



WorldDMB Workshop in Collaboration with VOV and ABU Hanoi

DAB+ implementation – How to bring it all together

Monday 29 July 2013

Ms Joan Warner, Asia Pacific Chair

Major Recommendation - Choose DAB+

89m Vietnamese people will benefit


- Radio broadcasting will go green
- Better emergency services and systems – receivers can be switched on automatically
- Costs will be saved over analogue
- New content = longer time spent listening and better reach
- More opportunity for education and cultural programming free to air
- Retail activity and receiver sales stimulate economy
- Broadcasters control the technology and the future

More Content & Dynamic Features


New stations = more listening = increased reach



Simulcast



Simulcast



Simulcast



Simulcast

New Short Term Digital only

New Digital only

New Pop Up Digital only

New Digital only

DAB+ is more than just technology!

Planning of DAB networks

- RF planning
- SFN operation
- Coverage planning tools and methods

The bigger rollout picture

- Bring broadcast, retail and manufacturers together
- Meet with chip makers, radio manufacturers, retail, automotive sectors and tell them what you want.

DAB+ Reduces Costs & Makes Radio Green

CAPEX

- 6 x lower investment costs with DAB+ Transmitter for the example of 18 Radio Programs

\$ ENERGY

- Drastic lower energy consumption with DAB+
- 25x less power used for 18 programs compared to 10kW FM
- \$Millions over 10 years

FLOORSPACE

- 1 transmitter for 18 services, not 18 separate transmitters

ANTENNAS

- 1 shared antenna for 18 services

SPARES

- Fewer spares needed, easier to store and ship

Implementation Recommendations

1. DAB+ Rollout is a Staged National Project

2. Establish Timetable for DAB+ Rollout

3. Policy to provide certainty and a future for Broadcasters

Recommendation 1:

DAB+ Rollout is a Staged National Project



Establish a National Steering Committee comprised of all key broadcasters and the regulator. It should set the timetable for implementation of digital radio rollout.

The National Steering Committee should set up national subcommittees to report back to the Steering Committee on a number of issues

Planning and Licensing

Regulator to chair Planning and Licensing Subcommittee to design spectrum and licensing regime

Multiplex spectrum licenses should be issued to current broadcasters only. Broadcasters should control the spectrum licence and be allowed to operate transmission infrastructure.



Marketing and PR

Let listeners know that digital is here!

Talk to retailers and receiver manufacturers.

- Form a Marketing Sub Committee comprised of broadcasters, retailers and manufacturers to develop a marketing and promotions plan.
- Develop key messages - better sound and more content.
- Use analogue, online and social media to tell listeners about digital radio
- Ensure retailers have an affordable range of receivers from first day of switch on.

Recommendation 2: Establish Timetable for Rollout

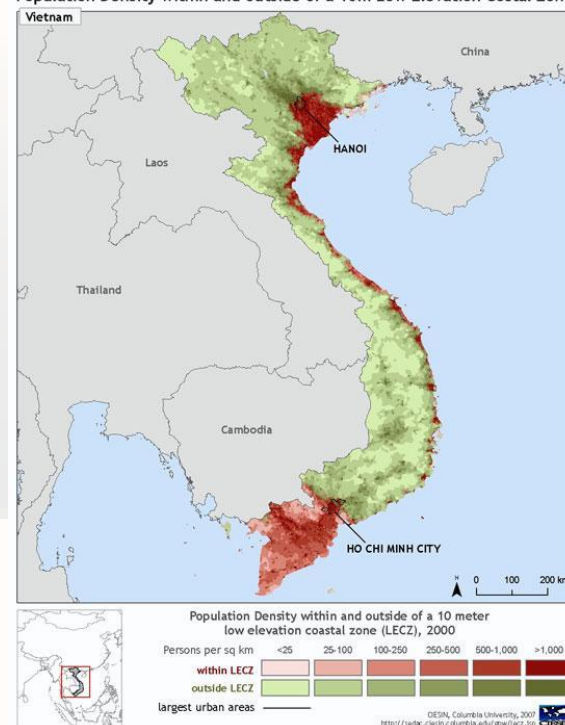
Stage 1

- Start with biggest cities and towns

Stage 2

- Major towns, for example, 5000 plus

Population Density within and outside of a 10m Low Elevation Coastal Zone



Once you know how many multiplexes start spectrum planning

Multiplexes

- Allocate a frequency for each multiplex

Channel planning

- How many DAB+ channels?
- High power - can re-use frequency if more than 300k away



Recommendation 3:

Certainty and a future for Broadcasters

- Free digital content licences
- Current broadcasters only
- Own Multiplex Licences
- First option to own infrastructure
- Allowed to offer extra stations
- New formats allowed e.g. education
- Dynamic use of spectrum allowed



Summary of Recommendations

- Choose powerful spectrum efficient technology – DAB+
- Start now
- Broadcasters keep analogue spectrum
- Broadcasters own the spectrum licence
- Broadcasters have first right to own and operate transmission infrastructure
- National Staged Project
- Planning for high power and indoor coverage
- New content and affordable receivers
- Marketing Strategy to inform listeners