International Laboratory Accreditation Cooperation

Why use an Accredited Laboratory?

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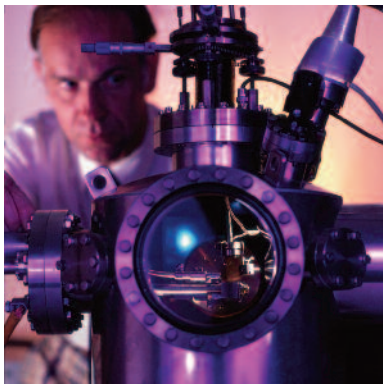
What factors should you consider when choosing a laboratory?

When selecting a laboratory to fulfil your testing, calibration or measurement needs, you need to be sure that they can supply you with accurate and reliable results. The technical competence of a laboratory depends on a number of factors including:

- the qualifications, training and experience of the staff
- the right equipment – properly calibrated and maintained
- adequate quality assurance procedures
- proper sampling practices
- appropriate testing procedures
- valid test methods
- traceability of measurements to national standards
- accurate recording and reporting procedures
- suitable testing facilities

All these factors contribute to a laboratory being technically competent to do your testing.



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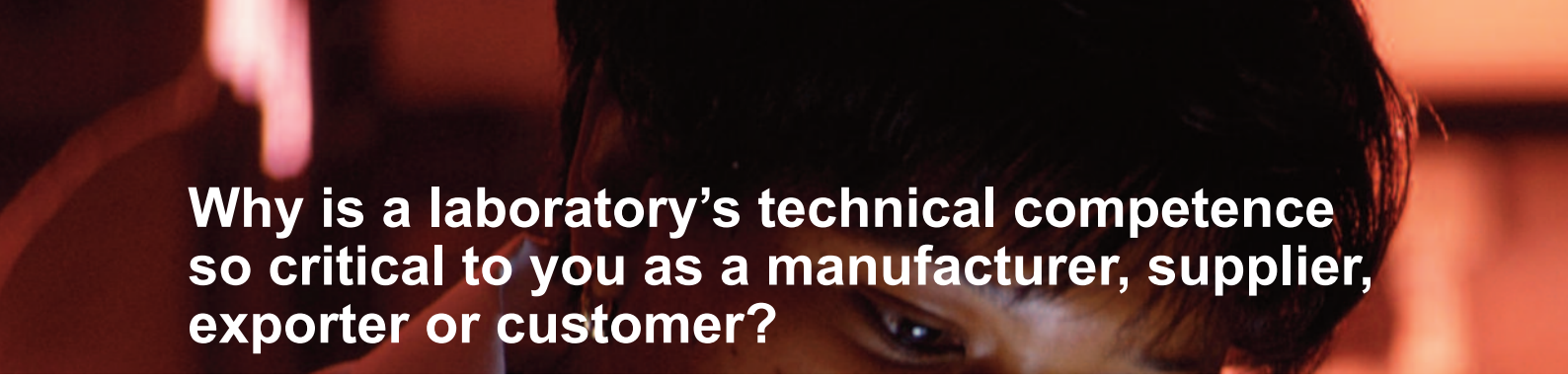

Why is a laboratory's technical competence so critical to you as a manufacturer, supplier, exporter or customer?

Minimise risk

Throughout the world today, customers seek reassurance that the products, materials or services they produce or purchase meet their expectations or conform to specific requirements. This often means that the product is sent to a laboratory to determine its characteristics against a standard or a specification. For the manufacturer or supplier, choosing a technically competent laboratory minimises the risk of producing or supplying a faulty product.

Avoid expensive retesting

Testing of products and materials can be expensive and time consuming, even when they are done correctly the first time. If not done correctly, then the cost and time involved in re-testing can be even higher if the product has failed to meet specifications or expectations. Not only do costs go up, but your reputation as a supplier or manufacturer can go down. You can also be held liable for any failure of your product, particularly if it involves public safety or financial loss to a client. Choosing a technically competent laboratory minimises the chance of retesting being required.

Enhance your customers' confidence

Confidence in your product is enhanced if clients know it has been thoroughly tested by an independent, competent testing facility. This is particularly so if you can demonstrate to them that the laboratory itself has been assessed by a third party. Increasingly customers are relying on independent evidence, rather than simply accepting a supplier's word that the product is "fit for purpose".

Reduce costs and improve acceptance of your goods overseas

Through a system of international agreements (see below) technically competent, accredited laboratories receive a form of international recognition, which allows their data to be more readily accepted on 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 the importing country.

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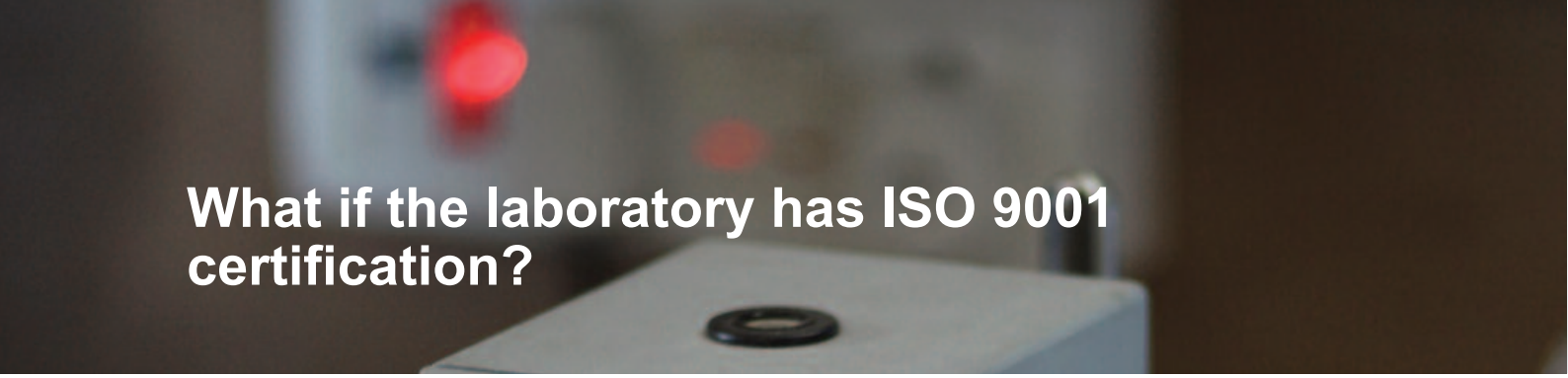

What if the laboratory has ISO 9001 certification?

Laboratories can be audited and certified to an international management systems standard called ISO 9001. This 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 systems against ISO 9001 aims at confirming the compliance of the management system to this standard, but does not specifically evaluate the technical competence of a laboratory.

How then can you be sure that a laboratory is technically competent?

Throughout the world, many countries rely on a process called laboratory accreditation as a means of determining technical competence. 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 internationally accepted standards ISO/IEC 17025, or ISO 15189 for medical laboratories which are used for evaluating laboratories throughout the world. Accreditation bodies use this standard specifically to assess factors relevant to a laboratory's ability to produce precise, accurate test and calibration data, 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

Accreditation also covers the quality systems elements addressed in ISO 9001 certification. To ensure continued compliance, accredited laboratories are regularly re-examined to check that they are maintaining their standards of technical expertise. These laboratories may also be required to participate in regular proficiency testing programs as an on-going demonstration of their competence.

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Accreditation thus provides a means of evaluating the competence of laboratories to perform specific types of testing, measurement and calibration. It also allows a laboratory to determine whether it is performing its work correctly and to appropriate standards. Manufacturing organisations may also use laboratory accreditation to ensure the testing of their products by their own in-house laboratories is being done correctly.

Many industries, from environmental, clinical, chemical, construction, forensic science, electrical and food sectors, routinely specify laboratory accreditation for suppliers of testing or calibration services. Accreditation provides formal recognition that laboratories are competent thus providing a ready means for customers to find reliable testing and calibration services able to meet their needs.

How can you tell if a laboratory is accepted?

Accredited laboratories usually issue test or calibration reports bearing some type of symbol or endorsement indicating their accreditation. You should also check with the laboratory as to what specific tests or measurements they are accredited for, and for what ranges or uncertainties. This is normally specified in their Scope of Accreditation, which may be supplied by the laboratory upon request.

Accreditation bodies in many countries publish lists or directories of the laboratories they have accredited, together with laboratories' contact details and information on their testing capabilities. If necessary, you can contact the accreditation body and find out whether there are any accredited laboratories who can perform the tests or calibrations you require.

To find out if your country has one or more laboratory accreditation bodies visit the ILAC website at **www.ilac.org**

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What about data from overseas laboratories?

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 or ISO 15189 for accrediting medical laboratories *(refer to separate brochure).* 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 laboratory accreditation systems. Such international agreements, called mutual recognition arrangements (MRAs), are crucial in enabling test 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 laboratory 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 between 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 importers, as it reduces or eliminates the need for products to be retested in another country.

Countries without viable accreditation systems can seek to have their laboratories accredited by established accreditation systems, so that their test data and associated goods can be accepted on foreign markets. These countries can also endeavour to develop their own accreditation system based on the structure and experience of established systems in other countries.

More information about ILAC

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.

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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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