

# Small Scale DAB in Bristol, UK



Donald McTernan, Ujima Radio CIC  
Nick Piggott, Bristol Digital Radio

# **A Little History**



Photo credit: Prof. Miles Glendinning / The Tower Block Site

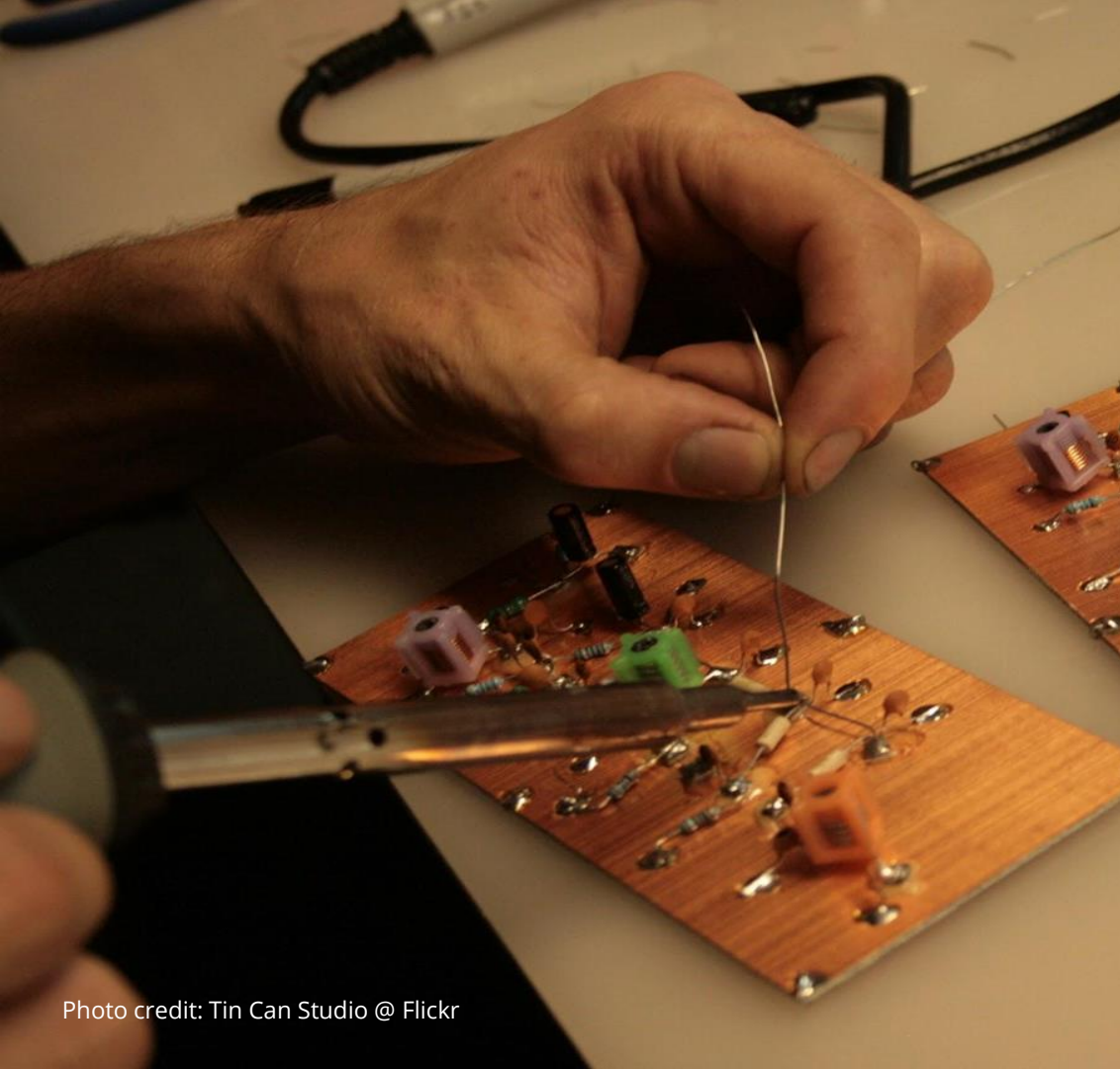
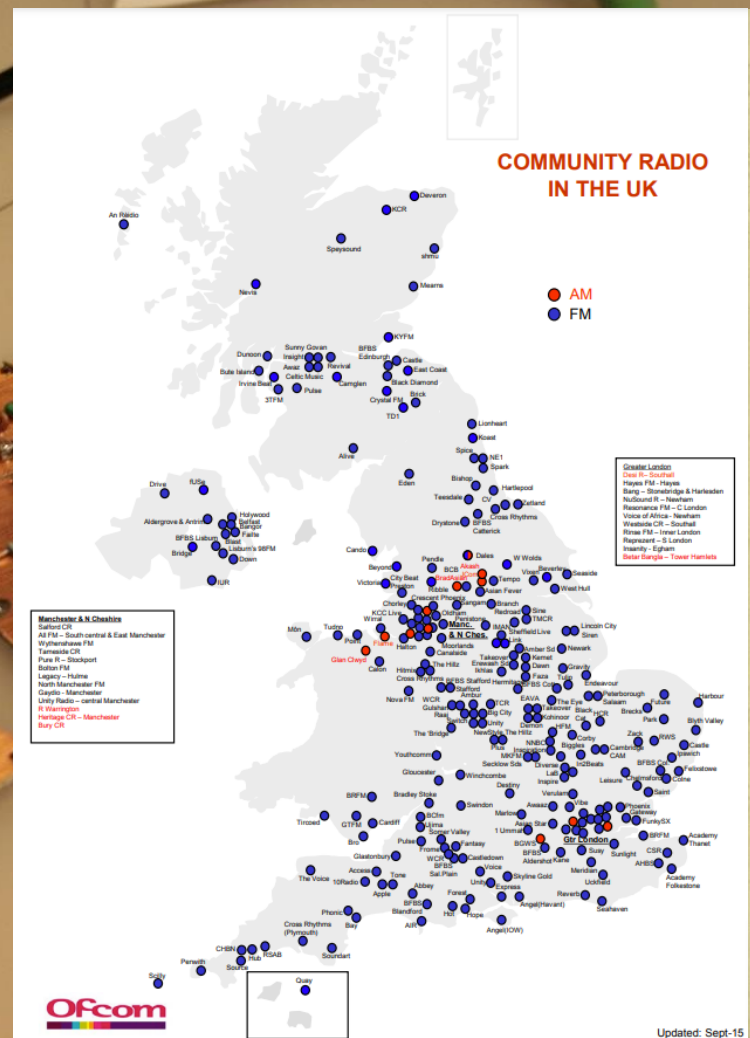


Photo credit: Tin Can Studio @ Flickr



# Ujima Radio, Bristol

Who we are

How we got here

Why did we want to do so



A collection of various digital radios is displayed in a wooden grid on a green wall. The radios are arranged in a 4x4 grid, with some cells empty. The radios vary in color and design, including white, black, silver, and pink models. Some have digital displays and buttons, while others have larger speakers and handles. The text "Digital Radio" is overlaid in the center of the image.

# Digital Radio

Photo credit: msdeegan @ flickr

# The Launch of Digital Radio - "A New Era"

Same small number of established providers

Utilising the same infrastructure

Complicated, constrained, expensive

Little innovation beyond "more audio"



# **The Weight Of Process Suffocates Innovation**

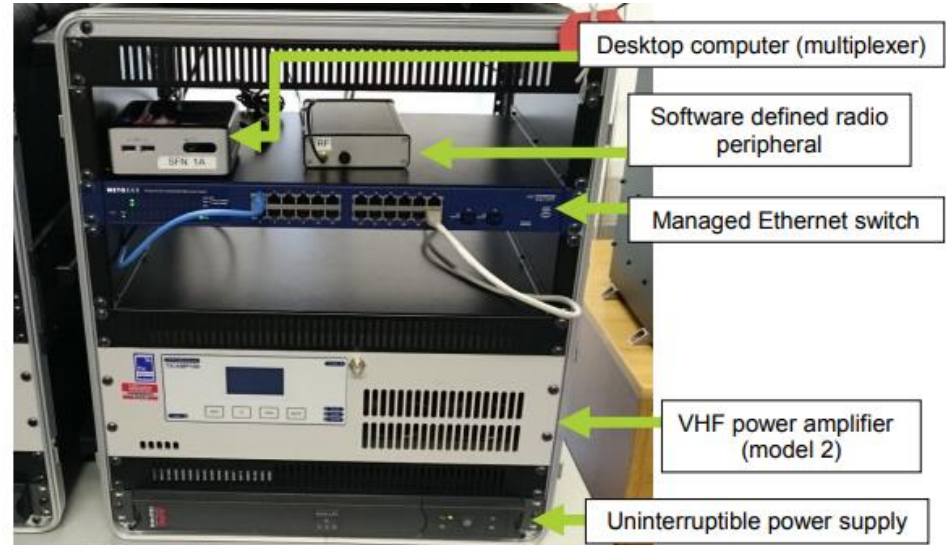


# Small Scale DAB Works

**Open Source Software** developed collaboratively over many year

**UK trials** proved it can co-exist without disrupting existing DAB services

**Equipment and operation** can be like established community radio - Small, and community based



Trial DAB Multiplexer & Transmitter

**The FUD Was Not Real**



# Bristol, UK

**SEVERNSIDE DIGITAL RADIO**

**BRISTOL DIGITAL RADIO**



**Spectrum**



**Value**



**Community Radio**

# Application Support

Work local contacts hard

Every community station

Every politician

People who wanted to start new **local** radio stations

Stations that wanted **affordable** digital radio coverage

**The people are with us**



Photo credit: Hopeless128 @ Flickr





# **Appropriate Technology**

# Appropriate Technology

**OpenDigitalRadio** multiplexer is absolutely perfect for us. All the features we need and easy for us to add new ones.

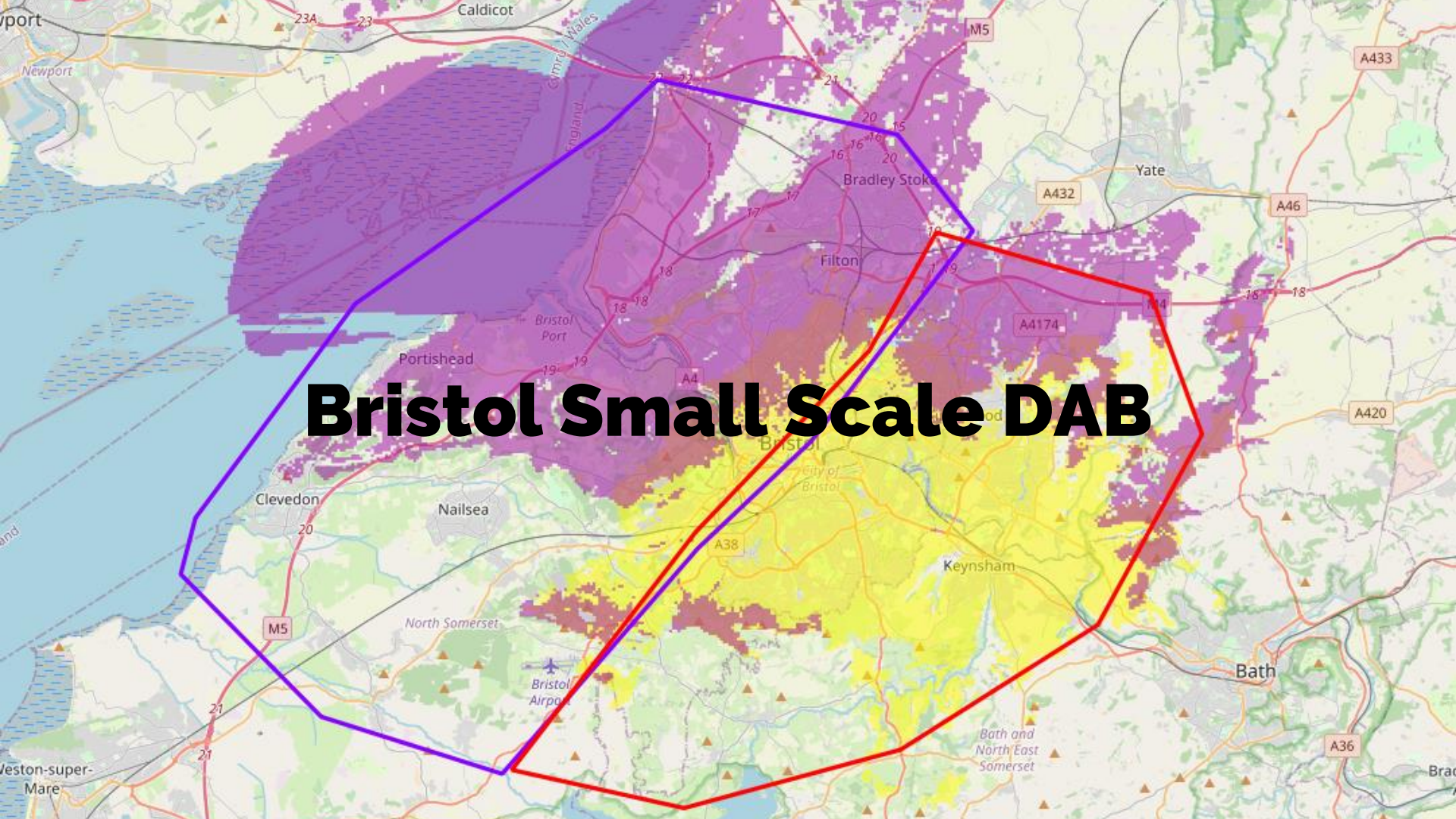
**Transmitters, antennas and filters** are commercial. We couldn't get what we wanted from SDR units + amplifiers alone.

**Connectivity** is just standard small business broadband with 4G backup

**Minimum Viable Product** - a saloon car, not a luxury vehicle



# Bristol Small Scale DAB



# Costs to broadcast

With a **radically different cost base...**

Community Radio stations pay	€	1 / year
<b>Local</b> radio stations pay		~€2 900 / year
Other radio stations pay		~€8 400 / year

We think we're **70% cheaper** than the equivalent existing local DAB multiplex which has only **7** radio stations on it (BBC x 1, Global x 3, Bauer x 3)

# Figures

**We will cover 530,000 people** (95% of the target population)

Community Radio Stations: 7

New **local** radio stations: 2

New commercial radio stations: 16

**Total Stations** **23**

**Three times more variety for listeners than the existing local DAB multiplex** - stations that keep people listening to broadcast radio

# Our Costs

Total cost of equipment: ~€41 000

Total cost of installation: ~€41 000

**Total setup cost per site: ~€16 000**

Total operating cost: ~€18 000 / year

Total cost per site: ~€ 3 600 / year

**Returned to community stations: ~€35 000 / year**

# **Spectrum Value returned to community radio**

Spectrum

Value

Community Benefits / Added Value

**SSDAB is not just about getting more digital radio on-air, and giving more stations the chance to thrive digitally.**

**It's about flexing innovation and using different thinking to overturn the old expectations of digital radio, and to prove that it can be done in a fundamentally different way.**



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