

Polish Metrology - 100 years of progress

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Modern state metrology in Poland begins on 8 February 1919, date of a decree creating the Central Office of Measures (GUM). The first two decades of the GUM activity was dedicated mainly to the organization of appropriate structure and unification of various systems of units, a heritage of the period of partition of our country. Less attention was paid to the technological support of the home industry. After the World War II some relation with industry and science was maintained, but in fact a slow and deepening bureaucracy was progressing, even after recovering full sovereignty in 1989.

However, after a period of about ten years of national debate led by Ministry of Economy and Sejm, in 2016 was initiated an important reform of state metrology. A new direction was appointed, a law on measures was revised and a Metrological Council supervising GUM was set up. The main goal was a return to scientific research supporting home industry of advanced technology, and ultimately transforming the Central Office of Measures into a Polish Institute of Metrology.

Since then a number of important tasks were accomplished, among them was setting up eight permanent Working Groups with industry, ten Technical Committees composed of best home and foreign experts for supervising GUM laboratories, four strategic sectors coordinating key industrial, scientific and social challenges. But above all else started creation of external laboratory campus in Kielce, where most advanced metrological research will be carried out.

Concerning research advances, most important were achieved in time metrology, also in cooperation with Lithuanian state time laboratory [1], [2]. Poland contributes already to the time infrastructure of the European Satellite Navigation System GALILEO [3]. Also Poland has developed most advanced network of fiber optic time transfer, and is successfully cooperating in this field with Lithuania. For the „*mise en pratique*” of the new definition of the kilogram Polish industry developed in cooperation with GUM, a vacuum mass comparator.

This presentation will detail above issues, with emphasis put on advanced metrological research for the needs of industry of high technology, and on regional European cooperation especially with Lithuania.

REFERENCES

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