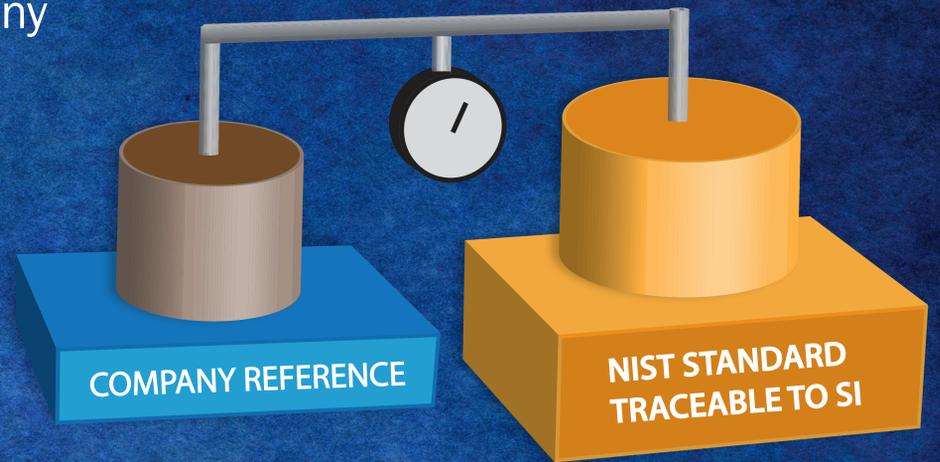
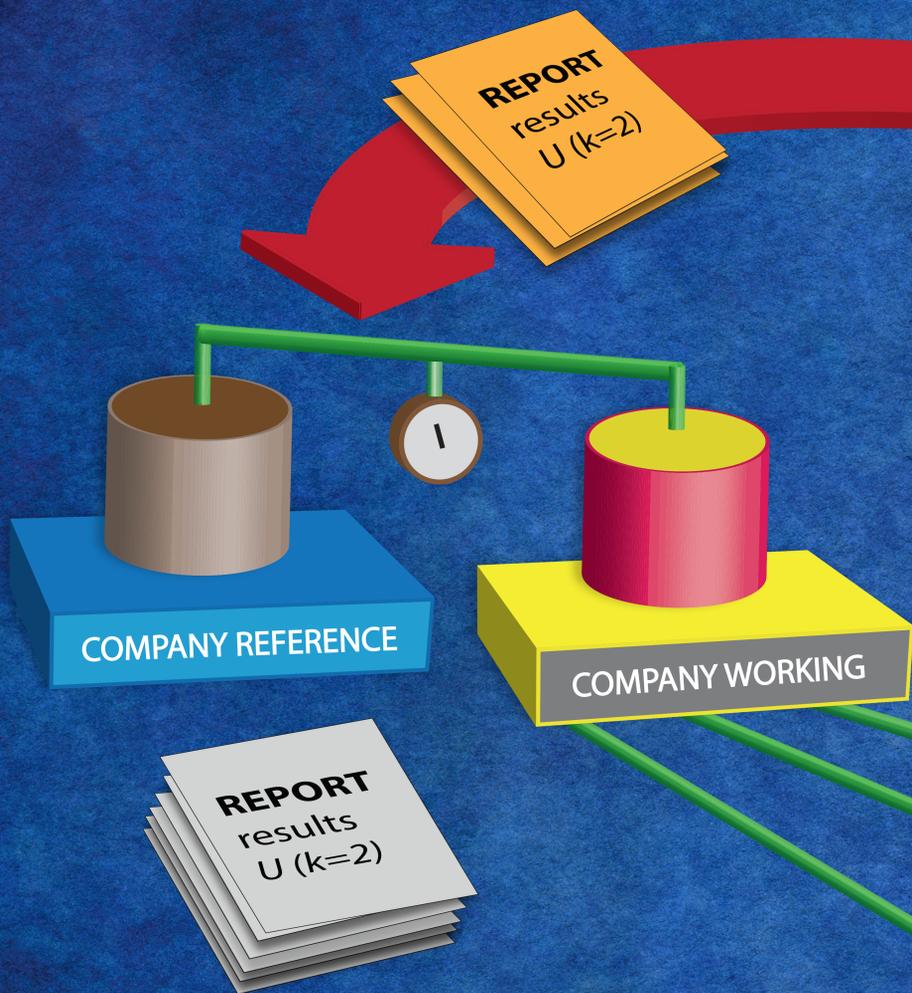


METROLOGICAL TRACEABILITY THROUGH CALIBRATION

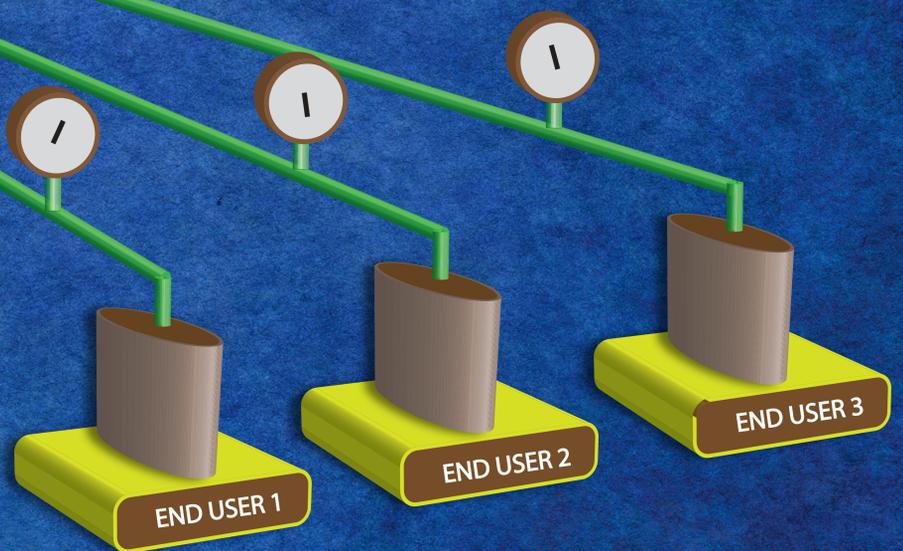
1 A customer such as an instrument company sends its reference standard to NIST for calibration. It is sent back with a report on measurement results and uncertainty.



2 The customer then uses the NIST-calibrated reference instrument to maintain traceability and uncertainty measurements. Careful records are kept.



3 The customer uses the working standard to calibrate units for end users. Each of them is now traceable to the NIST calibration.



After an appropriate interval, the end user sends the unit back to the customer for re-calibration with a NIST-traceable instrument.

Traceability is the “property of a measurement result whereby the result can be related to a reference through a documented unbroken chain of calibrations, each contributing to the measurement uncertainty.”

— BIPM *International Vocabulary of Metrology*

