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## 6.1 OIML Certificate System for Measuring Instruments

### 1 ESTABLISHMENT AND EVOLUTION OF THE SYSTEM

The OIML Certificate System for Measuring Instruments was launched on 1st January 1991 with the aim of facilitating, accelerating and harmonizing the work of national or regional bodies that approve patterns of measuring instruments. The first certificate was issued in 1992.

A technical advisory group on certification (TAG<sub>cert</sub>) - established by the 29th CIML Meeting - pursued the evolution and prepared proposals on further development of the System. The Tenth International Conference of Legal Metrology (1996) formulated further guidelines and requested the relevant OIML technical bodies, the BIML, national and regional metrology services and other bodies concerned to pursue their efforts aimed at implementing and developing the System, and distributing information concerning national implementation, not forgetting the voluntary recognition and acceptance of OIML Certificates and test results.

The 34<sup>th</sup> CIML Meeting established a new technical body, TC 3/SC 5 *Conformity assessment* with a view to establishing rules and procedures for fostering mutual confidence in and acceptance of the test results of measuring instruments among OIML Members, and as such to continue the activities of the former TAG<sub>cert</sub>.

The Eleventh Conference took note of the developments in line with the decisions of the Tenth Conference and “*confirmed the urgency of establishing a system of mutual recognition of test results associated with OIML certificates*”.

### 2 DEVELOPMENTS SINCE THE ELEVENTH CONFERENCE

Developments and results achieved during the last four-year period are indicated in line with the tasks formulated by the Tenth Conference as follows:

- ***Implementation of the structures and procedures of the OIML Certificate System***

This task has been (and will continue to be) an ongoing activity of all interested parties. The results of inquiries carried out since the Tenth Conference in 2000 and the Eleventh Conference in 2004 indicate a required level of dissemination of information on and promotion of the System, an increasing number of Issuing Authorities and Certificates issued as well as an increasing voluntary acceptance of type evaluation test results and Certificates.

- ***Development and revision of OIML Recommendations for use within the System***

As a result of the efforts made by TCs/SCs, the number of new and revised OIML Recommendations applicable within the System has increased from 30 in 2000 to reach the present number of 44.

- ***Extension of the System's application to modules of instruments and to individual instruments***

Some of the Recommendations (e.g. R 76, R 60 and recently R 49) already contain elements and provisions for the modular and family approach. The revised Basic Document B 3 *OIML Certificate System for Measuring Instruments* (Edition 2003) includes provisions for modules and families of measuring instruments. Now it is an important task for TCs/SCs to implement these provisions when developing new or revising existing Recommendations.

In addition, the implementation of the MAA will certainly lead to the revision of B 3 in the near future.

The extension of the System to the certification of individual instruments is the next action to be carried out, based on the expected success of the MAA implementation.

- ***To conduct surveys on the implementation and operation of the System***

One inquiry among Member States and Corresponding Members and one among manufacturers were carried out this year and the results are summarized in Annexes 2 and 3.

Replies to the *Questionnaire on the implementation of the OIML Certificate System and the MAA* were received from only 26 Member States and 5 Corresponding Members (see Annex 2).

Although in 7 Member States it is not legally possible to accept OIML Certificates, 18 Member States indicated their possibility to convert OIML Certificates issued by a certain number (varying from one to all) of Issuing Authorities in other countries.

From the replies it can be stated that the voluntary utilization of OIML Certificates for issuing National Type Approvals has been increasing during the last period. 11 Member States indicated that they had issued over 330 NTAs for 11 categories of measuring instruments utilizing OIML Certificates.

As for the implementation of the MAA, 14 Member States indicated their readiness to participate in DoMCs (mainly for R 76, R 60 and R 117-R 118) and 10 Member States will decide later on their participation.

Replies to the *Questionnaire for manufacturers/applicants on the OIML Certificate System and the MAA* received from 48 manufacturers - (15 % of those 328) that have received and used Certificates - can be regarded and evaluated as a statistical sample (see Summary in Annex 3).

These replies show a fairly good level of manufacturers' satisfaction (between 60 and 80 %, in some cases even 90 %) as far as obtaining, using and acceptance of Certificates, as well as expectations towards the implementation of the MAA are concerned .

Manufacturers that replied indicated that over 190 Certificates were accepted by 10 Member States and 3 Corresponding Members to replace national type evaluation and more than 260

Certificates were taken into consideration by 18 Member States and 4 Corresponding Members during the last four-year period.

The main conclusions drawn from these inquiries are:

- The Certificate System and the acceptance of Certificates and/or test results have been evolving well by themselves on a voluntary basis;
- Results achieved and further developments, especially in the direction of the MAA implementation, are encouraged both by the manufacturers and OIML Members, however for the successful implementation of the MAA much effort will be necessary on the part of all interested parties in the near future.

- ***Establishment of criteria for the development of recognition agreements of OIML Certificates and test results***

High priority was given to the development and publication of the documents *Framework for a Mutual Acceptance Arrangement on OIML Type Evaluations (MAA)* and the *Checklists for Issuing Authorities and Testing Laboratories carrying out OIML Type Evaluations*, which provide the framework and criteria for the international acceptance of type evaluation test reports, and on confidence building between the interested parties.

This year priority was given to the preliminary actions for the implementation of the MAA (information to be given under Item 6.2).

- ***To coordinate the development of the OIML Certificate System with relevant activities performed by international and regional organizations concerned with testing, certification, conformity assessment, accreditation and related subjects***

The OIML had established and has been keeping regular close contacts and co-operation in this field with International Organizations such as ILAC, IAF, ISO (CASCO), WTO (TBT Committee) and UN/ECE (Working party on Technical Harmonization and Standardization Policies).

Developments in conformity assessment, certification, and accreditation activities of these international bodies have been followed up and studied by TC 3/SC 5 and the BIML with a view to their application within the Certificate System and in establishing the MAA.

### **3 PRESENT CHARACTERISTICS OF THE OIML CERTIFICATE SYSTEM**

- As at 5 October 2004, a total of 1287 Certificates (671 in September 2000) have been issued and registered in compliance with the following 14 Recommendations R 31, R 50, R 51, R 60, R 61, R 76, R 85, R 106, R107, R 115, R 117/118, R 126 and R 129) (see Annex 1);
- 44 OIML Recommendations (30 in 2000) are presently applicable within the System for 42 categories of measuring instruments (including the recently published R 48, R 135 and R 49);
- Over 330 manufacturers and applicants of measuring instruments (209 in 2000) from 38 countries (31 in 2000) have been granted OIML Certificates. The “top five” countries are: 56 manufacturers/applicants from DE, 36 from GB, 29 from US and 25 from NL;
- 29 Issuing Authorities (23 in 2000) in 26 Member States (20 in 2000) have been established and 20 of them (15 in 2000) have already issued OIML Certificates;
- R 61 (2004) is the second revised Recommendation (after R 60 (2000)) that was already applicable within the System since its publication in 1996. Certificates issued against the former version may soon be revised as soon as the document on transformation requirements is approved and published.
- 27 projects are being drafted by 16 OIML technical bodies aimed at developing, revising or completing OIML Recommendations - including new provisions for families and modules of measuring instruments - for extended use in the System;
- A new Database on the Certificate System with several search facilities and regularly updated information has recently been uploaded onto the OIML web site. Extension of this Database (e.g. further search facilities, PDF files of registered Certificates, etc.) is an ongoing activity of the BIML;
- The problem of the relatively low number of categories (at present 11 categories) for which (at least 8) Certificates have been issued compared with the number of categories applicable within the System (at present 42 categories) still persists and this fact can be a limiting factor in the implementation of the MAA. However in the category of utility meters the imminent application of R 49 and of R 75 within the System, and in about two years the application the revised R 46, R 117-R 118 and R 6-R 31-R 32 will certainly improve the situation.