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The CIML holds its 55th Meeting online



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THE OIML BULLETIN IS THE JOURNAL OF THE Organisation Internationale de Métrologie Légale

The Organisation Internationale de Métrologie Légale (OIML), established 12 October 1955, is an intergovernmental organization whose principal aim is to harmonize the regulations and metrological controls applied by the national metrology services of its Members.

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#### Ready to take on the challenges of 2021

A truly extraordinary year has, thankfully, just come to an end. What started off as just a small virus has triggered what has now become perhaps the biggest global crisis since the Second World War – and it is by no means over yet. Our whole planet has been affected by what can only be described as a global health crisis.

Nevertheless, I am very pleased to report that for the OIML, 2020 was indeed both a positive and successful year. Let me provide some examples:

- we very successfully prepared and conducted the 55th CIML Meeting as the first online CIML meeting, with all the CIML resolutions being successfully adopted online after the meeting;
- work on the OIML-CS successfully continued during this difficult period, with three online Management Committee meetings held. As of 1 January 2021, 38 measuring instrument categories are now in Scheme A and a new category (R 150) is now in Scheme B;
- very good progress has been made with the OIML's technical work, especially in the high priority Project Groups, leading to eight new or revised publications being adopted in 2020; and
- Countries and Economies with Emerging Metrology Systems (CEEMS) and Regional Legal Metrology Organisations (RLMO) activities were also able to be carried out successfully, thanks to the professional support provided by the CEEMS Advisory Group and RLMO Round Table Chairpersons and by the BIML team.

I would therefore like to take this opportunity to thank everyone who contributed to this success: the highly motivated BIML team, always responsive and available, the members of the Presidential Council and, last but not least, the CIML Members who willingly participated in the various surveys and votes both before and after the online CIML meeting.

So, what will the new year bring? Will we soon be able to beat the crisis with the help of the new vaccines and return to a "normal" lifestyle, reverting to regular face-toface meetings and global travel? I think we must remain patient and try to tackle the new tasks and challenges that 2021 will present to us as best we can, and especially remain as flexible as possible. These tasks include in particular:

- the financial planning for the budget period 2022–2025;
- the preparation of the 56th CIML Meeting and the 16th International Conference in October 2021, preferably as a hybrid meeting;
- increased cooperation with the BIPM based on the respective CIML decisions of 2019 and 2020, especially in the increasingly important area of *Digital transformation of metrology*, during which the OIML is invited to contribute to a corresponding CIPM workshop from 22–25 February 2021.

Just as we successfully managed to master the challenges the year 2020 presented with enthusiasm, creativity and flexibility, I am confident that we are now in a strong position to manage the tasks facing us in 2021, although this new year will certainly be another challenging year for all concerned.

Whatever the future holds, I am confident that together we can face it and once again emerge as winners. I very much look forward to continuing to work with all of you with the same drive in the spirit of our mission.

My sincere best wishes for 2021.



ROMAN SCHWARTZ CIML PRESIDENT

#### Prêts à relever les défis de 2021

Une année vraiment extraordinaire vient, heureusement, de s'achever. Ce qui n'était au départ qu'un petit virus a déclenché ce qui est peut-être devenu la plus grande crise mondiale depuis la Seconde Guerre mondiale – et ce n'est pas fini. Notre planète entière a été touchée par ce qui ne peut être décrit que comme une crise sanitaire mondiale.

Néanmoins, je suis très heureux d'annoncer que pour l'OIML, 2020 a été une année à la fois positive et réussie. Permettez-moi de vous donner quelques exemples :

- nous avons préparé et mené avec beaucoup de succès la 55ème Réunion du CIML en tant que première réunion en ligne du CIML, toutes les résolutions du CIML ayant été adoptées en ligne avec succès après la réunion;
- le travail sur l'OIML-CS s'est poursuivi avec succès pendant cette période difficile, avec la tenue de trois réunions en ligne du Comité de management. Au 1er janvier 2021, 38 catégories d'instruments de mesure sont désormais dans le Régime A et une nouvelle catégorie (R 150) est maintenant dans le Régime B;
- de très bons progrès ont été réalisés dans les travaux techniques de l'OIML, en particulier dans les groupes de projet hautement prioritaires, ce qui a permis d'adopter huit publications nouvelles ou révisées en 2020 ; et
- les activités des pays et des économies dotés de systèmes de métrologie émergents (CEEMS) et des Organisations régionales de métrologie légale (RLMO) ont également pu être menées à bien, grâce au soutien professionnel apporté par les présidents du Groupe consultatif des CEEMS (CEEMS AG) et de la Table ronde des RLMO, et par l'équipe du BIML.

Je voudrais donc profiter de cette occasion pour remercier tous ceux qui ont contribué à ce succès : l'équipe BIML très motivée, toujours réactive et disponible, les membres du Conseil de la présidence et, enfin et surtout, les Membres du CIML qui ont participé volontairement aux différentes enquêtes et votes avant et après la réunion en ligne du CIML.

Alors, que nous réserve la nouvelle année ? Serons-nous bientôt en mesure de surmonter la crise grâce aux nouveaux vaccins et de retrouver un mode de vie « normal », en revenant à des réunions régulières en face à face et à des voyages dans le monde entier ? Je pense que nous devons rester patients et essayer de nous attaquer du mieux possible aux nouvelles tâches et aux nouveaux défis que nous réserve 2021, et surtout rester aussi flexibles que possible. Ces tâches comprennent notamment :

- la planification financière pour la période budgétaire 2022–2025 ;
- la préparation de la 56ème Réunion du CIML et de la 16ème Conférence internationale en octobre 2021, de préférence sous forme de réunion hybride ;
- une coopération accrue avec le BIPM sur la base des décisions respectives du CIML de 2019 et 2020, en particulier dans le domaine de plus en plus important de la *transformation numérique de la métrologie*, dans le cadre duquel l'OIML est invitée à contribuer à un atelier correspondant du CIPM du 22 au 25 février 2021.

Tout comme nous avons réussi à relever les défis de l'année 2020 avec enthousiasme, créativité et flexibilité, je suis convaincu que nous sommes maintenant en position de force pour gérer les tâches qui nous attendent en 2021, même si cette nouvelle année sera certainement une autre année de défis pour toutes les parties concernées.

Quoi que l'avenir nous réserve, je suis convaincu qu'ensemble, nous pouvons y faire face et sortir une fois de plus gagnants. Je me réjouis de continuer à travailler avec vous tous avec le même dynamisme dans l'esprit de notre mission.

Je vous adresse mes vœux les plus sincères pour 2021.■

#### AUSTRALIA

## Recent developments in Australian legal metrology

SHANE COOMBE AND TIAN LIANG

National Measurement Institute (NMIA) Australia

#### **1** Introduction

Recent years have seen significant developments in the Australian legal metrology landscape from both a policy and operational perspective.

One of the most significant of those developments is the review of Australia's measurement laws currently underway with a focus on introducing principles-based legislation to ensure our approach to regulation remains robust into the future and can adapt to technological innovation.

Other developments discussed in this paper include: enhancing risk-based compliance and enforcement, including during the COVID-19 pandemic; online training delivery; new approaches to type (pattern) approval and conformity to type; and codification of verification test procedures.

We hope to provide further updates on the evolution of Australia's measurement legislation for future editions of the *OIML Bulletin*.

#### 2 Measurement Law review

As detailed in the January 2018 edition of the *OIML Bulletin*, NMIA is currently engaged in a thematic review of Australia's national legislative framework for measurement. The Measurement Law Review<sup>1</sup> is developing options for modernising, streamlining and simplifying the legislative framework while ensuring a trusted measurement system that is accepted both nationally and internationally.

The Review covers the *National Measurement Act 1960*, and all subordinate instruments made under the Act. The Review will ensure measurement supports industry, trade, science and innovation into the future and does not impose barriers through restrictive requirements.

In particular, the Review has focused on:

- minimum effective regulation models that could lessen government intervention
- using principles-based legislation to minimise regulatory burden on business
- pathways to support a transparent, proportionate, flexible and risk-based approach to regulation
- using appropriate third parties to support or implement the framework
- removing unwarranted regulatory barriers to market entry of new technologies, and other technical barriers to competition
- mechanisms to support market innovation and changes in technology
- ensuring that Australia's measurement legislation promotes confidence in Australia's measurement system
- adopting best practice national and international regulatory approaches.

As part of adopting best practice regulatory approaches, NMIA has considered the recommendations of OIML D 1:2020 National metrology systems – Developing the institutional and legislative framework<sup>2</sup> when developing options for legislative reform.

The Review team has been engaged in an extensive consultation process, gathering input via public consultations and targeted consultations with peak bodies, regulators and government agencies.

Six discussion papers have been released, each examining a specific aspect of Australia's measurement framework:

- Scope of Australia's Measurement Laws<sup>3</sup>
- Traceable Measurement<sup>4</sup>, the existing methods for demonstrating and certifying/verifying the connection between a measurement result and the measurement standard

https://www.industry.gov.au/data-andpublications/measurement-law-review

<sup>&</sup>lt;sup>2</sup> https://www.oiml.org/en/publications/documents

<sup>&</sup>lt;sup>3</sup> https://consult.industry.gov.au/measurement-law-review/scope/

<sup>&</sup>lt;sup>4</sup> https://consult.industry.gov.au/measurement-lawreview/measurement-in-everydaylife/supporting\_documents/DiscussionPaper2Traceabl eMeasurement.pdf

- Measuring Instruments<sup>5</sup>, how measuring instruments are regulated and whether there are better ways of ensuring that measuring instruments are fit-for-use
- Measurement-based Transactions<sup>6</sup>, how the current framework for measurement-based transactions operates to ensure that businesses and consumers can trade fairly and confidently
- Third-Party Arrangements<sup>7</sup>, how the current legal framework for authorised third parties<sup>8</sup> contributes to the regulation of measurement activities in Australia
- Compliance Arrangements<sup>9</sup>, the current legal framework that supports the compliance and enforcement arrangements for the regulation of measurement and measuring instruments used for trade.

Details of the feedback received during the public consultations can be found in a series of papers available through the Measurement Law Review website<sup>10</sup>.

The Review has also engaged across the Australian Government through a forum of government agency representatives and its Intra-Governmental Advisory Group (IGAG). The purpose of IGAG is to ensure transparency, probity and best practice are applied to the reform of the legislation. It has representatives from Australian Government regulators with experience in transitioning to principles-based regulation.

The Review has completed the initial public consultation phase and developed a range of detailed options for consideration by the Australian Government.

- <sup>5</sup> https://consult.industry.gov.au/measurement-lawreview/measurement-in-everydaylife/supporting\_documents/DiscussionPaper3Measuri ngInstruments.pdf
- <sup>6</sup> https://consult.industry.gov.au/measurement-lawreview/measurement-in-everydaylife/supporting\_documents/DiscussionPaper4Measure mentbasedTransactions.pdf
- <sup>7</sup> https://consult.industry.gov.au/measurement-lawreview/measurementassurance/supporting\_documents/Discussion%20Pap er%205%20Third%20Party%20Arrangements.pdf
- <sup>8</sup> 'Third parties' are entities which have been appointed to perform certain functions under the measurement legislation
- <sup>9</sup> https://consult.industry.gov.au/measurement-lawreview/measurementassurance/supporting\_documents/Discussion%20Pap er%206%20Compliance%20Arrangements.pdf
- <sup>10</sup> https://www.industry.gov.au/data-andpublications/measurement-law-review

These options will be subjected to thorough cost/benefit analysis and released for a further round of public consultation in 2021.

# 3 A risk-based approach to compliance and enforcement

The aim of NMIA's administration of legal metrology regulatory compliance is to minimise harm without creating unnecessary compliance costs or burdens for business.

We measure risk in terms of the harm and likelihood of regulatory non-compliance. Some of the factors used to determine harm include:

- impact on confidence in the measurement system
- extent of financial detriment to consumers or industry
- impact on maintaining a level playing field for business competition
- ability of consumers to make informed purchasing decisions.

In assessing risk we consider the impact of any single instance and/or the cumulative effect of many individual instances of non-compliance.

We use a risk-based approach when:

- prioritising the development and maintenance of legal metrology infrastructure (for example, type approval standards, National Instrument Test Procedures and appointment of Authorities)
- targeting compliance activities
- determining the appropriate and proportionate regulatory response where non-compliance is identified.

#### 3.1 Recognising compliance history

Consideration of risk when determining regulatory responses will also be guided by previous compliance history. For example, NMIA may:

- consider appropriate levels of surveillance for particular traders that have demonstrated a commitment to compliance through adoption of robust quality assurance systems or an industry code of conduct
- prioritise responding to complaints received about potential breaches of trade measurement law based on the compliance record of industry sectors and/or particular traders.

#### 3.2 Program-driven compliance activities

NMIA combines market intelligence, consumer complaints and stakeholder feedback with compliance history to plan and implement targeted inspection programs for industry sectors that have a higher risk of non-compliance with the requirements of trade measurement law.

NMIA undertakes pilot programs to assess the level of risk associated with non-compliance in particular or emerging industry sectors. These pilot programs are used to determine whether a targeted program needs to be introduced.

NMIA allocates resources to maintain a base level of compliance monitoring activity through random audits. These provide visibility in the wider market. The 'potential' for a low-risk entity to be subject to some form of compliance activity can be a sufficient incentive for these entities to continue to voluntarily meet their obligations.

NMIA also takes advantage of the presence of its trade measurement inspectors in the field to undertake market surveillance and investigation activities on behalf of other Australian Government agencies, such as the Department of Health and the Australian Competition and Consumer Commission.

#### 3.3 Concentrated national audit programs

Under this program methodology, first introduced in 2018–19, all trade measurement inspectors will be involved together in a concentrated national audit, focused on a single industry sector over a specific time period, to assess compliance with trade measurement regulations.

Two major factors determining which traders are targeted in these national audits will be:

- previously identified non-compliance
- relative market shares of industry participants.

Four concentrated national audit programs are planned in 2020–21:

#### 1) Fruit and vegetable retail

This program will focus on fruit and vegetable retail traders, including those traders previously identified as non-compliant, and will gather information to identify wholesale sites for future audits of grower direct facilities and market distribution centres.

#### 2) Meat and seafood wholesale

This program will focus on compliance of measurement transactions and trading practices of wholesalers,

packers and importers in the meat and seafood industries.

#### 3) Licensed premises

This program will follow up on traders found noncompliant during 2019–20 and also include audits in new market segments, such as in-house restaurants and bars at hotel accommodation.

#### 4) Retail fuel

This program will revisit traders found to be noncompliant during the 2019–20 Retail Fuel program and inspect retail fuel sites not recently audited. Data gathered during the audits will also be analysed to identify whether there are issues related to the performance of particular models of fuel dispenser.

#### 3.4 Monitoring third party compliance

The integrity of most trade measurement transactions depends on accurate measuring instruments. NMIA appoints third party organisations, including servicing licensees, to ensure trade measuring instruments are accurate before being used (verification).

NMIA has recently enhanced its risk-based programs to support confidence in verifications of trade measuring instruments performed by servicing licensees and their employees (verifiers).

NMIA is using information from a range of data sets, including verification notifications, test reports and trade measurement inspections (verifier instrument audits), to help target those servicing licensees and verifiers with the greatest risk of non-compliance.

In addition to auditing recently verified instruments to ensure that verifications are being carried out in accordance with relevant instrument test procedures, areas of particular focus for NMI's compliance monitoring include:

- verification notifications not being submitted, including those not being submitted within the required 14 days
- test reports for complex measuring instruments not being submitted
- verifiers performing verifications without a statement of attainment for the appropriate instrument subclass
- licensees performing verifications without the appropriate instrument class being nominated on their licence.

NMIA is committed to ensuring the laws related to instrument verification are being followed correctly and encouraging improved licensee and verifier behaviour where required. The program is expanding to also:

- improve systems for importing verified instrument data to support NMIA activities more broadly
- streamline processes for identifying and communicating alleged non-compliances that relate to administrative conditions on licences
- test evidentiary requirements for other licence conditions for servicing licensees and public weighbridges
- more effectively communicate with licensees and invoke behavioural change to support the national measurement system
- continue to develop and improve website content for public weighbridge and servicing licensees and legal metrology authorities
- transition to web-based forms where possible for the majority of licence and appointment administration functions.

#### 3.5 COVID-19 response

In order to reduce the risk of COVID-19 transmission to our staff and within the community, NMIA largely suspended trade measurement field audit activity in mid-March 2020. Beginning in June 2020, NMIA commenced a staged return to the field for our trade measurement inspectors.

To support the return to fieldwork, NMIA has supplemented existing safe work method statements and risk assessments for each industry sector, including a general risk assessment statement for COVID-19. We will continue to follow social distancing and hygiene practices throughout the staged return to COVID-Safe fieldwork. We remain committed to ensuring staff and clients remain safe.

Our plans for a staged return to fieldwork are, of course, subject to any conditions imposed by the Commonwealth or State and Territory governments that affect the implementation of our compliance activities. As such, inspectors in most of Australia returned to 'business as usual', with appropriate COVID-Safe work practices, in November 2020. The ongoing lockdown restrictions in the State of Victoria, however, have meant that the staged return to normal operations in that region only commenced in November.

NMIA has also been conscious of the need to show flexibility in its regulatory approach during this time, allowing businesses to continue to operate under difficult circumstances while still ensuring that consumers are protected. This has included, after appropriate risk assessments:

 reviewing enforcement actions for non-compliance where traders are suffering financial hardship as a result of the contraction in business activity

- extending calibration certificates for reference standards of measurement where access to trade measurement laboratories or verifying authorities has been affected by travel restrictions
- considering payment terms for regulatory administration fees.

#### 4 e-Learning and other online training

Under Australia's legal metrology system, verifiers employed by servicing licensees are required to hold statements of attainment for each of the subclasses of measuring instruments they verify.

It is also a condition on all Public Weighbridge Licensees that at least one registered public weighbridge operator must hold a statement of attainment for weighbridge operations.

NMIA has developed a package of assessment products for verifiers and weighbridge operators to ensure individuals operating under licences issued by NMIA are able to competently discharge their regulatory responsibilities. NMIA is registered by the Australian Skills Quality Authority under the Australian Quality Training Framework so participants who meet all the requirements of a relevant assessment are awarded a nationally recognised statement of attainment.

NMIA has also developed a number of 'high engagement' e-learning packages to assist with development of necessary skills for individuals to meet the competency requirements for awarding a statement of attainment. Participating in the e-learning is entirely optional but is usually taken up by people about to undertake the assessment process as a means of reviewing their knowledge.

There are many advantages for both NMIA and our clients associated with our investment in e-leaning, including:

- convenience, saving time and money especially for licensees/verifiers in remote locations (no travel time or associated costs)
- accessibility capacity to access course material multiple times and at a learner's own pace
- lower cost delivery method than the equivalent faceto-face course
- on-demand delivery no waiting for the next scheduled course
- scalable in theory an unlimited number of simultaneous users, each potentially at different stages of the course
- consistency everyone accesses exactly the same material

- reduced strain on resources as NMIA trade measurement inspectors that would be involved in training are freed up to perform other tasks
- minimal environmental impact.

Legal metrology courses currently available as elearning packages from NMIA are:

- verification of non-automatic weighing instruments
- verification of fuel dispensers
- verification of point of sale (POS) systems
- weighbridge operations.

NMIA has recently adapted our verification of fuel dispensers e-learning package so it can be made available to members of the Asia-Pacific Legal Metrology Forum (APLMF).

To reduce costs and enhance accessibility, while supporting COVID-safe training delivery options, NMIA also offers a range of instructor-led online training courses in physical, chemical, biological and legal metrology, including:

- calibration and measurement fundamentals
- calibration of weights and balances
- electrical measurement
- fundamentals of geometric dimensioning and tolerancing
- humidity measurement
- introduction to estimating measurement uncertainty
- pressure measurement
- photometry and radiometry
- analytical method validation
- estimating measurement uncertainty for chemists
- verification of bulk flowmetering systems.

The verification of bulk flowmetering systems online course will also be made available to APLMF members.

#### 5 Type (pattern) approval standards

Australia's measurement legislation requires that all measuring instruments used for trade are type approved. Type (pattern) approval confirms that the instrument's design meets relevant documentary standards and performs as intended over a range of environmental and usage conditions.

In Australia, OIML Recommendations are currently adopted, after consultation with stakeholders, as NMI Recommendations. In accordance with the *National Measurement Act*, where specifications of OIML Recommendations are inconsistent with the national interest or impracticable because of particular circumstances in Australia, NMIA can modify the Recommendations before adopting them in Australia.

NMIA also represents Australia's interests on OIML technical committees developing documentary standards in areas of priority for Australian stake-holders.

Over the past year NMIA has sought comment from stakeholders on:

- proposal to adopt OIML R 50:2014 Continuous totalizing automatic weighing instruments (belt weighers) as Australia's type approval standard for belt weighers
- development of a new OIML Recommendation, R 150
   *Continuous totalizing automatic weighing instruments of the arched chute type* (approved by the CIML in 2020)
- revision of OIML R 129 Multidimensional measuring instruments (approved by the CIML in 2020)
- revision of OIML R 46 Electrical energy meters Alternating current (3rd Working Draft)
- revision of OIML R 134 Automatic instruments for weighing road vehicles in motion and measuring axle loads (2nd Working Draft).

#### 5.1 Pre-market surveillance – conformity to type

NMIA is conducting conformity to type testing as part of a pre-market surveillance pilot program in 2020. The first stage of this program includes testing a range of newly manufactured instruments to assess ongoing compliance of production instruments with the approved type. The objectives of the pilot project are to investigate:

- risks of non-conformance with approved type
- potential benefits of an on-going national or regional program.

The testing of newly-manufactured instruments is particularly important for any ongoing pre-market surveillance program, so that where non-conformance is identified it can be directly attributed to the manufacturer. The instruments tested are being obtained from organisations that purchase and use them, rather than directly from the manufacturer or supplier, to ensure they are truly representative of instruments supplied into the market.

For the pilot program NMIA is using a risk-based approach, based on knowledge and experience of type (pattern) approval test results, to identify tests and requirements that are expected to have higher potential of identifying non-conformance. A further benefit of a risk-based approach is reduced testing costs. Under the pilot program NMIA is testing instruments in the following categories:

- digital load cell
- digital indicator
- 200 kg NAWI.

#### 5.2 Electricity meters and systems

Following extensive stakeholder consultations, NMIA has partly implemented a new approach to type approval certification of electricity meters. This new approach provides flexibility to take account of the wide ranges of applications and technologies for electricity meters in the current market and, for the first time in Australia, will allow certification based on compliance with a standard outside the OIML system.

At present, NMIA provides two pathways for the type approval of electricity meters, based on the metrological and technical requirements of:

- **NMI M 6**
- NMI M 6-1, which incorporates the Standards Australia adoption of International Electrotechnical Commission (IEC) standards as AS-IEC 62052.11, 62053.21 and 62053.22.

The proposed next step is to provide a third pathway by adopting OIML R 46, without major modification, as NMI R 46.

These updates provide greater flexibility and support for a range of instruments and systems such as smart street light metering and electric vehicle charging stations.

#### 5.3 Belt weighers

NMIA has now adopted the latest OIML Recommendation for belt weighers, published as:

- NMI R 50-1:2020 Continuous Totalising Automatic Weighing Instruments (Belt Weighers), Part 1: Metrological and Technical Requirements
- NMI R 50-2:2020 Continuous Totalising Automatic Weighing Instruments (Belt Weighers), Part 2: Test Procedures
- NMI R 50-3:2020 Continuous Totalising Automatic Weighing Instruments (Belt Weighers), Part 3: Test Report Format.

The adoption of OIML R 50 was supported by public consultation, which specifically focused on the means by which belt weighers may demonstrate appropriate durability as per the general requirement of the OIML

Recommendation. NMIA has implemented a program of mandatory in-service testing of newly approved belt weighers as a means of assessing the general durability requirements specified in OIML/NMI R 50.

#### 6 Test procedures

In addition to requiring that all measuring instruments used for trade are type approved, Australia's trade measurement laws also require that approved instruments are verified before they can be used for trade. For an instrument to be verified it must have been tested in accordance with an appropriate National Instrument Test Procedure (NITP)<sup>11</sup>, as determined by Australia's Chief Metrologist, to assess whether the instrument measures within the maximum permissible errors and complies with its related certificate of approval.

The Chief Metrologist has determined a range of NITPs for the use of verifiers and NMIA's trade measurement inspectors:

- NITP 0: General National Instrument Test Procedures for Measuring Instruments
- NITP 1: Length Measuring Instruments
- NITP 2: Area Measuring Instruments
- NITP 3.1: Trade Masses of 1 mg to 20 kg
- NITP 4.2: Beverage Dispensers
- NITP 4.3: Alcoholic Beverage Measures
- NITP 4.4: Lubricating Oil Measures
- NITP 4.5: Graduated Measures
- NITP 5.1: Fuel Dispensers other than LPG Dispensers
- NITP 5.2: Bulk Flowmetering Systems for Liquid Hydrocarbons other than LPG
- NITP 6.1 to 6.4: Non-automatic Weighing Instruments
- NITP 6.5: Continuous Totalising Automatic Weighing Instruments (Belt Weighers)
- NITP 6.6: Automatic Rail Weighbridges
- NITP 6.7: Automatic Packaging Conveyor Weighers
- NITP 6.8: Wheeled Loaders
- NITP 8: Milk Tanks
- NITP 9: Vehicle Tanks
- NITP 10.1: LPG Dispensers
- NITP 10.2: Bulk LPG Flowmetering Systems
- NITP 12.1: CNG Dispensers
- NITP 14: Utility Meters

<sup>&</sup>lt;sup>11</sup> https://www.industry.gov.au/data-andpublications/test-procedures

- NITP 15.1: Measuring Instruments for Grain Quality Protein Measuring
- NITP 15.2: Measuring Instruments for Cane Sugar Quality Part 1: Self-indicating Polarimetric Saccharimeters
- NITP 17.1: Density Hydrometers Part 1: Brix Hydrometers for Cane Juice.

NMIA regularly reviews and updates our NITPs to reflect technology and market developments. In November 2020 we are consulting on proposed revisions<sup>12</sup> to NITP 5.1: Fuel Dispensers other than LPG Dispensers, including:

- clarifying requirements for volume standards
- permitting the use of volume standards constructed from other suitable materials
- amending scope to include ethanol, avgas and diesel exhaust fluid
- adding the 'Low Level Cut-off' test for systems fitted with a low level cut-off device.

NMIA is pleased to be using the experience and expertise gained in developing our National Instrument Test Procedures to contribute to the development of verification and inspection test procedures to be included in OIML Recommendations. Including, for example, offering our NITP 6.1 to 6.4: Non-automatic Weighing Instruments as a model for the development of verification test procedures as part of the current revision of OIML R 76.

The Chief Metrologist also determines the Sampling and Test Procedures for Pre-packaged Products used by NMIA's trade measurement inspectors when undertaking compliance checks. We are also consulting on proposed revisions<sup>13</sup> to this test procedure in November 2020, including:

- incorporating new test methods for linear and area measurement
- expanding the range of products for volumetric measurement tests
- allowing flexibility in recording test results
- amendments to enhance clarity of test procedures and facilitate internal consistency.
- <sup>12</sup> https://consult.industry.gov.au/nationalmeasurement-institute/nitp5-1/
- <sup>13</sup> https://consult.industry.gov.au/nationalmeasurement-institute/sampling-and-testprocedures-prepackaged-products/

#### 6.1 Carbon fibre fuel measures

NMIA has recently taken delivery of 30 carbon fibre twin trolley 15 L liquid fuel measures produced by a Perth-based manufacturer.

Our trade measurement inspectors will use these trolleys for accuracy testing of fuel dispensers in accordance with NITP 5.1: National Instrument Test Procedures for Fuel Dispensers other than LPG Dispensers<sup>14</sup>.

We first worked with the manufacturer over 2018 and 2019 to develop a prototype which incorporated a range of design innovations and improvements over the

<sup>14</sup> https://www.industry.gov.au/sites/default/files/2019-04/nitp\_5.1\_fuel\_dispensers\_other\_than\_lpg\_dispens ers.pdf



NMIA's Daniel Conway preparing carbon fibre fuel measures for calibration

existing stainless steel measures, to better meet the functional requirements and mitigate WHS risks. As part of mitigating WHS risks, NMIA required that the prototype design incorporate a mechanism developed for us by the precision instrumentation team at the Australian Astronomical Observatory (AAO), to help prevent fuel spills when filling the measures.

The new measure has a total weight of 13.5 kg, which is considerably less than the 38 kg stainless steel measure and significantly enhances ease of use during operation.

While the reduction in overall weight makes it much easier to lift as a single unit during loading and unloading, the new measure can also be broken down into three separate pieces weighing around 4.5 kg each. This further improves the ease of lifting, loading, and unloading the device.

The combination of reduced weight, capability to disassemble, and fuel spill prevention incorporated in the new carbon fibre trolleys is expected to significantly reduce WHS incidents associated with loading, unloading, and operating the existing stainless steel measures. It should also improve the efficiency of operations in the field.

There is also a distinct metrological advantage to using carbon fibre in the construction of the measures. Carbon fibre has an extremely low thermal expansion co-efficient, in the range of 1 ppm to 2 ppm, resulting in minimal change to the volume of the measure from environmental influences. The measures are calibrated to a reference temperature of 15 °C but may be used at temperatures up to 35 °C. The low expansion co-efficient results in a change of only 0.6 mL in the 15 L volume of the carbon fibre measures when used at 35° C, compared with a 15.3 mL change in volume for a similar stainless steel measure.

#### 7 Acknowledgements and further information

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Please do not hesitate to contact us if you have any questions about the matters raised in this article.

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#### 55TH CIML 2020

### **Online 55th CIML meeting**

20-22 October 2020

BIML

#### Summary report

The 55th CIML Meeting was held from 20–22 October 2020 as an online meeting due to the COVID-19 pandemic. There were over 200 participants, from 54 Member States, OIML Corresponding Members, organisations in liaison and observers from prospective member economies.

CIML President Dr Roman Schwartz reported on the joint efforts of the CIML Presidency and the Bureau to ensure business continuity and preparation of the first online CIML meeting. He also reported on the major topics that had been discussed by the Presidential Council, including the financial situation of the organisation, preparation of the budget for the next financial period, and closer cooperation with other international organisations, especially the BIPM. Finally, he presented a vision for the OIML, together with the BIPM, to jointly support the worldwide digital transformation process with regard to key metrological processes.

BIML Director Mr Anthony Donnellan reported on the activities and achievements of the Bureau and its staff, particularly the efforts to improve the effectiveness of OIML technical work and activities in favour of



Dr Roman Schwartz - CIML President

Countries and Economies with Emerging Metrology Systems (CEEMS), the OIML Certification System (OIML-CS), World Metrology Day in close cooperation with the BIPM, and work with other liaison organisations. He emphasised the cost-saving measures which have been implemented, and the initiatives introduced by the Bureau to minimise the impact of the pandemic and to ensure business continuity. Finally, he also presented the efforts that are ongoing to encourage new economies to join the Organisation, which currently comprises 61 Member States and 63 Corresponding Members.

A proposal was developed, and subsequently approved by the CIML, to adopt a process whereby resolutions (covering items such as the approval of the accounts and new or revised publications, and appointments to certain positions) were approved using an online voting tool after the CIML meeting.

The accounts for 2019 were presented and were approved by the CIML. Mr Donnellan reported that the Organisation continues to be in a strong financial position. A budget for the period 2021–2024 would have been approved at the 16th Conference; however, as the Conference has been postponed from October 2020 to October 2021 due to the pandemic, the 2020 budget will be applied to 2021 in line with the OIML Convention.

The BIML reported on its activities with organisations in liaison. In addition, Dr Charles Ehrlich presented a summary of the detailed discussions held during the Regional Legal Metrology Organisations (RLMO) Round Table held on 8 October. Other organisations in liaison (BIPM, CECIP, IAF, ILAC and ISWIM) also submitted written reports on their activities.

The BIML gave a report on the progress of the technical work of the Organisation, and lists of high-priority projects and publications were approved by the CIML.

The following new or revised publications were approved by the CIML:

- New Recommendation (R 148) Non-invasive non-automated sphygmomanometers (Revision of R 16 1, withdrawn)
- New Recommendation (R 149) Non-invasive automated sphygmomanometers (Revision of R 16 2, withdrawn)
- New Recommendation (R 150) *Continuous totalizing automatic weighing instruments of the arched chute type*
- Revision of R 129 Multi-dimensional measuring instruments
- Revision of D 1 National metrology systems Developing the institutional and legislative framework



Mr Anthony Donnellan - BIML Director

- New Document (D 35) Petroleum measurement tables (R 63:1994 withdrawn)
- New Document (D 36) Pipe provers for testing measuring systems for liquids (R 119:1996 withdrawn)

The following new project was approved by the CIML:

Update of R 60:2017 *Metrological regulation for load cells* 

A discussion took place on the OIML Bulletin and on the need for more contributions from Members in the form of articles. Several participants in the meeting expressed an interest in making contributions in the form of articles and reports.

The Chairperson of the CEEMS Advisory Group (CEEMS AG), Mr Peter Mason, delivered a report on the activities of the AG, including the meeting held on 6 October. His report focussed on the revision of D 1, which had been conducted on a very short time-scale and which was presented for approval by the CIML. He also reported on the discussions which had taken place at the recent online CEEMS AG meeting on how CEEMS activities could be conducted in a post-COVID world, concentrating on the online tools which might be used and the technological challenges associated with their use. The plans for the revisions of B 19 and D 14 were also explained.

The OIML-CS Management Committee (MC) Acting Chairperson, Mr Bill Loizides, reported on the activities of the OIML-CS, including the online MC meetings held in May, June and July 2020. A number of measures had been agreed by the MC to support the operation of the OIML-CS during the pandemic. The MC nominated Mr Mannie Panesar for appointment to the position of MC Chairperson, and Mr Loizides for re-appointment to the position of MC Deputy Chairperson. The CIML approved the appointments, each for a three-year term from 1 January 2021. An OIML medal was awarded to Dr Tsuyoshi Matsumoto for his contribution to the work of the OIML. Letters of Appreciation were presented to Mr Ralph Richter, Dr Michael Rinker, and Dr Peter Ulbig for their contribution to the work of the OIML.

The 2020 OIML CEEMS Award was awarded to the Directorate of Metrology under the Ministry of Trade of the Republic of Indonesia, represented by Mr Agus Suparmanto, Mr Veri Anggriono Sutiarto, S.E., M.Si. and Dr Rusmin Amin, S.Si, MT.

It is planned to hold the 16th International Conference (postponed from 2020) and 56th CIML Meeting in Suzhou, P.R. China, in October 2021.

The 55th CIML Meeting Resolutions, documents and presentations can be found on the OIML website at https://www.oiml.org/en/structure/ciml/sites.

#### **Rapport succinct**

La 55ème Réunion du CIML s'est tenue du 20 au 22 octobre 2020 sous forme de réunion en ligne en raison de la pandémie COVID-19. Il y avait plus de 200 participants, en provenance de 54 États Membres, de Membres Correspondants de l'OIML, d'organisations en liaison, et d'observateurs d'économies membres potentielles.

Le Président du CIML, le Dr Roman Schwartz, a fait état des efforts conjoints de la présidence du CIML et du Bureau pour assurer la continuité des activités et la préparation de la première réunion en ligne du CIML. Il a également fait état des principaux sujets qui ont été discutés par le Conseil de la Présidence, y compris la situation financière de l'Organisation, la préparation du budget pour le prochain exercice financier, et une coopération plus étroite avec d'autres organisations internationales, en particulier le BIPM. Enfin, il a présenté une vision pour l'OIML, avec le BIPM, pour soutenir conjointement le processus mondial de transformation numérique en ce qui concerne les processus métrologiques clés.

Le Directeur du BIML, M. Anthony Donnellan, a présenté les activités et les réalisations du Bureau et de son personnel, en particulier les efforts pour améliorer l'efficacité du travail technique de l'OIML et les activités en faveur des Pays et Economies à Systèmes de Métrologie Emergents (CEEMS), le Système de Certification de l'OIML (OIML-CS), la Journée Mondiale de la Métrologie en étroite collaboration avec le BIPM, et le travail avec d'autres organisations de liaison. Il a souligné les mesures d'économie qui ont été mises en œuvre, et les initiatives introduites par le Bureau pour minimiser l'impact de la pandémie et assurer la continuité des activités. Enfin, il a également présenté les efforts en cours pour encourager de nouvelles économies à rejoindre l'Organisation, qui compte actuellement 61 États Membres et 63 Membres Correspondants.

Une proposition a été élaborée, puis approuvée par le CIML, afin d'adopter un processus par lequel les résolutions (couvrant des points tels que l'approbation des comptes et des publications nouvelles ou révisées, et les nominations à certains postes) sont approuvées à l'aide d'un outil de vote en ligne après la réunion du CIML.

Les comptes pour 2019 ont été présentés et approuvés par le CIML. M. Donnellan a indiqué que l'Organisation continue d'être dans une position financière solide. Un budget pour la période 2021–2024 aurait été approuvé lors de la 16ème Conférence ; cependant, comme la Conférence a été reportée d'octobre 2020 à octobre 2021 en raison de la pandémie, le budget 2020 sera appliqué à 2021 conformément à la Convention OIML.

Le BIML a rendu compte de ses activités avec les organisations en liaison. En outre, le Dr Charles Ehrlich a présenté un résumé des discussions détaillées qui ont eu lieu lors de la Table Ronde des Organisations Régionales de Métrologie Légale (RLMO) qui s'est tenue le 8 octobre. D'autres organisations en liaison (BIPM, CECIP, IAF, ILAC et ISWIM) ont également présenté des rapports écrits sur leurs activités.

Le BIML a présenté un rapport sur l'état d'avancement des travaux techniques de l'Organisation, et des listes de projets et de publications hautement prioritaires ont été approuvées par le CIML.

Les publications nouvelles ou révisées suivantes ont été approuvées par le CIML :

- Nouvelle Recommandation (R 148) Sphygmomanomètres non invasifs non automatiques (Révision de la R 16 1, retirée)
- Nouvelle Recommandation (R 149) Sphygmomanomètres non invasifs automatiques (Révision de la R 16 2, retirée)
- Nouvelle Recommandation (R 150) Instruments de pesage automatiques totalisateurs continus à goulotte cintrée
- Révision de la R 129 Instruments de mesure multidimensionnels
- Révision du D 1 Systèmes de métrologie nationaux Développement du cadre institutionnel et législatif
- Nouveau Document (D 35) Tables de mesure du pétrole (R 63:1994 retirée)

 Nouveau Document (D 36) Tubes étalons pour vérification et étalonnage des ensembles de mesurage de liquides (R 119:1996 retirée)

Le nouveau projet suivant a été approuvé par le CIML :

#### Mise à jour de la R 60:2017 Réglementation métrologique des cellules de pesée

Une discussion a eu lieu sur le Bulletin de l'OIML et sur la nécessité d'obtenir davantage de contributions des Membres sous forme d'articles. Plusieurs participants à la réunion ont exprimé leur intérêt à apporter des contributions sous forme d'articles et de rapports.

Le Président du Groupe Consultatif des CEEMS (CEEMS AG), M. Peter Mason, a présenté un rapport sur les activités de l'AG, y compris la réunion du 6 octobre. Son rapport s'est concentré sur la révision du D 1, qui a été menée à très court terme et qui a été présentée pour approbation par le CIML. Il a également fait état des discussions qui ont eu lieu lors de la récente réunion en ligne du CEEMS AG sur la manière dont les activités du CEEMS pourraient être menées dans un monde post-COVID, en se concentrant sur les outils en ligne qui pourraient être utilisés et les défis technologiques associés à leur utilisation. Les projets de révision des B 19 et D 14 ont également été expliqués.

Le président par intérim du Comité de Management (MC) de l'OIML-CS, M. Bill Loizides, a fait état des activités de l'OIML-CS, y compris les réunions en ligne du MC tenues en mai, juin et juillet 2020. Un certain nombre de mesures ont été convenues par le MC pour soutenir le fonctionnement de l'OIML-CS pendant la pandémie. Le MC a nommé M. Mannie Panesar au poste de président du MC, et M. Loizides au poste de viceprésident du MC. Le CIML a approuvé les nominations, chacune pour un mandat de trois ans à compter du 1er janvier 2021.

Une médaille de l'OIML a été décernée au Dr Tsuyoshi Matsumoto pour sa contribution aux travaux de l'OIML. Des lettres d'appréciation ont été présentées à M. Ralph Richter, au Dr Michael Rinker et au Dr Peter Ulbig pour leur contribution aux travaux de l'OIML.

Le Prix OIML CEEMS 2020 a été décerné à la Direction de la Métrologie du Ministère du Commerce de la République d'Indonésie, représentée par M. Agus Suparmanto, M. Veri Anggriono Sutiarto, S.E., M.Si. et Dr Rusmin Amin, S.Si, MT.

Il est prévu de tenir la 16ème Conférence Internationale (reportée de 2020) et la 56ème Réunion du CIML à Suzhou, en R.P. de Chine, en octobre 2021.

Les résolutions, documents et présentations de la 55ème Réunion du CIML sont disponibles sur le site web de l'OIML à l'adresse

https://www.oiml.org/fr/structure/ciml/sites.

# OIML Awards presented at the Online 55th CIML Meeting

#### At its Online 55th Meeting, the Committee made the following awards:

• An **OIML Medal**, for his contribution to the work of the OIML, to:

- Dr Tsuyoshi Matsumoto



• OIML Letters of Appreciation, for their contribution to the work of the OIML, to:

- Mr Ralph Richter - Dr Michael Rinker
- Dr Peter Ulbig
- Di reter eloig

#### • The 2020 OIML **CEEMS Award** to:



- The Directorate of Metrology under the Ministry of Trade of the Republic of Indonesia, represented by:
  - Mr Agus Suparmanto Minister of Trade of the Republic of Indonesia
  - Mr Veri Anggriono Sutiarto, S.E., M.Si. Director General of Consumer Protection and Trade Compliance, Ministry of Trade
  - Dr Rusmin Amin, S.Si, MT Director of Metrology under the Ministry of Trade

#### **CEEMS AG**

## **Report on the CEEMS Advisory Group meeting**

6 October 2020

BIML

Mr Mason, Chairperson of the CEEMS Advisory Group (CEEMS AG), welcomed participants and commented that this had been his first experience of a large international Zoom meeting, and he thought it had been very successful.

He began by thanking everyone who had worked on CEEMS activities during the past year, which had obviously been an extremely challenging one. Some of the CEEMS activities had necessarily fallen down the list of priorities compared to many of the other challenges which colleagues had had to face, but he had been extremely grateful for the contributions of the CEEMS AG Vice-Chairperson, Dr Ulbig, of Mr Dunmill and Mr Guo Su within the BIML; he also wanted to specifically thank two of the co-opted experts, Dr Kochsiek and Mr Henson. All these people had worked extremely hard on the main feature of the past year's work, which had been the revision of D1 National metrology systems - Developing the institutional and *legislative framework*. He thought that the resulting Final Draft Document would be extremely useful.

In addition to the revision of D 1, the CEEMS AG meeting covered a number of issues, in particular a substantial discussion on *The future of CEEMS activities in a post-COVID world*.



Mr Peter Mason - CEEMS AG Chairperson

As had been foreshadowed the previous year, Dr Kochsiek confirmed that he was standing down from his membership of the AG. Mr Mason remarked that Dr Kochsiek was known to virtually all delegates and had been an enormous support, most recently in the revision of D 1; Mr Mason added that he would be very sad to lose his services. At the same time, it had been decided to strengthen the AG's membership, and he was glad to announce that the co-opting of Mr Han Jianping (People's Republic of China) had been approved, so hopefully Mr Han would be able to assist them in the coming year on the planned work program.

Mr Mason reported that all of the work streams that had been identified at the 2019 meeting had, to a certain extent, been severely impacted by the COVID pandemic. However, there had been some progress on the e-Learning modules, which would become increasingly important as they started to pull together the threads of what they needed to do in the post-COVID world.

Similarly, concerning the implementation of B 21 Framework for OIML Training Centers and OIML Training Events (OTCs and OTEs), these had of course, always been thought of as physical meetings, and therefore travel restrictions had had a major impact on the delivery of such events. Mr Mason was pleased to report that they had already seen one event, conducted by P.R. China, for the benefit of GULFMET, which had taken place earlier in October. Mr Mason thought this gave them an opportunity to start rethinking how these training activities might be conducted in the future. Similarly, there had not been much progress to report on the "future leaders" scholarship scheme which had been presented the previous year. Mr Mason explained that this depended to a large extent on the idea of secondees physically being able to share experiences with others in the metrology community. However, he was pleased to say that China had stepped forward with plans to start a pilot scheme, using the ideas that had been discussed the previous year, which hopefully would start as soon as travel restrictions permitted.

In terms of the projects on the revision of publications, the past year had been dominated by the work on D 1. Considering the fact that there had not even been a first Committee Draft at the same time the previous year, thanks to the enormous contributions from members of the ad-hoc group, coupled with the willingness of so many colleagues across the world to engage in the consultation process, the successive Committee Draft stages had been passed and a successful CIML preliminary online ballot held, all within the space of 12 months, which was a tremendous achievement.

The progress on D 14 *Training and qualification of legal metrology personnel* and D 19 *Pattern evaluation and pattern approval* had necessarily taken a "back seat", but were still very much part of the CEEMS AG's plans, and Mr Mason had been very glad to see that it was already

being considered how D 14 might be reflected in a future edition of the Bulletin.

At the AG meeting on 6 October it was also decided that, subject to finding a convener, the revision process would be started for D 20 *Initial and subsequent verification of measuring instruments and processes*. Mr Mason reported that this Document was 30 years out of date and in definite need of updating; he took the opportunity to ask any Member State who felt they would be able to take on the convenership of this project to contact him. He underlined that as soon as they had a convener they would be able to start work on the revision, and would be able to apply the lessons learnt recently about how to speed up the process of developing and agreeing these Documents.

The bulk of the CEEMS AG meeting discussions had been about the implications of the COVID-19 restrictions for CEEMS activities, and the problems that had arisen from the pandemic. It had been identified that for planning purposes it was sensible to assume that the effects of the pandemic, namely travel restrictions, increased home working for many legal metrology staff. Reprioritisation was taking place, which in some cases meant that there were fewer staff available for legal metrology duties, and there was reduced funding for legal metrology. All of these problems could be expected to be present for the foreseeable future, and would have to be planned for.

Mr Mason commented that the funding pressures, which they had learnt to live with in the past, would probably worsen as a result of the pandemic, which would mean that generally speaking they would be dealing with fewer, less experienced legal metrology staff, across virtually all countries and economies.

Mr Mason stressed that the objective of OIML CEEMS activities, namely to increase skill levels in the legal metrology community, not only remained the same but would become even more important if there were fewer and less experienced staff. He underlined that this in turn would require even greater use of the new ways of working, which needed to be applied to the traditional types of CEEMS activities. He added that this all needed updating and modernising for the world that was unfolding.

Mr Mason next highlighted that all the tools traditionally associated with CEEMS activities such as documents, training courses, study visits, informal contacts, secondments, efforts to engage with international development agencies, and persuading government decision-makers and budget holders of the importance of legal metrology, remained absolutely vital. However, they would all have to be carried out in rather different ways, typically using online technology.

Some time had been spent considering what problems now had to be faced in using the new technology. Interestingly, although some ongoing problems had been identified, the overall conclusion had been that these were nowhere nearly as great as they would have expected had they been asked this question 12 months previously. Mr Mason remarked that administrations had adapted to this new world because they had had to, and they had mostly done so very successfully. This could be seen in the way that international online meetings were becoming much more prevalent, and they were all used to dealing with them.

In terms of applying online technology to CEEMS activities, a good start had already been made in the OIML, and e-Learning had already been identified as a priority. As the hardware issues were now resolved, e-Learning modules could now rapidly be made more widely available. It had also been noted that the technical work itself was now being conducted remotely much more comfortably and indeed the significant list of OIML technical work achievements over the past year indicated how well the Organisation was adapting to this.

Delegates would also have noticed a greater use of video-conferencing for formal meetings. He underlined that they needed to do more, and do it quicker. Mr Mason highlighted that one of the other significant points in the AG meeting had been the experiences that the BIPM had been able to share with the OIML. The BIPM had been very quick off the mark to apply online technology, even to activities such as peer assessment and laboratory inspections, which would traditionally have required physical travel. Of course, the OIML had a very long-standing relationship with the BIPM on CEEMS activities, and Mr Mason considered that this relationship was one on which they were going to build. The BIPM experience had identified that traditional approaches really did have to be rethought completely as the move from physical meetings to online engagement was made.

During the debate and discussions, Mr Mason had identified that a number of good ideas were already available. However, it had been felt that it was really necessary to bring these together and prioritise them, so that the limited resources available could be used as efficiently as possible. It had been felt that the CEEMS AG was ideally placed to conduct this bringing together of ideas, and what they should do was to set up an adhoc project group which would develop a strategy on the application of online technology to capacity building and other CEEMS activities. This group would work using all the traditional tools he had mentioned earlier and analyse how these could be conducted in an online world. The CEEMS AG had felt that this was something which should be given high priority during the following year, and that they should have the results of this study available well before the 2021 CIML meeting. Mr Mason underlined that they had to get away from the idea that everything worked over a 12-month timescale, adding that the world into which they were now moving required them to be prepared to look for results and to share those results more quickly than this.

The final item that had been discussed at the CEEMS AG meeting had been the need to revise B 19 *Terms of Reference for the Advisory Group on matters concerning Countries and Economies with Emerging Metrology Systems (CEEMS)*, which had first been discussed in Bratislava and subsequently by the Presidential Council.

As CEEMS AG activities became more significant as the third pillar of the OIML's work, procedures needed to be brought more into line with other OIML activities. One of the crucial elements of this was to be clearer about the secretariat arrangements and about the appointment of the CEEMS AG Chairperson and Vice-Chairperson. It had already seen how the OIML-CS MC processes had worked effectively, and Mr Mason considered that they ought to be asking how these processes could be introduced into the way the CEEMS AG operated.

This had a degree of urgency, since Dr Ulbig had declared that he would be standing down later in the current year, so there would be a vacancy for the CEEMS AG Vice-Chairperson position the following year. Arrangements definitely needed to be put in place to enable the CEEMS AG to select a successor to Dr Ulbig in time for the next CIML meeting. An ad-hoc group had been established to look at procedures, in particular how to apply the procedures developed in the OIML-CS MC, and to consider how this might be transferred to the CEEMS AG framework. This would also be an important piece of work during the following year.

#### **RLMO RT**

# Report on the RLMO Round Table meeting

### 8 October 2020

DR CHARLES EHRLICH AND BIML

The first online Regional Legal Metrology Organisations (RLMO) Round Table meeting was held two weeks prior to the 55th CIML Meeting. Dr Ehrlich had taken over the chair of the RLMO Round Table from the previous RLMO Chairperson, who had also been the CIML's First and Second Vice-President, Dr Miki from Japan.

Historically, the Round Table has served as a place to gather and share information about what had taken place in each RLMO during the previous year. Whilst Dr Miki had been interested in exploring the possibilities of expanding the role of the Round Table, time limitations during in-person Round Table meetings had usually limited what could be discussed. Although the COVID-19 pandemic had been terrible this year for many reasons, it had provided the opportunity to explore the use of the online meeting format, such as was being done for the 55th CIML Meeting. This had meant that at the Round Table meeting, in addition to receiving updates from RLMO representatives, it was possible to spend some time discussing what form an expanded role for the Round Table might take.

There were 28 participants in the online RLMO RT meeting from ten OIML Member States; representatives from the six RLMOs (AFRIMETS, APLMF, COOMET, GULFMET, SIM and WELMEC) had all provided updates, including answers to most of the discussion topics.



Dr Charles Ehrlich - RLMO Round Table Chairperson

In addition, at the RLMO RT meeting Mr Mason reported on the meeting of the CEEMS AG, and Mr Dixon had provided a report on OIML-CS matters related to the RLMOs. All of these presentations can be found on the new dedicated webpage for the RLMO Round Table on the OIML website. Dr Ehrlich thanked the BIML, especially Mr Pulham, for having established this new page, which he hoped would serve as a focal point for more effective communication amongst RLMOs, and would also provide information to users of the OIML website who wanted to learn more about the RLMOs and what they were accomplishing. Dr Ehrlich reiterated there had been an open forum on the agenda to discuss a number of specific questions about current and future operations of the Round Table.

Some brief highlights of what had been happening in the RLMOs, as summarised in the presentations from the RLMOs, are as follows:

- AFRIMETS reported that in many African countries, the funds that would ordinarily have been going to legal metrology had understandably been redirected to humanitarian relief efforts.
- The APLMF reported that it maintained close links with APEC, and that the transfer of its secretariat from New Zealand to Malaysia had been delayed by the pandemic, but was still moving forward. The extensive APLMF training programme, called MEDEA, had been delayed, and would move to an online format in the following year. The APLMF strategic plan was being updated and there were plans to release it very soon.
- No big organisational changes had occurred in COOMET, but the COOMET strategy document was under discussion, as was its legal framework. It had been anticipated that the need to translate documents into Russian should diminish over the next few years as English became more prevalent in COOMET.
- GULFMET reported that it was not an independent legal entity, but operated under the authority of the GCC/GSO. It was a relatively new RLMO, and so they were actively interacting with other RMOs and RLMOs to improve their operation.
- The SIM presentation was provided by a newcomer to the Round Table, Mr Pedro Perez Vargas from the Superintendance of Industry and Commerce in Colombia and so Dr Ehrlich warmly welcomed him to the Round Table. Mr Perez Vargas was the new chairperson of the SIM legal metrology working group, and initially he planned to focus on the impact of digitalisation in legal metrology among the SIM countries. He also intended to encourage more SIM countries to join the OIML, and assist those smaller countries that could not do so.

• WELMEC reported that it was now a legal entity with a new strategy and logo, and a website was under development. They also reported that they were working on better cooperation with EURAMET, and WELMEC anticipated being involved with any revision of the European Measuring Instruments Directive (MID). WELMEC had correspondence tables between the requirements in the MID and several OIML Recommendations, and they had lately been focusing on the area of certain utility meters including water meters, and the impact of digitalisation. Dr Ehrlich reminded delegates that details of all of these could be found in the full presentations available on the new Round Table webpage.

The high-level questions that were addressed, both during the presentations from the RLMOs and later during the open forum, are summarised below. The first two questions were related to the COVID-19 situation:

- 1) Under the current circumstances (pandemic, travel, financial, etc.), have any of your RLMOs been able to conduct any business since last October (in-person and/or online)?
- 2) How is your RLMO coping with the pandemic situation? What short-term and long-term changes do you foresee to your RLMO?

The next two questions had to do with the relationship between the OIML and the RLMOs, and the structure and functioning of the Round Table itself. They were:

- 3) How might the relationship between the OIML and the RLMOs be enhanced or augmented?
- 4) How might the scope of the RLMO Round Table be expanded to enhance collaboration and sharing of ideas beyond just reporting by the RLMO representatives at the annual Round Table meetings? How might the RLMO Round Table be restructured to better serve your needs?

The final two questions had to do with the reporting format at the Round Table meetings, how the OIML Bulletin might become more valuable to the RLMOs, and how the RLMOs might contribute more to it (see also presentations on this by Dr Schwartz and Mr Pulham under CIML item 8.3):

- 5) Should the individual RLMO reporting format at future RLMO Round Table meetings be standardised in order to focus discussion on certain topics?
- 6) Does your RLMO have any suggestions on how the OIML Bulletin might become more valuable to your RLMO, and to the OIML, in the future?

Probably the most common answer to the questions about the impact of COVID-19 was that the pandemic had stopped a lot of work, but that everything that had moved forward had used online technology. For some of the RLMOs, not too much had stopped, which was a good sign.

At the Round Table meeting questions about the relationship between the OIML and the RLMOs, and how the scope of the RLMO Round Table might be enhanced, were discussed. For example, the OIML, through the BIML, was planning to serve as a possible central coordinator of several matters such as the e-Learning platform and other training efforts, digitalisation, and harmonisation. Also, it had been felt that the OIML could assist the RLMOs in promoting the OIML-CS as well as in assisting countries and economies within the RLMOs to participate in the OIML-CS.

Concerning the last two discussion topic questions, it had been felt that a more standardised reporting format for the RLMO presentations could be helpful, and that the OIML Bulletin could be used as a training instrument for some of the RLMOs. Several topics for possible articles for the Bulletin had been proposed, such as national legislation changes, and technological developments. It was mentioned that this could routinely be discussed and developed through use of the Round Table webpage as well as the Bulletin, so there are at least two ways of doing this.

Summarising the points, firstly it was clear that COVID-19 had affected all the RLMOs, having forced meetings and other events to move to an online format. There had been no strong sentiment expressed for developing a more formal relationship between the RLMOs and the OIML, and in fact some opinions were expressed that such a move could be counterproductive. Additionally, there had been no desire to develop terms of reference for the RLMO Round Table, but rather the liaison arrangement that existed between the RLMOs and the OIML should be maintained, and perhaps clarified further. On the other hand, it had been felt that there was a definite benefit to the RLMOs for the OIML to provide a centralised role in matters such as a coordinated e-Learning platform, coordination of CEEMS activities, OIML training centres and training events, and the centralised operation of the OIML-CS. It was suggested that a more standardised reporting format for RLMO presentations during the annual RLMO Round Table meeting should be pursued, but discussion topics could also be followed through use of the new Round Table webpage and possibly through intermediate, and hopefully shorter, RLMO Round Table meetings throughout the year.

The next steps for the RLMO Round Table were discussed. The first was that it seemed worth developing the new Round Table webpage to be a source of communication and interaction among the RLMOs, and a dialogue with RLMO representatives to gather their ideas on this will be initiated. Also, ideas will be solicited for the development of a draft policy paper, as had been proposed in OIML B 12 *Policy paper on liaisons between the OIML and other bodies*, which would elaborate on the possibilities for an enhanced liaison arrangement between the OIML and the RLMOs. A draft report format for future RLMO Round Table presentations will be prepared, and this will be circulated to Round Table presenters for comments and further development, before the following year's annual Round Table meeting. Ideas will be sought from RLMO representatives on how e-Learning and other training activities might be better coordinated with the RLMOs, and these would then be discussed with the BIML Director and the CEEMS AG Chairperson. The results would then be taken back to the RLMO representatives for further discussion, and hopefully action. It is intended to facilitate all these actions through the use of email and individual online meetings, with perhaps a short intermediate full RLMO Round Table meeting, hopefully in Spring 2021. This intermediate meeting is not seen as an occasion for providing RLMO update reports, as is done at the annual Round Table meeting, but rather as an opportunity to focus on making progress on some of the actions that had been proposed to the RT participants.

#### **HAPPY BIRTHDAY!**

## Prof. Dr. Manfred Kochsiek celebrates his 80th birthday!

DR ROMAN SCHWARTZ, CIML President



On 5 February 2021 Professor Dr. Manfred Kochsiek, CIML Past Acting President and Honorary Member, will celebrate his 80th birthday n 5 February 2021 Professor Dr. Manfred Kochsiek, CIML Past Acting President and Honorary Member, will celebrate his 80th birthday. In the name of the OIML and of his many longstanding metrology colleagues worldwide, I congratulate him on this occasion and wish him all the best for many more years to come!

This date also marks a very special anniversary that only a few can celebrate: almost 50 years of commitment and faithful service to (legal) metrology and to the OIML! These two anniversaries are reason enough to prompt me to shine the spotlight on his outstanding career and to share his achievements with the metrology community in this edition of the OIML Bulletin.

Manfred Kochsiek was born in 1941 in Gadderbaum near Bielefeld, Germany. He studied mechanical engineering at the Technical University of Hanover and graduated in 1966. As a young graduate mechanical engineer, Manfred started working at the PTB in Braunschweig on 15 April 1966, initially as a scientific assistant in the field of industrial metrology.

After his doctorate as Dr.-Ing. at the Faculty of Mechanical Engineering of the Technical University of Hanover in 1972, he took over a number of key tasks at the PTB. Subsequently, he became Head of the "Mass Unit" and "Mechanical Weighing Instruments" laboratories in 1974, Head of the "Mass Unit and Weighing Instruments" department in 1979, Head of the "Technical-Scientific Services" division and Head of the "Metrological Development Cooperation" Presidential Staff Unit in 1985.

During this time, questions about the international integration of the PTB in the field of legal metrology, metrological and technical cooperation and standardization were the focus of his work. Here he was very much involved in the interests of developing countries, combined with numerous consultations and lectures in many countries. In doing so, he gained high esteem among metrological partners as well as in industry due to his great commitment, high technical expertise, and extraordinary ability to find solutions. In recognition of his achievements, he was appointed Member of the Presidential Board in 1993 and Vice President of the PTB in 1998.

In addition to his tasks at the PTB, from the very beginning Manfred Kochsiek dedicated a considerable part of his professional career to international cooperation, firstly in the scientific field of mass metrology as BIPM rapporteur for the Consultative Committee "Mass and Derived Quantities" (CCM). Here, together with the responsible person at the BIPM, Mr. Girard, he achieved, among other things, fundamental research results on the most important influencing factors in mass determinations of high accuracy, such as air buoyancy correction and the influence of adsorption layers on the surface of mass standards, which ultimately contributed to the redefinition of the kilogram in 2018.

In the field of weighing technology, Manfred was significantly involved in the revision of OIML Recommendations Nos. 3 and 28 in the 1970s, important forerunners of today's OIML R 76, which harmonizes the technical and metrological requirements for nonautomatic weighing instruments almost worldwide.

In 1988 he became CIML Member for West Germany and from 1990 CIML Member for the reunited Germany. From 1991 to 2003 he was CIML Vice President, from 2003 to 2005 CIML Acting President, and in 2006, on the occasion of his retirement, he was appointed Honorary Member of the CIML.

During this period of time there were numerous highlights, such as the preparation and launch of the OIML Mutual Acceptance Arrangement (MAA), the forerunner of today's OIML Certification System (OIML-CS), which harmonizes not only the metrological requirements for legally controlled measuring instruments, but also the mutual recognition of tests and certifications on an international level.

I would also like to mention here the successful efforts of Manfred and other OIML representatives, with special mention of John Birch, the Australian CIML Honorary Member, to convince new Member States and Corresponding Members to join the OIML. Additionally, at the end of the 1990s and thanks to his calm, reserved manner and a great deal of persuasion as CIML Vice-President, Manfred Kochsiek made a decisive contribution to averting a financial crisis of the OIML due to a lack of timely payment of membership fees on the part of some Member States.

His time as CIML Acting President also includes the 39th CIML Meeting and the 12th OIML Conference, which took place with great success and high attendance in October 2004 at the Federal Ministry of Economics in Berlin, Germany.

Other key organizations were equally interested in making use of his extensive knowledge and experience. Manfred was also appointed to various positions of responsibility in other international organizations such as the International Committee for Weights and Measures (CIPM), the International Measurement Confederation (IMEKO), The Euro-Asian Cooperation in Metrology (COOMET), the European Union (EU), and the European Committee for Standardization (CEN).

Even since his retirement in February 2006, Manfred Kochsiek has remained connected to international metrology and especially to the OIML until today. He has continued to be involved in numerous cooperation development projects in about 40 countries as a consultant, expert and promoter of the OIML.

The crowning finale of his international activities was the successful completion of the revision of the important OIML Document D 1 *National Metrology Systems - Developing the Institutional and Legislative Framework*, which was adopted by the CIML following its 55th meeting in 2020. This revision builds on earlier work which Manfred Kochsiek had carried out as the chairperson in 2008–2012 in the context of the previous revision, no easy task in view of the diverging interests of the participating countries.

Manfred has distinguished himself as a scientist both nationally and internationally through a large number of scientific publications and lectures, and as the author of several books. Thanks to his scientific and organizational achievements and experience, especially in the fields of metrology with a focus on mass determination, weighing technology and technical cooperation with developing countries, he is still highly regarded in the national and international metrology community today.

During his active years he has received several honors and distinctions, for example his appointment as Honorary Member of the Metrological Academy of Russia and as Visiting Professor and Honorary Professor at various universities.

The CIML Presidency and the International Bureau of Legal Metrology join me in congratulating Prof. Dr. Manfred Kochsiek once more on his 80th birthday and in thanking him for almost 50 years of active work at the service of international metrology and the OIML.

We now wish him all the best for a peaceful "real" retirement and hope that he enjoys good health and happiness.

# Happy birthday Manfred from all your friends and colleagues!



#### Introduction

The OIML-CS is a system for issuing, registering and using OIML Certificates and their associated OIML type evaluation reports for types of measuring instruments (including families of measuring instruments, modules, or families of modules), based on the requirements of OIML Recommendations.

The OIML-CS comprises two Schemes: Scheme A and Scheme B. Competence of the OIML Issuing Authorities and their Test Laboratories is demonstrated through self-declaration under Scheme B and accreditation or peer assessment under Scheme A.

The aim of the OIML-CS is to facilitate, accelerate and harmonize the work of national and regional bodies that are responsible for type evaluation and approval of measuring instruments subject to legal metrological control. In the same way, instrument manufacturers, who are required to obtain type approval in some countries in which they wish to sell their products, should benefit from the OIML-CS as it will provide evidence that their instrument type complies with the requirements of the relevant OIML Recommendation(s).

It is a voluntary system and OIML Member States and Corresponding Members are free to participate. Participating in the OIML-CS commits, in principle, the signatories to abide by the rules of the OIML-CS that are established in OIML B 18:2018 *Framework for the OIML Certification System (OIML-CS)*. Signatories voluntarily accept and utilize OIML type evaluation and test reports, when associated with an OIML Certificate issued by an OIML Issuing Authority, for type approval or recognition in their national or regional metrological controls.

The OIML-CS was launched on 1 January 2018 and has replaced the former OIML Basic Certificate System and the OIML Mutual Acceptance Arrangement (MAA).

Further information can be found at:

#### https://www.oiml.org/en/oiml-cs

For enquiries regarding the OIML-CS, please contact the OIML-CS Executive Secretary Paul Dixon (executive.secretary@oiml.org).

#### **OIML certificates**

OIML certificates issued under Scheme A and Scheme B can be downloaded from the database on the OIML website at https://www.oiml.org/en/oiml-cs/certificat\_view.

The database also includes certificates issued under the former OIML Basic Certificate System and the MAA. Although these two systems are no longer in operation, the certificates remain valid.

#### **OIML Issuing Authorities, Utilizers and Associates**

A summary of the approved OIML Issuing Authorities is published on the next page, followed by a summary of those Utilizers and Associates that have declared that they will accept OIML certificates and/or OIML type evaluation reports as the basis for a national or regional approval.

#### **Transition update**

A number of OIML Recommendations in the OIML-CS transitioned from Scheme B to Scheme A on 1 January 2021 (see https://www.oiml.org/en/oimlcs/ categories).

OIML Recommendations R 129:2020 Multidimensional measuring instruments, R 148:2020 Noninvasive non-automated sphygmomanometers and R 149:2020 Non-invasive automated sphygmomanometers have been included in the scope of the OIML-CS under Scheme A following their publication.

OIML Recommendation R 150:2020 Continuous totalizing automatic weighing instruments of the arched chute type has been included in the scope of the OIML-CS under Scheme B following its publication.

#### **Upcoming OIML-CS event**

The sixth OIML-CS Management Committee (MC) meeting will be held as an online meeting on 24–25 March 2021.

# List of OIML Issuing Authorities and their scopes

The list of OIML Issuing Authorities is published in each issue of the OIML Bulletin and can be downloaded at www.oiml.org/oiml-cs/oiml-issuing-authorities

		R 21:2007	R 46:2012	R 49:2006	R 49:2013	R 50:2014	R 51:2006	R 60:2000	R 60:2017	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 117:1995	R 117:2007	R 117:2019	R 126:1998	R 129:2000	R 134:2006	R 137:2012	R 139:2014	R 139:2018
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)				•																						

Updated: 2021-01-01

# List of Utilizers, Associates and their scopes

The list of Utilizer and Associate scopes is published in each issue of the OIML Bulletin and can be downloaded at www.oiml.org/oiml-cs/utilizers-and-associates

Updated: 2021-01-08

1 = S 2 = S 3 = S 4 = S	cheme A only 5 = Scheme B only cheme A and MAA cheme A and B cheme A, B and MAA	R 21:2007	R 35:2007	R 46:2012	R 49:2006	R 49:2013	R 50:2014	R 51:2006	R 58:1998	R 59:2016	R 60:2000	R 60:2017	R 61:2004	R 61:2017	R 75:2002	R 76:1992	R 76:2006	R 81:1998	R 85:2008	R 88:1998	R 93: <b>199</b> 9	R 99:2008	R 102:1992	R 104:1993	R 106:2011
AU	National Measurement Institute, Australia (NMIA)				1	1					1					1	1								
BE	Federal Public Service Economy	3		3		3	3	3			1		3		3		1		3		3				3
CA	Measurement Canada										2	1			1		2								
СН	Federal Institute of Metrology (METAS)			1	2	2	1	1			2		1		1		2								1
CN	State Administration for Market Regulation (SAMR)							1			2	1	1	1		2	2								
со	Superintendencia de Industria y Comercio (SIC)	3		3	4	4	3	3			2		3		3	2	2		3		3				3
CU	Oficina Nacional de Normalizacion (NC)	3	3	1		1	3	1	3	3	1	1	3	3	3		1	3	3	3	3		3	3	3
cz	Czech Metrology Institute (CMI)					1		1						1			1								
DE	Physikalisch-Technische Bundesanstalt (PTB)	5		3	3	4	3	3			2		3		3		2					5			1
DK	FORCE Certification A/S				2	2	1	1			2		1			2	2								1
FR	Laboratoire National de Métrologie et d'Essais (LNE)	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
IN	Legal Metrology Division, Department of Consumer Affairs	3		3		4	3	3			2		3		3		2		3						1
JP	NMIJ/AIST										2					2	2								
KE	Weights and Measures Department		3	3	4	4		3			4	4	3	3		4	4		3						3
кн	National Metrology Centre (NMC)	3		3	3	3	3	3			1		3		3	1	1		3		3				3
кі	Ministry of Commerce, Industry and Cooperatives	5	5	5	1	1	5	1		5	1	1	5	5	5	1	1	5	5			_			5
KR	Korea Testing Certification (KTC)															2	2								
LV	LNMC Ltd. Metrology Bureau																								
NA	Namibian Standards Institution			3	4	4	3	3			2		3			4	4		3						3
NL	NMi Certin B.V.	3		3	3	4	3	3			2	1	3	3	3	1	2		3		3				3
NZ	Trading Standards (Ministry of Business, Innovation and Employment) (MBIE)				4	4	3	3			2					2	2		3						3
RU	VNIIMS																								
RW	Rwanda Standards Board	3	3	3	3	3		3	3	3	1	1	3	3		1	1				3		3	3	3
SA	SASO (Saudi Standards, Metrology and Quality Organization)			3		1						1					1								
SE	RISE Research Institutes of Sweden AB							3			2	1	3				2		3						
SK	Slovak Legal Metrology (SLM)				2	2		_		_					_		2	_				_			
TN	National Agency of Metrology (ANM)	3		3	2	2	3	3			2		3			2	2		3		3				3
UG	Uganda National Bureau of Standards (UNBS)			3	1	3					1	1				1	1								
US	National Conference on Weights and Measures (NCWM)										2														
ZA	NRCS: Legal Metrology				3	3		3			1					1	1		3						
ZM	Zambia Metrology Agency	3		3	3	3	3	3			1		3		3	1	1		3				3		

# List of Utilizers, Associates and their scopes (Cont'd)

The list of Utilizer and Associate scopes is published in each issue of the OIML Bulletin and can be downloaded at www.oiml.org/oiml-cs/utilizers-and-associates

Updated: 2021-01-08

1 = So 2 = So 3 = So 4 = So	theme A only 5 = Scheme B only theme A and MAA theme A and B theme A, B and MAA	R 107:2007	R 110:1994	R 117:1995	R 117:2007	R 117:2019	R 122:1996	R 126:1998	R 128:2000	R 129:2000	R 129:2020	R 133:2002	R 134:2006	R 136:2004	R 137:2012	R 139:2014	R 139:2018	R 143:2009	R 144:2013	R 145:2015	R 146:2016	R 148:2020	R 149:2020	R 150:2020
AU	National Measurement Institute, Australia (NMIA)									_														
BE	Federal Public Service Economy	3			3					3					3	3								
CA	Measurement Canada																							
СН	Federal Institute of Metrology (METAS)	1						1		1			1		1									
CN	State Administration for Market Regulation (SAMR)																							
со	Superintendencia de Industria y Comercio (SIC)	3		3	3			3		3			3		3	3								
CU	Oficina Nacional de Normalizacion (NC)	3	3		3		3	3	3	3		3	3	3	3	3	3	3	3	3	3			
cz	Czech Metrology Institute (CMI)				1	1				_					1									
DE	Physikalisch-Technische Bundesanstalt (PTB)	3			3	1				3			1	5	3									
DK	FORCE Certification A/S	1								1			3											
FR	Laboratoire National de Métrologie et d'Essais (LNE)	1			1			1		1			1		1	1								
GB	NMO Certification	3		3	3					3			3											
IN	Legal Metrology Division, Department of Consumer Affairs	3			3					3			1		3	3								
JP	NMIJ/AIST																							
KE	Weights and Measures Department			3	3			3					3	3	3	3	3							
КН	National Metrology Centre (NMC)	3		3	3			3		3			3		3	3								
кі	Ministry of Commerce, Industry and Cooperatives		5	1	1					-		5	5		5	5	5							
KR	Korea Testing Certification (KTC)																							
LV	LNMC Ltd. Metrology Bureau							3					3											
NA	Namibian Standards Institution	3		3	3			3		3			3											
NL	NMi Certin B.V.	3		3	3	1		3		3			3		3	3	3							
NZ	Trading Standards (Ministry of Business, Innovation and Employment) (MBIE)	3		3	3					3			3											
RU	VNIIMS			3	3																			
RW	Rwanda Standards Board		3	3	3		3	3		3		3	3		3			3	3		3			
SA	SASO (Saudi Standards, Metrology and Quality Organization)				3																			
SE	RISE Research Institutes of Sweden AB			3	3																			
SK	Slovak Legal Metrology (SLM)																							
TN	National Agency of Metrology (ANM)	3		3	3			3		3			3		3	3								
UG	Uganda National Bureau of Sandards			1	1	3							3		3									
US	National Conference on Weights and Measures (NCWM)																							
ZA	NRCS: Legal Metrology	3	3		3	3		3		3			3		3	3								
ZM	Zambia Metrology Agency	3	3		3	3		3		3			3		3	3								

# Promotion of the OIML Bulletin: Become a Mentor



# The OIML Bulletin is one, if not the only, international publication dedicated to legal metrology topics.

In accordance with CIML Resolutions 2019/30 and 2020/21, there is a clear desire for the Bulletin to be an attractive publication for legal metrology worldwide, and for it to be an excellent advertisement for our Organisation.

This can be achieved through long-term planning of the future editions and identification of key topics of high interest, for instance, legal control of measuring instruments in the fields of energy, health and the environment, where important aspects such as new technology, legal requirements, or test/verification procedures will be addressed.

In addition, support is sought from CIML Members and Corresponding Member Representatives who are ready to take on the responsibility of acting as "**Mentors**" for certain key topics / editions and technical articles. These are not necessarily expected to be written by the "**Mentors**" themselves, but by experts that a "**Mentor**" has identified and contacted.

In order to identify key topics of significant interest and "**Mentors**" to lead them, it was proposed by the CIML President that the BIML prepares, and makes publicly available on the OIML website, a plan for the upcoming eight to ten editions of the Bulletin.

The table on the following page is intended to be "dynamic", i.e. proposed key topics may be moved to other editions depending on available "**Mentors**" and authors for technical articles. The table can also be found at www.oiml.org/en/publications/bulletin/ future-editions.

All CIML Members and Corresponding Member Representatives are encouraged to support the OIML Bulletin, to share their legal metrology experiences with the legal metrology community worldwide, and to take responsibility either as a "**Mentor**" for one of the next editions of the Bulletin, or by promoting it at TC/SC/Project Group meetings, RLMO meetings, CEEMS AG meetings, and other opportunities.

CIML Members and Corresponding Member Representatives who would like to be a "**Mentor**" for a specific edition / key topic, or who would like to suggest that a new key topic be added to the list, are asked to contact the BIML (chris.pulham@oiml.org).







e Other	s with Report on the of OIML-CS MC ments meeting (March 2021)	Update on priority projects				ring, arging		TE   (DE)	
Articl submissio	Experiences verification WIM instru / devices	May 2021 Workshop paper #3				Smart mete e-vehicle ch		Report on C 2022 in Bad Reichenhall	
Article submission #2	Experiences with conformity assessment of WIM instruments / devices	May 2021 Workshop paper #2				Soot particle measurement	Revised OIML D 14	Various systems in different regions	
Article submission #1	Different fields of application, different technologies	May 2021 Workshop paper #1	Medical instruments / devices with metrological functions			Speed meters (overview of current technologies)	E-Learning material already available	Theoretical principles / basics	
Mentor						PTB/ METAS		Some RLMOs?	
General key topic	Weighing in motion (WIM)	Digital transformation	Health	(Metrology for protecting the) Environment	National / Regional Metrology Systems	Measurement related to traffic	Training of inspectors / verification officers	Pre-packages / Statistical control	
Edition	April 2021	July 2021	October 2021	2022					

# info

The OIML is pleased to welcome the following new

# **CIML Members**

- France: Mr. Bernard Van Maris
- Italy: Mrs Loredana Gulino
- Japan: Dr. Toshiyuki Takatsuji

- Poland: Prof. Jacek Semaniak
   Romania: Mrs. Angelica Moia
- Slovak Republic: Eng. Tomáš Peták

1 CD

# Committee Draft

Received by the BIML, 2020.08 - 2021.01

TC 18/p 2

New Recommendation: Ophthalmic instruments - non-contact tonometers

# OIML meeting

October 2021

16th International Conference and 56th CIML Meeting

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