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26.10.2026, 15:31

Strategic analysis of the Polish project of Kibble balance

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[Kibble balance kilogram redefinition strategic analysis](#)

Abstract

The Central Office of Measures, after consultations with Polish industrial and academic environment, decided to create a working team whose main goal is to analyse the purposefulness of constructing the Kibble balance in Poland according to an independent project. This initiative refers directly to the provisions of the BIPM, the aim of which is to definitively move away from the existing mass standard, which is a material artefact, and replace it with a model based on the phenomena of classical and quantum physics. The team pointed out the main arguments for direct involvement in work related to the effects of the kilogram redefinition. The main reason is the obvious conviction that modern metrology is the driving force for the development of the national economy. In addition, Poland, considered as a country that is a leader of Central and Eastern Europe and one of the pillars of the European Union, cannot be left behind highly developed and developing countries on various continents that have already started to develop their own Kibble balances. The strategic analysis of the Polish project includes the choice of the right concept, preparation of an costing estimate and schedule of activities, an indication of the most important technical challenges and potential sources for the project financing as well as outlining the perspectives for the implementation of this project based on domestic industry and international cooperation.

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ISSN 2300-8806

Year 2019

Volume 1

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