

RESPONSE FORM

Standardization needs and suggestions to EURAMET for consideration in their 2017 EMPIR call

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 **Industry**, in **Fundamental** and in **Pre- and co-normative research**.

Relevant technical groups (sector fora, advisory boards, coordination groups, TCs...) 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,

using the table below, **before 12 December 2016**

Source of the identified need (identification of TC, WG, etc, incl. title)	CEN/TC 256/SC 1/WG 28 "Track geometry quality"
European entity responsible for submission of the need	<i>CEN/TC 256 Railway Applications, SC1 Infrastructure</i>
Person that can be contacted for more detail (name, e-mail and telephone number)	<i>Sönke Kraft, WG 28 Secretary</i> sonke.kraft@reseau.sncf.fr +33 141 62 45 62 <i>France</i>
Unaddressed need (short description)	<i>Measurement uncertainty, calibration and validation of track geometry recording systems.</i> <i>The values given in EN 13848 series are neither justified nor based on a metrological approach.</i>
Type of work (more answers possible)	<input checked="" type="checkbox"/> pre-normative <input type="checkbox"/> SI-units <input type="checkbox"/> co-normative <input type="checkbox"/> interlaboratory study <input type="checkbox"/> testing <input type="checkbox"/> fundamental research <input type="checkbox"/> measurement <input type="checkbox"/> market support <input type="checkbox"/> energy <input type="checkbox"/> environment
Estimated effort (if known)	Person months:
Further explanation of need (TC business plan, road map, formal decision, work item, etc.)	<i>The measurement of the track geometry parameters for the track assessment should respect maximal admissible measurement uncertainties defined in EN 13848-1.</i> <i>On the other hand, Parts 2, 3 and 4 give information about calibration and tolerance values to be respected during the validation process of a measuring system.</i> <i>Currently, these values are only based on experience and not on a metrological approach.</i> <i>This issue has been questioned several times during WG</i>

	<p><i>28 meetings, without any satisfying answer.</i></p> <p><i>Therefore, It is necessary to make some improvement in this domain by getting a clear definition of uncertainty as well as a method for its estimation based on metrological principles. This can be done by means of research works in this domain.</i></p> <p><i>Consequently, this new approach will be included in a future version of EN 13848-1. Besides, it will form the basis for the calibration and validation of the track recording systems described in the Parts 2, 3 and 4 of EN 13848.</i></p> <p><i>Estimated time frame that need shall be fulfilled: 3 years</i></p>
Enclosures	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Email address for sending the Response Form:

STAIR EMPIR WG, Mr Ortwin Costenoble (empir@nen.nl)