Dear Sir or Madam,

We are excited to inform you about an innovative project aiming to revolutionize moisture content measurements in grains and plant-based products. “Metrology for standardized moisture/water content measurements in plant origin bulk materials in support of International and European food safety and trade" (23RPT03 GrainMet) is a project initiated in the framework of the European Partnership in Metrology (EURAMET EPM) research project program and will start in June of 2024. The project is set to span 36 months, culminating in May of 2027, and boasts a consortium comprising national metrology institutes, designated institutes, research companies, universities as well as producer companies from Austria, Czechia, Denmark, Estonia, France, Italy, Moldova, Switzerland, Türkiye and Ukraine.

Moisture content plays an important role in food safety, fair trade, and quality assurance across various industries. It affects the stability of grains and corn during storage and transportation, with excessive moisture leading to spoilage and potential foodborne illnesses. Additionally, too much moisture can lead to the growth of microorganisms as well as mycotoxin formation, posing significant health risks. This project seeks to address the critical need for accurate and fast moisture measurements in grains and other plant-based foods.

Current methods such as loss-on-drying often lack precision and traceability to the International System of Units (SI), leading to inconsistencies in measurements between different institutes. The project aims to develop a volumetric Karl Fischer titration method for measuring water content in plant origin matrices. This method will provide metrologically traceable measurements, with a target uncertainty of ±0.3% absolute, ensuring reliability and accuracy in moisture determination. Additionally, the project seeks to create certified reference materials (CRMs) specifically designed for plant origin bulk materials, used as quality control standards for validating measurement instruments used in laboratories and industries.

The outcomes of the project are expected to have significant impacts across various sectors. Industries involved in handling, processing, and trading plant origin bulk materials will benefit from improved moisture measurements, leading to better raw material management and reduced risk of product spoilage. The metrology and scientific communities will profit from advancements in measurement accuracy, reliability, and traceability, fostering confidence in measurement results and promoting international trade compliance. Long-term impacts include enhancing food safety, facilitating international trade, and promoting resource efficiency, aligning with broader objectives such as the European Green Deal.

The consortium recognizes the importance of engaging stakeholders from diverse backgrounds, including standardisation technical committees, laboratories, industry, academia, instrument manufacturers, and regulatory bodies. We believe that your expertise and insights would greatly contribute to the success of our endeavour. We hereby invite you to consider becoming a stakeholder in the 23RPT03 GrainMet project. This status does not mean any obligations or costs for you, but will give you the opportunity to be informed first about the outcomes of our project. By joining us as a stakeholder, you will have the opportunity to:

* Provide valuable input and feedback on project developments and methodologies taking your needs into account.
* Stay informed about the latest advancements and outcomes in moisture content determination methods.
* Collaborate with other stakeholders to address challenges and explore opportunities in the field of moisture content determination.
* Contribute to the establishment of best practices and standards for the determination of moisture content.

During the Kickoff-meeting for this project a one-day long session specifically dedicated to our stakeholders will be held. The program for this day includes

* In-detail presentation about this project
* Proper selection and use of certified reference materials for method performance evaluation
* Uncertainty calculations for the determination of moisture content in plant based bulk materials
* Discussion for inputs from the stakeholders
* Workshop for the use of volumetric Karl Fischer titration for the determination of moisture content in plant based bulk materials

The meeting is set to take place on the on the 20th of June, 2024 in the facilities of the Czech national metrology institute CMI in Pardubice near Prague. Participation is free of charge, and there will be the possibility to attend via online conference for some parts as well. A participation certificate will be issued to all participants.

Your participation as a stakeholder will not only benefit our project but also enrich the broader community of moisture content determination testing laboratories, researchers and end users. If you are interested in becoming a stakeholder or would like to learn more about our project, please feel free to contact us under zpalkova@cmi.cz or answer directly to this mail, sending the fulfilled table with your contact information.

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| --- | --- |
| **Country** |  |
| **Affiliation** |  |
| **Contact Person** |  |
| **Signature** |  |
| **Address** |  |
| **Telephone number** |  |
| **E-mail address** |  |
| **URL** |  |
| **Participation in the workshop** | No / Yes, in person / Yes, online |

We look forward to your potential involvement and the opportunity to collaborate for the advancement of metrology in moisture content measurements.

Yours sincerely,

The 23RPT03 GrainMet consortium