



TC 4/p 2:					Revision of D 5: Principles for the establishment of hierarchy schemes for measuring instruments		
PG comments on WD:					TC4_P2_N001		
Circulation date:					27 June 2017	Convener: SK – Mr. Stephan Kral	Closing date for voting and/or comments: Wednesday 27 September 2017 at 17:00 CET
Date comments submitted:					Please type your comments in this form and post it (in Word format) as soon as possible and <u>no later than the closing date</u> using the PG vote and comment page on the OIML website (Structure → My Access → PG vote & comment).		
PLEASE INSERT THE COUNTRY CODE AND THE PART AND CLAUSE NUMBER IN EACH ROW. PLEASE DO NOT MODIFY THE NUMBER OF COLUMNS IN THE TABLE.							
Country Code ¹	Part	Clause/ Subclause	Paragraph/ Figure/ Table/	Type of comment ²	COMMENTS	PROPOSED CHANGE	OBSERVATIONS OF THE CONVENER/PG on each comment submitted
RU	Cont.			ge	It necessary to use the same term “transferring the unit” throughout the text (in some places it is written as “transferring the value of unit”).	To change « the ways of transferring the value of unit ...» for « the ways of transferring the unit ...»	Accepted Text changed as “the ways of transferring the unit”
RU	3			te	In describing the methods for transferring the units it is important to bear in mind the difference between the terms “measuring instruments”, “indicating measuring instrument” and “measure”.	It is necessary to add the definitions for the terms “Measuring instrument”, “Indicating measuring instrument”, “Material measure”.	Accepted The definitions were added in chapter 3

¹ **MB** = Member body (enter the ISO 3166 two-letter country code, e.g. CN for China)

² **Type of comment:** ge = general te = technical ed = editorial

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RU	4	4.4		te	In GUM and VIM the “measurement uncertainty” is expressed as a standard uncertainty, expanded uncertainty or pdf. It not correct to express the uncertainty as an MPE. It is necessary to use the general term “measurement accuracy”.	To change «...measurement uncertainty...» for «...measurement accuracy...»	partially accepted The clause 4.4 deals with the measuring uncertainty that is used in conformity assessment decisions in legal metrology. In such cases requirements for maximum permissible uncertainty may exist (see OIML G19) and may be useful to express the value of the measuring uncertainty in the fraction of MPE. text changed as "measurement uncertainty may be expressed in the form of fraction of maximum permissible error (MPE)"
RU	6	6.1.7		te	In describing the methods for transferring the units it is necessary to explain more exactly the difference between the meaning of the terms “measuring instrument and “indicating measuring instrument” which is implied by the text.	To change «measuring instrument» for «indicating measuring instrument» and throughout the rest of the text where appropriate..	accepted Following text changed 6.1.7 — direct measurements (used in verification or calibration of an indicating measuring instrument against a measure or of a measure against an indicating measuring instrument); 4.3 The term traceability means that the indication of an indicating measuring instrument (or a material measure) has

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RU	7	7.1.1		ge	It necessary to use the same term “transferring the unit” throughout the text (in some places it is written as “transferring the value of unit”).	To change «—recommended methods and means of unit value transfer between...» for « —recommended methods and means of the unit transfer between...»	accepted Text changed as “recommended methods and means of the unit transfer between...”
RU	7	7.4.4		te	Referring to VIM3 we propose to use the characteristic “discrimination threshold”	To change «discrimination» for «discrimination threshold»	accepted Text changed as “discrimination threshold...”
RU	Ann.C			ge	It necessary to use the same term “transferring the unit” throughout the text (in some places it is written as “transferring the value of unit”).	To correct « the ways of transferring the value of unit ...» for « the ways of transferring the unit ...»	accepted text changed as “the ways of transferring the unit”
CA	6	6.1.4		ed	Add the word “of” to the first bullet	...instruments capable of fulfilling the role...	accepted text updated
CA	6	6.1.5		ed	Add the word “of” to the first sentence	...instruments capable of fulfilling the role...	accepted text updated
CA	6	6.1.6		ed	Add the word “of” to the second bullet	...instruments capable of fulfilling the role...	accepted text updated
CA	7	7.1.1		ed	Add the word “of” to the second bullet	...instruments capable of fulfilling the role...	accepted text updated
CA	7	7.3.4		ed	Remove “than two” from the first and second bullets	...by means of two or more than two measurement standards... ...by means of any of the two or more than two methods...	accepted text updated
CA	7	7.4.2		ed	Reword the sentence preceding the second bulleted list	It is recommended to also include the following data in this specification:	accepted Text changed as “It is recommended to also include the following data in this specification:”
KR		3.11		ed	Change the 'Authorized body' into 'Authorized laboratory'	Authorized laboratory	accepted Text changed as “Authorized laboratory.....”
KR		4.2		ed	Add a few words in the contents for better understanding	Either through the system of national measurement standards, accredited calibration laboratories reference standards, or.... ... through the system of national measurement standards, accredited calibration laboratories reference standards, or...of other country	non accepted accredited calibration laboratories reference standards are traceable to national measurement standards

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KR		7.3.6		te	There needs to be an additional explanation of how level of measurement standards are specified by metrological characteristics or standards.	Annex or standardized document needs be provided by the OIML.	Comment accepted without proposed change. The purpose was to put in the local hierarchy scheme the metrological characteristics of the measurement standards. Text changed as “metrological characteristics specifying the measurement standards...”
ISO/TC 12		Cont.		ge	It necessary to use the same term “transferring the unit” throughout the text (in some places it is written as “transferring the value of unit”).	To change « the ways of transferring the value of unit ...» for « the ways of transferring the unit ...»	accepted
ISO/TC 12		Cont.		ed	Incorrect formatting of text as headings and thus appear in the table	Remove heading formatting of text in these sections	accepted
ISO/TC 12		1.2		te	“The quality of products and services is increasingly dependent on reliable measurement.” The text then gives reference to SI traceability; 17025; and 9001, which is all well and good. Legal metrology however does not in most cases specify direct control of “products and services” in general (apart from pre-packages), but sets requirements on classes of measurement instruments instead as a proxy.	Another reference – perhaps the most important in the present context – should be added, namely: to conformity assessment and specifically legal metrology, including the requirements for legal control of measuring instruments. Add text explaining how metrological traceability enters into legal metrology (as part of conformity assessment).	accepted Text updated

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ISO/TC 12		1.2		te	Metrological traceability is not always required when performing legal metrological control of measurement instruments. For example, according to OIML R111, only the highest accuracy classes of mass standards require calibration.	Add text explaining when metrological traceability is required (or not) in legal metrological control.	Non accepted. From the reason to avoid misunderstanding interpretation of the text. Moreover, according to OIML D 1, cl. 3.3 “For the application of any laws and regulations prescribing requirements on measurements, on prepackages and on measuring instruments, traceability to the SI shall be required”. According to OIML R111, highest accuracy classes of mass standards shall be accompanied by a “calibration certificate”, but it seems that annex C is relating to calibration of all weight or weight set. Classes.
ISO		1.2		te	ISO/IEC17025:2005 is going to be revised within 2017 (paraphrased by convener)	Text to be revised according to revised ISO/IEC17025 (paraphrased by convener)	accepted
NL-1		Foreword	5 th par	ed	Incorrect paste from B 18	correct	accepted Text updated
NL-2		1.2			avoid the use of “must” see OIML B 6-2	replace by “shall”	accepted Text updated
NL-3		2.1		ed	This Document lays down a clear and transparent picture of... Incorrect. One could “lay down a picture” but that is not what is meant. The expression is: “to present a picture”	suggest to reverse the amendment	accepted Text updated as “This Document deals with the principles of traceability...”
NL-4		2.2		ed	“However” refers back to some previous statement. A separate sub clause should not start with this word	Reformulate the sub clause to make it stand alone.	accepted Text and sub clauses reformulated
NL-5		3		ed		change for all terms the first character from uppercase to lowercase as stated in in OIML B 6-2 and ISO directives	accepted Text was updated
NL-6		3		ed		suggest not to refer to VIM3 but to the OIML code of this published vocabulary (V1-100)	Partially accepted. Reference changed to VIM according to OIML B 6-2 cl. A 1.2

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NL-7		3.3		ed	<p>“... metrological traceability may be obtained either through evaluation of uncertainties or through compliance with stated maximum permissible errors.</p> <p>Use of the plural should be omitted as much as possible for the term measurement uncertainty.</p> <p>This also accounts for “error”</p>	<p>“... metrological traceability may be obtained either through evaluation of measurement uncertainty or through compliance with stated maximum permissible error.</p>	accepted
NL-8		3.5		ed	Reminder for OIML TC 1: the definition of this term is not in accordance with the required lay out of definitions in terminology	OIML TC 1 secretariat to be informed	Non accepted. The definition of the term is from valid VIM. It can be changed when the new definition will be valid.
NL-9		4.5		ed	avoid the use of “must” see OIML B 6-2	replace by “shall”	accepted
NL-10		5.2.1		ed	“..held by BIPM..”	suggest to change to : “..preserved by BIPM..” or “..maintained by BIPM..”	accepted The text changed as “..maintained by BIPM..”
NL-11		5.3.1		ed	avoid the use of “must” see OIML B 6-2	replace by “shall”	accepted
NL-12		5.4.2		ed.	last (added) sentence is not consistent with the formulation of the clause	reformulate the added last sentence.	Accepted Text was changed as “The traceability to the standards maintained by NMIs may be checked by the reference to calibration and measurement capabilities of NMIs as held on the BIPM's key comparison database published on the BIPM web site (www.bipm.org).”
IR1				ge	ISO/IEC17025:2005 is going to be revised within 2017 and ISO 9001:2008 was revised in 2015.	These latest versions should be reflected.	accepted
IR2		1.2,4.5,5.3.1		ge	According to OIML B 6-2,avoid the use of “must”	replace by “shall”	accepted
IR3		5.3.2, 5.4.2 and Annex A		te	According to ISO/IEC17011(under revision 2017)and ILAC related document,we shall use the term “calibration and measurement capability” for the accreditation scope to describe calibration laboratories	The term “best measurement capability” replace by “calibration and measurement capability”	accepted text was changed as “calibration and measurement capability”

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AU	All	-	-	ge	Australia supports the revision of this document. As the progresses through the 1CD and 2CD, consideration should be given to how the document can complement and be referenced by the revision of OIML D 1. In this manner it should support the work of the CEEMS project.	NA	-
AU	1	1	1	ed	The first sentence is rather conversational in its tone.	Suggest: Metrology in general, and legal metrology specifically, is quite a different discipline and function than it was even twenty years ago, both at national and international levels.”	accepted
AU	1	1	1	ed	Editorial correction: ‘multiply’ should be changed to ‘multiple’.	The second sentence should be corrected to “Metrology is facing multiple developments...”	accepted
AU	1	1.2	1	te	The concept of the SI should be explained or appropriate references should be provided. As persons that are new to metrology would benefit from this information being provided.	The concept of the SI should be explained or appropriate references should be provided.	accepted
AU	1	2.2	1	ed	Suggest changing the term ‘scope’ to ‘outcome’ or similar. The purpose of the document to allow for the development of a traceability framework within an economy – that is the intended outcome.	Suggest changing the term ‘scope’ to ‘outcome’ or similar.	Non-accepted The chapter title “scope” is prescribed by OIML B 6-2 cl. 4 “Content of the individual elements of an OIML publication”
AU	1	4.5	1	te	The element of ‘initial verification’ or at least ‘verification’ as a general concept appears to be missing from this list. If subsequent verification is included, then surely initial verification should be included to provide a complete picture.	Please include the element of ‘initial verification’	accepted following text was added “initial verification; verification of a measuring instrument which has not been verified previously”

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AU	1	6.1.4	1	ed	The wording of the note requires review as the intent is not entirely clear.	It is assumed that it should be something like: “At the point of establishing or reviewing a hierarchy scheme, the relevant authority should review and account for the experiences from the operation of existing schemes, at both national and international levels. In this comparative analysis, consideration should be given to the economic and societal context in which the new or revised scheme will be established, to ensure that any such experiences are applicable. For consideration.	accepted Text was modified as “At the point of establishing or reviewing a hierarchy scheme, the relevant authority should review and take into account the experiences from the operation of existing schemes, at both national and international levels. In this comparative analysis, consideration should be given to the economic and societal context in which the new or revised scheme will be established, to ensure that any such experiences are applicable.”
AU	1	6.1.9	1	ed	The use of parentheses at the end of the paragraph is not required.	Delete the parentheses at the end of the paragraph, but retain the content “1:3 to 1:10 or better.”	accepted
AU	1	6.2.2	1	ed	Editorial correction: a comma should be inserted after the word ‘view’.	Editorial correction: a comma should be inserted after the word ‘view’.	accepted
AU	1	7.1.1	1	ed	Editorial correction: the second dot point should be worded “...instruments capable of fulfilling the role...”	Editorial correction: the second dot point should be worded “...instruments capable of fulfilling the role...”	accepted
JP		1.2, 5.4.1, 5.4.3 and References		Ge/edit	ISO/IEC17025:2005 is going to be revised within 2017 and ISO 9001:2008 was revised in 2015.	These latest versions should be reflected.	accepted
JP		4 Traceability and its elements		Gen/edit	According to the definition in 3.2, the term “metrological traceability” should be used for this title.	Change the clause title to “4 <u>Metrological</u> traceability and its elements”.	accepted
JP		5.3.2, 5.4.2 and Annex A		Gen/tech	ILAC now uses the term “calibration and measurement capability” for the accreditation scope to describe calibration laboratories. Please also see the next version of ISO/IEC17011 on the revision process in 2017 and ILAC P14.	The term “best measurement capability” should be changed to “calibration and measurement capability”.	Accepted Text was updated

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JP		5.5 In house calibration		gen	ISO/IEC17025:2005 is going to be revised within 2017 and ISO 9001:2008 was revised in 2015.	These latest versions should be reflected.	Accepted Text was updated
JP		Figure of national hierarchy scheme in Annex A		Gen/edit	According to the definition in 3.2, the term “metrological traceability” should be used for this title.	Change the clause title to “4 <u>Metrological</u> traceability and its elements”.	Accepted Text was updated
JP		1.2, 5.4.1, 5.4.3 and References		Gen/edit	ILAC now uses the term “calibration and measurement capability” for the accreditation scope to describe calibration laboratories. Please also see the next version of ISO/IEC17011 on the revision process in 2017 and ILAC P14.	The term “best measurement capability” should be changed to “calibration and measurement capability”.	Accepted Text was updated
DE		General		ed	We propose to use the term “metrological traceability” (cf. VIM No. 2.41) instead of “traceability”. This should be added throughout the document	Change “traceability” to “metrological traceability”	Accepted Text was updated
DE		General		ed	The term “unit transfers” should be replaced by the widely-used term “dissemination of units” throughout the document	Replace “unit transfers” by “dissemination of units”	Accepted Text was updated
DE		General		ed	Instead of the correct term “calibration” the term “comparison” is often used. We propose to replace “comparison” by “calibration” where appropriate	Replace “comparison” by “calibration”: - 2.1 1 st paragraph - 3.9 - 4.5, 5 th hyphen - 6 - 6.1.7, 1 st sentence 7.1.1, 3 rd hyphen (two times)	Accepted Text was updated
DE		Foreword		ed	The second last paragraph (“This publication – reference OIML B 18...” needs to be adapted to the current project	Change references to current project	Accepted Text was updated
DE		1.1		ed	“multiply” should read “multiple”	Change “multiply” to “multiple”	Accepted Text was updated

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DE		1.1		ed	The sentence is very difficult to understand. The message is already formulated in the 1 st paragraph.	Delete the complete 2 nd paragraph (“Metrology has changed...”)	partially accepted the purpose of the text was to refer to fields effecting metrology nowadays. For better understanding text was updated as “Metrology also evolves together with implementation of quality management systems....”
DE		1.2		ed	As the revised ISO/IEC17025 is expected to be published soon, we should not refer to ISO/IEC 17025:2005 any longer.	Replace ISO/IEC 17025:2005 by ISO/IEC 17025:2017	accepted
DE		1.2		ed	We should refer to the current version of ISO 9001	Replace “ISO 9001:2008” by “ISO 9001:2015”	accepted
DE		1.2		te	In the second paragraph the requirements from ISO 9001 should be repeated more precisely (cf. ISO 9001:2015 No. 7.1.5.2 a).	Change “shall be calibrated or verified prior to use and at specified intervals” to “shall be calibrated or verified prior to use or at specified intervals”	Accepted The text was updated according to ISO 9001:2015 No. 7.1.5.2 a) as “...when measurement traceability is a requirement, or is considered by the organization to be an essential part of providing confidence in the validity of measurement results, measuring equipment shall be calibrated or verified at specified intervals or prior to use, against measurement standards traceable to international or national measurement standards.”
DE		3.10		te	The recommended tasks of an NMI are described in more detail in OIML D1	Add the sentence: “The recommended role of a National Metrology Institute is described in detail in section 3.2.2.3 of the OIML D 1:2012 document”	accepted Text was added
DE		3.11		te	The tasks of legal metrology authorities an NMI are described in more detail in OIML D1	Add the sentence: “The recommended role of a legal metrology laboratory is described in detail in section 3.2.2.3 of the OIML D 1:2012 document”	accepted Text was added

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DE		4.4		te	We find it misleading to write that the measurement uncertainty can be expressed in the form of mpe. We prefer to state that the measurement uncertainty is incorporated in the mpe.	Replace “measurement uncertainty may be expressed in the form of maximum permissible error (MPE)” by “measurement uncertainty is incorporated in maximum permissible error (MPE)”	Accepted partially Text was updated as “...measurement uncertainty may be expressed in the form of fraction of maximum permissible error (MPE)...”
DE		5.2.1		ed	We propose to describe the abbreviation CIPM MRA once.	Replace “CIPM MRA” by “Mutual Recognition Arrangement of the Comité International des Poids et Mesures (CIPM MRA)”	accepted
DE		5.4.3		ed	We propose to reference the latest version of ISO/IEC 17025, i.e. the 2017 edition.	Replace “ISO/IEC 17025:2005” by “ISO/IEC 17025:2017”	accepted
DE		5.5.1		te	Reference standards for in-house calibrations might also be calibrated by legal metrology laboratories.	Replace “accredited calibration laboratory or a National Metrology Institute” by “accredited calibration laboratory, a legal metrology laboratory or a National Metrology Institute”	accepted
DE		References		ed	As the revised ISO/IEC17025 is expected to be published soon, we should not refer to ISO/IEC 17025:2005 any longer.	Replace ISO/IEC 17025:2005 by ISO/IEC 17025:2017	accepted
PL		3		ge	Clause 3 contains quotations of entries from other publications. Sometimes not the whole entry is quoted, but no mention is made that a part of the entry was neglected.	When a part only of the original entry is quoted make a mention of it.	accepted the text was updated accordingly.
PL		3.2, 3.3		ed	Notes that follow the definition are printed in italic style. In the source publication the same font for the definition and the notes was used.	In quotation, do not differentiate the font of paragraphs which in the source publication are printed in the same font. If you consider such a differentiation necessary, then give a rational for that.	accepted notes were updated to be in line with the source publication
PL		3.2		ed	In this entry the definition is followed by two notes only (while in the source publication there are six notes) which are followed by a paragraph which – for a reader not familiar with VIM 3 – makes impression of being a part of the original VIM text.	If you quote an entry from a source publication and wish to add your comment or a note, add a mention that the text added is a comment/ an explanation made by the author/s of OIML D 5.	Accepted The last section of 3.2 was deleted and was putting as new point 4.2
AT	-	-	-	-	no specific comments	-	thank you for review and feedback
IFCC (liaison)	-	-	-	-	no specific comments	-	thank you for review and feedback