

**Geeicht auf Sachsen!**

**Market surveillance in the field of water and heat meters  
under the special  
aspect of cartridge meters – Situation and peculiarities**

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# Content

**Situation in Germany: legal regulation**

**Situation in Germany: Placing on the market and putting into use**

**Situation in Germany: Using measuring instruments**

**Market Surveillance**

## **Water meters**

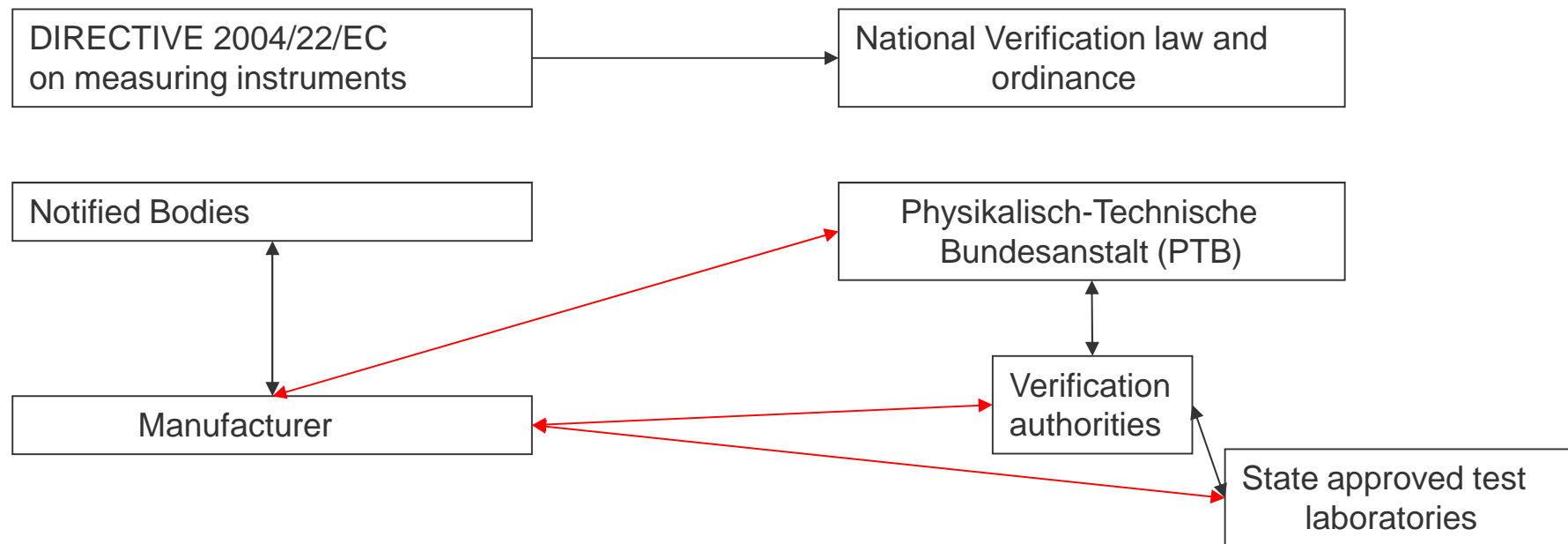
### **Situation in Germany: general conditions**

**40 mio. private households in Germany**

**Approx. the same number of water meters**

**Many of them are cartridge meters**

## Water meters System of Legal Metrology in Germany



## Water meters

### Situation in Germany: legal regulation

- **Regulated by german law of verification**

- Verification Law § 25**

- (1) It is forbidden,

- 1. to use measuring instruments for the determination of
      - a) length, area, volumen,.....

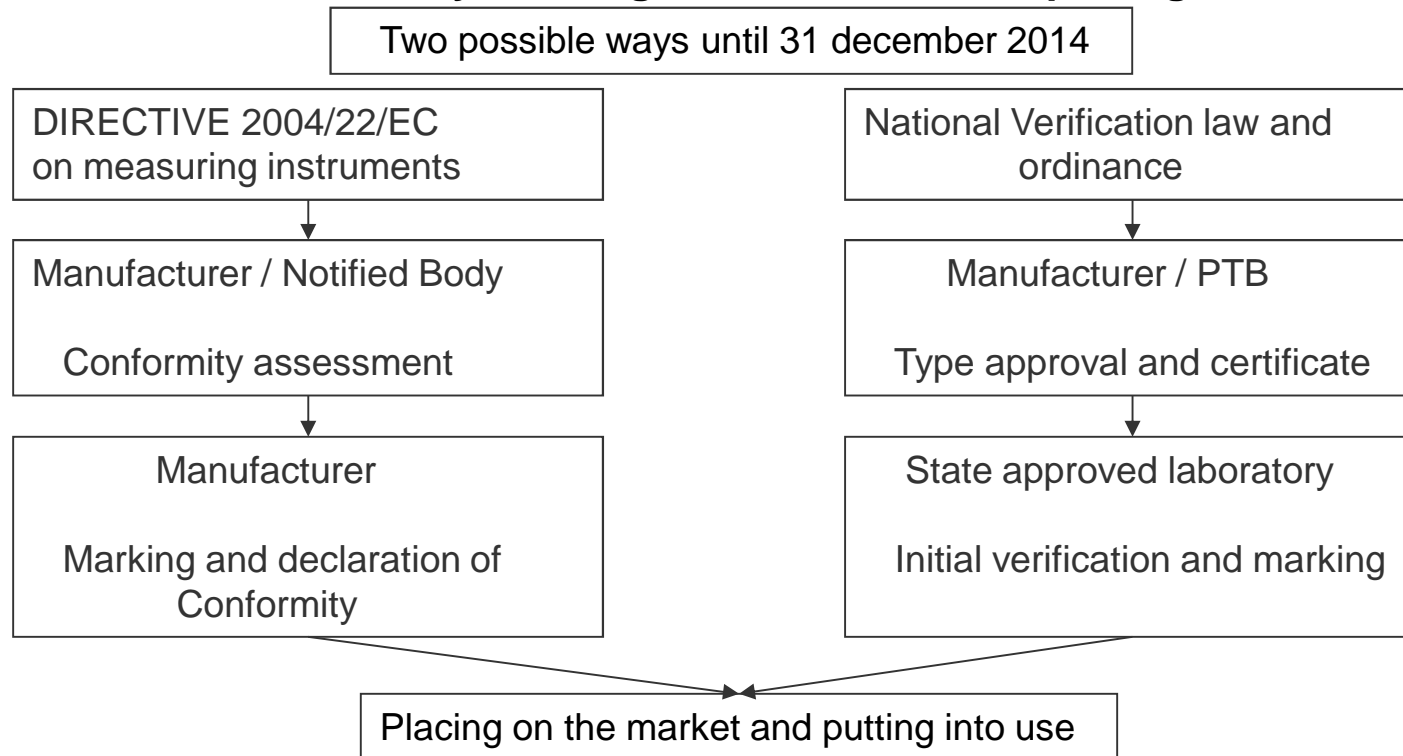
- commercially, if they are not verified ... (free translation)

- **german verification ordinance ( § 7j)**

- (3) measuring instruments , whose conformity has been stated by a compulsory conformity assessment and which are correctly marked, are classified as initially verified. (free translation)

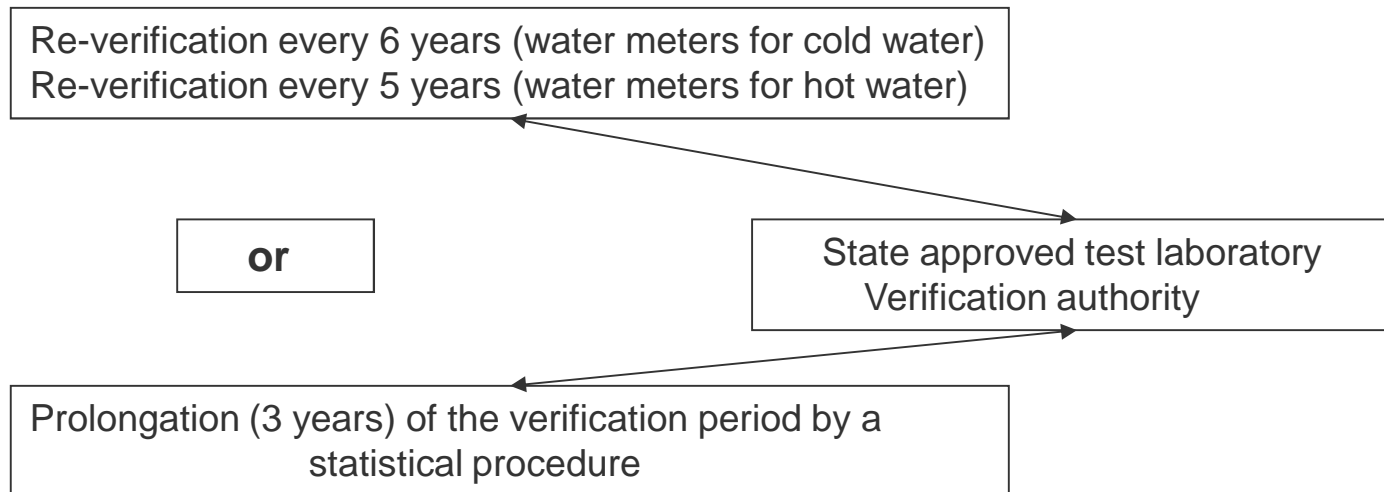
## Water meters

### Situation in Germany: Placing on the market and putting into use



## Water meters

### Situation in Germany: Using measuring instruments





## Water meters Market Surveillance

*Measuring Instruments Directive (MID)*

*Article 18*

### **Market surveillance and administrative cooperation**

1. Member States shall take **all appropriate measures** to ensure that measuring instruments **that** are subject to legal metrological control but **do not comply** with applicable provisions of this Directive **are neither placed on the market nor put into use.**

## Water meters Market Surveillance

**How to ensure that only complying instruments are placed into the market and / or put into use?**

### **Before MID (2006)**

Water meters produced by manufacturer

Every water meter was tested and verified individually by a state approved test laboratory which is under supervision of a verification authority

Verification authorities have information about the type and place of verification. German water suppliers are only allowed to use verified water meters.

Market surveillance can be performed quite easily

## Water meters Market Surveillance

**How to ensure that only complying instruments are placed into the market and / or put into use?**

### **After MID (2006)**

Water meters produced, tested (individually or statistical procedure), marked and placed on the market (with declaration of conformity) by manufacturer

Verification / market surveillance authorities have no information especially about time and location of „placing on the market“.

Market surveillance becomes difficult and complex. More staff is needed.

## **Water meters Market Surveillance**

**How to ensure that only complying instruments are placed into the market and / or put into use?**

### **New verification law (1 january 2015)**

Water meters produced, tested (individually or statistical procedure), marked and placed on the market (with declaration of conformity) by manufacturer

User of measuring instruments will be obliged to announce the kind, the type, the year of marking, the manufacturer and the user of measuring instruments to market surveillance authorities

Market surveillance hopefully will become more simpler again.

## Water meters Market Surveillance

### Problems with water meters in the last years

#### Complaints by consumers

- mostly: the registered water consumption seems to be too high
- expired validity of verification

Examination of the dismantled water meter by state approved test lab or verification authority (metrological test, disassembling the water meter and checking the components)

Water meter complies to requirements:	consumer pays the expenses
Water meter does not comply:	water supplier pays

## Water meters Market Surveillance

### Problems with water meters in the last years

Complaints by consumers  
oversized water meters ( $Q_n$  6 or  $Q_n$  10 instead of  $Q_n$  2,5)

Measure:

Water suppliers were surveilled by verification authorities to replace oversized water meters by appropriate instruments

New national rule: **DVGW Arbeitsblatt W 406**

## Water meters Market Surveillance

### Problems with water meters in the last years

#### Exchangeable metrological units (EMU) (mostly $> Q_n 2,5$ )

##### EN 14154-2:2005

CE-marked, declaration of conformity by the manufacturer,  
delivered with instruction manual and installations guide

Conformity only, if the installation follows strictly the installation guide

##### Problem seen by german verification authorities

EMU is only a part of a water meter not a complete water meter

Instrument becomes a water meter not until it is installed.

CE-marking by manufacturer justified?

Who then has to declare the conformity?

Still under discussion

## Water meters Market Surveillance

### Problems with water meters in the last years

#### Cartridge meters

##### EN 14154-2:2005

CE-marked, declaration of conformity by the manufacturer,  
delivered with instruction manual and installations guide

Conformity only, if the installation follows strictly the installation guide

##### Connecting interface

Defined in Annex B of EN 14154-2:2005

Interface and cartridge meter have the same marking

Assembling better defined for installer





*Thank you for  
your  
Attention*