



Australian Government
Department of Industry,
Innovation and Science

National Measurement Institute

OIML Certification System (OIML-CS)

Darryl Hines

November 2018

Introduction

- OIML Mission
- OIML-CS objectives and benefits
- Evolution of the OIML-CS
- OIML-CS Structure
- Scheme A and Scheme B Certificates
- Issuing Authorities
- Test Laboratories
- Utilizers
- Experts
- Questions

OIML Mission

“ *The **mission of the OIML** is to enable economies to put in place effective legal metrology infrastructures that are mutually compatible and internationally recognized, for all areas for which governments take responsibility, such as those which facilitate trade, establish mutual confidence and harmonize the level of consumer protection worldwide.* ”

OIML B 15 (2011) OIML Strategy

OIML-CS Objectives and Benefits

Objectives:

- to promote the global harmonization, uniform interpretation and implementation of legal metrological requirements for measuring instruments;
- to establish rules and procedures for fostering mutual confidence among participating OIML Member States and Corresponding Members;
- to avoid unnecessary re-testing when obtaining national type evaluations and approvals; and
- to enhance and maintain confidence in the results of type testing and evaluation in support the global trade in measuring instruments and the commodities which they measure.



OIML-CS Objectives and Benefits

Manufacturers

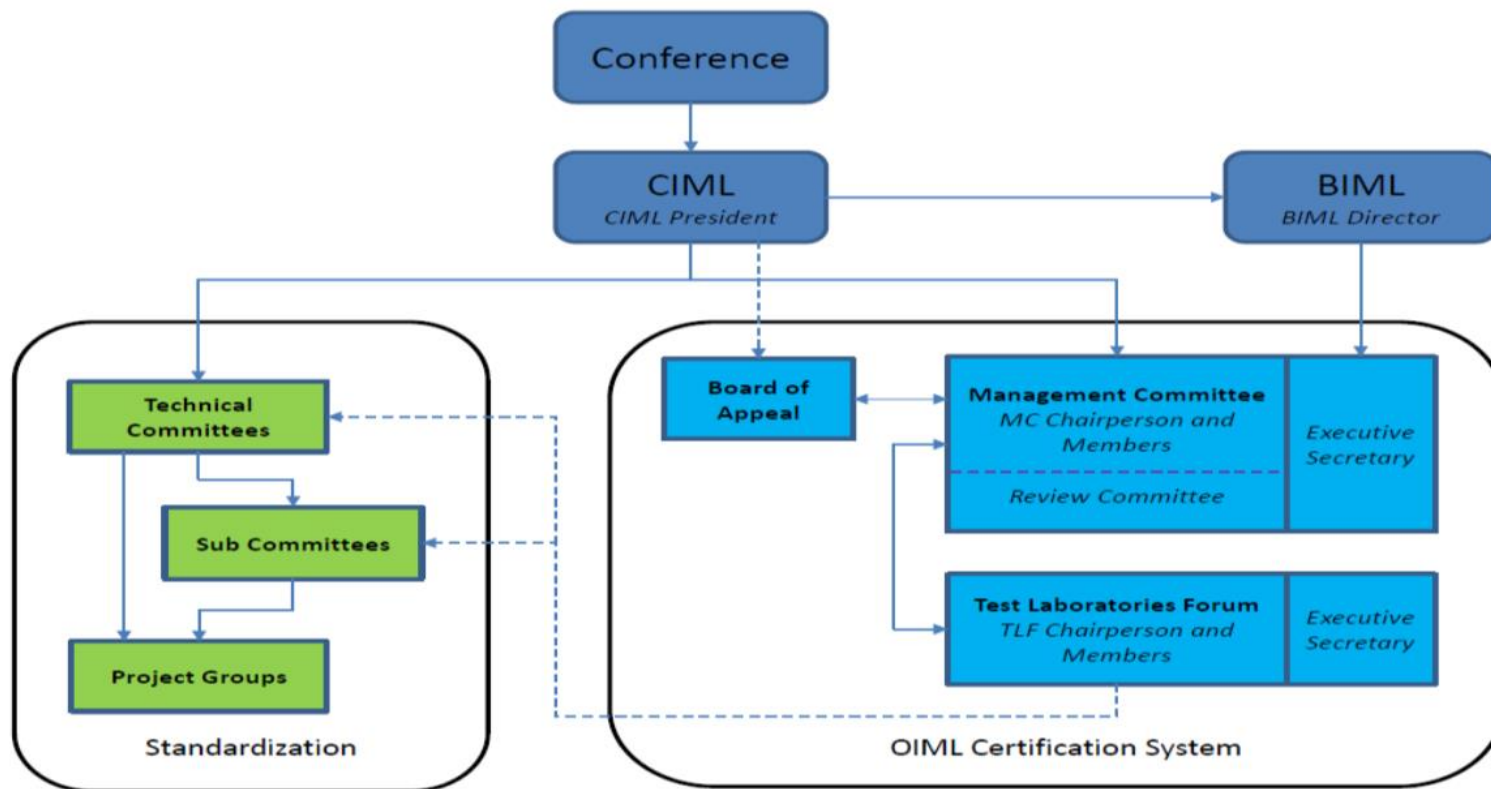
- Reduced costs and delays for type approval in different countries
- Avoidance of duplication of type approval tests and shorter time to market

National Metrology Authorities

- Acceptance of certificates at an international level
- Supports national type approval where test facilities are limited
- Confidence in the test results, evaluation reports and certification



OIML-CS Structure



OIML Recommendations

- Model regulations (standards) which are used by National Metrology Authorities when deciding to regulate certain types of measuring instruments.
- OIML R xxx
 - Part 1 - metrological and technical requirements;
 - Part 2 - test procedures; and
 - Part 3 - type evaluation (test report) report format
 - Part 4 - test report format
 - Part 5 - verification
 - Part 6 - gap analysis???

Future Parts



OIML-CS Structure

- Management Committee (MC) is responsible for the operation of the OIML-CS under the authority of the CIML, with an Executive Secretary from the BIML who is responsible for undertaking the day-to-day activities of the OIML-CS under the direction of the MC.
- A Review Committee (RC), which is a sub-committee of the MC, provides recommendations to the full MC on issues such as the acceptance of new OIML Issuing Authorities and the approval of Legal Metrology Experts.
- The Test Laboratories Forum provides a platform for handling practical and/or technical questions pertaining to test specifications, test methods and test equipment, and for proposing amendments/improvements to OIML Recommendations.

OIML Certification System (OIML-CS)

Framework
Document

OIML B 18:2016 - Framework for the OIML Certification System (OIML-CS)

Operational
Documents

OD-01: Management Committee

OD-02: Test Laboratories Forum

Procedural
Documents

**PD-01: Appeals, Resolution of
Complaints and Disputes**

PD-02: Approval of Experts

**PD-03: Issuing Authorities,
Utilizers and Associates**

**PD-04: Approval of Test
Laboratories**

**PD-05: Issuing, Registering
and Modifying Certificates**

**PD-06: Use of OIML Type Evaluation
Reports and OIML Certificate**

**PD-07: Transition Arrangements
under the OIML-CS**

**PD-08: Signing the
Declaration**

Templates, Forms and
Guidance

**MC
Annual
Report**

**Application
to be a LM
expert**

**Application
to be a
QMS expert**

**Application to
be an Issuing
Authority (IA)**

**IA Letter of
Acceptance**

**IA Peer
Assessment
Report**

**IA
Extension
to Scope**

**IA
Annual
Report**

**OIML
Certificate**

**Application
to be a Test
Laboratory**

**TL Letter of
Acceptance**

**Application to
be Utilizer/
Associate**

**Utilizer/
Associate
Letter of
Acceptance**

**Additional
National
Requirements**

**TL Peer
Assessment
Report**

**TL
Extension
to Scope**

**OIML-CS
Declaration**

Scheme A and Scheme B Certificates

- From 1 January 2018 only Scheme A or Scheme B certificates will be issued by an OIML **Issuing Authority** providing confidence that the identified type (pattern) of measuring instrument or module is in conformity with the requirements of the relevant **Recommendation**, supported by an **Evaluation Report** based on **Test Reports**.



OIML Certificate

OIML Member State
The Netherlands

Number R76/2006-A-NL1-18.38
Project number 2188637
Page 1 of 2

Issuing authority NMI Certin B.V.
Person responsible: C. Oosterman

Applicant and Manufacturer Mettler Toledo GmbH
Im Langacher 44
8606 Greifensee
Switzerland

Identification of the certified type An **Indicator / terminal** Type : IND890-2, IND970

Characteristics See next page

This OIML Certificate is issued under scheme A.

This Certificate attests the conformity of the above identified Type (represented by the sample(s) identified in the OIML Test Report) with the requirements of the following Recommendation of the International Organization of Legal Metrology (OIML):

OIML R 76 - Edition 2006 for accuracy class or or

This Certificate relates only to the metrological and technical characteristics of the type of measuring instrument covered by the relevant OIML International Recommendation above-identified. This Certificate does not bestow any form of legal international approval.

Important note: Apart from the mention of the Certificate's reference number and the name of the OIML Member State in which the Certificate was issued, partial quotation of the Certificate and of the associated OIML Test Report(s) is not permitted, although either may be reproduced in full.

Issuing Authority **NMI Certin B.V., OIML Issuing Authority NL1**
15 August 2018

C. Oosterman
Head Certification Board

NMI Certin B.V.
Hugo de Grootplein 1
3314 EG Dordrecht
the Netherlands
T +31 78 6332332
certin@nmi.nl
www.nmi.nl

This document is issued under the provision that no liability is accepted and that the applicant shall indemnify third-party liability. The notification of NMI Certin B.V. as Issuing Authority can be verified at www.oiml.org



OIML Certificate

OIML Member State
The Netherlands

Number R76/2006-A-NL1-18.38
Project number 2188637
Page 2 of 2

The conformity was established by the results of tests and examinations provided in the associated OIML Test Reports:

- No. NMI-1900621-01 dated 24 May 2017 that includes 31 pages;
- No. NMI-1900621-02 dated 24 May 2017 that includes 14 pages;
- No. NMI-1900621-03 dated 6 June 2017 that includes 26 pages;
- No. NMI-1901844-01 dated 28 May 2018 that includes 19 pages.

Characteristics of the indicator:

Configuration	Digital load cell(s), weighing module or ADPD		
Accuracy class	Ⓜ or Ⓜ or Ⓜ		
Weighing range(s)	Single interval Multi-interval Multiple range		
Load cell power supply	5 V DC		
Fraction of the maximum permissible error	0		
Maximum number of load platforms	4		
Temperature range	-10 °C / +40 °C		
Power supply voltage	100 – 240 V AC 50/60 Hz		
Software identification	Software module	Version	Checksum
	Boot service 'Classic' version	V1.1.3	B645
	Boot service 'Pro' version	V2.0.0	EEBD
	ScaleLock	V1.1.xx (xx is a number between 12 and 99)	
	Scale Module	V1.1.xx (xx is a number between 12 and 99)	
	Scale server 'Classic' version	V1.y.xx (y is a number between 3 and 9) (xx is a number between 0 and 99)	
	Scale server 'Pro' version	V2.y.xx (y is a number between 1 and 9) (xx is a number between 0 and 99)	



OIML Certificate No.
R51/2006-B-GB1-18.04

OIML Member State
United Kingdom of Great Britain
and Northern Ireland

OIML Certificate No.
R51/2006-B-GB1-18.04

OIML CERTIFICATE ISSUED UNDER SCHEME B

OIML Issuing Authority

NMO
Stanton Avenue
Teddington
TW11 0JZ
United Kingdom

Person responsible: Mannie Panesar – Head of Technical Services

Applicant

Marec Limited
Wyncolls Road
Severalls Industrial Park
Colchester
CO4 9HW
United Kingdom

Manufacturer

The applicant

Identification of the certified type 9000 Series Checkweigher / Weight or Weight-Price labeller
(the detailed characteristics are defined in the Descriptive Annex)

This OIML Certificate attests the conformity of the above identified type (represented by the sample(s) identified in the OIML type evaluation report) with the requirements of the following Recommendation of the International Organization of Legal Metrology (OIML):

OIML R 51, Edition: 2006

For accuracy classes: XIII(1) and Y(a)

The OIML Issuing Authority

Issue date: 29 August 2018

Grégory Glas
Lead Technical Manager
For and on behalf of the Head of Technical Services

This OIML Certificate relates only to metrological and technical characteristics of the type of measuring instrument covered by the relevant OIML Recommendation identified above.

This OIML Certificate does not bestow any form of legal international approval.

The conformity was established by the results of tests and examinations provided in the associated OIML type evaluation report:

No. P02440 dated 29 August 2018 that includes 12 pages

The technical documentation relating to the identified type is contained in documentation file:

No. P02440-D dated 29 August 2018

OIML Certificate History

Revision No.	Date	Description of the modification
0	29 August 2018	Certificate first issued
-	-	-

No revisions have been issued.

Important note:

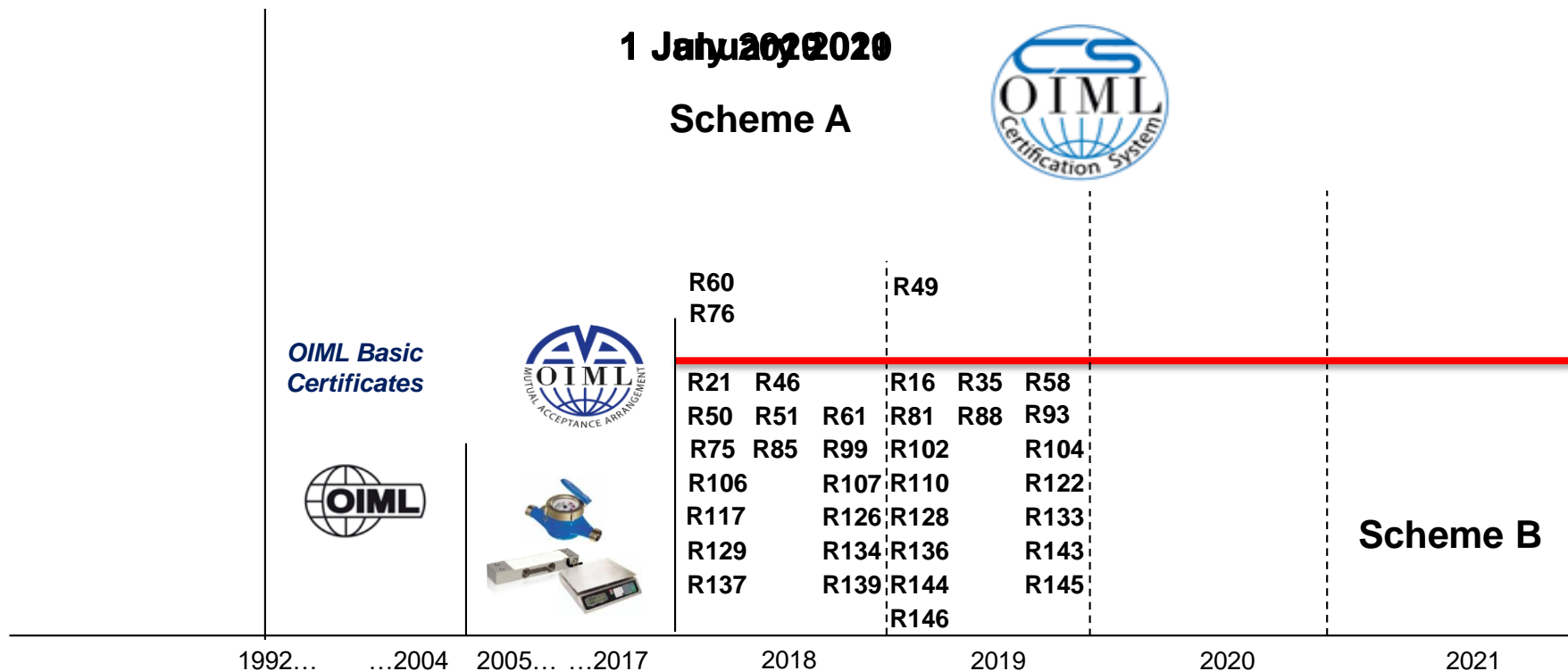
Apart from the mention of the Certificate's reference number and the name of the OIML Member State in which the Certificate is issued, partial quotation of the Certificate and of the associated OIML type evaluation report(s) is not permitted, although either may be reproduced in full.

OIML Recommendations

measurement.gov.au

Transition

OIML Recommendations



Scheme A and Scheme B Certificates

One OIML Certification System - Two Schemes

- Scheme A (like MAA) – 3rd party accreditation or peer assessment
- Scheme B (like Basic) – self declaration (with supporting evidence)
- A category of measuring instrument (defined by a Recommendation)
 - Enters the OIML-CS in Scheme B
 - Transitions to Scheme A after approx. 2 years



No Scheme B certificates can be issued for instrument categories in Scheme A
No Scheme A certificates can be issued for instrument categories in Scheme B

Issuing Authorities

- Generally National Metrology Authorities
- Responsible for:
 - Evaluating test results and instrument type
 - Issuing OIML-CS Type Evaluation Report
 - Issuing OIML-CS Certification
- On application assessed by Review Committee
- Approved by Management Committee



Scheme A: 3rd Party Accreditation or OIML Expert peer assessment to ISO/IEC 17065
Scheme B: Self Declaration (with evidence) to ISO/IEC 17065



OIML Certification System (OIML-CS)

OIML Issuing Authorities and Scopes

		R 21:2007	R 46:2012	R 49:2006	R 49:2013	R 50:2014	R 51:2006	R 60:2000	R 61:2004	R 75:2002	R 76:1992	R 76:2006	R 85:2008	R 99:2008	R 106:2011	R 107:2007	R 117:1995	R 117:2007	R 126:1998	R 129:2000	R 134:2006	R 137:2012	R 139:2014
AU1	National Measurement Institute Australia (NMIA)										■	■											
CH1	Federal Institute of Metrology (METAS)		■			■	■	■	■			■			■	■			■		■		
CN2	National Institute of Metrology, China (NIM)		■			■	■	■	■		■	■				■		■			■	■	
CZ1	Czech Metrology Institute (CMI)			■	■					■			■				■	■				■	■
DE1	Physikalisch-Technische Bundesanstalt (PTB)						■	■		■		■											
DK2	FORCE Certification A/S			■	■	■	■		■			■			■	■				■	■	■	
FR2	Laboratoire National de Métrologie et d'Essais (LNE)			■	■	■	■	■				■							■				
GB1	NMO	■		■	■	■	■	■	■		■	■	■		■	■	■	■		■	■		
JP1	NMIJ/AIST							■			■	■											
NL1	NMi Certin B.V.	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
SE1	Research Institutes of Sweden (RISE)			■	■		■		■				■				■	■					
SK1	Slovak Legal Metrology (SLM)			■	■							■											

Test Laboratories

- Includes: National Metrology Authorities, Instrument Manufacturers and third-party commercial laboratories
- Responsible for:
 - Performing testing to OIML Recommendations
 - Issuing OIML-CS Test Report
- On application assessed by Review Committee
- Approved by Management Committee



Scheme A: 3rd Party Accreditation or OIML Expert peer assessment to ISO/IEC 17025
Scheme B: Self Declaration (with evidence) to ISO/IEC 17025

Utilizers

- Generally National Metrology Authorities or organisations responsible for type approval of measuring instruments
- Issuing Authorities must also become Utilizers for each category of measuring instrument (by OIML Recommendation).
- Required to sign Declaration to accept OIML-CS certification for certain measuring instrument categories.
- Able to include conditions:
 - E.g. NMIA are unable to accept MTL Test Results



OIML Certification System (OIML-CS)

Utilizer and Associate Scopes

1 = Scheme A only

2 = Scheme A and MAA

3 = Scheme A and B

4 = Scheme A, B and MAA

		R 21:2007	R 46:2012	R 49:2006	R 49:2013	R 50:2014	R 51:2006	R 60:2000	R 61:2004	R 75:2002	R 76:1992	R 76:2006	R 85:2008	R 99:2008	R 106:2011	R 107:2007	R 117:1995	R 117:2007	R 126:1998	R 129:2000	R 134:2006	R 137:2012	R 139:2014
AU	National Measurement Institute, Australia (NMIA)				2		2			2	2												
BE	Federal Public Service Economy	3	3		3	3	3	1	3	3		1	3	3	3	3		3		3		3	3
CA	Measurement Canada							2		1	2												
CH	Federal Institute of Metrology (METAS)		1	2	2	1	1	2	1	1		2			1	1			1	1	1	1	
CN	National Institute of Metrology, China (NIM)							2			2	2											
CO	Superintendencia de Industria y Comercio (SIC)	3	3	4	4	3	3	2	3	3	2	2	3	3	3	3	3	3	3	3	3	3	3
CU	National Bureau of Standardization (NBS)	3	3	3	3	3	3	2	3	3	2	2	3	3	3	3	3	3	3	3	3	3	3
DE	Physikalisch-Technische Bundesanstalt (PTB)				4	3	3	2	3	3		2	3		1	3		3		3	1		3
DK	FORCE Certification A/S			2	2	1	1	2	1		2	2			1	1				1	3		
FR	Laboratoire National de Métrologie et d'Essais (LNE)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1
GB	NMO Certification	3		4	4	3	3	2	3		2	2	3		3	3	3	3			3	3	
IN	Legal Metrology Division, Department of Consumer Affairs	3	3		4	3	3	2	3	3		2	3		1	3		3		3	1	3	3
JP	National Metrology Institute of Japan / National Institute of Advanced Industrial Science and Technology (NMIJ/AIST)						2				2	2											
KH	National Metrology Centre (NMC)	3	3	3	3	3	3	1	3	3	1	1	3	3	3	3	3	3	3	3	3	3	3
KR	Korea Testing Certification (KTC)										2	2											
LV	LNMC Ltd. Metrology Bureau																		3		3		
NA	Namibian Standards Institution		3	4	4	3	3	2	3		4	4	3		3	3	3	3	3	3	3		
NL	NM Certin B.V.	3	3	3	4	3	3	2	3	3	1	2	3	3	3	3	3	3	3	3	3	3	3
NZ	Trading Standards (Ministry of Business, Innovation and Employment) (MBIE)			4	4	3	3	2			2	2	3		3	3	3	3		3	3		
SK	Slovak Legal Metrology (SLM)											2											
US	National Conference on Weights and Measures (NCWM)							2															
ZA	NRCS: Legal Metrology			3	3		3	1			1	1	3		3	3	3	3	3	3	3	3	3
ZM	Zambia Metrology Agency	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

OIML Certification System

Experts

Legal Metrology Experts

- Experience and competency in type approval (by instrument category)
- Assessed by Review Committee
- Approved by Management Committee

Quality System Experts

- Experience and competency in quality systems and auditing
- Assessed by Review Committee
- Approved by Management Committee



Scheme A:

Issuing Authorities and Test Laboratories must be audited by an assessment team that includes an appropriate combination of OIML-CS approved experts



OIML-CS Legal Metrology Experts

Expert Name	Country	OIML Recommendation																			Assessment Experience	
		R 21	R 46	R 49	R 50	R 51	R 60	R 61	R 75	R 76	R 85	R 99	R 106	R 107	R 117	R 126	R 129	R 134	R 137	R 139	ISO/IEC 17025	ISO/IEC 17065
Petra Milota	AT			✓																	✓	✓
Yi Chen	AU				✓	✓	✓			✓											✓	
Mario Zamora	AU														✓							
Dirk Bils	BE														✓					✓	✓	
Gulian Couvreur	CH					✓	✓	✓		✓			✓	✓				✓			✓	✓
Jian Wang	CN					✓				✓											✓	
JianLiang Zhao	CN			✓																	✓	
Chao Chen	CN			✓											✓				✓			
Zhiqiang Han	CN		✓																			
Yichao He	CN																		✓			
Gang Hu	CN						✓															
Man Hong Hu	CN				✓	✓		✓		✓				✓				✓				
Jile Jiang	CN						✓															
Chen Li	CN			✓																		
Chunhui Li	CN																		✓			
Binghui Ma	CN									✓												
XiaoHui Mao	CN									✓												
Qi Pan	CN														✓							
Xiaoxiao Peng	CN		✓																			
Leibing Shi	CN		✓																			
Yi Su	CN						✓			✓												
Can Wang	CN														✓				✓			
Lei Wang	CN		✓																			
Jing Yang	CN														✓							
Youtao Yang	CN																		✓			
Jianzhong Zheng	CN		✓																			
Ruilin Zhong	CN				✓	✓		✓		✓				✓				✓				
Bihong Zhou	CN		✓																			
Shaoyuan Zhou	CN		✓																			

Expert Name	Country	OIML Recommendation																			Assessment Experience	
		R 21	R 46	R 49	R 50	R 51	R 60	R 61	R 75	R 76	R 85	R 99	R 106	R 107	R 117	R 126	R 129	R 134	R 137	R 139	ISO/IEC 17025	ISO/IEC 17065
Miroslava Benkova	CZ			✓											✓						✓	
Ivan Kriz	CZ				✓	✓		✓		✓			✓	✓				✓			✓	
Tomás Valenta	CZ																		✓		✓	
Jakub Vacula	CZ														✓						✓	
Timo Schwabe	DE					✓									✓						✓	
Christophe Brun	FR														✓				✓		✓	
Denis Vogel	FR				✓	✓	✓	✓		✓				✓							✓	
Emeric Morel	FR			✓																	✓	
Reuven Perez	IL			✓																	✓	
Nobuhiko Azami	JP						✓														✓	
Shinsuke Mikura	JP						✓														✓	
Tomohiro Nagano	JP									✓											✓	
Satoshi Otani	JP									✓											✓	
Takeshi Ito	JP														✓						✓	
Erik Beumer	NL			✓					✓		✓				✓						✓	
Marc Schmidt	NL														✓					✓	✓	
Marcel Cloo	NL		✓																		✓	
Paul van Rooij	NL			✓											✓						✓	
Roy Scholten	NL					✓		✓		✓				✓			✓				✓	
Baris Yilmaz	NL					✓				✓							✓				✓	✓
Hans Boereboom	NL		✓																		✓	
Paul Kok	NL	✓			✓	✓		✓		✓		✓		✓		✓	✓	✓			✓	✓
Carl Van Wijngaarden	NL																		✓		✓	
Aldemar Tjoa	NL		✓	✓		✓				✓					✓		✓		✓		✓	
Mathias Meijer	NL	✓					✓			✓											✓	✓
Srinivas Bobbala	NZ									✓					✓						✓	
Hakan Källgren	SE				✓	✓	✓	✓		✓			✓	✓							✓	✓
Matej Grum	SI				✓	✓		✓		✓			✓	✓							✓	✓
Aleksander Premuš	SI	✓	✓																		✓	✓
Bülent Aydemir	TR				✓	✓	✓	✓		✓			✓	✓				✓			✓	
Sevda Kaçmaz	TR				✓	✓	✓	✓		✓			✓	✓				✓			✓	
Marek Bokota	UK			✓																	✓	✓
Wei Ji	UK						✓														✓	✓
Gregory Glas	UK	✓				✓				✓											✓	✓



OIML-CS

Management System Experts

Expert Name	Country	Peer Assessment Activity	
		Test Laboratories ISO/IEC 17025	OIML Issuing Authorities ISO/IEC 17065
Gulian Couvreur	CH	✓	✓
Hans Dalsgaard Jensen	DK	✓	
Erik Bruun Lorentzen	DK	✓	
Jos Verbeek	NL	✓	
André Barel	NL	✓	
Dick Verkuil	NL	✓	✓
Aleksander Premuš	SI	✓	✓
Håkan Källgren	SE	✓	✓

Questions?

Thank you

Department of Industry, Innovation and Science | **National Measurement Institute**

36 Bradfield Rd,
WEST LINDFIELD, NSW 2070
GPO Box 2013 Canberra ACT 2601