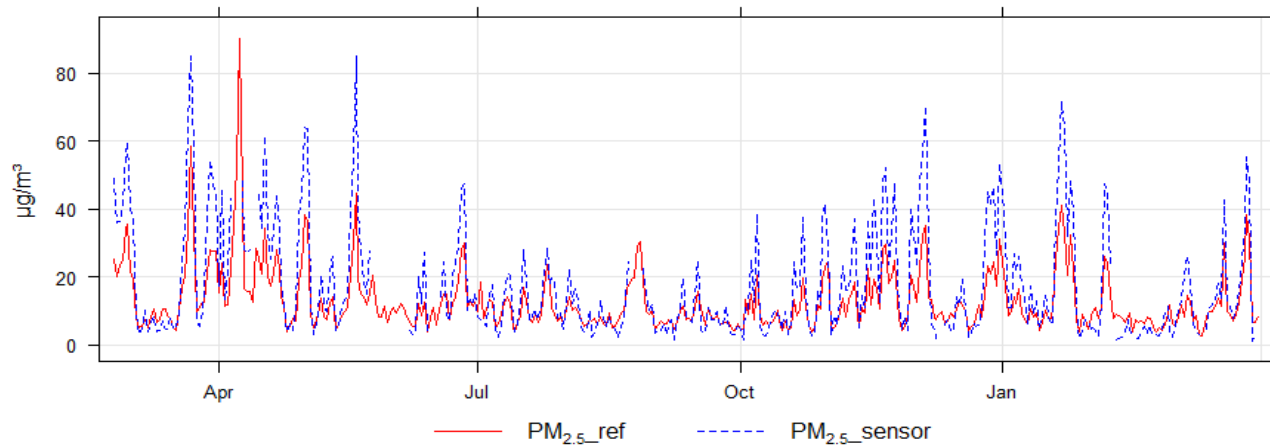# Plantower PMS7003

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Validation and data availability
3 good units, 2 with some signal issues
Availability between 64% and 93%

$PM_{2.5}$ comparison with automatic reference
mean bias: +5.1 µg/m³   **R² : 0.82**

PM_{10} and PM_{coarse} performance
Appears to mostly estimate PM_{coarse} from $PM_{2.5}$
hence no PM_{10} sensor

$PM_{2.5}$ between-sensor uncertainty
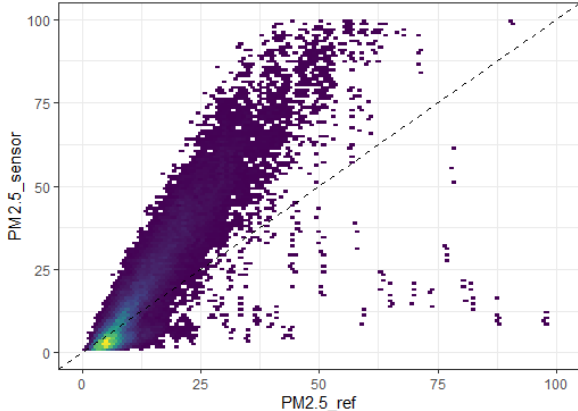2.7 µg/m³ or **15%**

Effect of relative humidity ($PM_{2.5}$)
sensor/ref **x 1.7** (from 50% to 90% RH)

EU expanded uncertainty vs gravimetric ref. ($PM_{2.5}$)
197% without calibration
16% after local calibration