About IFIA

• A federation of organizations that provide testing, inspection and certification services, internationally
• Established in 1982
• Global membership of 40 testing and inspection companies
  - A combined turnover of approximately €12 billion and 200,000 employees
  - Approximately 44% of membership turnover in Europe, 26% in Asia Pacific, 20% in North America and 10% Rest of World
Overview

WHAT was the purpose
WHO participated
HOW was the study executed
WHAT did we learn
WHERE do we go from here
# WHAT was the purpose

<table>
<thead>
<tr>
<th>Objective</th>
<th>To gauge the effectiveness of securing product safety, comparing self declaration system and 3rd party testing and certification</th>
</tr>
</thead>
</table>
| The Two Tasks | European law requires regulated products to carry the CE marking. For some products this is permitted to be affixed on the basis of SDOC only, while for other products third party intervention is required before the producer can attach the CE marking. This survey is aimed to demonstrate the weaknesses of the SDOC route, the data coming from a combination of:  
  
  1. Information obtained relating to products submitted to IFIA members for testing (by manufacturers, in the expectation that they would meet the relevant safety standards), and  
  
  2. The results of testing products purchased on the open market that are subject to CE marking via the SDOC route |
Executive Summary

Data will show:

- For products that were submitted to an independent third-party testing organization, the rejection rate of first-time submittals for not meeting safety requirements ranges from 27% (ac adapters, battery chargers), to 63% (white goods).
  - This could prevent over 1.2B non-compliant/faulty products from being placed on the global market.

- During surveillance visits at the factories, the certification body auditors have found non-conformities on consumer goods ranging from 11% (lighting products) to 19% (white goods).
  - This has prevented over ½ million non-compliant/faulty products from leaving the factories.

- Based on selective sampling done in Europe - for products where compliance with safety standards is ‘self-declared’ (i.e. NOT reviewed by a third-party) the percentage of non-compliant/faulty products averages 82%.
  - These products are on the market today, and can be purchased and used by any EU consumer.

Not every manufacturer is the same – not all work with the same ethics and compliance. Here, we are not talking about those reputable brand owners and manufacturers who take product safety and ‘compliance’ very seriously: we are talking about those manufacturers and importers, unfortunately very numerous, that are deliberately choosing to disregard standards and directives in Europe, and apply arbitrary short-cuts.
HOW was the study executed

1) 3rd party – Test Failure Analysis

- IFIA CIPC collects data regularly to assess:
  - percentage of safety tests and factory inspections performed
  - percentage of failures.

- Data reported in this study highlights failures resulting from safety-critical reasons: date of collection was August 31st 2012, and it covers a global span, from NA to EU, to AP.

- External provider asked to receive and collate the completed data surveys, validate, and calculate averages.

- Objectives were to:
  - Assess average failure rates
  - Identify compliance issues

- Total of 6 respondents representing 6 IFIA CIPC member companies.

- *Data in this report is confidential and does not identify the individual participants.*
Table 1: Consumer Products Safety Testing and Certification Services

<table>
<thead>
<tr>
<th>Product Categories</th>
<th>Total number of safety testing and certification projects completed in 2011</th>
<th>Weighed % of products NOT meeting safety requirements for any reason</th>
<th>Weighed % of products NOT meeting requirements for safety-critical reasons only</th>
<th>Weighed % of products that never reached compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL Electrical Products for Household Use</td>
<td>74,508</td>
<td>42.2%</td>
<td>15.1%</td>
<td>2.8%</td>
</tr>
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</tr>
<tr>
<td>-------------------------------------------</td>
<td>----------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>----------------------------------------------------</td>
</tr>
<tr>
<td>White Goods</td>
<td>9296</td>
<td>62.7%</td>
<td>12.7%</td>
<td>3.9%</td>
</tr>
<tr>
<td>Household Appliances</td>
<td>14,956</td>
<td>62.3%</td>
<td>17.9%</td>
<td>2.7%</td>
</tr>
<tr>
<td>Lighting Products</td>
<td>7,306</td>
<td>35.3%</td>
<td>22.3%</td>
<td>3.2%</td>
</tr>
<tr>
<td>IT, AV, home electronic equipment</td>
<td>32,362</td>
<td>35.6%</td>
<td>14.6%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Cable (installation, power cords)</td>
<td>2,967</td>
<td>37.2%</td>
<td>14.0%</td>
<td>17.7%</td>
</tr>
<tr>
<td>Adapters, chargers, etc.</td>
<td>7,621</td>
<td>26.6%</td>
<td>15.7%</td>
<td>1.6%</td>
</tr>
<tr>
<td>TOTAL Electrical Products for Household Use</td>
<td>74,508</td>
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</tr>
<tr>
<td>------------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------</td>
<td>---------------------------------------------------</td>
</tr>
<tr>
<td>Industrial Products</td>
<td>20,519</td>
<td><strong>34.1%</strong></td>
<td><strong>28.6%</strong></td>
<td>N/A</td>
</tr>
<tr>
<td>Electrical Products for Medical</td>
<td>2,333</td>
<td><strong>45.3%</strong></td>
<td>19.0%</td>
<td>3.9%</td>
</tr>
<tr>
<td>Sports Goods</td>
<td>177</td>
<td><strong>33.2%</strong></td>
<td>8.4%</td>
<td>N/A</td>
</tr>
</tbody>
</table>
# Table 3: Consumer Product Factory Surveillance services

<table>
<thead>
<tr>
<th>Product Categories</th>
<th>Total number of inspections performed in 2011</th>
<th>Weighed % of products found to be non-compliant for any reason</th>
<th>Weighed % of products found to be non-compliant safety-critical reason only</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Goods</td>
<td>14,641</td>
<td>19%</td>
<td>10.3%</td>
</tr>
<tr>
<td>Household Appliances</td>
<td>18,412</td>
<td>16.4%</td>
<td>8.2%</td>
</tr>
<tr>
<td>Lighting Products</td>
<td>45,472</td>
<td>11.1%</td>
<td>8.2%</td>
</tr>
<tr>
<td>IT, AV, Home Electronic Equipment</td>
<td>24,202</td>
<td>15.9%</td>
<td>11.2%</td>
</tr>
<tr>
<td>Cable (installation, power cords)</td>
<td>17,296</td>
<td>15.6%</td>
<td>15.2%</td>
</tr>
<tr>
<td>Adapters, chargers, etc.</td>
<td>9,228</td>
<td>16.3%</td>
<td>13.3%</td>
</tr>
<tr>
<td>Electrical Products for Household Use</td>
<td>129,251</td>
<td>15%</td>
<td>10.3%</td>
</tr>
<tr>
<td>Product Categories</td>
<td>Total number of inspections performed in 2011</td>
<td>Percentage of products found to be non-compliant for any reason</td>
<td>Percentage of products found to be non-compliant safety-critical reason only</td>
</tr>
<tr>
<td>----------------------------</td>
<td>-----------------------------------------------</td>
<td>-----------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Industrial Products</td>
<td>303,364</td>
<td>4.6%</td>
<td>3.1%</td>
</tr>
<tr>
<td>Electrical Products for Medical Use</td>
<td>13,331</td>
<td>10.6%</td>
<td>8.5%</td>
</tr>
<tr>
<td>Sports Goods</td>
<td>6,393</td>
<td>17.3%</td>
<td>1.3%</td>
</tr>
</tbody>
</table>
Conservative estimate indicates that for each product type there is an average of at least 40,000 samples sold in the world: based on this, intervention by qualified third-party bodies *has stopped more than 1.2B non-compliant/faulty products* from being placed on the global market.

The *full-lifecycle* nature of the third-party certification model has stopped another ½ million+ products from exiting factories with critical safety defects.

This, as stated earlier, applies only those manufacturers and products that *are* submitted to a third-party entity: what about all those that *self-declare*?
HOW was the study executed

2) Post Market Surveillance Testing

Following product categories were chosen as fair representatives of imported electrical goods, that have:

- wide market distribution,
- established safety standards
- relevant potential of causing harm to consumers

a) Battery Chargers/Adapters
b) Luminaires (LEDs, classic)
c) Hair dryers/curlers
d) Room heaters
e) Electric Fans
f) Toasters, grills and similar

> Samples (only CE-Marked, no third-party marks) were purchased from regular stores, in the following nations: Denmark – Poland – Germany – UK – Italy

> Independent laboratory was selected, to have the following characteristics:
- Not connected to any IFIA member
- Notified Body for Low Voltage Directive
- Familiar with the product categories
- Familiar with market surveillance protocols

> Members of the CIPC reached consensus on which tests /analysis to conduct on each product type, as shown in the attached summary and in each individual test report.

> Execution of the lab work occurred May-July 2012.
• Of the 127 samples submitted, 23 passed all elements of analysis and testing – that’s **18%** of the total. That means that **82%** were NOT in compliance with EU standards and regulations.

• **This does not mean that in EU we have 82% of products not in compliance** – data is based on selective sampling, focused on low-cost electrical products purchased from low-cost stores.

• Example: The ‘electric fan’ - a product sold by the thousands during the summer months, and physically approachable by elderly people and children.
  - Only **one** out of 10 samples under evaluation passed all the tests and analysis – the rest were ALL out of compliance (i.e. potentially dangerous).
  - Amongst the non-compliant issues, the laboratory engineers found 15 instances of **critical failures**: these have led to immediate reporting to the local authorities – a necessary action to prevent consumers from being hurt.

• Even simpler requirements, such as marking labels and safety instructions, were broadly missed by more than **50%** of the products evaluated. A practical example: some of the appliances did not bear any warnings regarding outdoor use.
Our reflections: Number 1

The number of rogue products/operators seems to be increasing, although they are 'on the EU market', and all bear CE Markings

- IFIA survey reports powerful data that cannot be ignored
- Sibling surveys conducted by EU market surveillance authorities indicate similar outputs (see back-up slides)
- Local market surveillance authorities do the best they can, but it’s no secret that:
  - They are under-staffed
  - They are under fire by many industry associations
  - Lack the means and instruments to be more effective
  - Training of customs officers is in dire need of updating/improving
- Consumers may often look to save money by purchasing appliances and other electrical goods at lower prices
Number and type of accidents suffered by EU consumers, with regards to electrical products, is *not* fully represented by the data available on Rapex.

- Rapex data is a *fraction* of what happens in real life.
- Nature of (most) EU consumers is not prone to reporting accidents, faults.
- Process for reporting is not user-friendly, and rarely leads to satisfactory results.
- Legal system is still slow and cumbersome, in dealing with such issues.
Self-Declaration-of-Compliance (SDOC) model has been implemented for 20 years, and IFIA CIPC data shows it is not working as expected

– Manufacturing base is vastly different from 20 years ago
– Global supply chains have complicated traceability of critical components and materials
– International markets attractiveness has changed dramatically: as seen through the lens of many of the EU industry associations, reciprocity is not always enjoyed, when attempting to secure ‘conformity’ to the rules and regulations of other market destinations
– The increasing number of defective and dangerous products demands changes
Our reflections: Number 4

Safety is not a subject to be taken lightly

- Standards exist for a reason and is written by experts in a consensus setting
- Product Compliance is not ‘static’
- Technical competence, certified professionals and accredited labs

Ask yourself:

- How would you react if it was your child that got hurt by a defective, non-compliant product?
- Why should we be taking such risks, and would we do it with someone in our family?
- Would we give such a product as a gift to a friend?

>> So why do we think it would be ok for other EU consumers to do so?
Strategic thoughts & IFIA positioning

SDOC system does not work as well as it should: after 20+ years, it’s time for a major overhaul (beyond the New Legislative Framework).

A more rigorous approach on accreditation of laboratories is urgently needed (make it mandatory for every lab that issues a report to the purpose of a CE Marking application, across any and all affected Directives), as is focused training and instruments for Customs’ officers.

Local inspection and surveillance authorities should work more closely with the TIC industry representatives, while the European legislators introduce tougher penalties for rogue operators.

EC should refrain from using SDOC model as a trade facilitation subject: it is dangerous to EU consumers to continue to do so, as we invite more products to be imported into Europe without proper guarantees of safety.

It is, likewise, counter-productive for the EC to suggest that other geographies should emulate the model, as they would expose their own citizens to the same risks (if not larger) – especially in developing countries where additional safeguards are not in place.
Industry Associations, NGOs

Regulators, Inspection Authorities

Consumer Associations, NGOs

Industry Associations
BACK-UP SLIDES
1) 3rd Party Test Failure Analysis

Comparison to the Previous Study

- 2012 survey data consistent with 2010 results.
- One additional member company is reported in this 2012 study > more comparative data.
- Section of new questions has been added
- Quick review of the data:
# Results of Market Surveillance by Finnish Market Surveillance Authority Tukes

## Products tested, Conforming products %, Minor defects, Major defects, Fatal defects

<table>
<thead>
<tr>
<th>Year</th>
<th>Products tested</th>
<th>Conforming products %</th>
<th>Minor defects</th>
<th>Major defects</th>
<th>Fatal defects</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>816</td>
<td>21 %</td>
<td>39 %</td>
<td>30 %</td>
<td>11 %</td>
</tr>
<tr>
<td>2010</td>
<td>681</td>
<td>22 %</td>
<td>35 %</td>
<td>32 %</td>
<td>10 %</td>
</tr>
<tr>
<td>2011</td>
<td>790</td>
<td>22 %</td>
<td>28 %</td>
<td>38 %</td>
<td>12 %</td>
</tr>
</tbody>
</table>

## Reactions based on the market surveillance tests: # (% of all tested)

<table>
<thead>
<tr>
<th>Year</th>
<th>No reaction</th>
<th>Note to importer / manufacturer</th>
<th># Ban of delivery (to shops)</th>
<th># Ban of sales</th>
<th># of product recalls</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>240 (29 %)</td>
<td>385 (47 %)</td>
<td>93 (11 %)</td>
<td>93 (11 %)</td>
<td>5 (1 %)</td>
</tr>
<tr>
<td>2010</td>
<td>146 (21 %)</td>
<td>352 (52 %)</td>
<td>77 (11 %)</td>
<td>74 (11 %)</td>
<td>32 (5 %)</td>
</tr>
<tr>
<td>2011</td>
<td>164 (21 %)</td>
<td>375 (47 %)</td>
<td>99 (13 %)</td>
<td>95 (12 %)</td>
<td>57 (7 %)</td>
</tr>
</tbody>
</table>
Examples of data from market surveillance actions in EU

• Data courtesy of ProSafe
Lighting Chains (with LVD AdCo)

- Sampling upon arrival in EU
- Import control
- 196 samples
- 30,4% serious non-compliance
- 40,2% less serious
Sunbeds

- To enforce the safety requirements for sunbeds and solarium services

- >300 locations and >500 sunbeds checked
- 20% incorrect labelling
- 32% sunbed type not listed
- 52% no UV warning
- 70 of 84 sunbeds with too high radiation
- Lacking consumer guidance
Helmets

- To check compliance of safety and labelling
- Enforcement

- 367 inspected
- 63% non-compliant (instru & markings)
- 40 samples (→18 non-compliant (11%))
- No relation between price and test results
Definition of ‘Critical Failure’

- Accessible live part in normal use
- The creepage and clearance distance is less than 10% of the requirement in relevant standard
- Cord extension set with class 1 plug and class 0 outlet
- Cord extension set with class 2 plug and class 0 or 1 outlet
- Class 1 plug on 2-conductor cable to class 0-device
- Phase and earth mixed up in earthed coupling
- The equipment lacks thermal cut-out and/or current cut-out. (If this result in hazard, fire or shock)
- The rated current in equipment is so high that it is a fire hazard
- The marking for warning or correct use is incomplete or missing
- Operation instruction is misleading, which can cause danger
- Conductor connections and chord anchorage depending on risk result