBING)  
DVB can play an important  
role!

DATA CASTING  
Rich Clucko

O B M  
what Next?

14:45-15:45

DVB SERVICES  
OVER  
REFERENCE TOOLS

JORDI J. GILHEMER  
(SG-MAG)

Make DVB  
access ready!  
- Andreas Tai

TH: MOVING  
TOWARD A  
MARKET REALITY?  
RANGHO PATTEN

DUSAN STATELOV  
TARGETED  
AD INSERTION

Should there be more  
conversations between  
broadcast standards?  
SUSANNA PARRISH

DVB - Home Broadcast  
What For?  
→ In Home DVB-TV system  
needed better  
→ In Hospitality Network  
and distribution of DVB-I service

Coffee Break

16:00-17:00

SPONSORING OPEN  
SOURCE PRODUCTS  
TO ADD SUPPORT  
FOR DVB SPECS  
SON PIERING

BRAND  
LIVE  
TO SUSANNA  
AND DEMOS  
MARKET  
RICHARD  
DVB-I TODAY?  
REMI VOGEL

Reinventing the Wheel:  
DVB World 2024+  
Egbert O'Sullivan

New Codes to market  
quicker (Jana)  
JULIAN VILCHON

17:00-18:00

Closing Circle

Closing Circle

- [SVTA Open Caching](#)
- [DVB-I update, next steps, Q&A](#)
- [All about haptics](#)
- [Boosting SFN networks by enhanced DVB-SIS satellite](#)
- [The DVB Academy?](#)
- [Video content security beyond DRM](#)
- [DVB-I: the long way to market](#)
- [Film grain synthesis](#)
- [Are you being served ? Help me spend DVB-PCM budget // \(Further\) Raising DVB's profile - where and how](#)
- [Broadcasting UHD HDR without duplication channels \(Brazil, Japan, social media\)](#)
- [Closing the gap with an Amazon prime](#)
- [Joined up DVB – sponsoring a set of live/linear OTT services using DVB specs](#)
- [Can 'good enough' content be more sustainable? // Resilience vs sustainability - the global warming challenge](#)
- [DVB-I Service Discovery // DVB-I Super Service Discovery by Country](#)

- [A chance and a challenge of DVB for the new video \(Volumetric video, Social Video, etc.\)](#)
- [Datacasting](#)
- [OBM – what next?](#)
- [DVB Services over Reference Tools](#)
- [Making DVB access-ready // DVB-I and accessibility](#)
- [Targeted Ad Insertion // Targeted Advertising: moving toward a market reality?](#)
- [Should there be more commonalities between broadcast standards](#)
- [DVB Home Broadcast - what for?](#)
- [DVB-I metadata - prepare to go live](#)
- [Sponsoring open-source projects to add support for DVB specs](#)
- [Why not DVB-I today? Leveraging technology to create an ideal world?](#)
- [Getting new codecs to market – quicker](#)
- [Reinventing the wheel: DVB world 2024+](#)

# SVTA Open Caching

Proposed by:

**Guillaume Bichot (Broadpeak)**

Session goal:

SVTA Open Caching API tutorial and discussion on how it could be used in the context of DVB-MABR

[Report](#)

Next steps

Session host will bring a proposal on SVTA open caching to the DVB-NIP and DVB-MABR technical groups.



## DVB-I update, next steps, Q&A

Proposed by:

**Peter Lanigan (TP Vision) and Paul Higgs (Huawei)**

Session goal:

Update attendees on DVB-I status and provide context for later sessions

[Report](#) (and link to slides presented)

Next steps

Participants in the session agreed to consider where they can contribute, how they can use DVB-I, and how they want to shape the future development of DVB-I.

# All about haptics

Proposed by:

**Ralf Schaefer & Patrick Fontaine**  
(InterDigital)

Session goal:

Understand if there is an interest in including haptics in a DVB study mission.

[Report](#)

Next steps

Session host (RS) will check with the chair of the object-based media study mission whether the topic could be taken on board there. An alternative could be the study mission on volumetric video

# Boosting SFN networks by enhanced DVB-SIS satellite

Proposed by:

**Dusan Stelov (Maindata)**

Session goal:

To enhance and promote the DVB-SIS (Single Illumination System) standard internationally

[Report](#)

Next steps

It was noted that the DVB-SIS standard needs fixes, clarifications and implementation guidelines and that it pre-dated the introduction of mandatory Verification & Validation in DVB. Host will explore with Technical Module as to whether V&V could now be launched for DVB-SIS

# The DVB Academy?

Proposed by:

**Elfed Howells (Huawei)**

Session goal:

A discussion on how to bring in the next generation of DVB experts

[Report](#)

Next steps

- Cultural change in DVB. Change the way in which we promote DVB to attract younger, and more diverse, participation;
- Bring the proposals outlined in the report to the PCM



# Video content security beyond DRM

Proposed by:

Jan Frelek (Redge Media)

## Session goal:

Consulting participants to explore if DRM security is enough, if OTT watermarking is relevant, and if these matters are subject to standardization.

[Report](#)

## Next steps

Session host will explore further which aspects are in the DVB domain and therefore desire some specific actions, and which not. If the DVB domain is relevant, certain standardization between the links in the technology chain of OTT watermarking is to be considered.

## DVB-I: the long way to market

Proposed by:

**Stefano Braghieri (Mediset-MFE)**

Session goal:

Describe the activities performed since 2020 in deploying DVB-I PoCs and Open Commercial Trials (Italy, Germany, Ireland) –and discussion of next steps.

[Report](#) (and link to slide deck)

Next steps

- Continue supporting Standards evolution (DVB & HbbTV)
- Continue Technical Activities
- Solve all non-technical topic, i.e. Regulatory
- For Italy, work on UHDBook 2.x , i.e. the Italian Profile
- Promoting DVB-I

# Film grain synthesis

Proposed by:

**Ralf Schaefer & Thierry Filoche**  
(InterDigital)

Session goal:

Collect comments and questions on film grain and show a demo on film grain

[Report](#)

Next steps

Session host will bring information back to the DVB Commercial Module, where a discussion on film grain was already under way.

## Are you being served ? Help me spend DVB-PCM budget // (Further) Raising DVB's profile - where and how

Session goal:

Where should DVB PCM budgets be spent, and with what market focus?

[Report](#)

Proposed by:

Elfed Howells (Huawei) & Emily Dubs (DVB Project Office)

Next steps

Several actions will be brought to PCM:

Outreach to regulators, 2nd tier streamers, longtail DVBT channels,

PoC with a cable provider and demo of DVB-I applied to ATSC 3.0 services?

Strengthen DVB's presence in Africa, India, and South America in addition to retaining our current footprint (create a heat map)

# Broadcasting UHD HDR without duplication channels (Brazil, Japan, social media)

Session goal:

Discuss how we can generate more HDR content.

[Report](#)

Proposed by:

**Guido Meardi (V-Nova)**

Next steps

- Solicit interest from operators, broadcasters and streamers
- Host a DVB seminar/webinar on the subject

# Closing the gap with an Amazon prime

Proposed by:

Yann Barateau (Eutelsat)

Session goal:

Brainstorming and open debate around broadcast and OTT, listing all features of a complete OTT service and crosschecking them against those available in the broadcast work (particularly in light of DVB-NIP)

[Report](#)

Next steps

- Continue the work within DVB groups so that DVB-NIP, DVB-HB and other DVB standards can easily profit from now classical OTT features (content protection, monetization, catch-up/start-over, and many more...)
- Reinforce relationship and technology integration between DVB-NIP and the existing 5G/Media consortiums such as 5G-MAG and 5G-Emerge

## Joined up DVB – sponsoring a set of live/linear OTT services using DVB specs

### Session goal:

Explore interest and requirements if DVB were to provide a set of live/linear test streams

[Report](#)

Proposed by:

Jon Piesing (TP Vision)

### Next steps

- Ask TM/CM whether there are any specifications that could benefit from V&V which pre-date the V&V rule
- Kickstart a Github project that can loop the existing V&V assets.
- A PCM discussion about the minimum stream required for DVB-I evangelization (generic, DVB-sourced, for demonstrations)



## Can 'good enough' content be more sustainable? // Resilience vs sustainability - the global warming challenge

Session goal:

Identify contributions to sustainability from “good enough content” and “good enough delivery”, and the potential conflict with the goal of resilience.

[Report](#)

Proposed by:

**Ben Schwarz (CTOiC) & Peter MacAvock (EBU)**

Next steps

Continue to communicate with Greening of Streaming about common issues

YLE should talk to Greening of Streaming about Finland as a use case

DVB may decide on specific actions after CM (the following day)

# DVB-I Service Discovery // DVB-I Super Service Discovery by Country

Session goal:

Review DVB-I service discovery.

[Report](#)

Proposed by:

**William Cooper (Service List Registry) // Raj Patel (Yotta Media Labs)**

Next steps

RP to develop his approach into a formal proposal.

A demo Service List Registry query builder is available at:

<https://slrdb.org/demo>

# A chance and a challenge of DVB for the new video (Volumetric video, Social Video and etc.)

Session goal:

Open discussion to connect all partners' ideas for future work in DVB.

[Report](#)

Proposed by:

Xinrui Yang (Huawei) & Ralf Schaefer (InterDigital)

Next steps

- 1) To define the experience (KPI) of popular use cases of volumetric video such as MPEG V-PCC and MIV into the ongoing study mission in DVB.
- 2) To start a new study mission in DVB to define the common concept for the next generation of video services and identify potential use cases and requirements.

# Datacasting

Proposed by:

**Rick Clucas (V-Nova)**

Session goal:

To explore the interest in pursuing datacasting specifications within DVB.

[Report](#)

Next steps

A good discussion but no interest among participants to take it forward.

what we can do with it? Who can be the potential customer? What's the market? What can end users do with it? What can operators do with Datacasting?

## OBM – what next?

Proposed by:

Elfed Howells (Huawei)

Session goal:

Find out from the DVB World audience, what they would like DVB to do next on Object Based Media.

[Report](#)

Next steps

Bring the opinions (outlined in the report) of the session back to the OBM study mission and ensure that these opinions are included in the study mission report.

# DVB Services over Reference Tools

Proposed by:

**Jordi J. Gimenez (5G-MAG)**

Session goal:

Understand the DVB tools for DVB-I services that could be used to validate the work of the Joint Task Force between DVB and 5G-MAG.

[Report](#)

Next steps

Follow up with DVB  
Verification & Validation (V&V)  
activities on available tools.

# Making DVB access-ready // DVB-I and accessibility

## Session goal:

Discuss making DVB solutions access-ready under four headings: conformance, user journey, user community, DVB-I standard gaps.

## [Report](#)

Proposed by:

**Andreas Tai (a2a11y) // Jon Piesing (TP Vision)**

## Next steps

DVB to approach CCMA, WDR, BBC to contribute to creating a description of what would need to be tested for TTML in DASH.

If successful, do a gap analysis considering what is available (e.g. HbbTV) and then DVB to explore creating and reviewing test content to fill the gap.

DVB to contact the UK DTG Accessibility Group and Nordig about possible cooperation.

DVB should investigate if it could host work on guidelines for access to accessibility features in DVB-I.

DVB to investigate test content for DVB-TTML in the broadcast and approach Nordig and France Televisions.



# Targeted Ad Insertion // Targeted Advertising: moving toward a market reality?

Session goal:

Identify areas where efforts could be made to better market TA.

[Report](#)

Proposed by:

**Dusan Statelov (Maindata) //**  
**Angelo Pettazzi (Kineton)**

Next steps

CM-TA is now sleeping since TM-STREAM is addressing DVB-TA Part 3; there is no plan to develop new CRs for Part 3, however the Verification & Validation (currently being performed by DVB) will be important for market implementation.

Potential cooperation with the Addressable TV Initiative may be needed at a later stage when they address TA for DVB-DASH (Part 3).

5G broadcast could be a next step, so perhaps a joint Group with 5G-MAG for future work on how TA can be addressed in the context of 5G.

# Should there be more commonalities between broadcast standards

Session goal:

Discussion to understand whether there can be commonalities between specifications globally.

[Report](#)

Proposed by:

**Simone Ferrara (V-Nova)**

Next steps

- 1) Creating key feature description of DVB state of the art.
- 2) Review mapping of DVB technologies to other SDOs.
- 3) Identify if there are any specific areas for collaboration.

# DVB Home Broadcast - what for?

Proposed by:

**Ralph Edeine (Eutelsat)**

## Session goal:

Expose the benefits of DVB-HB standard , latest specifications update, main uses cases ( Broadcast services to DVB-I services redistribution in a local network.

[Report](#)

## Next steps

Lot of exchanges on the “DASH-friendly Transport Stream” approach.

Request to provide more test streams in various codecs and frame rates ( 50p/60p), implementation guidelines, exchanges with the AVC groups

Good feedback on the hospitality use cases => question on changing the name “Home Broadcast” to a more generic one

# DVB-I metadata - prepare to go live

Proposed by:

**Gordon Maynard (OnScreen Publishing)**

Session goal:

To share experience from trials to help plan for live DVB-I services

[Report](#)

Next steps

There were no specific actions but this was a useful exchange which supports the idea of an implementors' group to continue the sharing of information.

# Sponsoring open-source projects to add support for DVB specs

Session goal:

Identify candidate open-source projects for DVB to pay for support of DVB specs ; improve how we have done this.

[Report](#)

Proposed by:

Jon Piesing (TP Vision)

Next steps

None identified.

# Why not DVB-I today? Leveraging technology to create an ideal world?

## Session goal:

To identify the market enablers for early DVB-I deployment and a clear set of actions to drive momentum. Participants were particularly request to consider barriers to deploying DVB-I in 2024.

[Report](#)

Proposed by:

**Remo Vogel (rbb) // Richard Lindsay-Davies & Ranjeet Kaur (DTG)**

## Next steps

1. Form a stakeholder group to drive momentum. (Jim Higgins RTE?/DVB Project Office?)
2. Recruit and mobilise DVB-I champions. (DVB-PCM?)
3. Identify and communicate with key influencers and decision-makers. (through 1.?)
4. Promote DVB-I to regulators at ERGA. (DVB-PCM?)
5. Promote benefits of harmonisation across markets of DVB-I. (DVB-PCM)
6. Promote DVB-I to content providers. (DVB-PCM)
7. Communicate the benefits of DVB-I returning broadcast audience data. (DVB-PCM?)
8. Promote DVB-I mini-LCN capabilities. (DVB-PCM?)
9. Define and promote DVB-I personalisation across multiple devices with a PoC. (DVB-PCM?)
10. Validate common profile compliance. (Nicolas Frame?)
11. Collect telemetry requirements (QoS, Monetisation, ABR, Audience Measurement). (Marco Pellegrinato?/DVB-CM?)
12. Educate and train industry professionals in DVB-I. (DVB Project Office?)

## Getting new codecs to market – quicker

Proposed by:

Arthur Vinchon (Allegro DVT)

Session goal:

focused on the implementation demos of MPEG-5 LCEVC presented in the Music Room to discuss how it can be easily deployed in the market.

[Report](#)

Next steps

Invite people to participate in current DVB activities around NGVC Phase 2.



## Reinventing the wheel: DVB world 2024+

Proposed by:

Eoghan O’Sullivan (DVB Project Office)

Session goal:

A SWOT analysis of the DVB World unconference format to help improve the event in 2023 and beyond.

[Report](#)

Next steps

Session host and the Project Office will use these inputs to help shape a better proposition for 2024.