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INTERNATIONAL DES
POIDS ET MESURES**



**ORGANISATION
INTERNATIONALE DE
METROLOGIE LEGALE**



**INTERNATIONAL
LABORATORY
ACCREDITATION
COOPERATION**

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***COMMON STATEMENT AND DECLARATION BY BIPM, OIML AND ILAC ON THE
RELEVANCE OF VARIOUS INTERNATIONAL AGREEMENTS ON METROLOGY TO
TRADE, LEGISLATION AND STANDARDISATION.***

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1. EXECUTIVE SUMMARY

The International Bureau of Weights and Measures (BIPM), the International Organization for Legal Metrology (OIML) and the International Laboratory Accreditation Cooperation (ILAC) work closely together in order to promote a world-wide metrology system.

This common statement describes the missions of each of the three organizations and their complementary, but mutual supportive, work. It also highlights the importance of their Mutual Recognition Arrangements to underpin the unified world-wide metrology system for industry, commerce and world-wide trade. The statement specifically invites Governments and other Authorities to endorse and commit themselves to use the appropriate Arrangements whenever possible.

2. PREAMBLE

2.1 Trade fuels economic growth in developed as well as developing nations. Measurements play an essential role in developing confidence between trading partners and in demonstrating that goods comply with written specifications and legal requirements; a process which involves making comparable or equivalent measurements in different countries. Any lack of acceptance by regulatory or other trade-related authorities in an importing country of the measurements made in an exporting country can become a technical barrier to trade.

2.2 The organisations named in this document are all involved in various forms of mutual recognition arrangements which seek to facilitate the mutual acceptance of measurements used in, for example, the industrial, environmental, medical and food sectors.

2.3 The International Bureau of Weights and Measures (BIPM) is an intergovernmental organisation, financed by Governments from over seventy countries which represent over 90%¹ of world trade. The BIPM undertakes scientific work which relates to commonly agreed measurement standards (the international system of units, the SI) at the highest level and the traceability of measurements to these standards. This activity is part of what is commonly known as metrology (the science of measurement). The BIPM operates within the Metre Convention, a diplomatic treaty established in 1875 and works with National Metrology Institutes (NMIs) worldwide. These NMIs hold the highest- level measurement standards at a national level and disseminate them, through calibration services, to lower level national users in the scientific, industrial, commercial, and public sectors. BIPM has established a Mutual Recognition Arrangement (known as the CIPM MRA) within which all signatories agree to recognise each others' national measurement standards and calibration and measurement certificates. The CIPM MRA ensures that, at a national and international level, any differences between the highest level national measurements standards are known and recorded in a database maintained by the BIPM which is openly accessible (kcdb.bipm.org).

2.4 The International Organisation of Legal Metrology (OIML) is an intergovernmental organisation under an International Convention signed in 1955. Its main responsibilities cover mutual information in legal metrology, harmonization of legal metrology regulations, development of mutual confidence and recognitions in this field and support to the development of legal metrology; in particular, in Developing Countries.

¹ Source, KPMG consulting, 2001. For the text of the report, see www.bipm.org

OIML Recommendations (model technical regulations) and Documents or Guides (informative documents) are international standards as defined in the WTO TBT Agreement, and are best practice in many industrial and other sectors. They require evidence of traceability to the measurement standards of the SI.

The OIML has set up a voluntary System of Certificates of Conformity for measuring instruments with regard to the OIML Recommendations and is implementing a Mutual Acceptance Arrangement (MAA) within which Declarations of Mutual Confidence (DoMCs) will be signed for different categories of measuring instruments. Test results issued in this Certificate System by signatories of a DoMC which demonstrate conformity with OIML Recommendations will be accepted and utilised by the other signatories.

In addition, the OIML is studying further acceptance and/or recognition systems for the assessment of prepackages content and for results of bulk measurements, thus facilitating international trade.

2.5 The International Laboratory Accreditation Cooperation (ILAC) is an international association of nationally recognized accreditation bodies largely concerned with appropriate harmonisation of the work of accreditation bodies who service about 25 000 accredited calibration and testing laboratories, around the globe. The accredited laboratories operate in the commercial sector and public sectors and in most cases, do not require the highest level of measurement accuracy but do require evidence of technical competence and traceability to the SI. ILAC Full Members and Associates in 58 economies assess and accredit the performance of these laboratories and other organisations to the generic requirements of ISO/IEC 17025 or similar internationally accepted written standards in specific sectors, like ISO 15189 for clinical laboratories. In order to facilitate acceptance internationally of tests and measurements performed in this accredited sector, those members who are signatories to the ILAC Mutual Recognition Arrangement recognise, as equivalent, the test and measurement certificates generated by the laboratories accredited by each signatory.

2.6 The work of the three bodies is complementary. The infrastructure for metrology in a country comprises a National Metrology Institute which maintains and disseminates traceability to the SI through calibrations and other services. The national networks of accredited and other calibration laboratories then make use of the national traceability framework to perform other measurements and calibrations which can then also demonstrate SI traceability. The national Legal Metrology system/infrastructure makes use of this and of legal infrastructures to demonstrate conformity with regulatory requirements. The ILAC signatory (i.e. ILAC full member) accreditation bodies use an appropriate written standard to assess the technical and managerial competence of laboratories, e.g. to ISO/IEC 17025.

Metrology, accreditation and legal metrology therefore form three key elements of what is increasingly recognised by many international and intergovernmental bodies as an essential infrastructure for national and international consistency of measurement in relation to agreed written standards and for compliance with the requirements of the World Trade Organisation. The BIPM, the ILAC and the OIML collaborate closely with the International Standardisation Organisation (ISO) and the International Electrotechnical Commission (IEC), which are largely responsible for international activity concerned with written or documentary standards and which draw their membership from national standardisation bodies

2.7. All three bodies have a common interest in, and responsibility for, its end use by industry, commerce, science and the trade or regulatory communities. To summarise, the world measurement system (WMS) is, in essence, a combination of:

- comparable national standards, demonstrably traceable to the SI and their realization and maintenance at the NMI level and validated through the CIPM MRA;
- effective national traceability and measurement systems in which measurements are traceable to these national standards, at whatever level of accuracy is appropriate to the user. This is generally through a network of technically competent calibration and testing laboratories accredited to ISO/IEC 17025 or other appropriate documents such as ISO Guide 34 for reference material production, by a Nationally recognized Accreditation Body (NAB) which is a signatory to the ILAC Arrangement;
- similar arrangements through organisations responsible for legal metrology at a national level and which largely require national legal metrology laboratories to be accredited as testing laboratories to the appropriate ISO standards; and
- internationally recognised specifications, written standards and regulatory requirements.

3. BASIS FOR THIS DECLARATION

3.1 At its 22nd meeting, the General Conference on Weights and Measures (CGPM), voted the Resolution annexed to this document and invited the International Committee for Weights and Measures (CIPM) which has responsibility for the work of the BIPM:

" to prepare a declaration on the importance and application of the CIPM MRA in trade, commerce and regulatory affairs, and to bring it to the attention of the Governments of the Metre Convention with the recommendation that the principles of the CIPM MRA be included in intergovernmental agreements as appropriate."

The CGPM Resolution also noted a range of economic and other benefits which flow from the CIPM MRA and encouraged Governments to promote it.

3.2 At its meeting in October 2004, the CIPM noted the activities of the ILAC and the OIML in relation to the CGPM Resolution. It therefore asked the BIPM to collaborate with ILAC and OIML in preparation of a declaration on the importance of using all three Mutual Recognition Arrangements by Governments and trade or related bodies. The present document and associated declaration is the result of this collaboration.

3.3 In the following declaration, the three organisations invite Governments, Regulatory Authorities, Regional and International Trade or Economic groups and other bodies, to commit themselves to use the appropriate Arrangements whenever possible. From a user point of view, the key benefit from such a commitment is the assurance that any measurement made within this system has been made by a body whose technical competence and capabilities have been reviewed, nationally, regionally and internationally, by appropriate technical peers. As a result, these measurements can be accepted with full confidence by the signatories to the Arrangements. No higher technical authority exists. Organisations which use measurements made by signatory bodies can have full confidence in their accuracy and their traceability to the fundamental units of science and engineering in a very wide range of application areas and that they meet the measurement requirements in appropriate written standards and applicable legislation and regulation.

4. DECLARATION

In accordance with Resolution 6 of the 22nd General Conference of Weights and Measures (CGPM), the International Committee for Weights and Measures (CIPM), the International Organisation of Legal Metrology (OIML), and the International Laboratory Accreditation Cooperation (ILAC):

invite Governments to endorse, and declare their commitment to use and refer to organisations which are signatories to the CIPM MRA, the OIML MAA and the ILAC Arrangement, wherever measurements are required as evidence of compliance with legislation, regulation or the pursuit of human well-being at a national and international level.

The three bodies further:

invite standardisation organisations, regulatory and trade bodies to note the existence and value of the Arrangements set out in this document, and to collaborate with the three organisations so as to develop ways and means of referring to, promoting, and using the Arrangements in their work.

ANNEX 1

Extract from the minutes of the 22nd General Conference on Weights and Measures (October 2003)

Resolution 6.

On the importance of the CIPM Mutual Recognition Arrangement

The 22nd General Conference,

noting

- the positive social and economic impact, including the lowering of costs in non-tariff barriers to trade that are expected to follow from adoption by regulators and legislators of the CIPM Mutual Recognition Arrangement (CIPM MRA),
- the effect of the CIPM MRA in building mutual confidence between trading partners,
- the interest already created with certain regulatory authorities, trade organizations and national authorities,
- the use of the CIPM MRA, for example, in facilitating the European Union/United States trade agreement,
- that the credibility of the CIPM MRA is based upon a secure technical foundation, namely, the key comparisons, quality systems and other measures to ensure quality,
- that the CIPM MRA has been signed with the approval of the appropriate official authorities in each country,

welcomes the interest shown by these bodies, and

invites

- all Member States to promote the CIPM MRA among their national regulatory, accreditation and standardization bodies as a framework for acceptance of calibration and measurement certificates from national metrology institutes (NMIs) and designated institutes as well as from accredited laboratories that can demonstrate traceability to the International System of Units through standards realized by the signatory NMIs and designated institutes,
- the International Committee to prepare a declaration on the importance and application of the CIPM MRA in trade, commerce and regulatory affairs, and to bring it to the attention of the Governments of the Metre Convention with the recommendation that the principles of the CIPM MRA be included in intergovernmental agreements as appropriate,

encourages the International Committee to take all possible steps to increase the number of signatories of the CIPM MRA representing NMIs and other designated institutes that form part of the metrological infrastructure of the Members States of the Metre Convention and the Associates of the General Conference.