

5 LEGAL METROLOGY AND THE METRE CONVENTION

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One can say that OIML was established initially in 1937 because the First International Conference on Practical Metrology which had been convened that year by the French government had created a Provisional Committee of Legal Metrology instead of the intended Permanent International Consultative Committee for Practical Metrology acting as an advisory body to the CGPM (Conférence Générale des Poids et Mesures). This was the proof that at that time it was considered appropriate to create a new international body, independent from the Metre Convention, to deal with legal metrology. This new body was in fact finally established in 1955 and in 2005 we will celebrate the fifty-year anniversary of the establishment of the OIML.

Some years ago (March 1995) there was a proposal from the French government to study the possibility to merge the two intergovernmental metrology bodies which are located in or close to the same city, Paris. After long discussions, it was decided that a merger was not appropriate (at least for the time being) but that regular contacts between the two organizations should exist. A joint Metre Convention/OIML working group was established and meets every year in February. This group has recently been enlarged in order to associate ILAC.

The participants in the Metre Convention activities are the National Metrology Institutes (NMIs) with a main focus on national measurement standards. For legal metrology, these national measurement standards are important but not at the first place because legal metrology is related to other activities. Therefore, the participants in the activities of the two intergovernmental metrology bodies are quite different, with the exception or perhaps five or six countries for which the representatives on the OIML are the Directors (or their Deputies) of NMIs. I suppose that it is quite clear that the two organizations have different and well defined fields of activities. In addition, I would like to repeat my opinion that metrology is not only the science of measurements: it also includes specific activities related with measurements, this second aspect of the definition of metrology being closed to our legal metrology activities which include type approval testing and verification, as well as procedures related with metrological supervision and control.

The Metre Convention bodies (including the International Committee of Weights and Measures of which I am a Member) are mainly responsible for the highest level of accuracy and for the traceability at the level of the national measurement standards whereas legal metrology is close to the measuring instruments, their usage and the requirements applying to such instruments. In fact there is a gap between matters of traceability and matters of usage of measuring instruments with no specific international body responsible for this part of metrology. So I suppose that this gap is covered by bodies which are not explicitly related to metrology, e.g. bodies which are close to standardization, certification, accreditation, etc., which means that step by step we are losing our metrological position in this field. Sometimes we are trying to say that type approval testing is some type of conformity assessment, and that verification is not a

very important procedure because it is close to calibration or may be it is some type of certification. This is a dangerous situation for us which is not acceptable.

Some years ago, Prof. Kind who was at that time President of the International Committee of Weights and Measures, had made a classification of our activities with the following three groups of activities: measurement standards, measurement related regulations, and applications by users. The widely recognized need for quality of products and services is more close to the application by users. The classical scheme has several parts:

- NMIs, which are responsible for establishing and maintaining national measurement standards, for disseminating the size of these units, and for acting as centers for expertise in measurements.
- Calibration networks, calibration laboratories and laboratory accreditation.
- Regulations and specifications, including governmental regulations, legal metrology, and voluntary and regulatory standards.
- Users of metrology (including metrological information, measuring instruments, etc.): these are manufacturers and other industries, bodies involved in trade and commerce, health and safety, environmental protection, science, communication, transportation, enforcement of government regulations, production and distribution of energy, military services, etc.

For certain of these activities there exist international bodies: the Metre Convention bodies for units and calibration, including the CIPM MRA; ILAC is active for laboratory accreditation, the OIML for type testing and verification laboratories, etc. However it is not clear where the responsibilities of NMIs stop. It is possible for the OIML to be between the NMIs and the users of metrology since this field of work may be empty in many countries and since it involves regional bodies with which the OIML has good relations. The OIML should increase its membership so that all UN countries participate, directly or indirectly, in its activities. This could be achieved through an increased participation of regional organizations in the OIML so that the OIML might increase its influence on all over the world.

When comparing the situation of the OIML and that of the Metre Convention in relation with certain trends of our modern world, in my opinion the OIML is in a better position especially with regards to relation with WTO since the OIML has a status of observer the WTO. Therefore, the OIML is more close to the UN family, more close to WTO and more close to practical life. It seems to me that it is not possible to envisage, even in the future, a merger between the two international metrology organizations since both have very well defined and clear responsibilities. However, it is necessary that the OIML activity fills the gap, at the international level, between users of metrology, thus establishing a worldwide measurement system.