

SEE QI project 1: interlaboratory comparison in small volume

Regional Consultancy Fund for Quality Infrastructure (QI) in South East Europe (SEE)

Main result: Assuring the requirements for International recognition of the services provided by National Metrology Institutes

Duration: January 2019 – December 2019

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Micropipettes awaiting calibration in a laboratory for small volumes

Recently, due to increased demand from medical, testing and pharmaceutical laboratories, one of the fastest growing areas in National Metrology Institutes (NMI) is the area of "small volumes" what includes calibration of laboratory glassware and piston operated apparatus (micropipettes).

The aim of the SEE QI project was to achieve international recognition of the services provided by NMIs of WB6 countries in the area of small volumes. The internationally recognized Calibration and Measurement Capabilities

(CMCs) will assure mutual recognition of the calibration certificates of the WB6 countries and contribute to more intense cross-border collaboration and provision of services.

The project was requested by Albania and Bosnia and Herzegovina, which didn't have the published CMCs in this area. Other WB6 countries were invited, but did not show an interest/need to participate.

To prove the calibration competence of NMI it was necessary to organize an Inter-Laboratory Comparison (ILC) on the level of the European metrology organization (EURAMET) in accordance to the rules set by the International Bureau of Weights and Measures (BIPM). The ILC is registered as [EURAMET Project No. 1484](#).

PTB contracted the Greek NMI (EIM) as pilot laboratory for the organization of this ILC. EIM is one of the most experienced institutes in this particular area. There were two transfer standards: A volumetric flask (100 mL) and Variable Micropipette (1000 μ L) what ensures the recognition of the calibration competences to the participating Institutes in two ranges, micro and millilitres, i.e. publishing two CMC lines in the international database.



Calibration of one-mark volumetric flask

The participating institutes were the NMIs from Albania (DPM) and Bosnia and Herzegovina (IMBIH). Also, the metrology institute from Czech Republic (ČMI) joined the ILC in calibration of volumetric flask, as ILC organized under EURAMET are in principle open for all EURAMET members. Participation of such prominent European institute such ČMI has an important contribution in determination of the reference value, what will be appreciated by the evaluators at the European and international level in the process of approval of CMCs.

The ILC was realized in the second half of 2019 and the Final Report was published in December 2019.

The ILC was a complete success and the achieved results ensure the participating institutes the basis for claim and publish CMC in the area of small volumes, what can be expected during 2020.