



# Automotive Receiver Functionality Research

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## Research

Around **90 questions** about user experience and functionality

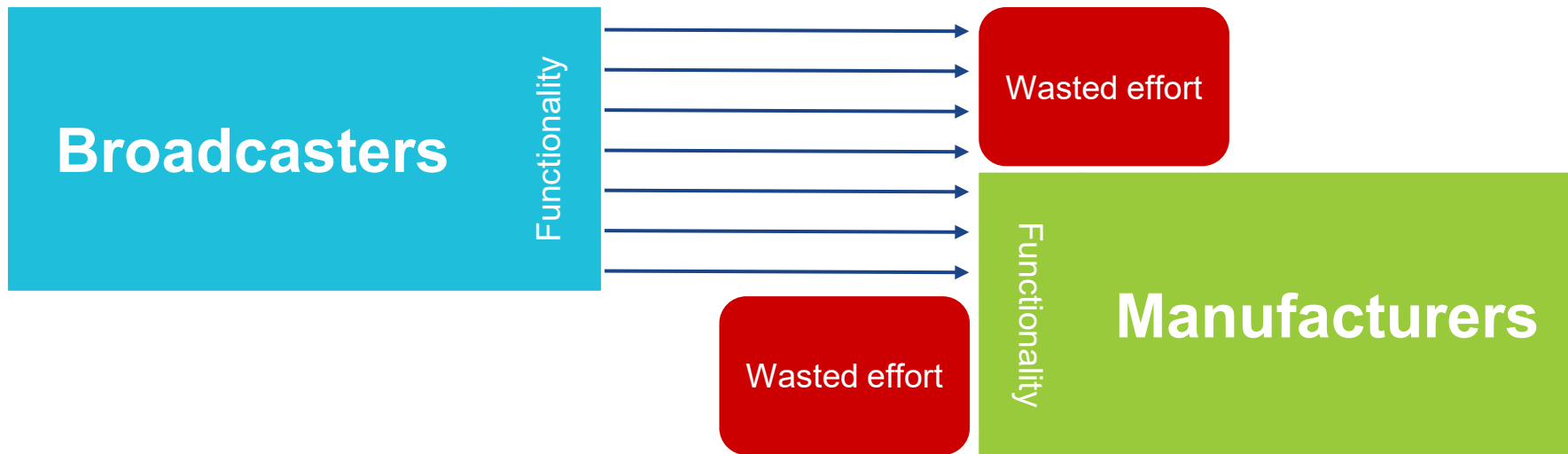
Responses from **11 OEMs**

Most broadcasters don't know what the experience of their stations is, or how it could be **better**

Finding functionality gaps that could be **easily bridged**

world **dab**

**Radio** **DNS**<sup>®</sup>  
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Almost All Receivers

50:50

Distinctive Functionality

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# Almost All Receivers

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# Distinctive Functionality

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Almost All Receivers

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**Distinctive Functionality**



## Almost All Receivers

- **Show all DAB stations together in a single list, alphabetically sorted**
- Have on screen and physical buttons to navigate between stations
- Do not show DAB channel or frequency information
- Show at least a truncated version of text (DLS) to the driver
- **Support DL+**
- **Can show visual images (DAB Slideshow) delivered using X-PAD**
- Support announcements and alarms
- Have hard linking enabled by default



## 50:50

- A single list of FM+DAB stations
- **Show station logos**
- RadioDNS is a primary station logo source
- **Can use DAB SPI as a logo source**
- Automatically update station logos
- Can show all the DLS text
- Have multiple tuners
- Separate lists for FM and DAB
- Don't show station logos
- Third party station logo databases
- Can't use DAB SPI as a logo source
- Require user intervention to update logos
- **Can only show truncated DLS text**
- Have a single tuner





50:50

- Show Ensemble names
- **Need "nighttime mode" for visuals**
- **Implement Current and Next Programme Information from DAB SPI**
- Enable Traffic and Alarm announcements by default
- Support Soft Linking behaviour
- Support Part Time services
- Don't show Ensemble names
- Automatically dim visuals at nighttime
- Don't support Programme Information
- Only enable Alarm announcements by default
- **Don't support Soft Linking**
- **Don't support part time services**



## Unusual Functionality

- **Use a third party database for station lists and names**
- Show station lists grouped by ensemble, and sorted on Service ID
- **Can receive DAB Slideshow over a Packet Mode Channel**
- **Show square ratio visuals (not 4:3 ratio)**
- Allow browsing of a whole day schedules of Programme Information
- Switch to streaming audio when broadcast signal is poor/missing
- Show DAB channels to the driver (e.g. "CHANNEL 9A")



"Coming Soon"

We didn't ask specifically about future developments - confidential information

From the open comments:

- more support for station logos over DAB, and remotely updating station logo databases over the air
- **"more functionality"**



## Conclusions

- DL+ support is widespread, but not used much by broadcasters  
**More broadcasters could take advantage of DL+**
- Visuals support is widespread, but not optimised for drivers  
**Broadcasters could improve their visual services**
- Station Logo support is good and getting better  
**Broadcasters need to provide their logos using DAB SPI and RadioDNS**



Thank You

**Thanks** to all the OEMs who replied

There's **lots more detail** in the research which we will assemble and present in a dedicated session in **September**



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