

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 in 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

Deadline for the consultation: **13 December 2019**.

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

Source of the identified need (identification of TC, WG, etc, incl. title)	<input checked="" type="checkbox"/> CEN/TC 264 Ad-hoc Working group on diffuse emissions and WG38 on Fugitive Emissions
European entity responsible for submission of the need	CEN/TC 264 'Air Quality'
Person that can be contacted for more detail	Rudolf Neuroth Neuroth@vdi.de +49 211 6214-544 Germany
Unaddressed need (short description)	<i>Improved uncertainties and evaluation of methods for monitoring diffuse emissions from distributed sources</i> The need is to support the measurement of difficult and previously unregulated sources, namely diffuse emissions <ul style="list-style-type: none"> • Develop uncertainty estimates and protocols for calculating uncertainties for a range of diffuse emission measurement technologies including those that report mass emission rates. • Understand the uncertainty impacts of influence factors specific to different techniques – for example

	<p>the impact of incorrect location of tracer release points for tracer gas techniques</p> <ul style="list-style-type: none"> Information on the performance of dispersion models and in particular those used for reverse dispersion model approaches. <p>Improved meteorological data for emissions determination – a key parameter for emissions quantification is the meteorology – in particular data on the wind field.</p> <ul style="list-style-type: none"> Improve the performance of wind assessment and in particular study the effect of local topography on wind field measurement. Improve the understanding of the uncertainties in the wind field. Understand the uncertainties in methods for determining vertical wind profiles over scales relevant to emissions monitoring for techniques such as wind lidar, masts and unmanned aerial vehicles (UAVs) which have the potential to be used in CEN TC264 methods. Support to CEN standardisation activities on diffuse emissions providing metrology input and support development of performance standards for wind field measurement.
<p>Further explanation of need (TC business plan, road map, formal decision, work item, etc.)</p>	<p>As the monitoring of large scale emissions has matured, it is now the more challenging emission sources that are being targeted. These include the assessment of emissions from diffuse sources including small combustion sources such as local and residential heating, agricultural sources. This is a key area in which regulation is needed and has been identified in TC 264 by the formation of an Ad Hoc group on diffuse emissions. In addition the activities in TC 264 WG38 on fugitive VOC emissions from refineries has identified specific aspects requiring further metrology support. Specific areas include the performance of models used to calculate emission dispersion, influence factors such as the location of tracer releases for tracer correlation techniques and requirements for improved meteorological performance of meteorological data which underpin many diffuse emission rate calculations. TC 264 has identified the need for addressing the measurement of emissions of gases including methane, N₂O and NH₃ from diffuse emission sources. The Ad Hoc working group has been instigated to investigate the requirement for these, including emissions from roof vents. In addition in recognition of the importance of meteorological parameters in determining diffuse emission rates .TC 264 has decided to extend its scope to include diffuse emissions.</p> <p>The need is current to support current and planned standardization activities in CEN TC 264.</p>
<p>Enclosures</p>	<p><input type="checkbox"/> Yes</p> <p><input checked="" type="checkbox"/> No</p>