Come On Labels

Common appliance policy – All for one, One for all – Energy Labels

Contract N°: **IEE/09/628/SI2.558219**

Shop surveys in Italy: an overview of the presence of the energy label

(Work package 4 - Deliverable 4.9)

Final Report, May 2013

Authors: **Milena Presutto - ENEA**

Table of Contents

This document was prepared within the Come On Labels project, supported by the Intelligent Energy Europe programme. The main aim of the project, active in 13 European countries, is to support appliance energy labelling in the field of appliance tests, proper presence of labels in shops, and consumer education.

1. Introduction

The Come On Labels project investigates the state-of-the-art and supports the implementation of energy labels for household appliances and other products covered by implementing measures under the framework Directive 2010/30/EU [1].

Within the project, the consortium members, among which ENEA for Italy, have monitored and/or investigated:

- the level of proper presence of energy labels in shops
- the available information about product labelling surveillance tests
- the existing national schemes aimed at promoting the sales of more energy efficient household appliances
- the national actions developed to promote the EU energy labels towards the consumers to support their purchasing decisions.

Within the label display survey four shop categories have been addressed[1]:

- Electrical specialists: small and medium enterprises usually with a large range of products but a more limited display area; often combined with service and maintenance offers
- Electronic superstores: large scale specialists offering electrical appliances with a broad product range and often specialised departments for the different product groups
- Kitchen studio/Furniture stores: offering kitchen furniture including major household appliances; high degree of competence in planning and consulting services for clients; usually selling complete kitchens with major built-in electrical appliances.
- General hypermarkets/Cash and Carry: usually less important for the sale of large household appliances because the self-service character of these shops often does not respond to customers need for advice at the purchasing time; may also offer also maintenance services.

The main findings of the shop visit actions in Italy have been already summarised in the documents about the National Shop Visits in Work package 4 [2] which cover the shop visits in 13 European countries all over the duration of the project.

ENEA has prepared this document to report the detail findings on the status of the label presence in the shops as result of two surveys carried out by a specialised market research firm[2] in April 2012 and in March 2013. No catalogues or internet shops were investigated in Italy within these two surveys.

Initially the main panorama is given, then a more detailed analysis of the results is presented in order to assess if specific trends could be highlighted for individual product

[1] In the national surveys report, two of the investigated shop categories were named differently. A comparison has been done with the categories defined in the Come On Label project: Electronic superstores = Buying Groups and Electrical specialists = Electrical Chains.

[2] The surveys were developed respectively by EURISKO and IFR, of the GfK group.

Supported by INTELLIGENT ENERGY EUROPE

groups or shop types compared to the other ones. A comparison of the two outcome of the two surveys is also done.

The detailed results of the two national surveys have been delivered also to the national Market Surveillance Authority for information and considerations of a possible future focused market surveillance action.

Supported by INTELLIGENT ENERGY EUROPE

2. The national shop surveys: April 2012 and March 2013

To assess the effectiveness of the EU energy efficiency policy measures for household appliances on the national market two surveys were promoted by ENEA in April 2012 and in March 2013, through a professional market survey company, to investigate the presence and the proper display of the energy labels in a sample of shops all over Italy.

In the first shop survey a sample of 54 shops located in 9 Regions all over Italy was selected (Table 1) and about 20.000 appliances were surveyed as shown in Table 2. The proportional disaggregation by region, province and shop type is presented in Table 3. In the second shop survey a sample of 25 shops was investigated, no kitchen studio/furniture stores were considered, for a total of about 10.000 surveyed appliances (see Tables 1 and 2). The proportional disaggregation by region, province and shop type is presented in Table 4.

Table 1: Shop types and number of investigated sale points in the two surveys

Shop type	April 2012 number of shops	March 2013 number of shops
Electrical specialists	15	10
Electronic superstore	23	9
Kitchen studio/Furniture stores	7	--
General hypermarkets / Cash and Carry	7+2	6
Mail order and internet stores	--	--
Total	54	25

Table 2: Investigated products and number of appliances in the two surveys

Product	April 2012 number of appliances	March 2013 number of appliances
Refrigerators and refrigerator-freezers	3.736	1.888
Freezers	804	395
Wine storage appliances	75	0
Electric ovens	2.015	693
Washing machines	4.162	2.113
Dishwashers	1.543	701
Tumble dryers	677	352
Air conditioners	802	243
Televisions	6.234	3.198
Total	20.048	9.583

In addition, some specific technical data for each single product type, such as the volume of the refrigerators, the capacity of the washing machines the width of the TVs screen etc. were also collected, to allow a further analysis on the products on the national market. It is worth reminding that these additional information are not available for all collected models, therefore some analysis results in this document are based on a lower number of products.

It has to be noted that this product data collection was not possible for the appliances showed in the kitchen studio/furniture stores due to the specific nature of the shops, but this shop category accounted for less that 390 appliances out of the over 20.000 investigated in April 2012. Only the presence of labels on the products was collected in the first shop survey and this shop type was excluded from the second national survey. Also light sources were not checked since energy labels are usually automatically printed on their packaging.

Although not statistically representative of the overall sales point in Italy the two samples are sufficiently ample to identify trends of the Italian panorama. IN addition, the comparison of the gathered information at a year distance would allow to draw some conclusions about the penetration rate of the new energy labels in shops for some product categories.

The first survey was run in the first half of April 2012, the second survey at the beginning of March 2013. Preliminary data were communicated to ENEA by the end of April of each year, and about a month later the complete survey data were delivered.

Supported by INTELLIGENT ENERGY EUROPE

Table 3: Type of shops and disaggregation per Region and Province for the first national shop survey in April 2012

Region	Province	Shop type	Tot.
CAMPANIA	Naples	Electr. superstore	3
		Electr. specialist	2
EMILIA ROMAGNA	Bologna	Electr. superstore	2
		Electr. specialist	1
		Hypermarket	1
		Cash & Carry	1
LAZIO	Rome	Electr. superstore	3
		Electr. specialist	2
		Hypermarket	1
		Kitchen/Furniture	2
LOMBARDIA	Milan	Electr. superstore	3
		Electr. specialist	2
		Hypermarket	1
		Kitchen/Furniture	4
PIEMONTE	Turin	Electr. superstore	2
		Electr. specialist	2
		Hypermarket	1
PUGLIA	Bari	Electr. superstore	2
		Electr. specialist	2
		Hypermarket	1
SICILIA	Catania	Electr. superstore	2
		Electr. specialist	2
		Cash & Carry	1
TOSCANA	Florence	Electr. superstore	3
		Electr. specialist	1
		Hypermarket	1
		Kitchen/Furniture	1
VENETO	Venice	Electr. superstore	3
		Electr. specialist	1
		Hypermarket	1
Total			54

Shop type	Tot.	%
Electr. superstore	23	42,6%
Electr. specialist	15	27,8%
Hypermarket	7	13,0%
Kitchen/Furniture	7	13,0%
Cash & Carry	2	3,7%
Total	54	100,0%

Region	Tot.	%
CAMPANIA	5	9,3%
EMILIA ROMAGNA	5	9,3%
LAZIO	8	14,8%
LOMBARDIA	10	18,5%
PIEMONTE	5	9,3%
PUGLIA	5	9,3%
SICILIA	5	9,3%
TOSCANA	6	11,1%
VENETO	5	9,3%
Total	54	100,0%

Province	Tot.	%
Bari	5	9,3%
Bologna	5	9,3%
Catania	5	9,3%
Florence	6	11,1%
Milan	10	18,5%
Naples	5	9,3%
Rome	8	14,8%
Turin	5	9,3%
Venice	5	9,3%
Total	54	100,0%

Supported by INTELLIGENT ENERGY EUROPE

Table 4: Type of shops and disaggregation per Region and Province for the second national shop survey in March 2013

Region	Province	Shop type	Tot.
CAMPANIA	Naples	Electr. superstore	1
		Electr. specialist	1
EMILIA ROMAGNA	Bologna	Electr. superstore	1
		Electr. specialist	1
		Hypermarket	1
		Cash & Carry	--
LAZIO	Rome	Electr. superstore	1
		Electr. specialist	1
		Hypermarket	1
		Kitchen/Furniture	--
LOMBARDIA	Milan	Electr. superstore	1
		Electr. specialist	1
		Hypermarket	1
		Kitchen/Furniture	--
PIEMONTE	Turin	Electr. superstore	2
		Electr. specialist	1
		Hypermarket	--
PUGLIA	Bari	Electr. superstore	1
		Electr. specialist	1
		Hypermarket	1
SICILIA	Catania	Electr. superstore	1
		Electr. specialist	2
		Cash & Carry	--
TOSCANA	Florence	Electr. superstore	1
		Electr. specialist	1
		Hypermarket	1
		Kitchen/Furniture	--
VENETO	Venice	Electr. superstore	1
		Electr. specialist	--
		Hypermarket	1
Total			25

Shop type	Tot.	%
Electr. superstore	9	36,0%
Electr. specialist	10	40,0%
Hypermarket	6	24,0%
Kitchen/Furniture	0	0
Cash & Carry	0	0
Total	25	100,0%

Region	Tot.	%
CAMPANIA	2	8,0%
EMILIA ROMAGNA	3	12,0%
LAZIO	3	12,0%
LOMBARDIA	3	12,0%
PIEMONTE	3	12,0%
PUGLIA	3	12,0%
SICILIA	3	12,0%
TOSCANA	3	12,0%
VENETO	2	8,0%
Total	25	100,0%

Province	Tot.	%
Bari	2	8,0%
Bologna	3	12,0%
Catania	3	12,0%
Florence	3	12,0%
Milan	3	12,0%
Naples	3	12,0%
Rome	3	12,0%
Turin	3	12,0%
Venice	2	8,0%
Total	25	100,0%

Supported by INTELLIGENT ENERGY EUROPE

3. The overall outcome of the national shop surveys

The overall result of the first survey (Table 5) is that 72% of the surveyed appliances were labelled either with the old label, the new one or both (as in case of refrigerating appliances, washing machines, dishwashers, air conditioners and tumble dryers). The energy label, both the old and the new ones, is not displayed in about 26% of the surveyed products. But this value should be judged in the light of the mandatory application – just few months in April 2012 – of the label for TVs and wine storage appliances at the time of the first survey. The number of observed wine storage appliances is too low to draw any meaningful conclusions on this product.

The new label is displayed in slightly less than 44% of the observed products, or 8.724 out of 20.048. It is worth noting that about half of refrigerators, refrigerator-freezers, freezers, washing machines and dishwashers display the new label even if it has become mandatory only at the end of 2011. It could be argued that the market operators recognize the commercial advantage deriving from the display of the new energy label for these appliances.

The results per appliance type (Figure 1) show that over about the 20.000 models surveyed:

- **TV**: about 48% of the displayed appliances were already labelled with the new label in April 2012. Due to the fact that the label was not mandatory for the products placed on the market before the application date (November 2011) a 48% presence of the label is a very positive result, demonstrating that the market operators – suppliers and dealers - are aware of the importance of the label as a marketing tool for energy efficient models;
- **refrigerating appliances**: about 90% of the displayed appliances are labelled, more than half with the new label
- **wine storage appliances**: not a common appliance, but about 10% shows the new label even if the non-labelled appliances are still 90%
- **washing machines**: 91% of the displayed appliances are labelled, and 57% with the new label
- **dishwasher**: 85% of the machines are labelled, and 56% with the new label
- **tumble dryers**: 87% of the displayed appliances are labelled with the old label, almost 10% not labelled and the rest shows an incorrect label
- **electric ovens**: only 52% of the appliances are labelled (with the old label) but 43% are not. The reason can be that for this product the label is not considered a marketing tool by retailers. The survey has covered both the free standing ovens and the ovens installed in kitchen ranges; it is therefore possible that the installation type has an influence on the presence/absence of the label, although all electric ovens should have been labelled according to the EU legislation
- **air conditioners**: this product shows the lowest percentage of incorrect labels but contemporarily about 23% of the surveyed appliances are not labelled. A very small percentage of the models already displayed the new label, that will become mandatory on 1 January 2013
  A part from the electric ovens, this is the second higher percentage of non-compliance with the labelling requirements although its means also that about 77% of the appliances were correctly labelled in the shops.

Few tumble dryers and ovens were apparently bearing the new label, although not existing for both products at the time of the survey[3]. The reason was not further investigated.

The percentage of non-compliant old label (labels partly or incorrectly displayed) is significantly low at about 2,2% of the sample, corresponding to about 7,7% of the products bearing the old label. Electric ovens show the highest percentage (5%) of non-conformity (partly/incorrectly displayed labels). For TV and wine storage appliances the non-conformity is zero because only the new label is applicable to the two products. The detailed investigation of the ways the labels are incorrectly displayed was out of the scope of the survey.

In Table 6 the results of the second national survey of April 2013 are presented. The main differences with the previous survey are that about 93% of the appliances are labelled, with the old label, the new one or both depending on the specific product type and that the percentage of non-compliant old label (labels partly or incorrectly displayed) has significantly lowered significantly to about 0,2% of the sample. The energy label is not displayed in about 7,2% of the surveyed products and only 0,2% of the models display an incorrect (old) label. A part from the wine storage appliances that were not assessed in March 2013, the improving in the label display is mainly linked to the increase of the labelled TV: 86% in 2013 against 48% just a year before. Even if considering that the two shop samples have a different size the success of the TV labelling is out of doubt. For the other appliances, more than 90% of refrigerating appliances, washing machine and dishwashers bear now the new label, confirming the initial hypothesis that the market operators recognize the commercial advantage deriving from the display of the new energy label for these appliances. This is even further confirmed by the presence of the new label in 18% of the dryers, although the new labelling scheme became mandatory only at the end of May 2013, and in 17% of the air conditioners that were obliged to bear the new labelling scheme since 1st January 2013.

The results per appliance type (Figure 2) show that over about the 9.500 models surveyed in 2013:

- **TV**: more than 86% of the displayed appliances were already labelled with the new label in March 2012. Due to the fact that the label was not mandatory for the products placed on the market before November 2011 it is impossible to distinguish, within the remaining 14% of non-labelled products, models not labelled because placed on the market before the application date from those non compliant with the new legislation;
- **refrigerating appliances**: more than 98% of the displayed appliances are labelled, and 93% have the new label
- **wine storage appliances**: not covered by the second national survey due tot heir scarce presence in the shops and very low turnover
- **washing machines**: more than 98% of the displayed appliances are labelled, and about 94% with the new label
- **dishwasher**: 96% of the displayed machines are labelled, and 88% with the new label

[3] For tumble dryers the delegated Regulation enforcing the new energy labelling was published in may 2012.

Table 5: Summary results of the April 2012 national shop survey: number of surveyed appliances and label presence

Appliance type	Total number	Energy label presence (number)					Energy label presence (%)			
		No label	New label	Old label correct	Old label incorrect	Old label total	Total labelled	No label	Old label incorrect	New label presence
Refrigerating appliances	4.540	357	2494	1.556	133	1.689	89,2	7,9	2,9	54,9
refrigerators & refriger.-freezers	3.736	305	2.057	1.255	119	1.374	88,7	8,2	3,2	55,1
Freezers*	804	52	437	301	14	315	91,8	6,5	1,7	54,4
Wine appliances	75	68	2	5	0	5	9,3	90,7	0,0	2,7
Ovens	2.015	867	11	1.043	94	1.137	52,3	43,0	4,7	0,5
Dishwashers	1.543	196	862	441	44	485	84,4	12,7	2,9	55,9
Washing machines	4.162	252	2.363	1.413	134	1.547	90,7	6,1	3,2	56,8
Dryers	677	50	17	588	22	610	89,4	7,4	3,2	2,5
Air conditioners	802	182	10	604	6	610	76,6	22,7	0,7	1,2
TV	6.234	3.269	2.965	0	0	0	47,6	52,4	0,0	47,6
Total	20.048	5.241	8.724	5.650	433	6.083	71,7	26,1	2,2	43,5

*for freezers no distinction was made between chest (horizontal) and upright (vertical) appliances.

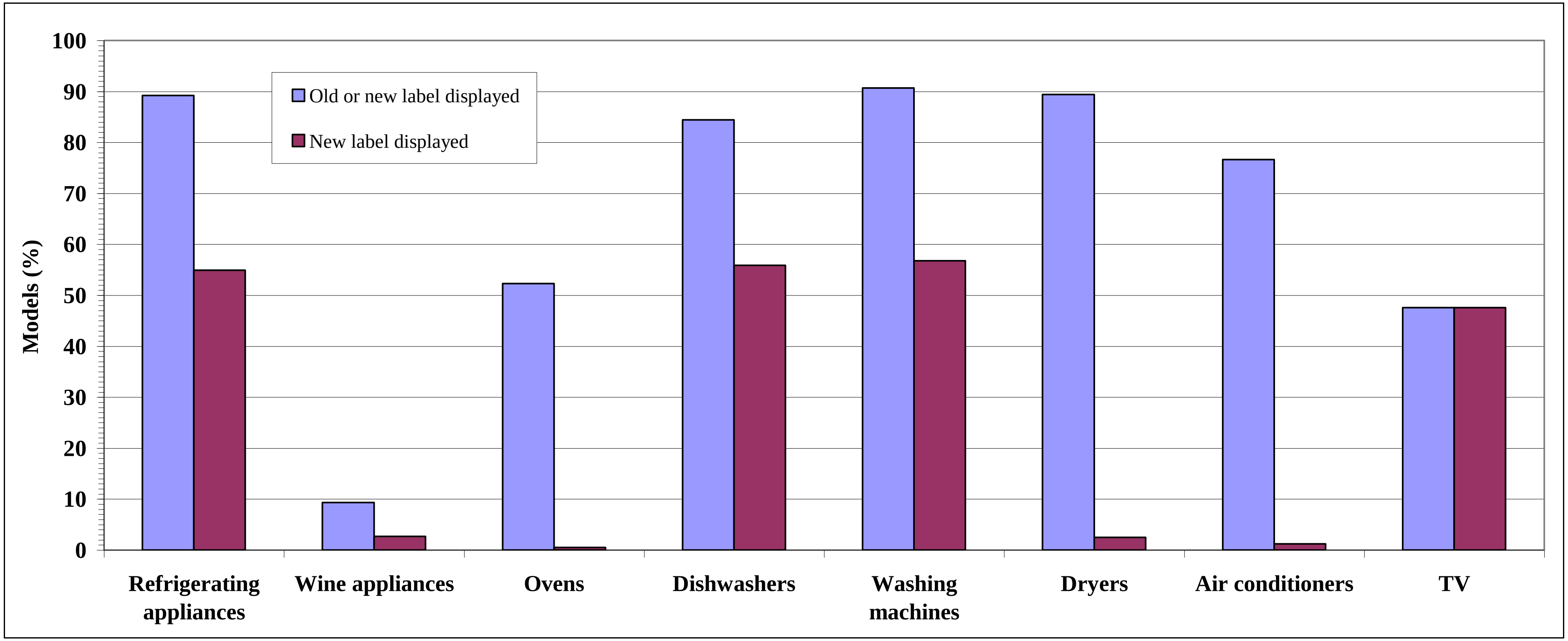
Table 6: Summary results of the March 2013 national shop survey: number of surveyed appliances and label presence

Appliance type	Total number	Energy label presence (number)					Energy label presence (%)			
		No label	New label	Old label correct	Old label incorrect	Old label total	Total labelled	No label	Old label incorrect	New label presence
Refrigerating appliances	2.283	38	2.124	120	1	121	98,3	1,66	0,04	93,0
refrigerators & refriger.-freezers	1.888	25	1.773	90	0	90	98,7	1,32	0,00	93,9
Freezers*	395	13	351	30	1	31	96,5	3,29	0,25	88,9
Wine appliances	0	0	0	0	0	0	0	0	0	0
Ovens	693	103	65	520	5	525	84,4	14,7	0,72	9,4
Dishwashers	701	29	615	55	1	57	95,6	4,14	0,14	87,7
Washing machines	2.113	39	1.982	89	3	92	98,0	1,85	0,14	93,8
Dryers	352	18	64	264	6	270	93,2	5,11	1,70	18,2
Air conditioners	243	24	42	175	2	177	89,3	9,88	0,82	17,3
TV	3.198	436	2.762	0	0	0	86,4	13,6	0,00	86,4
Total	9.583	687	7.654	1.223	19	1.242	92,6	7,17	0,19	79,9

*for freezers no distinction was made between chest (horizontal) and upright (vertical) appliances.

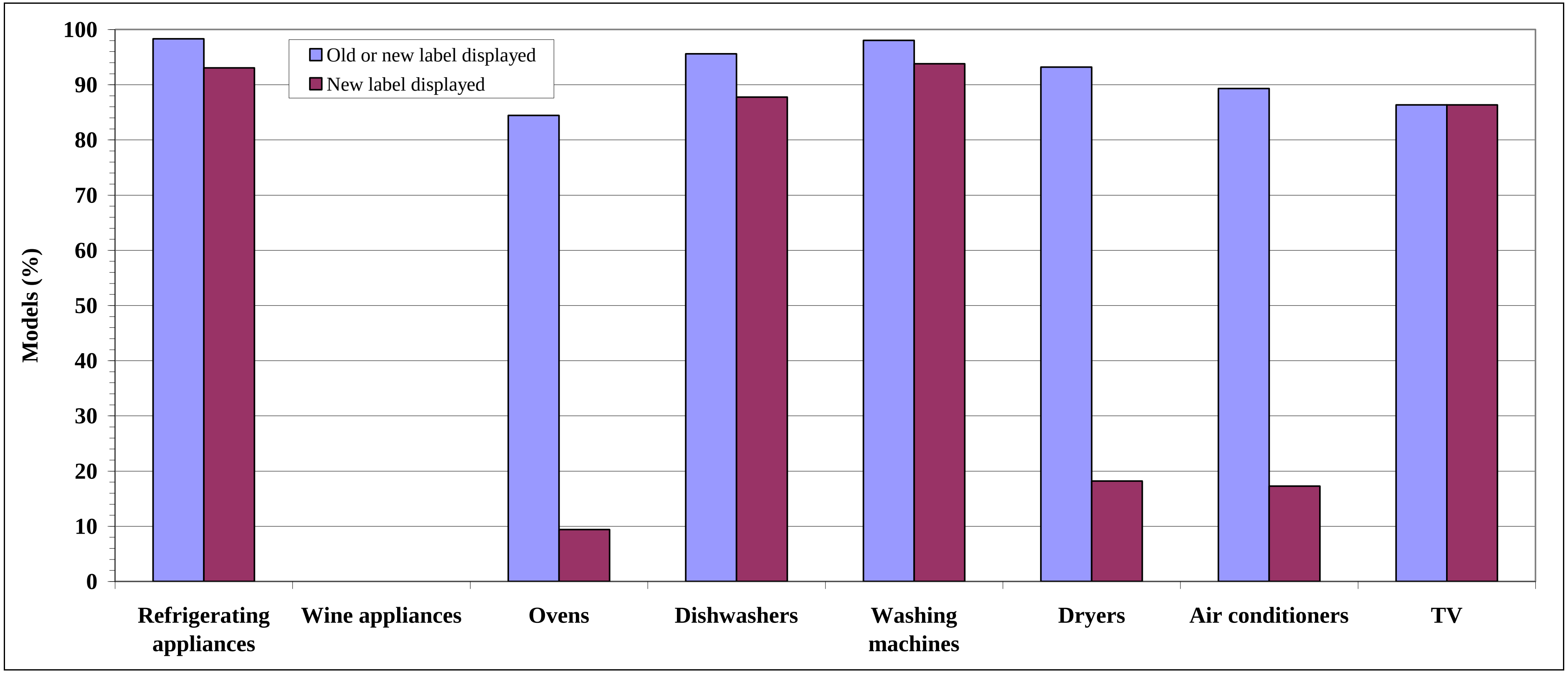
Supported by INTELLIGENT ENERGY EUROPE

Figure 1: Presence of energy labels and share of new labels on products displayed in shops in April 2012



Supported by INTELLIGENT ENERGY EUROPE

Figure 2: Presence of energy labels and share of new labels on products displayed in shops in March 2013 (wine appliances excluded)



- **tumble dryers**: about 93% of the displayed appliances are labelled, and more than 18% with the new label; about 5% of the models are not labelled and less than 2% shows an incorrect (old) label
- **electric ovens**: 85% of the appliances are labelled but about 15% are not. The reason can be that for this product the label is not considered a marketing tool by retailers. Also the second survey has covered both the free standing ovens and the ovens installed in kitchen ranges; it is therefore possible that the installation type has an influence on the presence/absence of the label; 10% of the model have apparently the new label, but it does not exist yet, therefore the survey has captured either another type of label or a mistake has occurred
- **air conditioners**: although 90% of the model are labelled, but this product shows the second highest percentage of non-labelled products (about 10%) and about 1% of incorrect labels but contemporarily about 17% of the surveyed appliances have the new label.

When the **sales channels** are considered (Table 7 and Figure 3), more than half of the products in April 2012 (11.219 out of 19.659) were gathered from the Electronic superstores, followed by Electrical specialists with 6.549 products. Hypermarkets and Cash & Carry account for a lower number of displayed products. The energy label was mostly not displayed in Hypermarkets (36,6%) and Cash & Carry (27,4%). The level of non-compliance of the old label was higher – although at a level of 3,7% - for the Electronic superstores; Cash & Carry presented the higher level of conformity of the old label with 37,3%; Electric specialists have the highest level of new label presence (37,3%).
A year later (Table 8 and Figure 4), the sales are almost equally divided between Electronic superstores and Electrical specialists, followed by General hypermarkets. The latter show also a higher non-labelled products (10,5%), while the highest percentage of labelled product occurs in Electrical specialists (95,5%). The display of incorrect old label is as said quite low, with only General hypermarkets showing a 1,3%.

When the regions/towns (Table 9) are considered (kitchen furniture shop excluded), in April 2012 the label was present on about 73% of the appliances, with Emilia Romagna reaching almost 80%; the low % of incorrect old label is unevenly spread, with some Regions showing almost no incorrect labelling. The label is more absent in Campania (38,5%) and Veneto (32,7%) and less absent in Lazio (16,5%) and Tuscany (21,7%); Region Lazio shows also the highest percentage (11,3%) of non-conformity of the old label, followed by Lombardy (3,4%). In April 2009, the same table shows clearly the generalised increased of the labelled products in all regions, but still Campania, Tuscany and Veneto show a percentage of non-labelled products higher than 10%. A positive element is the quite low percentage of displayed incorrect al labels, that is almost evenly distributed among regions.

Supported by INTELLIGENT ENERGY EUROPE

Table 7: Summary results of the national shop survey: label presence in the surveyed shops in April 2012

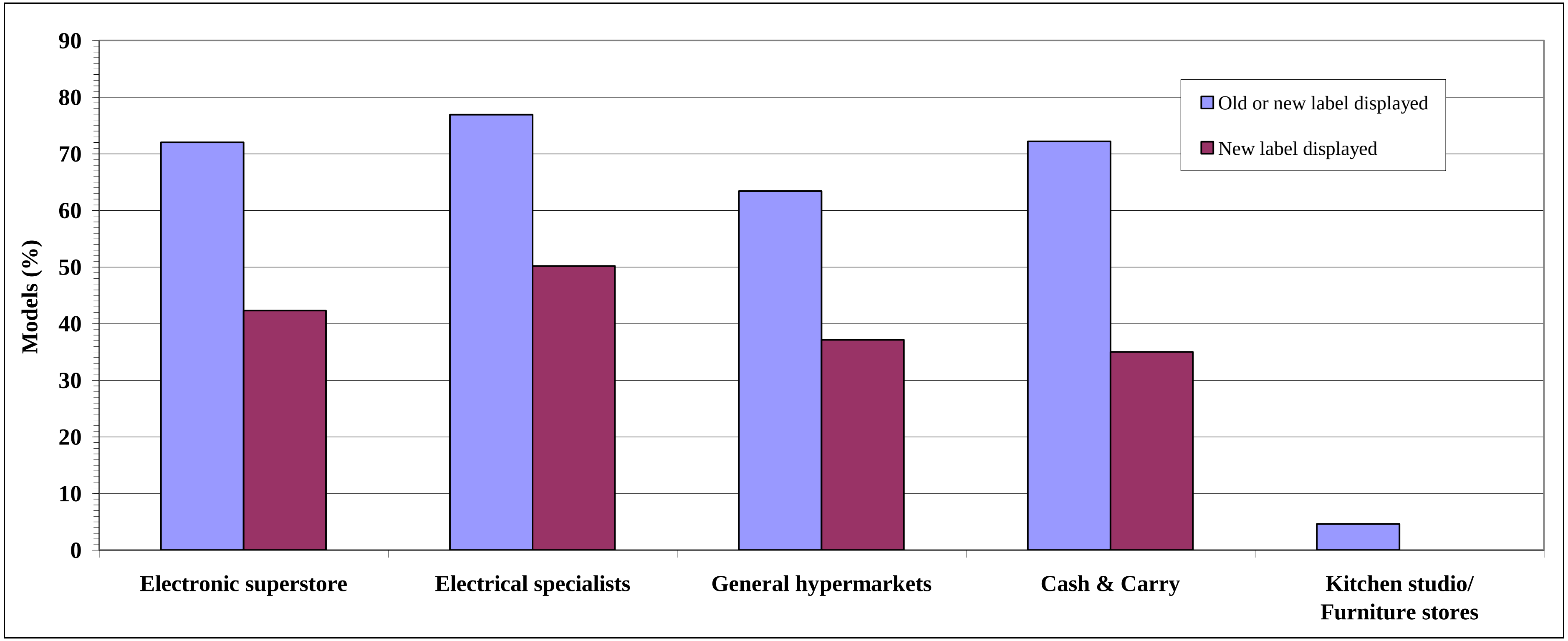
Appliance type	Total number	Energy label presence (number)					Energy label presence (%)			
		No label	New label	Old label correct	Old label incorrect	Old label total	Total labelled	No label	Old label incorrect	New label presence
Electronic superstore	11.219	2.729	4.744	3.330	416	3.746	72,0	24,3	3,7	42,3
Electrical specialists	6.549	1.500	3.290	1.748	11	1.759	76,9	22,9	0,2	50,2
General hypermarkets	1.376	500	510	362	4	366	63,4	36,3	0,3	37,1
Cash & Carry	515	141	180	192	2	194	72,2	27,4	0,4	35,0
Kitchen studio/Furniture stores	389	371	0	18	0	18	4,6	95,4	0,0	0,0
Total	20.048	5.241	8.724	5.650	433	6.083	71,7%	26,1%	2,2%	43,5%

Table 8: Summary results of the national shop survey: label presence in the surveyed shops in March 2013
(kitchen furniture and cash & carry excluded)

Appliance type	Total number	Energy label presence (number)					Energy label presence (%)			
		No label	New label	Old label correct	Old label incorrect	Old label total	Total labelled	No label	Old label incorrect	New label presence
Electronic superstore	4.528	404	3344	778	2	780	91,0	8,92	0,04	73,9
Electrical specialists	4.059	178	3512	365	4	369	95,5	4,39	0,10	86,5
General hypermarkets	996	105	798	80	13	93	88,2	10,5	1,31	80,1
Cash & Carry	0	0	0	0	0	0	0	0	0	0
Kitchen studio/Furniture stores	0	0	0	0	0	0	0	0	0	0
Total	9.583	687	7.654	1.223	19	1.242	92,6	7,17	0,20	79,9

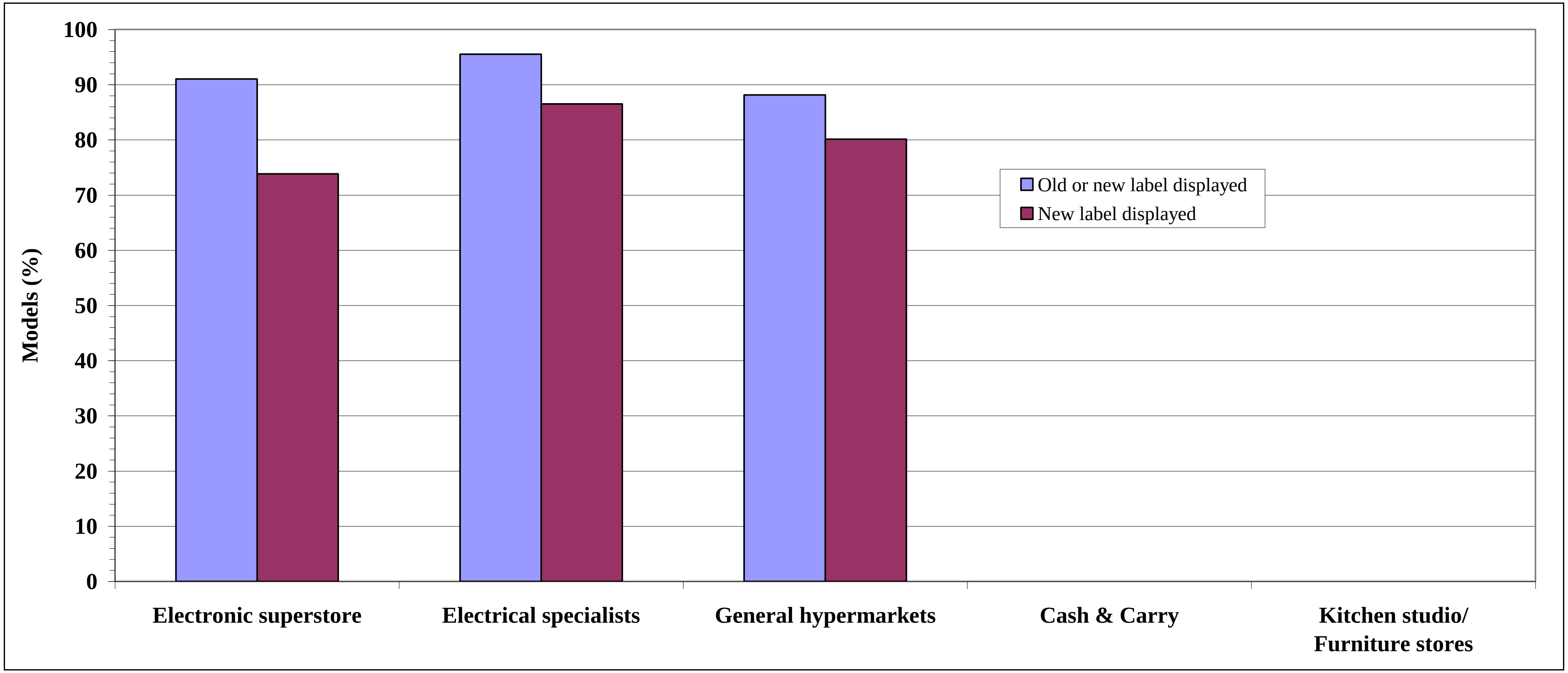
Supported by INTELLIGENT ENERGY EUROPE

Figure 3: Display of energy labels on surveyed products by the shop type in April 2012



Supported by INTELLIGENT ENERGY EUROPE

Figure 4: Display of energy labels on surveyed products by the shop type in March 2013 (kitchen furniture and Cash & Carry excluded)



Supported by INTELLIGENT ENERGY EUROPE

Table 9: Summary of the national shop surveys: energy label presence per Region in April 2012 and March 2013 (kitchen furniture shop excluded)

Region	Shop survey April 2012				Shop survey March 2013			
	Appliance tot. number	Energy label presence (%)			Appliance tot. number	Energy label presence (%)		
		Total labelled	No label	Old label incorrect		Total labelled	No label	Old label incorrect
CAMPANIA	2.040	61,4	38,5	0,1	878	88,3	11,7	0,00
EMILIA ROMAGNA	2.045	79,4	20,5	0,1	1.102	97,3	2,5	0,27
LAZIO	2.713	72,1	16,5	11,3	1.100	94,5	5,3	0,27
LOMBARDIA	2.643	74,3	22,2	3,4	878	91,2	8,8	0,00
PIEMONTE	1.770	77,2	22,6	0,2	1.238	98,1	1,8	0,08
PUGLIA	2.472	75,4	24,6	0,0	1.413	93,6	6,2	0,21
SICILIA	2.231	73,0	26,8	0,2	1.324	90,1	9,8	0,08
TOSCANA	1.824	77,2	21,7	1,1	873	87,6	11,5	0,92
VENETO	1.921	67,3	32,7	0,1	777	89,4	10,6	0,00
Total	19.659	73,0	24,8	2,2	9.583	92,6	7,2	0,20

Supported by INTELLIGENT ENERGY EUROPE

4. Detailed outcome of the national shop surveys

4.1 Presence of the label per product and shop type

In Tables 10 and 11 the outcome of the first survey per product and shop type is presented, kitchen studio and furniture stores are excluded.

Table 10: Presence of the label per appliance and shop type in April 2012

Appliance type	Label status					
	No label	New label	Old label incorrect	Old label correct	Total	Total labelled
Refrigerators & refrig.-freezers	**171**	**2.057**	**119**	**1.250**	**3.597**	**3.307**
Electronic superstore	123	1.132	116	722	2.093	1.854
Electrical specialist	36	809	2	397	1.244	1.206
Hypermarket		79		71	150	150
Cash & Carry	12	37	1	60	110	97
Freezers*	**47**	**437**	**14**	**301**	**799**	**738**
Electronic superstore	34	250	13	189	486	439
Electrical specialist	7	151	1	66	225	217
Hypermarket	3	23		22	48	45
Cash & Carry	3	13		24	40	37
Wine storage appliances	**67**	**2**		**5**	**74**	**7**
Electronic superstore	42	1		4	47	5
Electrical specialist	23	1		1	25	2
Hypermarket	2				2	0
Electric ovens	**738**	**11**	**94**	**1.030**	**1.873**	**1.041**
Electronic superstore	508	5	91	598	1.202	603
Electric specialist	162		3	401	566	401
Hypermarket	23	6		6	35	12
Cash & Carry	45			25	70	25
Dishwashers	**97**	**862**	**44**	**441**	**1.444**	**1.303**
Electronic superstore	56	483	43	275	857	758
Electrical specialist	35	337		133	505	470
Hypermarket	4	31	1	23	59	54
Cash & Carry	2	11		10	23	21
Washign machines	**249**	**2.363**	**134**	**14.13**	**4.159**	**3.776**
Electronic superstore	134	1.352	131	835	2.452	2.187
Electrical specialist	101	845	2	381	1.329	1.226
Hypermarket	9	106	1	151	267	257
Cash & Carry	5	60		46	111	106
Dryers	**50**	**17**	**22**	**588**	**677**	**605**
Electronic superstore	27	10	20	346	403	356
Electrical specialist	17	5	2	194	218	199
Hypermarket	5	2		34	41	36
Cash & Carry	1			14	15	14
Air conditioners	**182**	**10**	**6**	**604**	**802**	**614**
Electronic superstore	127	10	2	361	500	371
Electrical specialist	46		1	175	222	175
Hypermarket	3		2	55	60	55
Cash & Carry	6		1	13	20	13
TVs	**3.269**	**2.965**			**6.234**	**2.965**
Electronic superstore	1.678	1.501			3.179	1.501
Electrical specialist	1.073	1.142			2.215	1.142
Hypermarket	451	263			714	263
Cash & Carry	67	59			126	59
Total	4.870	8.724	433	5.632	19.659	14..356

Supported by INTELLIGENT ENERGY EUROPE

Table 11: Presence of the label per appliance and shop type (percentage) in April 2012

Appliance type	Label status					
	No label	New label	Old label incorrect	Old label correct	Total	Total labelled
Refrigerators & refrig.-freezers	**171**	**2.057**	**119**	**1.250**	**3.597**	**3.307**
Electronic superstore	5,9%	54,1%	5,5%	34,5%	100%	88,6%
Electrical specialist	2,9%	65,0%	0,2%	31,9%	100%	96,9%
Hypermarket	0,0%	52,7%	0,0%	47,3%	100%	100,0%
Cash & Carry	10,9%	33,6%	0,9%	54,5%	100%	88,2%
Freezers	**47**	**437**	**14**	**301**	**799**	**738**
Electronic superstore	7,0%	51,4%	2,7%	38,9%	100%	90,3%
Electric specialist	3,1%	67,1%	0,4%	29,3%	100%	96,4%
Hypermarket	6,3%	47,9%	0,0%	45,8%	100%	93,8%
Cash & Carry	7,5%	32,5%	0,0%	60,0%	100%	92,5%
Wine storage appliances	**67**	**2**		**5**	**74**	**7**
Electronic superstore	89,4%	2,1%	0,0%	8,5%	100%	10,6%
Electrical specialist	92,0%	4,0%	0,0%	4,0%	100%	8,0%
Hypermarket	100,0%	0,0%	0,0%	0,0%	100%	0,0%
Electric ovens	**738**	**11**	**94**	**1.030**	**1.873**	**1.041**
Electronic superstore	42,3%	0,4%	7,6%	49,8%	100%	50,2%
Electric specialist	28,6%	0,0%	0,5%	70,8%	100%	70,8%
Hypermarket	65,7%	17,1%	0,0%	17,1%	100%	34,3%
Cash & Carry	64,3%	0,0%	0,0%	35,7%	100%	35,7%
Dishwashers	**97**	**862**	**44**	**441**	**1.444**	**1.303**
Electronic superstore	6,5%	56,4%	5,0%	32,1%	100%	88,4%
Electrical specialist	6,9%	66,7%	0,0%	26,3%	100%	93,1%
Hypermarket	6,8%	52,5%	1,7%	39,0%	100%	91,5%
Cash & Carry	8,7%	47,8%	0,0%	43,5%	100%	91,3%
Washign machines	**249**	**2.363**	**134**	**14.13**	**4.159**	**3.776**
Electronic superstore	5,5%	55,1%	5,3%	34,1%	100%	89,2%
Electric specialist	7,6%	63,6%	0,2%	28,7%	100%	92,2%
Hypermarket	3,4%	39,7%	0,4%	56,6%	100%	96,3%
Cash & Carry	4,5%	54,1%	0,0%	41,4%	100%	95,5%
Dryers	**50**	**17**	**22**	**588**	**677**	**605**
Electronic superstore	6,7%	2,5%	5,0%	85,9%	100%	88,3%
Electrical specialist	7,8%	2,3%	0,9%	89,0%	100%	91,3%
Hypermarket	12,2%	4,9%	0,0%	82,9%	100%	87,8%
Cash & Carry	6,7%	0,0%	0,0%	93,3%	100%	93,3%
Air conditioners	**182**	**10**	**6**	**604**	**802**	**614**
Electronic superstore	25,4%	2,0%	0,4%	72,2%	100%	74,2%
Electrical specialist	20,7%	0,0%	0,5%	78,8%	100%	78,8%
Hypermarket	5,0%	0,0%	3,3%	91,7%	100%	91,7%
Cash & Carry	30,0%	0,0%	5,0%	65,0%	100%	65,0%
TVs	**3.269**	**2.965**			**6.234**	**2.965**
Electronic superstore	52,8%	47,2%	0,0%	0,0%	100%	47,2%
Electrical specialist	48,4%	51,6%	0,0%	0,0%	100%	51,6%
Hypermarket	63,2%	36,8%	0,0%	0,0%	100%	36,8%
Cash & Carry	53,2%	46,8%	0,0%	0,0%	100%	46,8%
Total	4.870	8.724	433	5.632	19.659	14..356

This detailed analysis, see Figure 5 (the percentage of appliances with the old label incorrectly displayed is omitted in the Figure), reveals that:

- for refrigerating appliances (refrigerators & refrigerator-freezers and freezers) Electronic Superstores and Electrical Specialists displayed a higher percentage of new labels than Hypermarkets and Cash & Carry shops

Figure 5: Presence of the label per appliance and shop type in percentage (percentage of appliances with the old label incorrectly displayed is omitted)

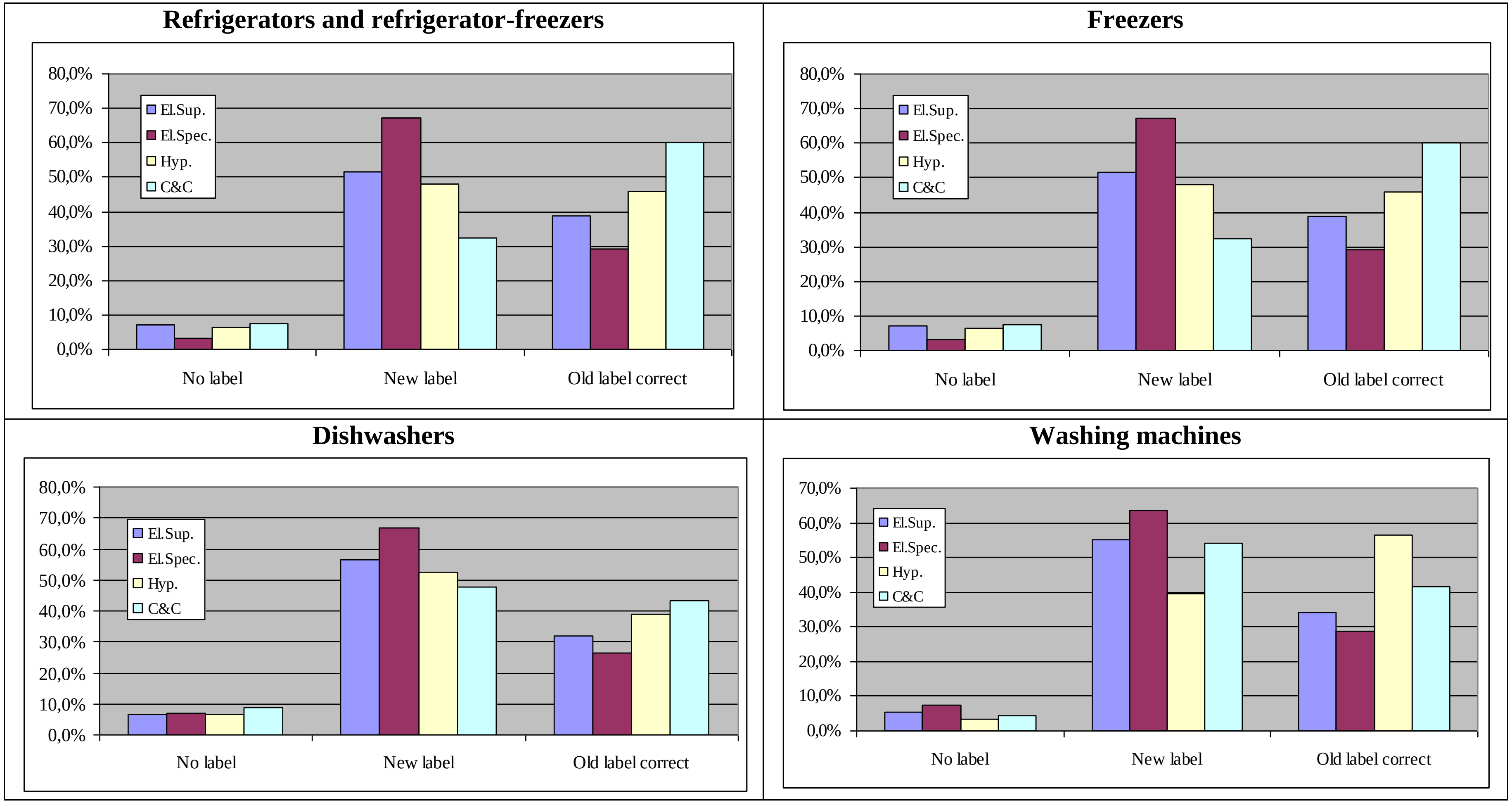
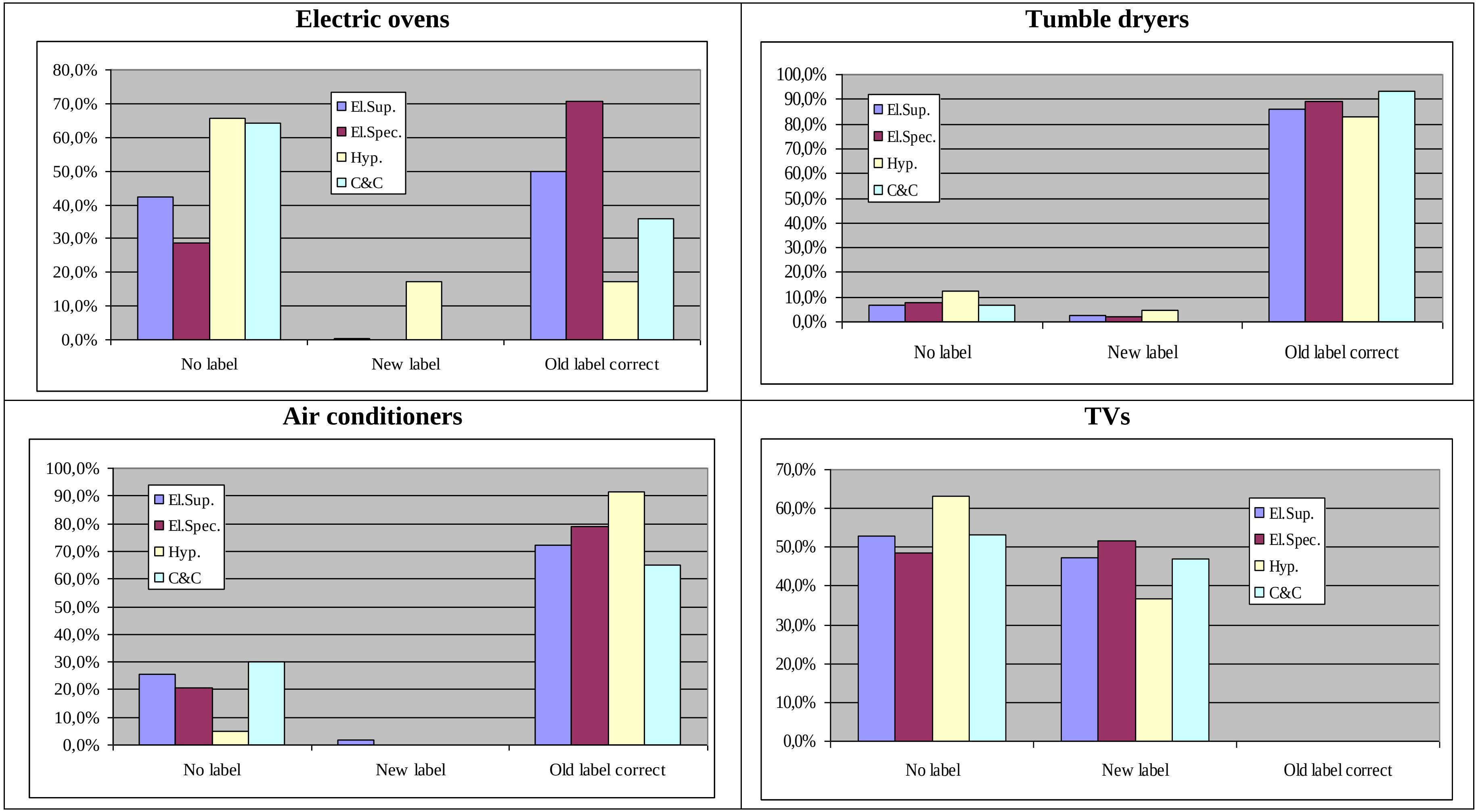


Figure 5: Presence of the label per appliance and shop type in percentage (percentage of appliances with the old label incorrectly displayed is omitted), cont.



- the same happens for dishwashers and for washing machines, but for the latter also Cash and Carry shops show a higher percentage of new labels; for tumble dryers it is obvious that all shop type display the old label, being the new label not enforced, even voluntarily, for this appliance at the time of developing the survey
- for electric ovens Hypermarkets and Cash & Carry shops show a higher percentage of non-labelled models, while on the contrary the old label presence is higher in Electronic Superstores and even higher in Electrical Specialists
- for air conditioners all shop types display the old label, with a higher percentage in Hypermarkets and Electrical Specialists.
- for TVs, Hypermarkets show a lower presence of the new label, compared to the other shops.

The same analysis has been repeated for the data collected during the second shop survey in April 2013. In Tables 12 and 13 the outcome of the second survey per product and shop type is presented, kitchen studio/furniture stores and cash & carry shops are excluded.

This detailed analysis, see Figure 6 (the percentage of appliances with the old label incorrectly displayed is omitted in the Figure), reveals that:

- for refrigerating appliances (refrigerators & refrigerator-freezers and freezers) the three shop types (Electronic Superstores, Electrical Specialists and Hypermarkets) displayed similar percentage of new labels, although slightly higher for Electrical Specialists especially for freezers;
- the same happens for washing machines, while for dishwashers hypermarkets show a significantly lower percentage of new labels and a higher percentage of old labels; for tumble dryers in all shop types the old label is mostly displayed, but the new label is also starting to be displayed
- for electric ovens Electronic Superstores and Electrical Specialists show a higher percentage of labelled models (old label), while Hypermarkets still show a 40% of models with no label; the reported percentage of new label is probably due to a different mark or label having been collected in the survey since no new label does exist yet for this product
- for air conditioners Electronic Superstores show the highest percentage of models with the old label, while Electrical Specialists have a similar percentage of new and old labels; Hypermarkets show the highest percentage of non-labelled models
- for TVs, the new label is largely present in all shop types, with the highest presence in Electronic Superstores, no labelled models are a minority.

Supported by INTELLIGENT ENERGY EUROPE

Table 12: Presence of the label per appliance and shop type in March 2013

Appliance type	Label status					
	No label	New label	Old label incorrect	Old label correct	Total	Total labelled
Refrigerators & refrig.-freezers	**25**	**1.773**		**90**	**1.888**	**1.863**
Electronic superstore	15	787		59	861	846
Electrical specialist	10	859		20	889	879
Hypermarket		127		11	138	138
Cash & Carry	0	0	0	0	0	0
Freezers*	**13**	**351**	**1**	**30**	**395**	**381**
Electronic superstore	9	182		22	213	204
Electrical specialist	3	124		3	130	127
Hypermarket	1	45	1	5	52	50
Cash & Carry	0	0	0	0	0	0
Wine storage appliances	**0**	**0**	**0**	**0**	**0**	**0**
Electronic superstore	0	0	0	0	0	0
Electrical specialist	0	0	0	0	0	0
Hypermarket	0	0	0	0	0	0
Electric ovens	**103**	**65**	**5**	**520**	**693**	**585**
Electronic superstore	62	38	1	323	424	361
Electric specialist	34	26	1	190	251	216
Hypermarket	7	1	3	7	18	8
Cash & Carry	0	0	0	0	0	0
Dishwashers	**29**	**615**	**2**	**55**	**701**	**670**
Electronic superstore	9	182		22	213	204
Electrical specialist	3	124		3	130	127
Hypermarket	1	45	1	5	52	50
Cash & Carry	0	0	0	0	0	0
Washing machines	**39**	**1.982**	**3**	**89**	**2.113**	**2.071**
Electronic superstore	22	891	1	55	969	946
Electrical specialist	13	896	2	17	928	913
Hypermarket	4	195		17	216	212
Cash & Carry	0	0	0	0	0	0
Dryers	**18**	**64**	**6**	**264**	**352**	**328**
Electronic superstore	2	31		141	174	172
Electrical specialist	13	28		100	141	128
Hypermarket	3	5	6	23	37	28
Cash & Carry	0	0	0	0	0	0
Air conditioners	**24**	**42**	**2**	**175**	**243**	**217**
Electronic superstore	10	18		144	172	162
Electrical specialist	10	24		24	58	48
Hypermarket	4		2	7	13	7
Cash & Carry	0	0	0	0	0	0
TVs	**436**	**2.762**			**3.198**	**2.762**
Electronic superstore	270	1.059			1.329	1.059
Electrical specialist	82	1.305			1.387	1.305
Hypermarket	84	398			482	398
Cash & Carry	0	0	0	0	0	0
Total	**687**	**7.654**	**19**	**1.223**	**9.583**	**8.877**

Supported by INTELLIGENT ENERGY EUROPE

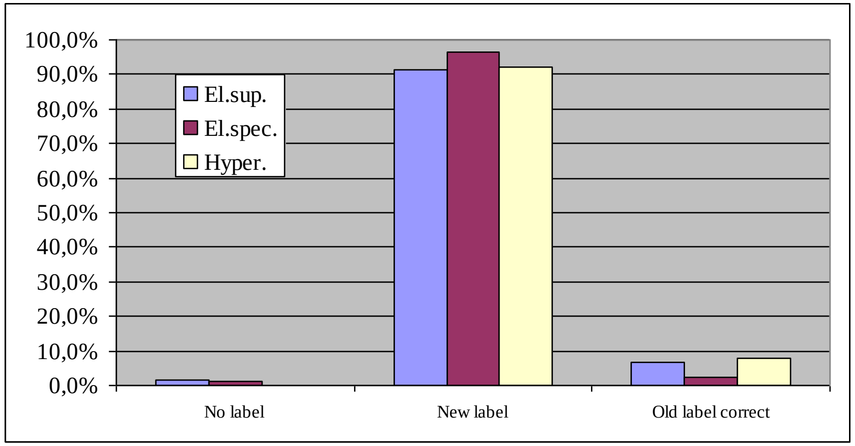
Table 13: Presence of the label per appliance and shop type (percentage) in March 2013

Appliance type	Label status					
	No label	New label	Old label incorrect	Old label correct	Total	Total labelled
Refrigerators & refrig.-freezers	**25**	**1.773**	**0**	**90**	**1.888**	**1.863**
Electronic superstore	1,1%	17,8%	0,0%	81,0%	100%	98,9%
Electrical specialist	9,2%	19,9%	0,0%	70,9%	100%	90,8%
Hypermarket	8,1%	13,5%	16,2%	62,2%	100%	75,7%
Cash & Carry	0	0	0	0	0	0
Freezers*	**13**	**351**	**1**	**30**	**395**	**381**
Electronic superstore	14,6%	9,0%	0,2%	76,2%	100%	85,1%
Electrical specialist	13,5%	10,4%	0,4%	75,7%	100%	86,1%
Hypermarket	38,9%	5,6%	16,7%	38,9%	100%	44,4%
Cash & Carry	0	0	0	0	0	0
Wine storage appliances	**0**	**0**	**0**	**0**	**0**	**0**
Electronic superstore	0	0	0	0	0	0
Electrical specialist	0	0	0	0	0	0
Hypermarket	0	0	0	0	0	0
Electric ovens	**103**	**65**	**5**	**520**	**693**	**585**
Electronic superstore	1,7%	91,4%	0,0%	6,9%	100%	98,3%
Electric specialist	1,1%	96,6%	0,0%	2,2%	100%	98,9%
Hypermarket	0,0%	92,0%	0,0%	8,0%	100%	100,0%
Cash & Carry	0	0	0	0	0	0
Dishwashers	**29**	**615**	**2**	**55**	**701**	**670**
Electronic superstore	4,2%	85,4%	0,0%	10,3%	100%	95,8%
Electrical specialist	2,3%	95,4%	0,0%	2,3%	100%	97,7%
Hypermarket	1,9%	86,5%	1,9%	9,6%	100%	96,2%
Cash & Carry	0	0	0	0	0	0
Washing machines	**39**	**1.982**	**3**	**89**	**2.113**	**2.071**
Electronic superstore	2,3%	92,0%	0,1%	5,7%	100%	97,6%
Electrical specialist	1,4%	96,6%	0,2%	1,8%	100%	98,4%
Hypermarket	1,9%	90,3%	0,0%	7,9%	100%	98,1%
Cash & Carry	0	0	0	0	0	0
Dryers	**18**	**64**	**6**	**264**	**352**	**328**
Electronic superstore	1,1%	17,8%	0,0%	81,0%	100%	98,9%
Electrical specialist	9,2%	19,9%	0,0%	70,9%	100%	90,8%
Hypermarket	8,1%	13,5%	16,2%	62,2%	100%	75,7%
Cash & Carry	0	0	0	0	0	0
Air conditioners	**24**	**42**	**2**	**175**	**243**	**217**
Electronic superstore	5,8%	10,5%	0,0%	83,7%	100%	94,2%
Electrical specialist	17,2%	41,4%	0,0%	41,4%	100%	82,8%
Hypermarket	30,8%	0,0%	15,4%	53,8%	100%	53,8%
Cash & Carry	0	0	0	0	0	0
TVs	**436**	**2.762**			**3.198**	**2.762**
Electronic superstore	20,3%	79,7%	0,0%	0,0%	100%	79,7%
Electrical specialist	5,9%	94,1%	0,0%	0,0%	100%	94,1%
Hypermarket	17,4%	82,6%	0,0%	0,0%	100%	82,6%
Cash & Carry	0	0	0	0	0	0
Total	**687**	**7.654**	**19**	**1.223**	**9.583**	**8.877**

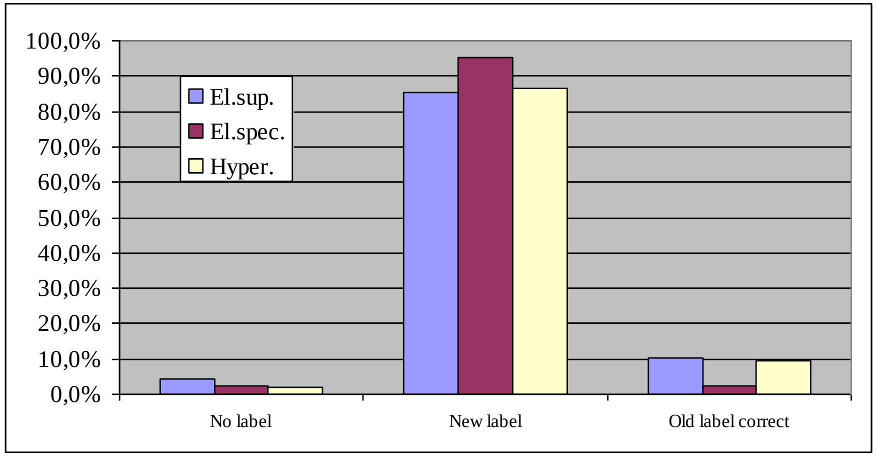
Supported by INTELLIGENT ENERGY EUROPE

Figure 6: Presence of the label per appliance and shop type in percentage (percentage of appliances with the old label incorrectly displayed is omitted)

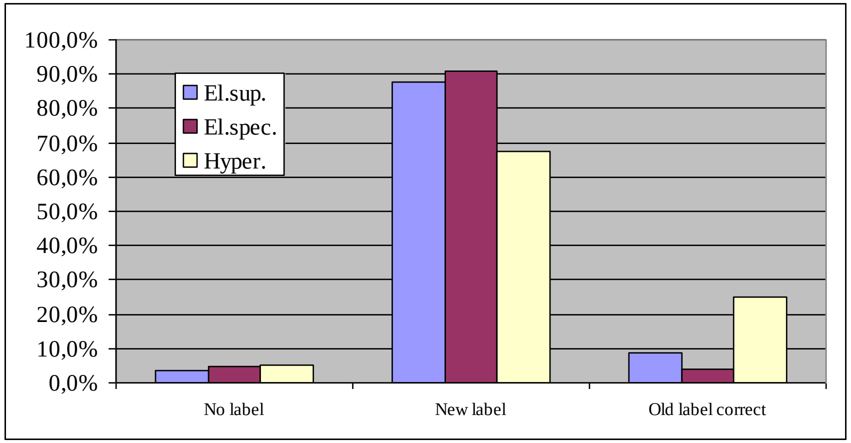
Refrigerators and refrigerator-freezers



Freezers



Dishwashers



Washing machines

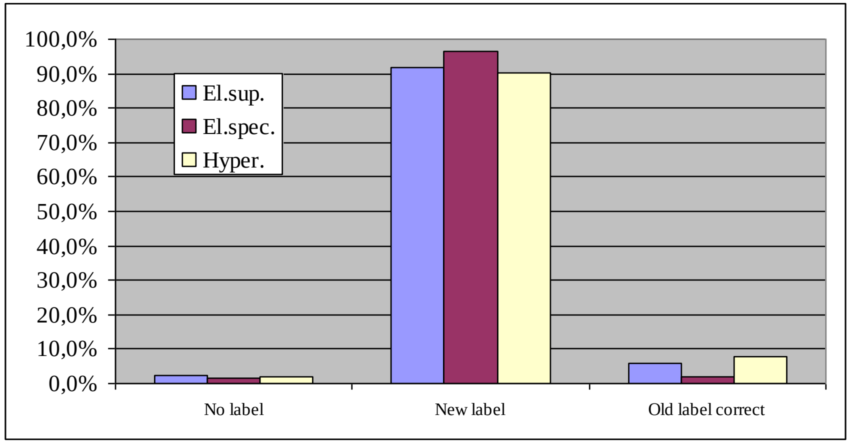
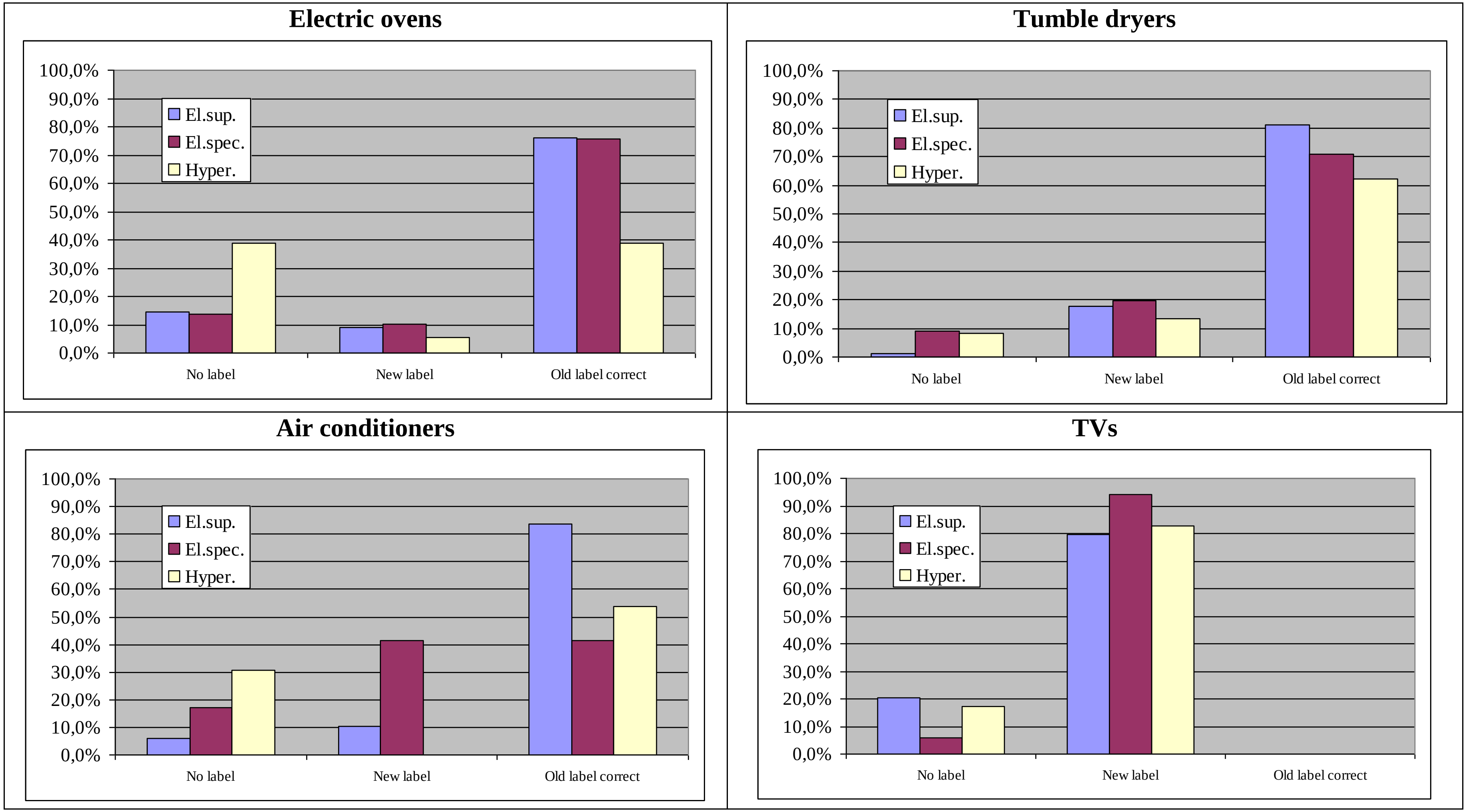


Figure 6: Presence of the label per appliance and shop type in percentage (percentage of appliances with the old label incorrectly displayed is omitted), cont.



4.2 Relation between price and presence of the label

In Table 14 the minimum, maximum and average price for the non-labelled and the labelled appliances is presented for each product type in April 2012 and in March 2013.

For most of the products there was no apparent correlation in the first survey between the average price and the presence/absence of the old or the new label, while some differences can be seen for dishwashers with the new and the old label and for the TVs between the non-labelled and the labelled appliances (Figure 7).

The analysis of April 2013 supports the apparent lack of correlation between presence/absence of the label and the purchasing price and also between the presence of the new and the old label.

4.3 Relation between purchasing price and energy efficiency

A more significant relation can be instead found (Table 15 and Figures 8-9) between the purchasing price and the energy efficiency of the appliances in terms of their energy efficiency class: the better is the energy efficiency the higher is the price. The analysis was developed with the data collected for the first national survey in April 2012 and for the second survey in March 2013 for the products covered by the new energy labelling scheme (refrigerators & refrigerator-freezers, freezers, washing machines and dishwashers) and only for the models found actually bearing the new label in the surveys.
Although for some products and energy efficiency class the number of available models is very low, and considering also the modification in the average size/load capacity, almost all appliances show an increasing price with the increase of the energy efficiency class. For dishwashers class A+++ models have an average price lower than class A++ ones. It is also worth noting that the prices have remained substantially stable or slightly decreasing for the same energy efficiency class over a year interval (Figure 10).

For TVs where the energy efficiency class has not been collected during the surveys an analysis has been instead developed to understand the relation between the price and the technology. Results of the two surveys are shown in Table 16. in April 2013, especially for the LCD models, where the average screen size is similar, the average purchasing price increases with the LED lighting presence. In March 2013 surveyed plasma screens have not LED light, while for the LCD models, the presence of LEDs increases in general the price, but for the edge LED lighting the average price and screen size have slightly increased, for the direct LED lighting the average price has significantly decreases.

For ovens, in April 2012 (Figure 11) larger appliances over 70-80 litre of useful volume tended to be non-labelled compared to smaller appliances. It is possible that these larger products are mainly applied for non-household use and are therefore not covered by the (old) labelling scheme, although some are. On the contrary from the price point of view there is apparently no difference between labelled and non labelled appliances and also no relation between price and useful volume. In March 2013 (Figure 12) almost no model with a large net volume larger were gathered and no difference between labelled and non labelled appliances could be found as well as no relation between price and useful volume.

Table 14: Relation between purchasing price and label presence for product types in April 2012 and in March 2013

Appliance type	Purchasing price, April 2012				Purchasing price, March 2013			
	No label	New label	Old label incorrect	Old label correct	No label	New label	Old label incorrect	Old label correct
Refrigerators & refrig.-freezers (number)	**171**	**2.057**	**119**	**1.250**	**25**	**1.773**	**0**	**90**
Min (€)	99	119	149	119	129	129	0	169
Max (€)	2.181	4.999	2.590	2.900	1.790	2.799	0	2.499
Average (€)	683,85	752,44	919,13	745,70	890,84	769,20	0	759,36
Average net volume (litre)	313,16	337,38	364,44	337,53	321,9	346,2	0	321,3
No price (number)	4	36	0	12	0	0	0	0
Freezers (number)	**47**	**437**	**14**	**301**	**13**	**351**	**1**	**30**
Min (€)	179	149	189	159	219	169	239	153
Max (€)	1.249	1.149	785	1.099	549	1.149	239	1.047
Average (€)	409,96	416,33	356,57	404,56	298,38	398,44	341,40	239,00
Average net volume (litre)	180,72	170,38	148,64	177,79	162,2	176,2	86	149,3
No price (number)	1	4	0	1	0	0	0	0
Wine storage appliances	**67**	**2**		**5***				
Min (€)	109	359		179				
Max (€)	1.649	899		429				
Average (€)	474,39	629,00		349,00				
No price (number)	1	0		0				
Electric ovens (number)	**738**	**11****	**94**	**1.030**	**103**	**65****	**5**	**520**
Min (€)	99		194	99	139		289	149
Max (€)	2.879		1.599	1.499	1.312		479	1.297
Average (€)	498,5		533,9	487,6	541,61		467,92	407,00
Average volume (litre)	59,1		59,6	57,5	59,5		59,0	58,8
No price (number)	14		0	14	0		0	0

*some specific models of wine storage appliances could be labelled according to the old energy label

**no new label does exist for electric ovens, therefore the survey has probably collected information on a different label displayed on ovens.

Supported by INTELLIGENT ENERGY EUROPE

Table 14: Relation between purchasing price and label presence for product types in April 2012 and in March 2013 (continued)

Appliance type	Purchasing price, April 2012				Purchasing price, March 2013			
	No label	New label	Old label incorrect	Old label correct	No label	New label	Old label incorrect	Old label correct
Dishwashers (number)	**97**	**862**	**44**	**441**	**29**	**615**	**2**	**55**
Min (€)	294	169	299	249	289	239	399	299
Max (€)	1.199	1.700	1.299	1.420	1.400	1.400	489	1.119
Average (€)	530,10	586,70	546,10	561,20	605,90	567,44	524,60	444,00
Average place settings (number)	12,1	12,4	12,1	12,1	n.a.	n.a.	n.a.	n.a.
No price (number)	3	13	0	4	0	0	0	0
Washing machines (number)	**249**	**2.363**	**134**	**1.413**	**39**	**1.982**	**3**	**89**
Min (€)	179	159	179	158	258	159	199	199
Max (€)	1.999	2.019	1.199	1.999	1.099	1.999	399	1.669
Average (€)	614,10	577,03	530,20	578,00	577,05	546,37	332,33	563,07
Average load capacity (kg)	7,0	7,1	7,1	7,0	7,3	7,2	6,3	7,1
No price (number)	14	35	0	9	0	0	0	0
Dryers (number)	**50**	**17**	**22**	**588**	**18**	**64**	**6**	**264**
Min (€)	259	399	399	249	299	319	199	295
Max (€)	1.399	1.699	1.599	1.820	1.500	1.719	699	1.700
Average (€)	750,20	1.004	910,80	799,60	792,61	822,86	430,50	792,58
Average load capacity (kg)	7,5	7,5	7,4	7,5	7,8	7,5	7,4	7,7
No price (number)	1	0	0	8	0	0	0	0
Air conditioners (number)	**182**	**10**	**6**	**604**	**24**	**42**	**2**	**175**
Min (€)	179	289	199	99	289	219	249	197
Max (€)	1.990	1.490	1.108	1.799	1.299	1.399	399	1.699
Average (€)	636,32	666,00	505,33	592,24	610,58	535,88	324,00	675,53
No price (number)	32	0	0	48	0	0	0	0
TVs (number)	**3.269**	**2.965**			**436**	**2.762**		
Min (€)	88	89			99	99		
Max (€)	6.544	5.699			7.999	19.990		
Average (€)	684,08	792,41			697,27	802,73		
Average screen size (pollici)	34,9	37,1			38	39,4		
No price (number)	21	51			0	0		

Supported by INTELLIGENT ENERGY EUROPE

Figure 7: Purchasing price and presence of the energy label for the TVs in April 2012

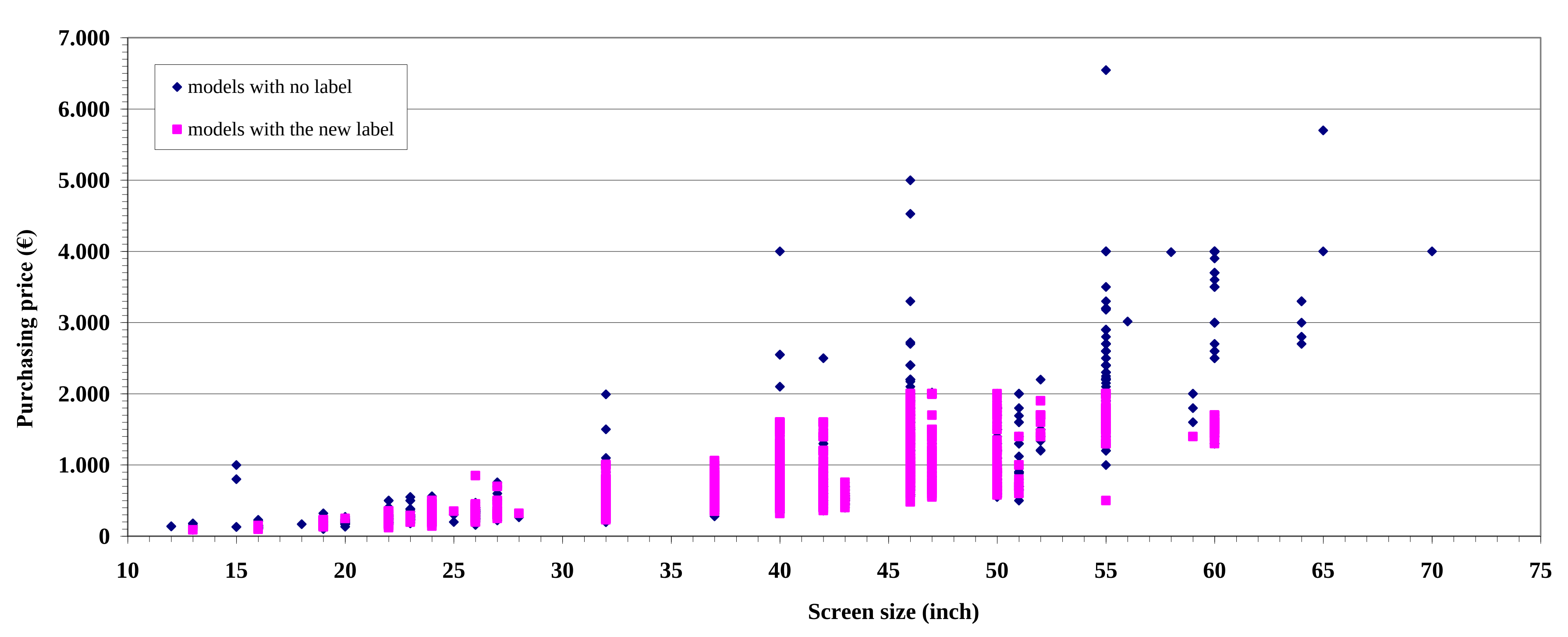


Table 15: Relation between average purchasing price and energy efficiency class (A/A+/A++/A+++) for some products bearing the new energy label for major household appliances

Products	Parameters	April 2012				March 2013			
		A	**A+**	**A++**	**A+++**	**A**	**A+**	**A++**	**A+++**
Refrigerators and refrigerator-freezers	average price (€)	502,04	728,24	929,86	1.072,44	523,55	730,05	921,56	1.072,65
	net volume (litre)	255,8	342,4	353,7	336,9	240,6	346,3	359,3	318,2
	number of models	55	1.551	298	53	22	1.403	295	52
Freezers	average price (€)	279,14	418,96	622,63	859,00	270,25	391,77	615,32	739,00
	net volume (litre)	120,0	172,1	221,2	240,0	82.9	175,3	223,5	228,5
	number of models	28	370	19	1	8	307	19	2
Washing machines	average price (€)	505,9	474,7	596,8	840,9	480,20	434,85	522,53	760,87
	load capacity (kg)	5,8	6,4	7,6	8,9	5,6	6,3	7,2	8,47
	number of models	259	899	807	356	121	667	710	465
Dishwashers	average price (€)	507,7	616,1	728,3	--	449,09	615,50	763,00	734,00
	place settings (number)	11,9	12,9	12,9	--	n.a.	n.a.	n.a.	n.a.
	water consumption (litre)	13,5	10,4	10,0	--	13,5	11,0	9,2	10,0
	number of models	427	300	89	--	267	231	104	4

Supported by INTELLIGENT ENERGY EUROPE

Figure 8: Average price and energy efficiency class for major appliances with the new energy label in April 2012

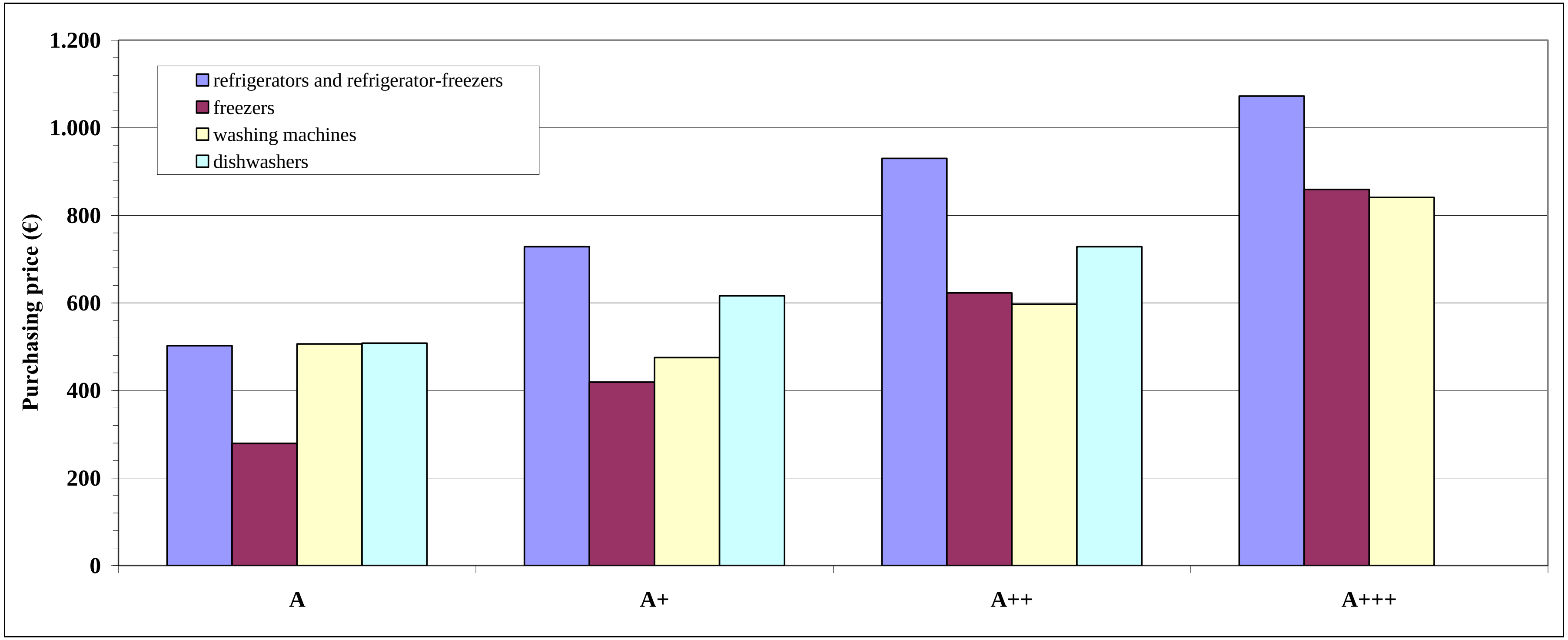
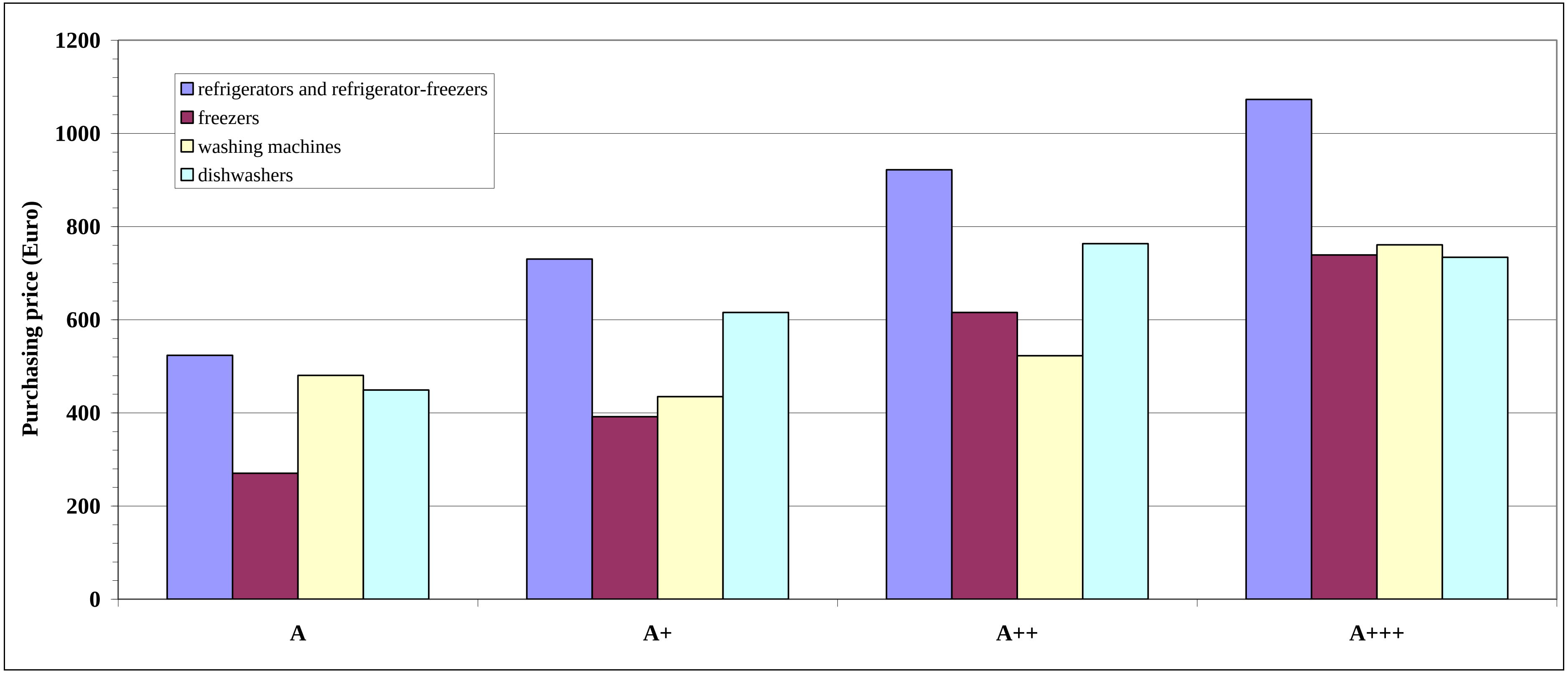


Figure 9: Average price and energy efficiency class for major appliances with the new energy label in March 2013



Supported by INTELLIGENT ENERGY EUROPE

Figure 10: Average price and energy efficiency class for major appliances with the new energy label in April 2012 and March 2013

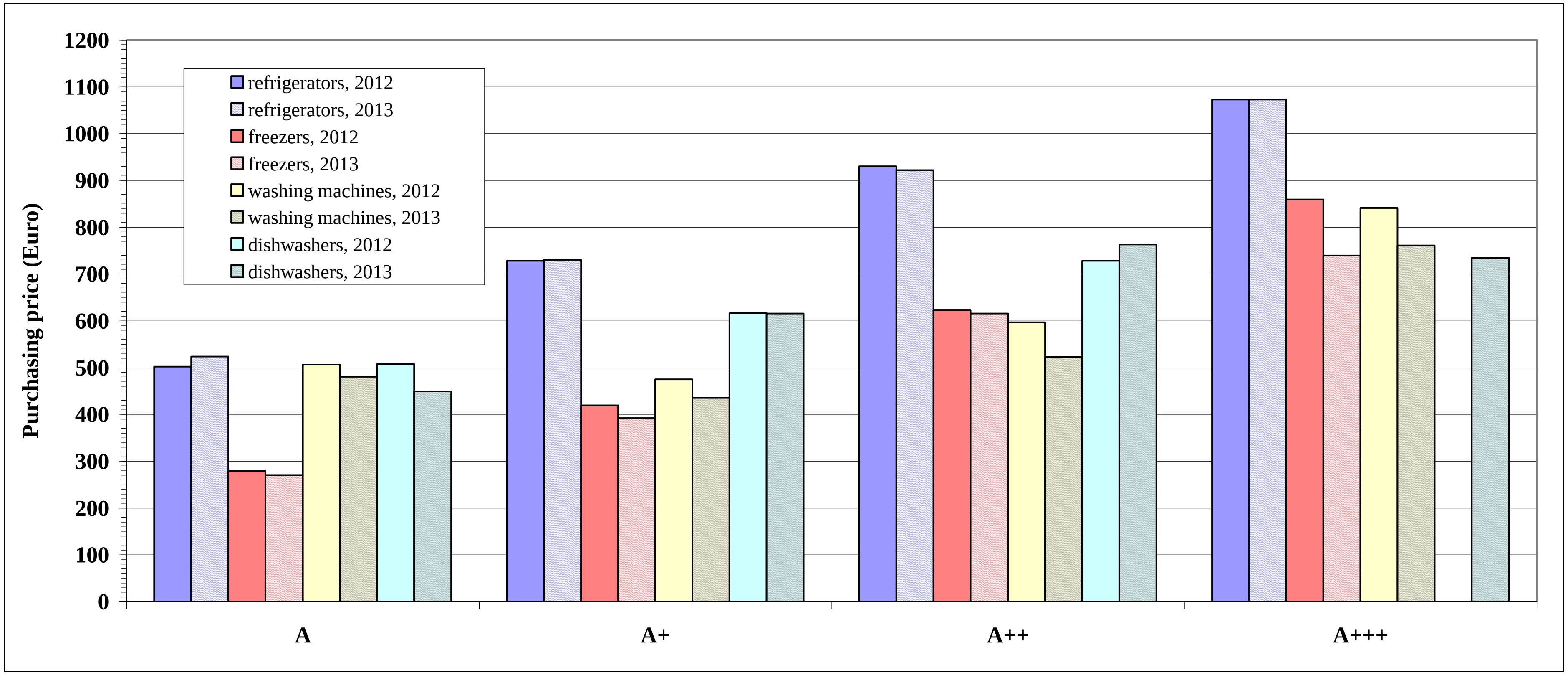


Table 16: Average purchasing price and TV technologies in April 2012 and in March 2013

Technology	LED lighting type	National survey, April 2012		National survey, March 2013	
		Average price (€)	Average screen dimension (inch)	Average price (€)	Average screen dimension (inch)
Plasma display	NO	989,53	47,6	917,04	49,5
	EDGE	659,00	40,0	--	--
Liquid crystal display	NO	371,03	31,9	390,43	32,9
	EDGE	824,39	36,8	857,20	39,21
	DIRECT	956,98	35,7	634,56	37,60

Supported by INTELLIGENT ENERGY EUROPE

Figure 11: Purchasing price and useful volume for ovens with and without the (old) label in April 2012

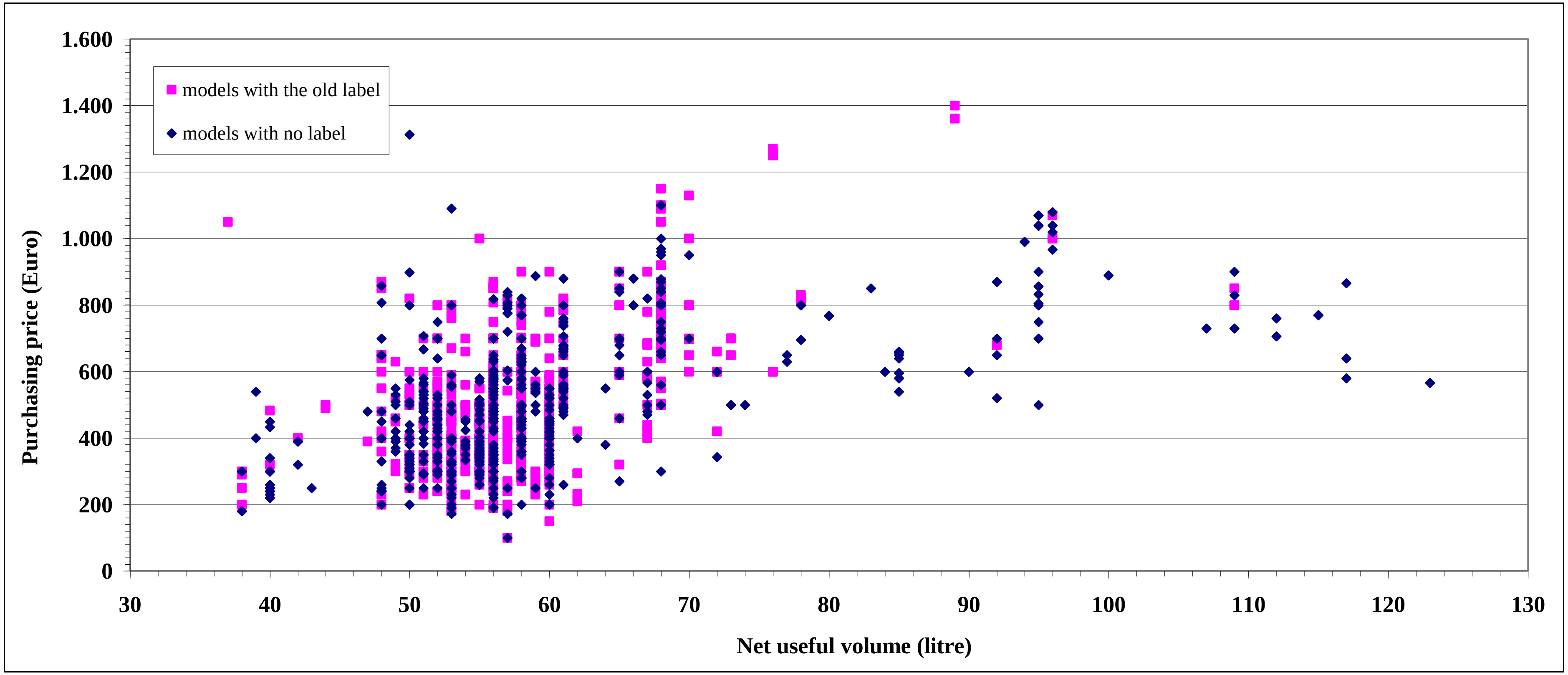
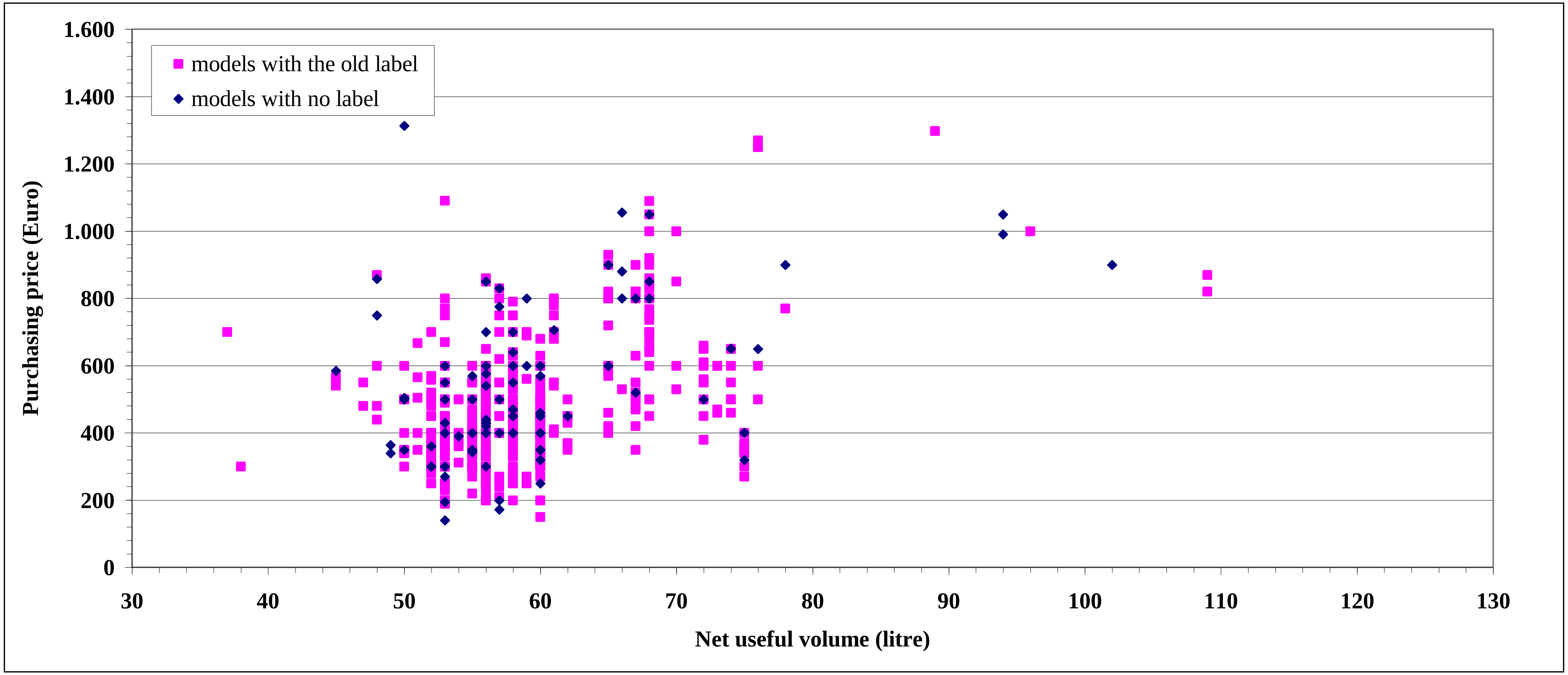


Figure 12: Purchasing price and useful volume for ovens with and without the (old) label in March 2013



5. Energy efficiency and functional performance of products offered for sale

In this chapter the data about the energy efficiency and, where available, the functional performance of the appliances collected during the national shop surveys are presented. The results give an outlook of the characteristics of the products displayed for sale in the shops and not of the sales of these appliances.

Since for refrigerating appliances the old and the new label are based on the very similar calculation formulae, appliances bearing the new and the old label are considered together for the analysis. Therefore the number of models used for the following analysis is higher than the number of appliances used in the previous chapters of this document.

5.1 Refrigerators and refrigerator-freezers

For refrigerators and refrigerator-freezers Figure 13 shows that in April 2012 the A+ appliances were the most displayed for sale in the surveyed shops, followed by A++ appliances, whose percentage was higher than the class A ones, and by the highest efficiency class A+++ appliances. The average net volume for the appliances in the energy efficiency classes above A was almost constant around 340 litres. A year later (Figure 14) the situation has evolved driven by the EU legislation with the almost total disappearing of models in class A[4] and a (slight) improvement of the models in classes A++ and A+++ and a decrease of those in class A+. The average net volume has remained unchanged for classes A+/A+++ and is smaller for models in energy efficiency class A+++.

5.2 Freezers

For freezers, in April 2012 (Figure 15) appliances in class A+ represented more than 80% of the displayed ones, followed by class A and class A++ ones. Apparently some shops was still displaying appliances belonging to energy efficiency classes B and C. In this respect, the date of placing on the market of the models was not investigated to assess if those less efficient appliances were placed on the market before the deadline of the relevant ecodesign regulation[3]. It is worth reminding that no distinction is made between upright (vertical) and chest (horizontal) configuration, therefore the difference between the shown values of the average net volume per energy efficiency class is probably due to the prevalence of the larger horizontal models for the two highest classes.

In March 2013 (Figure 16) the percentage of models in class A+ has improved, as well as for models in classes A++/A+++, although for the two latter the increase is quite small. Models in class A have decreased and class B is empty. Strange enough class C models already found in the previous survey are already present a year later. The net storage volume has remained substantially unchanged a part from class A, where a drastic reduction occurred.

[4]Ecodesign Regulation 643/2010 prescribed that only refrigerating appliances (refrigerators, refrigerator-freezers and freezers) with an Energy Efficiency Index lower than 55 (corresponding to energy efficiency class A) and lower than 44 (corresponding to energy efficiency class A+) can be placed in the Community market respectively from 1 July 2010 and from 1 July 2012.

Supported by INTELLIGENT ENERGY EUROPE

Figure 13: Energy efficiency class and average net volume (litre) of refrigerators and refrigerator-freezers in April 2012

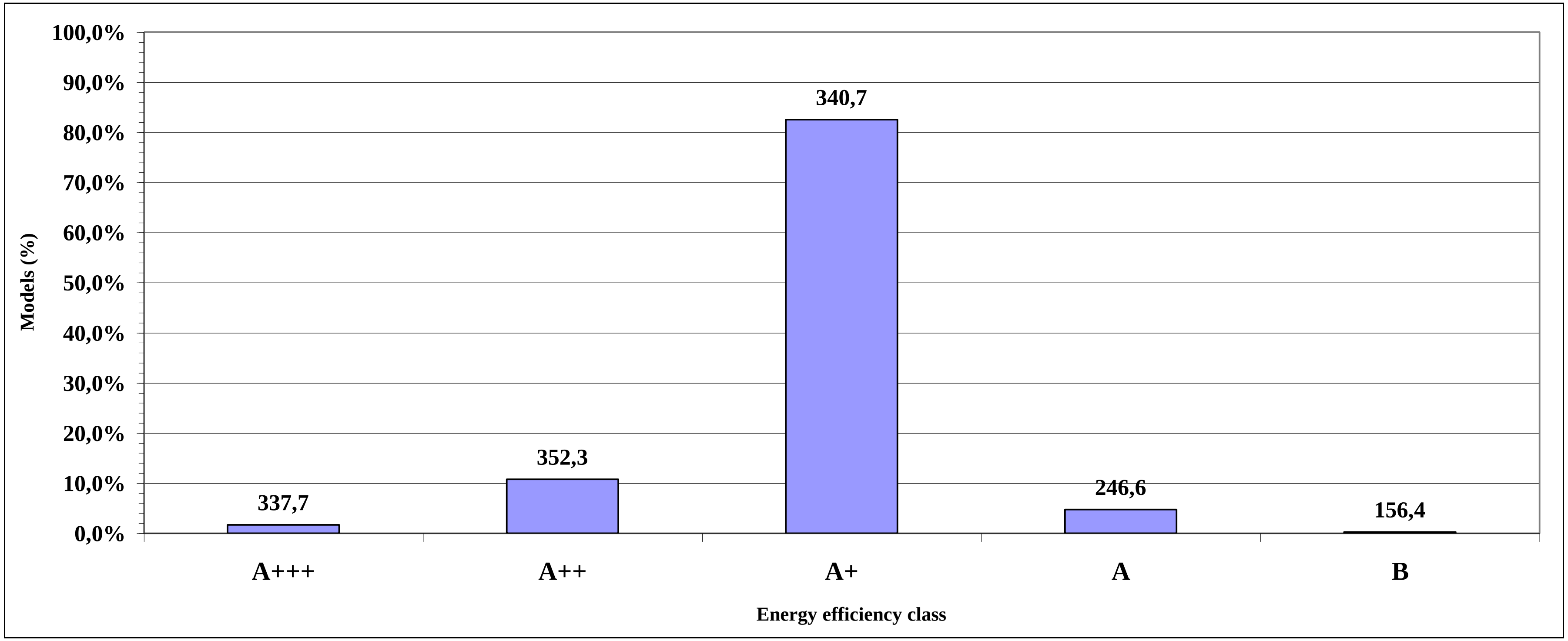


Figure 14: Energy efficiency class and average net volume (litre) of refrigerators and refrigerator-freezers in April 2012

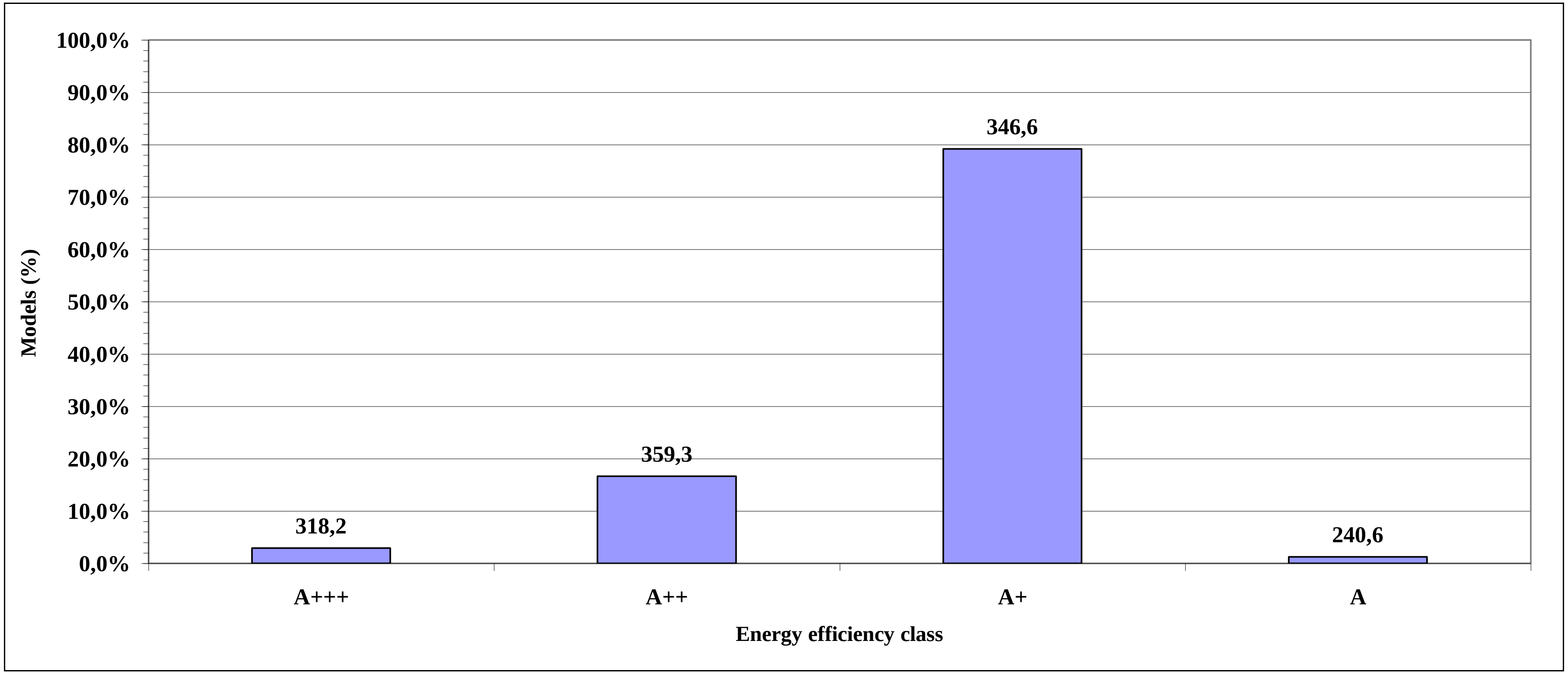


Figure 15: Energy efficiency class and average net volume of freezers in April 2012 (no differentiation between upright and chest)

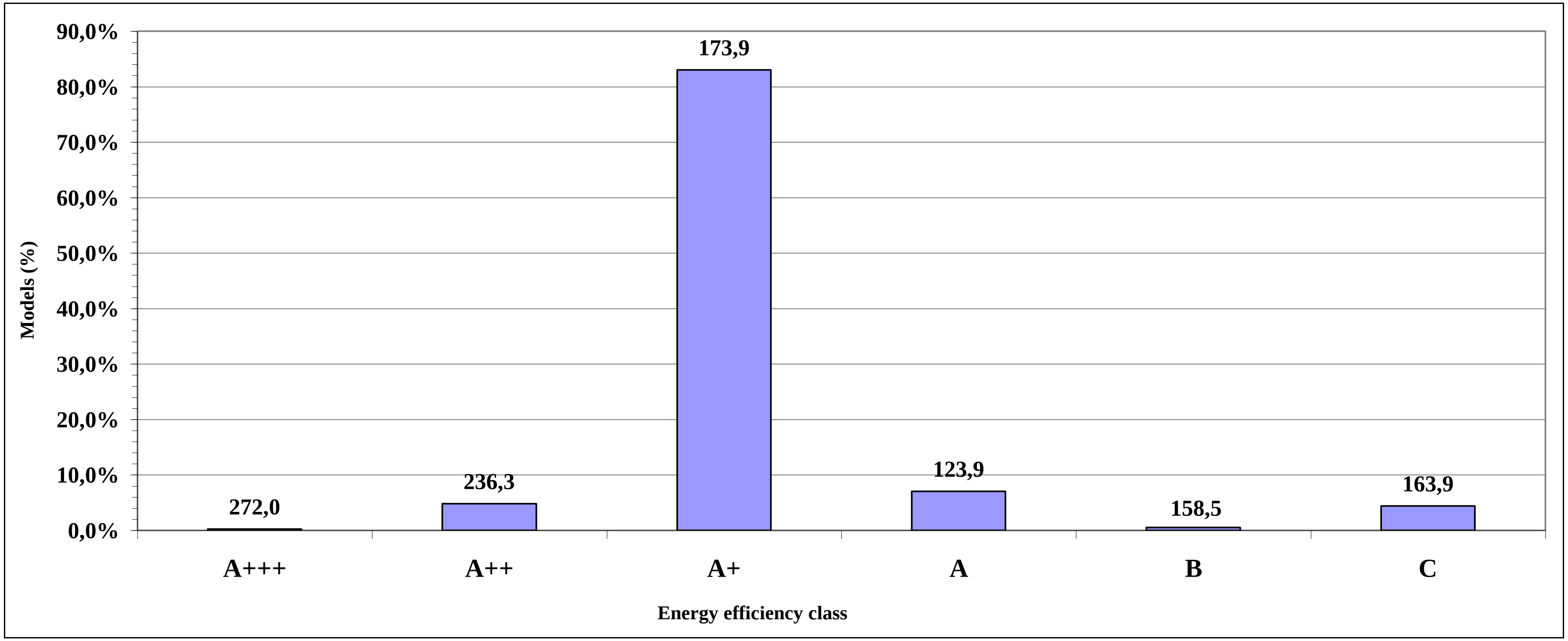
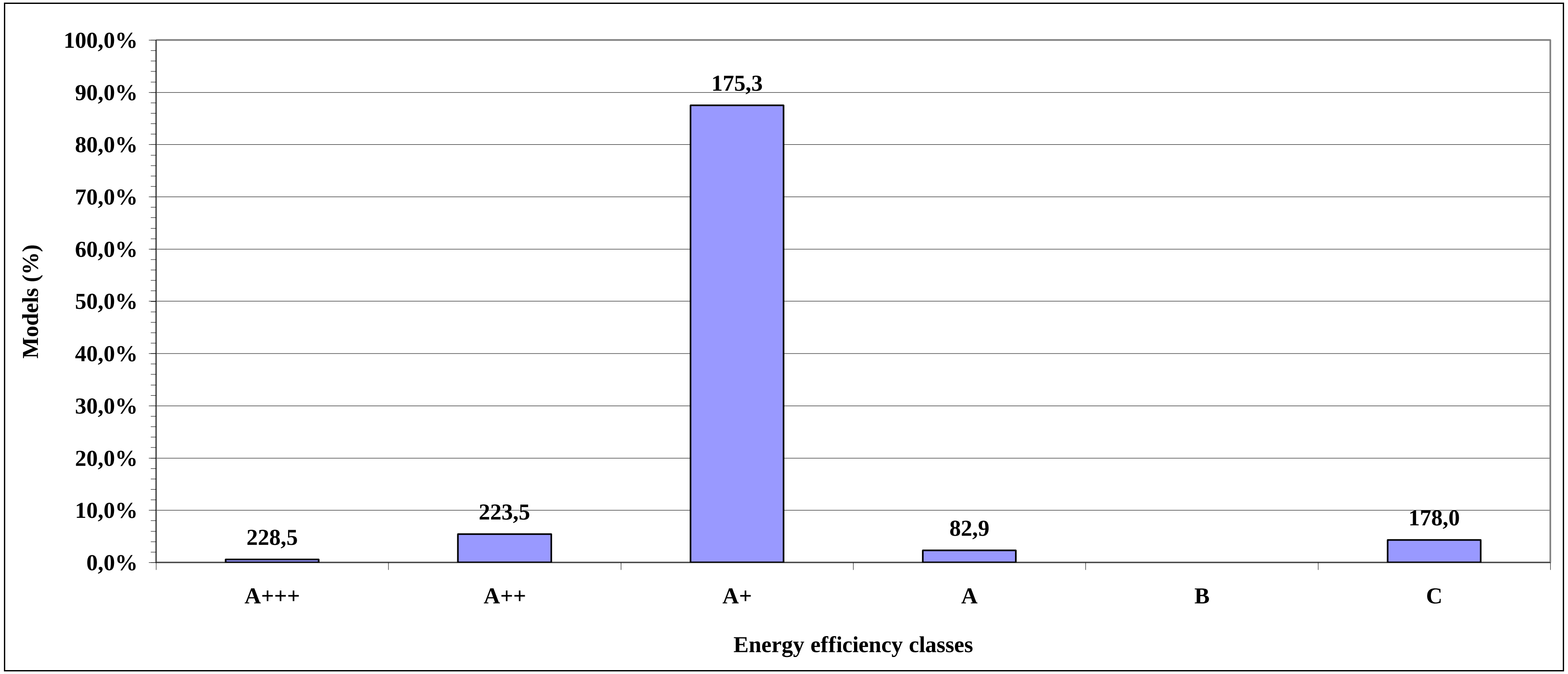


Figure 16: Energy efficiency class and average net volume of freezers in March 2013 (no differentiation between upright and chest)



Supported by INTELLIGENT ENERGY EUROPE

5.3 Washing machines

In Figure 17 the energy efficiency class, average load capacity (kg) and water consumption (in litre) are presented for the washing machines identified in the shops surveyed in April 2012. Class A+ accounts for about 38% of the machines, but class A++ is already at 35% and A+++ about 15%, while class A is only slightly more than 10%.
The average capacity increases with the energy efficiency, being 6,4 kg for appliances in class A+, 7,6 kg for appliances in class A++ and 8,9 kg for appliances in class A+++.
The spin drying efficiency (Figure 18) of the displayed machines is below class A for more than 75% of the appliance, equally distributed between classes B and C, with class A accounts for less than 20%.

The energy efficiency class, average load capacity (kg) and water consumption (in litre) for the washing machines surveyed in March 2013 are shown in Figure 19. Also for washing machine more models were found in energy efficiency classes A++ and A+++ with a contemporary reduction of classes A+ and A. The average load capacity and water consumption has slight decreased for classes A+++ and A++, as well as the average water consumption. Less models reaching class A spin drying efficiency were found in the second shop survey, but contemporarily there has been an increase of class B and a decrease of class C models.

5.4 Dishwashers

Energy efficiency class, average load capacity in place settings and water consumption for dishwashers are shown in Figure 21. Class A accounts for about 50% of the appliances and classes A+ and A++ for about 48%, no models were found in class A+++.
It is worth noting that the average load capacity in terms of place settings has increased by about one place setting for the higher efficiency machines in classes A+/A++. The washing performance of the surveyed appliances is not shown since about 98,8% of the appliances are in class A.

In March 2013 (Figure 22) some models have started to populate class A+++ also for dishwashers, class A++ models have significantly increased, class A+ is stable while less models are available in class A. The water consumption is stable, but unfortunately the load capacity in place settings of the machines in the shops has not been collected in the second survey, thus no comparison in possible for this parameter.

Supported by INTELLIGENT ENERGY EUROPE

Figure 17: Energy efficiency class, average load capacity (kg) and water consumption for washing machine in April 2012

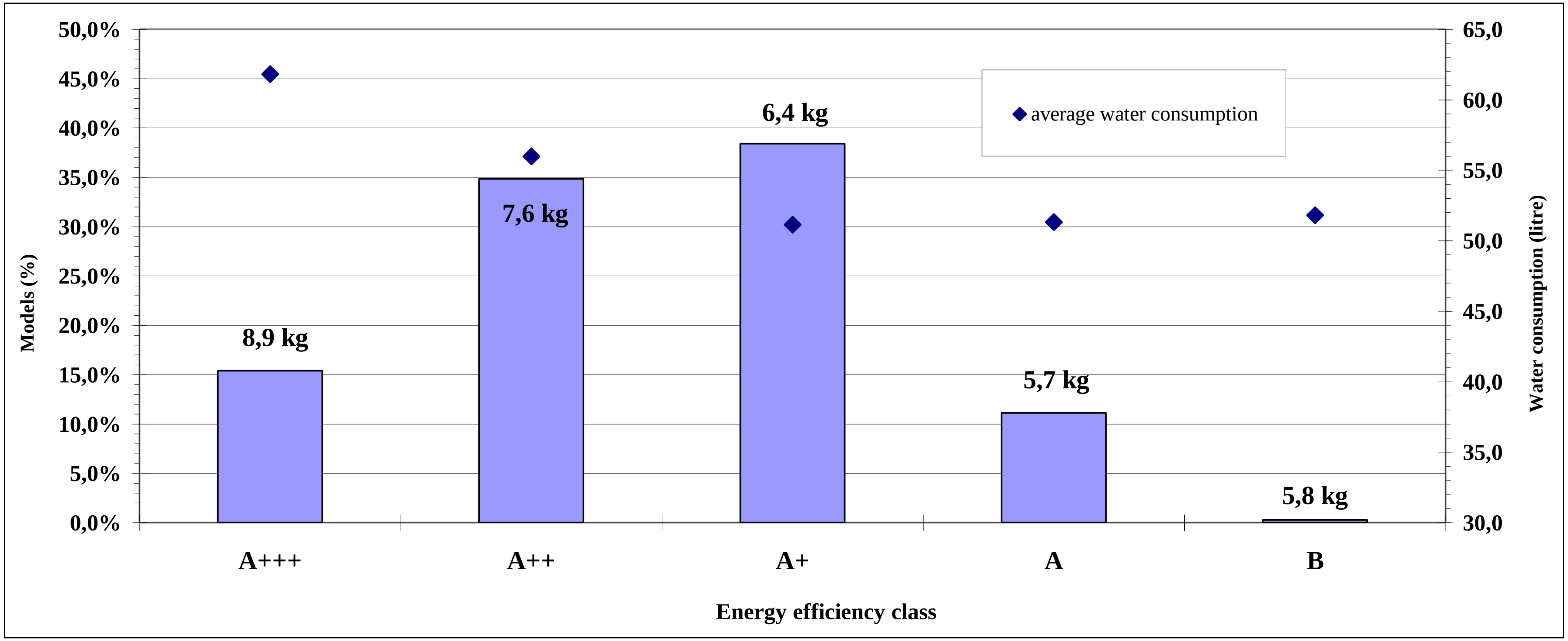


Figure 18: Spin drying efficiency class of washing machine in April 2012

Figure 19: Energy efficiency class, average load capacity (kg) and water consumption for washing machine in March 2013

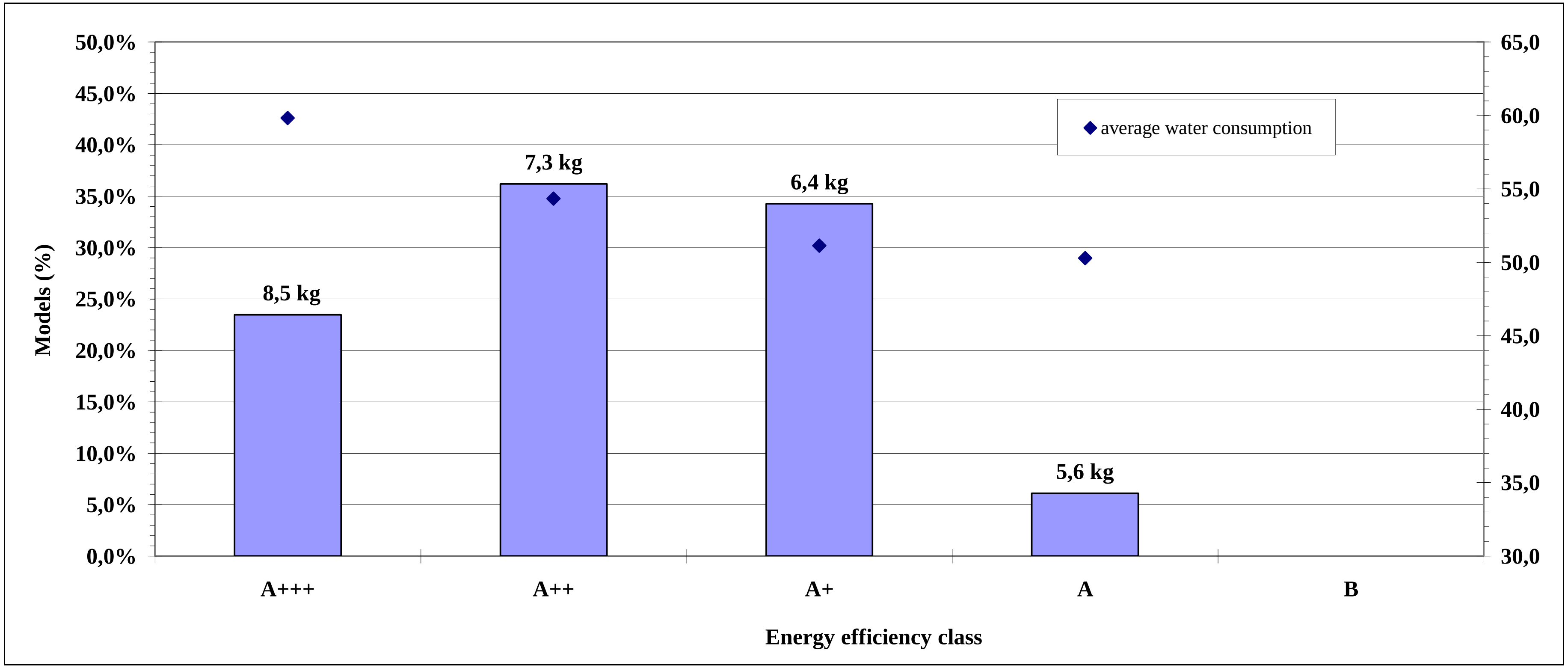
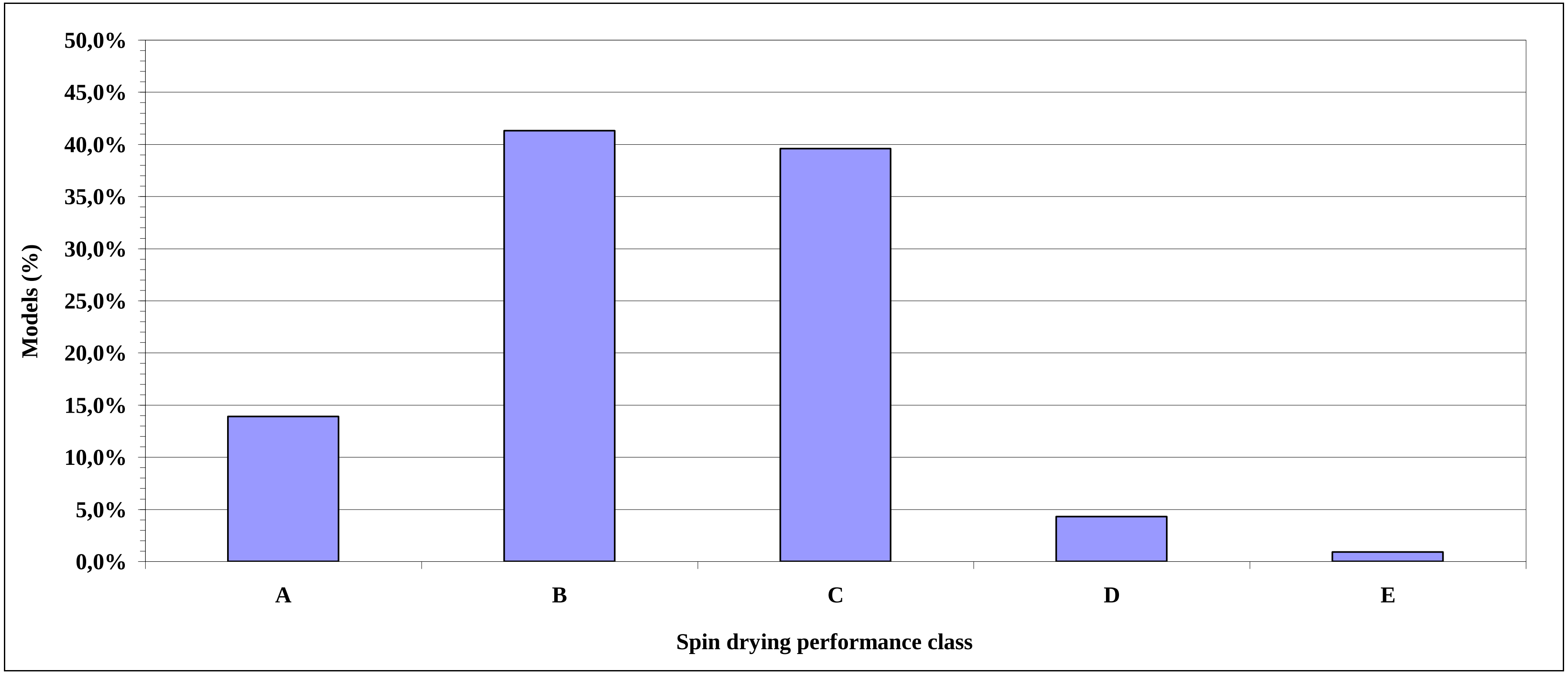
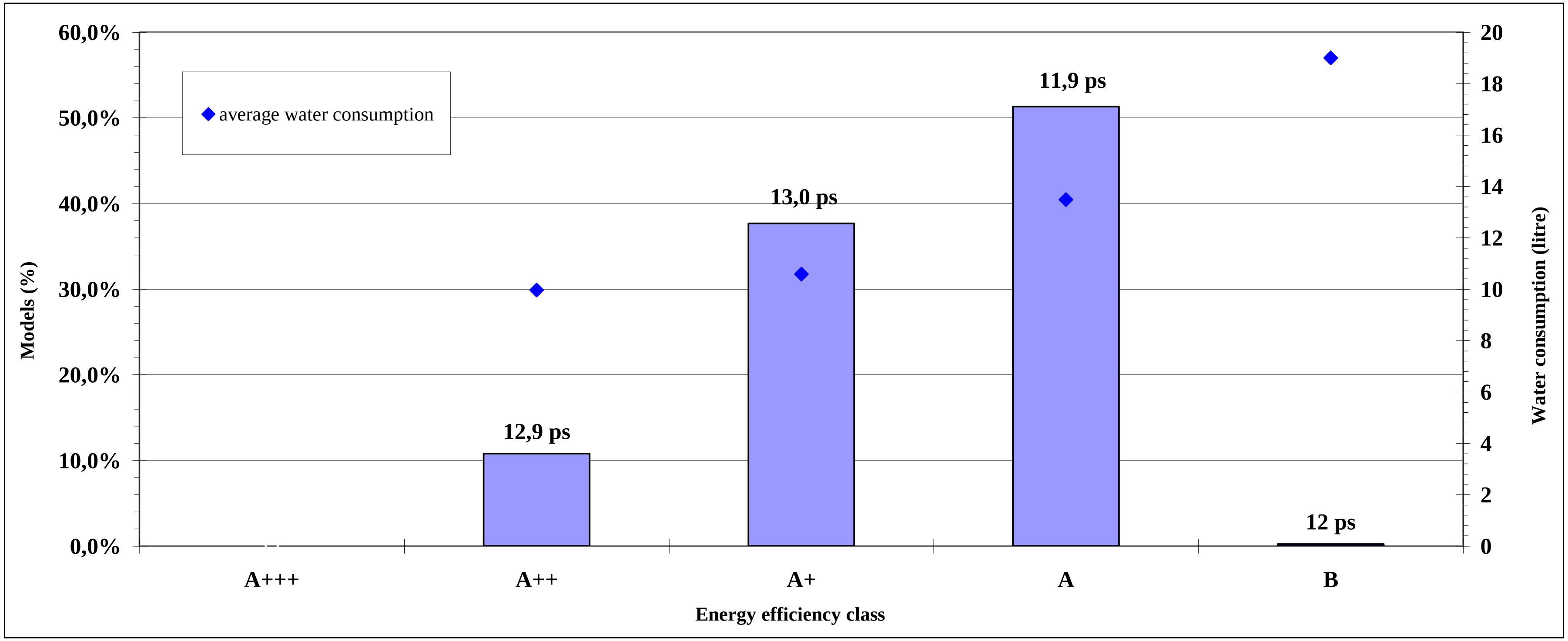


Figure 20: Spin drying efficiency class of washing machine in March 2013



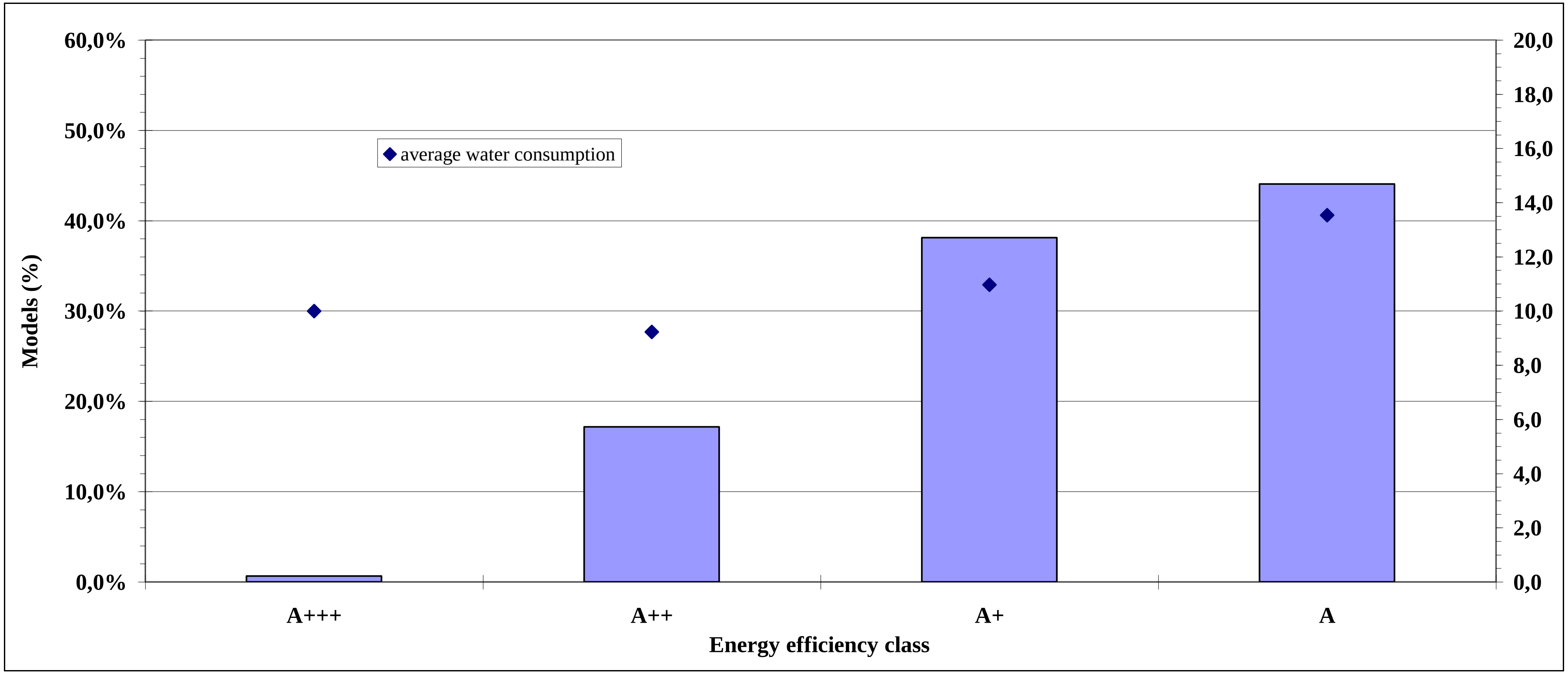
Supported by INTELLIGENT ENERGY EUROPE

Figure 21: Energy efficiency class, average water consumption (in litre) and load capacity (in place settings) for dishwashers in April 2012



Supported by INTELLIGENT ENERGY EUROPE

Figure 22: Energy efficiency class, average water consumption (in litre) for dishwashers in March 2013



References

1. Directive 2010/30/EU of the European Parliament and of the Council of 19 May 2010 on the indication by labelling and standard product information of the consumption of energy and other resources by energy-related products (recast), OJ L 153, 18.06.2010, p. 1.

2. Come On Label project, "National Shop Visits Report, National Shop Visits, Report on the 3rd round, March 2013, covering shop visits undertaken between January – February 2013 in 13 European countries", downloadable at http://www.come-on-labels.eu/news/national-shop-visits-report-iii.

3. European Commission, DG Energy, Energy labelling information: http://ec.europa.eu/energy/efficiency/labelling/labelling_en.htm

More information about the 'Come On Labels' project activities and the achieved results are published on:

www.come-on-labels.eu

Supported by INTELLIGENT ENERGY EUROPE