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DIRECTORATE-GENERAL FOR RESEARCH & INNOVATION

Directorate E – Prosperity
E.3 – Industrial Transformation

Brussels, 13 March 2024

European Partnership on Metrology (EPM) 5th Steering Group meeting

DATE: 13 MARCH 2024, 09:30-12:30

PLACE: DG RTD PREMISES ORBN, 1040 BRUSSELS/BELGIUM AND REMOTE CONNECTION
VIA MICROSOFT TEAMS

Participants:

AMIHALACHIOAE Cornelia (Member, EFFRA), online
CHAMBON Maguelonne (Observer, European Partnership on Metrology Chair, LNE), in-person
COBBAERT Christa (Member, Leiden University Medical centre), online
DIDERICH Michael (Member, Clean Hydrogen JU) online
DEL CAMPO Dolores (Observer, EURAMET Chairperson elected, CEM), online
DRÖLL Peter (Co-Chair, Director of the Prosperity Directorate EC DG RTD), in-person
GANESH Ashok (Member, CEN-CENELEC), in-person
GIGASE Yves, (Member, Chips JU), in-person
GÜNES Minna (Member, Aalto University), online
IMKAMP Dietrich (Member, ZEISS), online
KOLIBOVÁ Natália (Co-chair, Czech Office for Standard, Metrology and Testing), online
LINDBERG Mans (Observer, Policy Officer E3, EC DG RTD), in-person
MASCALCHI Edoardo (Observer, Policy Officer E3, EC RTD), in-person
MERIMAA Mikko (Observer, EURAMET, General Secretary and Programme Manager), in-person
PINTO SEPPÄ Isabel (Member, B4P), in-person
RASTELLO Maria Luisa (Member, CIPM), online
SKLIAROV Volodymyr (Member, NSC-IM), online
STENGER Jörn (Member, EURAMET Chairperson), online
TARASOVA Oksana (Member, WMO), online
TIEDJE Jürgen (Observer, Head of Unit E3, EC DG RTD), in-person

Minutes

Peter Dröll (European Commission, DG RTD) and Natália Kolibová (Czech Office for Standard, Metrology and Testing) welcomed the meeting participants. The meeting agenda was approved. Maguelonne Chambon (LNE/EURAMET) asked to give a presentation on standardisation activities run by EURAMET at the end of the meeting. Members have been informed that the minutes of the last meeting have been shared for comments before 15/01/2024. No comments have been received; The minutes have been approved.

New Developments with EURAMET

Jörn Stenger (EURAMET) updated the meeting participants about new developments in EURAMET, in particular:

- EURAMET organised an open consultation workshop on regulation on 23/10/2023. EURAMET considers the event successful with many participants involved in different sessions. EC was invited to give a keynote speech during the introduction. The collected inputs will be used to draft Orientation Papers for the calls 2024. EURAMET will organise other similar events addressing other topics (e.g. Energy);
- EURAMET has been involved in the preparation of the EC Workshop on the Future of Metrology (23/11/2023) and the EC Workshop with the EMNs (28/02/2024);
- EURAMET organised events to support Ukraine. The scope of the meetings was to inform Ukrainian metrology institutes about necessary steps for their full integration into EURAMET;
- The White Paper from EURAMET presented at the last steering group meeting has been revised. It now includes the inputs received during the Workshop on the Future of Metrology on 23/11/2023. The paper is published in the EURAMET website ([link](#));
- EURAMET signed a Memorandum of Understanding with CEN, CENELEC, EA, and WELMEC establishing the European Quality Infrastructure Network on ???. The MoU pursues the following objectives:
 - Co-organizing awareness and capacity building events for stakeholders, including governments and the EC;
 - Offering joint seminars and training courses on topics linked to Quality Infrastructure;
 - Increasing the visibility of each other's services and activities among the respective networks;
 - Supporting each other's training activities;
 - Exchanging documents, specific information, and access to general information;
 - Carrying out joint meetings to address matters of common interest; and
 - Representing the European Quality Infrastructure.

Maguelonne Chambon (EURAMET) presented the latest developments on the European Partnership on Metrology:

- It has been confirmed that EURAMET received a letter from UK National Metrology Institutes (NPL) indicating the official application to join the European Partnership on Metrology as of 2024. CH, RS and GR expressed an intention but they did not officially apply so far;
- Calls 2023 of the Partnership address:

- Fundamental Metrology, Industry, Normative, Research Potential and one Coordination and Support Action on capacity building;
- External coordination (e.g. from another entity other than a National Metrology Institute or a Designated Institute) open for Fundamental and Capacity Building;
- Joint Research Projects (JRPs) and Coordination and Support Actions (CSAs) which have been selected for funding by the Partnership Committee in November 2023;
- The grant agreement preparation phase for the awarded projects is ongoing and projects are supposed to start in Spring/Summer 2024.
- Calls 2024 of the Partnership:
 - The Topical Programmes of the 2024 call address: Green Deal, Digital Transformation, Normative, Research Potential and a Coordination and Support Action on Communication and Impact.
 - Digital Transformation and Research Potential are open to external coordinators;
 - Stage 1 has been launched on 10/01/2024 and closed 19/02/2024.
 - In Stage 1, applicants submit suggestion for topics (Potential Research Topics - PRTs).
 - Any person in the public is allowed to suggest a topic;
 - Topics' suggestions are influenced by the so-called Orientation Papers, developed by the EURAMET EMNs and Technical Committees, Standards developing organizations (e.g. the STAR-EMPIR platform with CEN-CENELEC), and the Steering Group;
 - 56 PRTs have been proposed for Green Deal, 21 PRTs for Normative, 14 PRTs for Research Potential and 15 PRTs for Digital Transformation. The PRTs are evaluated by the sub-committees. More statistics about the PRTs and who submitted them will be indicated in the annual report of the Partnership;
 - The PRTs will be evaluated by the sub-committees of the European Partnership on Metrology, following the criteria listed in the Work Programme (which is approved by the Partnership and endorsed by the EC);
 - Stage 2 is expected to open on 26/06/2024 and to close on 30/09/2024.
 - During Stage 2, applicants submit the 60 pages proposal for the selected PRTs (called Selected Research Topics – SRTs);
 - The 2024 Review Conference will be held in November in Belgium. In the Conference, the Referees (e.g. external experts on a field) will review and rank the proposals;
 - Projects eligible for funding will be awarded in the ranked order up to the funding available. Result of the call will be communicated in early January after ethics check;
 - The budget of the Topical Programmes is indicated in the annual Work Programme but, during the analysis of the ranked lists, the Partnership Committee can slightly review the allocation of funding between the Topical Programmes;
 - More information on the Calls can be found in the Partnership's website ([link](#)).

Mikko Merimaa (EURAMET) remarked that the bottom-up approach of the calls of the European Partnership on Metrology facilitate a quick uptake of potential research

needs that can be submitted and transformed in a project in a limited amount of time. This would be quite unique in Horizon Europe.

Upon request of the Steering Group, more detailed statistics on the PRTs are included in the minutes of this meeting as an annex (*Annex 1 - Statistics on PRTs*).

Draft Work Programme 2025 – Presentation of draft calls scopes and Discussion

Peter Dröll opened the discussion by summarising the contribution of the EPM Steering Group to the Work Programme 2024:

- An Orientation Paper has been drafted in the EPM Steering Group. It expresses research needs in areas like radiation, quantum, climate and hydrogen as well as manufacturing;
- The discussions in the EPM Steering Group led the Partnership to open the coordination of calls Fundamental and Normative to externals for calls 2023 to others than NMIs;
- After a strong encouragement from the EPM Steering Group, EURAMET organised a Workshop/Open Consultation on metrology for regulation (focusing on the Green Deal).

Maguelonne Chambon presented the draft call scopes for the WP2025 for the Partnership.

The following comments have been collected for each call scope (replies from EURAMET are also mentioned after the comment):

HEALTH:

- **Christa Cobbaert (Leiden University Medical centre) - Comment sent in the chat**
Lack of / inadequate test standardization is confusing doctors and harming patients. Standardization and metrological traceability within allowable limits of medical tests results should be pushed forward and should be considered as a STRATEGIC essential point to be included as much as feasible at market entry of tests. Both at the level of IVD-industry and end-users in medical laboratories. IFCC SD can be a catalyst as > 40000 end-users can motivate IVD-industry to work jointly on this key requirement for making medical test results exchangeable and sustainable in time and space. Scalability and affordability are key in health care too. We still suffer from suboptimal methods also because of cost issues. Metrology should not make healthcare more costly but there is ROI if tests are first time right.
- **Ives Gigase (Chips JU) – Use of AI for e.g. image analysis. Is this considered?**
The call scopes mention digital technologies which also implies the use of Artificial Intelligence. Synergies with the Chips JU could be built for this.
- **Tarasova Oksana (WMO) - Is there anything you can add to your call about exposure?**
This will be discussed for potential consideration.
- **Christa Cobbaert (Leiden University Medical centre) – End Users in the laboratory medicine experience that, even if reference measurements services are developed, it is hard to have them adopted and implemented.**

Knowledge and training are lacking. Is there room for collaboration with all stakeholders of the traceability chain.

Stakeholders should be involved as soon as possible in the projects, and this should be well reflected in the call scope.

- **Dietrich Imkamp (ZEISS) – Industry developed a lot of knowledge over the years about Metrology. The new generations are losing such knowledge. There is a lack of training in industry regarding Metrology.**

Peter Dröll highlighted the importance of the EU Academies for the development of skills. These are established under the European Institute of Innovation and Technologies and its KICs (Knowledge and Innovation Communities). The EC can facilitate contacts between EURAMET and the European Institute of Innovation and Technology, if more information are needed. More information can also be found here - <https://academy.europa.eu/>

INTEGRATED EUROPEAN METROLOGY:

- **Peter Dröll (European Commission, DG RTD) – In the call scopes there is a reference to research infrastructures, what about technology infrastructures? It would be relevant to have them included here.**

This will be considered in the future discussions in EURAMET.

Note – A virtual meeting to better clarify to EURAMET the DG RTD Dir. E (Unit E1) activities on Technology Infrastructures has been organised on 25/04/2025.

- **Dietrich Imkamp (ZEISS) – Do you have examples on potential proposals for such a call scopes?**

The Metrology Partnership call "Integrated European Metrology" aims to foster collaboration among European metrology institutes and stakeholders to address complex metrology challenges that require integrated approaches. Examples of projects funded under this call:

- Transportable optical clocks for key comparisons: Developing travelling standards for high-performance optical clock comparisons
- Dissemination of the redefined kelvin: Implementing primary thermometry in European industry
- Primary spectrometric thermometry for gases: Improving temperature measurements for gases using spectroscopy
- Metrology for quantum-based traceability of the pascal: Novel quantum-based technique can help provide faster and more accurate pressure measurements
- New calibration standards and methods for radiometry and photometry after phaseout of incandescent lamps: Developing new light measurement methods and standards to meet the phaseout of incandescent lamps
- Self-calibrating photodiodes for UV and exploitation of induced junction technology: Improving self-calibrating photodiode standards for environmental monitoring and European industry
- Integrated European research, calibration and testing infrastructure for fibre-optic thermometry: Developing metrology for fibre-optic thermometers to support accurate temperature measurements in industry

METROLOGY SUPPORT FOR REGULATION:

- **Jürgen Tiedje (European Commission, DG RTD) – How to ensure consistency in the PRTs (against the mentioned regulations e.g. AI Act, Net Zero Industry Act, etc.) with the bottom-up approach of the Partnership?**

The Open Consultation Workshops that EURAMET intends to organise in the next months will be instrumental to gather relevant inputs from stakeholders, including industry. EURAMET also established a Working Group tasked with the post-processing of the inputs collected in such events to draft orientation papers out of them. The orientation papers will be a support to applicants of PRTs to get guidance. The suggestion will be taken into account in the organization of such Open Consultation Workshops.

The next Open Consultation Workshops are:

- Energy – 24/06/2024
- Health – Sept. 2024
- Food – Oct. 2024
- Radiation Protection and Chemicals – Nov. 2024

- **Jörn Stenger (EURAMET Chairperson) - An important aspect that it is important to not forget is de-regulation.**
- **Dietrich Imkamp (ZEISS) – The importance of technology neutrality should also not be forgot.**

RESEARCH POTENTIAL:

- **Cornelia Amihalachioae (EFFRA) – This comment is valid also for the two previous calls. From the perspective of the Manufacturing Industry, the management of data and its quality are extremely relevant. Robust data management and skilled personnel is key and interoperability will be also important. We recognize a lack of standards governing the use of advanced metrology in manufacturing and this affects the quality of data.**

This will be take into account.

- **Tarasova Oksana (WMO) – This call is opportunity to have new measurement techniques being developed. Unfortunately, many times these new techniques are not cost-effective. Can you please mention in the call scope the possibility to have higher quality metrology but at a lower price (e.g. cost-effectiveness – scalability)? This is fundamental for GHG measurements.**

The problem is well recognised but it might not be in the scope for the Research Potential call. We could mention this in other calls as we believe it is an important aspect. The metrology community can help having a lower cost.

- **Peter Dröll (European Commission, DG RTD) – Affordability and scalability are two important cross-cutting elements that should be more present in the calls (e.g. Health).**
- **Jürgen Tiedje (European Commission, DG RTD) – The cost element is very relevant for the implementation of the Green Deal and for the Green Transition.**

This is an important topic but we should not forget that every new technology is expensive and its price lowers during the development of it. Standards also play an important role for it.

- **Ives Gigase (Chips JU) – Is international cooperation also considered for this call?**

There was already spontaneous International Cooperation in previous projects but this is not clearly mentioned in the call scope.

Peter Dröll closed the discussion suggesting an update of the Orientation Paper developed in the EPM Steering Group. This would allow to have suggestions for the new call scopes 2025, keeping the Orientation Paper as a living document that could be used for the next years to guide the suggestion of PRTs. Inputs have been requested to the Members of the EPM Steering Group by 20/04/2024.

Future of Metrology in the EU

Natália Kolibová recalled the two Workshops organised by the European Commission, namely the Future of Metrology Workshop (23/11/2023) and the Workshop with the EMNs (28/02/2024).

Peter Dröll pinpointed to the need for exit strategies, which are also under discussion with Member States for the preparation of the final years of Horizon Europe and FP10. Currently it has been recognised in discussions the need to streamline the current landscape of Partnerships. For metrology, the discussion should not be how to end the Partnership but more on how to reach the next level of integration in the EU. Both Workshops have highlighted that the overall situation is good but the ambition of the EC is to go one step further.

The Members of the EPM Steering Group have been invited to provide comments on the two events:

- **Dolores Del Campo (EURAMET Chairperson elected)**
It is important to highlight the need for increasing the visibility of metrology. There is the need also for trainings on metrology to not lose expertise.
- **Jörn Stenger (EURAMET Chairperson)**
We also acknowledge the need for more visibility to the work that EURAMET and the Metrology Community is doing for standardisation. In the previous events has been suggested for the EMNs to dedicate their work to standardisation (e.g. to boost the results of a project) and we believe that this is not necessary as it is already done by the National Metrology Institutes. This would cause conflicts in the roles within EURAMET. The EMNs should concentrate on providing the strategic view (e.g. strategic research and innovation agendas) and collecting needs from the various stakeholders. On the next level of integration for metrology, it is important to understand also how to boost the impact of it in the EU.
- **Isabel Pinto Seppä (B4P)**
The Workshop with EMNs has been instrumental in order to gather more knowledge on the activities of the various Networks. Regarding the visibility of metrology, it is important to understand that maybe the various stakeholders give different definitions to it (e.g. quality). I recommend discussing with the Clean Steel Partnership.
- **Ashok Ganesh (CEN-CENELEC)**

Industry gives importance to the added value of standards and metrology, this is even more true for SMEs. To be impactful for industry and to be relevant for the sector it is key to take into account the value added.

- **Ives Gigase (Chips JU)**
This is also linked to the impact section of the evaluation of proposals.
- **Maria Luisa Rastello (CIPM)**
The Workshop with the EMNs was interesting. More workshops would be appreciated to better understand what they are doing and how.
- **Christa Cobbaert (Leiden University Medical centre)**
For Health, impact is also a very important aspect of Metrology.
- **Cornelia Amihalachioae (EFFRA)**
The organisation of the workshops is appreciated to raise knowledge about metrology. Companies often apply metrology without recognising its importance enough. Raising awareness is important. Metrology is an important part of their revenue, customer satisfaction and value proposition.
- **Maguelonne Chambon (EURAMET Partnership Chair)**
Value added and cost efficiency are key aspect where more awareness about metrology should be raised. Metrology has a huge contribution to this.

State of Play of the EPM Steering Group - Discussion

Edoardo Mascalchi summarised the results of a survey that has been sent to the EPM Steering Group Members. Two questions were asked:

- Are you happy with the impact the Steering Group had so far in the European Partnership on Metrology (EPM)?
- What, in your view, the Steering Group should priorities in the future?

Replies have been anonymised and aggregated.

The highlights of the answers are:

- The EPM Steering group had a great impact in boosting synergies with other Partnerships in Horizon Europe;
- The multidisciplinary/multilateral aspect of the group is a value added;
- The Steering Group contributed to the development of the calls of the Partnership, highlighting important topics that needed more focus;
- The overall impact of the Steering Group could be anyway bigger, this is also due to the many fields addressed by metrology;
- More knowledge on the EMNs could be given to the Steering Group;
- The Steering Group could contribute to the identification of new potential areas of interest (and not only research needs within a pre-determined area);

Peter Dröll thanked the Steering Group Members for providing relevant inputs by replying to the two questions. It has been recognized the good work of the EPM Steering Group Members in not only sharing their personal suggestions but also to listen to the others, hence building relevant contributions. The European Commission will be always tasked to ensure that such research priorities well matches with the overall policy ones.

Steering Group Members have been invited to provide further inputs by email. Received inputs are included in *Annex 2 – Additional comments received via email on the EPM Steering Group*. Deadline 20/03/2024.

The Members of the EPM Steering Group have been invited to provide comments on the result of the survey:

- **Tarasova Oksana (WMO)**
The Members of the Steering Group come from different sectors. Defining a prioritisation could be tricky when defining new areas to be addressed.
- **Maguelonne Chambon (EURAMET Partnership Chair)**
Discussions on priorities for areas to be addressed happen also in the Partnership Committee
- **Dolores Del Campo (EURAMET Chairperson elected)**
The Orientation Paper is the most important document from the EPM Steering Group. EURAMET could try to enhance the visibility of such paper with the EMNs and the other groups.

Peter Dröll recalled that in the Terms of Reference of the Steering Group there is an obligation to rotate the Members when the mid-term evaluation of the Partnership is done. The mid-term evaluation is expected to be finalised soon and this triggers the rotation of the Members. The rotation involves the Members representing the four Partnerships and the four European standard setters/regulators. EURAMET will be responsible to identify the new members for European standard setters/regulators, the European Commission is responsible for the Partnerships. The new members will be communicated before the next meeting. In the next meeting of the Steering Group in October, both new members and old members of the two categories will be invited to exchange and to have a small ceremony.

Jürgen Tiedje communicated the intention to establish a foresight group with external stakeholders to reflect on the next steps to reach the next level of integration of metrology in the EU and to move from visibility to awareness and impact.

Cornelia Amihalachioae highlighted the importance of the various networks of stakeholders in the Partnership to support the Metrology Community to identify research priorities. This could be done through surveys.

Peter Dröll suggested that the Members who will be subject to rotation should be kept into the loop in the future. This would allow them to disseminate relevant information and to collect important research needs for the EPM.

AOB

Maguelonne Chambon briefly presented an overview of the activities of EURAMET in standardization.

A key aspect of the EMPIR programme and the Metrology Partnership is the focus on Pre- and Co-Normative research projects, which play a crucial role in developing metrological methods and techniques required for standardization. These projects underpin the quality and accelerate the development of European or International standards, contributing to the harmonization and effectiveness of measurement practices across sectors.

- **STAIR EMPIR Platform:** The STAIR EMPIR platform, established in 2014 in collaboration with European standardization organizations CEN and CENELEC, serves as a successful tool to increase collaboration between the R&D community in metrology and the standardization community. Of the thirty-seven pre-normative research projects conducted in EMPIR, sixteen directly addressed standardization needs communicated by CEN/CENELEC to EURAMET via STAIR EMPIR.
- **Dedicated Calls for Standardization & Regulation (2015 to 2020):** Over the period from 2015 to 2020, EMPIR conducted five dedicated calls focused on Standardization & Regulation. These calls aimed to address metrology-related challenges and opportunities in the context of standardization and regulatory compliance across various sectors.
- **Contributions to Standards:** EMRP projects made significant contributions to standards, with 1135 contributions made to 486 unique standards committees by the end of 2016. This resulted in contributions to 126 published and draft standards.
- **Metrology Partnership:** The Metrology Partnership involves seven annual calls between 2021-2027, including a Normative Call planned each year. Additionally, a dedicated call restricted to Regulation is planned for 2025. Projects funded through the Normative Calls included 6 in 2021, 7 in 2022, and 5 planned for 2023.

Ashok Ganesh highlighted the good collaborations between CEN/CENELEC and EURAMET. He suggested to provide to the steering group more statistics to show the outcomes of the collaboration between CEN/CENELEC and EURAMET. He also suggested that the Foresight Group, to be established in the future, could investigate more the activities of this platform to boost its impact.

Ives Gigase remarked the importance of such collaboration that should happen regardless of the establishment of an EU Partnership which includes EU funding.

Jörn Stenger explained the indirect effects of the explained activities. After the end of a project under the Partnership, consortium members usually bring the results forward towards industry and standardisation organisations and this contributes to enhancing the benefits of such activities.

Maguelonne Chambon also explained that the project funded under the Partnership allow National Metrology Institutes which lacks of resources to participate in standardisation activities. They would not have the necessary resources to perform such activities without funding.

Peter Dröll concluded remarking the importance of Standards for the competitiveness of the EU. The Horizon Standardisation Booster has been mentioned. More information can be found here - <https://hsbooster.eu/> .

Date for the next meeting

The next meeting will be again hybrid at the DG RTD premises “ORBN”, 1040 Brussels (Belgium) and online on MS Teams.

The suggested date for the next meeting is 30/10/2024.

Closing Remarks

Peter Dröll and Natália Kolibová thanked the Members for the good discussions and closed the meeting.

Conclusions

- EPM Steering Group Members to provide written comments (by replying to this email) to update the Orientation Paper (attached the current version of the Orientation Paper and the call scopes 2025 for your convenience) – Deadline 01/07/2024
- EPM Steering Group Members to provide further inputs for the two questions below (by replying to this email) – Deadline 01/07/2024
 - Are you happy with the impact the Steering Group had so far in the European Partnership on Metrology (EPM)?
 - What, in your view, the Steering Group should priorities in the future?

Annex 1 – Statistics on PRTs

Please see the other file Annex 1 - Statistics on PRTs

Annex 2 – Additional comments received via email on the future of the EPM Steering Group

Comment 1

From the healthcare perspective, I see a lot of good initiatives such as EPM, but the eco-system is complex and multiple stakeholders work in silos. See also the slide that I included.

In the end, there is often insufficient alignment between all the stakeholders involved in metrology. Hence, end-users in medical laboratories are confronted with the situation that IVD-manufacturers who bring medical tests to the market do rarely adopt or implement e.g. the reference materials and/or the SI-units. Lab medicine has examples where IVD-manufacturers are still using 40-year-old (non-commutable) WHO-materials whereas recent JRC-approved commutable RMs are available. The latter se are just not used.

There have been some successes of international test standardization, but there are also many failures.

The reasons are multiple: regulatory (IVDR, REACH,...), no strategic priority is given to test standardization in IVD-companies; not having oversight on available RMs, RMPs, RMSs; unawareness and/or lack of knowledge; technology is not enough advanced for molecular measurements.

To wrap up: EPM is great, but we need an aligned eco-system for medical test standardization in healthcare as the field is operating too fragmented.

Also, more sustainable test standardization should be inclusive when bringing tests to the EU-market. The iVDR is moving the field a little bit towards that direction.