

Why Broadcasters In The Netherlands Have Adopted DAB+

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Radio Listening



- 87,4% of the population listen to the radio during the week
- 13 m people
- Nearly two hours and three quarters

Radio Distribution Shifts To Digital

Mobile



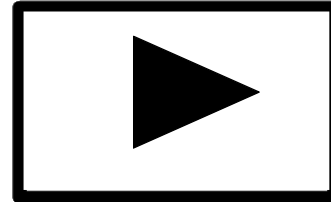
Online



Broadcast



Set top box



Radio Listening Increasingly Digital



52% broadcast FM

48% other

Digital Hybrid Is Now & Future Of Radio



4G 5G



connected
DAB+ & IP



Media Consumption Is Changing

- Traditional media revenues are under pressure - promotion of radio is essential - in all forms
- Dutch radio stations are there for all devices on all platforms
- Digital radio can stimulate new commercial radio revenue

Benefits of Digitization

Listeners

- Digital sound
- Greater choice
- Coverage
- New data services
- Easy to use

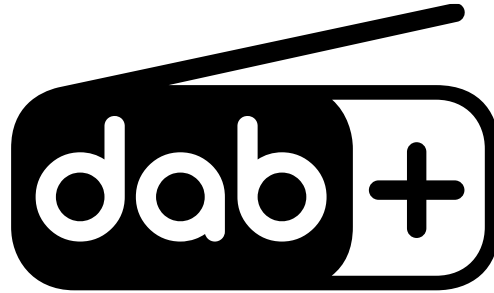
Broadcasters

- Innovation
- Brand extensions
- Coverage
- Cost efficiencies
 - FM = full & expensive
 - https://tech.ebu.ch/publications/tr_2017_radio

Society

- Greener distribution
- Free to air / universal
- Open standard
- Emergency alerts
- No gatekeepers

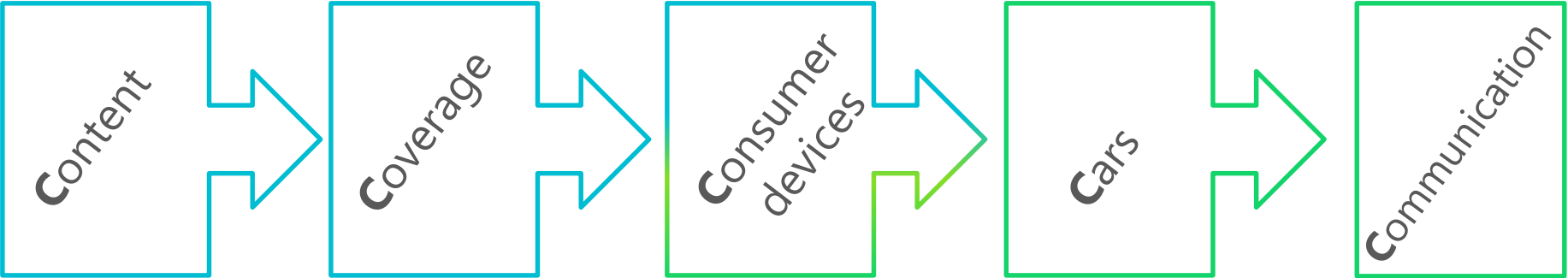
All radio stations in NL
push DAB+ as
broadcasting backbone



The successor of FM



Collaboration Key To Success



Government: The Public Interest Of Radio

- Radio is an important medium for distributing and receiving news, opinion, music and entertainment
- It is free-to-air - that is to say: you can listen to it as much as you want without any additional costs
- In the event of emergencies, radio remains an indispensable source of information. Broadcast radio is robust
- Radio is a public interest

Government: Digitization Policy 2011-2017

- The (mobile) listener's needs are central (availability, affordability and reliability)
- Promoting the transition to digital radio
- Effective frequency use
- The analogue FM permits of the national and regional licensees (public and commercial) will be extended until 2017, on the condition that they will invest in digital radio. No auction or a comparative test (as in 2003)
- A link is made between analogue and digital
- The national broadcasters (public and commercial) will start using digital radio by 1 September 2013 (40% geographical coverage, 2015 80% geographical coverage)
- The regional broadcasters (public and commercial as well as medium wave) will start using digital radio by 1 September 2015 at the latest

Broadcaster: Incentive To Invest In Digital

- Secure distribution FM: Permit FM and DAB + until September 2017, with possible extension to 2023
- Capacity on DAB + at least 2 channels 144 K/b
- No restrictions on the use of the digital spectrum or in formats
- First option to become owner of Multiplex
- Shared multiplex costs
- No new competition during construction years DAB+

Digital Radio : National

- In 2011, the permits for national digital radio were granted; Duration until 1 September 2017
- A nationwide covering layer (Single Frequency Network) for the nine commercial radio stations, frequency block: 11C
- Simulcast commitment: recognisability
- In addition, every station an extra channel, free interpretation; Total: 18 commercial radio stations on DAB +
- The NPO also has a nationwide opaque layer, frequency block: 12C

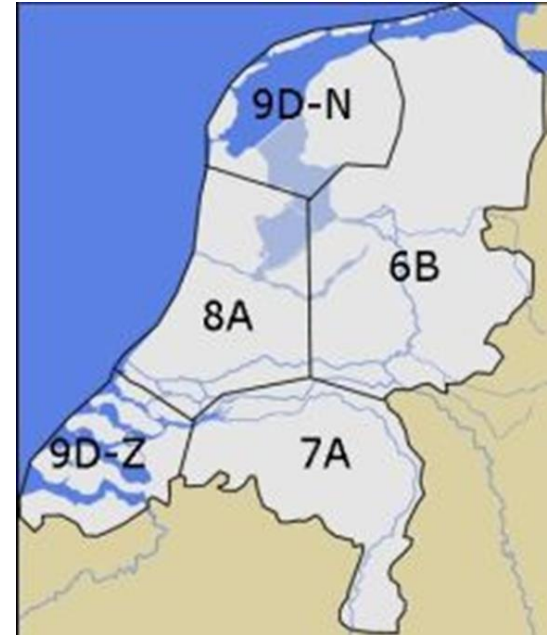


@launch 2013:
>95% mobile coverage



Digital Radio : Regional

- Consists of five (top) regional allotments. Max. 18 stations per multiplex
- Digital licenses for:
 - regional public broadcasters (RPO)
 - non-rural commercial (NLCR)
 - medium wave (AM)
- In every allotment, the parties work together in the multiplex. Mixed composition of different parties
- MTV-NL: own nationwide network with a regional division



launch 2015

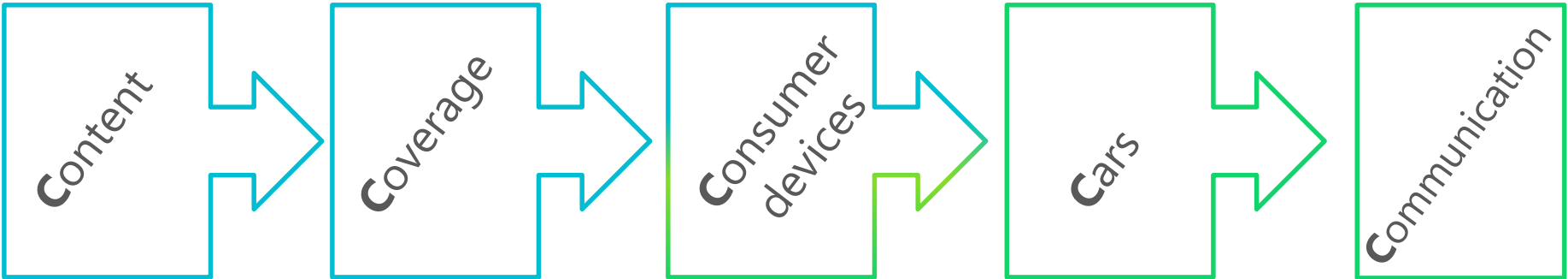


Government:

The Ministry of Economic Affairs:

- 1/1/2016: Ownership restrictions relaxed
- 1/9/2017: FM-licenses private broadcasters extended til 1/9/2023
- 31/8/2017: Digital Radio licenses ended and issued under different conditions; no obligation anymore to broadcast 2 stations

Collaboration Key To Success



Netherlands: Quickest Launch In Europe



Digital Radio NL



nederlandse
publieke
omroep



VERENIGING
VAN
COMMERCIEËLE
RADIO



Ministerie van Economische Zaken

bimonthly Steering Board on future of radio (national & international)



Regionale Publieke Omroep

NLCR:

UNETO-VNI



FIAR ce
consumer electronics



Rijwiel en Automobielen Industrie



Program Variety DAB+: > 65 Radio Stations



DAB+ Networks

NPO

- Network built by KPN Broadcast
- 4 on FM -> 14 on DAB+
- Population mobile: 99%
- Population indoor: 87%



VCR

- Network built by Broadcast Partners
- 9 on FM -> 16 on DAB+
- Population mobile: 99%
- Population indoor: > 75%

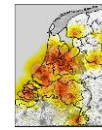
RPO & NLCR + other

- Network built by Broadcast Partners
- 6B; 7A; 9D-N; 9D-Z geographic mobile: 100%
- 8A: geographic mobile: 69%



MTV NL

- Network built by Broadcast Partners
- Population mobile: 95%



DAB+ Receivers

KITCHEN, LIVING ROOM & BEDROOM

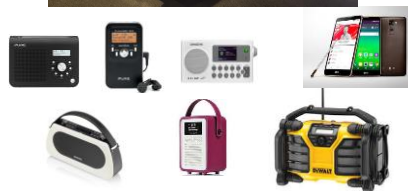


- Stand alone or HiFi connected
- Easy to operate
- Good sound and external connections to HiFi
- Good DLS display

Options

- More volume
- Colour screen
- Docking
- Smartphone control app

PORTABLE VARIETY OF SITUATIONS



- Work
- Relaxing
- Exercising

DAB+ STANDARD IN CARS



- All the major manufacturers offer DAB as an option or standard in new cars



DAB+ = Successor Of FM

100% Commitment

Government

Broadcasters

YEARLY PLAN

2013/2014, 2015, 2016, 2017, 2018; Perspective 2023

Key Performance Indicators

KNOWLEDGE	Name awareness
	<u>Primary:</u> <ul style="list-style-type: none">• Familiarity with digital radio & DAB +• Familiarity with advantages DAB + compared to FM <u>Secondary:</u> <ul style="list-style-type: none">• it is known that DAB + is the successor of FM
ATTITUDE	Buying Intention
	They are positive about digital radio / DAB+ and they intend to listen via a digital / DAB + receiver
BEHAVIOR	Digital / analogue listening
	<u>Primary:</u> in 2023 > 70 % listens digitally - any digital for and < 30 % via analogue ether FM <u>Secondary:</u> Percentage of new devices that can receive digital radio (automotive / (r)etail)

GOAL: to create growth (various stakeholders) on DAB+:

- knowledge
- attitude
- behaviour

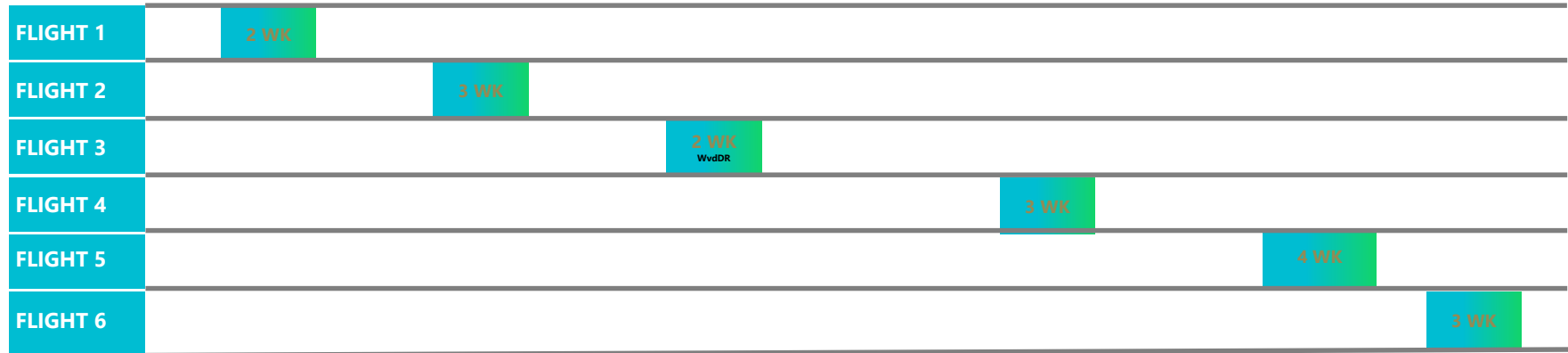
by means of a large public **campaign** for DAB+



DAB+ Campaign 2018

FEBRUARY MARCH APRIL MAY JUNE JULY AUGUST SEPTEMBER OCTOBER NOVEMBER DECEMBER

RADIO



TELEVISION



New logos:
start
1/6/2018



radio goes digital



radio goes digital

NB: New artwork shared with all stakeholders and radiostations in The Netherlands



Digital Radio NL online

- Website



- Social Media > Facebook & Twitter



Other examples – Digital Radio Week 2018

Website Qmusic – DAB+ give away

WEEK VAN DE DIGITALE RADIO

Van maandag 11 tot en met vrijdag 15 juni 2018 is het de Week van de Digitale Radio. Voor meer informatie over DAB+ en de Week van de Digitale Radio, check digitalradio.nl.



PURE is een van de grootste fabrikanten van consumentenelektronica en zet de toon op het gebied van muziekstreaming- en radiosystemen.

Explore more Pure

dab+ digital radio 3 Year Warranty

PURE f t w

SONY Newsletter

Overzicht **News** Afbeeldingen & video's Contacten

Sony biedt een ruim assortiment DAB+ radio's aan tijdens de Week van de Digitale Radio

Perbericht 1 mei 2018 10:00 CEST



Maandag 11 juni start de Week van de Digitale Radio. Al meer dan 75 Nederlandse landelijke en regionale, publieke en commerciële radiostations zijn tegenwoordig te beluisteren in digitale kwaliteit via de ether. Om het beste uit deze technologie te halen zijn de Sony DAB+ radio's onverschaanbaar: Sony's XDR-S41D, XDR-S61D en de XDR-V20D bevatten de nieuwste innovaties op het gebied van digitale radio.

Het digitale signaal wordt ook wel het DAB+ signaal genoemd. Om dit te kunnen ontvangen op je radio moet deze de DAB+ techniek ingebouwd hebben. De XDR-S41D, XDR-S61D en de XDR-V20D converteren dit signaal naar een hoogwaardige geluidskwaliteit en bevatten diverse connectiviteitsfuncties om het optimaal gebruik van te maken.

XDR-S41D

Wakker worden met muziek in topkwaliteit wordt mogelijk gemaakt dankzij de XDR-S41D. Deze draagbare portable radio kan gemakkelijk digitale signalen opvangen via de ether en omzetten naar een prachtig geluid via de DAB+ technologie. Dankzij zijn lichte gewicht en compacte ontwerp is dit model ideaal voor onderweg. De radio kan dankzij de Wake-Up en Sleep-Timer automatisch aan en uit worden gezet. De speaker heeft een uitgangsvermogen van 500mW en voor de hoofdhoor is er een hoofdtelefoonuitgang om gemakkelijk muziek te luisteren zonder anderen te storen. Naast de speaker bevindt zich een LCD-scherm waar de functies, tijd en batterijkuur overzichtelijk worden getoond. Als dit nog niet voldoende is heeft de XDR-S41D ook een microfoon voor handsfree bellen. Download de Sony Handleiding hier.



Other examples - Retail

DAB+ sales unit for retail



Usage DAB+ logo & slogan in retail

RADIO GOES DIGITAL

Radio luisteren kan op veel verschillende manieren. De alternatieven voor FM bieden u meer zenderkeuze in minder tijd. Zowel thuis als onderweg. De 3 belangrijkste soorten radio's van dit moment:

- 1 DAB+ RADIO'S**
Via DAB+ ontvangt u heel veel zenders digitaal. Zonder 3G, 4G, WiFi of vaste internetverbinding. Gratis. Zo uit de lucht!
- 2 INTERNETRADIO'S**
Met een internetradio heeft u duizenden radiozenders van over de hele wereld binnen handbereik via WiFi of een vaste internetverbinding.
- 3 HYBRIDE RADIO'S**
Wilt u de voordelen van zowel een DAB+ als een internetradio in 1? Kies dan een hybride radio.

WELKE DIGITALE RADIO PAS BIJ HET BESTE BIJ U?
Wilt u meer weten over DAB+, internet en hybride radio's en welke het beste aansluit op uw wensen? Bezoek het uitgebreide assortiment op **Expert.nl** of stop binnen in een van onze 140 winkels voor onafhankelijk radioadvies.

PURE DAB+ RADIO | Euron E3 **69,-**

- Luster slijmreijf naar vier favoriete radiozender
- 4 favoriete radiozenders voor te programmeren
- Met wakkerefunctie en kleurendisplay

SONY DAB+ RADIO | ICR-S612 **99,-**

- Luster slijmreijf naar vier favoriete radiozender
- 5 favoriete radiozenders voorprogrammeren
- Wakkerefunctie in meerdere kleuren

imperial bluetooth wifi HYBRIDE RADIO | DABMAN 1150 WOOD **129,-**

- DAB+ en internetradio in één
- Luster naar 500zender online radiozender via WiFi
- 5 favoriete radiozenders voorprogrammeren

...Zo doen wij dat! **expert**





Facts & Figures

>

Sold DAB+ radios, incl cars with DAB+ as standard
Q4 2017: nearly 52,000 units sold: **new record!**

875.000

Source: GfK Panel Market Sales Units | January 2018 (period: 2013-2016 + JATO Dynamics / WorldDAB March 2018)

72%

Name awareness DAB+ / Digital Radio
+12% compared to June 2017

Source: NPO MAP January 2018

37%

New sold cars with
DAB+ as standard
2016:26%; 2015: 16%; 2014: 6%

41%

New cars with
DAB+ as option
2016: 44%; 2015: 46%;

Source: JATO DYNAMICS / WorldDAB March 2018

28%


Purchase intent DAB+ radio

Source: NPO MAP January 2018

The Netherlands 'BEST IN CLASS' in Europe
(compared in the 1st 4 years after launch DAB+ Digital Radio)



DAB+ Reaches Mass Market

Use  tripled

13%

>2 m people

2023
Digital Radio
>70%

AMBITION DRNL:
THAT EVERY RADIO
SOLD CAN RECEIVE
DIGITAL



DAB+ = successor of FM

- More channels
- Digital sound quality
- Easy to use

Free to air

- No gatekeeper
- No subscription/login

& More

You Are Invited To Participate
More Info

WorldDAB project office
projectoffice@worlddab.org



Enclosure



Costs comparison: FM, DAB+, Internet

EBU: https://tech.ebu.ch/publications/tr_2017_radio ; Conclusions:

Radio transmission:

1. DAB is much cheaper option than FM; it allows cost sharing due to the MUX architecture
2. DAB cost saving is significant and it would allow the creation of new content and employment
3. Internet delivery only is not competitive with the current pricing level
4. Internet delivery expense is much higher than its current percentage market share

Radio listening:

1. Internet is now part of everybody's life but mobile broadband is too expensive for media consumption
2. Internet-only delivery would prevent many families from access in information and entertainment due to a prohibitive access cost
3. The current expense for internet radio listening is much higher than its current percentage market share

A DAB backbone with low data hybrid services on top is the way forward

No radio receivers in handheld devices poses a serious threat to public information

