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## Conformity assessment — Vocabulary related to competence of persons used for certification of persons

*Évaluation de la conformité — Vocabulaire lié à la compétence des  
personnes utilisée pour la certification de personnes*

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## Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of conformity assessment, the ISO Committee on conformity assessment (CASCO) is responsible for the development of International Standards and Guides.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

In other circumstances, particularly when there is an urgent market requirement for such documents, a technical committee may decide to publish other types of document:

- an ISO/IEC Publicly Available Specification (ISO/IEC PAS) represents an agreement between technical experts in an ISO working group and is accepted for publication if it is approved by more than 50 % of the members of the parent committee casting a vote;
- an ISO/IEC Technical Specification (ISO/IEC TS) represents an agreement between the members of a technical committee and is accepted for publication if it is approved by 2/3 of the members of the committee casting a vote.

An ISO/PAS or ISO/TS is reviewed after three years in order to decide whether it will be confirmed for a further three years, revised to become an International Standard, or withdrawn. If the ISO/PAS or ISO/TS is confirmed, it is reviewed again after a further three years, at which time it must either be transformed into an International Standard or be withdrawn.

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.

ISO/IEC/TS 17027 was prepared by the *ISO Committee on conformity assessment (CASCO)*.

It was circulated for voting to the national bodies of both ISO and IEC, and was approved by both organizations.

## Introduction

This Technical Specification specifies the terms and definitions related to competence and certification of persons, including relevant training terminology. ISO has published a number of standards and other related documents referring to competence of persons (e.g. ISO 9001, ISO/IEC 17021, ISO/IEC 17024), and this has highlighted a need to develop consistent terminology.

The objective of this Technical Specification is to facilitate a common understanding among interested parties of the vocabulary associated with certification and competence of persons. It is also intended to be beneficial in increasing alignment across standards that relate to credentials.

In this Technical Specification, the verbal form “can” indicates a possibility or a capability. Further details can be found in the ISO/IEC Directives, Part 2.

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# Conformity assessment — Vocabulary related to competence of persons used for certification of persons

## 1 Scope

This Technical Specification specifies terms and definitions related to the competence of persons used in the field of certification of persons, in order to establish a common vocabulary. These terms and definitions can also be used as applicable in other documents specifying competence of persons, such as regulations, standards, certification schemes, research, training, licensing and registration.

## 2 Terms and definitions

### 2.1

#### **ability**

capacity to perform an activity

### 2.2

#### **accommodation of special needs**

modification of *assessment* (2.8) methods or its administration made to account for the effects of a disability without altering the *validity* (2.79) of the assessment

### 2.3

#### **accreditation**

third-party *attestation* (2.9) related to a conformity assessment body conveying formal demonstration of its *competence* (2.25) to carry out specific conformity assessment tasks

Note 1 to entry: Accreditation refers to conformity assessment bodies only, and not to persons.

[SOURCE: ISO/IEC 17000:2004, 5.6, modified — Note 1 to entry has been added.]

### 2.4

#### **adverse impact of examinations**

unanticipated *examination* (2.39) results for a specific group of persons

Note 1 to entry: Examples of specific groups of persons include groups based on race, gender, age, ethnic origin, language or religion.

### 2.5

#### **appeal**

request by *applicant* (2.6), *candidate* (2.12) or *certified person* (2.22) for reconsideration of any decision made by the *certification body* (2.17) related to his/her desired *certification* (2.16) status

[SOURCE: ISO/IEC 17024:2012, 3.19]

### 2.6

#### **applicant**

person who has submitted an application to be admitted into a *certification process* (2.19)

[SOURCE: ISO/IEC 17024:2012, 3.13]

### 2.7

#### **approval of persons**

procedure based on predefined factors and an issuance of a documented statement by which the governmental or other designated body recognizes persons to perform specific activities

Note 1 to entry: *Certification* (2.16) or other conformity assessment procedures can be a prerequisite for approval.

## 2.8

### **assessment**

process that evaluates a person's fulfilment of the requirements of the *certification scheme* (2.21)

[SOURCE: ISO/IEC 17024:2012, 3.8]

## 2.9

### **attestation**

issue of a statement, based on a decision following a review, that fulfilment of specified requirements has been demonstrated

[SOURCE: ISO/IEC 17000:2004, 5.2, modified — Notes to entry have been removed.]

## 2.10

### **attribute**

inherent characteristic of a person

EXAMPLE Visual acuity; sensitivity to others; openness.

## 2.11

### **bias**

presence of any factors that can unfairly influence *examination* (2.39) *items* (2.52), examination scores or *certification* (2.16) results

Note 1 to entry: Bias can occur at many points, such as when developing examination items, scoring examinations or making certification decisions.

## 2.12

### **candidate**

*applicant* (2.6) who has fulfilled specified prerequisites and has been admitted to the *certification process* (2.19)

[SOURCE: ISO/IEC 17024:2012, 3.14]

## 2.13

### **category of persons**

*certificate holders* (2.15) who perform the same type of activities or tasks

EXAMPLE Welders; non-destructive testing (NDT) personnel; nurses; construction machinery operators.

## 2.14

### **certificate**

document issued by a *certification body* (2.17) for persons operating in accordance with ISO/IEC 17024, indicating that the named person has demonstrated the *competence* (2.25) required by the *certification scheme* (2.21)

[SOURCE: ISO/IEC 17024:2012, 3.5, modified]

## 2.15

### **certificate holder**

person named as a subject of a valid *certificate* (2.14) or a valid *training certificate* (2.77.1)

## 2.16

### **certification**

third-party *attestation* (2.9) related to persons

[SOURCE: ISO/IEC 17000:2004, 5.5, modified]



**2.17****certification body**

third-party conformity assessment body operating *certification schemes* (2.21) for persons

Note 1 to entry: A certification body can be non-governmental or governmental, with or without regulatory authority.

**2.18****certification mark****certification logo**

protected mark or logo issued by a *certification body* (2.17) for persons, indicating that a person is in conformity with specified requirements

[SOURCE: ISO/IEC 17030:2003, 3.1, modified]

**2.19****certification process**

activities by which a *certification body* (2.17) determines that a person fulfils *certification requirements* (2.20), including application, *assessment* (2.8), decision on *certification* (2.16), *recertification* (2.64) and use of *certificates* (2.14) and *logos/marks* (2.18)

[SOURCE: ISO/IEC 17024:2012, 3.1]

**2.20****certification requirements**

set of specified requirements, including requirements of the scheme to be fulfilled in order to establish or maintain *certification* (2.16)

[SOURCE: ISO/IEC 17024:2012, 3.3]

**2.21****certification scheme**

*competence* (2.25) and other requirements related to specific occupational or skilled *categories of persons* (2.14)

[SOURCE: ISO/IEC 17024:2012, 3.2, modified — Note to entry has been deleted.]

**2.22****certified person**

person who holds a *certificate* (2.14)

**2.23****code of conduct**

document specifying the ethical or personal behaviour required by a *certification scheme* (2.21)

Note 1 to entry: Adapted from ISO/IEC 17024:2012, 8.2, Note 2.

**2.24****code of practice****standard of practice**

rules, requirements, responsibilities or conditions that describe the minimal level of expected performance of a *category of persons* (2.13)

**2.25****competence**

*ability* (2.1) to apply *knowledge* (2.56) and *skills* (2.74) to achieve intended results

[SOURCE: ISO/IEC 17024:2012, 3.6]

## 2.26

### **complaint**

expression of dissatisfaction, other than *appeal* (2.5), by any person or organization to a *certification body* (2.17), relating to the activities of that body or the activities of a *certified person* (2.22), where a response is expected

[SOURCE: ISO/IEC 17000:2004, 6.5, modified]

## 2.27

### **continuing professional development**

#### **continuing education**

activities undertaken by a person after initial education or *training* (2.77) to maintain, improve or increase his/her *knowledge* (2.56) and *skills* (2.74) related to his/her professional activities

## 2.28

### **credential**

recognition of *qualification* (2.63) or *competence* (2.25) issued to a person by an organization

EXAMPLE Academic diplomas; academic degrees; *certifications* (2.16); *certificates* (2.14); *licences* (2.58).

## 2.29

### **credentialing**

process by which an organization issues a *credential* (2.28)

## 2.30

### **criterion-referenced pass mark**

#### **criterion-referenced cut score**

#### **objective-based cut score**

*cut score* (2.60) established by evaluating characteristics of the *examination* (2.39), rather than by evaluating performance of the *candidates* (2.12) in the examination

## 2.31

### **designation**

governmental authorization of a *certification body* (2.17) for persons to perform specified *certification* (2.16) activities for persons

[SOURCE: ISO/IEC 17000:2004, 7.2, modified]

## 2.32

### **designation for persons**

awarding of a title or trademarked label to a person by a governmental or *credentialing* (2.29) organization

## 2.33

### **diagnostic score report**

*score report* (2.71) that contains detailed *examination* (2.39) performance information, such as strengths and weaknesses

## 2.34

### **difficulty index**

#### **item difficulty**

measure of the proportion of examinees who responded to an *examination* (2.39) *item* (2.52) or question correctly

Note 1 to entry: Difficulty index is also referred to as the p-value.

## 2.35

### **e-assessment**

use of information technology for any activity related to *assessment* (2.8)

Note 1 to entry: Specific types of e-assessments include assessment of cognitive and practical *abilities* (2.1) through computerized adaptive testing or computerized classification testing.

**2.36****eligibility**

fulfilment of prerequisites by *applicants* (2.6)

Note 1 to entry: Prerequisites can include a combination of experience and education.

**2.37****equating of examinations**

process of determining comparable scores on different *examination forms* (2.43)

**2.38****equivalence of certification results**

different *certification processes* (2.19) which result in the same *competence* (2.25) outcomes

**2.39****examination****test**

mechanism that is part of an *assessment* (2.8) which measures a *candidate's* (2.12) *competence* (2.25) by one or more means, such as written, oral, practical and observational, as defined in the *certification scheme* (2.21)

[SOURCE: ISO/IEC 17024:2012, 3.9, modified — The term “test” has been added as an alternative term.]

**2.39.1****computer-based examination****computer-based test****CBT**

*examination* (2.39) delivered through the use of a computer

**2.39.2****criterion-referenced examination**

*examination* (2.39) that compares the performance of examinees to an established standard of *competence* (2.25)

Note 1 to entry: *Certification* (2.16) and *licence* (2.58) examinations are typically criterion-referenced, rather than norm-referenced.

**2.39.3****norm-referenced examination**

*examination* (2.39) that compares the performance of an examinee to the performance of other examinees in the same examination

**2.39.4****standardized examination**

*examination* (2.39) in which specific procedures are consistently followed

Note 1 to entry: Specific procedures which are consistently followed allow examination scores to be comparable.

**2.40****examination adaptation**

process of modifying an *examination* (2.39) for use in other languages or cultures, based on linguistic, cultural and practice pattern differences

**2.41****examination administration**

process of delivering *examinations* (2.39) to examinees

Note 1 to entry: Examination administration typically involves standardized procedures and operational conditions.

**2.42**

**examination blueprint  
examination outline**

listing of the content areas to be included in an *examination* (2.39), together with the criteria (weighting) of the content areas on the overall examination

**2.43**

**examination form**

alternate sets of *examination* (2.39) questions assessing the same *competences* (2.25) within the same organization or body

**2.44**

**examination modification**

modification of an *examination* (2.39) or its *administration* (2.41), made to account for the effects of a disability without altering the *validity* (2.79) of the examination

**2.45**

**examination security**

restriction of access to documents, *examinations* (2.39), examination questions and examination scores

**2.46**

**examiner**

person competent to conduct and score an *examination* (2.39), where the examination requires professional judgement

[SOURCE: ISO/IEC 17024:2012, 3.10]

**2.47**

**examiner reliability**

**inter-rater reliability**

**inter-rater agreement**

consistency with which different *examiners* (2.46) assign scores to the same observed performance of a *candidate* (2.12) or product produced by the candidate

**2.48**

**fairness**

equal opportunity for success provided to each *candidate* (2.12) in the *certification process* (2.19)

Note 1 to entry: Fairness includes freedom from *bias* (2.11) in *examinations* (2.39).

[SOURCE: ISO/IEC 17024:2012, 3.16, modified — Note 1 to entry has been added.]

**2.49**

**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 *certification body* (2.17).

Note 2 to entry: Other terms that are useful in conveying the element of impartiality are: independence, freedom from conflict of interests, freedom from *bias* (2.11), lack of prejudice, neutrality, *fairness* (2.48), open-mindedness, even-handedness, detachment, and balance.

[SOURCE: ISO/IEC 17024:2012, 3.15]

**2.50**

**interested party**

individual, group or organization affected by the performance of a *certified person* (2.22) or the *certification body* (2.17)

EXAMPLE Certified person; user of the services of the certified person; employer of the certified person; consumer; governmental authority.

Note 1 to entry: Interested parties can be stakeholders.

[SOURCE: ISO/IEC 17024:2012, 3.21, modified — Note 1 to entry has been added.]

## 2.51

### **invigilator**

person authorized by the *certification body* (2.17) who administers or supervises an *examination* (2.39), but does not evaluate the *competence* (2.25) of the *candidate* (2.12)

Note 1 to entry: Other terms for invigilator are proctor, examination administrator, supervisor.

[SOURCE: ISO/IEC 17024:2012, 3.11]

## 2.52

### **item**

question or specimen that appears on an *examination* (2.39)

## 2.53

### **item analysis**

process for evaluating the performance of each *item* (2.52) in an *examination* (2.39) that provides information regarding *item difficulty* (2.34) and *item discrimination* (2.54)

## 2.54

### **item discrimination**

measure of how well an *item* (2.52) is able to distinguish between examinees who are knowledgeable and those who are not

## 2.55

### **job analysis**

method(s) used to identify the tasks and the associated *competence* (2.25)

Note 1 to entry: Methods generally involve analysis of the associated tasks, *knowledge* (2.56), *skills* (2.74) or abilities that constitute competence as required by the scope of work.

Note 2 to entry: Job analysis provides the basis for the *validity* (2.79) of any *assessments* (2.8) used in issuing *credentials* (2.28).

Note 3 to entry: Other terms for job analysis are job-task analysis, practice analysis, performance analysis and role-delineation study.

## 2.56

### **knowledge**

facts, information, truths, principles or understanding acquired through experience or education

## 2.57

### **learning outcomes**

what a person is expected to know, understand or be able to do at the end of a *training* (2.77) programme, course or module

## 2.58

### **licence**

### **licensure**

recognition of *competence* (2.25) to practice a given occupation or profession conveyed to a person or entity by a regulatory body

## 2.59

### **monitoring**

supervision or oversight of an activity

Note 1 to entry: Monitoring is carried out to ensure continuing compliance with, or adherence to, specific requirements.

**2.60**

**pass mark**

**cut score**

**passing score**

specific score on an *examination* (2.39) where *candidates* (2.12) who obtain that specific score or a higher score pass the examination and candidates who obtain a lower score fail the examination

**2.61**

**personnel**

individuals, internal or external, of the *certification body* (2.17) carrying out activities for the certification body

Note 1 to entry: These include committee members and volunteers.

[SOURCE: ISO/IEC 17024:2012, 3.12]

**2.62**

**psychometrics**

field of study dealing with the theory and technology of psychological measurement

**2.63**

**qualification**

demonstrated education, *training* (2.77) and work experience, where applicable

[SOURCE: ISO/IEC 17024:2012, 3.7]

**2.64**

**recertification**

renewal of *certification* (2.16) in defined intervals

**2.65**

**register**

list issued by a *certification body* (2.17), an authority or another registration organization, for *certificate holders* (2.15) or persons meeting predetermined criteria

Note 1 to entry: A register can be publicly available or for in-house purposes.

**2.66**

**registration**

inclusion of a *certificate holder* (2.15) or an individual meeting predetermined criteria with personal data (e.g. name, address) in a *register* (2.65) by a *certification body* (2.17), an authority or another registration organization

**2.67**

**reliability**

indicator of the extent to which *examination* (2.39) scores are consistent across different examination times and locations, different *examination forms* (2.43) and different *examiners* (2.46)

[SOURCE: ISO/IEC 17024:2012, 3.18]

**2.68**

**scheme owner**

organization responsible for developing and maintaining a *certification scheme* (2.21)

Note 1 to entry: The organization can be a *certification body* (2.17), a government authority, or other.

[SOURCE: ISO/IEC 17024:2012, 3.4]

**2.69**

**scope of certification**

range and nature of specific tasks that a *certified person* (2.22) is expected to be able to perform competently, by virtue of holding a specific *certification* (2.16) that is within a *certification scheme* (2.21)