

# SPPI for NACE 71.2 Technical Testing and Analysis - Germany

- **26th Voorburg Group Meeting in Newport**
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# Outline

- **Definition of the service**
- **Classification structure**
- **Pricing unit of the service**
- **Pricing methods**
- **Quality adjustment**
- **Market conditions**
- **Price collection**
- **Results**

# Definition of the service

- **Technical testing and analysis defined by:**
  - the nature of the tested object ((semi-)physical good),
  - the investigative approach (the properties of the tested object not to be altered by the testing process)
  - the intention of the test (non medical, non veterinarian).

⇒ **Coverage of testing and inspection services, except:**

- certification of business processes (no physical good),
- damage assessments (not investigative)
- blood analysis tests (medical).

# Classification structure I

## ■ Industry classifications:

### ■ NACE rev.2 (referring to ISIC rev.4) 71.2 TT&A:

- Particularities: inclusion of veterinarian tests related to food production
- No subclasses

### ■ NAPCS (2007) 54.138 Testing Laboratories:

- Particularities: exclusion of auto emissions tests
- No subclasses

# Classification structure II

## ■ Product classification:

### ■ CPA (2008) (referring to CPC ver.2) 71.2 TT&A:

#### ■ Subclasses:

- Composition and purity TT&A
- TT&A of physical properties
- TT&A of integrated mechanical and electrical systems
  
- Technical inspection of road transport vehicles
- Other TT&A

# Classification structure III

- **German activity fields based on CPA structure:**
  - **Subclasses:**
    - **Composition and purity TT&A**
    - **TT&A of physical properties**
    - **TT&A of integrated mechanical and electrical systems**
      - *TT&A of large-scale plants*
      - *TTA for machinery and small installations*
      - *TT&A for the certification of products and prototypes*
    - **Technical inspection of road transport vehicles**
    - **Other TT&A**

# Pricing unit of the service

**Depends on the specific form and complexity of the test:**

■ **Relatively simple, standardized and recurring tests:**

- i.e. periodic safety test (for elevators, motor vehicles, standardized chemical analyses, ...)
- Pricing unit: **single offered test or analysis**

■ **Complex, unique and non-standard tests**

- i.e. the periodic safety testing of bridges or a test of an experimental prototype
- Pricing unit: **time** (hour, month...) of provision of trained staff and/or special machinery necessary for the test

# Pricing methods

- **Administratively regulated**
  - pricing of **repeated services**
  
- **Freely negotiated**
  - **charge-out-rates** for machinery and personnel (either list-prices, realized charge-out rates or calculative charge-out-rates)
  - **model pricing** (real transaction prices that can be achieved with typical clients),
  - periodically offered tests: pricing of **repeated services**

# Quality adjustment

- **Optional methods (not exclusive):**
  - **Improvement in efficiency: Bridged overlap method**
  - **Addition/ omission of test components: Option pricing/ indirect option pricing via expert judgement**
  - **Change in official regulation: Indirect option pricing via expert judgement**
  
- **Experiences in Germany:**
  - **Quarterly questionnaires ask for changes in characteristics**
  - **But very rare cases (i.e. more efficient test setup)**

# Market conditions I

- **Highly concentrated, market liberalization since 2006**
  - Still important market players: **TÜVs** (“technical monitoring associations”)
- **High diversity of products, no single industry association**
- **Sensitive to B2B or B2All approach due to turnover with inspection of consumers’ road vehicles**

■ **Size:**

| NACE rev.2                          | Year | Turnover in bill. € | Number of enterprises | Number of employees (in k) |
|-------------------------------------|------|---------------------|-----------------------|----------------------------|
| 71.2 Technical testing and analysis | 2008 | 7.02                | 5 540                 | 68.6                       |
| 71.2 Technical testing and analysis | 2009 | 8.09                | 5 515                 | 79.0                       |

# Market conditions: billing modalities

| Business field   | Billing modalities   |
|--|--|
| Conduction of periodic car tests                                   | Only fix prices per test   |
| Technical testing of large-scale plants                            | Mainly charge-out-rates (for personnel and machinery)              |
| Testing of machinery and small installations                       | Mainly fix prices per test   |
| Technical testing for the certification of prototypes and products | Charge-out-rates for personnel and machinery as well as fix prices |
| Physical testing (if not part of the categories above)             | Charge-out-rates for personnel and machinery as well as fix prices |
| Chemical testing (if not part of the categories above)             | Charge-out-rates for personnel and machinery as well as fix prices |
| Other business fields  | Charge-out-rates for personnel and machinery as well as fix prices |

# Price collection

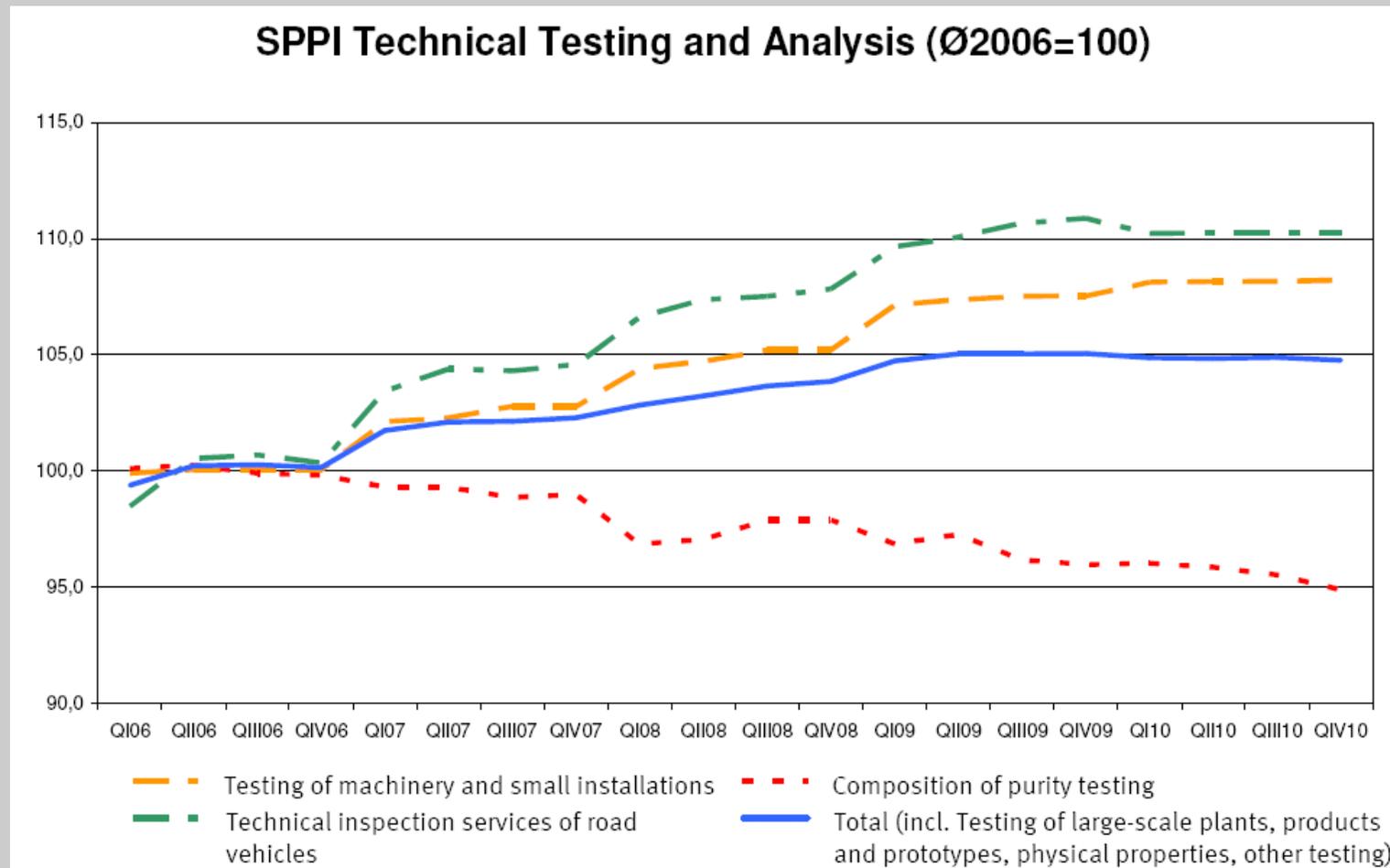
- **Questionnaire design:**
  - **Fix prices (model prices, list prices)**
  - **Charge-out-rates**
  - **Main activity fields and typical services chosen in close contact with respondents**
  
- **Non-regulated market: cut-off survey with sampling**
  - **Turnover below 17,500 €: not questioned**
  - **Turnover between 17,500 € and 25 million €: sample**
  - **Turnover above 25 million €: exhaustive**
  
- **Regulated market: use of administrative data**

# Results I: SPPI weighting pattern

| Business fields of Technical testing and analysis  | Share       |
|--|-------------|
| Composition and purity testing and analysis services (i.e. biological tests, food and environmental analyses (if not already included above) etc.) | 25.1%       |
| Testing and analysis services of physical properties (i.e. ultrasonic, tensile and bending tests (if not already included above), etc.)            | 4.3%        |
| Technical testing of large-scale plants (i.e. inspection of chemical or power plants, etc.)  | 8.0%        |
| Technical testing and analysis of machinery and small installations (i.e. inspection of pressure vessels or elevators, etc.)                       | 13.0%       |
| Technical testing and analysis for the certification of products and prototypes (i.e. GS/CE certifications, etc.)                                  | 7.6%        |
| Technical inspection services of road vehicles (general inspections and emissions tests for cars, motorcycles, lorries, etc.)                      | 35.5%       |
| Other technical testing and analysis services  | 6.5%        |
| <b>Total 71.2 Technical testing and analysis</b>   | <b>100%</b> |

based on 2006 data

# Results II: SPPI development



# Thank you



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