

DFG FOR 2863 Meteracom Metrology for THz Communications



Visit our Meteracom Booth in the Exhibition Area @ IRmmW-THz 2025

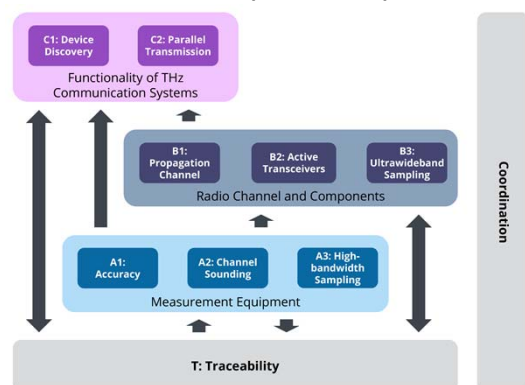
Project Objectives

- The capability to performing measurements and evaluating measurements in a proper way are crucial for the advance of THz communication systems. At the beginning of Meteracom Metrology at THz frequencies was however still in its infancy covering detector calibration to characterization of ultrafast devices and to measurement uncertainty analysis of different spectrometer types available at THz frequencies. Meteracom addresses the grand challenge of metrology in THz communication measurements systematically, and in four distinct project areas:

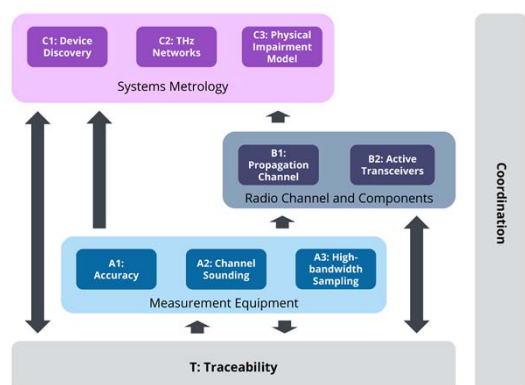
- T: Traceability to the International System of Units (SI)
- A: Characterisation of the measurement system itself
- B: Metrological characterisation of the RF components and the propagation channel
- C: Measurements required for enabling the functionality of THz communications / Systems Metrology.

Project Structure

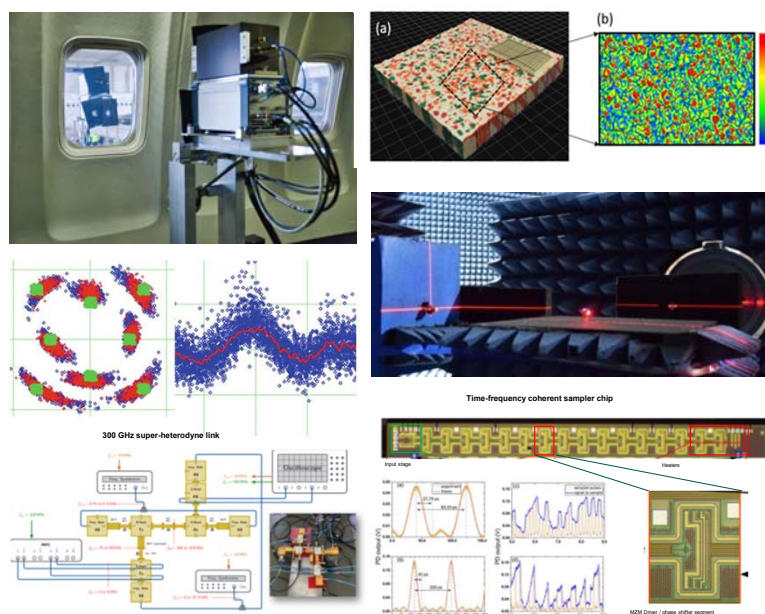
Phase I (2019-2022)



Phase II (2022-2025)



Exemplary Project Output



Meteracom Consortium

- Interdisciplinary and distributed research unit
- 10 Principal Investigators from 6 universities and PTB
- 2 Mercator Fellows from NPL (UK) and Brown University Rhode Island (USA)