



# Programme Update BAPCO November 2023

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**Director Delivery and Deployment**

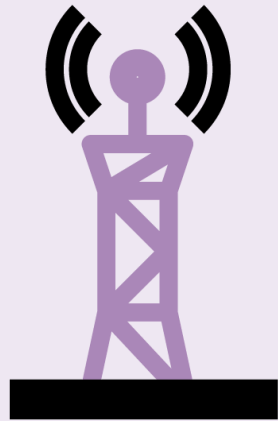
Emergency Services Mobile Communication Programme



# What is the programme doing now?



**Governance  
and  
contracts**



**Coverage**



**Capability  
delivery**



**Live  
services**

**ONE  
TEAM**

**TAS and  
future  
setting**



**Governance and contracts**

# Coverage





Capability delivery



Live services



# TAS and future setting



**Any questions?**





# ESN



Emergency  
Services Network

# Thank you

You can find representatives from ESN on stand 30



# What have we achieved in the last year?



# ESN Air

## Air to Ground Network

- 44 Sites out of 82 passive build complete.
- 19 sites Ready For Activation
- Ongoing Network Testing programme in flight

## Aircraft Communication System

### LTE

- Model A pre-production prototype delivered

### Tetra

- Contract for Development and Manufacture awarded to Chelton
- Model A Preproduction Prototype delivered

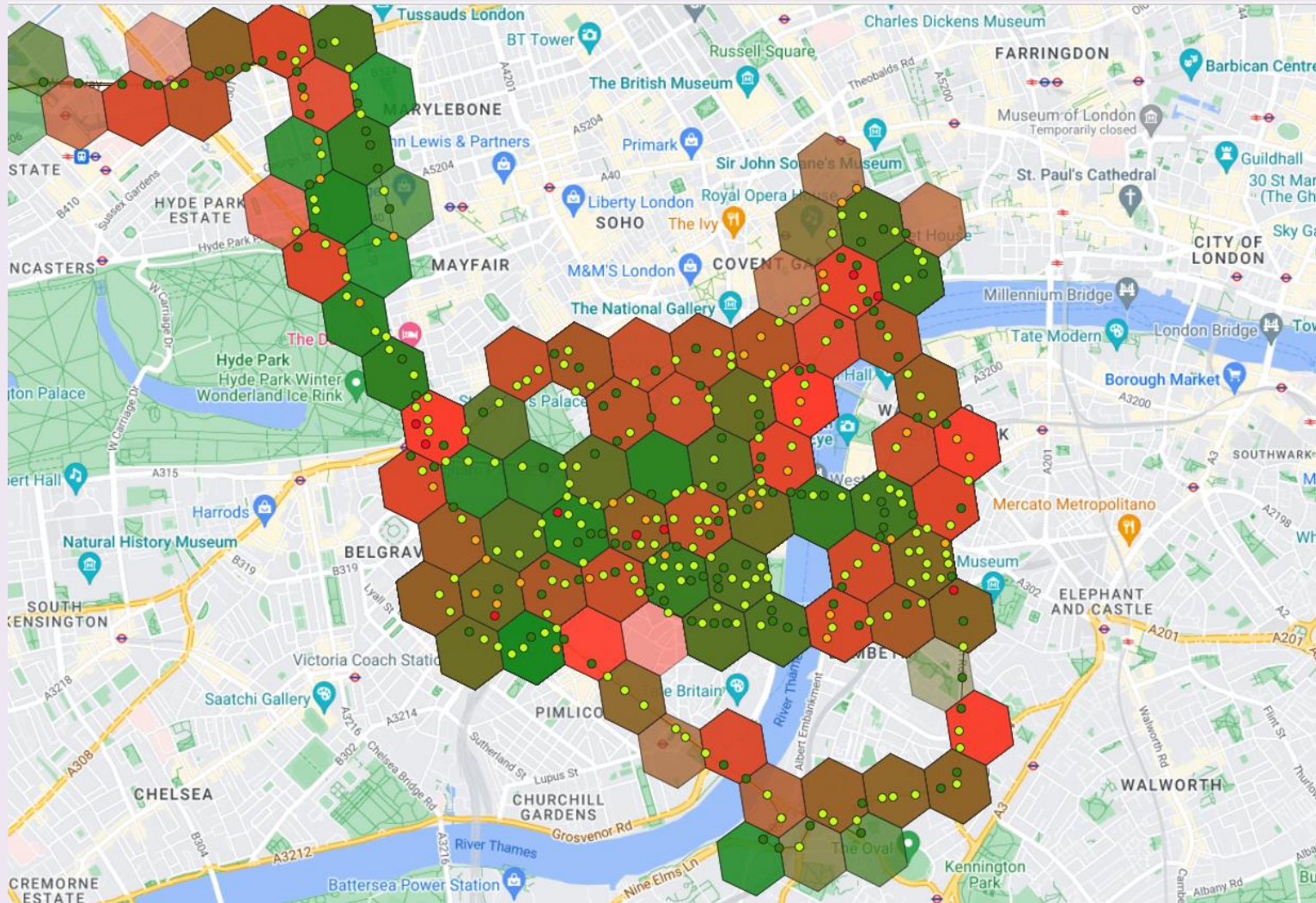




# Voice Quality of Service Test Objective

To drive at least 4000KM at cell edge areas around the country to measure MOS (Mean Opinion Score) of VoLTE and PTT calls and compare the actual service (usable voice quality) against predictive coverage

# Voice Quality Plotted Over RSRQ Hex Bins



○ Voice Samples

● <2 Mos PTT

● 2 – 2.5 Mos PTT

● >2.5 Mos PTT

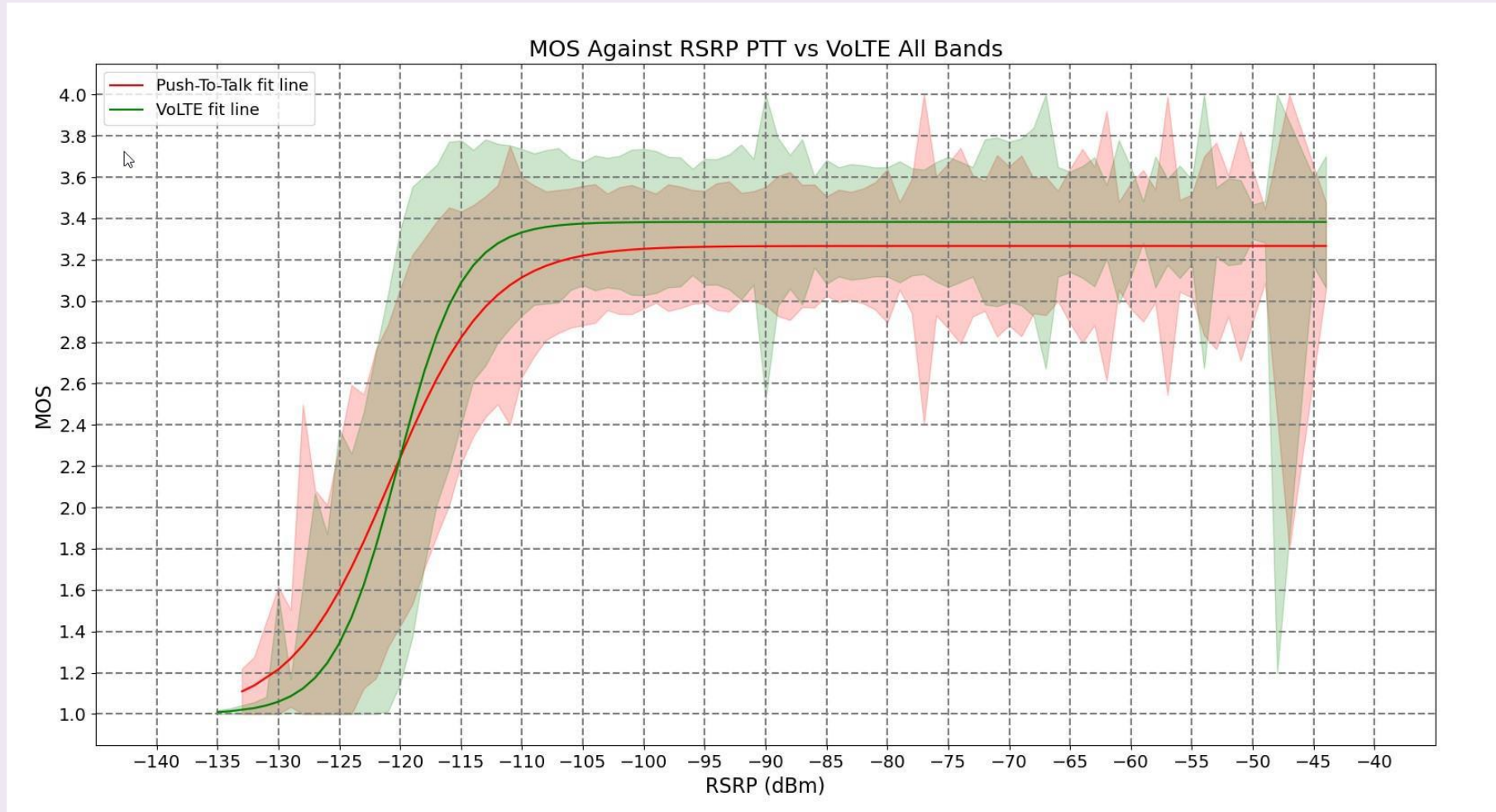
⬡ Hex RSRQ BINS

⬡ < -10 RSRQ - PTT

⬡ > -10 - < 0 RSRQ - PTT

⬡ > 0 RSRQ - PTT

# Usable Voice Quality Coverage Meets With Predictions



# Termination Services - Testing

Over the last 10 months, the team have been conducting **major events testing** using the Kodiak PTT solution and the EE RAN, supported by user SMEs, suppliers and programme Resources

The objective is to **understand how RAN operates under capacity and congestion**, including the behaviour of the network under specific performance loads and differing coverage conditions and across different vendor configurations.

Testing has been conducted at several major events and **will continue until June 2024**



*Stonehenge*



*BBC Big Weekend  
Dundee*



*Beat Herder*



*Armed Forces  
Day - Falmouth*



*Westminster*

# Termination Services - Testing

- Text needs to be font size 24 at least, keep to one/two bullets
- Lorem ipsum dolor sit amet, consectetur adipiscing elit



*Stonehenge*



*BBC Big  
Weekend  
Dundee*



*Beat Herder*



*Armed Forces  
Day - Falmouth*



*Westminster*



# EE Coverage Progress; outdoor handheld coverage at ground level



# EE Coverage Progress



EE upgraded sites

**19,420**  
EE site  
upgrades  
total

**19,337**  
EE site  
upgrades  
completed

**99%**  
EE site  
upgrades  
complete



EE network sites

**767**  
EE new sites  
total

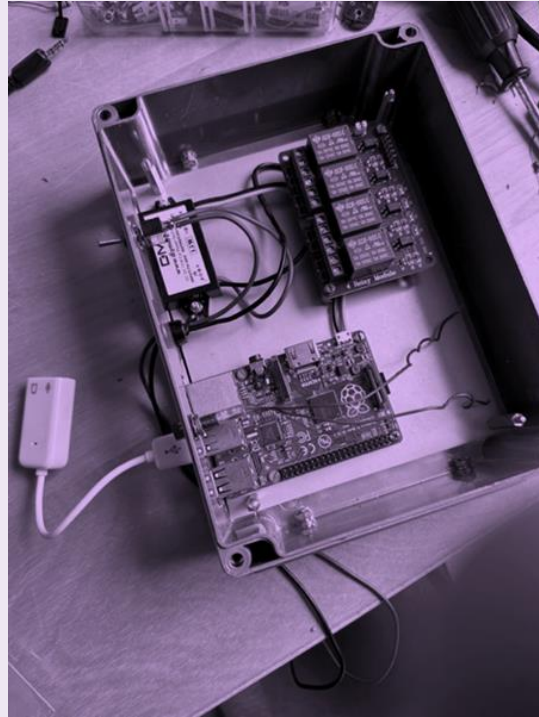
**755**  
EE new sites  
build  
complete

**96%**  
EE new sites  
activated

# Voice Quality of Service Testing



**Listener and recorder**



**SBC Control Box**



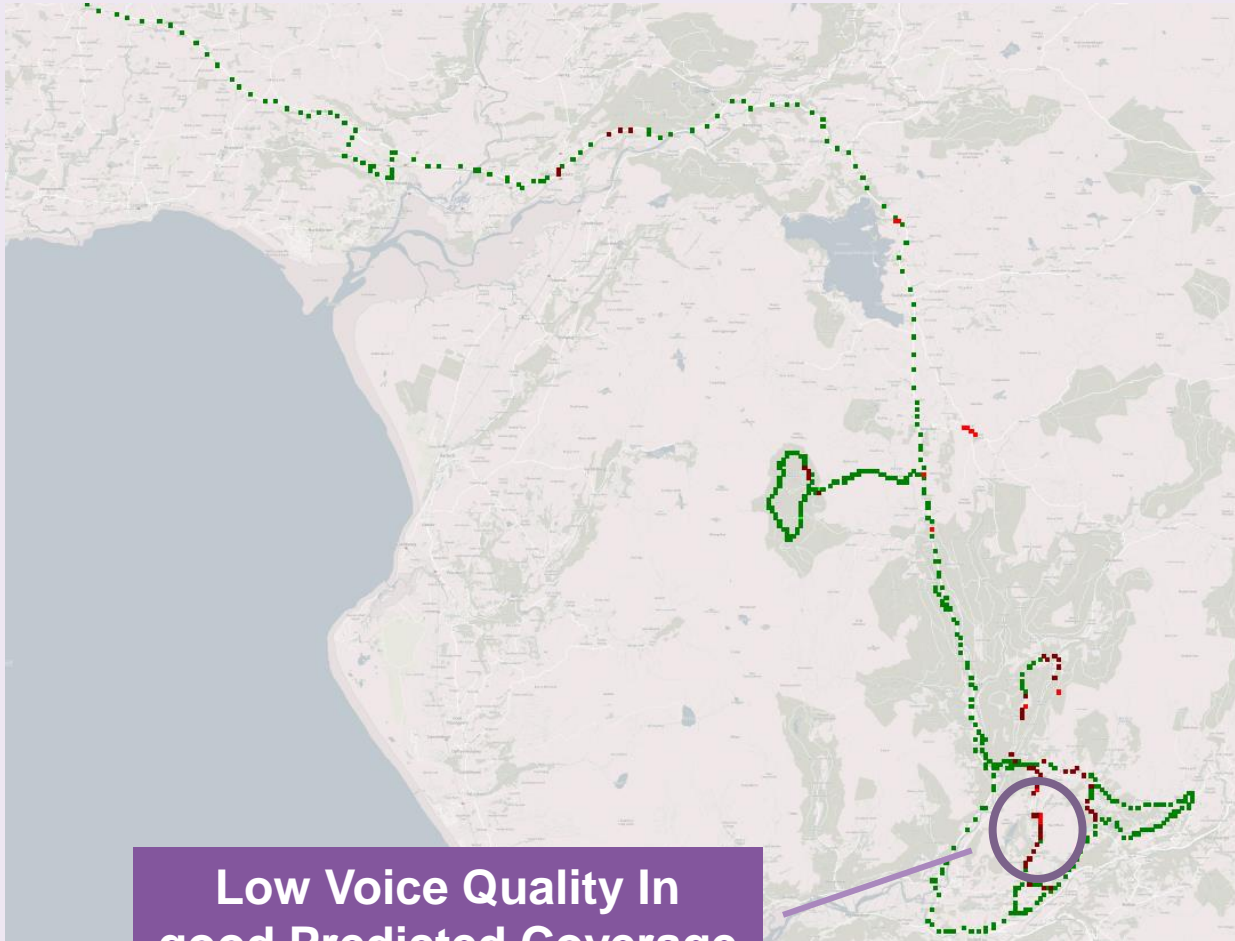
**What is this image?**

# Extended Area Services Progress

- 62 EAS sites now activated – providing coverage to rural parts of Scotland, Wales and England
- 130 total to be active by March 2024 and remainder by December 2024
- 999 stats [Heather]









# Wales Mos V Predictions (Volte/PTT)



Low Voice Quality In  
good Predicted Coverage

## 12/07 testing: Predicted coverage with PTT/VOLTE MOS

-  800mhz predicted good service
-  1800mhz predicted good service
-  800mhz predicted good service, PTT MOS <2
-  1800mhz predicted good service, PTT MOS <2
-  800mhz predicted good service, VOLTE MOS <2
-  1800mhz predicted good service, VOLTE MOS <2