## FORD – RADIO ON THE ROAD - UPDATE -



Frank Nowack

## Once upon a time...

Ford Radio on the road





## In-Car entertainment today

#### Ford Radio on the road

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Ford Radio on the road

In general the overall broadcast situation improved a lot in regards to the broadcast coverage, the station offering and also in regards to the user acceptance.

The details are well known and already shown by the responsible colleagues from WorldDAB, the broadcasters and the regulation authorities.

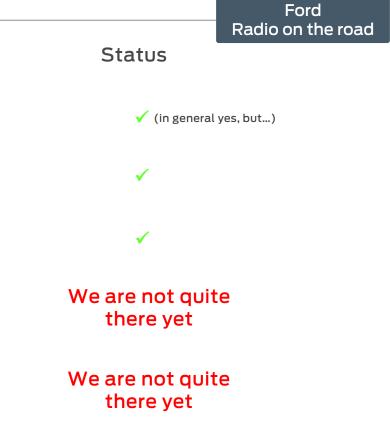
The consequence of this is:

DAB is the future of broadcast radio.



### **Customer Expectation**

- > CD like sound quality
- New and exclusive radio stations
- New data features
- User experience of well known FM features must work similar on DAB
- Virtually all existing FM stations are available on DAB





Challenges – Car Manufacturer:

- HMI Execution
  - > Partly addressed and implemented; still room for improvements
  - > We are jointly working with the WorldDAB UX group

Challenges - Broadcaster:

- Announcements
  - > Different behaviour as on FM
    - > TA just partly supported
    - > Other announcements, e.g. News, Alarm, ... are not supported at all
- > Audio quality
  - In most countries good quality, but still many music stations transmitting on low bitrates and Mono



Ford Radio on the road

- > Regional information
  - > Behaviour different to FM behaviour
  - Regional content available, but signalization not according DAB specification
    - Hardlinks instead of Softlinks
- Service linking
  - Missing information
  - > Information not according to the World DAB specification
  - > DAB  $\leftarrow$  → DAB time delays
  - $\succ$  DAB  $\leftarrow \rightarrow$  FM time delays with DAB ahead



- > Data services
  - > Station logo in many regions not provided
  - > SlideShow in many regions not provided
  - > EPG in many regions not provided
  - > EWF European alignment of broadcasters / authorities required
  - Traffic via TPEG in many regions not provided and if provided often at limited quality



General comments.

> Online services, data and audio streaming, will be implemented, but they will not replace broadcast radio.

- > DAB is the future of broadcast radio.
- > Data services (SlideShow, EPG, Traffic via TPEG, etc.) will be implemented.
  - > Challenges for the broadcasters:
    - > Meaningful and accurate data content
    - > Suitable for in-vehicle representation



DAB as standard feature in vehicles?

- Market dependent of the following topics:
  - General radio offering strategy
  - DAB station offering
  - DAB coverage
  - > DAB market penetration



# Thank you!

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