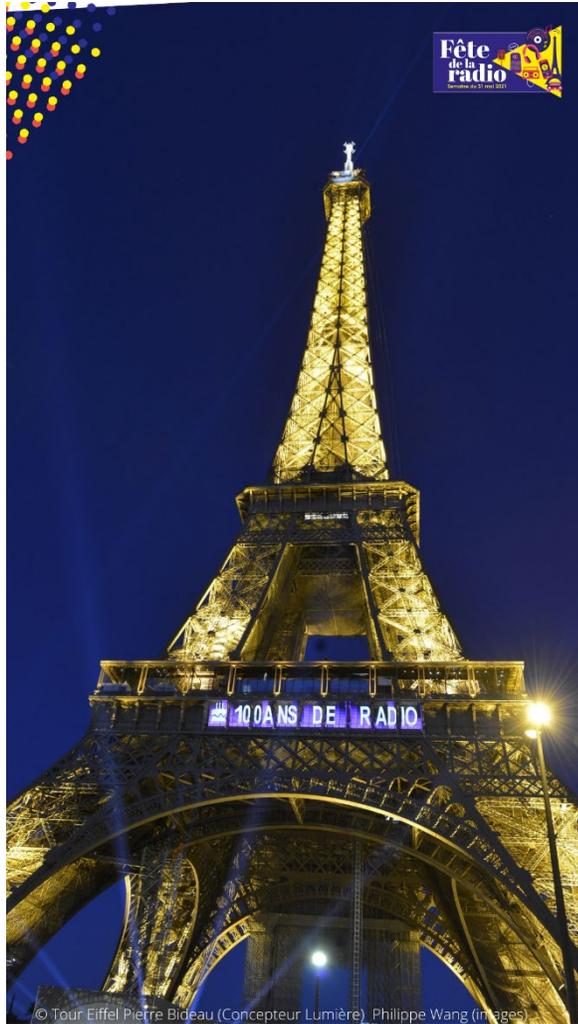# DAB+ international update France update

Jean-Marc Dubreuil, WorldDAB

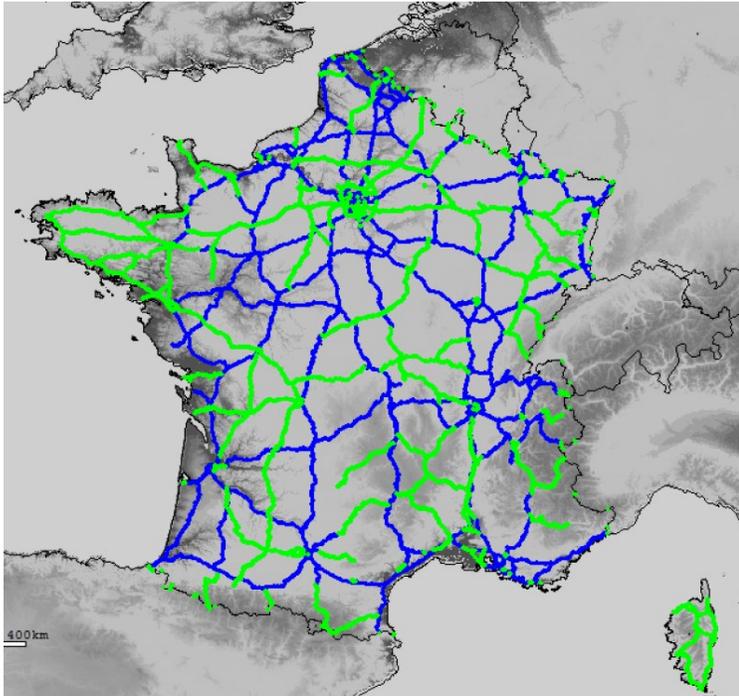*With inputs from Renault and Stellantis (PSA)*

A quick update on France

© Tour Eiffel Pierre Bideau (Concepteur Lumière) Philippe Wang (images)

- 2021 coverage - 30% of the population

- More than 350 services on air, including 20+ public services

  – 20% of radio are DAB+ exclusive

- By end of 2022 : 50% of the population covered with 17 additional allotments

- By Autumn : 25 national services covering the highway with a focus on mobility

  – Paris to Marseille through Lyon

  – After 2022 focus : less dense areas

  – 282 allotments are planned

- EECC now in the law (decree, dated 26/06/2021)

➢ A complex environment with local, metropolitan, regional and national layers

  – Example : Paris – 6 regional, metropolitan and local allotment plus 2 national – 100 radios will broadcast in Paris by end 2021
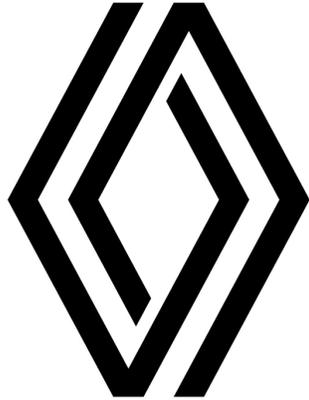
Why a joint working group

- 11 860 km of highways & 10 056 km of main roads to cover

- Car manufacturers and radios engineers seldomly talking together

  – Exception : long term plans (binaural sound)

  – Lack of understanding of car manufacturer constraints or radio business model

  – Profiles dated… 2013 – with DMB

- French Car manufacturers using German and Swiss test routes

  – Very solid networks

- Community radios using open source broadcast solution in France

  – Fibre connection and quality of content issues

- More than a 1000 FM radio services in France

- Some services crashing the radio, poor listener experience in some instances

➤ Decision to bring together a working group with Stellantis, Renault, the regulator, radios, broadcasters

Finding

- Complexity of the landscape

  – 282 Allotment with 266 outline

  – Transmitter ID Information allocation limitation – tens of TII available vs the theoretical 1680

  – TII not attributed by the regulator but by the broadcaster

- Logos managed by the car manufacturers and sometime obsolete when not using broadcast

- Number of version of radio receivers to manage : up to 8 (entry to high end)

  – 2014 receivers are not updated ; entry level have a single tuner ; seamless linking not guaranteed

- Some FM – DAB delays well beyond memory capacity (8s max versus up to 26s)

  – Best : sub 3s ; worse : 26s

- FM and DAB levels not always aligned

  – Up to 10dB difference

- Different SID and PI codes (different tables, different names) are possible

  – Example : different length of the name in older generation of receivers

Other finding

- Different country requirements with a need for ample notice

  – Simulcast, slideshow or traffic information requirements differ from country to country and are sometime not compatible with entry level and existing receivers – it will require a dedicated focus

  – Transition period between receiver generation and country requirements misaligned

  – No coordinated "driver distraction" rule between countries leading to legal notifications

- Impossible to experience every receivers issue in all countries

  – Request to raise issues thru the WorldDAB helpdesk with as many details as possible to replicate

  – With DAB+ : some issues could prevent the radio to function altogether

  – Some SFN noise issue ?

- Switching to DAB can take up to 160s if FM was last listened to or FM to DAB linking happens due to time / level adjustment

  – Limitation due to FM – DAB delays (slow or accelerate the audio)

  – Limitation due to audio level difference (up to 10dB difference takes time to fully compensate)

- Announcement in FM not necessarily listened to when in DAB

Conclusions

1 The industry is talking in France to solve end user experience issues

2 The diversity of receivers designs and generations combined with the complexity of the landscape can lead to poor end user experience – add France test routes (urban, coastal, mountain and borders – the diverse typography is a great field test)

3 Vehicle Manufacturers and broadcasters to work together early to ensure that the features promoted by one or the other are supported by both industries (including services and metadata)

Thank you