



● Energy Efficiency of Products

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● Key elements regarding energy efficiency of products in the EU

- Ecodesign (ErP) – push the market by taking out the least-performing products

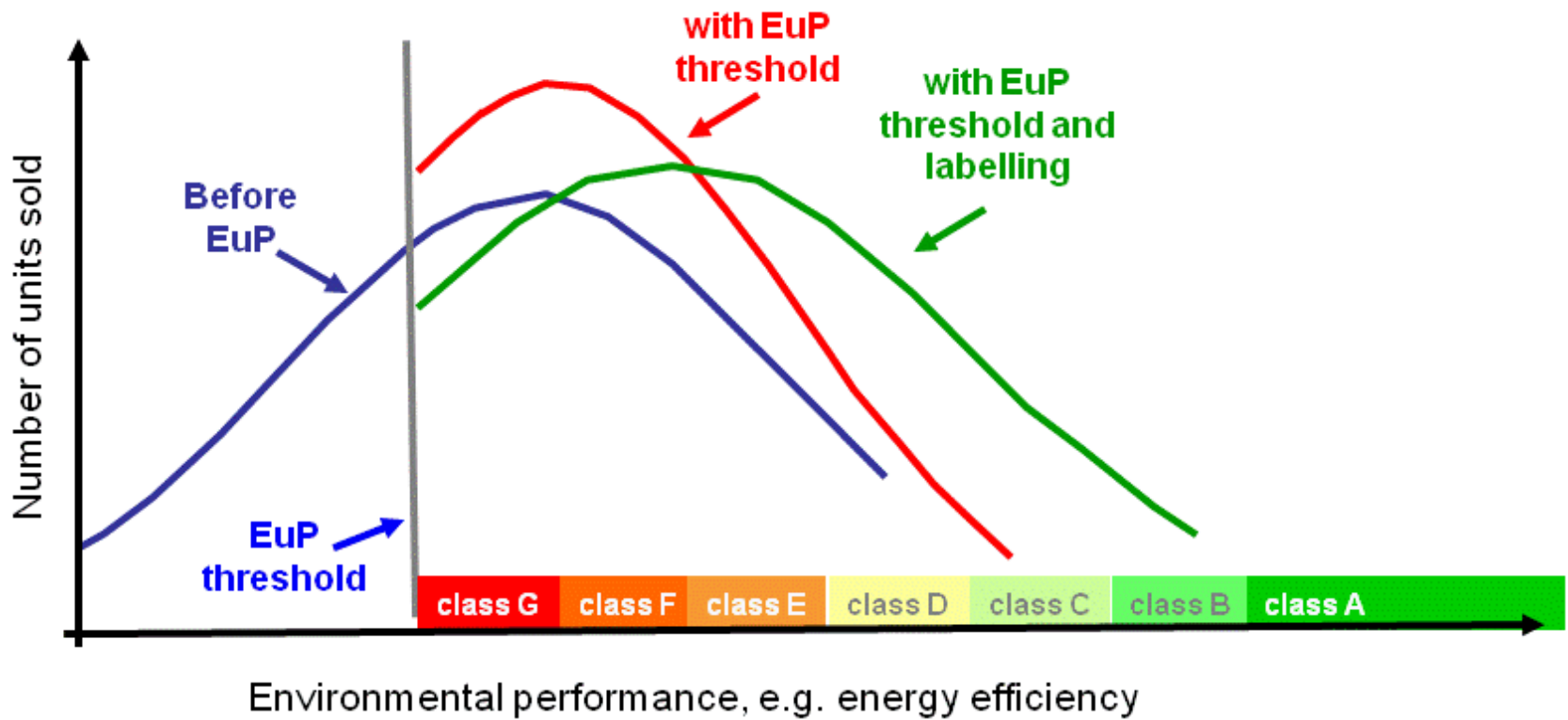
- Energy labelling/Energy Star – pull the market by promoting the best-performing products

Energy	
Manufacturer Model	Frigo-Fræzer
More efficient	A
A	
B	
C	
D	
E	
F	
Less efficient	
G	
Energy consumption kWh/year (Based on standard test results for 24h)	325
Actual consumption will depend on how the appliance is used and where it is located	
Fresh food volume l	190
Frozen food volume l	126
Noise (dB(A) re 1 µV)	KK-3
Further information is contained in product brochures	
More EU info: May 2002 EN 60336:2002 (EN 60336:2002)	



- Complemented by public procurement and other incentives (set mainly at the level of Member States)

Market transformation



● Energy efficiency of products - main instruments

● **Ecodesign Directive** 2009/125/EC

- » «framework» defining the «rules» for setting product-specific requirements/legislation on energy efficiency and further parameters

● **Energy Labelling Directive** 2010/30/EU

- » «framework» defining the «rules» for setting product-specific requirements/legislation on standard information of the consumption of energy and other resources

● Ecodesign Directive 2009/125/EC

- The EU's main instrument
 - » to improve the environmental performance of energy-related products
 - » to harmonise “ecodesign requirements” across EU Member States/internal market
- Criteria for “eligible” products:
 - » significant environmental impact
 - » significant potential for improvement
 - » significant trade and sales volume
(indicative: above 200 000 units per year)
- Based on **Life-cycle approach**

● Energy Labelling Directive 2010/30/EU

- main aims: market transparency for consumers, incentives for innovation for manufacturers, market transformation towards highly efficient products/energy savings
- complementary to “minimum” ecodesign requirements
- new « framework » Directive provides that the energy label
 - » uses a classification «A» to «G» as basis
 - » A+, A++ and A+++ can be used
 - » only seven classes are shown
 - » colours are dark green to red
- review of classification when A+++ and A++ are significantly «populated» and further room for improvements exists
- Seldom relevant for ‘industrial’ products

● Process - Ecodesign

- **technical, environmental and economic analysis** of the product, open to participation of stakeholders worldwide
- **“Consultation Forum”**: discuss ecodesign requirements with Stakeholders (industry, NGOs, retailers...) and Member States
- **impact assessment**
- **WTO/TBT notification**
- **vote** on draft by EU Member States (“Regulatory Committee”)
- **Scrutiny/right of objection** by European Parliament and Council
- **adoption** by Commission/publication in the Official Journal of the EU
- **transition period** for manufacturers for complying with requirements usually not less than one year

● Status: Work Programme

- 1st phase – Art. 16 - addressing mainly household energy consumption
- 2nd phase – 2008 WP - moving to industrial and tertiary sectors in 2009-2011
- 3rd phase – 2011 WP - strengthening existing requirements and possibly filling the gaps

● Regulations in force

- «savings» are savings compared to «no ecodesign/energy labelling» scenario
- savings correspond approx. to the electricity consumption of the UK
- details are in the impact assessments

Product	Estimated savings (annual by 2020)
Standby	35 TWh
Simple set-top boxes	6 TWh
Street & Office lighting	38 TWh
External power supplies	9 TWh
Domestic lighting	37 TWh
Electric motors	135 TWh
Circulators	23 TWh
Freezers/refrigerators (adoption of labelling measure pending)	6 TWg
Televisions (adoption of labelling measure pending)	43 TWh
Total	333 TWh

● Motors, fans and pumps

- **Motor regulation 640/2009**
 - » **implementation**
 - » **motors outside scope**
- **Fans – Regulation 327/2011**
 - » **Guidance document**
- **Pumps - Commission proposal to Regulatory Committee end 2011**
- **Mandates to ESOs:**
 - » **Motors**
 - » **Drives**
 - » **Fans and pumps – two tier approach**
 - » **Ecodesign Horizontal Mandate for all future measures**

● Status: measures under preparation

washing machines, dish washers, boilers and water heaters, commercial refrigerators, computers/monitors, copiers/printers (possibly self regulation), pumps, air-conditioners, complex set-top boxes (self regulation), vacuum cleaners, reflector lamps and luminaires, solid fuel small combustion installations, air based central heating, transformers, sound and imaging equipment, other refrigerating & freezing equipment, furnaces, machine tools

● Status: next industrial products

- Motors not covered by 640/2009 and compressors (Ecodesign Lot 30 and 31)
- Other industrial products:
 - » Lot 28 Pumps (EPA including motors, VSD and controls, where appropriate) for private and public waste water (including all stages including buildings, networks and treatment facilities) and for fluids with high solids content (estimated saving potential 20 TWh)
 - » Lot 29 Pumps (EPA including motors, VSD and controls, where appropriate) for private and public swimming pools, pools, ponds, fountains and aquariums, as well as clean water pumps larger than those regulated under Lot 11 (estimated saving potential 8 TWh)

● Developments in Ecodesign

● New Work Programme

» Positive displacement and reciprocating pumps (30 TWh)

● Review of ERP methodology

● Revision/evaluation of Ecodesign 2012 and EL 2014 – questions: timing, all products, systems, integration of instruments...

● In a few years start of reviews and possible revisions of existing measures

● Approaches in Ecodesign

- Product : fridge, washing machine
- Components/functions: circulator, standby
- Extended Product Approach:
 - » boiler (heat generator, controls, circulator, ...) ?
 - » motor plus VSD
 - » fan plus VSD plus motor
 - » pump plus VSD/control plus motor
 - » air based central heating and airco systems ?
- Generic EPA: motor plus VSD/control plus load
- Systems? Relation with ERP criteria?
- Input from industry, ESOs, NGOs welcome

- **Developments in Energy Efficiency Directive regarding systems** (proposal under discussion)
 - Article 7 on repeated energy audits and energy management systems
 - Article 9 on penalties in MS
 - Article 11 : MS to collect data on large industrial installations (power plants, refineries) and to report to the Commission; possible measures in the future
 - NEEAPs in a different form

More info

- Website of DG ENER

http://ec.europa.eu/energy/efficiency/ecodesign/eco_design_en.htm

- Website of DG ENTR

http://ec.europa.eu/enterprise/policies/sustainablebusiness/ecodesign/index_en.htm

Thank you for your attention.