



**Fraunhofer** Institut  
System- und  
Innovationsforschung



**BSR Sustainability GmbH**



# **Survey of Compliance Directive 92/75/EEC (Energy Labelling)**

## **Final Report**

for the European Commission

Directorate-General Energy and Transport

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## Introduction

The Framework Directive 92/75/EEC on Energy Labelling of Household Appliances has been in place for 15 years. Up to now, Implementing Directives have been adopted covering 8 household appliances: refrigerators, freezers and their combinations, washing machines, driers and their combinations, dishwashers, electric ovens, air-conditioners and household lamps. The main purpose of the Directive is to harmonise the national measures publishing information about the consumption of energy and other essential resources, particularly labelling and the provision of product information, thus allowing consumers to choose the most energy-efficient appliances.

Under the Directive, the retail trade is obliged to provide all the appliances displayed in salesrooms with energy labels and to list technical data in table form in the sales records. The information necessary to do so has to be provided by the supplier of the individual appliance. There are special labelling regulations for appliances not on display to potential consumers (e. g. catalogue or Internet offers).

There is evidence that, at least for some of these appliances, labelling has had a considerable impact in persuading consumers to buy more energy-efficient appliances. This is shown by the share of the most efficient A-appliances (or A+ and A++ appliances in the case of refrigerators and freezers) in total sales of these products, which are regularly audited by the GfK Marketing Services' retail panel for the major part of the European market (Stöckle 2006). Especially for cold appliances and washing machines, the energy efficiency index (EEI), which is defined in the Implementing Directives, has improved considerably since the Framework Directive 92/75/EEC came into effect (Bertoldi/Atanasiu 2007).

In spite of this success, however, there are concerns that compliance with the Energy Labelling Directive may not be fully satisfactory at the level of both the retailers and the manufacturers. A first survey of compliance with Directive 92/75 was carried out at an early stage of the Directive's implementation in European Member States. This did not include the new Member States (Winward et al. 1998). The new survey of compliance conducted during this project aimed to provide evidence on the present degree of compliance with Directive 92/75/EEC both at the level of retailers and manufacturers in all EU Member States and the EEA countries of Norway and Iceland.

In a general perspective, this study is connected with an increasing demand on market surveillance in the field of energy-using appliances due to the planned revision of the Energy Labelling Framework Directive 1992/75/EEC<sup>1</sup> and the foreseen implementing measures under the Ecodesign Directive 2005/32/EC which will establish the eco-design requirements. In the Ecodesign Directive, a legal basis to require Member State market surveillance is created with Article 3 of the Directive. In future, the revised Energy Labelling Directive will be aligned with the requirements of the Ecodesign Directive.

In addition to that, from 2010 onwards, Member State market surveillance will face new requirements when the Regulation on Market Surveillance (2007/0029/COD; COM(2007)37 final from 14.2.2007) comes into force, setting out the requirements for accreditation and market surveillance relating to the marketing of products.<sup>2</sup>

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1 [http://ec.europa.eu/energy/efficiency/consultations/2008\\_02\\_22\\_labelling\\_en.htm](http://ec.europa.eu/energy/efficiency/consultations/2008_02_22_labelling_en.htm)

2 [http://ec.europa.eu/enterprise/regulation/internal\\_market\\_package/index\\_en.htm](http://ec.europa.eu/enterprise/regulation/internal_market_package/index_en.htm)

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## 1 Objectives of the Study

Within the context described in the previous section, the purpose of this study is to survey compliance with Directive 92/75/EEC and its implementing Directives in the retail trade. The survey carried out in this project fulfils the following criteria required by the tender specifications:

- Coverage of all individual Member States of the EU and the EEA countries Norway and Iceland.
- Coverage of all 8 household products included in the Labelling Directive: refrigerators, freezers and their combinations, washing machines, driers and their combinations, dishwashers, electric ovens, air-conditioners and household lamps.
- Coverage of the availability and reliability of all product information in shops and elsewhere (mail order, Internet sales).
- Coverage of a statistically representative range of shops in each country and of distance sales (mail order catalogues, Internet sales).
- Analysis whether the information required by the Directives is provided correctly and whether other, non-mandatory product information is provided. Compliance is further broken down by country and by type of shop (including mail order and Internet sales).

In addition to the survey on the retail trade, another survey was done of activities carried out by Member States and other stakeholders (e.g. manufacturers, consumer groups) to ensure that the required information is provided and accurate (compliance testing).

## 2 Task Specification and Contents of the Final Report

The terms of reference specify the following **tasks** and **reporting obligations**:

### Task 1 – Survey of labelling

- Study and analysis of **existing activities** by Member States to ensure that the required information is provided (Sub-task 1.1).
- **Design** of the survey, i.e. definition of survey methodologies (Sub-task 1.2).
- **Realization** of the survey in accordance with sub-task 1.2 (Sub-task 1.3).
- **Analysis** of the survey results, i.e. compliance and non-compliance for labels and other types of information (Sub-task 1.4).

### Task 2 – Compliance testing

- Study and analysis of existing activities carried out by Member States.

### Reports and documents to produce

- **Report on Sub-task 1.2** (survey design) which should be approved by the Commission prior to commencing Sub-task 1.3 (survey). This was delivered on 25, February 2008 (draft version) and 7, March 2008 (final version).
- **Interim report** including reporting on Sub-task 1.2, a data file with data from the survey (Sub-task 1.3), a report upon completion of the survey and interim reports on Sub-task 1.1 and Task 2. This report was delivered on 13 June 2008.
- **Final report** including all project results (final version by 30, October 2008).

The **final report**, which is submitted here, includes all tasks and sub-tasks:

- The design of the survey of compliance with Directive 92/75/EEC in the retail trade (Sub-task 1.2) is described in Chapter 3.1.
- Chapter 3.2 includes the description of the realization of the survey (Sub-task 1.3). All results of the survey in retail are included in two Excel files, which are attached to this report (*Survey\_retail-trade\_results.zip* and *Survey\_mail-order\_internet\_results.zip*).
- The results of the survey in the retail trade (Sub-task 1.4) are analysed in Chapter 3.3. In addition, some detailed results by country are shown in the Annex.
- The survey on activities carried out by the Member States and other stakeholders (Sub-task 1.1, Task 2) is presented in Chapter 4. This Chapter includes both the methodological approach and the results. In addition, the database from this survey is attached to this report in Excel format (*Survey\_Member-states\_results\_final.xls*)
- Some conclusions on the results of both surveys and some recommendations on a possible improvement of market surveillance are presented in Chapter 5.

## 3 Survey in the Retail Trade

### 3.1 Design of the Survey

The survey of the retail trade covered all 27 EU Member States and the EEA countries Norway and Iceland. Different sample sizes were used related to the size of the market:

- The targeted sample size for the biggest countries - France, Germany, Poland, Spain and the UK - was **75** shops.
- In the case of very small countries – Cyprus, Iceland, Luxembourg and Malta – a sample of **25** shops was considered sufficient.
- For all other countries, a sample size of **50** shops was aimed at.

Most of the shops included in the audit could be taken from the GfK retail panel<sup>3</sup> which GfK has set up for many EU and EEA markets. This panel could be used to guarantee correct sampling and to ensure the inclusion of retailers and channels in the survey which account for a significant share of the market in the respective country. The sample structure in each country was based on the value share of the different channels in the markets for the major domestic appliances taken from the GfK retail panel. With this background information, a very precise sample could be drawn which made it possible to limit the audit to a relatively small sample (75/50/25 shops per country) without harming the overall quality. For those countries in which no GfK retail panel exists (Cyprus, Iceland, Ireland, Luxembourg, Malta, Norway), the inside knowledge of local GfK market specialists was used to ensure a suitable sample structure.

This means that, for all countries, the sample was taken from different channels based on their relative importance in the market. All relevant retailers were included in the sample, which was divided into the following types of outlets<sup>4</sup>:

- **Electro superstores:** large-scale specialists offering electrical appliances with a broad product range and often specialised departments for the different product groups.
- **Electric specialists** (organized or independent): specialised in electrical appliances, traditionally small and medium enterprises usually with a large range but a limited display area.

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<sup>3</sup> A retail panel is an ongoing audit of a defined product group in a market in a constant number of sample stores at regular time intervals.

<sup>4</sup> Splitting a key account, for example, Carrefour or Metro is not possible due to the strict confidentiality rule GfK MS has agreed with these retail partners.

- **Kitchen / Furniture stores:** offering kitchens including appliances; high degree of competence in planning and consulting services for clients; usually selling complete kitchens with numerous large electrical appliances including built-in appliances.
- **Hypermarkets / Cash & Carry:** in most countries not as important for the sale of large household appliances as the other channels because the self-service character of these shops does not comply with the clients' need for advice and maintenance services.
- **Department stores:** offering a broad range of products among which electrical appliances are only one smaller part; similar to hypermarkets, usually less important for the sale of electrical appliances than the other channels.

The sample also included Mail Order and Internet stores. Here the audit was done based on websites and catalogues which are important for the sales of major domestic appliances according to GfK.

The shop audit consisted of two parts: a quantitative part on labelling in stores by appliance type (shop inspection) and a qualitative part evaluating the shop-owner's or manager's attitude towards the importance of energy labelling based on face-to-face interviews. This allowed an analysis to be made of compliance in the Member States by type of failure, type of shop and type of appliance and of the attitude of retailers towards the label.

The following questionnaires were used by the field workers for the shop audit:

1. A **pre-defined survey sheet** for inspecting the shops which was used by the field workers to make an inventory of the appliances displayed in the salesrooms and their labelling (see Figure 3-1 and Figure 3-2). In addition to this, field workers also received detailed instructions with additional explanations (especially with regard to defining the different categories of compliance).
2. A **questionnaire** for the face-to-face interviews with retailers on their attitude towards the label, handling difficulties, the availability of the label from the producers etc. (see Figure 3-3). Additionally, the field workers also received detailed instructions with additional explanations about the questions.



Figure 3-1: Structure of the pre-defined survey sheet for the shop inspection (for all appliance types except household lamps)

Pre-defined survey sheet: differentiated by type of appliance and by brand																										
	Label displayed				Placing of the label (complete/basic label)					Placing of the data strip (only if separate)						Label clearly visible (not covered or obscured)	EU Label in original size and colour (i.e. not own label of shop or country)	Energy Efficiency Classes								
	1 = complete (basic label+data strip) 2 = only basic label 3 = only data strip 4 = basic label and data strip, but separately placed				1 = top 2 = front 3 = side 4 = back 5 = inside					1 = top 2 = front 3 = side 4 = back 5 = inside (displayed) 6 = inside (still in bag)						Tick if yes	Tick if yes									
	1	2	3	4	1	2	3	4	5	1	2	3	4	5	6											

Figure 3-2: Structure of the pre-defined survey sheet for the shop inspection (household lamps)

Pre-defined survey sheet for household lamps					
Brand	Lamp (fluorescent and compact fluorescent)	Energy label available on the packaging? Please tick yes or no.		If yes: Energy label clearly visible? Please tick yes or no.	
		Yes	No	Yes	No
OSRAM	lamp 1	..	..	..	..
	lamp 2	..	..	..	..
	lamp 3	..	..	..	..

Figure 3-3: Questionnaire for the GfK retailer interview (also including all the other steps of the shop audit)

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**GfK Retailer interview**

**BUSINESS STAMP:**

Shop code: \_\_\_\_\_  
 Region code: \_\_\_\_\_  
 Personal code: \_\_\_\_\_  
 Audit code: \_\_\_\_\_  
 Length (minutes): \_\_\_\_\_

**IF NOT AVAILABLE:**

**Address:** Name: \_\_\_\_\_  
 Street: \_\_\_\_\_  
 Postcode, city: \_\_\_\_\_

<u>Channel type:</u>	Interview in business/shop 9	Head-quarters 10
• Electro Superstore	<input type="radio"/> Y	<input type="radio"/> Y
• Electric specialist - organized	<input type="radio"/> X	<input type="radio"/> X
• Electric specialist - independent	<input type="radio"/> 0	<input type="radio"/> 0
• Kitchen specialist /studio	<input type="radio"/> 1	<input type="radio"/> 1
• Furniture store	<input type="radio"/> 2	<input type="radio"/> 2
• Hypermarket	<input type="radio"/> 3	<input type="radio"/> 3
• Cash & Carry	<input type="radio"/> 4	<input type="radio"/> 4
• Electric wholesaler	<input type="radio"/> 7	<input type="radio"/> 7
• Kitchen wholesaler	<input type="radio"/> 8	<input type="radio"/> 8
• Manufacturer of kitchen furniture	<input type="radio"/> 9	<input type="radio"/> 9

**To the field colleague:**

Please look in the showroom for **GENERAL INFORMATION** on the subject **ENERGY LABELS** for Domestic Appliances (see also instructions for field service)

**1. Please check whether general information on energy labels is provided in the showroom (not on the appliances)**

- 09 1( ) Yes, there is → please proceed to question 2  
 2( ) No, there isn't

Figure 3-3 continued

**2. In what ways is information presented in the showroom?**

- 10    1( ) Freestanding displays  
       2( ) Brochures  
       3( ) Ceiling banner displays  
       4( ) Other labels than EU Energy label (e.g. country-specific energy labels)  
       5( ) Others: please note

( 11-12 )

**3. Please note which appliances are on display by brand. If the printed list does not cover all the brands shown in the store, please add these manually to each questionnaire for the respective product group. Multiple answers of brands are possible.****To the interviewer:**

Please speak to a salesperson or accountable/head of the section domestic appliances. Introduce the topic to your interview partner like this:

"I'd like to ask you a few questions about the display of appliances and in particular ENERGY LABELLING, the specification of appliances according to efficiency classes"

**4. What role do the following features play in the buying act of major appliances? I am going to read you some criteria. Please rate them on a scale 1-10, from 1 = overall unimportant, to 10 = very important for the buying decision.**

	Rate 1 - 10
• Design / appearance	13 _____
• Brand name	14 _____
• Functional value	15 _____
• Quality of the product (reliability / high-end effect)	16 _____
• User friendliness	17 _____
• Energy consumption and energy costs	18 _____
• Purchase price of the appliance	19 _____

**5.1 How do you think consumer demand for energy-efficient appliances and energy-saving lamps has developed over the last 12 months? Please tick.  
Over the last 12 months the consumer's demand for energy-efficient appliances.....**

- |                        |                             |
|------------------------|-----------------------------|
|                        | Please tick                 |
| ... has increased.     | 20 <input type="checkbox"/> |
| ... has been constant. | 21 <input type="checkbox"/> |
| ... has decreased.     | 22 <input type="checkbox"/> |

**5.2 How do you think consumer demand for energy-efficient appliances and energy-saving lamps will develop in the next 12 months? Please tick.  
In the next 12 months the consumer's demand for energy-efficient appliances.....**

- |                           |                             |
|---------------------------|-----------------------------|
|                           | Please tick                 |
| ... will increase.        | 23 <input type="checkbox"/> |
| ... will remain constant. | 24 <input type="checkbox"/> |
| ... will decline.         | 25 <input type="checkbox"/> |

Figure 3-3 continued

**6.1 Has your shop been checked by an official institution with regard to energy labelling in the last 12 months?**

r yes

r no

**6.2 Is the correct handling of the labels regularly checked by the store manager?**

r yes

r no

**7. Do energy labels have an impact on the sales process? Please rate on a scale of 1-10 (1 is "strongly disagree" - 10 is "strongly agree").**

	Rate 1 - 10
• Energy labels allow a more objective estimation of appliances.	25 _____
• Customers ask about energy-efficient appliances.	26 _____
• Information on the energy efficiency of an appliance helps customers to contribute to the protection of the environment.	27 _____
• Labels offer the opportunity for a more intensive customer consultation	30 _____
• The customers want information on the energy costs of the appliances on the label.	31 _____
• Customers understand the difference between the ratings.	33 _____
• We think retailers can easily explain the labelling system.	34 _____
• Energy labels help us to sell more energy-efficient appliances.	35 _____

**8.1 Please rate the importance of the labelling for different kinds of products. (1 = unimportant - 10 = very important). I'm going to read out the product groups to you.**

**8.2 Please assess per product group whether consumers are principally willing to pay more for a higher-ranking energy label class. Please rate from 1 to 10 (1 = not at all willing, 10 = very willing to pay more).**

	Qu. 8.1	Qu. 8.2
	Rate 1 - 10	Rate 1 - 10
• Washing machines	24 _____	32 _____
• Tumble driers	25 _____	33 _____
• Dishwashers	26 _____	34 _____
• Refrigerators	27 _____	35 _____
• Freezers	28 _____	36 _____
• Air conditioners	29 _____	37 _____
• Electric ovens	30 _____	38 _____
• Household lamps	31 _____	39 _____

Figure 3-3 continued

**INFLUENCE UPON APPEARANCE**

9. Design: How do labels affect the design / the look of displayed appliances? Graded from -10 up to +10: -10 = Labels have a very negative effect on the general look of the appliance + 10 = very positive effect 0 = no effect. Please respond separately for free-standing and built-in appliances.

- FREESTANDING APPLIANCES 43 \_\_\_\_\_  
 - BUILT-IN APPLIANCES 44 \_\_\_\_\_

10. A few more questions about the handling of the Energy Label itself. This consists of two parts: the neutral label (a colour background without concrete product information) and the product fiche (a data-strip which contains model-specific information)

10.1. Handling of the basic label: **Interviewer: please tick only if applicable.** Please tick

- The labels are missing 1
- The labels are provided without delay when ordered 2
- The labels do not stick well 3
- The labels cannot be removed easily from the appliance surface 4
- Other problems or comments (**Interviewer: please note**) 5

( 29 – 33 )

10.2. Handling of the product fiche:

- Product fiche is missing ("1" means up to 10%; "10" means 100% or practically all appliances). 34 \_\_\_\_\_
- Problems occur only in some product groups. Problems are concentrated on (**Interviewer: please tick; multiple choice is possible but don't choose all**) Please tick

Washing machines    Tumble driers    Dishwashers    Refrigerators  
 Freezers    Air-conditioners    Electric ovens    Household lamps

- Problems concentrate on (a) manufacturer(s). Which? 6

( 35 – 38 )

10.3 Finally please assess the general effort (time, administrative effort) required for labelling on your part. Please indicate with 1 – 10, from 1 "very small effort" and 10 for "very high effort".

7

( 39 – 42 )

Figure 3-3 continued

**11. Have you got any suggestions about what could motivate customers to buy more energy-saving appliances? Please rate the following suggestions on a scale from 1 = "strongly disagree" to 10 = "strongly agree"**

*(Interviewer: classify from 1 to 10)*

	Rate 1 - 10
• Provide a selection of the most energy-efficient appliances.	25 _____
• Show purchasing costs compared to energy efficiency.	26 _____
• More information for the shops provided by producers.	28 _____
• Financial incentives (e.g. subsidies or reduced VAT rates) for the purchase of energy-efficient appliances.	29 _____
• Public promotion campaigns of the label.	30 _____
• Improve the design of the label.	31 _____
• Provide an energy-saving calculator.	33 _____
• Producers should offer cheaper energy-saving appliances.	34 _____
• Energy-saving appliances should concentrate on the aspect of energy-efficiency and not try to fulfil other requirements (e.g. comfort) at the same time.	35 _____
• Even more energy-efficient appliances should be developed.	36 _____
• Provide more information in the Internet about the label and energy-efficient appliances.	37 _____
• Special training for shop personnel.	38 _____

**12. How should the energy label be adapted to the technical development of the appliances?**

	Please tick
• Introduction of new efficiency classes beyond the original A – G scheme (like A+, A++)	40 r
• Adapt the original A – G scheme to technical change	42 r
• Introduction of a completely new rating scheme	43 r

Other suggestions? *(Interviewer: Please note)*

***Thanks a lot for answering these questions and for your support! - END -***

## Description of the pre-defined survey sheet

The general structure of the survey sheet for the shop inventory is the same for all appliances (except household lamps) and for all countries involved (Figure 3-1). All appliances which are displayed in the shop are registered by brand (first column). Additional brands which are available in the shop and not listed on the survey sheet are added manually by the field worker.

The degree of compliance is noted, distinguishing between the following categories:

- Label displayed: complete, only basic label, only data strip, basic label and data strip but separately placed.
- Placing of the label (complete/basic label): top, front, side, back, inside.
- Placing of the data strip (only if separate): top, front, side, back, inside (displayed), inside (still in bag).
- Label clearly visible (not covered or obscured).
- EU label in original size and colour.

In the last column, the energy efficiency class of each appliance is noted if available from the label.

The overall degree of compliance can be derived from these criteria. A **correctly labelled** appliance according to the Directive should display a **complete label in original size and colour which is attached to the outside of the appliance, on the top or front, in such a way as to be clearly visible and not obscured**.

For household lamps, the pre-defined survey sheet is structured in a slightly different way (Figure 3-2). The Implementing Directive for household lamps (Directive 98/11/EC), which applies to household electric lamps supplied directly from the mains (filament and integral compact fluorescent lamps) and to household fluorescent lamps (including linear, and non-integral compact fluorescent lamps), prescribes that the label shall be placed or printed on, or attached to, the outside of the individual packaging of the lamp without being obscured. Therefore, in the data sheet for household lamps only the most important brands are listed (with space provided for adding other brands available in the shop) and it is only asked whether the label is present on the packaging and whether it is clearly visible. For each brand, it is proposed to check this for three lamps.

### **Description of the questionnaire**

The personal interview with the retailer was the last step of the shop audit. The whole questionnaire used for the GfK retailer interviews, which also includes all former steps of the shop inspection, is shown in Figure 3-3.

First, the field workers were asked to check whether general information on energy labels is provided in the showroom (Questions 1 and 2). Secondly, they did the shop inventory using the pre-defined survey sheet (Question 3). Finally, the field worker spoke to a salesperson or accountable/head of the domestic appliances section and asked some questions about energy labelling (Questions 4 to 12).

### **Questionnaire for appliances which cannot be seen by the potential consumer**

Where relevant appliances are offered for sale, hire or hire-purchase by mail order, catalogue, or other means which imply that the potential customer cannot see the appliance displayed, the supplier must ensure that potential customers are provided with the essential information specified in the label or the fiche before buying an appliance. The Implementing Directives prescribe specific information (which varies depending on the appliance involved) which has to be provided in a specified order and in a legible format.

With regard to these appliances, the audit was done for mail order companies and Internet stores using the relevant websites and catalogues. The following requirements of the Directive were checked by product group (Figure 3-4):

- Provision of the mandatory information.
- Provision of voluntary information (noise).
- Provision in the specified order.
- Information provided partially or completely missing.
- Information given in a legible manner.

As in the case of the shop inspection, the field workers received a pre-defined survey sheet in which the appliances were registered by brand. Missing brands were added manually.



Figure 3-4: Questionnaire for the audit of mail order companies and Internet stores

Refrigerators/Freezers											
Brand	Mandatory information provided completely and in stipulated order	Mandatory information provided completely but not in stipulated order	Mandatory information completely missing	Mandatory information provided partially					Voluntary information provided	Different label other than EU label provided	Energy efficiency class
				1. Energy efficiency class	2. Energy consumption	3. Net volume of fresh food compartment	4. Net volume of frozen food compartment	5. Star rating	Noise		
Please tick if yes											

**Explanatory notes:**

- The field workers will receive a pre-defined survey sheet for each of the appliances (refrigerators/freezers, washing machines, dishwashers, tumble driers, electric ovens, air-conditioners, household lamps), in which the appliances are registered by brand. Missing brands will be added manually.
- The mandatory information which has to be provided varies for each of the appliances (see Table below). This is taken into account in each questionnaire.

**Mandatory and voluntary information and order as stipulated in Annex 3 of the Implementing Directives for each appliance:**

Refrigerators/freezers: 1. Energy efficiency class 2. Energy Consumption 3. Net volume of fresh food compartment 4. Net volume of frozen food compartment 5. Star rating 6. Noise

Washing machines: 1. Energy efficiency class 2. Energy consumption 3. Washing performance class 4. Spin drying efficiency class 5. Maximum spin speed 6. Capacity 7. Water consumption 8. Estimated annual consumption (voluntary: 9. Noise)

Dishwasher: 1. Energy efficiency class 2. Name of standard cycle 3. Energy consumption 4. Drying performance class 6. Capacity 7. Water consumption 8. Estimated annual consumption (Voluntary: 9. Noise)

Tumble drier: 1. Energy efficiency class 2. Energy consumption 3. Capacity 4. Water consumption 5. Estimated annual consumption (Voluntary: 6. Noise)

Electric oven: 1. Supplier's trade mark and model identifier 2. Energy efficiency class 3. Energy consumption 4. Usable volume 5. Size (Voluntary: 6. Noise)

Air-conditioner: 1. Supplier's trademark 2. Supplier's model identifier 3. Energy efficiency class (4. European eco-label) 5. Indicative annual energy consumption 6. Cooling output 7. Energy efficiency ratio 8. Type of appliance (cooling only, cooling/heating) 9. Cooling mode (air cooling, water cooling) 10. Heat output (only for appliances incl. heating) 11. Heating mode energy efficiency class (only for appliances incl. heating) (Voluntary: 12. Noise during standard function)

Household lamps: Copy of label or 1. Energy efficiency class 2. Luminous flux of the lamp 3. Input power 4. Average rated life of lamp (if other information on life is given)

## 3.2 Realization of the survey

The survey was carried out in accordance with the design described in Chapter 3.1. In all countries, the field work was done by experienced field workers from GfK. The realized sample size differed only slightly from the anticipated figures (Table 3-1):

- For Latvia, Lithuania, Norway and Luxembourg, the anticipated sample size could not be realized completely due to the size of the countries. On the other hand, a larger sample was possible in some other countries (especially in the Czech Republic and Slovakia), so that the total sample size amounted to **1478 shops** (including mail order houses and Internet stores).
- With regard to the structure of the sample by channel, there were only small shifts in Bulgaria, Estonia, Slovenia, Romania and Italy compared to the anticipated figures.

The time schedule for the survey in retail trade was very condensed. The whole survey in all EU Member States and the EEA countries Norway and Iceland was carried out between mid March and beginning of June 2008 (calendar weeks 11 to 24) and included the following steps:

- Weeks 11/12: Preparation of the field documents, i.e. translation and printing of the questionnaires and the survey sheets both for the shop inspections and the audit of mail order houses and internet stores.
- Week 13: Setting-up the fields and training the field workers.
- April 2008: Realization of the field work.
- May until beginning of June 2008: Evaluation of the questionnaires and survey sheets from all countries and processing of the result tables by GfK.

The general experience with the field work was very satisfactory in all the countries involved. No problems were noticed during the field work, which is probably due to the fact that only very experienced field workers were appointed by GfK and that all field workers were also given detailed instructions.

Table 3-1: Realized sample size of the audit in retail trade and structure of the sample by channel

Country	Channel	Electric specialist independent	Electric specialist organized	Electro Superstore	Kitchen / Furniture	Hypermarkets Cash & Carry	Department Stores	Mail Order / Internet	Sample size in the respective country
<b>Sample Size n = 25</b>									
Cyprus		10		12		3			25
Iceland		8		10	5			2	25
Luxembourg		13		3	4			2	22
Malta		13	3	2	4		4		26
<b>Sample Size n = 50</b>									
Austria		5	14	10	19			2	50
Belgium		11	7	22	6	2		3	51
Bulgaria		10	8	32				1	51
Czech Republic		10	14	17	5	10		1	57
Denmark		10	19	18				3	50
Estonia		8	24	10	5			4	51
Finland		6	23	9	7				45
Greece		4	24	15		5		4	52
Hungary		7	13	15	2	14		3	54
Ireland		35	3	8				4	50
Italy		6	17	8	5	7		7	50
Latvia		17	8	10	5			6	46
Lithuania		14	6	10	9			5	44
Netherlands		10	9	22	6	3			50
Norway		29		8	5		3		45
Portugal		15	6	8	13	5		3	50
Romania		27	5	19					51
Slovakia		15	17	11	8	4		1	56
Slovenia		2	8	13	13	9		5	50
Sweden		5	21	19	5				50
<b>Sample Size n = 75</b>									
France		9	13	32	6	11		5	76
Germany		7	7	15	27	5	10	5	76
Poland		10	34	18	3	5		5	75
Spain		7	35	11	10	10		2	75
UK		23		15	17	8	4	8	75

## Result tables of the shop audit

With regard to the shop audit, the field workers adhered strictly to the questionnaire (Figure 3-3). The complete results of the shop audit are presented in the data file *Survey\_retail-trade\_results.zip*, which includes separate Excel files for each country. In addition, there are two files with aggregated results, one for EU 27 and another for all 29 countries together, i.e. also including the EEA countries Norway and Iceland. However, the results for these two aggregates only differ slightly due to the minor importance of the relatively small EEA countries. The structure is the same for all countries and aggregates and follows the numbering of the questions in the questionnaire (Figure 3-3):

- **Questions 1 and 2** deal with general information on energy labels in the showroom.
- **Question 3** is the main part of the shop audit. Here, the degree of compliance with Directive 92/75/EEC is noted for all appliances displayed in the shop. For this detailed shop inventory, the field workers used the pre-defined survey sheet (Figure 3-1 and Figure 3-2), which includes different categories of compliance: label displayed, placing of label, visibility of label, size and colour, efficiency class. The results for all these categories are presented separately in the result files, distinguishing between the type of appliance (cooling=refrigerators, freezers, washing machines, tumble driers, dishwashers, electric ovens, air conditioners, lamps) and the type of shop (Electro Superstore, Electric specialist – organized, Electric specialist – independent, Kitchen specialist/Furniture store, Hypermarket/Cash&Carry, Department store). Finally, the total degree of compliance is derived from these criteria, distinguishing between correctly labelled appliances, mislabelled appliances and unlabelled appliances. Following this structure, the results of Question 3 are subdivided into the following sub-questions (for each appliance type except lamps and for each type of shop and all shops together):
  - Question 3a: Label displayed
  - Question 3b: Placing of the label (complete/basic label)
  - Question 3c: Placing of the data strip (only if separate)
  - Question 3d: Visibility and original size of the label
  - Question 3e: Total degree of compliance
  - Question 3f: Energy Efficiency Class of the appliances

For household lamps, a simpler approach was chosen:

- Question 3&nr: Availability of information on lamps
- **Questions 4 to 12** include the results of the face-to-face interviews with store managers or salespersons on energy labelling. The results are only distinguished by type of shop.

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## Result tables of the audit of mail order houses and internet stores

When auditing mail order companies and Internet stores, the field workers also adhered strictly to the respective questionnaire (Figure 3-4). The complete results of this audit are presented in the data file *Survey\_mail-order\_internet\_results.zip*. One Excel file includes the results for all 29 countries together (Filter "Total") and for each country separately. In an additional Excel file, the results for the aggregate "EU 27" are shown, which only differ slightly from the total aggregate due to the minor significance of the relatively small EEA countries Norway and Iceland. The structure is the same for all countries and aggregates and follows the criteria in the questionnaire which was specifically developed for auditing mail order and internet stores (Figure 3-4). All information was collected by type of appliance and by brand. For each type of appliance (refrigerators, freezers, washing machines, tumble driers, dishwashers, electric ovens, air conditioners, lamps), the following information was stated for mail order and internet stores:

- **Question 1a** deals with the completeness of the mandatory information and the order in which the mandatory information is provided.
- **Question 1b** deals with the specific information categories that are provided.
- **Question 1c** states the energy efficiency class of the appliances offered.

### 3.3 Survey Results

The shop visit comprised two parts: a check of the appliances displayed in the show-rooms and an interview with the store manager or a salesperson. This chapter is divided accordingly. The results of the first part always refer to the total number of appliances checked and the results in the second part refer to the number of shops included in the survey. In the third part, the results of the audit of mail order and internet stores are analysed, referring to the number of appliances.

#### 3.3.1 Observation in shops

In the following, the main results of the shop inspection are analysed, distinguishing between

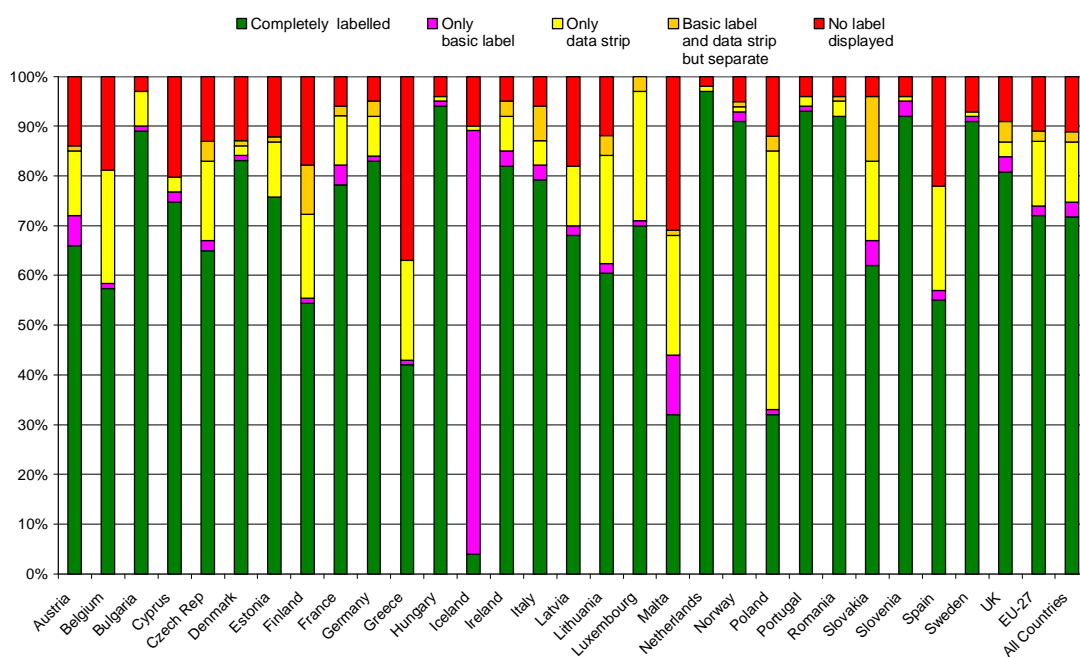
- the criteria of compliance according to the Directive, i.e.
  - completeness of the labelling
  - placing of the label
  - visibility and originality of the label
  - overall compliance taking into account all criteria
- type of failure
- type of appliance
- type of outlet.

The results shown in this chapter mainly refer to the sum of all countries included in the survey, i.e. all EU Member States and the EEA countries Norway and Iceland. However, the main criteria of compliance are also shown by country. In addition, the overall degree of compliance in each country and for the aggregate EU 27 is shown in the Annex by type of appliance and by type of outlet.

There is a relatively high degree of compliance with the Labelling Directive in almost all countries with regard to the **completeness of the labelling**, i.e. the complete label (basic label and data strip) is attached to the appliance (see Figure 3-5 and Table 3-2). Over all countries, 71 % of the appliances were labelled completely (EU 27: 72 %). In almost half of the countries, the percentage of completely labelled appliances was even higher at 80 % or more. A degree of compliance below 50 % with regard to the completeness of the labelling was only observed in four countries: Greece (42 %), Malta and Poland (32 %) and Iceland (4 %). The very low value in Iceland is due to the fact that 86 % of the appliances were only labelled with the basic label without the data

strip.<sup>5</sup> In Poland, on the other hand, more than 50 % of the appliances were only labelled with the data strip and the basic label was missing. The biggest failures with regard to completeness were that only the data strip was attached to the appliances (12 %) and that the label was missing completely (11 %), whereas the other two failures (only basic label; basic label and data strip, but separately placed) were less important (except in Iceland).

Figure 3-5: Completeness of labelling per country (all appliances)



The results on the completeness of the labelling by type of appliance are very similar for refrigerators, freezers, washing machines, tumble driers and dishwashers, of which between 73 % and 76 % are completely labelled with the basic label and the data strip (Table 3-3 and Figure 3-6). For electric ovens (59 %) and especially for air conditioners (39 %), the degree of compliance is considerably lower and the share of appliances displayed with no label is rather high (20 % for electric ovens and 50 % for air conditioners). This means that there is a clear difference in the degree of compliance between white household appliances for which the Implementing Directives came into force more than 10 years ago (between 1994 and 1997) and electric ovens and air

<sup>5</sup> Since the results for Iceland differed so much from all other countries, it was checked whether perhaps the definition of the categories had been misunderstood by the field workers. But the definition was clear and, according to the field workers, the appliances were really labelled only with the basic label.

conditioners, for which the Implementing Directives were adopted in 2002 and had to be applied at national level from 2003.

Table 3-2: Completeness of the labelling per country (all appliances)

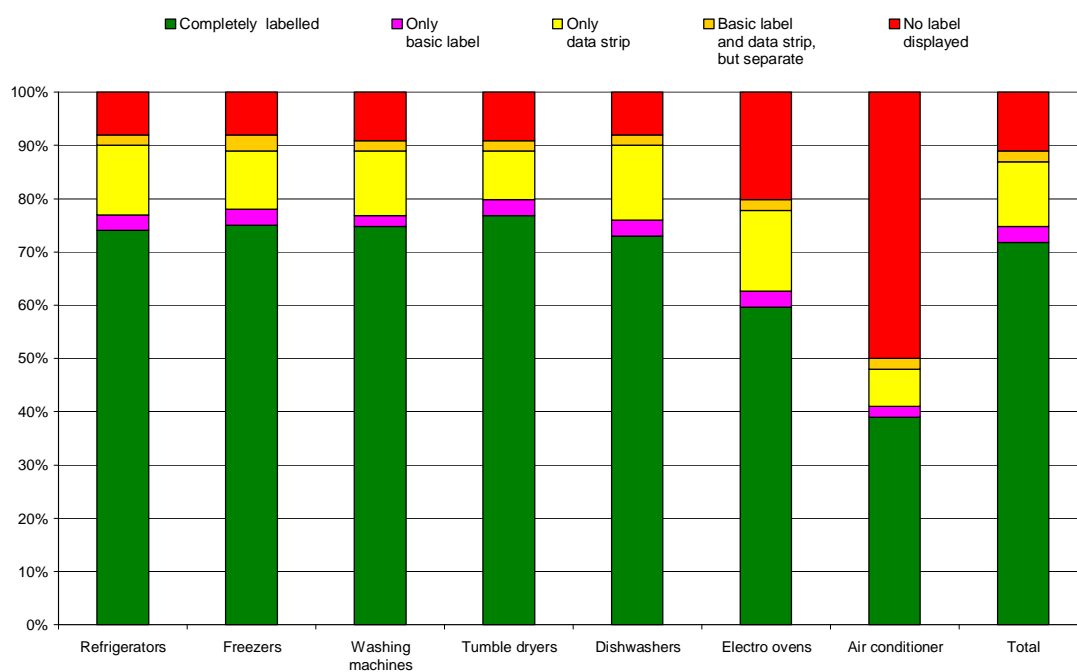
	<b>Complete (basic label + data strip)</b>	<b>Only basic label</b>	<b>Only data strip</b>	<b>Basic label and data strip, but separately placed</b>	<b>No label displayed</b>
<b>Country</b>	%	%	%	%	%
Austria	66	6	13	1	14
Belgium	58	1	23	0	19
Bulgaria	89	1	7	0	3
Cyprus	74	2	3	0	20
Czech Republic	65	2	16	4	13
Denmark	84	1	2	1	13
Estonia	75	0	11	1	12
Finland	55	1	17	10	18
France	79	4	10	2	6
Germany	83	1	8	3	5
Greece	42	1	20	0	37
Hungary	94	1	1	0	4
Iceland	4	86	1	0	10
Ireland	82	3	7	3	5
Italy	80	3	5	7	6
Latvia	68	2	12	0	18
Lithuania	61	2	22	4	12
Luxembourg	70	1	26	3	0
Malta	32	12	24	1	31
Netherlands	96	0	1	0	2
Norway	90	2	1	1	5
Poland	32	1	52	3	12
Portugal	93	1	2	0	4
Romania	92	0	3	1	4
Slovakia	62	5	16	13	4
Slovenia	92	3	1	0	4
Spain	55	2	21	0	22
Sweden	90	1	1	0	7
United Kingdom	80	3	3	4	9
<b>EU 27</b>	<b>72</b>	<b>2</b>	<b>13</b>	<b>2</b>	<b>11</b>
<b>All countries</b>	<b>71</b>	<b>3</b>	<b>12</b>	<b>2</b>	<b>11</b>



Table 3-3: Completeness of the labelling per type of appliance (all countries)

Type of appliance	Complete (basic label + data strip) %	Only basic label %	Only data strip %	Basic label and data strip, but separately placed %	No label displayed %
Refrigerators	74	3	13	2	8
Freezers	75	3	11	3	8
Washing machines	74	2	12	2	9
Tumble driers	76	3	9	2	9
Dishwashers	73	3	14	2	8
Electric ovens	59	3	15	2	20
Air conditioner	39	2	7	2	50
<b>Total</b>	<b>71</b>	<b>3</b>	<b>12</b>	<b>2</b>	<b>11</b>

Figure 3-6: Completeness of the labelling per type of appliance (all countries)



The completeness of the labelling also differed between the different types of retail outlet (Table 3-4 and Figure 3-7). Whereas especially electro superstores and department stores had a very high share of completely labelled appliances at about 80 %, the respective share in kitchen and furniture stores was the lowest at only 60 %. The other types of shops lie in-between these two values. The main types of failure were either that the label was missing completely or that only the data strip, but not the basic label, was available.

Table 3-4: Completeness of the labelling per type of shop (all countries)

<b>Type of shop</b>	<b>Complete (basic label + data strip) %</b>	<b>Only basic label %</b>	<b>Only data strip %</b>	<b>Basic label and data strip, but separately placed %</b>	<b>No label displayed %</b>
Electro Superstore	78	3	9	2	8
Electric specialist (organized)	67	3	16	1	13
Electric specialist (independent)	65	3	17	4	11
Kitchen / Furniture store	60	4	17	2	17
Hypermarket / Cash & Carry	71	4	10	3	12
Department Store	82	0	2	9	7
<b>Total</b>	<b>71</b>	<b>3</b>	<b>12</b>	<b>2</b>	<b>11</b>

With regard to **placing the label**, the Energy Labelling Directive demands that the label be attached to the outside of the appliance, on the top or front. For the appliances which featured the complete label, this criterion was fulfilled in most cases (Table 3-5 and Figure 3-8). In the case of white household appliances, only between 1 and 5 % of the labels were placed inside instead. Again, the worst level of compliance regarding the placing of the label was observed for electric ovens and air-conditioners.

Figure 3-7: Completeness of the labelling per type of shop (all countries)

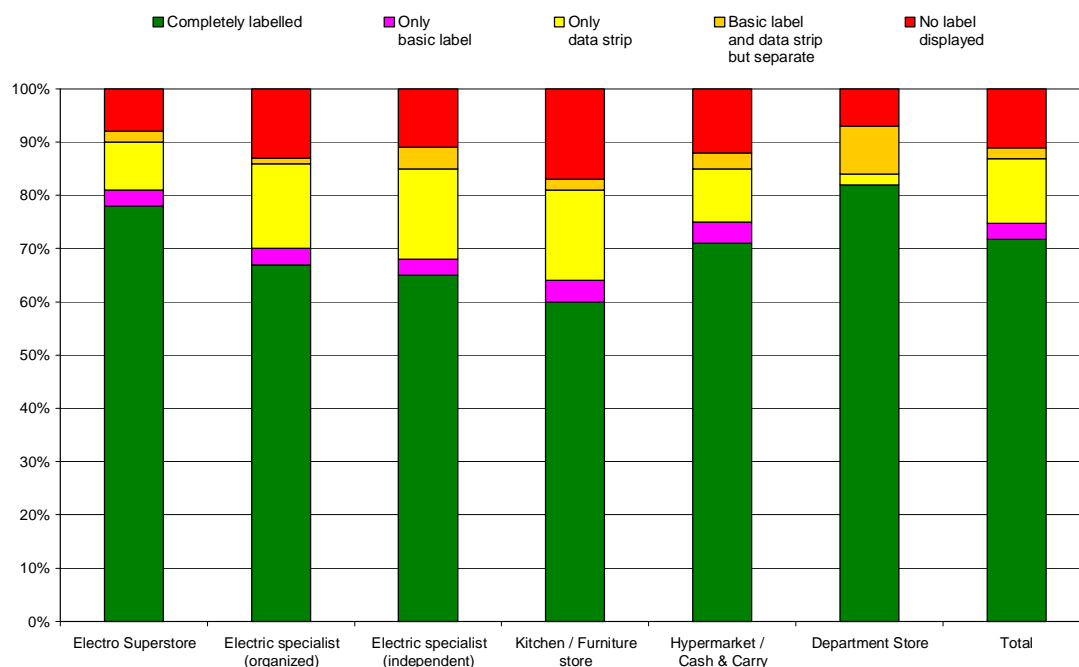


Table 3-5: Where is the label placed? (complete label)

Type of appliance	Top %	Front %	Side %	Back %	Inside %
Refrigerators	10	84	1	0	5
Freezers	23	74	1	0	3
Washing machines	57	41	1	0	1
Tumble driers	45	53	1	0	1
Dishwashers	38	56	1	0	5
Electric ovens	15	72	1	0	12
Air conditioners	18	73	9	-	0

In the case of appliances where only the data strip was attached, the data strip was either placed on top or front or also inside the appliances (Table 3-6). This is less relevant, however, since the fact that the entire label was missing is in itself a failure so that none of these appliances can be counted as correctly labelled in accordance with the Directive.

Figure 3-8: Where is the label placed? (complete label)

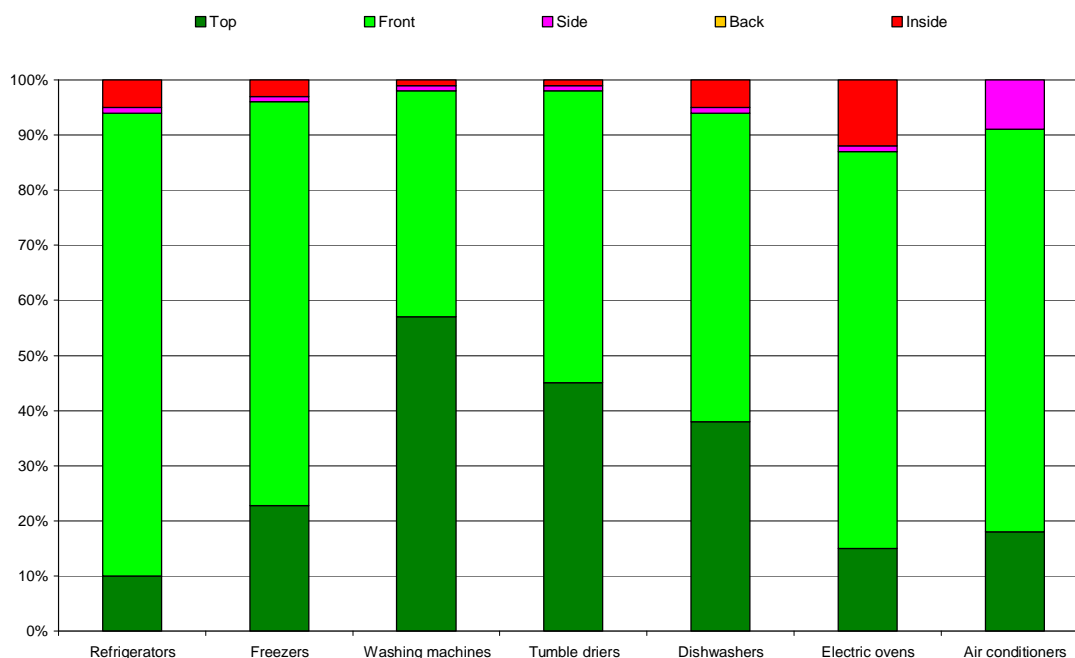


Table 3-6: Where is the label placed? (only data strip attached)

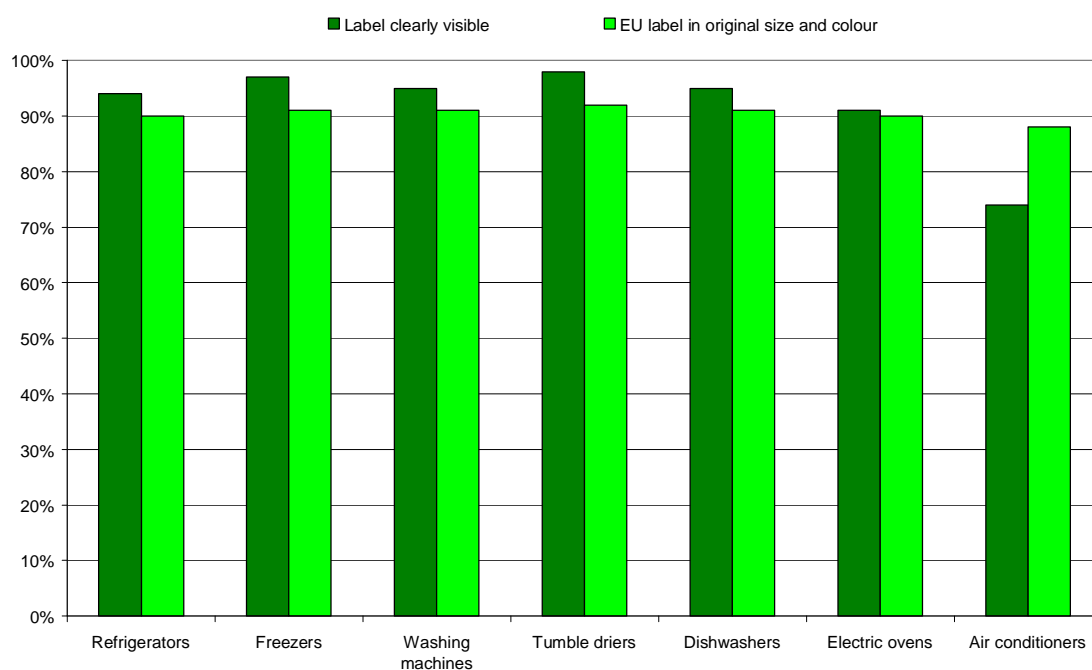
Type of appliance	Top %	Front %	Side %	Back %	Inside %
Refrigerators	4	66	2	0	12
Freezers	23	49	5	0	11
Washing machines	49	29	2	0	5
Tumble driers	33	41	1	1	8
Dishwashers	24	49	1	1	12
Electric ovens	10	36	1	0	33
Air conditioners	31	52	9	0	2

In addition to the completeness and placing of the label, it was also checked whether the label was clearly visible, i.e. not covered or obscured, and whether the label attached was of the original size and colour. The results regarding these criteria of compliance are shown in Table 3-7 and Figure 3-9. At more than 90 %, the degree of compliance with these criteria is very high for all appliance types except air conditioners. For air conditioners, the visibility criterion was only fulfilled in 74 % of appliances.

Table 3-7: Visibility and originality of the label

Type of appliance	Label clearly visible %	EU label of original size and colour %
Refrigerators	94	90
Freezers	97	91
Washing machines	95	91
Tumble driers	98	92
Dishwashers	95	91
Electric ovens	91	90
Air conditioners	74	88

Figure 3-9: Visibility and originality of the label



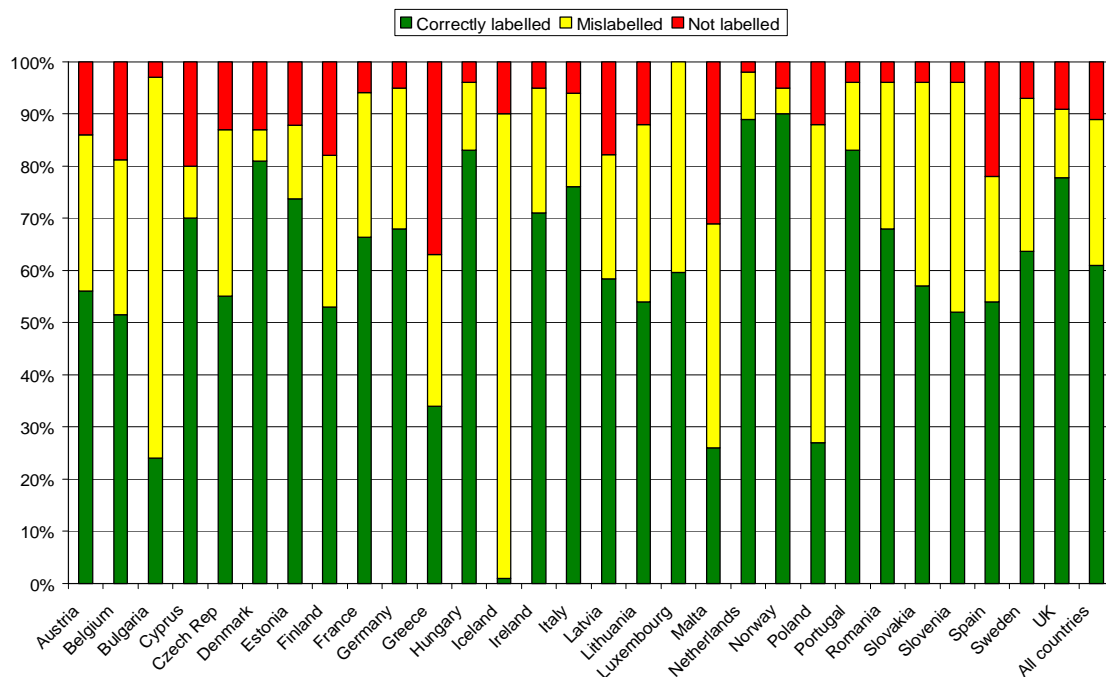
Taking into account all the compliance criteria demanded by the Energy Labelling Directive and its implementing Directives, the **overall level of compliance** can be derived from the results shown above using the following definitions:

- An appliance is defined as **correctly labelled** in accordance with the Directive if
  - the label is complete (basic label + data strip) and
  - the complete label is placed externally on top or in front and
  - the label is clearly visible, i.e. not covered or obscured and
  - the label has the original size and colour.

- An appliance is defined as **mislabeled** if one or more of the following shortcomings apply:
  - the label is incomplete, but not completely missing and/or
  - the label is not placed externally on the top or front and/or
  - the label is not clearly visible, i.e. is covered or obscured and/or
  - the label does not have the original size and colour.
- An appliance is defined as **not labelled**, if the label is completely missing (last column of Table 3-4). In this case, all other criteria are irrelevant.

With regard to the overall compliance per country (Figure 3-10 and Table 3-8), the total share of correctly labelled appliances over all countries (and for the aggregate EU 27) amounts to 61 %.

Figure 3-10: Overall compliance per country (all appliances)



This is 10 % below the level of compliance when only taking the completeness of labelling into account (see Table 3-4). 28 % of appliances were mislabelled and another 11 % were not labelled at all. Regarding the overall compliance by country, the highest share of correctly labelled appliances (between 80 and 90 %) were found in Denmark, Hungary, the Netherlands, Norway and Portugal. The country ranking is similar to that for the completeness of labelling, although there are some exemptions. Especially in Bulgaria and Slovenia, the share of mislabelled appliances is very high which means that, although 90 % of appliances were labelled completely, the share of correctly labelled appliances is considerably lower. In Bulgaria, the main shortcoming was insuffi-

cient visibility of the label; in Slovenia, the main problem was that the original EU label was not used.

Table 3-8: Overall compliance per country (all appliances)

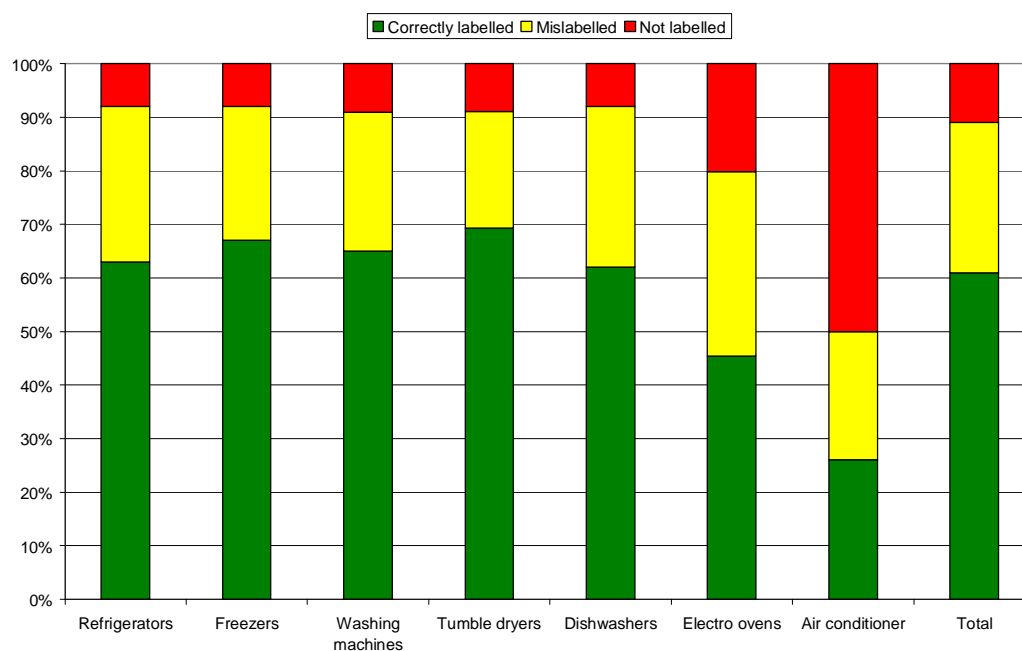
<b>Country</b>	<b>Correctly labelled</b> %	<b>Mislabeled</b> %	<b>Not labelled</b> %
Austria	56	30	14
Belgium	52	30	19
Bulgaria	24	73	3
Cyprus	70	10	20
Czech Republic	55	32	13
Denmark	81	6	13
Estonia	73	14	12
Finland	53	29	18
France	67	28	6
Germany	68	27	5
Greece	34	29	37
Hungary	83	13	4
Iceland	1	89	10
Ireland	71	24	5
Italy	76	18	6
Latvia	59	24	18
Lithuania	54	34	12
Luxembourg	59	40	0
Malta	26	43	31
Netherlands	88	9	2
Norway	90	5	5
Poland	27	61	12
Portugal	83	13	4
Romania	68	28	4
Slovakia	57	39	4
Slovenia	52	44	4
Spain	54	24	22
Sweden	63	29	7
United Kingdom	77	13	9
<b>EU-27</b>	<b>61</b>	<b>28</b>	<b>11</b>
<b>All countries</b>	<b>61</b>	<b>28</b>	<b>11</b>

Regarding the overall compliance by appliance type, the share of correctly labelled appliances is very similar for white appliances (between 62 and 70 %), whereas only 45 % of electric ovens and 26 % of air conditioners were correctly labelled in accordance with the Directive (Table 3-9 and Figure 3-11). In the case of air conditioners, the main failing was that the label was missing completely (50 %), whereas in electric ovens there was a fairly high share of mislabelled appliances (34 %).

Table 3-9: Overall compliance per type of appliance (all countries)

Type of appliance	Correctly labelled %	Mislabeled %	Not labelled %
Refrigerators	63	29	8
Freezers	67	25	8
Washing machines	65	26	9
Tumble driers	70	22	9
Dishwashers	62	30	8
Electric ovens	45	34	20
Air conditioner	26	24	50
<b>Total</b>	<b>61</b>	<b>28</b>	<b>11</b>

Figure 3-11: Overall compliance per type of appliance (all countries)



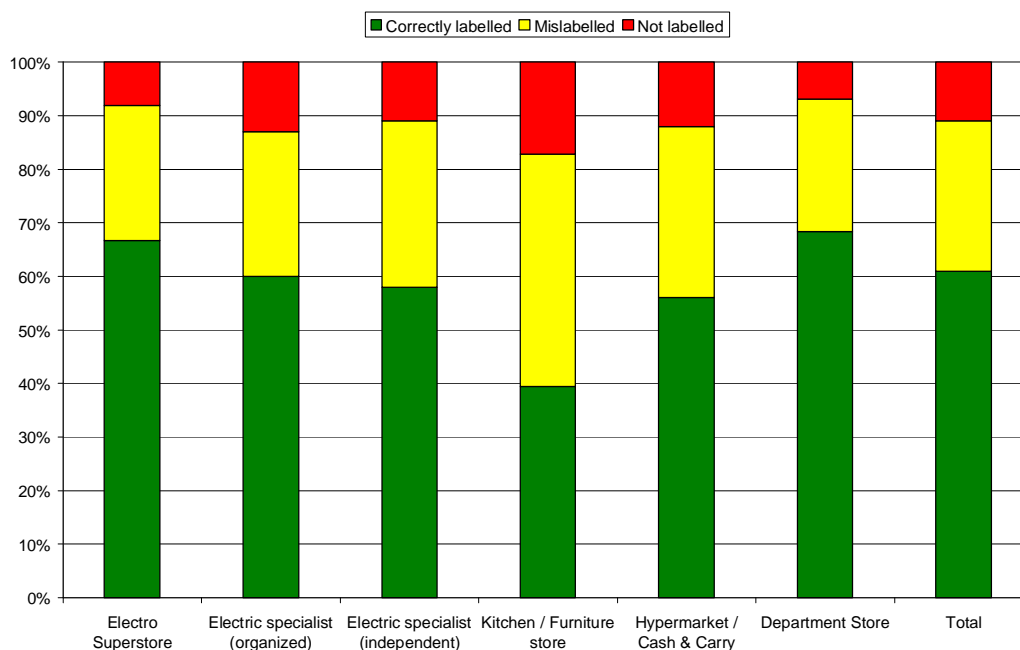


With regard to overall compliance by type of shop (Table 3-10 and Figure 3-12), the highest share of correctly labelled appliances was found in department stores (69 %) and electro superstores (66 %), i.e. in the big chains. In the case of electric specialists, around 60 % of appliances were correctly labelled; this share was a little lower in hypermarkets, but still considerably higher than 50 %. By far the lowest share of correct labelling (39 %) was observed in kitchen and furniture stores, i.e. sales channels where appearance is very important for sales promotion. In all types of outlets, the share of mislabelled appliances was higher than the share of non-labelled appliances. The main shortcomings, especially in kitchen and furniture stores, were the incompleteness of the label (only data strip available) and the incorrect placement of the label or data strip (mainly inside or still in bag). This shows that especially kitchen and furniture stores are obviously concerned about the appearance of the kitchens on display and therefore often place the labels or data strips inside the appliances.

Table 3-10: Overall compliance per type of shop (all countries)

<b>Type of shop</b>	<b>Correctly labelled</b>	<b>Mislabelled</b>	<b>Not labelled</b>
	%	%	%
Electro Superstore	66	25	8
Electric specialist (organized)	60	27	13
Electric specialist (independent)	58	31	11
Kitchen / Furniture store	39	43	17
Hypermarket / Cash & Carry	56	32	12
Department Store	69	25	7
<b>Total</b>	<b>61</b>	<b>28</b>	<b>11</b>

Figure 3-12: Overall compliance per type of shop (all countries)



### Compliance in the case of household lamps

For household lamps, the Implementing Directive prescribes that the label shall be placed or printed on, or attached to, the outside of the individual packaging of the lamp without being obscured. Therefore, for household lamps, it was only asked whether the label is present on the packaging and whether it is clearly visible. The results by country are shown in Table 3-11. In total, 2 633 lamps were checked, of which 94 % had labels on the packaging. In 92 % of these cases, the label was also clearly visible, which means an overall high degree of compliance in the case of household lamps. The differences between countries were relatively small. The availability of the label on the packing varied between 81 % in Cyprus and even 100 % in some countries.

Table 3-11: Compliance in the case of household lamps by country

<b>Country</b>	<b>Label available on the packaging</b>	<b>If yes: Label clearly visible</b>
	%	%
Austria	96	85
Belgium	97	97
Bulgaria	100	95
Cyprus	81	100
Czech Republic	96	85
Denmark	98	96
Estonia	96	100
Finland	96	88
France	98	93
Germany	88	95
Greece	92	71
Hungary	92	96
Iceland	88	95
Ireland	93	99
Italy	80	68
Latvia	100	100
Lithuania	100	100
Luxembourg	100	95
Malta	100	92
Netherlands	98	100
Norway	100	100
Poland	100	85
Portugal	98	100
Romania	97	98
Slovakia	95	100
Slovenia	84	99
Spain	96	78
Sweden	92	100
United Kingdom	93	99
<b>EU 27</b>	<b>94</b>	<b>92</b>
<b>All countries</b>	<b>94</b>	<b>92</b>

### 3.3.2 Interviews with store managers or salespersons

Before starting the interview, the interviewer had to examine the showroom and check whether **general information** on energy labels for domestic appliances is provided and in what ways this information is presented.

As Table 3-12 shows, 20 % of all shops present additional information. It was often found in department stores (62 %) and in a smaller proportion of other shops (between 15 and 25 %). The information medium was mainly brochures (63 %) or freestanding displays (58 %), sometimes ceiling banners (27 %) or information about other – e.g. country-specific – labels (11 %). Another type of information (9 %) included, for example, self-produced materials such as explanations of the labelling.

Table 3-12: General information provided in showrooms per type of shop and type of information – all countries (Questions 1 and 2)

Type of shop	Information is provided %	% of shops where information is provided				
		Free-standing displays	Brochures	Ceiling banners	Information about other labels	Other information
Electro Super-store	19	58	60	34	16	10
Electric specialist (organized)	15	49	64	21	4	11
Electric specialist (independent)	27	67	63	24	13	2
Kitchen/ Furniture store	17	44	78	22	16	6
Hypermarket	15	40	20	40	7	20
Department Store	62	77	77	31	–	23
<b>Total</b>	<b>20</b>	<b>58</b>	<b>63</b>	<b>27</b>	<b>11</b>	<b>9</b>

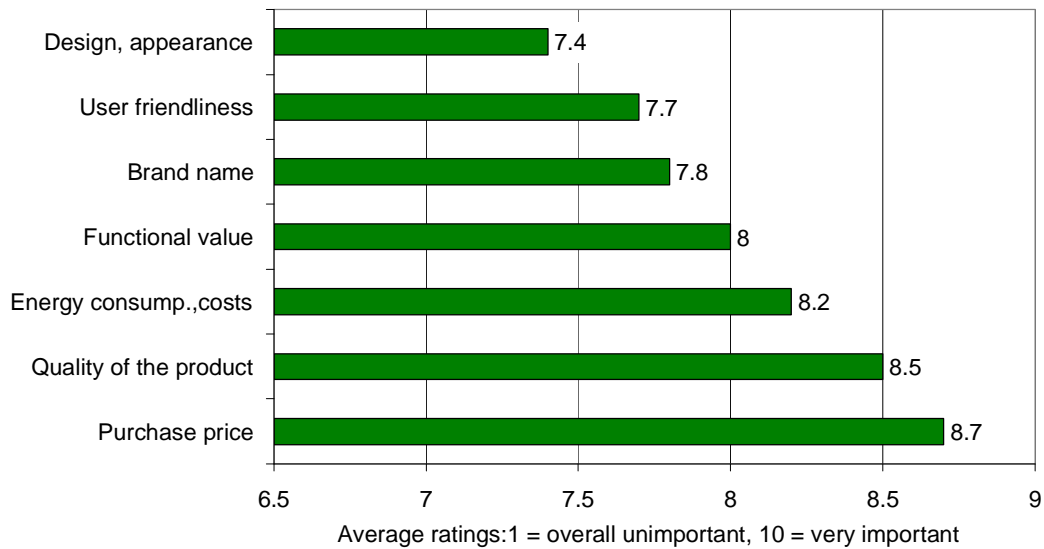
There are considerable differences between countries with regard to general information on energy labelling (Table 3-13). Whereas, in Norway, almost all shops provide this kind of information, there are some countries which do not provide any information. Austria, Ireland and the UK are also countries with an above-average provision of information, whereas most countries lie between 10 and 25 %.

Table 3-13: General information provided in showrooms of shops per country  
(Questions 1 and 2)

Country	Information is provided	Free-standing displays	Brochures	Ceiling banners	Information about other labels	Other information
	%	% of shops where information is provided				
Austria	42	50	90	20	5	10
Belgium	6	33	-	67	33	-
Bulgaria	6	-	67	33	-	-
Cyprus	-					
Czech Republic	13	57	29	14	14	-
Denmark	11	40	80	20	-	-
Estonia	21	40	50	70	20	10
Finland	9	50	-	-	-	50
France	23	50	19	19	25	6
Germany	24	71	53	29	12	18
Greece	10	60	40	-	20	-
Hungary	8	75	50	75	-	-
Iceland	13	-	100	-	-	-
Ireland	48	82	50	36	14	-
Italy	16	57	57	29	-	14
Latvia	23	11	67	56	-	-
Lithuania	15	17	50	67	17	-
Luxembourg	-	-	-	-	-	-
Malta	11	33	33	-	-	67
Netherlands	8	50	50	50	25	50
Norway	96	88	86	33	5	-
Poland	6	-	50	-	-	50
Portugal	2	-	100	-	-	-
Romania	24	50	58	-	25	-
Slovakia	18	60	40	-	-	-
Slovenia	18	50	88	13	13	25
Spain	7	-	20	-	20	60
Sweden	26	54	69	8	-	8
United Kingdom	54	67	83	33	22	6
<b>EU 27</b>	<b>18</b>	<b>53</b>	<b>58</b>	<b>26</b>	<b>13</b>	<b>10</b>
<b>All countries</b>	<b>19</b>	<b>58</b>	<b>63</b>	<b>27</b>	<b>11</b>	<b>9</b>

The interview started with the question about the role certain **features play in the purchasing act** of major appliances. In general, there are no large differences in the results. The main issue, obviously, is the purchase price; less important is appliance design (Figure 3-13). Differences between types of shop are almost negligible.

Figure 3-13: Relevant features for the purchase decision – all countries (Question 4)



When only looking at the importance of energy consumption and costs for the purchase decision, this feature is rated as important or very important in all countries, though there are some differences (Figure 3-14). Whereas in some countries a rating of almost 9 or even higher is observed (e.g. in Bulgaria, Germany, Hungary or Romania), in other countries the importance is rated considerably lower, especially in the EEA countries Iceland and Norway and in the Netherlands.

The majority of respondents stated that consumer **demand for energy-efficient appliances and energy-saving lamps** had increased over the last 12 months (70 %). 3 % said it had decreased, whereas 26 % stated it had remained constant (Figure 3-15). The answers of those who stated that it had increased were similar with regard to the type of shop, within a range between 61 % (kitchen and furniture stores) and 71 % (organised electric specialists). Department stores were an exception with 90 %. A large majority also believes that demand will continue to increase in the next 12 months (77 %). 21 % assume it will remain constant and only 2 % said it would decline. Differences between types of shops are in the same range – including department stores – as for the assessment of the past development.

Figure 3-14: Importance of energy consumption and energy costs for the purchase decision by country (Question 4)

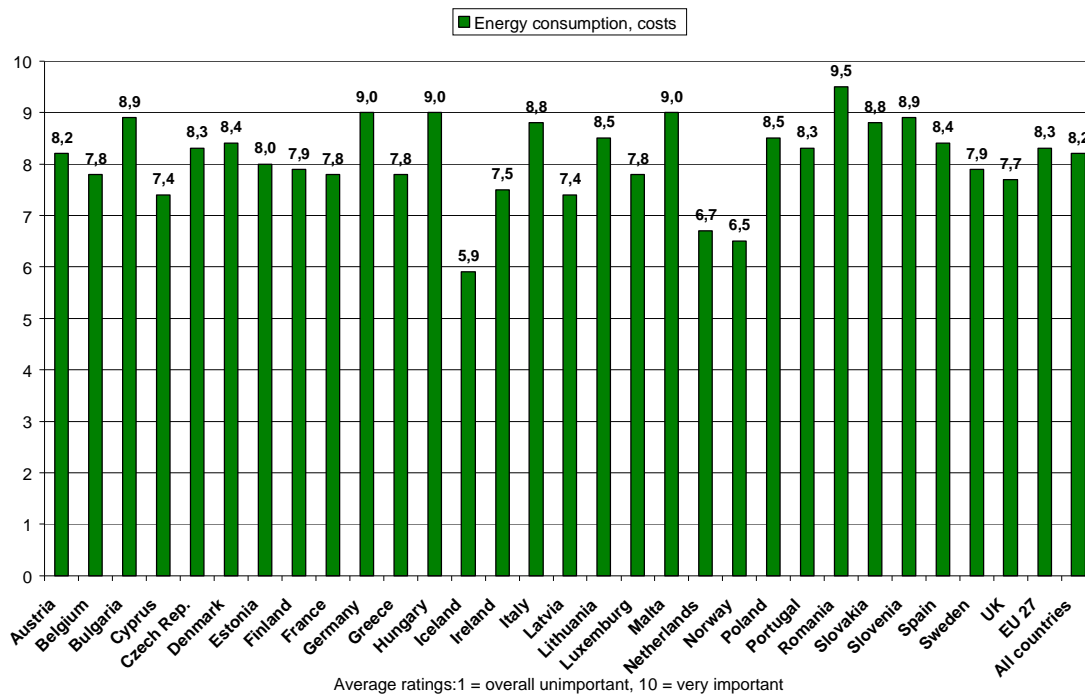
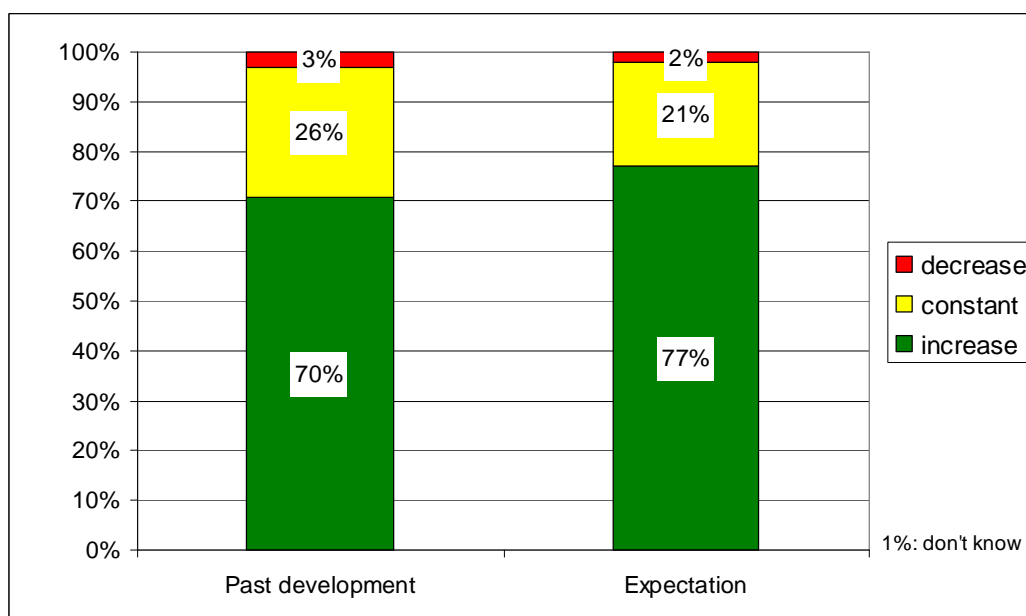
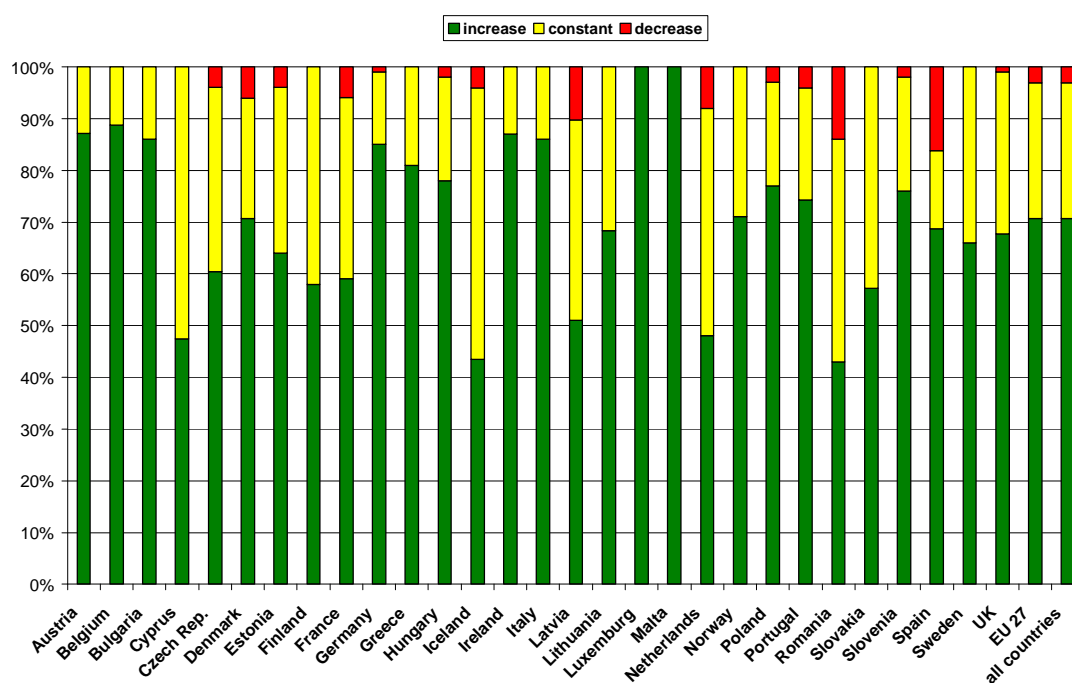


Figure 3-15: Consumer demand for energy-efficient goods – all countries (Question 5)



There are considerable differences between countries with regard to consumer demand for energy-efficient goods during the last 12 months (Figure 3-16). Whereas in some countries like Austria, Bulgaria, Luxembourg or Malta, 90 % or more of the respondents stated an increase, there are some countries like Cyprus, Iceland, or the Netherlands where this share was below 50 %.

Figure 3-16: Consumer demand for energy-efficient goods during the past 12 months by country (Question 5.1)



The next question focused on **checking the labelling in the shop**, either by an official institution or by the store manager. In total, 38 % of respondents confirm that their shop had been checked in the last 12 months by an official institution, whereas a remarkable 84 % stated that the correct handling of the labels is checked regularly by the store manager. Considerable differences were found with regard to the type of shop: department stores were checked externally by 86 %, kitchen and furniture stores only by 20 %. A self-check was reported by 95 % of the department stores, but only by 58 % of the kitchen and furniture stores (Figure 3-17).

The results by country confirm this divergent situation. Whereas in almost all countries, regular checking of the labelling by the store manager was confirmed by more than three quarters of the respondents (Figure 3-19), this figure is considerably lower with regard to checks made by an official institution over the past 12 months (Figure 3-18). In only four Eastern European countries – Cyprus, Czech Republic, Estonia and Ro-



mania – was an official check confirmed by more than 75 % of the store managers, whereas many countries are even below 20 %. The general picture with regard to Question 6.1 is very inhomogeneous.

Figure 3-17: Checking the labelling in the shop – all countries (Question 6)

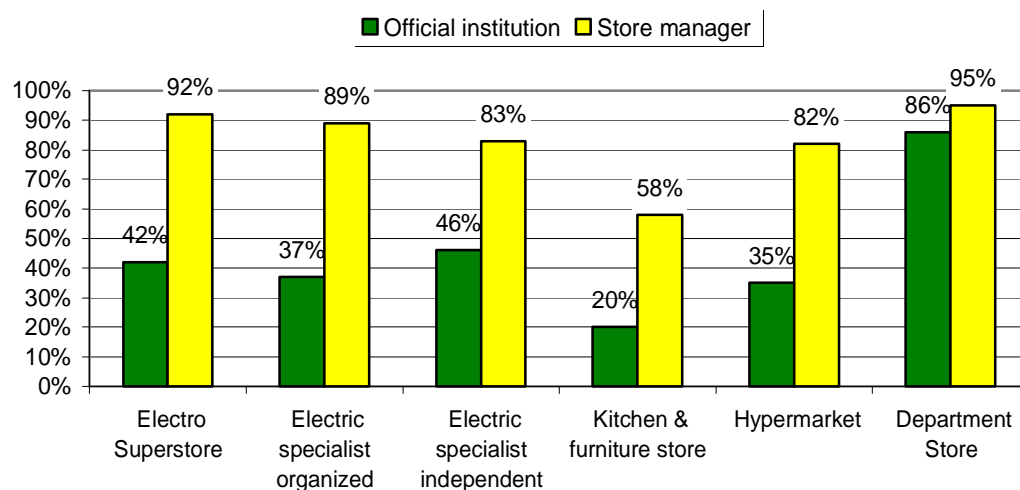


Figure 3-18: Labelling checked by an official institution per country (Question 6.1)

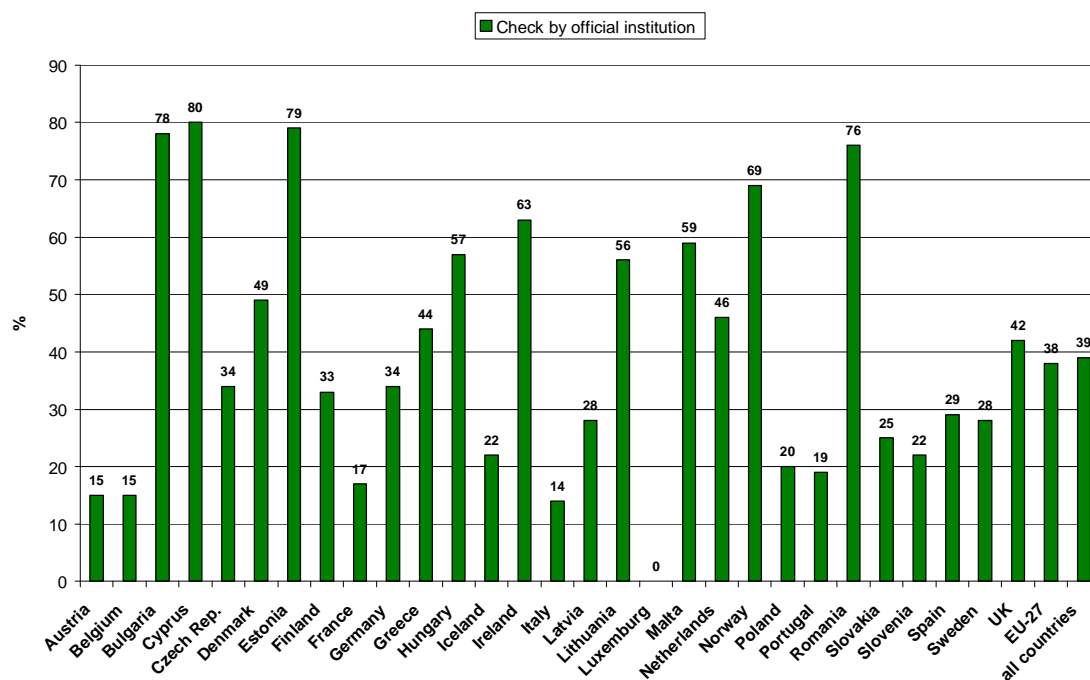
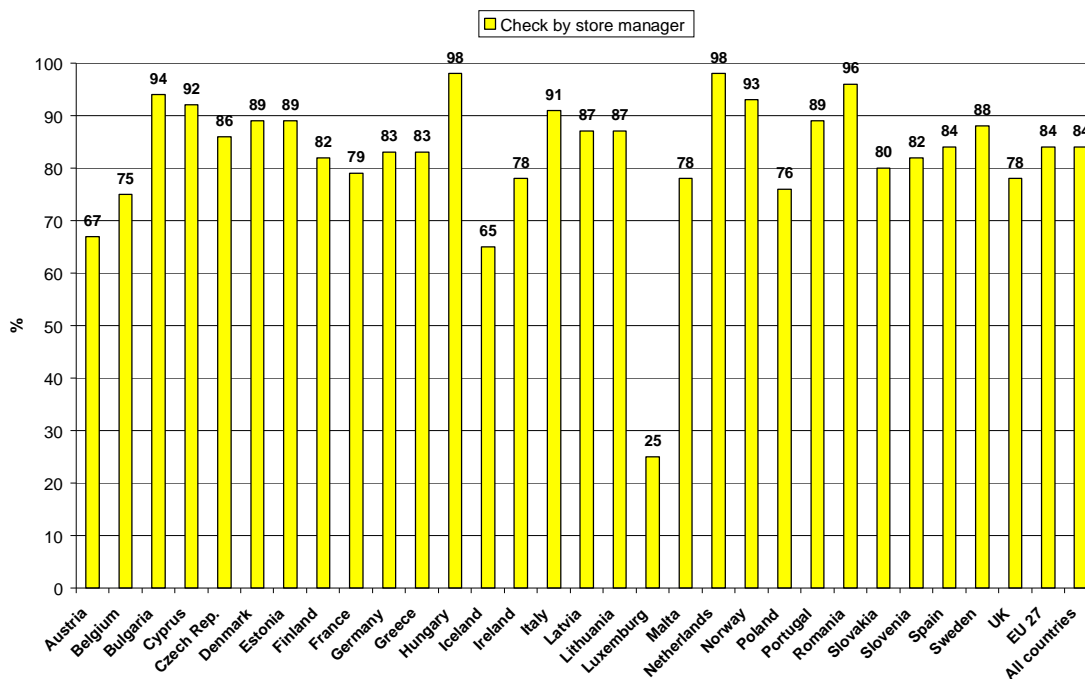


Figure 3-19: Labelling checked by the store manager per country (Question 6.2)



The **influence of energy labels on the sales process** was estimated by rating several items. An important result is the high score awarded to the statement “We think retailers can easily explain the label system” (8.3). It means that the label can be easily understood and is therefore suitable for sales communication. Once again, department stores have an outstanding position, giving an above-average score to all the statements and kitchen and furniture stores give a below average rating. This underlines once more the differences in importance attributed to the label by these types of shops. Figure 3-20 shows the ranking in total.

Retailers were also asked to differentiate the labelling impact between different types of appliances. The second part of this question asked them to assess whether consumers are principally willing to pay more for a higher-ranking energy label class depending on the product group. The results are presented in Figure 3-21. The highest impact of the label was found for refrigerators, freezers and washing machines; the lowest for air conditioners and electric ovens. The same is true for the willingness to pay more for a product from a higher energy class. One of the possible explanations for this finding is certainly the length of time which has passed since the label was introduced for the various products.

Figure 3-20: Impact of the label on the sales process – all countries (Question 7)

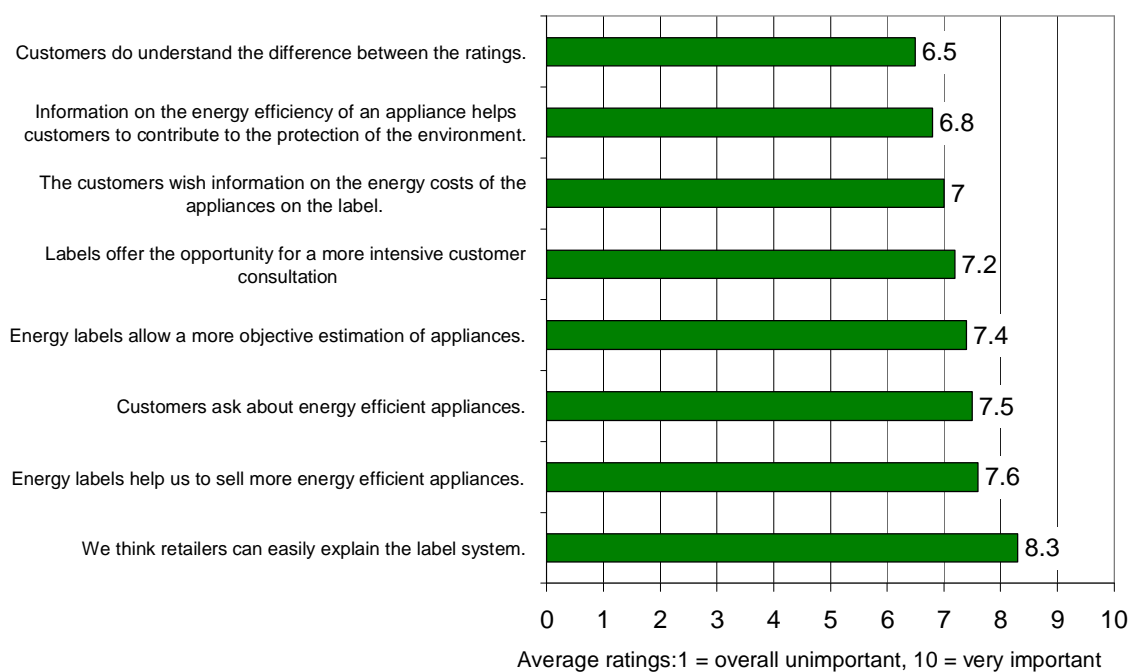
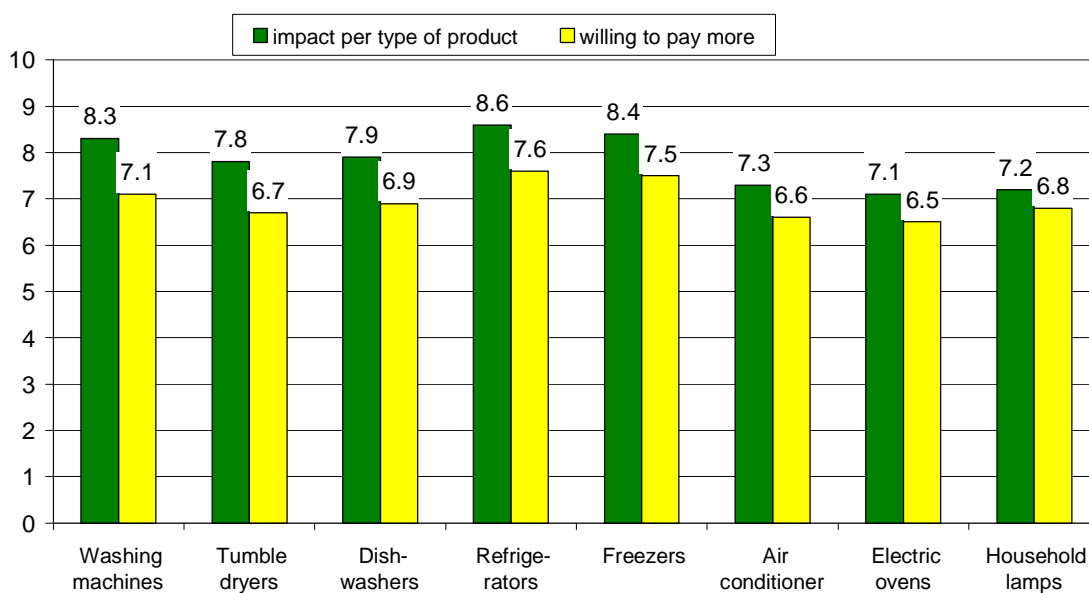
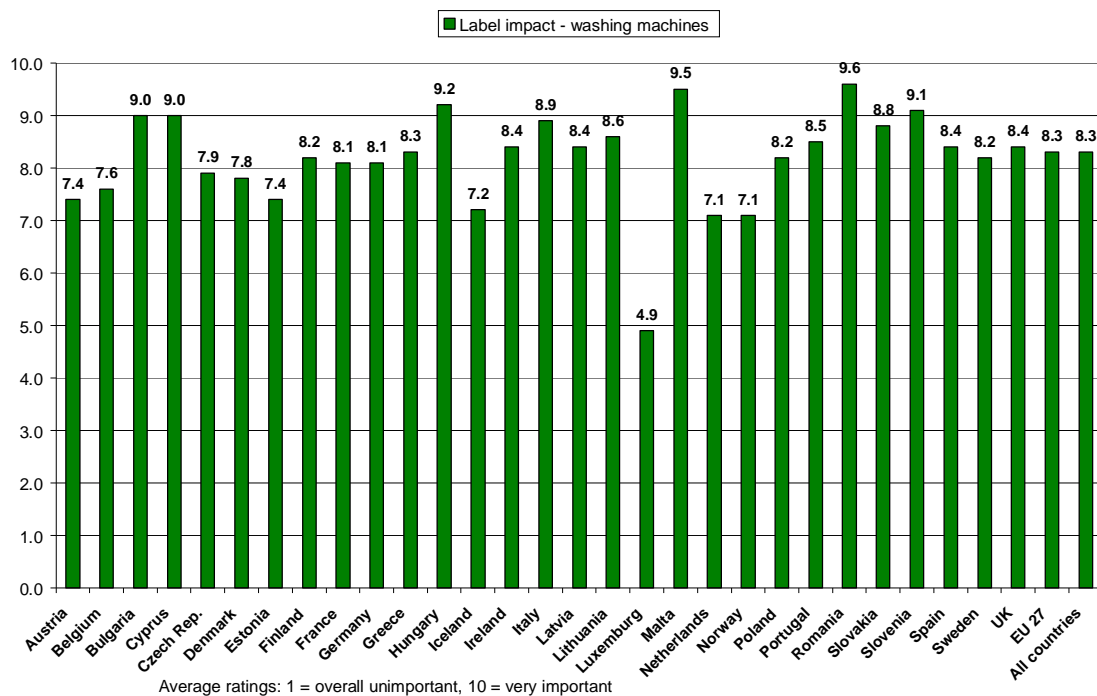


Figure 3-21: Impact of the label per type of product and willingness to pay more for a higher energy class – all countries (Question 8)



In almost all countries, the impact of the label on the sales process is assessed as important, e.g. washing machines score between 7 and above 9 (Figure 3-22). Only in Luxembourg is this value considerably lower.

Figure 3-22: Impact of the label on the sales process per country (Question 8.1)



With regard to the willingness to pay more for a washing machine with a higher energy efficiency class, most countries scored between 6 and 7.3, which means that consumers are principally willing to pay more for more energy efficiency (Figure 3-23). Again, Luxembourg had the lowest score.

In an earlier study in Germany it was found that there are some conflicts between the labels and the design or appearance of the appliances in the showroom. Therefore the respondents were asked **how labels affect the design** or look of displayed products, both for freestanding and built-in appliances: negative, neutral or positive. The results confirm the observation in Germany: ratings are lower for built-in appliances and even slightly negative in the case of kitchen and furniture stores (Figure 3-24). Nevertheless, an important result is that a positive impact on appearance is attributed to the label for freestanding appliances and for built-in products, too, albeit slightly less so.

Figure 3-23: Willingness to pay more for a higher energy efficiency class per country (Question 8.2)

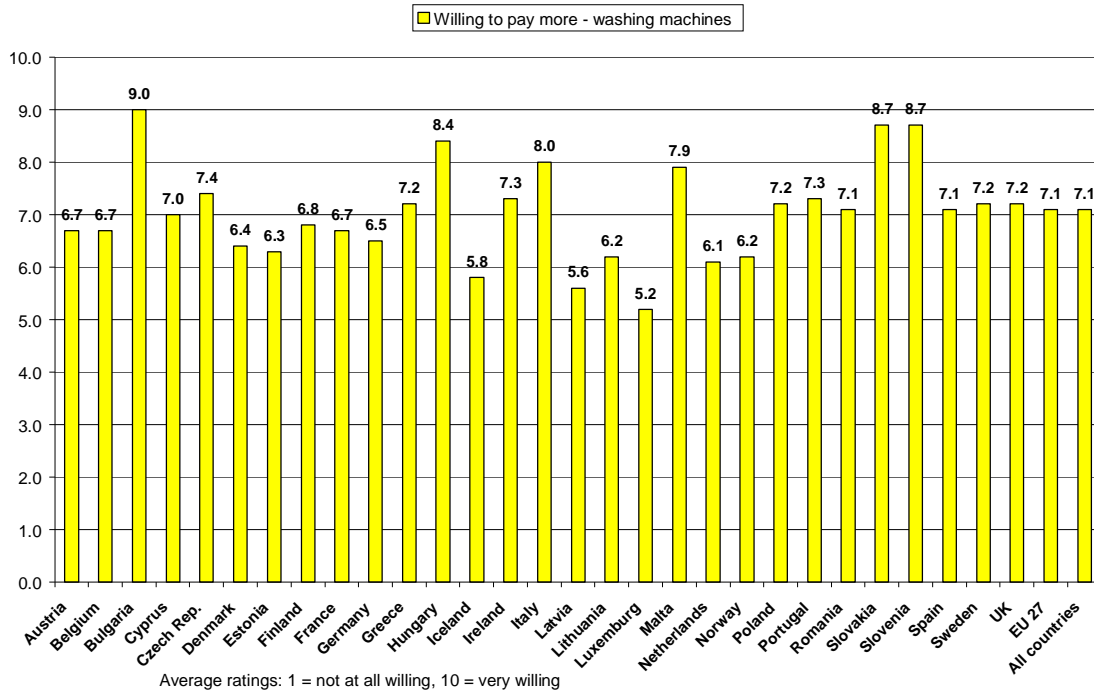
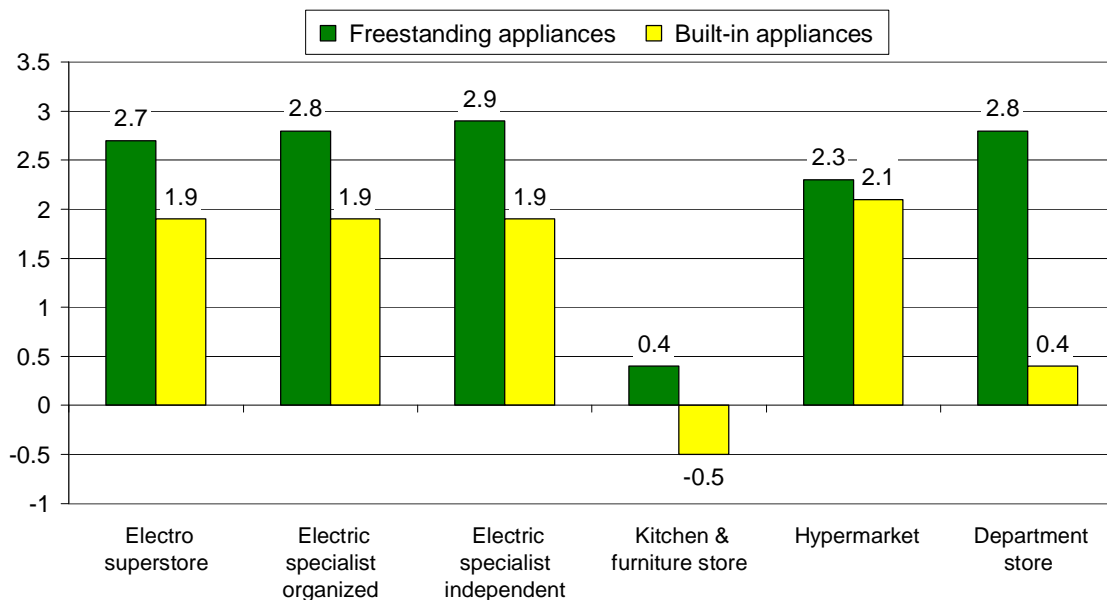


Figure 3-24: Influence of the label on design or appearance in the showroom – all countries (Question 9)

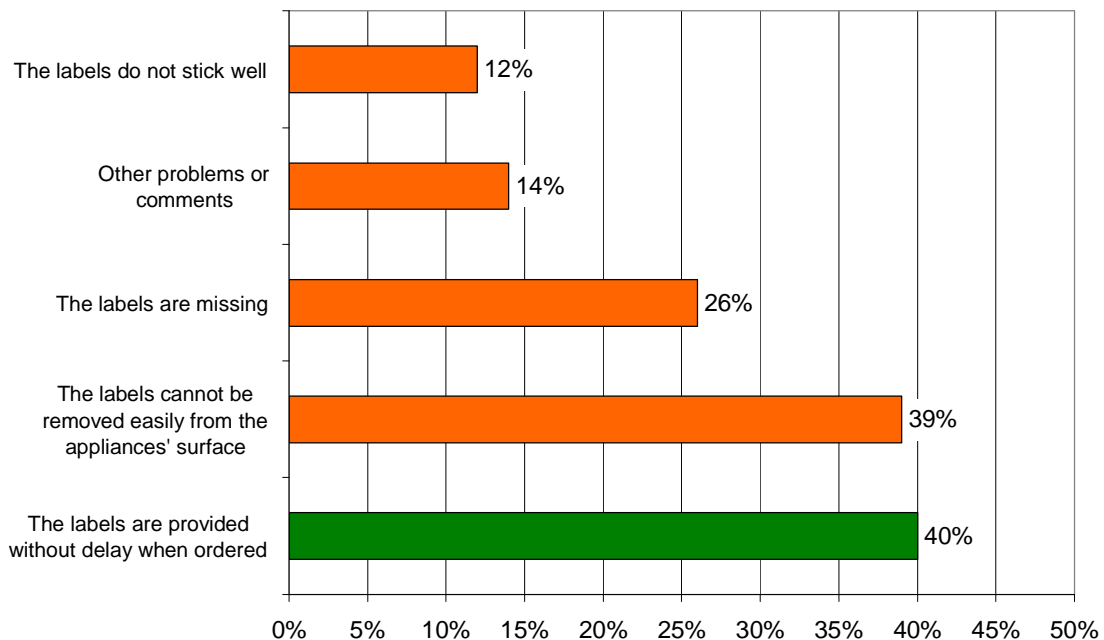


**Problems with handling the label** were recorded in detail, partially using pre-defined issues, partially with an open question. A distinction was made between the basic label (coloured background) and the product fiche. The results can be seen in Figure 3-25. The open question revealed a lot of additional problems (mentioned by 10 or more respondents), such as:

- The labels damage the appliance/can leave a mark.
- Labels are placed inside the device or attached to the side because of appearance concerns.
- Labels (partially) are not supplied with the appliances.
- The labels should be smaller and less obtrusive on the back/inside the appliance.
- The labels should be attached to the appliances with magnets rather than glue.
- Some details on the labels are incorrect or missing.
- Labels are stuck on re-usable magnetic boards (in the shop).

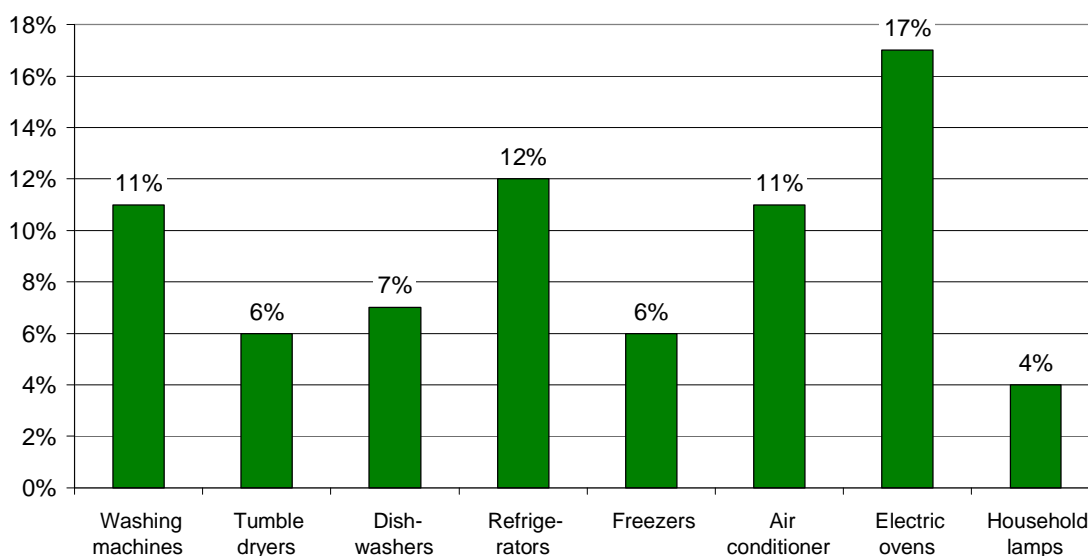
It should be mentioned that one comment was different since its wording was positive: "The labels are provided without delay when ordered." However, only 40 % of the respondents agreed with this statement, which means that the provision of the labels could be a problem. The results do not differ much between the types of shop, except that department stores mentioned fewer problems than the average of the respondents.

Figure 3-25: Handling of the basic label – all countries (Question 10.1)



With regard to **handling the product fiche**, respondents were asked how often this is missing in the product documents and if so, whether this occurs more for certain product groups or certain manufacturers. In total, the respondents rated the absence of the product fiche between 10 and 20 %. Some differences between types of products were found (Figure 3-26).

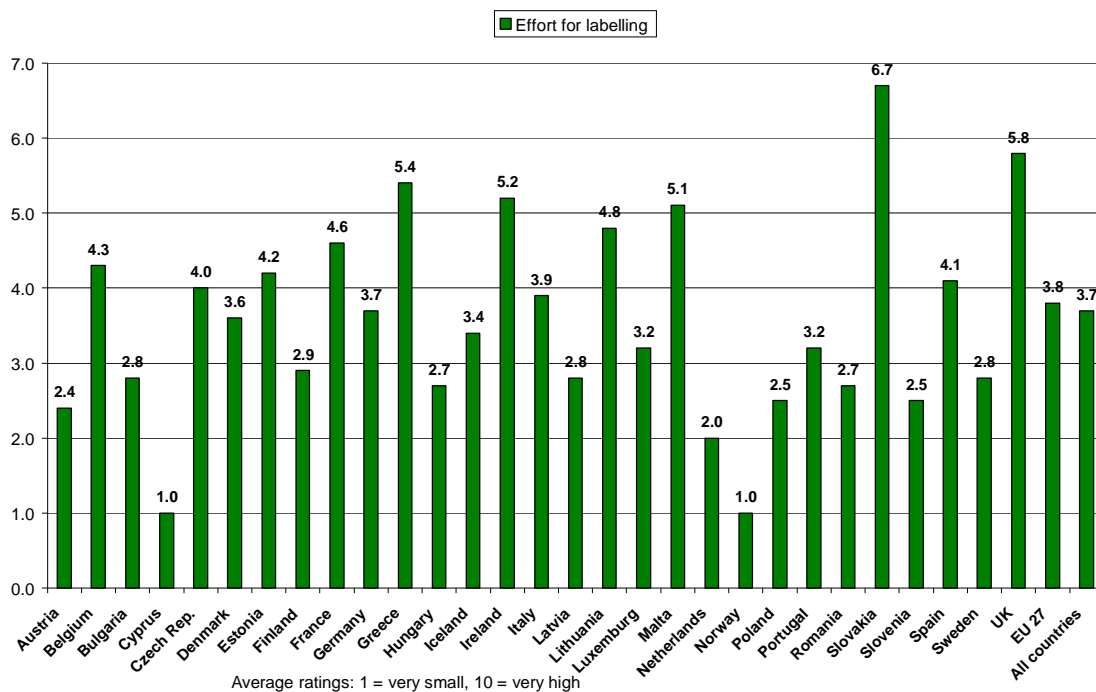
Figure 3-26: Missing product fiches – all countries (Question 10.2)



Only 11 % of the respondents stated that this problem occurs more for certain manufacturers. 10 or more than 10 respondents mentioned the following manufacturers: Bosch (32), Indesit (20), Hotpoint (17), Whirlpool (15) Zanussi (13), Electrolux (12) and Siemens (10).

A very important question referred to the **general effort** concerning the time, administration and handling required for the label on the part of the retailer. On a scale from 1 = very small effort to 10 = very high effort, the overall average was 3.7. This means that the requirements are not negligible, but are relatively small. The answers from the various types of shop range between 3.4 and 3.9. Between the countries, differences are more pronounced (Figure 3-27). Whereas in some countries like Cyprus or Norway the general effort for labelling is assessed as very small, in other countries like Greece, Italy, Malta, Slovakia and the UK, this value increases to more than 5, which implies a noticeable effort.

Figure 3-27: General effort required for the labelling per country (Question 10.3)



One question concerned **suggestions about what could motivate customers** to buy more energy-saving appliances. 12 measures were ranked on a scale from 1 = strongly disagree to 10 = strongly agree (Figure 3-28). The measures most preferred were financial incentives for purchasing energy-saving appliances and a suggestion which addresses manufacturers: the development of more energy-efficient appliances and cheaper prices for these products. The label's design was not considered very important.

The last question was how the label should be **adapted to the technical development** of the appliances. On average for all countries, the answers were equally distributed between "Introduction of new efficiency classes beyond the original A – G scheme (like A+, A++)" and "Adapt the original A–G scheme to technical change" with 40 % each. Another 23 % recommended the "Introduction of a completely new rating scheme" (Figure 3-29). Differences between the various types of shops were negligible. The results by country were relatively similar, too.



Figure 3-28: Suggestions to motivate consumers – all countries (Question 11)

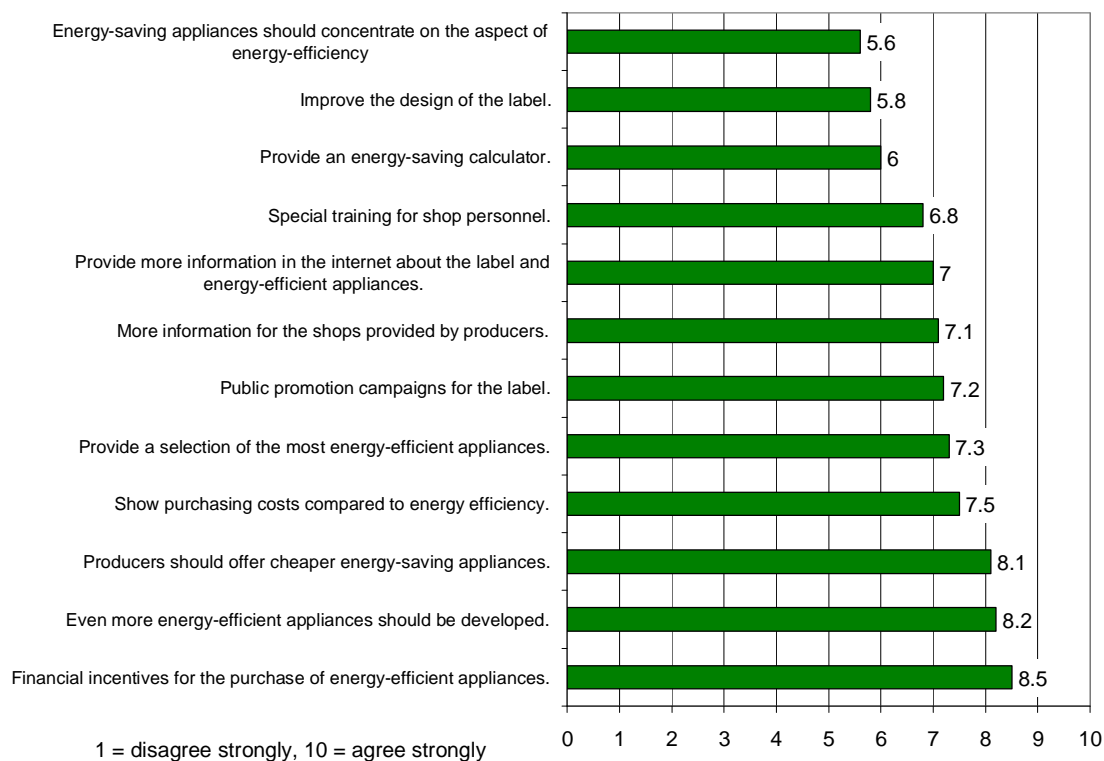
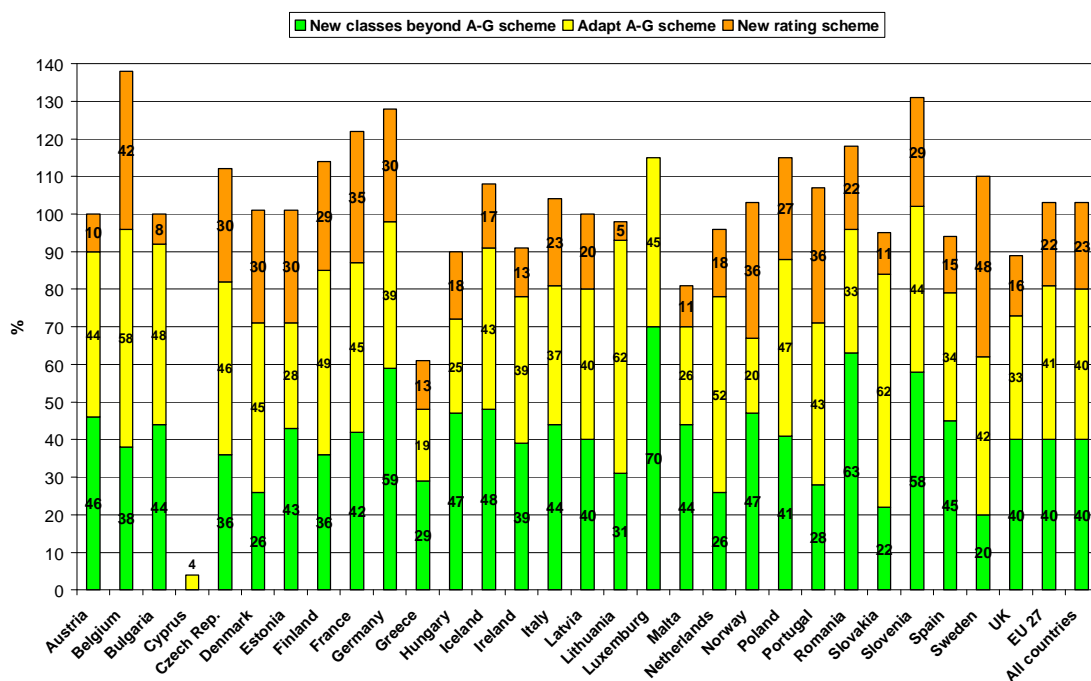


Figure 3-29: Adaptation of the labelling to technical development by country (Question 12)



237 respondents (18 %) had different or additional ideas:

- More/better customer information about the label (27)
- Simplification of energy classes / no classifications apart from A-G (without +/++) (25)
- Show saving costs on the label (appliances) (20)
- Labels should have more details/more precise information about energy consumption (14)
- Declare the noise emission of the appliances (e.g. dishwashers and washing machines) (11)
- Rebate for energy efficiency appliances (11)
- Explain the A to G system on labels to the customers (11)

35 respondents (3 %) did not see the need for any changes because the label is well known to customers.

### **3.3.3 Results of the Audit of Mail Order Companies and Internet Stores**

With regard to the general provision of the mandatory information and the order in which the information is provided, compliance with the Labelling Directive by mail order companies and Internet stores is very low (Table 3-14). On the whole, only 5 % of the appliances were correctly labelled in accordance with the Directive, which means that the mandatory information was provided completely and in the stipulated order. For another 12 % of the appliances, the information was complete, but not in the correct order. In more than two thirds of the appliances, however, the information was neither complete nor in the right order. The mandatory information was missing completely in only 2 %. The level of compliance differed significantly between the countries, though not all countries were included in the sample with regard to mail order and Internet stores. The highest share of correctly labelled appliances was observed in Denmark (41 %), Germany (29 %) and Austria (20 %), whereas in a considerable number of countries, the share of correctly labelled appliances was even zero in the case of mail order and Internet.

Regarding the level of compliance by appliance type, the differences are smaller than those between countries (see Figure 3-30 and Table 3-15). The main shortcomings are that some of the mandatory information is missing and that the information is also provided in the wrong order. The highest share of complete information in the correct order was observed for electric ovens (10 %), washing machines and dishwashers (8 %).

Table 3-14: Provision of mandatory information in the case of mail order companies and Internet stores by country<sup>6</sup> (in percent; all appliances)

Country	Mandatory information...				
	..provided completely and in stipulated order	..provided completely but not in stipulated order	..provided not completely but in stipulated order	..provided not completely + not in stipulated order	...completely missing
Austria	20	24	27	29	0
Belgium	0	20	0	80	0
Bulgaria	0	0	0	94	6
Cyprus	0	0	0	0	0
Czech Republic	10	9	20	60	1
Denmark	41	3	42	14	0
Estonia	1	2	30	67	1
Finland	-	-	-	-	-
France	0	41	1	57	1
Germany	29	23	20	25	2
Greece	-	-	-	-	-
Hungary	0	5	0	93	1
Iceland	1	1	47	43	7
Ireland	8	3	6	78	5
Italy	0	3	1	87	10
Latvia	0	3	1	87	10
Lithuania	0	3	0	97	0
Luxembourg	0	6	2	92	1
Malta	-	-	-	-	-
Netherlands	0	5	0	95	0
Norway	-	-	-	-	-
Poland	0	3	16	81	0
Portugal	0	3	16	81	0
Romania	-	-	-	-	-
Slovakia	9	11	17	63	0
Slovenia	2	1	30	66	0
Spain	0	2	0	93	4
Sweden	-	-	-	-	-
United Kingdom	0	2	0	93	4
<b>Total</b>	<b>5</b>	<b>12</b>	<b>10</b>	<b>70</b>	<b>2</b>

<sup>6</sup> According to the design of the sample, mail order houses and internet stores were not included in the sample in all countries (see Table 3-1).

Figure 3-30: Provision of mandatory information in the case of mail order companies and Internet stores by appliance type (all countries)

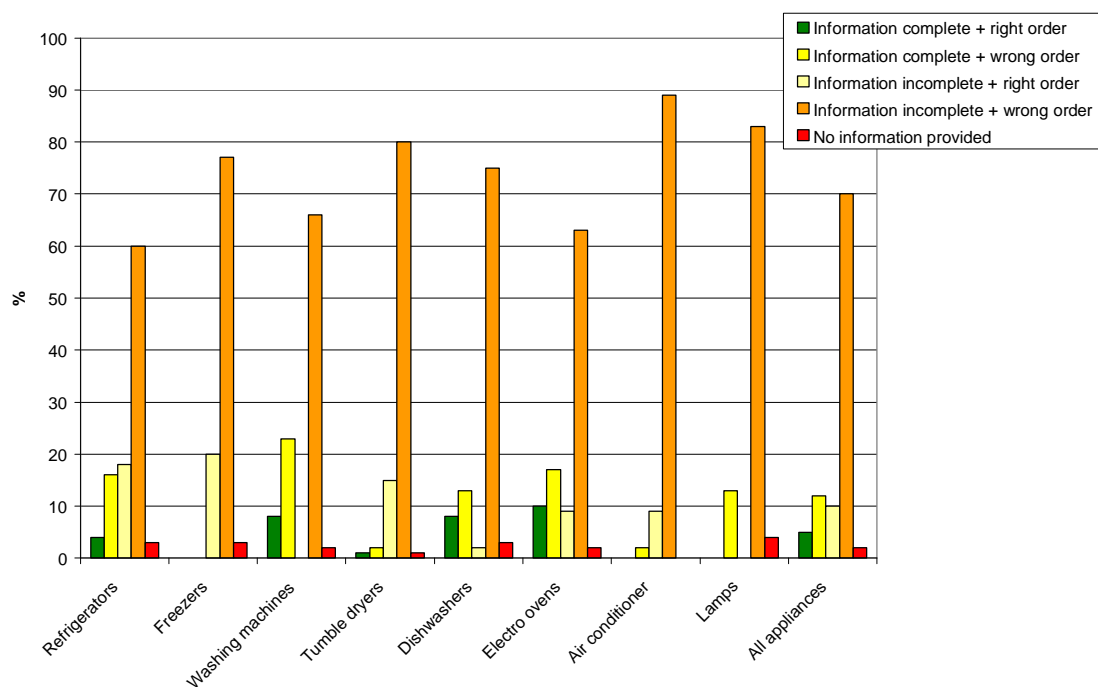


Table 3-15: Provision of mandatory information in the case of mail order companies and Internet stores by appliance type (all countries)

Country	Mandatory information...				
	..provided completely and in stipulated order	..provided completely but not in stipulated order	..provided not completely but in stipulated order	..provided not completely and not in stipulated order	..completely missing
	%	%	%	%	%
Refrigerators	4	16	18	60	3
Freezers	0	0	20	77	3
Washing machines	8	23	0	66	2
Tumble driers	1	2	15	80	1
Dishwashers	8	13	2	75	3
Electric ovens	10	17	9	63	2
Air conditioner	0	2	9	89	0
Lamps	0	13	0	83	4
<b>Total</b>	<b>5</b>	<b>12</b>	<b>10</b>	<b>70</b>	<b>2</b>

### 3.4 Combination of the survey results with other GfK panel data

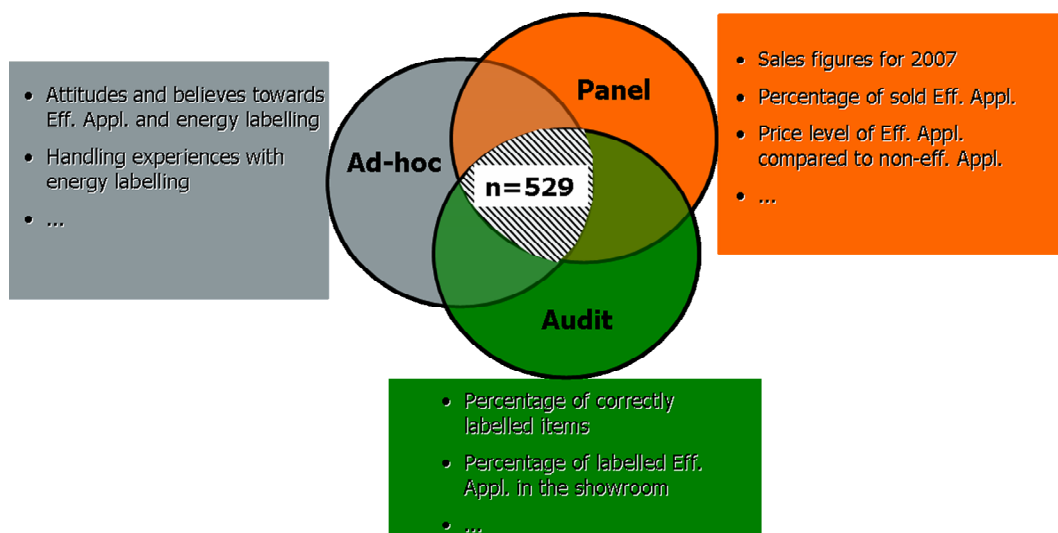
In the following, a further analysis is made by combining the retail trade survey results from the ad-hoc questionnaire with the sales managers and the shop audit with other GfK panel data from the retail panel. The main objectives of the additional analysis is to identify relevant factors that drive

- the **correct handling of the energy labels** in practice, measured by the percentage of correctly labelled appliances registered during the showroom audit ⇒ Variable "**AvgTotalCor**"
- and the **acceptance of energy-efficient appliances (Eff. Appl.)** in the market, measured by the percentage of energy-efficient appliances sold in the surveyed stores ⇒ Variable "**AvgEffShare**"

First of all, a set of meaningful factors is identified based on the data pool. Secondly, a metric for the assessment of the relative strength is provided, the "**Aggregate Share-Elasticity**".

In order to make these calculations, the data from the three different data sources are combined (ad-hoc questionnaire, shop audit, retail panel) (Figure 3-31):

Figure 3-31: Data pooling



- The data on the attitudes towards energy-efficient appliances and energy labelling and on the handling experiences are taken from the interviews with the store managers (**ad-hoc questionnaire**).

- The percentage of correctly labelled items and the percentage of correctly labelled energy-efficient appliances are known from the **shop audit**.
- Finally, the **GfK retail panel** offers the total sales figures of household appliances in the stores included in the audit, the percentage of energy-efficient appliances in total sales and the price differences between energy-efficient and non energy-efficient appliances. For the additional analysis, the latest figures (for the year 2007) were used from the GfK retail panel for the stores included in the shop audit.

In order to get an idea of the data which are available from the GfK retail panel at a more aggregate level, Figure 3-32 shows figures on sales units and prices for the main household appliances by energy efficiency class for the years 2004 and 2006. These figures present the average of all countries (23) included in the retail panel.<sup>7</sup> The shares of appliance sales by energy efficiency class also allow a direct comparison between the degree of compliance with the Energy Labelling Directive in a country and the respective shares of energy-efficient appliances in total sales. These figures are shown in the Annex for all countries included in the GfK retail panel.

Stores are only included in the final dataset for the additional analysis if data from all three sources is available for them. The final dataset contains n=529 stores from 17 different countries and 7 product categories (Figure 3-33). In addition, the models are controlled for country-specific differences.

For each product group, the energy-efficient appliances were defined as follows:

- Refrigerators and freezers: Energy efficiency classes A++, A+
- Dishwashers, washing machines, air-conditioners, cookers: Efficiency class A
- Tumble driers: Efficiency classes A, B.

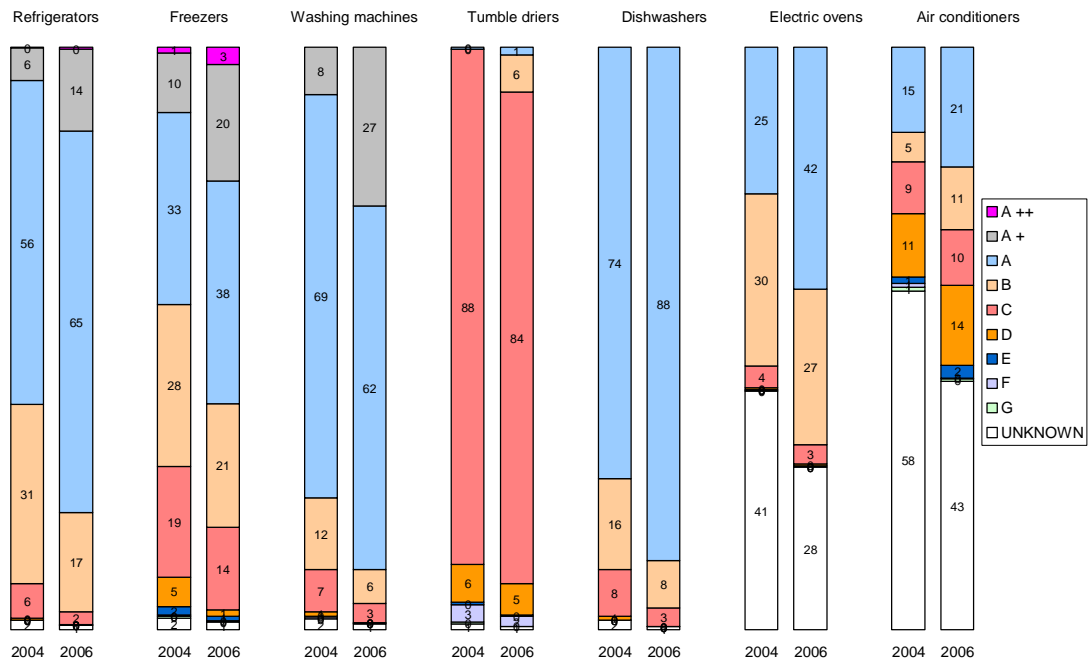
The basic principle of the applied logistic regression is illustrated in the context of the model explaining the percentage of correctly labelled items (Figure 3-34). The aim of the model estimation is to choose the weights for all possible influencing factors in a way that the observed share of correctly labelled items can be predicted as precisely as possible.

---

<sup>7</sup> Austria, Belgium, Bulgaria, Czech Rep., Denmark, Estonia, Finland, France, Germany, UK, Greece, Hungary, Italy, Latvia, Lithuania, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden (for some appliance types, especially air conditioners, some countries are missing in the sample).

Figure 3-32: Example for data available from the GfK retail panel (average of all countries included in the panel)

Sales units: shares of appliance sales by energy efficiency class in %



Average price by appliance type and energy efficiency class in Euro

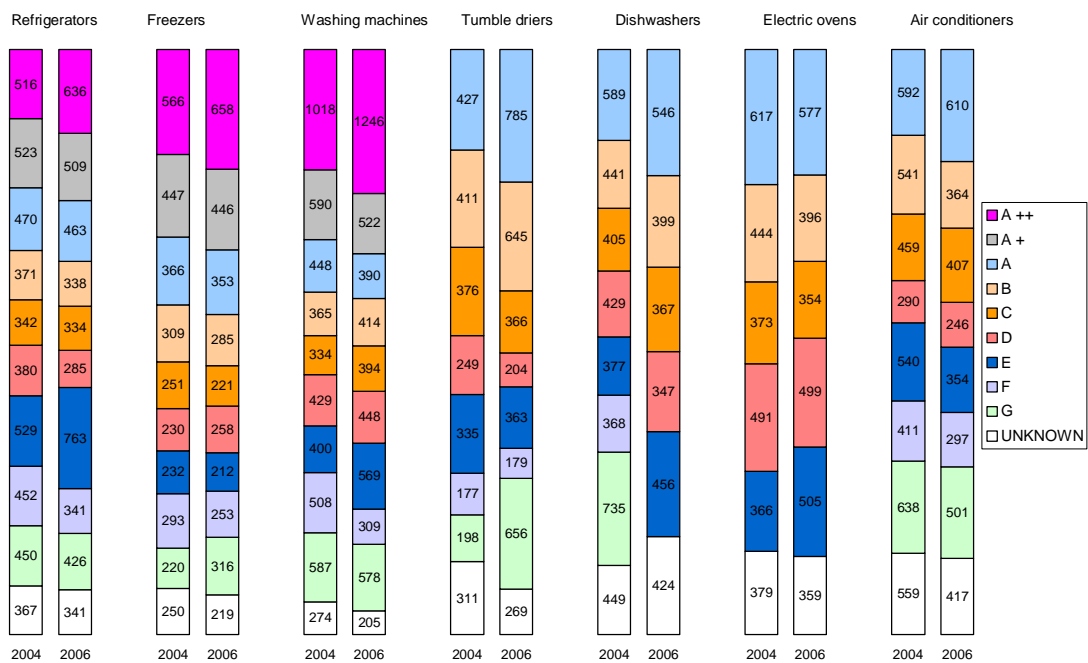


Figure 3-33: Countries and appliance categories included in the additional analysis

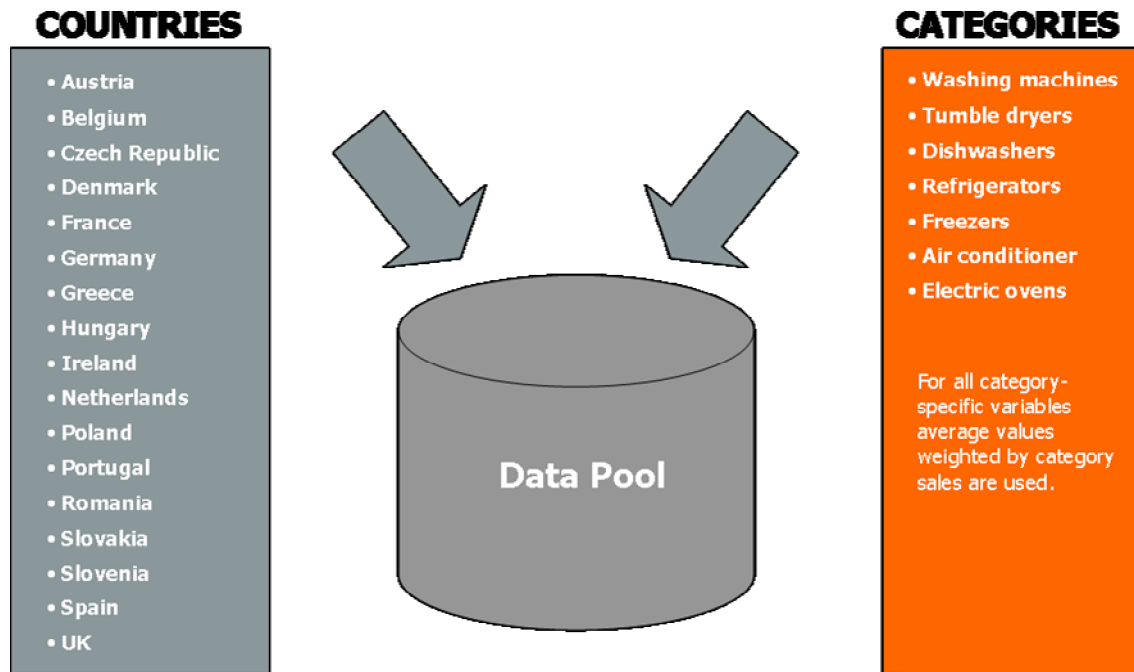
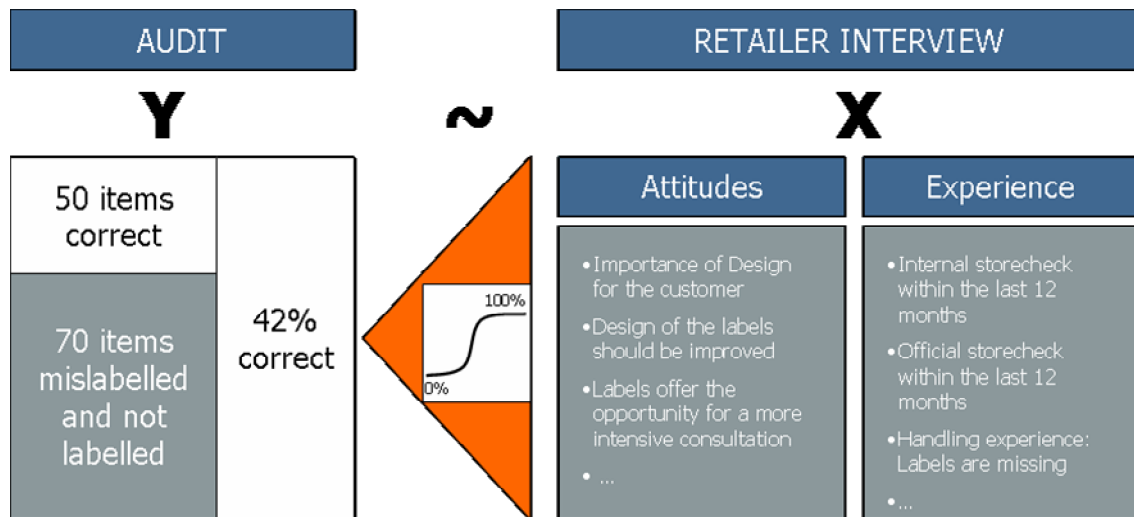


Figure 3-34: General principle of the applied logistic regression

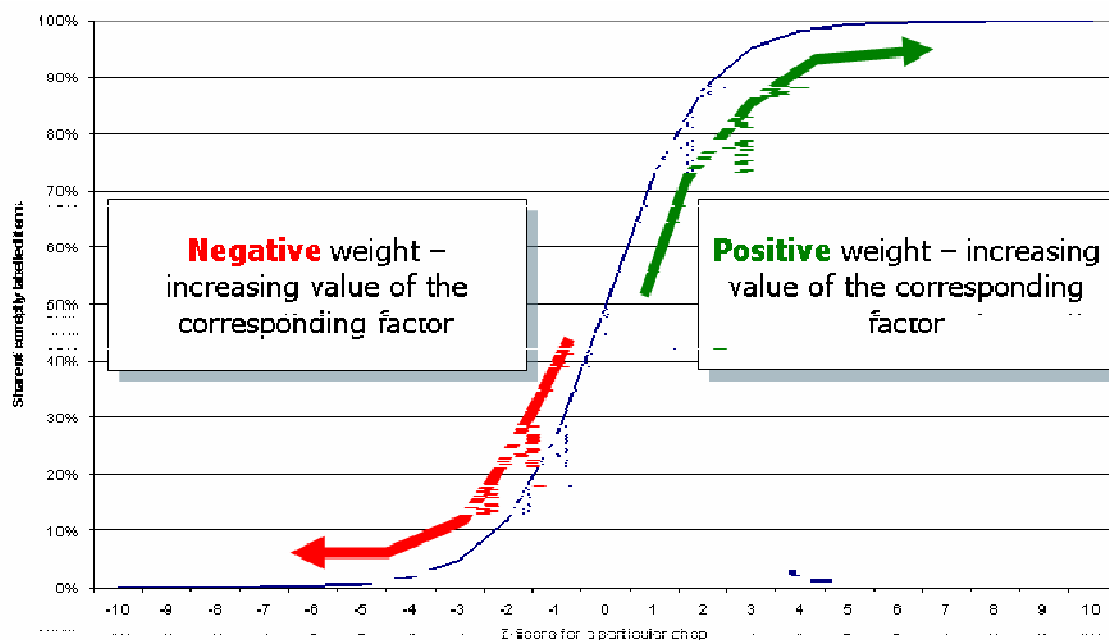


As the model shall predict a share which has to be greater than 0% and less than 100%, a modified logistic regression approach is used. For each influencing factor  $x_j$ , a specific weight  $b_j$  is estimated. Based on the current values of the influencing factors



and the estimated weight, a z-score for each store can be calculated. The higher the z-score, the higher the predicted share of correctly labelled items (Figure 3-35).

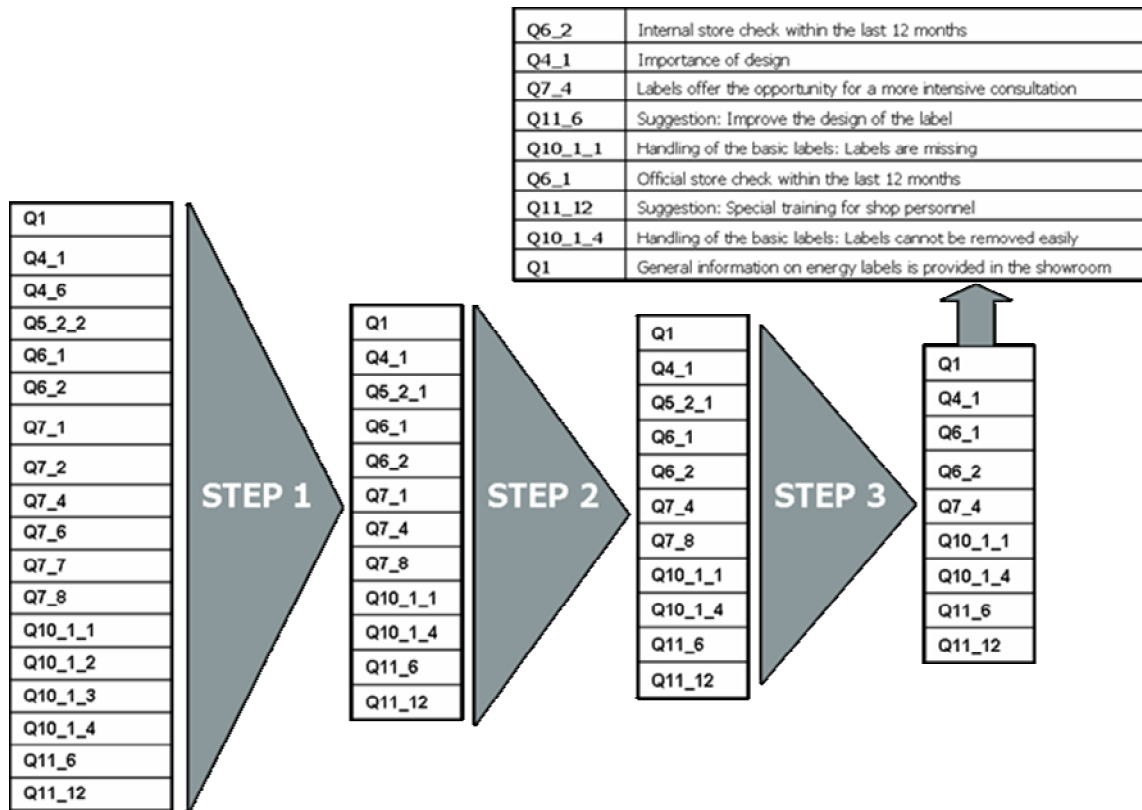
Figure 3-35: Model of the logistic regression



The final set of influencing factors is chosen in an iterative evaluation process. The process starts with a large set of potentially meaningful factors and becomes smaller after each iterative step. The model quality and the plausibility of the factor weight are constantly checked until a final set of factors is identified. With regard to the first variable to be explained, i.e. the handling of the labelling in the shop, the final set of possible influencing variables amounts to nine (Figure 3-36).

In order to assess the relative strength of an influencing factor, aggregate share-elasticities are calculated. In general, the elasticity is the ratio of the percent change in one variable to the percent change in another variable. Elasticities greater than 1 indicate “elastic” effects, elasticities less than 1 indicate “non elastic” effects.

Figure 3-36: Step-by-step identification of important influencing factors



As an example, Figure 3-37 shows the calculation of the aggregate share-elasticity for the variable "*Internal store check within the last 12 months (Q6\_2)*". It is calculated how this variable influences the correct handling of the labelling, i.e. the share of correctly labelled items (Variable "*AvgTotalCor*"). The result, a positive aggregate share-elasticity of 0.374, shows that the existence of a regular store check has a positive influence on the share of correctly labelled appliances in a shop.

The same calculations were made for other possible factors influencing the share of correctly labelled appliances (Figure 3-38).

Figure 3-37: Example for the calculation of aggregate share-elasticities

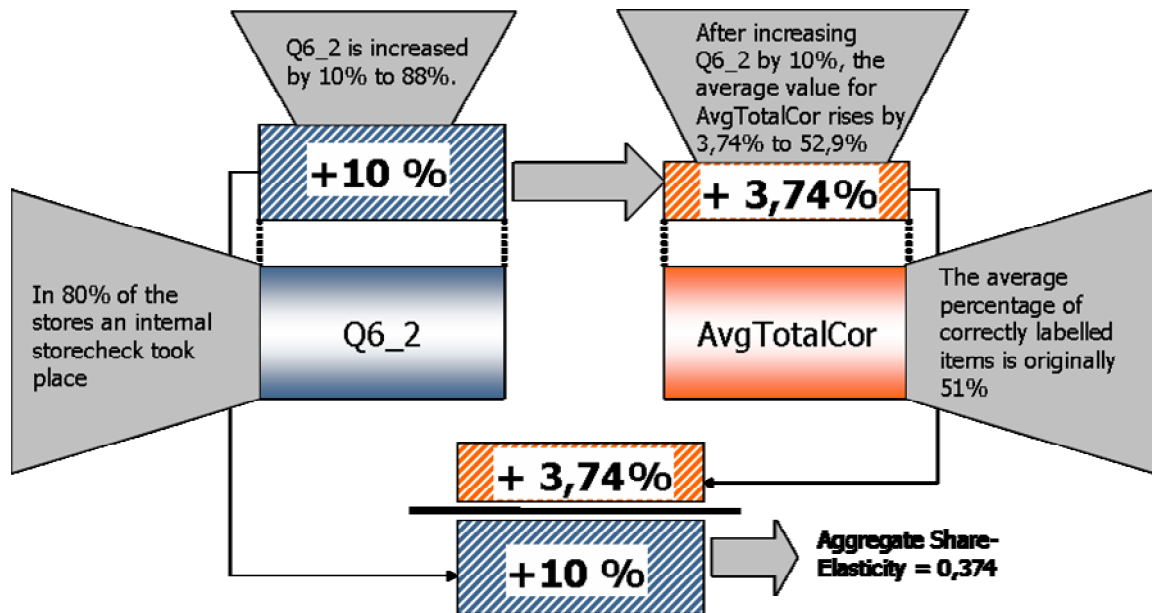
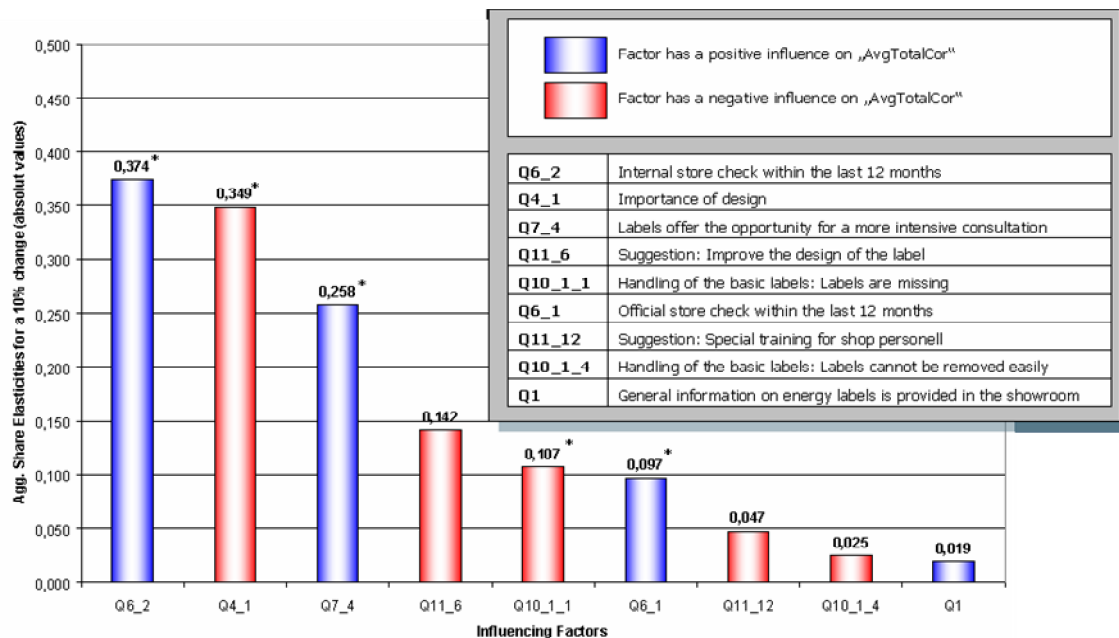


Figure 3-38: Results for the Variable "Average Share of Correctly Labeled Items" (AvgTotal Cor)



N = 513 (Interview) | Pseudo R2: 0,26 | All factors marked with „\*“ have significant weights for alpha=0,1 | Model is controlled for country specific effects

Influencing factors on the variable "Average Share of Correctly Labelled Items" (*AvgTotal Cor*) (Figure 3-38):

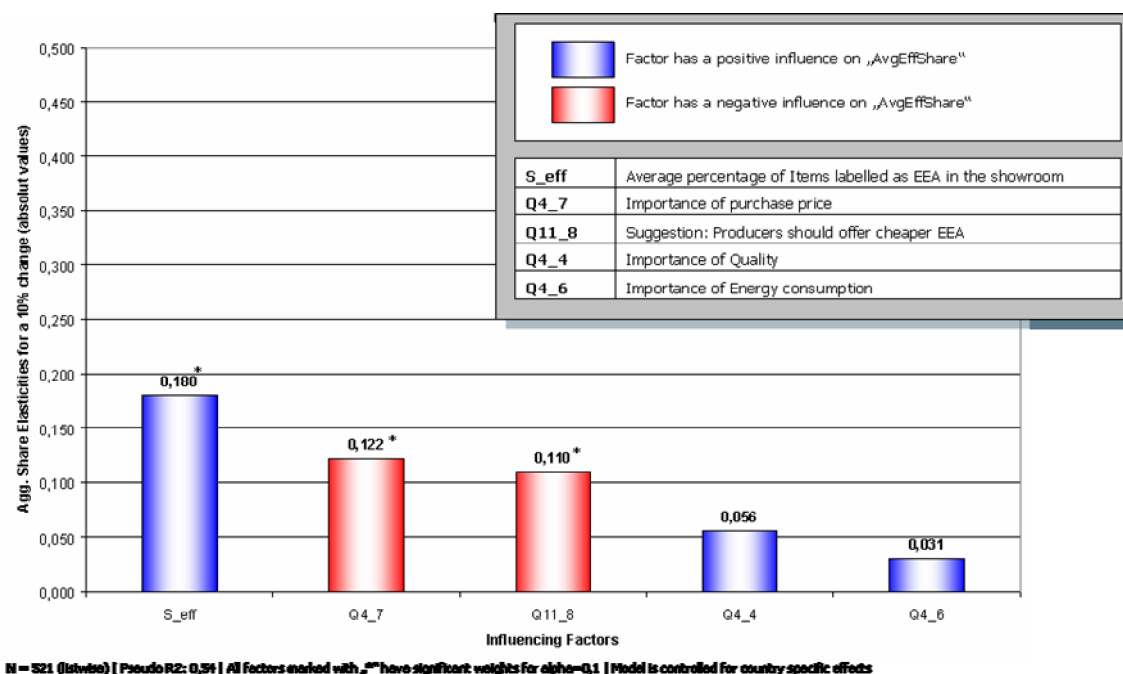
- The average share elasticities for the different influencing factors are relatively low. One possible reason could be that in general the store manager makes the decision how to deal with energy labels – the salesperson primarily follows the given guidelines. Therefore, the attitudes of the salesperson towards labelling cannot exhibit elastic effects.
- It is obvious that the store checking policy is decisive for the correct handling of the energy labelling (Q6\_1, Q6\_2). According to the results, a regular check by the store manager has a greater impact than an official store check.
- The design of the energy labels is another important factor which influences the handling of the labels. Two different factors deal with that aspect (Q4\_1, Q11\_6). In general, a negative attitude towards the label design influences the handling of the labels in a negative way.
- If the salesperson is convinced that energy labels can be a vital part of the consumer consultation process, the handling of the labels improves (Q7\_4).
- Problems with the handling of the basic labels lead to a lower acceptance of labelling. Especially missing labels (Q10\_1\_1) and labels which cannot be removed easily (Q10\_1\_4) show a negative effect on the correct handling of the labels.

For the second factor to be explained by the additional analysis, i.e. the acceptance of energy-efficient appliances (Eff. Appl.) in the market measured by the percentage of energy-efficient appliances sold in the surveyed stores (Variable "**AvgEffShare**"), the same calculations of elasticities were made with the following results (Figure 3-39):

- The average share elasticities are relatively low. The available set of potential influencing factors shows only a small impact on AvgEffShare. Many other vital factors like promotional activities or influence of brand names cannot be included in the aggregate model. Furthermore, factors like the product price (panel data) do not exhibit a plausible effect in the context of the aggregate model.
- The key factor in the available model is the percentage of items labelled as energy-efficient in the showroom (*S\_eff*) – regardless of whether the labels were applied correctly or not. A high share of items labelled as efficient is a strong indicator for a high emphasis on energy-efficient appliances in the particular store.
- Variable Q4\_7 captures the effect that energy-efficient appliances usually have higher prices than non energy-efficient ones. The high price could be a major obstacle to selling energy-efficient appliances. If the salesperson experiences that customers are very focused on the price, the respective shop will sell a smaller share of energy-efficient appliances.

- Variable Q11\_8 captures a similar effect to Q4\_7. If the salesperson is dissatisfied with the current price level of energy-efficient appliances, the store will be likely to sell fewer energy-efficient appliances.

Figure 3-39: Results for the Variable "Percentage of energy-efficient appliances sold in the surveyed stores" (AvgEffShare)



### 3.5 Results of the worldwide interviews with sales managers

In addition to the monitoring of the Energy Labelling Directive in all EU Member States and the EEA countries Norway and Iceland, GfK made interviews on the energy labelling with store managers in other countries of the world (Russia, Australia, Brazil, China, India, Japan, and USA). For these interviews, the same questionnaire as in this project was used, only the question on the check of the displayed appliances and a few other questions directly referring to the European labelling regulation were left out (Figure 3-40). GfK offers the results of the worldwide interviews for this project, too. Therefore, in the following, some of these results are described and the answers are compared with the average of EU 27. The detailed results of the worldwide interviews on energy labelling are included in the Excel file "*Energy Labelling\_worldwide-interviews\_results.xls*". The structure of the Excel file strictly follows the numbering in the worldwide questionnaire.

Before starting the interview, the interviewer examined the showroom and checked whether **general information** on energy labels for domestic appliances is provided and in what ways this information is presented. As Table 3-16 shows, 58 % of all shops in the non-EU countries presents additional information. This is considerably more than it was observed in the EU Member States with only 18 % of the shops.

The information medium in the non-EU countries was mainly brochures or freestanding displays. Other types of information were important, too (36 %) and included, for example, on price tags. As in the European countries, there are considerable differences between the countries with regard to general information on energy labelling. Whereas, in Japan, almost all shops provide this kind of information, there are some countries which lie below 50 % (China, Brazil, and Australia).

Table 3-16: General information provided in showrooms of shops per country (Questions 1 and 2)

Country	Information is provided %	Free-standing displays	Brochures	Ceiling banners	Information about other labels	Other information
		% of shops where information is provided				
Russia	50	13	29	-	18	43
Australia	44	45	80	5	11	16
Brazil	40	58	11	5	13	13
China	24	23	85	13	-	6
India	80	48	55	24	3	24
Japan	98	7	16	8	7	62
USA	61	31	42	8	83	13
<b>Total Non-EU<sup>1)</sup></b>	<b>58</b>	<b>29</b>	<b>37</b>	<b>10</b>	<b>8</b>	<b>36</b>
<b>EU 27</b>	<b>18</b>	<b>53</b>	<b>58</b>	<b>26</b>	<b>13</b>	<b>10</b>

<sup>1)</sup> without USA (for USA: question for Energy Label Guide)

Figure 3-40: Questionnaire for the worldwide interviews with store managers

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<b>GfK Retailer interview (Country)</b>
---

<b>Channel type:</b>	<b>01</b>	<b>Interview in business/shop</b>	
• Electro Superstore	09	<input type="radio"/>	Y
• Electric specialist - organized		<input type="radio"/>	X
• Electric specialist - independent		<input type="radio"/>	0
• Kitchen Specialist /Studio		<input type="radio"/>	1
• Furniture Store		<input type="radio"/>	2
• Hypermarket		<input type="radio"/>	3
• Cash & Carry		<input type="radio"/>	4
• Electric Wholesaler		<input type="radio"/>	5
• Kitchen Wholesaler		<input type="radio"/>	6
• Department Store		<input type="radio"/>	7
• Home Improvement Centre		<input type="radio"/>	8
• Warehouse Club		<input type="radio"/>	9

"I'd like to ask you a few questions about the display of appliances and in particular ENERGY LABELLING, the specification of appliances according to efficiency classes."

<b>1. Do you have GENERAL INFORMATION on the subject ENERGY LABELS for Domestic Appliances in your showroom (<u>not</u> on the appliances)</b>
--

- 11      1( ) Yes, we have  
           2( ) No, we haven't    è please proceed to question 3

<b>2. In what ways do you present this information in the showroom?</b>
---

- 12      1( ) Freestanding displays  
           2( ) Brochures  
           3( ) Ceiling banner displays  
           5( ) Others: please note

(13-14)

Figure 3-40 continued

Only for the United States:

**1. Do you have GENERAL INFORMATION for customers on the subject of ENERGY LABELS for Household Appliances in your store that is not on the appliances? (If yes, determine if information is for the Energy Guide and/or Energy Star labels)**

- 11      3( ) Yes, we have information about the “Energy Guide Label”  
 4( ) Yes, we have information about “Energy Star” Labels  
 2( ) No, we have no information about Energy Labels      → please go to Q. 3

**2. In what ways do you communicate the information on Energy Labelling? (Ask about Energy Guide Label first and then about the Energy Star Label next)**

Energy Guide Label :	12	Energy Star Label:	82
Freestanding displays	<input type="radio"/> 1	Freestanding displays	<input type="radio"/> 1
Brochures	<input type="radio"/> 2	Brochures	<input type="radio"/> 2
Ceiling banner displays	<input type="radio"/> 3	Ceiling banner displays	<input type="radio"/> 3
Label / sticker on appliance	<input type="radio"/> 6	Label / sticker on appliance	<input type="radio"/> 6
Other: please specify _____(13-14)	<input type="radio"/> 5	Other: please specify _____(83-84)	<input type="radio"/> 5

**3. What role do the following features play in the buying act of major appliances? I am going to read you some criteria. Please rate them on a scale 1-10, from 1 = overall unimportant, to 10 = very important for the buying decision.**

01	Rate 1 - 10
• Design / appearance	15 _____
• Brand name	17 _____
• Functional value	19 _____
• Quality of the product (reliability / high-end effect)	21 _____
• User friendliness	23 _____
• Energy consumption and energy costs	25 _____
• Purchase price of the appliance	27 _____

**4.1 How do you think consumer demand for energy-efficient appliances has developed over the last 12 months? Please tick.**

**Over the last 12 months consumer demand for energy-efficient appliances.....**

- |                        |                                    |
|------------------------|------------------------------------|
|                        | Please tick                        |
| ... has increased.     | 29      1 <input type="checkbox"/> |
| ... has been constant. | 2 <input type="checkbox"/>         |
| ... has decreased.     | 3 <input type="checkbox"/>         |



Figure 3-40 continued

**4.2 How do you think consumer demand for energy saving appliances will develop in the next 12 months? (Please tick.)**

**In the next 12 months consumer demand for energy-saving appliances...**

		Please tick
... will increase.	30	1 r
... will remain constant.		2 r
... will decline.		3 r

**5. Do energy labels\* have an impact on the sales process? Please rate using a scale of 1-10 (1 is "strongly disagree" - 10 is "strongly agree").**

	01	Rate 1 - 10
• Energy labels* allow a more objective estimation of appliances.	33	_____
• Customers ask about energy efficient appliances.	35	_____
• Information on the energy efficiency of an appliance helps customers to contribute to the protection of the environment.	37	_____
• Labels* offer the opportunity for a more intensive customer consultation	39	_____
• The customers wish information on the energy costs of the appliances on the label.	41	_____
• Customers do understand the difference between the ratings.*	43	_____
• We think retailers can easily explain the label system*	45	_____
• Energy labels* help us to sell more energy efficient appliances.	47	_____

\* will be adapted by local specialists

**6.1 Please rate the importance of the labelling for different kinds of products. (1 = unimportant - 10 = very important). I'm going to read out the product groups to you.**

**6.2 Please assess per product group whether consumers are principally willing to pay more for higher-ranking energy label class. Please rate from 1 to 10 (1 = not at all willing, 10 = very willing to pay more).**

	01	Qu. 8.1 Rate 1 - 10	Qu. 8.2 Rate 1 - 10
• Washing machines	49	_____	65 _____
• Tumble driers	51	_____	67 _____
• Dishwashers	53	_____	69 _____
• Refrigerators	55	_____	71 _____
• Freezers	57	_____	73 _____
• Air conditioner	59	_____	75 _____
• Household lamps	63	_____	79 _____

Figure 3-40 continued

**INFLUENCE UPON APPEARANCE**

**7. Design: How do labels affect the design / the look of displayed appliances? Graded from -10 up to +10: -10 = Labels have a very negative effect on the general look of the appliance + 10 = very positive effect 0 = no effect. Please respond separately for free-standing and built-in appliances.**

02

- FREESTANDING APPLIANCES \_\_\_\_\_ (09-11)  
 - BUILT-IN APPLIANCES \_\_\_\_\_ (12-14)

**8. A few more questions about the handling of the Energy Label itself.**

8.1 Handling of the label: **Interviewer: please tick only if applicable. If noun is applicable, please go to Que. 8.3** Please tick

- No problem for sticking the label on the appliance 15/1 r
- Annoying process and time consuming 16/1 r

**To interviewer: If Que. 8.1/b is answered with yes, please go Que. 8.2. If only Que. 8.1/a is answered with yes, please go to Que. 8.3.**

8.2 Why? (Please explain): (Interviewer: Please note)

(17-28)

8.3 Please assess the general effort (time, administrative effort) required for the labelling from your side. Please indicate with 1 – 10: from 1 "very small effort" to 10 for a "very high effort".

\_\_\_\_\_ (49-50)

8.4 Please rate if the availability material is useful for your shop. ("1" means not useful at all; "10" means very useful.

\_\_\_\_\_ (51-52) (if rate is 4 or higher than, please go to Que.9)

**To interviewer: If the rate (from question 10.4) is lower than 4, please ask Que. 8.5:**

8.5 Why? (Please explain): (Interviewer: Please note)

(53-64)

Figure 3-40 continued

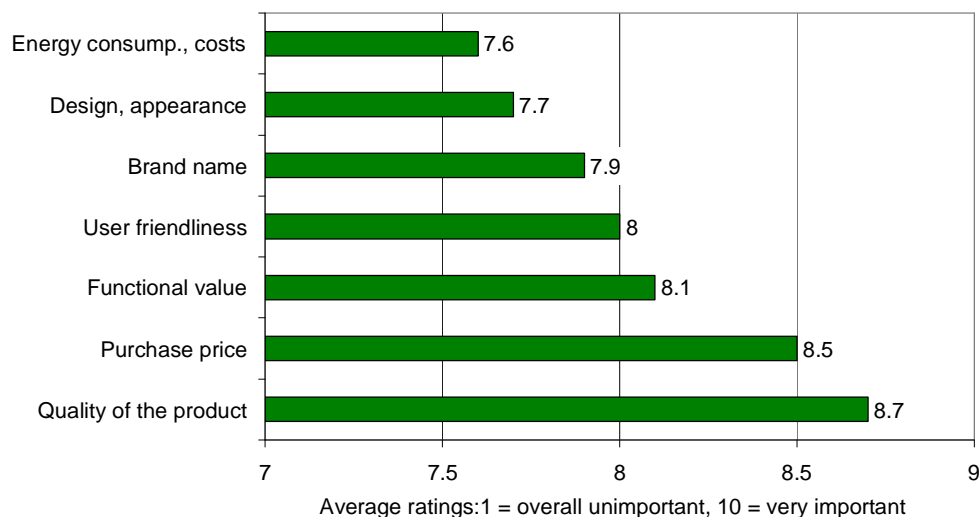
**9. Have you got any suggestions about what could motivate customers to buy more energy-saving appliances? Please rate the following suggestions on a scale from 1 = "disagree strongly" to 10 = agree strongly**

*(Interviewer: classify from 1 to 10)*

	<b>03</b>	<b>Rate 1 - 10</b>
• Provide a selection of the most energy-efficient appliances.		09 _____
• Show purchasing costs compared to energy efficiency.		11 _____
• More information for the shops provided by producers.		13 _____
• Financial incentives (e.g. subsidies or reduced VAT rates) for the purchase of energy-efficient appliances.		15 _____
• Public promotion campaigns for the label.		17 _____
• Improve the design of the label.		19 _____
• Provide an energy-saving calculator.		21 _____
• Producers should offer cheaper energy-saving appliances.		23 _____
• Energy-saving appliances should concentrate on the aspect of energy-efficiency and not try to fulfil other requirements (e.g. comfort) at the same time.		25 _____
• Even more energy-efficient appliances should be developed.		27 _____
• Provide more information in the internet about the label and energy-efficient appliances.		29 _____
• Special training for shop personnel.		31 _____

The personal interview started with the question about what role certain **features play in the buying act** of major appliances. In general, there are no large differences in the results. In the non-EU countries, the main issues are the quality of the product and the purchase price (Figure 3-41). In the EU countries, the result was similar, but here the purchase price was the most important criteria, followed by the product quality.

Figure 3-41: Relevant features for the purchase decision – all non-EU countries (Question 3)



When only looking at the importance of energy consumption and costs for the purchase decision, this feature is – as in the EU countries – important or very important in all non-EU countries (Figure 3-42). The lowest rating is observed in Russia (5.7), whereas the other countries lie between 7.3 and 8.9.

With regard to the general demand for energy-efficient appliances, the majority of respondents in all non-EU countries despite China – on average between 70 and 80 % – stated that consumer **demand for energy-efficient appliances and energy-saving lamps** had increased over the last 12 months (Figure 3-43). The differences between the countries are smaller than within the European Union.

Figure 3-42: Importance of energy consumption and energy costs for the purchase decision by country (Question 3)

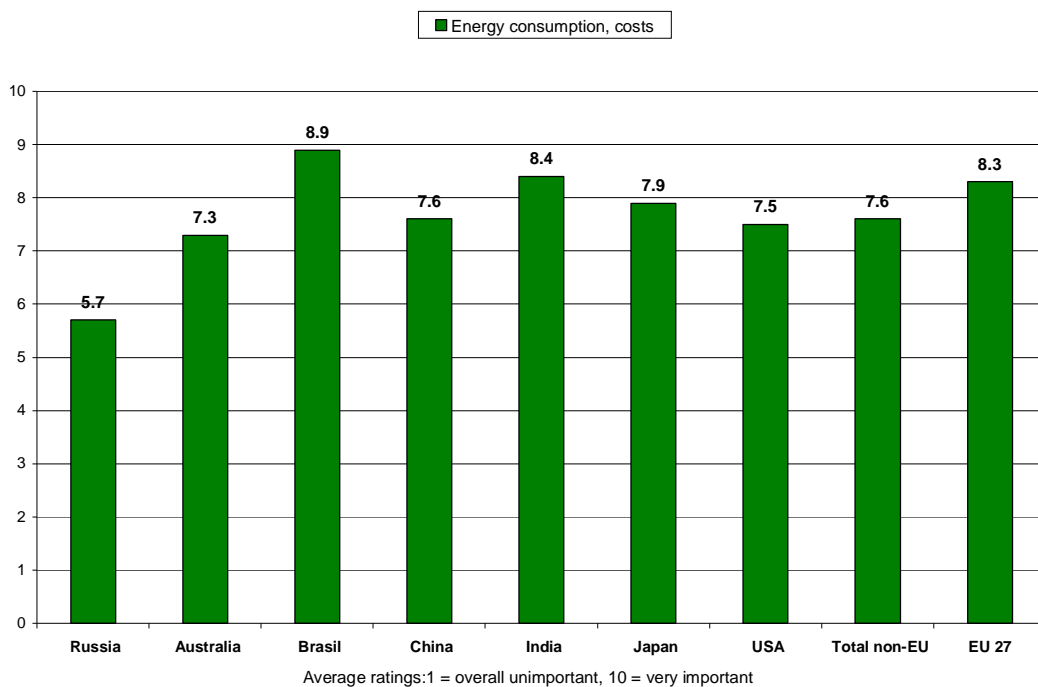
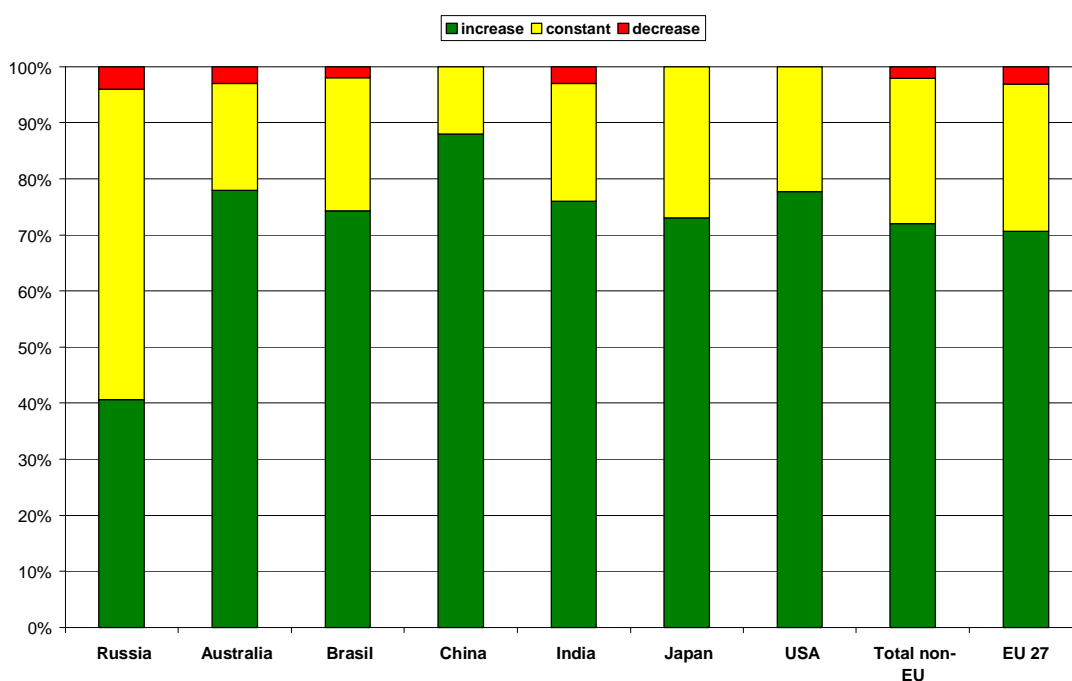


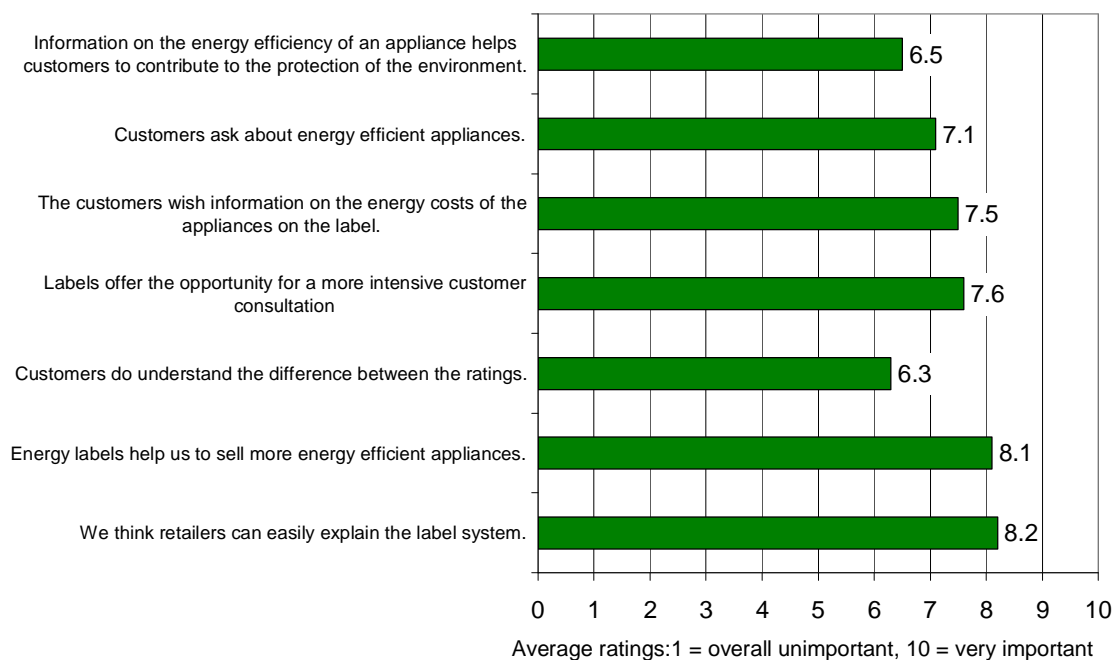
Figure 3-43: Consumer demand for energy-efficient goods during the past 12 month by country (Question 4.1)



The next question in the worldwide questionnaire focused on the **influence of energy labels on the sales process**, which was estimated by rating several items. As in the EU, an important result for the non-EU countries is the high score awarded to the statement “We think retailers can easily explain the label system” (8.2). It means that the label can be easily understood and is therefore suitable for sales communication. A similar high score (8.1) was given for the statement that labels help to sell more energy-efficient appliances. Figure 3-44 shows the ranking in total.

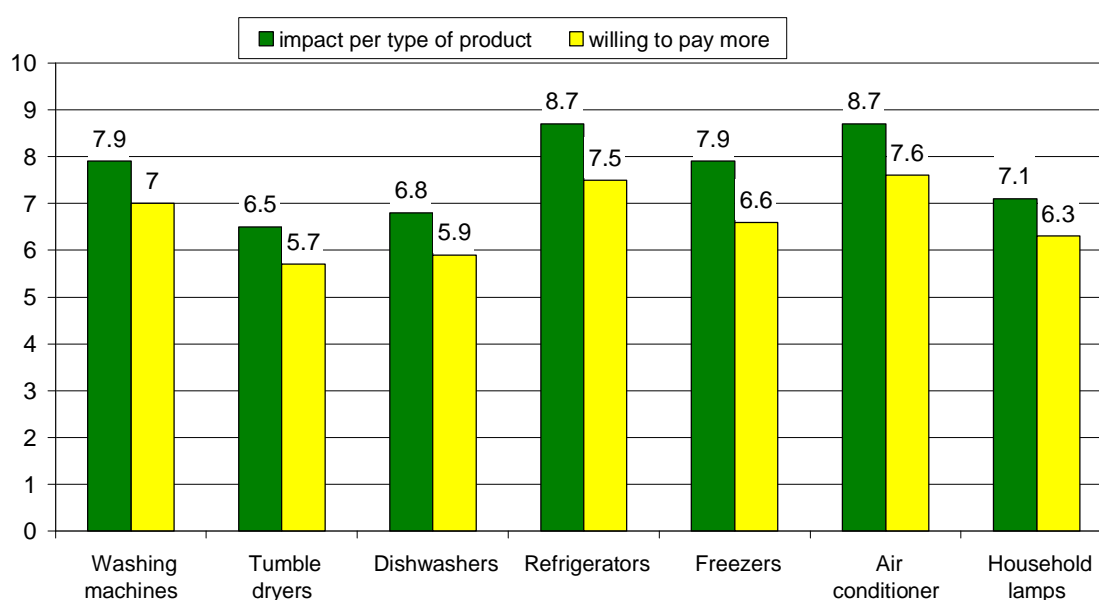
The retailers were also asked to differentiate the impact between different types of appliances. In the second part of this question they should assess per product group whether consumers are principally willing to pay more for a higher-ranking energy label class. The results are presented in Figure 3-45. The highest impact of the label was found for refrigerators, freezers, washing machines and air-conditioners; the lowest for tumble driers. The same is true for the willingness to pay more for a product with a higher energy class. The results for EU 27 were very similar. Only for air-conditioners, the values are considerable higher in the non-EU countries.

Figure 3-44: Impact of the label on the sales process – all non-EU countries  
(Question 5)



In the next question, the respondents were asked **how labels affect the design** or look of displayed products, both for freestanding and built-in appliances: negative, neutral or positive. The results for the non-EU countries are significantly more positive than in the EU countries, both for freestanding and built-in appliances. Especially Brazil and India show a high positive rating which means it is thought that the labels have a very positive effect on the general look of the appliance – a view which is not shared in most of the EU countries (Figure 3-46).

Figure 3-45: Impact of the label per type of product and willingness to pay more for a higher energy class – all non-EU countries (Question 6)



A very important question referred to the **general effort** concerning time, administration and handling required for the label on the part of the retailer. On a scale from 1 = very small effort to 10 = very high effort, the overall average of the non-EU countries was 3.7, which was almost the same as in the EU (Figure 3-47). This means that the requirements are not negligible, but are relatively small. Only in India, the value reaches a level of more than 7, which means a high effort.

Figure 3-46: Influence of the label on design or look in the showroom by country (Question 7)

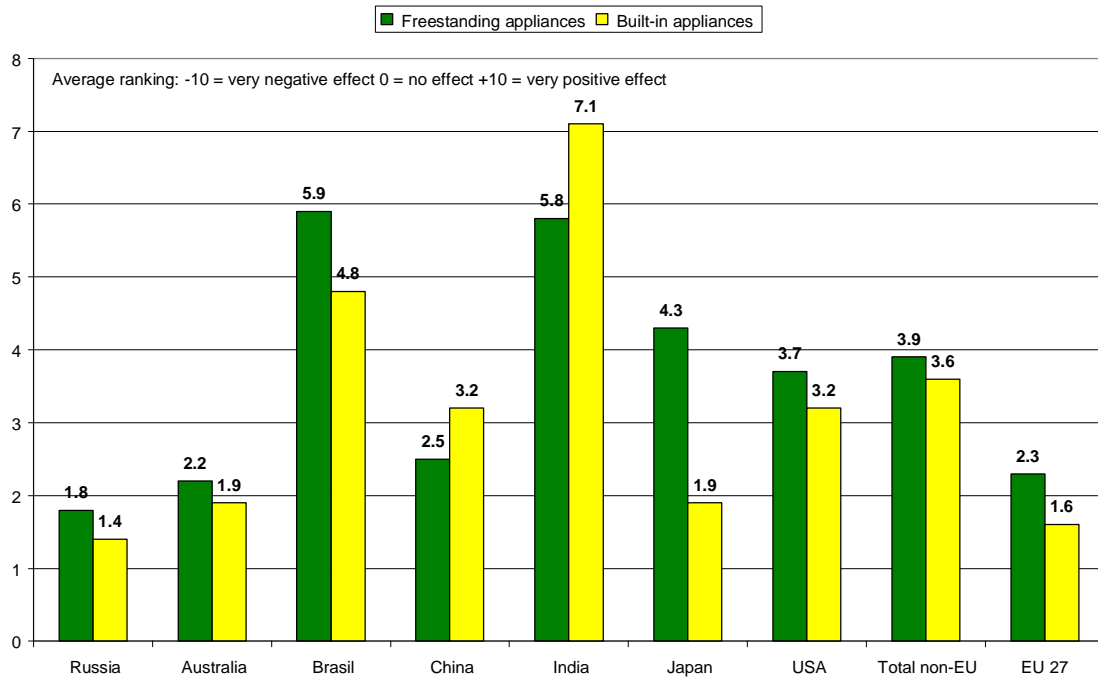
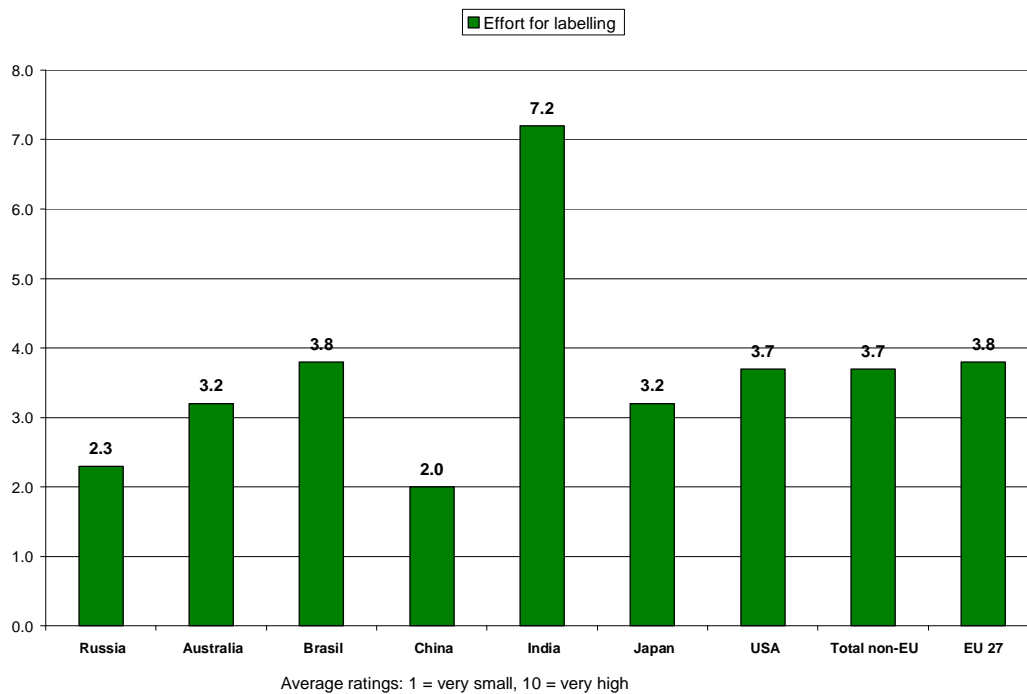


Figure 3-47: General effort required for the labelling per country (Question 8.3)





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## **4 Survey of activities carried out by the Member States**

### **4.1 Methodological approach**

Since the demands for Sub-task 1.1 and Task 2 are similar with regard to the tender specifications and the affected stakeholders, these tasks will be dealt with in parallel and using the same methodological approach.

The survey of activities carried out by Member States was mainly based on interviews with the relevant stakeholders in the countries covered by this study, especially the

1. Enforcement authorities in the Member States (ministries, energy agencies, surveillance authorities)
2. Manufacturers and their associations
3. Environmental NGOs, consumer associations, editors of consumer test magazines (e. g. Stiftung Warentest in Germany)

As every Member State has its own Implementing Directive, the enforcement of the Energy Labelling Directive is organized in different ways. The Ministry of Economics or Environment is often in charge of energy labelling issues, but also national energy agencies or trade inspectorates. In one case, monitoring the shops is delegated to a private company. For some countries (e. g. Germany, UK or Spain) it has to be taken into account that the surveillance is delegated to the Federal States or even the municipalities.

The aim of the analysis is to obtain a picture of the level of compliance in all Member States plus Norway and Iceland, to identify failures, problems and collect suggestions for improvement. So the focus in the first approach was on information from ministries, energy agencies, Member States' surveillance authorities and manufacturer's associations.

The information was collected by e-mail and telephone interviews. The requests were based on a common questionnaire, which distinguishes between compliance of manufacturers and of retailers. Some of the interviews refer either to manufacturers (especially if the main focus is on testing products) or to retailers (e.g. if a surveillance authority is only responsible for compliance at the level of retailers).

In order to obtain high feedback and quick responses, the questionnaire was designed with many multiple choice questions. Because the implementation of the Energy Labelling Directive is managed in different ways in the Member States, opportunities were

given to take these differences and the heterogeneity of the procedures into account and allow the different authorities to add comments, remarks or point out problems. For the interviews with the manufacturers' associations, the questionnaire served as reference and interviews were made by telephone in order to get a broad picture about the problems from the viewpoint of the manufacturers. The view of the retailers is dealt with in Chapter 3.

For the NGOs, it was decided to leave the questionnaire unaltered and add specific questions for NGOs at the end. In this way, the NGOs knew what enforcement authorities had been asked and could add their own point of view.

The final questionnaire about compliance monitoring and testing in the Member States is shown in Figure 4-1.

The complete results of the survey of activities by Member States based on the questionnaire are presented in the data file *Survey\_member-states\_results\_final.xls*. They include separate data sheets for each country and one for all countries together. The structure is the same for each country and follows the numbering of the questions in the questionnaire (Figure 4-1).

*Part 1: Manufacturers' Compliance with the Labelling Directive*

Question 1: General assessment of level of compliance

Questions 2 – 5: Classification of the product

Questions 6 – 9: Product fiche

Questions 10 – 13: Coloured Label

Questions 14 – 18: Non-compliance and sanctions

Questions 19 – 22: General points

*Part 2: Retailers' compliance with the Labelling Directive*

Questions 23 – 30: Compliance in shops

Questions 31 – 32: Catalogue and Internet offers

Questions 33 – 36: Non-compliance and sanctions

Questions 37 – 42: General points

Questions 43 – 53: Additional questions for NGOs

Figure 4-1: Questionnaire about compliance monitoring and testing in the Member States



 <b>BSR Sustainability GmbH</b>	 <b>Fraunhofer</b> Institute Systems and Innovation Research																		
<b>Framework Directive 92/75/EEC on Energy Labelling of Household Appliances</b>																			
<b>Questionnaire on Member States compliance monitoring</b>																			
<b>Please send to BSR Sustainability GmbH:</b>																			
<ul style="list-style-type: none"> <li>• electronic version via e-mail: a.rosen@bsr-sustainability.de</li> <li>• printed version fax +49 0721/ 968 72 61 or letter: Koenigsberger Str. 2 H, 76139 Karlsruhe, Germany</li> </ul>																			
<b>Part 1: Manufacturers' Compliance with the Labelling Directive</b>																			
<i>According to the Labelling Directive, manufacturers (suppliers) have (1) to classify correctly their products, (2) to provide the product fiche with the product documents and (3) to provide the basic coloured label</i>																			
1.	<p>What is your general view of the level of compliance with the Directive with regard to manufacturers across all the products to which it applies? Please make an assessment.</p> <p><input type="checkbox"/> Very high      <input type="checkbox"/> High      <input type="checkbox"/> Medium      <input type="checkbox"/> Low      <input type="checkbox"/> Very low</p>																		
<b>Classification of the product</b>																			
2.	<p>Who is responsible for monitoring the correct information on the product fiche (correct classification)?</p> <p>.....</p>																		
3.	<p>How is the correct classification verified?</p> <p><input type="checkbox"/> Independent tests      <input type="checkbox"/> Other method, which one? .....      <input type="checkbox"/> Not verified</p>																		
4.	<p>If the classification is verified:</p> <p>a) How are products chosen to be tested neutrally?</p> <p><input type="checkbox"/> All models      <input type="checkbox"/> Systematic selection      <input type="checkbox"/> Random selection</p> <p>b) How many products are tested per year?</p> <p>All together: .....</p> <p>If known, please specify type:</p> <table style="width: 100%; border: none;"> <tr> <td>Refrigerators and freezers</td> <td>.....</td> <td>Washing machines</td> <td>.....</td> <td>Driers</td> <td>.....</td> </tr> <tr> <td>Combined Washer-Driers</td> <td>.....</td> <td>Dishwashers</td> <td>.....</td> <td>Ovens</td> <td>.....</td> </tr> <tr> <td>Air conditioners</td> <td>.....</td> <td>Lamps</td> <td>.....</td> <td></td> <td></td> </tr> </table> <p>c) Who carries out the tests?</p> <p>.....</p> <p>d) Are there difficulties encountered with testing?</p> <p>.....</p> <p>e) Which percentage of products is classified correctly?</p> <p>.....</p>	Refrigerators and freezers	.....	Washing machines	.....	Driers	.....	Combined Washer-Driers	.....	Dishwashers	.....	Ovens	.....	Air conditioners	.....	Lamps	.....		
Refrigerators and freezers	.....	Washing machines	.....	Driers	.....														
Combined Washer-Driers	.....	Dishwashers	.....	Ovens	.....														
Air conditioners	.....	Lamps	.....																

Figure 4-1 continued

5.	Do you have any comments, additional remarks or problems concerning the classification of the products? .....
<b>Product fiche</b>	
6.	Who is responsible for monitoring the provision of the product fiche with the product documents? .....
7.	Are there controls that the product fiche is provided with the product documents? <input type="checkbox"/> yes <input type="checkbox"/> no If yes, by whom      .....
8.	Which percentage of compliance is found concerning the provision of the product fiche? In general: ..... % Are there significant differences between the different types of products? <input type="checkbox"/> yes <input type="checkbox"/> no If yes, Compliance is higher than average (please specify type/s): ..... Compliance is lower than average (please specify type/s): .....
9.	Do you have any comments, additional remarks or problems concerning the product fiche? .....
<b>Coloured label</b>	
10.	Who provides the retailers with the basic coloured label? <input type="checkbox"/> Each producer <input type="checkbox"/> Producers' association <input type="checkbox"/> Other, which one? .....
11.	Are there controls that the coloured label is provided to the retailers? <input type="checkbox"/> yes <input type="checkbox"/> no If yes, by whom? .....
12.	Which percentage of compliance is found concerning the provision of the coloured label? In general: ..... % Are there significant differences between the different types of products? <input type="checkbox"/> yes <input type="checkbox"/> no If yes, Compliance is higher than average (please specify type/s): ..... Compliance is lower than average (please specify type/s): .....
13.	Do you have any comments, additional remarks or problems concerning the coloured label? .....

Figure 4-1 continued

<b>Non-compliance and sanctions</b>	
14.	<p>Are there other sorts of non-compliance you are aware of with manufacturers and how often do they occur?</p> <p>Please specify type ..... and frequency .....</p>
15.	<p>What sanctions are applied in cases of non-compliance?</p> <p><input type="checkbox"/> Fines    <input type="checkbox"/> Warnings    <input type="checkbox"/> Publication    <input type="checkbox"/> No sanctions</p>
16.	<p>Who is responsible for prosecution and applying sanctions? .....</p>
17.	<p>How many prosecutions and sanctions exist per year?</p> <p>Prosecutions .....</p> <p>Sanctions .....</p> <p>Are there any types of products especially affected? Which types? .....</p>
18.	<p>Do you have any comments, additional remarks or problems concerning non-compliance?</p> <p>.....</p>
<b>General points</b>	
19.	<p>In which way does the Government make use of the results of the compliance monitoring?</p> <p><input type="checkbox"/> Publications                      <input type="checkbox"/> Policy measures (e.g. information campaign)</p> <p><input type="checkbox"/> Stricter controls                      <input type="checkbox"/> Others, please specify .....</p> <p><input type="checkbox"/> Higher sanctions                      <input type="checkbox"/> No use</p>
20.	<p>What is the annual cost of monitoring compliance with manufacturers?</p> <p>Euro: .....</p> <p>Who bears this cost?</p> <p><input type="checkbox"/> Central government    <input type="checkbox"/> Regional government    <input type="checkbox"/> Association    <input type="checkbox"/> Other, which one .....</p>
21.	<p>Do you have suggestions how to improve the compliance of manufacturers?</p> <p><input type="checkbox"/> More manufacturer inspections at the national level</p> <p><input type="checkbox"/> More testing at the European level</p> <p><input type="checkbox"/> Not necessary, compliance is sufficient.</p> <p><input type="checkbox"/> Others (please specify) .....</p>
22.	<p>Do you have any comments, additional remarks or problems concerning energy labelling with regard to the manufacturers?</p> <p>.....</p>

Figure 4-1 continued

<b>Part 2: Retailers' compliance with the Labelling Directive</b>									
<i>Retailers have to attach the basic colour label together with the product fiche to all appliances falling under the Directive which are placed in their showroom</i>									
23.	Who in your country is responsible for monitoring to which degree retailers fulfil their obligation? .....								
24.	How is the correctness of the labelling controlled? <input type="checkbox"/> Visits to shops <input type="checkbox"/> Other method, which one? ..... <input type="checkbox"/> Survey <input type="checkbox"/> Self commitment <input type="checkbox"/> No control								
25.	How are shops chosen to be monitored? <input type="checkbox"/> Systematically <input type="checkbox"/> Randomly								
26.	How many shops are monitored per year? All together                      ..... If known, please specify per type: Electro super-stores                      .....                      Electro specialists                      ..... Kitchen specialists/furniture stores                      .....                      Hypermarket/Cash&Carry                      .....								
27.	Who carries out the control?                      .....								
28.	Which percentage of compliance is found? All together                      ..... % If known, please specify per type: Electro super-stores                      ..... %                      Electro specialists                      ..... % Kitchen specialists/furniture stores                      ..... %                      Hypermarket/Cash&Carry                      .....								
29.	Are there difficulties encountered with checking compliance? .....								
30.	Do you have any comments, additional remarks or problems concerning energy labelling in shops? .....								
<b>Catalogue and Internet offers</b>									
31.	How is compliance in catalogue and Internet offers controlled?	Method:	<table border="0" style="width: 100%;"> <tr> <td style="text-align: center;"><u>Catalogue</u></td> <td style="text-align: center;"><u>Internet offer</u></td> </tr> <tr> <td style="text-align: center;">.....</td> <td style="text-align: center;">.....</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/> No control</td> <td style="text-align: center;"><input type="checkbox"/> No control</td> </tr> </table>	<u>Catalogue</u>	<u>Internet offer</u>	.....	.....	<input type="checkbox"/> No control	<input type="checkbox"/> No control
<u>Catalogue</u>	<u>Internet offer</u>								
.....	.....								
<input type="checkbox"/> No control	<input type="checkbox"/> No control								
	If controlled: How are offers chosen to be monitored? cally	<table border="0" style="width: 100%;"> <tr> <td style="text-align: center;"><input type="checkbox"/> Systematically</td> <td style="text-align: center;"><input type="checkbox"/> Systemati-</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/> Randomly</td> <td style="text-align: center;"><input type="checkbox"/> Randomly</td> </tr> </table>	<input type="checkbox"/> Systematically	<input type="checkbox"/> Systemati-	<input type="checkbox"/> Randomly	<input type="checkbox"/> Randomly			
<input type="checkbox"/> Systematically	<input type="checkbox"/> Systemati-								
<input type="checkbox"/> Randomly	<input type="checkbox"/> Randomly								
	Who carries out the monitoring?		.....						

Figure 4-1 continued

	How many offers are monitored per year? .....	.....
	Which percentage of compliance is found? .....	..... %
	Are there differences between different types of products? <input type="checkbox"/> yes <input type="checkbox"/> no	<input type="checkbox"/> yes <input type="checkbox"/> no
	If yes, Compliance is higher than average (please specify): .....	.....
	Compliance is lower than average (please specify): .....	.....
32.	Do you have any comments, additional remarks or problems concerning catalogue and Internet offers? .....	
<b>Non-compliance and sanctions</b>		
33.	What sanctions are applied in cases of non-compliance? <input type="checkbox"/> Fines <input type="checkbox"/> Warnings <input type="checkbox"/> Publication <input type="checkbox"/> No sanctions <input type="checkbox"/> Others .....	
34.	Are there different sanctions for different sorts of non-compliance? <input type="checkbox"/> yes <input type="checkbox"/> no If yes, please specify: Products are not labelled at all .....	
	Products are only partially labelled .....	
	Labelling of products is incomplete .....	
	Labelling of products is incorrect .....	
35.	How many prosecutions and sanctions per year and type of product exist? Prosecutions .....	
	Sanctions .....	
36.	Do you have any comments, additional remarks or problems concerning non-compliance? .....	
<b>General points</b>		
37.	In which way does the Government make use of the results of the compliance monitoring? <input type="checkbox"/> Publications <input type="checkbox"/> Policy measures (e.g. information campaign) <input type="checkbox"/> Stricter controls <input type="checkbox"/> Others, please specify .....	
	<input type="checkbox"/> Higher sanctions <input type="checkbox"/> No use	
38.	What is the annual cost of monitoring compliance of retailers, catalogue and Internet offers? Euro: .....	
	Who bears this cost? <input type="checkbox"/> central government <input type="checkbox"/> regional government <input type="checkbox"/> association <input type="checkbox"/> other, which one .....	

Figure 4-1 continued

39.	Do you have suggestions how to improve the compliance of retailers, catalogue and Internet offers? <input type="checkbox"/> More shop inspections <input type="checkbox"/> Simplification of the demands of the Directive on the retailers <input type="checkbox"/> Others (please specify) .....
40.	Do you have any comments, additional remarks or problems concerning energy labelling with regard to the retailers? .....
41.	Could you give references (studies etc.) which provide information on the issue of compliance monitoring? ..... .....
42.	Which persons could we contact with know-how of this issue? .....
<b>Additional Questions for NGOs</b>	
43.	Do you think that the Energy Labelling Scheme has contributed to CO <sub>2</sub> reduction through promoting energy-efficient appliances on the market? <input type="checkbox"/> yes <input type="checkbox"/> no
44.	Do you take any actions to promote awareness of the labelling scheme? <input type="checkbox"/> yes <input type="checkbox"/> no
45.	Do you consider that consumers have a good understanding of the information provided under the labelling scheme? <input type="checkbox"/> high <input type="checkbox"/> medium <input type="checkbox"/> low
46.	Do you consider that consumers trust the information provided by the labels? <input type="checkbox"/> yes <input type="checkbox"/> no
47.	Do you think the Energy Labelling Scheme is a reasonable policy instrument for the reduction of electricity consumption? <input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> partially If yes, why: ..... If not, please explain: <input type="checkbox"/> not effective enough <input type="checkbox"/> too costly <input type="checkbox"/> too complex <input type="checkbox"/> other, please specify: .....



Figure 4-1 continued

48.	Do you think the Energy Labelling Scheme should be kept in force? <input type="checkbox"/> yes <input type="checkbox"/> no																																				
49.	Do you think the Energy Labelling Scheme will be able to keep on reducing electricity consumption? <input type="checkbox"/> yes <input type="checkbox"/> no																																				
50.	Do you think the Energy Labelling Scheme should be extended to other household appliances (like TVs)? <input type="checkbox"/> yes <input type="checkbox"/> no																																				
51.	Do you think there should be a stricter enforcement of the Energy Labelling Directive? <input type="checkbox"/> yes <input type="checkbox"/> no																																				
52.	<p>What is the most important issue for NGOs regarding Energy Labelling? (1: more important, 5: not important)</p> <table border="0" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 70%;"></th> <th style="width: 10%; text-align: center;">1</th> <th style="width: 10%; text-align: center;">2</th> <th style="width: 10%; text-align: center;">3</th> <th style="width: 10%; text-align: center;">4</th> <th style="width: 10%; text-align: center;">5</th> </tr> </thead> <tbody> <tr> <td>CO<sub>2</sub> reduction</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>Reduction of electricity consumption</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>Awareness of energy efficiency for the consumer</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>Transparency and information for consumers (consumer protection)</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>Others, please specify: .....</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </tbody> </table>		1	2	3	4	5	CO <sub>2</sub> reduction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Reduction of electricity consumption	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Awareness of energy efficiency for the consumer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Transparency and information for consumers (consumer protection)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Others, please specify: .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1	2	3	4	5																																
CO <sub>2</sub> reduction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																
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Others, please specify: .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																
53.	Do you have any comments, additional remarks or problems concerning energy labelling with regard to NGOs? .....																																				
<b>Thank you very much!</b>																																					

Some of the questions were taken from the project "Impact assessment of a possible extension, tightening or simplification of the framework directive 92/75 EEC on energy labelling of household appliances", which was worked on by Europe Economics, Fraunhofer ISI, and BSR Sustainability (2007). In this project, stakeholder interviews on the Energy Labelling Directive were carried out which also included questions on compliance and enforcement of the Directive in the Member States<sup>8</sup>. A summary of the results of these interviews with regard to the questions on compliance and enforcement is given in Table 4-1.

In this final report on monitoring energy labelling, the first-hand information from the interviews carried out with representatives from the Member States and other stakeholders is complemented by information from other monitoring studies, especially:

- Existing monitoring studies of the Labelling Directive at the level of the EU (e.g. Winward et al. 1998, Waide 2001; ANEC/Defra 2007), at the level of the Nordic countries (Nordic Council of Ministers, 2007) and at the level of Member States (e.g. for Germany, Fraunhofer ISI/GfK 2001 and Verbraucherzentrale Nord-rhein-Westfalen 2007; for Sweden, Swedish Energy Agency 2006; or for France, Italy and Spain, CLCV et al. 2005) .
- The CEECAP – Implementing EU Appliance Policy in Central and Eastern Europe Project – was developed with the aim of supporting Central and Eastern European countries to create suitable conditions for implementing labelling and efficiency policies in accordance with EU Appliance efficiency legislation and programmes. Summary reports on the state of national compliance and government activities in these countries are available on the project website<sup>9</sup>.
- As an additional information source, the MURE measure database ([www.mure2.com](http://www.mure2.com)) was used, which has been developed and updated within the ODYSSEE-MURE project of the EU. In this database, all the measures implementing the Energy Labelling Directive in the Member States are described in detail for all EU Member States and Norway. Generally, these descriptions should also include information on national evaluations of the Labelling Directive.

With regard to retailer compliance, the interview results were compared with the results of the survey in retail trade also carried out within the scope of this study.

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<sup>8</sup> This project considered the following Member States: the UK, Germany, France, Italy, Denmark, the Netherlands and the Czech Republic.

<sup>9</sup> <http://www.ceecap.org/cntnt/ceecap/results>

Table 4-1: Stakeholder views of the topic "compliance and enforcement" in the Impact Assessment Project

	Denmark	Czech Republic	France	Germany
<b>Compliance</b>	high	medium; large stores very good, large variation between small shops (kitchen shops lowest level: conflict with design); the later the label was introduced the lower the compliance	generally high, large stores very good level, small (mainly repair) shops very low (5 %)	in 2000 relatively low, then increasing, but still poor for ovens; large differences between types of stores (kitchen and furniture stores: very low; large home appliance retailers: very high)
<b>Failures</b>	not affixed correctly, wrong place, different design	incorrect information on the label, labels & fiches not provided (some big chains print their own labels), label incorrectly displayed	small stores often do not know where to ask for the label and have only the fiche, some do not know about the obligation to display the label	data fiche often placed inside the appliance, colour backgrounds not reordered, other methods of indicating the efficiency class
<b>Surveys in shops, technical checks</b>	DEA controls 100 retailers per year	no formal tests of appliances, monitoring of compliance in shops not sufficient; Czech trade inspectors visit shops, but have only small budget	ADEME monitors compliance every two years (cost: 50,000 €)	compliance monitoring survey 2001; spot checks by environmental organisations  Federal States responsible for compliance monitoring; no test measurements up to now; self control by manufacturers not sufficient any more because of producers from outside Europe
<b>Results of checks</b>	2005: 71 % of appliances labelled correctly, almost all models fulfil technical requirements		in big stores no problem, but some retailers report conflicts with design of appliances	36 % complete, 21 % wrong place or incomplete, 44 % absent; regional survey in 2006: 66 % complete
<b>Reaction to checks, fines</b>	producers have to apply the correct grade, fine of 10,000 DKK (1,500 €) can be imposed	amount of fines not known, sanctions have never been applied	fine 150 € only; a Ministry representative has to confirm the failure – this procedure is much too expensive	manufacturers: law against unfair competition; retailers: fining system exists but not used due to lack of manpower for control

Source: Europe Economics/Fraunhofer ISI (2007)

## 4.2 Overview of the results

The questionnaire on compliance with the Energy Labelling Directive was mainly addressed to the Ministry of Economics or the Environment as they are the responsible bodies for energy labelling issues. In some cases, the enforcement authority is, however, not the ministry but an organisation which varies according to national law such as: inspectorate, energy agency, technical surveillance authority or a regional institution (see Table 4-2). It is interesting to see that the energy labelling issues in the Member States are related to different aspects like market or trade surveillance, product control, consumer protection, energy, safety or environmental aspects. Therefore, the possible enforcement bodies in the Member State reflect this diversity.

There has been 100 % feedback from all 29 countries involved in this study. However, it was often difficult to find an appropriate contact person. A major barrier for some countries concerned the English language, especially in countries where responsibility for energy labelling was delegated to subordinate authorities (e.g. Spain or Germany). The traditional holiday period in Europe from mid June to August further complicated the contacts. Therefore, in spite of several reminders, not all the questionnaires were returned in time for the draft final report. But the results of all countries are now presented in this final version of the report.

### 4.2.1 Results across the countries

This section gives an overview of all the results across countries. In Chapter 4.3, the results are presented in detail for each EU Member State and the EEA countries Norway and Iceland. More detailed information on the results of the survey of activities carried out in the Member States is available in the Excel file *Survey\_member-states\_results\_final.xls*.

#### ***Part 1: Manufacturer Compliance with the Labelling Directive***

##### **Question 1: General assessment of the level of compliance**

From all the answers received (29), the level of the manufacturers' compliance with the Energy Labelling Directive is estimated as high (16) or medium (8). Only four Member States indicated "very high", one country answered "very low".

##### **Questions 2 – 5: Classification of the product**

As mentioned above, the responsibility for monitoring the correct classification of the product differs from country to country (Table 4-2). With a few exceptions, the en-

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forcement authority mentioned in question 2 is also responsible for monitoring the provision of the product fiche and the coloured label and their correct display in shops. Only a few Member States have the possibility to verify the correct classification of a product. But it was pointed out that it is difficult to find independent laboratories working to the appropriate standards. Some countries only check the technical documentation or react to complaints. Many countries make no controls at all (12).

#### **Questions 6 – 13: Product fiche and coloured label**

In general, the body mentioned above is also responsible for monitoring the product fiche in the product documents. Most countries conduct checks. The level of compliance is generally assessed as very high (between 95 and 100 percent).

The coloured label is, in most countries, provided by the manufacturer or a manufacturers' association. But the level of compliance is not assessed to be as high as for the product fiche. In some countries, there are problems with manufacturers who do not provide it, or with retailers who do not know where to get the label. Some retailers therefore print their own labels, sometimes in black and white.

#### **Questions 14 – 18: Non-compliance and sanctions**

In most countries, fines and warnings exist in case of non-compliance, but in many countries there is no need as normally a warning letter or a dialogue with the manufacturer is sufficient to solve the problem. One country stated that prosecution is problematic as the subject is only accorded low priority. Another country suggested impeding the placement of a wrongly classified product on the market or recalling it.

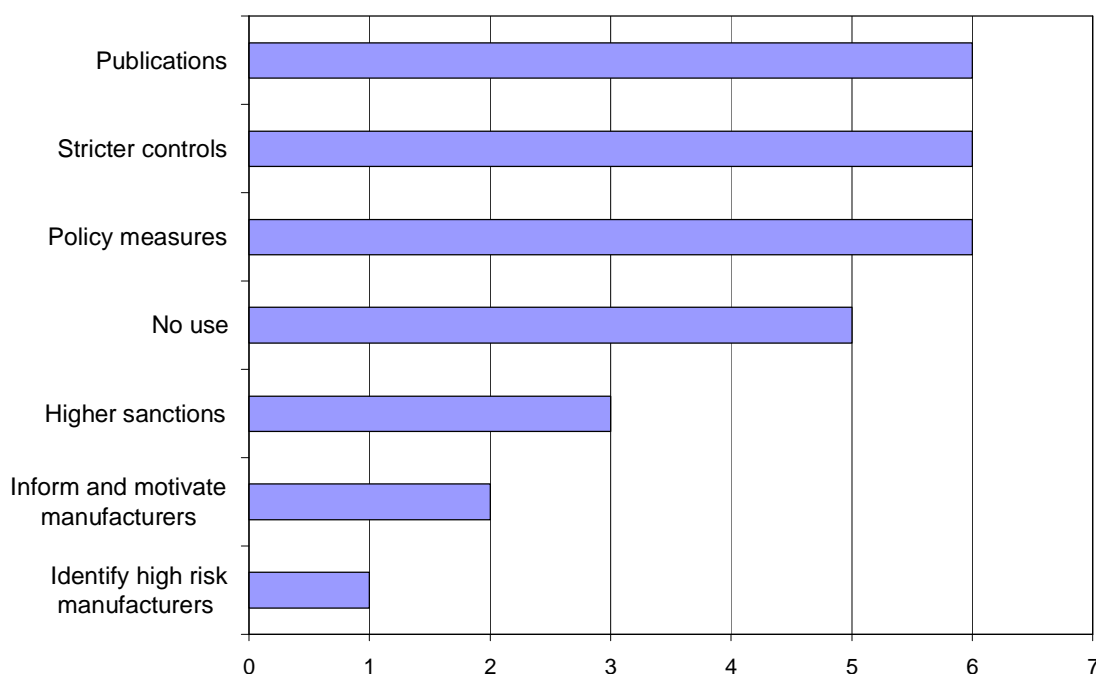
Table 4-2: Responsible bodies for monitoring compliance with the Energy Labelling Directive in all countries involved in the survey

Country	Type of institution	Name of institution
Austria	Ministry	Federal Ministry of Economics and Labour ( <i>BMWA</i> )
Belgium	Ministry	Federal Public Service (FPS), SMEs, Self-employed and Energy – Directorate General (DG) Energy
Bulgaria	Ministry	Commission for consumer protection
Cyprus	Ministry	Ministry of Commerce, Industry
Czech Rep.	Ministry; Energy Agency	Czech State Energy Inspectorate; SeveN
Denmark	Energy Agency Consultant	Danish Energy Agency; Energy Labelling Denmark
Estonia	Enforcement Authority	Estonian Technical Surveillance Authority
Finland	Ministry	Ministry of Employment and the Economy Safety Technology Authority
France	Ministry; Energy Agency	Ministry of Economics and ADEME
Germany	Ministries of the federal states Local authorities	Federal Ministry of Economics and Technology; Ministries/enforcement authorities of the 16 Federal States
Greece	Ministry	Ministry of Development Renewable Energy Sources and Energy Saving
Hungary	Energy Agency	Energy Agency Centre Hungary
Iceland	Energy Agency	Ministry of Industry
Ireland	Ministry	Customer Services Sustainable Energy Ireland
Italy	Ministry Energy Agency	Ministry for Economic Development ENEA
Latvia	Energy Agency	Consumer Rights Protection Centre (CRPC) of Ministry of Economics
Lithuania	Ministry, Energy Agency	Ministry of Economy; Products Control Department
Luxembourg	Ministry	Ministry of Economy Market Surveillance Department
Malta	Ministry	Malta Standards Authority; Malta Resources Authority
Netherlands	Ministry	Unit MOT/Ordering Belastingdienst/Holland-midden
Norway	Enforcement Authority	Norwegian Water Resources and Energy Directorate (NVE)
Poland	Energy Agency	Polish National Energy Conservation Agency (KAPE) Trade Inspectorate
Portugal	Energy Agency	Food Safety and Economic Authority (Autoridade para a Segurança Alimentar e Económica)
Romania	Ministry	Romanian Agency for Energy Conservation (ARCE) National Authority for Consumers Protection (ANPC)
Slovakia	Energy Agency Ministry	Slovak Trade Inspection; Ministry of Economy of the Slovak Republic
Slovenia	Energy Agency Consumer Organisation	Ministry for Economy; Market Inspectorate
Spain	Ministry Local Authorities	Ministry of Industry, Tourism and Trade (Instituto para la Diversificación y Ahorro de la Energía; IDEA) 17 Regional Governments
Sweden	Energy Agency	Swedish Energy Agency (STEM)
United Kingdom	Ministry Local Authorities	Department for Environment, Food and Rural Affairs (Defra); UK Local Authority Trading Standards Officers

### Questions 19 – 22: General points

If monitoring does take place, its results can be used in many different ways (Figure 4-2). Most common are publications, stricter controls and policy measures. In all cases, the information aspect is very important. But there are also some countries that do not make any use of the monitoring results.

Figure 4-2: Ways in which the Government makes use of the results of the monitoring of manufacturers' compliance (Question 19)

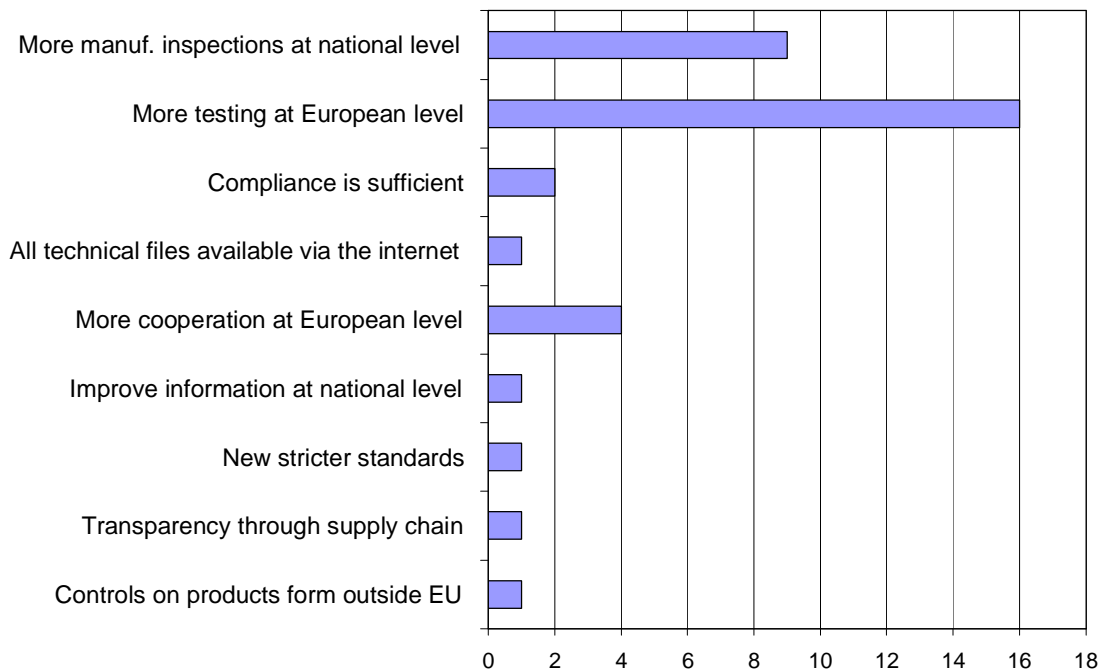


Only very few countries give full particulars concerning the annual cost of monitoring manufacturers' compliance. Amounts cited vary from 1,200 Euro to 300,000 Euro. The annual cost depends on the organisational structure of the enforcement authority and the extent of the monitoring. If this includes tests, the annual amount rises very quickly. In most cases, the central government bears the cost (except in Germany and Spain, where compliance monitoring is delegated to the Federal states or regional Governments).

The suggestions for improvement focus, very strongly, on more testing at European level but also on more manufacturer inspections at national level (Figure 4-3). This indicates that the correct classification is seen as both a national and a European task.

Especially the smaller countries where household appliances tend to be imported need European support.

Figure 4-3: Suggestions how to improve the compliance of manufacturers (Question 21)



## ***Part 2: Retailer compliance with the Labelling Directive***

### **Questions 23 – 30: Compliance in shops**

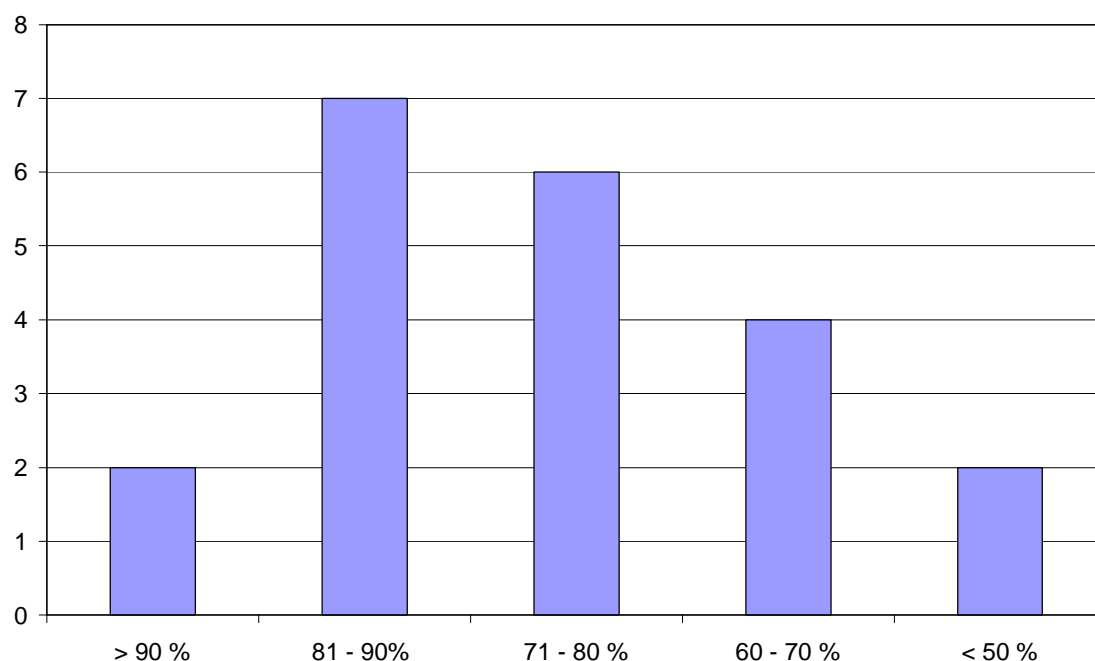
Normally, there are shop inspections to control retailer compliance with the Directive. But in some countries there are no controls at all. The correctness of the labelling is mainly verified by shops visits, in a few cases also by surveys.

Not all countries could indicate the percentage of compliance, the data range from 40 percent to 95 percent (see Figure 4-4).

Concerning the type of shops, compliance in electro superstores is generally the highest, followed by electro specialists, and hypermarkets/cash&carry. The lowest percentage of compliance in all noted cases was found for kitchen specialists/furniture stores. This confirms the result of the retail survey carried out in this study. The comments here referred mainly to training for the retailers.



Figure 4-4: Percentage of compliance in shops found in the monitoring (Question 28)



#### Questions 31 – 32: Catalogue and Internet offers

Only a few countries control the compliance in catalogues and Internet offers. Most Member States have no checks; some point out that Internet or catalogue selling is not very common in their country. The percentage of compliance in these few cases is either very high (90 to 100 percent) or very low (10 percent).

#### Questions 33 – 36: Non-compliance and sanctions

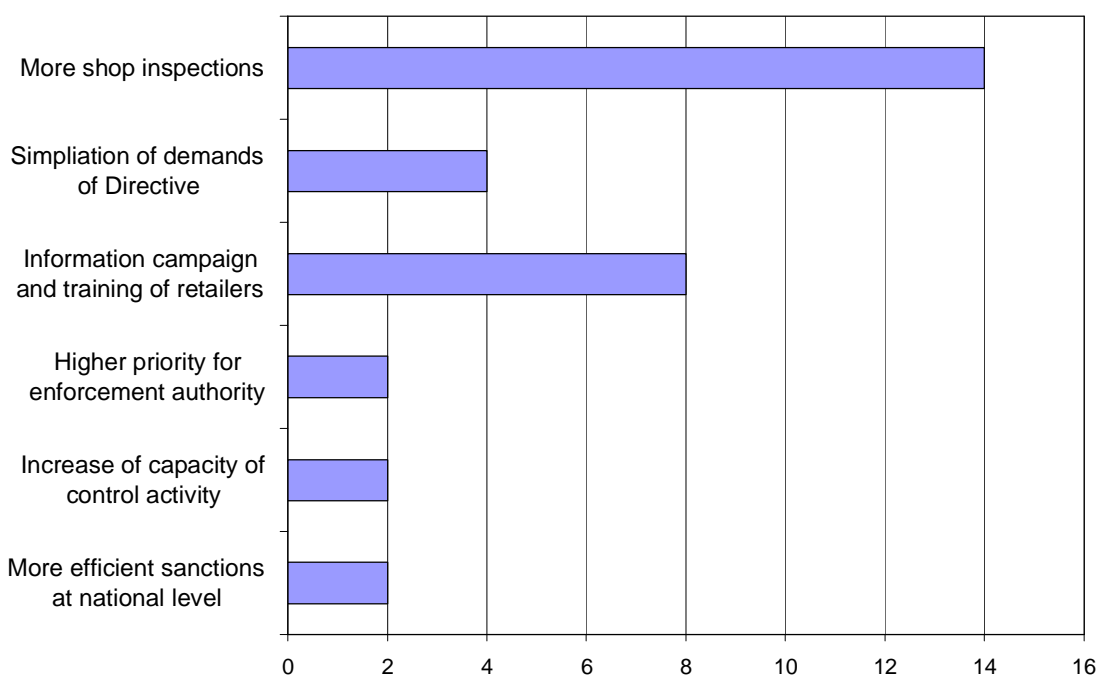
Similar to non-compliance for manufacturers, in most countries, fines and warnings can be issued. However, in many countries there is no need, as written remarks or announcing a second control is normally sufficient to solve the problem.

#### Questions 37 – 42: General points

As was the case for manufacturers, governments make different use of compliance monitoring. Publications, stricter controls and policy measures like information campaigns are the most common options. The annual costs range between nearly zero (because the control is made in connection with other measures) and 200,000 Euro. The central government bears these costs.

The suggestions for improvement focus on more shop inspections (see Figure 4-4), but also a wide range of other measures. Simplifying the Directive's demands encompasses legislative aspects as well as improving the provision of the product fiche and label. Suggestions made here included, for example, that the fiche and label should be available on the website of the manufacturer or that it should be mandatory for the manufacturer to provide the complete energy label in a Europe-wide standardized format. The information campaigns refer to retailers and customers. The retailers' information should be in the form of training in order to increase the motivation for displaying energy labels; for customers, the information could increase awareness of energy issues and the understanding of energy labels which is still poor in some countries. By increasing the financial and human resources, the capacity of the control activities could be enlarged. A very effective sanction could be recalling a product from the national or even European market.

Figure 4-5: Suggestions how to improve the compliance of retailers, catalogue and internet offers (Question 39)



## 4.2.2 Overview of the main results by country

In the following tables (Table 4-3 and Table Table 4-4), the answers to some important questions are summarized by country. The results are presented separately for manufacturer compliance (part 1 of the questionnaire) and retailer compliance (part 2 of the questionnaire). A detailed description of these results by country is given in Chapter 4.3.

Table 4-3: Summary of Member States' answers on manufacturer compliance with the Energy Labelling Directive

	Assessment of compliance (Q1)	Monitoring procedures			Sanctions (Q15)	Costs of monitoring (Q20)	Use of results (Q19)
		Product classification (Q3)	Product fiche (Q7)	Coloured label (Q11)			
<b>Austria</b>	Very high	Not verified	Controlled	Controlled			
<b>Belgium</b>	Medium	Technical documentation	Controlled	No control	Warnings	Ministerial staff costs	Product ban
<b>Bulgaria</b>	High	technical documentation' independent test	Controlled	Controlled	Fines/warnings		Policy measures
<b>Cyprus</b>	High	Not verified	Controlled	No control	Fines		No use
<b>Czech Rep.</b>	High	Not verified	Controlled	Controlled			
<b>Denmark</b>	Medium	Independent tests	Controlled	No control	Fines/warnings	close to 300,000 €	Publications, stricter controls
<b>Estonia</b>	Very high	Independent tests	Controlled	Controlled	Fines/warnings		Stricter controls
<b>Finland</b>	High	Independent tests	No control		Fines/warnings	10,000 – 15,000 €	Policy measures
<b>France</b>	Very high	Not verified	No control	No control	Fines		No use
<b>Germany</b>	High/medium	Only in a few Federal States			Fines/warnings		
<b>Greece</b>	High	Only on customers claims	Controlled	Controlled	Fines	Data not available	New legislation in prep.
<b>Hungary</b>	High	Independent tests	Controlled	No control	Fines	50,000 €	Stricter controls, higher sanctions
<b>Iceland</b>	Very low	Not verified	No control	No control	Fines	No data	No use
<b>Ireland</b>	High	Not verified	No control	No control	Fines		
<b>Italy</b>	Very high	Independent tests	No control	No control	Fines		No use
<b>Latvia</b>	Medium	Independent tests	Controlled	No control	Fines/warnings	4,085 €	Stricter controls
<b>Lithuania</b>	Medium	Not verified	Controlled	Controlled	Fines/warnings		Stricter controls, higher sanctions
<b>Luxembourg</b>	High	Technical documentation	Controlled	Controlled	Warnings	1,200 €	Stricter controls
<b>Malta</b>	Medium	Checking test reports	No control	No control			No use
<b>Netherlands</b>	High	Independent tests	Controlled	No control	Fines/warnings	300,000 €	Publications

	Assessment of compliance (Q1)	Monitoring procedures			Sanctions (Q15)	Costs of monitoring (Q20)	Use of results (Q19)
		Product classification (Q3)	Product fiche (Q7)	Coloured label (Q11)			
<b>Norway</b>	High	Independent tests	Indirectly	Indirectly	Warnings, publications	70,000 – 80,000 €	Publications, policy measures
<b>Poland</b>	Medium	Not verified	No control	No control			
<b>Portugal</b>	High	Not verified					
<b>Romania</b>	High	Technical documentation	Controlled	Controlled	Fines/warnings	15 – 20 % of ARCE budget	Publications, policy measures
<b>Slovakia</b>	High	Not verified	Controlled	Controlled	Fines/warnings		Policy measures, information within control
<b>Slovenia</b>	Medium	Not verified					Reports for consumers
<b>Spain</b>	High	Spot checks					
<b>Sweden</b>	High	Independent tests	No control	Indirectly	Publication	50,000 – 300,000 €	Publications
<b>UK</b>	Medium	Independent tests (spot checks)	No control	No control	Warnings	250,000 € MTP budget	Publications, dialogue with industry for policy measures

Table 4-4: Summary of Member States' answers on retailer compliance with the Energy Labelling Directive

	Assessment of compliance (only shops) (Q28)	Monitoring procedures		Sanctions (Q33)	Annual costs of monitoring (Q38)	Use of results (Q37)
		Shops (Q24)	Catalogue/Internet (Q31)			
<b>Austria</b>	47 %	Visits to shops	Randomly	Warnings		Publications
<b>Belgium</b>	60 %	Visits to shops	No control	Fines/warnings	Ministerial staff costs	No use
<b>Bulgaria</b>		Visits to shops	Catalogue: document verification			
<b>Cyprus</b>	70 %	Visits to shops	No control			No use
<b>Czech Rep.</b>	85 %	Visits to shops	No control	Fines	Very low <sup>1</sup>	
<b>Denmark</b>	70 %	Visits to shops	Catalogue: controlled	Fines/warnings, publication	65,000 – 70,000 €	Publications, stricter controls, policy measures
<b>Estonia</b>	90 %	Visits to shops	Catalogue: controlled	Fines/warnings		Publications, stricter controls
<b>Finland</b>	80 %	Visits to shops	No control	Fines/warnings	In connection with other controls	Policy measure
<b>France</b>	95 % <sup>1</sup>	Visits to shops, surveys <sup>1</sup>	No control	Fines <sup>1</sup>		No use
<b>Germany</b>	60 – 90 %	Only in a few Federal States				
<b>Greece</b>		Visits to shops (on complaint), Self commitment	No control	Fines		New legislation in preparation
<b>Hungary</b>	95 – 98 %	Visits to shops	No control	Fines		Stricter controls, higher sanctions
<b>Iceland</b>		No control	No control	Fines		No use
<b>Ireland</b>	76 %	Visits to shops	No control	Fines/warnings	50,000 – 75,000 €	Policy measures
<b>Italy</b>		Visits to shops	No control	Fines		No use
<b>Latvia</b>	60 %	Visits to shops, survey	No control			
<b>Lithuania</b>	79 % (40 % <sup>2</sup> )	Visits to shops	No control	Fines/warnings	16,700 €	Stricter controls, higher sanctions
<b>Luxembourg</b>	95 %	Visits to shops	Catalogue: controlled	Warnings	1,200 €	Policy measures, stricter con-

	Assessment of compliance (only shops) (Q28)	Monitoring procedures		Sanctions (Q33)	Annual costs of monitoring (Q38)	Use of results (Q37)
		Shops (Q24)	Catalogue/Internet (Q31)			
						trols, higher sanctions
<b>Malta</b>			No control	No sanctions		No use
<b>Netherlands</b>	87 %	Visits to shops	Catalogue: controlled	Fines	100,000 €	Publications
<b>Norway</b>	40 %	Visits to shops	Internet: sporadic	Warnings, publication	35,000 €	Publications, policy measures
<b>Poland</b>	40 % <sup>2</sup>	No control	No control	Fines possible		
<b>Portugal</b>		Visits to shops				
<b>Romania</b>	88 %	Visits to shops, survey	No control	Fines/warnings	15 – 20 % of ARCE budget	Publications, policy measures
<b>Slovakia</b>	80 % <sup>2</sup>	Visits to shops (on complaint only)	No control	Fines, warnings		Policy measures, inform within controls
<b>Slovenia</b>		Visits to shops				
<b>Spain</b>						
<b>Sweden</b>	72 – 92 %	Visits to shops	No control	Fines, publications	50,000 – 200,000 €	Publications, stricter controls
<b>UK</b>	80 – 85 %	Visits to shops, survey	Internet: controlled	No sanctions	15,000 € MTP budget	Policy measures

1 Information taken from the Impact Assessment Study (Europe Economics/Fraunhofer ISI 2007)

2 Information taken from the CEECAP project

## 4.3 Detailed description of the results by country

### 4.3.1 Austria

The level of compliance of the **manufacturers** with the Energy Labelling Directive in Austria is assessed as very high. The Federal Ministry of Economics and Labour (BMWA) is responsible for monitoring the correct classification, but the classification is not verified. The Ministry points out that they have no accredited laboratories in Austria. The provision of the product fiche, however, is monitored by the BMWA and 99 percent of the manufacturers provide the product fiche with the product documents. The coloured label is provided by the Umweltforum Haushalt (UFH), a service company for WEEE collection and recycling. The monitoring of BMWA results also in 99 % compliance. There are practically no complaints by retailers that the suppliers do not provide the fiche or the label.

**Retailer** compliance is also monitored by the BMWA. Approximately 54 shops are visited every year. They are chosen systematically (during the last period: 5 electro super-stores, 27 electro specialists, 5 kitchen specialists/furniture shops and 16 hyper-market/cash&carry). Overall compliance was cited as 47 %.

Catalogue and Internet offers are randomly controlled. Compliance here is only 10 percent. In the case of non-compliance, the BMWA issues warnings and letters for improvement. The non-compliance of approximately 250 products led to prosecutions, but there were no sanctions. The results of the monitoring are published. The central government bears the costs for monitoring. BMWA believes that information campaigns launched by the European Commission could improve the situation.

### 4.3.2 Belgium

In Belgium, **manufacturer** compliance is assessed as medium. The Federal Public Service (FPS) Economy, SME's, Self-employment and Energy under the Directorate General (DG) Energy is responsible for all energy labelling issues. The classification is checked by technical file examination. Only in the case of complaints are products tested by independent laboratories. This occurred twice within the last six years. The main problem, according to FPS, is that product testing implies huge investments for the laboratory – due to measurements other than energy consumption - in order to meet the requirements of the standards. Checking whether the product fiche is provided with the product documents is only done as a reaction to complaints. The coloured label is provided by specific providers, but there are no controls. A few cases of appliances without the coloured label might still be encountered. Non-compliance leads

to warnings, but so far there have been no prosecutions or sanctions. The results of monitoring (on complaint) lead to higher sanctions and maybe a product ban. The costs for the monitoring are included in the Ministerial staff costs. FPS assumes that manufacturer compliance is sufficient as there are very few complaints.

**Retailer** compliance is also monitored by the FPS. There has only been one monitoring campaign in 1999/2000. About 1,123 shops were selected randomly. 60 % compliance was found when checking more than 33,000 appliances. Catalogue and Internet offers are not controlled. Fines and warnings may be the consequences of non-compliance, but since 2000 there have been no more complaints. The government does not make any use of the monitoring results. The costs are included in the Ministerial staff costs. More shop inspections could improve retailer compliance. In 2004, Belgium fully supported the efforts of the EU to improve market surveillance.

### 4.3.3 Bulgaria

The general level of **manufacturer** compliance with the Energy Labelling Directive in Bulgaria is assessed as high. The Commission for Consumer Protection is responsible for monitoring. The correct classification is verified by independent tests and by checking the technical documentation. The producer is responsible for providing the product fiche which is controlled by the Commission for Consumer Protection. The percentage of compliance is not indicated. Concerning the coloured label, each producer is responsible for its provision to the retailer; the Commission for Consumer Protection checks this and generally finds 100 % compliance.

Fines and warnings by the Commission of Consumer Protection may be the consequences of non-compliance but this does not happen in practice. The results of monitoring are used for policy measures such as information campaigns.

**Retailer** compliance is also controlled by the Commission for Consumer Protection. They choose about 200 shops per year at random (the last time 202 electro super-stores and 5 hypermarket/cash&carry). A percentage of compliance is not given.

During the CEECAP project, independent shop visits were carried out and about 1,800 appliances checked. Over 66 % were properly labelled. But there were significant differences regarding the type of shop (compliance ranged between 95 and 35 %) and type of appliance (70 % for cold appliances, washing machines and dishwashers and only 25 % for air conditioners). Within the project, very good co-operation has been established between the Ministry of Economy and Energy, the Energy Efficiency Agency and the Commission for Consumer Protection. Copies of national promotional



materials were printed and disseminated and the results of the project and the survey were presented at regional level in energy efficiency policy workshops.

#### 4.3.4 Cyprus

The situation in Cyprus concerning **manufacturer** compliance is assessed to be high. The Ministry of Commerce is responsible for all energy labelling issues. The market surveillance authority (under the Ministry of Commerce) does not verify the correct classification, but points out that the existing standards permit incorrect classifications. A new labelling Directive should include stricter energy classifications based on market analyses so that only a small percentage is assigned the A class. The market surveillance authority controls whether the product fiche is provided by the manufacturer, but no percentage of compliance is stated. According to the authority, it is not really clear who provides the coloured label. The Directive states that the complete label (background, data strip) must be provided by the manufacturer. But the manufacturers only provide the data strip. Compliance is cited as 70 %, although there are no controls. Also the directive is not clear as to the requirements in the case of printed advertisements (magazines, newspapers etc.) according to the market surveillance authority.

In case of non-compliance, the Ministry may issue fines. This has not yet been the case. The central government bears the costs for the monitoring but does not make any use of the results. In order to improve compliance, it is suggested that the Commission organises a site on information about energy labelling, similar to that of the Energy Star programme. This site should also include all new energy labels in all languages so that they can be reproduced by interested parties.

**Retailer** compliance is also monitored by the Ministry of Commerce. About 30 shops per year are selected systematically. 70 % compliance is found; bigger shops tend to be more compliant than smaller ones in isolated areas. Catalogue and Internet offers are not controlled.

The government does not make any use of the results. The ministry requests more shop inspections and a simplification of the Directive's demands for retailers. As stated above, manufacturers should be obliged to provide the complete energy label in a universal format.

#### 4.3.5 Czech Republic

The general level of **manufacturer** compliance with the Energy Labelling Directive in the Czech Republic is assessed as high. The Czech Trade Inspection is the surveillance authority of the state administration subordinated to the Ministry of Trade and

Industry. It is divided into the Central Inspectorate and subordinate inspectorates, one of them is the Energy Inspectorate. The Czech State Energy Inspectorate is responsible for the correct classification of the product but does not verify the classification. The producer has to supply the coloured label to the retailer.

The Czech Trade Inspectorate makes independent controls in order to ensure that the product fiche is provided with the product documents. By visiting shops and making surveys, it controls whether manufacturers fulfil their obligations. More manufacturer inspections at national level and more testing at European level are seen as options to improve compliance.

**Retailer** compliance is checked by visits to shops. From 2002 to 2007, 158 shops were visited and some 3922 appliances checked (CEECAAP). Over 85 % of the “traditional” product categories of cooling and washing appliances were labelled correctly. Laundry appliances showed the highest degree of compliance (94 %), dishwashers a lower one (80 %). New types of appliances like ovens only had 52 % compliance. Concerning the store types, large stores generally showed a high degree of compliance; variation in smaller shops was from 100 % to zero. Kitchen studios showed a very low level of compliance.

Results of the inspections of catalogue and Internet offers are included in the results of the shops, but they only have a very small share of sales.

The Czech Trade Inspectorate is responsible for prosecutions and sanctions, but up to now, none have been applied. Compliance could be improved by increasing the number of shop inspections. A higher priority for the inspectorate may also improve the efficiency of the compliance monitoring.

#### **4.3.6 Denmark**

The level of compliance with the Energy Labelling Directive of **manufacturers** in Denmark is assessed as medium. The Danish Energy Agency is responsible for monitoring. However, in practice, monitoring is conducted by Energy Labelling Denmark, a private consultant agency. They check the energy efficiency classes and performance classes and other data printed on the strip based on the application of the harmonised standards. The products to be tested are chosen systematically and totalled 60 (30 refrigerators and freezers, 5 – 10 washing machines, 5 driers, 0 – 5 combined washer-driers, 5 – 10 dishwashers, 5 – 10 ovens, 3 air conditioners and 20 lamps). The product selection tries to reflect most market segments; however, some products are chosen due to previous non-compliance. The independent tests are carried out by Teknologisk Institut and DELTA. They state that sometimes the necessary standards are late in

being harmonised. Furthermore, information from the manufacturer is sometimes missing which would be needed to reproduce the tests on which the labelled classes and data are based. In the end, the labelled classes and data cannot be confirmed for 20 – 40 % of products.

The Danish Energy Agency is also responsible for monitoring the provision of the product fiche. The controls are made by Energy Labelling Denmark. Practically all manufacturers provide the product fiche, mostly in brochures. The compliance for air conditioners, however, is lower than the average. The coloured label is provided by the producers' association to the retailer. This is not verified by Energy Labelling Denmark.

If an appliance fails a test, there is a dialogue with the manufacturer based on technical documentation and other things. The issue is solved either by the manufacturer revising the information on the label or by changing the performance of the product to comply with the information. The DEA is authorized to issue warnings and may even resort to fines, but so far this has never been necessary to obtain compliance in the individual cases. Anonymous test results are made public. In addition, the cases of non-compliance are used in order to educate and motivate manufacturers and to identify "high risk" manufacturers who are then targeted in future tests.

Due to the expensive tests, the central government spends up to 300,000 Euro every year for monitoring manufacturer compliance. In the case of non-compliance, the manufacturer has to foot the bill for the monitoring. In order to improve compliance, DEA requests more testing at European level.

The control of **retailer** compliance with the Energy Labelling Directive follows the same principle. The DEA is responsible for the monitoring. A first visit of shops is performed by hired personnel who have attended a short training course on inspection, a second and even a third visit with non-compliant shops is done by Energy Labelling Denmark staff. About 70 shops are chosen every year, partly at random, partly systematically, focussing on previously non-compliant shops. In 2006, around 50 % of shops complied with the Directive in the first visit, that means 90 % correctly labelled appliances (in 10 % of the cases, appliances may have just arrived in the shop, one or two labels may have fallen off or been removed by customers etc.). Energy Labelling Denmark follows up on shops in which 90 % or less of the labelling is correct. There is a 2<sup>nd</sup>, 3<sup>rd</sup> or even 4<sup>th</sup> visit in cooperation with DEA. Of approximately 8,000 appliance tests, 72 % are labelled correctly.

Catalogues delivered to various private addresses are also checked (10 per year). In catalogues from a supplier, there are very often offers concerning several product groups, for instance washing machines, dishwashers and ovens. The percentage of

compliance of 50 % means that about half the catalogues have one error or more. Typical non-compliance is lack of prescribed information or incorrect design of the information. In parallel with monitoring retailer compliance, it is not checked whether the information given in catalogues is in fact true. Internet offers are not controlled in Denmark. An appropriate control procedure is being developed.

Non-compliance may lead to fines, warnings and publication. During the three year period 2005 – 2008, six retailers have been fined and another 13 have been prosecuted with some cases still being heard. The central government spends 65,000 to 70,000 Euro every year for monitoring retailer compliance and uses the results for publication, stricter controls and policy measures (e. g. information campaigns). In order to improve compliance, DEA suggests intensifying the dialogue with retailers.

#### **4.3.7 Estonia**

The level of compliance with the Energy Labelling Directive of **manufacturers** in Estonia is assessed as very high. The producers or manufacturers themselves are responsible for the correct classification, the provision of the product fiche and the coloured label. The correct classification is verified in independent tests. But only two appliances per year are controlled, “as the occasion requires”. They also check the provision of the product fiche and the coloured label themselves. 100 % compliance is achieved.

The recommendations for improving the system are, on the one hand, more manufacturer inspections at a national level but, on the other, closer cooperation at European level. This European level refers to manufacturers, laboratories, governments and consumer organisations.

The Ministry of Economics is responsible for monitoring **retailer** compliance. The Estonian Technical Surveillance Authority is the enforcement authority that makes the controls. Correct labelling is controlled systematically by shop visits. About 150 shops are controlled every year, mainly electro-superstores, but also all the other types of shops. 85 % (kitchen specialists/furniture stores) to 90 % compliance is achieved. 50 prosecutions are announced each year. Catalogue offers are also controlled systematically, about 200 per year with 90 % compliance. There are 20 prosecutions here each year. Internet offers are not monitored as Internet selling is not (yet) very popular in Estonia. Stricter controls are the consequences of non-compliance. The central government bears the cost of controls.

In order to improve retailer compliance, more shop inspections are proposed. Additionally, setting up an information centre is proposed where questions about the energy labelling of household appliances could be asked and new information obtained.

### 4.3.8 Finland

The level of **manufacturer** compliance with the Energy Labelling Directive in Finland is assessed as high. The Safety Technology Authority (TUKES) is responsible for correct product classification. It orders the tests from independent laboratories. Five appliances (refrigerators and freezers) are randomly selected for testing every year. The result is 100 % correct classification. There are no controls whether the product fiche is provided with the product documents. The availability of the coloured label should be guaranteed by the wholesalers' association (producers and importers). But some retailers print the labels themselves. The labels are also available on a website. However, some storekeepers do not know where to obtain the labels.

Fines and warnings are possibilities for non-compliance but there are no sanctions mentioned in the questionnaire.

The central government bears the costs for compliance monitoring of manufacturers (10,000 to 15,000 Euros per year). In order to improve compliance, it is recommended to expand testing at European level.

The **retailers** are checked by TUKES via shop inspections. Approximately 300 shops are selected systematically each year. The result of these visits is 80 % compliance overall. Compliance is lower for air conditioners. The problem is that some retailers have no motivation to apply the energy labelling system. Catalogue and Internet offers are not checked.

Fines are possible sanctions in the case of non-compliance. But Finland has not yet made use of them. Softer means are used first. About 20 written comments were made with follow-up checks (warnings). The results of the compliance monitoring have led to policy measures, for example information campaigns, as some retailers need more motivation and information on energy efficiency.

The annual cost for monitoring retailers' compliance cannot be specified as the visits to shops are made in connection with other control measures. Suggestions for improving compliance are more information and motivation for the retailers.

### 4.3.9 France

The level of **manufacturer** compliance with the Energy Labelling Directive in France is assessed as very high. The producers are responsible for the correct classification of their products but classification is not verified. The producers are also responsible for providing the product fiche but there is no independent control here either. However, the percentage of compliance concerning the provision of the product fiche is stated as

95 %. Regarding the coloured label, it is the same: the producer is responsible for providing the label to the retailer. There are no controls, but compliance is given as 95 %. The DGCCRF, Direction Générale de la Consommation, de la Concurrence et de la Répression des Fraudes, may issue fines for non-compliance but so far there have been neither prosecutions nor sanctions. The French government does not make any use of these results but suggests more manufacturer inspections at national level and more testing at the European level in order to improve compliance.

Concerning the **retailers'** compliance with the Energy Labelling Directive, the DGCCRF is responsible for the monitoring. There are no systematic controls, neither in shops nor for catalogue or Internet offers. According to the Impact Assessment Study, ADEME conducts surveys every two years and publishes the results, the most recent one, however, was in 2004/2005. The shops are selected at random. There may be fines as consequences for non-compliance but they only amount to 150 Euro. The central government spends approximately 50,000 Euro on each study. In order to improve compliance, ADEME and the French Ministry of Economics request more shop inspections and simplifying the Directive's demands for retailers.

#### **4.3.10 Germany**

The situation in Germany is somewhat different from that in the other countries discussed above. There is no central enforcement authority for monitoring compliance with the Energy Labelling Directive. The Federal Ministry of Economics and Technology (BMWi) is responsible for energy labelling issues, but monitoring is the responsibility of the Federal States. So the questionnaire was sent to the 16 German Federal States, but the responsibilities here are not always clear. Table 4-5 shows the responsible authorities as far as it was possible to identify them.

The overview shows the wide variety of possibilities for anchoring the compliance control of energy labelling. These regional ministries have very different tasks both with regard to content and number. Thus, their priorities also vary widely depending on their financial and human resources. If, for example, the compliance with energy labelling is the responsibility of the product safety authority which is also responsible for food safety, then food checks are obviously given higher priority than checks of whether the energy label is displayed on electrical appliances.

Table 4-5: Overview of enforcement authorities responsible for energy labelling issues in the Federal States in Germany

<b>Federal State</b>	<b>Regional/local enforcement authority</b>	<b>Status</b>
Baden-Wuerttemberg	State Ministry of Economics	Telephone interview
Bavaria	State Ministry of the Environment and Public Health	Filled in
Berlin	Senate Department for Economics, Technology and Womens' Issues	Language problems
Brandenburg	State Ministry of Labour, Social Affairs, Health and Families	No reaction at all
Bremen	Senator for Environment, Construction, Transport and Europe	Filled in
Hamburg	Ministerium für Natur- und Ressourcenschutz des Landes Hamburg	Filled in
Hessen	State Ministry of Economics, Transportation, Urban and Regional Development	Telephone interview
Mecklenburg-Vorpommern	State Ministry of Economics	Telephone interview
Lower Saxony	State Ministry for Environment and Climate Protection	Filled in
North Rhine-Westphalia	State Ministry of Transportation, Energy and Land Use Planning	Announced but did not send questionnaire
Rhineland-Palatinate	State Department for Measuring and Calibration	Filled in
Saarland	State Ministry of Economics, Dept. Energy Economics/Energy Law	Filled in
Saxony	State Ministry for Economic Affairs and Labour	Language problems
Saxony-Anhalt	State Ministry of Economics and Labour	Telephone and e-mail contact but no questionnaire was sent back
Schleswig-Holstein	State Ministry of Science, Economic Affairs and Transport	Filled in
Thuringia	State Ministry of Economics, Technology and Labour	Announced but did not send back the questionnaire

In some Federal States, the enforcement authorities have not yet been appointed, or are not active regarding compliance monitoring. Two Federal States explained that they are planning a structural re-organisation, which involves them trying to give the responsibility of energy labelling compliance to local authorities. But the discussion is still ongoing and the whole process is proving difficult. The result is that there are no controls at all. In some other Federal States, however, like North Rhine-Westphalia, Rhineland-Palatinate or Bavaria, the structure of responsibilities is clear, in place and functioning.

In general, the interview partners were not satisfied with the present situation in Germany. The responsibilities are not clear and split between too many institutions and authorities. The consequences are an ineffective monitoring scheme for energy labelling issues.

Some Federal States have delegated control to local authorities. The motivation behind this move was to enable effective controls, as local authorities already conduct other checks in trade and commerce. But now the Federal Ministry of Economics (BMW*i*) is aware of the very heterogeneous and often unsatisfactory control procedures and has launched a discussion on a national level and initiated a working group. The question is whether it would make more sense to centralize the procedure. Especially in the context of the EuP Directive, market surveillance would have a bigger impact. As controlling product and appliance security is, in some Federal States, conducted by the Gewerbeaufsichtsämter (Trading Standards Offices), this procedure has high priority.

Another focus of the BMW*i* is not only on the percentage of retailer compliance but also on the problem of cheap imports with incorrect classifications. This results in market distortions and leads to a further lack of credibility regarding the energy label.

Regarding **manufacturer** compliance, there are no controls in Germany, neither of correct classification nor of the provision of the product fiche. The label can be ordered from the ZVEI, the German manufacturers' association.

A comprehensive monitoring of compliance with the Energy Labelling Directive in the retail trade in Germany was carried out by GfK and Fraunhofer ISI in autumn 2000 on behalf of the Federal Ministry of Economics and Technology. The survey methodology was similar to the method used in this survey. At that time, two years after the Directive had been implemented in Germany, the degree of compliance was relatively low (Table 4-6).

In some Federal States, the **retailers'** compliance is monitored, too. Those Federal States which have already monitored retailers state a level of compliance ranging between 20 and 85 %. A similar range is indicated for Internet offers. The compliance for catalogue offers is generally higher. One Federal State said it spent at least 50,000 Euro per year on monitoring.



Table 4-6: Labelling behaviour in retail trade in Germany according to a survey carried out by GfK/Fraunhofer ISI in autumn 2000

All Appliances	Independents and buying groups		Large scale specialists	Kitchen specialists	Furniture stores	Hypermarkets	Total
	<2 million	>2 million					
	%	%	%	%	%	%	%
complete	31	60	82	6	7	77	<b>36</b>
partially	36	15	9	14	13	17	<b>21</b>
absent	34	25	9	80	80	6	<b>44</b>

All shops	Refrigerators	Fridge-freezers	Freezers	Washing machines	Washer-driers	Tumble driers	Dish-washers	Total
	%	%	%	%	%	%	%	%
Labelling:								
complete	29	33	47	50	62	55	20	<b>36</b>
partially	20	23	22	27	25	21	13	<b>21</b>
absent	51	43	31	23	13	24	67	<b>44</b>

Source: Schlomann et al. 2001

German NGOs have also conducted surveys. The consumer organisation of North Rhine-Westphalia carried out a survey in 2006. 120 shops and 11 providers of catalogue and Internet offers were monitored (in total approximately 20,200 household appliances). Two thirds of the 120 shops monitored had labelled their appliances correctly. This is a significant increase in comparison to the monitoring in 2000 (Schlomann et al. 2001). However, in only 11 shops were there no complaints. It turned out that many retailers did not know their precise obligations within the Energy Labelling Directive. Due to a dialogue process with the retailers, 80 % of the shops had remedied the deficiencies within six weeks. This was controlled in a second monitoring cycle. In catalogues, compliance is at 90 %, in Internet shops at 62 %. The survey costs amounted to 70,000 Euro.

The consumer test magazine "Stiftung Warentest" verifies at times whether the energy labelling of a product group complies with the Directive. It has already discovered an incorrect classification of appliances, especially for air conditioners.

The Deutsche Umwelthilfe (DUH) is a non-governmental organisation and offers a platform for environmental organisations, politicians as well as other decision makers and stakeholders. They also control retailer compliance with the Energy Labelling Directive and have already taken action against two big electro superstores for non-compliance.

A crucial point for improving the situation in Germany is the structure of responsibilities. Action at European level is requested concerning the verification of correct classification. If the classification of a product is wrong, measures against its placement on the market or its recall will have a significantly greater (economic) impact than fines. In order to improve the manufacturers' compliance regarding the product fiche and the coloured label, it was suggested to supply each appliance ex works with the complete energy label. This would facilitate the labelling procedure at the point of sale and increase retailer compliance at the same time.

#### **4.3.11 Greece**

The general level of **manufacturers'** compliance with the Energy Labelling Directive in Greece is assessed as high. Only one or two complaints per year are reported concerning the existence or content of the labels or fiches for household appliances. The Ministry of Development, and more specifically the 4<sup>th</sup> Sectoral Industrial Policy Directorate and the Directorate for Renewable Energy Sources and Energy Saving, are co-authorised to implement the Labelling Directive. Producers are responsible for the correct classification on the product fiche. The Ministry of Development reserves the right to appoint an authorised laboratory to carry out tests on a sample of a particular batch of a household appliance in order to verify the correctness of the classification. However, these tests are only performed after customer claims of non-compliance for a particular product model.

The Ministry of Development is responsible for monitoring the provision of the product fiche; checks are carried out by the 4<sup>th</sup> Sectoral Industrial Policy Directorate and the Directorate for Renewable Energy Sources and Energy Saving. But data are currently not available.

The coloured label is provided by the producer. Checks are handled as above. Furthermore, the producers' association is currently working on setting up a control mechanism for monitoring compliance with the Labelling Directive among its own members.

The same monitoring structure exists regarding **retailer** compliance. The Ministry of Development is in charge of the monitoring, the controls are carried out by the two Directorates mentioned. Visits to shops are made in order to check the correct labelling of the appliance, but only after complaints from end-users of non-compliance. Catalogue and Internet offers are not controlled.

In the case of non-compliance (manufacturers and retailers), the Prefectures Authorities are responsible for issuing fines. The sanctions depend on the gravity and fre-

quency of the non-compliance. Fines range from 2,000 to 15,000 Euro. In some cases, the Ministry of Development can restrict or prohibit a product's placement on the market. But data are currently not available.

The Ministry of Development is preparing new legislation in order to improve the market control and monitoring, including the labelling and classification of appliances.

#### 4.3.12 Hungary

The **manufacturers'** compliance with the Energy Labelling Directive is assessed to be high in Hungary. The Hungarian Authority for Consumer Protection (HACP) is responsible for the correct classification of the products. There are 200 appliances per year that are systematically selected and tested by the HACP. 95 to 98 % of the appliances are classified correctly. The above mentioned authority also monitors the provision of the product fiche within the product documents. There is 95 to 98 % compliance. The coloured label, however, is provided by each producer. But there is no monitoring of the provision of the coloured label. The Hungarian Authority for Consumer Protection, that is the central government, spends 50,000 Euro every year for the monitoring. In order to improve compliance, the Hungarian Authority pleads for more testing at European level.

The **retailers'** compliance in Hungary is monitored by the Chambers of Trade. The controls are made by visits to shops which are chosen at random. About 30 shops are monitored per year. The percentage of compliance is found at 95 to 98. Catalogue and internet offers are not controlled.

In case of non-compliance, fines are the consequences. The HACP is responsible for the sanctions. Approximately 5 to 10 prosecutions and sanctions are pronounced every year, especially in the case of lamps, refrigerators and washing machines. The results of the monitoring lead to stricter controls and higher sanctions.

#### 4.3.13 Iceland

Apart from the EU Member States, the A-G energy label on household appliances is also used in Iceland. However, **manufacturers'** compliance is assessed to be very low. The classification of the product is not verified, nor is the provision of the product fiche and the label. There are no checks whether labels are displayed by **retailers** or not, neither in shops nor of catalogue and Internet offers. Therefore, there are no data available. The responsible authority in Iceland is the General Product Safety and Market Surveillance Authority and the Ministry of Industry. They complain about confusing and insufficient access to rules and a lack of labels in Icelandic. Suggestions for im-

provement are primarily increased information at national level as well as more detailed national rules and more testing at European level.

#### **4.3.14 Ireland**

In Ireland, the level of **manufacturers'** compliance with the Energy Labelling Directive is assessed as high. There is currently no verification of the correct classification being done in Ireland. This is primarily due to the fact that there are actually no product manufacturers in Ireland, only agents/distributors who import the products. Monitoring whether the product fiche is provided is also not conducted in Ireland. Regarding the coloured label, each producer is responsible for supplying this to the retailer. The Irish Energy Agency SEI (Sustainable Energy Ireland) would often get request for labels but SEI leaves this responsibility with the producers/distributors as stipulated in the legislation. SEI has never specifically monitored the level of the manufacturers/distributors' compliance with the labelling directive.

SEI's efforts have focussed on monitoring the level of **retailers'** compliance in respect to the display of labels on appliances. SEI believes that forcing retailers to comply will drive the availability of the labels and thus, indirectly, general compliance on the part of the producers. Appointed officers of SEI are responsible for monitoring retailer compliance in conjunction with the Department of Communications Energy and Natural Resources which also issues the warrants.

Correct labelling is systematically controlled by shop inspections. Approximately 250 shops are monitored. The last year of surveying, however, was 2004. Over 12,000 appliances were surveyed. The percentage of compliance was given as 76 %. Warning letters were issued to retailers in respect of 154 instances of non-compliance. There were complaints by retailers that the producers failed to supply the labels. The surveying activities were conducted for approximately five years up until 2004 but have since been temporarily discontinued due to limited resources and other, higher priority, activities. Catalogue and Internet offers are not controlled.

The Irish legislation contains formal sanctions of fines / prison sentences for non-compliance. SEI has, with its inspection partners, issued letters of warning for non-compliance in order to drive higher levels of compliance. Intensive inspection regimes coupled with warning letters have significantly increased compliance levels at retailers. As a result of the compliance monitoring, policy measures (e.g. information campaign) were implemented in 2004. The central government spent between 50,000 to 75,000 Euros in 2004 on monitoring. SEI believes that more shop inspections could improve retailer compliance.

#### 4.3.15 Italy

The degree of **manufacturers'** compliance with the Labelling Directive in Italy is assessed to be very high. The Italian Ministry for Economic Development is responsible for the monitoring of the correct information on the product fiche. There are independent tests of products selected at random. But there are no data available about percentage of compliance. Sometimes, it is difficult to integrate new products into the current label classification. The Italian Ministry for Economic Development is also responsible for the monitoring of the provision of the product fiche within the product documents, but there are no controls. Although there are no statistical data available, a qualitative analysis results in a large compliance. The coloured label is provided by the producers' association but there are no controls either. Non-compliance is mainly due to the lack of the coloured part if the strip is attached or vice versa. Consequences of non-compliance are fines issued by the Italian Ministry of Economic Development. In the last years, an agreement was put in place between the National Manufacturers' Association and the retailers to guarantee a prompt delivery of the coloured label when needed. The Italian Government makes no use of the compliance monitoring and there are no data of the annual costs. The Ministry suggests testing more appliances at the European level and that this testing should be done without extra costs for the Member States. Summarising the manufacturers' compliance, a qualitative analysis shows that it is very high (presence of the label strip in the models).

The Italian Ministry for Economic Development is also responsible for the monitoring of the **retailers'** compliance. There are shop inspections and the shops are selected randomly. But there are no data available on the number of appliances tested, the degree of compliance or the type of shops. But a qualitative analysis shows that there is a very high compliance of the retailers (display of the labels in the shops), especially in big shops: electro super-stores, electro specialists and hypermarkets. Catalogue and internet offers are not controlled. More shop inspections could improve the degree of compliance. But in general, tests and controls should be done without costs of the local or central public administration.

#### 4.3.16 Latvia

The degree of compliance of the **manufacturers** with the Labelling Directive in Latvia is assessed as medium. The Consumer Rights Protection Centre (CRPC) is responsible for monitoring the correct information on the product fiche. The testing laboratory of the Faculty of Power and Electrical Engineering Environment Protection and Heating Systems Institute (Riga Technical University) tests 20 lamps each year. 90 % of the lamps are classified correctly. The CRPC is also responsible for monitoring the provi-

sion of the product fiche. Checks are conducted by the Regional Office of Riga Customs. Compliance is generally 95 %. The coloured label is provided by an official representative in Latvia. There are no controls. Compliance is assessed to be 50 %.

The CRPC also monitors **retailer** compliance. About 100 shops are chosen systematically every year. Compliance is 60 %. There are no controls of catalogue and Internet offers.

Non-compliance results in fines and warnings by the CRPC, about 10 prosecutions and 10 sanctions are recorded each year. This leads to stricter controls. The central government spends about 4,100 Euro per year on monitoring. CRPC suggests more testing at European level.

#### **4.3.17 Lithuania**

In Lithuania, the situation concerning **manufacturers'** compliance is assessed to be medium. The State Non Food Products Inspectorate under the Ministry of Economy is responsible for all energy labelling issues. It does not verify the correct classification, as there is no testing base in Lithuania. But it controls the provision of the product fiche and the label which both have to be supplied by the producer. For the product fiche, 95 % compliance is found, for the coloured label only 79 %. In order to improve the situation, more testing at European level is suggested.

The situation for **retailer** compliance is also monitored by the State Non Food Products Inspectorate. About 100 shops per year are selected systematically. 80 % compliance is found. Catalogue and Internet offers are not controlled.

About 16 warnings and 8 fines per year are announced by the State Non Food Products Inspectorate for non-compliance of manufacturers and retailers. The results of the monitoring lead to stricter controls and higher sanctions. Monitoring retailers costs the central government 16,700 Euro each year. More shop inspections could lead to a higher level of compliance.

#### **4.3.18 Luxembourg**

The **manufacturers'** compliance with the Energy Labelling Directive is assessed to be high in Luxembourg. ILNAS (previous Service de l'Energie de l'Etat) is responsible for the correct classification of the products. Five appliances (2 cooling appliances, 2 washing machines, 1 dishwasher) are randomly selected for verification. The verification is done by checking the technical file. 100 % are classified correctly.

The provision of the product fiche is controlled by market surveillance inspectors. Here, there is also 100 % compliance. The coloured label is normally supplied by the producers' association but also by the manufacturers. The market surveillance inspectors also check this obligation. They found 98 % compliance last year (2007).

In the case of non-compliance, warnings can be formally issued but in general this has been able to be resolved by warning letters. The identified non-compliance leads to stricter controls. The central government spends 1200 Euro per year on monitoring manufacturers' compliance. As compliance is sufficient, according to the ILNAS, there are no measures suggested for improvement.

ILNAS also controls **retailers** via shop inspections and information campaigns. 20 shops per year are selected at random. The percentage of compliance for all types of shops was found to be 95 % on average (100 % for electro super-stores and hyper-market/cash&carry), 80 % for electro specialists and 66 % for kitchen specialists/furniture stores). Some retailers mention problems with attaching the labels.

Catalogue offers are controlled but not Internet offers. The market surveillance officers randomly check about 50 offers per year and compliance is 100 %.

New legislation is being discussed for non-compliance in Luxembourg. So far, non-compliance has been able to be resolved by warning letters; the previous law did not contain any sanctions.

The annual cost for monitoring amounts to 1200 Euro for the government. More shop inspections could be done to improve retailer compliance. ILNAS as a whole is quite content with the current situation. The learning process by resellers has been finalised and the results reflect the effectiveness of the recent information campaign.

#### **4.3.19 Malta**

The level of **manufacturers'** compliance in Malta is assessed as medium. The Malta Standards Authority (MSA) is responsible for all energy labelling issues. The correct classification of products is not verified. However, the test reports of appliances are subject to desk verification by the Malta Resource Authority (MRA). Each producer has to provide the coloured label to the retailer but there are no controls. Retailers have complained that the manufacturers do not always supply them with the fiche and/or label.

In order to improve this situation, the MSA and MRA suggest more manufacturer inspections at national level, more testing at European level and a greater co-ordination and sharing of information between market surveillance authorities.

**Retailers'** compliance is not checked. But test reports are made for A categories and higher for cooling and washing appliances and for air conditioners. As consumer awareness of energy efficiency was very low until the recent increase in fuel prices, the government launched a scheme of grants to encourage sales of the above mentioned A-class appliances. The scheme came into effect on 1 November 2006 and the Malta Resources Authority was responsible for its management. The results are shown in Table 4-7.

Table 4-7: Percentage of sales by type of appliance and efficiency class

Category		2006 level of sales in Malta	2007 level of sales in Malta	2005 level of sales in EU 15
Refrigeration	A+, A++	10 %	29 %	8 %
Freezers	A, A+, A++	36 %	77 %	59 %
Air conditioners	A	16 %	44 %	Not available
Washing machines	A	75 %	86 %	85 %
Dishwashers	A	85 %	96 %	80 %

Source: Information from Malta Resources Authority (MRA) 2008

Some retailers do not know where to get the coloured label. There are no controls of catalogue and Internet offers and there are no sanctions. It was recommended that both fiches and labels should be available online on the manufacturers' websites.

#### 4.3.20 Netherlands

In the Netherlands, as in Luxembourg, the level of **manufacturers'** compliance with the Energy Labelling Directive is assessed as high. The correct classification of products is verified systematically. The Unit MOT/Ordering Belastingdienst/Holland-midden is responsible for monitoring the classification. The independent tests, however, are made by VDE Offenbach and TNO Apeldoorn. Approximately 75 appliances are tested each year, most of them refrigerators/freezers (20) and washing machines (16) followed by ovens (12) but also all other types of appliances. 98 % of them are classified correctly.

The coloured label is provided by the producers' association but there are no controls. The provision of the coloured label is not a problem as the label is distributed centrally and online ordering by retailers is free of charge.

The annual cost to the central government of monitoring manufacturers' compliance amounts to 300,000 Euro. More testing at European level could increase the level of compliance.



The above mentioned organisation is also responsible for monitoring compliance in shops (**retailer** compliance). The number of shops controlled amounts to about 658 per year; they are chosen randomly. More than half of them are kitchen specialists/furniture stores as these have the lowest level of compliance (81 %). Compliance of electro superstores is 100 %, electro specialists 92 % and hypermarkets/cash&carry 95 %. Catalogue offers are checked randomly, Internet offers not at all.

89 sanctions are applied each year; prosecutions are problematic because these cases have low or no priority with the public prosecutor. In many cases, providing more information and/or training the sellers is effective enough.

Monitoring retailers' compliance costs the central government 100,000 Euro per year. The results are published.

#### **4.3.21 Norway**

In Norway, the degree of compliance of **manufacturers** with the Labelling Directive is assessed as high. The Norwegian Water Resources and Energy Directorate (NVE) is responsible for monitoring the correct classification. Independent tests are carried out by the National Institute for Consumer Research in Norway (SIFO) in order to verify the classification. Six to ten appliances are selected systematically every year. Usually only one product group is tested each year. Since 2004, 48 appliances have been tested (17 refrigerators and freezers, 6 washing machines, 7 driers, 9 ovens and 9 lamps). SIFO claims that the wording in the test standards is not always very precise. Sometimes it can lead to misinterpretations. The percentage of correctly classified products is 90 %. But the percentage varies with the parameter tested.

The provision of the product fiche is controlled indirectly as part of shop inspections. NVE/SIFO believe there is a high degree of compliance. In the laboratory tests SIFO checked the fiche for some of the product categories. Their impression is that the fiches sometimes lack some of the required information.

The coloured label is provided by the national supplier in cooperation with the producers' association. Some retailers report that they have experienced problems in receiving the coloured label from the supplier. Some retail chains produce their own labels while other retail chain managements handle the distribution of the labels themselves. Some of these "home made" coloured labels have a slightly smaller format than the official label. NVE finds it inappropriate to declare the label invalid because of such a small deviation.

Non-compliance was found mainly for tumble driers. Tests of tumble driers reveal that programs are almost always longer than acceptable under test standards (i.e. beyond the 15 % tolerance). Manufacturers often underreport program duration. In some cases programs were 40 % longer than reported on the fiche. 4 out of 9 tumble driers had such unacceptable deviations.

Sanctions for non-compliance include warnings and publications. The results are published by the government and lead to policy measures (e. g. information campaigns). The central government has spent approximately 70,000 – 80,000 Euro per year on testing appliances since 2004.

NVE advocates more testing at European level. Manufacturers could contribute to a more effective monitoring of the energy labelling directive by using the same model name on the same appliance in different countries. This would facilitate the cross-border use of test results. But manufacturers would have to be willing to cooperate with the authorities on this issue. Today's practice of conducting tests at national level is not very cost effective. Monitoring could be much more cost efficient through cooperation, for example, in exchanging test reports at European level.

NVE is also responsible for monitoring retailer compliance, but the shop inspections are carried out by the National Institute for Consumer Research in Norway. About 100 shops are chosen systematically each year. Compliance was 40 % on average over the last four years. Retailer chains generally have a higher degree of compliance than single, independent retailers. In addition, retailer chains with a strict management have higher compliance than chains without that. Catalogue offers are not controlled, but there were sporadic controls of Internet offers in 2007. A low degree of compliance was found here.

The sanctions for non-compliance of retailers are the same as for manufacturers. The central government publishes the results and takes policy measures. The annual cost for the government amounts to approximately 35,000 Euro. NVE suggests more efficient sanctions at national level in order to improve the retailers' compliance with the Directive.

#### **4.3.22 Poland**

In Poland, the level of compliance of **manufacturers** with the Labelling Directive is assessed as medium. The Trade Inspectorate is responsible for monitoring manufacturer compliance, but there are no controls of whether the product is correctly classified, or whether the product fiche and the coloured label are provided. The Energy Regulatory Office is responsible for prosecutions and applying sanctions. KAPE sug-

gests more manufacturer inspections at national level in order to increase the level of compliance.

The Trade Inspectorate is also responsible for **retailer** compliance. The labelling in shops, catalogues or Internet offers is not controlled. However, KAPE did conduct a shop survey as part of the CEECAP project, verifying the labelling of all eight product groups in 20 large hypermarkets. Compliance was 54 % for refrigerators which is still not satisfactory according to KAPE, 39 % for freezers, 33 % for ovens and 0 % for air conditioners. Internet shops delivered better results. With the exception of tumble driers (74 %) and air conditioners (0 %), all other product groups had over 90 % compliance. KAPE used these results in publications (brochures and information leaflets), and for TV and radio programmes.

Fines or prosecutions in the district court are possible for non-compliance. KAPE advocates more shop inspections and training for retailers. The retailers should receive training in their obligations and the environmental and economic benefits of energy-efficient appliances. They should have enough knowledge to be able to pass on information about the importance of energy classes to potential customers.

#### **4.3.23 Portugal**

The degree of **manufacturers'** compliance in Portugal is assessed to be high. The Food Safety and Economic Authority (Autoridade para a Seguranca Alimentar e Económica) is responsible for the monitoring of the correct information on the product fiche. The classification is not verified and there are no controls that the product fiche is provided within the product documents. The coloured label is provided by each producer. This is not verified by the authority. Responsible for prosecution and applying sanctions is the CACMEP, the Commission to impose fines on economic matters and advertising. The central government bears the annual cost for monitoring. To improve the situation, the Food Safety and Economic Authority suggests more testing at European level and stricter quality controls on products from outside of the EU borders.

Concerning the **retailers'** compliance, the Food Safety and Economic Authority is responsible for the monitoring. It carries out visits to shops that are chosen randomly.

#### **4.3.24 Romania**

In Romania, the degree of **manufacturers'** compliance with the Labelling Directive is assessed as high. There are two government institutions responsible for compliance with the Energy Labelling Directive: The Romanian Agency for Energy Conservation (ARCE) and the National Authority for Consumer Protection (ANPC). They either con-

trol the correct classification of a product or the correct display of the label in the shops. In general, the correct classification is checked by verification of the technical documentation. In the technical documentation, the conformity declaration and the test report, manufacturers usually indicate a correct classification of their product. Only in one per cent of cases is the information included in the product fiche different from that in the technical documentation.

The correct labelling by **retailers** is controlled by inspections in shops and surveys. More than 1,300 appliances are controlled each year, mainly in electro superstores and in electric specialist stores but also in kitchen specialists/furniture stores and hypermarkets/cash&carry. Kitchen specialists have the lowest degree of compliance at 74 %; in general, 88 % compliance is achieved. No controls, however, are made for catalogue and Internet offers.

If non-compliance is discovered, fines and warnings are the consequences. About 250 sanctions are registered every year, mostly for lamps and washing machines, followed by refrigerators and air conditioners. The results of monitoring the energy labelling compliance are published and policy measures like information campaigns (for example the CEECAP project) are launched. In addition, the Romanian government uses evaluations of energy savings and CO<sub>2</sub> reductions in order to show the success of the labelling. ARCE needs 15 to 20 % of its budget for monitoring compliance with the Energy Labelling Directive.

In order to improve compliance with the Energy Labelling Directive, ARCE suggests more shop inspections and continuous training of retailers. The CEECAP/EIE project was a success and a good example for training policies.

#### **4.3.25 Slovakia**

According to the CEECAP brochure, energy labelling in Slovakia is still an ongoing process. The Ministry of Economy, the Slovak Energy and Information Agency, the State Inspection of Energy, Ministry of Environment and Slovak Trade Inspection are involved in this process. The Slovak Trade Inspection is responsible for monitoring manufacturers' and retailers' compliance. But there are no controls concerning the correct classification. According to the answers in the questionnaire, it is checked that the product fiche is provided with the product documents and that the coloured label is supplied to the retailer. But the results are not included in the Slovak information system. Nevertheless, the level of compliance of **manufacturers** with the Labelling Directive is assessed as high. The results of the controls are used to launch policy measures and to inform the manufacturers. The central government bears the monitoring costs,

but the annual cost is not shown in the Slovak information. In order to improve manufacturers' compliance, the Slovak Trade Inspection requests more inspections at national level.

The **retailers'** compliance is also verified by the Slovak Trade Inspection. But shops inspections are only made after complaints. The inspections showed that retailers are labelling their products in black and white, not in colour. Figures on compliance are not available. Catalogue and Internet offers are not controlled.

Fines and warnings are possible in the case of non-compliance, but no figures are given. Within the scope of the CEECAP project, retailers concluded that consumers only partially understand labelling issues. This may be behind the suggestions of the Slovak Trade Inspection in the questionnaire to focus on more detailed information campaigns for customers.

#### **4.3.26 Slovenia**

In Slovenia, the level of compliance of the **manufacturers** with the Labelling Directive is assessed as medium. The Market Inspectorate, which falls under the Ministry of the Environment and Spatial Planning, Department for Energy Efficiency and Renewable Energy, is responsible for monitoring manufacturer compliance, but there are no controls, of whether the product is correctly classified, or whether the product fiche and the coloured label are provided.

The Market Inspectorate is also responsible for **retailer** compliance. Controls are in the form of shop inspections. The shops are chosen systematically and randomly. The last inspection was in 2005. It revealed that manufacturers were providing the labels but the retailers were not displaying them.

#### **4.3.27 Spain**

**Manufacturers'** compliance with the Labelling Directive in Spain is assessed to be high. The Ministry for Industry, Tourism and Trade filled in the questionnaire (Instituto para la Diversificación y Ahorro de la Energía, IDAE). The government authority is responsible for the verification of the correct classification. It orders tests according to scheduled tasks or if there is doubt that an appliance has not been classified correctly. The accusations are always attended, it is a normal practice among manufacturers. There is strong competition in this sector. The products are not selected exactly at random. It is foreseen to test all commercial models but if a certain model always shows correct classification, testing is concentrated on possible "liars". If, for example, the products of one manufacturer have shown deviations in previous years, they are

checked and tested again. Between 15 and 20 appliances are tested annually, depending on the year. The mix of products varies from year to year in order to cover all types of appliances. Tests are carried out by official laboratories authorised by ENAC. In Madrid, this is the LCOE. It is recommended to co-operate with an accredited laboratory. Approximately 60 percent of appliances are fully correct. Several appliances of the remaining 40 percent show variations in energy consumption (capacities, volumes etc.). IDAE underlines that products are selected based on “suspicious” cases and not at random.

IDAE points out some difficulties concerning the standards for testing. Especially when current standards for measuring certain energy parameters have changed, it is difficult to argue with the manufacturer as the standards used for testing have often not yet been modified due to former Directives regulations.

The national and regional authorities are responsible for monitoring the provision of the product fiche. Controls conducted by national and regional authorities show 95 percent compliance. The producers' association is responsible for the provision of the coloured label. But controls are made mainly by regional authorities. If the label is not displayed in the shop, regional authorities sometimes ban the manufacturer, even though the retailer is responsible for placing the label, the manufacturer only has to deliver it.

There are several cases of non-compliance each year with deviations in the product fiche apart from energy classification. In the case of non-compliance, the products are fined and the results made available to the other 16 regional governments. IDAE also performs market surveillance for PLAN RENOVE (IDAE economic aid for substituting an inefficient appliance by a more efficient one). If a product does not comply with the energy class or if other information is incorrect, it is withdrawn from the list of appliances sponsored under PLAN RENOVE. So fines and publication are the sanctions used for non-compliance. Both national and regional authorities are responsible for applying sanctions. Prosecutions of approximately 8 appliances are made each year. Concerning the sanctions, the regional authorities are responsible for the fines. IDAE has no data on this. Approximately 6 appliances per year are withdrawn from the list of appliances falling under PLAN RENOVE.

In Spain, compliance monitoring results in stricter controls and higher sanctions. The central and regional governments as well as associations spend about 45,000 Euro on monitoring. This amount varies a little from year to year, but is not sufficient to cover a significant part of the market. Therefore, IDAE pleads for more manufacturer inspections at national level as well as for more testing at the European level. Market surveil-

lance throughout Europe and good co-ordination among Member States are essential. Additionally, inspections at customs is also necessary.

Controls concerning labelling, especially **retailer** compliance, are organised in Spain at a regional level, similar to Germany. There are 17 regions responsible for the monitoring. Therefore, IDAE has no data on the results of shop inspections. The shops are chosen at random, the checks are carried out by inspectors from the regional authorities.

Catalogue and internet offers are generally not controlled, only if there are claims from other manufacturers. The regional authorities carry out the control, but it is not known to what extent as they usually do not publish information on the results of their market surveillance campaigns. The regional governments bear the cost of monitoring retailers' compliance, but the amount is not known. IDAE suggests more shop inspections and European campaigns to inform retailers about their obligations to display the label. Financial aid is needed for the inspections.

Since April 2006, IDAE has its own database on energy-efficient appliances at its website ([www.idae.es](http://www.idae.es)). It serves as general consultation for Spanish consumers. This database offers about 9,000 records. IDAE carries out several tests each year in order to control the database. Due to a very small budget, these inspections are not as intensive as required. The results for 2007 and 2008 are the following:

Table 4-8: Testing results by IDEA in 2007 and 2008

2007		
Appliance	Failure	Correct label
6 washing machines	2 for water consumption 3 for washing aptitude 1 for both	
7 refrigerators	4 for volume deviations 1 showing a lower value of energy consumption	2
1 freezer	1 for volume deviations	
1 dishwasher		1
2008		
4 refrigerators	1 failure	3
2 washing machines	1 for water consumption and washing aptitude	1
3 electric ovens		3

#### 4.3.28 Sweden

In Sweden, the degree of compliance of the **manufacturers** with the Labelling Directive is also assessed as high. The Swedish Energy Agency controls the correct classifi-

cation of household appliances in independent tests. The number of products tested varies from year to year. There are only a couple of product groups tested each year. The focus up to now has been on refrigerators, freezers, washing machines and tumble driers. The Swedish Energy Agency, the Energy Management Department and test laboratories conduct the tests. The problem is that the tests are time consuming and if three samples of the same model have to be tested, it often happens that this model has since been taken off the market.

The largest deviation between labelled and measured energy consumption was found when the labelling system was new. Other problems are the narrow ranges between the energy efficiency classes in combination with the huge tolerances for deviation. This fact results in models deviating by one class or more but still being within the allowed tolerances. The Swedish Energy Agency also discovered that there have been large differences between the information printed in different manufacturers' brochures and that not all the requirements are fulfilled.

The Swedish producers' association EHL co-ordinates the printing of the label. Each member pays a certain amount related to their market share, but each retailer orders the labels from his supplier. Some retailers complain that they have difficulties getting the label from the manufacturers (sometimes the suppliers do not send enough coloured labels or it takes too long).

The central government pays 50,000 to 300,000 Euros per year for monitoring manufacturers' compliance. Besides the suggestion to increase the number of manufacturer inspections at national level, there is a shared ambition to co-operate more with manufacturers at a Nordic level when it comes to non-compliance.

Concerning the **retailers'** compliance, the Swedish Energy Agency systematically checks the labelling in the shops. The agency made a survey in 2006 of the last ten years of energy labelling in Sweden. The results are documented in "Ten years of Energy Labelling of domestic appliances 1995 – 2005" (Swedish Energy Agency 2006). According to the questionnaire, the number of shops visited by the regional energy centres varies from 20 to 246 per year according to a changing control strategy (focus on the ten biggest retail chains or on kitchen specialists etc.) In the last two years, the focus was more on re-inspections: If poor labelling was found in a shop, this shop is re-visited some months later. The results of these efforts seem to be good. As it is not possible to inspect all the shops in the country, it is important to reach the head of retail chains and to have regular meetings.

The labelling compliance of refrigerators and freezers was 92 % in 1998 and 70 % for electric ovens in 2005.



Catalogue and Internet selling of appliances is very rare in Sweden so there are no inspections here. But the Internet is an important source of gathering information before going to a shop so the Swedish Energy Agency will put greater efforts into monitoring Internet selling in the future.

Sanctions in the case of non-compliance include fines and a public listing of offenders. The fines vary depending on the percentage of unlabelled appliances and the total number of appliances in the shop. 50 % of shops do not label correctly so might be fined. But as re-inspections take place first, in most cases, labelling is much improved the second time, so the Swedish Energy Agency does not need to go to court to apply a fine. There is only one known case where the retailer was fined 23,000 Euro.

The annual cost of compliance monitoring ranges from 50,000 to 200,000 Euro. The central government bears this cost. More shop inspections could improve retailer compliance, according to the Swedish Energy Agency.

#### **4.3.29 United Kingdom**

In the United Kingdom, the degree of **manufacturers'** compliance with the Labelling Directive is assessed as medium. The UK Local Authority Trading Standards Officers are responsible for monitoring the correct classification. The UK Market Transformation Programme has carried out a number of spot checks over the last seven years on products selected at random and tested in independent labs. The number of products tested each year varies from year to year between 20 and 100. All product groups are tested. Wherever possible, the laboratories were accredited to ISO/IEC 17025. The tests are time consuming, expensive and it is difficult to find specialist laboratories. Typically, only 10 % are classified correctly, but the tolerances are too large, so that 80 % are classified correctly if the 15 % tolerance limit is applied. As a result, the "permitted" tolerances are often used by default. The application of generous tolerance ranges results in most products being classified one grade higher on the label.

The Trading Standards Institute is responsible for monitoring the provision of the product fiche but there are no controls. Nor are there any controls of the provision of the coloured label to the retailer. The producers provide the retailers with the basic coloured label.

The results of monitoring energy labelling compliance are published and serve as basis for a dialogue with industry, to support a network of compliance stakeholders and develop future compliance policy. The Market Transformation Programme has a budget of £250k. Both central and regional governments share these costs. The total UK budget is not known.

More manufacturer inspections at national level and more testing at European level could improve compliance. Furthermore, it would be helpful to have all technical files available to enforcement staff in real time via the Internet.

The Trading Standards Officers are responsible for monitoring **retailer** compliance. 4,000 products are surveyed every two years by MTP based on a semi-systematic selection of all types of stores. The overall compliance with labelling was 80 to 85 %. National chains show a higher level (88 %) than others (67 %). The most frequent response from retailers not displaying the label was that they did not know it should be displayed (particularly true of ovens). The next most frequent response was that the label had not been received from the suppliers. MTP also carries out systematic controls of Internet offers every two years. They find differences between the different types of products. The compliance of cold and wet appliances is higher than the average, but lower for lamps. Furthermore, it was observed that distance sellers show a high level of compliance (90 %) with the energy class, except lamps, but generally lower compliance with the other information required.

The results of the monitoring are used to launch policy measures (e. g. information campaigns). MTP spends £ 30k every two years on monitoring paid for by the central and regional governments. The total UK costs are not known. The information given in the Impact Assessment Study on the annual costs for monitoring and enforcing the Energy Labelling Directive was £100 – 150k spent by DEFRA and £50k by the Energy Saving Trust.

Information campaigns and a high profile use of sanctions could improve compliance. On the other hand, it should be easier for retailers to obtain labels when these are missing or have been lost. MTP will publish its archive results for compliance monitoring during Q2 of 2008 at this address:

<http://www.mtprog.com/Compliance.aspx>.

## **4.4 Results of the interviews with other stakeholders**

### **4.4.1 Manufacturers' associations**

The manufacturers' point of view is a different one. They are most interested in two aspects: a high level of compliance among producers and especially in the correct classification of appliances as the classification of energy efficiency represents a marketing instrument for them and offers them the chance to improve their competitiveness. Their main concern is the correct classification of appliances imported from out-

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side the EU. They favour more controls, quicker intervention and stricter sanctions in the case of inaccuracies.

There is a voluntary agreement among the European original equipment manufacturers (OEM) to be in line with the Energy Labelling Directive. This tended to result in the correct classification of a new product as competitors would check the technical data of new models. This system of voluntary self control among producers worked quite well for some time; the level of errors was very low. But the market has since changed and, nowadays, imports from countries outside Europe are becoming increasingly important. These “foreign” appliances are also subject to be classified according to the Energy Labelling Directive. But correct classification is not guaranteed which can lead to a distortion of competition for European manufacturers. If an appliance classified as A+ has in fact the energy consumption of a B appliance (which recently happened with an import product), the EU is defrauded with regard to its energy savings and CO<sub>2</sub> reduction target and consumers are swindled as they pay much more in electricity costs than they would for a real A+ appliance. This is also a matter of consumer protection. And once doubts have been raised about the correctness of the EU energy labelling system, the whole system is in danger. The problem is that tests cost a lot of money and are very time consuming. Even if there is reasonable doubt about the correctness of a classification, three samples of the same model have to be tested and in the meantime, appliances are still being sold with the wrong classification.

In order to improve the situation in Europe, the responsibilities have to be clearer, especially in the case of Germany according to the manufacturers' associations. Human and financial resources should be increased. Testing one refrigerator costs about 1,000 Euro. As three samples have to be tested, the cost rises to 3,000 for the tests alone and to about 5,000 Euro including staff and organisation costs. Testing a washing machine is even more complicated and more expensive. Therefore it is recommended that testing should be done at European level. The transparency of the process and the testing should be guaranteed. If incorrect classification is detected, follow-up procedures have to be accelerated so that the market surveillance authorities in Europe can intervene quickly. Sanctions should be stricter. Another problem is the reliability of laboratories.

Therefore, administrative questions have to be answered at national and European levels. The sharing of information, European-wide, is crucial as is the need for legal transparency.

#### 4.4.2 Non-governmental organisations

Some of the most important non-governmental organisations, ANEC, Greenpeace, WWF as well as the Federation of German Consumer Organisation, vzbv, were contacted by telephone and e-mail. Furthermore, the editors of the German consumer test magazine "Stiftung Warentest" were contacted. They have all shown interest in the compliance project. INFORSE Europe also showed interest in completing the questionnaire, but finally referred us to WWF. WWF, however, has not yet returned the questionnaire, although the responsible party intended to do so. In the following results, the positions of other NGOs, like ECEEE or the DUH (Deutsche Umwelthilfe), are also taken into consideration.

Additionally, the consumer organisation of North Rhine-Westphalia was contacted as this is very active concerning energy labelling issues (see country report for Germany).

The degree of **manufacturers'** compliance with the Labelling Directive is assessed as medium to high. The NGOs mainly criticise the classification, the fact that technological progress is not considered. In some product groups, the classification no longer reflects the state-of-the-art, especially cold appliances, but also washing machines and air conditioners. Regular re-classification is urgently necessary.

Another point is the tolerance for testing which impedes a clear assignment to an energy efficiency class. ANEC advocates, together with the other NGOs, the use of additional measures to increase the accuracy of testing and to improve the accuracy of the information declared on the labels. According to them, the currently permitted 15 % tolerance is unacceptable and should be significantly reduced. Also in the study of the Nordic countries, the test methods are a point of discussion as they do not always correspond to the actual use of the appliance. Energy consumption, however, is closely linked to consumers' behaviour. Additional information to the consumer could be helpful.<sup>10</sup>

In order to improve manufacturers' compliance it was suggested, first, to expand the testing at European level, and second, to increase the number of manufacturers' inspections at national level. "Stiftung Warentest" pointed out the problem of new regulations and amendments of the Directive. These should be accompanied by information campaigns and training at national and European levels. ANEC, the European consumer voice in standardisation, even goes one step further: Some of the current problems could be solved by requiring manufacturers to take on more obligations, e. g. by

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<sup>10</sup> Nordic Council of Ministers: Impact of energy labelling on household appliances, Copenhagen 2007.

integrating labelling into the manufacturing process (also suggested by a Member State) and by requiring manufacturers to provide third party test reports for a number of appliances in each production series. The selection of these products should also be done by a third party organisation.

Another aspect is the typical consumer use of products. The test methods should be based on this otherwise the intended energy savings will not be achieved in practice. Information on the most relevant performance aspects should be included on the label.

The NGOs are not at all satisfied with the level of **retailers'** compliance. They refer to the structure of responsibilities, especially in Germany, and complain about the often careless attitude of some retailers and retail chains (in some countries only 60 %, in others 70 – 80 %). Some retailers still do not know where to get the label, attaching it is time consuming and staff intensive and, especially in kitchen studios and furniture stores, the label is often missing for the reasons cited. Also small stores in remote areas have more compliance problems than larger shops in urban areas. One reason the retailers do not have much motivation to emphasise the energy label is that consumers no longer pay attention to it. They have lost interest as it has become difficult to distinguish between the energy classes due to the lack of regular revision.

Concerning Internet shops and eBay power sellers, compliance seems to be even lower, in particular regarding the display of B or C classes. As Internet selling is likely to increase, it should receive particular attention. Therefore, the NGOs plead for more shop inspections and stricter sanctions. The Member States could be obliged to include a specific number of inspections at the point of sale or a specific number of appliances to be tested annually in their monitoring responsibility. One NGO would like to see regular, systematic and unannounced controls, and sanctions in the case of repeated non-compliance.

In order to achieve this target, intervention from the European Commission is requested. The market surveillance by the Member States should be considerably strengthened through collective European action supervised by the Commission. Concrete, annual, national minimum targets for market surveillance ought to be elaborated at EU level and should include shop inspections. In Germany, compliance should also be monitored on a national level to end the fragmentation and the unreliability of the different monitoring procedures.

Furthermore, vzbv thinks that the labelling scheme needs to be flanked by other policy instruments in order to achieve its full potential. Efficient appliances are often considerably more expensive. This represents a barrier to consumers. Experiences from

Denmark and the Netherlands show that subsidizing the purchase of efficient appliances can significantly enhance their market share.

The study of the Nordic countries also reveals the link between the energy consumption of an appliance and its overall performance. Sometimes, the focus of energy reduction impairs the washing performance of washing machines or dishwashers or the freezing time of an energy efficient freezer.

To summarise the NGOs' view of the energy labelling scheme, they see it as quite positive. They think that the energy labelling scheme has promoted energy-efficient appliances on the market and thus contributed to CO<sub>2</sub> reduction. So the scheme is, from their perspective, a reasonable policy instrument to reduce electricity consumption – under the provision that the scheme will be revised. So it should remain in force in order to further reduce electricity consumption. The NGOs also opt for an expansion of the Energy Labelling Directive to include other household appliances.

Regarding consumers, the NGOs believe that end-customers trust the information provided on the label but that their understanding of the information may be only medium to high. In this respect, more information activities would be sensible since the label needs to be understood and trusted for the scheme to operate successfully.

According to the consumer organisations, consumer protection is the most important issue. Therefore, transparency of the product information is paramount. Transparency and information foster consumers' awareness of energy efficiency which then leads to greater sales of energy-efficient appliances which is the objective of the Energy Labelling Directive. This will ultimately result in the reduction of electricity consumption and thus also a reduction in CO<sub>2</sub> emissions.

The Energy Labelling Directive has, in the meantime, been extended to other product groups. The energy certification of buildings and new passenger cars is subject to the same A-G classification. The NGOs therefore opt for keeping this design in any upcoming and necessary revision of the labelling Directive.

## **5 Conclusions and recommendations**

### **5.1 Conclusions from the survey in retail trade**

With regard to compliance with the Energy Labelling Directive among retailers in shops, an overall compliance indicator was developed taking into account all the compliance criteria: completeness of the labelling, placing of the label, visibility and originality of the label. The resulting total share of correctly labelled appliances – i.e. those in full accordance with the Directive - across all 29 countries included in the analysis amounts to 61 %. There are, however, huge differences between countries: the share of correctly labelled appliances ranges from below 10 % in one country up to 90 % in Norway. This implies that country-specific action is necessary.

By type of appliance, the share of correctly labelled appliances was relatively high for the large white appliances (between 62 and 70 %), whereas the main problems occurred in the case of electric ovens (45 %) and air-conditioners, which had the lowest level of compliance (26 %). This means that there is a clear difference in the degree of compliance between those appliances for which the Implementing Directives came into force more than 10 years ago and electric ovens and air conditioners, for which the Implementing Directives were only adopted in 2002. There seem to be information deficits in the retail trade on the necessity of the labelling, especially for these two appliance types. The share of appliances without any label at all was relatively high for electric ovens and especially for air-conditioners; otherwise mislabelling tended to dominate (i.e. an appliance was not correctly labelled). The main shortcomings besides the label missing completely were the incompleteness of the label (only data strip available) and the wrong placement of the label or data strip (mainly inside the appliance or still in the bag). There are, however, some country-specific failures (e.g. the lack of the data strip in a very high number of cases in Iceland) which differ from the general picture and have to be tackled at the national level.

With regard to the overall compliance by type of shop, the highest share of correctly labelled appliances was found in department stores (69 %) and electro superstores (66 %), i.e. in the big chains, whereas the lowest share of correct labelling (39 %) was observed in kitchen and furniture stores, i.e. sales channels where visual viewpoints are very important for sales promotion. According to the survey results, especially kitchen and furniture stores are very concerned about the appearance of the kitchens on display and therefore often place the labels or data strips inside the appliances and not on top or in front as demanded by the Directive. It seems that the regulation in its current form is least suited to this channel of distribution and is thus less accepted than in other parts of the retail trade.

For household lamps, the implementing Directive prescribes that the label shall be placed or printed on, or attached to, the outside of the individual packaging of the lamp without being obscured. The survey showed a very high level of compliance in the case of household lamps, on average above 90 %. There were only small differences between the countries here.

The worst result of the survey of the retail trade was observed for mail order and Internet stores. On the whole, only 5 % of appliances were correctly labelled in accordance with the Directive, which means that the mandatory information was provided completely and in the stipulated order. The main failings were not missing, but incomplete information or not shown in the right order. Though the general level of compliance was relatively low in all countries, the share of correctly labelled appliances varied between 41 % in Denmark and zero in the case of a considerable number of countries. It seems that though there is a general willingness to inform buyers on the part of the retailers, the large amount of information required by the Energy Labelling Directive and the stipulated order cause difficulties for this channel of distribution.

The interviews revealed a positive attitude among the majority of retailers in shops, both towards energy efficiency in general and the labelling of appliances in particular. Overall, the energy label was regarded as useful for the sales process. The effort required for labelling on the part of the retailer was not assessed as negligible, but as relatively minor. Not satisfactory was the low degree of additional information on labelling which was only provided in 20 % of the shops. This percentage was considerably higher in countries outside Europe (Russia, Australia, Brazil, China, India, Japan, USA), where similar retailer interviews have been carried out by GfK which could be compared with the results for the EU Member States.

One important result of an additional statistical analysis within this study was that the existence of a regular store check has a positive influence on the share of correctly labelled appliances. In the retailer interviews, a regular check of the labelling by the store manager was confirmed by more than three quarters of the respondents, whereas this figure is considerably lower regarding checks by an official institution.

## **5.2 Conclusions from the Member States' survey**

With regard to the **enforcement authorities** of the Member States, one main result of the survey was the fact that only a few regular and systematic controls of compliance with the Energy Labelling Directive are carried out with regard to the correct classification of appliances, whereas most countries stated that they carried out shop inspections to monitor the retail trade. But only a few Member States could provide detailed



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information about their monitoring of the compliance with the Energy Labelling Directive, including results of their controls and percentages of compliance at the level of type of appliance and type of shop. One reason was that checks are often only made in reaction to complaints or that the most recent survey is already relatively old.

One major problem is the verification of the correct classification as this is expensive and time consuming. Not all countries, therefore, are able to order tests in independent laboratories. Those countries, who carry out tests, point out that the test standards do not always harmonise with the actual use of the appliance and that the test methods should develop as fast as the appliances themselves. As the voluntary agreement among European manufacturers on correct classification seems to work well and compliance is assessed as high, the focus should mainly be on products from outside the EU. More than half the Member States demand tests at a European level. The results should be available to the enforcement authorities.

There are very large differences in resources used for market surveillance between Member States. The Netherlands and Denmark e.g. spend about 300.000 Euro annually, while a number of countries do not spend anything at all. Similarly, some countries make 60-70 tests annually while others do not make any tests. It is, however, difficult to assess and compare Member States' market surveillance activities since the degree to which Member States test appliances with the objective of measuring compliance of a product against several Directives (several requirements) varies strongly.

Another important point derived from the Member States' survey concerns the provision of the product fiche and the coloured label. The organisation of these two parts of energy labelling is often confusing for retailers. Some countries suggested setting up one single contact point (e. g. via the website of the manufacturer or delivery ex works) in order to facilitate the provision of the fiche and the label. This view is in line with the results of interviews with the store managers carried out in this study. Problems with the handling of the coloured label and the product fiche were cited by a significant number of respondents.

The assessment of the level of retailer compliance by the Member States' authorities varies widely among countries. The lowest level of compliance across all countries was found for kitchen and furniture specialists regarding the type of shop and for air conditioners regarding the type of appliance. This assessment is confirmed by the retail trade survey carried out in this study. The majority of countries advocate more shop inspections and hope that information campaigns will have a positive effect. But these activities are associated with high costs so that monitoring compliance with the Energy

Labelling Directive is often not assigned the same high priority as food controls, for example.

From the point of view of the European **manufacturers**, the labelling scheme represents a factor of competitiveness and a driver for innovation. The manufacturers' associations, however, addressed their concerns about cheap imports of white goods from outside the European market. They fear a distortion of competition due to incorrect classification. As there is no control at European level before white goods from outside Europe are introduced onto the European market, some foreign producers may falsely classify their goods. Another important point for manufacturers is the scale of the labelling scheme. They would like to have an open scale in order to reflect technological progress.

For **NGOs**, the most important aspect is accurate and understandable product information for consumers. People should be able to clearly identify the top class appliances within the labelling scheme. Therefore, the classification has to be made in such a way that this is possible (clear assignment to the energy efficiency class and correct classification). If the product is correctly and clearly classified, the consumer needs to be informed about it. Therefore, NGOs also believe retailer compliance is very important and are very critical of non-compliance at this level. Another relevant point, which was also mentioned by some of the Member States, was that the tolerances for defining the label classes should be reduced in order to facilitate clear assignment to the energy efficiency classes.

There are some important aspects of energy labelling where the majority of the stakeholders and authorities included in this survey shared a common view:

- Energy labelling can only be effective if the classification is regularly updated in line with technical progress. The stakeholders have different views about the best way to do this. Whereas NGO's prefer to keep the A-G scheme, because it is well-known among consumers, the manufacturers would prefer a new open classification scheme. The retailers, who were also asked how to adapt the label to technical progress, had differing views.
- More independent tests of the correct classification of appliances both at a national and at a European level and access to the results, at least for the enforcement authorities in the Member States, are requested by all groups. This is important both for consumer confidence in the labelling scheme and for the competitiveness of those producers who classify their products correctly.

### 5.3 Recommendations

One main result of the survey was that only few regular and systematic controls of the compliance with the Energy Labelling Directive with regard to the correct classification are carried out in the Member States. And though most of the countries state to make shop visits in retail trade, these controls are made often only on complaints and only few information is available on these checks. In addition, there are very large differences in resources used for market surveillance between the Member States.

On the other hand, the demands on market surveillance will increase in future due to the planned revision of the Energy Labelling Framework Directive 1992/75/EEC and the foreseen implementing measures under the Ecodesign Directive 2005/32/EC. Since the Article 3 of the Ecodesign Directive creates the legal basis to require an improved market surveillance on energy-using products at the level of the Member States, an alignment of the market surveillance efforts with regard to both Directives would seem advisable. This is even more obvious, since as far as the content is concerned, both Directives are strongly connected. Minimum efficiency standards and labelling can be regarded as complementary instruments in the way that standards remove the less efficient products from the market and the label gives an additional incentive to produce and to buy the most efficient appliances. This view was already shared by the majority of the stakeholders from some Member States which were interviewed with regard to a possible revision of the Energy Labelling Directive in 2007 (Europe Economics et al. 2007). One important result of this survey on compliance, which comprised all Member States, was that especially the surveillance of the correct classification of the appliances by the manufacturers is seen as both a national and a European task. Especially the smaller countries where household appliances tend to be imported need European support. This means that the necessary improvement of market surveillance in the Member States both covering the Energy Labelling and the Ecodesign Directives should include support from the European Commission as far as possible.

The need to improve both the cooperation on market surveillance and the market surveillance action itself will even increase from 2010 onwards, since the Member State market surveillance will face new requirements when the Regulation on Market Surveillance (2007/0029/COD) comes into force, setting out the requirements for accreditation and market surveillance relating to the marketing of products.

The effort to improve the market surveillance with regard to energy-using products in such a way, aligning the requirements of the Energy Labelling and the Ecodesign Directives, involves the following items:

- Organization of the process of market surveillance within the Member States including finances, legal implementation and organisation of the test procedures for energy-using products and of shop inspections with regard to the labelling of appliances.
- Organization of the co-operation between the Member States.
- Organization of the support on EU level, both including organizational and financials issues.

For all these items, it can be an efficient way to make use of already existing surveillance experience both within the EU Member States and in countries outside Europe as much as possible. With regard to the latter, especially the work done by the Australian market surveillance authorities may be a good overseas learning opportunity. Enforcement and check testing is an essential part of the Minimum Energy Performance Standards (MEPS) Regulations in Australia<sup>11</sup> and the reinforced market surveillance has shown to be very cost-efficient (Falkner/Slade 2008). The market surveillance approach which is followed in the United States in case of Energy Star<sup>12</sup>, could be interesting, too. Though this kind of surveillance approaches might be difficult at the European level, since there is no legal power for the enforcement, this might work on the Member State level and might also be an example how to organise the administrative cooperation between the Member States' authorities.

A good example for an international co-operation and interaction in the field of electrical equipment is the new "4E" IEA Implementing Agreement.<sup>13</sup> Especially the project on electric motor systems under the 4E programme will also include extensive work on testing centers at an international level<sup>14</sup>. With regard to the organization of market surveillance and test procedures in the Member States, support is also expected from a new project under the Intelligent Energy Europe (IEE) 2008 programme on that issue. The new "Athlete" project will explore how market surveillance and testing can be done in a systematic, effective and cost-efficient way.

One possibility to improve the co-operation of the Member States could also be the creation of an AdCo group (Administrative Cooperation of MS Market Surveillance Authorities) on energy-using products covering both the Ecodesign and Energy Labelling Directives. An AdCo is a network of regulatory agencies and market surveillance au-

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11 <http://www.energyrating.gov.au/meps1.html>

12 <http://www.energy.gov/news/6743.htm>

13 <http://www.iea-4e.org/>

14 <http://www.motorsystems.org/>

thorities across Europe aimed at sharing best practice in product safety enforcement. For example, a recent action taken under the LVD AdCo (Low Voltage Directive Administrative Cooperation) by MS' market surveillance authorities show that this type of action can increase the efficiency of market surveillance. Within the EU Member States, for example, the Finnish Market Surveillance Authority (Tukes) and Defra in UK have gained experience in coordinating MS authorities' action under the Low Voltage Directive. Since both are doing progressive work on labelling and EuP compliance, too, this experience could be used for the coordination of such a group.

Based on the results of this study, the possible tasks of an AdCo group on energy-using products could include:

- Identifying and networking market surveillance actors in Member States and in relevant third countries based on the preparatory work already done in this study. The IEA could be a potential partner for linking with third countries;
- Active sharing of information in order to facilitate the work of Member States that have little experience in compliance testing, including possible financial support from the European Commission.
- Creating a 'Test Fund' based on possible funding from the IEE programme. Sharing the test results between Member States would help minimising test costs, as overlapping could be avoided and compliance tests be focused, when/if necessary, on most relevant products and Member States/regions.
- Consider dividing work and sharing of information on appliance testing based on the existing practices of various Member States in order to increase cost-efficiency and avoid possible overlapping tests. For example, appliances in MS markets may be sufficiently similar in some groupings of geographically closely situated Member States, such as in the Nordic Member States (where some regional cooperation between market surveillance authorities is under planning) to allow reinforced and targeted 'regional' cooperation;
- Develop an efficient way to notify the Commission in accordance with the Regulation on Market Surveillance;
- Developing a 'one-stop-shop' web site on market surveillance and compliance testing on energy-using products with links to existing databases and web sites by national Market Surveillance Authorities and Test laboratories. The new "Athlete" project may be helpful in this respect;
- Developing criteria and indicators (Euros spent, number of tests, notifications and warnings made, fines imposed etc.) on the basis of which market surveillance action can be assessed and compared, including criteria and indicators for test houses, if possible. This would prepare the grounds for the implementation of the Regulation on Market Surveillance (e.g. peer review, obligations to provide and share information) and for the judgement whether authorities have been provided with necessary

resources and powers for their surveillance activities (Art. 3.2 of Ecodesign Directive).

- Exchange good practice and develop efficient mechanisms for cooperation between market surveillance authorities and manufacturers and suppliers to prevent the placing of the market of non-compliant products. In this respect, several Industry Associations have indicated interest in concretely supporting the Market Surveillance Authorities.
- Develop mechanism for cooperation with customs authorities in order to efficiently keep each others informed, and to take appropriate action based on the information received (Regulation on Market Surveillance).

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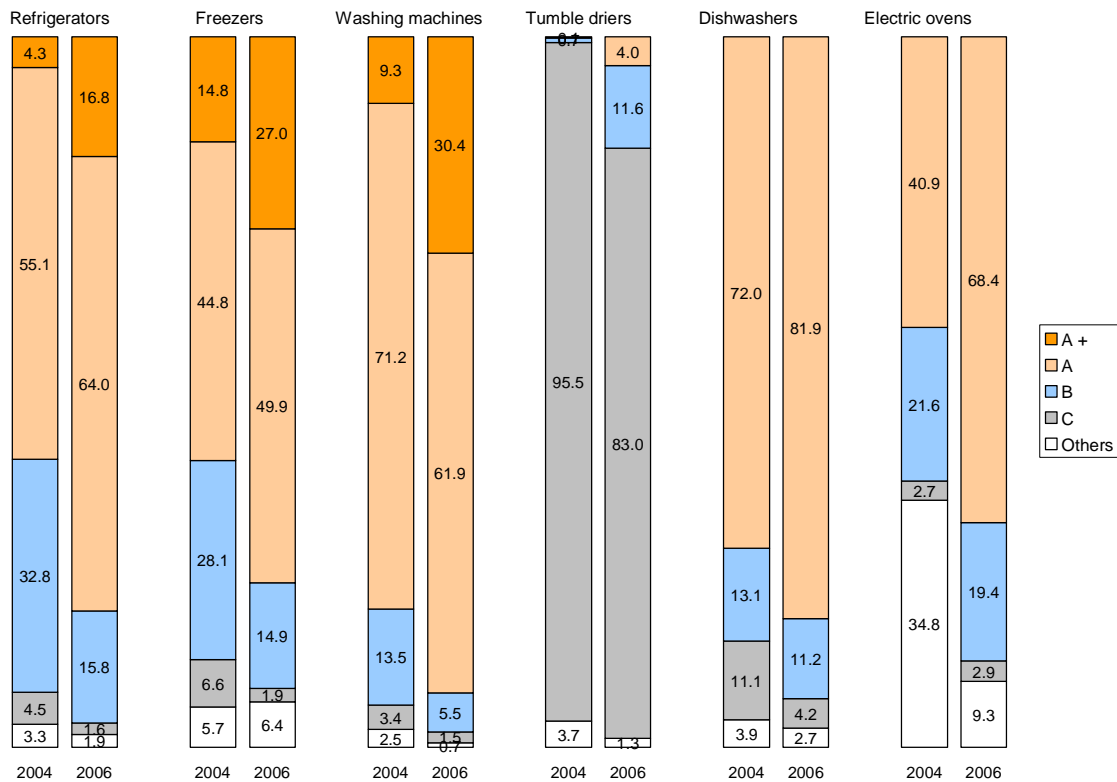


**Annex:  
Results of the survey  
in retail trade by country**

## A.1 Austria

Austria	Overall compliance (%)		
	Correctly labelled	Mislabelled	Not labelled
<b>Per type of appliance</b>			
Refrigerators	56	31	13
Freezers	60	26	14
Washing machines	64	27	9
Tumble driers	57	35	8
Dishwashers	50	31	18
Electric ovens	49	32	19
Air conditioners	31	26	43
<b>Per type of shop</b>			
Electro Superstore	70	26	4
Electric specialist (organized)	38	40	22
Electric specialist (independent)	90	3	6
Kitchen / Furniture store	21	44	35
Hypermarket /Cash & City	–	–	–
Department Store	–	–	–
<b>Total</b>	<b>56</b>	<b>30</b>	<b>14</b>

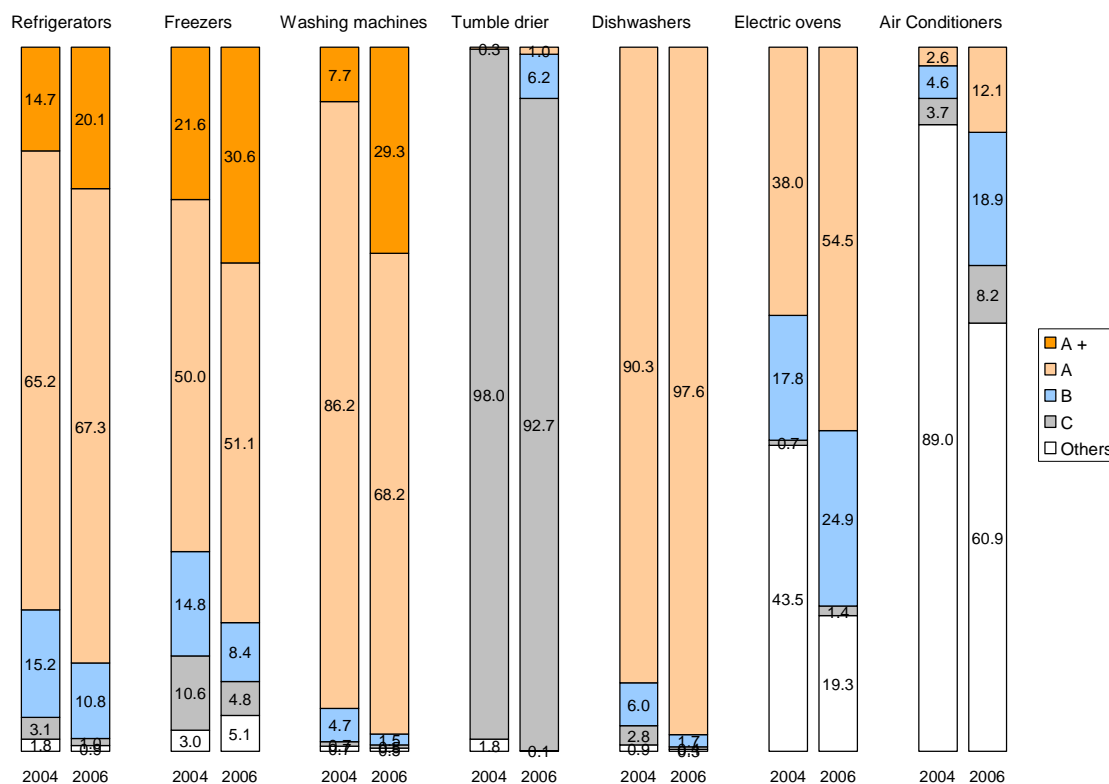
Shares of appliance sales by energy efficiency class (%)



## A.2 Belgium

Belgium	Overall compliance (%)		
	Correctly labelled	Mislabelled	Not labelled
<b>Per type of appliance</b>			
Refrigerators	51	34	15
Freezers	55	28	17
Washing machines	69	23	8
Tumble driers	68	27	5
Dishwashers	52	32	16
Electric ovens	2	38	60
Air conditioners	11	14	75
<b>Per type of shop</b>			
Electro Superstore	67	13	21
Electric specialist (organized)	58	29	13
Electric specialist (independent)	14	74	12
Kitchen / Furniture store	–	58	42
Hypermarket /Cash & City	3	92	5
Department Store	–	–	–
<b>Total</b>	<b>52</b>	<b>30</b>	<b>19</b>

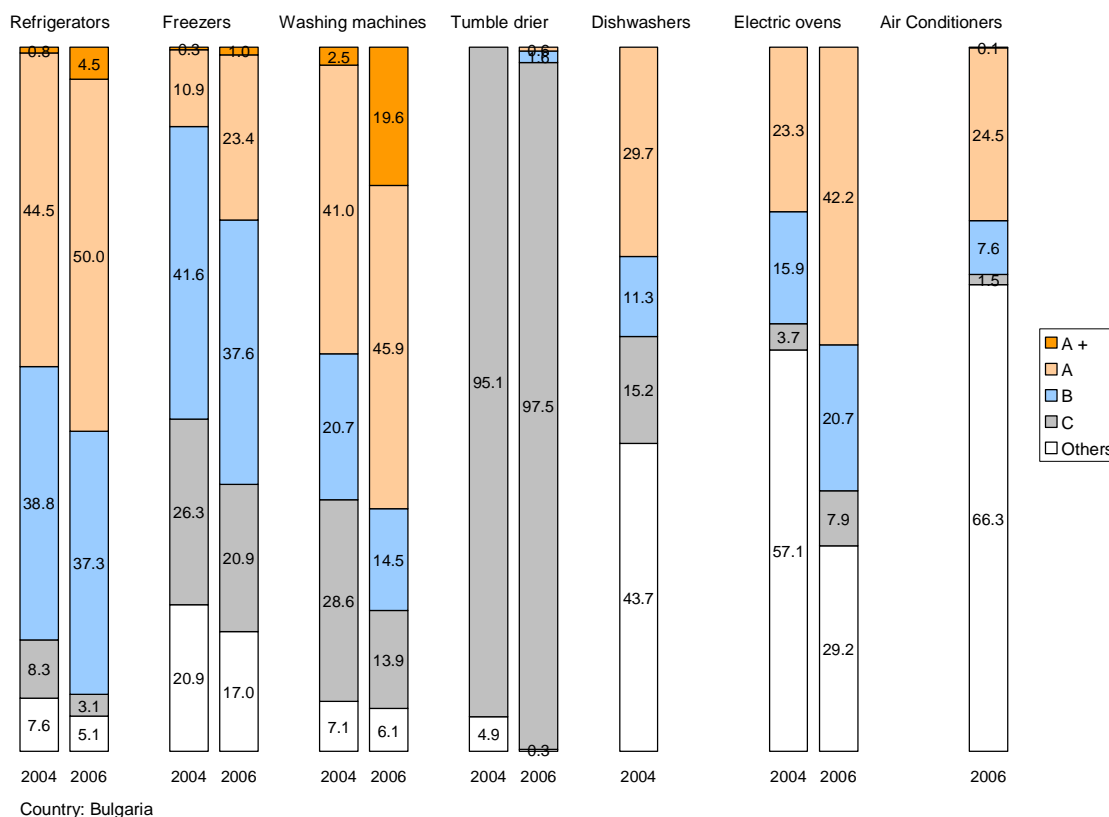
### Shares of appliance sales by energy efficiency class (%)



### A.3 Bulgaria

Bulgaria	Overall compliance (%)		
	Correctly labelled	Mislabelled	Not labelled
<b>Per type of appliance</b>			
Refrigerators	26	73	–
Freezers			
Washing machines	24	75	1
Tumble driers			
Dishwashers	26	70	4
Electric ovens	25	72	3
Air conditioners	16	73	12
<b>Per type of shop</b>			
Electro Superstore	23	74	3
Electric specialist (organized)	48	50	2
Electric specialist (independent)	–	95	5
Kitchen / Furniture store	–	–	–
Hypermarket / Cash & City	–	–	–
Department Store	–	–	–
Total	24	73	3

Shares of appliance sales by energy efficiency class (%)



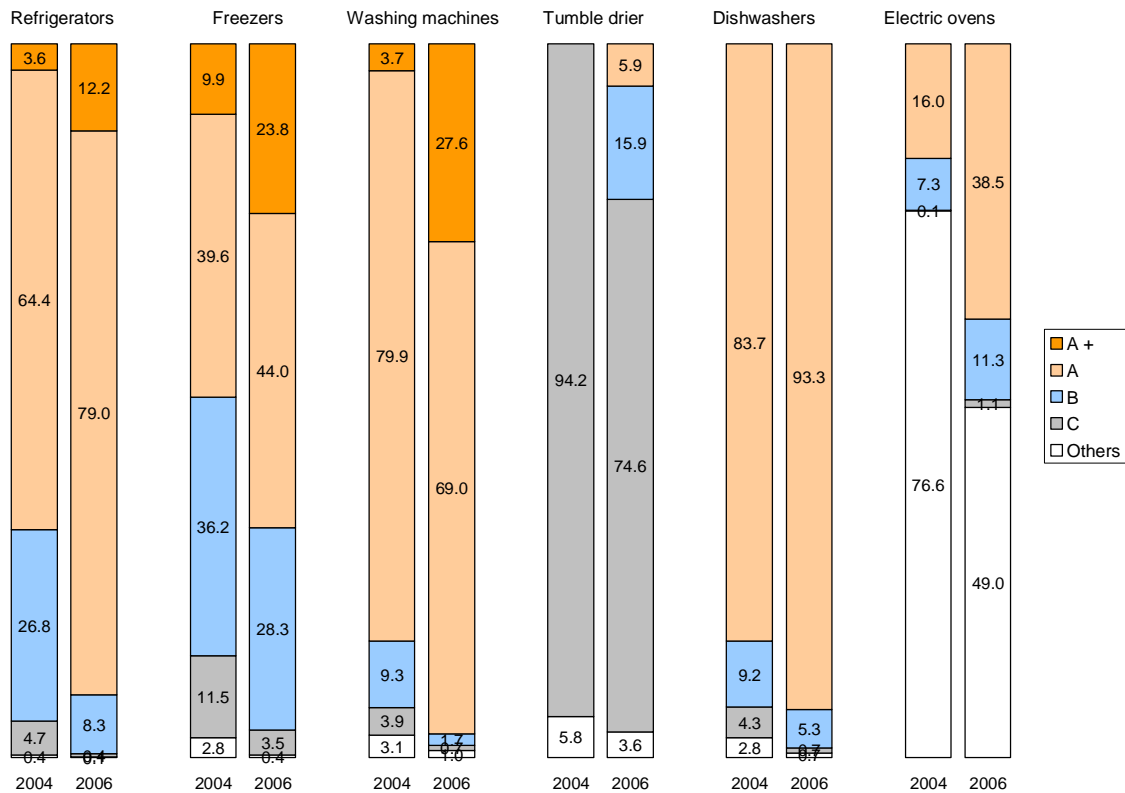
## A.4 Cyprus

Cyprus	Overall compliance (%)		
	Correctly labelled	Mislabeled	Not labelled
Type of appliance			
Refrigerators	74	10	15
Freezers	66	6	28
Washing machines	74	14	13
Tumble driers	73	8	18
Dishwashers	84	6	11
Electric ovens	69	14	17
Air conditioners	31	8	61
<b>Type of shop</b>			
Electro Superstore	75	7	18
Electric specialist (organized)	–	–	–
Electric specialist (independent)	58	17	25
Kitchen / Furniture store	–	–	–
Hypermarket / Cash & City	53	35	12
Department Store	–	–	–
<b>Total</b>	<b>70</b>	<b>10</b>	<b>20</b>

## A.5 Czech Republic

Czech Republic	Overall compliance (%)		
	Correctly labelled	Mislabelled	Not labelled
<b>Per type of appliance</b>			
Refrigerators	62	29	10
Freezers	61	32	7
Washing machines	57	31	12
Tumble driers	54	29	17
Dishwashers	62	29	10
Electric ovens	15	46	39
Air conditioners	11	56	33
<b>Per type of shop</b>			
Electro Superstore	52	38	10
Electric specialist (organized)	56	22	22
Electric specialist (independent)	60	29	11
Kitchen / Furniture store	–	89	11
Hypermarket / Cash & City	73	17	10
Department Store	–	–	–
<b>Total</b>	<b>55</b>	<b>32</b>	<b>13</b>

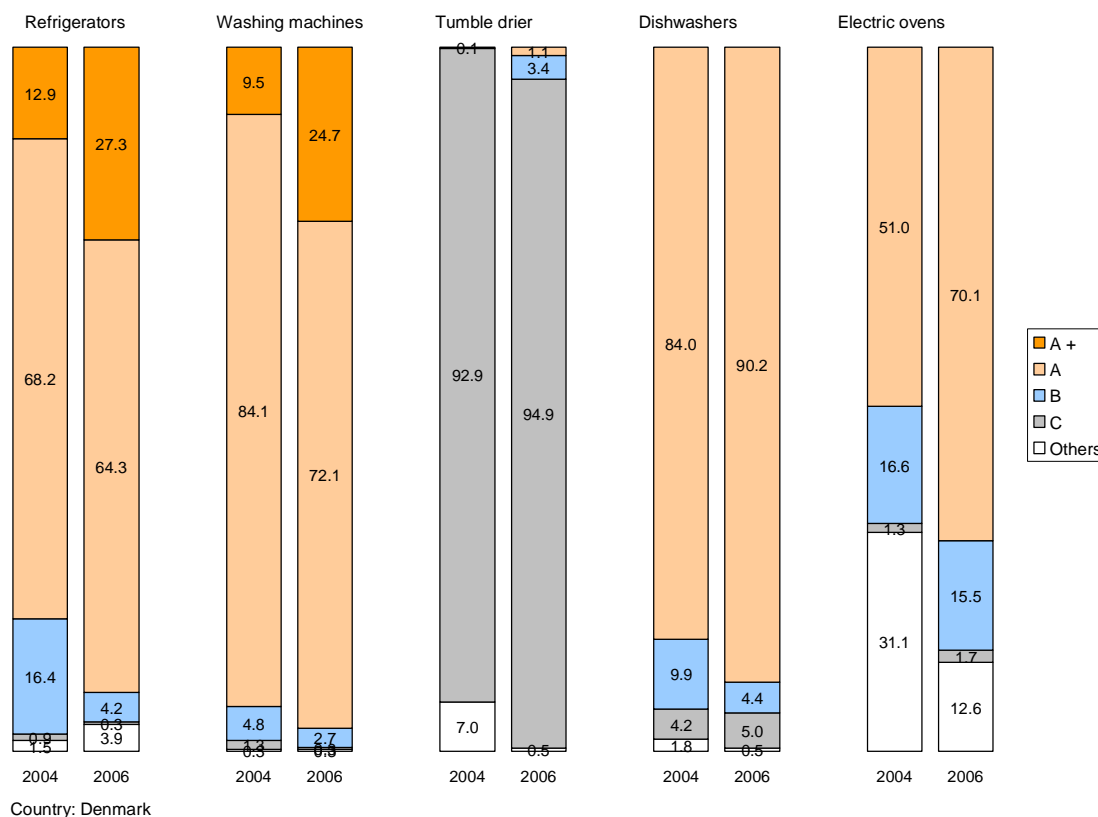
Shares of appliance sales by energy efficiency class (%)



## A.6 Denmark

Denmark	Overall compliance (%)		
	Correctly labelled	Mislabeled	Not labelled
<b>Per type of appliance</b>			
Refrigerators	87	4	9
Freezers	85	5	10
Washing machines	85	4	11
Tumble driers	85	3	12
Dishwashers	84	4	12
Electric ovens	61	17	23
Air conditioners	–	–	100
<b>Per type of shop</b>			
Electro Superstore	82	7	11
Electric specialist (organized)	87	6	7
Electric specialist (independent)	68	4	28
Kitchen / Furniture store	–	–	–
Hypermarket / Cash & City	–	–	–
Department Store	–	–	–
<b>Total</b>	<b>81</b>	<b>6</b>	<b>13</b>

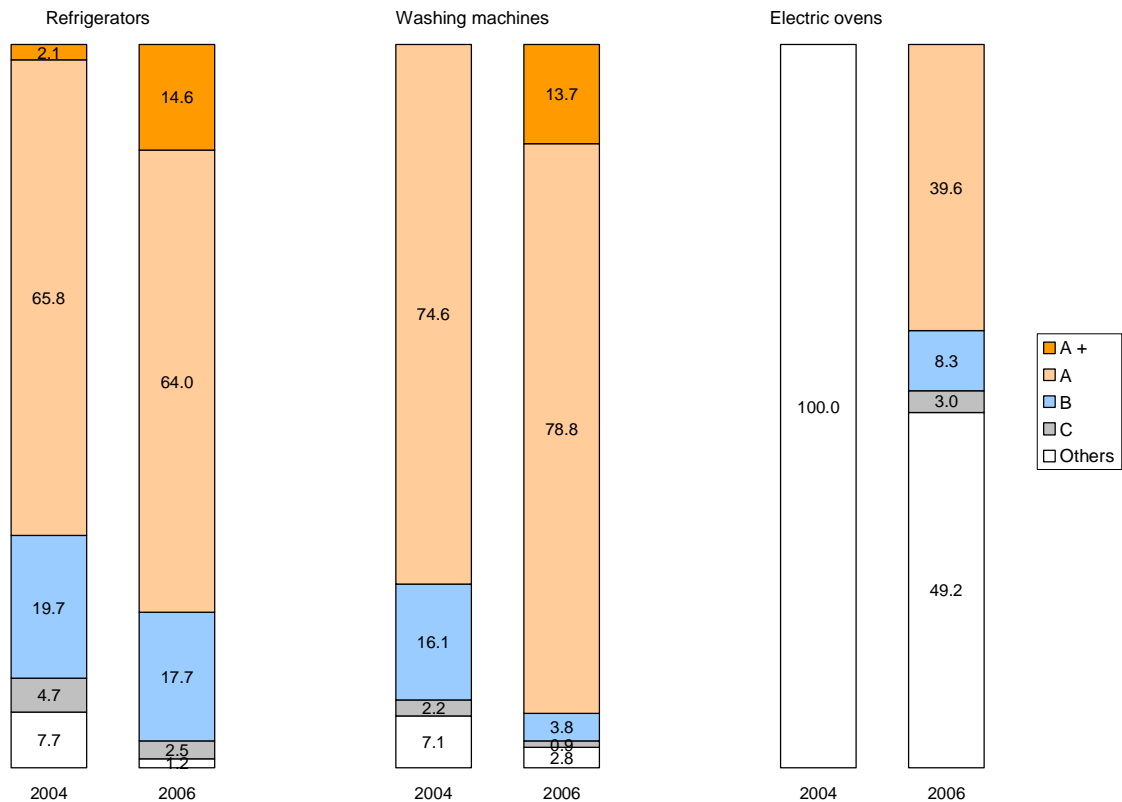
### Shares of appliance sales by energy efficiency class (%)



## A.7 Estonia

Estonia	Overall compliance (%)		
	Correctly labelled	Mislabelled	Not labelled
<b>Per type of appliance</b>			
Refrigerators	83	12	5
Freezers	81	17	2
Washing machines	83	12	5
Tumble driers	56	36	8
Dishwashers	74	17	9
Electric ovens	57	21	22
Air conditioners	–	5	95
<b>Per type of shop</b>			
Electro Superstore	68	21	11
Electric specialist (organized)	81	9	11
Electric specialist (independent)	69	8	23
Kitchen / Furniture store	49	42	9
Hypermarket / Cash & City	–	–	–
Department Store	–	–	–
<b>Total</b>	<b>73</b>	<b>14</b>	<b>12</b>

Shares of appliance sales by energy efficiency class (%)



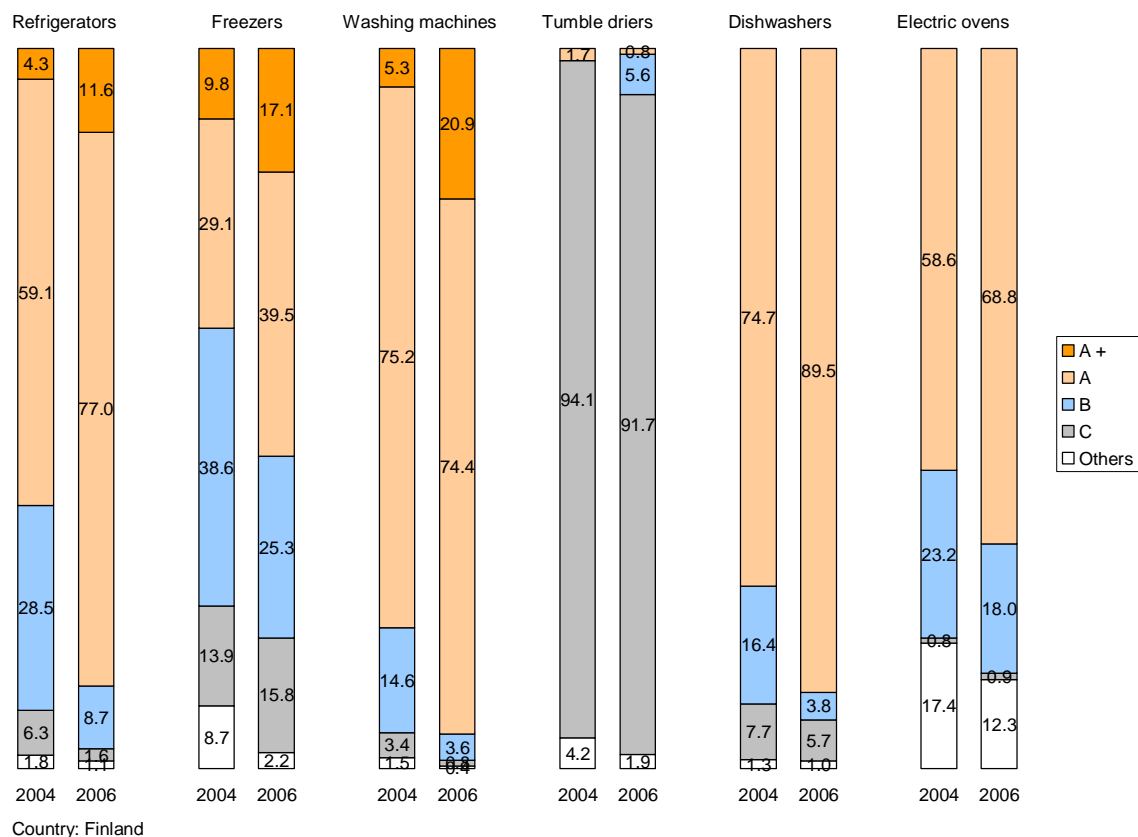
Country: Estonia



## A.8 Finland

Finland	Overall compliance (%)		
	Correctly labelled	Mislabelled	Not labelled
<b>Per type of appliance</b>			
Refrigerators	64	23	12
Freezers	58	30	12
Washing machines	52	27	20
Tumble driers	51	29	20
Dishwashers	62	27	11
Electric ovens	26	39	35
Air conditioners	–	19	81
<b>Per type of shop</b>			
Electro Superstore	79	9	12
Electric specialist (organized)	47	28	25
Electric specialist (independent)	28	64	8
Kitchen / Furniture store	62	27	11
Hypermarket / Cash & City	–	–	–
Department Store	–	–	–
<b>Total</b>	<b>53</b>	<b>29</b>	<b>18</b>

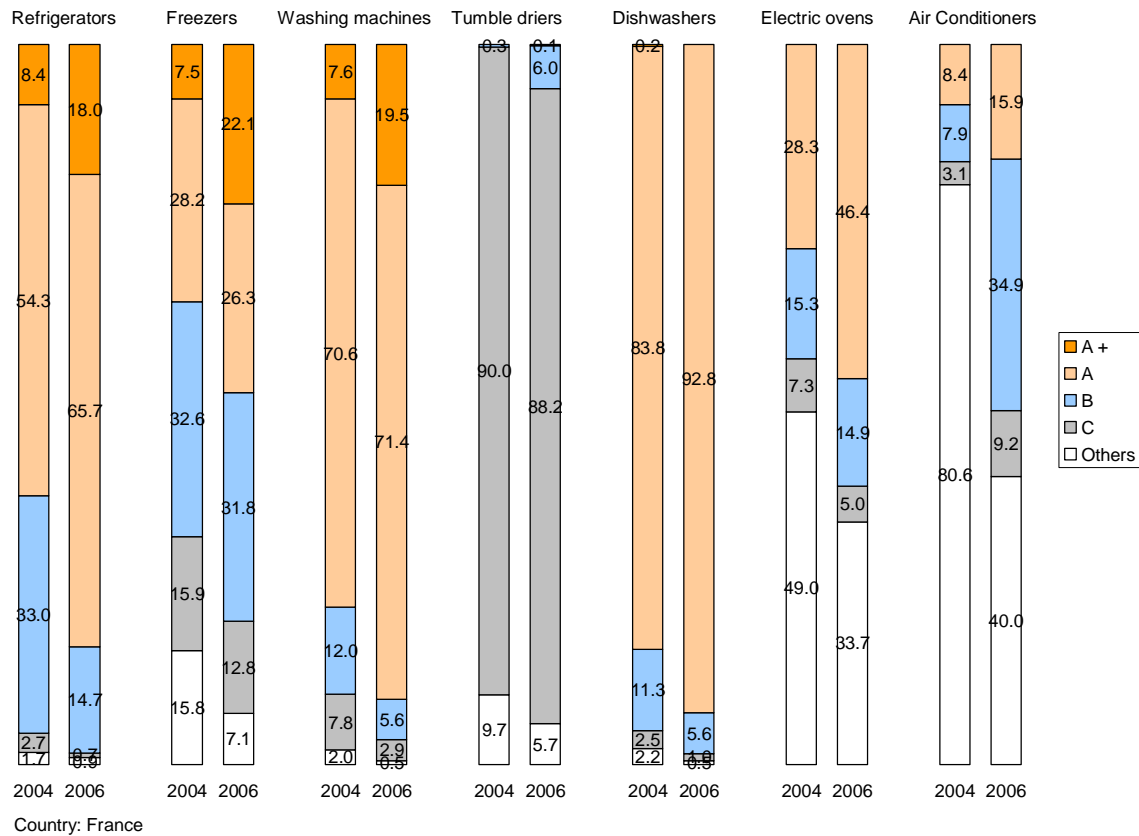
### Sales shares by energy efficiency class (%)



## A.9 France

France	Overall compliance (%)		
	Correctly labelled	Mislabelled	Not labelled
<b>Per type of appliance</b>			
Refrigerators	74	22	4
Freezers	74	24	2
Washing machines	66	30	4
Tumble driers	72	25	4
Dishwashers	68	28	3
Electric ovens	46	40	14
Air conditioners	38	16	46
<b>Per type of shop</b>			
Electro Superstore	76	21	3
Electric specialist (organized)	71	22	7
Electric specialist (independent)	23	67	10
Kitchen / Furniture store	–	72	28
Hypermarket / Cash & City	51	40	10
Department Store	–	–	–
<b>Total</b>	<b>67</b>	<b>28</b>	<b>6</b>

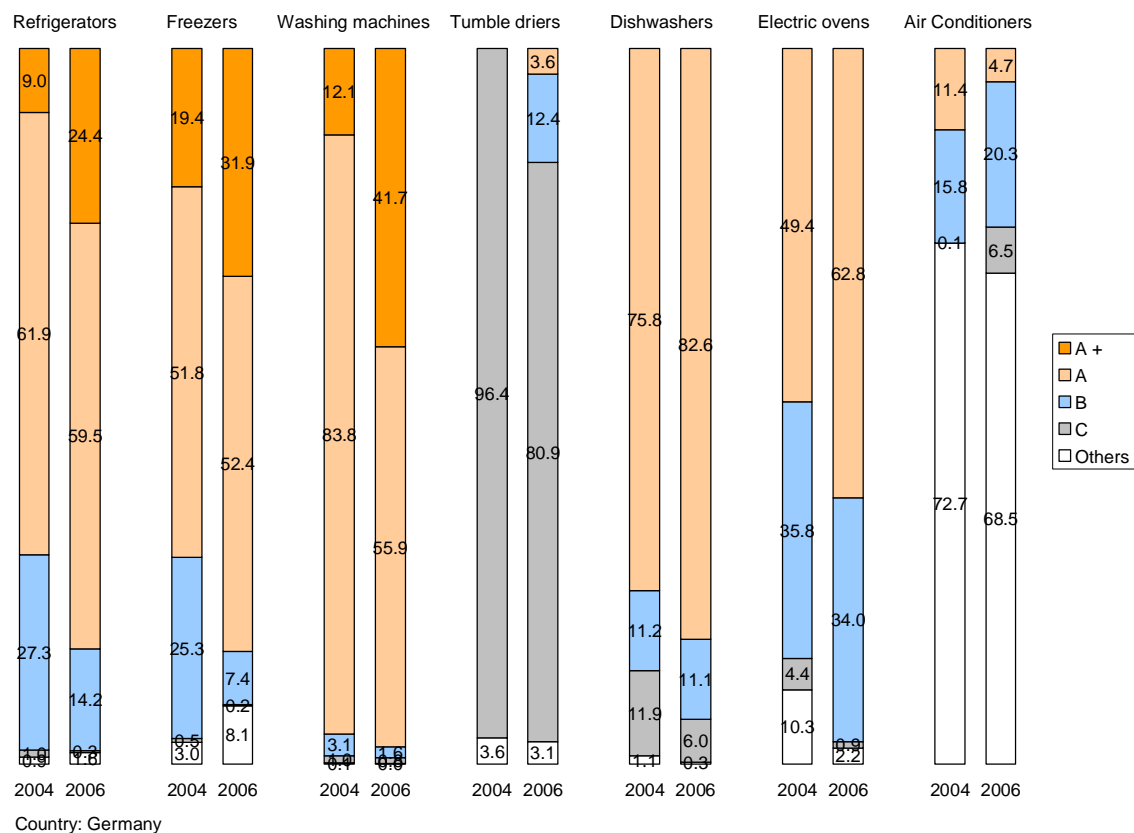
### Sales shares by energy efficiency class (%)



## A.10 Germany

Germany	Overall compliance (%)		
	Correctly labelled	Mislabelled	Not labelled
<b>Per type of appliance</b>			
Refrigerators	63	33	4
Freezers	80	16	4
Washing machines	82	14	4
Tumble driers	79	14	7
Dishwashers	62	36	2
Electric ovens	53	38	9
Air conditioners	28	12	60
<b>Per type of shop</b>			
Electro Superstore	84	13	3
Electric specialist (organized)	72	18	10
Electric specialist (independent)	72	25	3
Kitchen / Furniture store	39	56	5
Hypermarket / Cash & City	42	36	22
Department Store	63	30	7
<b>Total</b>	<b>68</b>	<b>27</b>	<b>5</b>

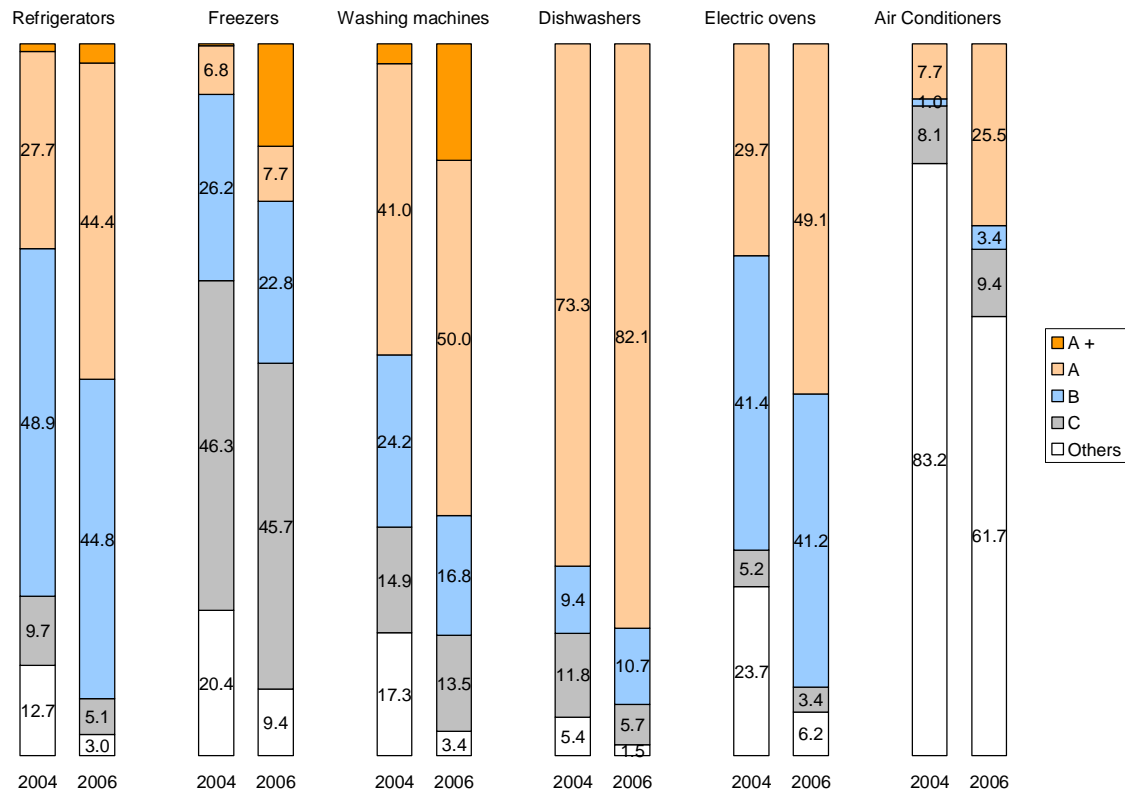
### Sales shares by energy efficiency class (%)



## A.11 Greece

Greece	Overall compliance (%)		
	Correctly labelled	Mislabelled	Not labelled
<b>Per type of appliance</b>			
Refrigerators	37	30	32
Freezers	41	31	29
Washing machines	32	30	38
Tumble driers	37	30	34
Dishwashers	44	28	28
Electric ovens	35	34	31
Air conditioners	12	15	73
<b>Per type of shop</b>			
Electro Superstore	49	19	31
Electric specialist (organized)	23	33	44
Electric specialist (independent)	9	40	51
Kitchen / Furniture store	–	–	–
Hypermarket / Cash & City	19	56	25
Department Store	–	–	–
<b>Total</b>	<b>34</b>	<b>29</b>	<b>37</b>

### Sales shares by energy efficiency class (%)

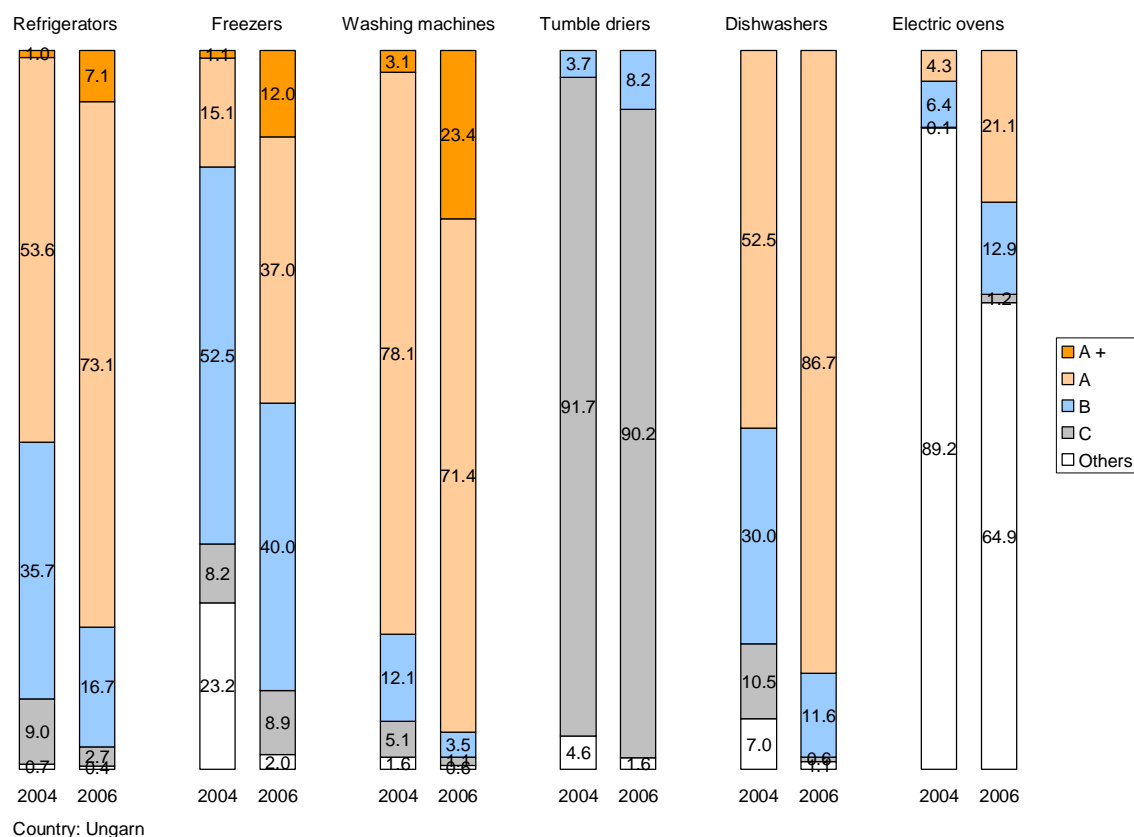


Country: Greece

## A.12 Hungary

Hungary	Overall compliance (%)		
	Correctly labelled	Mislabelled	Not labelled
<b>Per type of appliance</b>			
Refrigerators	82	15	3
Freezers	81	16	3
Washing machines	86	11	4
Tumble driers	86	7	7
Dishwashers	85	14	2
Electric ovens	81	10	9
Air conditioners	48	24	28
<b>Per type of shop</b>			
Electro Superstore	84	11	5
Electric specialist (organized)	90	7	3
Electric specialist (independent)	79	16	5
Kitchen / Furniture store	–	32	68
Hypermarket / Cash & City	73	25	2
Department Store	–	–	–
<b>Total</b>	<b>83</b>	<b>13</b>	<b>4</b>

### Sales shares by energy efficiency class (%)



## A.13 Iceland

Iceland	Overall compliance (%)		
	Correctly labelled	Mislabelled	Not labelled
<b>Per type of appliance</b>			
Refrigerators	2	90	7
Freezers	1	91	8
Washing machines	1	88	11
Tumble driers	1	94	5
Dishwashers	–	86	14
Electric ovens	1	85	13
Air conditioners			
<b>Per type of shop</b>			
Electro Superstore	1	91	8
Electric specialist (organized)	1	86	13
Electric specialist (independent)	–	–	–
Kitchen / Furniture store	5	83	12
Hypermarket / Cash & City	–	–	–
Department Store	–	–	–
<b>Total</b>	<b>1</b>	<b>89</b>	<b>10</b>

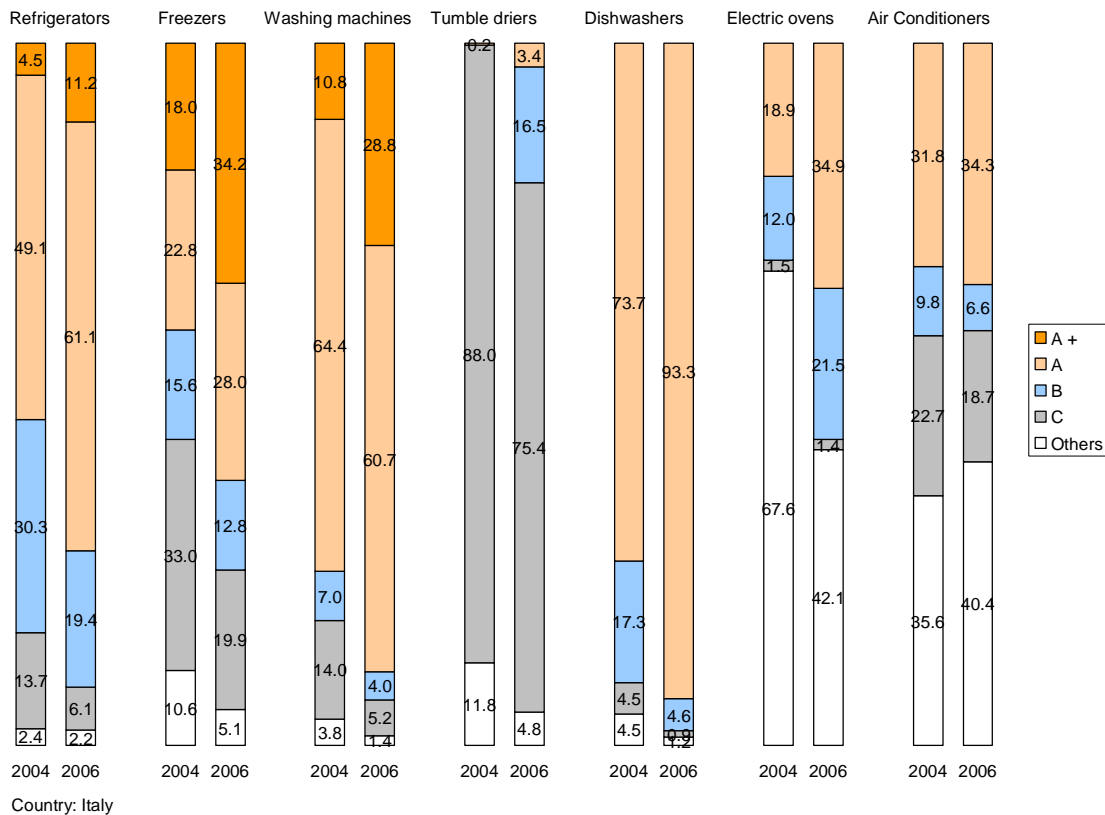
## A.14 Ireland

Ireland	Overall compliance (%)		
	Correctly labelled	Mislabelled	Not labelled
<b>Per type of appliance</b>			
Refrigerators	71	26	3
Freezers	83	14	3
Washing machines	80	20	–
Tumble driers	81	18	1
Dishwashers	69	24	7
Electric ovens	47	37	16
Air conditioners	80	–	20
<b>Per type of shop</b>			
Electro Superstore	90	4	5
Electric specialist (organized)	62	31	7
Electric specialist (independent)	65	30	5
Kitchen / Furniture store	–	–	–
Hypermarket / Cash & City	–	–	–
Department Store	–	–	–
<b>Total</b>	<b>71</b>	<b>24</b>	<b>5</b>

## A.15 Italy

Italy	Overall compliance (%)		
	Correctly labelled	Mislabelled	Not labelled
<b>Per type of appliance</b>			
Refrigerators	79	17	4
Freezers	75	22	3
Washing machines	81	16	3
Tumble driers	73	20	7
Dishwashers	81	16	3
Electric ovens	60	19	21
Air conditioners	69	23	8
<b>Per Type of shop</b>			
Electro Superstore	71	18	12
Electric specialist (organized)	89	10	1
Electric specialist (independent)	29	67	4
Kitchen / Furniture store	86	10	4
Hypermarket / Cash & City	48	44	8
Department Store	–	–	–
<b>Total</b>	<b>76</b>	<b>18</b>	<b>6</b>

### Sales shares by energy efficiency class (%)

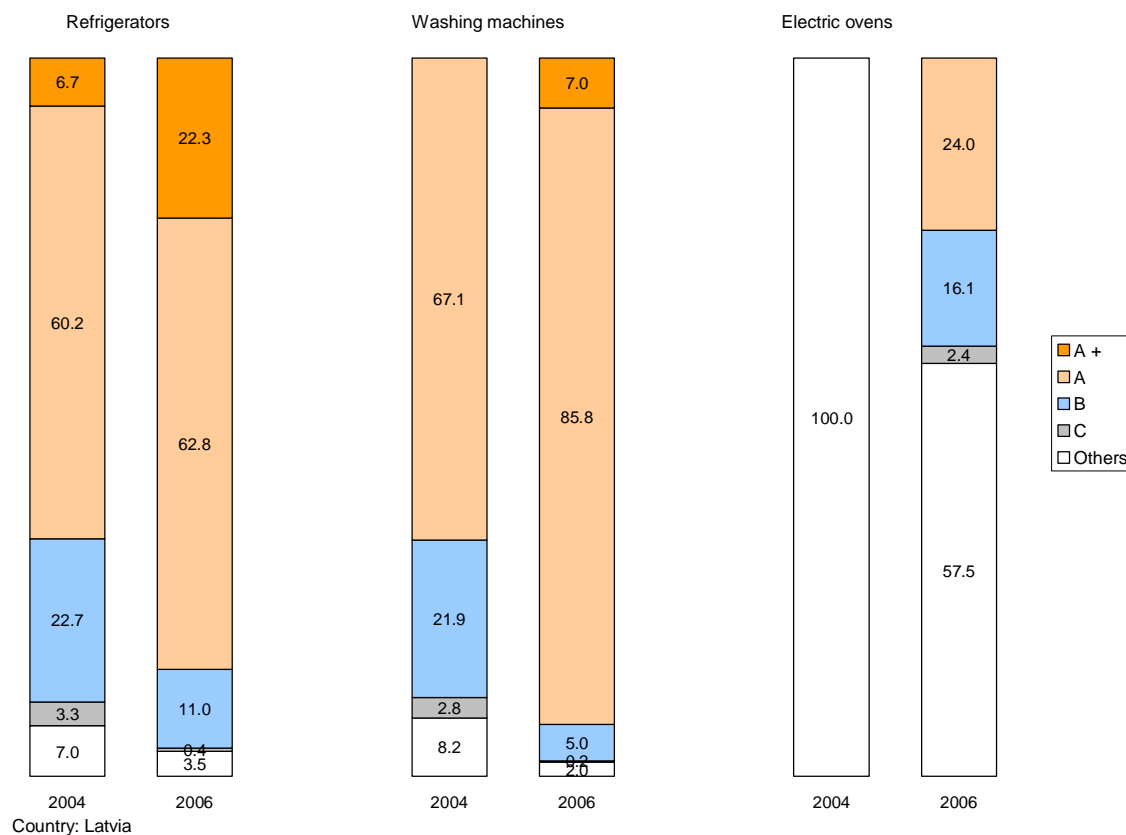




## A.16 Latvia

Latvia	Overall compliance (%)		
	Correctly labelled	Mislabeled	Not labelled
<b>Per type of appliance</b>			
Refrigerators	72	16	12
Freezers	59	33	9
Washing machines	63	26	11
Tumble driers	55	28	17
Dishwashers	49	27	25
Electric ovens	30	38	32
Air conditioners	–	8	92
<b>Per type of shop</b>			
Electro Superstore	79	12	9
Electric specialist (organized)	27	52	21
Electric specialist (independent)	43	25	32
Kitchen / Furniture store	–	33	67
Hypermarket / Cash & City	–	–	–
Department Store	–	–	–
<b>Total</b>	<b>59</b>	<b>24</b>	<b>18</b>

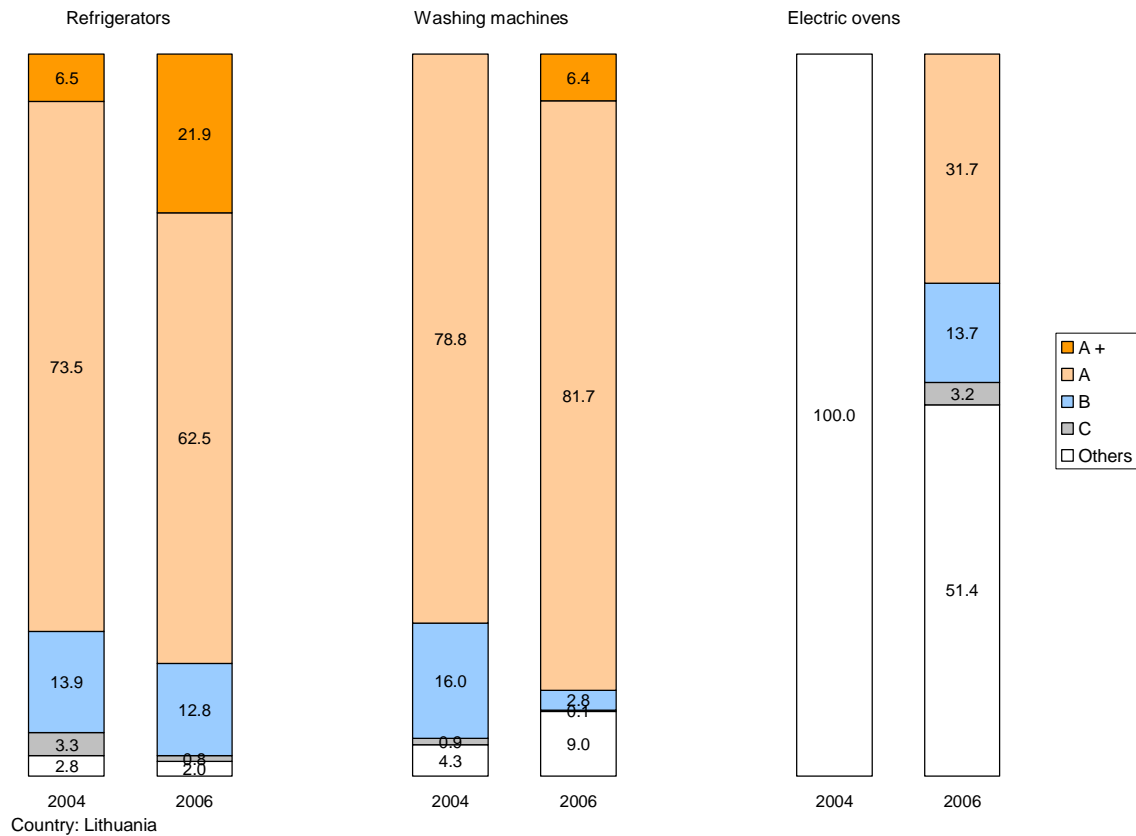
### Sales shares by energy efficiency class (%)



## A.17 Lithuania

Lithuania	Overall compliance (%)		
	Correctly labelled	Mislabelled	Not labelled
<b>Per type of appliance</b>			
Refrigerators	58	32	10
Freezers			
Washing machines	60	31	9
Tumble driers	100	–	–
Dishwashers	43	47	11
Electric ovens	48	34	18
Air conditioners	36	36	27
<b>Per type of shop</b>			
Electro Superstore	59	33	8
Electric specialist (organized)	65	22	13
Electric specialist (independent)	44	52	5
Kitchen / Furniture store	53	22	25
Hypermarket / Cash & City	–	–	–
Department Store	–	–	–
<b>Total</b>	<b>54</b>	<b>34</b>	<b>12</b>

### Sales shares by energy efficiency class (%)



## A.18 Luxembourg

Luxembourg	Overall compliance (%)		
	Correctly labelled	Mislabelled	Not labelled
<b>Per type of appliance</b>			
Refrigerators	63	37	–
Freezers	62	37	1
Washing machines	58	42	–
Tumble driers	62	38	–
Dishwashers	47	53	–
Electric ovens	60	40	–
Air conditioners	–	57	43
<b>Per type of shop</b>			
Electro Superstore	86	14	–
Electric specialist (organized)	31	69	–
Electric specialist (independent)	69	31	1
Kitchen / Furniture store	49	50	1
Hypermarket / Cash & City	–	–	–
Department Store	–	–	–
<b>Total</b>	<b>59</b>	<b>40</b>	<b>–</b>

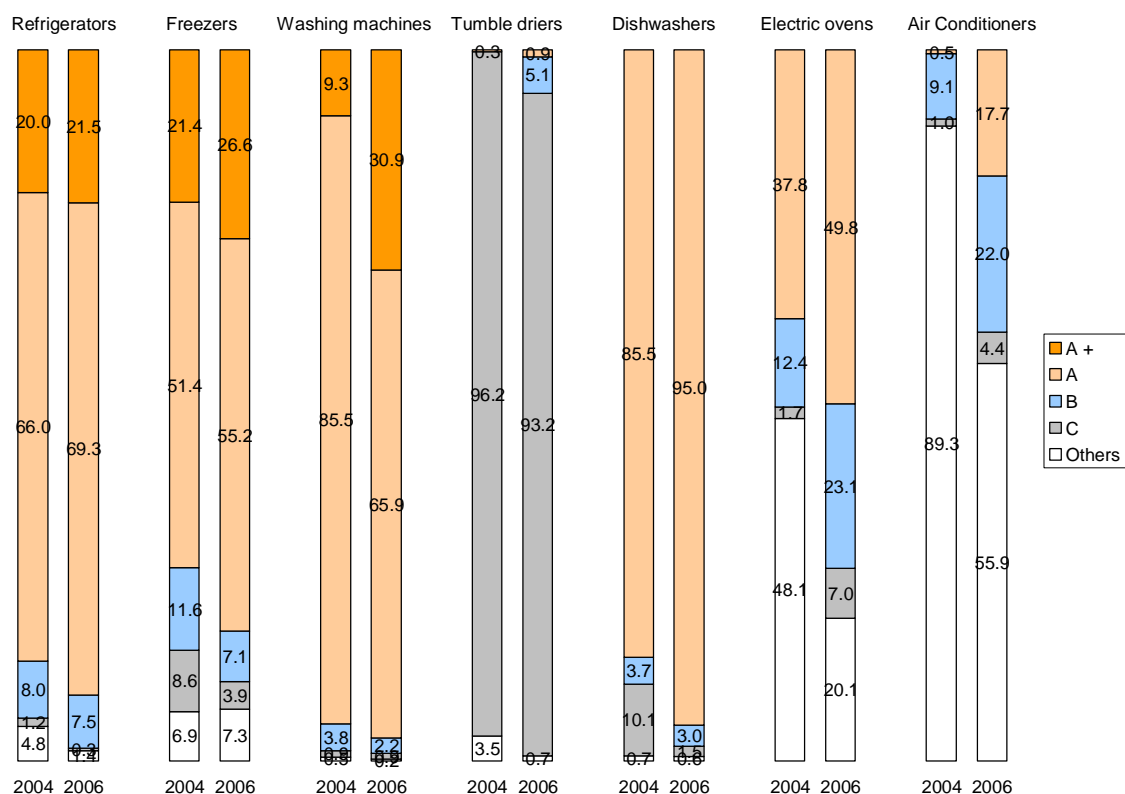
## A.19 Malta

Malta	Overall compliance (%)		
	Correctly labelled	Mislabelled	Not labelled
<b>Per type of appliance</b>			
Refrigerators	32	42	26
Freezers	35	38	27
Washing machines	22	49	29
Tumble driers	34	34	31
Dishwashers	28	33	39
Electric ovens	16	47	38
Air conditioners	–	39	61
<b>Per type of shop</b>			
Electro Superstore	17	41	42
Electric specialist (organized)	7	75	18
Electric specialist (independent)	4	50	45
Kitchen / Furniture store	73	20	7
Hypermarket / Cash & City	–	–	–
Department Store	–	91	9
<b>Total</b>	<b>26</b>	<b>43</b>	<b>31</b>

## A.20 Netherlands

Netherlands	Overall compliance (%)		
	Correctly labelled	Mislabelled	Not labelled
<b>Per type of appliance</b>			
Refrigerators	87	12	1
Freezers	95	4	1
Washing machines	97	1	1
Tumble driers	93	5	2
Dishwashers	74	25	1
Electric ovens	73	19	8
Air conditioners	54	10	36
<b>Per type of shop</b>			
Electro Superstore	95	3	2
Electric specialist (organized)	93	3	4
Electric specialist (independent)	89	9	2
Kitchen / Furniture store	39	59	2
Hypermarket / Cash & City	68	25	8
Department Store	–	–	–
<b>Total</b>	<b>88</b>	<b>9</b>	<b>2</b>

### Sales shares by energy efficiency class (%)



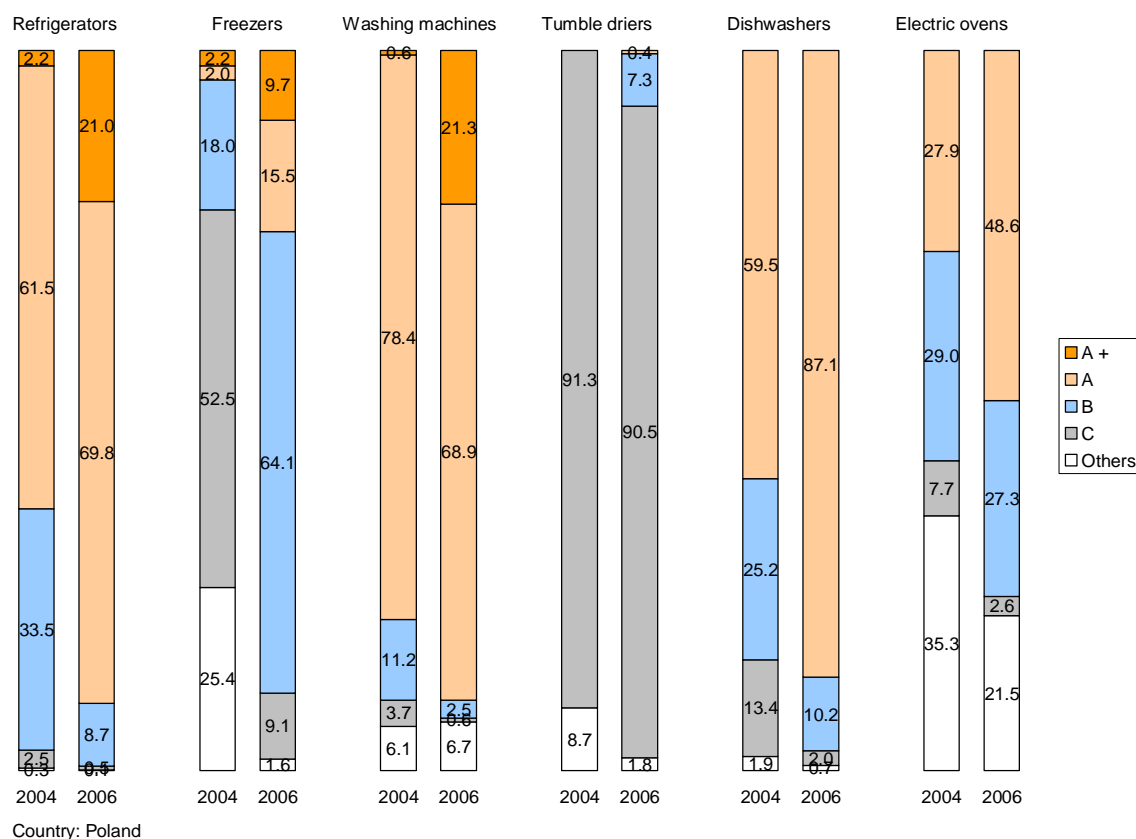
## A.21 Norway

Norway	Overall compliance (%)		
	Correctly labelled	Mislabelled	Not labelled
<b>Per type of appliance</b>			
Refrigerators	93	6	–
Freezers	93	6	–
Washing machines	94	4	2
Tumble driers	94	4	2
Dishwashers	93	4	3
Electric ovens	92	3	4
Air conditioners	–	–	100
<b>Per type of shop</b>			
Electro Superstore	91	4	4
Electric specialist (organized)	–	–	–
Electric specialist (independent)	92	3	6
Kitchen / Furniture store	–	100	–
Hypermarket / Cash & City	–	–	–
Department Store	95	–	5
<b>Total</b>	<b>90</b>	<b>5</b>	<b>5</b>

## A.22 Poland

Poland	Overall compliance (%)		
	Correctly labelled	Mislabelled	Not labelled
<b>Per type of appliance</b>			
Refrigerators	26	64	10
Freezers	23	74	3
Washing machines	31	57	12
Tumble driers	10	81	9
Dishwashers	16	74	10
Electric ovens	29	50	20
Air conditioners	5	41	55
<b>Per type of shop</b>			
Electro Superstore	23	63	14
Electric specialist (organized)	33	59	8
Electric specialist (independent)	19	69	12
Kitchen / Furniture store	–	30	70
Hypermarket / Cash & City	21	60	19
Department Store	–	–	–
<b>Total</b>	<b>27</b>	<b>61</b>	<b>12</b>

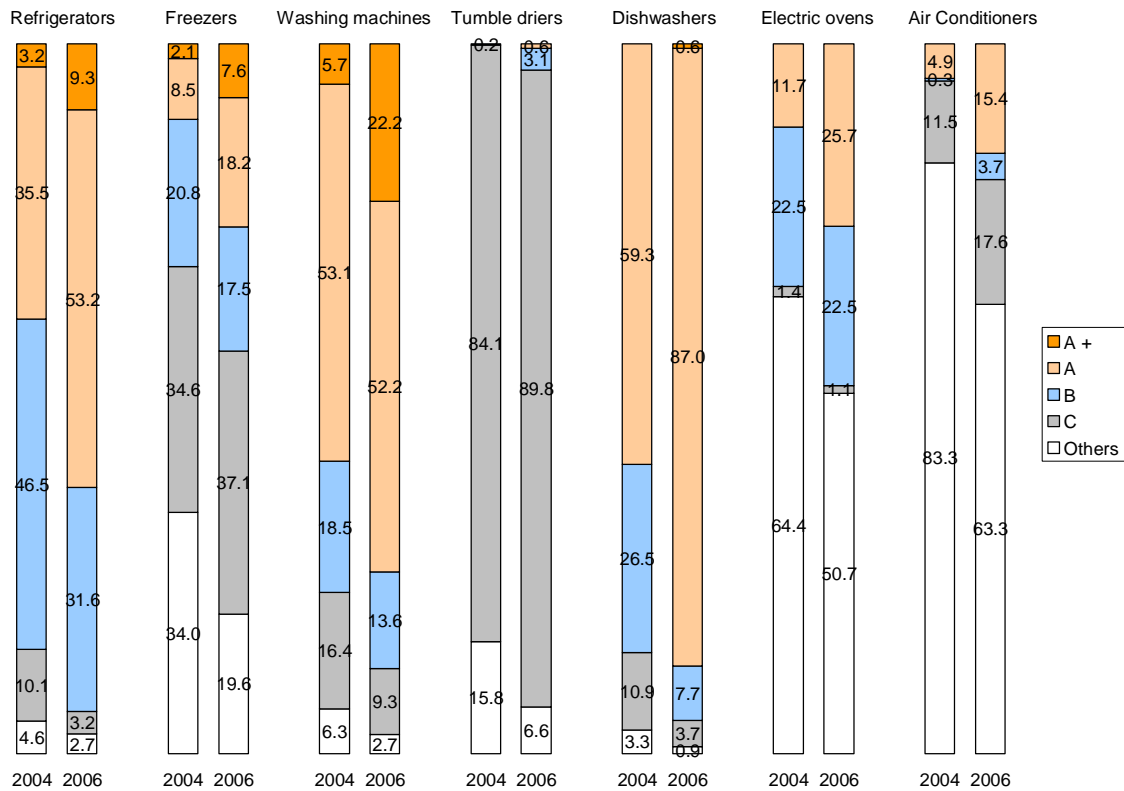
### Sales shares by energy efficiency class (%)



## A.23 Portugal

Portugal	Overall compliance (%)		
	Correctly labelled	Mislabelled	Not labelled
<b>Per type of appliance</b>			
Refrigerators	89	9	3
Freezers	82	16	2
Washing machines	85	12	3
Tumble driers	86	10	4
Dishwashers	87	10	3
Electric ovens	64	26	10
Air conditioners	58	20	22
<b>Per type of shop</b>			
Electro Superstore	82	16	3
Electric specialist (organized)	95	2	3
Electric specialist (independent)	86	11	3
Kitchen / Furniture store	61	23	16
Hypermarket / Cash & City	91	8	2
Department Store	–	–	–
<b>Total</b>	<b>83</b>	<b>13</b>	<b>4</b>

### Sales shares by energy efficiency class (%)

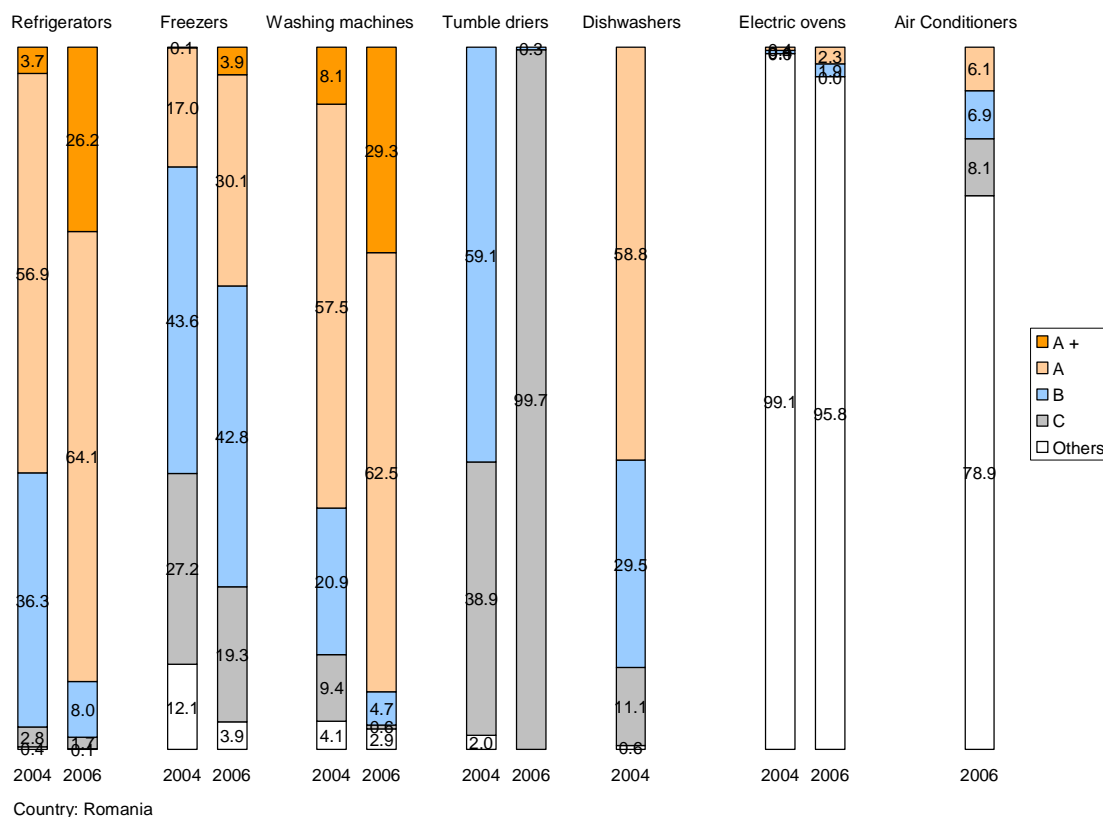




## A.24 Romania

Romania	Overall compliance (%)		
	Correctly labelled	Mislabelled	Not labelled
<b>Per type of appliance</b>			
Refrigerators	70	30	1
Freezers	69	28	3
Washing machines	64	31	5
Tumble driers	86	14	–
Dishwashers	95	5	–
Electric ovens	29	18	54
Air conditioners	78	18	5
<b>Per type of shop</b>			
Electro Superstore	67	31	1
Electric specialist (organized)	75	7	18
Electric specialist (independent)	67	30	3
Kitchen / Furniture store	–	–	–
Hypermarket / Cash & City	–	–	–
Department Store	–	–	–
<b>Total</b>	<b>68</b>	<b>28</b>	<b>4</b>

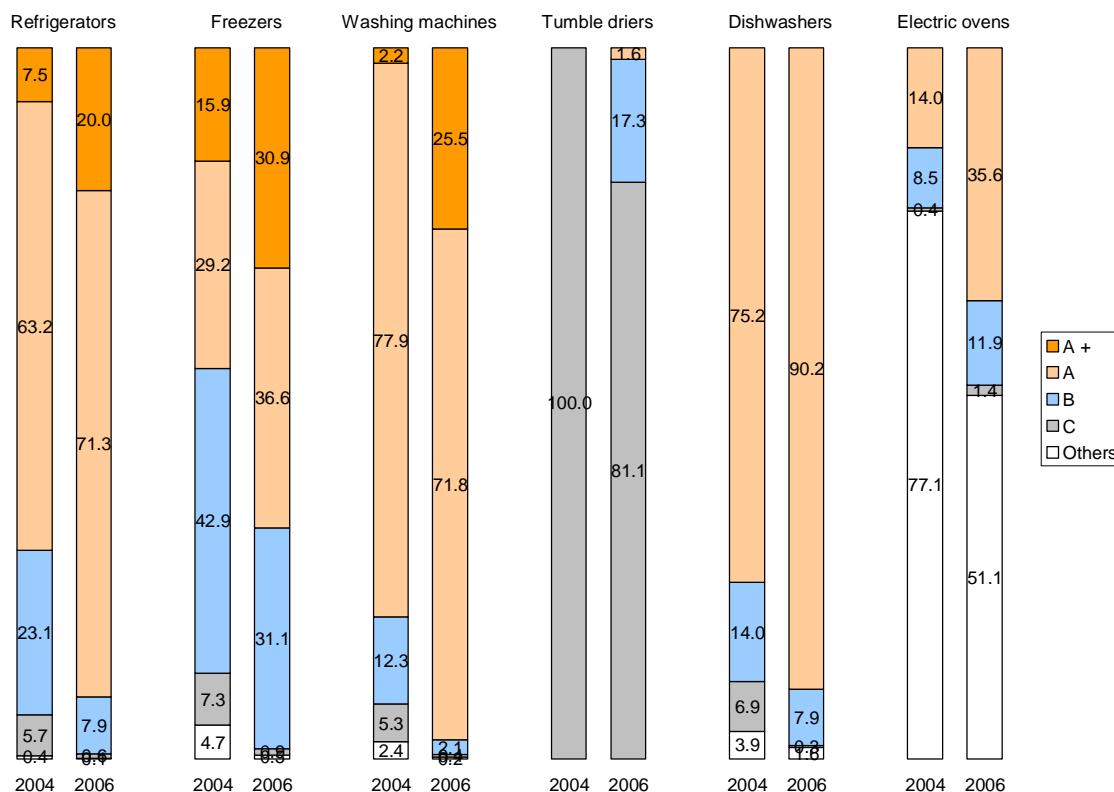
### Sales shares by energy efficiency class (%)



## A.25 Slovakia

Slovakia	Overall compliance (%)		
	Correctly labelled	Mislabelled	Not labelled
<b>Per type of appliance</b>			
Refrigerators	50	46	3
Freezers	45	48	7
Washing machines	69	28	2
Tumble driers	57	37	6
Dishwashers	68	27	5
Electric ovens	51	41	8
Air conditioners	33	63	4
<b>Per type of shop</b>			
Electro Superstore	67	32	–
Electric specialist (organized)	49	48	2
Electric specialist (independent)	61	37	1
Kitchen / Furniture store	–	13	87
Hypermarket / Cash & City	21	74	6
Department Store	–	–	–
<b>Total</b>	<b>57</b>	<b>39</b>	<b>4</b>

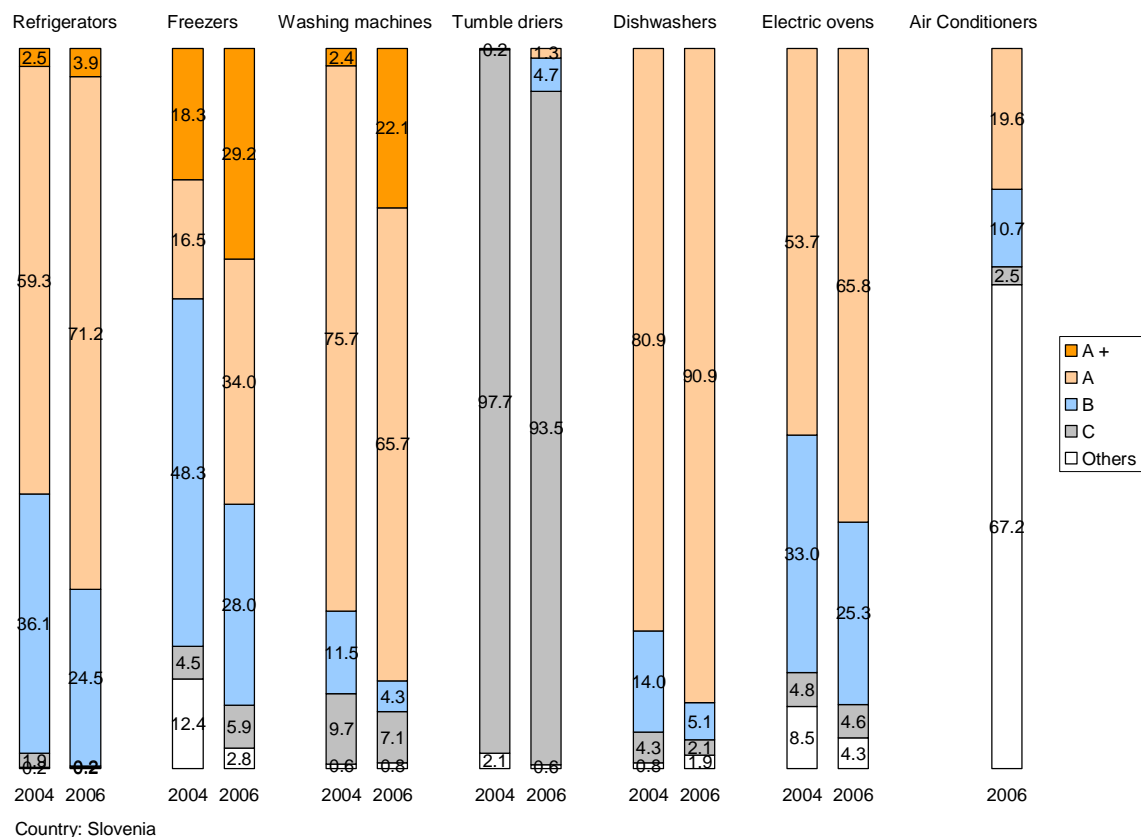
### Sales shares by energy efficiency class (%)



## A.26 Slovenia

Slovenia	Overall compliance (%)		
	Correctly labelled	Mislabelled	Not labelled
<b>Per type of appliance</b>			
Refrigerators	51	47	2
Freezers	49	44	6
Washing machines	59	39	2
Tumble driers	60	39	1
Dishwashers	44	50	5
Electric ovens	50	44	6
Air conditioners	29	53	18
<b>Per type of shop</b>			
Electro Superstore	69	30	1
Electric specialist (organized)	30	69	1
Electric specialist (independent)	46	50	4
Kitchen / Furniture store	21	63	16
Hypermarket / Cash & City	65	31	4
Department Store	–	–	–
<b>Total</b>	<b>52</b>	<b>44</b>	<b>4</b>

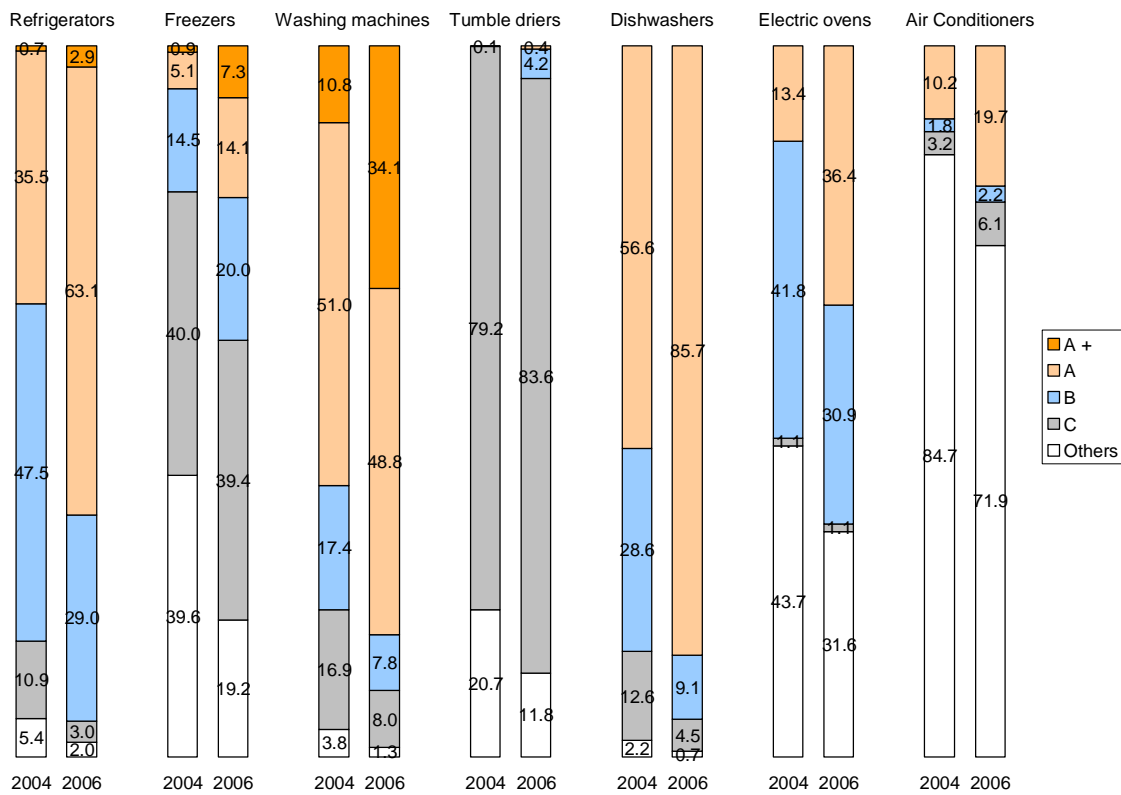
### Sales shares by energy efficiency class (%)



## A.27 Spain

Spain	Overall compliance (%)		
	Correctly labelled	Mislabelled	Not labelled
<b>Per type of appliance</b>			
Refrigerators	64	24	13
Freezers	47	29	24
Washing machines	58	25	17
Tumble driers	56	27	17
Dishwashers	59	25	16
Electric ovens	20	31	49
Air conditioners	16	10	74
<b>Per type of shop</b>			
Electro Superstore	37	42	21
Electric specialist (organized)	60	19	21
Electric specialist (independent)	18	26	56
Kitchen / Furniture store	34	25	41
Hypermarket / Cash & City	60	20	19
Department Store	–	–	–
<b>Total</b>	<b>54</b>	<b>24</b>	<b>22</b>

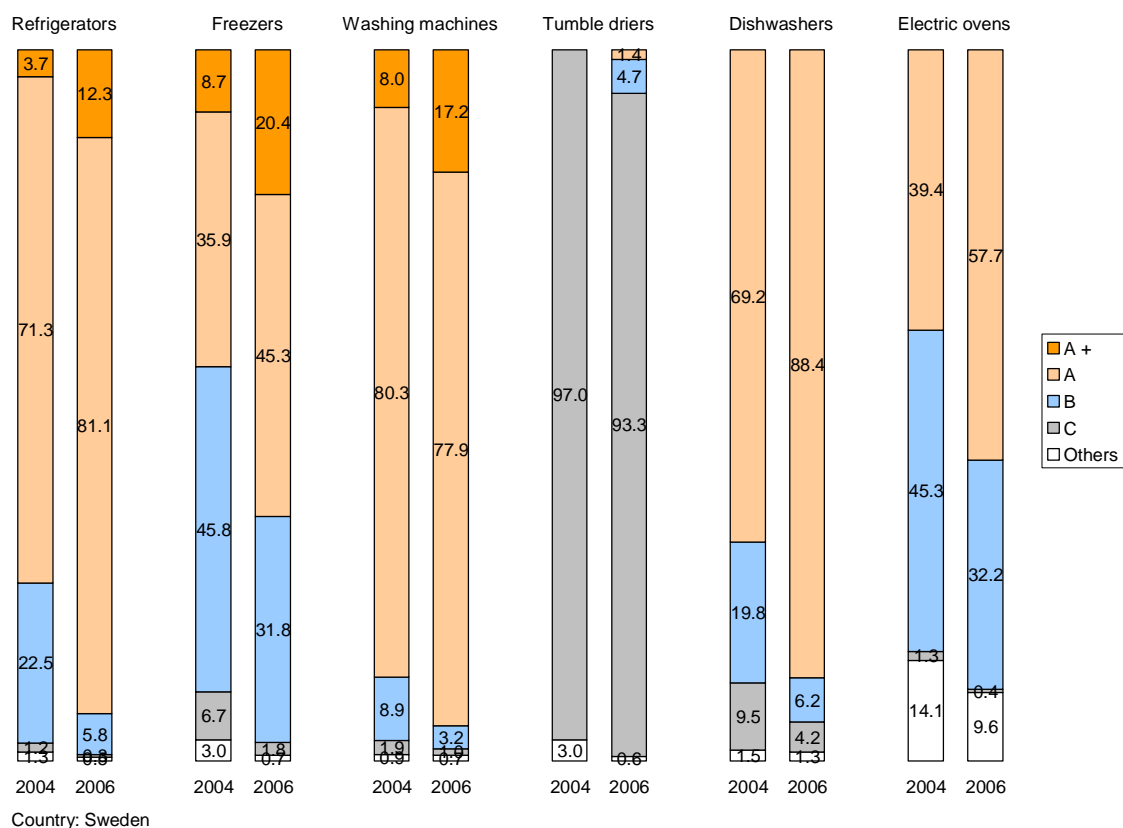
### Sales shares by energy efficiency class (%)



## A.28 Sweden

Sweden	Overall compliance (%)		
	Correctly labelled	Mislabelled	Not labelled
<b>Per type of appliance</b>			
Refrigerators	64	31	5
Freezers	64	28	8
Washing machines	64	28	8
Tumble driers	67	23	10
Dishwashers	67	30	3
Electric ovens	54	36	10
Air conditioners	23	12	65
<b>Per type of shop</b>			
Electro Superstore	66	29	5
Electric specialist (organized)	73	20	7
Electric specialist (independent)	66	26	8
Kitchen / Furniture store	12	70	18
Hypermarket / Cash & City	–	–	–
Department Store	–	–	–
<b>Total</b>	<b>63</b>	<b>29</b>	<b>7</b>

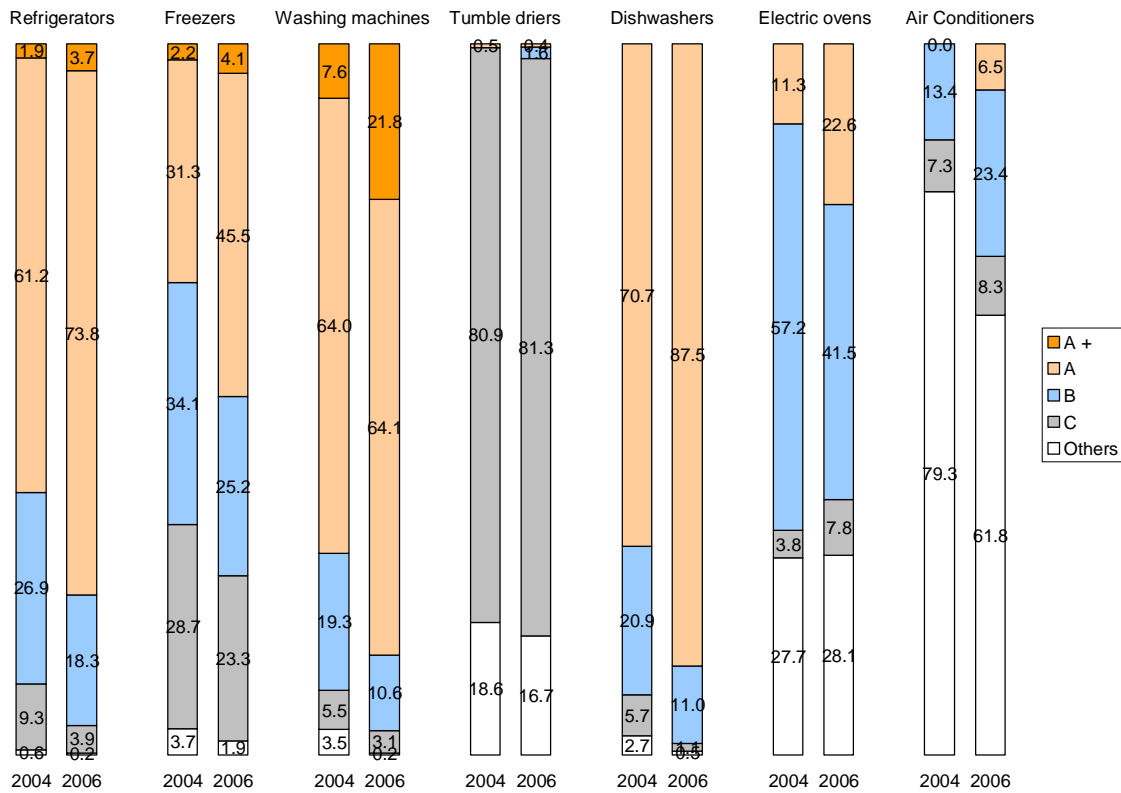
### Sales shares by energy efficiency class (%)



## A.29 United Kingdom

United Kingdom	Overall compliance (%)		
	Correctly labelled	Mislabelled	Not labelled
<b>Per type of appliance</b>			
Refrigerators	78	17	6
Freezers	82	12	6
Washing machines	80	12	9
Tumble driers	84	7	9
Dishwashers	81	13	6
Electric ovens	63	19	18
Air conditioners	62	8	31
<b>Per type of shop</b>			
Electro Superstore	91	4	4
Electric specialist (organized)	–	–	–
Electric specialist (independent)	73	20	7
Kitchen / Furniture store	36	40	24
Hypermarket / Cash & City	39	13	47
Department Store	94	–	6
<b>Total</b>	<b>77</b>	<b>13</b>	<b>9</b>

### Sales shares by energy efficiency class (%)



## A.30 EU 27

EU 27	Overall compliance (%)		
	Correctly labelled	Mislabeled	Not labelled
<b>Per type of appliance</b>			
Refrigerators	64	28	8
Freezers	66	25	9
Washing machines	65	26	9
Tumble driers	70	21	9
Dishwashers	62	29	8
Electric ovens	46	34	21
Air conditioners	27	24	49
<b>Per type of shop</b>			
Electro Superstore	67	24	9
Electric specialist (organized)	61	26	13
Electric specialist (independent)	55	33	11
Kitchen / Furniture store	40	42	17
Hypermarket / Cash & City	56	32	12
Department Store	67	26	7
<b>Total</b>	<b>61</b>	<b>28</b>	<b>11</b>