

Demonstration of competence of verification authorities by accreditation?

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Topics:

- What do we understand by „verification“?
- International standards to be used for accreditation
- ILAC P10 and the recognition of verification
- Accreditation vs. self-declaration
- How Germany deals with the situation

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- **What do we understand by „verification“?**
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1. What do we understand by “verification”?



marking of a petrol pump



german verification mark

⇒ „metrological testing and marking of an instrument“?

2.13

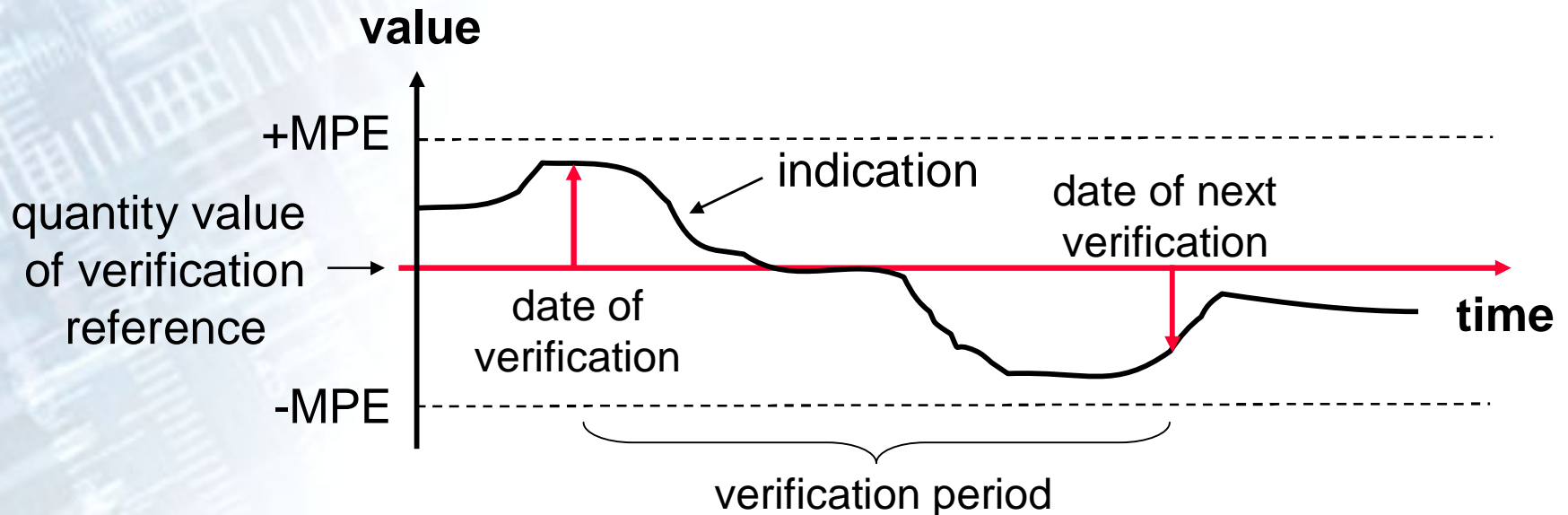
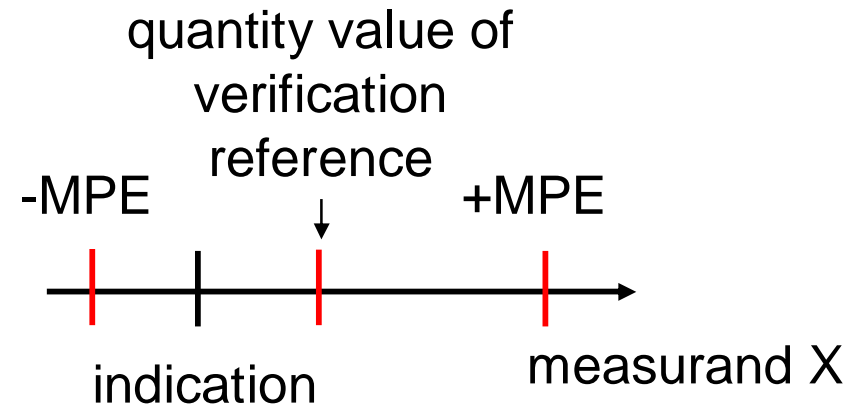
verification of a measuring instrument

procedure (other than type approval) which includes the examination and marking and/or issuing of a verification certificate, that ascertains and confirms that the measuring instrument complies with the statutory requirements

VIML ■ EDITION 2000

1. What do we understand by “verification”?

verification



1. What do we understand by “verification”?

Definition given by the new draft for the German verification act:

„Verification“ is:

- carried out by or on behalf an authority
- a metrological examination of an instrument
- evaluation of the test results
- marking of the instrument (in case of successful evaluation)
- approval to use the instrument for another verification period if used for the intended use and within the foreseen conditions for use

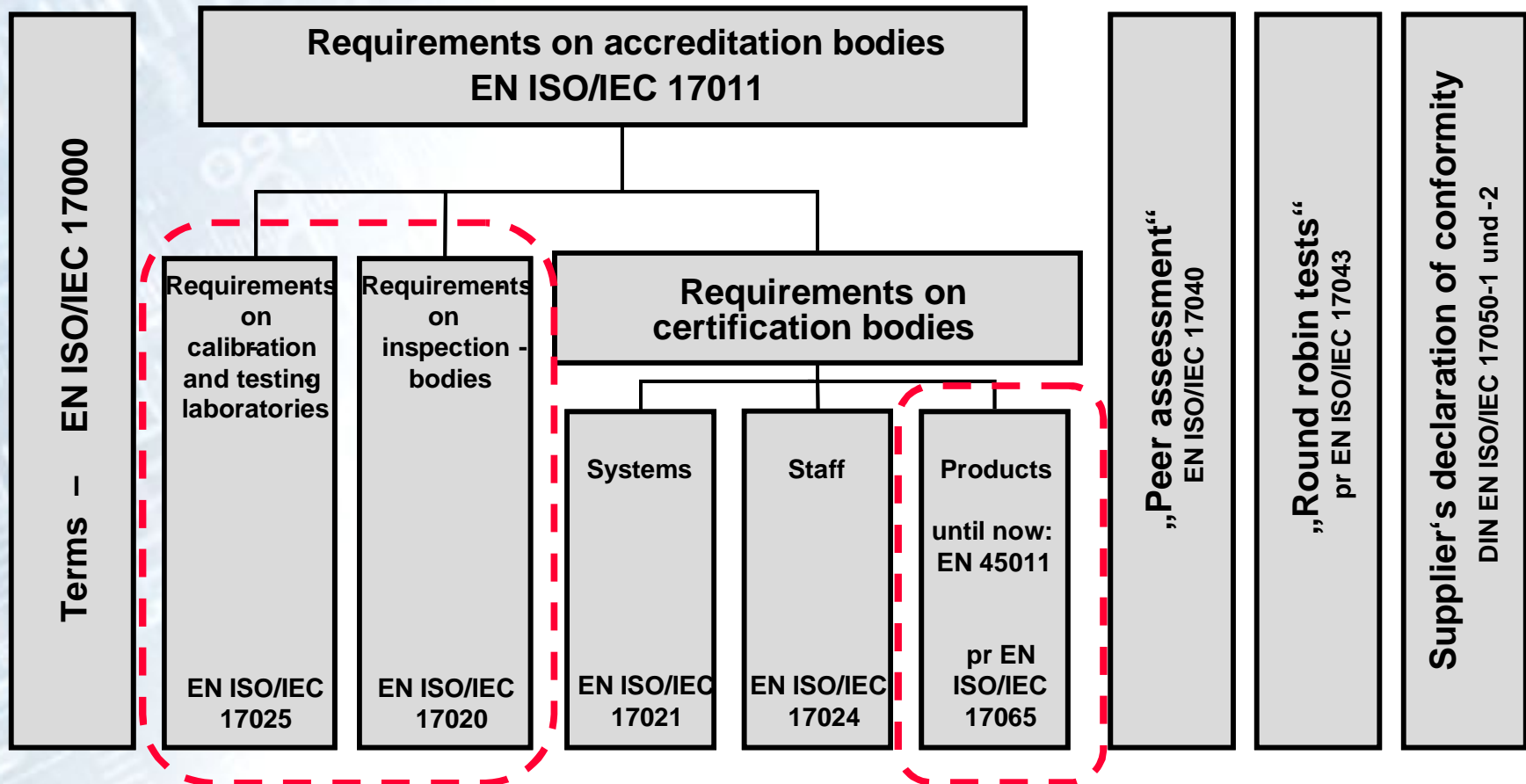
(in some cases it might be necessary to seal certain parts of the instrument)

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2. International standards to be used

There is no international standard for „verification“!



Example Slovenia:

⇒ Accreditation of private verif. bodies according to ISO/IEC 17020

Conformity assessment –
Requirements for the operation of various types of bodies performing inspection
(ISO/IEC 17020:2012);
German and English version EN ISO/IEC 17020:2012

How is „inspection“ defined?

3.1 Inspection:

Examination of a **product**, a **process**, a **service** or an installation or its development and its identification of conformity to particular requirements, or based on a competent assessment, to general requirements.

Example Germany:

⇒ Self-declaration of verif. authorities according to ISO/IEC 17025

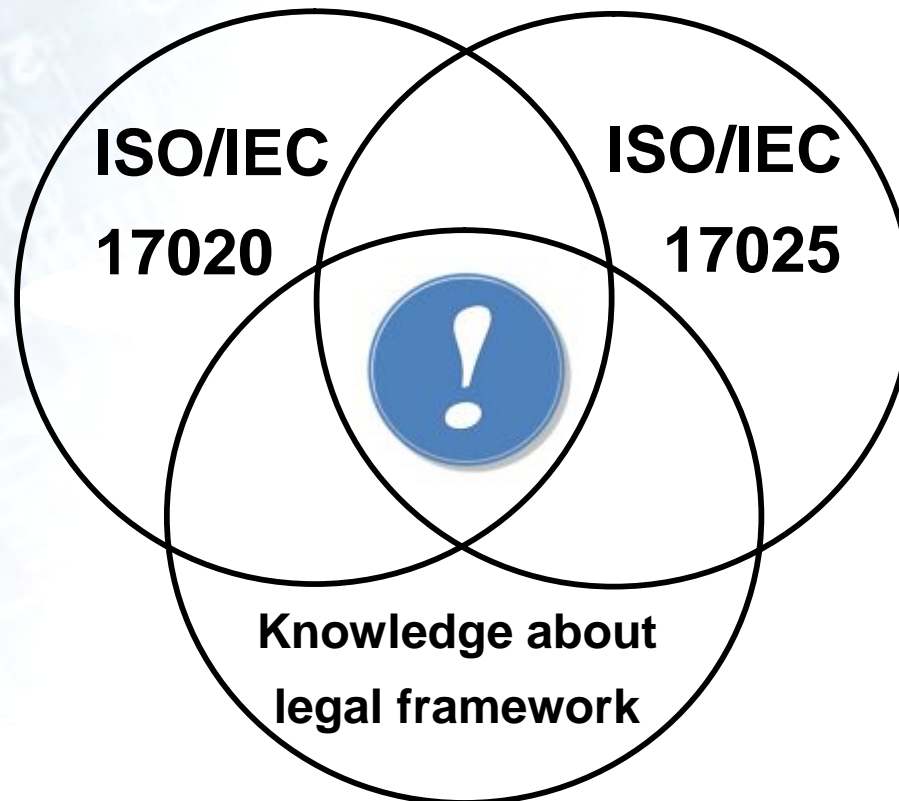
General requirements for the competence of testing and calibration laboratories (ISO/IEC 17025:2005);
German and English version EN ISO/IEC 17025:2005

How is „calibration“ defined? (⇒ VIM)

2.39 (6.11) calibration

operation that, under specified conditions, in a first step, establishes a relation between the **quantity values** with **measurement uncertainties** provided by **measurement standards** and corresponding **indications** with associated measurement uncertainties and, in a second step, uses this information to establish a relation for obtaining a **measurement result** from an indication

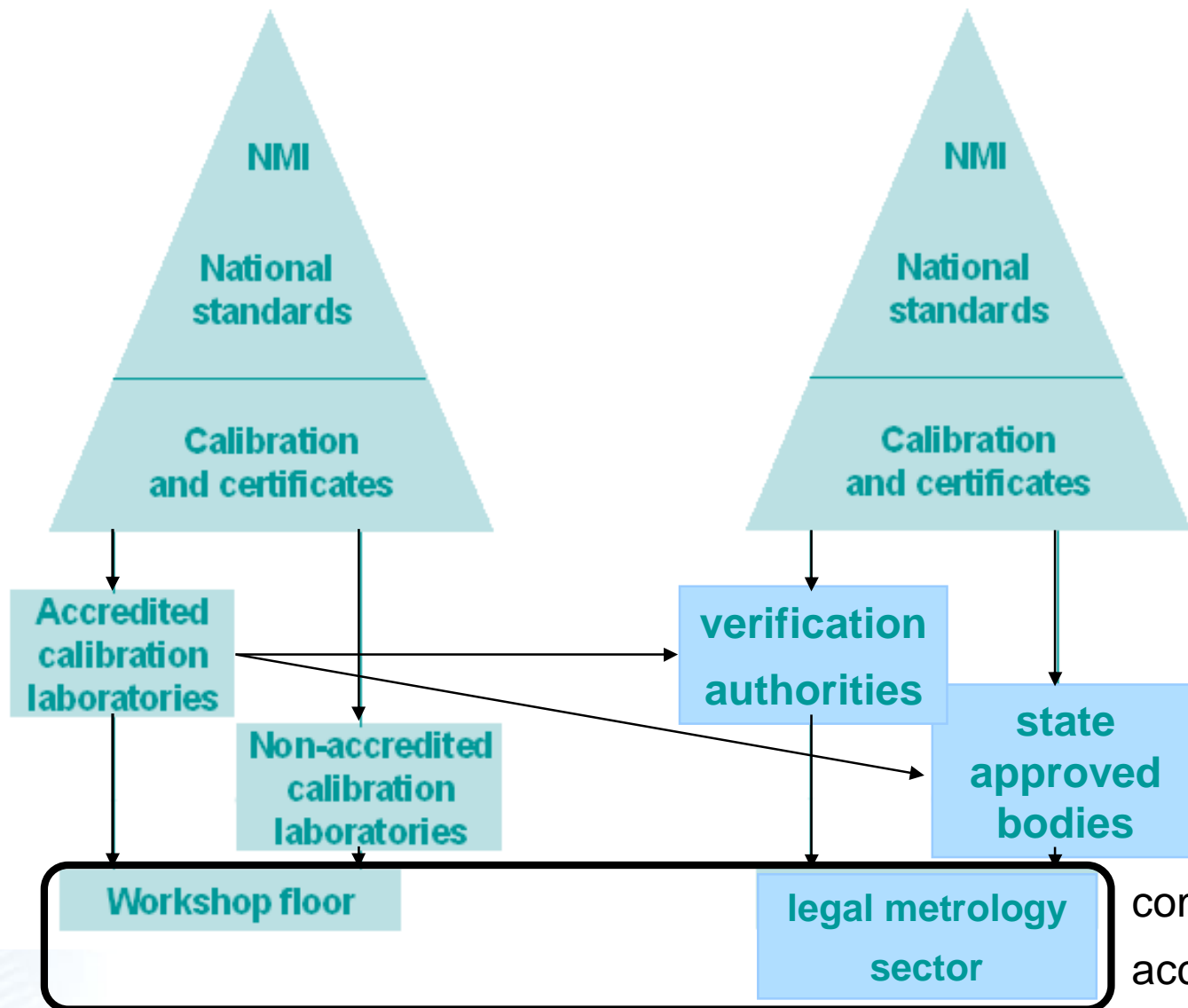
Accreditation or self-declaration on the basis of international standards:



Topics:

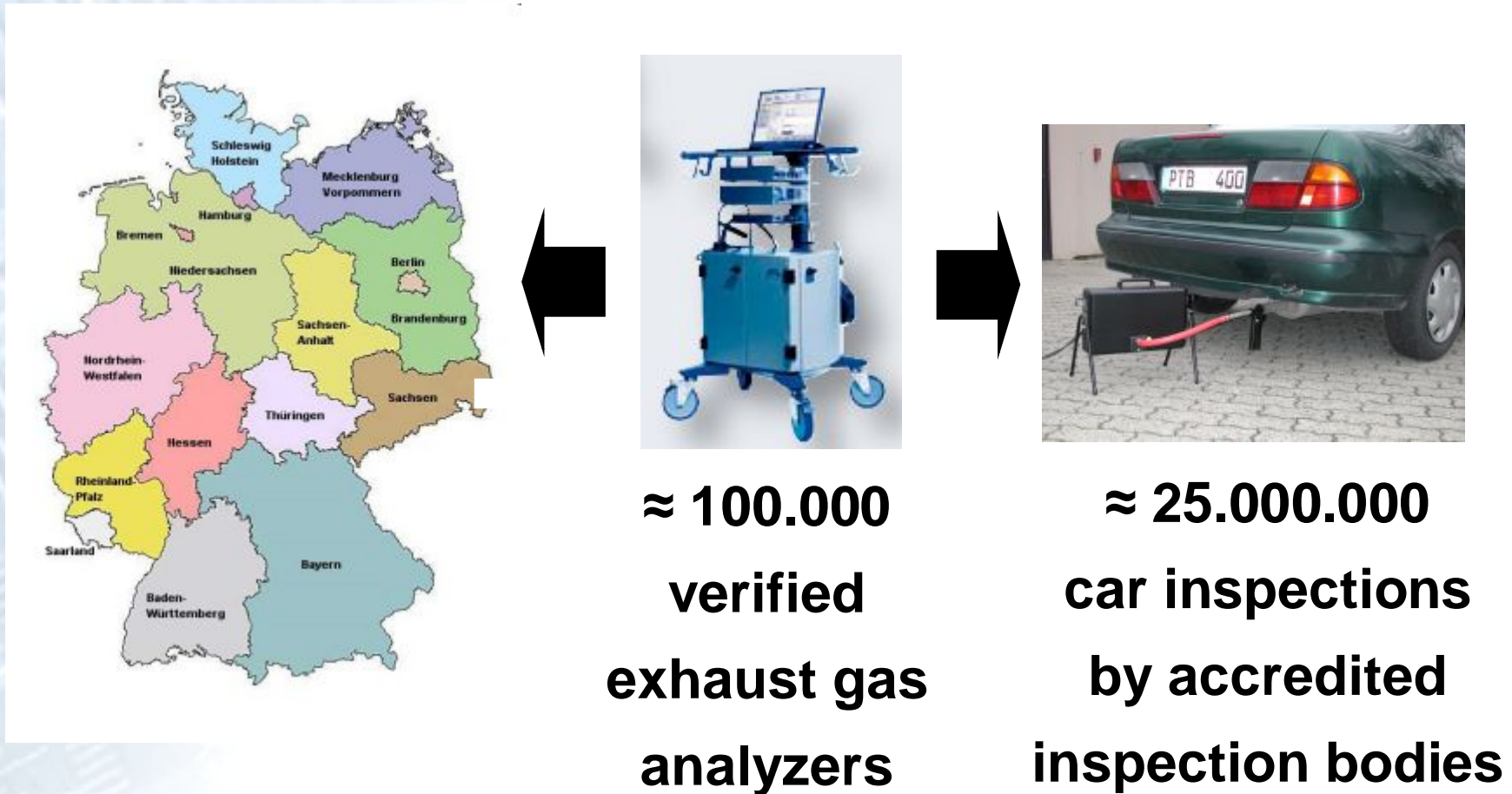
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3. ILAC P10 and the recognition of verification



company to be
accredited

Example: Accreditation of car inspection bodies





Policy paper P10 (2002):
„Policy on Traceability of Measurement results“

„Legal metrology frameworks are also accepted as a source of traceability“



verification mark
and certificate



**in terms of
traceability**



calibration mark
and certificate

Re-evaluation of the DKD* (2006):

**„In the opinion of the EA team
it is not possible to accept
verification authorities
as a source for traceability.“**

(for accreditation processes of calibration laboratories)

- ➔ no acceptance of verification certificates after 31.12.2010
- ➔ many complaints by industry in first quarter of 2011

*re-evaluation as accreditation body₁₇



2012: new draft of ILAC policy paper P10

or

3b) A calibration laboratory whose service is suitable for the intended need but **not covered by the ILAC Arrangement** or by Regional Arrangements recognised by ILAC. In these cases the accreditation body shall establish **a policy to ensure that those services meet the relevant criteria for metrological traceability in ISO/IEC 17025:2005** and that the calibration certificate includes statements concerning measurement uncertainty and traceability.”

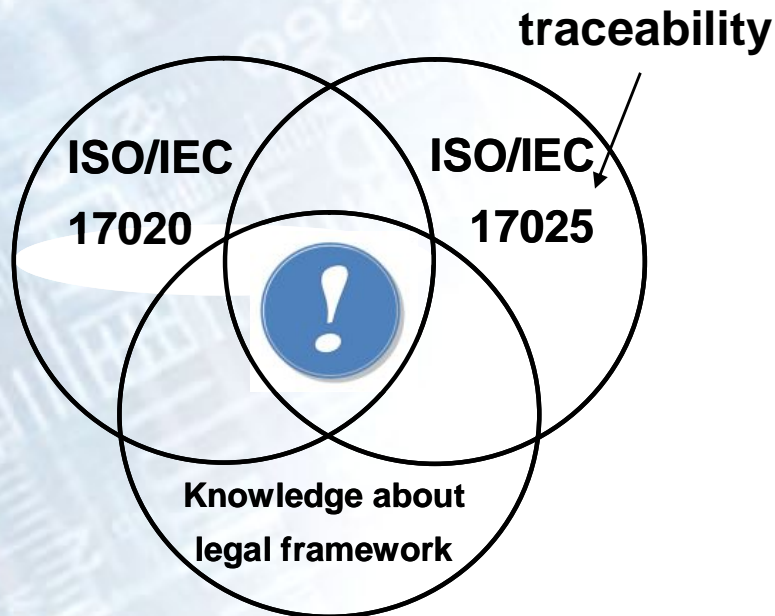
Laboratories that have demonstrated traceability of their measurements through the use of calibration services offered according to 1) or 2) above have made use of services that have been subject to relevant peer review or accreditation. **In the situation where 3a) or 3b) applies, this is not the case and the laboratory must therefore ensure that appropriate evidence for claimed traceability and measurement uncertainty is available and the accreditation body shall assess this evidence.** Further guidance is found in Annex A.

- ⇒ still no simple recognition of traceability given by verification authorities,
- ⇒ conventional accreditation **or** assessment of evidence for claimed traceability by an accreditation body,
- ⇒ **new draft refused by many countries (solution for verif. authorities)**

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Accreditation:



self-declaration:

current ILAC P10 draft (2012):

- relevant criteria of ISO/IEC 17025
- certificate includes information about traceability and uncertainties
- accreditation body shall assess this



- QMS according to ISO/IEC 17025
- documentation about traceability chains
- documentation about uncertainties

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5. How Germany deals with the situation

Mess- und Eichwesen Niedersachsen
-Landesbetrieb-
Office of Legal Metrology of the State of Niedersachsen
(Germany)



Qualitätsmanagement-
Handbuch

Erklärung über die Erfüllung der Anforderungen der Norm ISO/IEC 17025

Die niedersächsische Eichbehörde – Mess- und Eichwesen Niedersachsen (MEN) – ist als Landesbetrieb organisiert und verteilt sich auf neun verschiedene Standorte. Der Aufgabenbereich ist durch Verordnungen abgegrenzt, die intern durch Geschäftsordnung und Geschäftsverteilungsplan umgesetzt sind. Die Fach- und Dienstaufsicht liegt beim Niedersächsischen Ministerium für Wirtschaft, Arbeit und Verkehr.

Verwaltungsvorschriften mit organisatorischen Festlegungen und technischem Hintergrund (u. a. Rechtssammlung der Deutschen Akademie für Metrologie (DAM) in München) detaillieren die Rahmenbedingungen. Die verwendeten Prüfverfahren sind weitgehend international abgestimmt, z.B. als EG-Vorschriften, ISO/IEC-Normen oder über Vorschriften der Physikalisch-Technischen Bundesanstalt (PTB).

Das MEN erfüllt die Anforderungen der Norm ISO/IEC 17025. Die Zuständigkeiten, Verfahren und Gerätschaften sind dokumentiert. Die Normale sind auf SI-Einheiten rückgeführt. Die Wirksamkeit dieses Systems ist durch Begutachtungen sowie Vergleichsmessungen sichergestellt.

Geeichte Messgeräte können auch außerhalb des eigentlichen Bestimmungszweckes eingesetzt werden, z.B. als Prüfmittel oder Normal in Qualitätsmanagementsystemen bei Herstellern, Prüf- und Zertifizierungsstellen oder auch Benannten Stellen.

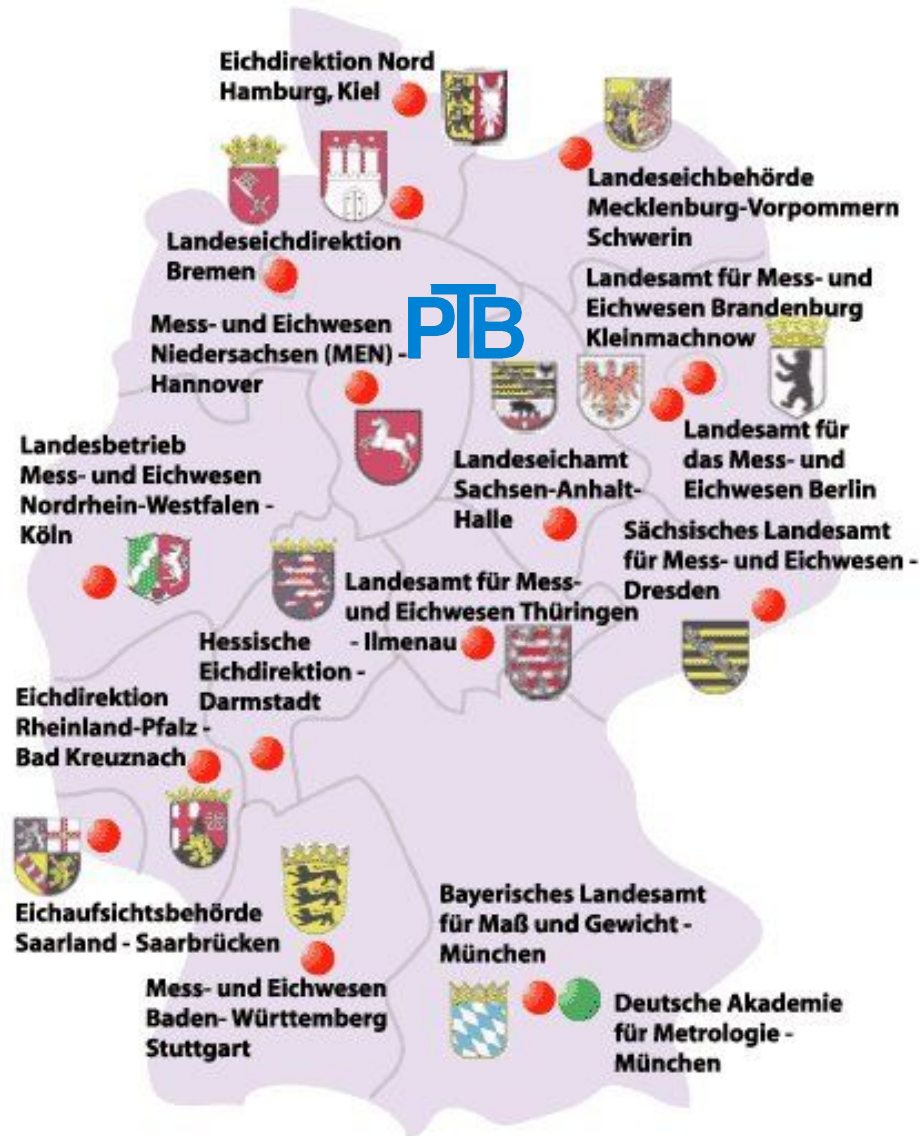
Sowohl die Eichungen von Messgeräten als auch die Prüfungen oder Kalibrierungen werden von einer kompetenten Stelle vorgenommen. Die ausgestellten Bescheinigungen können folglich als Nachweis der Rückführung auf SI-Einheiten bzw. nationale Normale verwendet werden.

Hannover, den 04.01.2010


Dr. Bosch
Direktor

Self-declarations of
all verification authorities

5. How Germany deals with the situation



Assessments by PTB of the traceability of the verification authorities started on 24 August 2011



By the end of 2012 10 from 13 are assessed; German accreditation body accepts PTB reports



Thank you for your kind attention!