Testing, monitoring and verification

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Agenda

• Quick recap from yesterday
• Market surveillance
• The role of a Test laboratory
• Focussing on Lighting:
  • Parameters
  • Some examples
  • Practical test of colour rendering!
  • Network of lighting labs
Challenges for policy makers

At present, a very fast development of new technologies for lighting promise to deliver:

- Better lighting – the fundamental service we expect!
- Wider range of performance – tunable light sources, lighting systems etc
- Higher energy and resource efficiency
- Lower cost and environmental impact
- Etc...

How to take advantage of this? Long-term strategies

How to verify claims on performance? Not all products are good

How to steer and monitor the market development?
Role for policy makers

Take responsibility, use a holistic approach:
From Test Methods to Enforcement (using the EU as an example)

- Enforcement; Individual MS (Member states); requires competent laboratories
- Regulations and directives; Decided by the EU Commission and MS (vote)
  - Metrics (SB)
  - Test methods (test standards); Standardisation bodies (SB)
  - Product categories (SB)
Market surveillance have nuances depending on the set-up

Different principles in different regions:

• Third-party compliance testing by accredited labs and entry into a database *before* putting the product on the market. *Eg US.*

• Compliance testing and documentation control by random selection *after* putting the product on the market. *Eg EU.*

• Entry into a database *before* putting the product on the market, compliance testing *afterwards*. *Eg AU, and soon also EU (for energy labelled products).*

This will affect the details of the market surveillance – *here EU is used as an example.*
EU – 28 countries, *one* market

Products put on the market have to comply with all market regulations. The "CE-mark" assures that this is the case.
Putting a product on the market – supplier responsibilities

- Supplier: typically a manufacturer or importer
- Ensure correct CE-marking
- Provide declaration of conformity
- Compile technical documentation
- Provide required information in product fiches and user manuals
- Respond to market surveillance authorities with relevant documents concerning the product
When the product is on the market – dealer responsibilities

- Dealer: can be the supplier or a retailer along the business chain
- Should have knowledge about the requirements on the supplier
- Ensures correct energy labelling in stores, advertisements and on the internet – wherever the supplier/dealer meets the consumer
Why market surveillance (enforcement)?

- *Ensure* that products that are placed on the EU-market or put into service in the EU comply with ecodesign and energy labelling requirements.

- *Protect* consumers and end-users against non-complying (inefficient) products.

- *Ensure* fair competition and a level playing field on the market.

- *Keeps up* the credibility of the regulations.
Is it expensive? Or reversed: Can we afford not to have market surveillance?

- Avoided lost energy savings: 28 million EUR
- Market surveillance cost: 2.1 million EUR
- Return on investment factor of 13!

Market surveillance – how it works

• Goal: Energy-related products placed on the market or put into service comply with ecodesign and energy labelling requirements.
• Non-complying products are either brought into compliance or removed from the market.
• Market surveillance covers the product itself and the documentation that the supplier must make available concerning the product.
Market surveillance – how it works (ctd)

Types of surveillance, either proactive or reactive:

*Energy labelling:*
  - Physical shop inspection
  - Internet sites selling products
  - Advertisements

*Ecodesign and energy labelling:*
  - Document control
  - Testing in a laboratory
Two approaches:

Proactive market surveillance:

Information campaigns (proactive) → Attitudes changed/ knowledge increased → Improved compliance → Goods on the market meet requirements

Proactive and reactive market surveillance:

Screening/verification/inspection → Non-compliance observed → Corrections made → Attitudes changed/ knowledge increased → Improved compliance → Goods on the market meet requirements
Market surveillance – finding of non-compliance

- Dialogue
- Voluntary corrections
- Penalties (injunctions, injunctions with fines, prohibitions)
- Inform the EU Commission and other market surveillance authorities
Market surveillance – EU cooperation is key

• Common regulations, but responsibility for the market surveillance on the member state level
• Not all member states have the same resources
• Working together is key
• Nationally:
  – Cooperation between different governmental bodies responsible for different regulations covering the same products – electrical safety, electronic waste, energy efficiency etc
• Regionally
  – The Nordic countries are working together in different projects
• Across EU
  – Different EU-projects where many member states pool resources
Market surveillance in Sweden

One-stop shop

- Policy – negotiations in Brussels on behalf of the SE Government
- Market surveillance – documents, shops, testing
- Accredited laboratory (Testlab)

Organised in two units
Ca 20 persons
Overall annual budget ca 1.5 MEuro

Some of the staff
The use of a test laboratory – "Testlab"

Established already in the 1970’s for consumer tests
Nowadays mainly tests for ecodesign and energy labeling:

- Market surveillance
- Tests for the policy negotiations
- Tests for development of improved or new test standards
- Public procurement verification testing
- Information testing for consumers
- Training courses for stakeholders

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The use of a test laboratory (ctd)

Covering ca 40 products!

In-house testing:
- Lighting products
- Dishwashers
- Tumble dryers
- Washing machines
- Electronic products – TV, laptops etc

External testing of the rest
- The internal test capacity ensures qualified procurement of the tests
- External labs get a better understanding of policy
Extra: The success of energy labelling – celebrating 20 years 2016

Film by the Swedish Energy Agency