BY THE NUMBERS:

The Home Appliance Industry in Europe, 2017-2018

APPLiA

Home Appliance Europe

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Introduction

p4

Dr Peter Goetz
APPLiA President

Paolo Falcioni
APPLiA Director-General

The 3rd statistical report of the home appliance industry in Europe comes at a crucial time when the elected EU policy makers will have the mission to advance Europeans' lifestyles.

In our industry Manifesto, we are stating clearly that embracing all actors to improve circularity, establishing a smart energy market matching demand with supply, as well as offering high-quality job opportunities to Europeans could make a true difference. This report is a valuable tool to lead an evidence-based discussion and the facts in it are indispensable in setting the vision of our innovative, forward-looking sector.

Dr Peter Goetz
APPLiA President

In 2018, home appliance manufacturers in Europe have kept on developing cutting-edge technology to further enable sustainable consumption and contribute to the climate goals of the Paris Agreement, simplifying the everyday tasks of consumers.

Every edition of the APPLiA report aims at enriching the data snapshot we provide for the sector. While in the previous version of the report, we illustrated the circularity of the material flows of the industry, the greatest novelty this year is the insight on how reparable home appliances actually are.

This set of comprehensible data is portraying how the evolution of the industry has been happening throughout the last years. If the numbers in this report give you food for thought, let us know.

Paolo Falcioni
APPLiA Director-General

APPLiA Membership

APPLiA has 21 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 APPLiA National Associations in more than 50% of the countries in which the company has direct operations. APPLiA Direct Members subscribe to APPLiA's statutes, by-laws, all industry-established agreements, and are signatories of the APPLiA Code of Conduct on Corporate Social Responsibility to promote fair and sustainable standards for working conditions, social compliance and environmental performance.

21
Companies as Direct Members

Arçelik · ARISTON THERMO GROUP · GROUPE ATLANTIC · B/S/H/

CANDY · DAIKIN · DeLonghi Better Everyday · dyson

Electrolux · gorenje · LG Electronics · LIEBHERR

Miele · Panasonic · PHILIPS · SAMSUNG

GROUPE SEB · smeg · VESTEL · VORWERK

Whirlpool CORPORATION

26

National Associations
in 24 countries

NEL

APPLiA Sweden

APPLiA Danmark

APPLiA Baltics

AMDEA/BEAMA

VLEHAN

APPLiA Polska

AGORIA/FEE

APPLiA CZ

APPLiA Slovakia

ZVEI

GIFAM

FEA

FEEI

APPLiA Hungary

APPLiA Romania

AGEFE

APPLiA Bulgaria

ANFEL/FAPE

APPLiA Italia/
Assoclima

TurkBESD

APPLiA Hellas

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Director-General

Candice Franck
Executive Assistant

Diana Yordanova
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Anna Rossignoli
Communication Junior Specialist

Alice Bugli
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Michał Zakrzewski
Smart Living & Competitiveness Policy Director

Lenka Jančová
Smart Living & Competitiveness Policy Specialist

Eoin Kelly
Smart Living & Competitiveness Policy Junior Specialist

The Home Appliance Industry in Europe, in 2017

Indirect value added 55.402
Direct value added 11.746

€ 67.148 m
Direct & indirect value added to GDP

€ 50.000 m
Turnover in the EU

3.453
Number of enterprises in the EU

200.960*

Number of direct employees

* figure does not include Turkey

884.224

Number of direct & indirect employees

€ 31.628*

Wages & salaries

* 2016 data, per employee

Advancing Sustainable Lifestyles

The consciousness of the need to protect the environment has been on the rise all over Europe and beyond. In the same spirit, APPLiA has been successfully building on its Circular Culture initiative, engaging a wide variety of actors in the circularity challenge.

Back in 2016, more than 80% of Europeans' requests for a repair of a home appliance product resulted in actual repair. The repairs were only possible because European home appliance manufacturers keep spare parts in stock for current and old product models.

What is more, repair often appears to be a valuable part of the after-sales strategies and remain a way for the different brands to compete to offer suitable services to the citizens.

While we see that repair activities are well-established all around Europe, we notice that the greatest challenge for the industry remains also in 2018. Two-thirds of precious resources remains undocumented and is not coming back into material loops as secondary raw material, making it unclear how this waste is collected and thereafter treated.

When it comes to repair, #DontDespair

67 Mt
total volume of stock in EU homes*

€1.9 bn
industry turnover for repair & service

81%
percentage of the requests actually repaired
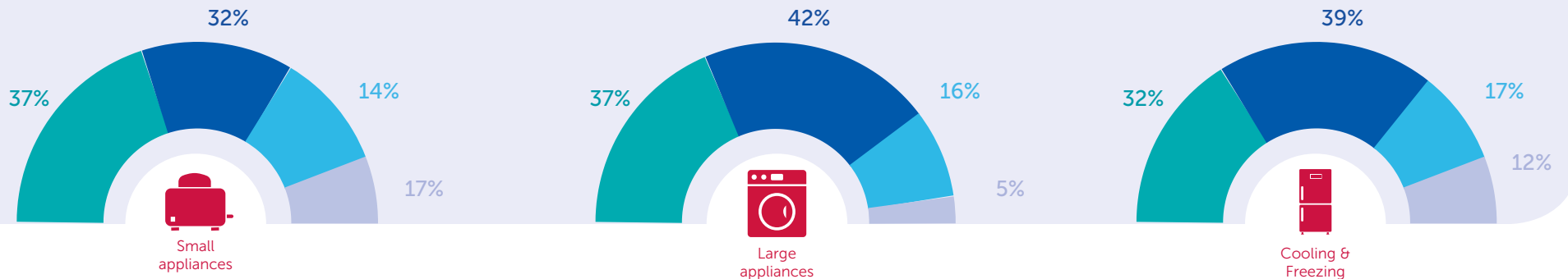
32 000
workers linked to repair activities

The repairs are only possible because APPLiA members keep

spare parts
in stock for current & old product models

Cost breakdown for repair activities

■ Cost of spare parts ■ Cost of labour ■ Transport cost ■ Other costs

Small appliances
37% · 32% · 14% · 17%

Large appliances
37% · 42% · 16% · 5%

Cooling & Freezing
32% · 39% · 17% · 12%

According to data collected from APPLiA's membership, 81% of the requests to manufacturers for a repair of a product resulted in an actual repair in 2016. Breaking down the cost for repair activities, for large appliances for instance, the biggest chunk is the labour cost, representing 42%; 37% of the average price for repair is the cost of the spare parts; 16% goes to transport and 5% are listed as other costs.

As an observation, nearly 50% of the cost is linked to the work behind the repair and it is not surprising because around 32 000 workers are directly or indirectly linked to repair activities. Manufacturers already provide repair parts, documentation and software to repair services that are authorised to undertake repairs in a safe manner and securing the quality of repair and future safe operation of the appliances at the customer's satisfaction. For these repairs, manufacturers already provide all the spare parts that ensure the necessary maintenance and continued use of appliances and, in general, there is no shortage of spare parts.

* APPLiA snapshot of repair, reuse & after-sales services

The home appliance sector plays a key role in enabling the saving of resources like energy and water

117 l

10 l

2,73 Kwh

0,96 Kwh

-83,5%
Water consumption

-63,6%
Energy consumption
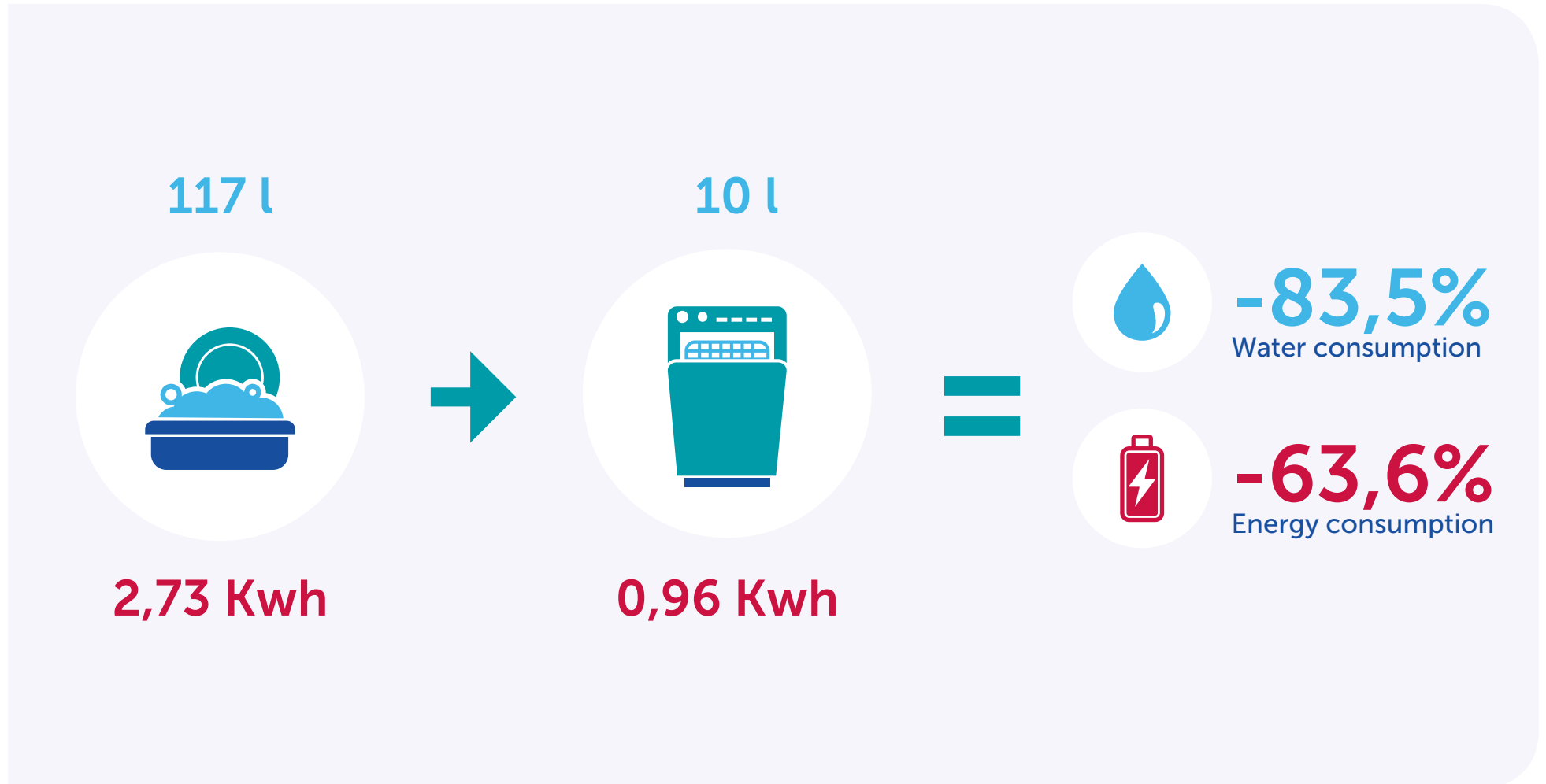
In some cases, the benefits of wider adoption of home appliances can increase the societal benefits at EU level in terms of energy consumption of resources preservation.

Source: APPLiA Dishwashers4all campaign

Potential savings from using a dishwasher compared to washing up by hand

Energy savings:

92 TWh/year =

3%
of the total EU28 electricity consumption in 2015

x2
electricity consumption of Portugal
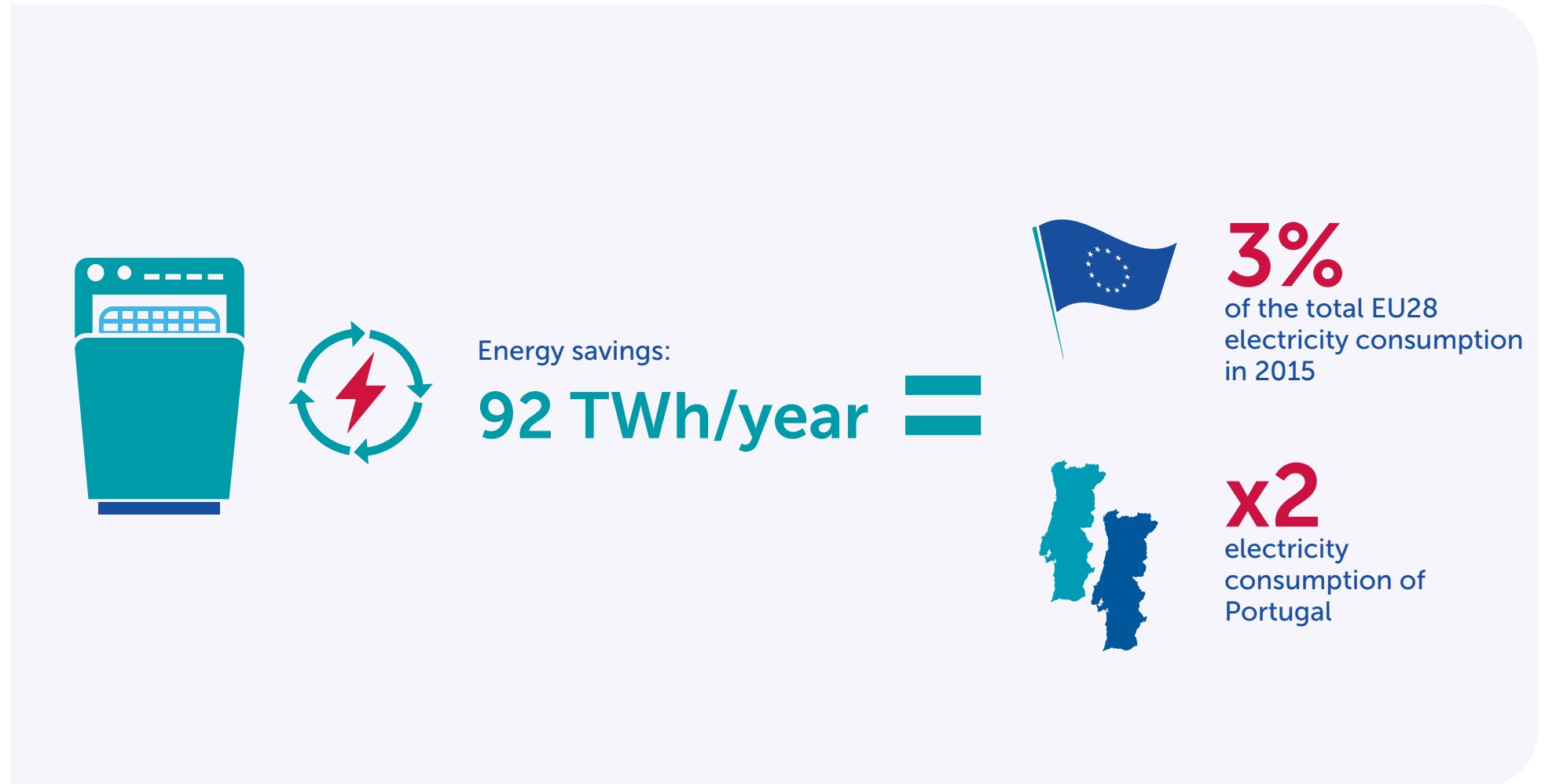
Considering energy consumption, assuming a penetration rate of 100% in EU28, rather than the current penetration rate of 47%, the potential savings from using a dishwasher compared to washing up by hand would be approximately 92 TWh/year, which is twice the electricity consumption of Portugal, and 3% of the total EU28 electricity consumption in 2015.

Source: APPLiA Dishwashers4all campaign

The home appliance industry continuously works to reduce the impact of production processes

| 2011 | 2012 | 2013 | 2014 | 2015 |

-15%
Reduction in waste generation during production, 2015-2011

| 2011 | 2012 | 2013 | 2014 | 2015 |

-30%
Reduction in water consumption during production, 2015-2011

| 2011 | 2012 | 2013 | 2014 | 2015 |

-13%
Reduction in energy consumption during production, 2015-2011

The home appliance industry continuously works to reduce the impact of production processes and particularly the consumption of energy and water as well as the reduction of waste during production processes. Benchmarking with the EU manufacturing industry shows that, in absolute consumption, the home appliance industry reduced water consumption by around 30% from 2011 to 2015. For waste generation the reduction was by 15% for the same period. The reduction in energy consumption also shows a positive trend, well above the improvements of other EU manufacturing industry.

Source: APPLiA members.

Waste of Electrical and Electronic Equipment (WEEE) in Europe

3,3 Mt
Are reported by Member States as collected and recycled

0,75 Mt
Are estimated to end up in the waste bin

Gap of **3,2 Mt**

2,2 Mt
Of WEEE are mixed with metal scrap

The circularity of the material flows of the home appliance industry, in 2017

MATERIAL INFLOW

3,1 Mt of steel
0,35 Mt of copper
0,24 Mt of aluminium
1,14 Mt of plastics

6 Mt
Total volume of products placed on the market

Home appliance industry & other manufacturing [1]

USE / REUSE

67 Mt
Total volume of stock in EU homes

Reuse

5 Mt
Estimated WEEE generated

MATERIAL RECOVERY & MANUFACTURING

2,3 Mt of steel
0,1 Mt of copper
0,1 Mt of aluminium
0,6 Mt of plastics
0,4 Mt of others

3,5 Mt
Material recovery

0,19 Mt
Energy recovery

MATERIAL COLLECTION

4 Mt
Total volume of materials being separately collected across the EU
Industry collected: 1,7 Mt
Other channels collected: 2,3 Mt

1   Recovered materials may go to many manufacturing circles and not just back into producing new home appliances.

Living the Connected Home

Almost 80% of Europeans find the idea of living in a smart home appealing.

Today, an air conditioner can automatically adjust when it receives a signal from the grid that energy cost is at its lowest level. Energy consumption can be optimised when renewable energy becomes available, thereby increasing the penetration of renewable energy sources, lowering CO2 emissions and bringing us closer to the target of the Paris Agreement. Besides savings in resources and energy consumption, citizens in 21st century also feel the need of creating more comfort at home, having more time to spend with their loved ones and doing their favourite hobbies.

As more and more home appliances are connected to the Internet, the legislative framework for these products is rapidly changing. Data ownership and privacy, as well as cybersecurity, are topics that are of great importance for our manufacturers, to ensure the highest degree of product safety and security, and to ensure a responsible and transparent handling of the data related to these products.

The expected development of the Internet of Things

Billions

● World population   ● Connected devices

50				
45				
40				
35				
30				
25				
20				
15				
10				
5				
0				
	2003	2010	2015	2020

50 billion
connected devices by 2020
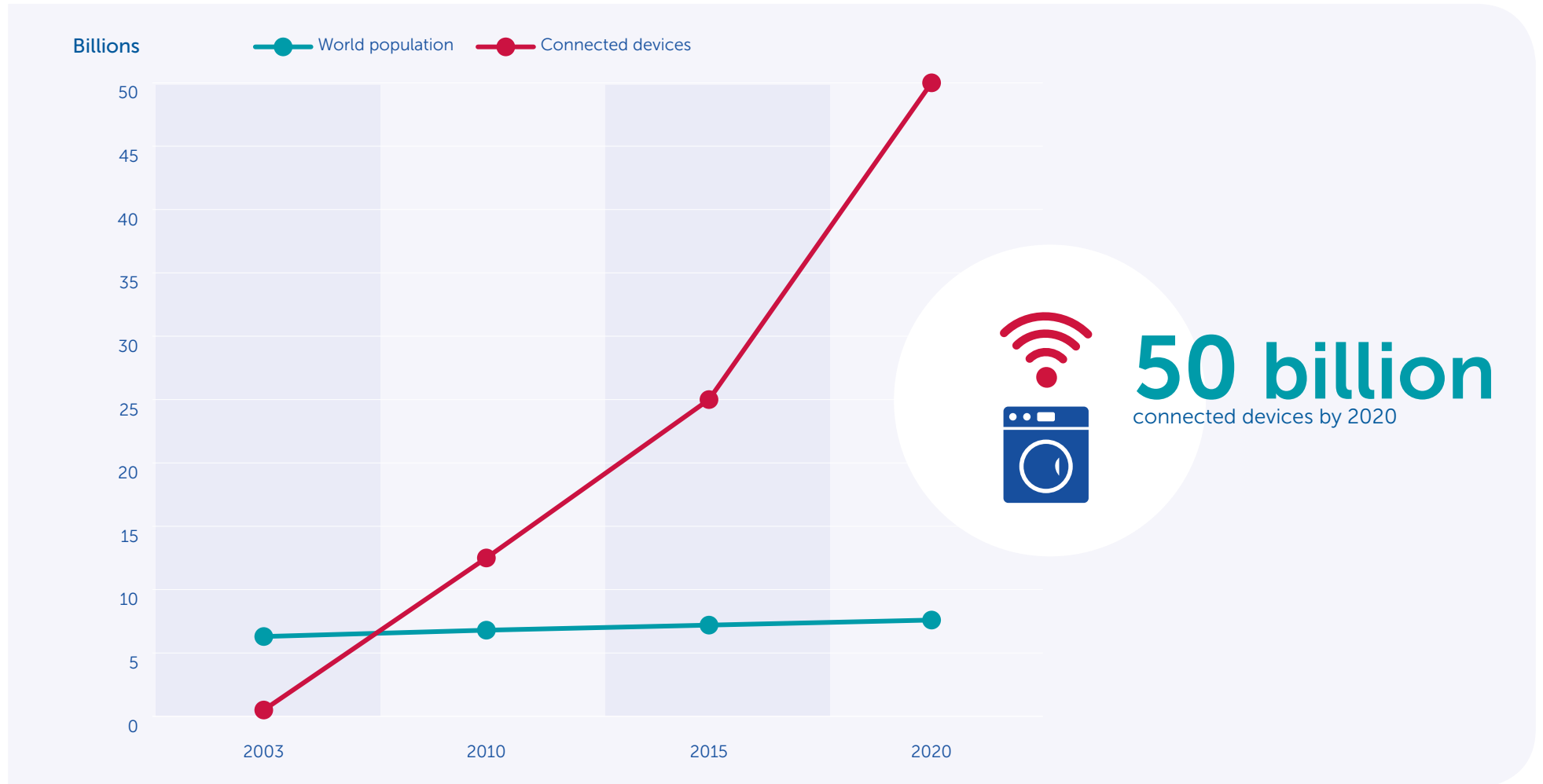
By 2020, it is estimated that there will be 50 billion connected devices, globally

Source: Cisco IBSG

Household electricity consumption of appliances and other small plug loads, in TWh, globally

Connected
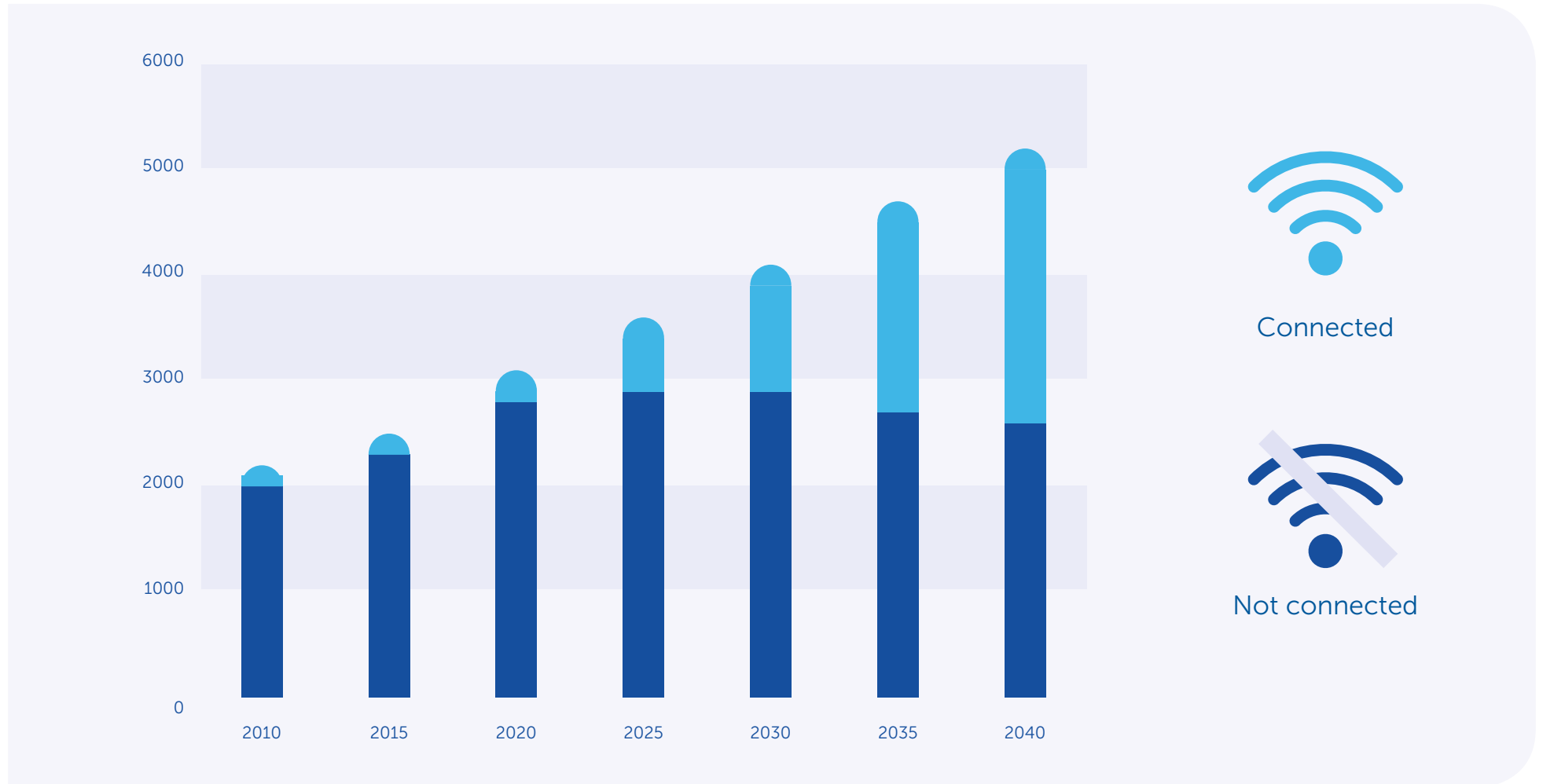
Not connected

The share of connected appliances in total household electricity consumption is set to grow rapidly, presenting opportunities for demand response

Source: International Energy Agency

Energy consumption in households for the main energy products in Europe, in 2017

		Total Residential/ Households	Space heating	Space cooling	Water heating	Cooking	Lighting & appliances	Other end uses
■	Electricity	24,4	3,6	0,3	2,8	2,7	13,8	1,2
■	Derived Heat	7,6	6,0	0,0	1,6	0,0	0,0	0,0
■	Gas	36,9	28,1	0,0	7,0	1,8	0,0	0,0
■	Solid Fuels	3,4	3,1	0,0	0,2	0,0	0,0	0,0
■	Oil & Petroleum Products	11,8	9,6	0,0	1,5	0,7	0,0	0,0
■	Renewables and Wastes	16,0	14,3	0,0	1,4	0,2	0,0	0,1
	Total	**100,0**	**64,7**	**0,3**	**14,5**	**5,4**	**13,8**	**1,3**
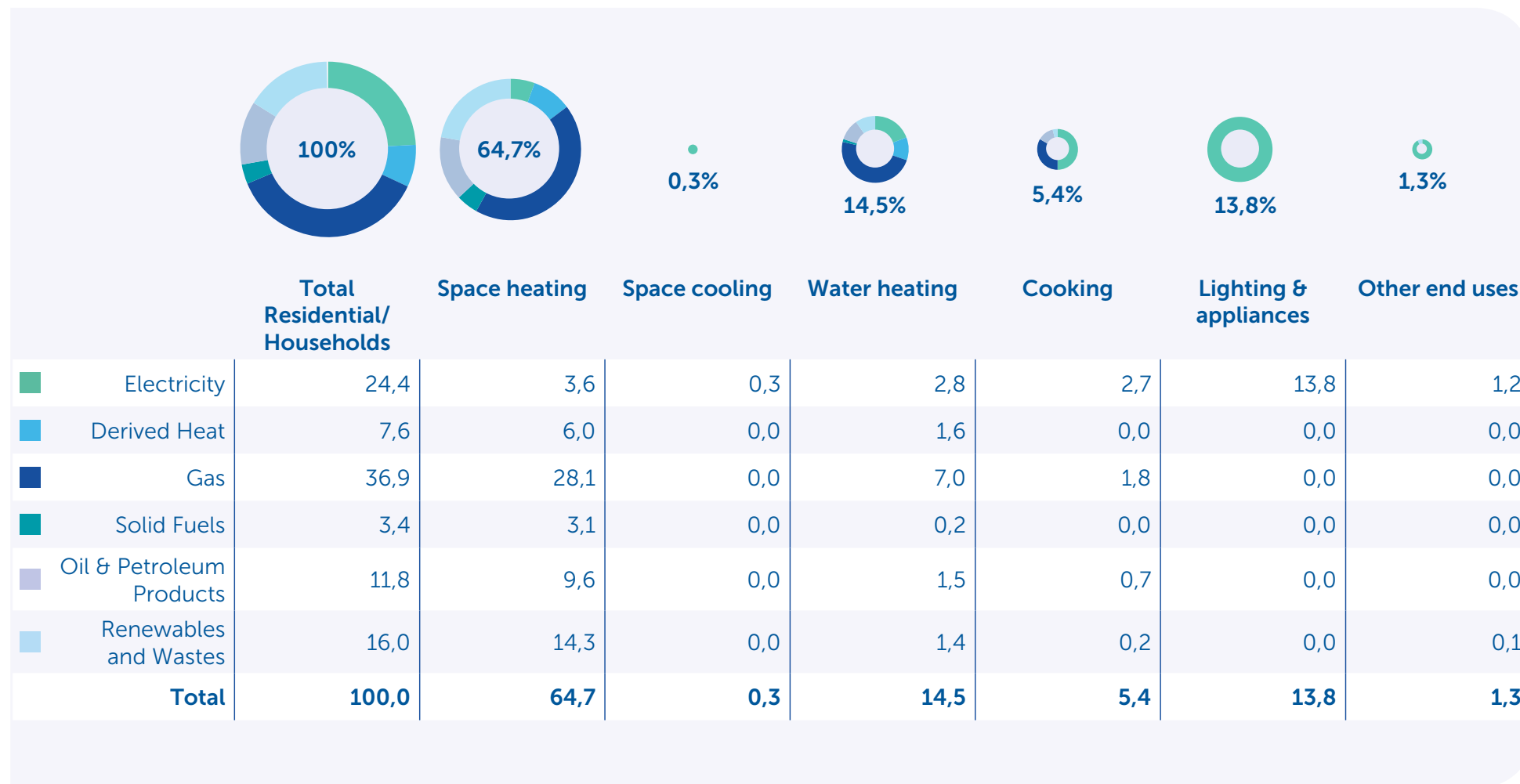
Source: Eurostat

Smart Homes* in the European Union

2016

8.5 million

+950%

2021

80.6 million
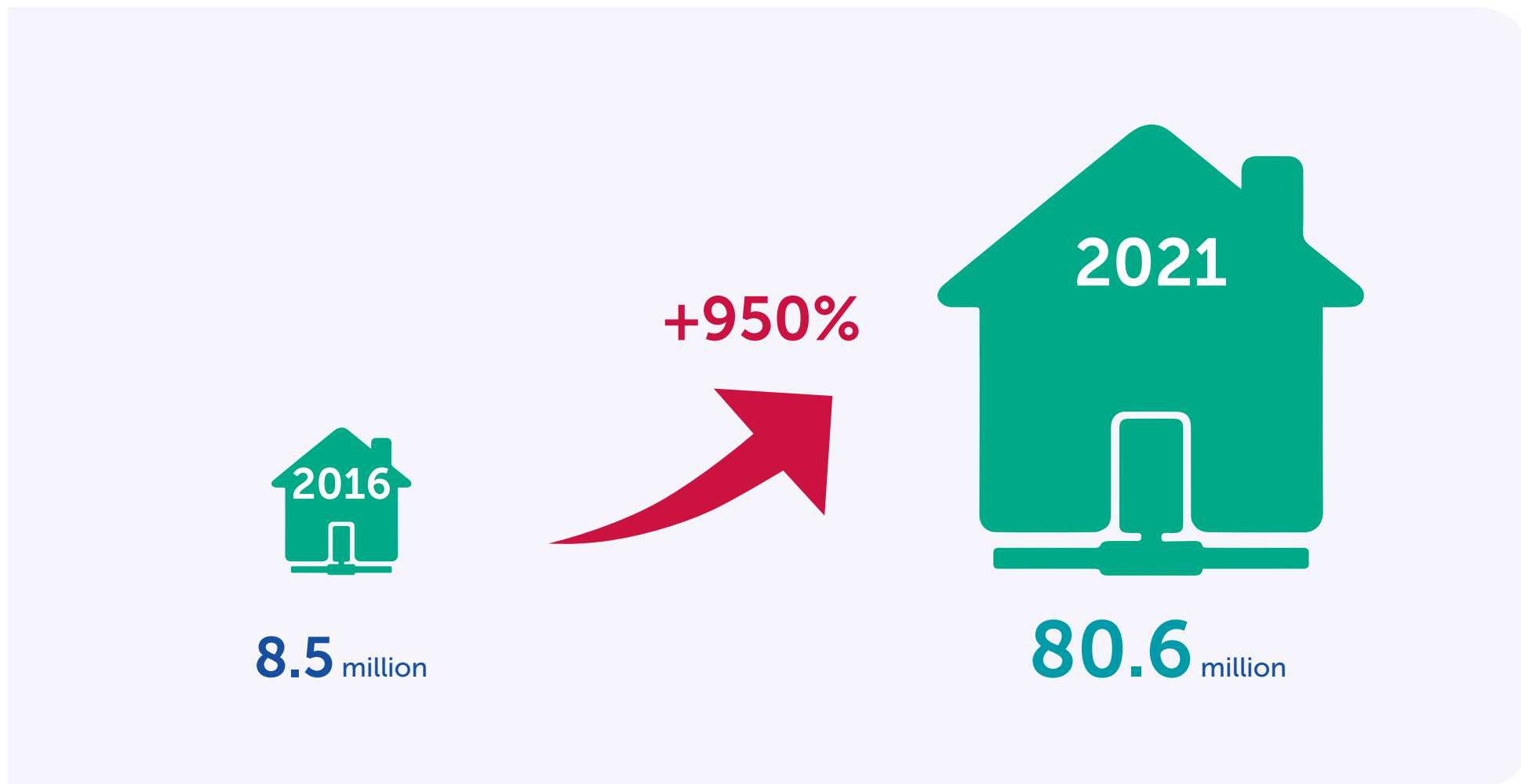
The number of smart homes in the EU is expected to increase tenfold by 2021.
* Homes which use digitally controlled lighting, heating, ventilation, air conditioning, security, as well as home appliances.

Source: European Commission

Smart appliances in Europe

Revenue of smart appliances in Europe
in million Euro

29%
Average annual growth rate

Users of smart appliances in Europe
in millions

30,9%
Average annual growth rate

Average revenue per user, in Europe
in million Euro

1,5%
Average annual growth rate

2017   2018   2019   2020   2021   2022   2023
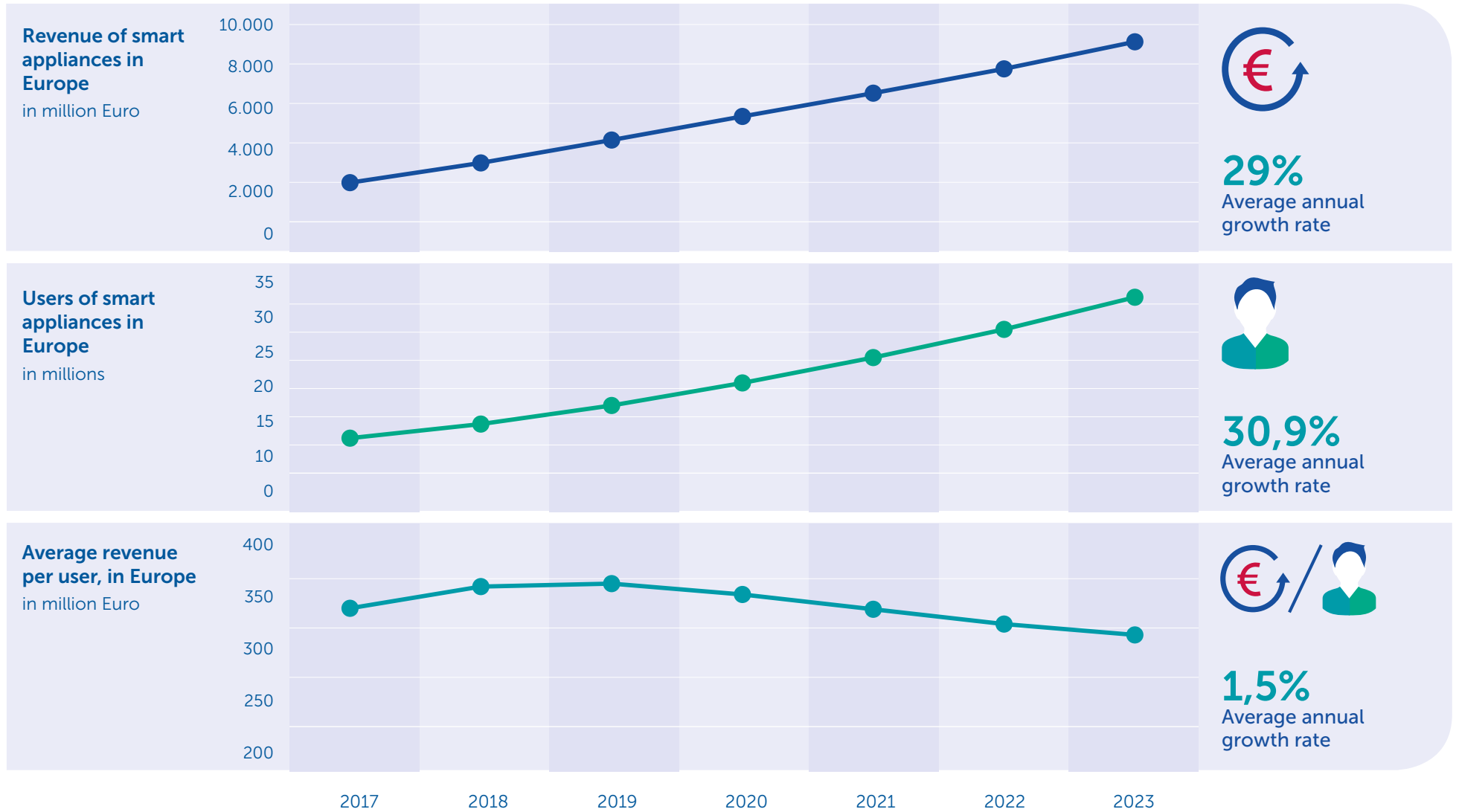
Source: Statista

Users of smart appliances by age in 2017

6%
55-64 years

16%
18-24 years

14%
45-54 years

37%
25-34 years

27%
35-44 years
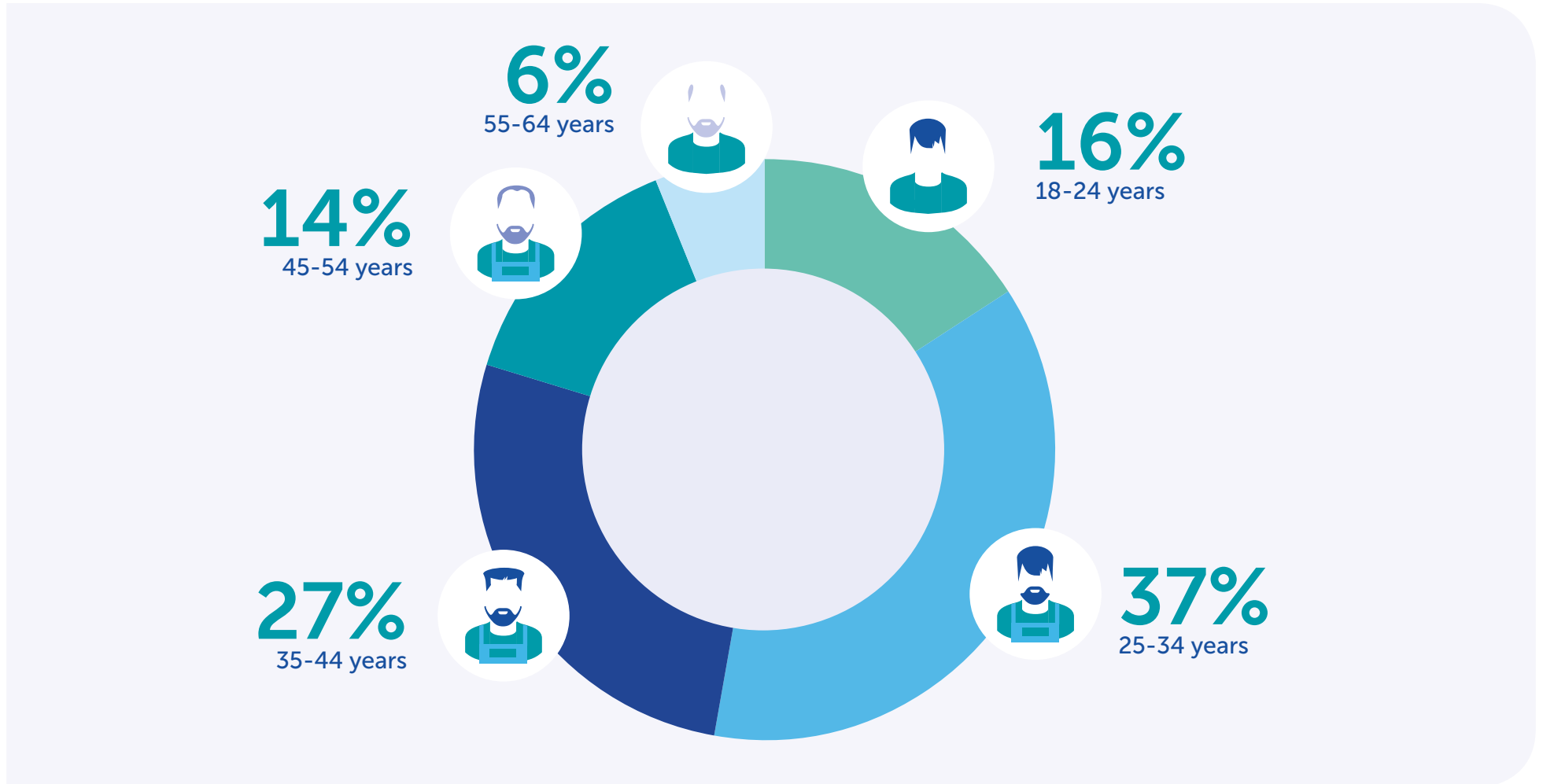
Considering the use of smart appliances, those between 25 and 44 years constitute the vast majority of the users in 2017 with 64%.
On the other side, only 16% of the 18-24 years and 20% of the 45-64 years are using smart appliances in 2017.

Source: Statista

Accelerating Europe's Growth

Our industry thrives in a system based on free and fair trade, both among the EU's Member States and with third countries.

Looking at Europe in a geopolitical manner, we see that other parts of the world, such as the United States, China and India are carefully analysing and drafting the future of their industry sectors, to ensure they become competitive globally. So, the European Union would need to do the same.

Considering the competitiveness of the EU industry in the global context, as well as making Europe a leading research and development area is the right formula to accelerating EU's growth.

Units traded globally, % growth in 2015-2018

North America 1%

Europe 10%

Russia 21%

Japan 11%

China 12%

Korea 30%

53.369
57.965
55.039
52.934

11.205
9.954
9.197
9.239

6815
5.855
5.355
5.250

106.560
111.009
103.351
95.564

86.073
85.368
83.403
78.068

13.421
13.346
12.680
12.144

■ **2018** ■ 2017 ■ 2016 ■ 2015
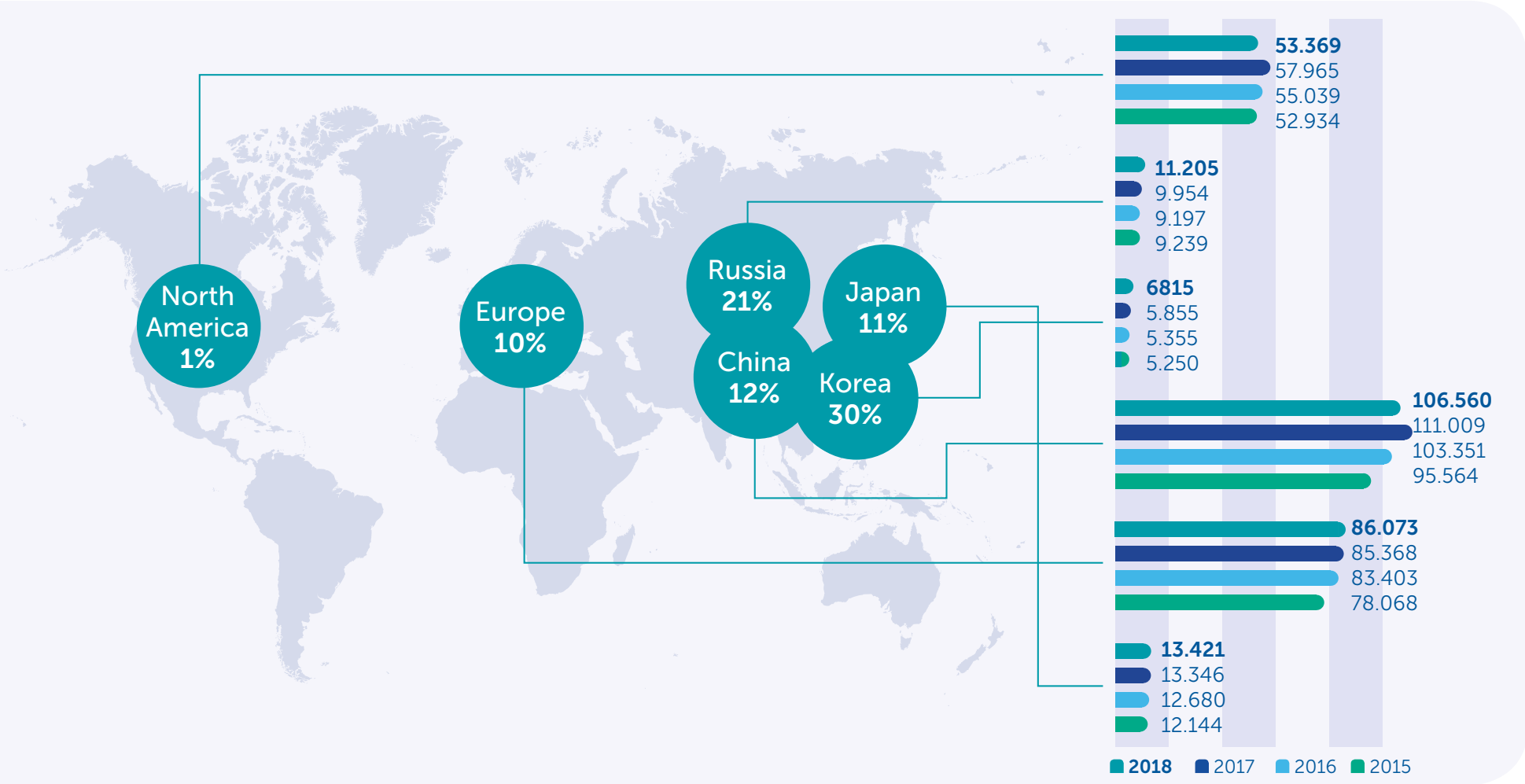
MDA7: fridges, freezers, dishwashers, washing machines, tumble dryers, hoods, microwave ovens

Note: Units are in thousands

Source: International Roundtable of Household Appliance Manufacturer Associations (IRHMA)

Units traded globally,
% share by geographical area, in 2018
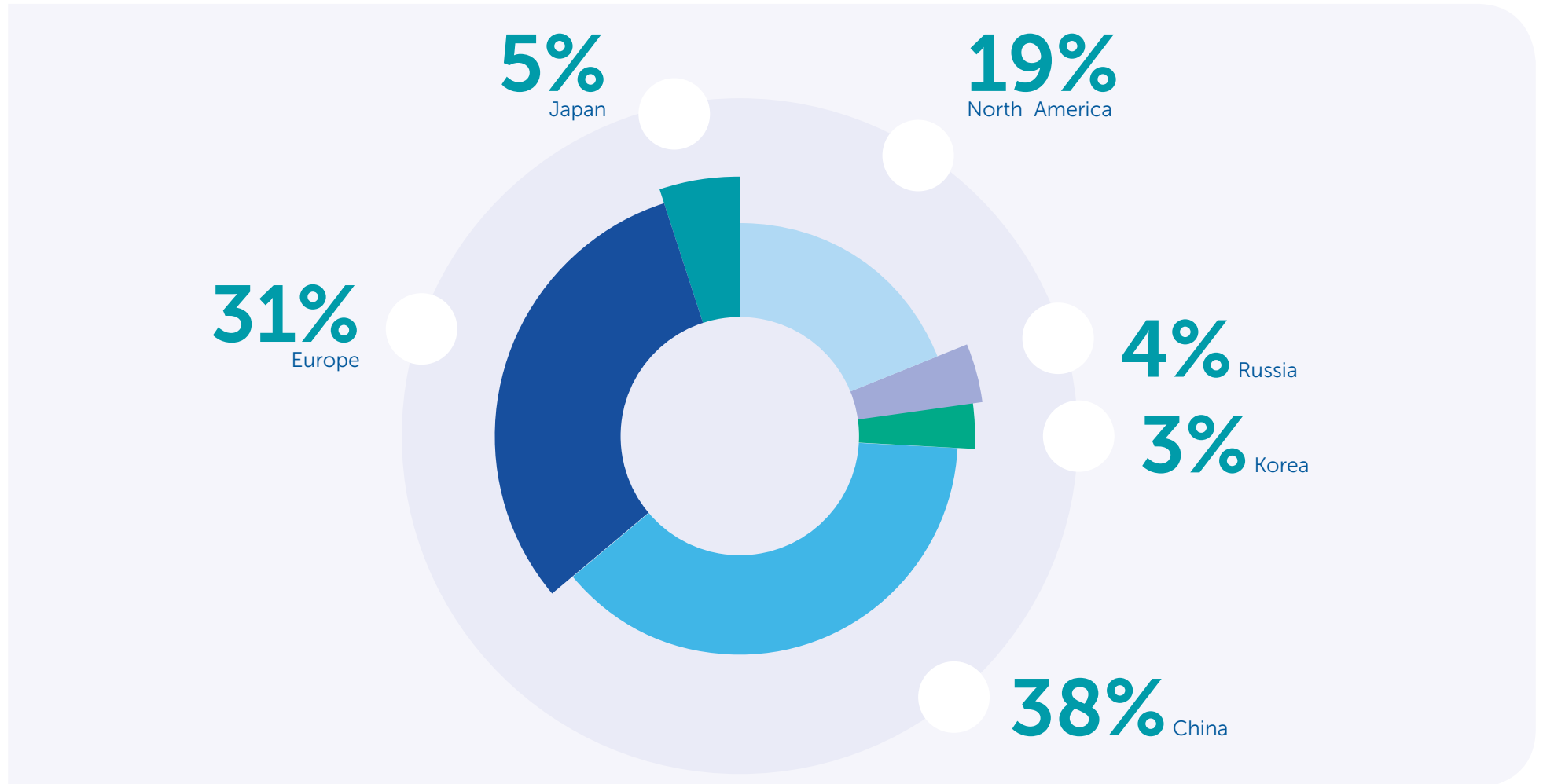
5%
Japan

19%
North America

31%
Europe

4% Russia

3% Korea

38% China

Source: International Roundtable of Household Appliance Manufacturer Associations (IRHMA)

Units traded in Europe, in 2017-2018
Large home appliances
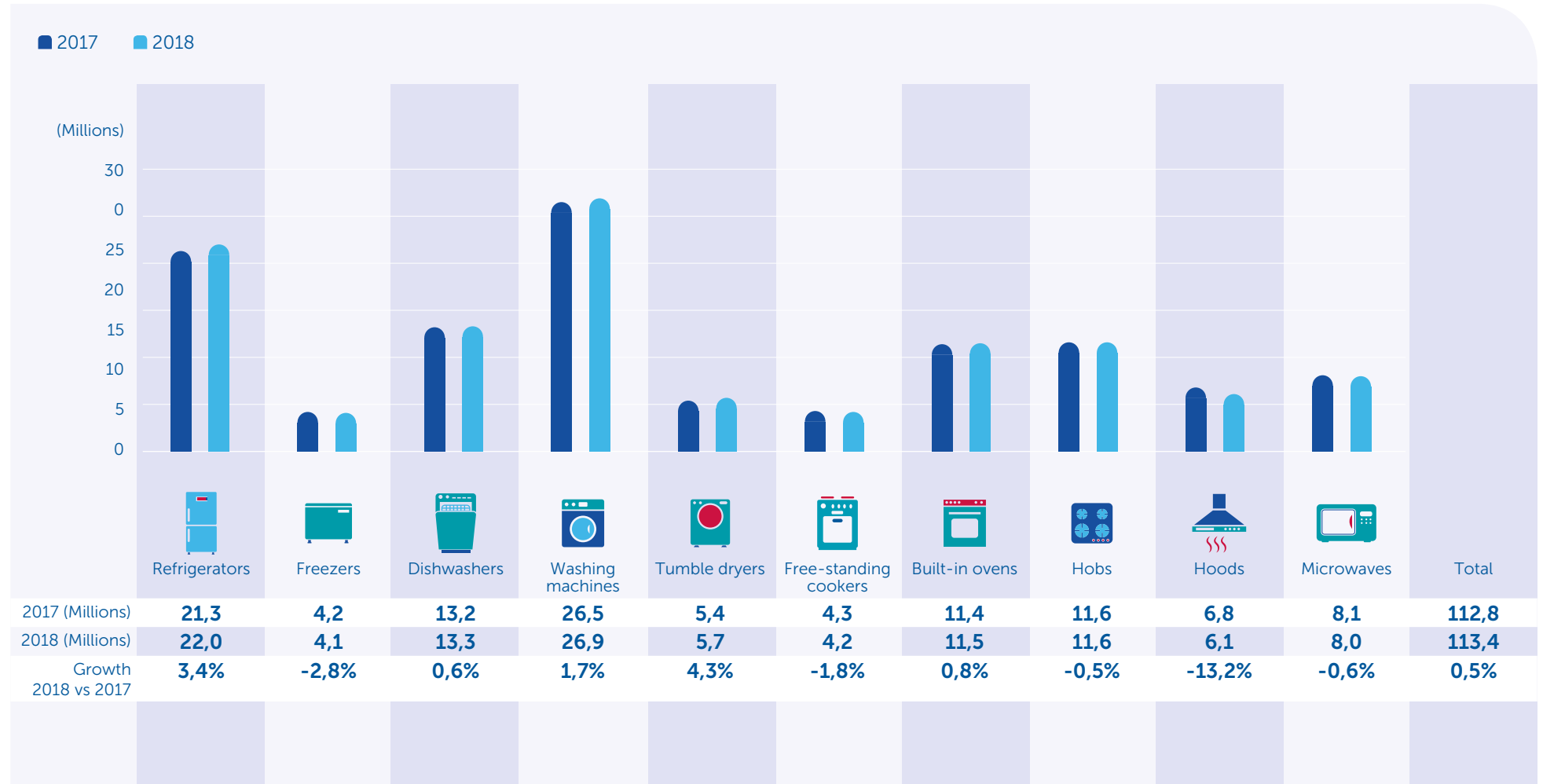
■ 2017   ■ 2018

(Millions)

	Refrigerators	Freezers	Dishwashers	Washing machines	Tumble dryers	Free-standing cookers	Built-in ovens	Hobs	Hoods	Microwaves	Total
2017 (Millions)	21,3	4,2	13,2	26,5	5,4	4,3	11,4	11,6	6,8	8,1	112,8
2018 (Millions)	22,0	4,1	13,3	26,9	5,7	4,2	11,5	11,6	6,1	8,0	113,4
Growth 2018 vs 2017	3,4%	-2,8%	0,6%	1,7%	4,3%	-1,8%	0,8%	-0,5%	-13,2%	-0,6%	0,5%

Note: Countries that are included in the calculations are EU28 + Albania, Bosnia, Serbia, Montenegro, Ukraine, Russia, Turkey and Norway

Source: APPLiA Membership

Units traded in Europe, in 2017-2018
Small home appliances
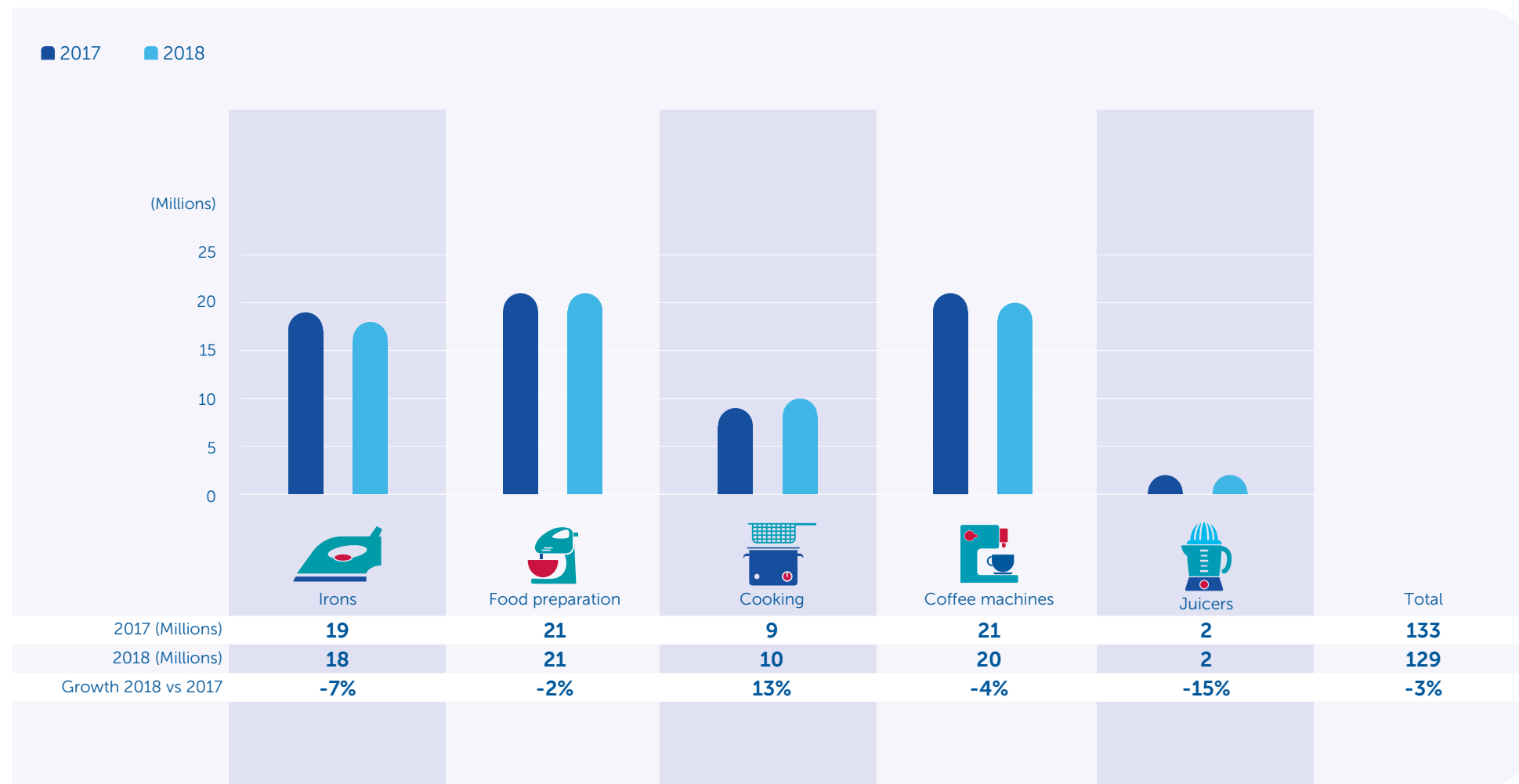
■ 2017   ■ 2018

(Millions)

	Irons	Food preparation	Cooking	Coffee machines	Juicers	Total
2017 (Millions)	19	21	9	21	2	133
2018 (Millions)	18	21	10	20	2	129
Growth 2018 vs 2017	-7%	-2%	13%	-4%	-15%	-3%

Note: Countries that are included in the calculations are EU28 + Albania, Bosnia, Serbia, Montenegro, Ukraine, Russia, Turkey and Norway

Source: APPLiA Membership

EU export destinations of large home appliances by continent in 2017
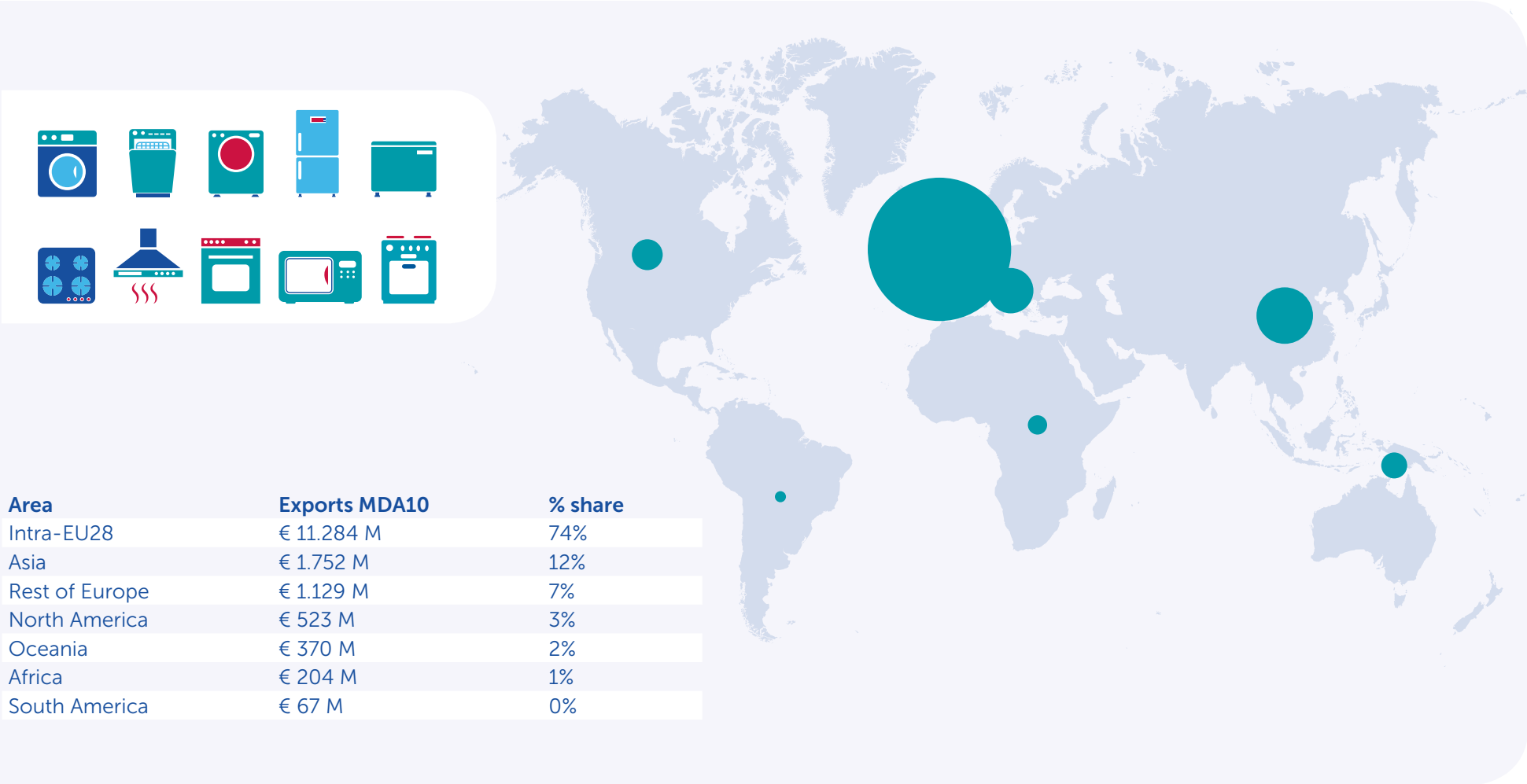
Area	Exports MDA10	% share
Intra-EU28	€ 11.284 M	74%
Asia	€ 1.752 M	12%
Rest of Europe	€ 1.129 M	7%
North America	€ 523 M	3%
Oceania	€ 370 M	2%
Africa	€ 204 M	1%
South America	€ 67 M	0%

Value market share in 2017. MDA10 include refrigerators, freezers, dishwashers, washing machines, tumble dryers, free-standing cookers, built-in ovens, hobs, hoods and microwaves.

Source: Eurostat

Top 10 export destinations for large home appliances in 2017 (outside of Europe)
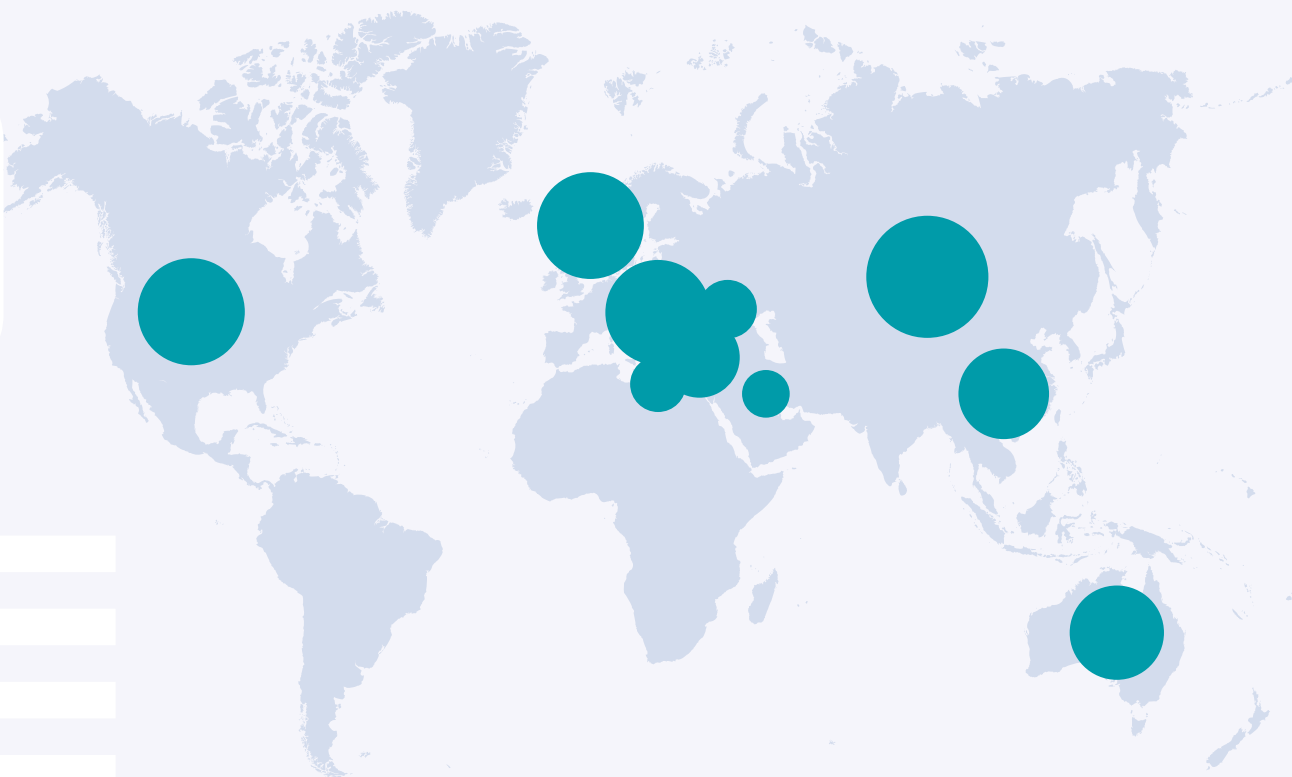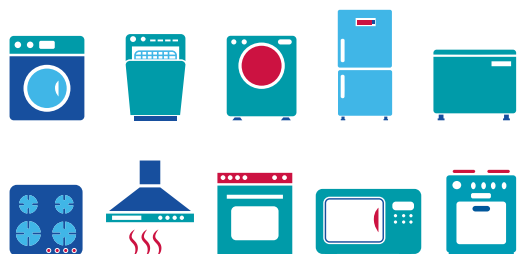
1	Russian Federation	€ 545 M
2	United States	€ 419 M
3	Norway	€ 417 M
4	Switzerland	€ 404 M
5	Australia	€ 325 M
6	China	€ 300 M
7	Turkey	€ 237 M
8	Ukraine	€ 125 M
9	Israel	€ 114 M
10	UAE	€ 83 M

Source: Eurostat

EU export destinations of small home appliances by continent in 2017

Area	Exports SDA	% share
Intra-EU28	€ 11.261 M	80%
Asia	€ 1.391 M	10%
Rest Of Europe	€ 596 M	4%
North America	€ 588 M	4%
Oceania	€ 123 M	1%
Africa	€ 119 M	1%
South America	€ 64 M	0%

Value market share in 2017. SDA include vacuum cleaners, appliances for food and beverage preparation and personal care appliances.

Source: Eurostat

Top 10 EU export destinations for SDA in 2017 (outside of Europe)
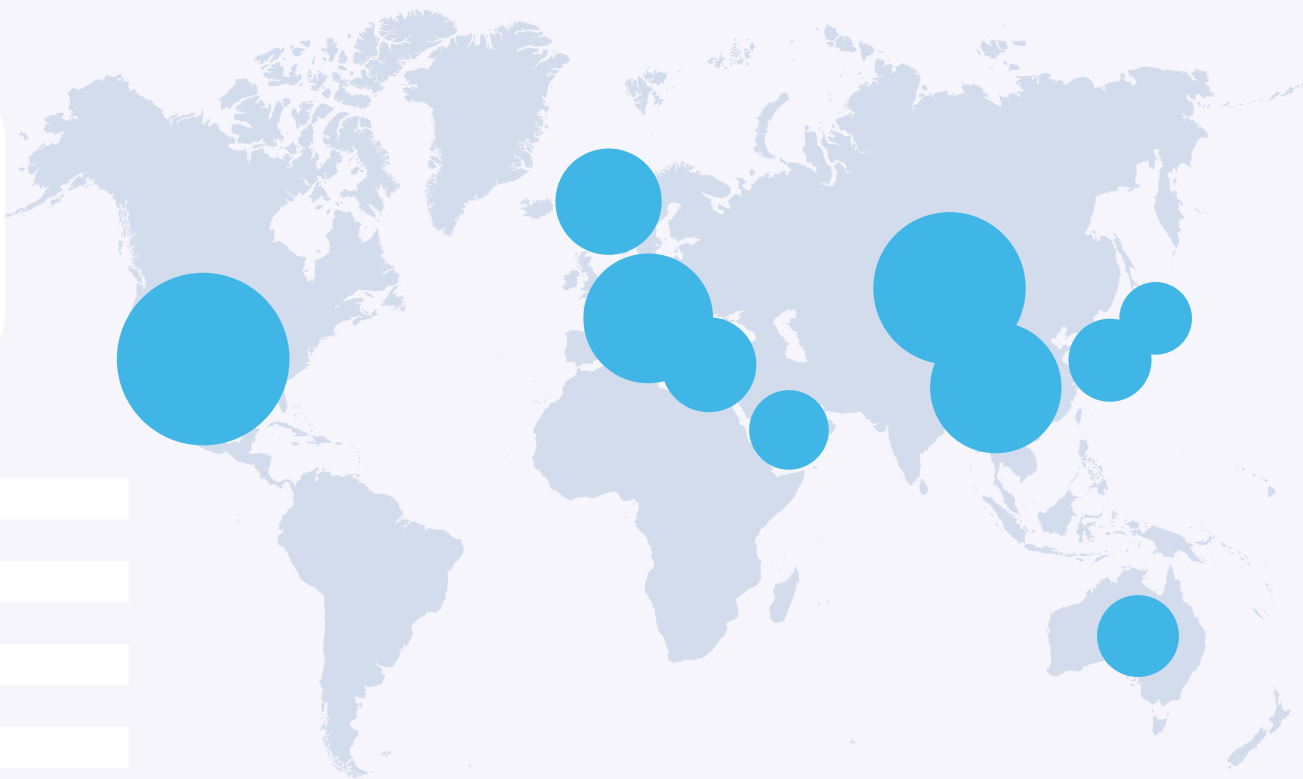
1 United States	€ 480 M
2 Russian Federation	€ 374 M
3 China	€ 278 M
4 Switzerland	€ 271 M
5 Norway	€ 182 M
6 Turkey	€ 145 M
7 South Korea	€ 111 M
8 Australia	€ 108 M
9 United Arab Emirates	€ 102 M
10 Japan	€ 85 M

SDA refers to vacuum cleaners, appliances for food and beverage preparation, and personal care appliances

Source: Eurostat

European imports of large home appliances by continent in 2017
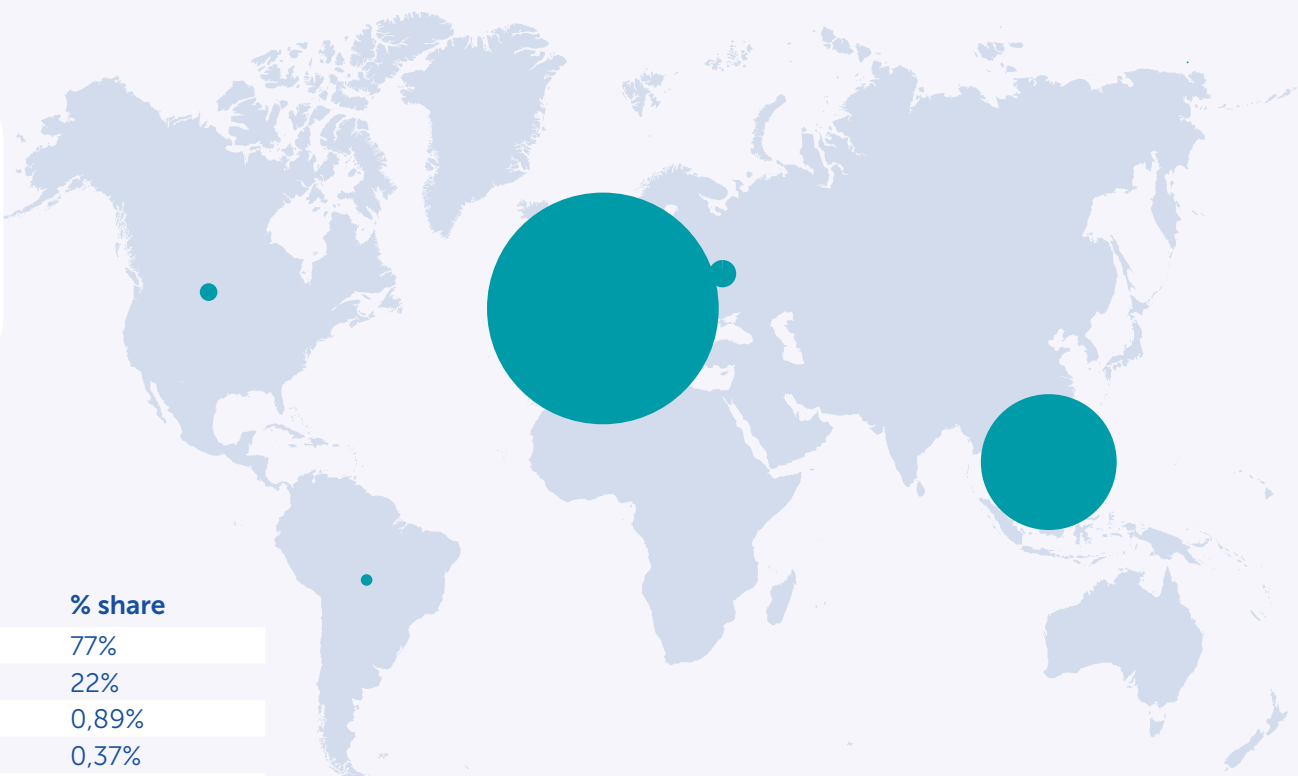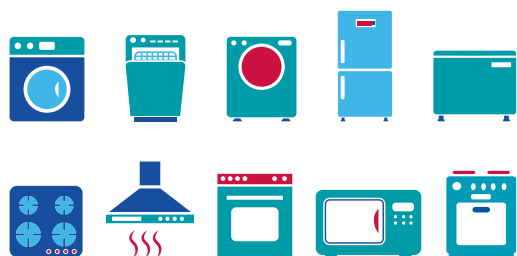
Area	Imports MDA10	% share
EU28 + Turkey	€ 13.762 M	77%
Asia	€ 3.902 M	22%
Rest of Europe	€ 160 M	0,89%
North America	€ 65 M	0,37%
Africa	€ 29 M	0,16%
Oceania	€ 0,7 M	0,004%
South America	€ 0,3 M	0,002%

Value market share in 2017. MDA10 include refrigerators, freezers, dishwashers, washing machines, tumble dryers, free-standing cookers, built-in ovens, hobs, hoods and microwaves.
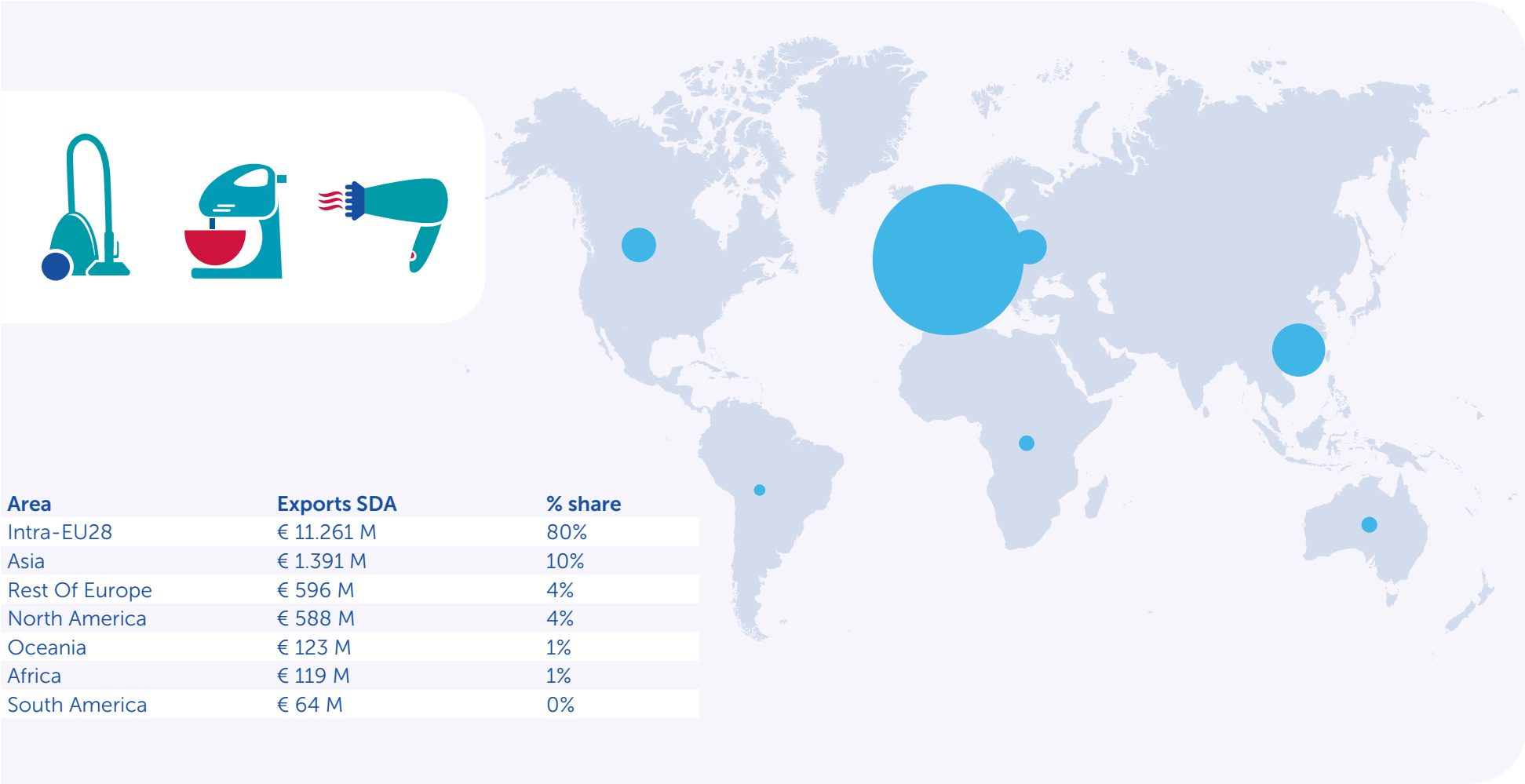
Source: Eurostat

Top 10 countries of origin for large home appliances in 2017 (outside of EU28)
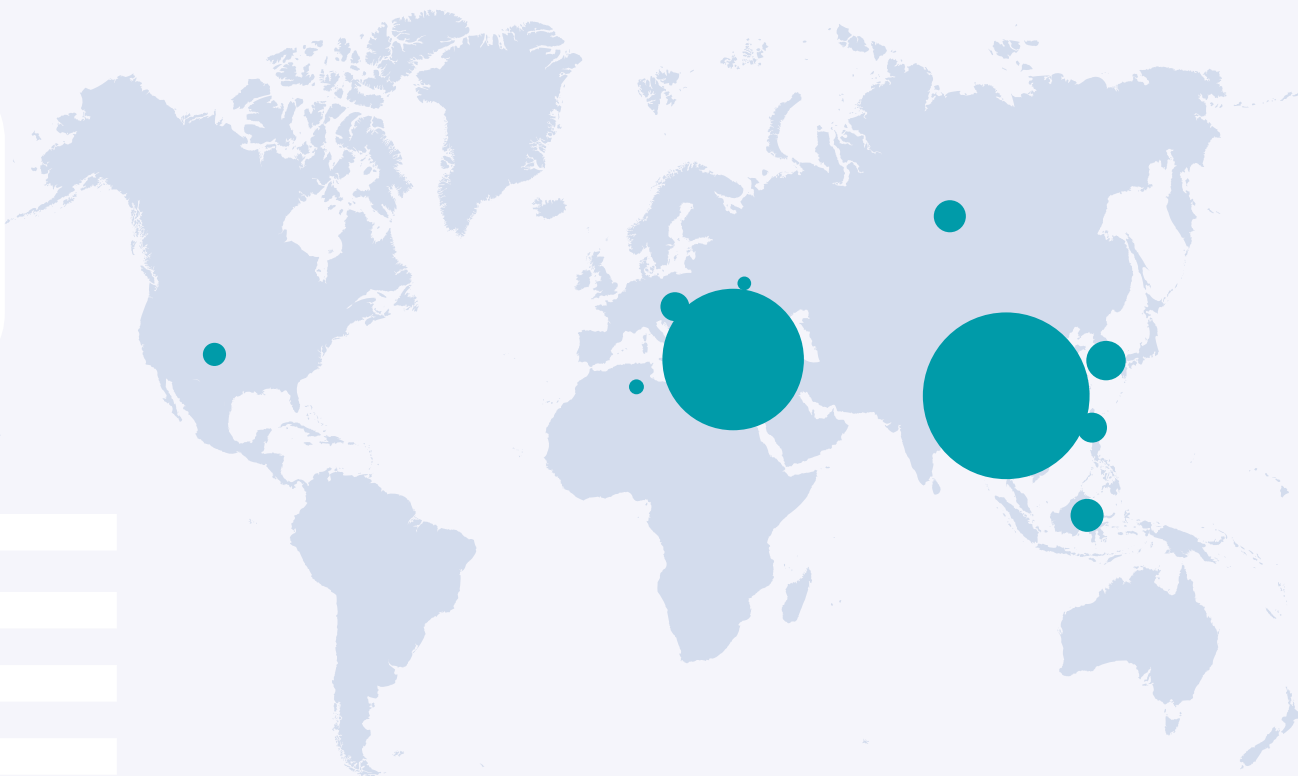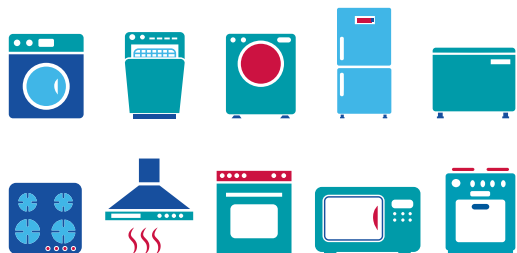
1	China	€ 3.306 M
2	Turkey	€ 2.382 M
3	South Korea	€ 185 M
4	Malaysia	€ 130 M
5	Russian Federation	€ 122 M
6	Thailand	€ 107 M
7	Serbia	€ 99 M
8	United States	€ 64 M
9	Algeria	€ 26 M
10	Ukraine	€ 22 M

Source: Eurostat

EU imports of small home appliances by continent in 2017
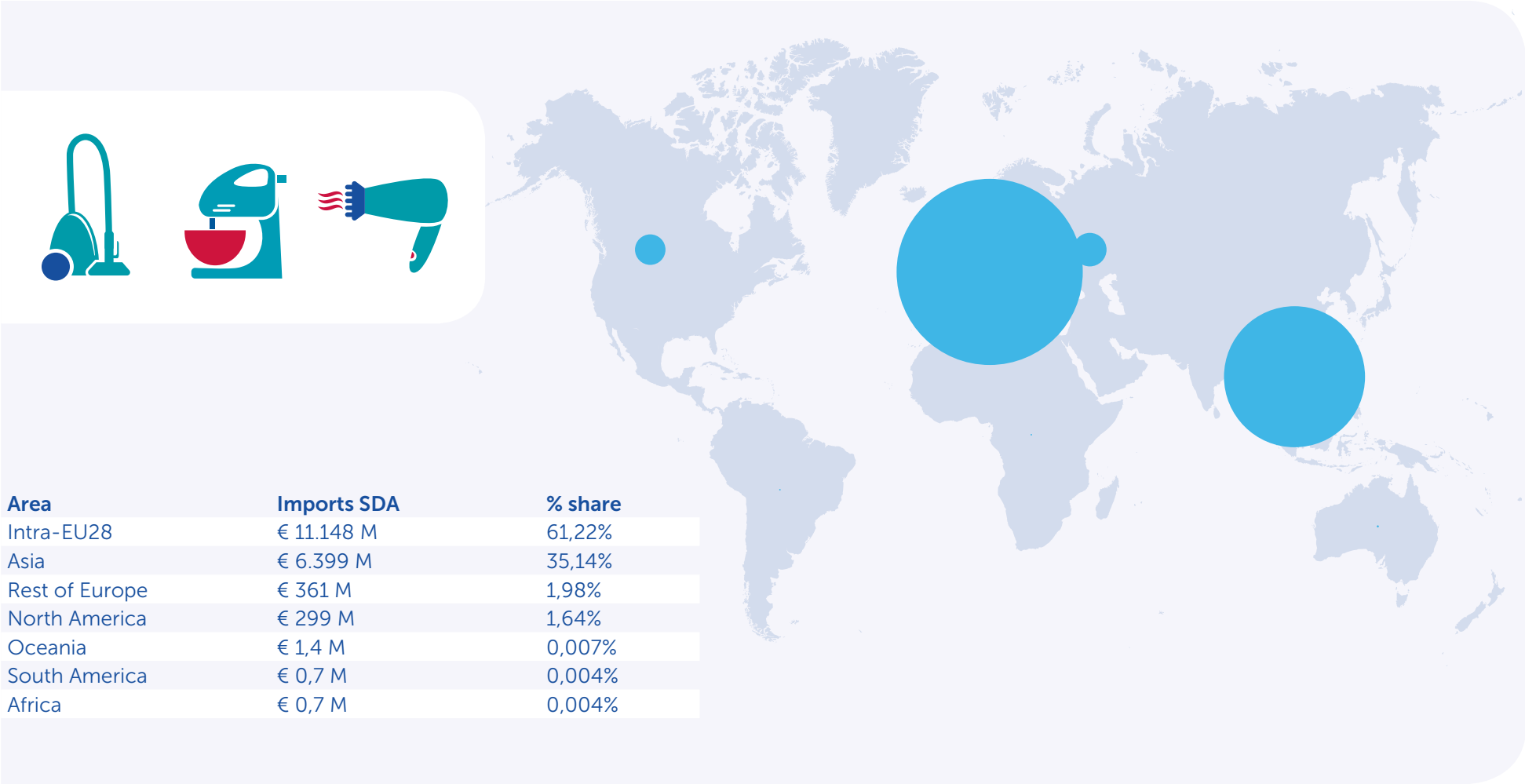
Area	Imports SDA	% share
Intra-EU28	€ 11.148 M	61,22%
Asia	€ 6.399 M	35,14%
Rest of Europe	€ 361 M	1,98%
North America	€ 299 M	1,64%
Oceania	€ 1,4 M	0,007%
South America	€ 0,7 M	0,004%
Africa	€ 0,7 M	0,004%

Value market share in 2017. SDA include vacuum cleaners, appliances for food and beverage preparation and personal care appliances.

Source: Eurostat

Top 10 countries of origin for small home appliances in 2017 (outside of Europe)

1	China	€ 5.511 M
2	Indonesia	€ 305 M
3	Malaysia	€ 301 M
4	United States	€ 284 M
5	Switzerland	€ 183 M
6	Ukraine	€ 140 M
7	South Korea	€ 65 M
8	Turkey	€ 55 M
9	Philippines	€ 44 M
10	Vietnam	€ 33 M

Source: Eurostat

Import trends of large home appliances, 2007-2017

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Extra EU trade in value	€ 4.001 M	€ 3.900 M	€ 3.923 M	€ 4.725 M	€ 4.682 M	€ 4.847 M	€ 4.797 M	€ 5.349 M	€ 5.997 M	€ 6.177 M	€ 6.539
Intra EU trade in value	€ 11.877 M	€ 11.279 M	€ 9.707 M	€ 9.878 M	€ 9.922 M	€ 9.971 M	€ 9.890 M	€ 10.529 M	€ 11.077 M	€ 11.248 M	€ 11.381
Extra EU trade in volumes (100kg)	13,1 M	12,8 M	13,5 M	15,8 M	15,4 M	14,9 M	15,8 M	17,4 M	18,3 M	18,9 M	21,0
Intra EU trade in volumes (100kg)	17,2 M	18,3 M	16,1 M	21,4 M	21,1 M	21,2 M	21,5 M	23,4 M	24,7 M	23,3 M	25,2

Source: Eurostat

Export trends of large home appliances, 2007-2017

Millions

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Extra EU trade in value	€ 4.530 M	€ 4.204 M	€ 3.144 M	€ 3.412 M	€ 3.616 M	€ 3.717 M	€ 3.869 M	€ 3.740 M	€ 3.741 M	€ 3.716 M	€ 4.046
Intra EU trade in value	€ 12.196 M	€ 11.029 M	€ 9.517 M	€ 9.742 M	€ 10.024 M	€ 10.052 M	€ 10.014 M	€ 10.465 M	€ 11.350 M	€ 11.326 M	€ 11.284
	2007	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
Extra EU trade in volumes (100kg)	9,1 M	8,2 M	6,0 M	6,4 M	6,5 M	6,6 M	6,9 M	6,8 M	6,1 M	5,9 M	6,8
Intra EU trade in volumes (100kg)	16,3 M	14,5 M	14,8 M	22,3 M	21,2 M	21,5 M	21,9 M	32,7 M	26,7 M	23,8 M	24,8

Thousands

Source: Eurostat

Import trends of small home appliances, 2007-2017

Millions

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Extra EU trade in value	€ 4.167 M	€ 4.269 M	€ 3.896 M	€ 4.773 M	€ 4.840 M	€ 5.108 M	€ 5.287 M	€ 5.630 M	€ 6.894 M	€ 6.748 M	€ 7.062 M
Intra EU trade in value	€ 4.705 M	€ 4.678 M	€ 4.589 M	€ 5.191 M	€ 5.633 M	€ 5.951 M	€ 6.547 M	€ 7.390 M	€ 8.841 M	€ 9.803 M	€ 11.261 M
Year	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
Extra EU trade in volumes (100kg)	6,9 M	6,8 M	6,0 M	7,0 M	6,9 M	6,4 M	7,1 M	7,3 M	7,4 M	7,3 M	7,5 M
Intra EU trade in volumes (100kg)	3,9 M	5,6 M	5,0 M	5,0 M	5,1 M	4,9 M	5,5 M	5,9 M	7,0 M	6,5 M	8,2 M

Thousands

Source: Eurostat

Export trends of small home appliances, 2007-2017

Millions

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Extra EU trade in value	€ 2.213 M	€ 1.865 M	€ 1.783 M	€ 2.172 M	€ 2.332 M	€ 2.509 M	€ 2.633 M	€ 2.582 M	€ 2.624 M	€ 2.617 M	€ 2.882 M
Intra EU trade in value	€ 4.836 M	€ 4.629 M	€ 4.482 M	€ 5.076 M	€ 5.801 M	€ 6.108 M	€ 6.590 M	€ 7.459 M	€ 8.819 M	€ 10.092 M	€ 11.261 M
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Extra EU trade in volumes (100kg)	1,9 M	1,8 M	1,5 M	1,7 M	1,7 M	1,7 M	1,6 M	1,5 M	1,4 M	1,5 M	1,7 M
Intra EU trade in volumes (100kg)	3,0 M	4,4 M	3,6 M	4,0 M	4,6 M	4,7 M	5,8 M	5,8 M	7,9 M	7,8 M	7,7 M

Thousands

Source: Eurostat

APPLiA Direct Members' Manufacturing Sites in Europe in 2018

Source: APPLiA Membership

Notes

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