Non-Tariff Barriers affecting trade
Experience of a Conformity Assessment Body

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As an accredited and internationally recognised test laboratory, we conduct neutral and independent tests of electrical and electronic equipment and components in the field of electrical safety, EMC, environmental testing in accordance with IEC and EN standards.

Today manufacturer need global market access and ask for IECEE CB certificates, also serving as basis for mandatory required approval in many countries.
Lack of transparency: the point of view of producers

Compliance is getting more and more difficult and complex. No structured compliance data per product is readily available!

Product
- IT, Telecom
- Household appl.
- Commercial appl.
- Power tools, Toys
- Machinery
...

Country
- Language (manual, law)
- Law (approval system)
- Electrical Rating
- Local standard
...

Requirement
- Electromagnetic compatibility, electrical safety, telecom rules, Harmful substances, waste reduction regulations, Energy Efficiency, Food contact material
...

Cost for getting to know each requirement…
In each country, for each product
Sources on technical requirements

- WTO TBT notifications
- Standards and national deviations
- Various: Experience/practices
- Own sources (our own database)

Sources give some input, but no exact knowledge of what the authority will decide.

Requirements per product type are not all free available:
Risk of loss of current know-how & advantage
Properties of the product determine applicable regulations / standards

**Electrical tooth brush for EU**
- Battery driven → EMC/ RoHS
- Mains driven → EMC/ LVD/ ErP/ RoHS

**Definition options used in regulations:**
- Description of product (legal definition)
- Customs tariff number 8509 8000
- Standards

**WANTED:** System for matching products with regulations

Description & HS code is not precise
Standards

- Standards are used in regulations
- IEC (corresponding IECEE CB-Scheme) has a wide acceptance
- Conformity tested against standards UL or IEC means often different device construction  
  = multiple testing & additional logistics

Top IECEE CB categories 2012-2014

<table>
<thead>
<tr>
<th>Category</th>
<th>IEC Standard</th>
<th>UL Harmonized</th>
</tr>
</thead>
<tbody>
<tr>
<td>36% IT product</td>
<td>IEC 60950</td>
<td>UL harmonized</td>
</tr>
<tr>
<td>10% Audio/Video</td>
<td>IEC 60065</td>
<td>UL harmonized</td>
</tr>
<tr>
<td>27% Household</td>
<td>IEC 60335-x</td>
<td>not harmonized</td>
</tr>
</tbody>
</table>

Main standards families

UL → IEC

Harmonization process

One single harmonized standard with clear national deviations

Standards harmonization + recognition in legislation = no adaptations of the product required = saved costs
Conformity assessment procedures

- Massive variations in the level of bureaucracy
- Supplementary local requirements
- Foreign tests accepted versus testing in every country
- Who is allowed to test and take the responsibility?
- Marking jungle

**Benefit of procedures simplification**

- More transparency and clarity to all
- Less cost and effort
- Shorter time to market

Big potential of improvement in compliance field
Conformity assessment procedures

<table>
<thead>
<tr>
<th>Authority</th>
<th>Testing costs</th>
<th>Time to market</th>
<th>Dependency</th>
<th>Level of trust</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td>some others</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Certified type test with factory inspection /other compulsory registration/ certification/ license by the state</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Certified type test with factory inspection voluntary mark</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Certified type test without factory inspection</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supplier’s Declaration of Conformity</td>
<td></td>
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</tr>
</tbody>
</table>

One global conformity assessment procedure based on harmonized standards could help (good news: IEC CB Scheme has a wide acceptance.)
Experience on Non-Tariff Barriers

- Manufacturer/ local representative want to be compliant, but does not know requirements
- Product functions are getting more complex adding compliance work (e.g. RFID)
- Rising number of diverging regulations worldwide resulting in more effort & cost, but products not getting safer
- Country requirement impact product availability
- Not much harmonization between countries
- Technical changes (comp. shortage) result in updating approvals
- Uncertain market entry time, due to authority dependency
- Country approval process:
  - CB not always fully accepted
  - In practice difficult process with surprises for additional or new (non-notified) requirements

Dream of a single global test that fits all approval processes
Type approval procedures (today)

Country A
Country B
Country C

Procedure variations

Device standards definition
Conformity Testing
Certification
Factory inspection
Application

Export country national deviations
Test sample
On demand factory inspection

National law consist of:
• Standards (any)
• HS-code
• Description
• Others

Recognized test laboratory
• IECEE CBTL
• National accredited only
• Any with agreement

Recognized certification body
• IECEE CB
• National body only
• Any with agreement

Compulsory conformity assessment

Device requir. profile
IECEE Test report
CB Certificate
Inspection report

Full acceptation CB
Sample & CB
Full re-testing with samples

Certificate
Licence
Registration
Approval mark

per country market access

10 Non-Tariff Barriers, Experience of a Conformity Assessment Body | Hans Peter Leser | 07.05.2015
Type approval procedures (tomorrow?)

Country A
Country B
Country C

Export country national deviations

Procedures variations

Device standards definition

Conformity Testing

Certification

Factory inspection

Application

Full acceptance CB
Sample & CB
Full re-testing with samples

SINGLE Approval mark

Global product classification

Device requir. profile + IECEE Test report + CB Certificate + Inspection report =

Certificate
Licence
Registration

Compulsory conformity assessment

Market surveillance

National law consist of:
• Standards (IEC)
• Clear definition for regulated devices

Recognized test laboratory
• IECEE CBTL
• National accredited only
• Any with agreement

Recognized certification body
• IECEE CB
• National body only
• Any with agreement

Device standards definition

Export country national deviations

Test sample

On-demand factory inspection

Application

Full acceptance CB
Sample & CB
Full re-testing with samples

SINGLE Approval mark

Global product classification
Possible fields of action

Technical barriers to trade (TBT) Agreement and beyond

1) WTO could emphasis more on regulators using IEC standards.

2) TBT notifications in the field are difficult to monitor (often not product defined). HS Code does not sufficiently define a product. Possible use of more precise global product classification.

3) Better transparency: a global product requirement profile or a registry of existing regulations could help to simplify. Beyond transparency: linking regulations and products

4) Recognition of test results, IECCE CB certificates are a good basis for conformity assessment procedures and should be further promoted. Reducing procedural conformity assessment requirements by accepting test results.

5) A single conformity mark procedure? Would help avoiding growth of conformity procedures variation. Worldwide regulations for worldwide products?