



Laboratory Competence

ISO/IEC 17025 : 2017

What is ISO/IEC 17025?

ISO/IEC 17025 specifies the general requirements for the competence to carry out tests and/or calibrations, including sampling dictated by international methods. The standard identifies the high technical competence and management system requirements that guarantee your test results and calibrations are consistently accurate. The standard covers assuring the quality of test and calibration results to environmental conditions and purchasing.

In addition to establishing a quality system, documentation and personnel requirements, ISO/IEC 17025 directs calibration labs to:

- Investigate the uncertainty of each measurement
- Incorporate the uncertainty into the test procedure and/or test limits
- Provide the uncertainties with the calibration certificate and results

Reporting the uncertainty qualifies the accuracy of the measurement and aids understanding when comparing results from different labs. The ratio of specification-to-calibration uncertainty is a way equipment users gauge their confidence in a product's performance.

Who needs ISO/IEC 17025?

Any medical laboratory wanting to deliver
Any laboratory wishing to demonstrate its technical competence and the availability of technical resources to produce reliable data and results for a defined test, measurement or calibration can benefit from an ISO/IEC 17025.

A growing number of industries require ISO/IEC 17025, but all laboratories carrying out tests and calibrations must conform to the general requirements for competence in laboratory environments. ISO/IEC 17025 applies to all laboratory environments, regardless of the number of employees or the extent of the testing, some of which include automotive, cosmetics, microelectronics, petrochemical, pharmaceutical and power generation.

Benefits of ISO/IEC 17025

ISO/IEC 17025 gives your clients and supply chain absolute assurance of your company's reliability and integrity, as well as a host of other benefits, some of which may be unique to your particular business:

- Boost your laboratory reputation in domestic and overseas markets
- Demonstrate your commitment to operational efficiency and quality management practices
- Outlines robust quality controls for choosing and authenticating methods, analyzing statistics and controlling data
- Verify the quality, capability and expertise of your laboratory
- Evaluation of staff, methods, equipment, calibration and reporting to guarantee test result validity
- Increased staff accountability and clearly outlined individual responsibilities
- Eliminates the need for independent supplier audits, saving time and money
- Open up tendering opportunities on a global scale

Related services and products



Beyond ISO/IEC 17025, IMSM can also introduce your business to a range of management system standards designed to be compatible and integrated to help develop and grow a profitable company by delivering audit efficiency, consistency and continual improvement.



IMSM also offers one-day and two-day Internal Auditor Training Courses and a range of services and additional products.

“ISO 9001 definitely primed us for ISO/IEC 17025. Once we got to ISO/IEC 17025, because of implementing certain systems and record-keeping, it really was a pretty easy process with the help of IMSM...”

Thuy V
Hammer Enterprises

To explore the ways ISO standards can help improve your business, contact IMSM today for an informal discussion with your local IMSM Area Manager.

Take the next step:

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