General requirements for the competence of testing and calibration laboratories
National foreword

This British Standard is the UK implementation of EN ISO/IEC 17025:2017. It is identical to ISO/IEC 17025:2017. It supersedes BS EN ISO/IEC 17025:2005, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee CAS/1, Conformity assessment.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© The British Standards Institution 2018
Published by BSI Standards Limited 2018

ISBN 978 0 539 01414 3
ICS 03.120.20; 19.020

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 December 2017.

Amendments/corrigenda issued since publication

<table>
<thead>
<tr>
<th>Date</th>
<th>Text affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>31 March 2018</td>
<td>Spacing of text in subclause 8.8.1 corrected</td>
</tr>
<tr>
<td>30 June 2018</td>
<td>Implementation of CEN correction notice 20 De-</td>
</tr>
<tr>
<td></td>
<td>cember 2017: DOW corrected</td>
</tr>
</tbody>
</table>
General requirements for the competence of testing and calibration laboratories (ISO/IEC 17025:2017)

This European Standard was approved by CEN on 10 November 2017.

CEN and CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN and CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN and CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN and CENELEC members are the national standards bodies and national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.
European foreword

This document (EN ISO/IEC 17025:2017) has been prepared by Technical Committee ISO/CASCO "Committee on conformity assessment" in collaboration with Technical Committee CEN/CLC/JTC 1 “Criteria for conformity assessment bodies” the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 2018 and conflicting national standards shall be withdrawn at the latest by December 2020.

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


According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO/IEC 17025:2017 has been approved by CEN as EN ISO/IEC 17025:2017 without any modification.
Contents

Foreword ................................................................. v
Introduction .......................................................... vi

1 Scope ............................................................................. 1
2 Normative references .................................................. 1
3 Terms and definitions .................................................. 1

4 General requirements .................................................. 3
  4.1 Impartiality ................................................................. 3
  4.2 Confidentiality ............................................................. 3

5 Structural requirements ............................................... 4

6 Resource requirements ................................................. 5
  6.1 General ................................................................. 5
  6.2 Personnel ................................................................. 5
  6.3 Facilities and environmental conditions ......................... 6
  6.4 Equipment ............................................................... 6
  6.5 Metrological traceability ............................................. 8
  6.6 Externally provided products and services ....................... 8

7 Process requirements .................................................... 9
  7.1 Review of requests, tenders and contracts ....................... 9
  7.2 Selection, verification and validation of methods ............... 10
    7.2.1 Selection and verification of methods ....................... 10
    7.2.2 Validation of methods ........................................ 11
  7.3 Sampling ............................................................... 12
  7.4 Handling of test or calibration items ............................ 12
  7.5 Technical records .................................................... 13
  7.6 Evaluation of measurement uncertainty ......................... 13
  7.7 Ensuring the validity of results ................................... 13
  7.8 Reporting of results .................................................. 14
    7.8.1 General ............................................................. 14
    7.8.2 Common requirements for reports (test, calibration or sampling) 15
    7.8.3 Specific requirements for test reports ....................... 15
    7.8.4 Specific requirements for calibration certificates .......... 16
    7.8.5 Reporting sampling – specific requirements .......... 16
    7.8.6 Reporting statements of conformity ....................... 17
    7.8.7 Reporting opinions and interpretations .................... 17
    7.8.8 Amendments to reports ....................................... 17
  7.9 Complaints ............................................................ 17
  7.10 Nonconforming work .............................................. 18
  7.11 Control of data and information management ................. 19

8 Management system requirements ................................ 19
  8.1 Options ..................................................................... 19
    8.1.1 General ............................................................. 19
    8.1.2 Option A ........................................................... 20
    8.1.3 Option B ........................................................... 20
  8.2 Management system documentation (Option A) ............. 20
  8.3 Control of management system documents (Option A) ...... 20
  8.4 Control of records (Option A) .................................... 21
  8.5 Actions to address risks and opportunities (Option A) ... 21
  8.6 Improvement (Option A) ........................................... 22
  8.7 Corrective actions (Option A) .................................... 22
  8.8 Internal audits (Option A) .......................................... 23
  8.9 Management reviews (Option A) ................................ 23
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annex A (informative) Metrological traceability</td>
<td>25</td>
</tr>
<tr>
<td>Annex B (informative) Management system options</td>
<td>27</td>
</tr>
<tr>
<td>Bibliography</td>
<td>29</td>
</tr>
</tbody>
</table>
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

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC Guide 99 and ISO/IEC 17000 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

3.1 impartiality

presence of objectivity

Note 1 to entry: Objectivity means that conflicts of interest do not exist, or are resolved so as not to adversely influence subsequent activities of the laboratory (3.6).

Note 2 to entry: Other terms that are useful in conveying the element of impartiality include “freedom from conflict of interests”, “freedom from bias”, “lack of prejudice”, “neutrality”, “fairness”, “open-mindedness”, “even-handedness”, “detachment”, “balance”.

[SOURCE: ISO/IEC 17021-1:2015, 3.2, modified — The words “the certification body” have been replaced by “the laboratory” in Note 1 to entry, and the word “independence” has been deleted from the list in Note 2 to entry.]

\(^1\) Also known as JCGM 200.