

# RESEARCH AND STANDARDISATION RESPONSE FORM for Standardisation groups



## To contribute to *EMPIR - the European Metrology Programme for Innovation and Research* \*

**Objective: to collect standardization needs and suggestions to develop research projects in testing and measurements for the upcoming EMPIR calls (2019 and 2020)**

In the frame of the between CEN, CENELEC and EURAMET, CEN and CENELEC have been invited by the EURAMET Management to put forward their **testing and measurement needs in research** for consideration by metrology institutes for future calls under EMPIR.

**Relevant technical groups** (sector fora, advisory boards, coordination groups, TCs, WGs...) **are invited to contribute with**

- a short introduction or an overview paper of their unaddressed standardization needs for testing and measurement, and
- a contact person (secretary, chair, convenor, liaison officer, etc.) whom proposers for the Potential Research Topics can contact,

by using this Response Form and send it at:

STAIR EMPIR secretariat, Mr Ortwin Costenoble: [empir@nen.nl](mailto:empir@nen.nl)

Deadline for the consultation: **14 December 2018**.

*Proof of need by the TC/SC is highly recommended for a successful submission.*

<b>Source of the identified need</b> (identification of TC, WG, etc, incl. title)	<input checked="" type="checkbox"/> CEN/TC 264/WG 8 <input type="checkbox"/> CLC/TC 0/WG 0 <input type="checkbox"/> ISO/TC 0/SC 0 / WG 0 <input type="checkbox"/> IEC/TC 0/SC 0 / WG 0 <input type="checkbox"/> Other, namely <i>Identification, Title</i>
<b>European entity</b> responsible for submission of the need	<i>NEN Netherlands Standardization institute</i>
<b>Person that can be contacted for more detail</b>	<i>Viktor Dirkse Viktor.dirkse@nen.nl +31 (0)633 330 354 The Netherlands</i>
<b>Unaddressed need</b> (short description)	<i>Mercury generators are currently used for the calibration of equipment to monitor mercury concentrations in gas emission sources and in the atmosphere. Sound metrological validation for determining the output in concentration of elemental mercury (<math>Hg^0</math>) and oxidized mercury (<math>Hg^{2+}</math>) generators is needed of preparing future documentary standards under WG8.</i>
<b>Further explanation of need</b> (TC business plan, road map,	<i>Mercury poses the greatest current direct threat to human, animal and environmental health across the globe. Robust,</i>

<p>formal decision, work item, etc.)</p>	<p><i>defensible and traceable measurements of mercury are essential to underpin global effort to reduce the concentration of mercury in the environment, meet the obligations of legislation and to protect human health.</i></p> <p><i>The role of CEN/TC264/WG8 “Emissions - Total mercury” is to produce standardised methods in compliance with the Industrial Emissions Directive (IED) and the Hazardous Waste Incineration Directive (HWID).</i></p> <p><i>Currently WG8 is focusing on the development of standards methods for the measurement of Hg concentrations in emissions using sorbent traps and automated total mercury measuring systems (prEN 14884 rev). WG8 is looking at ways to expand this to cover Hg<sup>2+</sup> emissions in the future. WG8 receives the input from EMPIR 16ENV01 MercOx project (2017-2020) on how to link HgCl<sub>2</sub> measurements to Hg<sup>0</sup> reference materials.</i></p> <p><i>Within MercOx a certification protocol for Hg<sup>2+</sup> is currently drafted and a preliminary validation will be carried out. A certification protocol dedicated for Hg<sup>0</sup> needs to be developed and thoroughly validated. Such protocols need to include calibration and uncertainty aspects, comparison data of different mercury generators available on the market and field tests. This work will greatly increase the traceability of mercury measurement results.</i></p>
<p><b>Enclosures</b></p>	<p><input type="checkbox"/> Yes</p> <p><input checked="" type="checkbox"/> No</p>

\*See more information at [EMPIR website](#)  
[CEN/CENELEC website](#) “Standards and metrology”