

Agenda of M27 project meeting

20IND06 PROMETH2O

Metrology for trace water in ultra-pure process gases

21st of September 2023

VENUE: virtual meeting

(10:00 to 18:00)

Time zone: (GMT+02:00) Central European Time - Rome

Google Meet link: <https://meet.google.com/rrq-vxay-eic>

or dial: (IT) +39 02 3041 9425 PIN: 169 811 984#

More phone numbers: <https://tel.meet/rrq-vxay-eic?pin=4578777019834&hs=1>

21 st of September 2023	
10:00 -10:15	Meeting opening and introduction of attendants <i>(Led by the coordinator)</i>
10:15 -12:00	WP1: Improved trace water measurement methods and techniques <i>(Led by WP1 leader)</i> <i>Active partners: DTU, INRIM, MBW, PTB, Qrometric, SUN, TUBITAK</i>
10:15 – 11:15	Update on WP1 activities and status of Deliverable D1 D1 – Report on the recommendation on measurement methods and techniques for trace water measurements in industrial environments in the amount fraction range between 5 parts in 10 ⁶ (5 ppm) and 5 parts in 10 ⁹ (5 ppb) (-65 °C and -105 °C frost point) with relative standard uncertainty between 3 % and 8 %, from upper to lower range, respectively [<i>Partners (Lead in bold): DTU, SUN, MBW, INRIM, TUBITAK, Qrometric; Delivery date: Nov 2023 (M30)</i>]
11:15 – 11:30	Status of Deliverable D2 D2 - Report on the recommendation of transfer standards for a future CIPM comparison in the frost-point temperature range -65 °C to -105 °C (5 ppm to 5 ppb) [<i>Partners: INRIM, PTB, TUBITAK, DTU; Delivery date: May 2024 (M36)</i>]
11:30 – 12:00	Discussion and planning of final activities of WP1 from M27 to M36
12:00-12:45	Lunch Break

12:45 -14:30	WP2: Provision of robust traceability to trace water measurements in real humid gas mixtures (Led by WP2 leader) <i>Active partners: INRIM, CEM, CETIAT, CMI, CNAM, INTA MBW, PTB, UL, UNICAS, UVa, VSL, VTT</i>
12:45 – 13:15	Update on WP2 T2.1 activities and status of Deliverable D3 D3 - Report on the development of primary trace water vapour standards describing the range, the estimated uncertainty and the gas species in which reference values can be generated with a target fraction range from 5 ppm to 5 ppb (-65 °C to -105 °C) with relative standard uncertainty less than 3 % to 8 % in selected gas matrices at pressures up to 1 MPa; (<i>Partners: INRIM, VTT, CMI, INTA, UL, PTB, MBW, VSL, CETIAT; Delivery date: Nov 2023 (M30)</i>)
13:15 – 13:45	Update on T2.2: Measurement of the enhancement factor in selected humid gas mixtures [<i>due date: September 2023 (M27)</i>]
13:45 – 14:15	Update on WP2 T2.3 activities and status of Deliverables D4 and D5 D4 - User guide related with the software tool(s) of a web-based application to estimate the enhancement factor and uncertainty in water vapour in N ₂ , Ar and H ₂ in the temperature range between -30 °C and -90 °C and pressure range from 0.1 MPa to above 1 MPa (<i>Partners: UNICAS, VTT; Delivery date: Nov 2023 (M30)</i>) D5 - Report on the development and validation of correlation equations for the enhancement of water vapour in N ₂ , Ar and H ₂ in the temperature range from -30 °C to -90 °C and at pressures from 0.1 MPa to above 1 MPa: <i>VTT, CNAM, CETIAT, CMI, VSL, UL, INTA, CEM, UVa, UNICAS; Delivery date: Jan 2024 (M32)</i>
14:15 – 14:30	Discussion and planning of final activities of WP2 from M27 to M36
14:30 -16:00	WP3 Demonstration at industrial test beds and facilitation of end-user uptake (Led by WP3 leader) <i>Active partners: VSL, DTU, INRIM, MBW, Nippon Gases, Qrometric, UL, Vaisala</i>
14:30 – 14:45	Status of protocols in T3.1: Inventory of stakeholder needs and protocols for the demonstrations at the test beds (M13 – M27)
14:45 – 15:15	Update on Testbed 1 planning and status of Deliverable D6 D6 - Report on a) the delivery of a tested toolkit of metrological solutions at an equipment developer to provide measurement traceability in the field with a target of improved trace water measurement methods between 5 ppm and 5 ppb and b) discussion with stakeholder needs on the compliance and lessons learned (<i>Partners: Qrometric, UL, MBW, INRIM, Vaisala, VSL; Delivery date: Feb 2024 (M33)</i>)
15:15 – 15:45	Update on Testbed 2 planning and status of Deliverable D7 D7 - Report on assessing the production quality of bulk and specialty gases at a specialty gas company facility to demonstrate improved trace water measurement methods between 5 ppm and 5 ppb in an industrially relevant facility (<i>Partners: Nippon Gases, INRIM, VSL, DTU, Vaisala; Delivery date: May 2024 (M36)</i>)
15:45 – 16:00	Discussion and planning of final activities of WP3 from M27 to M36, in WP3

16:00-16:30	Coffee Break
16:30-17:15	WP4: Creating impact (Led by WP4 leader) Active partners: CETIAT , all partners
16:30 – 16:45	Update on T4.1: Knowledge transfer (e.g., the status of the open access publications to scientific journals, as well as the joint publications), (M1-M36)
16:45 – 17:00	Discussions on T4.2: Training and workshop (M33-M36) Programme of PROMETH2O workshop at Gas Analysis 2024, Paris, on 30 January 2024
17:00 – 17:15	Report on T4.3: Uptake and exploitation (e.g., the status of the calibration services for hygrometers down to -100 °C in N ₂ , Ar or air) (M1-M36) and Update on D8 - Evidence of contributions to or influence on new or improved international guides, recommendations, and standards with a focus on selected committees. [Partners: CETIAT , all partners; Delivery date: May 2024 (M36)]
17:15-18:00	WP5: Management and coordination (Led by the coordinator) Active partners: All
	M27 project reporting and deadlines (update of documents useful for the M27 Interim Report: Publishable Summary, Technical report (progress), Output & Impact report)
	Risk management, delays, amendments to the protocol
	Discussions on the final project meeting (M36)
18:00	Meeting closure

Responsibility:

Project coordinator (Vito Fericola)

WP1 leader (AF = Alexander Fateev)

WP2 leader (RC = Rugiada Cuccaro)

WP3 leader (SP = Stefan Persijn)

WP4 leader (EG = Eric Georgin)