

SINGAPORE STANDARD

**General requirements for the competence
of testing and calibration laboratories**



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and calibration laboratories**

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The Quality and Safety Standards Committee, appointed by the Standards Council, consists of the following members:

	Name	Capacity
Chairman	: Er. Go Heng Huat	<i>Individual Capacity</i>
Deputy Chairman	: Mr Seet Choh San	<i>Singapore Institution of Safety Officers</i>
Advisor	: Mr Chan Yew Kwong	<i>Individual Capacity</i>
Secretary	: Ms Kong Wai Yee	<i>Singapore Manufacturing Federation – Standards Development Organisation</i>
Members	: Er. Goh Keng Cheong	<i>Housing and Development Board</i>
	Er. Hashim Bin Mansoor	<i>Building and Construction Authority</i>
	Assoc Prof Hoon Kay Hiang	<i>Nanyang Technological University</i>
	Mr Koh Yeong Kheng	<i>Association of Small and Medium Enterprises</i>
	Mr Lee Kay Chai	<i>The Singapore Contractors Association Limited</i>
	Prof Lee Pui Mun	<i>Singapore University of Social Sciences</i>
	Mr Lim Kee Huat /	<i>Society of Loss Prevention in the Process</i>
	Mr Liow Kin Lian	<i>Industries</i>
	Mr Steven Nah	<i>Association of Process Industry</i>
	Mr Ong Liong Chuan	<i>Individual Capacity</i>
	Mr Perianan Radhakrishnan	<i>Singapore Welding Society</i>
	Assoc Prof Simon Poh Siew Beng	<i>National University of Singapore</i>
	Mr Derek Sim	<i>Association of Singapore Marine Industries</i>
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	Mr Birch Sio	<i>Singapore Manufacturing Federation</i>
	Mr Alvin Soong Kheng Boon	<i>Land Transport Authority</i>
	Mr Tan Kay Chen	<i>The Institution of Engineers, Singapore</i>
	Mr Daniel Tan Kuan Wei	<i>Individual Capacity</i>
	Mr Ronald Tan	<i>Singapore Productivity Association</i>
	Mr Jonathan Wan	<i>Individual Capacity</i>
	Mr Wong Siu Tee	<i>JTC Corporation</i>
	Mr Winston Yew	<i>Workplace Safety and Health Council</i>

The Working Group on Conformity Assessment (CASCO), appointed by the then Management Systems Standards Committee to assist in the preparation of this standard, comprises the following experts who contribute in their *individual capacity*:

	Name
Co- Convenors	: Dr Lee Tong Kooi Mr Ngiam Tong Yuen
Secretary	: Ms Aruna Charukesi Palaninathan
Members	: Mr Heng Hoon Jee Dr Ho Teck Tuak Dr Danny Ker Ms Lee Ham Eng Mr Kenneth Liang Ms Jaime Lim Yin Yin Mr Stanley Ong Mr See Boon Ping Mr Sze Thiam Siong Mr Than Soe Ms Delfin Yeo Mr Yusooof Aynuddin

The organisations in which the experts of the Working Group are involved are:

Building and Construction Authority
Health Sciences Authority
Intertek Testing Services (S) Pte Ltd
Ministry of Manpower
Monsunque Pte Ltd
Setsco Services Pte Ltd
Singapore Quality Institute
Singapore Welding Society
Society of Loss Prevention
SPRING Singapore
The Institution of Engineers, Singapore
TÜV Rheinland Singapore Pte Ltd
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National Foreword

This Singapore Standard was prepared by the Working Group on Conformity Assessment (CASCO) under the direction of the then Management Systems Standards Committee and subsequently approved by the Quality and Safety Standards Committee.

This standard is identical with ISO/IEC 17025 : 2017 published by the International Organization for Standardization.

Where appropriate, the words “International Standard” shall be read as “Singapore Standard”. The reference to International Standards shall be replaced by the following Singapore Standards:

International Standard	Corresponding Singapore Standard
ISO 9001	SS ISO 9001
ISO/IEC 17000	SS ISO/IEC 17000
ISO/IEC 17020	SS ISO/IEC 17020
ISO/IEC 17021-1	SS ISO/IEC 17021-1
ISO 17034	SS ISO 17034
ISO/IEC 17043	SS ISO/IEC 17043
ISO/IEC 17065	SS ISO/IEC 17065
ISO 19011	SS ISO 19011

Attention is drawn to the possibility that some of the elements of this Singapore Standard may be the subject of patent rights. Enterprise Singapore shall not be held responsible for identifying any or all of such patent rights.

NOTE

1. *Singapore Standards (SSs) and Technical References (TRs) are reviewed periodically to keep abreast of technical changes, technological developments and industry practices. The changes are documented through the issue of either amendments or revisions.*
2. *An SS or TR is voluntary in nature except when it is made mandatory by a regulatory authority. It can also be cited in contracts making its application a business necessity. Users are advised to assess and determine whether the SS or TR is suitable for their intended use or purpose. If required, they should refer to the relevant professionals or experts for advice on the use of the document. Enterprise Singapore shall not be liable for any damages whether directly or indirectly suffered by anyone or any organisation as a result of the use of any SS or TR.*
3. *Compliance with a SS or TR does not exempt users from any legal obligations.*

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. In the field of conformity assessment, ISO and the International Electrotechnical Commission (IEC) develop joint ISO/IEC documents under the management of the ISO Committee on Conformity assessment (ISO/CASCO).

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by the ISO Committee on Conformity Assessment (CASCO) and circulated for voting to the national bodies of both ISO and IEC, and was approved by both organizations.

This third edition cancels and replaces the second edition (ISO/IEC 17025:2005), which has been technically revised.

The main changes compared to the previous edition are as follows:

- the risk-based thinking applied in this edition has enabled some reduction in prescriptive requirements and their replacement by performance-based requirements;
- there is greater flexibility than in the previous edition in the requirements for processes, procedures, documented information and organizational responsibilities;
- a definition of “laboratory” has been added (see 3.6).

Introduction

This document has been developed with the objective of promoting confidence in the operation of laboratories. This document contains requirements for laboratories to enable them to demonstrate they operate competently, and are able to generate valid results. Laboratories that conform to this document will also operate generally in accordance with the principles of ISO 9001.

This document requires the laboratory to plan and implement actions to address risks and opportunities. Addressing both risks and opportunities establishes a basis for increasing the effectiveness of the management system, achieving improved results and preventing negative effects. The laboratory is responsible for deciding which risks and opportunities need to be addressed.

The use of this document will facilitate cooperation between laboratories and other bodies, and assist in the exchange of information and experience, and in the harmonization of standards and procedures. The acceptance of results between countries is facilitated if laboratories conform to this document.

In this document, the following verbal forms are used:

- “shall” indicates a requirement;
- “should” indicates a recommendation;
- “may” indicates a permission;
- “can” indicates a possibility or a capability.

Further details can be found in the ISO/IEC Directives, Part 2.

For the purposes of research, users are encouraged to share their views on this document and their priorities for changes to future editions. Click on the link below to take part in the online survey:

[17025_ed3_usersurvey](#)

General requirements for the competence of testing and calibration laboratories

1 Scope

This document specifies the general requirements for the competence, impartiality and consistent operation of laboratories.

This document is applicable to all organizations performing laboratory activities, regardless of the number of personnel.

Laboratory customers, regulatory authorities, organizations and schemes using peer-assessment, accreditation bodies, and others use this document in confirming or recognizing the competence of laboratories.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC Guide 99, *International vocabulary of metrology — Basic and general concepts and associated terms (VIM)*¹

ISO/IEC 17000, *Conformity assessment — Vocabulary and general principles*

¹ Also known as JCGM 200.