

WELMEC 1
Issue 5

WELMEC

European cooperation in legal metrology

WELMEC – An Introduction



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WELMEC is a co-operation between the legal metrology services of the Member States of the European Union and EFTA. This document is the introduction to WELMEC.

WELMEC is publishing a number of Guides to provide guidance to manufacturers of measuring instruments and to notified bodies responsible for conformity assessment of their products. The Guides are purely advisory and do not themselves impose any restrictions or additional technical requirements beyond those contained in relevant EC Directives. Alternative approaches may be acceptable, but the guidance provided in these documents are representing the considered view of WELMEC as to the best practice to be followed.

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WELMEC

European cooperation in legal metrology

Introduction

WELMEC is the European cooperation in the field of legal metrology. Its Members are representative national authorities responsible for legal metrology in European Union and European Free Trade Association (EFTA) member states.

WELMEC was created by the signing of a Memorandum of Understanding (MoU) at a meeting in Bern in June 1990. Eighteen countries in the European Community and EFTA signed the original MoU, which set out objectives and tasks for WELMEC and identified rights and obligations arising from membership. Since 1990, several countries have joined WELMEC as Associate Members, one of a number of developments not foreseen when WELMEC was formed. To reflect these changes, and following extensive discussion during 1998 and 1999, a number of amendments to the MoU were agreed by the WELMEC Committee at its meeting in Warsaw in September 1999.

In May 2004 the ten new EU member countries Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia signed the MoU during the 20th Committee meeting in Casta-Papiernicka, Slovakia. In 2005 during the 21st Committee meeting in Edinburgh, Turkey was unanimously accepted as Associate Member and a year later Croatia was welcomed. In 2007 Romania and Bulgaria became Full Members due to their change of status in the European Union.

The MoU is of an exclusively recommendatory nature, however, and does not in any way bind its signatories. WELMEC remains a free cooperation in which agreement is sought on a range of issues of mutual interest and wide importance. The full text of the MoU is given in Annex 1 and the signatories are listed in Annex 2.

Objectives

The principal aim of WELMEC is to establish a harmonised and consistent approach to European legal metrology in the light of a number of important developments:

- accumulated experience of the operation of the Non-automatic Weighing Instruments Directive (90/384/EEC);
- supporting the implementation and operation of the Measuring Instruments Directive
- the progress of applicant countries towards EU membership;
- increasing international trade in measuring instruments and measured goods;
- the different coverage of legal metrology in various countries.

To support this aim, the following objectives are listed in the WELMEC Memorandum of Understanding:

- (i) to develop and maintain mutual confidence between legal metrology services in Europe;
- (ii) to achieve and maintain the equivalence and harmonisation of legal metrology activities taking into account the relevant guidelines;
- (iii) to identify any special features of legal metrology which need to be reflected in the European metrology, certification and testing framework;
- (iv) to organise the exchange of information for legal metrology applied at national and local level;
- (v) to identify, and promote the removal of, technical or administrative barriers to trade in the field of measuring instruments;
- (vi) to promote consistency of interpretation and application of normative documents and propose actions to facilitate implementation;

- (vii) to identify specific technical problems which might form the subject of collaborative projects;
- (viii) to maintain working links with all relevant bodies and promote the infrastructure relating to harmonisation of legal metrology;
- (ix) to debate trends and establish criteria for the scope of legal metrology and maintain channels for a continuous flow of knowledge.

The WELMEC Committee

The WELMEC Committee is the central controlling and decision-taking forum in the cooperation. It consists of delegates from Member and Associate Member authorities, representatives of the European Commission and the EFTA Secretariat, and observers from other regional and international metrology organisations. It meets at least once a year. A small group provides advice to the Chairperson on strategic matters, while the WELMEC Working Groups meet regularly to discuss a range of important subjects and make recommendations to the Committee.

The Committee elects a Chairperson and Vice-Chairperson for a period of three years (with the possibility of one re-election). The body which the Chairperson represents normally supplies the secretariat for WELMEC, preparing papers for Committee meetings and handling correspondence with other interested bodies.

Working Groups

The current activities of WELMEC are particularly focused on the operation of the Non-automatic Weighing Instruments Directive and on the implementation and operation of the Measuring Instruments Directive. With this in view, WELMEC currently operates the following Working Groups:

WG 2	Directive Implementation (90/384/EEC) (Secretariat: United Kingdom)
WG 4	General Aspects of legal metrology (Secretariat: Norway)
WG 5	Metrological supervision (Joint Secretariat: United Kingdom & Sweden)
WG 6	Prepackages (Secretariat: Netherlands)
WG 7	Software (Secretariat: Germany)
WG 8	The Measuring Instruments Directive (Secretariat: France)
WG 10	Measuring equipment for liquids other than water (Secretariat: Netherlands)
WG 11	Utility meters (Secretariat: Germany)
	ad hoc WG for information exchange (Secretariat: Germany)

Links with the European Commission

In developing a strategy to achieve its declared objectives, WELMEC has forged a close link with the European Commission.

During the 20th Meeting of the WELMEC Committee the European Commission acknowledged that through WELMEC national authorities have set up an effective networking system, active in a number of fields that are directly relevant for the implementation of the MID. Therefore, in organising work at the level of the Commission services, WELMEC will be taken into consideration as effective means of cooperation between Commission and national authorities in the field of legal metrology.

There are a number of areas where such cooperation can take place, such as

- market surveillance
- cooperation regarding conformity assessment, including the operation of Notified Bodies
- identification of relevant OIML documents
- development of guidance documents
- the wider area of administrative cooperation

So good communication with the European Commission is very important, and WELMEC is likely to work increasingly closer with the Commission in the future.

Links with other bodies

In developing a strategy to achieve its declared objectives, WELMEC has forged in addition close links with other bodies interested in metrology, certification and testing: the European Free Trade Association (EFTA) secretariat, the International Organisation of Legal Metrology (OIML), the European cooperation for Accreditation (EA), and EUROMET.

WELMEC has also links to legal metrology cooperative organisations in other regions, which are invited to send observers to meetings of the Committee. Information is regularly exchanged on topics of mutual interest and direct links are being established within OIML. In addition to other regional cooperations with an interest in legal metrology, WELMEC particularly welcomes close contacts with European trade associations representing manufacturers of measuring instruments.

WELMEC activities

The 1992 Strategy Document proposed a five-pronged strategy for WELMEC with ongoing activity in a number of fields. The need for a harmonised technical approach in a more increasing technical environment, the introduction of new legislation, the evaluation of existing harmonised legislation in the field of legal metrology and the improved competitive situation on the worldwide level since 1992, have led WELMEC to consider a number of alternatives for the future with the aim of

maintaining and extending effective harmonisation of the implementation of directives, the enforcement of legal metrology legislation, and the certification of measuring instruments. The evaluation of the strategic aims in 2003 has led to a strategic plan with the following aims:

1. to assist in the harmonised implementation and enforcement of metrology regulation in Europe including the problems arising out of market surveillance responsibilities
2. to consider the implications of the Measuring Instruments Directive and its impact on consumer protection and fair trading, with a view to encouraging harmonised application and identifying potential difficulties and propose solutions
3. the continuing development and improvement of channels of communication among the members of WELMEC and with other regional and international bodies having an interest in European metrology
4. to provide the means for the exchange of information
5. the development of mutual confidence through participation in common activities, including meetings, visits, technical intercomparisons and the preparation of reports and other documents of an advisory nature
6. close cooperation with the European Commission responsible for metrology and consumer protection in relation to community policies, the harmonisation of laws including research and development for the legal metrology infrastructure
7. to take into account the problems related to measuring instruments in use (lifetime, maximum permissible errors, appropriate for the use and for the user), the accuracy classes (sufficiently correct for the intended use) and the need for information concerning users and repairers
8. ensuring the availability of adequate resources for WELMEC's work for the above aims to be achieved
9. to facilitate type approval activities in the non-harmonised area
10. to support new members of the European Union in the field of legal metrology and to give applicant countries the necessary information to establish the harmonised and consistent approach in their own country.
11. to support the coordination of notified bodies
12. to support the developments in the field of pre-packages

13. to get actively involved in the New Approach Review Process
14. to be the Administrative Cooperation in the field of NAWI and the MID

The WELMEC Type Approval Agreement

In 1993, the WELMEC Committee decided to seek to reduce barriers to trade in measuring instruments by preparing an agreement which would remove the need for multiple type approval testing against various national legal requirements. Following extensive discussion, the WELMEC Committee considered that OIML Recommendations could form the basis of a recognition agreement for type approvals within Europe. This agreement consists of a clear declaration on the part of the signatories of their firm intention to accept conformity with an OIML Recommendation as the basis for a national type approval with little or no further examination where the instrument has already been granted approval in another signatory country. The full text of the agreement appears in the publication WELMEC 9.

Publications

WELMEC has published a number of important information and guidance documents. These are listed in Annex 3 and they are all available on the WELMEC website (www.welmec.org).

The future

After many years of consultation and negotiation, now the Measuring Instruments Directive becomes a reality. By the 30th of April 2006 the national transposition had to be finalised and as of the 30th of October 2006 the MID applies.

Preparation for this major change in the conformity certification of measuring instruments and the need to address the issues, which will arise on implementation, will mean that the next years will be very busy ones for WELMEC. There will continue to be plenty of opportunities for WELMEC to demonstrate its effectiveness as the forum for cooperation in European legal metrology. It may also play a significant part in

facilitating notified body coordination and market surveillance activities, as well as initiating cooperation in technical projects, training, and consultancy. WELMEC will also continue to extend and deepen its links with other bodies with an interest in legal metrology.

Annex 1: WELMEC Memorandum of Understanding

(As amended and agreed on 24 September 1999)

SECTION 1 - CONSTITUTION

(A) The Members of WELMEC (the European cooperation in legal metrology) are the representative national legal metrology authorities (in European Union and EFTA member States) on behalf of whom this Memorandum of Understanding has been signed. They declare their common intention to participate in the work and activities of WELMEC.

(A1) National legal metrology authorities in those countries which are in transition to membership of the European Union may become Associate Members of WELMEC, subject to criteria established by the WELMEC Committee.

(B) The WELMEC Committee is charged with ensuring that specific tasks are pursued in accordance with the objectives of WELMEC. The Committee consists of:

- one Delegate representing each of the Member and Associate Member authorities;
- representatives of the European Commission and the European Free Trade Association (EFTA) Secretariat;
- observers from
 - EUROMET;
 - the European cooperation for Accreditation (EA);
 - the Organisation Internationale de Métrologie Légale (OIML); and
 - other regional cooperations with an interest in legal metrology.

Each Delegate, with the agreement of the Chairman, may be accompanied at Committee meetings by one or more observers. The Chairman may also invite observers from other appropriate organisations.

(C) The WELMEC Committee shall meet at least once each year. The Committee shall decide its own rules of procedure. The Committee shall elect its Chairman and Vice-Chairman from its Member Delegates for a period of three years. The Chairman and Vice-Chairman may be re-elected for one further period of three years. The authority of which the Chairperson is a delegate may, if it so wishes, appoint an additional delegate to WELMEC Committee meetings.

(C1) The WELMEC Secretariat is responsible for carrying out or monitoring (as appropriate) the decisions of the Committee. The authority of which the Chairman is a delegate will normally supply the Secretariat. The Committee may approve alternative arrangements for the maintenance of a Secretariat following a recommendation from the Chairman.

(D) An authority on behalf of whom this Memorandum has been signed may invite other relevant bodies from its country to participate in the activities of WELMEC and shall monitor their participation.

(E) WELMEC also recognises European trade associations (of manufacturers or users of measuring instruments) as Corresponding Organisations. These organisations are kept informed of all WELMEC discussions, decisions, and activities, but are not entitled to attend WELMEC Committee meetings.

SECTION 2 - OBJECTIVES

(A) (i) to develop and maintain mutual confidence between legal metrology services in Europe,

(ii) to achieve and maintain the equivalence and harmonisation of legal metrology activities taking into account the relevant guidelines,

(iii) to identify any special features of legal metrology which need to be reflected in the European metrology, certification and testing framework,

- (iv) to organise the exchange of information for legal metrology applied at national and local level,
- (v) to identify, and promote the removal of, technical or administrative barriers to trade in the field of measuring instruments,
- (vi) to promote consistency of interpretation and application of normative documents and propose actions to facilitate implementation,
- (vii) to identify specific technical problems which might form the subject of collaborative projects,
- (viii) to maintain working links with all relevant bodies and promote the infrastructure relating to harmonisation of legal metrology,
- (ix) to debate trends and establish criteria for the scope of legal metrology and maintain channels for a continuous flow of knowledge.

SECTION 3- RIGHTS

In order to achieve the objectives of WELMEC, each Member and Associate Member shall have the following rights:

- (A) to request information on the operation of the other participating authorities,
- (B) to participate in expert working group meetings organised on behalf of WELMEC (only representatives of full Members may chair Working Groups),
- (C) to participate in WELMEC interlaboratory test comparisons and if appropriate to organise such exercises,
- (D) to request reports and results of pattern evaluation, compliance assessment and verification relating to measuring instruments.

SECTION 4 - OBLIGATIONS

Each Member and Associate Member commits itself to the pursuance of the objectives of WELMEC. In particular the obligations of each of these authorities are:

- (A) to make available to other participants in WELMEC activities on reasonable request its current non-confidential working documents, details of new improvements introduced and its annual report,
- (B) to promote the acceptance of recognised styles of certificate:
- (C) to preserve the confidentiality of type approval reports, test results, and other confidential information supplied by another Member or Associate Member.

SECTION 5 - VALIDITY OF MEMORANDUM OF UNDERSTANDING

- (A) The Memorandum of Understanding shall immediately come into operation. It shall remain open for signature on behalf of national legal metrology authorities of other states within the European Union and the European Free Trade Association.
- (B) This Memorandum of Understanding may be amended at any time by arrangement between the Members, subject to there being dissent by no more than one fourth of them.
- (C) If an authority on behalf of whom this Memorandum has been signed, for any reason whatever, intends to terminate its participation in this Memorandum of Understanding, the authority shall notify the Chairman of the WELMEC Committee of its intention not later than three months beforehand.
- (D) This Memorandum of Understanding is of an exclusively recommendatory nature. It does not create any binding legal effect on the authorities on behalf of whom this Memorandum has been signed.

Annex 2: Signatories of the WELMEC Memorandum of Understanding

Austria	Bundesamt für Eich- und Vermessungswesen, Vienna
Belgium	Administration of Quality and Security, Brussels
Bulgaria	State Agency for Metrology and Technical Surveillance, Sofia
Cyprus	Ministry of Commerce, Industry and Tourism of the Republic of Cyprus, Lefkosia
Czech Republic	Czech Office for Standards, Metrology and Testing, Prague
Denmark	Danish Agency for Trade and Industry, Copenhagen
Estonia	Technical Inspectorate of Estonia, Tallinn
Finland	Safety Technology Authority, Helsinki
France	Sous-direction de la Métrologie, Paris
Germany	Physikalisch-Technische Bundesanstalt, Braunschweig
Greece	Ministry of Development, Athens
Hungary	Országos Mérésügyi Hivatal, Budapest
Iceland	Löggildingarstofa, Reykjavik
Ireland	Legal Metrology Service, National Standards Authority of Ireland, Dublin
Italy	Ministero industria e commercio, Rome
Latvia	Latvian National Metrology Center, Riga
Lithuania	State Metrology Service, Vilnius
Luxembourg	Direction des Contributions Directes et des Accises, Luxembourg
Malta	Malta Standards Authority, Valletta
Netherlands	Ministry of Economic Affairs, Den Haag
Norway	Norwegian Metrology and Accreditation Service, Oslo
Poland	Główny Urząd Miar, Warsaw
Portugal	Instituto Portugues da Qualidade, Lisbon
Romania	The Romanian Bureau of Legal Metrology, Bucharest
Slovakia	Slovak Office of Standards, Metrology and Testing, Bratislava
Slovenia	Metrology Institute of the Republic of Slovenia, Ljubljana
Spain	Centro Español de Metrologia, Madrid
Sweden	SWEDAC, Borås
Switzerland	Swiss Federal Office of Metrology, Wabern

United Kingdom National Weights & Measures Laboratory, Teddington

Annex 2a: Associate Members of WELMEC

Turkey Ministry of Industry and Trade, Ankara

Croatia **State Office of Metrology**

Annex 3: WELMEC Publications

WELMEC 1	An Introduction to WELMEC
WELMEC 2	Directive 90/384/EEC: Common Application
WELMEC 2.1	Guide for Testing Indicators
WELMEC 2.2	Guide for Testing Point of Sale Devices
WELMEC 2.3	Guide for Examining Software
WELMEC 2.4	Guide for Load Cells
WELMEC 2.5	Modular Approach and Testing of PCs and Digital Peripheral Devices
WELMEC 2.6	Guide for the Testing of Automatic Catchweighing Instruments
WELMEC 2.7	Directive 90/384/EEC - Explanation and Interpretation
WELMEC 4.1	Guide for Notified Bodies performing Conformity Assessment of Measuring Instruments
WELMEC 4.2	Elements for Deciding the Appropriate Level of Confidence in Regulating Measurements
WELMEC 5.1	European Directory of Legal Metrology
WELMEC 5.2	Guide on Market Surveillance
WELMEC 6.0	Introduction to WELMEC Documents on e-marked Prepackages
WELMEC 6.1	Application of Directives 75/106/EEC and 76/211/EEC concerning the Marking and Quantity Control of e-marked Prepackages. Definition of Terms.

WELMEC 6.2	Application of Directives 75/106/EEC and 76/211/EEC concerning the Marking and Quantity Control of e-marked Prepackages. Translation of Terms.
WELMEC 6.3	Guidance for the Harmonised Implementation of Council Directive 76/211/EEC
WELMEC 6.4	Guide for Packers and Importers of e-marked Prepacked Products
WELMEC 6.5	Guidance on Controls by Competent Departments on e-marked Prepackages
WELMEC 6.6	Guide for Recognition of Procedures
WELMEC 6.7	Guidance for Market Control on Prepackages for Competent Departments
WELMEC 6.8	Guidance for the Verification of Drained Weight, Drained Washed Weight and Deglazed Weight and Extent of Filling of Rigid Food Containers
WELMEC 7.1	Information Document on Software Requirements on the Basis of the Measuring Instruments Directive
WELMEC 7.2	Software Guide (Measuring Instruments Directive 2004/22/EC)
WELMEC 8.0	Measuring Instruments Directive 2004/22/EC, Generalities on the Assessment and Operation of Notified Bodies performing Conformity Assessment
WELMEC 8.1	Terms and Definitions in MID and their Relation to Terms Defined in other International Metrologically Relevant Documents
WELMEC 8.2	Measuring Instruments Directive 2004/22/EC Application of Module H1
WELMEC 8.3	Measuring Instruments Directive 2004/22/EC, Application of Module B
WELMEC 8.4	Measuring Instruments Directive 2004/22/EC, Application of Module D
WELMEC 8.5	Measuring Instruments Directive 2004/22/EC, Assessment of Notified Bodies in Charge of Type Examination, Presumption of Conformity based on EN 45 011

WELMEC 8.6	Measuring Instruments Directive 2004/22/EC, Presumption of Conformity of the Quality System of Manufacturers with Module D or H1 when EN ISO 9001:2000 is applied
WEMEC 8.11	Guide for Measuring Instruments Directive 2004/22/EC Water Meters Corresponding Tables OIML R 49 2006 and R 49-2 2004 - MID-001
WELMEC 8.14	Guide for Measuring Instruments Directive 2004/22/EC Heat Meters Corresponding Tables OIML R 75-1 and R75-2 2002 - MID-04
WELMEC 8.15	Guide for Measuring Instruments Directive 2004/22/EC Measuring Systems for Liquids other than Water Corresponding Tables OIML R 117 1995 - MID-005
WELMEC 8.16-1	Guide for Measuring Instruments Directive 2004/22/EC Automatic Catchweighers Corresponding Tables OIML R 51-1 - MID-006 II
WELMEC 8.16-2	Guide for Measuring Instruments Directive 2004/22/EC Automatic Gravimetric Filling Instruments Corresponding Tables OIML R 61-1 2004 - MID-006 III
WELMEC 8.16-3	Guide for Measuring Instruments Directive 2004/22/EC Discontinuous Totalisers Corresponding Tables OIML R 107-1 1997 - MID-006 IV
WELMEC 8.16-4	Guide for Measuring Instruments Directive 2004/22/EC Continuous Totalisers Corresponding Tables OIML R 50-1 1997 - MID-006 V
WELMEC 8.16-5	Guide for Measuring Instruments Directive 2004/22/EC Automatic Rail Weighbridges Corresponding Tables OIML R 106-1 1997 MID-006 VI
WELMEC 8.19-1	Guide for Measuring Instruments Directive 2004/22/EC Length Measuring Instruments Corresponding Tables OIML R 66 1985- MID-009 II

WELMEC 8.19-2	Guide for Measuring Instruments Directive 2004/22/EC Area Measuring Instruments Corresponding Tables OIML R 136-1 2004 - MID-009 III
WELMEC 8.19-3	Guide for Measuring Instruments Directive 2004/22/EC Multidimensional Measuring Instruments Corresponding Tables OIML R 129 2000 - MID-009 IV
WELMEC 8.20	Guide for Measuring Instruments Directive 2004/22/EC Exhaust Gas Analysers Corresponding Tables OIML R 99 2000 - MID-010
WELMEC 9	WELMEC Type Approval Agreement
WELMEC 10.1	Guide for Pattern Examination
WELMEC 10.2	Guide for Metrological Devices for Transferring Measured Quantities (DTMQ) Associated to Bottom Loading Measuring Systems
WELMEC 10.3	Guide for the Use of an Alibi Recording Device (Printer or Memory) in Measuring Systems for Liquids other than Water
WELMEC 10.4	Guide for Testing of Electronic Calculators with Conversion Function and Conversion Devices (Measuring Systems for Liquids other than Water)
WELMEC 10.5	Guide for Common Application of Marking of Fuel Dispensers