

# **ABU DBS DAB+ Workshop Technical developments**

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# Last year's workshop

- I talked about
  - Hybrid radio
  - Mobile phone integration
- Today, other speakers will develop these topics

# Technical Committee

- In the last year, the WorldDAB TC has discussed
  - Cleaning up the DAB standards
  - Developing the ETI library
  - Extending the reach of the DAB receiver “Tick Mark”
  - Automotive applications
  - Announcement handling
  - OMRI
  - ... and more!

# ETSI EN 300 401 V2.1.1 standard

- DAB audio coding has its own spec, just like DAB+
- The signalling has been streamlined by deleting unused elements and simplifying some complex parts
- The unused transmission modes (for satellite, L-band) have been removed
- Additional rules and guidance have been added to formalise existing practice and enhance consistency

# What it means...

- All existing transmissions and receivers already conform to the new standard, but updated software will allow additional benefits in the future
  - The standard is completely backwards compatible
  - The standard allows future developments

# Applying experience

- World DAB has taken stock of the whole standards base for DAB
  - Network interfaces
  - Data transport and applications
  - Rules of behaviour
- New “Guide to standards” approved for ETSI process
- Many specs developed in the early years but never used have been reclassified as “Historical”

# ETI Library

- World DAB has offered an ETI Library to its members for several years
- Efforts have begun to update this facility
  - Make it easier and quicker to upload files
  - Provide standard analysis to generate more metadata
- Helps manufacturers try out new products and services

# Receiver “Tick Mark”

- UK had developed a set of tests for receivers to show they were “digital switchover ready”
  - But some aspects were UK centric
- WorldDAB TC identified the issues and helped develop the spec to be Europe-wide
  - Ensure all DAB frequencies are tested
  - Ensure all EBU Latin-based characters are tested
- Applies to other regions and countries too

# Automotive applications

- A new car-maker communication application has been studied
  - Allows car makers to send important information to their cars via DAB, thus reaching harder-to-find customers
- Standardisation of the transport adaptation for TPEG under review

# Announcements

- DAB has always offered mechanisms for audio announcements
  - Traffic, sport, news, ...
- But so far uptake has been low
- WorldDAB TC has reviewed and extended the signalling to enhance the feature
  - Detailed rules of behaviour are under development

# OMRI

- A standardised API for mobile devices to access broadcast and hybrid radio
- More later from my colleagues!

**Thank you!**

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