



The energy efficiency policy for household appliances in Europe

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25 ecodesign regulations

1275/2008	Electric power consumption standby and off mode
107/2009	Simple set-top boxes
244/2009	Non-directional household lamps
245/2009	Fluorescent lamps and high intensity discharge lamps
278/2009	External power supplies
640/2009	Electric motors
641/2009	Circulators
642/2009	Televisions
643/2009	Household refrigerating appliances
1015/2010	Household washing machines
1016/2010	Household dishwashers
327/2011	Industrial fans
206/2012	Airco and comfort fans
547/2012	Water pumps
932/2012	Household tumble driers
1194/2012	Directional lamps and LED lamps
859/2009	Lamps regulation amending regulation 244/2009
347/2010	Lamps regulation amending regulation 245/2009
622/2012	Circulators (amending regulation 641/2009)
617/2013	Computers and servers
666/2013	Vacuum cleaners
801/2013	Networked standby
813/2013	Space heaters
814/2013	Water heaters & storage tanks
66/2014	Domestic ovens, hobs and range hoods

12 energy labelling measures

96/60/EC	Household combined washer-driers
1059/2010	Household dishwashers
1060/2010	Household refrigerating appliances
1061/2010	Household washing machines
1062/2010	Televisions
626/2011	Air conditioners
392/2012	Household tumble driers
874/2012	Electrical lamps and luminaires
665/2013	Vacuum cleaners
811/2013	Space heaters
812/2013	Water heaters & storage tanks
65/2014	Domestic ovens, hobs and range hoods

2 voluntary agreements

COM (2012) 684	Complex set top boxes
COM (2013) 23	Imaging equipment

2 tyre labelling regulations

228/2011	Wet grip testing method for C1 tyres
1235/2011	Wet grip grading of C2, C3 tyres, measurement of tyres rolling resistance and verification procedure



European
Commission

Measures under development

Electronic displays (ecodesign and labelling)
Solid fuel boilers (ecodesign and labelling)
Local space heaters (ecodesign and labelling)
Air heating products
Ventilation products
Power transformers
Professional wet appliances
Professional refrigeration
Commercial refrigeration
Waste water pumps
Other pumps
Compressors
Other motors

Voluntary agreements under development

Game consoles
Machine tools

Measures under review

Household dishwashers
Household refrigerating appliances
Household washing machines
Household tumble driers
Pumps
Set-top Boxes
Non-directional household lamps (stage 6)
External power supplies
Lighting (products for all applications + special purpose)

Measures under study

Window products
Thermal insulation
Water related products
Power generation equipment
Heating and lighting controls
Smart appliances/meters
Wine storage appliances
Power cables
Enterprise servers
Steam boilers
Positive displacement pumps
Fractional horse power motors < 200W



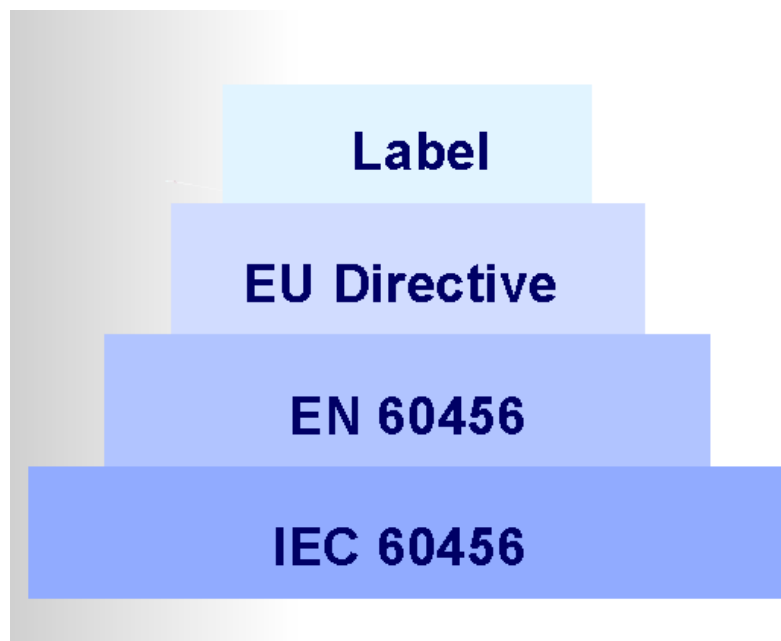
Energy Efficiency
tested according to
Regulation (EC) No.
1275/2008

Energy

Positive experiences from the European labeling program

- Energy Label since 1996
- High improvement for efficiency and performance
- Transparency for the consumer
- Accepted by manufacturer, consumer and authorities
- Getting a marketing tool

Standards and Directives



New Label / Fiche -> Tolerances



	Tolerance new	Tolerance old
Annual Energy Consumption (and Et)	+ 10%	+ 15 / 10%
Annual Water Consumption	+ 10%	+ 15 / 10%
Washing Performance (must be A)	- 4 %	- 0,03 / -0.02
RMC value	- 10%	- 15 / 10%
Programme time (fiche)	+ 10%	+ 15 / 10%
Spin speed (fiche)	- 10%	- 100 rpm / 10%
Left-on mode duration (fiche)	+ 10%	-
Power left-on and off (fiche)	+ 10% or <0,1 W	-
Noise	???	-

Energy label under evaluation

- | | |
|-------------------------------|--|
| ▪ May 2013- June 2014 | <i>Evaluation Study</i> |
| ▪ Sept – Nov 2013 | <i>Public Consultation</i> |
| ▪ Sept 2013 – Aug 2014 | <i>Consumer Study</i> |
| ▪ 19 Feb 2014 | <i>Label Layout Meeting</i> |
| ▪ 20-21 Feb 2014 | <i>International Label Conference</i> |
| ▪ 11 June 2014 | <i>Consultation Forum</i> |
| ▪ Early 2015 | <i>Commission Report + proposal</i> |

Decisions to be made by the new Commission; and after that by the EU Parliament and Council

Source: Paul Hodson, EC, EUSEW, Brussels, 25.6.2014





IFA 2013

Energieeffizienz A+++
(– 50%) in **6:30 h** !!



Aspects for new Label

■ Consumer relevant

- ✓ Programs which are used from the consumer
- ✓ Shorter washing time
- ✓ Fullfill the temperature which is given in display
- ✓ Washing performance in accordance to the consumer expectations
- ✓ Realistic loading and capacity of the washing machine
- ✓ Include rinsing efficiency

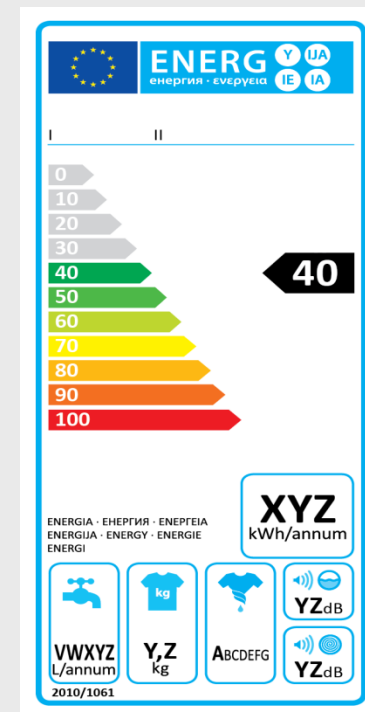
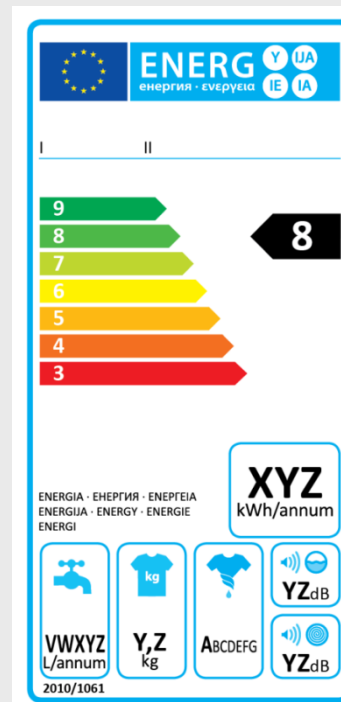
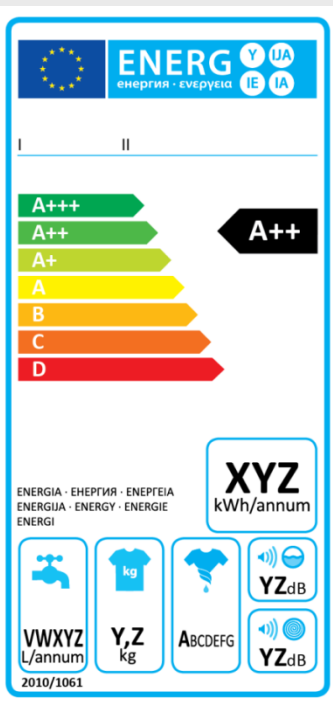
■ Transparency

- ✓ Describe washing time in manual or display
- ✓ Fullfill the temperature - all whats described is real

New Energy label design?

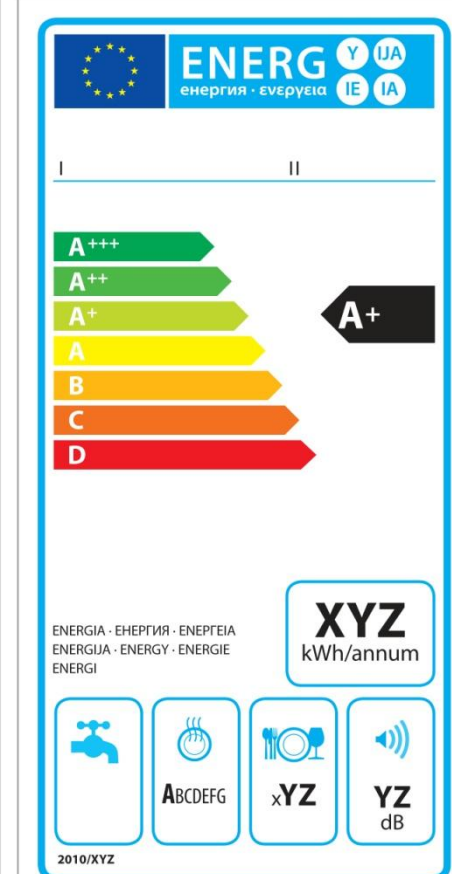
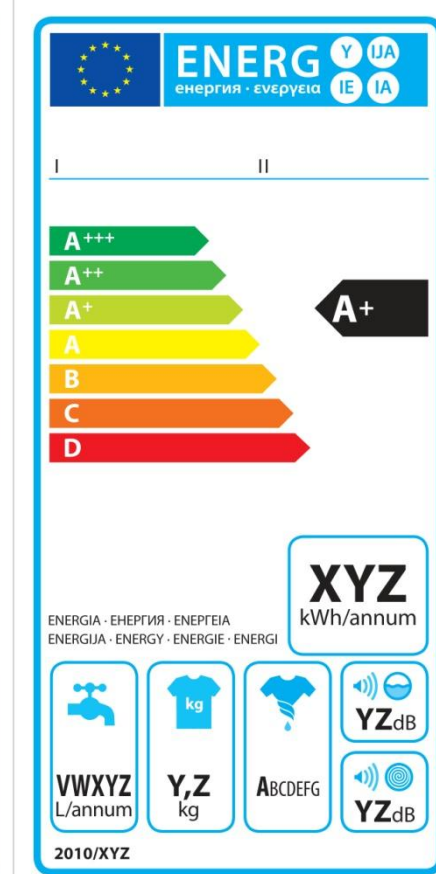
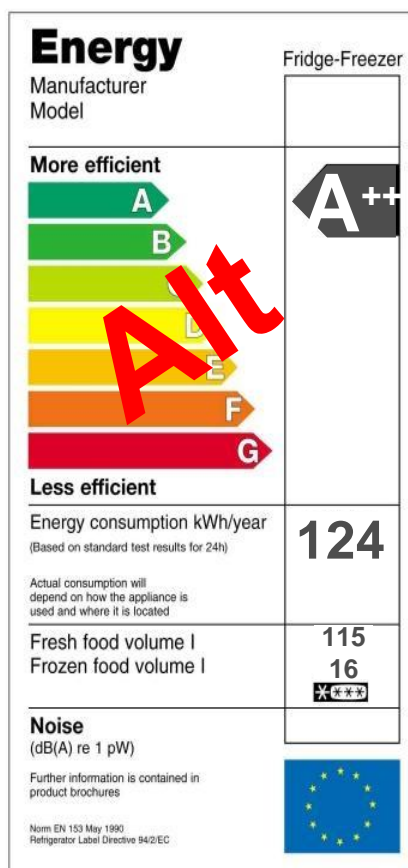
Consumer should understand the label

Tested in online survey and in physical shops



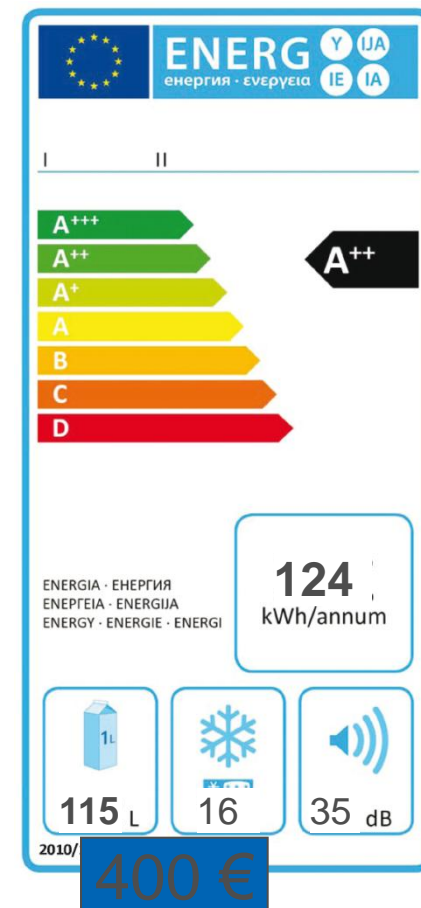
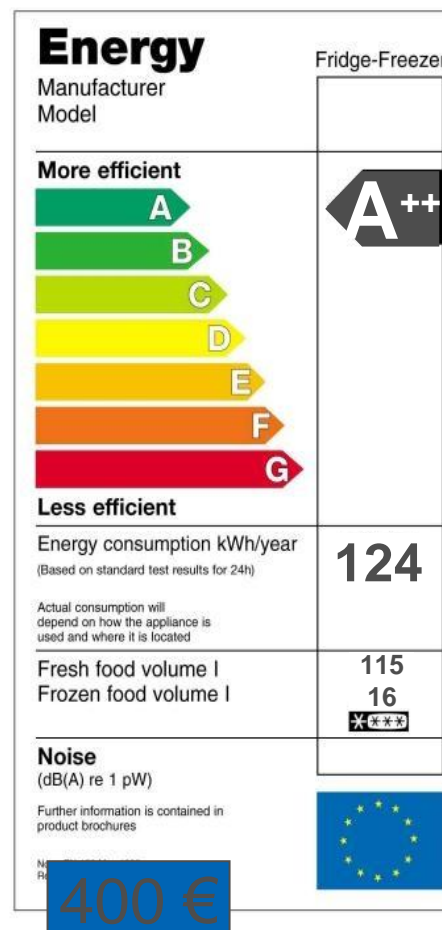
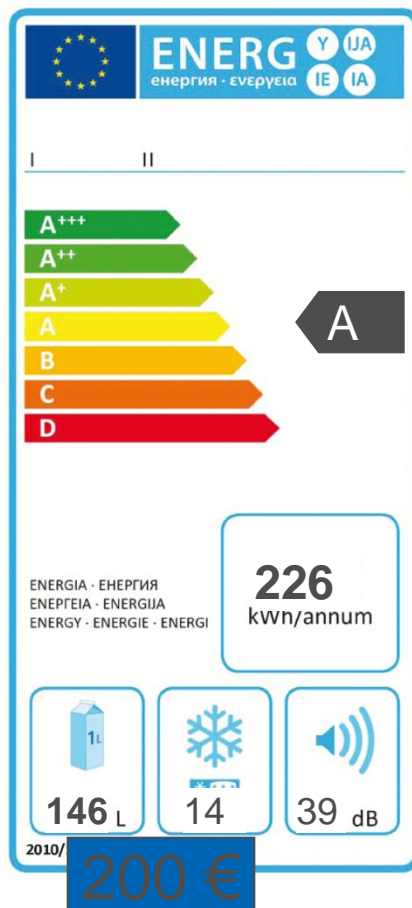
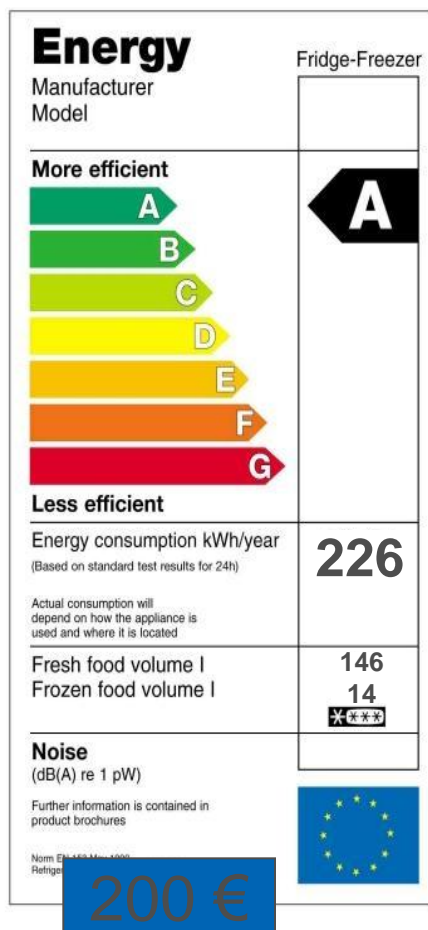
New energy label in Europe

- For refrigerator, washing machine and dishwasher



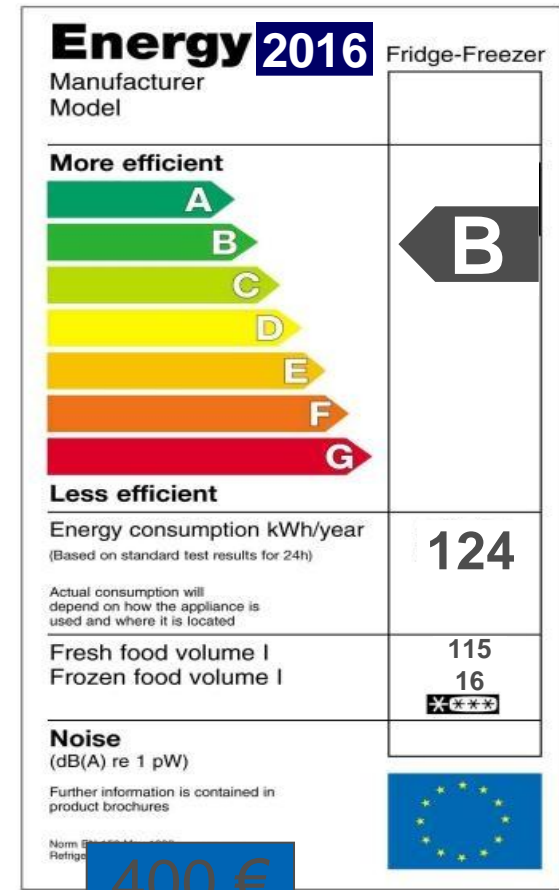
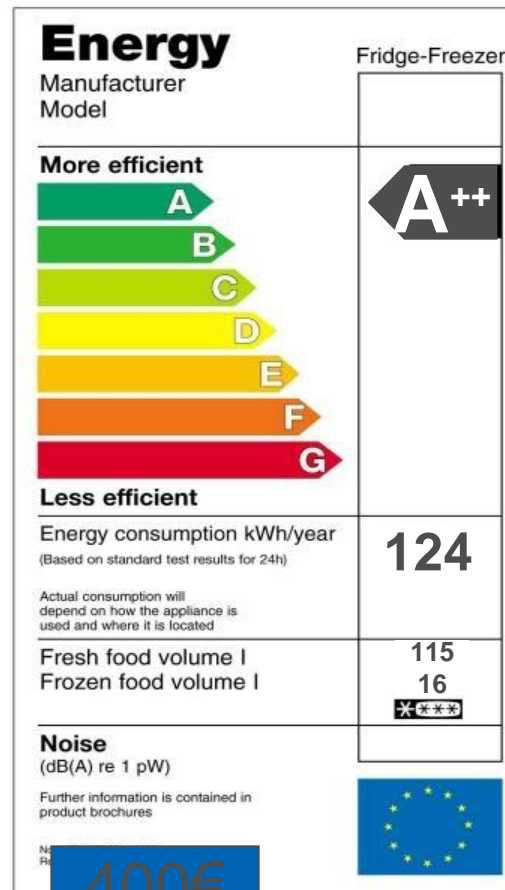
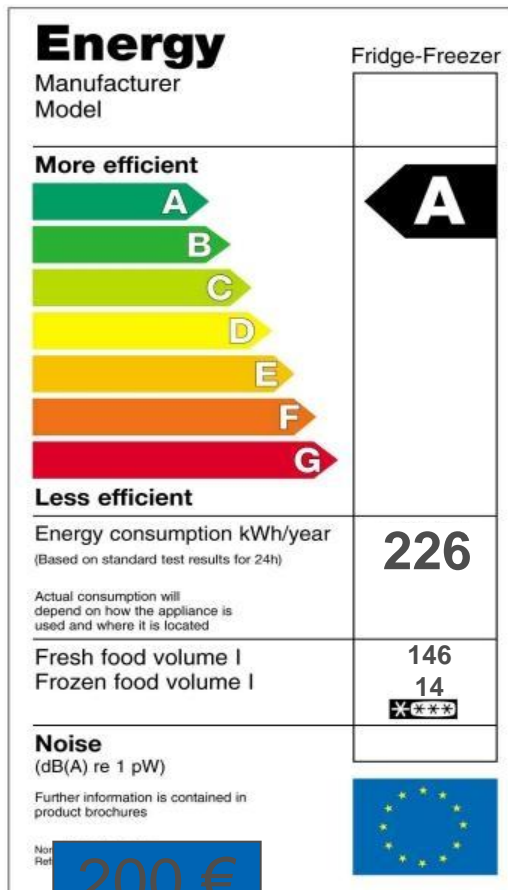
Energy-Label

The step from the old label to the new one was successful

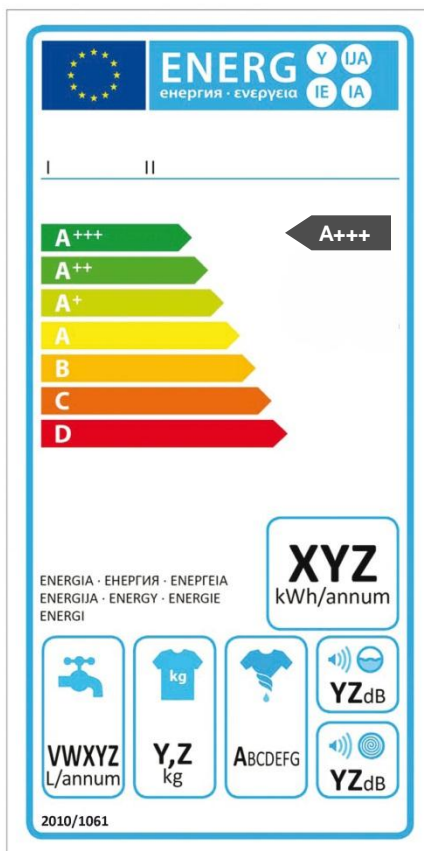


Energy-Label

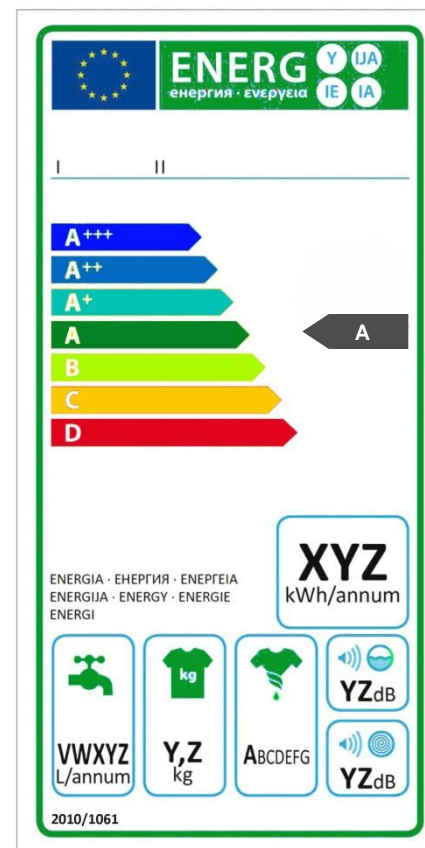
Simply down scaling could be a risk for the transition periode



At least one aspect should be maintained— colors or letters



- Stay in the current design but with different colours
- Make sure that appliance with energy efficiency according to minimum requirements eco design are labeled C or D
- Rescaling in the Label with A+ to A+++ guarantees that the best today appliances will be labeled A in the future
- New colours demonstrate the new classes, similar colours for A+++ in the past and A in the future define the link between old and new label



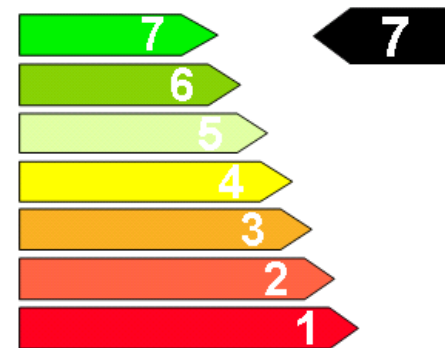
A new label with new classes and open scale (i.e. 1,...,7,...)

Pros:

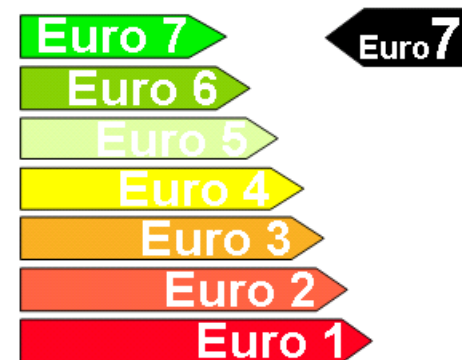
- Keep value of our products on market
- No threatening of investments done by the industry
- Differentiation between new and old label
- Very clear break with the past

-Cons:

- Risk not being accepted by EU policy makers



Proposal



Other option

Expectations:

- Only down scaling in the A-G scale may have actually a great possibility to be accepted because it is the favourite for the consumer organisations
- Downscaling in 3 steps in the actual system A+++- E may have also a reasonable chance to be accepted.
- All other suggestions have unfortunately only a small chance for expectation even many arguments standing for that changes. Unfortunately it would lead to a break in the presentation and efficiency in the market.

Why we need an Market Surveillance System

“20% of the regulated population will automatically comply with any regulation

5% will attempt to evade it

and the remaining 75% will comply as long as they think that the 5% will be caught and punished.”

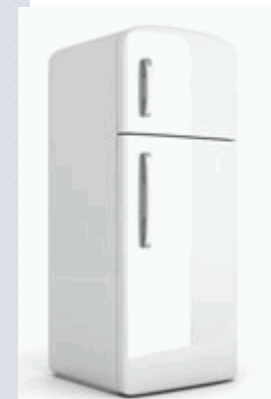
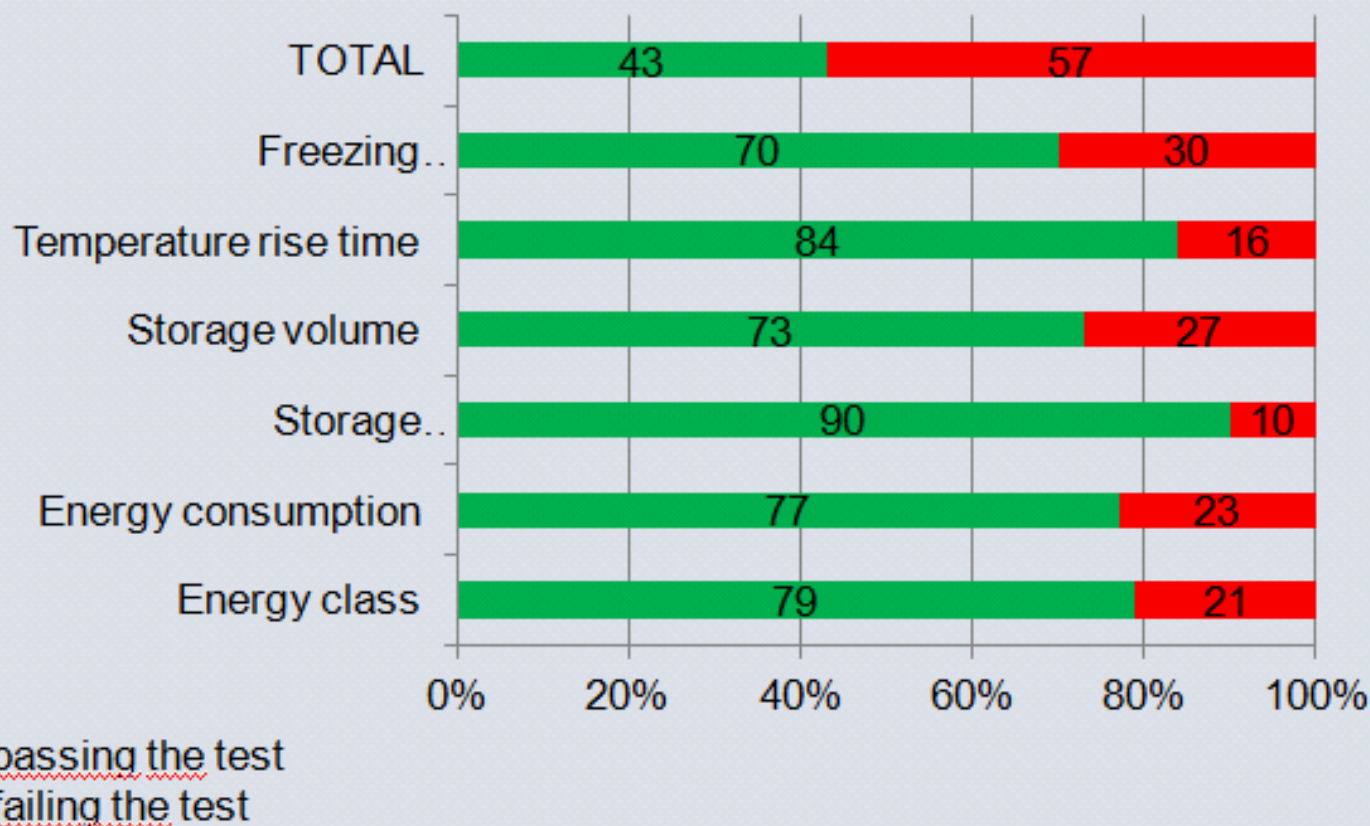
References and resources market surveillance

- ATLETE (Refrigerators) www.atlete.eu
- ATLETE II (Washing machines) www.atlete.eu/2
- ComplianTV (televisions) www.complianttv.eu
- PremiumLight (LEDs and CFLs) www.premiumlight.eu
- Come On Labels (900 shop visits) www.come-on-labels.eu
- Market Watch (NGO coordinated) www.market-watch.eu
- Topten (Product ranking) www.topten.eu
- EU Energy label evaluation www.energylabelevaluation.eu

ATLETE project Testing refrigerating appliances (2011)

ATLETE test results

Overall situation for the 70 completed models



ATLETE II project overview

Compliance verification of full Label / Ecodesign legislation requirements

50 washing machine models randomly selected from all market share intervals

5 laboratories selected in panEU tender

Remedy actions by manufacturers

Full results published and shared with the MSAs



ATLETE II results

- 30% overall compliance rate when including all individual parameters.**
- 38%** compliance rate for the Ecodesign-requested information to be provided in the **booklet of instructions**;
- 64%** compliance with the requirement to **indicate the standard programme** on the machine;
- 84%** overall compliance of the **product fiche and Ecodesign-requested information** availability and proper format;
- 92%** overall compliance rate for **functional performance class and parameters**;
- 100%** compliance rate with energy and water consumption **Ecodesign minimum requirements**;
- 100% compliance rate with the energy efficiency class and energy consumption declarations for the Energy Label.**



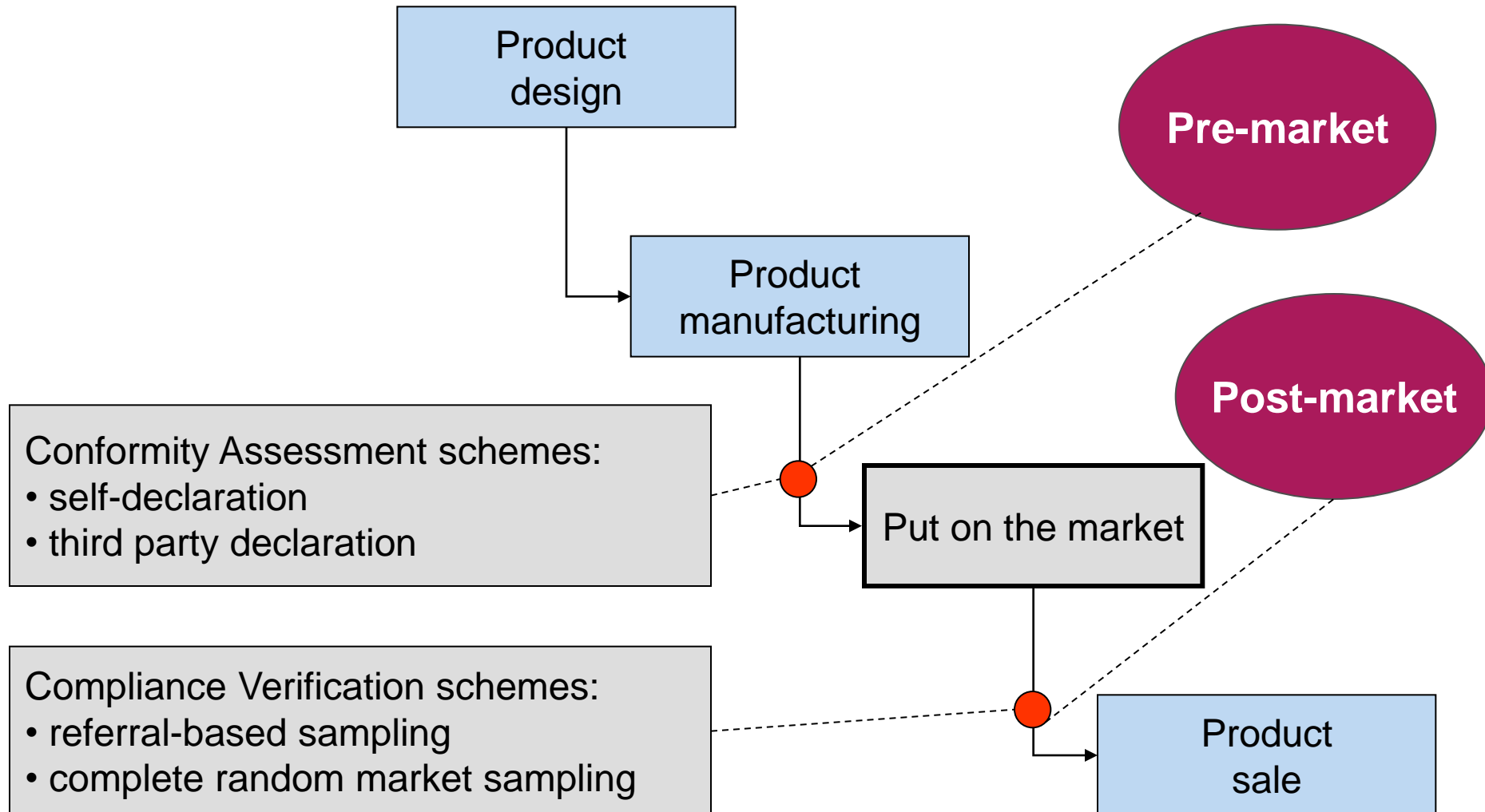
- High relative standard deviations as calculated according to EN60456 may indicate that something was wrong – either with the machine or the testing or just a typo!
- Labs should indicate the rel. standard dev. and compare to the expanded uncertainties given in the standards.
- MSA must be careful when trusting results even from qualified labs!

- Findings from University Bonn Dr. Stamminger

What is done, that the labeling programs can be supported by a sufficiently developed technical competence?

- **Tolerance of a measurement result may have an impact in a verification process given in the regulation or directive.**
- **We need stabile measurement processes**
- **We need repeatable and reproducible test procedures**
- **Therefore laboratories must participate on Round Robin Tests**
- **Therefore we need qualified and well instructed engineers,**
- **Furthermore we need qualified facilities and measuring equipment which is calibrated with good maintenance**
- **Laboratories must be accredited for ISO 17025 and must show their competence also by additional requirements**

Laboratories are key before and after PoM



Low Level of market surveillance activities

Significant and regular activity **only** in some EU countries

Product testings **insignificant** in many countries or for some product categories

Rising **complexity** of legislation and detailed requirements

=> Small share of the market surveilled

Low Level of market surveillance activities... **but high expectations:**

Growing level of MSA activities

Specific **projects** and activities in place

Priority area within the EU label revision

Industry associations supporting

Procedural improvements for increased
effectiveness of MSA is negotiated

Product testing – an overview: EU results exchange system

- “MSA Package” include:
 - Increased effort for communication between the authorities on an international level,
 - Easier identification and traceability of products under surveillance,
 - Sharing product related surveillance activities among the authorities to avoid duplication of efforts,
 - Promoting and sharing the test results of tests among Member States.

Some considerations for improvements

Resources

Understand **social benefits** of market surveillance

National market surveillance

Laboratories: usage of **foreign labs** / templated reports

Penalties: dissuasive (energy lost), **publishing**

Third party certification: option open per product group

Legislation complexity

Clear legislation (Clear text / Communiation and guidelines)

Enforceable requirements

**Thank you
for your attention!**

VDE – Your reliable Partner
for Testing and Certification

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