Introduction

Today’s legal metrology is quite different from what it was some twenty years ago, both at national and at international levels. However, this evolution is accelerating and has to be anticipated both by legal metrology authorities as well as by manufacturers of measuring instruments, and of course by the OIML.

Legal metrology is, in fact, facing multiple developments:

- Globalization of economies and international trade,
- Free circulation of products,
- Geopolitical changes,
- The emergence of regional structures and simultaneously the fragmentation of countries or decentralization,
- Liberalization,
- Privatization and redefinition of the role of the State,
- Citizens’ demand for better health and environmental protection,
- The possibility of measuring increasingly numerous aspects of everyday life,
- The considerable technological progress of measuring instruments, rapid development in information technologies and in the issues concerning security of information systems,
- And many more.

A number of countries are revising their law on metrology, reorganizing their legal metrology structures, reconsidering the scope of legal metrological control, and studying technical regulations adapted to new technologies. Such projects will determine the orientation of legal metrology for the coming decades and must be based on a long term perspective.

The OIML has developed a “Long Term Action Plan” with the objective of monitoring its activities for the next five years. A five-year term is indeed within the reach of most of those in charge of legal metrology services, but does not provide enough perspectives for the fundamental evolutions of legal metrology.

This Seminar was the opportunity for those in charge of legal metrology and industry to meet, step back from the “day to day” issues of legal metrology, and focus on the real long term views, 2020 being far enough away for participants to “disconnect” from today’s constraints, but close enough to have a realistic view of the future.

The event was held in conjunction with the 37th CIML Meeting and was open to all interested specialists from legal metrology services and industry.
# Presentations

1. **General introduction to the Seminar** ................................................................. 7  
   G. Faber (CIML President)

2. **The role of metrology in the cognitive society** .................................................. 11  
   T. Gaudin (Perspective 2100, France)

3. **Trends in legal metrology towards a global measurement system** ...................... 15  
   M. Kochsiek (CIML Vice-President, PTB, Germany)

4. **How will the development of regional authorities and local authorities affect intergovernmental organizations such as the OIML?**  
   J.F. Magaña (BIML Director)

5. **Legal metrology and the Metre Convention** ...................................................... 29  
   L.K. Issaev (CIML Second Vice-President, Deputy Director, VNIIMS, Russian Federation)

6. **Pattern approval and pattern compliance in an age of globalization - The Australian approach**  
   J. Bennett and A. Caster (NSC, Australia)

7. **The face of legal metrology in South Africa and its possible influence in Africa supporting the New Program for African Development (NEPAD)**  
   S. Carstens (SABS, South Africa)

8. **Legal metrology in 2020 - Role of governments of Africa's developing countries**  
   J.D. Mosima (Department of Prices and Metrology, Cameroon)

9. **Desirable legal metrology framework for the APLMF** ........................................ 67  
   A. Ooiwa (APLMF President, NMIJ, Japan)

10. **Perspectives for China’s legal metrology** ...................................................... 73  
    Li Dai, Zhou Yuangen (Jiangxi Province Bureau of Quality Technical Supervision, China)

11. **Legal metrology tendencies in the Russian Federation** ................................... 81  
    A. Astachenkov (Director General, VNIIMS, Russian Federation)  
    (presented by V. Mardin, VNIIMS)

12. **Issues and trends in legal metrology from a U.S. perspective**  
    C. Ehrlich (CIML Member, Weights and Measures Division, NIST, USA  
    and H. Oppermann, Chief of the Weights and Measures Division, NIST)

13. **The expanding scope of legal metrology and the changing role of the state in a globalization world**  
    J. Birch (Honorary CIML Member, Australia)

14. **Towards total approach in legal metrology** .................................................. 95  
    B. Vaucher (CIML Member, Deputy Director, METAS, Switzerland)

15. **New methods of intervention of the state and new tasks for legal metrology officers**  
    G. Lagauterie (SDM, France)

16. **Metrology in a global market** ................................................................. 113  
    P. Van Breugel (NMi-Certin, The Netherlands)
17 The pattern approval process: the past, the present, the future, ........................................................... 117
   as seen by U.S. instrument manufacturers
   D. Tonini, D. Flocken (US Weighing Instruments Manufacturers Association)

18 Change of the consumer protection in legal metrology as a ............................................................. 123
   result of new technologies
   W. Schulz (WELMEC Vice-President, PTB, Germany)

19 Measuring instruments invisibly connected......................................................................................... 133
   W. Volmer (NMi, The Netherlands)

20 Measuring instrument technology and customer and contractor .......................................................... 137
   of legal metrology in mid 21st century
   M. Tanaka (CIML Member, Deputy Director, NMI, Japan)

21 Progress and our genius for compromise ......................................................................................... 143
   M. Birdseye (NWML, United Kingdom)

22 Opportunities and future trends in legal metrology control of measuring instruments .................... 151
   (S. Chappell, Honorary CIML Member, USA)

Conclusions ............................................................................................................................................... 157
Note from the Editor concerning this transcript

The BIML contracted a local company to record the Seminar proceedings on audio cassette, including the question and answer sessions.

Unfortunately, the company concerned did not accomplish this task in a professional manner and as a result, parts of certain presentations and discussions were not recorded and can therefore not be transcribed in this report.

The BIML apologizes for this incident, which as readers will appreciate, was out of our control and the problem was only discovered after the event was over.

... and a Personal Note from the Editor

The Editor would like to express his most sincere thanks to Mr. Bernard Athané for his work in transcribing certain of these presentations from the audio cassettes and for ensuring that all the remaining texts were submitted on time by the Authors. His commitment and assistance are very much appreciated.

CP

Opening

The Seminar was organized and chaired by Mr. Bernard Athané, former BIML Director, who welcomed participants and then briefly explained the aims of the event and the way in which he intended to chair it. He then gave the floor to Mr. Gerard Faber, CIML President, for a more detailed introduction.