

# 5G Channel Sounding

## 5GIC Collaboration - University of Surrey and R&S

Demonstration shows the foundations for a collaborative millimetre wave measurement campaign, covering 10 GHz to 40 GHz.

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# 5G Channel Sounding

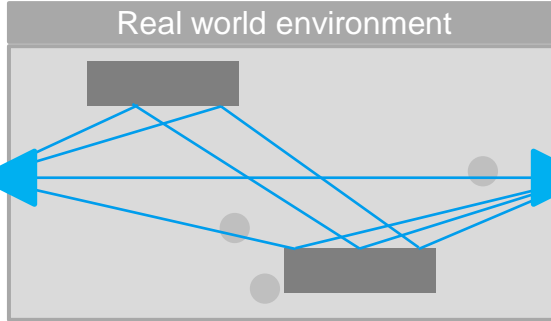
## Generation of pulsed PN sequences

Rohde & Schwarz  
SMW200A signal generator



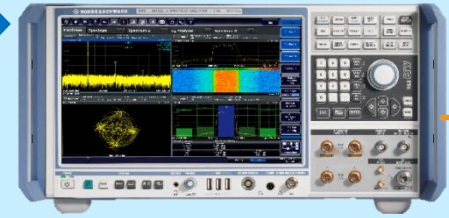
- Up to 40 GHz (dual source up to 20 GHz).
- > 40 GHz, frequency converters required.
- 2 GHz bandwidth.

## Real world environment



## IQ data capturing

Rohde & Schwarz  
FSW spectrum & signal analyser

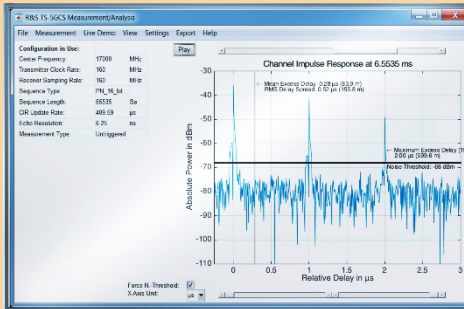


LAN

- Up to 85 GHz.
- 2 GHz bandwidth (with external RTO oscilloscope).

## Real time data analysis software

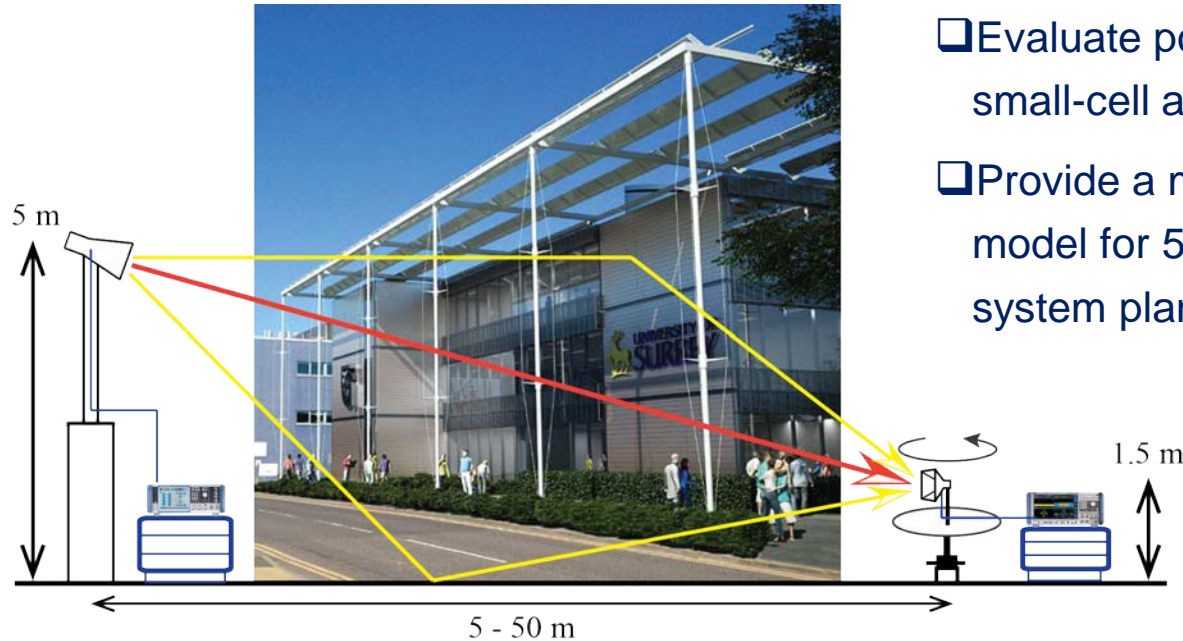
Rohde & Schwarz TS-5GCS



# mmWave Channel Measurement Campaign

## Small Cell Scenario at University of Surrey

Wideband, directional analysis of the small-cell propagation channel



- ❑ Evaluate potential frequency bands for 5G small-cell access
- ❑ Provide a measurement based channel model for 5G research, analysis and system planning