







President

It is with great pleasure that I present to you the Home Appliance Europe 2015/2016 report. Updated with the latest data, it provides an overview of one of Europe's most established industries, making the report a valuable tool for all those interested in the state of the home appliance industry in Europe.

In addition, this report – together with our ten-year Home
Appliance 2025 vision and call for action that was launched in 2015
– clearly sets out how our sector can be part of the solution for the challenges Europe faces today. Our vision is of a Europe that cares for our industry, the jobs we provide, the economic value we create and the important steps we continue to take towards innovation, trade, energy efficiency and sustainability. Our vision is also of a Europe that gets economic, social and environmental value from the appliances we deliver.

I wish you an interesting read!

Dr. Reinhard Zinkann, CECED President



Director

In 2015, CECED launched the Home Appliance 2025 vision and call for action, calling for a commitment from policy makers to create conditions within which the home appliance sector, as an important part of the European economy, could flourish. The vision included four key pillars: achieving smart and better regulation; advancing sustainable lifestyles; making the connected home a reality; and accelerating Europe's economic growth. I am proud that you will see clearly demonstrated in the pages of this report, how much our industry has already achieved in all four pillars. You will also see that our industry can make many further positive contributions. I therefore take this opportunity to invite Europe's policy makers to continue our successful collaborative process.

I hope you enjoy reading this report. It is but a snapshot of what the home appliance sector represents, and we aim to provide you with further interesting data in the future. In the meantime, we welcome any feedback you may wish to send us in response. Our door is open!

Paolo Falcioni, CECED Director-General



CECED has 19 Direct Members, which have at least one manufacturing facility in Europe and a direct presence in at least four European countries. All Direct Members are also a member of the relevant CECED National Associations in more than 50% of the countries in which the company has direct operations. CECED Direct Members

subscribe to CECED's statutes, by-laws, all industry-established agreements, and are signatories of the CECED Code of Conduct on Corporate Social Responsibility to promote fair and sustainable standards for working conditions, social compliance and environmental performance.

Arcelik A.S.



B/S/H/











gorenje























Home Appliance Europe 2015/2016



Energy

- Number of Enterprises in Home Appliance Manufacturing
- 14 Turnover in Home Appliance Manufacturing
- 18 Value Added of the Home Appliance Sector to EU GDP
- 20 Number of Employees in Home Appliance Manufacturing
- **26** Wages & Salaries in Home Appliance Manufacturing



Innovation

- R&D Expenditure in Home Appliance Manufacturing
- **64** Growth of R&D Expenditure in Home Appliance Manufacturing
- **66** Patents Deposited for Home Appliances
- Smart Large Home Appliance Sales in Germany, France and UK
- **70** Smart Large Home Appliance Value in the EU
- 71 Number of Different Selling Brands and Items in Smart Home Appliances



Environment

- **36** Energy Efficiency of Washing Machines
- **38** Energy Efficiency of Dishwashers
- **40** Energy Efficiency of Cold Appliances
- **42** Waste of Electrical and Electronic Equipment (WEEE) in Europe
- 44 Collection of Waste of Electrical and Electronic Equipment (WEEE) in Europe
- 46 Electrical and Electronic Equipment (EEE) Placed on the EU Market
- **47** EU WEEE Return and Collection Rates
- 48 Collection of Large Home Appliances in Europe
- 51 Average Large Home Appliance Return and Collection Rates
- **52** Collection of Small Home Appliances in Europe
- 55 Average Small Home Appliance Return and Collection Rates
- Treatment, Recovery and Recycling of Large and Small Home Appliances



Production

- 76 Units Traded Globally, in 2014-2015
- 78 Units Traded in Europe, in 2014-2015
- **82** Production Facilities CECED Direct Members
- **84** Origin of Imports of Large Home Appliances, in 2015
- **92** Origin of Imports of Small Home Appliances, in 2015
- **96** Export Destinations for Large Home Appliances, in 2015
- **104** Export Destinations for Small Home Appliances, in 2015
- 108 Trade Balance of Large Home Appliances Extra EU, in 2014-2015
- 110 Import Trends of Large Home Appliances, in 2005-2015
- 112 Trade Balance of Small Home Appliances Extra EU, in 2014-2015
- 114 Import Trends of Small Home Appliances, in 2005-2015

Key figures #HA2025



Number of enterprises in the EU	3.432 enterpises (2013)
Turnover in the EU	€43,8 bn (2014)
Direct value added to GDP	€10,4bn (2013)
Direct & indirect value added to GDP	€48,7bn (2013)
Number of direct employees	209.500 people = 1% of EU employment in manunfacturing (2014)
Number of direct & indirect employees	921.800 people = 3% of EU employment in manufacturing (2014)
Wages & salaries	€6,2bn (2014)



Pillar 2 Advance Sustainable Lifestyle

Energy efficiency - cold appliances	Almost 100% in class A+ or higher (2013)
Energy efficiency - dishwashers	75% in class A+ or higher (2013)
Energy efficiency - washing machines	40% in highest class A+++ (2013)
Recovery rate % - large home appliances	91% (2013)
Recovery rate % - small home appliances	87% (2013)
Recycling rate % - large home appliances	84% (2013)
Recycling rate % - small home appliances	77% (2013)



Research & Innovation	€1,4bn in R&D expenditure (2014)
Patents deposited	11.562 = 8% of all patent applications in the EU (2013)
Smart home appliances	€225m sales value (Q2 2016)



Pillar 4 Accelerate Europe's Economic Growth

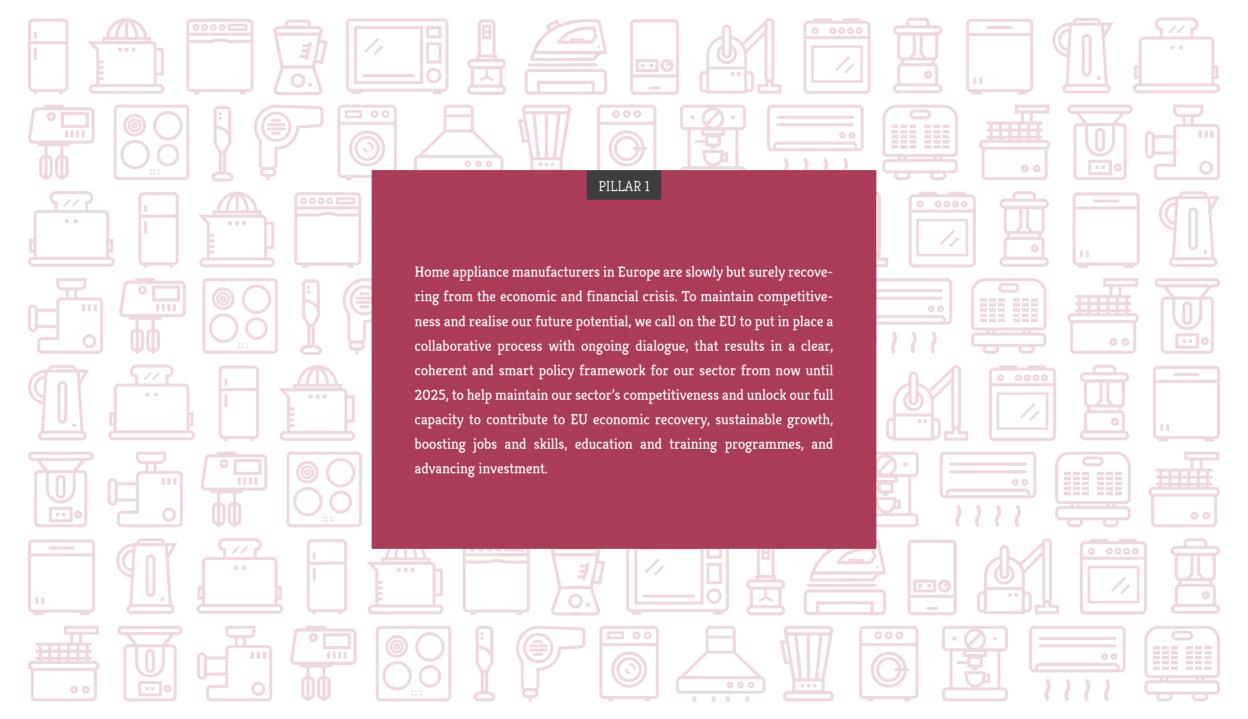
Units traded in the EU - large home appliances	100m units (2015)
Units trade in the EU - small home appliances	125m units (2015)
Imports (intra-EU) - large home appliances	€11.077m (2015)
Exports (intra-EU) - large home appliances	€11.349m (2015)
Imports (intra-EU) - small home appliances	€8.841m (2015)
Exports (intra-EU) - small home appliances	€8.819m (2015)
Imports (extra-EU) - large home appliances	€5.997m (2015)
Exports (extra-EU) - large home appliances	€3.741m (2015)
Imports (extra EU) - small home appliances	€6.894m (2015)
Exports (extra EU) - small home appliances	€2.624 m (2015)







Smarter and Better Regulation



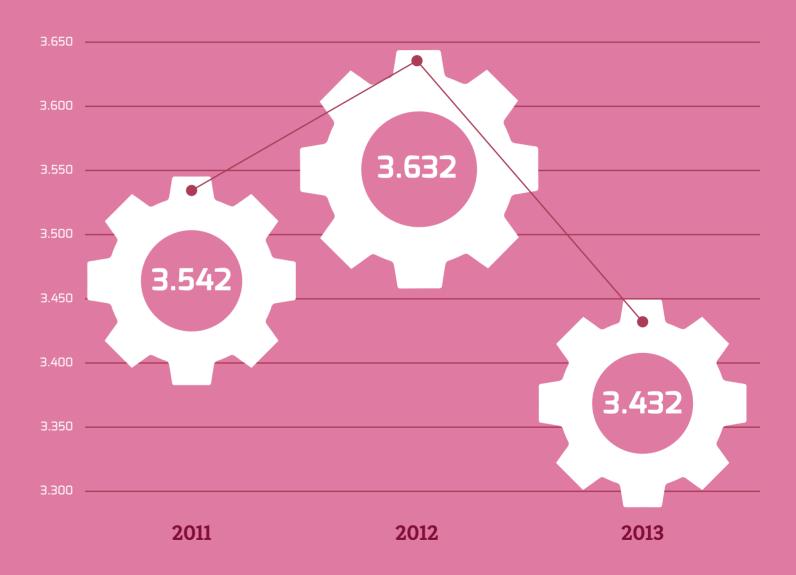


Number of Enterprises in the EU

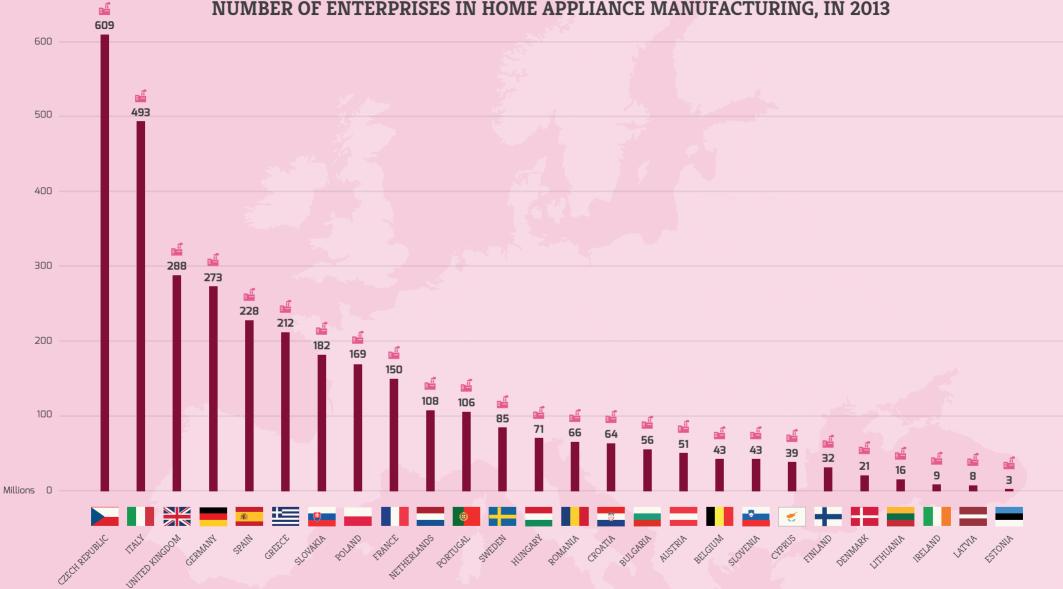
NUMBER OF ENTERPRISES IN HOME APPLIANCE MANUFACTURING

"There were over 3.400 enterprises involved with manufacturing of home appliances in the EU in 2013"



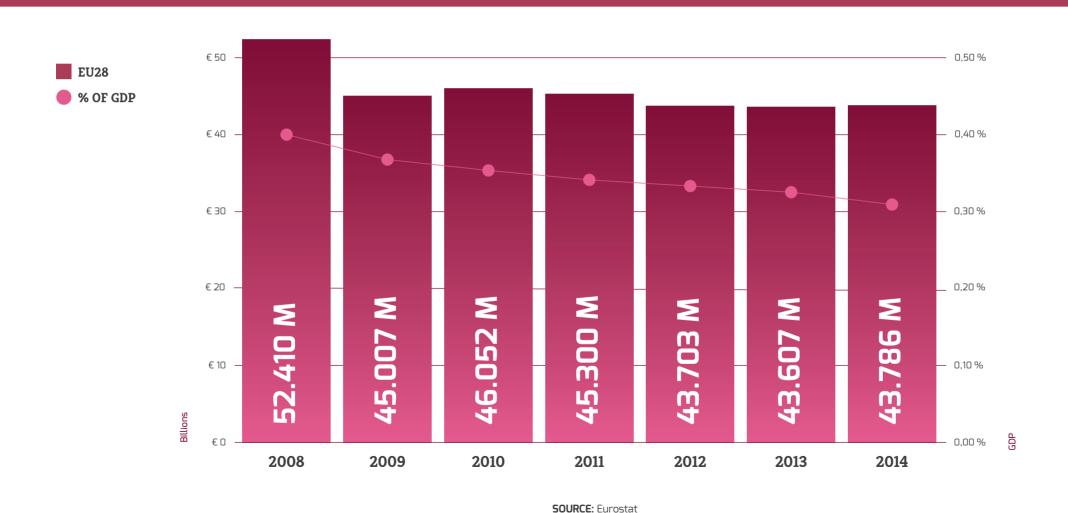


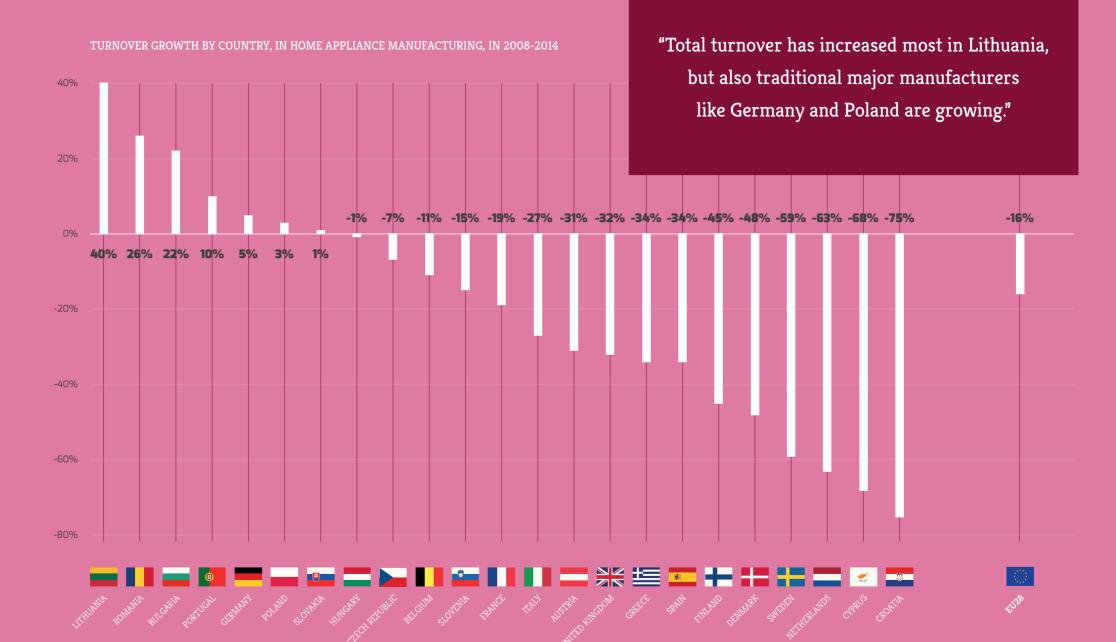
NUMBER OF ENTERPRISES IN HOME APPLIANCE MANUFACTURING, IN 2013



No data available for Luxembourg and Malta. Latest data for Turkey dates from 2002, when there were 2.200 enterprises in home appliance manufacturing in Turkey. NOTE: Data reflects 'Manufacture of domestic appliances' as defined in Eurostat NACE rev.2: 27.5, including Manufacture of electric domestic appliances (NACE rev.2: 27.51) and Manufacture of non-electric domestic appliances (NACE rev.2: 27.52).

"Turnover fell both in absolute terms and as a share of national income from 2008 to 2013, but is now slightly recovering."





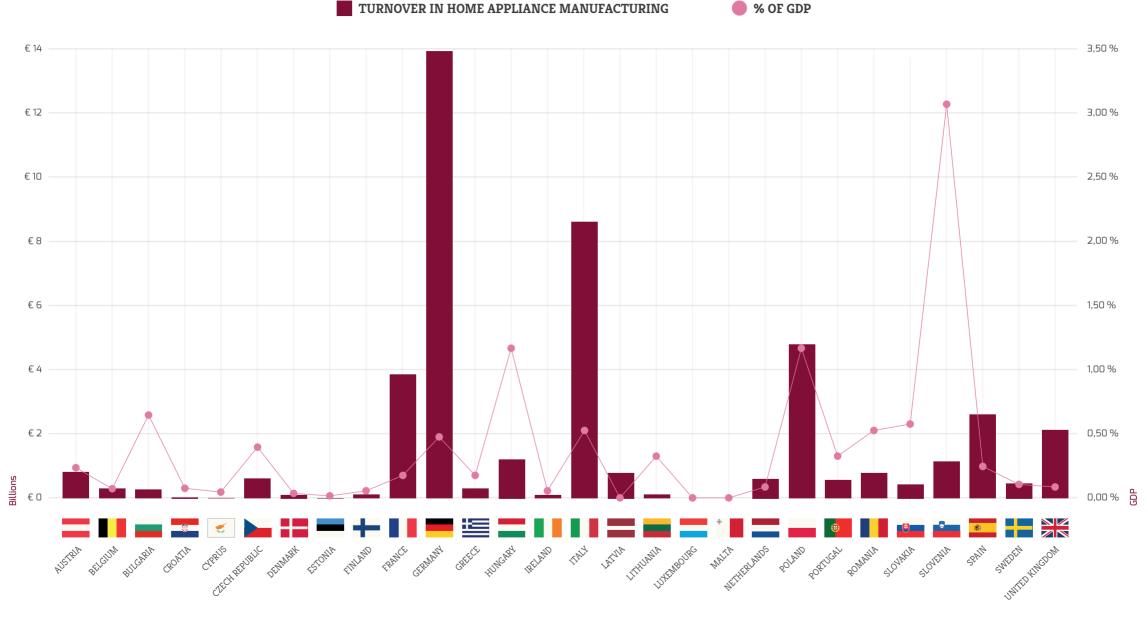


Turnover in the EU

TURNOVER BY COUNTRY, IN HOME
APPLIANCE MANUFACTURING, IN 2014

		Turnover in home appliance manufacturing	% of GDP
	Austria	820M	0,25%
	Belgium	304M	0,08%
	Bulgaria	277M	0,65%
3	Croatia	33M	0,08%
€	Cyprus	9M	0,05%
	Czech Republic	622M	0,40%
	Denmark	114M	0,04%
-	Estonia	3M	0,02%
+	Finland	123M	0,06%
	France	3.857M	0,18%
	Germany	13.930M	0,48%
■	Greece	311M	0,18%
	Hungary	1.219M	1,17%
	Ireland	109M	0,06%
	Italy	8.611M	0,53%
	Latvia	800M	0,00%
	Lithuania	122M	0,33%
	Luxembourg	OM	0,00%
*	Malta	OM	0,00%
	Netherlands	613M	0,09%
	Poland	4.797M	1,17%
® -	Portugal	569M	0,33%
	Romania	794M	0,53%
	Slovakia	439M	0,58%
•	Slovenia	1.147M	3,07%
£	Spain	2.613M	0,25%
-	Sweden	469M	0,11%
	United Kingdom	2.134M	0,09%





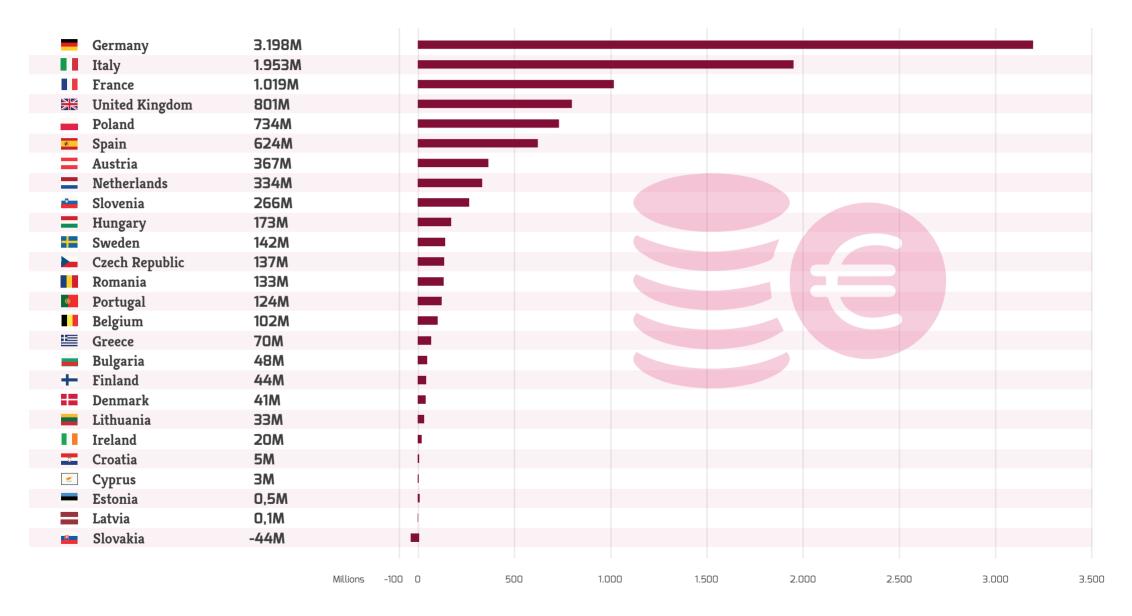


VALUE ADDED TO EU GDP, IN 2009-2013

"In 2013, the direct value added of the home appliance sector was € 10,4bn."

	Direct value added	Direct + indirect value added
2009	€11.017M	€51.967M
2010	€11.507M	€54.280M
2011	€11.300M	€53.300M
2012	€10.750M	€50.707M
2013	€10.329M	€48.721M

VALUE ADDED BY COUNTRY IN 2013





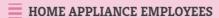
Number of Employees

NUMBER OF EMPLOYEES BY COUNTRY,
IN HOME APPLIANCE MANUFACTURING, IN 2013

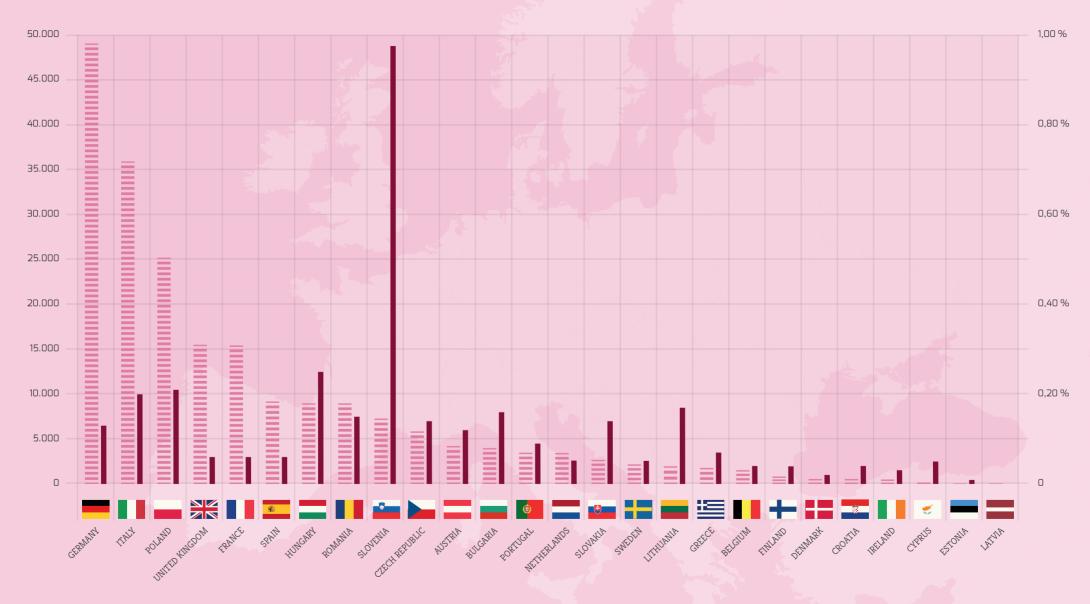
"In 2013, direct contribution of EU home appliance manufacturing to EU employment was over 200.000."

		Home appliance employees in 2013	% of total employment in 2013
	Germany	49.142	0,13%
	Italy	35.982	0,20%
	Poland	25.250	0,21%
	United Kingdom	15.531	0,06%
	France	15.451	0,06%
*	Spain	9.199	0,06%
	Hungary	8.995	0,25%
	Romania	8.985	0,15%
-	Slovenia	7.293	0,98%
	Czech Republic	5.859	0,14%
	Austria	4.226	0,12%
	Bulgaria	3.996	0,16%
0	Portugal	3.484	0,09%
	Netherlands	3.448	0,05%
	Slovakia	2.684	0,14%
+	Sweden	2.178	0,05%
	Lithuania	1.962	0,17%
	Greece	1.784	0,07%
	Belgium	1.532	0,04%
+	Finland	827	0,04%
+	Denmark	551	0,02%
	Croatia	548	0,04%
	Ireland	492	0,03%
<u>€</u>	Cyprus	163	0,05%
	Estonia	36	0,01%
	Latvia	28	0,00%

SOURCE: Eurostat



% OF TOTAL EMPLOYMENT





Direct home appliance employment (manufacturing)

209.500

EU total employment

217,7m people 2013

"Over 3% of EU
manufacturing
employment is in the
home appliances
sector."

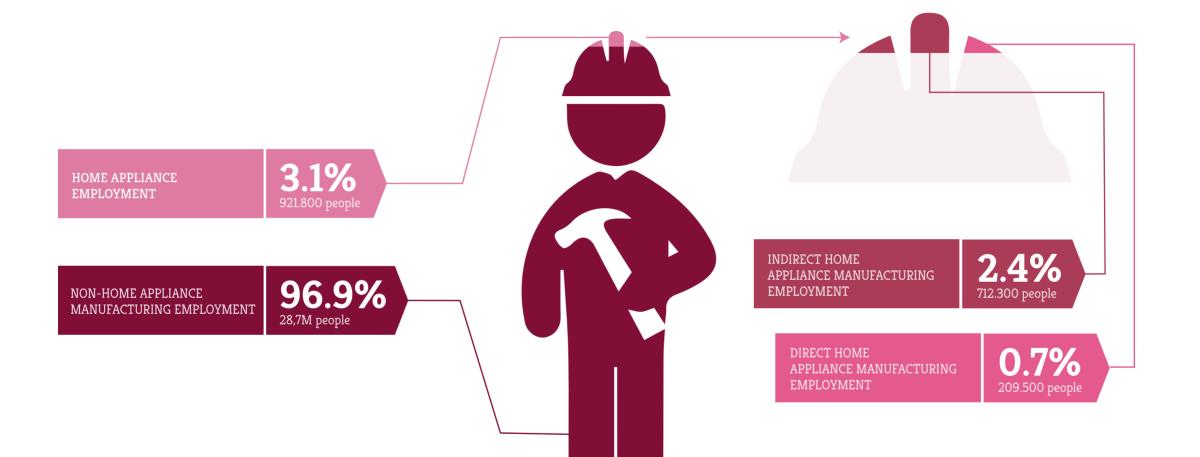
Direct and indirect home appliance employment

921.800*

*Based on the Input-Output model from the 2015 report on the Economic Impact of the Domestic Appliances Industry in Europe

EU employment in the manufacturing sector

29,7m people



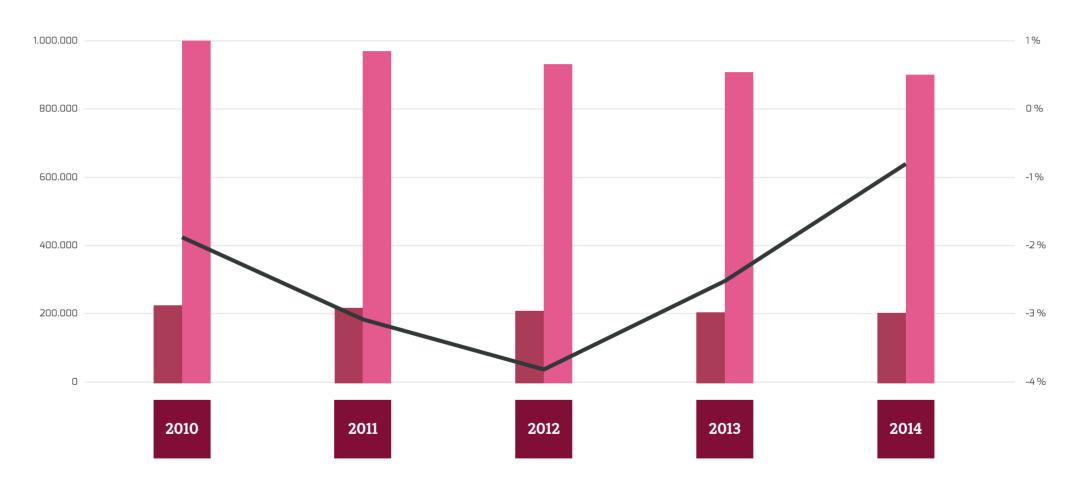


"Home appliance manufacturing accounts for close to 1 million direct & indirect jobs in the EU."

	2010	2011	2012	2013	2014
Manufacturing direct	230.474	223.400	214.900	209.500	207.814
Manufacturing direct & indirect	1.014.086	982.960	945.560	921.800	914.382
% change	-1,87%	-3,07%	-3,80%	-2,51%	-0,80%

SOURCE: Eurostat





"Since 2012, the decline in home appliance manufacturing jobs is slowly but surely recovering."



Wages & Salaries

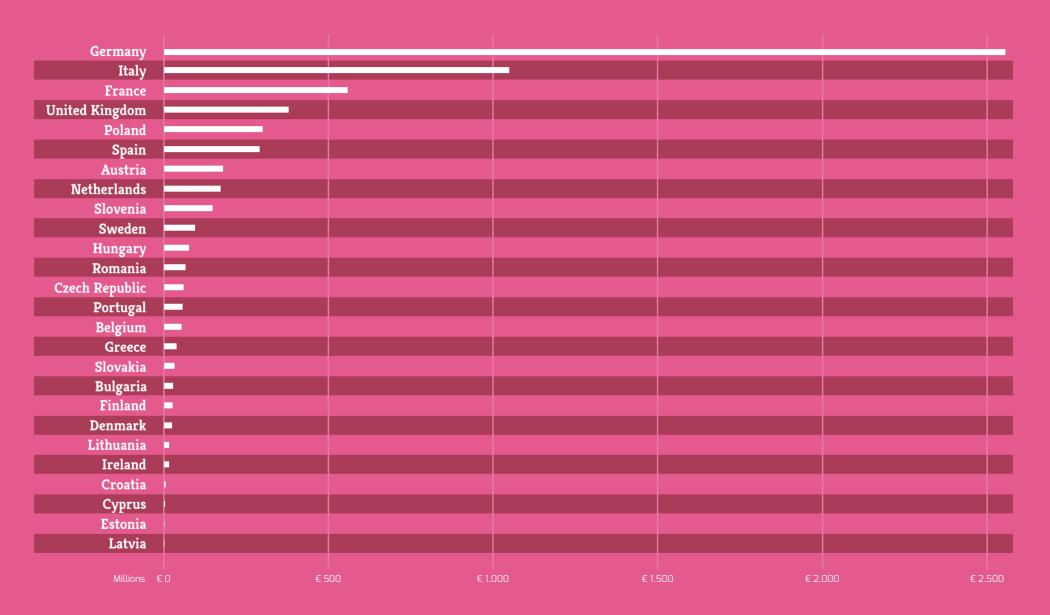
WAGES & SALARIES BY COUNTRY, IN HOME APPLIANCE MANUFACTURING, IN 2014

HOME APPLIANCE MANUFACTURING, IN 2014

	Germany	€2.554M
	Italy	€1.048M
	France	€557M
NZ ZIS	United Kingdom	€378M
	Poland	€299M
B i	Spain	€290M
	Austria	€179M
	Netherlands	€171M
-	Slovenia	€147M
-	Sweden	€93M
	Hungary	€75M
	Romania	€64M
	Czech Republic	€58M
9	Portugal	€55M
	Belgium	€53M
彗	Greece	€37M
	Slovakia	€31M
	Bulgaria	€26M
+	Finland	€25M
#	Denmark	€23M
	Lithuania	€15M
	Ireland	€14M
- 18	Croatia	€4M
€	Cyprus	€2M
	Estonia	€0,3M
	Latvia	€0,1M

SOURCE: Eurostat

"In 2014, our direct contribution to EU wages was approx. €6,2bn."



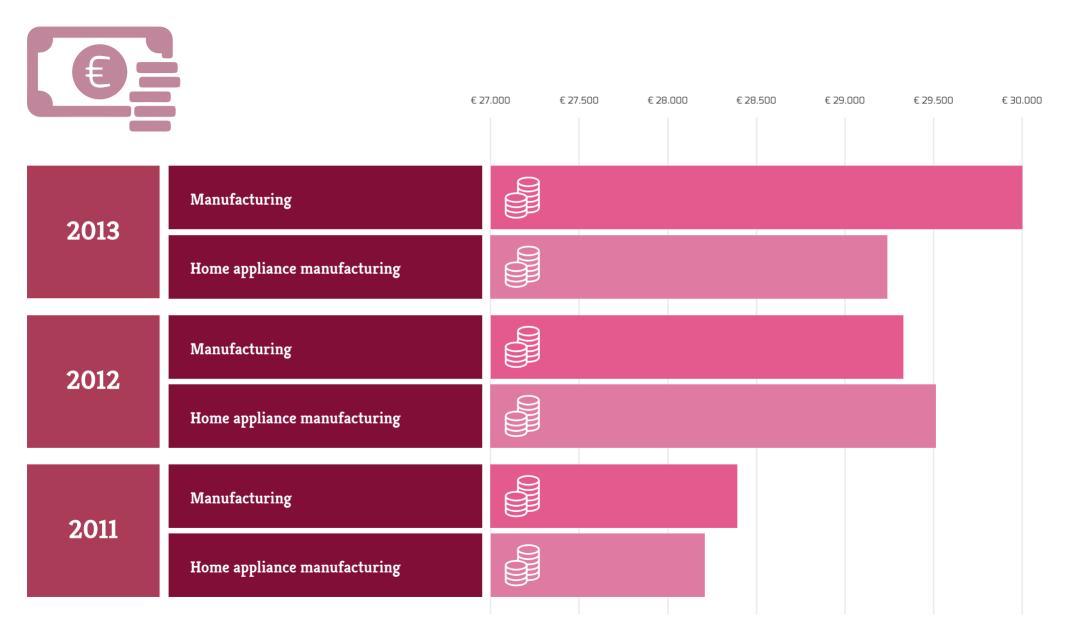


Wages & Salaries

WAGES & SALARIES PER EMPLOYEE, IN 2011-2013

2013	Manufacturing	€ 30.000
2013	Home appliance manufacturing	€ 29.239
2012	Manufacturing	€ 29.329
2012	Home appliance manufacturing	€ 29.513
2011	Manufacturing	€ 28.392
Z 011	Home appliance manufacturing	€ 28.207







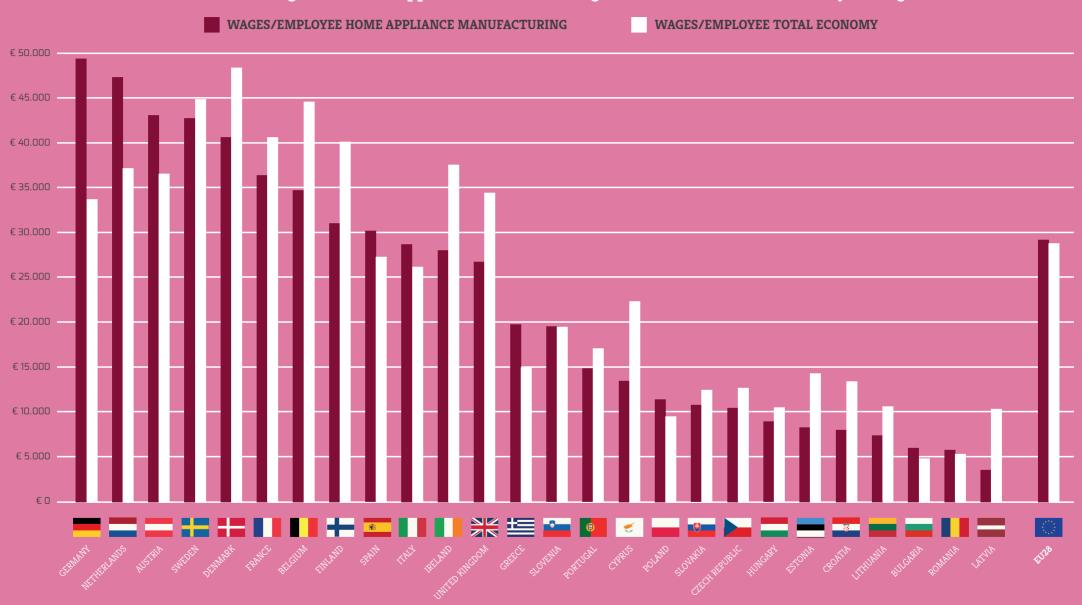
Wages & Salaries

WAGES PER EMPLOYEE, IN 2013

		Wages/employee home appliance manufacturing in 2013	Wages/employee total economy in 2013
	Germany	€ 49.383	€ 33.745
	Netherlands	€ 47.332	€ 37.173
	Austria	€ 43.090	€ 36.579
-	Sweden	€ 42.746	€ 44.862
-	Denmark	€ 40.653	€ 48.392
	France	€ 36.425	€ 40.624
	Belgium	€ 34.726	€ 44.586
+	Finland	€ 31.076	€ 40.153
30	Spain	€ 30.199	€ 27.341
	Italy	€ 28.723	€ 26.197
	Ireland	€ 28.049	€ 37.545
	United Kingdom	€ 26.766	€ 34.455
	Greece	€ 19.787	€ 14.990
	Slovenia	€ 19.553	€ 19.544
(1)	Portugal	€ 14.868	€ 17.141
€	Cyprus	€ 13.497	€ 22.376
	Poland	€ 11.434	€ 9.534
•	Slovakia	€ 10.805	€ 12.507
	Czech Republic	€ 10.497	€ 12.698
	Hungary	€ 8.961	€ 10.525
-	Estonia	€ 8.333	€ 14.356
-	Croatia	€ 8.029	€ 13.446
	Lithuania	€ 7.441	€ 10.638
	Bulgaria	€ 6.056	€ 4.861
	Romania	€ 5.799	€ 5.343
	Latvia	€ 3.571	€ 10.373
	EU28	€ 29.239	€ 28.803

SOURCE: Eurostat

"In 2013, EU wages for home appliance manufacturing were above the total economy average."



Pillar 1 Notes



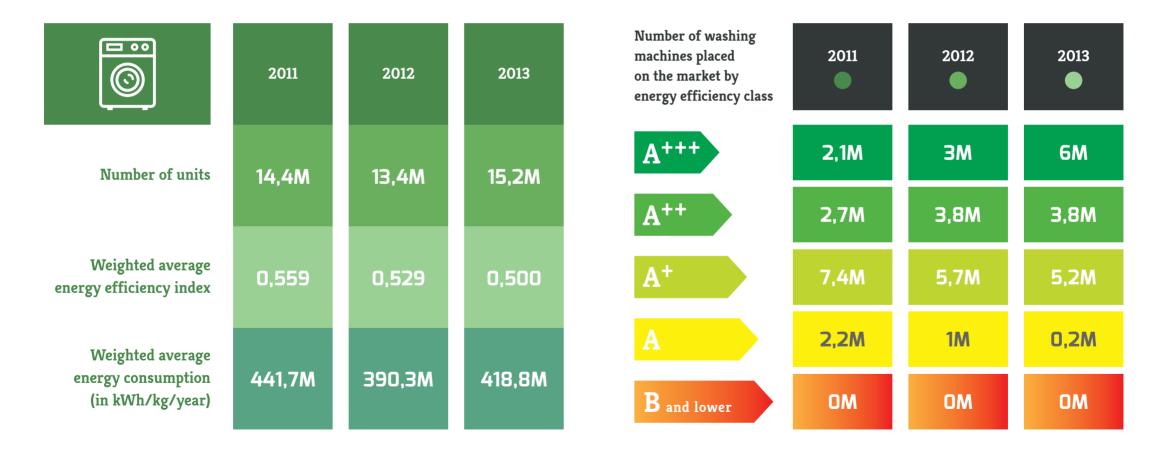


Advance Sustainable Lifestyle



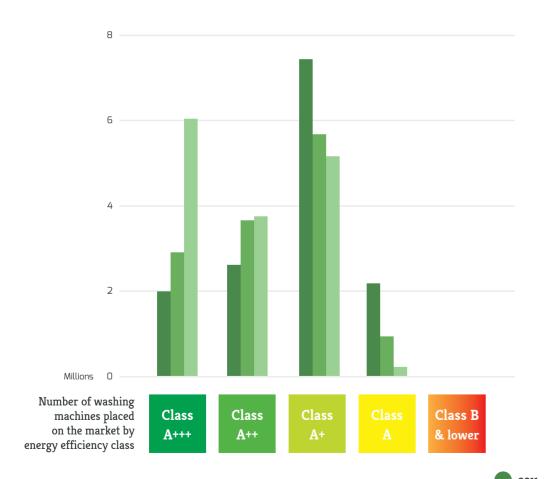


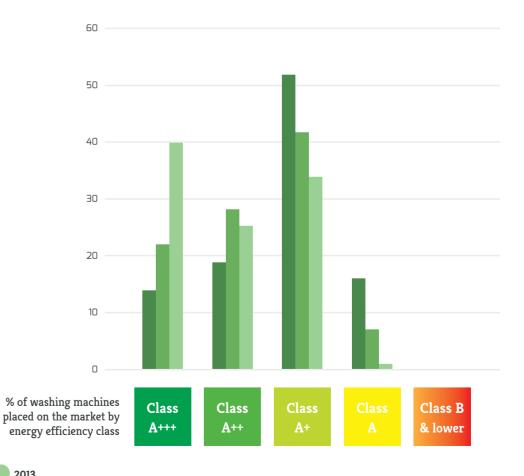
energy efficiency index increased by 50 on an annual basis, between 2011 and 2013."



"Within 3 years, the number of washing machines in energy class A+++ tripled, while the number of washing machines in the lowest energy class A was reduced by

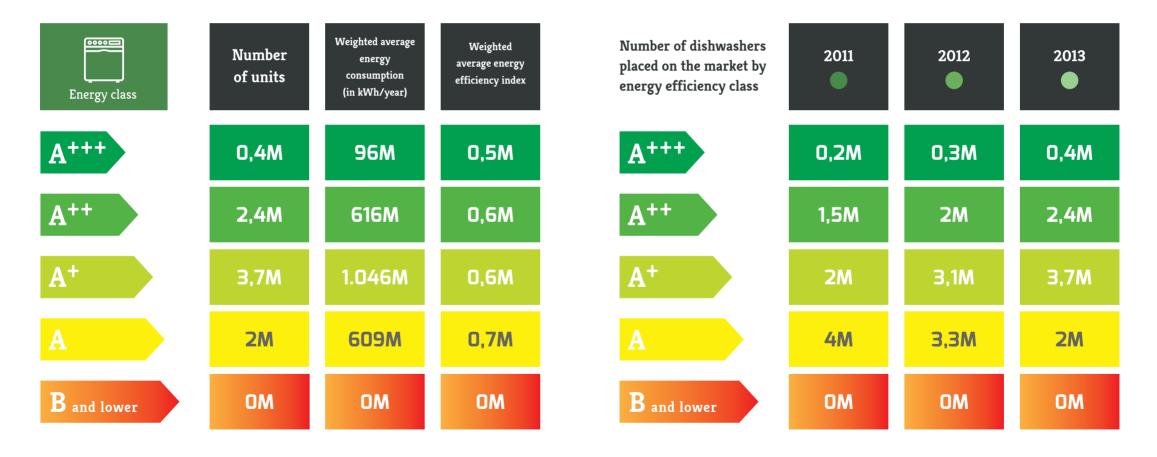
"In 2013, 40% of washing machines placed on the market were in the highest energy effiency class (A+++)."







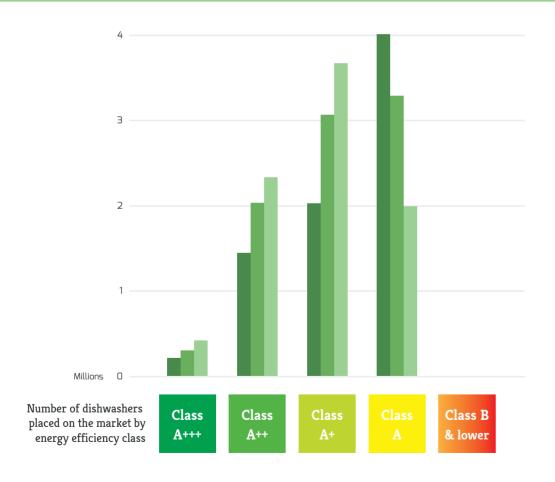
Within 3 years, the number of dishwashers in energy **class A** +++ doubled, while the number of dishwashers in the lower energy class A was cut in half

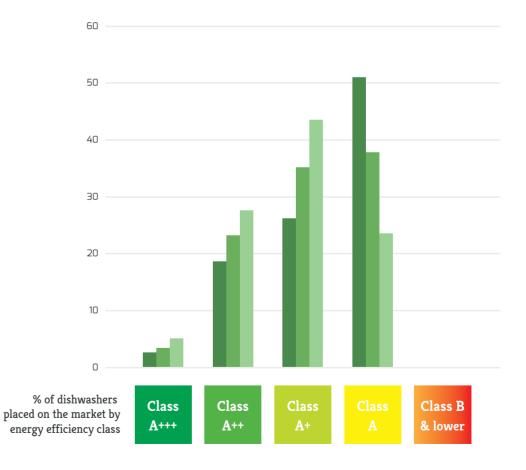


SOURCE: CECED Membership

"In 2013, more than 75% of all dishwashers placed on the market were in the energy efficiency class \mathbf{Class} \mathbf{A}^+ or higher"



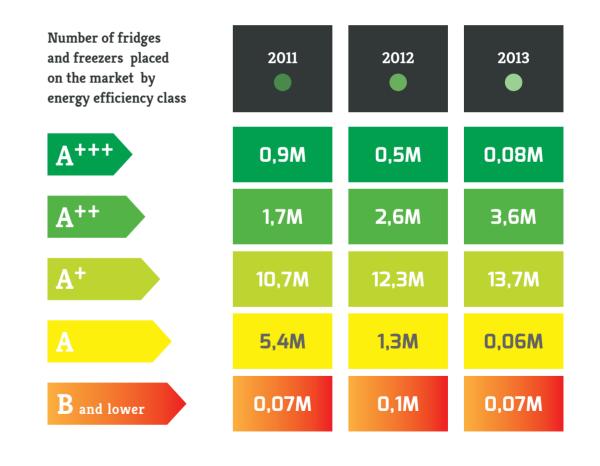






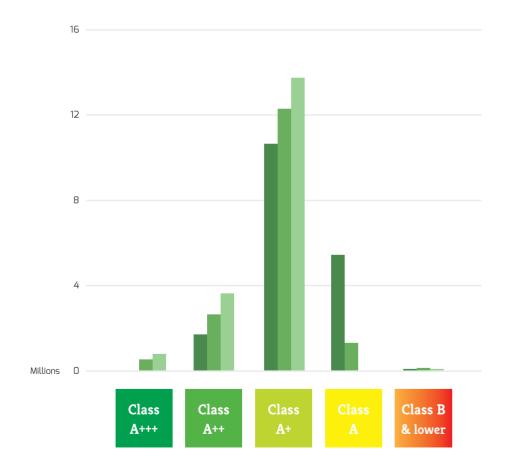
In 2013, 100% of all cold appliances placed on the market were in the highest energy effiency classes (A+ and higher)

Energy class	Number of units	Average energy efficiency index
A ⁺⁺⁺	M8,0	21,42
A ⁺⁺	3,6M	31,38
A ⁺	13,7M	41,04
A	0,06M	51,37
B and lower	0,07M	93,81



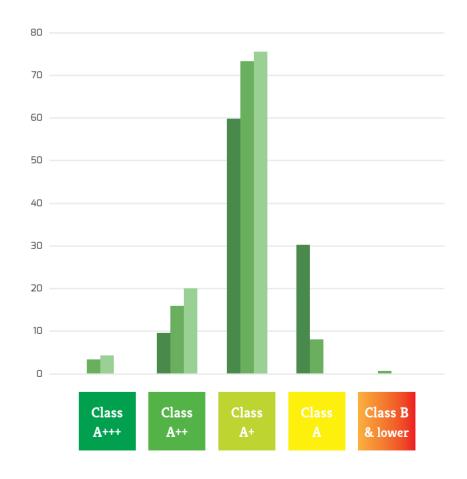


Number of fridges and freezers placed on the market by energy efficiency class





% of fridges and freezers placed on the market by energy efficiency class





Waste of Electrical and Electronic Equipment (WEEE) in Europe

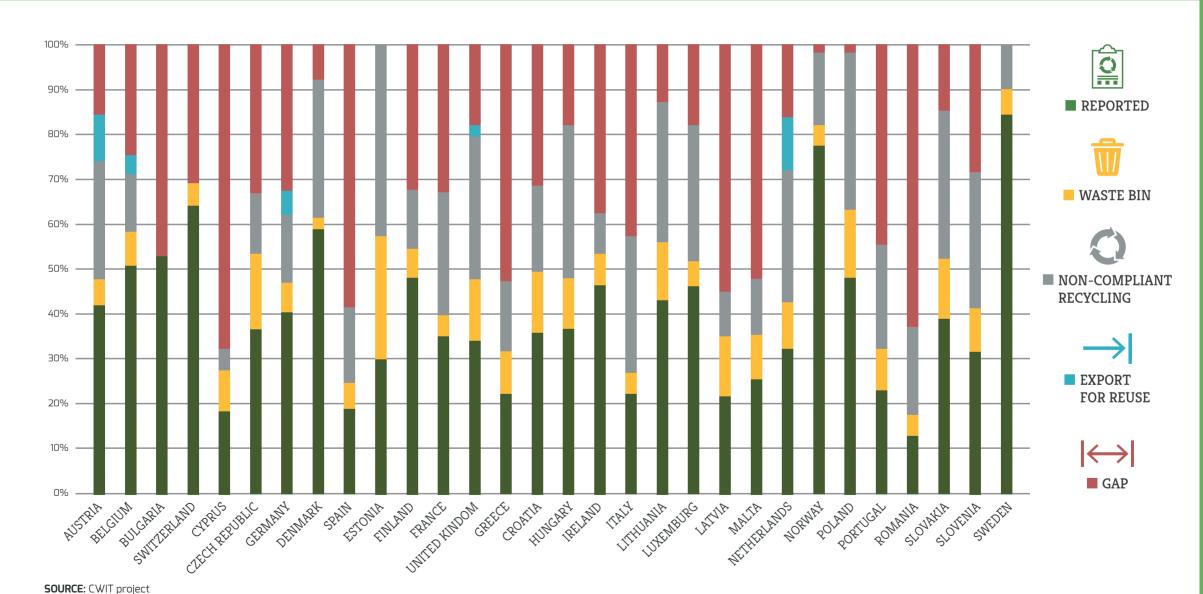
ACCORDING TO COUNTERING WEEE ILLEGAL TRADE PROJECT FOUNDED BY THE EUROPEAN COMMISSION

For the EU28 plus Norway and Switzerland (EU28+2), the estimated total amount of WEEE generated in 2012 is...





ONLY ONE THIRD OF WEEE GENERATED IS FORMALLY ACCOUNTED AND REPORTED BY MEMBER STATES





Collection of Waste of Electrical and Electronic Equipment (WEEE) in Europe

"The majority of European countries met the collection target established by the WEEE Directive of 4kg per inhabitant per year, which was the reference target until 18 August 2016."

TOTAL WEEE COLLECT EU28 + 3 EEA COUNTRIES	ED IN THE EU E	PER YEAR (KG PE	R INHABITANT)	KG /
	2010	2011	2012	2013
AUSTRIA	8,879	8,993	9,182	9,061
BELGIUM	9,688	10,408	10,465	10,763
BULGARIA	6,092	5,504	5,26	4,84
CYPRUS	3,145	3,203	2,91	2,649
CZECH REPUBLIC	5,059	5,282	5,108	5,156
GERMANY	9,502	8,683	8,588	9,027
DENMARK	14,949	15,137	13,628	12,837
ESTONIA	4,228	4,983	4,132	3,534
GREECE	4,184	3,815	3,371	3,49
SPAIN	3,394	3,292	3,378	4,494
FINLAND	9,484	9,745	9,784	10,649
FRANCE	6,695	7,22	7,191	7,296
CROATIA	-	4,09	3,792	3,532
HUNGARY	4,052	3,716	4,462	5,032
IRELAND	9,743	8,658	8,977	9,271
ICELAND	4,996	-	-	7,626
ITALY	9,826	9,171	8,354	7,257
LIECHTENSTEIN	-	4,353	3,812	7,85
LITHUANIA	2,882	3,908	4,772	5,462
LUXEMBOURG	9,514	9,616	9,435	9,526
LATVIA	2,044	2,263	2,307	2,398
MALTA	3,703	3,757	3,59	4,025
NETHERLANDS	7,711	7,919	7,382	6,992
NORWAY	22,042	22,173	20,903	20,656
POLAND	2,951	3,766	4,605	4,514
PORTUGAL	4,414	5,615	4,156	4,786
ROMANIA	1,296	1,043	1,151	-
SWEDEN	17,215	18,687	17,713	18,392
SLOVENIA	4,234	4,552	4,584	4,145
SLOVAKIA	4,065	4,372	4,192	4,172
UNITED KINGDOM	7,637	8,176	7,906	7,68
AVERAGE EU	7,022	7,070	6,836	7,237
INCREASE		1%	-3%	6%

TOTAL WEEE COLLECTED IN THE EU PER YEAR (TONNES)

EU28 + 3 EEA COUNTRIES

	2010	2011	2012	2013
AUSTRIA	74.256	75.464	77.402	76.835
BELGIUM	105.556	114.981	116.458	120.365
BULGARIA	45.056	40.442	38.431	35.162
CYPRUS	2.609	2.725	2.514	2.283
CZECH REPUBLIC	52.989	55.438	53.685	54.215
GERMANY	777.035	710.250	690.711	727.998
DENMARK	82.931	84.319	76.200	72.080
ESTONIA	5.630	6.615	5.465	4.658
GREECE	46.527	42.360	37.235	38.268
SPAIN	158.099	153.867	157.994	209.505
FINLAND	50.867	52.509	52.972	57.919
FRANCE	433.959	470.192	470.556	479.694
CROATIA		17.518	16.187	15.025
HUNGARY	40.521	37.053	44.262	49.778
IRELAND	44.431	39.628	41.177	42.629
ICELAND	1.589			2.469
ITALY	582.482	544.577	497.378	437.090
LIECHTENSTEIN		158	140	290
LITHUANIA	8.928	11.835	14.259	16.154
LUXEMBOURG	4.823	4.985	5.010	5.176
LATVIA	4.287	4.662	4.694	4.827
MALTA	1.535	1.564	1.506	1.704
NETHERLANDS	128.119	132.197	123.684	117.499
NORWAY	107.767	109.823	104.905	104.927
POLAND	112.246	143.331	175.295	171.728
PORTUGAL	46.673	59.282	43.695	50.051
ROMANIA	26.247	21.008	23.083	
SWEDEN	161.444	176.580	168.612	176.567
SLOVENIA	8.674	9.344	9.430	8.539
SLOVAKIA	21.916	23.601	22.671	22.584
UNITED KINGDOM	479.356	517.192	503.611	492.490
TOTAL	3.616.552	3.663.500	3.579.222	3.598.509
INCREASE		1%	-2%	1%

"In 2012, the total amount of collected WEEE decreased, but then this rate increased again slightly in 2013."



SOURCE: Eurostat



Electrical and Electronic Equipment (EEE) Placed on the EU Market per year (tonnes)





Average EU WEEE Return Rate



Average EU WEEE Collection Rate 2013

Collected 2013/ Average Placed on the market 2010-2012

38%

"The average European collection rate in 2013 was less than 45%. As of 18 August 2016, the new target will be 45%, set by the WEEE Directive until 2019."



Collection of Large Home Appliances in Europe



LARGE HOME APPLIANCES PLACED ON THE MARKET IN THE EU PER YEAR (TONNES)



NOTE: Data from all EU Member States and EEA countries is not available. 2010 year data from Croatia and Liechtenstein are missing. 2013 year data from Romania and Spain are missing. 2011 and 2012 data from Iceland are missing.

"Even though quantities of large home appliances placed on the market have slightly decreased in 2013, the amounts collected increased."

LARGE HOME APPLIANCES COLLECTED IN THE EU PER YEAR (TONNES)





NOTE: Data from all EU Member States and EEA countries is not available. 2010 year data from Croatia and Liechtenstein are missing. 2013 year data from Romania are missing. 2011 and 2012 data from Iceland are missing. Data from Italy is missing.

Large Home Appliances make up....

% of Total EEE Placed on the EU Market

2010	2011	2012	2013
48%	47%	50%	51%

% of Total WEEE Collected in the EU

2010	2011	2012	2013
43%	43%	43%	46%

"On average, large home appliances represent half of total EEE placed on the market and WEEE collected (in weight)."



Average EU Return Rate of Large Home Appliances



Average EU Collection Rate of Large Home Appliances 2013

Collected 2013/ Average placed on the market 2010-2012

36%

"For large home appliances: on average, the return rate is slightly higher than the 2013 collection rate."



Collection of Small Home Appliances in Europe



SMALL HOME APPLIANCES PLACED ON THE MARKET IN THE EU PER YEAR (TONNES)



NOTE: Data from all EU Member States and EEA countries is not available. 2010 year data from Croatia and Liechtenstein are missing. 2013 year data from Romania and Spain are missing. 2011 and 2012 data from Iceland are missing.

53

SMALL HOME APPLIANCES COLLECTED IN THE EU PER YEAR (TONNES)





NOTE: Data from all EU Member States and EEA countries is not available. 2010 year data from Croatia and Liechtenstein are missing. 2013 year data from Romania are missing. 2011 and 2012 data from Iceland are missing. Data from Italy is missing.

Small Home Appliances make up....

% of Total EEE Placed on the EU Market

2010	2011	2012	2013
8%	9%	10%	10%

% of Total WEEE Collected in the EU

2010	2011	2012	2013
7 %	7 %	7 %	8%

"Small home appliances
represent only a small share
of total EEE placed on the
market and total WEEE
collected quantities
(in weight)."



Average EU Return Rate of Small Home Appliances



Average EU Collection Rate of Small Home Appliances 2013

Collected 2013/ Average placed on the market 2010-2012

30%

"For small home appliances: on average, the return rate is slightly lower than the 2013 collection rate."



Treatment of Large & Small Home Appliances in Europe

"Over the last years, treatment of large and small home appliances has regularly increased. As a result, recovery and recycling have as well increased."

Large Home Appliances Treated, Recovered and Recycled (inside & outside EU)



NOTE: Data from all EU Member States and EEA countries is not available. There is no data for United Kingdom and Italy. 2013 year data from Romania is missing. Data from Iceland only available for 2013

Recovery & Recycling Rates of Large & Small Home Appliances,

in Europe

	2012	2013
Recovery rate large home appliances %	93%	91%
Recycling rate large home appliances %	84%	84%
Recovery rate small home appliances %	80%	87%
Recycling rate small home appliances %	76%	77%

"Recycling and recovery rates of large and small home appliances exceeded the targets established by the WEEE Directive, targets valid until 2016."

SOURCE: WEEE Forum

Small Home Appliances Treated, Recovered and Recycled (inside & outside EU)

_	2010	2011	2012	2013
Treated (inside & outside EU, in tonnes)	0,19M 📥	0,22M 👛	0,21M 🔔	0,24M 👗
Increase		15%	-2%	14%
Recovered (tonnes)	0,16M 📥	0,18M 🚢	0,18M 🔔	0,21M 👗
Recycled (tonnes)	0,13M 👗	0,15M 🔔	0,15M 👛	0,18M 🔔

NOTE: Data from all EU Member States and EEA countries is not available. There is no data for United Kingdom and Italy. 2013 year data from Romania is missing. Data from Iceland only available for 2013

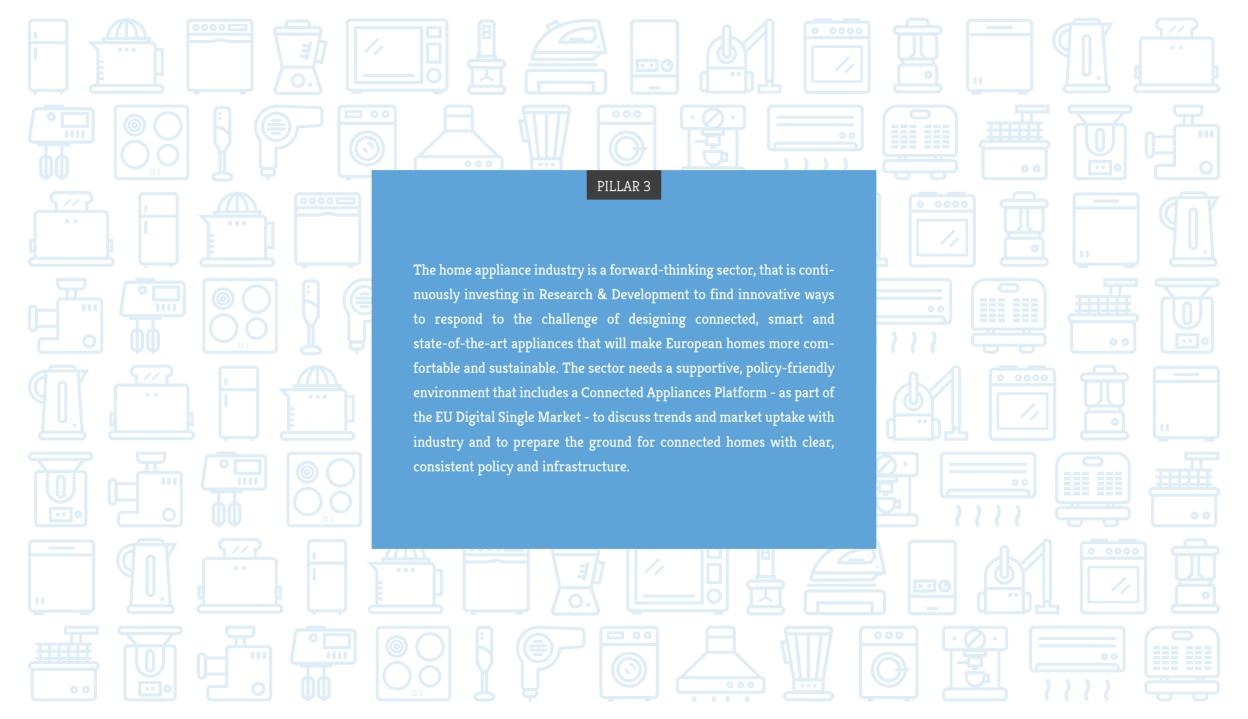


Pillar 2 Notes





Make the Home a Reality





Research & Innovation

R&D EXPENDITURE IN HOME APPLIANCE MANUFACTURING BY COUNTRY, IN 2014

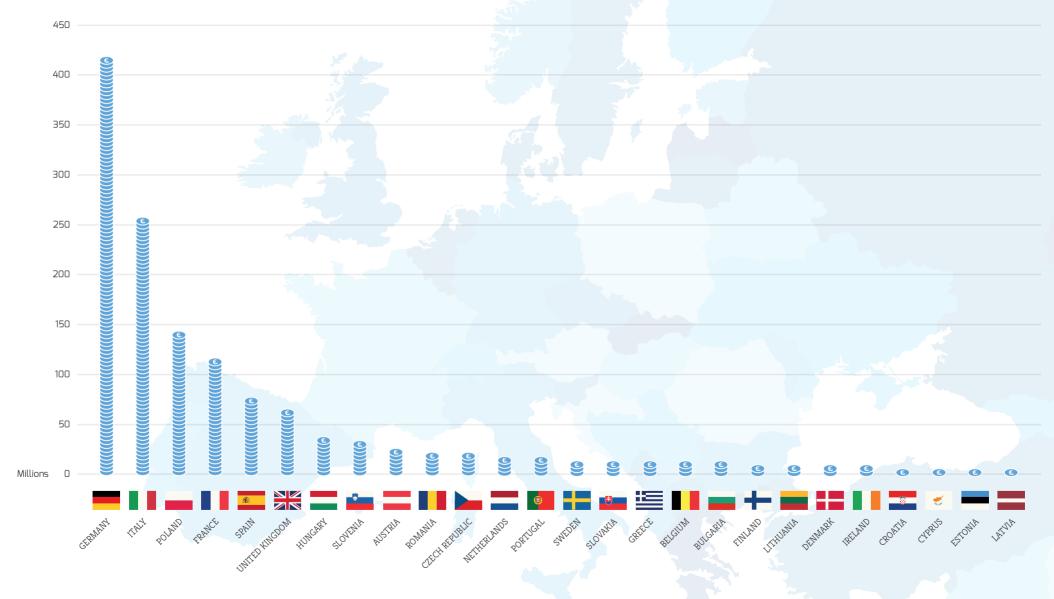
"R&D expenditure in home appliance manufacturing in the EU in 2014 was around €1,4bn."

	R&D expenditure 2014
GERMANY	€417,9M
ITALY	€258,3M
POLAND	€143,9M
FRANCE	€115,7M
≇ SPAIN	€78,4M
UNITED KINGDOM	€64M
HUNGARY	€36,6M
SLOVENIA	€34,4M
AUSTRIA	€24,6M
ROMANIA	€23,8M
CZECH REPUBLIC	€18,7M
NETHERLANDS	€18,4M
PORTUGAL	€17,1M

	R&D expenditure 2014
SWEDEN	€14,1M
• SLOVAKIA	€13,2M
GREECE	€9,3M
BELGIUM	€9,1M
BULGARIA	€8,3M
FINLAND	€3,7M
LITHUANIA	€3,7M
DENMARK	€3,4M
IRELAND	€3,3M
CROATIA	€1M
€ CYPRUS	€0,3M
ESTONIA	€0,09M
LATVIA	€0,02M

Connected Hor

R&D EXPENDITURE IN HOME APPLIANCE MANUFACTURING, IN 2014





Research & Innovation

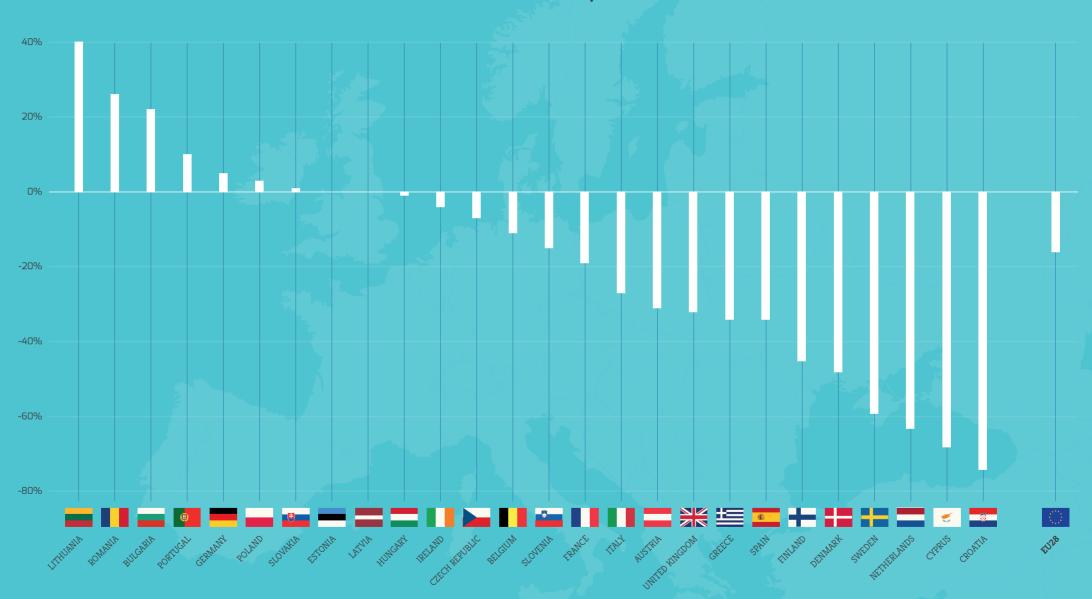
R&D EXPENDITURE GROWTH BY EU COUNTRY, IN 2008-2014

"The home appliance industry in
Europe encourages the development
of a regulatory environment that
stimulates R&D in Europe, and helps
companies maintain their global
competiteveness."

SOURCE: Eurostat

		2008 R&D expenditure	2014 R&D expenditure	2008-2014 % Growth
	Austria	€35.5M	€24.6M	-31%
	Belgium	€10.3M	€9.1M	-11%
	Bulgaria	€6.8M	€8.3M	22%
9	Croatia	€3.8M	€1M	-74%
€	Cyprus	€0.8M	€0.26M	-68%
	Czech Republic	€20.1M	€18.7M	-7 %
+	Denmark	€6.5M	€3.4M	-48%
	Estonia	€OM	€0.09M	0%
+	Finland	€6.8M	€3.7M	-45%
	France	€142.7M	€115.7M	-19%
	Germany	€400M	€418M	5%
	Greece	€14.1M	€9.3M	-34%
	Hungary	€37M	€36.6M	-1%
	Ireland	€OM	€3.2M	-4%
	Italy	€355M	€258.3M	-27%
	Latvia	€OM	€0.02M	0%
	Lithuania	€2.6M	€3.7M	40%
	Netherlands	€50M	€18.4M	-63%
	Poland	€140.2M	€144M	3%
(8)	Portugal	€15.5M	€17.1M	10%
	Romania	€18.9M	€23.8M	26%
•	Slovakia	€13.1M	€13.1M	1%
-	Slovenia	€40.3M	€34.4M	-15%
**	Spain	€119.3M	€78.4M	-34%
+	Sweden	€34.2M	€14.1M	-59%
	United Kingdom	€93.9M	€64M	-32%
	EU28	€1,572M	€1,314M	-16%

% GROWTH OF R&D IN HOME APPLIANCE MANUFACTURING, IN 2008-2014



Research & Innovation

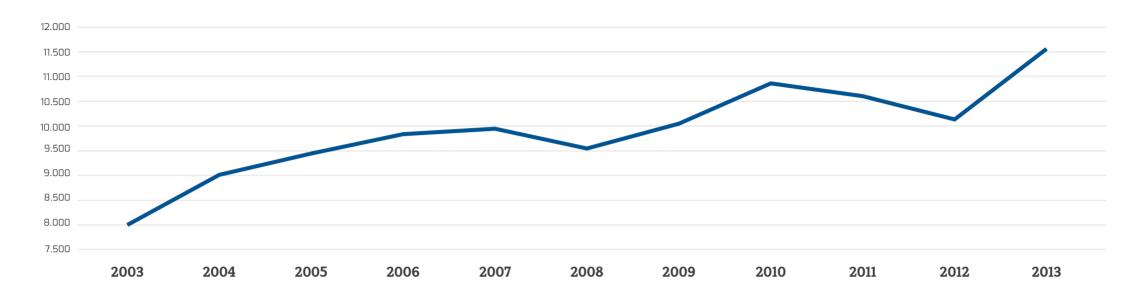
PATENTS DEPOSITED FOR HOME APPLIANCES IN EUROPE



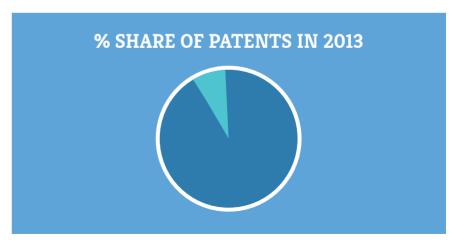
"More and more patents are deposited, to protect the results of fruitful R&D activities. Nearly 8% of all patents deposited in 2013 in the EU came from the home appliance sector."

Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Patents deposited	8.028	9.007	9.483	9.808	9.976	9.595	10.078	10.881	10.631	10.214	11.562

PATENTS DEPOSITED IN HOME APPLIANCE MANUFACTURING



Total patent applications in EU in 2013, across all sectors	147.869
Total patent applications in EU in 2013, home appliances	11.562
% Share	7,8%

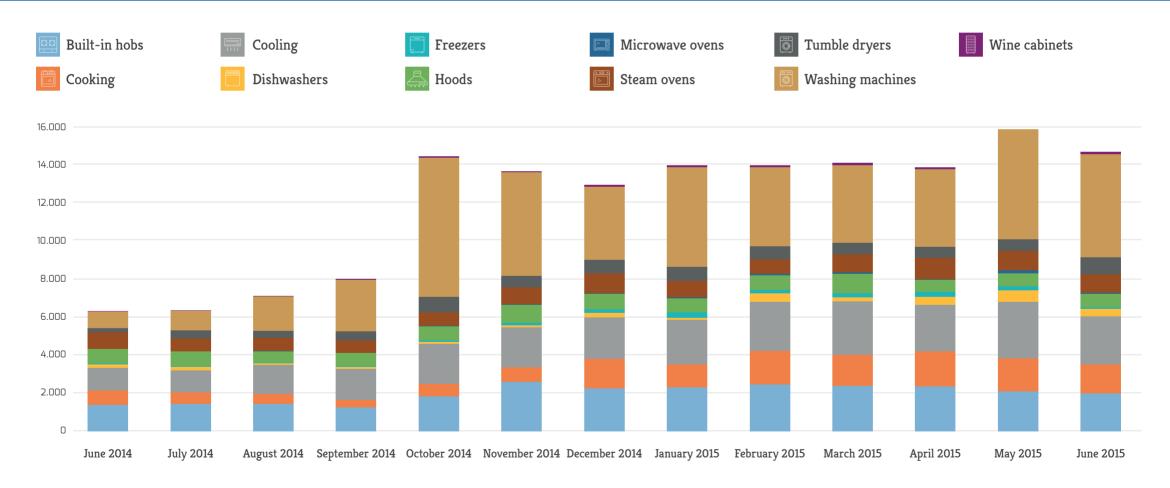




Smart Home Appliances

SMART LARGE HOME APPLIANCES SALES IN GERMANY, FRANCE AND UK (JUNE 2014 - JUNE 2015)

"In June 2014, 6.300 smart large home appliances were sold, while only 1 year later, almost 14.700 units were sold in the same month."





"Between June 2014 and June 2015, there was a lot of innovation within the smart large home appliances field."

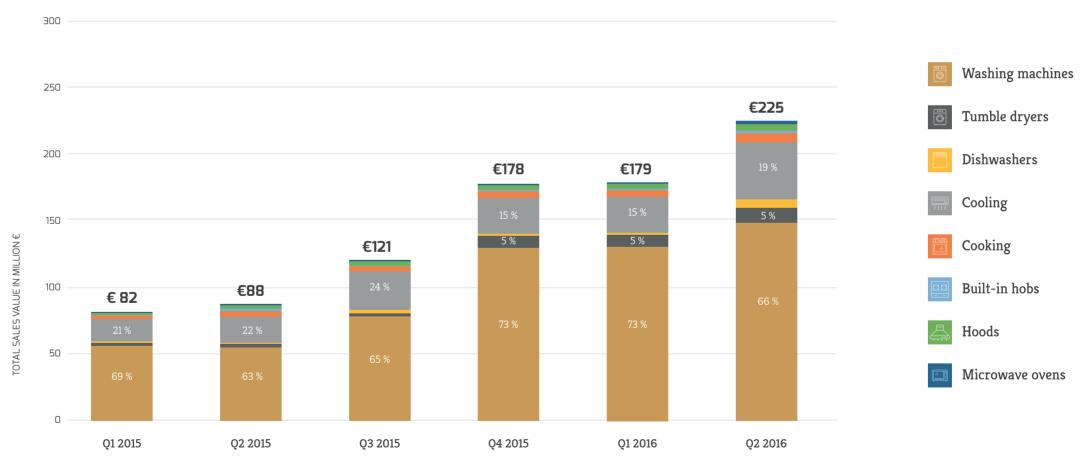




Smart Home Appliances

SMART LARGE HOME APPLIANCES SALES VALUE IN THE EU, IN JANUARY 2015 - JUNE 2016

"In June 2016, sales value of smart appliances had grown approx. three times higher than in January 2015."





Smart Home Appliances

NUMBER OF DIFFERENT SELLING BRANDS
AND ITEMS FOR SMART LARGE HOME APPLIANCES
IN GERMANY, FRANCE AND UK (JANUARY 2015 - JUNE 2015)

"Between January and June 2015, the number of smart large home appliance purchases has significantly increased across selling brands and selling items.

	Number of different senting brands	Number of different senting items
January 2015	5	173
February 2015	6	184
March 2015	7	190
April 2015	6	200
May 2015	6	216
June 2015	6	218

Number of different selling brands

Number of different selling items

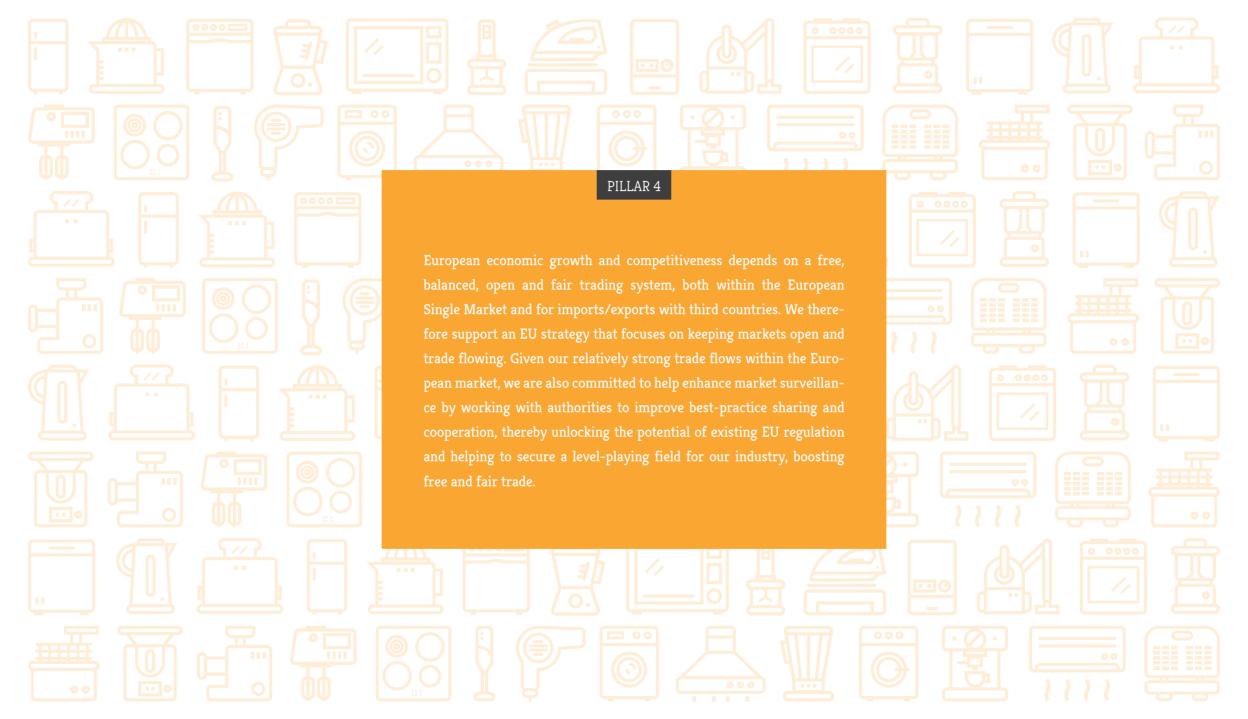
Pillar 3 Notes





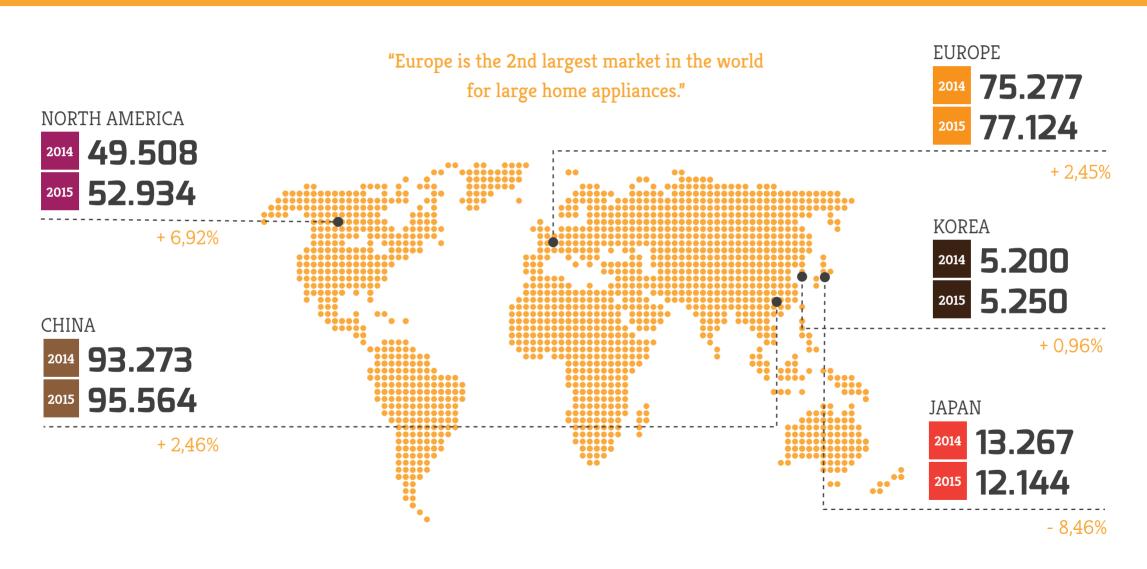
Accelerate Europe's

Economic Growth



Units Traded Globally, in 2014-2015

FRIDGES, FREEZERS, DISHWASHERS, WASHING MACHINES, TUMBLE DRYERS, HOODS, MICROWAVE OVENS



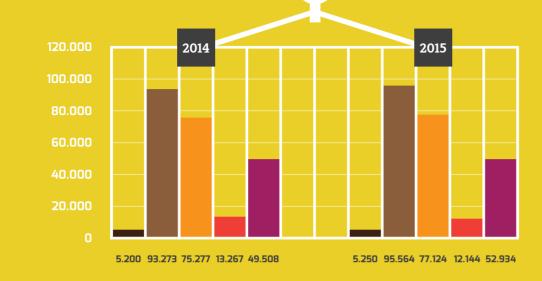
UNITS TRADED GLOBALLY, IN 2014-2015

TOTAL 2014

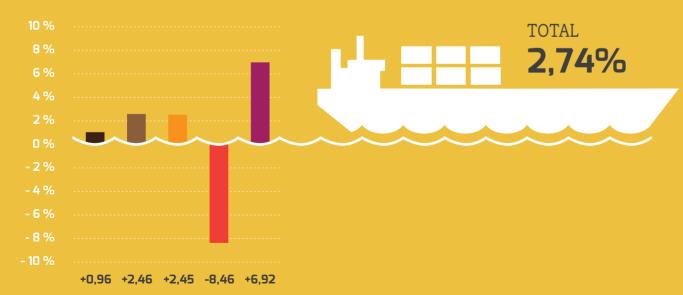
236.525

TOTAL 2015

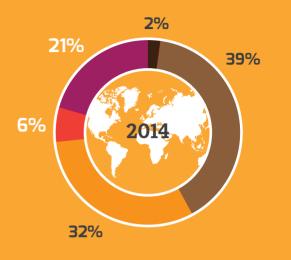
243.016

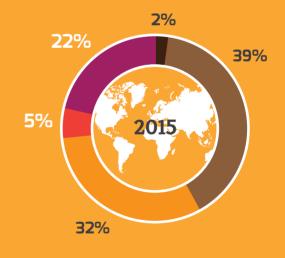


% GROWTH, IN 2014-2015



% SHARE BY GEOGRAPHICAL AREA







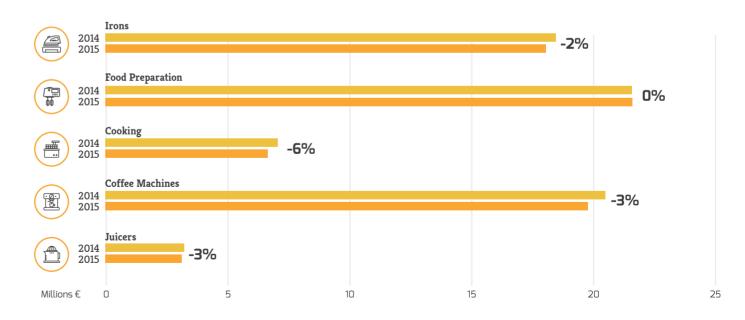


Units Traded in Europe, in 2014-2015

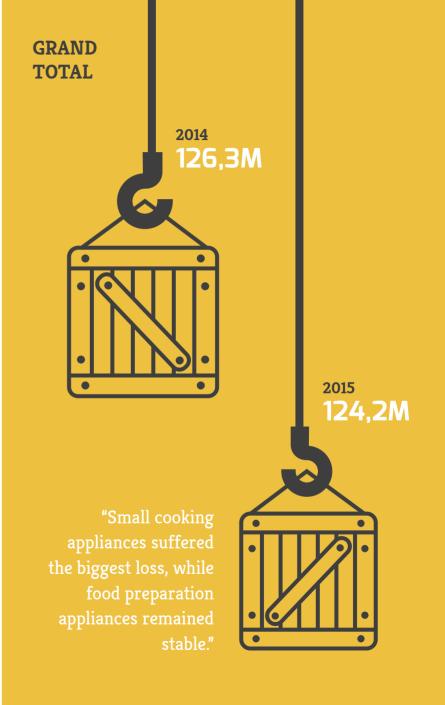
SMALL HOME APPLIANCES

"In 2015, approx. 125 million small home appliances were traded in Europe."

	Irons	Food Preparation	Cooking	Coffee Machines	Juicers	Grand Total
2014	18,3M	21,4M	7M	20,3M	3,2M	126,3M
2015	17,9M	21,4M	6,6M	19,6M	3,1M	124,2M
Growth 2014 vs 2015	-2%	0%	-6%	-3%	-3%	-2%



	Product Groups	2015	2014	Growth 2015 vs 2014
	1. Irons	17.9M	18.3M	-2%
	1.1 Traditional steam irons	14.2M	14.7M	-4%
	1.2 Steam generators	3.7M	3.6M	4%
60	2. Food preparation	21.4M	21.4M	0%
	2.1 Hand blender	8.3M	8.6M	-4%
	2.2 Kitchen machine (mixer)	1.9M	1.9M	0%
	2.3 Food processor	2.1M	2M	2%
	2.4 Hand mixer	4.1M	4.2M	-1%
	2.5 Chopper	2.3M	2.4M	-3%
	2.6 Liquidiser (blender)	2.7M	2.3M	18%
	3. Cooking	6.6M	7M	-6%
E	4. Coffee machines	19.6M	20.3M	-3%
	4.1 Espresso	11.5M	11.1M	4%
	4.2 Filter coffee	4.9M	5.4M	-9%
	5. Juicers	3.1M	3.2M	-3%
	Grand Total	124M	126M	-2%

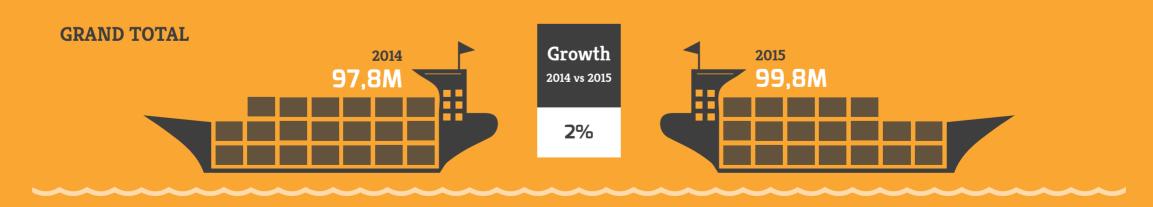


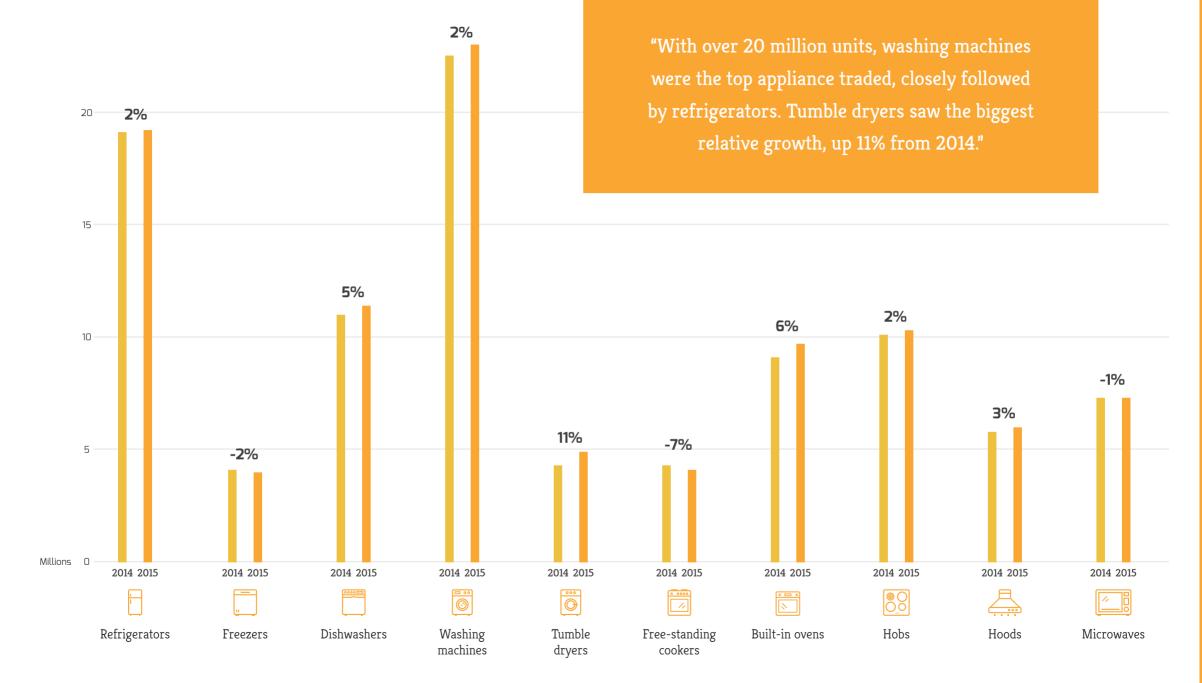
Units Traded in Europe, in 2014-2015

REFRIGERATORS, FREEZERS, DISHWASHERS, WASHING MACHINES, TUMBLE DRYERS, FREESTANDING COOKERS, BUILT-IN OVENS, HOBS, HOODS, MICROWAVES

	Refrigerators	Freezers	Dishwashers	Washing machines	Tumble dryers	Free-standing cookers	Built-in ovens	(a) (b) (c) (d) (d) (d) (d) (d) (d) (d) (d) (d) (d	Hoods	Microwaves
2014	19,1M	4,1M	11M	22,5M	4,3M	4,3M	9,1M	10,1M	5,8M	7,3M
2015	19,2M	4M	11,4M	23M	4,9M	4,1M	9,7M	10,3M	6M	7,3M
Growth 2015 vs 2014	2%	-2%	5%	2%	11%	-7%	6%	2%	3%	-1%

"In 2015, approx. 100 million large home appliances were traded in Europe, up 2% from 2014."







Production Facilities - CECED Direct Members

BY COUNTRY IN EUROPE, IN 2014

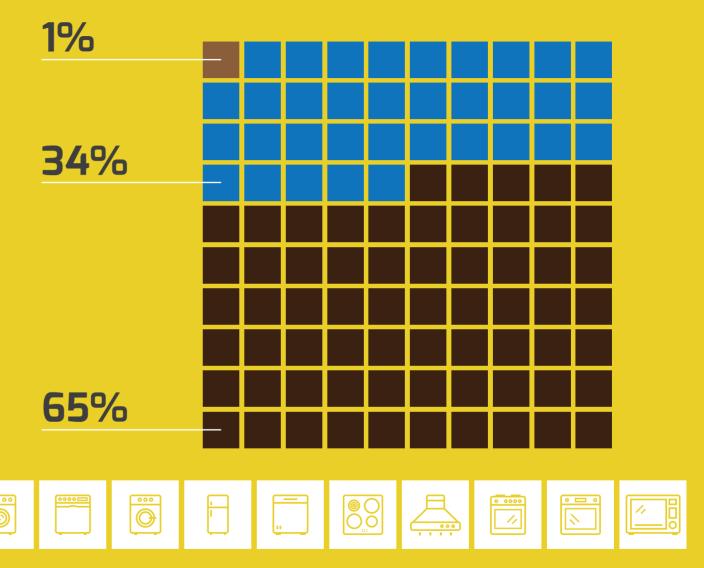




Origin of Imports in 2015

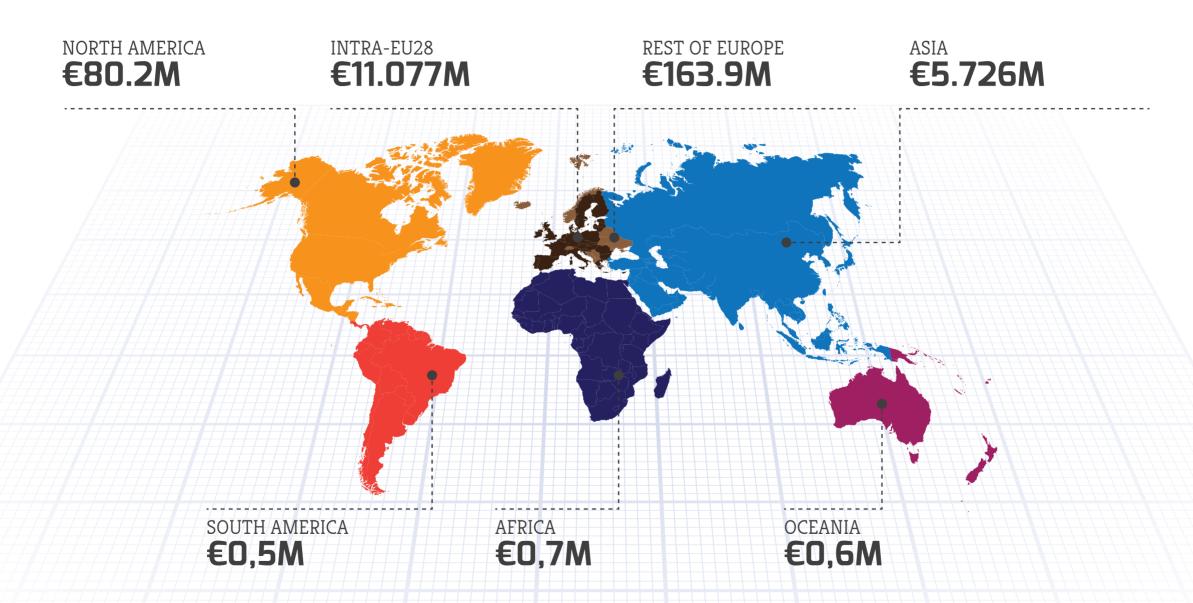
LARGE HOME APPLIANCES *

"Two-thirds of large appliance imports originate in the EU."

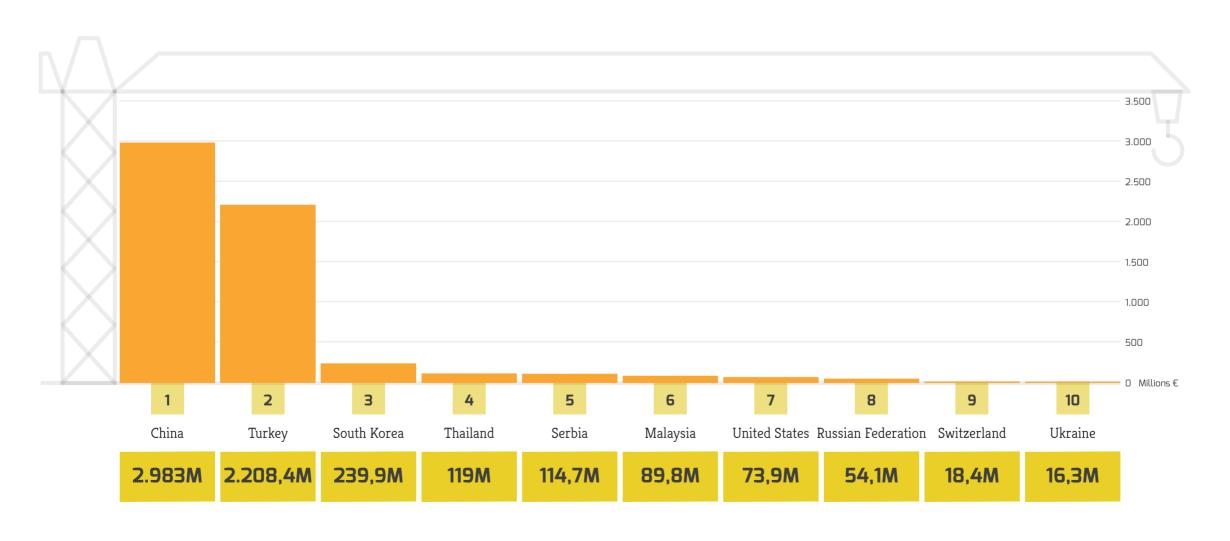


*washing machines, dishwashers, tumble dryers, refrigerators, freezers, hobs, hoods, built-in ovens, freestanding cookers and microwave ovens (HS codes: 841460, 841810, 841821, 841829, 841830, 841840, 842112, 842211, 845011, 845012, 845019, 845020, 851650, 851660)

INTRA REST OF NORTH AMERICA OCEANIA AFRICA ASIA



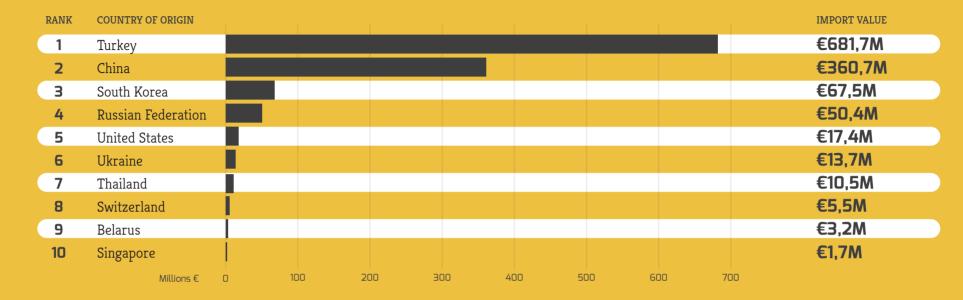
Origin of Imports in 2015 (outside of the EU)



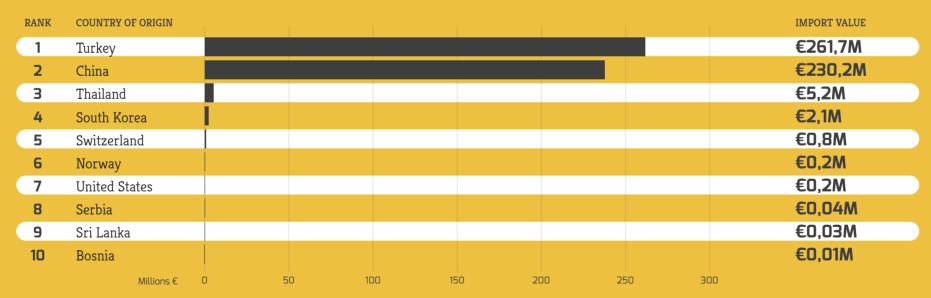
"Outside of EU, most large home appliance imports come from China."





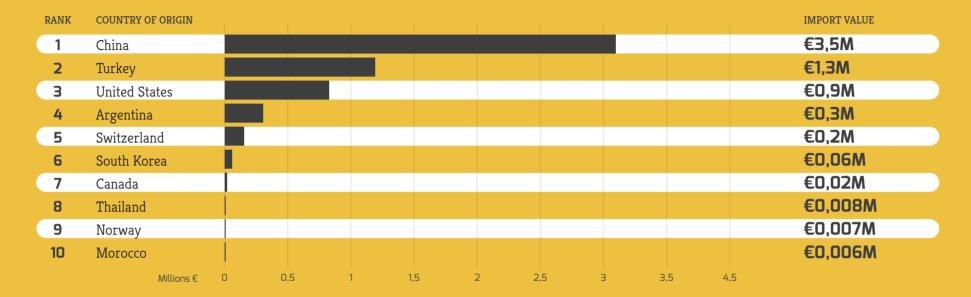






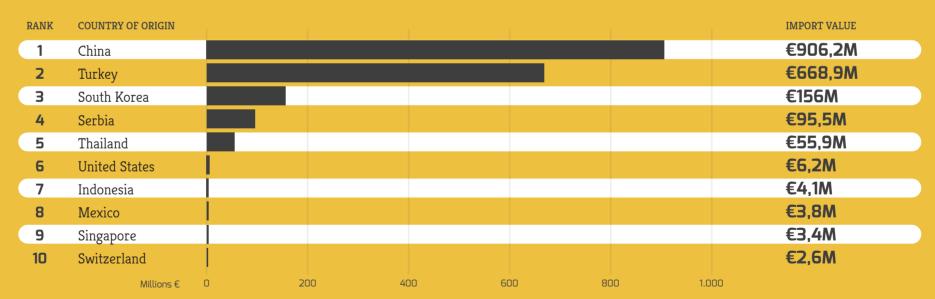




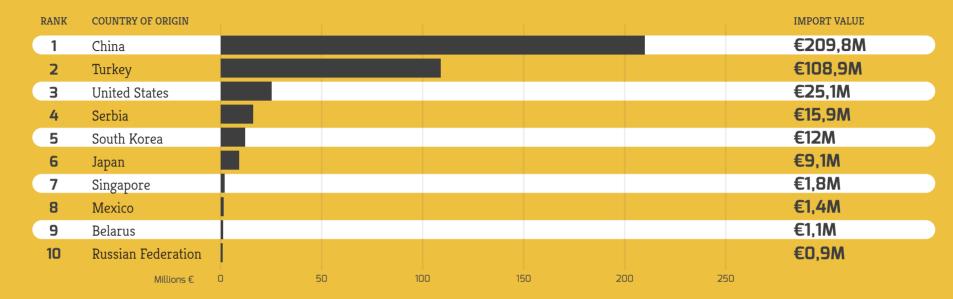


Refrigerators

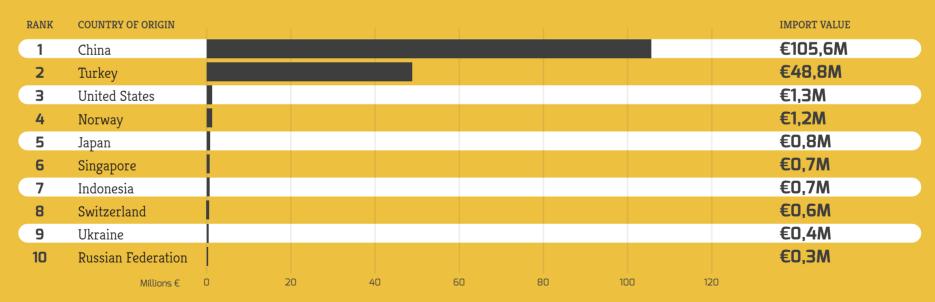










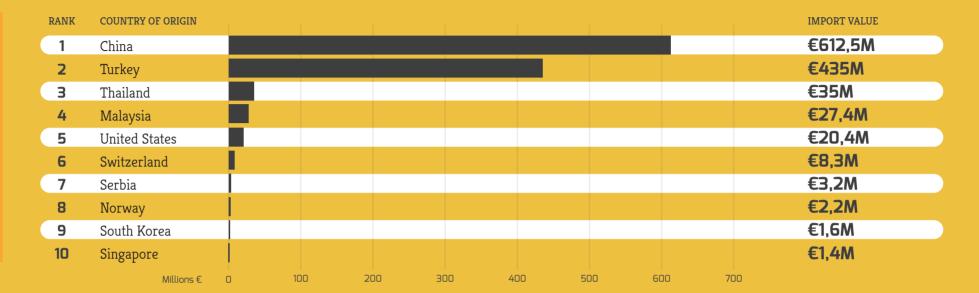


Hobs, cookers and ovens



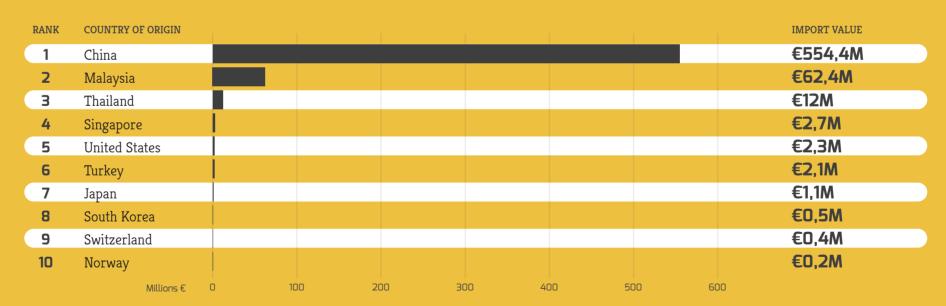






Microwave ovens



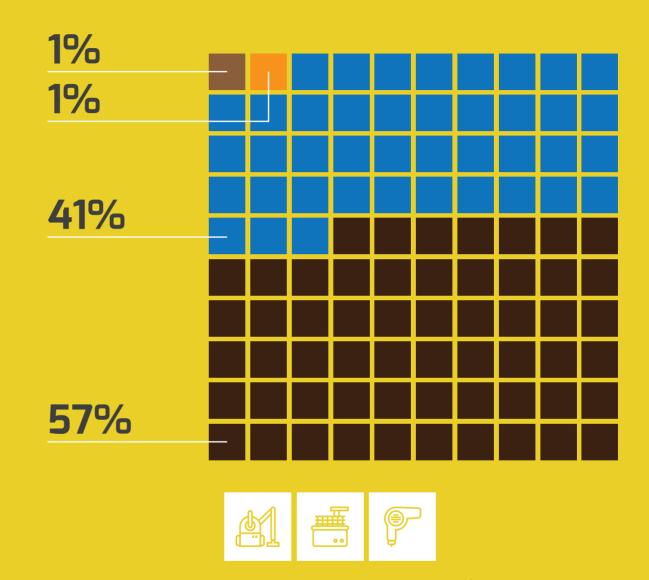




Origin of Imports in 2015

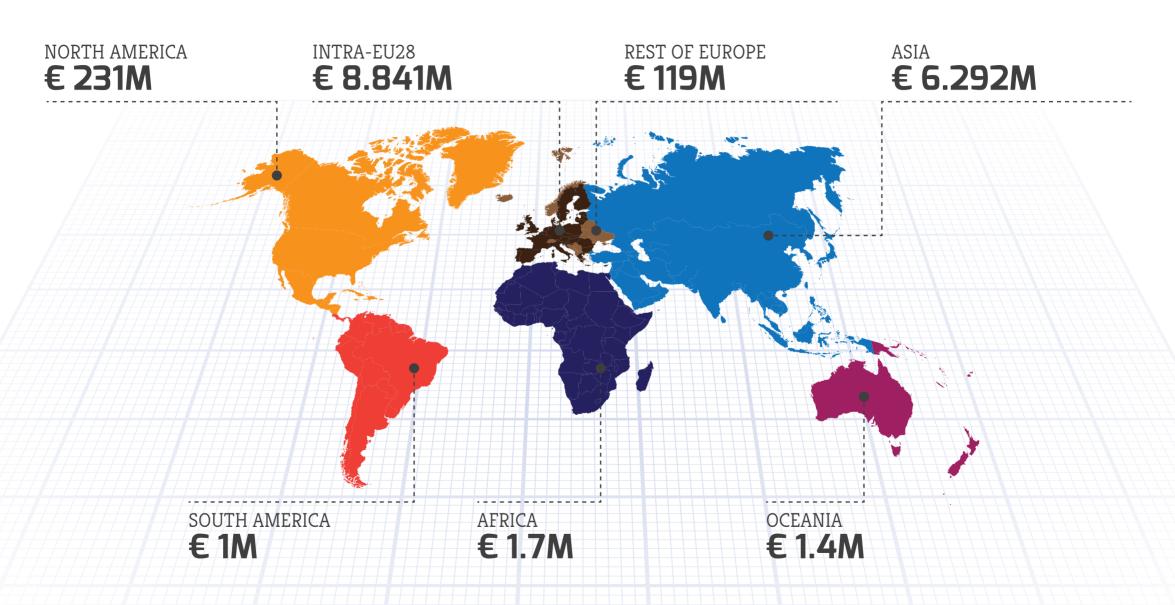
SMALL HOME APPLIANCES *

"Over half of all small appliance imports originate in the EU."



^{*} Vacuum cleaners, appliances for food and beverage preparation, and personal care appliances (HS codes: 850811, 850819, 850860, 850870, 850940, 850980, 850990, 851671, 851672, 851679, 851010, 851020, 851030, 851090, 851631, 851632, 851633, 851640)

INTRA REST OF NORTH AMERICA OCEANIA AFRICA ASIA



Origin of Imports in 2015 (outside of the EU)

TOP 10 COUNTRIES OF ORIGIN FOR IMPORTS OF SMALL HOME APPLIANCES

"Outside of EU, most small home appliance imports come from China."



Va	acuum cleaners					
RANK	COUNTRY OF ORIGIN				IMPORT VALUE	
1	China				€1.193,1M	
2	Malaysia				€307,5M	
3	United States				€51,3M	
4	Vietnam				€43,4M	
5	Turkey				€40,9M	
6	South Korea				€19,4M	
7	Switzerland				€6,2M	
8	Canada				€4,8M	
9	Mexico				€2,9M	
10	Japan				€1,5M	

Millions € 0 200 400 600 800 1.000 1.200 1.400

Personal care appliances

10 Turkey

	<u>.</u> .	·		
RAN	K COUNTRY OF ORIGIN		IMPORT VALUE	
1	China		€1.143,5M	
2	Indonesia		€159,6M	
3	United States		€32,6M	
4	Japan		€22,4M	
5	Switzerland		€17M	
6	Israel		€16M	
7	Ukraine		€11,1M	
8	South Korea		€7,4M	
9	Bosnia		€7M	

200 400 600 800 1.000 1.200 1.400

€1,8M

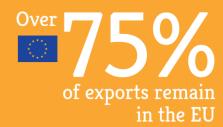
Appliances for food and beverage preparation RANK COUNTRY OF ORIGIN IMPORT VALUE 1 China €3.176,3M 2 United States €129M €58,9M **3** South Korea 4 Switzerland €50,7M €30,6M Indonesia **6** Turkey €28,7M €13,2M **7** Malaysia 8 Serbia €9M €8,4M Norway €6,4M 10 Israel

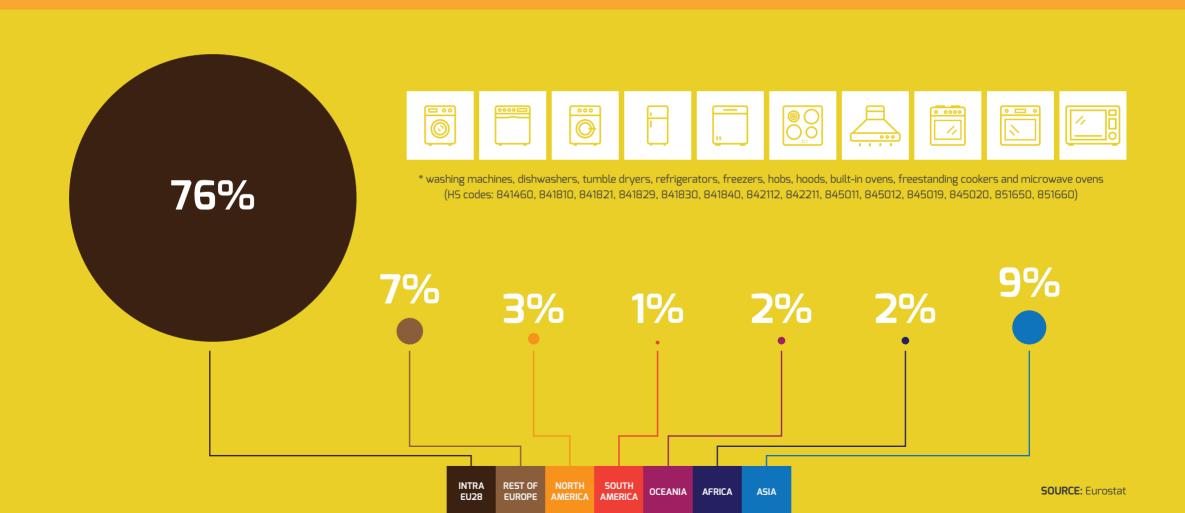


500 1.000 1.500 2.000 2.500 3.000 3.500

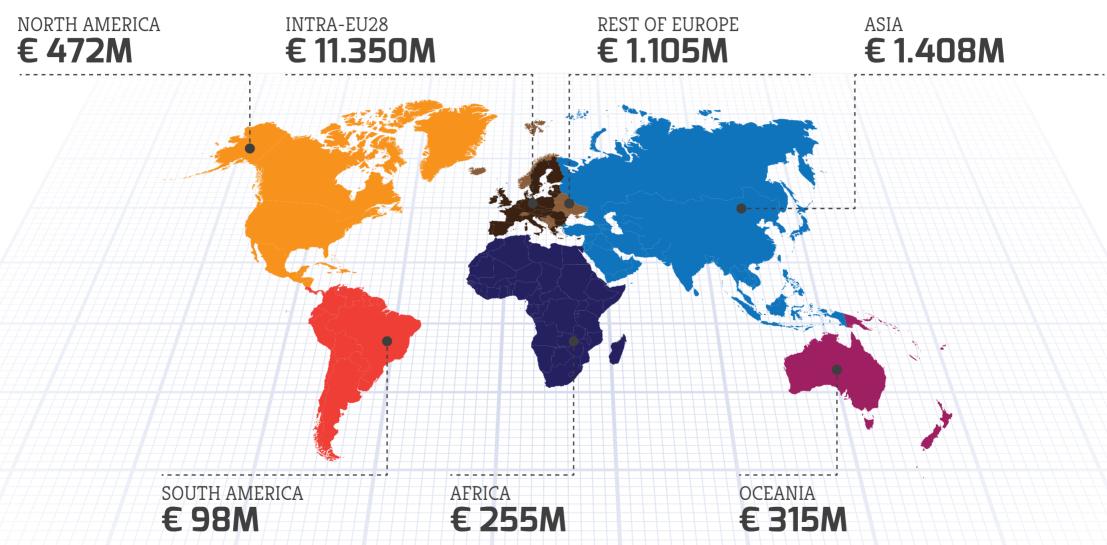
Export Destinations in 2015

LARGE HOME APPLIANCES *



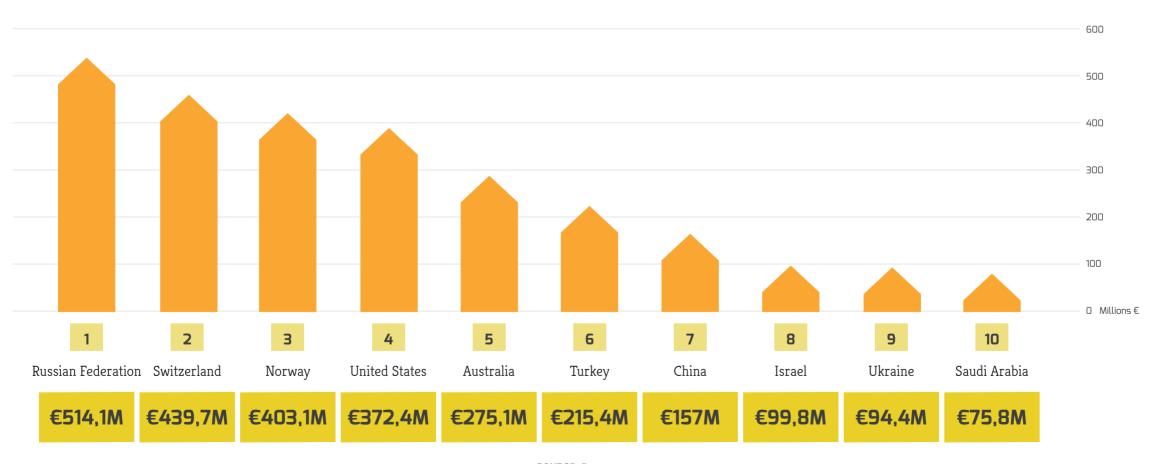






Export Destinations in 2015 (outside of the EU)

TOP 10 DESTINATIONS FOR LARGE HOME APPLIANCES

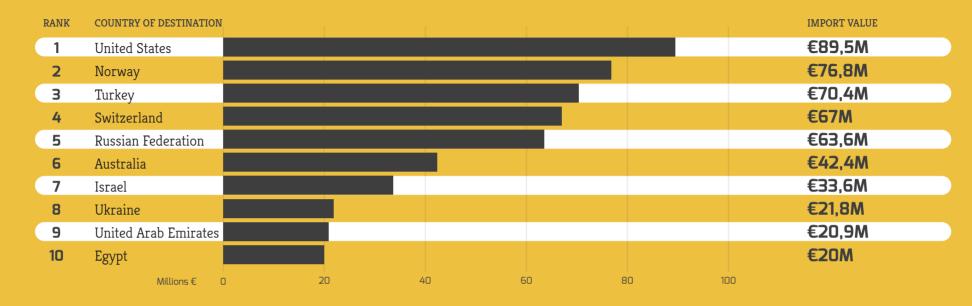


SOURCE: Eurostat

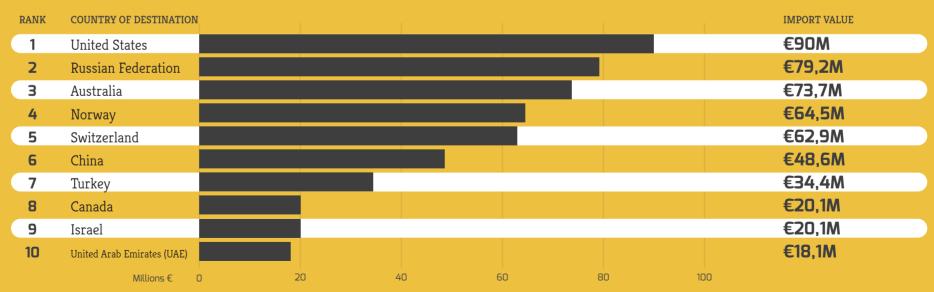
"Outside of the EU, Russia is the biggest export destination for large home appliances."





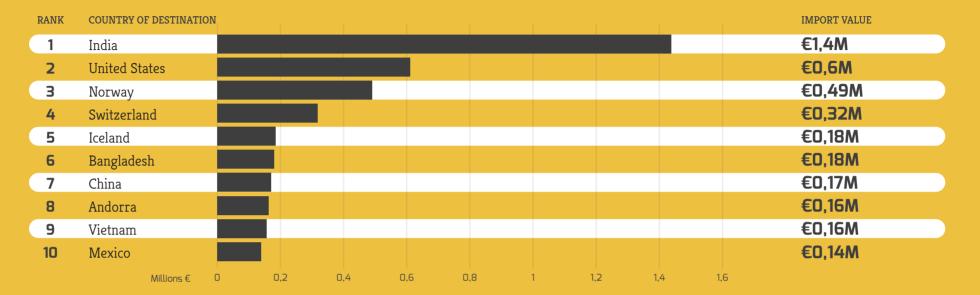






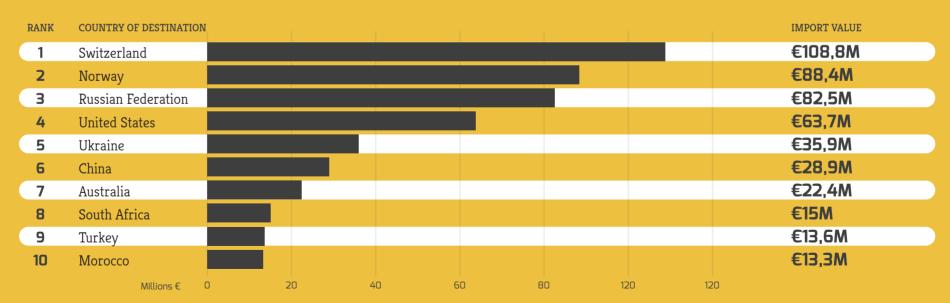




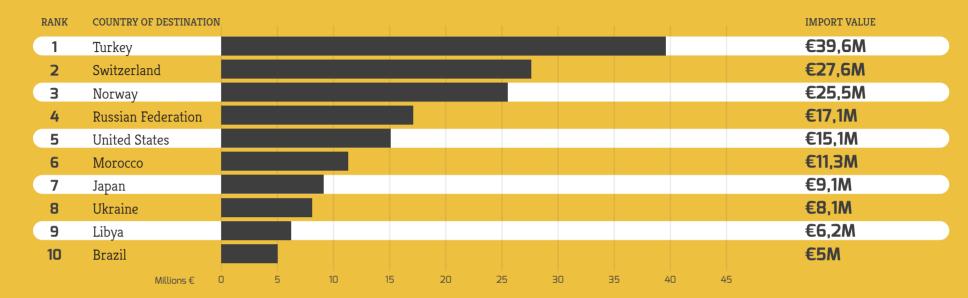


Refrigerators

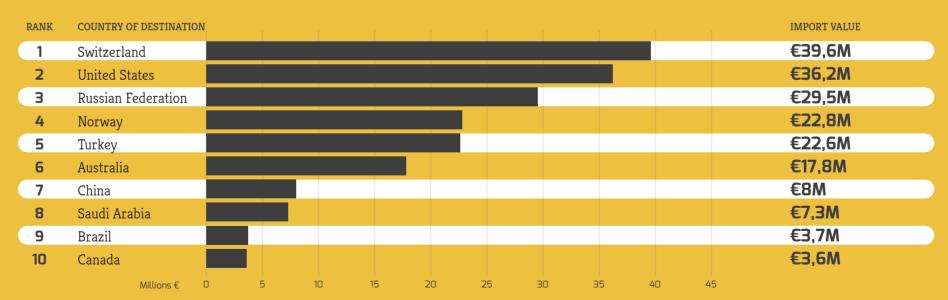










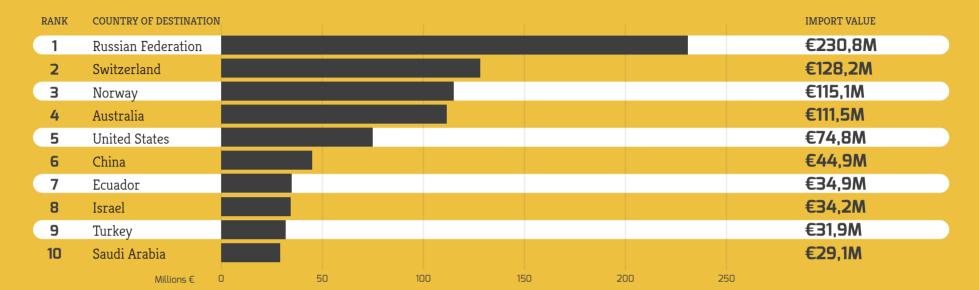


Hobs, cookers and ovens



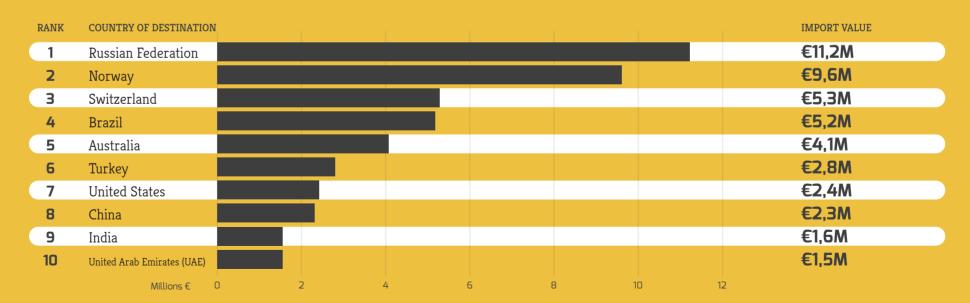






Microwave ovens

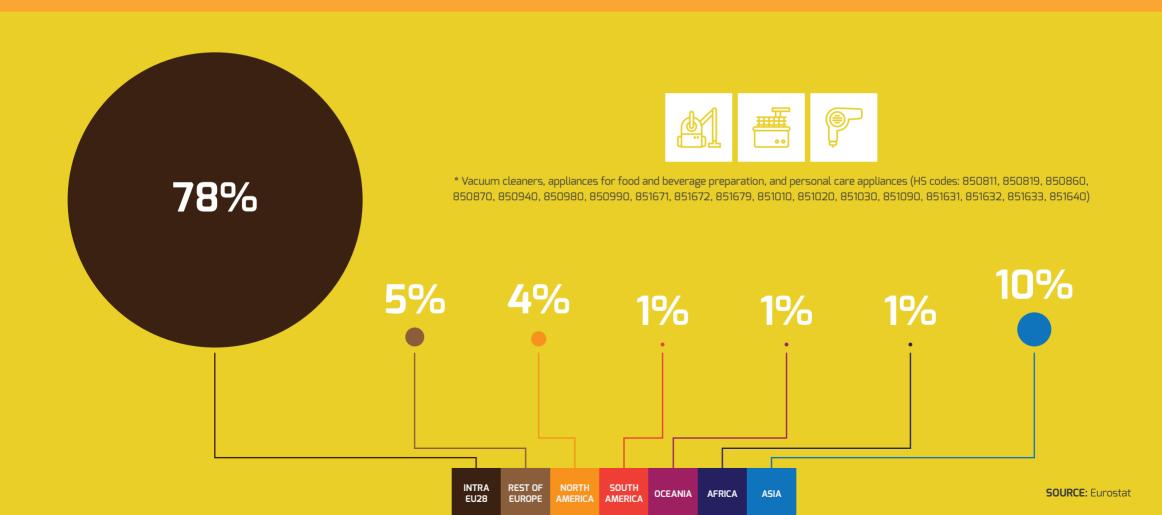




Export Destinations in 2015

SMALL HOME APPLIANCES *







Export Destinations in 2015 (outside of the EU)

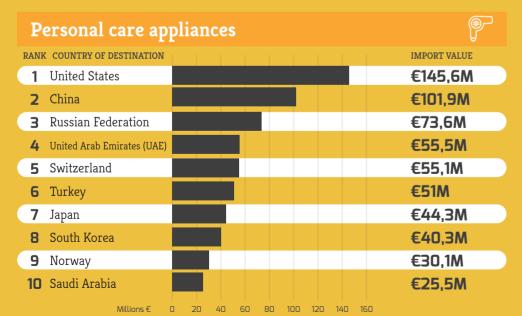
TOP 10 DESTINATIONS FOR SMALL HOME APPLIANCES

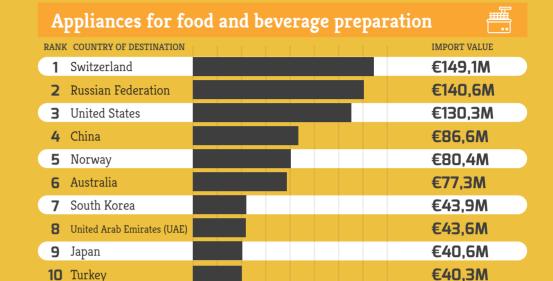
"Outside of EU, the United States is biggest export destination for small home appliances."



SOURCE: Eurostat





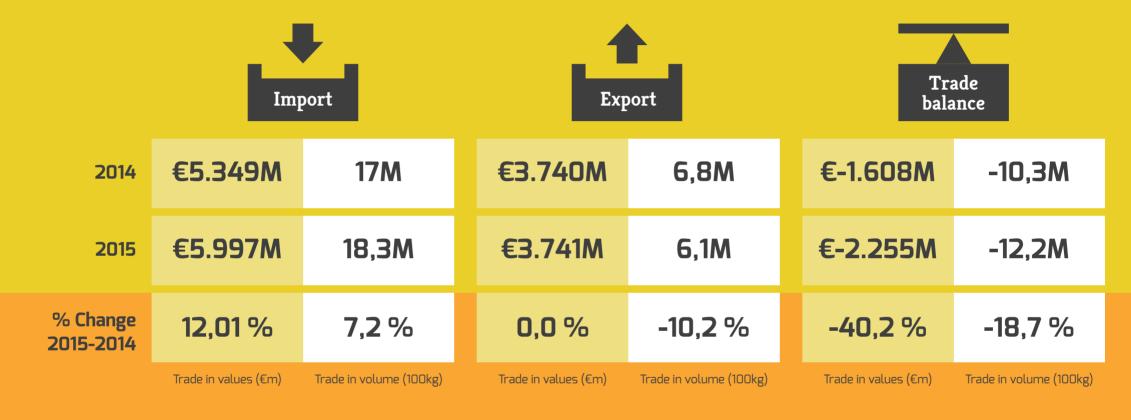


40 60 80 100 120 140 160



Trade Balance - Extra EU in 2014-2015

LARGE HOME APPLIANCES *























^{*} washing machines, dishwashers, tumble dryers, refrigerators, freezers, hobs, hoods, built-in ovens, freestanding cookers and microwave ovens (HS codes: 841460, 841810, 841821, 841829, 841830, 841840, 842112, 842211, 845011, 845012, 845019, 845020, 851650, 851660)

% of Total Extra-EU Trade

IMPORTS AND EXPORTS OF LARGE HOME APPLIANCES

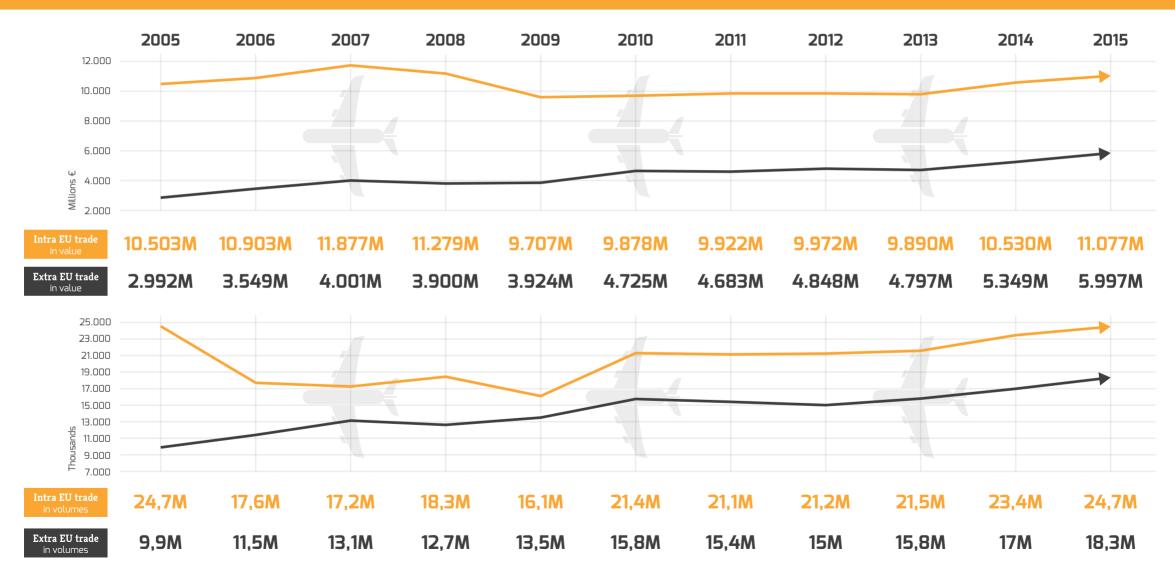
SOURCE: Eurostat

_					l _
	Value 2014	Value 2015	Volume 2014	Volume 2015	
Total imports	€1.691.880M	€1.726.483M	16.352M	16.792M	
Large home appliance imports	€5.349M	€5.997M	17M	18M	Economic Growth
% of total imports	0,32%	0,35%	0,10%	0,11%	PILLAR 4 60
Total exports	€1.703.019M	€1.790.652M	6.444M	6.533M	
Large home appliance exports	€3.740M	€3.741M	7M	6M	
% of total exports	0,22%	0,21%	0,11%	0,09%	

Import Trends 2005-2015

IMPORT TRENDS OF LARGE HOME APPLIANCES

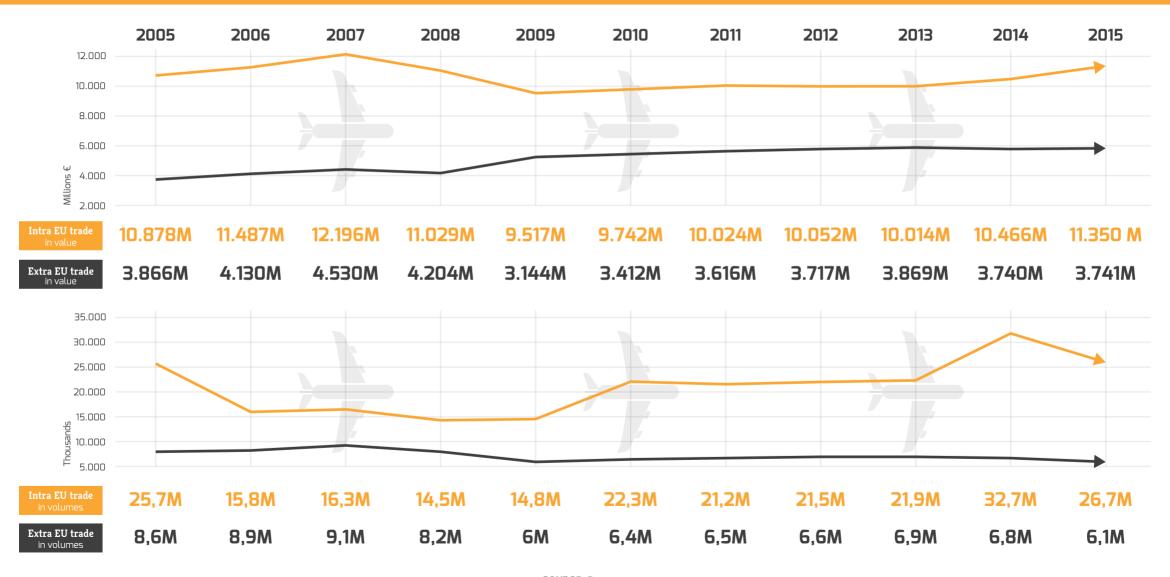
"Imports from within the EU are significantly higher than imports coming from external trading partners."



Export Trends 2005-2015

EXPORT TRENDS OF LARGE HOME APPLIANCES

"Exports from within the EU are significantly higher than exports going to external trading partners."



Trade Balance - Extra EU in 2014-2015

SMALL HOME APPLIANCES*









^{*} Vacuum cleaners, appliances for food and beverage preparation, and personal care appliances (HS codes: 850811, 850819, 850860, 850870, 850940, 850980, 850990, 851671, 851672, 851679, 851010, 851020, 851030, 851090, 851631, 851632, 851633, 851640)

SOURCE: Eurostat



% of Total Extra-EU Trade

IMPORTS AND EXPORTS OF SMALL HOME APPLIANCES

SOURCE: Eurostat

	Value 2014	Value 2015	Volume 2014	Volume 2015
Total imports	€ 1.691.880M	€ 1.726.483M	16.352M	16.793M
Small home appliance imports	€ 5.630M	€ 6.894M	7.3M	18.2M
% of total imports	0,33%	0,40%	0,04%	0,04%
Total exports	€ 1.703.019M	€ 1.790.652M	6.444M	6.533M
Small home appliance exports	€ 2.582M	€ 2.624M	1.5M	1.4M
% of total exports	0,15%	0,15%	0,02%	0,02%

Import Trends 2005-2015

IMPORT TRENDS OF SMALL HOME APPLIANCES

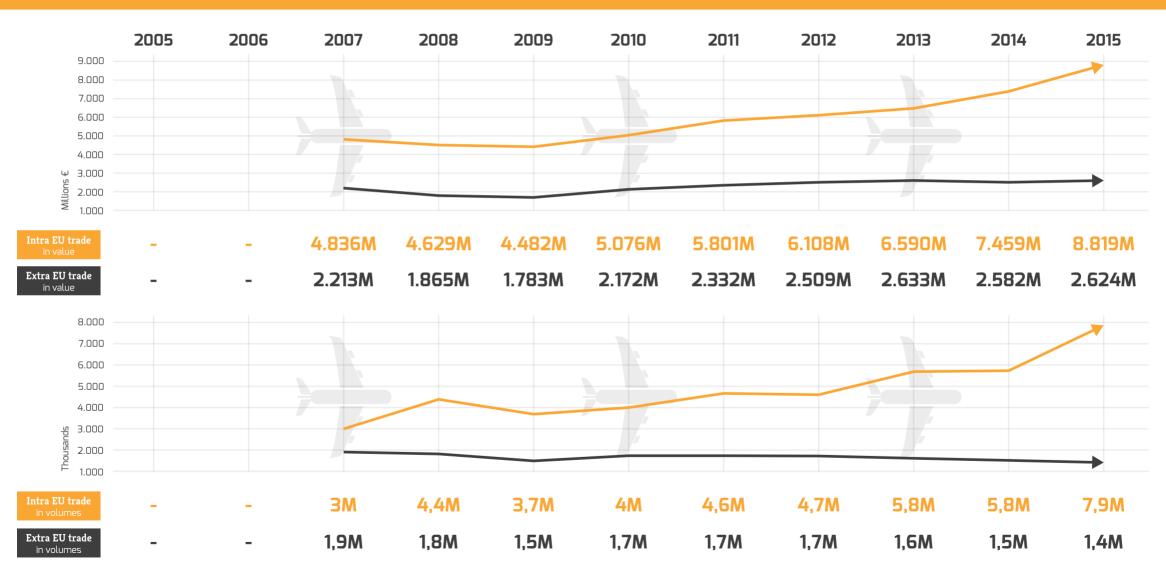
"Imports in value from within the EU are significantly higher than imports in value coming from external trading partners."



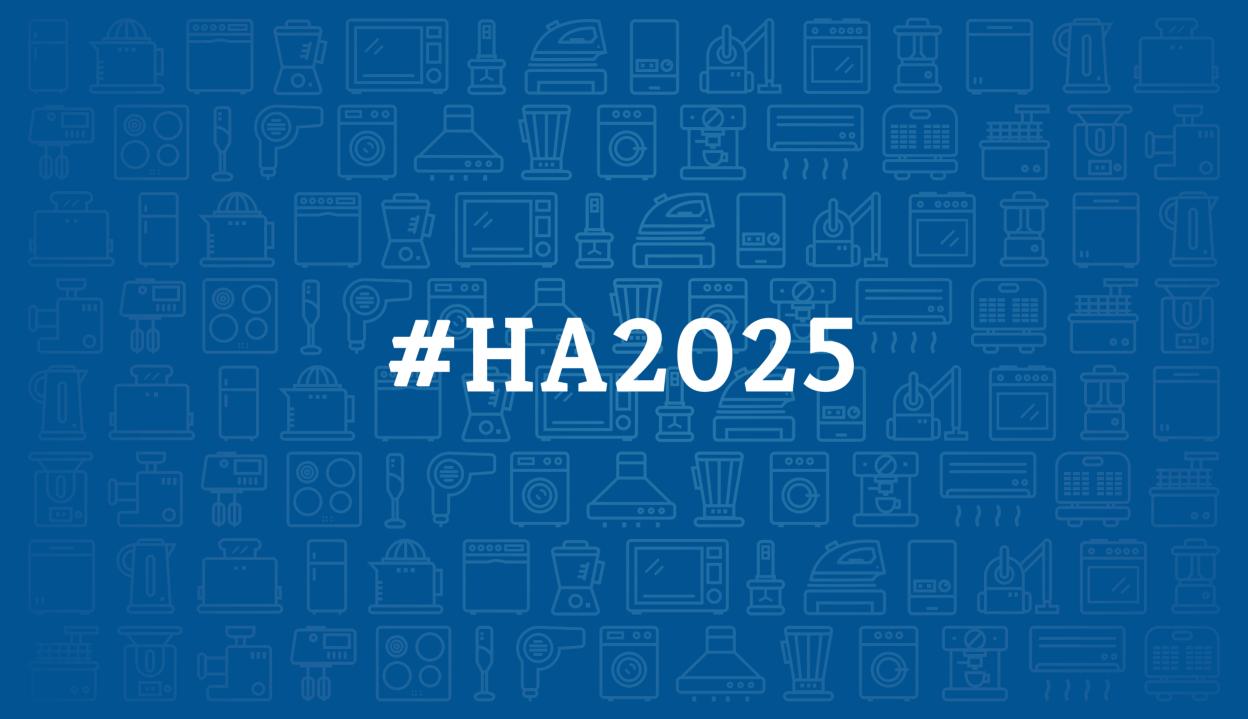
115

Export Trends 2005-2015

EXPORT TRENDS OF SMALL HOME APPLIANCES



Pillar 4 Notes







European Committee of Domestic Equipment Manufacturers

Boulevard Brand Whitlock 114, 7th floor 1200 Brussels, Belgium

www.ceced.eu secretariat@ceced.eu @CECED_Europe

EU transparency register number: 04201463642-88

