

ILAC-CIPM Joint Communication on accreditation of NMI calibration services

ILAC-CIPM Joint Communication on Validation of NMI calibration services

Bureau
International des
Poids et
Mesures

21st January 2021
Andy HENSON
BIPM

Duplication of the NMI accreditation
process and the CIPM MRA process
should be avoided

Joint ILAC – CIPM communication

*Joint ILAC – CIPM Communication regarding the
Accreditation of Calibration and Measurement Services
of National Metrology Institutes*

*This document was originally prepared
7th March 2012, then*

*updated and reaffirmed
7th October 2020*

Authorship

This document was prepared by the International Laboratory Accreditation Cooperation (ILAC) Accreditation Committee (AIC) and the BIPM.

This document provides guidance on the accreditation process of NMIs for their measurement services in order for the NMI to optimise the benefits from being accredited:

- when it is, or is in the process of becoming, a signatory to the CIPM MRA, and
- to generally facilitate the process for Accreditation Bodies when accrediting NMI measurement services.

Guidelines

The following items need specific attention by the AB when accrediting NMIs who participate in the CIPM MRA:

1. Assessors
2. Scope of accreditation
3. Inter laboratory comparisons
4. Supplementary criteria set by the RMO
5. Assessment report
6. Decision-making and granting accreditation

Assessors

- The accreditation body should, wherever practical, use peer reviewers who can also be accepted as peer reviewers by the RMO.
- It is best if the AB specifically asks the NMI beforehand whether they need peer reviewers to comply with these RMO requirements, and to confirm a common understanding of the requirements.

Scope of accreditation

- The accreditation body shall during assessment take into account approved entries in the KCDB and/or available documentation related to their approval in RMOs.
- It is the obligation of the NMI at any time to inform the accreditation body of changes which affect the scope of accreditation.
- Although entries in the scope and the KCDB are not exactly the same they can represent the same information.
- The AB should encourage the NMI to align as far as is practical the scope of accreditation and the services provided under the CIPM MRA.

Inter laboratory comparisons

- Results from participation in comparisons, such as the comparisons registered in the KCDB should be taken into account.
- In the case where the NMI provides services only at industrial levels of calibration where no KCDB comparisons exist, further participation may be needed.

Supplementary criteria set by the RMO

- If the RMO has set supplementary criteria that needs to be fulfilled outside criteria included in ISO/IEC 17025, ISO 17034 and ISO/IEC 17011, this should be taken into account by the accreditation body.
- **Regional accreditation bodies should co-operate with the RMO** to ensure a consistent and harmonized approach in order for the individual NMI to benefit from being accredited.

Assessment report

- If the status of accreditation is to be used to support the CIPM MRA process it is extremely helpful for the NMI if the assessment report is provided in the language used in the RMO review process.
- **The AB and NMI should collaborate and agree on the reporting.**
- ABs need to make it clear that they have no objection to the Assessment Report being submitted by the NMI to the RMO as part of the CIPM MRA process, including the identity of technical assessors and technical experts.

Decision-making

and granting accreditation

- Generally, the scope and the uncertainty of an NMIs accredited calibration and measurement services should neither be smaller nor larger than that for the CMC represented in the KCDB.
- However, this may not always be the case as differences in timing, processes and the sequence in which approvals are sought and granted can result in either the accredited CMC or the CIPM MRA CMC being published first.
- As there has been no alignment between the way information is presented between scopes of accreditation and the KCDB it should not be expected that the format of the scope of accreditation and the entries in the KCDB be identical

Where to find

BIPM website

<https://www.bipm.org/en/worldwide-metrology/liaisons/ilac.html>

Bureau International des Poids et Mesures – the intergovernmental organization through which Member States act together on matters related to measurement science and measurement standards.

Search facility:

Site map | News | Contact us | [FR]

ABOUT US | WORLDWIDE METROLOGY | INTERNATIONAL EQUIVALENCE | SI UNITS | SERVICES | PUBLICATIONS | MEETINGS

> You are here: worldwide metrology > BIPM liaison work > ILAC

International Laboratory Accreditation Cooperation (ILAC)

→ The International Laboratory Accreditation Cooperation (ILAC) is an international cooperation between the various laboratory accreditation schemes operated throughout the world. ILAC facilitates trade by promotion of the acceptance of accredited test and calibration results from more than 70,000 calibration and test laboratories worldwide.

The BIPM and ILAC cooperate to ensure efficient and effective dissemination of metrological traceability, particularly to the SI, and also address the special case of accredited national metrology laboratories.

Organization:

→ **Formal relationship:**

- BIPM-ILAC MoU
- JCTLM: Declaration of Cooperation between the CIPM, the IFCC and ILAC

→ **Links between the BIPM and the ILAC:**

- A Joint CIPM/ILAC Working Group consisting of BIPM and ILAC members was established in view of the BIPM-ILAC MoU (Terms of reference of the Working Group). The group has produced a joint statement on the collaboration and roles of the two organizations;
- The BIPM interacts with ILAC at senior level through annual bilateral and multilateral meetings at the BIPM (with ISO and the OIML);
- The two organizations have mutual observer/liaison status at meetings;
- ILAC is one of the partners in INETQI;
- ILAC is a member of the JCGM;
- ILAC is a major partner in the JCTLM;
- The BIPM is an active participant in the ILAC Accreditation Committee (ILAC AIC) and particularly the AIC WG2;
- The BIPM organizes consultation with NMIs (via RMOs) on key ILAC documents;
- The BIPM and ILAC issue joint declarations and joint statements when appropriate:

Joint statements:

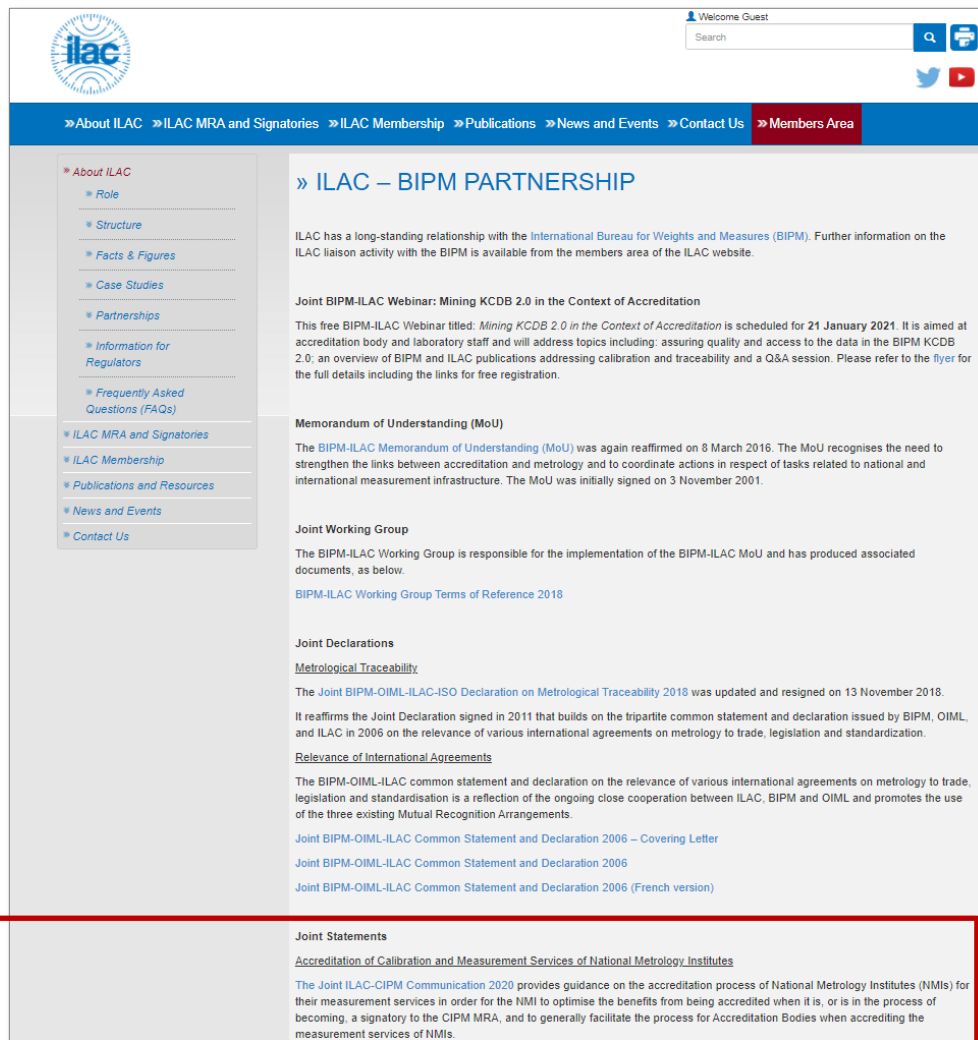
- 2020: Joint ILAC-CIPM communication regarding the accreditation of calibration and measurement services of national metrology institutes
- 2018: BIPM, OIML, ILAC and ISO: Joint declaration on metrological traceability
- 2012: Joint ILAC-CIPM communication regarding the accreditation of calibration and measurement services of national metrology institutes
- 2011: BIPM, OIML, ILAC and ISO: Joint declaration on metrological traceability
- 2007: Definition of CMCs
- 2006: BIPM, OIML, ILAC: Common statement and declaration on the relevance of various international agreements on metrology to trade, legislation and standardization
- 2005: Joint statement by the CIPM and ILAC on improving world-wide traceability and acceptance of measurements carried out within the CIPM MRA and the ILAC arrangement



Where to find

ILAC website

<https://ilac.org/about-ilac/partnerships/international-partners/bipm/>



ILAC – BIPM PARTNERSHIP

ILAC has a long-standing relationship with the [International Bureau for Weights and Measures \(BIPM\)](#). Further information on the ILAC liaison activity with the BIPM is available from the members area of the ILAC website.

Joint BIPM-ILAC Webinar: Mining KCDB 2.0 in the Context of Accreditation

This free BIPM-ILAC Webinar titled: *Mining KCDB 2.0 in the Context of Accreditation* is scheduled for **21 January 2021**. It is aimed at accreditation body and laboratory staff and will address topics including: assuring quality and access to the data in the BIPM KCDB 2.0, an overview of BIPM and ILAC publications addressing calibration and traceability and a Q&A session. Please refer to the [flyer](#) for the full details including the links for free registration.

Memorandum of Understanding (MoU)

The [BIPM-ILAC Memorandum of Understanding \(MoU\)](#) was again reaffirmed on 8 March 2016. The MoU recognises the need to strengthen the links between accreditation and metrology and to coordinate actions in respect of tasks related to national and international measurement infrastructure. The MoU was initially signed on 3 November 2001.

Joint Working Group

The BIPM-ILAC Working Group is responsible for the implementation of the BIPM-ILAC MoU and has produced associated documents, as below:

[BIPM-ILAC Working Group Terms of Reference 2018](#)

Joint Declarations

[Metrological Traceability](#)

The [Joint BIPM-OIML-ILAC-ISO Declaration on Metrological Traceability 2018](#) was updated and resigned on 13 November 2018. It reaffirms the Joint Declaration signed in 2011 that builds on the tripartite common statement and declaration issued by BIPM, OIML, and ILAC in 2006 on the relevance of various international agreements on metrology to trade, legislation and standardization.

[Relevance of International Agreements](#)

The BIPM-OIML-ILAC common statement and declaration on the relevance of various international agreements on metrology to trade, legislation and standardisation is a reflection of the ongoing close cooperation between ILAC, BIPM and OIML and promotes the use of the three existing Mutual Recognition Arrangements.

[Joint BIPM-OIML-ILAC Common Statement and Declaration 2006 – Covering Letter](#)

[Joint BIPM-OIML-ILAC Common Statement and Declaration 2006](#)

[Joint BIPM-OIML-ILAC Common Statement and Declaration 2006 \(French version\)](#)

Joint Statements

[Accreditation of Calibration and Measurement Services of National Metrology Institutes](#)

The [Joint ILAC-CIPM Communication 2020](#) provides guidance on the accreditation process of National Metrology Institutes (NMIs) for their measurement services in order for the NMI to optimise the benefits from being accredited when it is, or is in the process of becoming, a signatory to the CIPM MRA, and to generally facilitate the process for Accreditation Bodies when accrediting the measurement services of NMIs.

At the regional level, for example

From the text...

*“Regional
accreditation bodies
should co-operate
with the RMO...”*

For details please contact
the AFRAC Secretariat:
nonhlanhlah@sanas.co.za



At the national level, for example

From the text...

*“The AB and NMI
should collaborate
and agree on the
reporting...”*

For details please
contact DANAK:
danak@danak.dk

AKKREDITERINGSMEDDELELSE for laboratorier



Accreditation of a Danish Metrology Institute (MI)

Nr.	:	AML K 03
Dato	:	2016.12.21
Side	:	1/3

1. Objective/Purpose

The objective of this AML is to clarify how the Danish metrology institutes (MIs) can benefit from the accreditation system and how DANAK can support the participation of the MI in the CIPM MRA (The Mutual recognition arrangement of the International Committee for Weights and Measures). The Metrology Institutes (MI's) consist of the Danish *National Metrology Institute* and the *Designated Institutes* that have signed the CIPM MRA. This AML was written by a joint working group with members from Daniamet and DANAK.

2. Background

The Co-operation between BIPM (The International Bureau of Weights and Measures) and ILAC (the International Laboratory Accreditation Cooperation) has during the past years increased the mutual understanding of the processes within the MRA of CIPM and within accreditation. In 2007 BIPM and ILAC published "CALIBRATION AND MEASUREMENT CAPABILITIES", A paper by the joint BIPM/ILAC working group" in which it is made clear that BMC (the best measurement capability) and CMC (the calibration and measurement capability) are identical. This document is today an informative annex to ILAC P14 ILAC Policy for uncertainty in Calibration.

Thank you