COUNTRY INFORMATION OF WELMEC MEMBERS

REPUBLIC OF NORTH MACEDONIA

1. Organizational Structure and Background

Bureau of Metrology (herefurther: BoM) is a legal entity under the umbrella of the Ministry of energy, mining and mineral resources, responsible for implementation of:

- Law on Metrology ("Official Gazette of the Republic of Macedonia" No.55/02 and amendments);
- Law on control of precious metals articles ("Official Gazette of the Republic of Macedonia" No.23/95 and amendments);
- Law of vehicles ("Official Gazette of the Republic of Macedonia" No. 140/08 and amendments) - authority for administrative approval in the procedure of homologation of vehicles

BoM is founded according to the Law on Metrology ("Official Gazette of the Republic of Macedonia" No.55/02) in 2002. The Macedonian Law on Metrology as a harmonized law with the European practice defined technical regulations for operationalisation and management of the metrological infrastructure.

Mission

BoM provide maintain and development of metrological system in the Republic of North Macedonia. Maintain of the metrological system we comprehend as well as realizing and providing the traceability of the SI measurement units and their dissemination to all users in our country, mostly in the fields defined by the Law as to:

- Protecting of the environment and nature
- General technical safety
- Free transfer of knowledge and services
- Procedures before administrative and judicial institutions.

Primary goal of the BoM is to realize the national standards for as many SI units as possible and this will provide traceability in unbreakable chain in the country and abroad and in connection with this goal to continue assignment for their keeping and maintains. The globalization process and the international connection the most important is mutual confident between the national metrology institutes (NMI`s) and acceptance of Certificates, issued from them (calibration, testing and national type approval of measuring instruments). That one of the most important goal is implementation of the certain systems of quality in the Bureau of metrology starting with ISO 17025, along with realization of the national standards is an important step forward in the international recognition of our national standards, calibration reports and results from the measurement, together with domestic infrastructure based on the dispersion model.
Secondary goal (traditional and important) is to provide implementation of the legal metrology system in a high grade (verification of the measuring instruments, metrological and experts review) and certification activities (CA of the measuring instrument and certification of the referent materials), derived from its legal frame. Building partnership based on contracts with the subjects of the metrological infrastructure, define on non-discriminatory ground rights and obligations.

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By realization of the mission it would be achieved and maintain development of the Macedonian economy and industry in the global world trends.

BoM organizational chart:

Until now and in the future, the BoM makes effort to provide efficient services in the shortest period for a reasonable price, which will be concurrent on the International market especially in the region and EU. By transparent working and implementation of the technical regulations, which are according to the legislation of the EU, BoM provides competent and confidence among domestic users and foreign investors, contributed by a simple procedure for acceptance of the certificates evaluated according to EU.

2. Equipment Subject to National Controls with verification periods

The role of Bureau of metrology is to ensure adequate metrological control (conformity assessment, placing on the market and putting into service, periodic and after repairing verification) of measuring instruments, which include the instruments that are subject to national regulation.
The list below contains information for the types of measuring which are subject to legal metrology:

- **Measuring instruments for length**
  - Material measures for length for general use
  - Automatic level gauges for measuring the level of liquids

- **Measuring instruments for volume and flow**
  - Capacity serving measures and measuring bottles
  - Fixed storage tanks
  - Water meters
  - Gas meters
  - Measuring systems for continuous and dynamic measurements of quantities of liquids other than water

- **Measuring instruments for mass**
  - Standard weights
  - Automatic weighing instruments (AWI)
  - Non- Automatic weighing instruments (NAWI)
  - Weighing instruments for road vehicles in motion

- **Measuring instruments for density / concentration**
  - Hydrometers for general and special-purpose
  - Alcoholmeters
  - Refractometers for determination of sugar content in grape must
  - Breath analyzers
  - Measuring instruments for moisture in cereals and oil seeds

- **Electricity measuring instruments**
  - Measuring transformers
  - Electricity meters for active and reactive electrical energy
  - Measuring instruments for resistance (earth resistance, insulation resistance)

- **Other**
  - Measuring instruments for speed of vehicles
  - Taximeters
  - Heat meters

The scope of regulation in relation to the measuring instruments are given by EU Directive MID and EU Directive NAWI, implemented in the Rulebook for measuring instruments ("Official Gazette of the Republic of Macedonia" No. 17/10) and Rulebook for Non-automatic weighing instruments ("Official Gazette of the Republic of Macedonia" No. 142/11). Legally controlled measuring instruments are generally subject to type approval, initial and mandatory subsequent verification (periodic and after repair). All the categories of measuring instruments under the EU Directive MID and EU Directive NAWI are subject to metrology regulation. In non-harmonized regulated field, National legislation was apply based on the EU practices.

3. Markings used in type approval and verifications

According to the National legislation, BoM recognizes EU Type Examination certificates, which were issue in one of the EU Member States. BoM can issue type approval certificates on the national level. BoM is responsible for technical tests and expertise for all the measuring instruments under the legal control. It has its own testing facilities but may use other testing laboratories, mainly accredited ones, to subcontract routine type examination tests. BoM maintains a publicly available National Register of type approvals https://www.bom.gov.mk/verifikacija and publishes a list of type approval certificates in the Macedonian language.
BoM also carries out metrological control of prepackages under the EU old-approach directives (Directive 76/211/EEC, Directive 75/107/EEC).
As regards subsequent verification, BoM verified all measuring instruments as Government body, according to the Law on metrology.

The types and forms of marks and stamps used for the verification of measuring instruments is given in the Annex 1 on the Rulebook on the types and forms of marks and stamps used in

the verification of measuring instruments as well as the content of the certificate for verification of measuring instruments ("Official Gazette of the Republic of Macedonia" No. 53/07) https://www.bom.gov.mk/pravilnici in the Macedonian language.

The English version of the BoM`s web page is under construction and will be ready as soon as possible.