The advantages of being Accredited
Accreditation is a means of determining the technical competence of testing, calibration and medical laboratories to perform specific types of testing, measurement and calibration. It provides formal recognition that laboratories are competent, impartial and independent, therefore providing a ready means for customers to identify and select reliable testing, measurement and calibration services that are able to meet their needs. To maintain this recognition, laboratories are re-evaluated regularly by a recognised accreditation body to ensure their continued compliance with requirements, and to check that their standard of operation is being maintained. The laboratory is also required to participate in relevant proficiency testing programs between reassessments, as a further demonstration of technical competence.

Accredited laboratories usually issue test or calibration reports bearing the accreditation body’s symbol or endorsement, as an indication of their accreditation. Clients are encouraged to check with the laboratory as to what specific tests or measurements they are accredited for, and for what ranges or uncertainties. This information is specified in the laboratory’s scope of accreditation, issued by the accreditation body, which provides the customers seeking laboratory services with clear information about the range of testing or calibration services that the laboratory can provide under accreditation.
A marketing advantage

Accreditation is an effective marketing tool for testing, medical, calibration and measurement laboratories, and a passport to submit tenders to contractors that require independently verified laboratories.

Laboratory accreditation is highly regarded both nationally and internationally as a reliable indicator of technical competence. Many industries, from clinical, chemical, construction, forensic science, electrical and food sectors, routinely specify laboratory accreditation for suppliers of testing or calibration services.

Unlike certification to ISO 9001, laboratory accreditation uses criteria and procedures specifically developed to determine technical competence, thus assuring customers that the test, calibration or measurement data supplied by the laboratory or inspection service are accurate and reliable.

Many accreditation bodies also publish a directory of their accredited laboratories, which includes the laboratories’ contact details and information on their testing capabilities. This is another means of promoting a laboratory’s accredited services to potential clients.

Finally, through a system of international agreements (see later in this brochure) accredited laboratories receive a form of international recognition, which allows their data and results to be more readily accepted in overseas markets. This recognition helps to reduce costs for manufacturers and exporters that have their products or materials tested in accredited laboratories, by reducing or eliminating the need for retesting in another country.
Accreditation benefits laboratories by allowing them to determine whether they are performing their work competently to appropriate standards, and provides them with a benchmark for maintaining that competence. Many such laboratories operate in isolation to their peers. A regular assessment by an accreditation body provides an opportunity for an independent technical evaluation of their performance and checks all aspects of a facility’s operations related to consistently producing accurate and dependable data. Areas for improvement are identified and discussed, and a detailed report provided at the end of each visit. Where necessary, follow-up action is monitored by the accreditation body so the facility is confident that it has taken the appropriate corrective action.

In addition to commercial testing and calibration services, manufacturing organisations may use laboratory accreditation to ensure the testing of their products by their own in-house laboratories is being done competently.
The choice between laboratory accreditation and ISO 9001 certification

Accreditation uses criteria and procedures specifically developed to determine technical competence. Specialist technical assessors conduct a thorough evaluation of all factors in a laboratory that affect the production of test or calibration data. The criteria are based on the international standards called ISO/IEC 17025 or ISO 15189 (refer to specific brochure covering medical testing laboratories), which are used for evaluating laboratories throughout the world. Laboratory accreditation bodies use ISO/IEC 17025 to specifically assess factors relevant to the laboratory’s technical competence, including the:

- technical competence of staff
- validity and appropriateness of test methods
- traceability of measurements and calibrations to national standards
- suitability, calibration and maintenance of test equipment
- testing environment
- sampling, handling and transportation of test items
- quality assurance of test and calibration data

By this process, accreditation aims at assuring you and your customers that your laboratory’s test or calibration data are accurate and reliable.

The ISO 9001 standard is widely used in manufacturing and service organisations to evaluate their system for managing the quality of their product or service. Certification of an organisation’s quality management system against ISO 9001 aims at confirming the compliance of the management system to this standard. Whilst laboratories may be certified to ISO 9001, such certification does not make any statement about the technical competence of a laboratory.
Many countries around the world have one or more organisations responsible for the accreditation of their nation’s laboratories. Most of these accreditation bodies have adopted ISO/IEC 17025 as the basis for accrediting their country’s testing and calibration laboratories, and ISO 15189 for medical laboratories. This has helped countries employ a uniform approach to determining laboratory competence. It has also encouraged laboratories to adopt internationally accepted testing and measurement practices, where possible.

This uniform approach allows countries to establish agreements among themselves, based on mutual evaluation and acceptance of each other’s accreditation systems. Such international agreements, called mutual recognition arrangements (MRAs), are crucial in enabling test and calibration data to be accepted between these countries. In effect, each partner in such an MRA recognises the other partner’s accredited laboratories as if they themselves had undertaken the accreditation of the other partner’s laboratories.

Over 90 accreditation bodies have signed a multi-lateral recognition agreement, called the ILAC Arrangement, which greatly enhances the acceptance of data across the national borders of the signatory countries. Full details for the ILAC Arrangement and the list of signatories can be found on the ILAC website at www.ilac.org.

This system of international MRAs among accreditation bodies has enabled accredited laboratories to achieve a form of international recognition, and allowed data accompanying exported goods to be more readily accepted on overseas markets. This effectively reduces costs for both the manufacturer and the importer, as it reduces or eliminates the need for products to be retested in another country.
What types of laboratories can seek accreditation?

If you are considering seeking accreditation for your facility, the first thing you’ll need to do is contact the appropriate accreditation body to see whether they can accredit your range of testing, calibration or measurement services.

Most national accreditation bodies can provide comprehensive accreditation for:

- facilities undertaking any sort of testing, product or material evaluation, calibration or measurement;
- private or government laboratories;
- one-person operations or large multi-disciplinary organisations;
- remote field operations and temporary laboratories.
Laboratories can have either all or part of their testing and calibration activities accredited. The accreditation process involves a thorough evaluation of all the elements of a laboratory that contribute to the production of accurate and reliable test data.

The evaluation process can take one to several days, and involves the use of specialist technical assessors who evaluate the specific types of testing or measurement being performed. The assessment criteria are based on the international standard ISO/IEC 17025, which is used for evaluating laboratories throughout the world. Laboratory accreditation bodies use this standard specifically to assess the factors listed earlier and relevant to a laboratory’s ability to produce precise, accurate test and calibration data.

At the end of the assessment a detailed report on the evaluation is presented to the laboratory, highlighting any areas that require attention and corrective action prior to the laboratory being recommended for accreditation.

Once accredited, the laboratory is re-evaluated periodically to ensure its continued compliance with requirements, and to check that its standard of operation is being maintained.
ILAC facilitates trade and supports regulators by operating a worldwide mutual recognition arrangement – the ILAC Arrangement – among Accreditation Bodies (ABs) in order that the data and test results issued by laboratories and inspection bodies, collectively known as Conformity Assessment Bodies (CABs), accredited by ILAC Accreditation Body members are accepted globally. Thereby, technical barriers to trade, such as the re-testing of products each time they enter a new economy is reduced, in support of realising the free-trade goal of “accredited once, accepted everywhere”.

In addition, accreditation reduces risk for business and its customers by assuring that accredited CABs are competent to carry out the work they undertake within their scope of accreditation.

Further, the results from accredited facilities are used extensively by regulators for the public benefit in the provision of services that promote an unpolluted environment, safe food, clean water, energy, health and social care services.

ABs that are members of ILAC and the CABs they accredit are required to comply with appropriate international standards and the applicable ILAC application documents for the consistent application of those standards.

ILAC is the global association for the accreditation of laboratories, inspection bodies, proficiency testing providers and reference material producers, with a membership consisting of accreditation bodies and stakeholder organisations throughout the world.

It is a representative organisation that is involved with:

- the development of accreditation practices and procedures,
- the promotion of accreditation as a trade facilitation tool,
- supporting the provision of local and national services,
- the assistance of developing accreditation systems,
- the recognition of competent testing (including medical) and calibration laboratories, inspection bodies, proficiency testing providers and reference material producers around the world.

ILAC actively cooperates with other relevant international organisations in pursuing these aims.

ABs having signed the ILAC Arrangement are subject to peer evaluation via formally established and recognised regional cooperation bodies using ILAC rules and procedures prior to becoming a signatory to the ILAC Arrangement.
The ILAC website provides a range of information on topics covering accreditation, conformity assessment, trade facilitation, as well as the contact details of members. Further information to illustrate the value of accredited conformity assessment to regulators and the public sector through case studies and independent research can also be found at: www.publicsectorassurance.org.

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