dts AutoStage

Analysing DAB+ reception in vehicles to compare coverage simulations with real-world data

DAB+ planning, measurement and monitoring

Desmond S. Fuller, Xperi

Geneva, March 2024

What is DTS AutoStage?

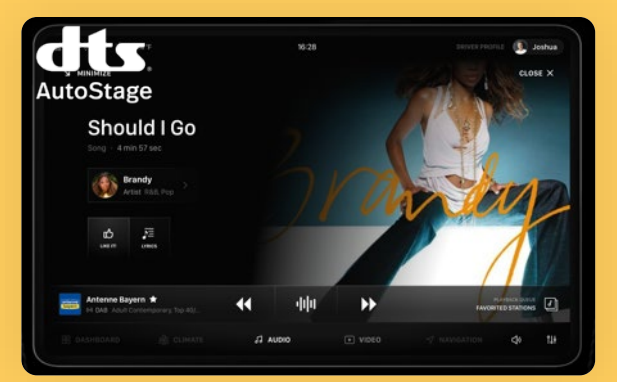
Enhancing radio around the world by providing metadata linked to broadcasts via an IP connection

- **Live station guides**
- **Higher-resolution images for new vehicles**
- **Lyrics**
- **Additional information about the artist and song**

Quick Stats | DTS AutoStage

Global Broadcasters

49,688 Radio Stations
142,530 Live Broadcasts



2.1 Billion Hours of Enhanced Discovery, Engagement & Measured Radio Listening

XPERI

Automakers

12 OEMs In Production
6.5 Million Cars on the Road

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DTS AutoStage: Automakers

6 In Final Development – Launching by 1Q 2025

- Automotive brand - 13
- Automotive brand - 14
- Automotive brand - 15
- Automotive brand - 16
- Automotive brand - 17
- Automotive brand - 18

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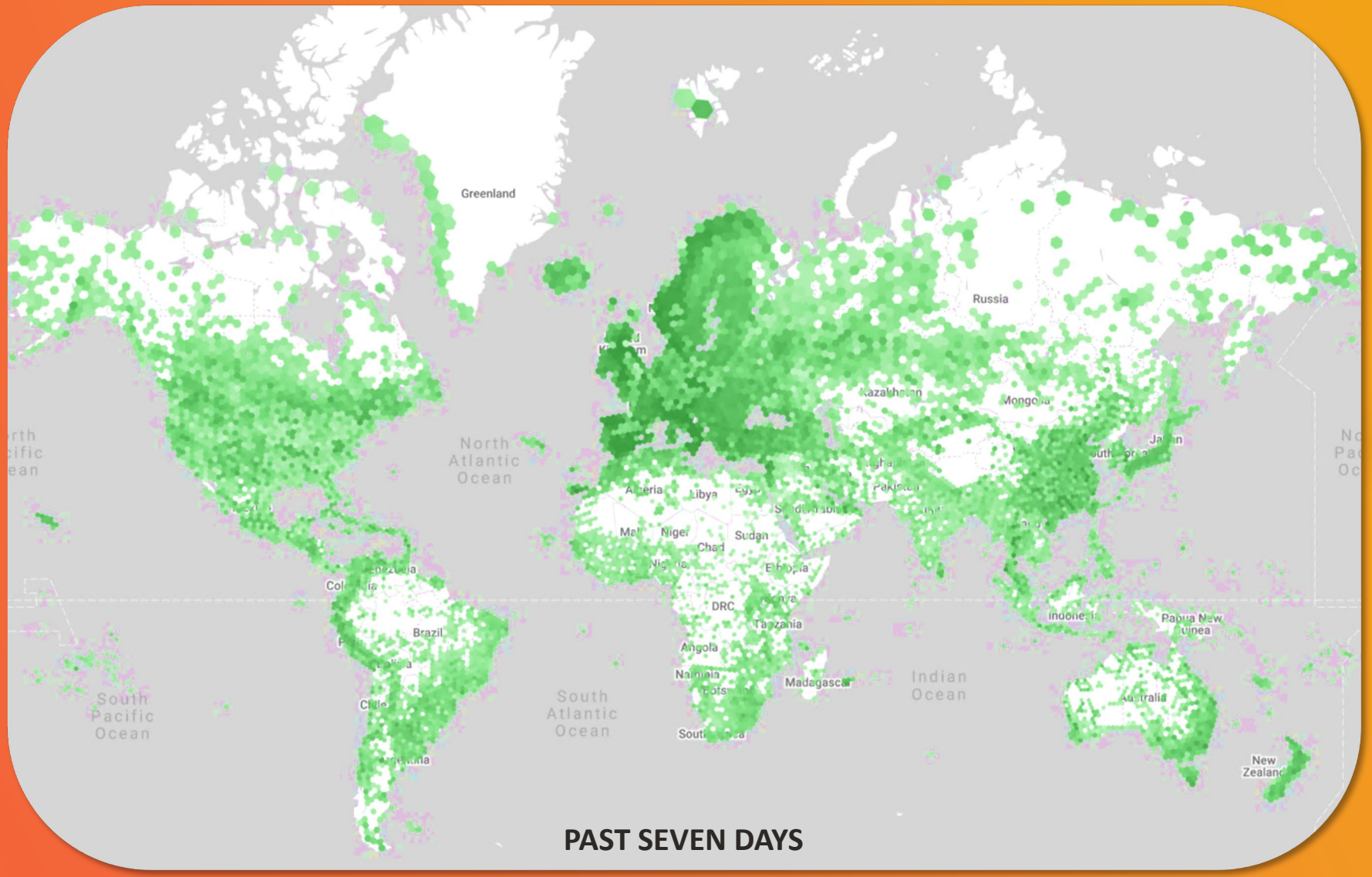
RADIO'S GLOBAL IMPORTANCE



159 Countries
49,688 Stations

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DTS AUTOSTAGE ANALYTICS

STORY OF YOUR STATION IN THE DTS BROADCASTER PORTAL

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A PRIVACY-FIRST APPROACH TO DATA ANALYSIS

NO PERSONALLY IDENTIFIABLE DATA: GOOD NEWS FOR THE BROADCASTERS

Built from the ground up with privacy by design in mind.

We take cyber-security and risk mitigation seriously.

Broadcasters will only see their stations.

Shielding broadcasters from potential litigation and legal requirements associated with the handling of personal data.

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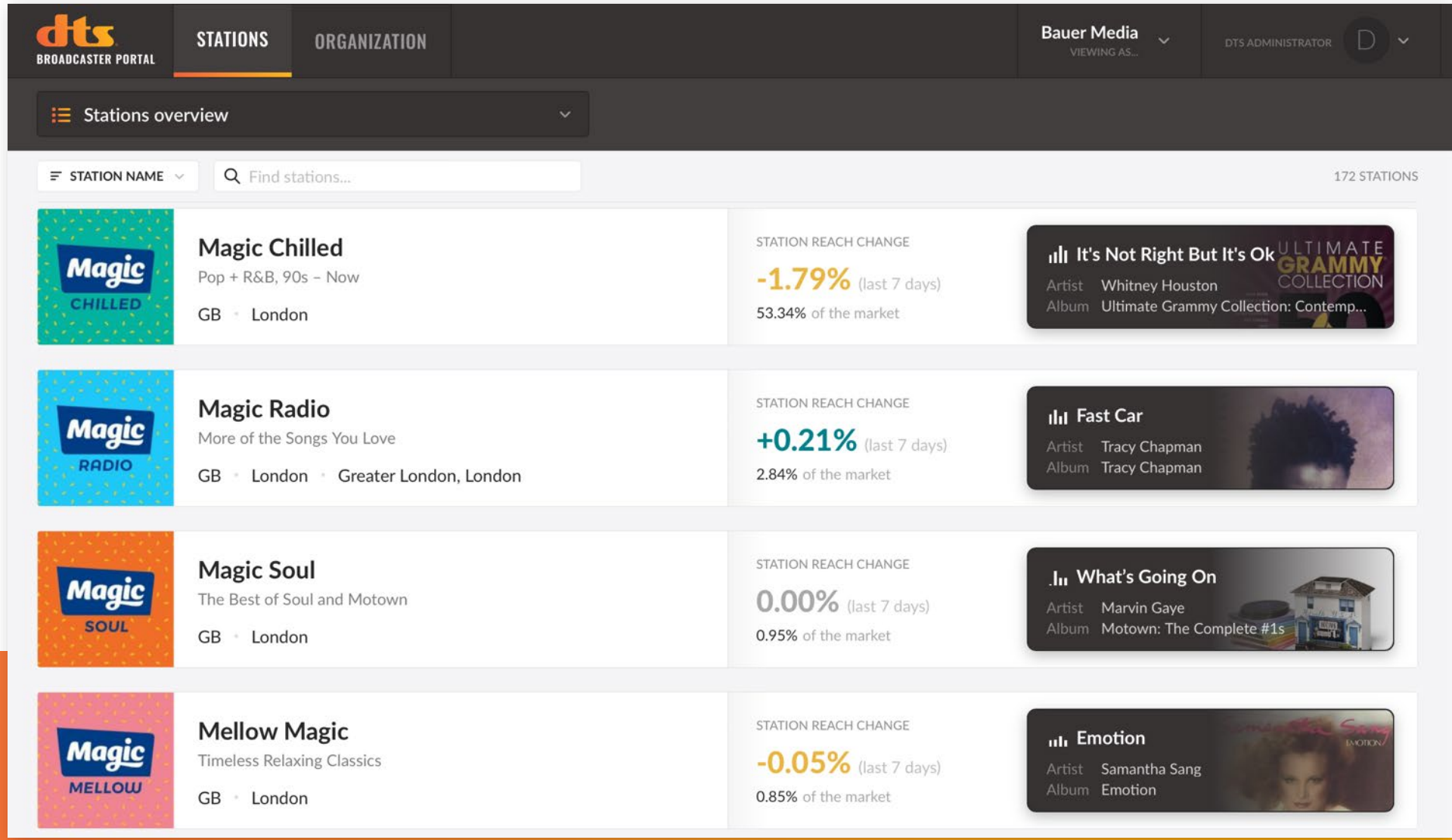
TAKE CONTROL: YOU DECIDE HOW YOUR STATIONS LOOK



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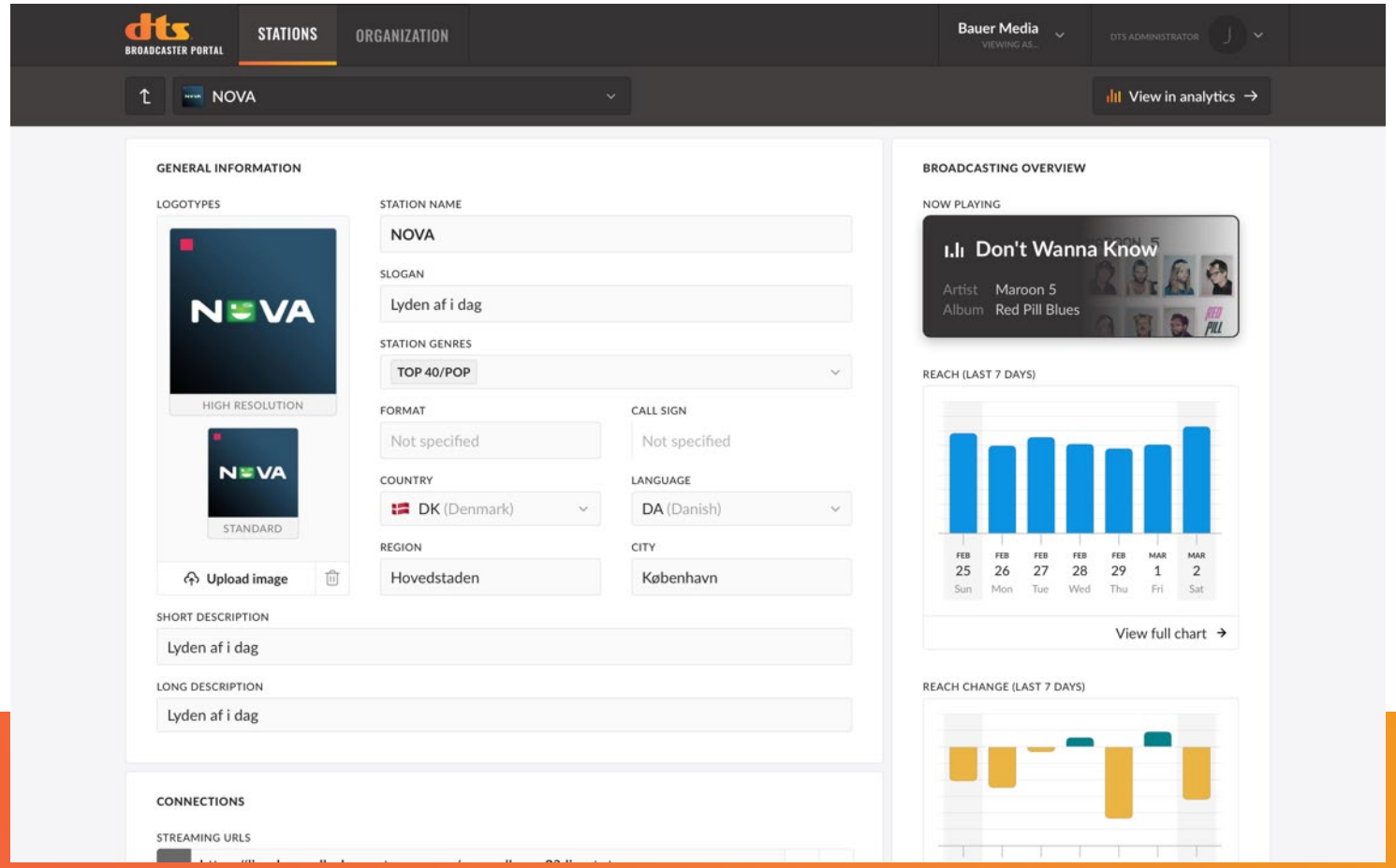
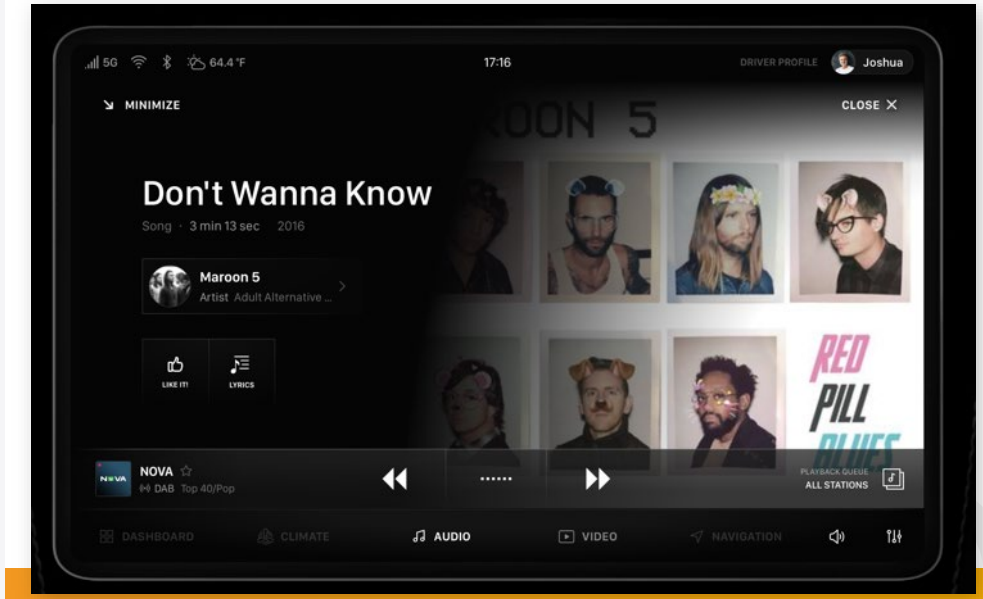
CONTROL + AUDIENCE AWARENESS: PROGRAMMING QUALITY + METADATA CONSISTENCY



Broadcast Metadata Manager



Global Receiver Emulator

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TELLING THE STORY OF YOUR STATION AND AUDIENCE

WHO

- Understand your audience in your markets.

WHERE

- Where is your audience listening and the concentration in your market?

WHEN

- When is your audience tuning in and tuning out during the course of the day?

HOW

- How is your audience tuning into your station – analogue, DAB, HD Radio, etc.?

WHAT

- What programming is attracting the largest audience, and how is content performing

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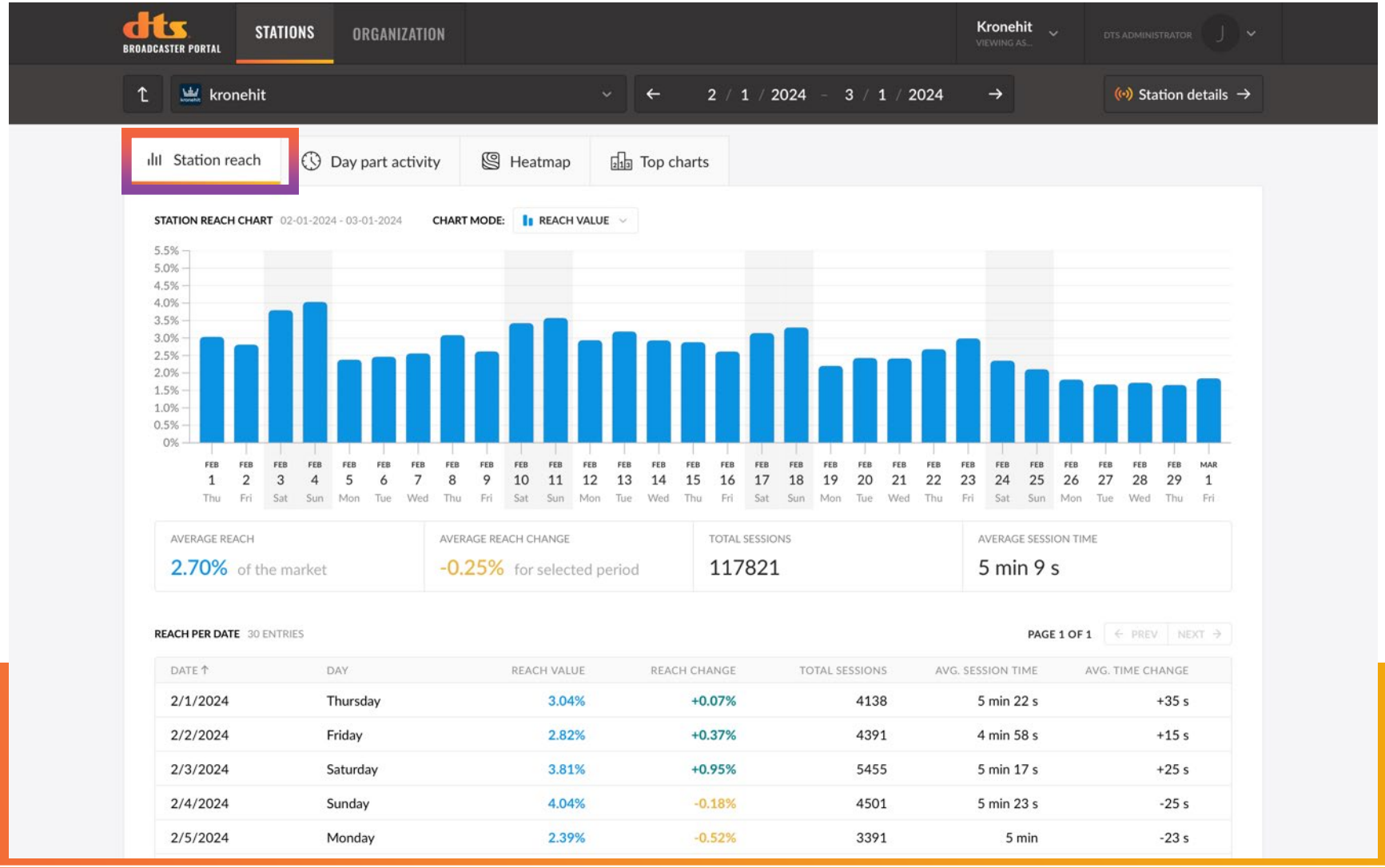
WHO: STATION REACH AND MARKET PERFORMANCE



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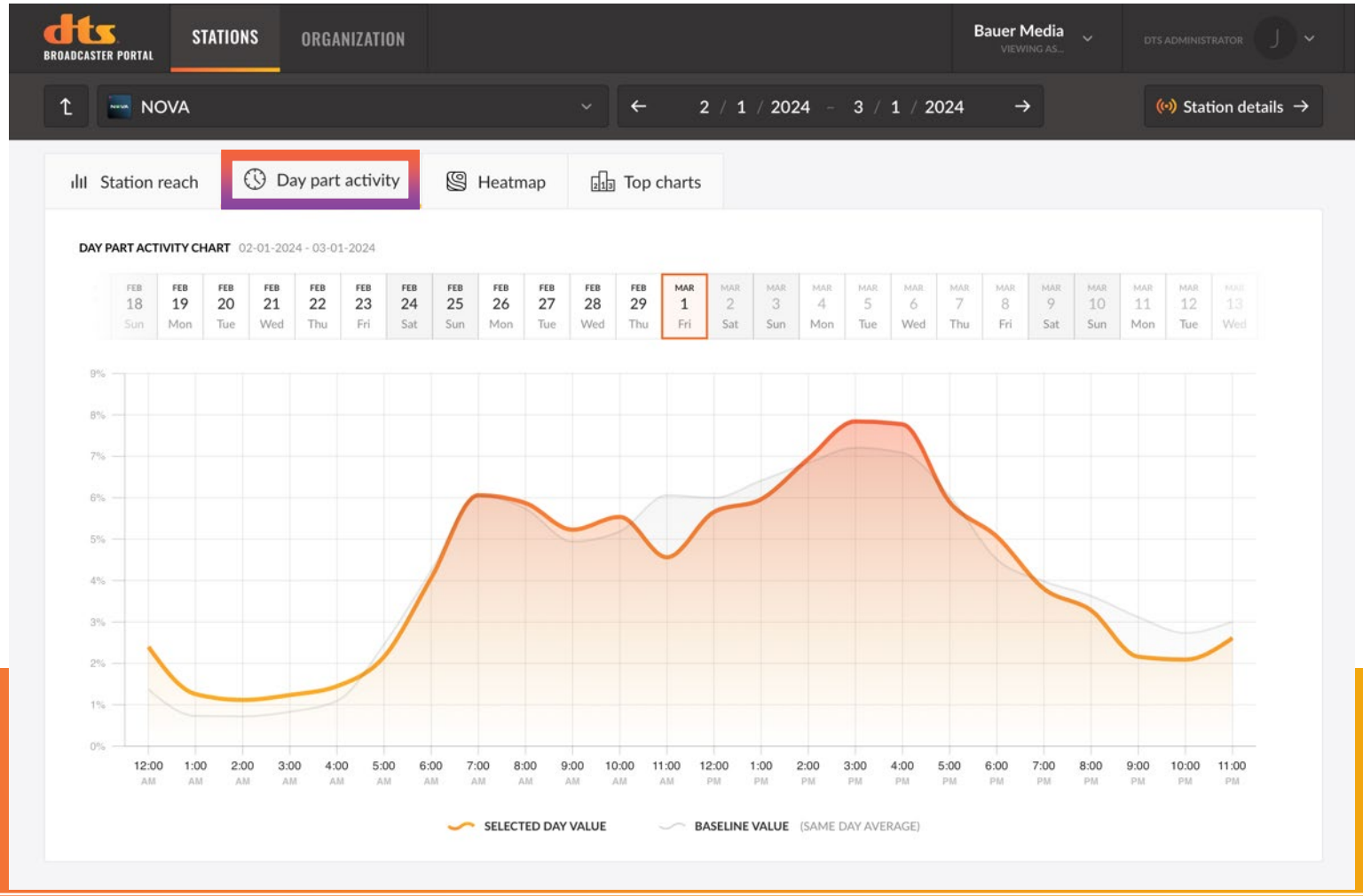
WHEN: UNDERSTAND YOUR AUDIENCE THROUGHOUT THE DAY – ANY DAY



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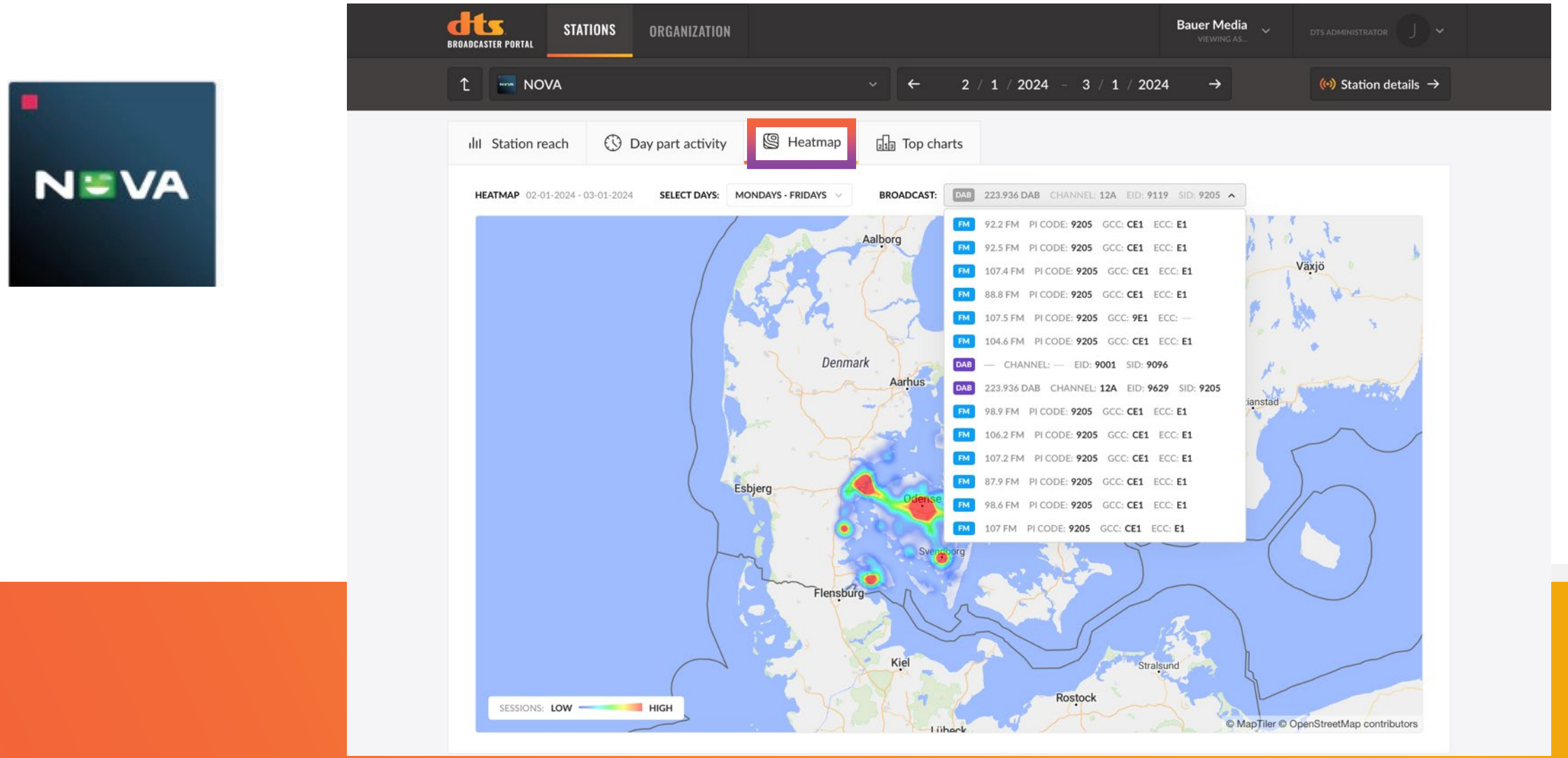
HOW & WHERE: YOUR AUDIENCE LISTENS



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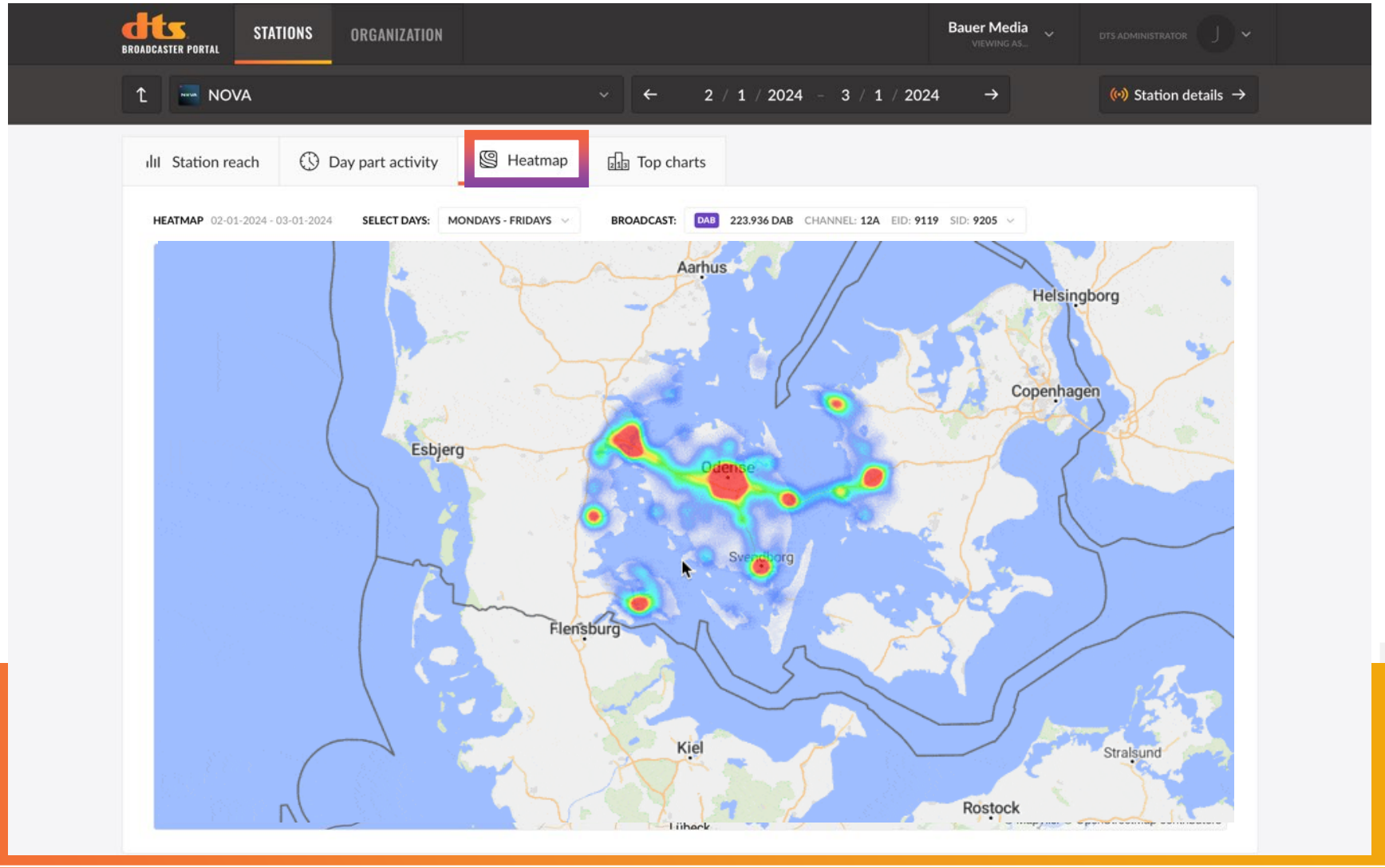
HOW & WHERE: YOUR AUDIENCE LISTENS



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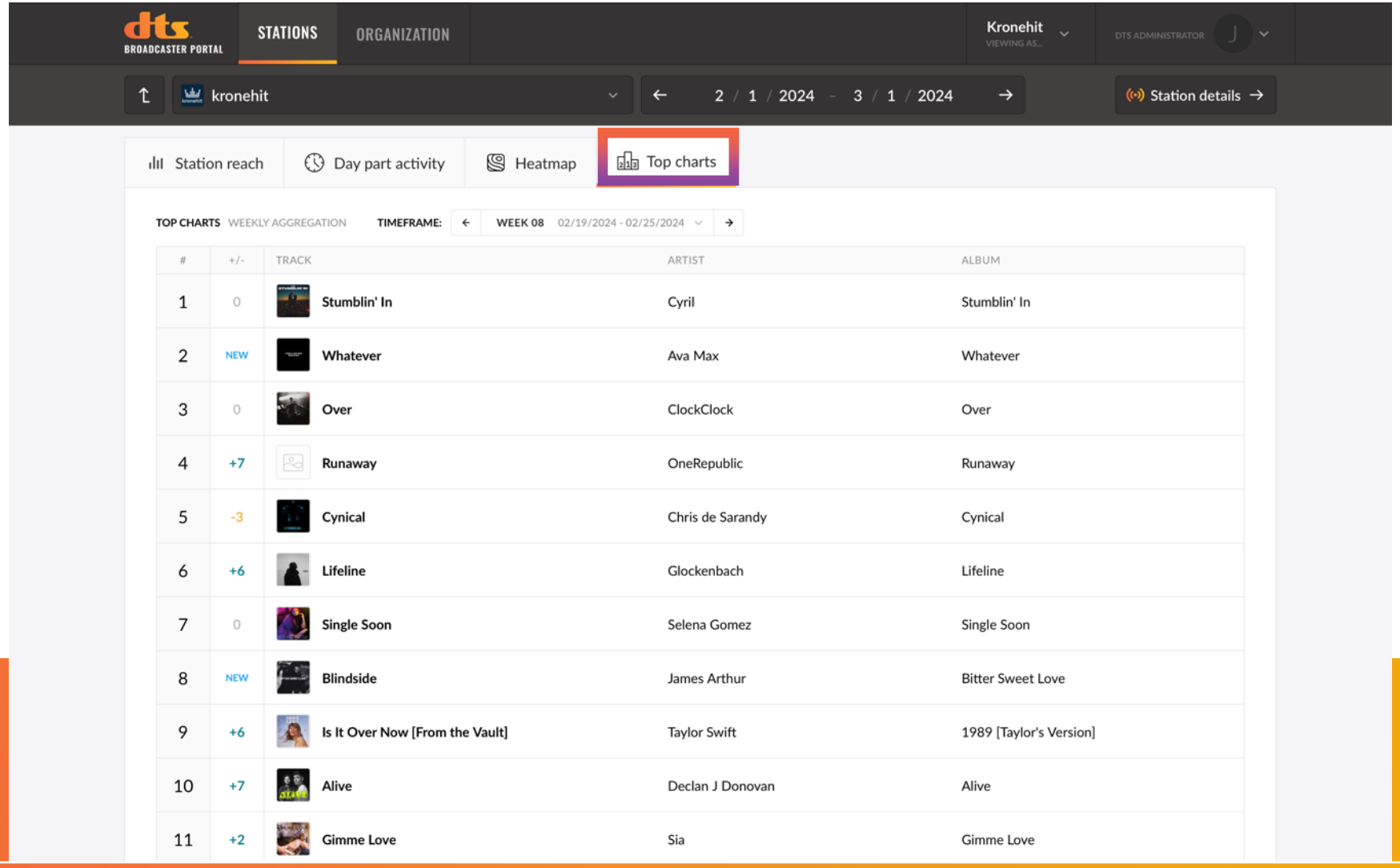
WHAT: IS YOUR AUDIENCE LISTENING TO?



#	+/-	TRACK	ARTIST	ALBUM
1	0	Stumblin' In	Cyril	Stumblin' In
2	NEW	Whatever	Ava Max	Whatever
3	0	Over	ClockClock	Over
4	+7	Runaway	OneRepublic	Runaway
5	-3	Cynical	Chris de Sarandy	Cynical
6	+6	Lifeline	Glockenbach	Lifeline
7	0	Single Soon	Selena Gomez	Single Soon
8	NEW	Blindside	James Arthur	Bitter Sweet Love
9	+6	Is It Over Now [From the Vault]	Taylor Swift	1989 [Taylor's Version]
10	+7	Alive	Declan J Donovan	Alive
11	+2	Gimme Love	Sia	Gimme Love

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DTS AUTOSTAGE ANALYTICS

DTS BROADCASTER PORTAL 2.0 – ENHANCED CONTROL AND FUNCTIONALITY

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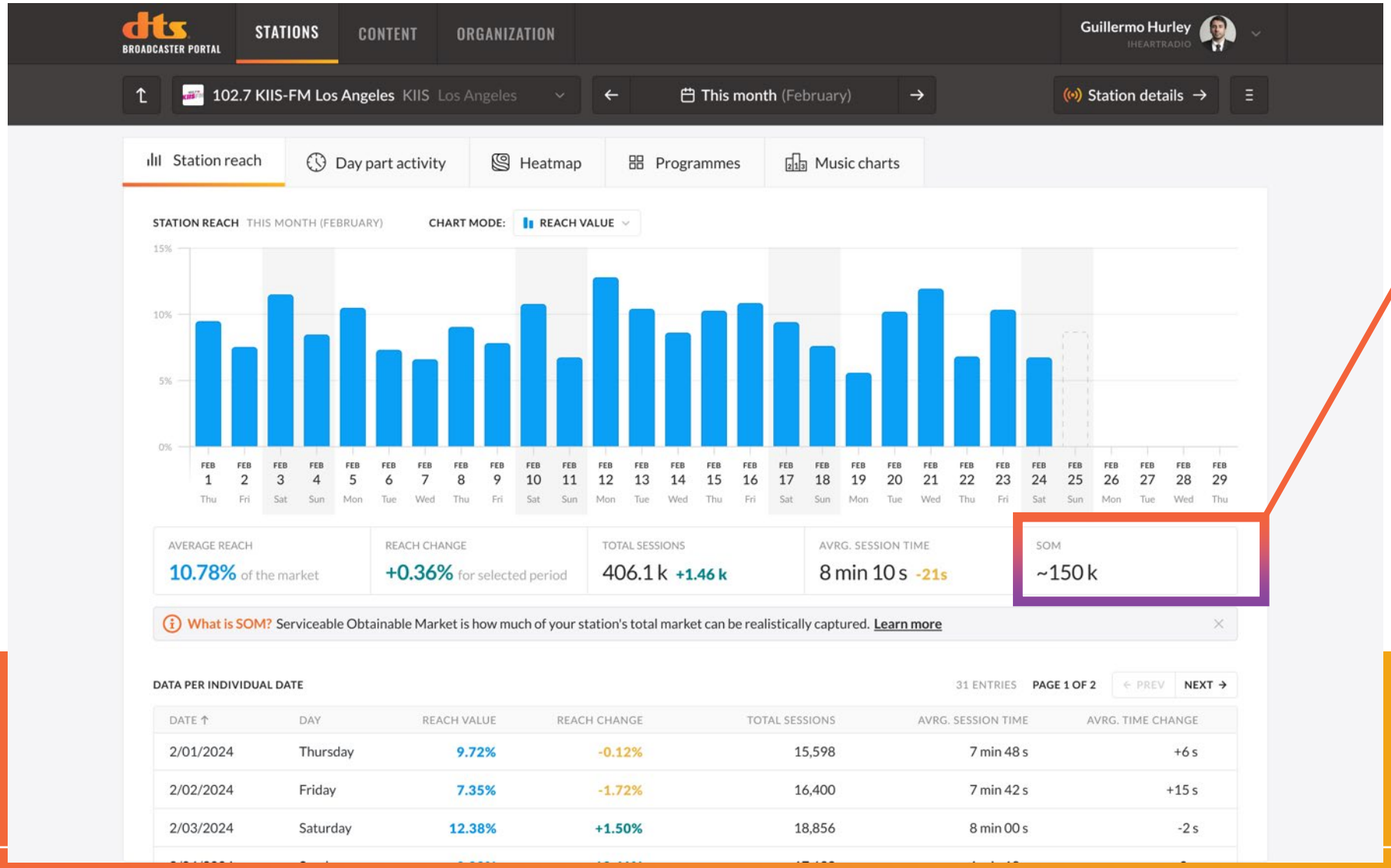
NEW FUNCTIONALITY: DTS AUTOSTAGE RECEIVERS



Service Obtainable Market during observation period

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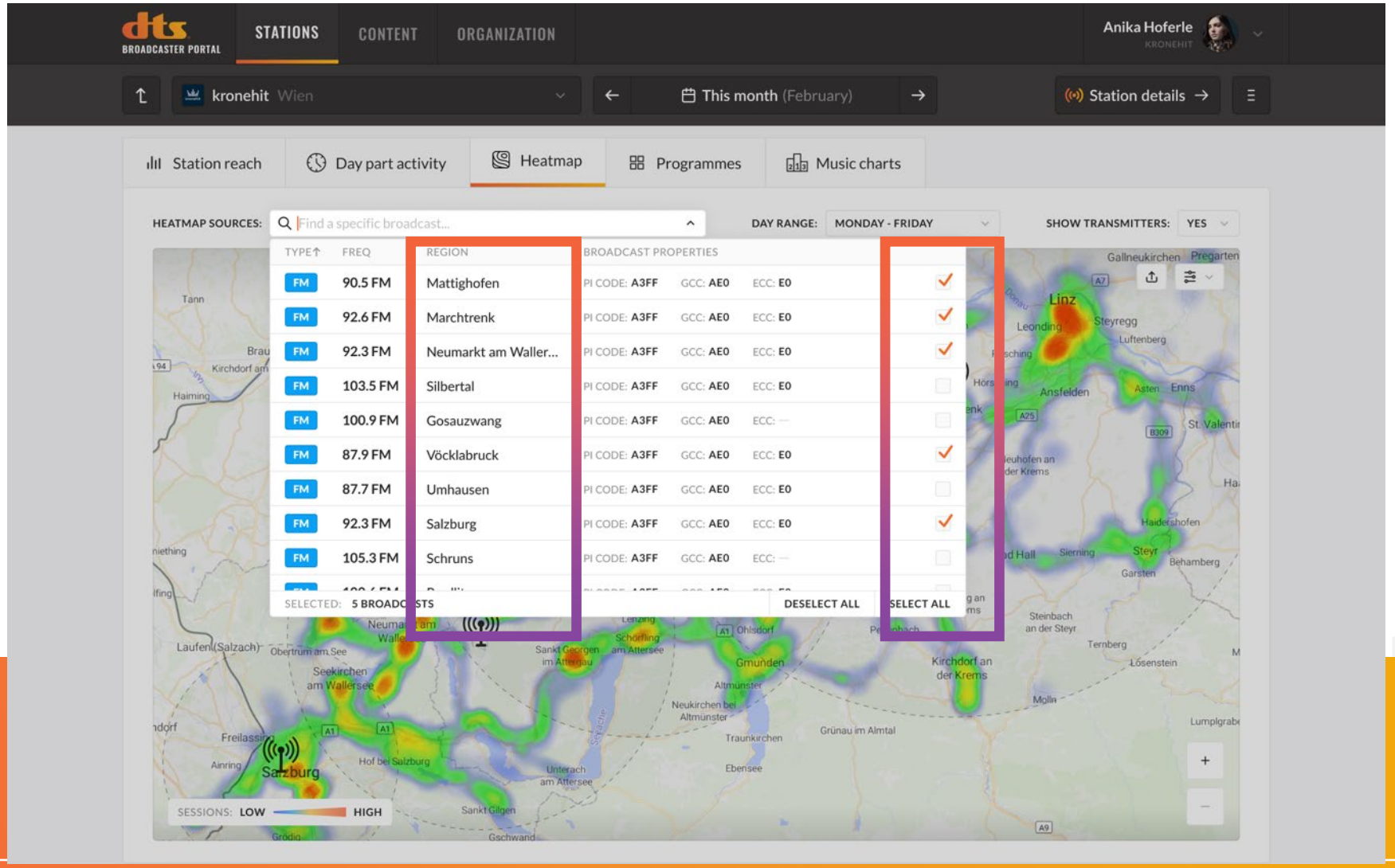
NEW FUNCTIONALITY: REGION ID & NETWORK SELECTION



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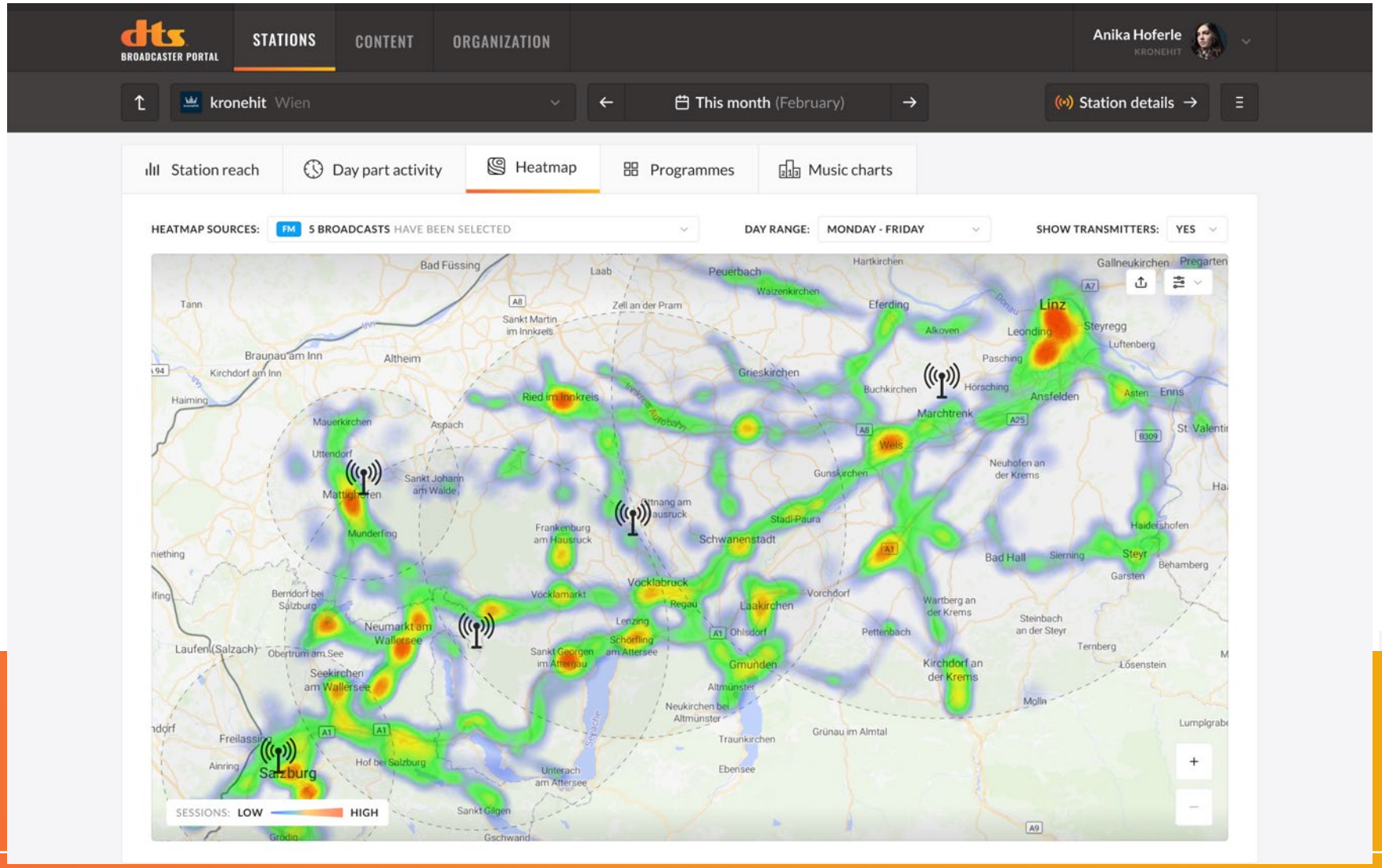
NEW FUNCTIONALITY: REGION ID & NETWORK SELECTION



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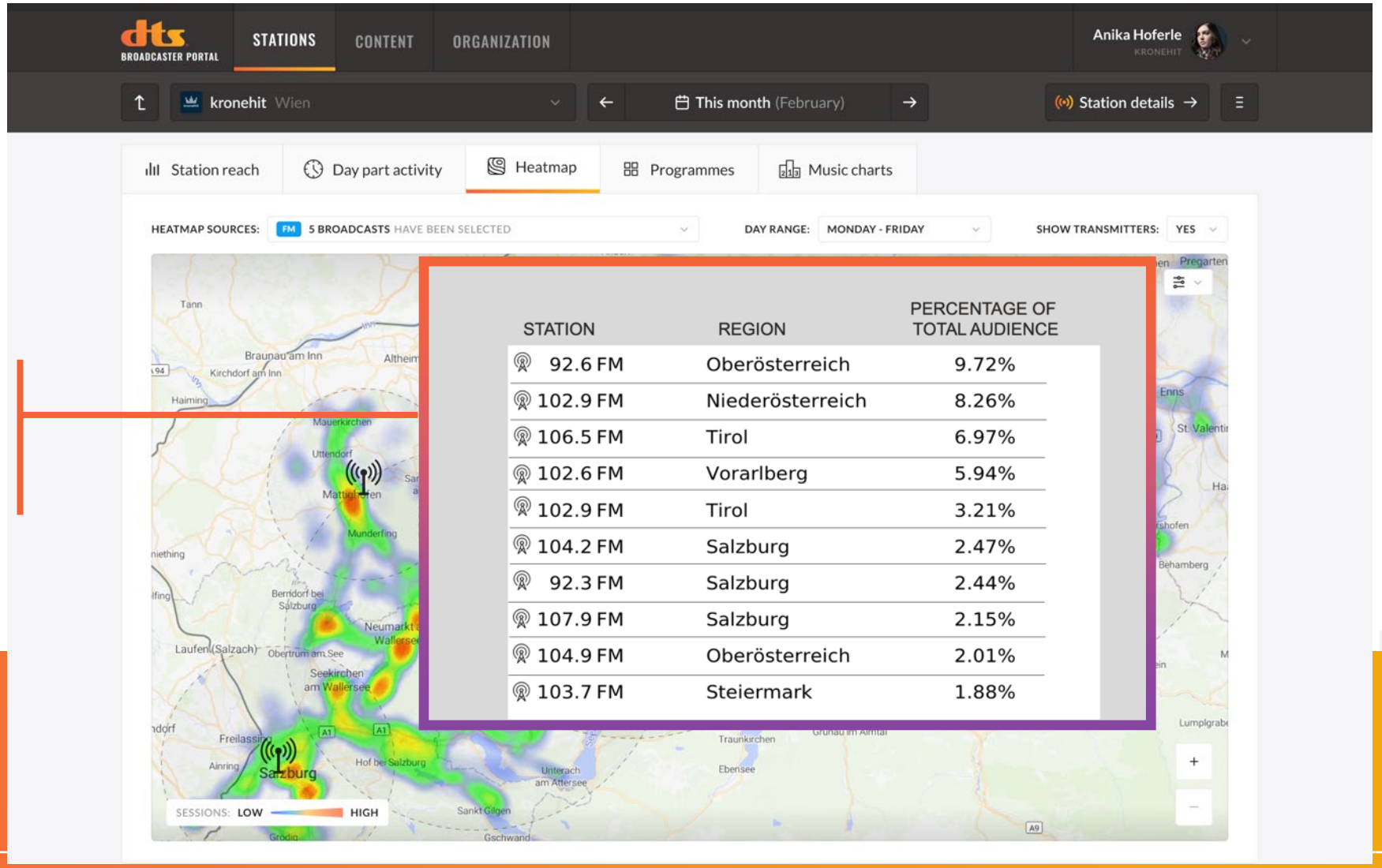
NEW FUNCTIONALITY: REGION ID & NETWORK SELECTION

kronehit

Top 10 Stations

45.05% of total listening



STATION	REGION	PERCENTAGE OF TOTAL AUDIENCE
92.6 FM	Oberösterreich	9.72%
102.9 FM	Niederösterreich	8.26%
106.5 FM	Tirol	6.97%
102.6 FM	Vorarlberg	5.94%
102.9 FM	Tirol	3.21%
104.2 FM	Salzburg	2.47%
92.3 FM	Salzburg	2.44%
107.9 FM	Salzburg	2.15%
104.9 FM	Oberösterreich	2.01%
103.7 FM	Steiermark	1.88%

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DTS AUTOSTAGE ANALYTICS

OTHER INSIGHTS

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WHICH TEN COUNTRIES LISTEN ON DAB THE MOST?

IN ALPHABETICAL ORDER

Australia
Belgium
France
Germany
Italy
Netherlands
Norway
Sweden
Switzerland
United Kingdom

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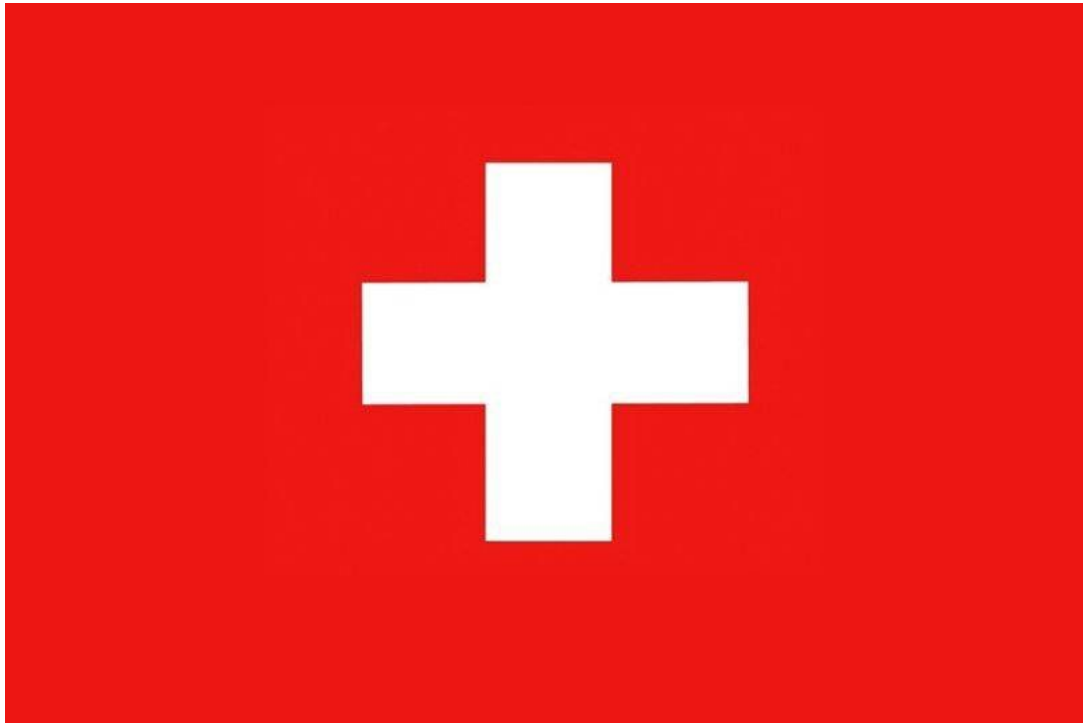
TOP 25 STATIONS: SPAIN

TYPE	MARCH 2023	MARCH 2024
DAB	4	5
ANALOGUE	21	20

TOP 25 STATIONS: SWITZERLAND

Note: As of March 2024, 65% of radio listening in the country is still on analogue



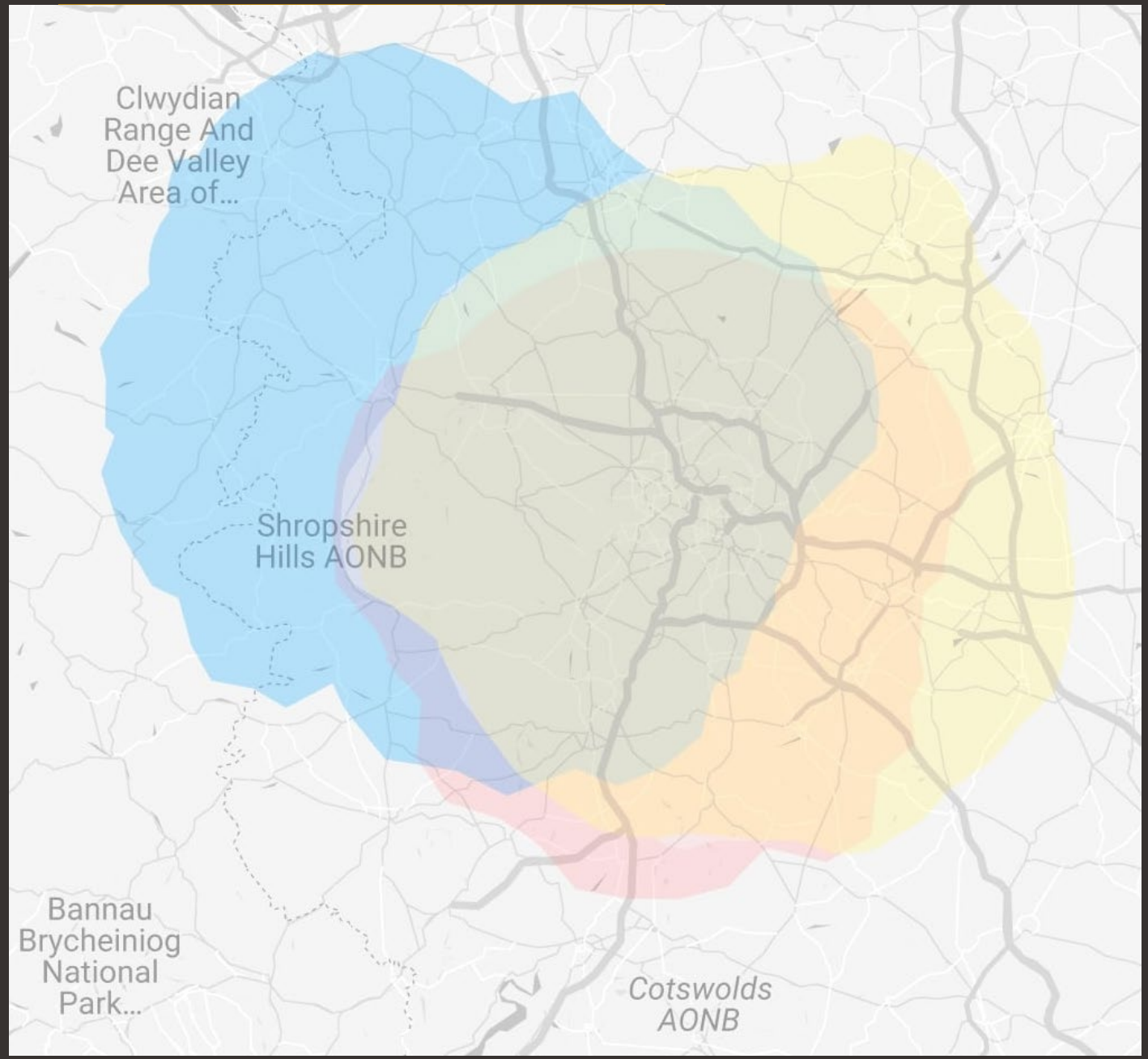
TYPE	MARCH 2023	MARCH 2024
DAB	25	25
ANALOGUE	0	0

DAB: TWO MULTIPLEXES AND AN FM STATION

PINK (DAB): 65% OF LISTENING

BLUE (DAB): 29% OF LISTENING

YELLOW (FM): 6% OF LISTENING



Big Data has changed every industry. Why should RADIO be left behind?

https://onboarding.connectedrad.io

Provide Xperi with:

1. **Static data:** Station call letters, logo, name, slogan, etc.
2. **Streaming URL:** When your over-the-air signal fades, the listener transitions to your stream.
3. **Live data from the station's programming system:** Title and artist of songs, name of advertisers from ads running, DJ name/photo

dts
AutoStage
Thank you!