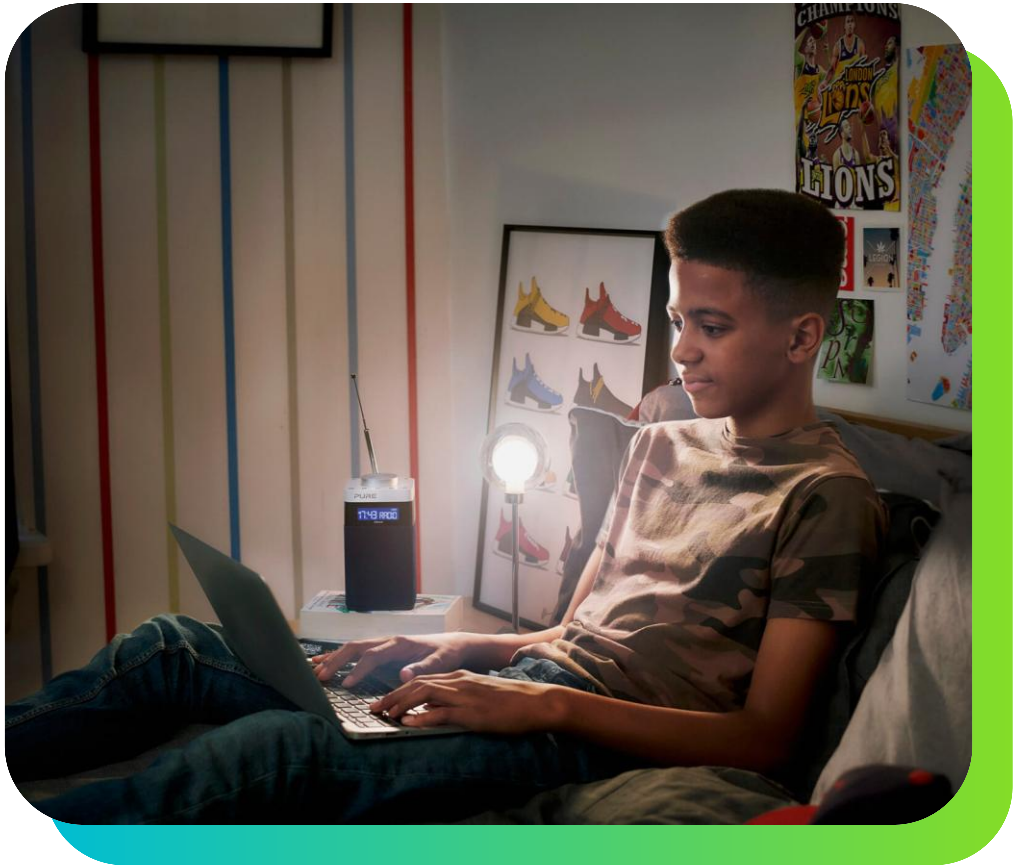
DAB+ LICENSING

Regulatory models

- Clarity and certainty
- Relevant to changing audio landscape
- Relaxation of regulation



UK DAB timeline

1995

BBC national multiplex on air

Coverage today: 97.4% of households:

~416 transmitters

1999

First national commercial multiplex

Coverage today: 91.7%;
221 transmitters

2002

BBC launches its first digital-only UK services

Six new services;

plus occasional pop-up stations

2014

Local multiplexes - agreement to co-fund additional roll-out[1]

220 new transmitters;

taking coverage from 72% to 90% - now 92%

2016

Second national commercial multiplex launches

Coverage today 82.6%;

75 transmitters

2021

Digital Radio & Audio Review

DAB / DAB+ core future platform for radio (modelled to 2035)

No FM switch-off to be mandated before 2030

(1) Funding of ~£21 million – split three ways between Government, BBC and commercial radio

Regulatory duties

- Communications Act 2003 and Wireless Telegraphy Act 2006
- to further the interests of citizens in relation to communications matters, and of consumers in relevant markets, where appropriate by promoting competition.
- to secure the optimal use of spectrum and the provision of a wide range of radio services which are of high quality and appeal to a variety of tastes and interests.

Regulatory duties

- Also have regard, to several factors including:
- the desirability of encouraging investment and innovation
- the desirability of encouraging competition
- the interests of people in different communities within the United Kingdom

Regulatory duties

- In carrying out its spectrum functions, it has a duty under section 3 of the 2006 Act to have regard in particular to:
- (i) the extent to which the spectrum is available for use or further use for wireless telegraphy,
- (ii) the demand for use of that spectrum for wireless telegraphy and
- (iii) the demand that is likely to arise in future for the use of that spectrum for wireless telegraphy.

Regulatory duties

- We also have a duty to have regard, in particular, to the desirability of promoting:
- (i) the efficient management and use of the spectrum for wireless telegraphy,
- (ii) the economic and other benefits that may arise from the use of wireless telegraphy,
- (iii) the development of innovative services and
- (iv) competition in the provision of electronic communications services.

The licensing regime for DAB in the UK

1 **Multiplex licence**

- This is the licence you need to operate a DAB multiplex - gives access to the spectrum, and enables the building of DAB transmitters.

2 **DSP licence**

- Digital Sound Programme Service (DSP) licence
- This is the licence that radio stations need for their programme service to be carried on a multiplex.

3 **C-DSP licence**

- Community Digital Sound Programme Service (C-DSP) licence
- A new type of DSP licence for small-scale DAB that gives licensees access to reserved capacity on a multiplex.

The critical role of 'the gatekeeper ' in the UK

1. Holders of programme service licence have been licensed by Ofcom, not guaranteed access to any DAB multiplex
2. the multiplex owner the 'gate-keeper' that determines who gets to broadcast on DAB
3. ~~local and national multiplex licences, Ofcom must approve requests to add or remove a service on a multiplex~~
4. 1996 DAB legislation requires Ofcom to ensure that each multiplex licence caters for "a variety of tastes and interests"
5. For small-scale DAB, Ofcom just needs to be notified of changes to the multiplex licence

Example of the legal award criteria – small-scale DAB multiplexes

1. Extent of the coverage area
2. Ability to establish the service
3. Involvement of C-DSPs and evidence of demand
4. Fair and effective competition
5. Ownership and eligibility

EXAMPLES FROM OTHER COUNTRIES

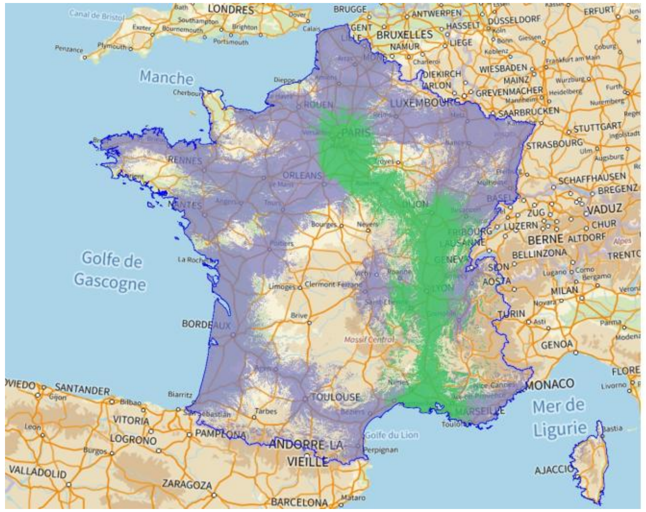
France: Arcom

- DAB+ in France:
    - 523 commercial or community services
    - 39 public services
    - 110 multiplexes
- Arcom deals with economic and technological development
- Including: organisation and pace of the roll out of DAB+

Arcom
Le régulateur de la communication audiovisuelle et numérique

Arcom strategy to deploy DAB+ : nodes and arcs

- Deployment objective : fast and viable
- Based on nodes (large cities – top map), arcs (highways and main roads – bottom map) and a proactive schedule
- Relies on listeners practice: listening to radio in car or at home
- Focuses on densely populated areas (improve ROI)
- As of summer 23, 50% of the population received a DAB+ program – now over 60%



National DAB+ stations in France

Multiplex métropolitain M1

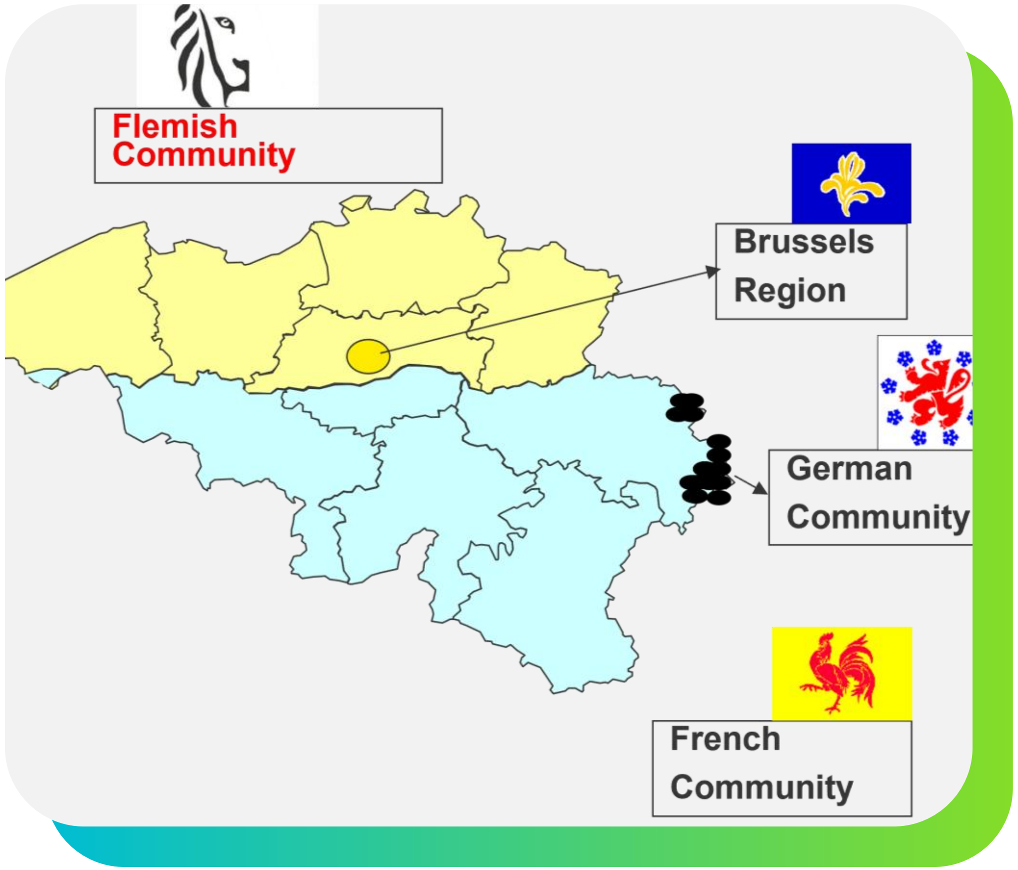
Multiplex locaux

Multiplex métropolitain M2

Belgium: Flanders

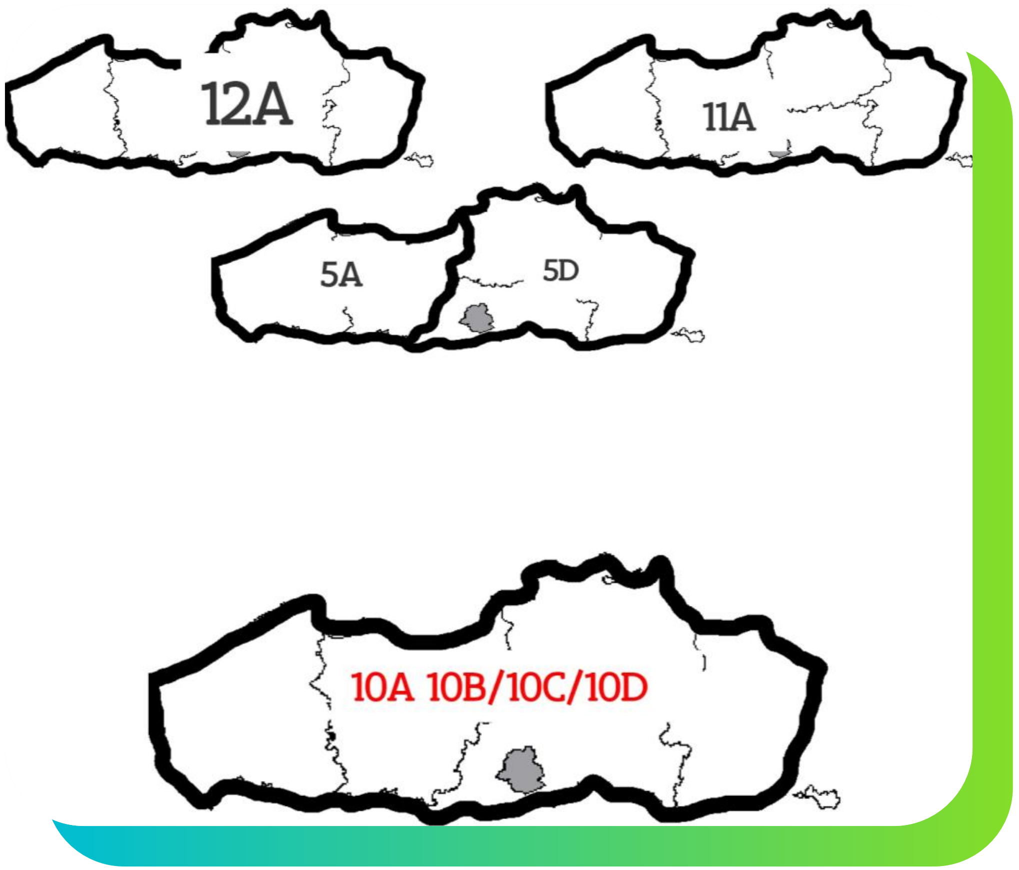
- Regulation at community level, so difference between the Communities

- Muxes Flanders (RRC-06)
- 11A: whole of Flanders (commercial)
- 12A: whole of Flanders (public broadcaster)
- 5A & 5D: 2 regional muxes, forming together one national coverage for the whole of Flanders



Belgium: Flanders

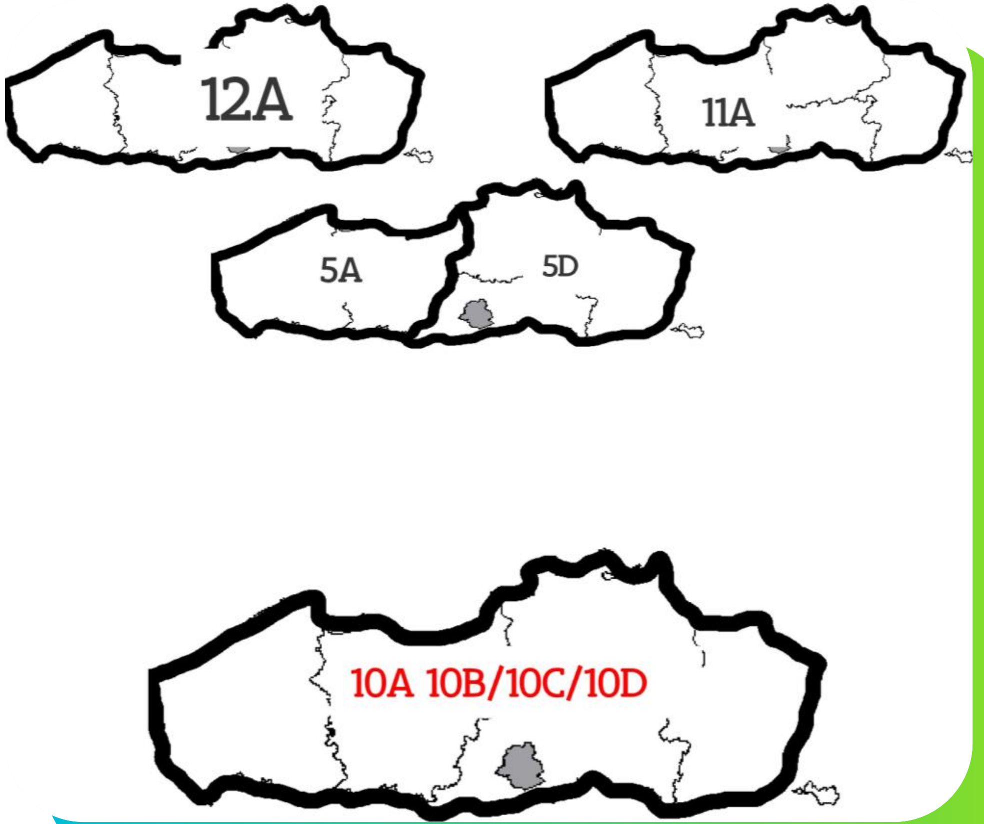
- Mux 10: previously one DVB-T mux.
- License revoked by the Regulator
- Converted into 10A, 10B, 10C and 10D,
- Temporary licences given by the Regulator (VRM)
- for testing until end January 2026, provincial coverage
- Via conversion from to 4 DAB muxes, namely 10A, 10B, 10C and 10D
- No legal framework for authorising local DAB+ radio stations on limited geographical footprints: no “small scale” dab



Belgium: Flanders

- Public broadcaster mux: 12A

- Granted by governmental regulation
- For unlimited time
- VRT chooses its own operator
- Mux is filled with radio stations from the public broadcaster
- 5 radio stations that are also on FM
- Other radio stations chosen by the public broadcaster
- non-stop Flemish Music,
- News channel (in loop)



Belgium: Flanders

VRT 12A

On Tower 11A and Norkring 5A/5D

11A

5A
5D

DAB+ et FM

DAB+ only

DAB+ et FM

DAB+ only

Belgium: Flanders

- Commercial frequency/mux authorisation:
  - Via a license
  - Granted by the regulator
  - To a neutral network operator (not to the radio stations itself)
  - Based on a beauty contest
  - Normally for 15 years
  - After the general license, the VRM gives technical license per transmitter/pylon
- Operator
  - Can freely fill the mux
  - Has contracts with radio stations for the distribution of their radio channels in the whole of Flanders

Belgium: Flanders – other regulation

- Radio equipment: all FM-radios sold in Flanders must have a DAB+ receiver built in.

- FM switch-off, transition to DAB+
  - Legislation requiring bi-annual reporting on digital radio and DAB+ progress.
  - If a certain threshold of digital radio listening and DAB+ is reached, then government may decide on a date for switch-off
  - No date foreseen yet

- Radio report 2024 AND ministerial opinion:
  - Report: from commercial perspective, advice for switch-off based on market decision with all stations switching off together
  - Ministerial opinion: favours switch-off by 31/12/2030, but no date decided yet.

Germany

- broadcasting is a matter for the federal states.
- Federal Government is only responsible for technical matters
- federal states (or designated bodies) decide transmission capacities for public and commercial broadcasters
- capacity allocated to commercial radio is then put out to tender

Norway

- Transition FM to DAB+ market driven
- No public money (incentive for a quick transition)
- Public funding for coverage in tunnels (emergency / safety)
- National broadcasters rent capacity from network operator Telenor

Switzerland

- Legal framework supports cost of investment in new technologies
- Broadcasters reimbursed 25% operating costs (extra if mountain area)
- Public funding to cover simulcast period, funding up to 80% the cost (benefits decreasing over time)
- Network funding covered by public broadcaster licence fee

Denmark

- DAB Mux 1: funded by the public broadcaster licence fee
- DAB Mux 2: network funded by public broadcaster
  - Commercial stations renting frequency space
- DAB Mux 3: funded by regional commercial broadcasters

The Netherlands

- National
  - Public network funded by license fee
  - Commercial network funded by commercial radio stations
  - License for digital radio was coupled to licenses for analogue radio

- Regional
  - Regional muxes contain combination of public and commercial regional broadcasters
  - Network operator built and operates the network
  - Broadcasters pay network operator for a space to broadcast on regional mux

Policy and Regulation: Examples from other countries

Australia

- Launch DAB+ in 2009 in 5 main capital cities (60% of population)
- Uses a Joint Venture Company (JVC) approach to licensing
  - Category 1 – Commercial and Community
  - Category 3 – National broadcasters (ABC & SBS)
- Very successful cross-industry launch
  - High profile marketing campaign
    - Radio, TV, outdoors, bus-sides, taxi-backs
  - Engaged with retailers
    - in-store booths and mall demonstrations
- 3rd year anniversary 2012
  - High profile marketing campaign with Toyota
  - Give away a Toyota car in each of 5 cities
- Now have 10 transmission areas (67% of population)

Policy and Regulation: Examples from other countries

Australia

- Spectrum
  - Commercial and community broadcasters incentivized by “FREE” spectrum
    - 128 kbps per commercial AM/FM broadcaster
    - Incumbents are winners
    - All spectrum in 5 main metro cities used by 2010
  - Issue:
    - Only 8 DAB frequency blocks country-wide
    - No new spectrum available for new broadcasters!
- Spectrum
  - National allotment plan based on existing regional broadcasters in 2017
  - Existing regional broadcasters have right to use, BUT new broadcasters are unable to access
    - Stifles competition and limits services!

Policy and Regulation: Examples from other countries

Australia

- JVCs
  - Ok for main cities and large broadcasters, BUT
  - Very expensive to set up legally with a complicated regulatory process
- Regulation
  - Is setup in legislation, so is difficult to adjust
  - ACMA is very slow to act
- Ecosystem
  - Is dominated by Commercial radio
  - PSBs and Community forced to follow Commercials
  - Many main transmission sites owned by one company

Policy and Regulation: Examples from other countries

Summary

- Every country is different
  - The approach to regulation and licensing will reflect each countries approach

- Regulation policy needs to be balanced
  - Generally policy should provide opportunities to enhance the radio ecosystem
  - History shows that “Incumbents are Winners”

  BUT

  - The listening public and the ecosystem will benefit from new and diverse services particularly for niche content, multi-language support and communities

- **Listeners want MORE! MORE = Industry Growth**

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