

DAB+ - opportunity for Africa

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ITU, January 2022

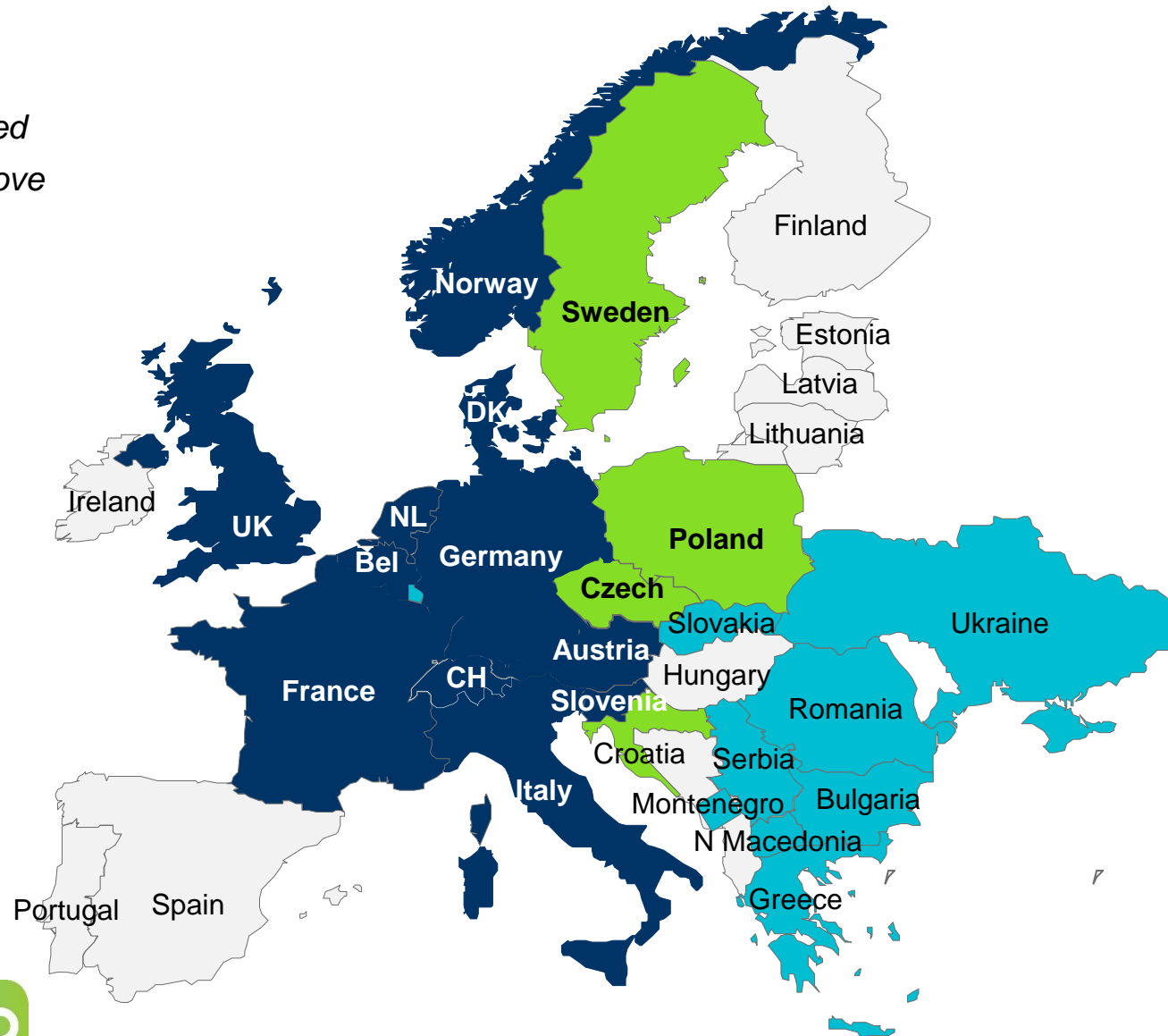
What is DAB radio?



- Digital Audio Broadcasting
 - digital terrestrial radio
 - Band III spectrum
- DAB: ~10 services on single frequency (multiplex)
- DAB+: ~18 services per frequency

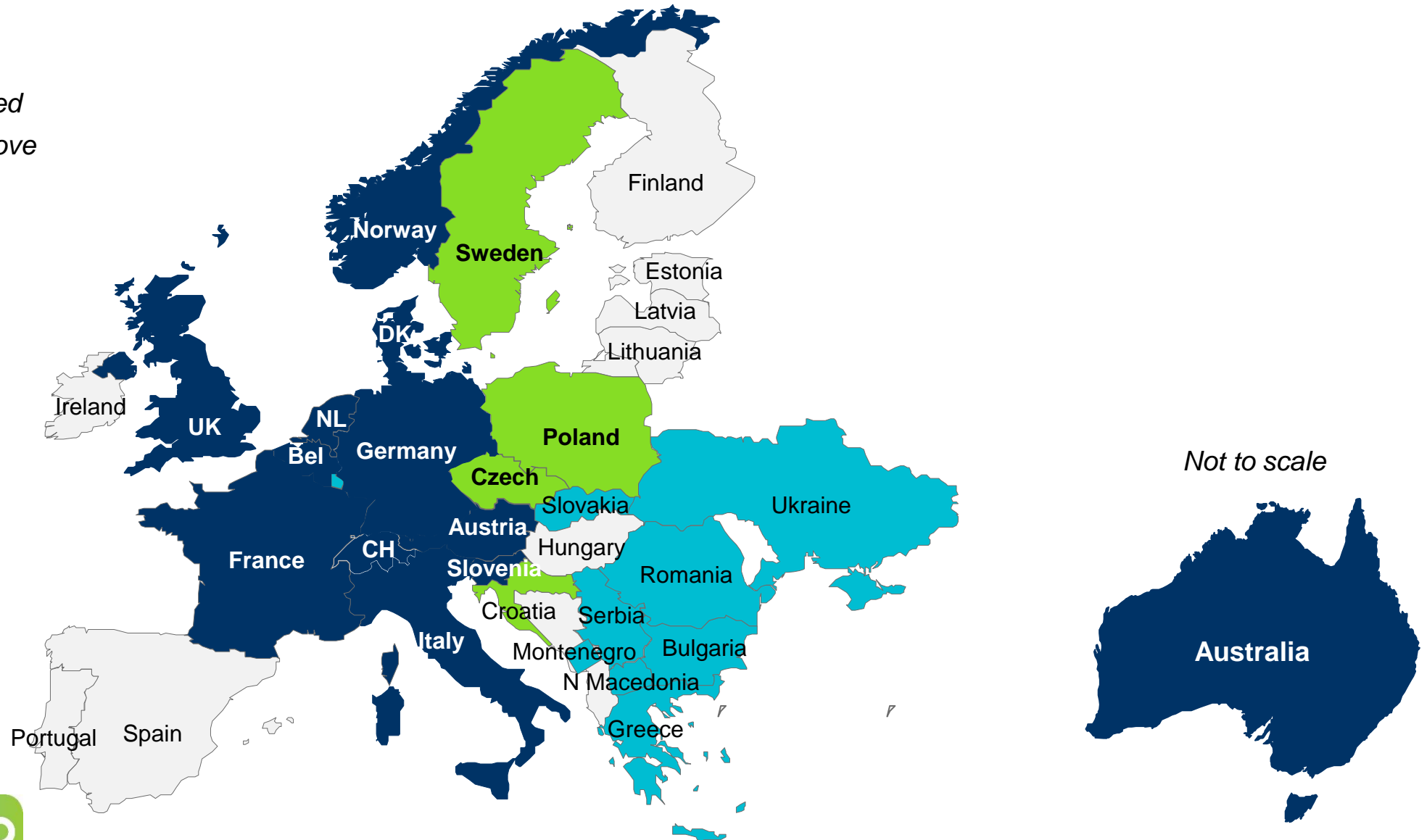
DAB+ established as core future platform for radio in Europe

-  *Established*
-  *On the move*
-  *Trials*

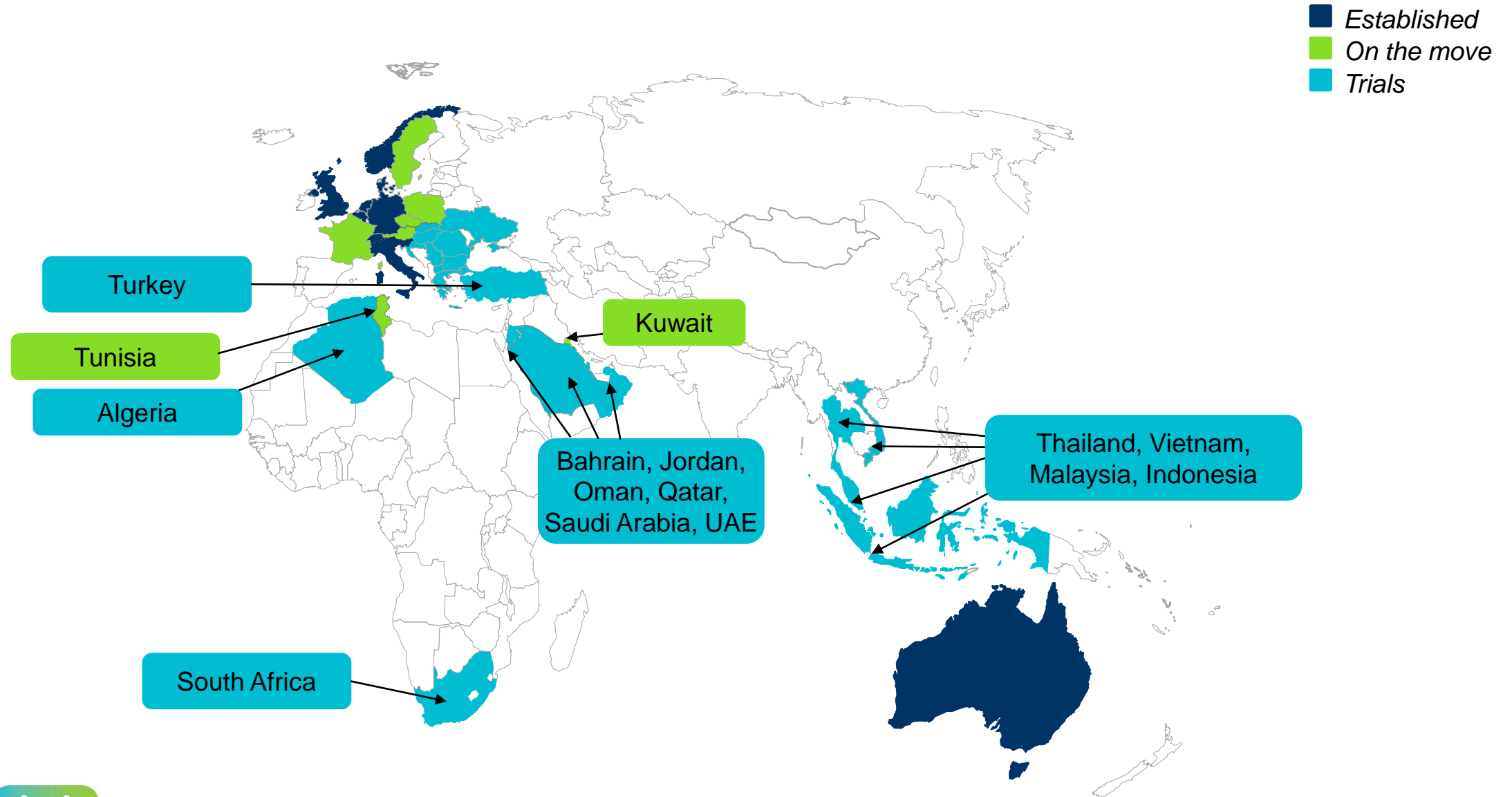


DAB+ established as core future platform for radio in Europe – and Australia

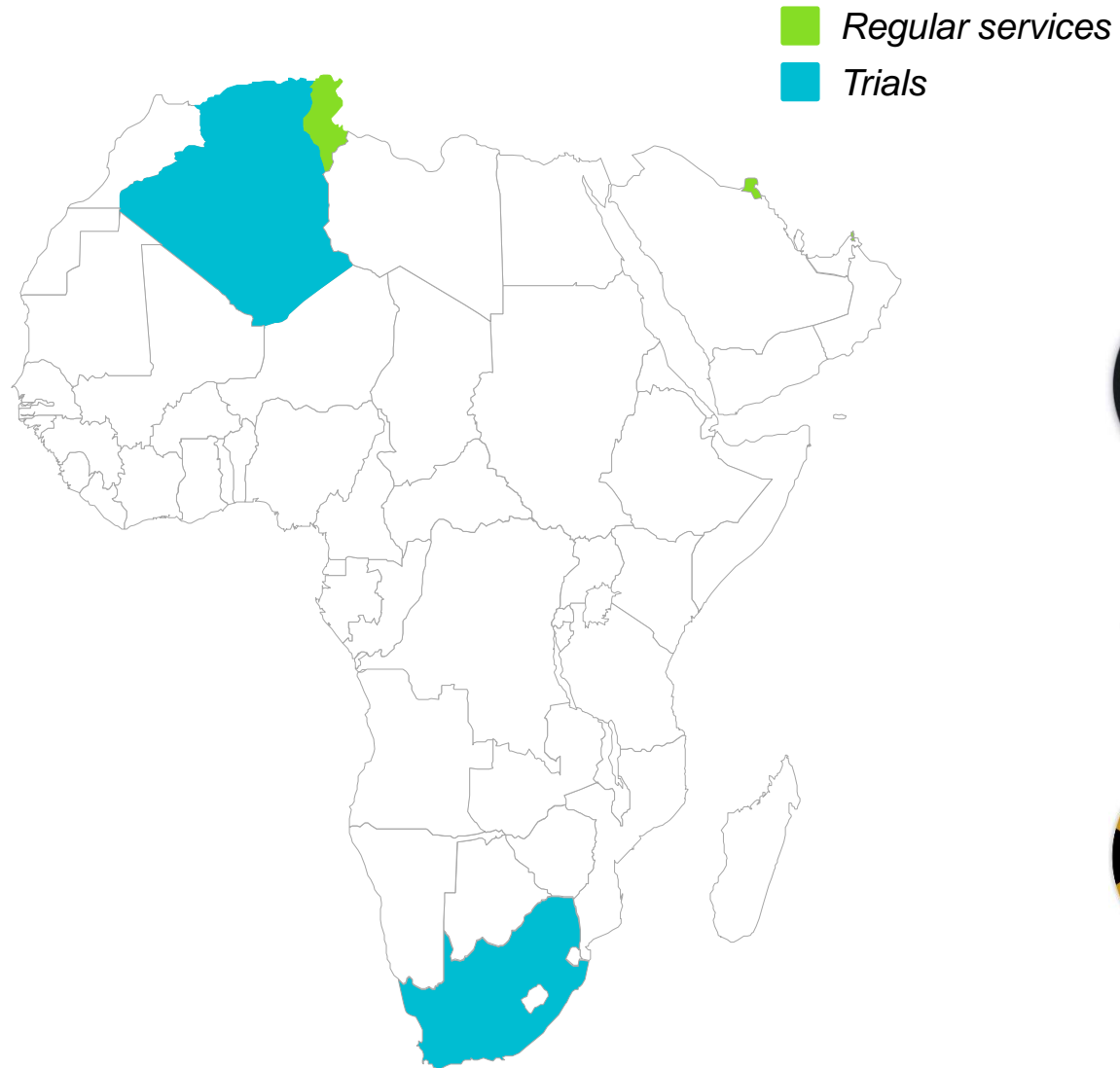
- Established
- On the move
- Trials



Around the world, interest in DAB+ is growing



First steps in Africa and Middle East



Regular services



Kuwait:
(2014)



Tunisia:
(2019)

Trials



South
Africa



Algeria

What is driving this change?

FM spectrum is full



- No capacity to expand
- Impossible to innovate

Online players are entering radio's space

The Google logo, featuring the word "Google" in its characteristic multi-colored font (blue, red, yellow, green, blue, red).The Amazon logo, featuring the word "amazon" in a dark blue, lowercase sans-serif font with a curved orange arrow underneath it.The Spotify logo, consisting of a white circular icon with three horizontal lines inside, followed by the word "Spotify" in a white sans-serif font, all set against a green rectangular background.

Important to ensure regulated radio services retain their position with local audiences

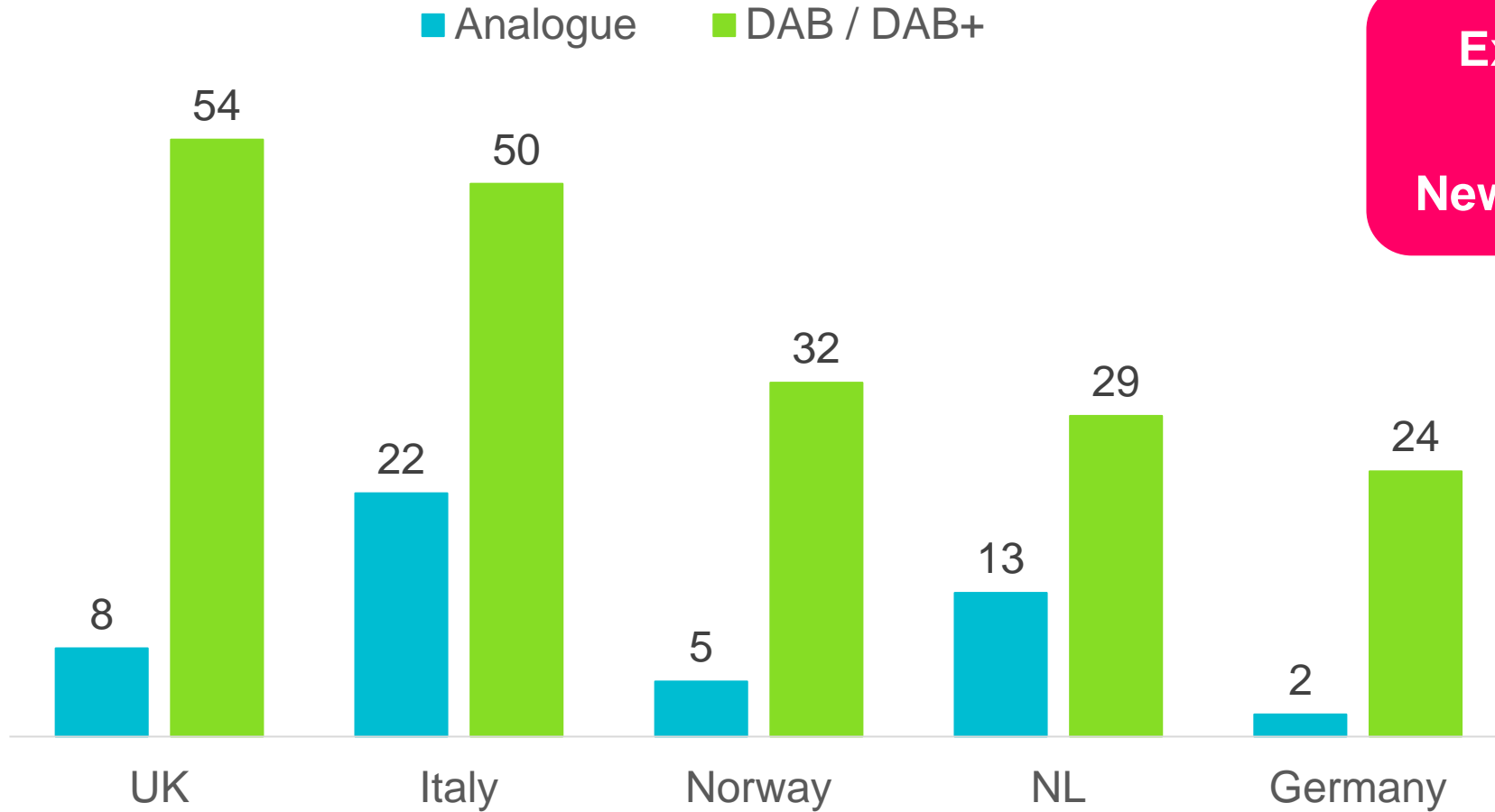
Essential to optimise the broadcast experience



- For consumers
- For broadcasters
- For society

DAB+ offers greater choice – on average, six times as many services

National radio services



**Extend coverage of
local services**
New language services

DAB offers clearer sound - particularly where FM is overcrowded



DAB+ offers text and graphics



Makes radio more appealing to listeners

DAB+ brings major benefits to society



- Reliable in times of emergency
- DAB+ receivers now fitted with alarm features as standard

DAB is the green solution



- DAB+ consumes significantly less energy than FM
- BBC study shows DAB is 33% more efficient than FM¹
- German study shows similar results

Why now?

Over 100 million receivers (consumer / automotive) have been sold

Cumulative DAB sales:

110 million

Consumer receivers are mass market



- Prices from US\$20
- Sony, Panasonic, Yamaha and many more

New car radios: digital radio as standard



European Electronic Communications Code

- From end 2020, all new car radios in EU & UK must be able to receive digital terrestrial radio

All major automotive manufacturers support DAB+



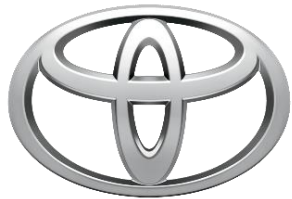
DAIMLER



HONDA



HYUNDAI



TOYOTA

STELLANTIS



VOLKSWAGEN

GROUP

DAB+ is key to securing radio's long-term position in the car



- Start with DAB+ broadcast
- Optimise the experience
- Use DAB+ as gateway to hybrid radio future

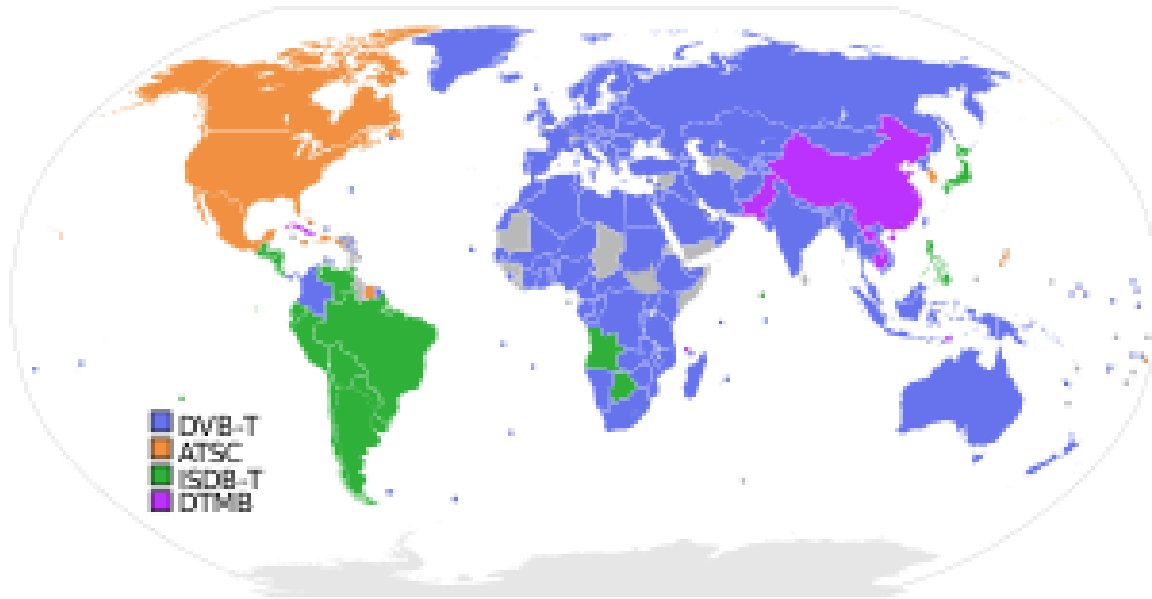
Spectrum efficiency and preparing to launch

DAB+ is spectrum and power efficient



- Provides best trade-off of spectrum efficiency and power efficiency
- Spectrum efficiency
 - use of Single Frequency Networks
 - modern modulation and coding
 - more services in limited available bandwidth
- Power efficiency
 - DAB+ provides a very robust signal to deliver radio in difficult environments
 - provides services to distant receivers
- Ensures Regulators deliver best use of valuable spectrum – a finite resource

Band III spectrum is available

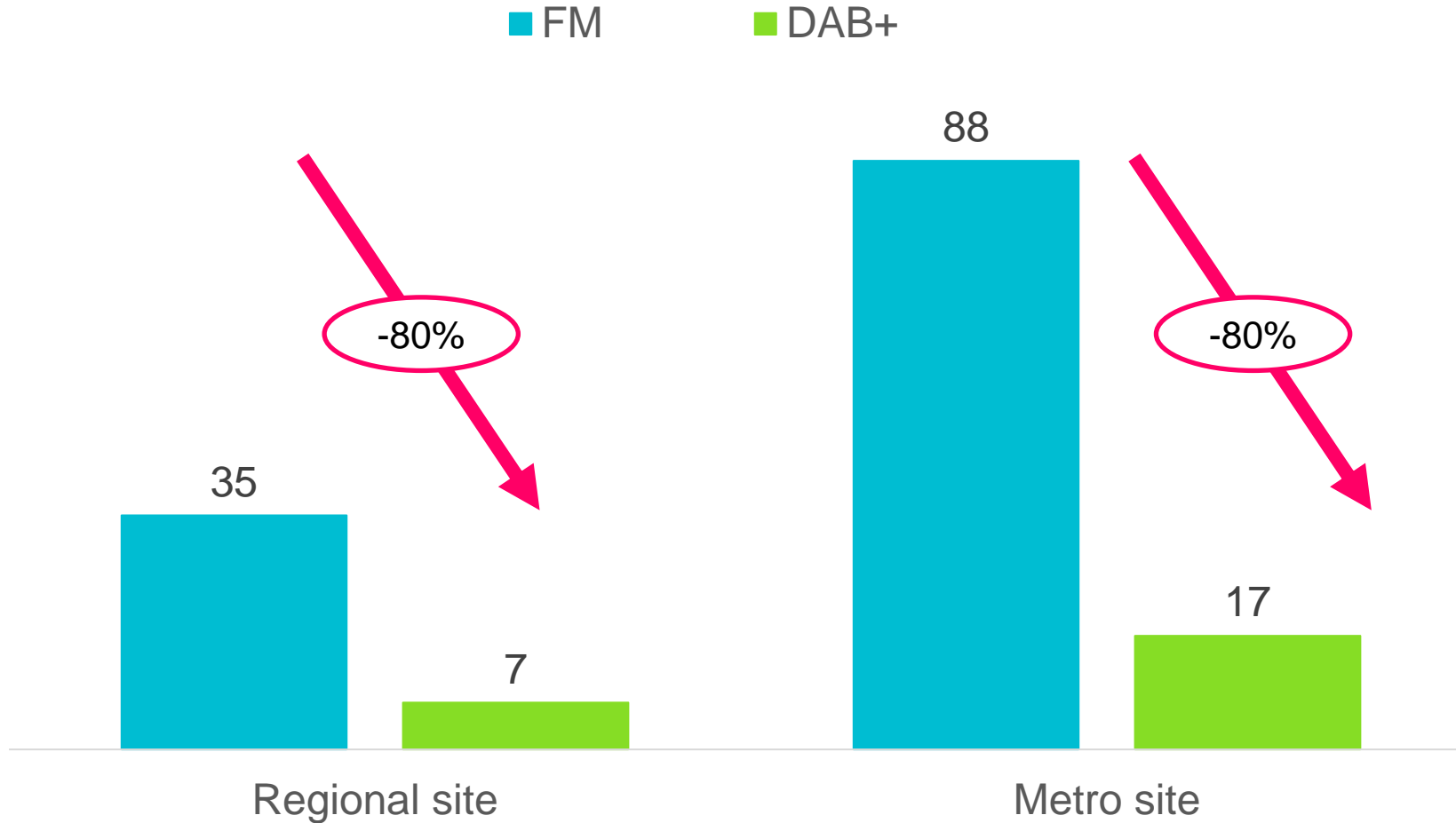


- Most countries will vacate Band III during DTT ASO making it available for Digital Radio
- DTT ASO complete in over 14 African countries
 - including Algeria, Tunisia, Kenya, Uganda, Tanzania, Rwanda, Morocco, Mauritius
 - many others in process of completing transition to DTT and are planning ASO
- DAB+ trials can take place before ASO

DAB+ offers lower distribution costs

Annual cost to broadcasters of transmission per service¹, US\$k

Efficiency gains:
costs and spectrum

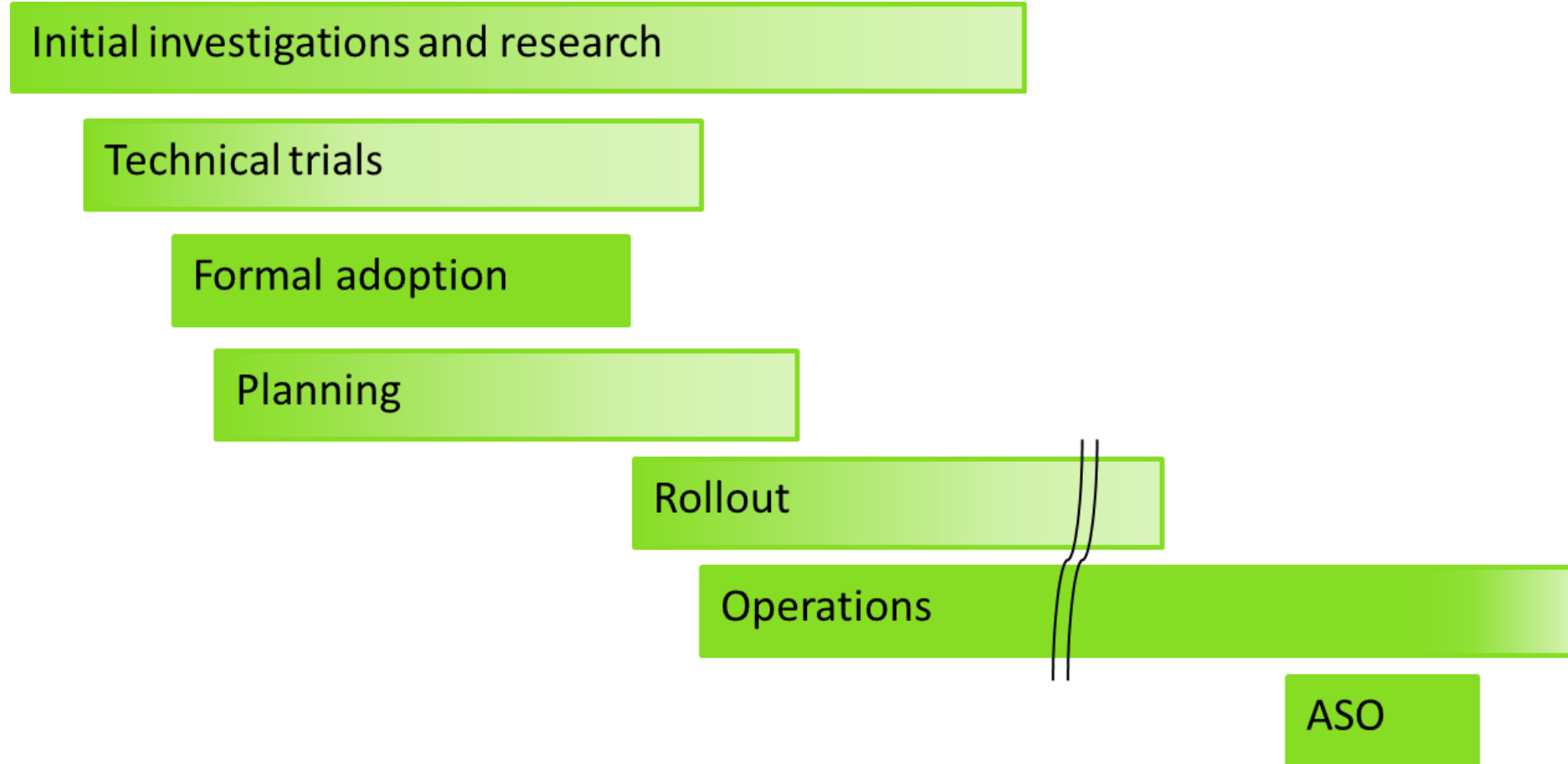


Source: Total operating costs sourced from broadcasters and network operators

Note (1) Operating costs for DAB+ assumes 18 services on multiplex; opex includes site and tower leases, power, telco, maintenance, monitoring and support costs

The overall DAB adoption process

Typical timeline



Initial investigations and research



- Research is usually conducted by a group of nominated individuals who then report back to stakeholders
- Who are the stakeholders?
 - the Public Service Broadcaster, the Government communications Regulator and commercial service providers
 - establish a cross industry working group
- Research comes in a range of forms
 - webinars / workshops
 - standards reviews
 - discussions with other organisations

DAB+ trials

DAB+ technical trials provide a range of uses

- Learn how to construct and configure a basic DAB system
 - Usually a single transmission site
- Learn how to provide audio and metadata feeds including hybrid radio
- Test the coverage of the transmission and compare with predicted coverage
- Test and demonstrate DAB+ features to stakeholders
- Trial systems can be moved between locations to help understand the impact of different types of terrain
- Ongoing trials can be used as a pre-cursor to permanent services



How WorldDAB can help



Support to broadcasters

- Regulation
- Licensing
- Technical trials
- Network build out
- Best business case scenarios
- Cost modelling
- Receiver legislation
- Production of new digital radio content
- Marketing



Tailored technical advice

- RF coverage planning
- RF interference analysis
- International frequency coordination
- Technical business case and cost analysis
- Rollout strategies
- Field testing
- DAB multiplexing and input processing
- DAB network design and operation
- DAB features
- Hybrid radio and PAD systems
- Receivers – domestic and automotive

How WorldDAB can help



Participate and network

- Participate in WorldDAB Committees, Working Groups and Task Forces
- Attend WorldDAB member events
- Reach customers with with targeted networking opportunities
- Free or discounted admission at other organisation's industry events
- Speaking opportunities



Resources

- ETI library - samples of live on-air ensembles from different countries
- Strategic information on country roll out plans, coverage maps, presentations and tailored research from industry experts
- SharePoint - online member document sharing tool
- Member directory

How WorldDAB can help



Workshops and seminars

- We work in partnership with ABU
- Physical and virtual events
- Topics tailored to audience needs
- Dedicated technical seminars led by experienced DAB engineers
- Information on all aspects of deploying DAB



Conferences

- Bringing together industry professionals from established and emerging markets
- 230+ delegates from 30+ countries
- Market updates and insights
- Unique auto focused events
- Networking with peers around the globe
- Exhibition connecting buyers with providers of DAB equipment and solutions

How WorldDAB can help

For more information

www.worlddab.org

Or email to

projectoffice@worlddab.org



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WorldDAB is the global industry forum for DAB digital radio

We facilitate the adoption and implementation of broadcast digital radio based on DAB, the digital radio standard adopted by broadcasters across Europe, Asia Pacific and beyond.

WorldDAB delivers tailored solutions and advice on all aspects of the switch from analogue to digital radio including regulation, licensing, technical trials, network build out, marketing and production of new digital radio content.



[Car buyers study - Edison Research](#) [DAB+ automotive resources](#) [Infographic - DAB growth worldwide](#)
[European Electronic Communications Code](#) [Metadata video explainer](#) [Green Radio Report - Bavaria](#)

News

[New local DAB+ networks go live in Poland](#)
13.01.2022 - Wirtualnemedi.pl

[How green is DAB digital radio?](#)
12.01.2022 - Rein-hoeren.de

[Member of National Broadcasting Council optimistic about DAB+](#)
11.01.2022 - Wirtualnemedi.pl

DAB+ around the world



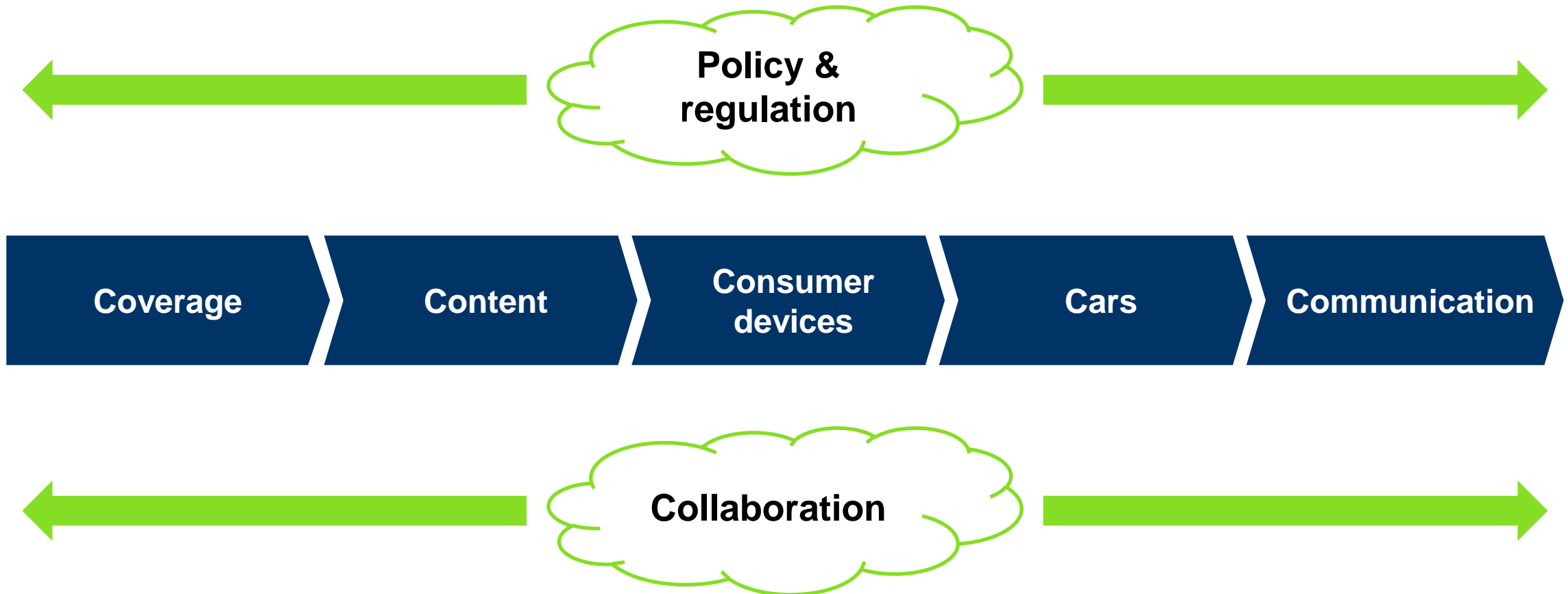
Upcoming events

[Oct 21 IBC Digital](#)
[Jan 17 #Radioweek](#)
[Feb 01 Radio's role in cars of the future](#)
[Feb 16 EBU Digital Radio Summit](#)



Key to success is collaboration

The Five Cs



Conclusions



- 1 DAB+ established as core future platform for broadcast radio
- 2 Significant benefits for listeners, broadcasters and society
- 3 Receiver market is mature – now is the time for action