

WorldDAB Summit 2021

Environment – Bavaria's DAB+ Green Radio Report

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Goals and Partners

Climate change is a challenge for all of us

What can Broadcasters do?

Examination of the potential savings of energy consumption for transmission (FM/DAB+) and reception.

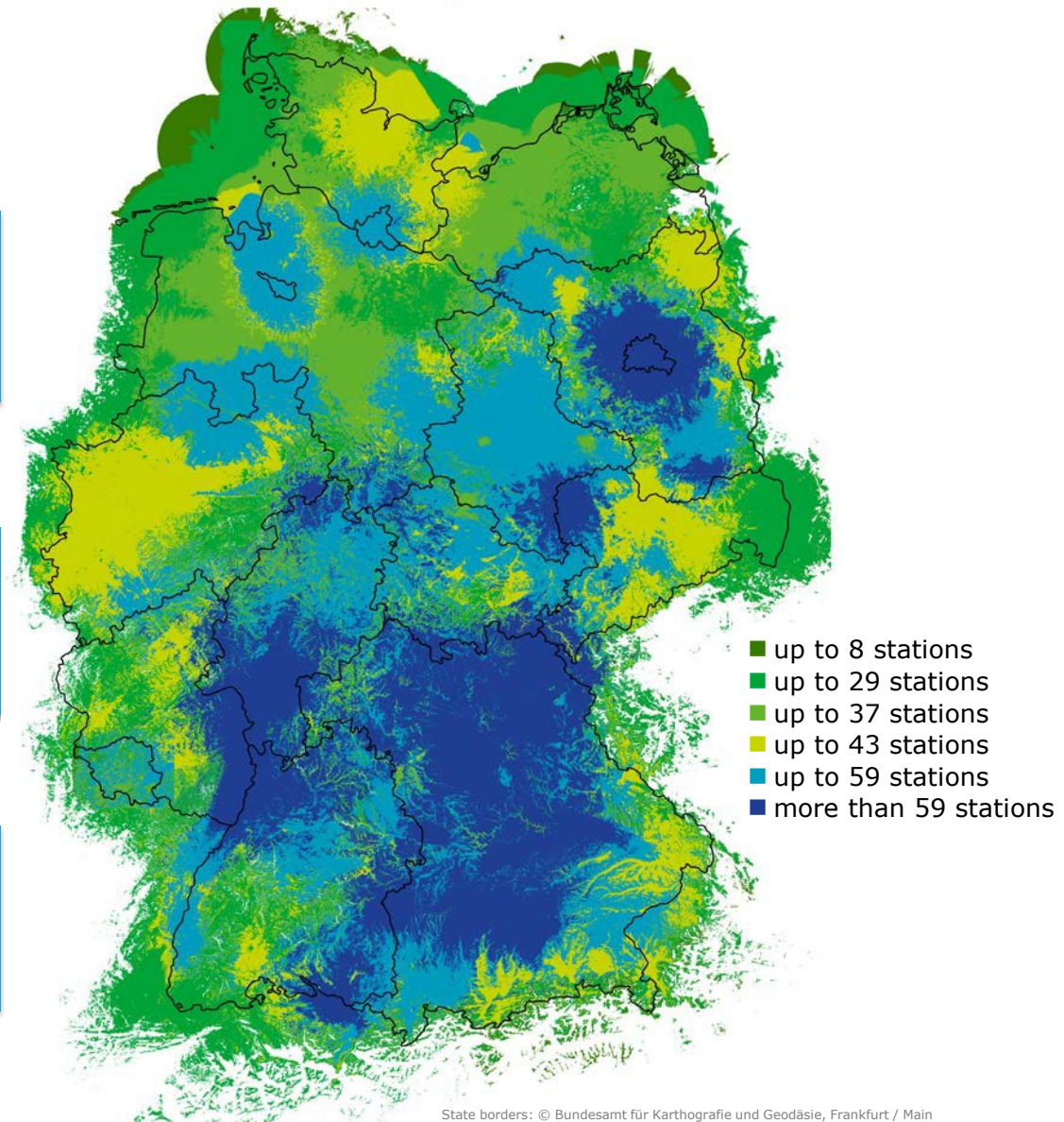


Study Design and Situation in Germany

The Federal State of Bavaria was selected as main study region → DAB+ radio landscape is most developed there.

The focus was power consumption of service transmission (input power of the transmitter).

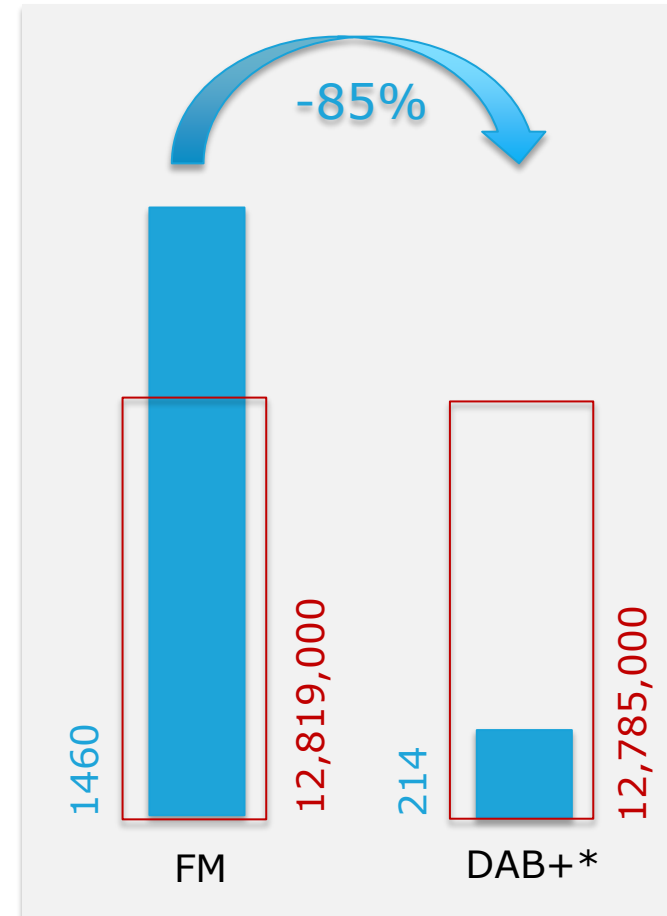
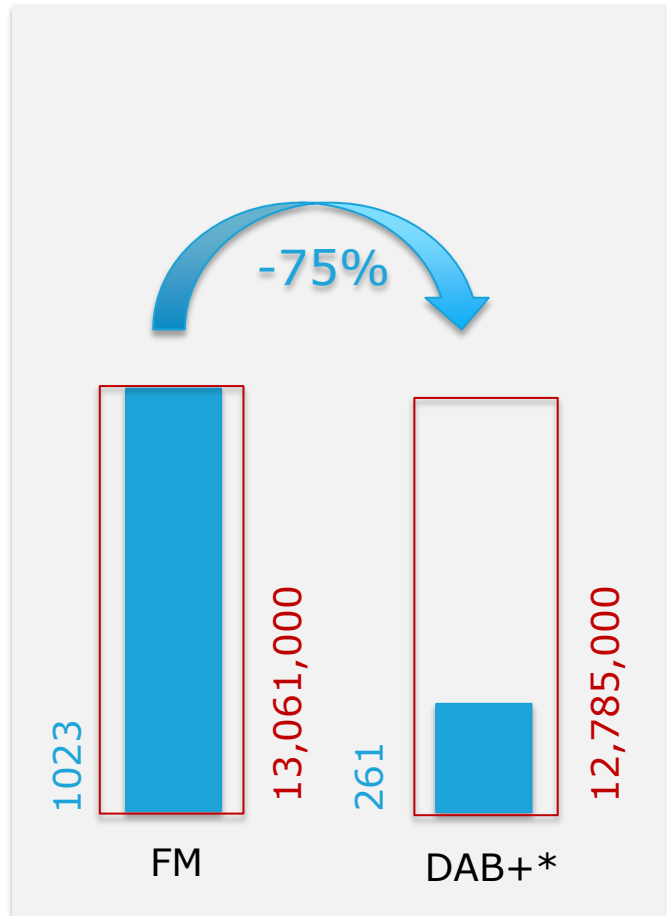
FM allows only 1 radio service;
DAB+ up to 16 DAB+ services per multiplex
→ Considerations are made for one service



Energy Consumption of two networks in Bavaria



Power (MWh) ↑
Coverage population ↑



* indoor/2028 (estimated)

Receivers

A modern radio requires **about 40% less energy** in typical operation (DAB+ radio playback at 50% volume) than a comparable older FM model.

In addition it comes with many more features such as display etc.

Regardless of DAB+, the greatest energy saving effects would be achieved by replacing older FM radio sets.



-40%



Conclusions of the study

- Broadcasting via DAB+ saves up to 90% of energy - at equivalent coverage and lower costs!
- Radio's energy balance is the worst when all services are broadcasted simultaneously via FM and DAB+.
- Receivers power consumption has dropped by around 40% while additional functions were added.
- Considerable energy savings would be possible on the reception side by replacing the approximately 122 million FM radio sets in existence in Germany.

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