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**INTERNATIONAL ELECTROTECHNICAL COMMISSION SYSTEM FOR  
CERTIFICATION TO STANDARDS RELATING TO EQUIPMENT FOR USE  
IN EXPLOSIVE ATMOSPHERES (IECEx SYSTEM)**

**Title: OIML Report to the 2018 ExMC Cannes Meeting  
To: Members of the IECEx Management Committee, ExMC**

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**Introduction**

This document contains a report from the International Organization of Legal Metrology (OIML) concerning their activities in the area of Conformity Assessment and is in response to the long standing MoU between IEC and OIML.

As previously advised and seen from the Draft Agenda to the 2018 Cannes ExMC Meeting (ExMC/1377/DA) and will be presented as part of agenda item 12.2.1 of revised draft Agenda ExMC/1377A/DA.

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## OIML Report to the IECEx Management Committee (September 2018 Meeting)

The International Organization of Legal Metrology (OIML) is an international treaty organization, established in 1955, which promotes global harmonization of legal metrology procedures. The role of the OIML is to strive to develop mutual information, cooperation and confidence among its Members, as well as mutual recognition, so that Member States and Corresponding Members can benefit from the legal metrology work carried out by other Members.

The OIML currently has 62 Member States and 66 Corresponding Members. Further information about the OIML, its structures, membership and technical activities may be obtained from the OIML web site ([www.oiml.org](http://www.oiml.org)).

### Mission statement

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.

### Objectives

Relevant OIML objectives are to:

- develop, in cooperation with our stakeholders, standards and related document for use by legal metrology authorities and industry that, when implemented, will achieve the mission of the OIML;
- provide mutual recognition systems which reduce trade barriers and costs in a global market;
- represent the interests of the legal metrology community within international organizations and forums concerned with metrology, standardization, testing, certification and accreditation;
- promote and facilitate the exchange of knowledge and competencies within the legal metrology community worldwide; and
- cooperate with other metrology bodies to raise awareness of the contribution that a sound legal metrology infrastructure can make to a modern society.

OIML Recommendations are international standards under the terms of the WTO/TBT Agreement and serve as model regulations that establish the metrological characteristics required of certain measuring instruments and which specify methods and equipment for checking their conformity.

In 1991, the OIML set up an international certification system (now known as the *OIML Basic Certificate System*) for use in the type evaluation of measuring instruments. This was augmented, in 2005, by the *OIML Mutual Acceptance Arrangement (MAA)* to embrace the major categories of measuring instruments. At its 51<sup>st</sup> meeting (October 2016, Strasbourg, France) the International Committee of Legal Metrology (CIML) approved a Framework document for a new *OIML Certification System (OIML-CS)*. At its 52<sup>nd</sup> meeting (October 2017, Cartagena de Indias, Colombia) the CIML confirmed that the OIML-CS would come into operation on 1 January 2018, replacing the Basic Certificate System and the MAA. Further information on the development and implementation of the OIML-CS is provided below.



It remains a core role of the OIML to provide certification and recognition systems which allow enforcement authorities to apply recognized conformity assessment on which they can rely to save their own resources. Ensuring the conformity of certified measuring instruments once they are in service is another important issue for legal metrology. The OIML is addressing this by studying and comparing the approaches used by different countries or regions and increasing its guidance on this matter. An appropriate approach to conformity assessment is also necessary when establishing systems for the recognition of measurement results. Work is continuing on developing possible models for conformity to type (CTT) programs, the intention of which is to help ensure production instruments conform to the approved requirements.

## Recent developments

### *New CIML President*

At the 52<sup>nd</sup> CIML meeting Dr. Roman Schwartz (PTB, Germany) was elected as the new CIML President for a six-year term. He has taken over the Presidency from Mr. Peter Mason whose term as CIML President came to an end at the 52<sup>nd</sup> CIML meeting.

### *OIML Certification System (OIML-CS)*

#### Background

Following a seminar held in October 2013 to review the operation of the MAA and to investigate options for its future development, an Ad-hoc Working Group (AHWG) was established to:

- consider how awareness about the OIML MAA could be raised;
- review the structure, rules and procedures of the MAA with a view to increasing the efficiency of the operation of the MAA; and
- investigate options for a future single certificate system for measuring instruments, i.e. merging the Basic Certificate System and the MAA into one system, based on the principles of the MAA.

#### Development

At the 50<sup>th</sup> CIML Meeting (October 2015, Arcachon, France) a proposal from the AHWG for a new OIML Certification System (OIML-CS) was approved. A Certification System Project Group (CSPG) was established to develop the Framework for the OIML-CS and draft Operational and Procedural Documents and, as mentioned above, the Framework document (OIML B 18) was approved at the 51<sup>st</sup> CIML Meeting.

A provisional Management Committee (prMC) was established to propose improvements and amendments to the Framework document and to finalize and approve the Operational and Procedural Documents with a view to the new OIML-CS being launched on 1 January 2018.

An improved Framework document was approved at the 52<sup>nd</sup> CIML meeting and the CIML confirmed that the OIML-CS would come into operation on 1 January 2018.



### Launch of the OIML-CS

As per the CIML decision, the OIML-CS was launched on 1 January 2018 and has replaced the OIML Basic Certificate System and the MAA.

A number of OIML Issuing Authorities have been approved and OIML-CS Certificates are being issued. Utilizers and Associates, who have declared that they will accept and utilize OIML Certificates and/or OIML type evaluation reports as the basis for granting national or regional approvals, have applied to participate in the OIML-CS.

A first meeting of the OIML-CS Management Committee was held in Sydney, Australia on 21-22 March 2018.

### Overview of the OIML-CS

The new OIML-CS is a single certification system with two schemes (Scheme A and Scheme B). It is a system for issuing, registering and using OIML Certificates and their associated OIML type evaluation/test reports for types of measuring instruments (including families of measuring instruments, modules, or families of modules), based on the requirements of OIML Recommendations. If a measuring instrument category enters into the OIML-CS, it will initially fall under Scheme B and normally transition to Scheme A after two years.

The requirements for the participation of OIML Issuing Authorities and their associated Test Laboratories in Scheme A or Scheme B are the same, but the method of demonstrating compliance is different. OIML Issuing Authorities will be required to demonstrate compliance with ISO/IEC 17065 and Test Laboratories will be required to demonstrate compliance with ISO/IEC 17025. For participation in Scheme B, it will be sufficient to demonstrate compliance on the basis of “self-declaration” with additional supporting evidence. However, for participation in Scheme A, compliance shall be demonstrated by peer evaluation on the basis of accreditation or peer assessment. Scheme B provides potential OIML Issuing Authorities a transition period of normally two years in order to prepare for the stricter requirements under Scheme A. At the moment there are two categories of measuring instrument under Scheme A and 17 categories under Scheme B.



Further information on the OIML-CS can be found at: [www.oiml.org/en/oiml-cs/](http://www.oiml.org/en/oiml-cs/)

### ***New or revised OIML publications (2017)***

- Revision of OIML R 60 *Metrological regulation for load cells*
- Revision of OIML R 61 *Automatic gravimetric filling instruments*
- Revision of OIML R 80 *Road and rail tankers with level gauging*
- Revision of OIML B 18 *Framework for the OIML Certification System (OIML-CS)*
- OIML B 19 *Terms of Reference for the Advisory Group on matters concerning Countries and Economies with Emerging Metrology Systems (CEEMS)*



### *New projects approved (2017)*

- Under the responsibility of the CEEMS Advisory Group the revision of OIML D 1:2012 *Considerations for a law on metrology*
- Under the responsibility of OIML TC 2 *Units of Measurement* the revision of OIML D 2:2007 *Legal units of measurement*

## Cooperation with IEC

### *IEC-OIML MoU*

In October 2011 the IEC and the OIML signed a Memorandum of Understanding (MoU) covering the relationship between the two organizations in matters of technical cooperation, conformity assessment and the development and application of standards. An updated version of the MoU will be signed at the 53<sup>rd</sup> CIML Meeting in October 2018.

It is envisaged that a Joint Work Program to explore further opportunities for cooperation between the two organizations will be developed once the updated MoU has been signed.

### *IEC support to the development of the OIML-CS*

Representatives from the IEC have participated in a number of discussions and activities associated with the development of the OIML-CS. They have also participated (as observers) in the prMC and now participate (as observers) in the OIML-CS Management Committee. The OIML acknowledges that parts of the terminology, operational rules and organizational structure of the OIML-CS Framework Document, OIML B 18, and supporting documents were developed following discussions with the IEC and from documents developed and published by the IEC for the operation of their global Conformity Assessment Systems. The OIML thanks the IEC for granting the OIML permission to use its intellectual property and agreeing to explore opportunities for cooperation in areas of mutual interest. A note to this effect is included in the revision of the Framework Document, OIML B 18, which has been submitted for approval at the 53<sup>rd</sup> CIML Meeting in October 2018.

## World Metrology Day

May 20 is World Metrology Day, commemorating the anniversary of the signing of the Metre Convention in 1875. This treaty provides the basis for a coherent measurement system worldwide that underpins scientific discovery and innovation, industrial manufacturing and international trade, as well as the improvement of the quality of life and the protection of the global environment. World Metrology Day recognizes and celebrates the contribution of all the people that work in intergovernmental and national organizations throughout the year on behalf of all.

The theme for World Metrology Day 2018 was **Constant evolution of the International System of Units**. This theme was chosen because in November 2018, the General Conference on Weights and Measures is expected to agree one of the largest changes to the International System of Units (the SI) since its inception. The revised definitions for the SI base units (for example the kilogram) will be based on physical constants (for example the Planck constant) and thus linked to the laws



of physics with the advantage of being able to embrace further improvements in measurement science and technology to meet the needs of future users for many years to come.

The revised SI is expected to come into force on the World Metrology Day 2019.

The World Metrology Day project is realized jointly by the Bureau International des Poids et Mesures (BIPM) and the OIML.

Further information on World Metrology Day can be found at:

[www.worldmetrologyday.org/index.html](http://www.worldmetrologyday.org/index.html)

## INetQI

The International Network on Quality Infrastructure (INetQI), formerly known as the DCMAS Network ([www.dcmass.net](http://www.dcmass.net)), is an initiative that seeks to bring together all specialized organizations that operate at an international level and that are active in promoting and implementing activities on metrology, accreditation, standardization and conformity assessment. These activities are considered as key elements of the “quality infrastructure” of a country, guaranteeing sustainable economic development. The DCMAS Network was started in 2005 and meets annually to discuss matters of concern to all members and joint actions which might be undertaken during the coming year.

The OIML has chaired this Network from March 2016 and the mandate was extended by one year in 2017 to enable the completion of some work and to ensure a smooth handover in March 2018 to the next organization to take on the role, which rotates between members of the Network.

Achievements during the OIML tenure included:

- a complete overhaul of the DCMAS website;
- achieving consensus on a common definition of the terms “quality infrastructure” and “quality policy” to ensure a common approach is taken by Network members; and
- agreement on a change of the Network’s name to INetQI to reflect its current members’ interests and activities in the field of quality infrastructure development.

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