

REPORT

2nd South American Congress of Metrology - METROSUL '99 (9–11 August 1999)

The Second METROSUL '99 South American Metrology Congress took place from 9–11 August 1999 near the Iquazu Falls, Brazil, jointly organized by the metrology organizations of the South Cone and promoted by the Brazilian Society of Metrology, a technical metrology organization comprising some 1300 Brazilian metrologists and major companies dedicated to metrology in Brazil.

The event was attended by some 320 experts from 12 countries, particularly South Cone countries, and was organized in conjunction with manufacturers of measuring instruments. The agenda covered 18 metrological topics of special interest and discussions dealt with the current problems of metrology throughout the world. An exhibition was also organized.

The main goal of METROSUL '99 was to bring together scientific and business communities to discuss the impact of metrology on social and economic developments, thus promoting and spreading the metrological culture. Other goals were:

- to promote the establishment of an organized link between the business community and the institutions of testing, calibration, quality and technological development;
- to bring together business people and technicians in order to develop and disseminate knowledge of metrology;
- to promote contacts between Brazilian and foreign specialists.

Within the framework of a panel discussion together with Brazilian metrologists, CIML President Mr. Gerard Faber and Vice-president Dr. Manfred Kochsiek discussed legal metrology questions of worldwide interest, emphasizing the significance of directives and OIML Recommendations for manufacturers and technicians from Brazilian inspection and verification laboratories. They presented a joint lecture on the *Conditions and Potential of Legal Metrology at the Dawn of the 21st Century*, consisting of three parts:

- an overview of metrology in general, its development and its challenges;

- a description of the OIML, its structure, aims and development; and
- an analysis of the main challenges for legal metrology at the dawn of the next century, in line with the Birkeland Study and discussions within and outside the OIML.

Members of the Inter-American Metrology System (SIM) Council, representing the five SIM sub-regions (covering 34 national metrology institutes) and including its President and Vice-president, joined in a round table to discuss the new challenges and consequences of the MRA for commerce in the Americas; this MRA is due to be signed* on the occasion of the 21st CGPM in Paris in October. By the Agreement, the equivalence of national standards and calibration certificates issued by national metrology laboratories will be documented. Ms. Maguelonne Chambon (BNM, France, and executive secretary of EUROMET) also took part in the panel to include the viewpoint of European national metrology organizations.

Other important meetings were held in conjunction with the annual Brazil Congress:

- (i) General Assembly of the Brazilian Society of Metrology;
- (ii) Special courses related to ISO Guide 25 and the Expression of Uncertainty in Chemical Measurements; and
- (iii) Presentation of the book *Standards and Units of Measurement...*

In order to express the recognition of the Brazilian metrology community for the personal contributions of Dr. Manfred Kochsiek and the PTB to the development and strengthening of Brazilian metrology, the Brazilian Society of Metrology presented him with a commemorative plaque in a public plenary session (see photo).

An initial meeting for the implementation of the National Metrology Plan, recently approved by eight ministries of the Brazilian Government, was also held. On the basis of this plan a new metrological policy for Brazil will be initiated.

Conditions and Potential of Legal Metrology at the Dawn of the 21st Century

*Summary of the presentation given by
G. Faber and M. Kochsiek*

No other period has brought about so many changes in technical and economical development as the last 20 years. In this development communication and metrology play a significant role.

Legal metrology is confronted with a wide range of changes in technology and trade, with the tremendous impact of globalization and the role governments are playing in this development.

Metrology - and legal metrology in particular - is as old as mankind and its development is closely related to the development of the standard of living, culture, science, technology and trade.

Today's development began with the signing of the Metre Convention in May 1875 and now the aim of metrology is a global measurement system with the same units of measurement, requirements, measuring procedures including uncertainty budget, and certificates which are accepted throughout the world.

New challenges for metrology and its infrastructure in general were discussed (analytical chemistry, nano-technology, quality management principles, information technology, the social role of metrology, medical measuring techniques, mutual acceptance of standards, key comparisons, accreditation, self-declaration, etc.).

After discussions in 1937 concerning the foundation of an International Conference of Practical and Legal Metrology, the OIML was set up in 1955. Up to now, legal metrology especially covers the areas of trade, health, safety issues, environmental protection and official controls.

To summarize the role of legal metrology, one may say that legal metrology remains the most efficient tool to protect individuals and society as a whole whenever incorrect measurement results may effect their economic or social status or when conflicting interests are associated with measurements.

The structure, aims and development of the OIML were described; in recent years all the international, regional and national metrology organizations have discussed and planned their strategies for the next century.

Following the discussions of the OIML Presidential Council in February 1999 and the Birkeland Study of 1998 nine items are of special importance in legal metrology at the dawn of the 21st century:

- Globalization, harmonization;
- OIML Certificate System;
- Mutual confidence in legal metrology;
- Regionalization;
- Training;
- Modernization of legislation and administration systems;
- Deregulation, privatization;
- Requirements for software and its testing; and
- Social role of metrology. ■

* At the time of writing this account, the CGPM had not yet taken place



Prof. Dr. Kochsiek is presented with an award by the President of the Brazilian Society of Metrology, Prof. Mauricio Frota