

IAAC OIML Webinar

Introduction to the OIML Certification System (OIML-CS)

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Head Certification Board @ NMi Certin B.V., OIML Issuing Authority NL1

OIML-CS Chairperson of the Management Committee



- NMi Issuing Authority NL1
- How is the OIML-CS used in Europe
- Some experiences of NL and NMi in particular.
- Some experience with RvA and accreditation



About NMi

- NMi has been issuing OIML Certificates for over 30 years
- NMi has issued over 3500 Certificates in a large variety of measuring instruments
- NMi actively participates in the writing and revising of almost all OIML recommendations.
- NMi is there to support OIML in providing a mutual recognition system which reduces trade barriers and costs in a global market

The NMi 'Blue Seal of Approval'
reflects over 150 years of
unmatched standards, impartiality,
and reliability, instilling confidence
and supporting sustainable growth
in emerging products and
technologies



Metrology in Europe

• The "Blue Guide" is a guidance document published by the European Commission to help businesses understand and implement EU product rules, particularly within the New Legislative Framework (NLF). Its primary goal is to promote the uniform application of these rules across the EU single market and ensure a high level of protection for consumers and other stakeholders.





Legislative framework Europe



essential requirements

conformity assessment procedures

instrument specific

Instruments not included in MID

harmonized standards

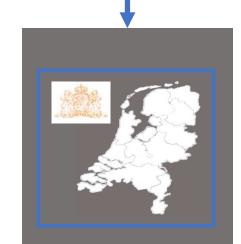
normative documents

harmonized interpretation









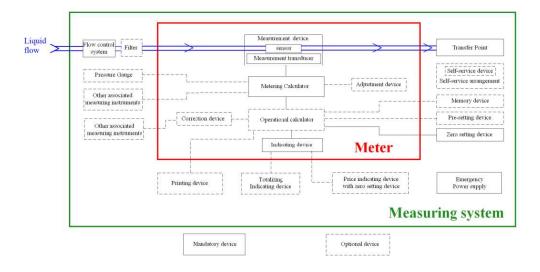


Type Approval – Component

Components used in a measuring system are tested individually

Evaluation Certificate (EC) or Parts Certificate (PC)

- Modular approach (WELMEC 8.8)
- Harmonised standards or normative document
 - e.g OIML R117
- No expiration date → Linked to edition of standard/document



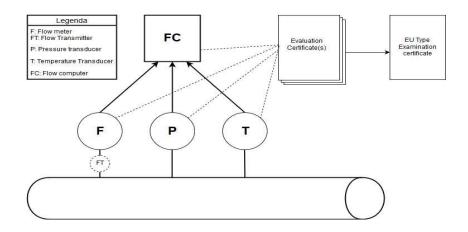




Type Approval – System

System can be based on EC's and/or PC's of components **EU Type Examination Certificate**

10 years valid after being placed on the market







- OIML Certificates are published on the OIML website
- OIML Certificates give a good basis for a national type approval
- Basis are the Type Evaluation Reports (TER)
- National requirements can be included (see Utilizer form)
- A Type Evaluation Report can be accepted worldwide
- Knowledge around OIML Certificates can be improved
- OIML Certificates and reports give a good basis for presumption of conformity.



OIML-CS seen by an Issuing Authority



OIML Certification System (OIML-CS) List of OIML Issuing Authorities and their scopes

		R 21:2007	R 35:2007	R 46:2012	R 49:2006	R 49:2013	R 50:2014	R 51:2006	R 60:2000	R 60:2017	R 60:2021	R 61:2004	R 61:2017	R 75:2002	R 76:1992	R 76:2006	R 85:2008	R 99:2008	R 106:2011	R 107:2007	R 111:2004	R 117:1995	R 117:2007	R 117:2019	R 126:1998	R 126:2021	R 129:2000	R 129:2020	R 134:2006	R 137:2012	R 139:2014	R 139:2018
AU1	National Measurement Institute Australia (NMIA)						1								1	1																
CH1	Federal Institute of Metrology (METAS)					1			1							1			1										1			
CN2	National Institute of Metrology, China (NIM)			1			1	1	1	1		1	1		1	1					1											
CZ1	Czech Metrology Institute (CMI)					1		1					1			1	1						1	1			П		1	1		~
DE1	Physikalisch-Technische Bundesanstalt (PTB)					1		1	1	1	1	1	1	1		1																
DK2	FORCE Certification A/S					1	1	1	1	1	1	1	1			1			1	1							1	1	1	1	1	1
FR2	Laboratoire National de Métrologie et d'Essais (LNE)				1	1		1	1	1						1									1	1						
IN1	Legal Metrology Division, Department of Consumer Affairs (LMD, DoCA)		1		1	1									1	1						1	1	1								
IT1	Tifernogas s.r.l.																													1		
JP1	NMIJ/AIST								1	1	1				1	1						1	1	1								
NL1	NMi Certin B.V.	1		1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1		1	1	1		1	1	1	1	1	1	1
NL3	KEMA B.V.			1																												
SE1	Research Institutes of Sweden (RISE)	1						1	1	1	1	1	1			1	1					1	1	1								
SK1	Slovak Legal Metrology (SLM)				1	1										1																



Participants in the OIML-CS



Test and Certification Bodies

OIML Issuing Authorities

Accreditation Bodies

RvA/UKAS/DAkkS/...

Legislator / Ministry

Economic Affairs

OIML regulations

PD-documents

Technical Experts

OIML Experts and accreditation experts...

Market Surveillance

Organized in WELMEC WG5

OIML expertise

Management, Review and other Committees



Requirements (OIML IAs and TLs)

- NMi holds several accreditations since the early 90's.
- Accreditation is a proof of competence
- OIML Issuing Authorities are required to demonstrate compliance with ISO/IEC 17065
- **Test Laboratories** are required to demonstrate compliance with **ISO/IEC 17025**





Demonstrating Compliance

- Compliance is demonstrated on the basis of accreditation or peer assessment
- Accreditation assessment teams shall include Legal Metrology Expert(s) approved by the OIML
- Knowledge of the OIML system is key, also with accreditation bodies







OIML Certification System (OIML-CS) Implementation Accreditation in Legal Metrology

Legal Metrology Experts

Metrology Experts validated by the OIML-CS Management Committee to participate in Accreditation and Peer Assessments under the OII

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Expert Name	Country	R 16	R 21	R 46	R 49	8 50	R 51	R 60	R 61	R 75	R 76	R 85	R 99	8 106	R 107	R 117	R 126	R 129	R 134	R 137	R 139	150/IEC 17025	150/IEC 17065
Petra Milota	AT				1																	-	1
Yi Chen	AU					1	1	4			1											1	
Mario Zamora	AU															1		*					
Dirk Bits	BE															1					1	-	
Juan Carlos Mateus Sanchez ²	88	1	1	1							1		1			1	1					1	
Luciano Bruno Faruolo	BR										4								1			*	
Gulian Couvreur	CH						1	1	1		1			1	1				~			-	1
Bernhard Niederhauser	СН																1					- 7	
Wang Jian	CN						1				1											1	
Hu Manhong	CN					1	1		1		1				1				1				
Jiang Jile	CN							1															
Shi Leibing	CN			1																			
Yang Jing	CN															1							
Yang Youtao	CN																			1			
Zhong Ruitin	CN					1	~		1		1				1				1				
Zhou Shaoyuan	CN			1				-				-											-







OIML Certification System (OIML-CS) Implementation

Management System Experts – Team Leaders (Lead Assessors)

 Team Leaders validated by the OIML-CS Management Committee to lead Peer Assessments under the OIML-CS

		Peer Assessment Activity								
Team Leader	Country	Test Laboratory ISO/IEC 17025	OIML Issuing Authority ISO/IEC 17065							
COUVREUR, Gulian	CH	V	√							
STOLZ, Harry	DE	✓	1							
JENSEN, Hans Dalsgaard	DK	¥								
LORENTZEN, Erik Bruun	DK	✓								
AGARWAL, Ashutosh	IN	V	ii —							
VERBEEK, Jos	NL	✓								
BAREL, André	NL	V	ii ee							
VERKUIL, Dick	NL	✓	√							
PREMUŠ, Aleksander	SI	✓	1							
KÄLLGREN, Håkan	SE	✓	✓							
GLAS, Grégory	UK		-							
INCE, Ahmet	UK	✓								
TEN-BROEKE, Andrew	UK	✓	ii l							
AVII A. Luis Font	VF	V								

 Team Leaders nominated by ILAC/IAF Full Member Accreditation Bodies to lead Peer Assessments under the OIML-CS

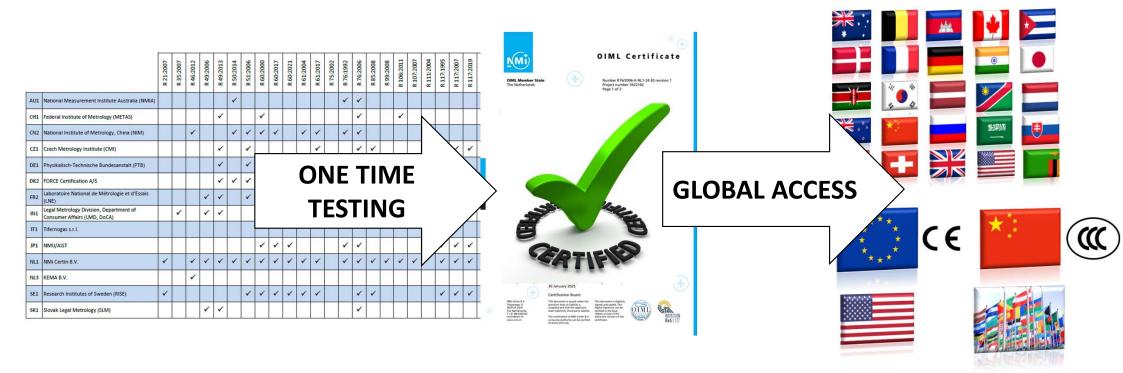
		Peer Assessment Activity						
Team Leader	Organisation	Test Laboratory ISO/IEC 17025	OIML Issuing Authority ISO/IEC 17065					
ALEXANDER, Helga	IAS	V	(0)					
REZK, Mohamed Adel Ahmed	EGAC	1						
AN, Ping	CNAS	V						
DEL PILAR OLUMANO, Rorio	ONAC	/						



OIML certificates are a 'passport'

An OIML certificate is a 'passport' for measuring instruments entering the international market

"One-time testing; One certificate; Global Access"





Benefits of the OIML-CS

There are benefits for using OIML-CS:



- Consumers can rely on certified measuring instruments,
 which fulfill internationally agreed requirements
- Manufacturers can get testing services for their measuring instruments from competent and recognised OIML Issuing Authorities and Test Laboratories
- National authorities can rely on internationally accepted OIML certificates without duplicate testing and can issue national or regional type approvals





The OIML-CS is a certification system which:



- strengthens trust in measuring instruments and measurement results
- enables certification of measuring instruments, avoiding duplicate testing and acceptance on an international level
- facilitates international trade of measuring instruments
- makes the work of legal metrology authorities more efficient





Thank you for your attention

Marc Schmidt

TQR Director @ NMi Group

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OIML-CS Chairperson of the Management Committee

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www.oiml.org/en