

Thermometry, Humidity and Thermophysical Quantities

The Consultative Committee for Thermometry (CCT)

Reliable temperature and/or humidity measurements are required in almost any sphere of human endeavour

The CCT provides a global forum for NMIs

on best practice and state of the art of measurements of temperature, humidity and thermophysical quantities.

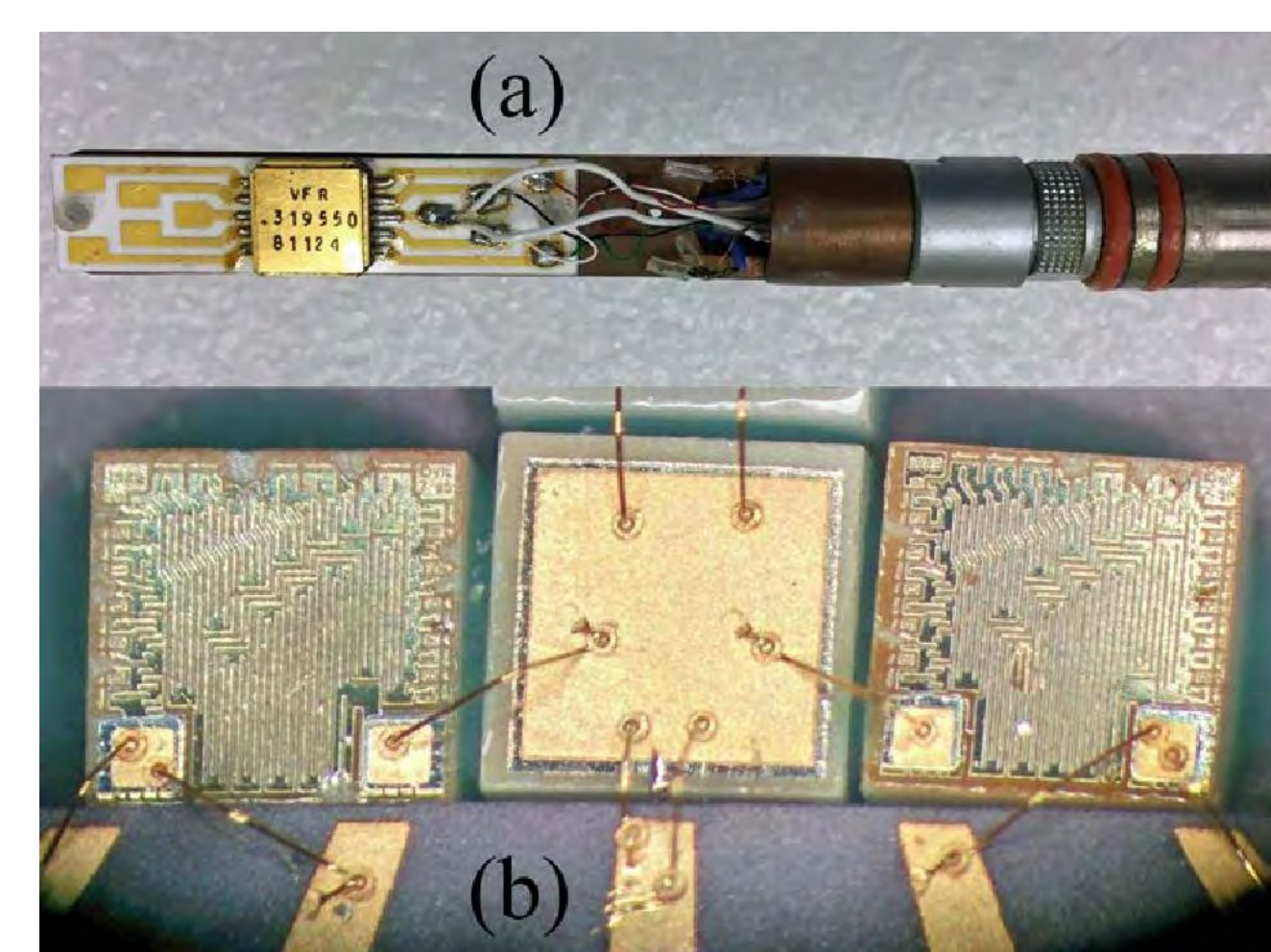
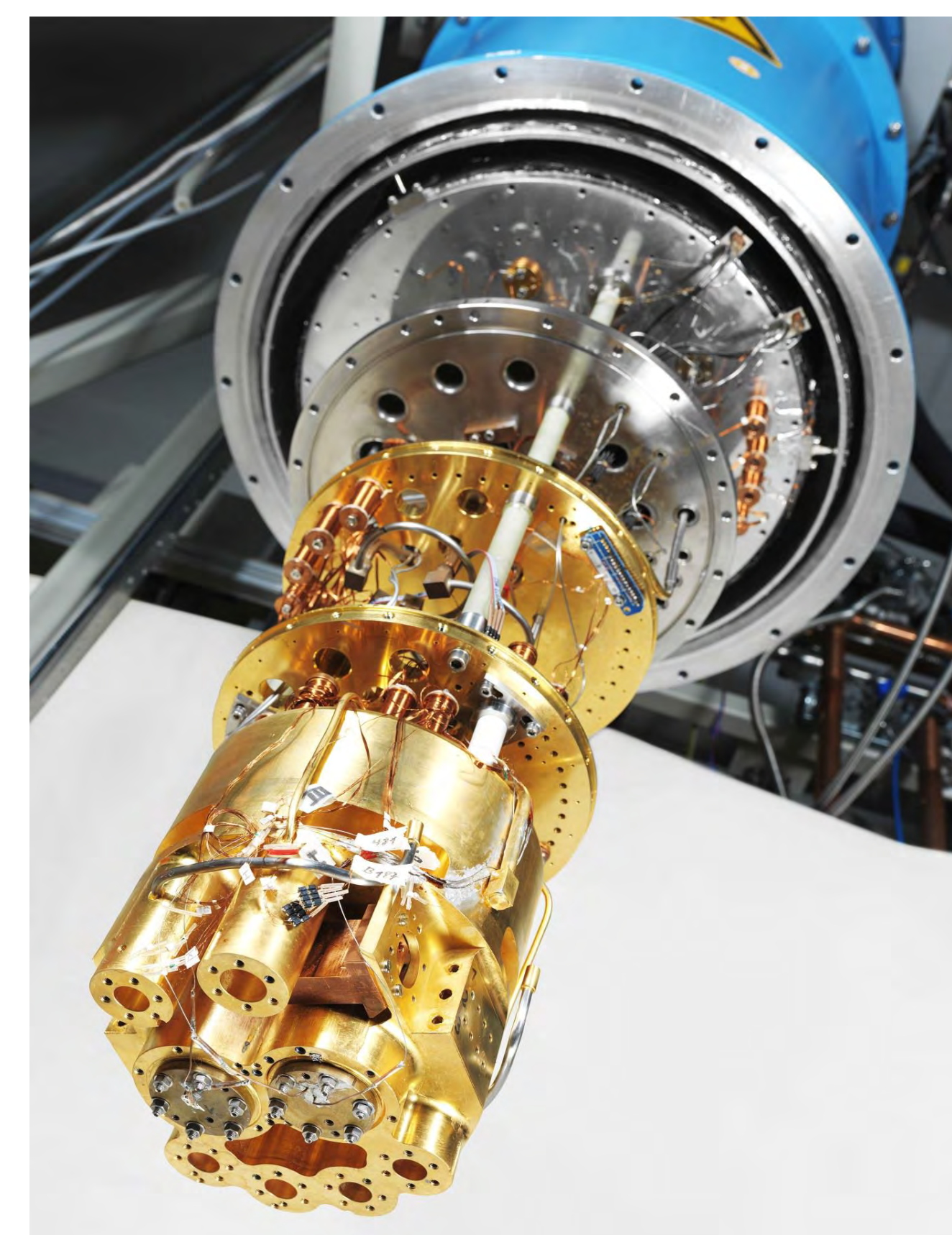
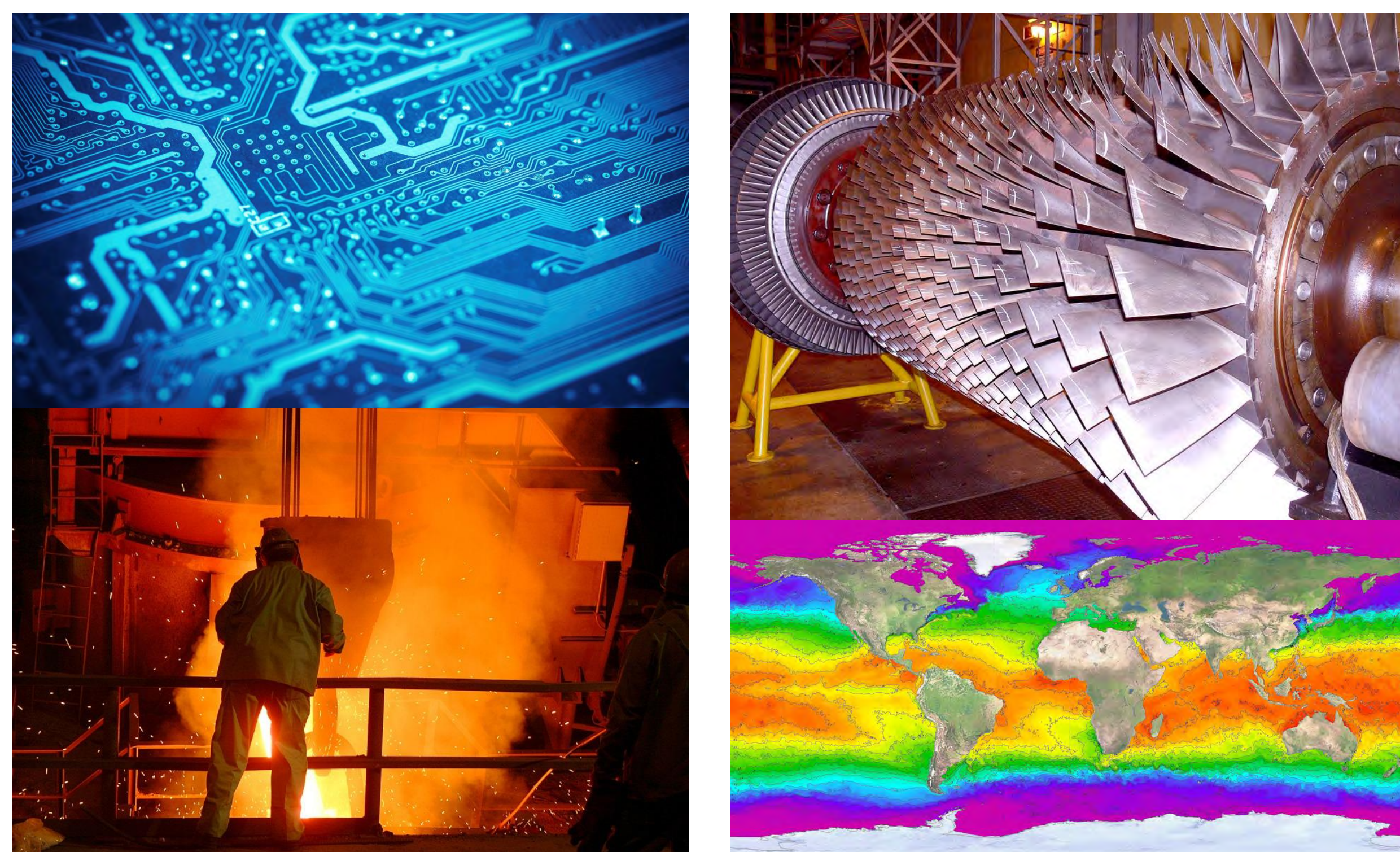
The CCT has defined a strategic set of Key Comparisons

to demonstrate and improve global comparability for thermometry with traceability to the SI.

Example of outreach of the CCT KC of Standard Platinum Resistance Thermometers

An unchanging reference; for all temperatures for all time

$$k = 1.380\,649 \times 10^{-23} \text{ J/K}$$



Courtesy of the NPL (UK), NIST (USA), 2nd Univ. of Naples (Italy), PTB (Germany)

The CCT monitors new emerging trends in both needs and technology that may have a global impact on future thermometry measurements, requirements and calibrations.

Examples:

- *self-calibrating thermal sensors*
- *practical primary thermometry*
- *sub-micro-optical components*
- *temperature-induced control of gene expression*
- *tumour metabolism*