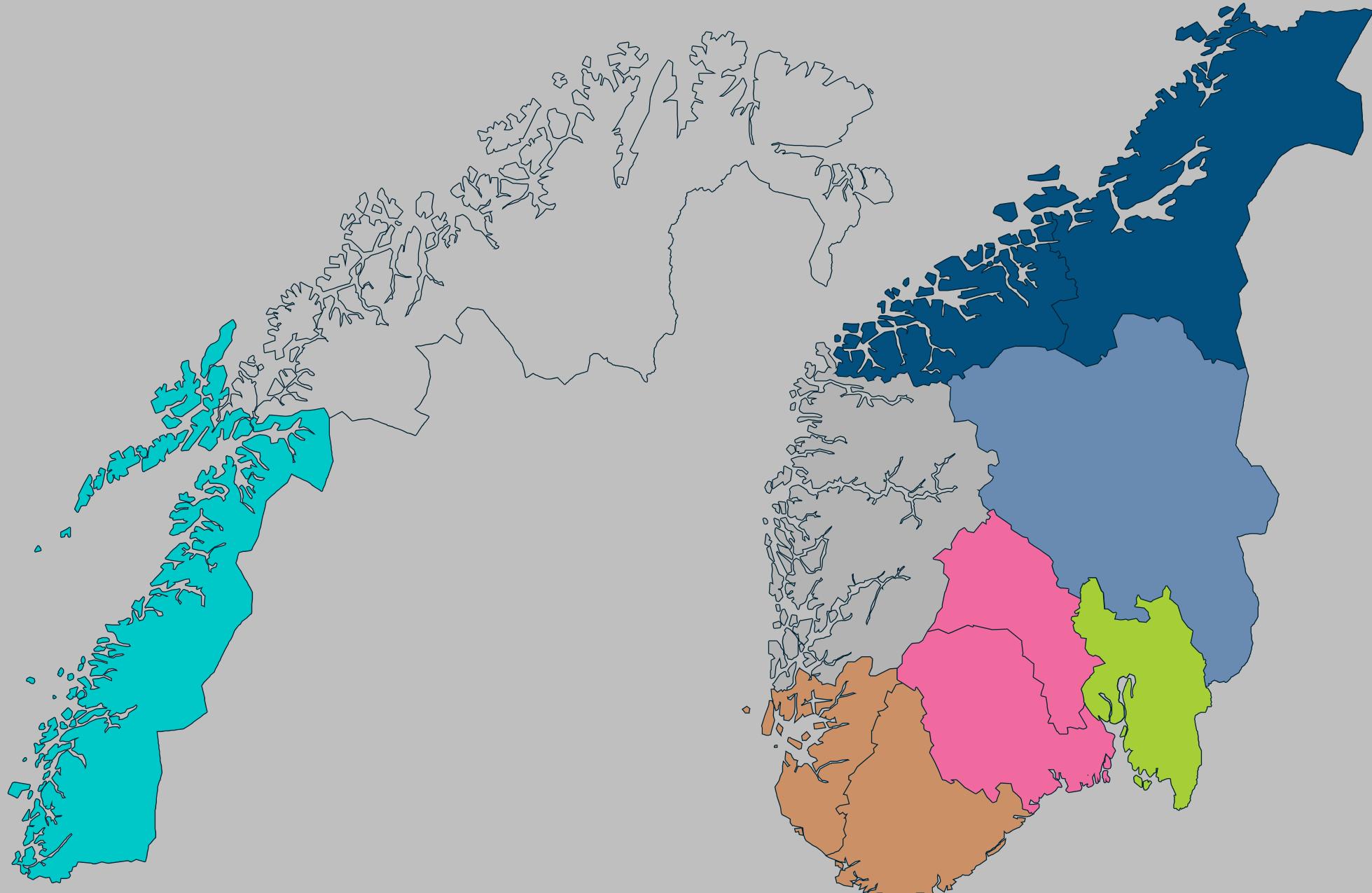


# How Norwegian national radio is using AI to enhance visualisation of DAB coverage measurement

Håvard Wien  
Head of radiodistribution, NRK

# Finnished







## Norwegian DAB networks:

### 42 dB $\mu$ V/ m: Basic coverage

Reception with a good, external antenna and a good glass adhesive or original mounted antenna in the car.

### 48 dB $\mu$ V/ m: Good coverage

Generally good reception, including in wooden housing developments.

### 54 dB $\mu$ V/ m: Very good coverage

High probability of reception indoors and outdoors, also in urban areas.



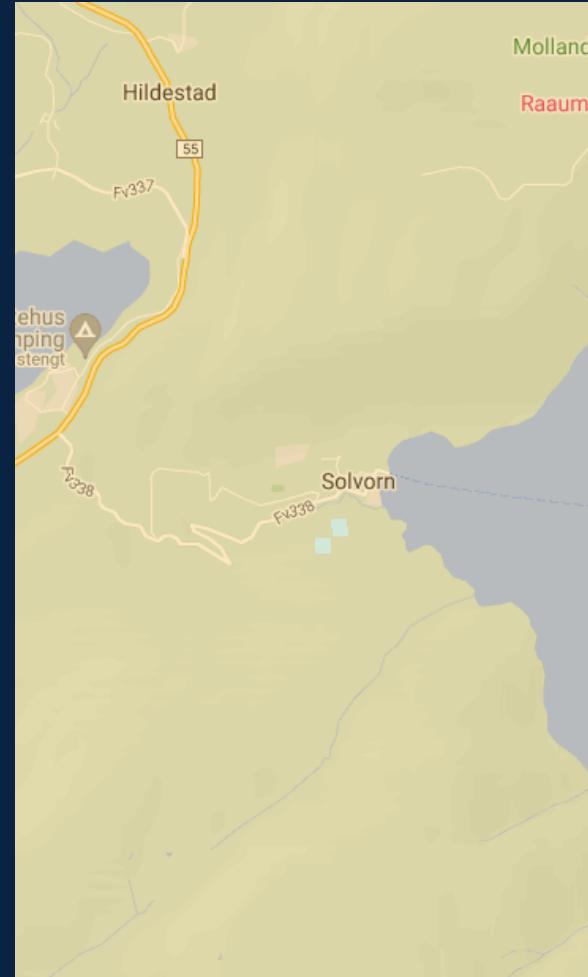




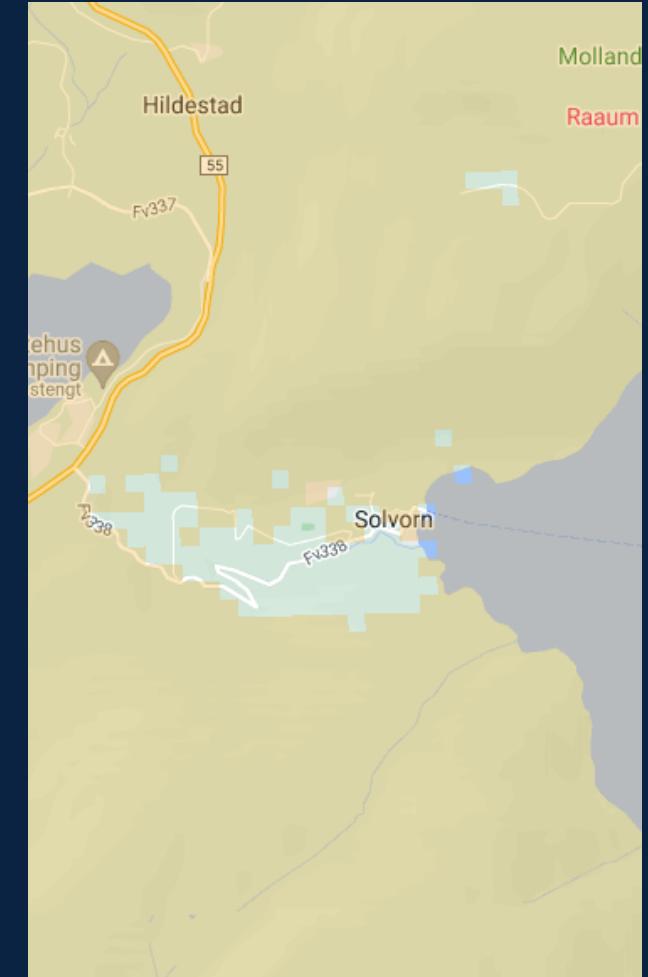
42 dB $\mu$ V/ m



48 dB $\mu$ V/ m



54 dB $\mu$ V/ m



# Tools:

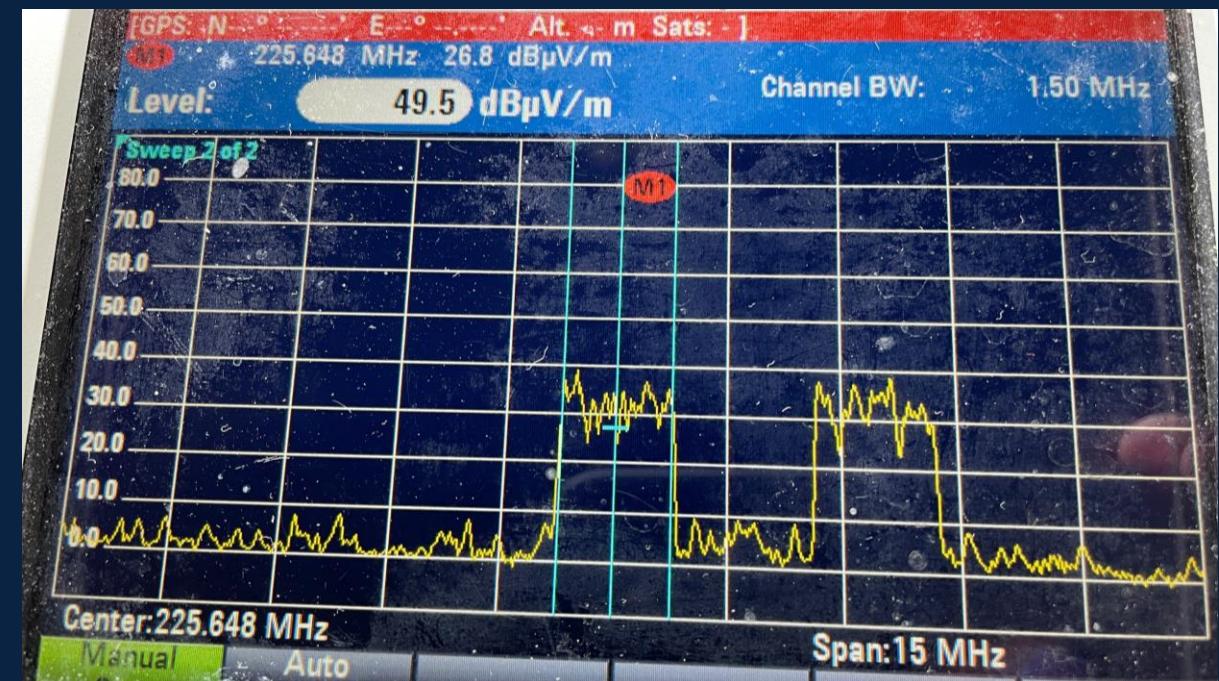
Promax HD Ranger +

35,5 dB $\mu$ V/ m



Rohde & Schwarz Spectrum analyzer

49,5 dB $\mu$ V/ m



# Promax HD Ranger +

35,5 dB $\mu$ V/ m



# Rohde & Schwarz

49,5 dB $\mu$ V/ m



Have to add 14 dB on the Promax to get the right values

```
<?xml version="1.0" encoding="utf-8"?>
<?xml-stylesheet type= "text/xsl" href= "COVERAGE.xsl"?>
<COVERAGE trademark="PROMAX ELECTRONICA, S.L." equipment="HD RANGER+" id="B0.02" sn="010165557" band="TERRESTRIAL" version="1.3" mode="Signal" date="2022-06-07">
    <INFORMATION>
        <DESCRIPTION></DESCRIPTION>
        <SETTINGS>
            <SAMPLING_TIME value="2" units="SECONDS" />
            <TIME_SPAN value="30" units="SECONDS" />
        </SETTINGS>
        <CHANNEL name="12B" frequency="225.65" units="MHz" date="2022-06-07" time="16:57:20" >
            <MEASUREMENTS>
                <DAB>
                    <PARAMETERS>
                        <BANDWIDTH value="1536" units="kHz" />
                    </PARAMETERS>
                </DAB>
            </MEASUREMENTS>
        </CHANNEL>
    </INFORMATION>
    <CPOINT date="2022-06-07" time="16:57:21" id="1" >
        <GPS latitude="61.3005117" longitude="7.2153717" locked="true" />
        <STATUS value="ETI locked" locked="LOCKED" />
        <MEASURES>
            <POWER value="35.6" range="IN" units="dBuV" />
            <CN value="20.1" range="OVER" units="dB" />
            <MER value="21.1" range="IN" units="dB" />
            <CBER value="3.9E-03" range="IN" />
        </MEASURES>
    </CPOINT>
    <CPOINT date="2022-06-07" time="16:57:23" id="2" >
        <GPS latitude="61.3005117" longitude="7.2153717" locked="true" />
        <STATUS value="ETI locked" locked="LOCKED" />
        <MEASURES>
            <POWER value="35.6" range="IN" units="dBuV" />
            <CN value="19.8" range="OVER" units="dB" />
            <MER value="21.2" range="IN" units="dB" />
            <CBER value="3.9E-03" range="IN" />
        </MEASURES>
    </CPOINT>
    <CPOINT date="2022-06-07" time="16:57:25" id="3" >
        <GPS latitude="61.3005117" longitude="7.2153717" locked="true" />
        <STATUS value="ETI locked" locked="LOCKED" />
        <MEASURES>
            <POWER value="35.8" range="IN" units="dBuV" />
            <CN value="20.2" range="OVER" units="dB" />
            <MER value="18.1" range="IN" units="dB" />
            <CBER value="7.8E-03" range="IN" />
        </MEASURES>
    </CPOINT>
```

```
</INFORMATION>
<CPOINT data="12022 AC 07" time="15.57.21" id="14">
    <GPS latitude="61.3005117" longitude="7.2153717" locked="true" />
    <STATUS value="CTI" locked="LOCKED" />
    <MEASURES>
        <POWER value="35.6" range="IN" units="dBuV" />
        <CN value="20.1" range="OVER" units="dB" />
        <MER value="21.1" range="IN" units="dB" />
        <CBER value="3.9E-03" range="IN" />
    </MEASURES>
</CPOINT>
```



# ChatGPT 4



Watch video [here](#)



Håvard Wien  
Head of Radiodistribution NRK  
[havard.wien@nrk.no](mailto:havard.wien@nrk.no)  
+47 90 98 34 72

