PROMPT

(**PR**emature **O**bsolescence **M**ulti-Stakeholder **P**roduct **T**esting Programme)

Product Lifecycle & Product Replacement reasons
Washing machines, Smartphones, TV's and Vacuum cleaners

- Online surveys-

AP-2021-PR19
EC Funded Project

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01 May 2021

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EXECUTIVE SUMMARY

Owners of four categories of products (WASHING MACHINES, SMARTPHONES, TV's and VACUUM CLEANERS) answered questions about **their expectations at the moment of buying/getting these products, their reasons for replacing their previous appliances and the lifecycle of their previous appliances.**

Expected use of an appliance
47% of respondents (BEL 56% FRA 43% ITA 43% POR 54% SPA 45%) expect to use their washing machine for more than 10 years.
45% of respondents (BEL 47% FRA 46% ITA 46% POR 42% SPA 43%) expect to use their smartphone for 4-5 years (from the moment of buying/getting it).
38% of respondents (BEL 41% FRA 44% ITA 35% POR 26% SPA 34%) expect to use their TV for 8-10 years (from the moment of buying/getting it).
40% of respondents (BEL 38% FRA 38% ITA 44% POR 41% SPA 37%) expect to use their vacuum cleaner for more than 10 years (from the moment of buying/getting it).

Expected minimum lifecycle of an appliance
43% of respondents (BEL 57% FRA 34% ITA 35% POR 59% SPA 41%) expect their washing machine to last (functioning) for more than 10 years.
42% of respondents (BEL 43% FRA 41% ITA 43% POR 41% SPA 42%) expect their smartphone to last (functioning) for 4-5 years (from the moment of buying/getting it).
41% of respondents (BEL 41% FRA 36% ITA 36% POR 55% SPA 47%) expect their TV to last (functioning) for more than 10 years (from the moment of buying/getting it).
43% of respondents (BEL 42% FRA 45% ITA 43% POR 47% SPA 37%) expect their vacuum cleaner to last (functioning) for more than 10 years (from the moment of buying/getting it).

Comparison between expected use and minimum lifecycle
Most people don't make a difference between their expected duration length to keep the appliance and their minimum expected lifecycle of the appliance.
20% of respondents (BEL 11% FRA 34% ITA 23% POR 4% SPA 15%) expect to keep using their washing machine longer than its expected minimum lifecycle.
30% of respondents (BEL 31% FRA 32% ITA 26% POR 39% SPA 29%) expect to keep using their smartphone shorter than its expected minimum lifecycle.
20% of respondents (BEL 21% FRA 19% ITA 20% POR 25% SPA 20%) expect to keep using their TV shorter than its expected minimum lifecycle.
8% of respondents (BEL 10% FRA 5% ITA 12% POR 3% SPA 10%) expect to keep using their vacuum cleaner longer than its expected minimum lifecycle.

Brand comparison of expected use and minimum lifecycle

79% of Miele owners (19% of Haier owners) expect to keep using their washing machine for more than 10 years. 75% of Miele owners (19% of Haier owners) expect their washing machine to have a minimum lifecycle of more than 10 years.

39% of Doro owners (14% of Google owners) expect to keep using their smartphone for more than 5 years. 52% of Doro owners (23% of both Honor and Xiaomi owners) expect their smartphone to have a minimum lifecycle of more than 5 years.

47% of Loewe owners (23% of Haier owners) expect to keep using their TV for more than 10 years.

60% of Loewe owners (28% of Haier owners) expect their TV to have a minimum lifecycle of more than 10 years.

76% of Kirby owners (15% of Domo owners) expect to keep using their vacuum cleaner for more than 10 years. 81% of Kirby owners (19% of Ariete owners) expect their vacuum cleaner to have a minimum lifecycle of more than 10 years.

Reasons for replacing an appliance

6 or 7 main reasons for replacing the appliance could be indicated: completely out of use, not working well anymore (and didn't want to repair it), repair costs too high, no spare parts available anymore, out of date (but still functioning well), because of my misuse (just for smartphones and TV's) and another reason (gift, moving, family needs, …).

The first four reasons have been considered as **reliability-related reasons for replacing the previous appliances**.

3 previously owned **Washing machines** out of 4 (BEL 73% FRA 75% ITA 76% POR 73% SPA 75%) were replaced because of reliability-related reasons.

36% of previously owned **Smartphones** (BEL 30% FRA 37% ITA 37% POR 33% SPA 37%) were replaced because of reliability-related reasons.

34% of previously owned **TV's** (BEL 32% FRA 37% ITA 29% POR 41% SPA 27%) were replaced because of reliability-related reasons.

64 % of **Vacuum cleaners** (BEL 66% FRA 65% ITA 57% POR 69% SPA 65%) were replaced because of reliability-related reasons.

Brand comparison of average real lifecycles

In **washing machines**, Miele stands alone with the highest average age.

In **smartphones**, Blackberry, Nokia, Apple and HTC are the brands with the highest average age.

In **tv's**, Thomson, Grundig, Sony and Philips are the brands with the highest average age.

In **vacuum cleaners**, Vorwerk, Panasonic, Nilfisk, Miele and Kirby are the brands with the highest average age.

Difference between expected minimum lifecycle and real lifecycle

<u>Differences between the expected minimum lifecycle duration of the current device and the real lifecycle duration of the previous device</u> (only considering reliability-related reasons for being replaced) are analysed.

In this analysis, only brands having enough cases in both categories (current and previous appliance) are considered. Results of this analysis should however not be understood as an intrinsic quality of the devices. They only indicate the (positive) difference between what people expect to be the minimum lifecycle, and what they experienced to be the real lifecycle.

In **washing machines**, most brands had a higher proportion of ‘more than 10 years’ real lifecycle than the proportion of people who expected the minimum lifecycle of their washing machine to be ‘more than 10 years’.

In **smartphones**, most brands had a higher proportion of ‘more than 5 years’ real lifecycle than the proportion of people who expected the minimum lifecycle of their smartphone to be ‘more than 5 years’.

In **tv’s**, only Thomson performed better than the expectations.

In **vacuum cleaners,** only Nilfisk, Tornado, Panasonic and Miele performed better than the expectations.

1. METHODOLOGY

1.1 Washing machines (Large Household appliances survey)

The survey covers five countries: Belgium, France, Italy, Portugal and Spain.
Sampling was done randomly among members of different consumer organizations in the selected countries; data were collected through online questionnaires addressed to product magazine subscribers (Test Achats, UFC-Que Choisir, Altroconsumo, Deco-ProTeste, OCU) during **April 2019**. Respondents assessed their products by answering a unique link sent to their email addresses. The overview below summarizes the number of valid answers collected for this survey.

Belgium	7687
France	9932
Italy	11584
Portugal	5661
Spain	6868

The survey focused on following dimensions**:**

FORESEEN DURATION OF USE & EXPECTED MINIMUM LIFECYCLE OF CURRENT APPLIANCES
In this section, people reported how long they expected to keep using their current appliance at the moment of buying, and how long they expected to be its minimum lifecycle.

REAL LIFECYCLE OF PREVIOUS APPLIANCES
In this section, people reported for how long they kept their previous appliance, and what was the reason for replacing it. Average lifecycle durations by brand have been compared through One Way ANOVA.

By analyzing the differences between the expected minimum lifecycle and the real lifecycle (reliability-related reasons for being replaced), the report summarizes whether consumer expectations are met by the manufacturers.

1.2 Smartphones and TV’s (Hi-Tech devices survey)

The survey covers five countries: Belgium, France, Italy, Portugal and Spain.
Sampling was done randomly among members of different consumer organizations in the selected countries; data were collected through online questionnaires addressed to product magazine subscribers (Test Achats, UFC-Que Choisir, Altroconsumo, Deco-ProTeste, OCU) during **November 2019**. Respondents assessed their products by answering a unique link sent to their email addresses. The overview below summarizes the number of valid answers collected for this survey.

Belgium	6204
France	10595
Italy	10395
Portugal	3612
Spain	6344

The survey focused on the following dimensions**:**

FORESEEN DURATION OF USE & EXPECTED MINIMUM LIFECYCLE OF CURRENT DEVICES
In this section, people reported how long they expected to keep using their current device at the moment of buying, and how long they expected to be its minimum lifecycle.

REAL LIFECYCLE OF PREVIOUS DEVICES
In this section, people reported for how long they kept their previous device, and what was the reason for replacing it. Average lifecycle durations by brand have been compared through One Way ANOVA.

By analyzing the differences between the expected minimum lifecycle and the real lifecycle (reliability-related reasons for being replaced), the report summarizes whether consumer expectations are met by the manufacturers.

1.3 Vacuum cleaners (Small Household appliances survey)

The survey covers five countries: Belgium, France, Italy, Portugal and Spain.
Sampling was done randomly among members of different consumer organizations in the selected countries; data were collected through online questionnaires addressed to product magazine subscribers (Test Achats, UFC-Que Choisir, Altroconsumo, Deco-ProTeste, OCU) during **June 2019 and June 2020**. Respondents assessed their products by answering a unique link sent to their email addresses. The overview below summarizes the number of valid answers collected for this survey.

			country					
			Belgium	Italy	Portugal	Spain	France	Total
YEAR	2019	Count	5163	8851	4410	4141	10392	32957
		% within country	41,5%	45,0%	42,7%	40,9%	43,9%	43,2%
	2020	Count	7283	10813	5924	5988	13301	43309
		% within country	58,5%	55,0%	57,3%	59,1%	56,1%	56,8%
Total		Count	12446	19664	10334	10129	23693	76266

The survey focused on the following dimensions**:**

FORESEEN DURATION OF USE & EXPECTED MINIMUM LIFECYCLE OF CURRENT DEVICES
In this section, people reported how long they expected to keep using their current device at the moment of buying, and how long they expected to be its minimum lifecycle.

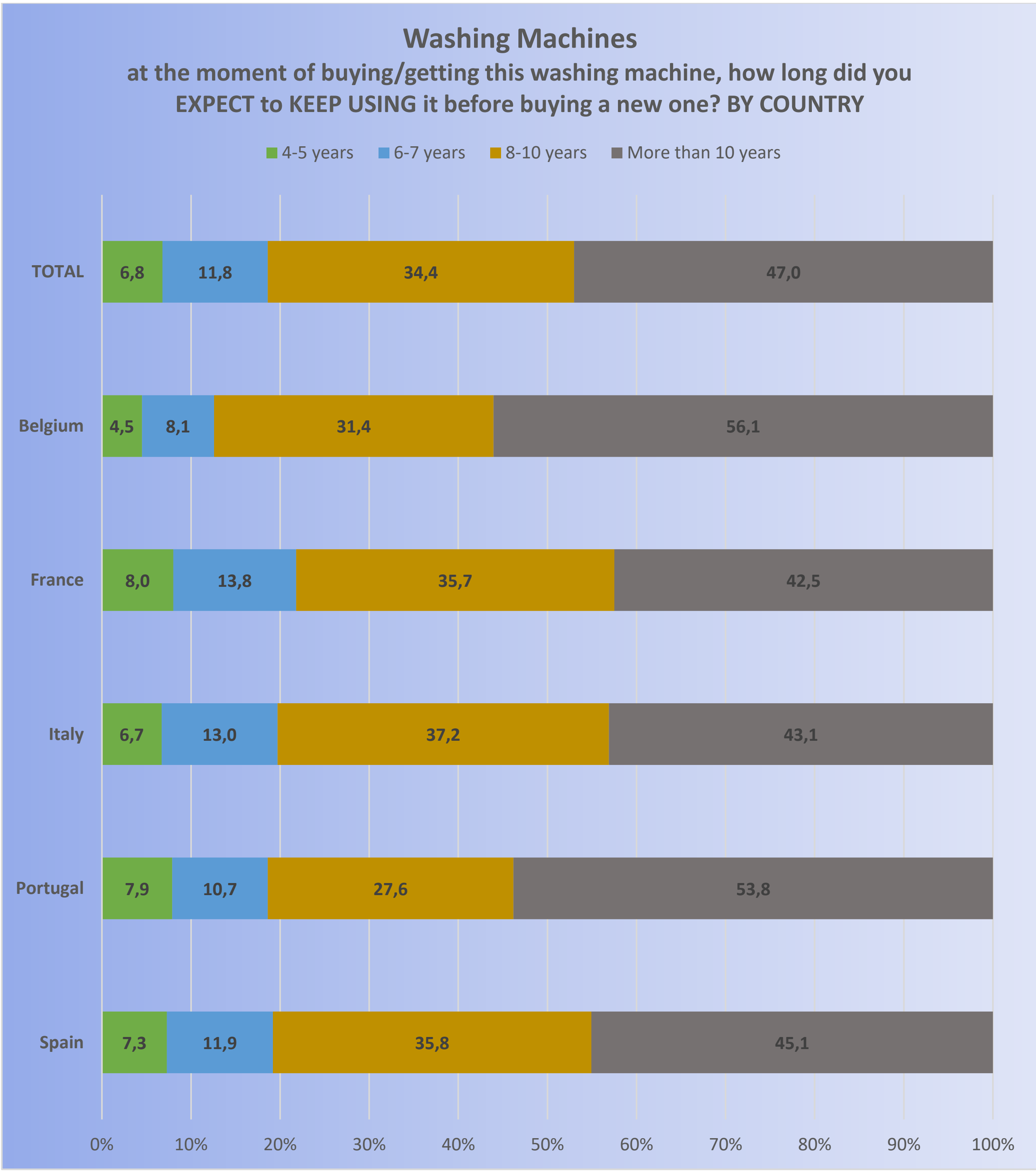
REAL LIFECYCLE OF PREVIOUS DEVICES
In this section, people reported for how long they kept their previous device, and what was the reason for replacing it. Average lifecycle durations by brand have been compared through One Way ANOVA.

By analysing the differences between the expected minimum lifecycle and the real lifecycle (reliability-related reasons for being replaced), the report summarizes whether consumer expectations are met by the manufacturers.

2. FORESEEN DURATION OF USE & EXPECTED MINIMUM LIFECYCLE OF CURRENT APPLIANCES

2.1 WASHING MACHINES

Chart 1.1



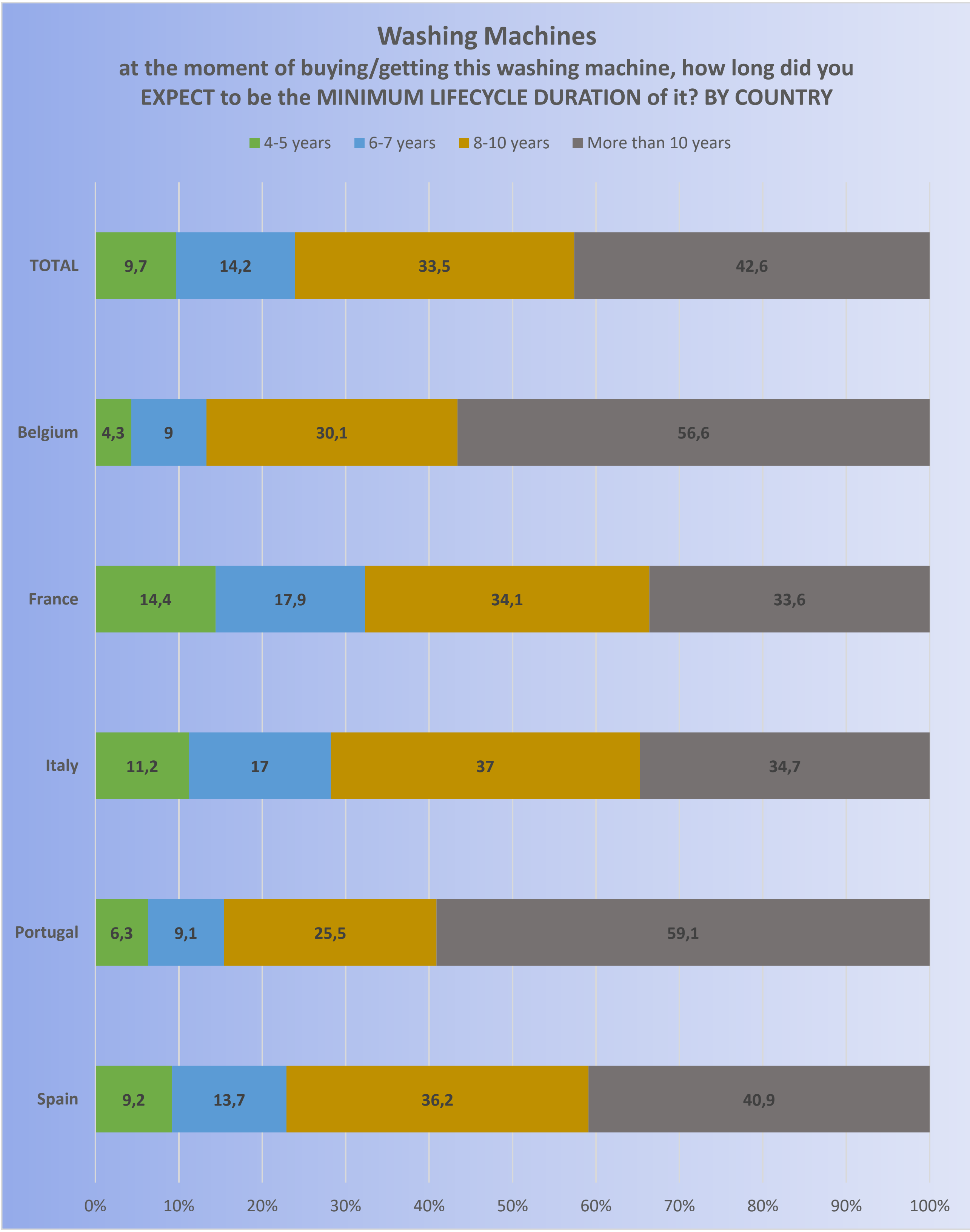
LHHA Appliances 2019

47% of respondents (BEL 56% FRA 43% ITA 43% POR 54% SPA 45%) expect to use their washing machine for more than 10 years (from the moment of buying/getting it).

Table 1.1 <u>WASHING MACHINES</u> –at the moment of buying/getting this washing machine, how long did you EXPECT to KEEP USING it before buying a new one? BY COUNTRY

			country					Total
			Belgium	France	Italy	Portugal	Spain	
	4-5y	Count	317	734	693	333	462	2539
		%	4,5%	8,0%	6,7%	7,9%	7,3%	6,8%
	6-7y	Count	576	1270	1337	453	755	4391
		%	8,1%	13,8%	13,0%	10,7%	11,9%	11,8%
	8-10y	Count	2230	3292	3822	1164	2281	12789
		%	31,4%	35,7%	37,2%	27,6%	35,8%	34,4%
	More than 10y	Count	3987	3918	4432	2270	2871	17478
		%	56,1%	42,5%	43,1%	53,8%	45,1%	47,0%
Total		*Count*	7110	9214	10284	4220	6369	37197

Chart 1.2



LHHA Appliances 2019

43% of respondents (BEL 57% FRA 34% ITA 35% POR 59% SPA 41%) expect their washing machine to last (functioning) for more than 10 years (from the moment of buying/getting it).

Table 1.2 WASHING MACHINES –at the moment of buying/getting this washing machine, how long did you EXPECT to be the MINIMUM LIFECYCLE DURATION of it? BY COUNTRY

			country					Total
			Belgium	France	Italy	Portugal	Spain	
	4-5y	Count	302	1271	1147	285	565	3570
		%	4,3%	14,4%	11,2%	6,3%	9,2%	9,7%
	6-7y	Count	625	1576	1739	410	845	5195
		%	9,0%	17,9%	17,0%	9,1%	13,7%	14,2%
	8-10y	Count	2097	3003	3780	1154	2232	12266
		%	30,1%	34,1%	37,0%	25,5%	36,2%	33,5%
	More than 10y	Count	3942	2955	3540	2668	2516	15621
		%	56,6%	33,6%	34,7%	59,1%	40,9%	42,6%
Total		*Count*	6966	8805	10206	4517	6158	36652

Chart 1.3.1

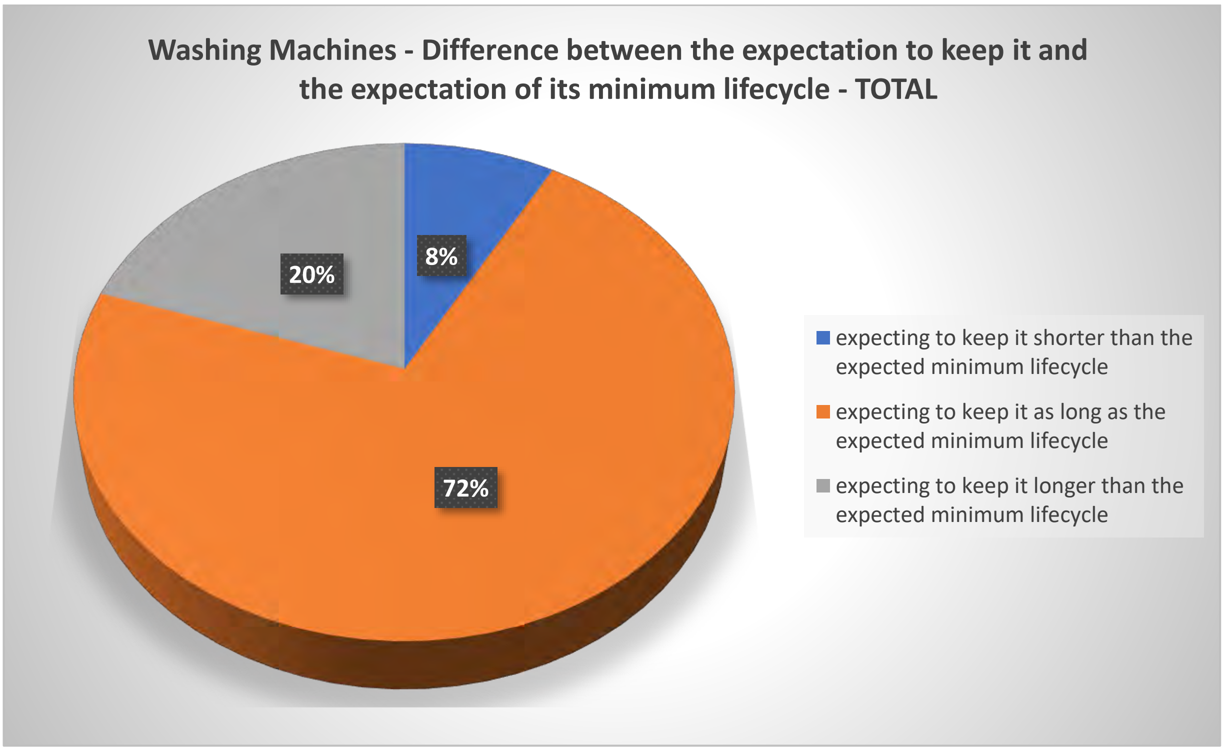


Chart 1.3.2

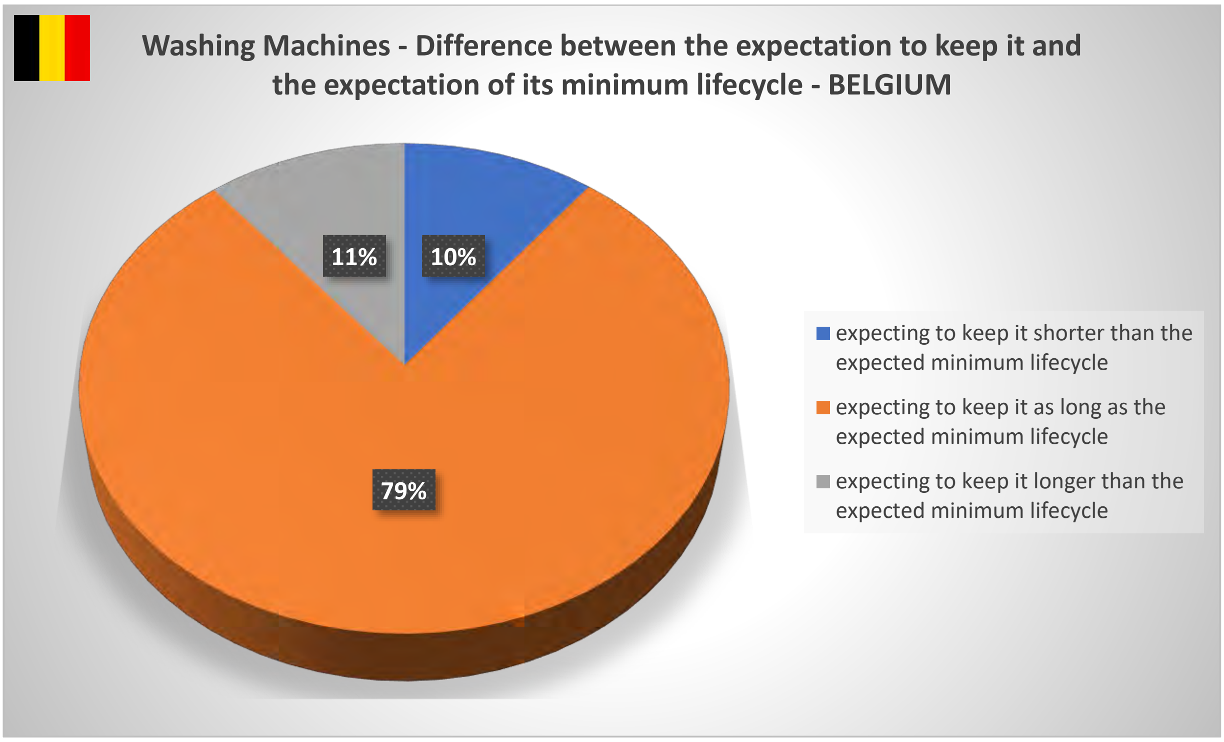


Chart 1.3.3

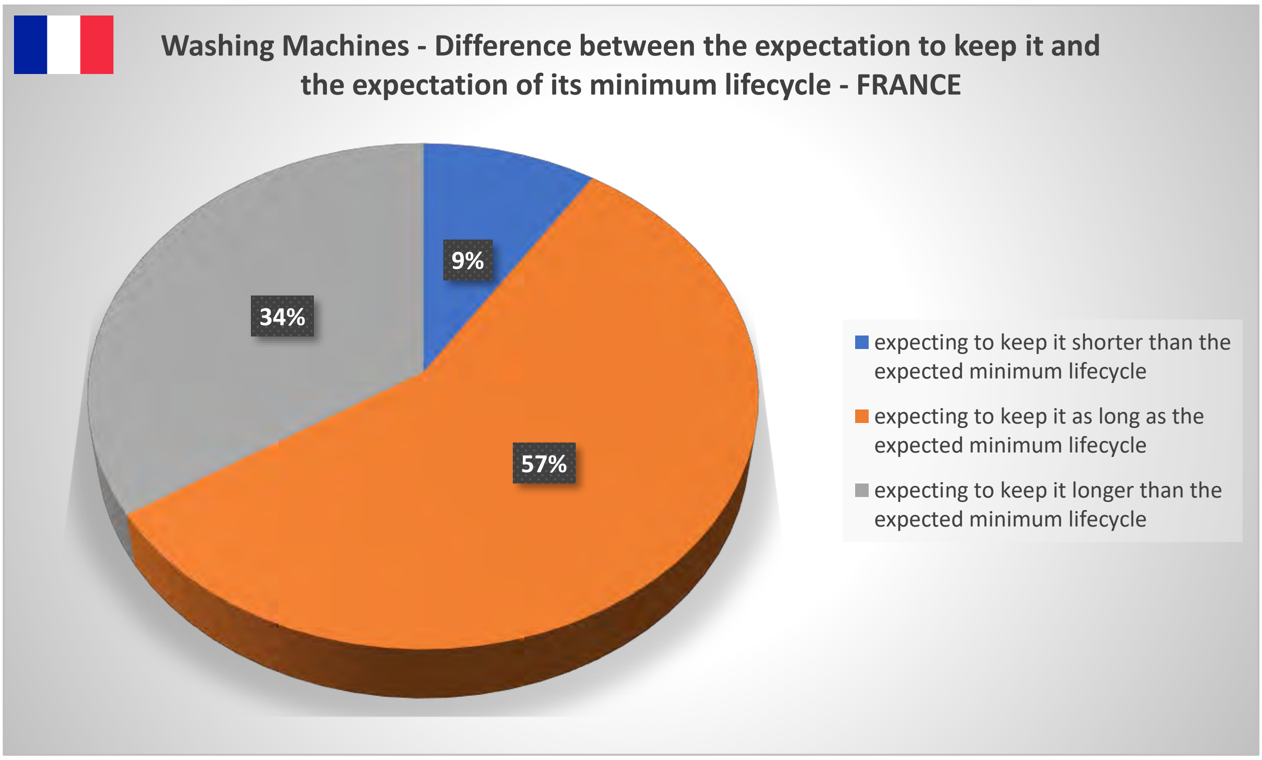


Chart 1.3.4

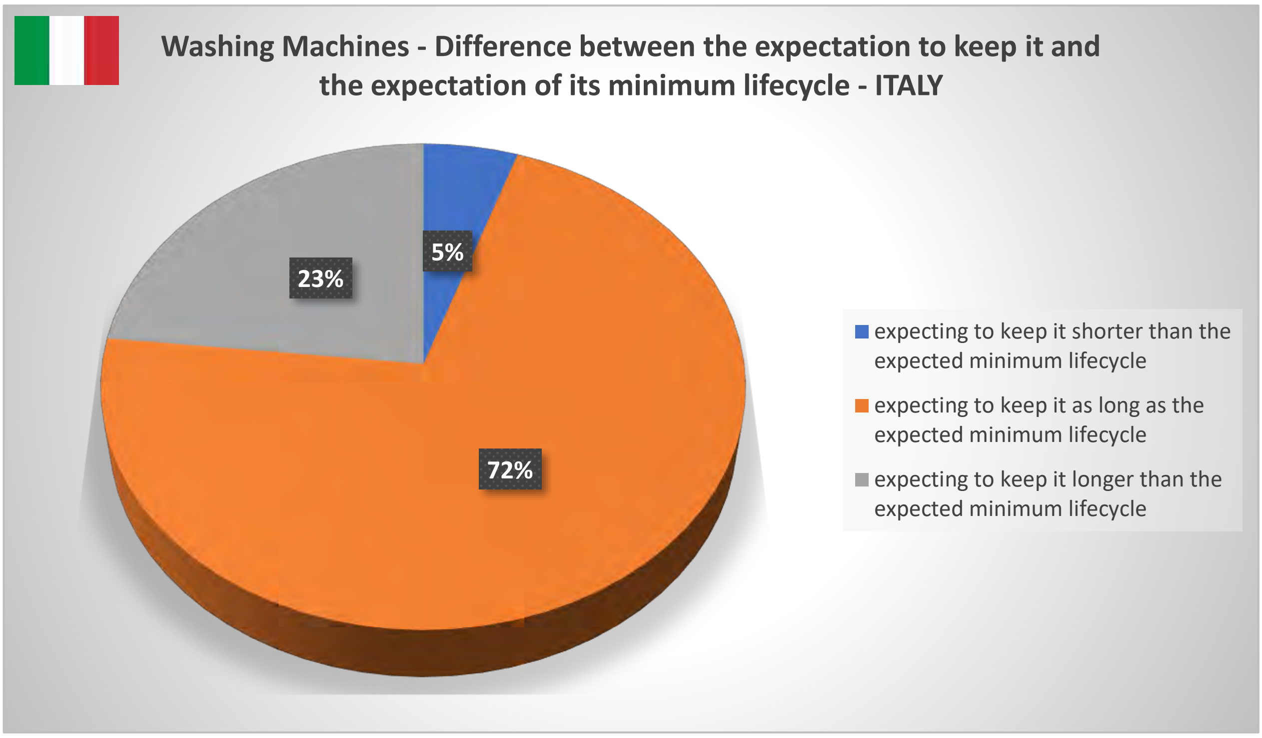


Chart 1.3.5

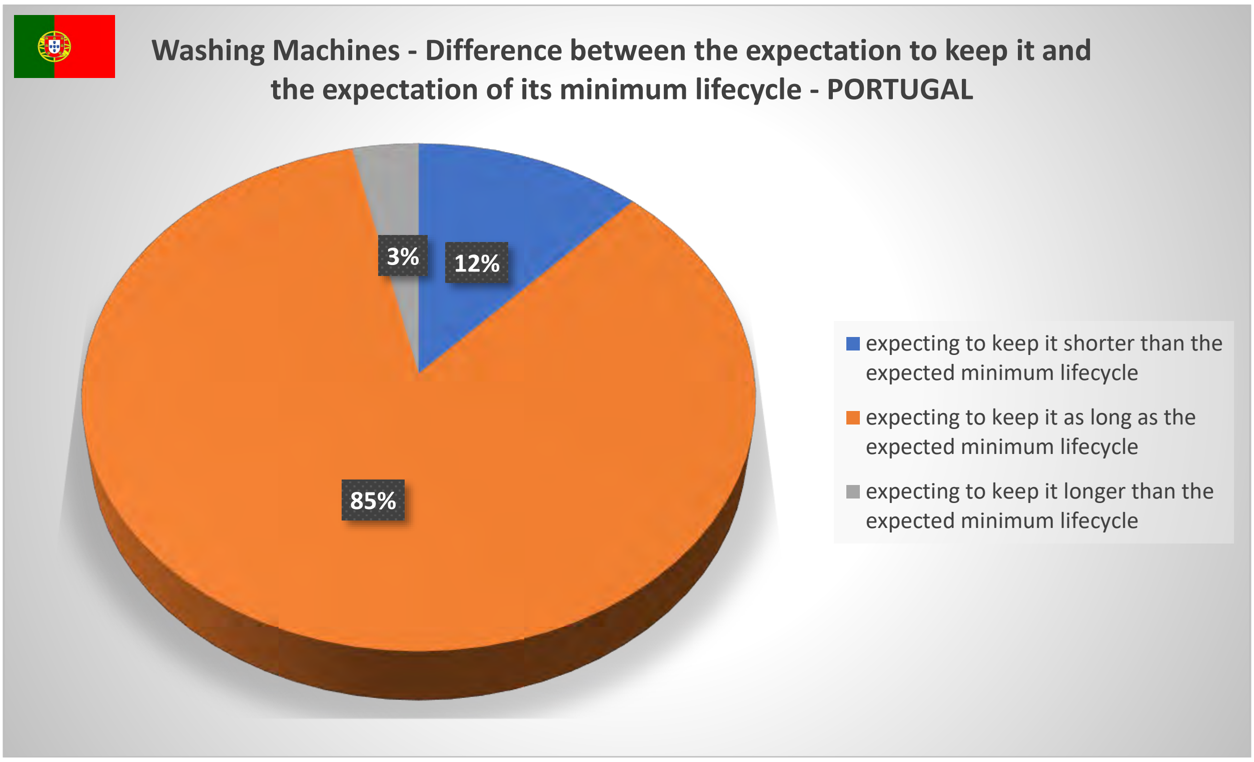
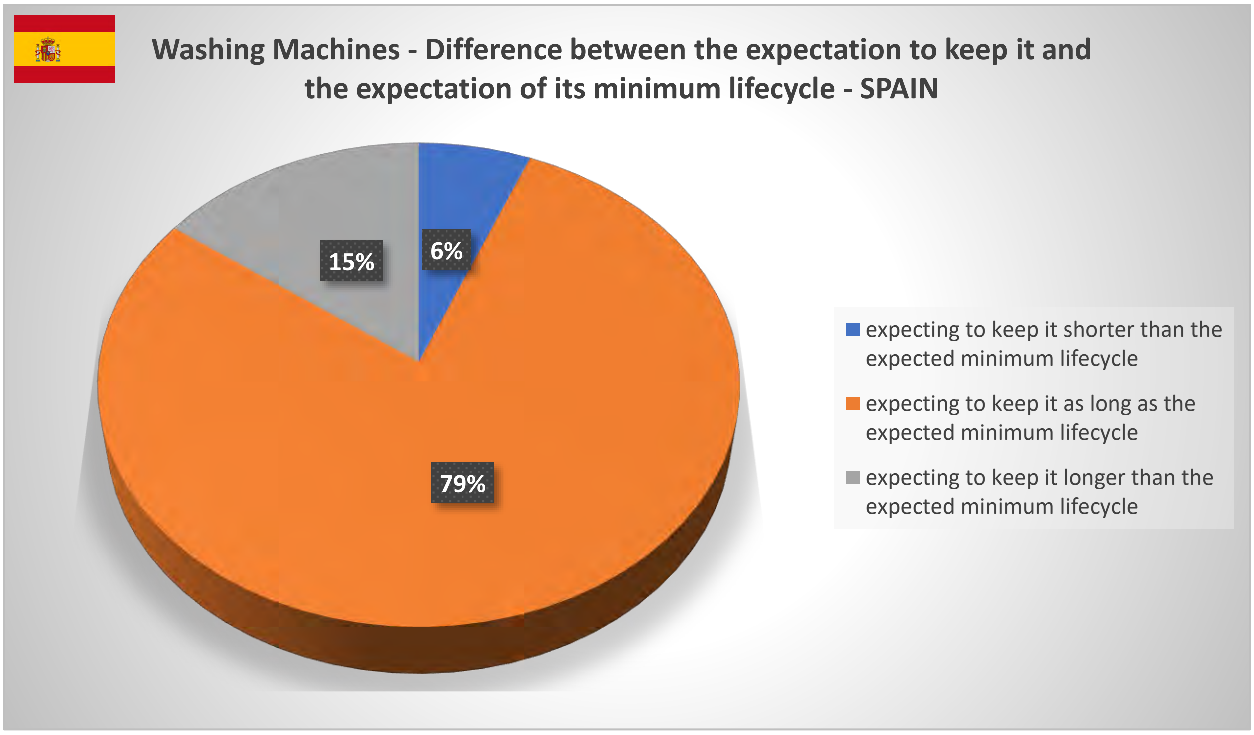


Chart 1.3.6

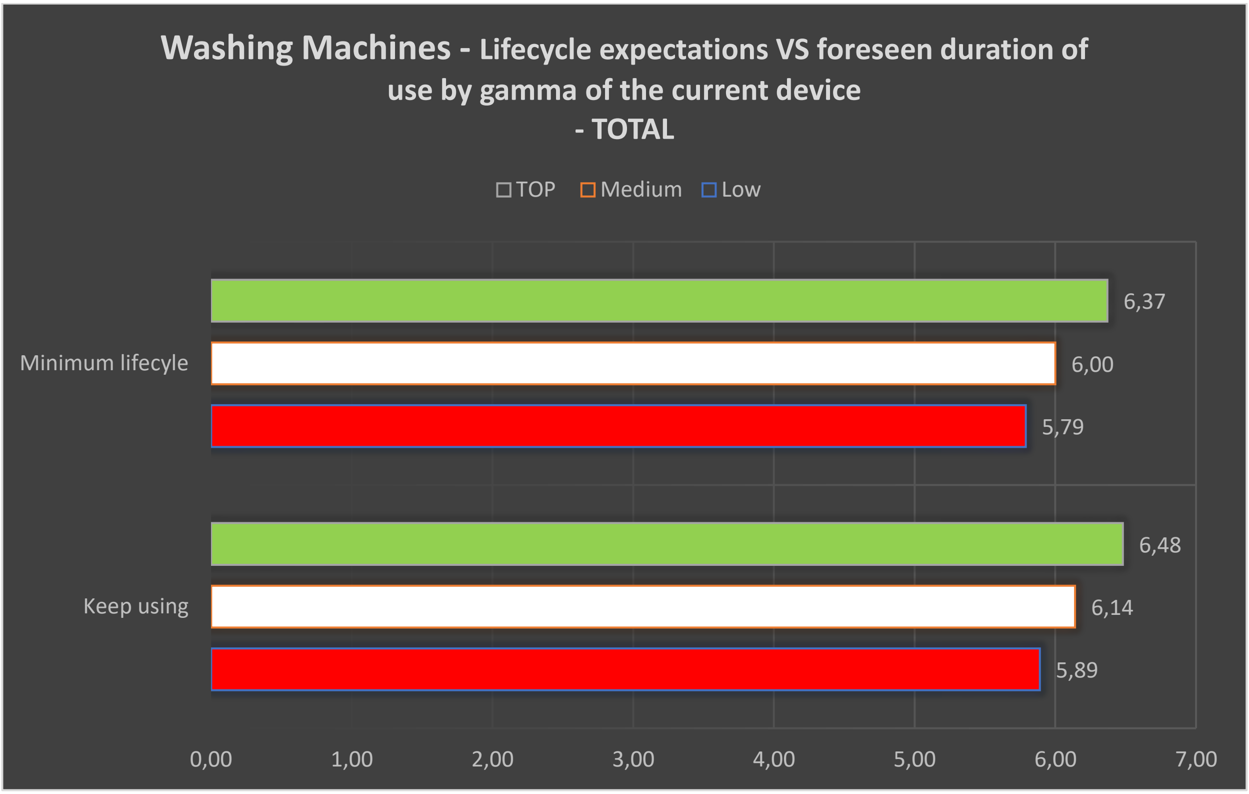


20% of respondents (BEL 11% FRA 34% ITA 23% POR 4% SPA 15%) expect to keep using their washing machine longer than its expected minimum lifecycle.

Table 1.3 WASHING MACHINES – Difference between the expectation to keep it and the expectation of its minimum lifecycle BY COUNTRY

		country					
		Belgium	**France**	**Italy**	**Portugal**	**Spain**	**Total**
expecting to keep it shorter than the expected minimum lifecycle	Count	714	786	508	458	370	2836
	% within country	10,5%	9,2%	5,2%	12,0%	6,2%	8,1%
expecting to keep it as long as the expected minimum lifecycle	Count	5341	4837	6984	3238	4707	25107
	% within country	78,6%	56,7%	71,5%	84,5%	78,8%	72,0%
expecting to keep it longer than the expected minimum lifecycle	Count	740	2907	2275	134	895	6951
	% within country	10,9%	34,1%	23,3%	3,5%	15,0%	19,9%
Total	Count	6795	8530	9767	3830	5972	34894
	% within country	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Chart 1.4



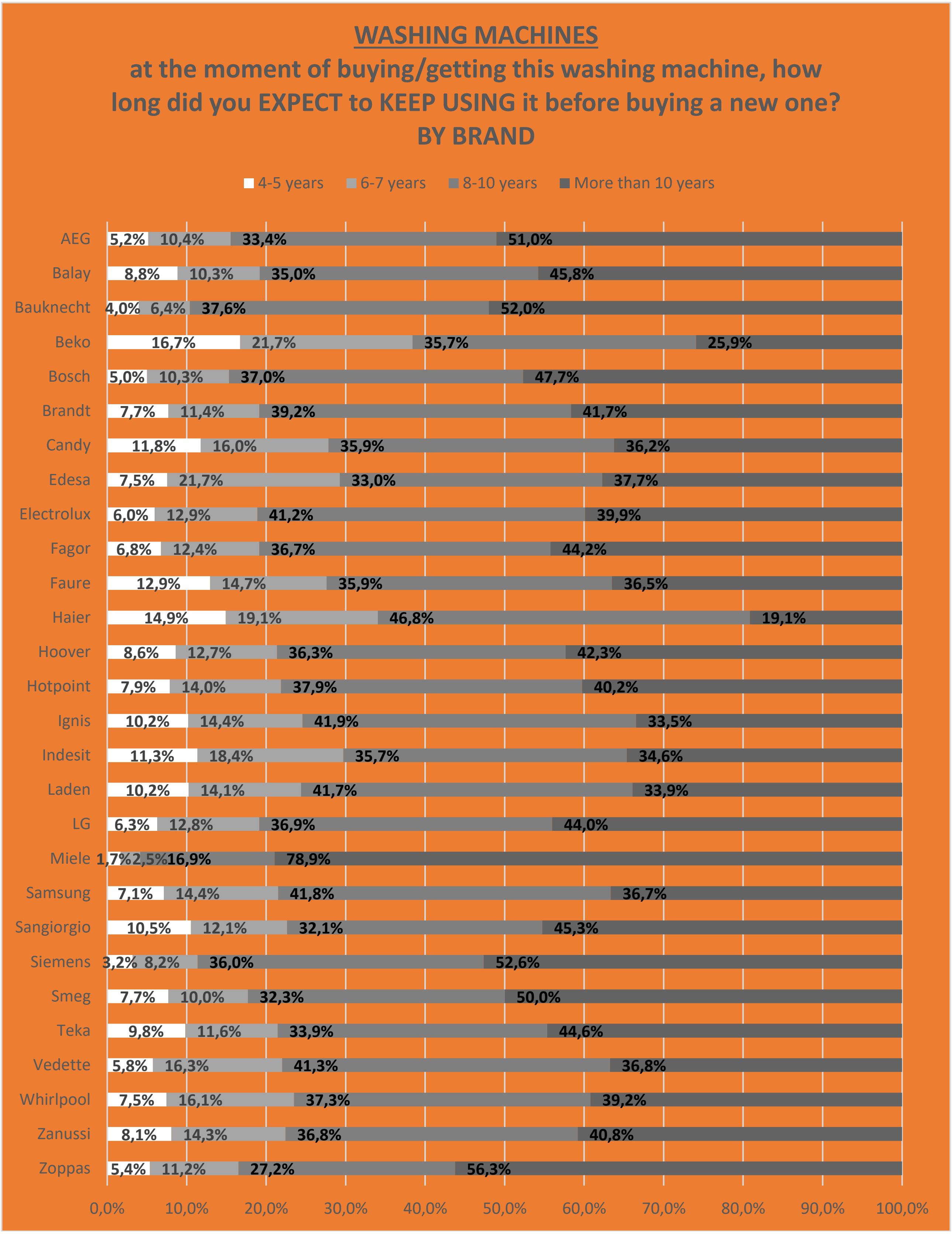
Top, medium and low levels of gamma are defined by respondents themselves when answering the questionnaire.

Table 1.4 <u>WASHING MACHINES</u> - Foreseen duration of use VS Lifecycle expectations by gamma

		Keep using (average)	Minimum lifecycle (average)
Total	Low	5,89	5,79
	Medium	6,14	6,00
	Top gamma	6,48	6,37

Tested through OneWay ANOVA; green significantly better, red significantly worse

Chart 1.5



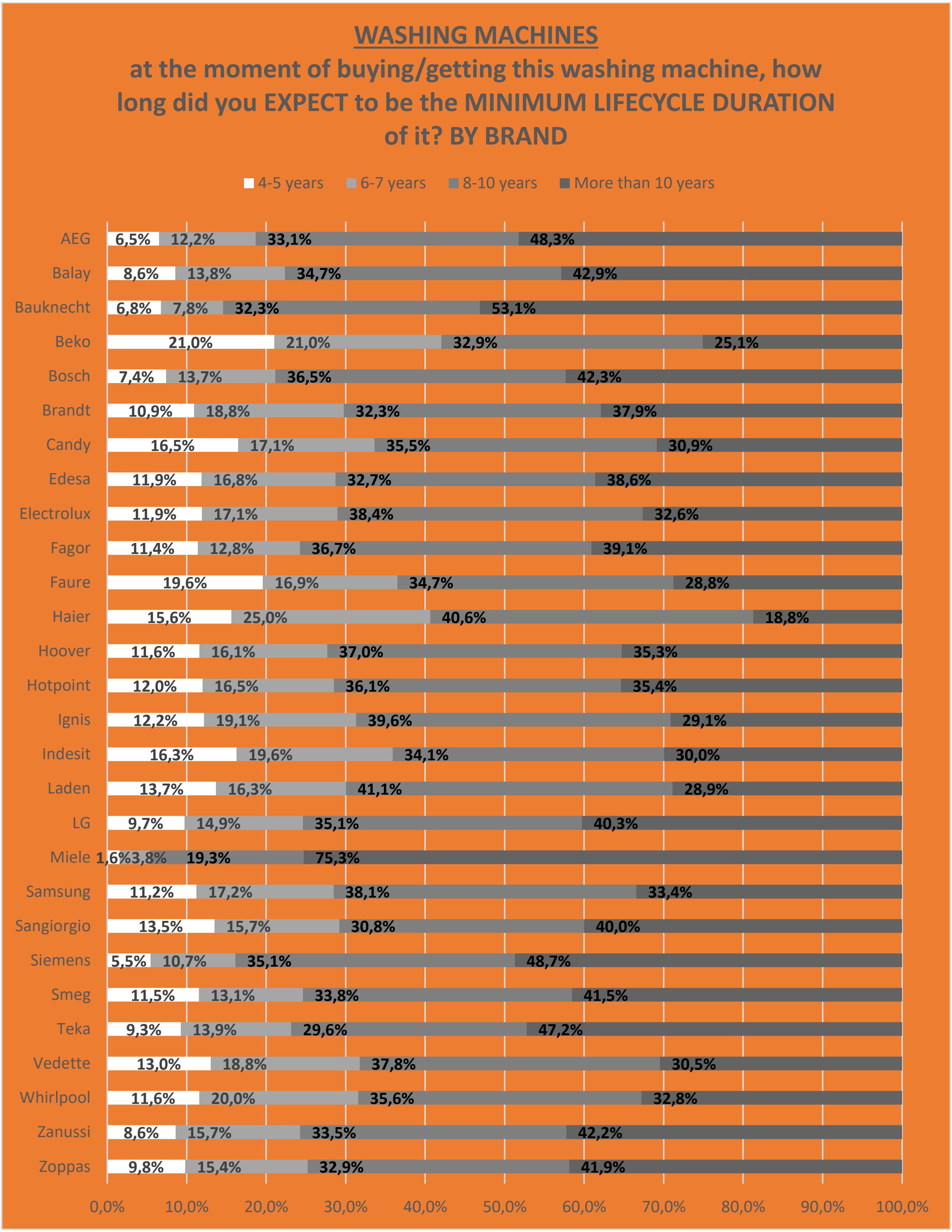
LHHA Appliances 2019

79% of Miele owners (19% of Haier owners) expect to keep using their washing machine for more than 10 years.

Table 1.5 WASHING MACHINES –at the moment of buying/getting this washing machine, how long did you EXPECT to KEEP USING it before buying a new one? BY BRAND

	N	4-5y	6-7y	8-10y	more than 10y
AEG	2596	5,2%	10,4%	33,4%	51,0%
Balay	939	8,8%	10,3%	35,0%	45,8%
Bauknecht	202	4,0%	6,4%	37,6%	52,0%
Beko	802	16,7%	21,7%	35,7%	25,9%
Bosch	5820	5,0%	10,3%	37,0%	47,7%
Brandt	533	7,7%	11,4%	39,2%	41,7%
Candy	1402	11,8%	16,0%	35,9%	36,2%
Edesa	106	7,5%	21,7%	33,0%	37,7%
Electrolux	2028	6,0%	12,9%	41,2%	39,9%
Fagor	502	6,8%	12,4%	36,7%	44,2%
Faure	348	12,9%	14,7%	35,9%	36,5%
Haier	141	14,9%	19,1%	46,8%	19,1%
Hoover	581	8,6%	12,7%	36,3%	42,3%
Hotpoint	979	7,9%	14,0%	37,9%	40,2%
Ignis	236	10,2%	14,4%	41,9%	33,5%
Indesit	1421	11,3%	18,4%	35,7%	34,6%
Laden	283	10,2%	14,1%	41,7%	33,9%
LG	2260	6,3%	12,8%	36,9%	44,0%
Miele	4231	1,7%	2,5%	16,9%	78,9%
Samsung	2575	7,1%	14,4%	41,8%	36,7%
Sangiorgio	190	10,5%	12,1%	32,1%	45,3%
Siemens	2434	3,2%	8,2%	36,0%	52,6%
Smeg	130	7,7%	10,0%	32,3%	50,0%
Teka	112	9,8%	11,6%	33,9%	44,6%
Vedette	400	5,8%	16,3%	41,3%	36,8%
Whirlpool	2629	7,5%	16,1%	37,3%	39,2%
Zanussi	669	8,1%	14,3%	36,8%	40,8%
Zoppas	224	5,4%	11,2%	27,2%	56,3%

Chart 1.6



LHHA Appliances 2019

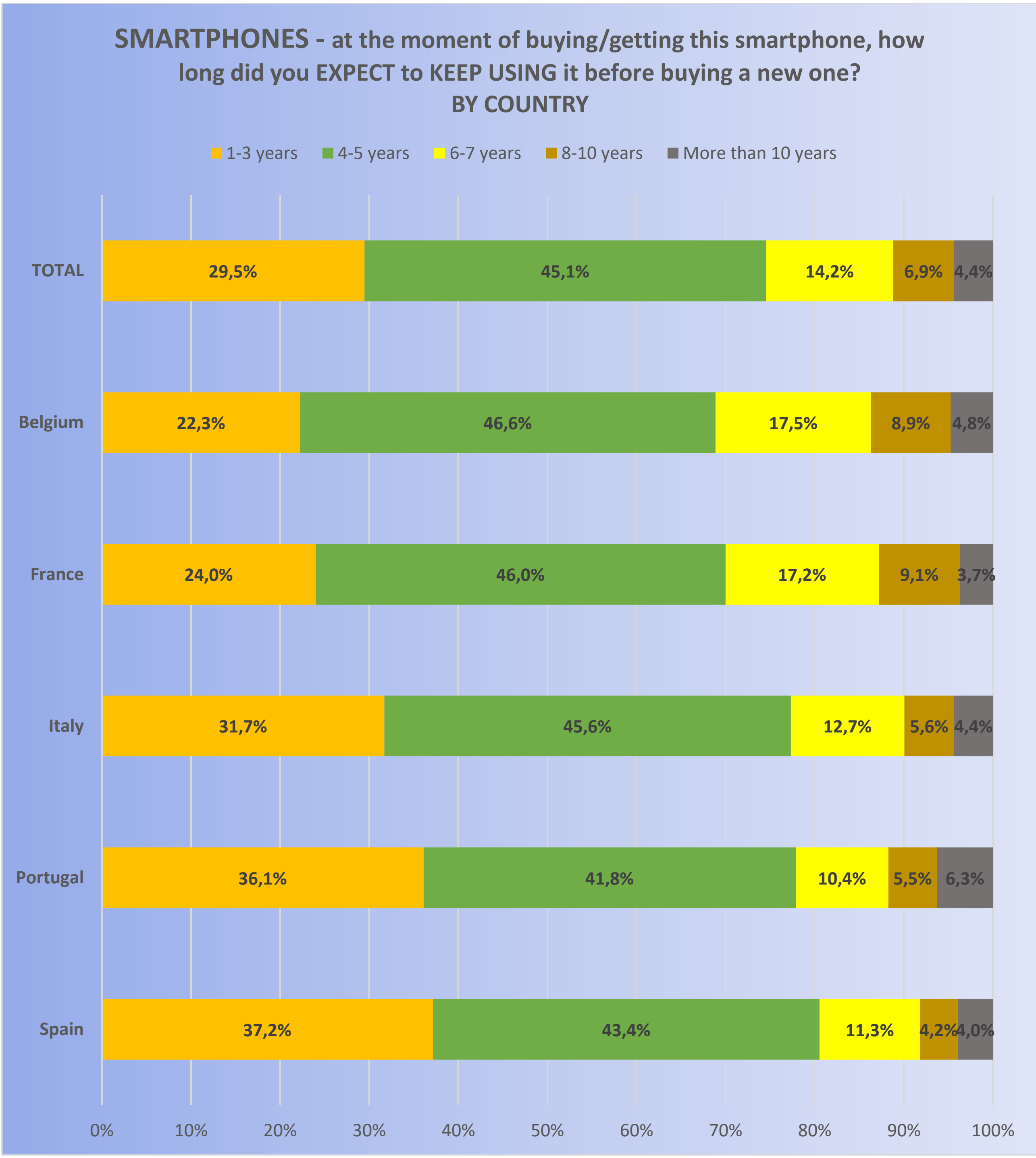
75% of Miele owners (19% of Haier owners) expect their washing machine to have a minimum lifecycle of more than 10 years.

Table 1.6 WASHING MACHINES –at the moment of buying/getting this washing machine, how long did you EXPECT to be the MINIMUM LIFECYCLE DURATION of it? BY BRAND

	N	4-5y	6-7y	8-10y	more than 10y
AEG	2549	6,5%	12,2%	33,1%	48,3%
Balay	921	8,6%	13,8%	34,7%	42,9%
Bauknecht	192	6,8%	7,8%	32,3%	53,1%
Beko	785	21,0%	21,0%	32,9%	25,1%
Bosch	5753	7,4%	13,7%	36,5%	42,3%
Brandt	504	10,9%	18,8%	32,3%	37,9%
Candy	1389	16,5%	17,1%	35,5%	30,9%
Edesa	101	11,9%	16,8%	32,7%	38,6%
Electrolux	1992	11,9%	17,1%	38,4%	32,6%
Fagor	491	11,4%	12,8%	36,7%	39,1%
Faure	337	19,6%	16,9%	34,7%	28,8%
Haier	128	15,6%	25,0%	40,6%	18,8%
Hoover	578	11,6%	16,1%	37,0%	35,3%
Hotpoint	975	12,0%	16,5%	36,1%	35,4%
Ignis	230	12,2%	19,1%	39,6%	29,1%
Indesit	1401	16,3%	19,6%	34,1%	30,0%
Laden	263	13,7%	16,3%	41,1%	28,9%
LG	2242	9,7%	14,9%	35,1%	40,3%
Miele	4192	1,6%	3,8%	19,3%	75,3%
Samsung	2592	11,2%	17,2%	38,1%	33,4%
Sangiorgio	185	13,5%	15,7%	30,8%	40,0%
Siemens	2399	5,5%	10,7%	35,1%	48,7%
Smeg	130	11,5%	13,1%	33,8%	41,5%
Teka	108	9,3%	13,9%	29,6%	47,2%
Vedette	384	13,0%	18,8%	37,8%	30,5%
Whirlpool	2598	11,6%	20,0%	35,6%	32,8%
Zanussi	651	8,6%	15,7%	33,5%	42,2%
Zoppas	234	9,8%	15,4%	32,9%	41,9%

2.2 SMARTPHONES

Chart 2.1



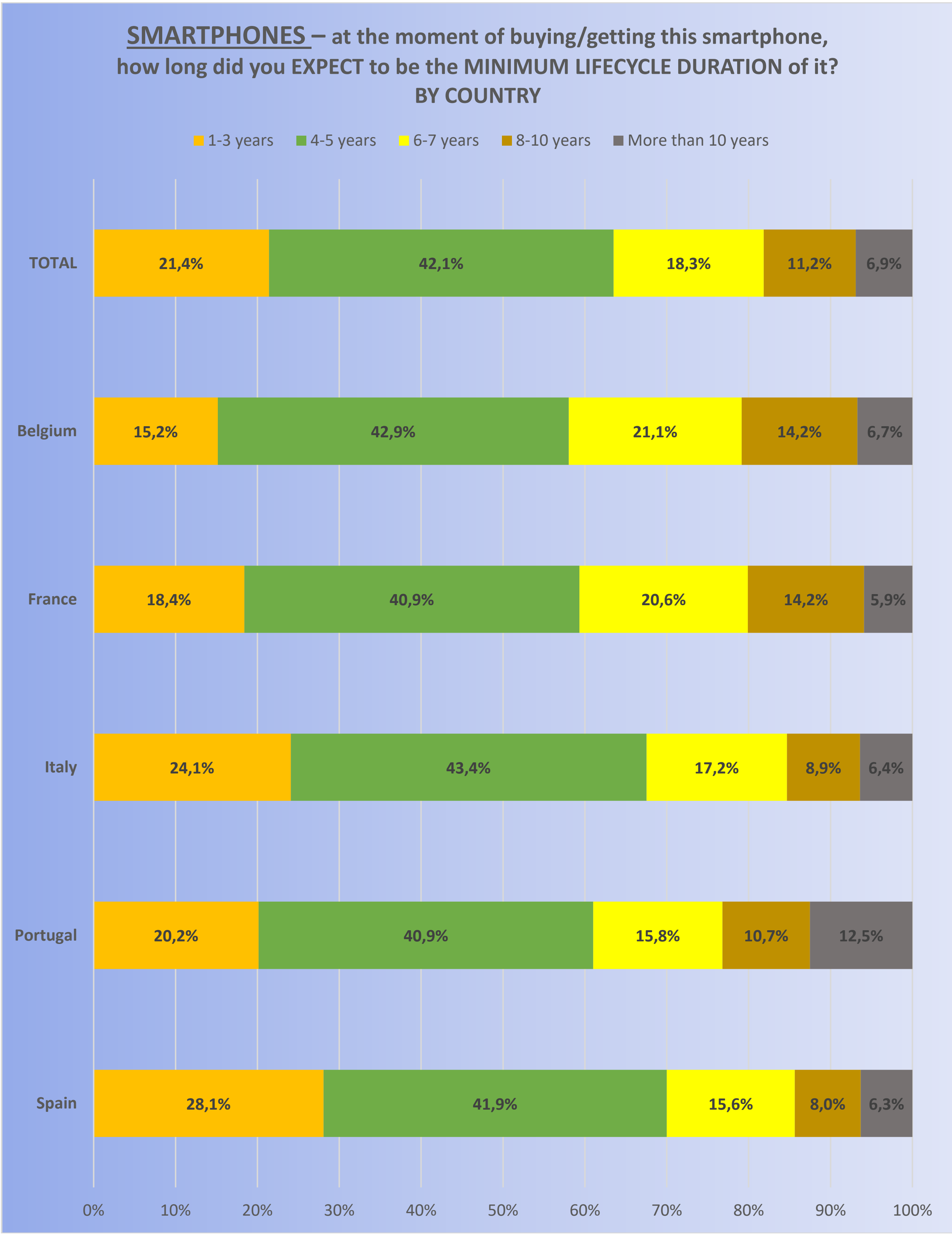
Hi-Tech Devices 2019

45% of respondents (BEL 47% FRA 46% ITA 46% POR 42% SPA 43%) expect to use their smartphone for 4-5 years (from the moment of buying/getting it).

Table 2.1 SMARTPHONES–at the moment of buying/getting this smartphone, how long did you EXPECT to KEEP USING it before buying a new one? BY COUNTRY

			country					Total
			Belgium	France	Italy	Portugal	Spain	
	1-3y	Count	1947	3939	5141	2154	3719	16900
		%	22,3%	24,0%	31,7%	36,1%	37,2%	29,5%
	4-5y	Count	4075	7554	7402	2492	4342	25865
		%	46,6%	46,0%	45,6%	41,8%	43,4%	45,1%
	6-7y	Count	1527	2825	2066	620	1126	8164
		%	17,5%	17,2%	12,7%	10,4%	11,3%	14,2%
	8-10y	Count	779	1495	906	326	424	3930
		%	8,9%	9,1%	5,6%	5,5%	4,2%	6,9%
	More than 10y	Count	416	608	707	374	396	2501
		%	4,8%	3,7%	4,4%	6,3%	4,0%	4,4%
Total		*Count*	8744	16421	16222	5966	10007	57360

Chart 2.2



Hi-Tech Devices 2019

42% of respondents (BEL 43% FRA 41% ITA 43% POR 41% SPA 42%) expect their smartphone to last (functioning) for 4-5 years (from the moment of buying/getting it).

Table 2.2 SMARTPHONES–at the moment of buying/getting this smartphone, how long did you EXPECT to be the MINIMUM LIFECYCLE DURATION of it? BY COUNTRY

			country					Total
			Belgium	France	Italy	Portugal	Spain	
	1-3y	Count	1294	2934	3849	1180	2764	12021
		%	15,2%	18,4%	24,1%	20,2%	28,1%	21,4%
	4-5y	Count	3655	6520	6945	2392	4126	23638
		%	42,9%	40,9%	43,4%	40,9%	41,9%	42,1%
	6-7y	Count	1799	3278	2743	923	1539	10282
		%	21,1%	20,6%	17,2%	15,8%	15,6%	18,3%
	8-10y	Count	1207	2260	1427	626	792	6312
		%	14,2%	14,2%	8,9%	10,7%	8,0%	11,2%
	More than 10y	Count	572	940	1022	732	621	3887
		%	6,7%	5,9%	6,4%	12,5%	6,3%	6,9%
Total		*Count*	8527	15932	15986	5853	9842	56140

Chart 2.3.1

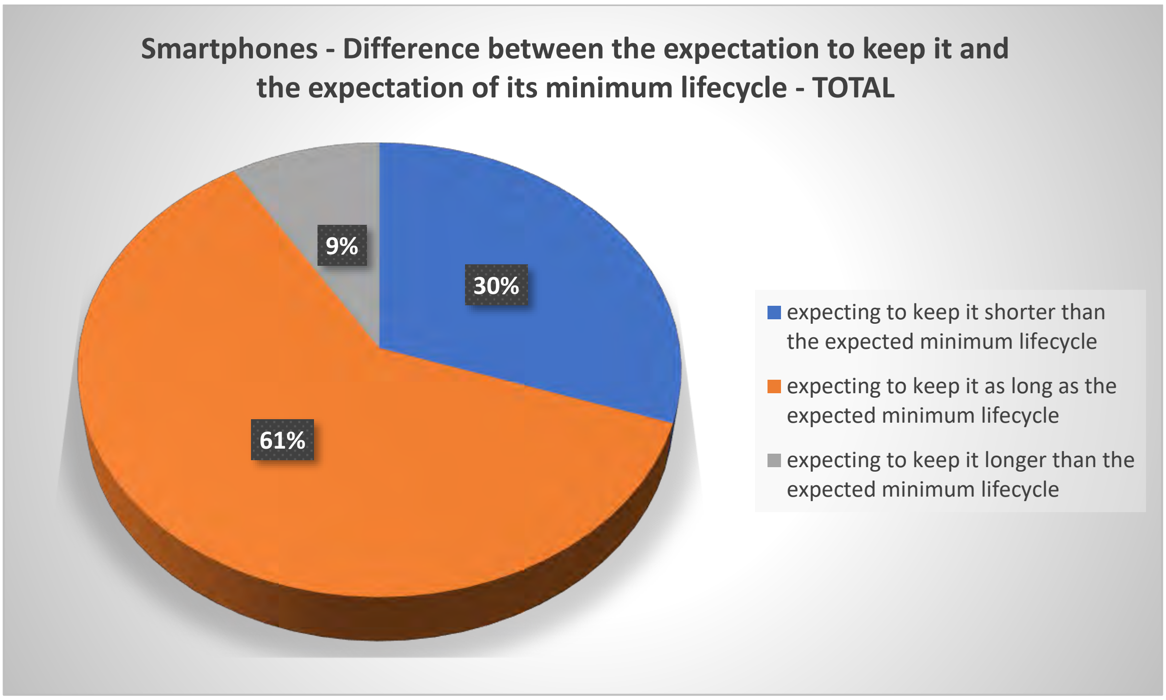


Chart 2.3.2

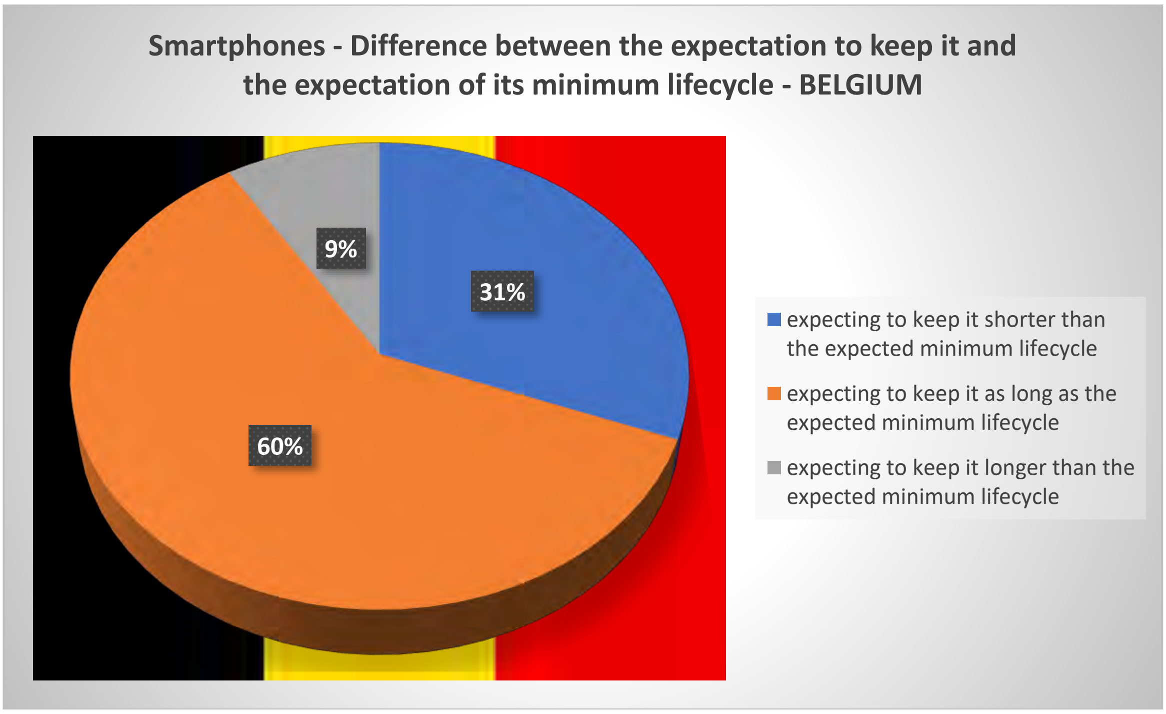


Chart 2.3.3

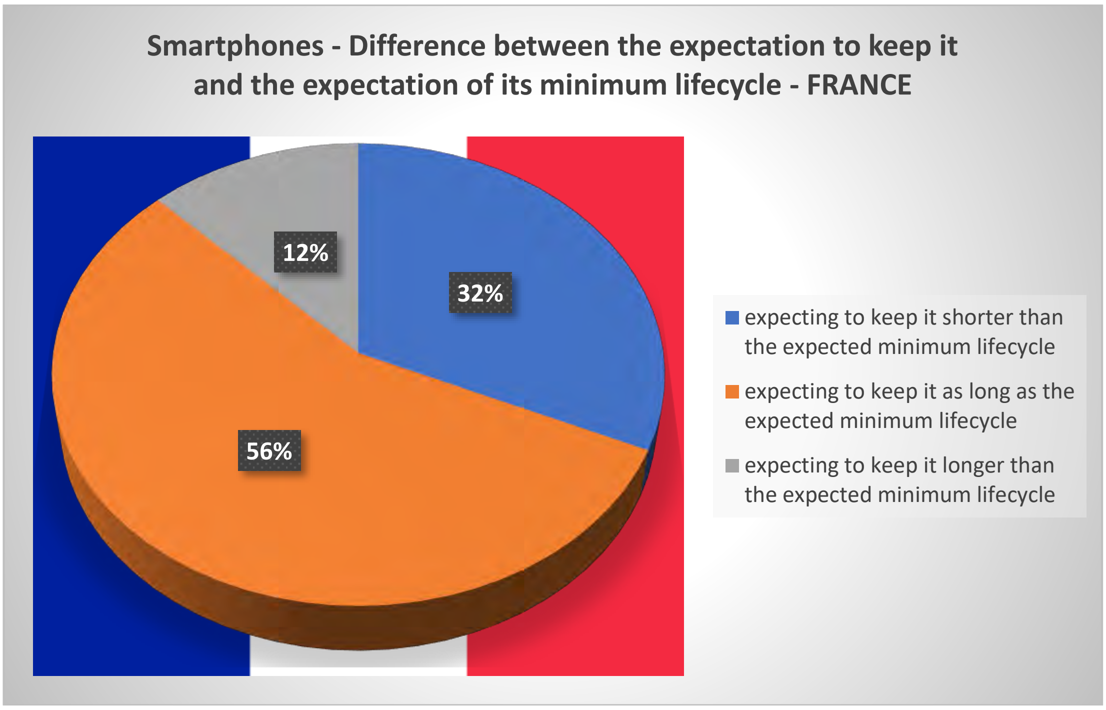


Chart 2.3.4

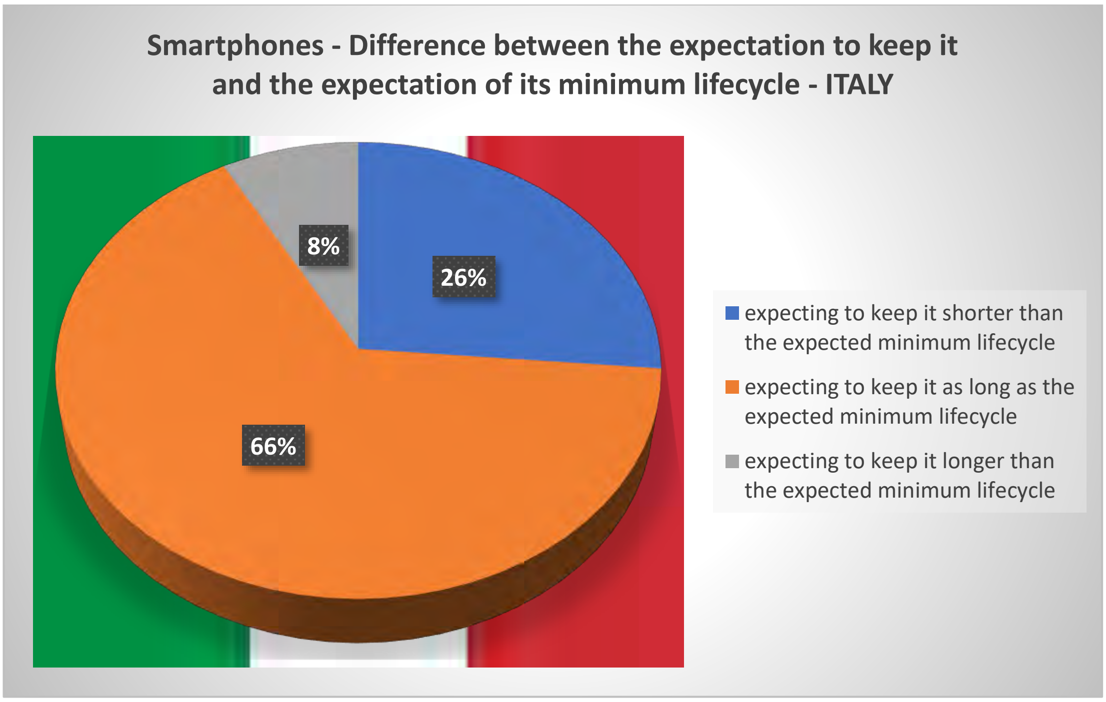


Chart 2.3.5

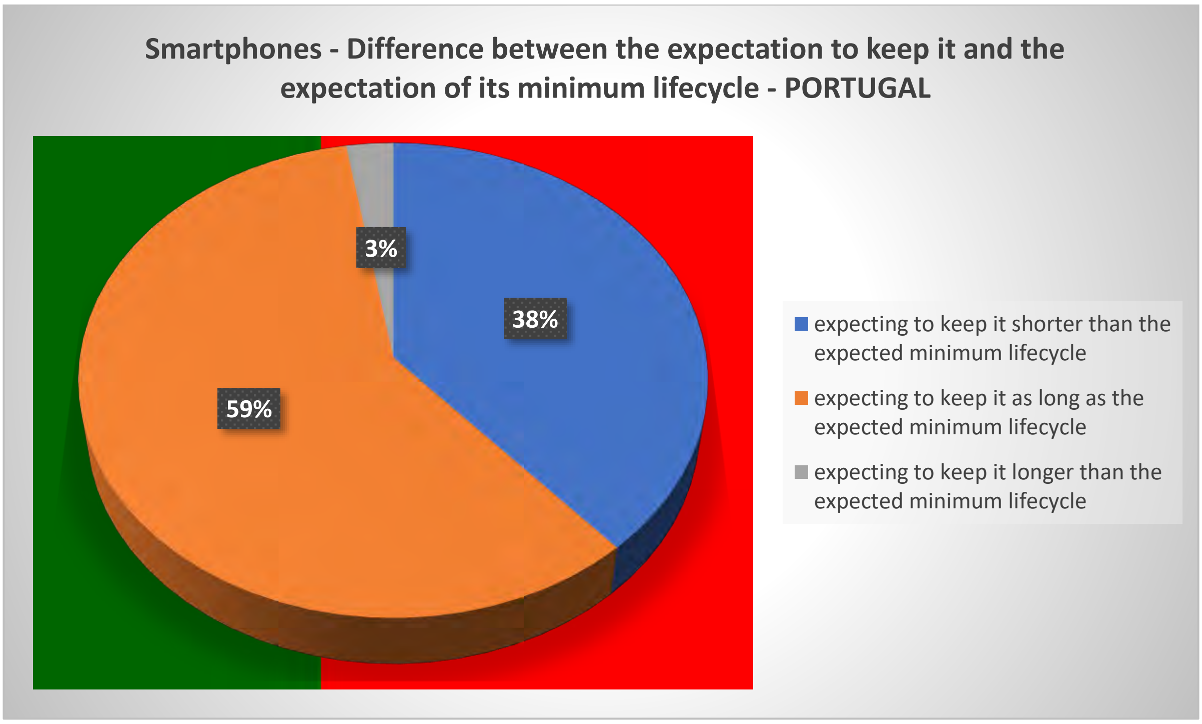
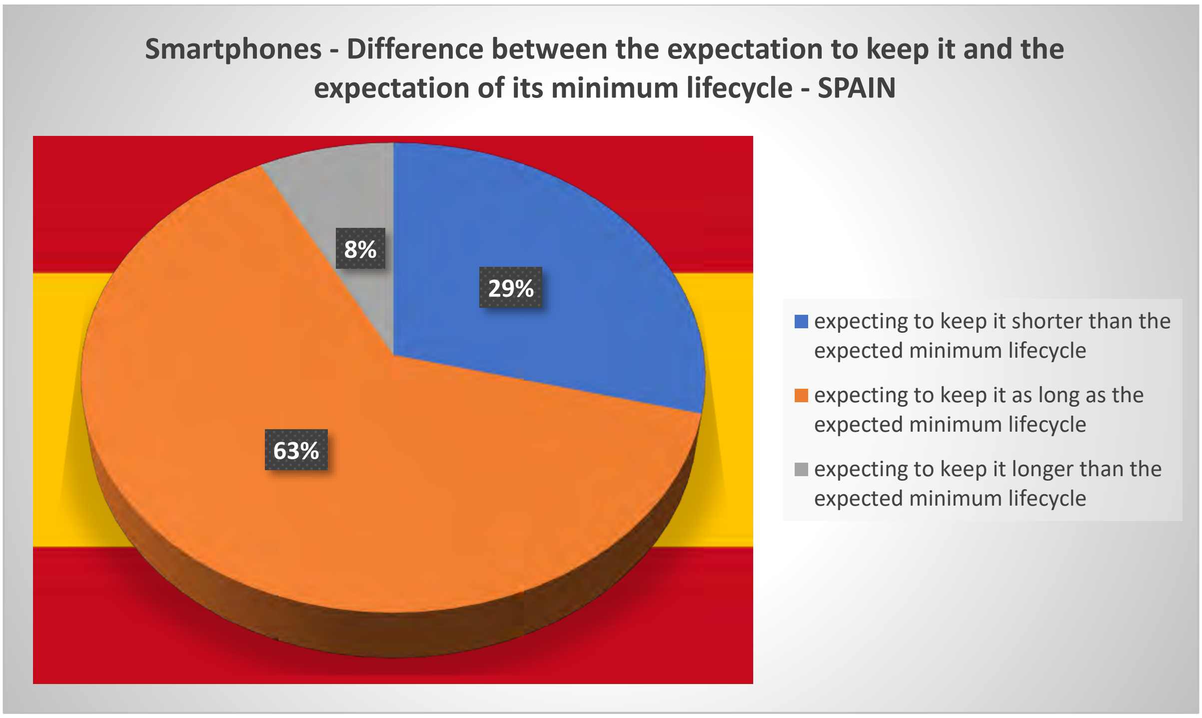


Chart 2.3.6

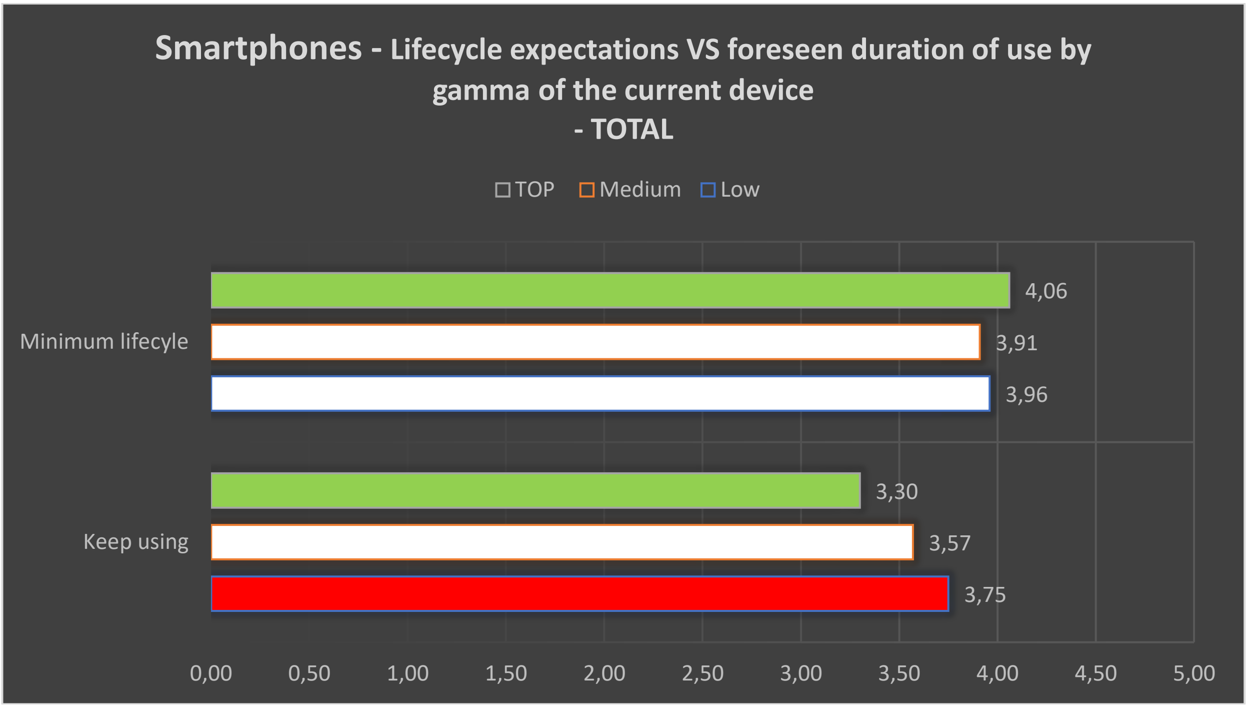


30% of respondents (BEL 31% FRA 32% ITA 26% POR 39% SPA 29%) expect to keep using their smartphone shorter than its expected minimum lifecycle.

Table 2.3 SMARTPHONES– Difference between the expectation to keep it and the expectation of its minimum lifecycle BY COUNTRY

		country					
		Belgium	**France**	**Italy**	**Portugal**	**Spain**	**Total**
expecting to keep it shorter than the expected minimum lifecycle	Count	2620	5037	4192	2184	2822	16855
	% within country	30,8%	31,7%	26,4%	38,5%	29,0%	30,3%
expecting to keep it as long as the expected minimum lifecycle	Count	5125	8886	10429	3342	6170	33952
	% within country	60,3%	55,9%	65,6%	58,9%	63,3%	60,9%
expecting to keep it longer than the expected minimum lifecycle	Count	755	1967	1277	150	749	4898
	% within country	8,9%	12,4%	8,0%	2,6%	7,7%	8,8%
Total	Count	8500	15890	15898	5676	9741	55705
	% within country	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Chart 2.4



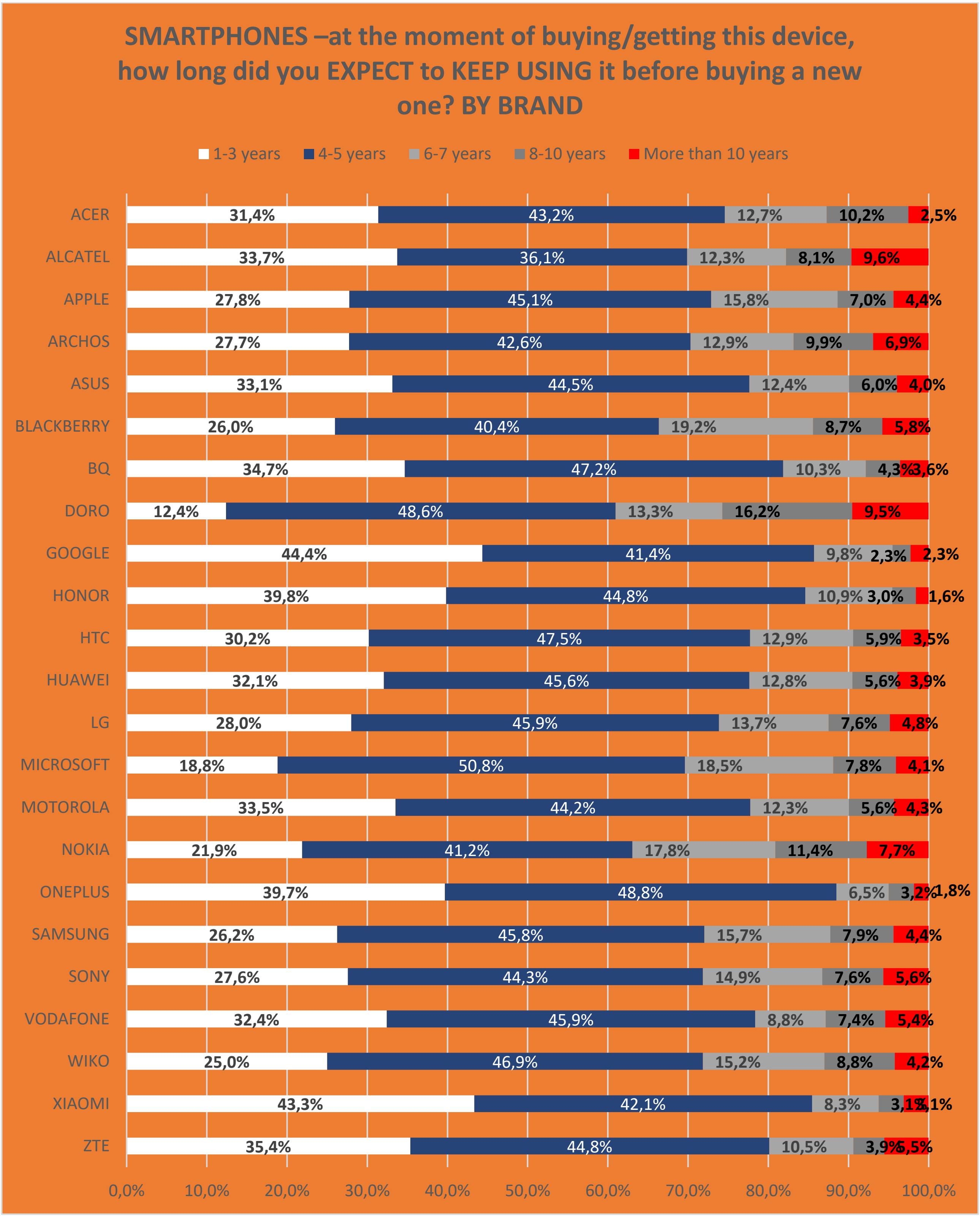
Top, medium and low levels of gamma are defined by respondents themselves when answering the questionnaire.

Table 2.4 SMARTPHONES - Foreseen duration of use VS Lifecycle expectations by gamma

		Keep using (average)	Minimum lifecycle (average)
Total	Low	3,75	3,96
	Medium	3,57	3,91
	Top gamma	3,30	4,06

Tested through OneWay ANOVA; green significantly better, red significantly worse

Chart 2.5



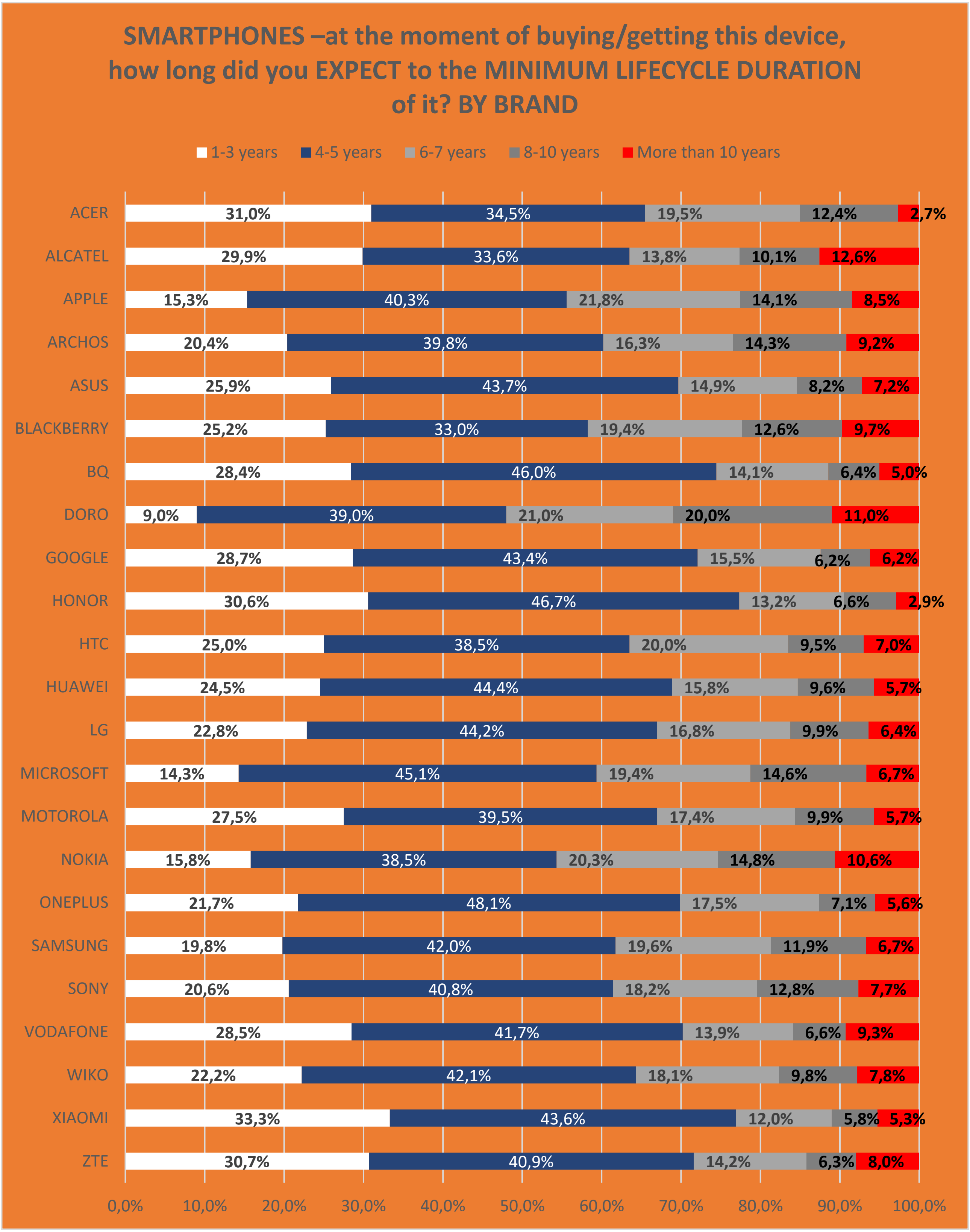
Hi-Tech Devices 2019

39% of Doro owners (14% of Google owners) expect to keep using their smartphone for more than 5 years.

Table 2.5 SMARTPHONES–at the moment of buying/getting this smartphone, how long did you EXPECT to KEEP USING it before buying a new one? BY BRAND

	N	1-3 y	4-5y	6-7y	8-10y	more than 10y
ACER	118	31,4%	43,2%	12,7%	10,2%	2,5%
ALCATEL	332	33,7%	36,1%	12,3%	8,1%	9,6%
APPLE	11601	27,8%	45,1%	15,8%	7,0%	4,4%
ARCHOS	101	27,7%	42,6%	12,9%	9,9%	6,9%
ASUS	1189	33,1%	44,5%	12,4%	6,0%	4,0%
BLACKBERRY	104	26,0%	40,4%	19,2%	8,7%	5,8%
BQ	816	34,7%	47,2%	10,3%	4,3%	3,6%
DORO	105	12,4%	48,6%	13,3%	16,2%	9,5%
GOOGLE	133	44,4%	41,4%	9,8%	2,3%	2,3%
HTC	202	30,2%	47,5%	12,9%	5,9%	3,5%
HUAWEI	9269	32,1%	45,6%	12,8%	5,6%	3,9%
LG	1404	29,0%	46,8%	12,3%	5,9%	5,9%
MICROSOFT	319	28,0%	45,9%	13,7%	7,6%	4,8%
MOTOROLA	904	18,8%	50,8%	18,5%	7,8%	4,1%
NOKIA	1088	33,5%	44,2%	12,3%	5,6%	4,3%
ONEPLUS	600	21,9%	41,2%	17,8%	11,4%	7,7%
SAMSUNG	20605	39,7%	48,8%	6,5%	3,2%	1,8%
SONY	1222	26,2%	45,8%	15,7%	7,9%	4,4%
VODAFONE	148	27,6%	44,3%	14,9%	7,6%	5,6%
WIKO	1061	25,0%	46,9%	15,2%	8,8%	4,2%
XIAOMI	2969	43,3%	42,1%	8,3%	3,1%	3,1%
ZTE	181	35,4%	44,8%	10,5%	3,9%	5,5%

Chart 2.6



Hi-Tech Devices 2019

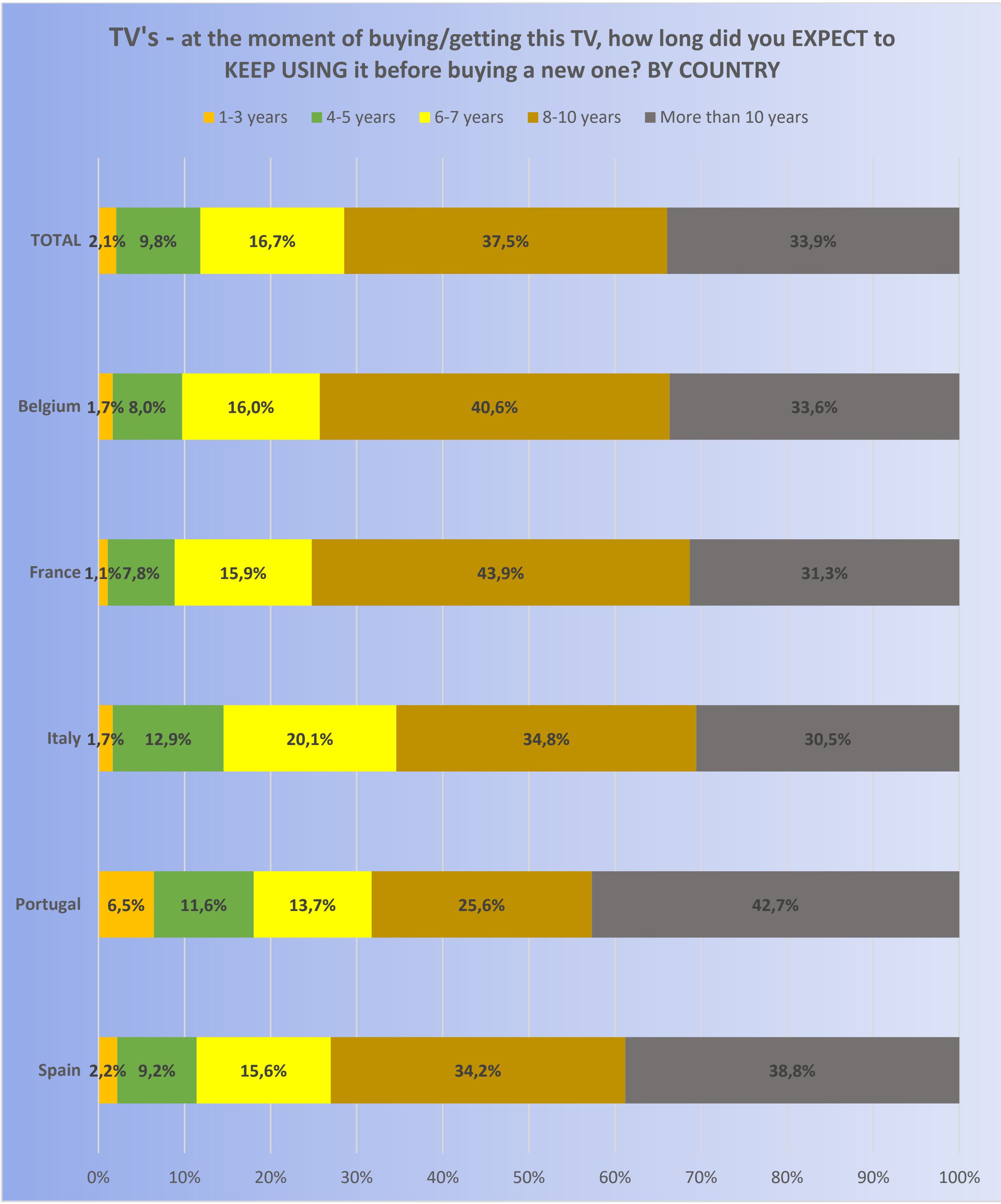
52% of Doro owners (23% of both Honor and Xiaomi owners) expect their smartphone to have a minimum lifecycle of more than 5 years.

Table 2.6 SMARTPHONES–at the moment of buying/getting this smartphone, how long did you EXPECT to be the MINIMUM LIFECYCLE DURATION of it? BY BRAND

	N	1-3 y	4-5y	6-7y	8-10y	more than 10y
ACER	113	31,0%	34,5%	19,5%	12,4%	2,7%
ALCATEL	318	29,9%	33,6%	13,8%	10,1%	12,6%
APPLE	11375	15,3%	40,3%	21,8%	14,1%	8,5%
ARCHOS	101	20,4%	39,8%	16,3%	14,3%	9,2%
ASUS	1173	25,9%	43,7%	14,9%	8,2%	7,2%
BLACKBERRY	103	25,2%	33,0%	19,4%	12,6%	9,7%
BQ	795	28,4%	46,0%	14,1%	6,4%	5,0%
DORO	100	9,0%	39,0%	21,0%	20,0%	11,0%
GOOGLE	129	28,7%	43,4%	15,5%	6,2%	6,2%
HONOR	935	30,6%	46,7%	13,2%	6,6%	2,9%
HTC	200	25,0%	38,5%	20,0%	9,5%	7,0%
HUAWEI	9112	24,5%	44,4%	15,8%	9,6%	5,7%
LG	1379	22,8%	44,2%	16,8%	9,9%	6,4%
MICROSOFT	315	14,3%	45,1%	19,4%	14,6%	6,7%
MOTOROLA	876	27,5%	39,5%	17,4%	9,9%	5,7%
NOKIA	1064	15,8%	38,5%	20,3%	14,8%	10,6%
ONEPLUS	594	21,7%	48,1%	17,5%	7,1%	5,6%
SAMSUNG	20098	19,8%	42,0%	19,6%	11,9%	6,7%
SONY	1200	20,6%	40,8%	18,2%	12,8%	7,7%
VODAFONE	151	28,5%	41,7%	13,9%	6,6%	9,3%
WIKO	986	22,2%	42,1%	18,1%	9,8%	7,8%
XIAOMI	2914	33,3%	43,6%	12,0%	5,8%	5,3%
ZTE	176	30,7%	40,9%	14,2%	6,3%	8,0%

2.3 TVs

Chart 3.1



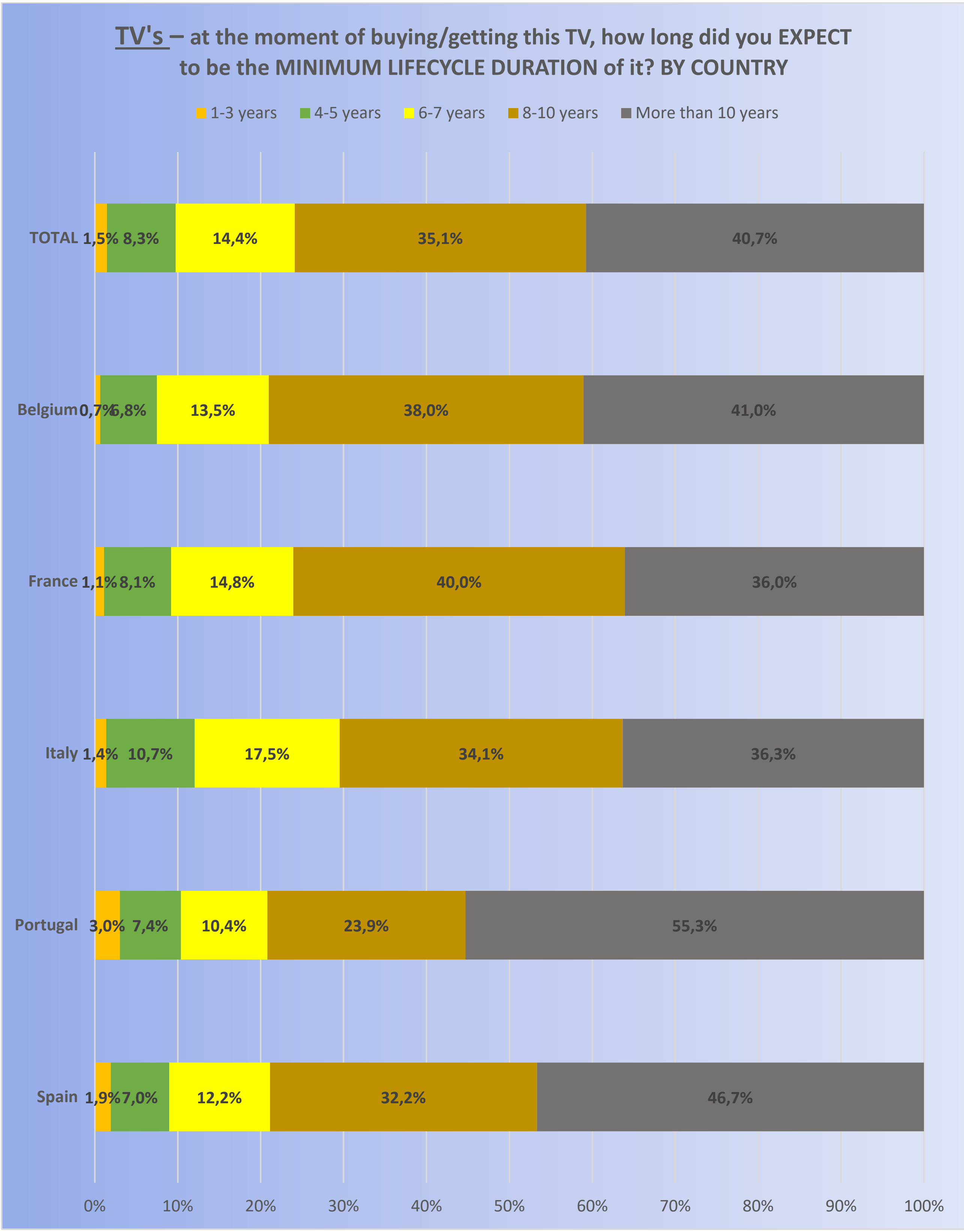
Hi-Tech Devices 2019

38% of respondents (BEL 41% FRA 44% ITA 35% POR 26% SPA 34%) expect to use their TV for 8-10 years (from the moment of buying/getting it).

Table 3.1 TV'S–at the moment of buying/getting this TV, how long did you EXPECT to KEEP USING it before buying a new one? BY COUNTRY

			country					Total
			Belgium	France	Italy	Portugal	Spain	
	1-3y	Count	157	201	257	400	224	1239
		%	1,7%	1,1%	1,7%	6,5%	2,2%	2,1%
	4-5y	Count	755	1442	1974	717	942	5830
		%	8,0%	7,8%	12,9%	11,6%	9,2%	9,8%
	6-7y	Count	1501	2960	3082	850	1589	9982
		%	16,0%	15,9%	20,1%	13,7%	15,6%	16,7%
	8-10y	Count	3813	8152	5348	1586	3497	22396
		%	40,6%	43,9%	34,8%	25,6%	34,2%	37,5%
	More than 10y	Count	3157	5812	4688	2646	3963	20266
		%	33,6%	31,3%	30,5%	42,7%	38,8%	33,9%
Total		*Count*	9383	18567	15349	6199	10215	59713

Chart 3.2



Hi-Tech Devices 2019

41% of respondents (BEL 41% FRA 36% ITA 36% POR 55% SPA 47%) expect their TV to last (functioning) for more than 10 years (from the moment of buying/getting it).

Table 3.2 TV'S–at the moment of buying/getting this TV, how long did you EXPECT to be the MINIMUM LIFECYCLE DURATION of it? BY COUNTRY

			country					Total
			Belgium	France	Italy	Portugal	Spain	
	1-3y	Count	60	202	208	185	195	850
		%	0,7%	1,1%	1,4%	3,0%	1,9%	1,5%
	4-5y	Count	627	1453	1609	452	708	4849
		%	6,8%	8,1%	10,7%	7,4%	7,0%	8,3%
	6-7y	Count	1236	2661	2646	640	1226	8409
		%	13,5%	14,8%	17,5%	10,4%	12,2%	14,4%
	8-10y	Count	3477	7207	5158	1466	3247	20555
		%	38,0%	40,0%	34,1%	23,9%	32,2%	35,1%
	More than 10y	Count	3759	6494	5484	3393	4703	23833
		%	41,0%	36,0%	36,3%	55,3%	46,7%	40,7%
Total		*Count*	9159	18017	15105	6136	10079	58496

Chart 3.3.1

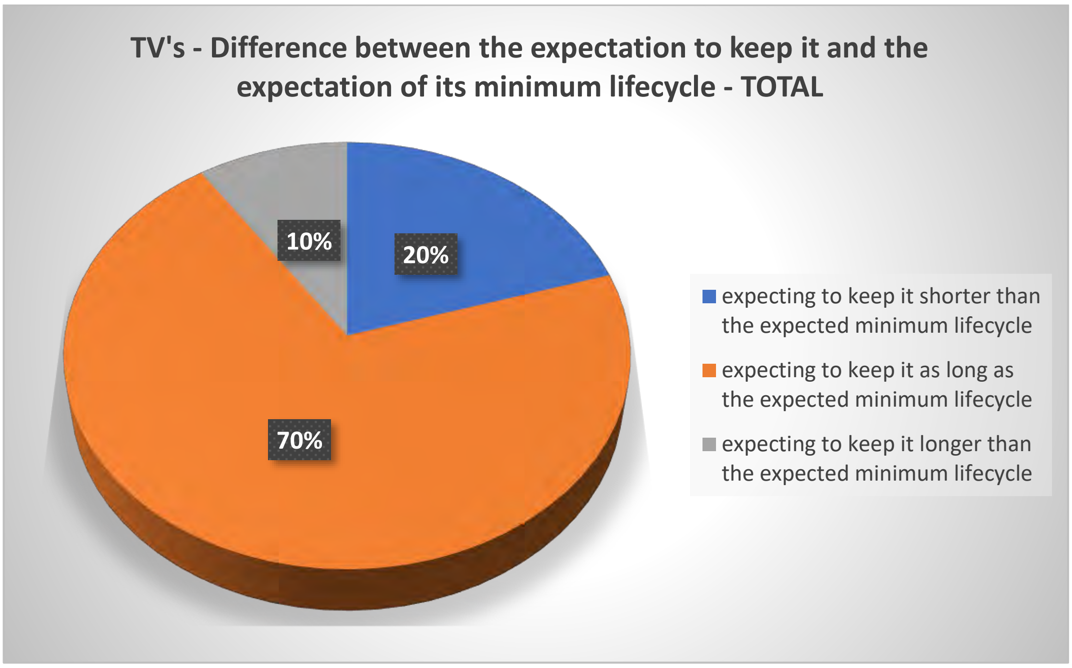


Chart 3.3.2

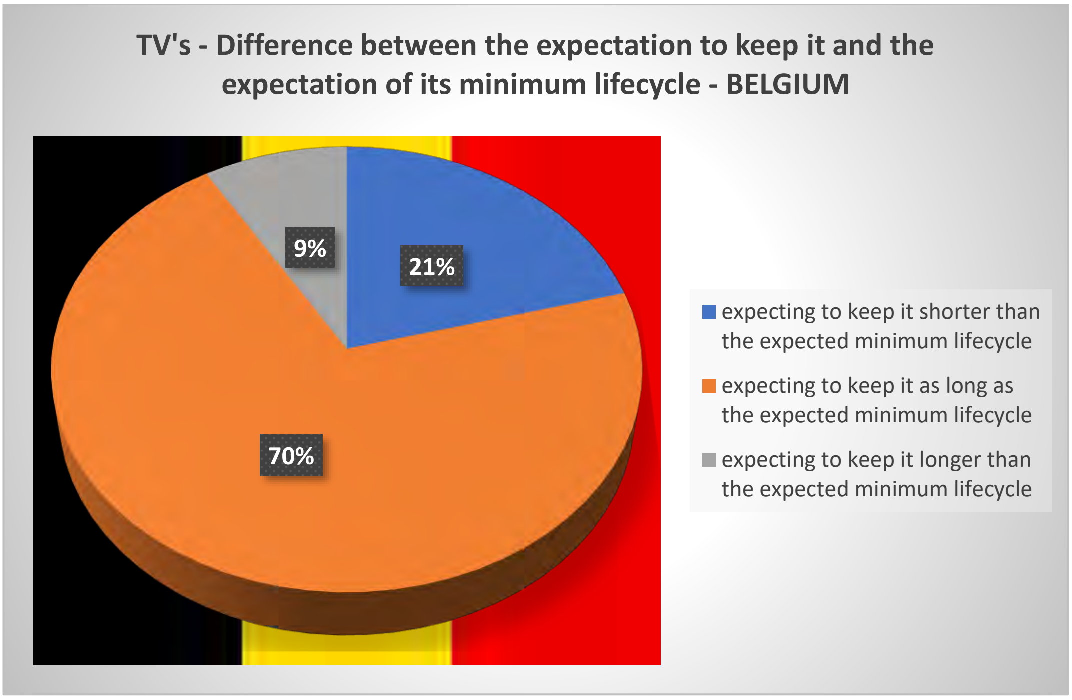


Chart 3.3.3

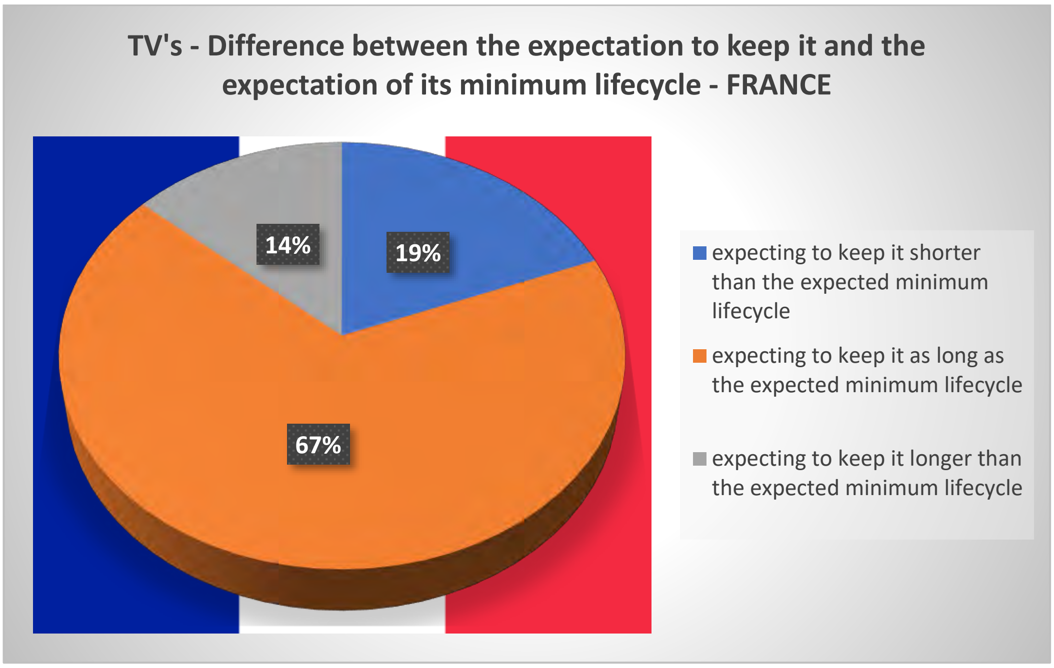


Chart 3.3.4

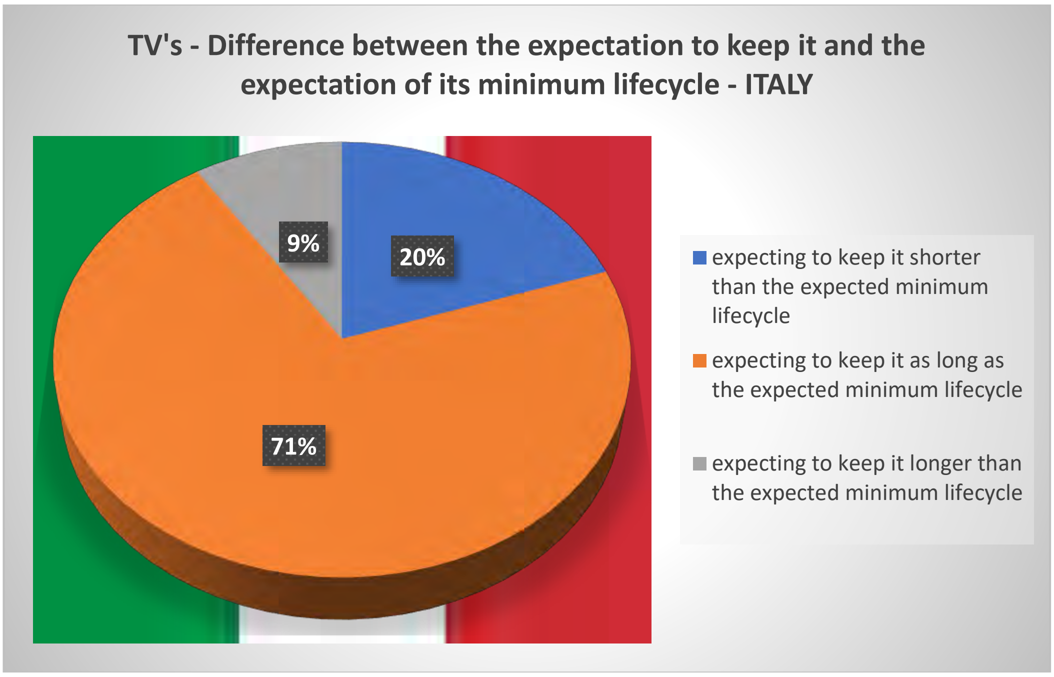


Chart 3.3.5

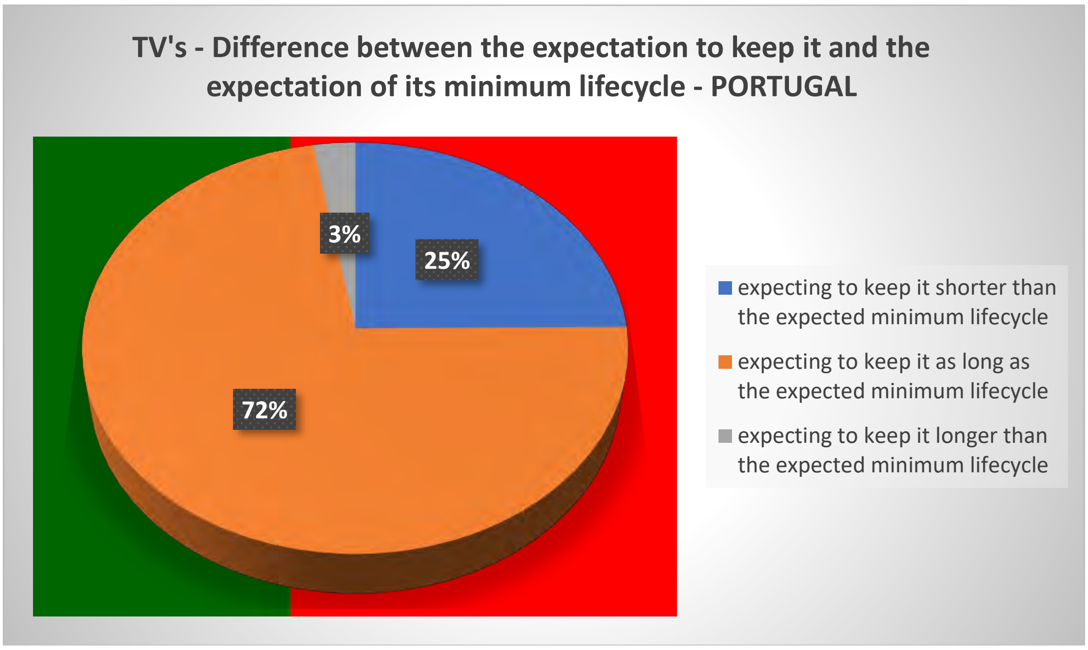
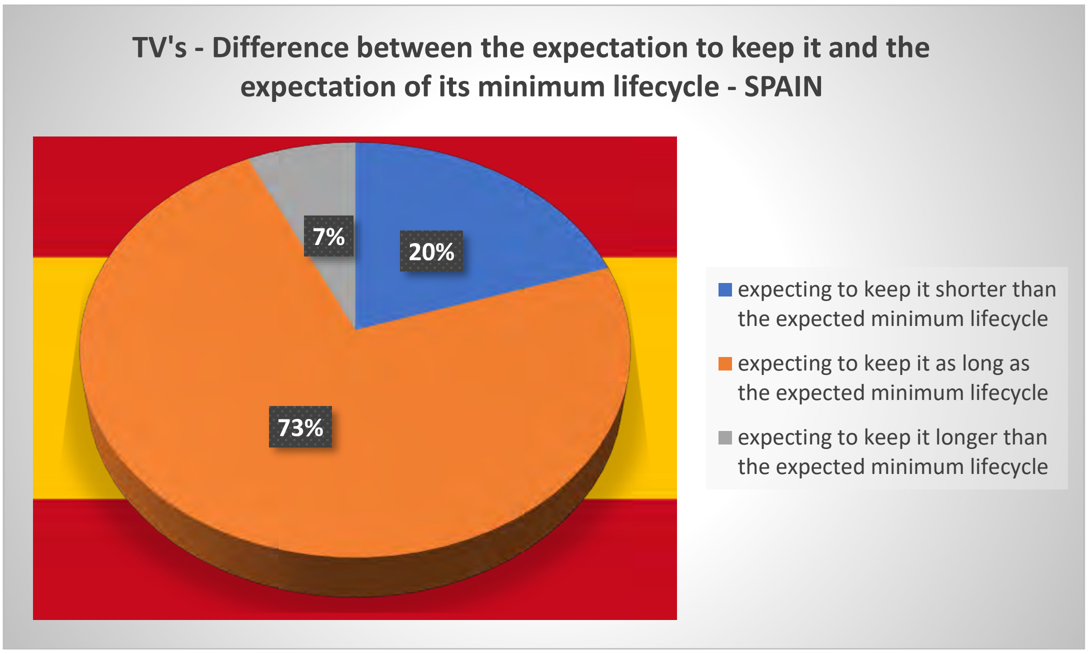


Chart 3.3.6

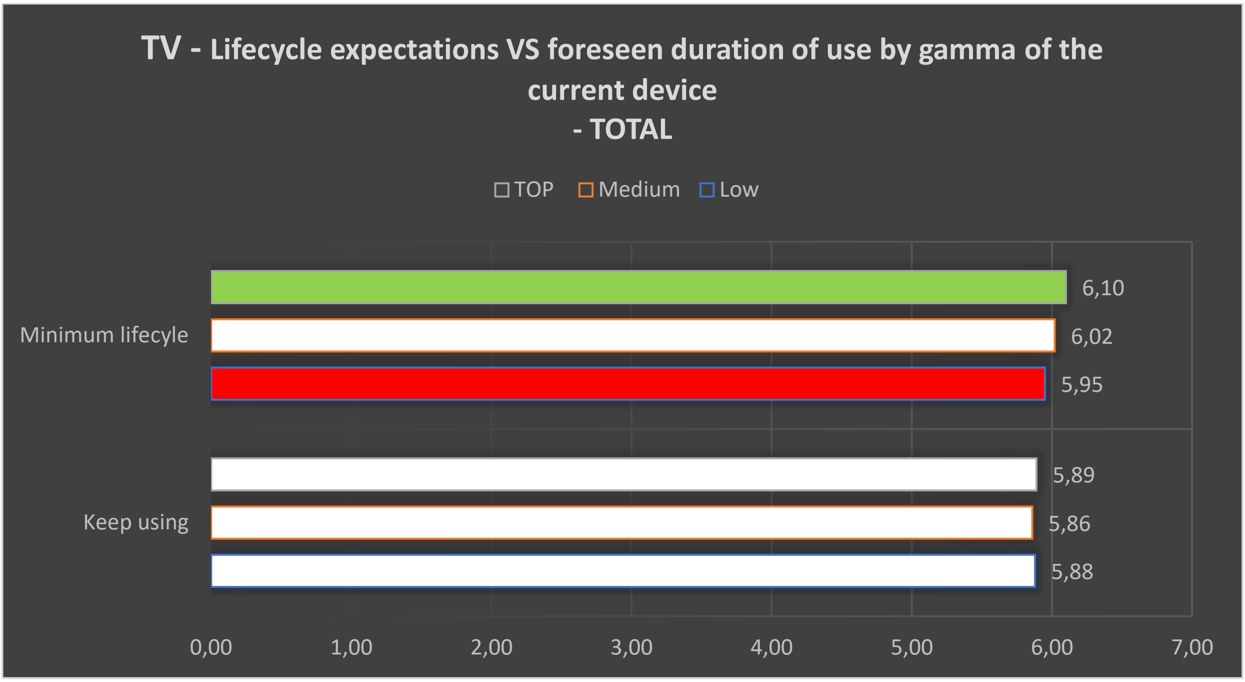


20% of respondents (BEL 21% FRA 19% ITA 20% POR 25% SPA 20%) expect to keep using their TV shorter than its expected minimum lifecycle.

Table 3.3 TV'S– Difference between the expectation to keep it and the expectation of its minimum lifecycle BY COUNTRY

		country					
		Belgium	France	Italy	Portugal	Spain	Total
expecting to keep it shorter than the expected minimum lifecycle	Count	1902	3411	2968	1464	1993	11738
	% within country	20,8%	19,0%	19,8%	24,9%	20,0%	20,3%
expecting to keep it as long as the expected minimum lifecycle	Count	6435	12105	10658	4260	7284	40742
	% within country	70,5%	67,5%	71,0%	72,4%	73,0%	70,3%
expecting to keep it longer than the expected minimum lifecycle	Count	788	2430	1377	161	698	5454
	% within country	8,6%	13,5%	9,2%	2,7%	7,0%	9,4%
Total	Count	9125	17946	15003	5885	9975	57934
	% within country	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Chart 3.4



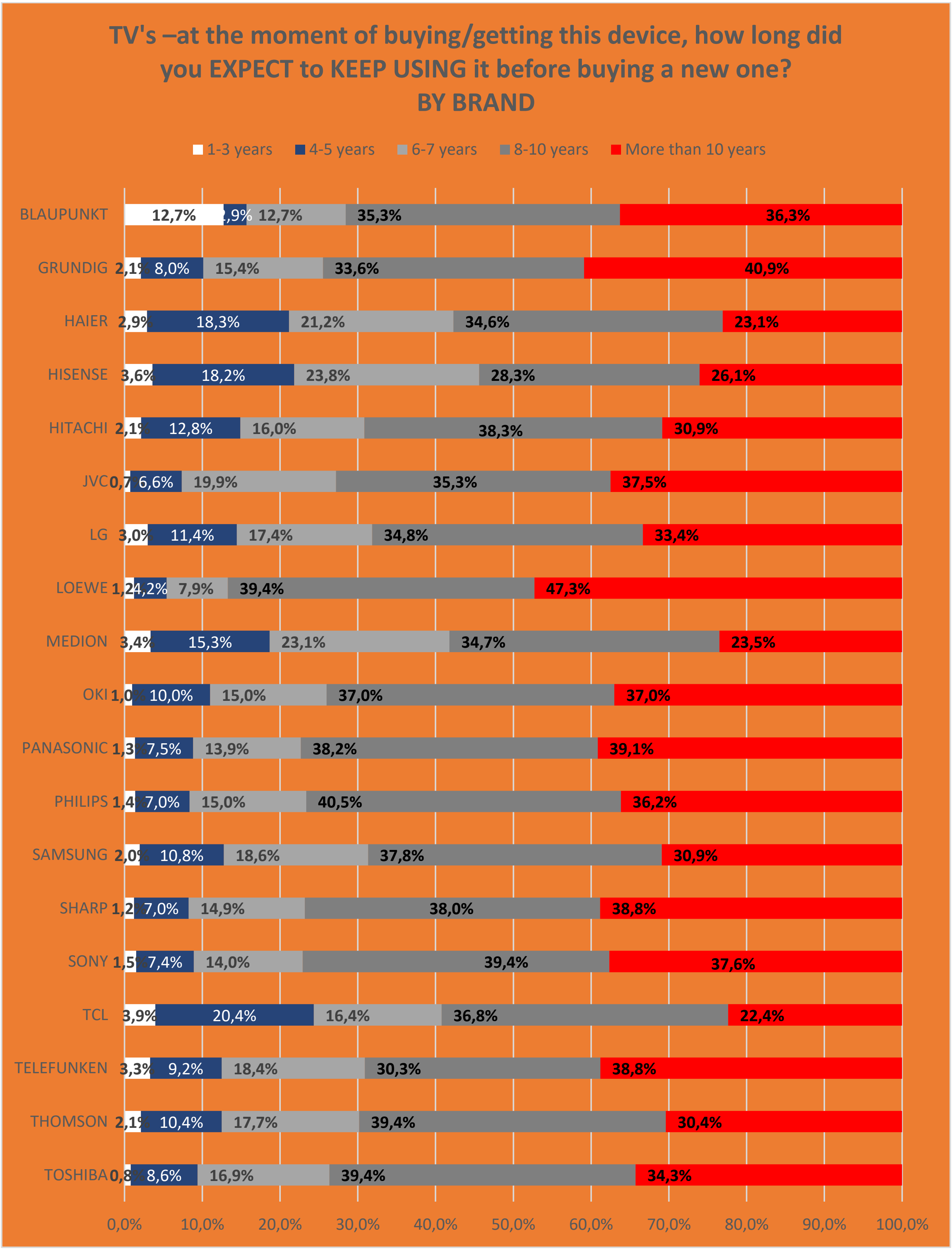
Top, medium and low levels of gamma are defined by respondents themselves when answering the questionnaire.

Table 3.4 <u>TV'S</u> - Foreseen duration of use VS Lifecycle expectations by gamma

Country		Keep using (average)	Minimum lifecycle (average)
Total	Low	5,88	5,95
	Medium	5,86	6,02
	Top gamma	5,89	6,10

Tested through OneWay ANOVA; green significantly better, red significantly worse

Chart 3.5



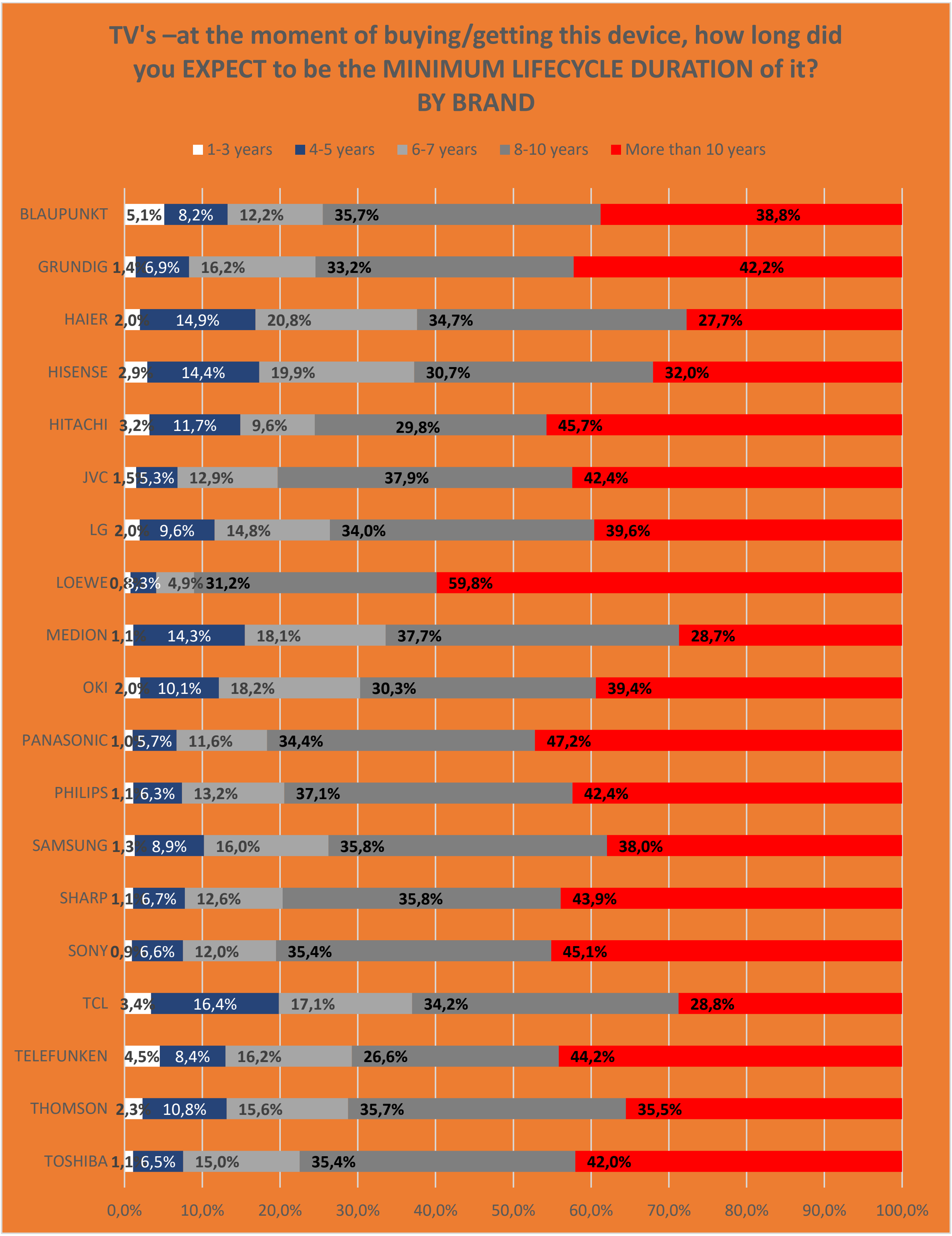
Hi-Tech Devices 2019

47% of Loewe owners (23% of Haier owners) expect to keep using their TV for more than 10 years.

Table 3.5 TV'S–at the moment of buying/getting this TV, how long did you EXPECT to KEEP USING it before buying a new one? BY BRAND

	N	1-3 y	4-5y	6-7y	8-10y	more than 10y
BLAUPUNKT	102	12,7%	2,9%	12,7%	35,3%	36,3%
GRUNDIG	286	2,1%	8,0%	15,4%	33,6%	40,9%
HAIER	104	2,9%	18,3%	21,2%	34,6%	23,1%
HISENSE	307	3,6%	18,2%	23,8%	28,3%	26,1%
HITACHI	101	2,1%	12,8%	16,0%	38,3%	30,9%
JVC	136	0,7%	6,6%	19,9%	35,3%	37,5%
LG	10965	3,0%	11,4%	17,4%	34,8%	33,4%
LOEWE	406	1,2%	4,2%	7,9%	39,4%	47,3%
MEDION	268	3,4%	15,3%	23,1%	34,7%	23,5%
OKI	100	1,0%	10,0%	15,0%	37,0%	37,0%
PANASONIC	4105	1,3%	7,5%	13,9%	38,2%	39,1%
PHILIPS	6389	1,4%	7,0%	15,0%	40,5%	36,2%
SAMSUNG	23038	2,0%	10,8%	18,6%	37,8%	30,9%
SHARP	824	1,2%	7,0%	14,9%	38,0%	38,8%
SONY	9315	1,5%	7,4%	14,0%	39,4%	37,6%
TCL	152	3,9%	20,4%	16,4%	36,8%	22,4%
TELEFUNKEN	152	3,3%	9,2%	18,4%	30,3%	38,8%
THOMSON	520	2,1%	10,4%	17,7%	39,4%	30,4%
TOSHIBA	744	0,8%	8,6%	16,9%	39,4%	34,3%

Chart 3.6



Hi-Tech Devices 2019

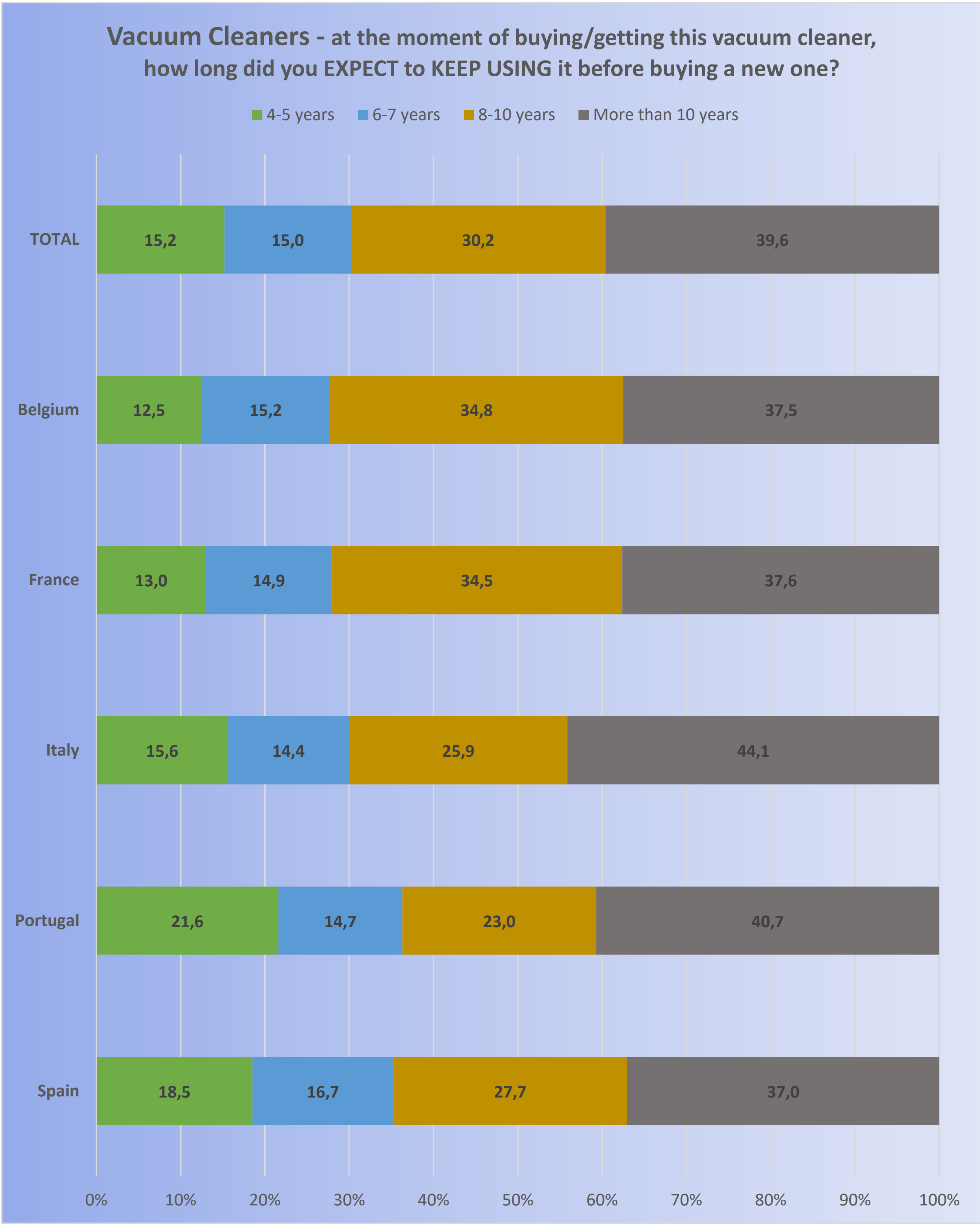
60% of Loewe owners (28% of Haier owners) expect their TV to have a minimum lifecycle of more than 10 years.

Table 3.6 TV'S–at the moment of buying/getting this TV, how long did you EXPECT to be the MINIMUM LIFECYCLE DURATION of it? BY BRAND

	N	1-3 y	4-5y	6-7y	8-10y	more than 10y
BLAUPUNKT	98	5,1%	8,2%	12,2%	35,7%	38,8%
GRUNDIG	277	1,4%	6,9%	16,2%	33,2%	42,2%
HAIER	101	2,0%	14,9%	20,8%	34,7%	27,7%
HISENSE	306	2,9%	14,4%	19,9%	30,7%	32,0%
HITACHI	97	3,2%	11,7%	9,6%	29,8%	45,7%
JVC	132	1,5%	5,3%	12,9%	37,9%	42,4%
LG	10778	2,0%	9,6%	14,8%	34,0%	39,6%
LOEWE	391	0,8%	3,3%	4,9%	31,2%	59,8%
MEDION	265	1,1%	14,3%	18,1%	37,7%	28,7%
OKI	99	2,0%	10,1%	18,2%	30,3%	39,4%
PANASONIC	4012	1,0%	5,7%	11,6%	34,4%	47,2%
PHILIPS	6233	1,1%	6,3%	13,2%	37,1%	42,4%
SAMSUNG	22594	1,3%	8,9%	16,0%	35,8%	38,0%
SHARP	811	1,1%	6,7%	12,6%	35,8%	43,9%
SONY	9099	0,9%	6,6%	12,0%	35,4%	45,1%
TCL	146	3,4%	16,4%	17,1%	34,2%	28,8%
TELEFUNKEN	154	4,5%	8,4%	16,2%	26,6%	44,2%
THOMSON	518	2,3%	10,8%	15,6%	35,7%	35,5%
TOSHIBA	728	1,1%	6,5%	15,0%	35,4%	42,0%

2.4 VACUUM CLEANERS

Chart 4.1



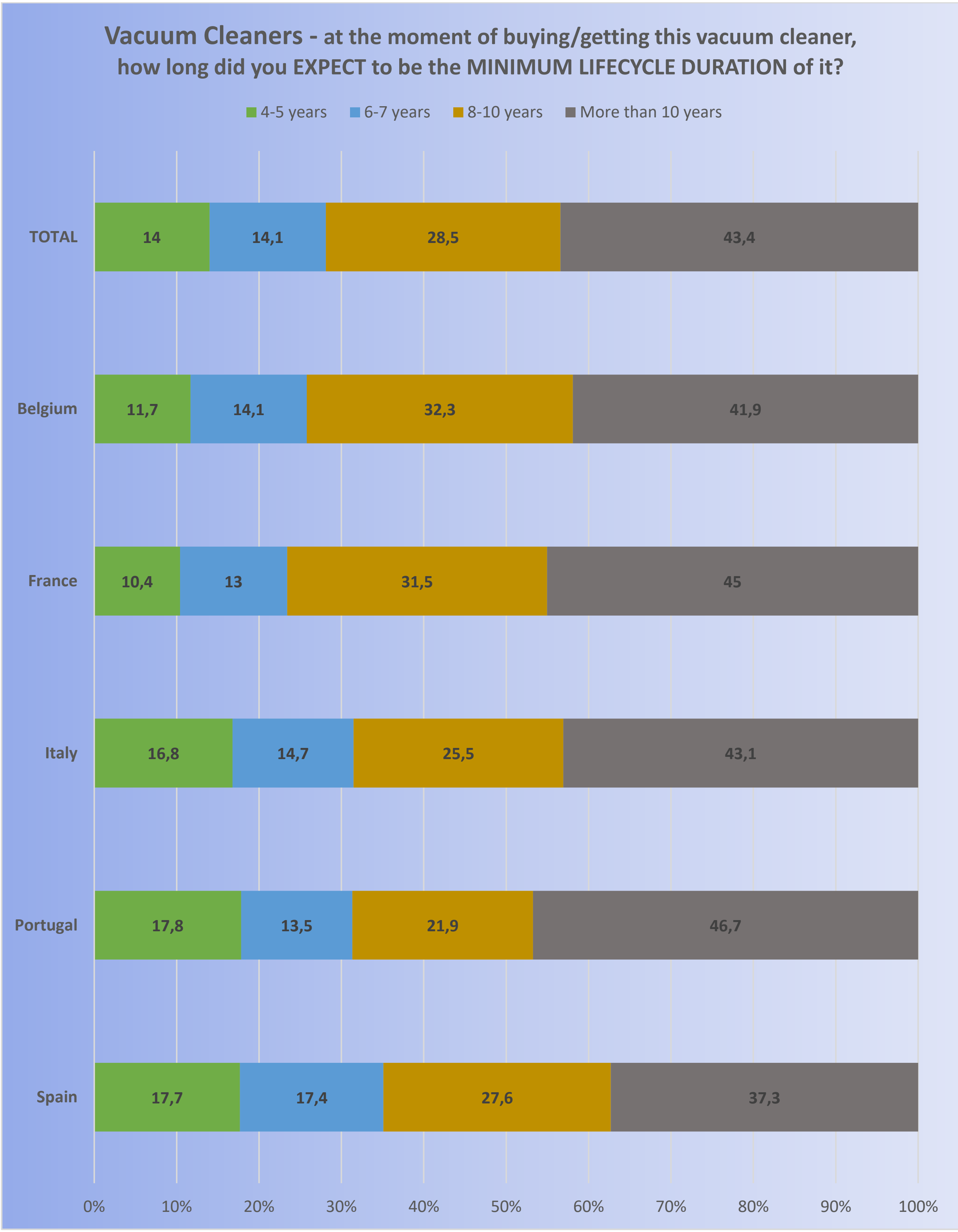
SHHA Appliances 2019-2020

40% of respondents (BEL 38% FRA 38% ITA 44% POR 41% SPA 37%) expect to use their vacuum cleaner for more than 10 years (from the moment of buying/getting it).

Table 4.1 VACUUM CLEANERS –at the moment of buying/getting this vacuum cleaner, how long did you EXPECT to KEEP USING it before buying a new one? BY COUNTRY

			country					Total
			Belgium	France	Italy	Portugal	Spain	
	4-5y	Count	1113	2180	1957	1338	932	7520
		%	12,5%	13,0%	15,6%	21,6%	18,5%	15,2%
	6-7y	Count	1353	2487	1813	914	842	7409
		%	15,2%	14,9%	14,4%	14,7%	16,7%	15,0%
	8-10y	Count	3104	5781	3248	1430	1394	14957
		%	34,8%	34,5%	25,9%	23,0%	27,7%	30,2%
	More than 10y	Count	3341	6295	5546	2524	1862	19568
		%	37,5%	37,6%	44,1%	40,7%	37,0%	39,6%
Total		*Count*	8911	16743	12564	6206	5030	49454

Chart 4.2



SHHA Appliances 2019-2020

43% of respondents (BEL 42% FRA 45% ITA 43% POR 47% SPA 37%) expect their vacuum cleaner to last (functioning) for more than 10 years (from the moment of buying/getting it).

Table 4.2 VACUUM CLEANERS –at the moment of buying/getting this vacuum cleaner, how long did you EXPECT to be the MINIMUM LIFECYCLE DURATION of it? BY COUNTRY

			country					Total
			Belgium	France	Italy	Portugal	Spain	
	4-5y	Count	1031	1717	2091	1154	873	6866
		%	11,7%	10,4%	16,8%	17,8%	17,7%	14,0%
	6-7y	Count	1235	2145	1831	874	862	6947
		%	14,1%	13,0%	14,7%	13,5%	17,4%	14,1%
	8-10y	Count	2839	5186	3182	1419	1363	13989
		%	32,3%	31,5%	25,5%	21,9%	27,6%	28,5%
	More than 10y	Count	3683	7398	5376	3022	1844	21323
		%	41,9%	45,0%	43,1%	46,7%	37,3%	43,4%
Total		*Count*	8788	16446	12480	6469	4942	49125

Chart 4.3.1

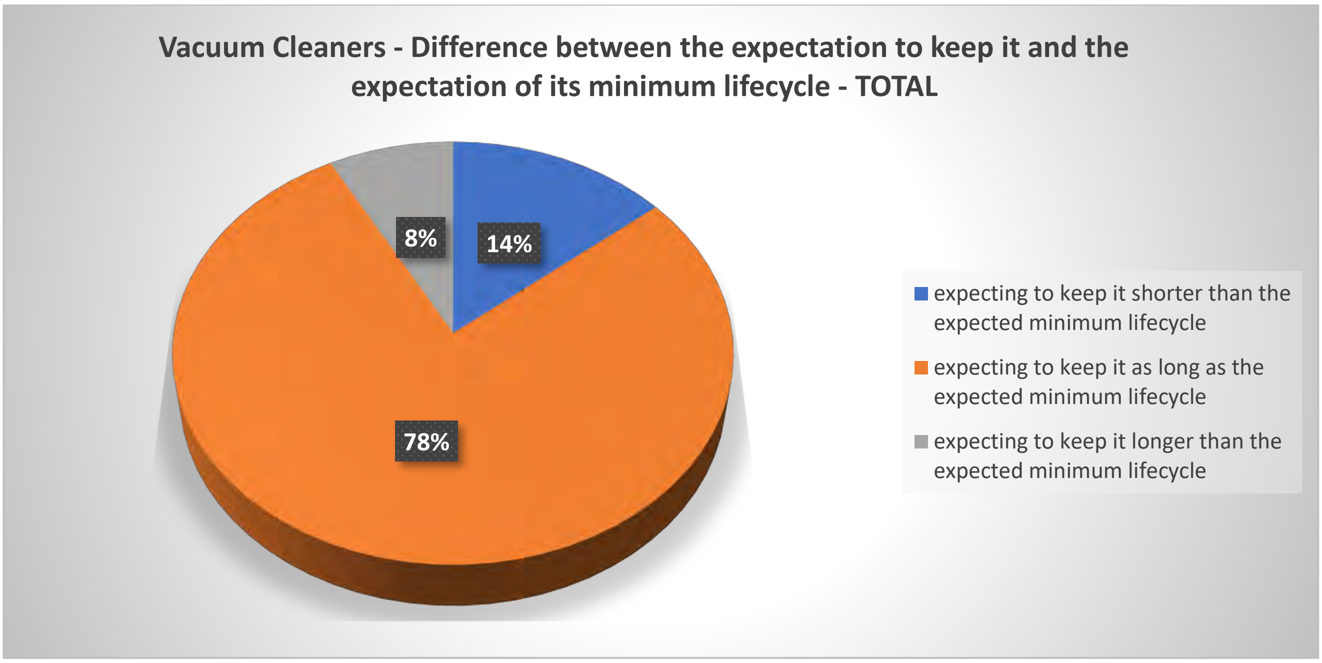


Chart 4.3.2

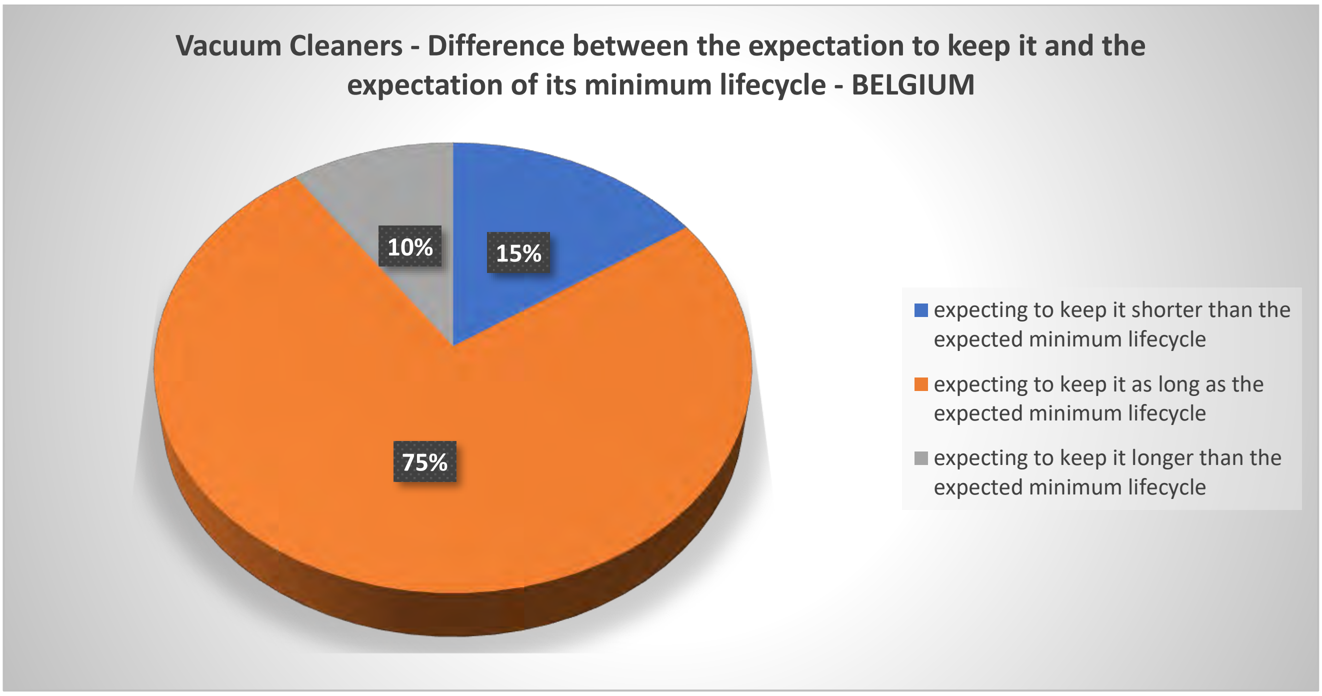


Chart 4.3.3

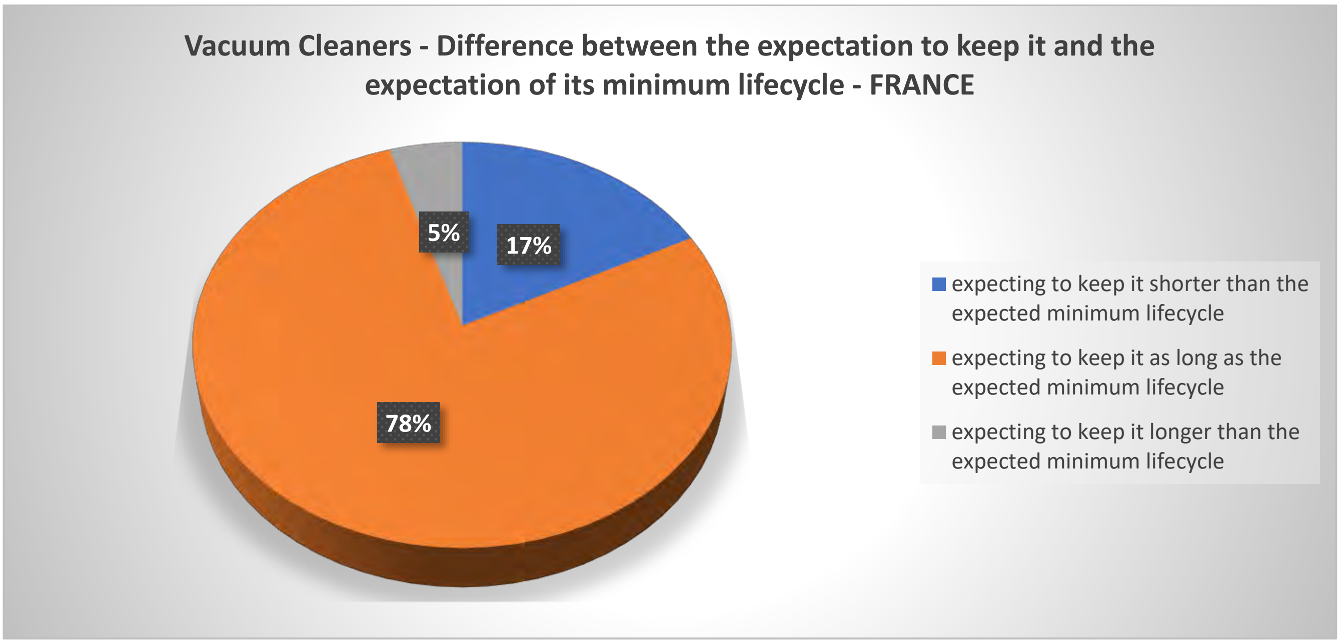


Chart 4.3.4

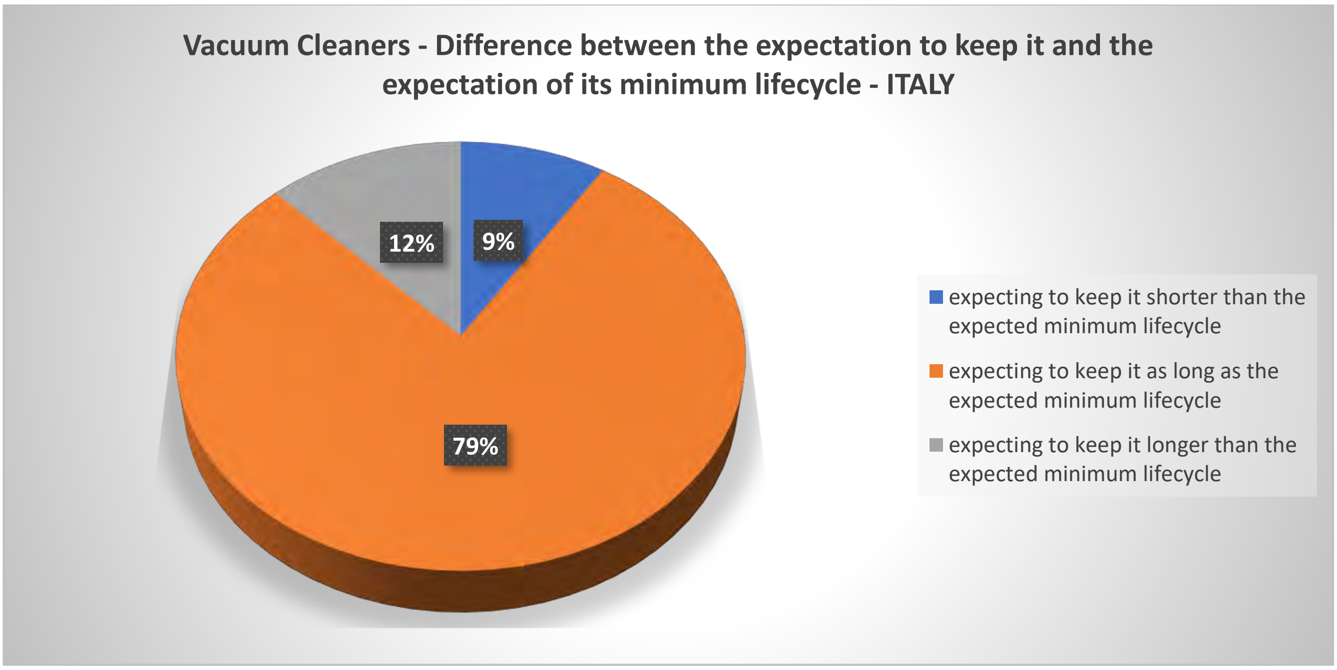


Chart 4.3.5

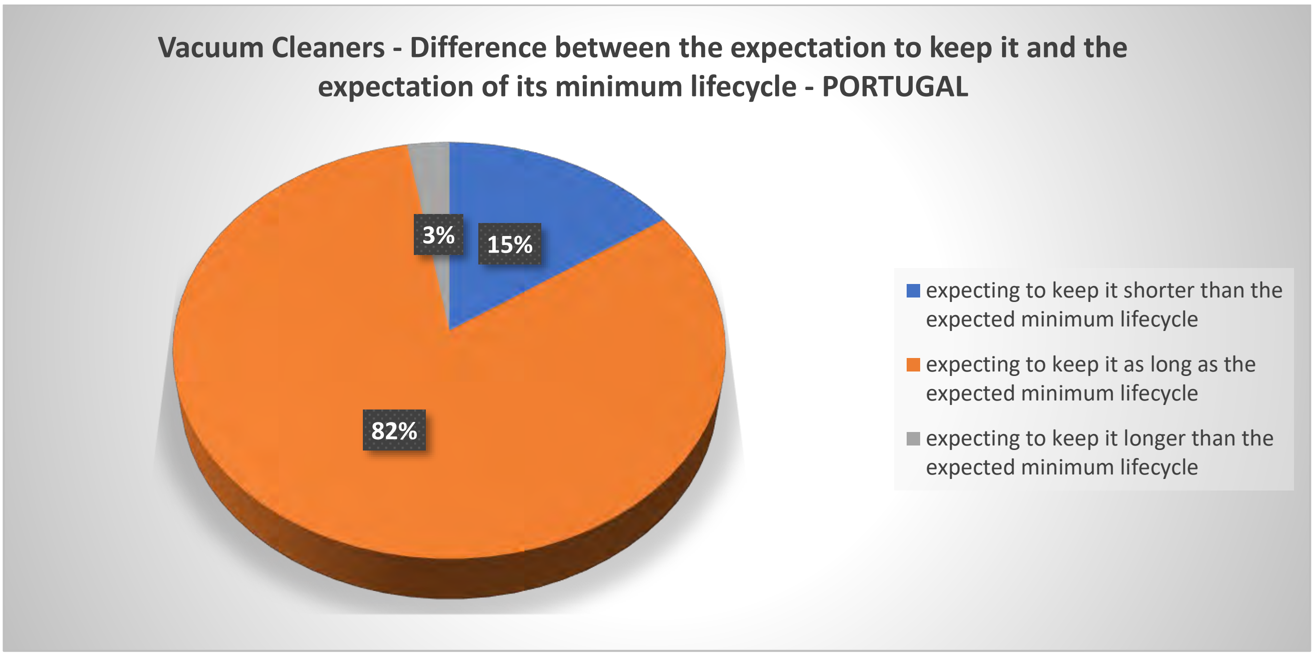
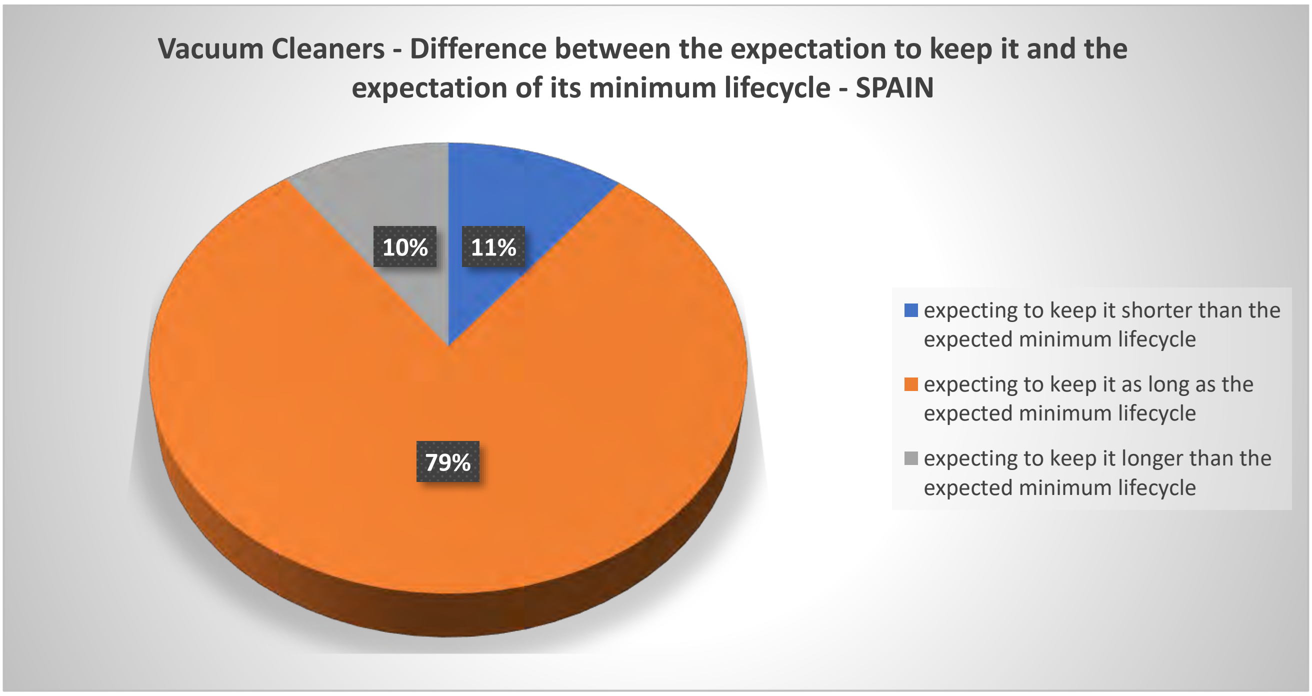


Chart 4.3.6

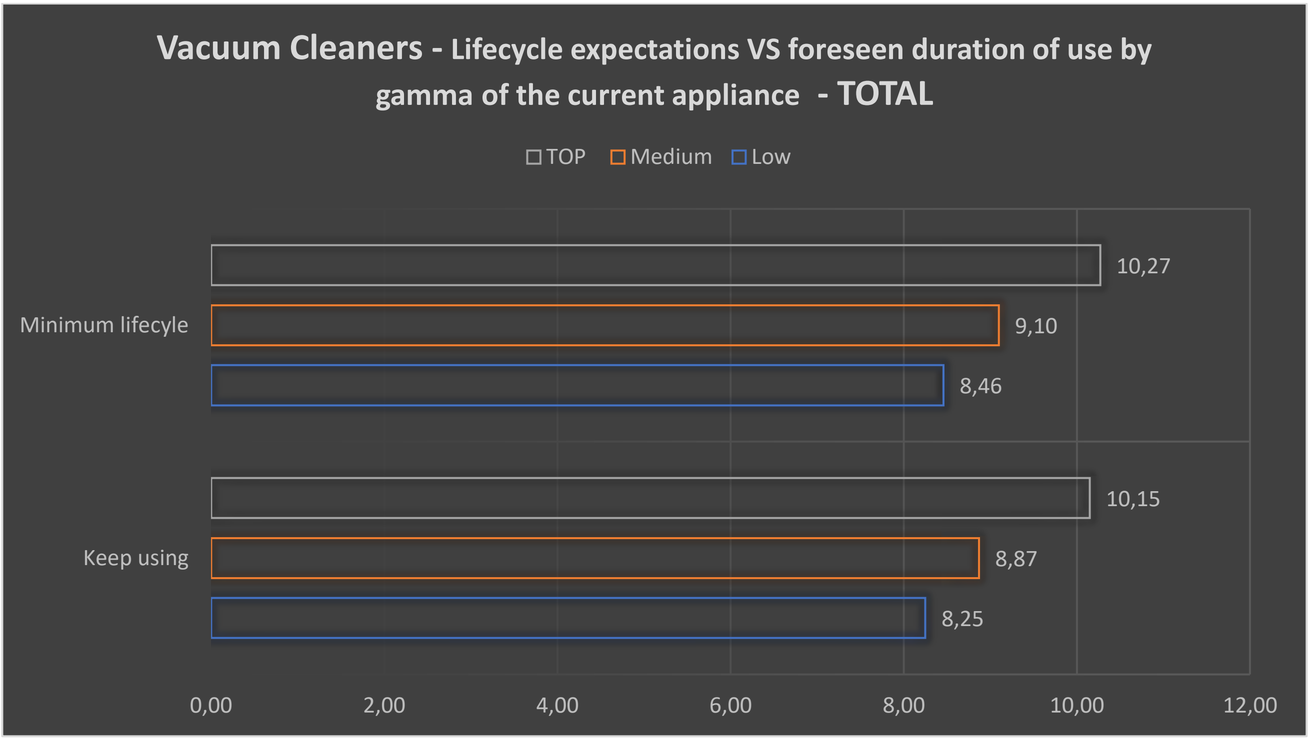


8% of respondents (BEL 10% FRA 5% ITA 12% POR 3% SPA 10%) expect to keep using their vacuum cleaner longer than its expected minimum lifecycle.

Table 4.3 VACUUM CLEANERS – Difference between the expectation to keep it and the expectation of its minimum lifecycle BY COUNTRY

		country					
		Belgium	**France**	**Italy**	**Portugal**	**Spain**	**Total**
expecting to keep it shorter than the expected minimum lifecycle	Count	1330	2815	1102	889	504	6640
	% within country	15,5%	17,5%	9,1%	15,4%	10,6%	14,0%
expecting to keep it as long as the expected minimum lifecycle	Count	6434	12513	9507	4736	3782	36972
	% within country	74,8%	77,7%	78,6%	81,9%	79,5%	78,1%
expecting to keep it longer than the expected minimum lifecycle	Count	837	778	1486	156	474	3731
	% within country	9,7%	4,8%	12,3%	2,7%	10,0%	7,9%
Total	Count	8601	16106	12095	5781	4760	47343
	% within country	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Chart 4.4



SHHA Appliances 2019-2020

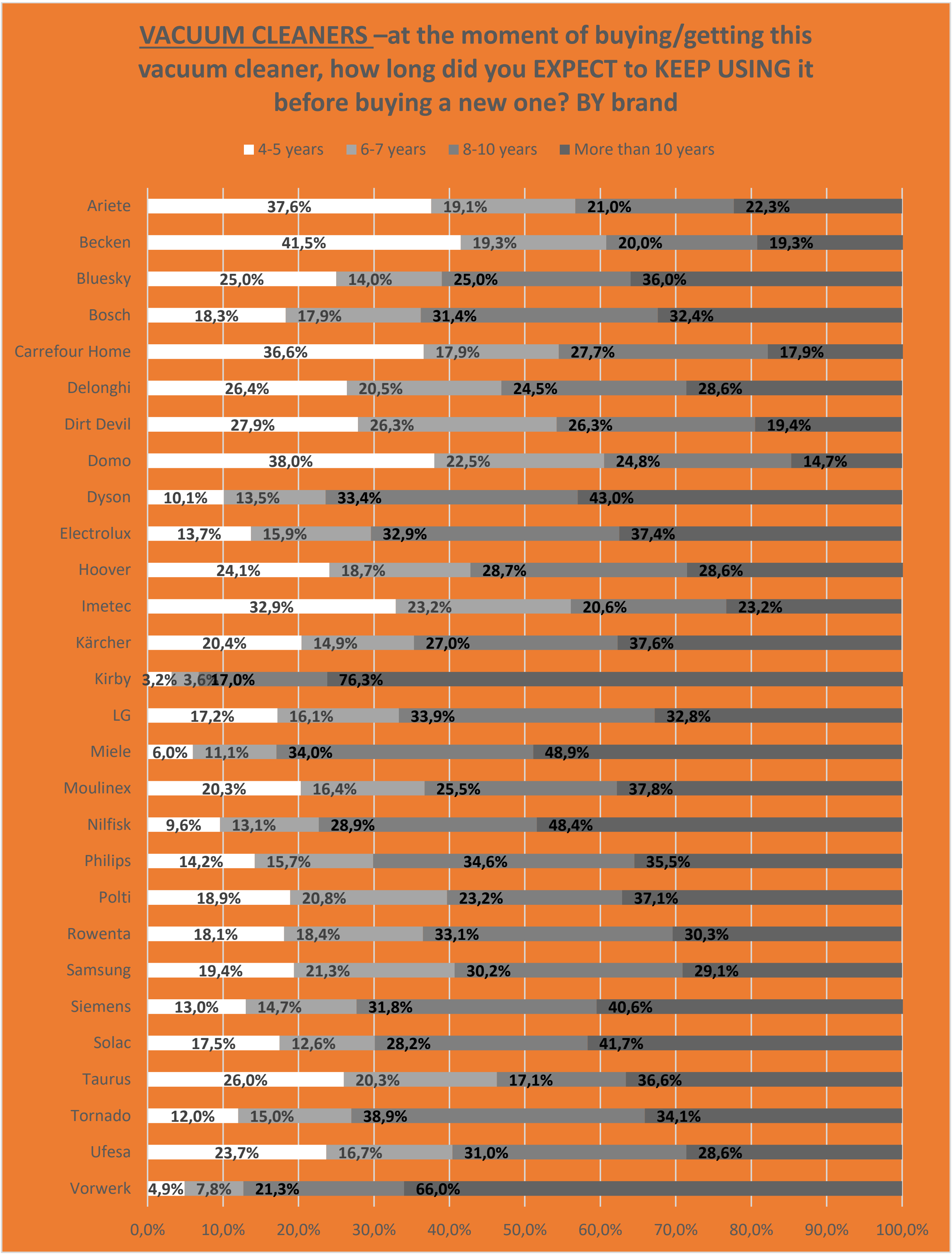
Top, medium and low levels of gamma are defined by respondents themselves when answering the questionnaire.

Table 4.4 VACUUM CLEANERS - Foreseen duration of use VS Lifecycle expectations by gamma

		Keep using (average)	Minimum lifecycle (average)
Total	Low	8,25	8,46
	Medium	8,87	9,10
	Top gamma	10,15	10,27

Tested through OneWay ANOVA; green significantly better, red significantly worse

Chart 4.5



SHHA Appliances 2019-2020

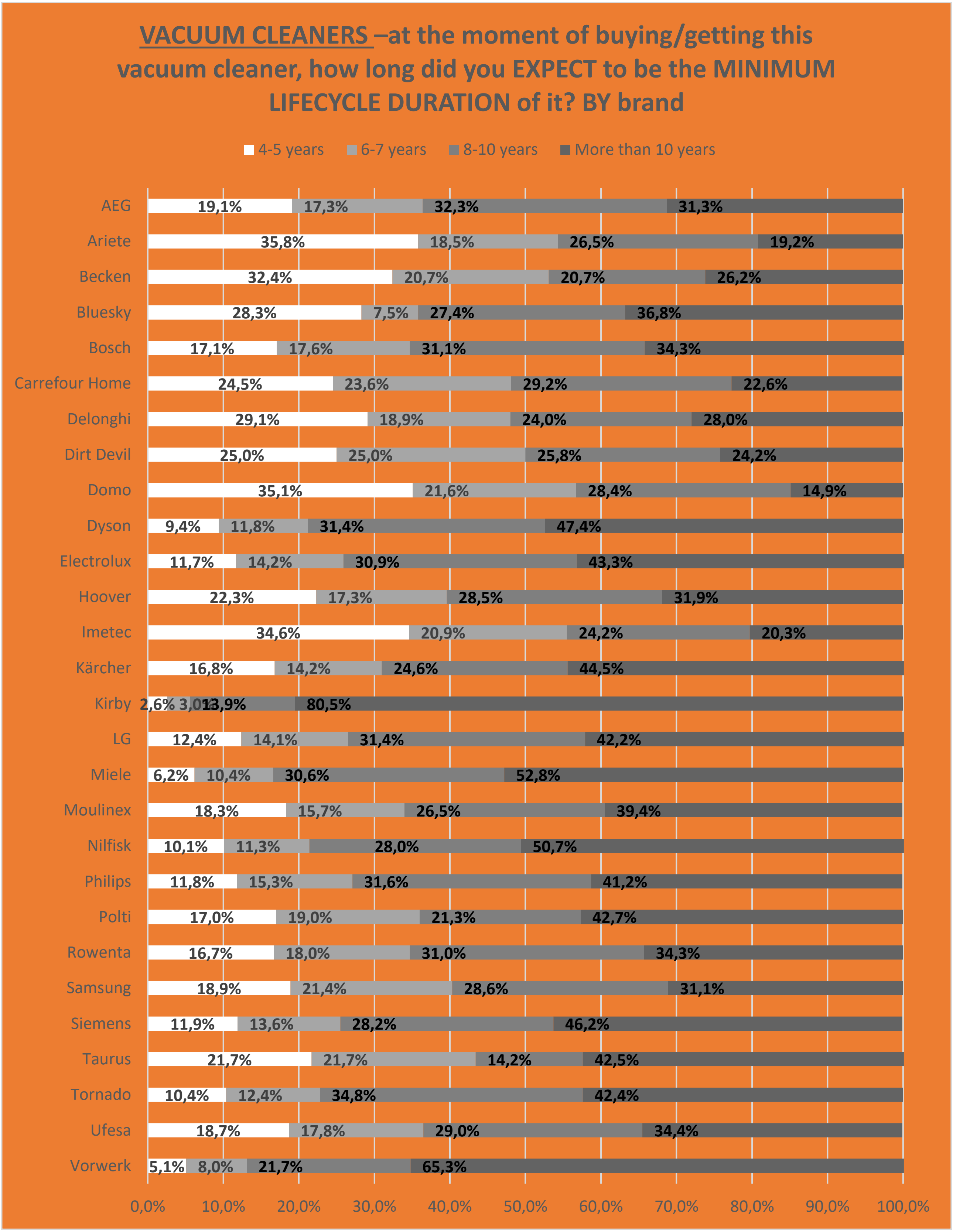
76% of Kirby owners (15% of Domo owners) expect to keep using their vacuum cleaner for more than 10 years.

Table 4.5 VACUUM CLEANERS –at the moment of buying/getting this vacuum cleaner, how long did you EXPECT to KEEP USING it before buying a new one? BY BRAND

	N	4-5y	6-7y	8-10y	more than 10y
AEG	1647	20,5%	18,2%	32,6%	28,7%
Ariete	157	37,6%	19,1%	21,0%	22,3%
Becken	135	41,5%	19,3%	20,0%	19,3%
Bluesky	100	25,0%	14,0%	25,0%	36,0%
Bosch	2306	18,3%	17,9%	31,4%	32,4%
Carrefour Home	112	36,6%	17,9%	27,7%	17,9%
Delonghi	273	26,4%	20,5%	24,5%	28,6%
Dirt Devil	247	27,9%	26,3%	26,3%	19,4%
Domo	129	38,0%	22,5%	24,8%	14,7%
Dyson	3150	10,1%	13,5%	33,4%	43,0%
Electrolux	2201	13,7%	15,9%	32,9%	37,4%
Hoover	2300	24,1%	18,7%	28,7%	28,6%
Imetec	155	32,9%	23,2%	20,6%	23,2%
Kärcher	348	20,4%	14,9%	27,0%	37,6%
Kirby	253	3,2%	3,6%	17,0%	76,3%
LG	186	17,2%	16,1%	33,9%	32,8%
Miele	5455	6,0%	11,1%	34,0%	48,9%
Moulinex	384	20,3%	16,4%	25,5%	37,8%
Nilfisk	1157	9,6%	13,1%	28,9%	48,4%
Philips	1882	14,2%	15,7%	34,6%	35,5%
Polti	259	18,9%	20,8%	23,2%	37,1%
Rowenta	4785	18,1%	18,4%	33,1%	30,3%
Samsung	470	19,4%	21,3%	30,2%	29,1%
Siemens	409	13,0%	14,7%	31,8%	40,6%
Solac	103	17,5%	12,6%	28,2%	41,7%
Taurus	123	26,0%	20,3%	17,1%	36,6%
Tornado	440	12,0%	15,0%	38,9%	34,1%
Ufesa	245	23,7%	16,7%	31,0%	28,6%
Vorwerk	3602	4,9%	7,8%	21,3%	66,0%

Base: SHHA Appliances 2019-2020 – brands with at least 100 answers

Chart 4.6



SHHA Appliances 2019-2020

81% of Kirby owners (19% of Ariete owners) expect their vacuum cleaner to have a minimum lifecycle of more than 10 years.

Table 4.6 VACUUM CLEANERS –at the moment of buying/getting this vacuum cleaner, how long did you EXPECT to be the MINIMUM LIFECYCLE DURATION of it? BY BRAND

	N	4-5y	6-7y	8-10y	more than 10y
AEG	1673	19,1%	17,3%	32,3%	31,3%
Ariete	151	35,8%	18,5%	26,5%	19,2%
Becken	145	32,4%	20,7%	20,7%	26,2%
Bluesky	106	28,3%	7,5%	27,4%	36,8%
Bosch	2285	17,1%	17,6%	31,1%	34,3%
Carrefour Home	106	24,5%	23,6%	29,2%	22,6%
Delonghi	275	29,1%	18,9%	24,0%	28,0%
Dirt Devil	248	25,0%	25,0%	25,8%	24,2%
Domo	134	35,1%	21,6%	28,4%	14,9%
Dyson	3123	9,4%	11,8%	31,4%	47,4%
Electrolux	2178	11,7%	14,2%	30,9%	43,3%
Hoover	2307	22,3%	17,3%	28,5%	31,9%
Imetec	153	34,6%	20,9%	24,2%	20,3%
Kärcher	346	16,8%	14,2%	24,6%	44,5%
Kirby	266	2,6%	3,0%	13,9%	80,5%
LG	185	12,4%	14,1%	31,4%	42,2%
Miele	5401	6,2%	10,4%	30,6%	52,8%
Moulinex	388	18,3%	15,7%	26,5%	39,4%
Nilfisk	1143	10,1%	11,3%	28,0%	50,7%
Philips	1877	11,8%	15,3%	31,6%	41,2%
Polti	253	17,0%	19,0%	21,3%	42,7%
Rowenta	4743	16,7%	18,0%	31,0%	34,3%
Samsung	476	18,9%	21,4%	28,6%	31,1%
Siemens	411	11,9%	13,6%	28,2%	46,2%
Taurus	120	21,7%	21,7%	14,2%	42,5%
Tornado	443	10,4%	12,4%	34,8%	42,4%
Ufesa	241	18,7%	17,8%	29,0%	34,4%
Vorwerk	3628	5,1%	8,0%	21,7%	65,3%

Base: SHHA Appliances 2019-2020 – brands with at least 100 answers

3. REAL LIFECYCLE OF PREVIOUS APPLIANCES

3.1 WASHING MACHINES

Chart 6.

LHHA Appliances 2019

3 previously owned washing machines out of 4 (BEL 73% FRA 75% ITA 76% POR 73% SPA 75%) were replaced because of reliability-related reasons.

Table 6. Main reason for replacing the previous washing machines – BY COUNTRY

			Belgium	France	Italy	Portugal	Spain	TOTAL
	completely out of use	Count	805	1337	1286	772	301	4501
		% within country	14,0%	16,7%	14,6%	19,8%	5,5%	14,1%
	not working well anymore (and didn't want to repair it)	Count	1430	2223	2263	898	1496	8310
		% within country	25,0%	27,7%	25,7%	23,0%	27,5%	26,0%
	repair costs too high	Count	1778	2215	2813	1010	2075	9891
		% within country	31,0%	27,6%	31,9%	25,9%	38,1%	31,0%
	no spare parts available anymore	Count	172	251	331	177	225	1156
		% within country	3,0%	3,1%	3,8%	4,5%	4,1%	3,6%
	RELIABILITY-RELATED REASONS	***% within country***	***73,0%***	***75,1%***	***76,0%***	***73,2%***	***75,2%***	***74,7%***
	out of date (but still working well)	Count	931	634	966	422	389	3342
		% within country	16,2%	7,9%	11,0%	10,8%	7,1%	10,5%
	another reason (gift, moving, family needs, …)	Count	615	1358	1161	617	963	4714
		% within country	10,7%	16,9%	13,2%	15,8%	17,7%	14,8%
Total		Count	5731	8018	8820	3896	5449	31914
		% within country	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Chart 6.1

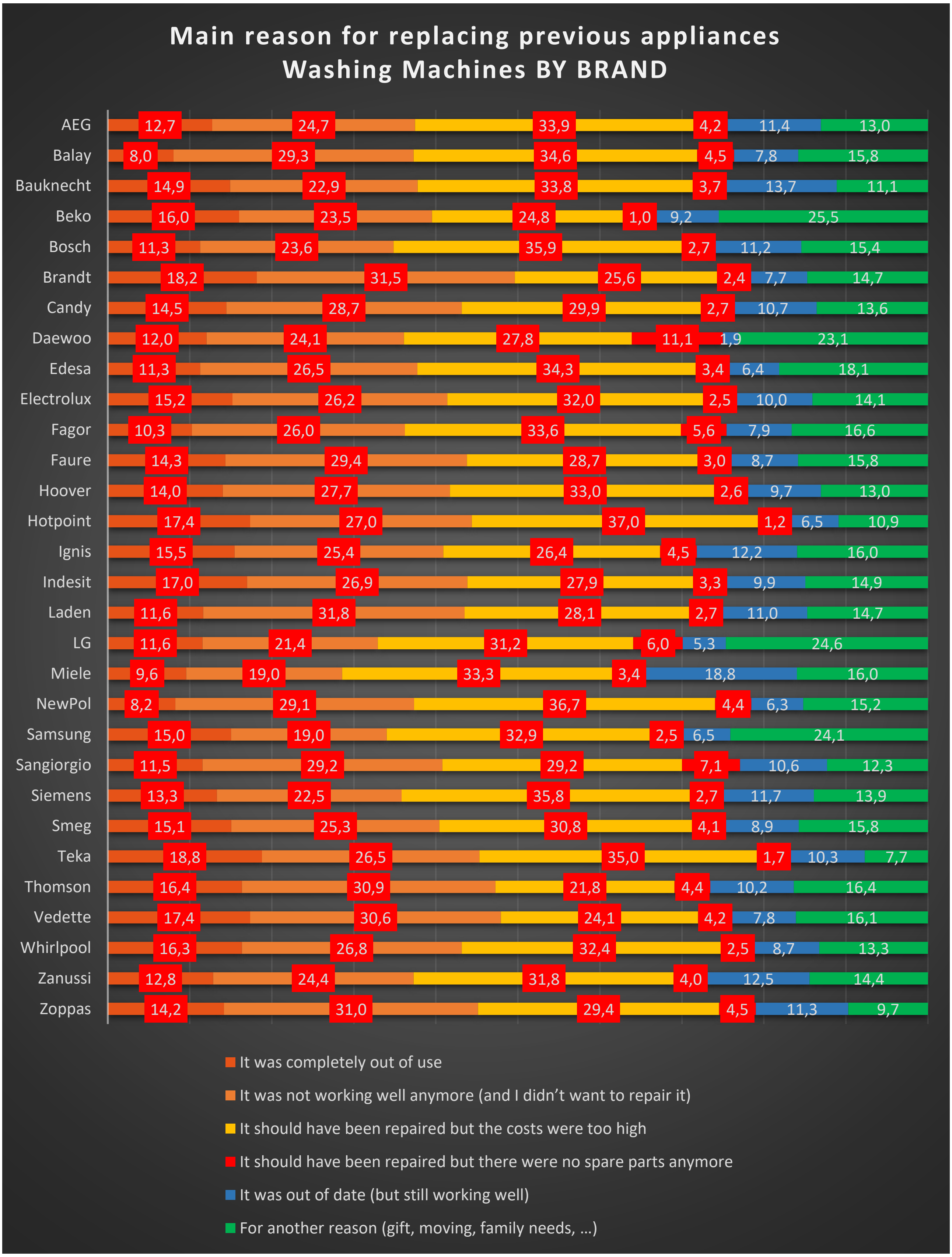
LHHA Appliances 2019

Washing machines have been divided into early, intermediate and late replacement through a Two-steps cluster analysis (poor/early = 1, 2, 3 or 4 years (11%), intermediate/fair = 5, 6, 7 or 8 years (49%), late/good = 9, 10 or more than 10 years (40%)). 79% of intermediately replaced washing machines were replaced because of reliability-related reasons; this is significantly higher than in the other groups (*Pearson chi square = 28,3*).

Table 6.1 Main reason for replacing the previous WASHING MACHINES – BY REPLACEMENT

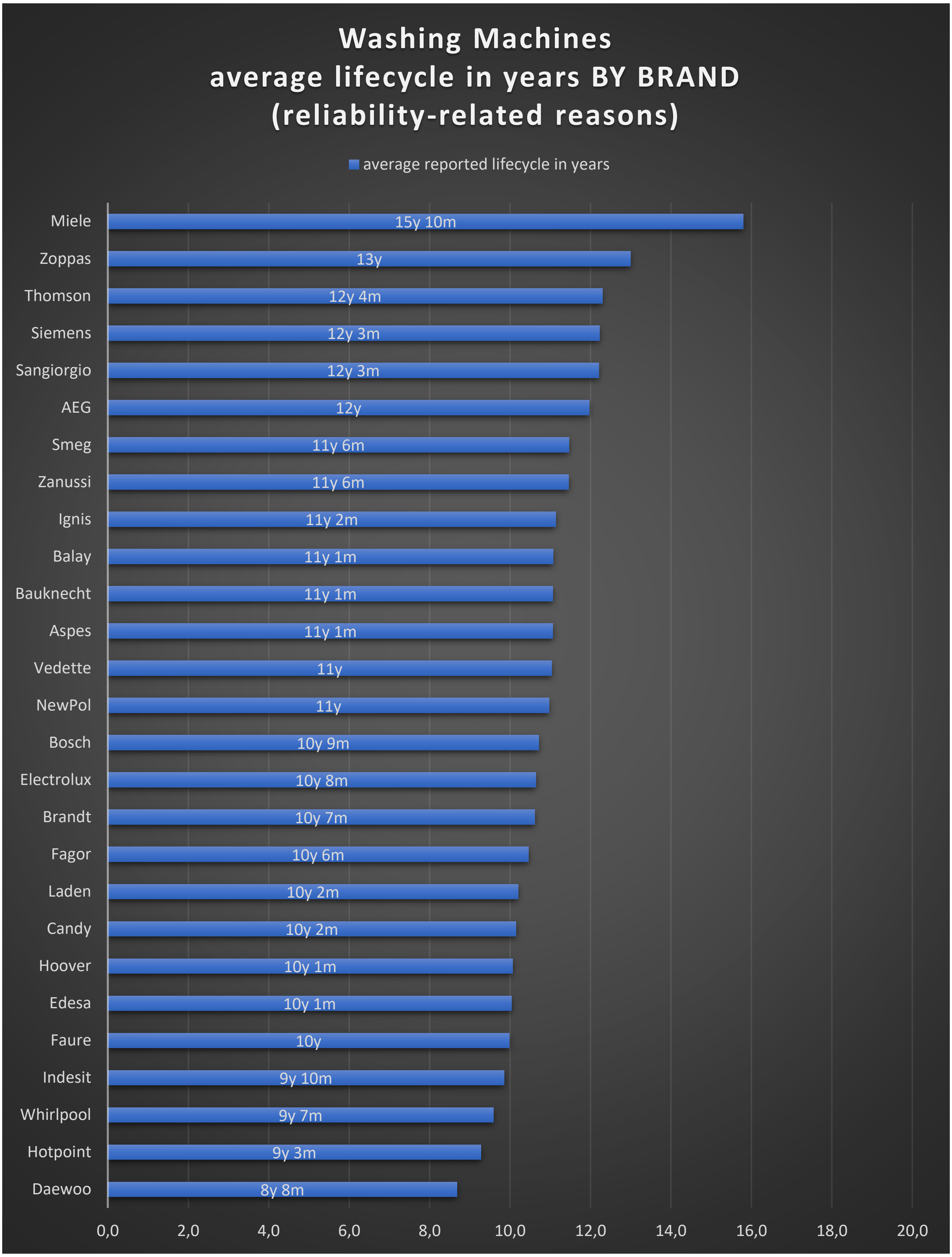
			Early	Intermediate	Late	TOTAL
	completely out of use	Count	287	927	685	1899
		% within country	18,4%	13,8%	12,5%	13,8%
	not working well anymore (and didn't want to repair it)	Count	297	1778	1487	3562
		% within country	19,0%	26,4%	27,2%	25,9%
	repair costs too high	Count	570	2477	1796	4843
		% within country	36,5%	36,8%	32,9%	35,2%
	no spare parts available anymore	Count	26	130	128	284
		% within country	1,7%	1,9%	2,3%	2,1%
	RELIABILITY-RELATED REASONS	***% within country***	**75,5%**	**78,9%**	**75,0%**	**77,0%**
	out of date (but still working well)	Count	41	362	514	917
		% within country	2,6%	5,4%	9,4%	6,7%
	another reason (gift, moving, family needs, …)	Count	341	1059	854	2254
		% within country	21,8%	15,7%	15,6%	16,4%
Total		Count	1562	6733	5464	13759
		% within country	100,0%	100,0%	100,0%	100,0%

Chart 6.2



LHHA Appliances 2019 - these results should be read within the context of a varying lifecycle duration of the respective brands

Chart 7.



LHHA Appliances 2019

Considering only reliability-related reasons for replacing, the **average lifecycle of previous washing machines** has been analysed, by including all brands with at least 30 valid cases. Further statistical analysis was done with One-Way ANOVA in order to detect homogenous subsets of brands.

Table 7. Average lifecycle of washing machines in years (reliability-related reasons) – BY BRAND

brand	N	Mean
Miele	1125	15y 10m
Zoppas	203	13y
Thomson	142	12y 4m
Siemens	664	12y 3m
Sangiorgio	297	12y 3m
AEG	1400	12y
Smeg	73	11y 6m
Zanussi	635	11y 6m
Ignis	191	11y 2m
Balay	703	11y 1m
Bauknecht	362	11y 1m
Aspes	61	11y 1m
Vedette	271	11y
NewPol	111	11y
Bosch	1564	10y 9m
Electrolux	615	10y 8m
Brandt	622	10y 7m
Fagor	492	10y 6m
Laden	146	10y 2m
Candy	1135	10y 2m
Hoover	345	10y 1m
Edesa	130	10y 1m
Faure	138	10y
Indesit	836	9y 10m
Whirlpool	1704	9y 7m
Hotpoint	350	9y 3m
Daewoo	66	8y 8m

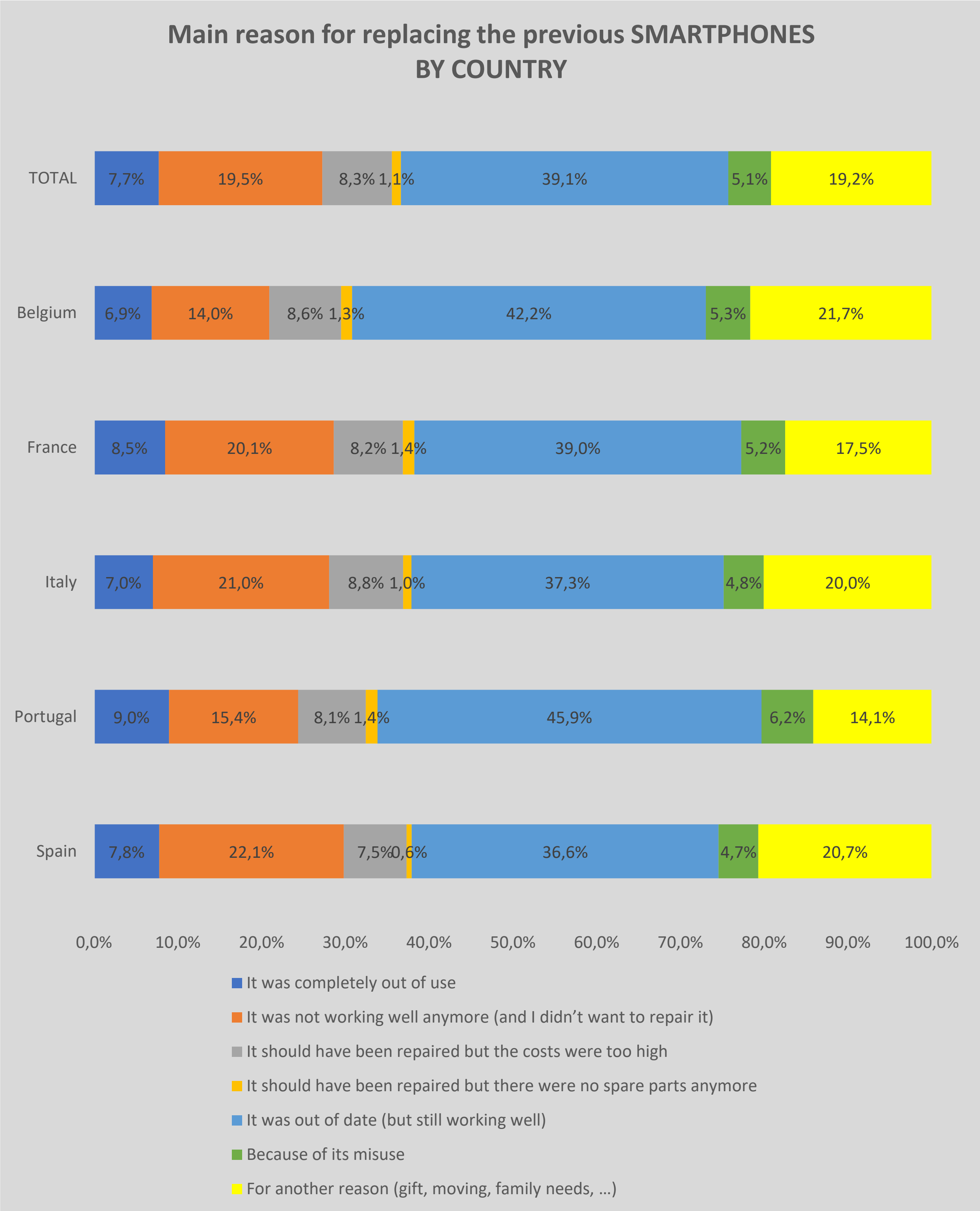
Only devices that have been replaced because of lack of (good) functioning reasons were considered for this analysis.

For lifecycle duration, brands more recently on the market cannot be fairly compared with brands being on the market for a longer period already. Therefore, the 95th percentile of each brand current appliance age (assumed to be a realistic indicator of the presence on the market) has been compared with the highest average age (within all previous appliances brands) plus half of the specific brand standard deviation of the previous appliance. Brands having their 95^{th} percentile below this value have been excluded from the analysis: Becken (Worten), Beko, Carrefour Home, Far, Friac (Eldi), LG, Samsung and Teka**.** For these specific brands, the overview below gives a (less accurate) indication of their lifecycle.

brand	N	Mean
Carrefour Home	40	9y
Teka	67	8y 10m
Friac (Eldi)	36	8y 8m
LG	212	8y 8m
Far	37	8y 6m
Becken (Worten)	30	7y 10m
Samsung	179	7y 2m
Beko	150	6y 10m

3.2 SMARTPHONES

Chart 8.



Hi-Tech Devices 2019

36% of previously owned smartphones (BEL 30% FRA 37% ITA 37% POR 33% SPA 37%) were replaced because of reliability-related reasons.

Table 8. Main reason for replacing the previous SMARTPHONES – BY COUNTRY

			Belgium	France	Italy	Portugal	Spain	TOTAL
	completely out of use	Count	236	558	551	206	382	1933
		% within country	6,6%	8,2%	6,9%	8,8%	7,7%	7,5%
	not working well anymore (and didn't want to repair it)	Count	482	1321	1646	354	1083	4886
		% within country	13,6%	19,5%	20,6%	15,0%	21,7%	19,0%
	repair costs too high	Count	294	541	691	185	368	2079
		% within country	8,3%	8,0%	8,6%	7,9%	7,4%	8,1%
	no spare parts available anymore	Count	45	89	78	32	30	274
		% within country	1,3%	1,3%	1,0%	1,4%	0,6%	1,1%
	RELIABILITY-RELATED REASONS	***% within country***	**29,8%**	**37,1%**	**37,1%**	**33,0%**	**37,4%**	**35,7%**
	out of date (but still working well)	Count	1449	2561	2918	1053	1799	9780
		% within country	40,8%	37,9%	36,5%	44,7%	36,1%	38,1%
	because of its misuse (e.g. fall)	Count	182	344	373	142	233	1274
		% within country	5,1%	5,1%	4,7%	6,0%	4,7%	5,0%
	another reason (gift, moving, family needs, …)	Count	743	1146	1568	324	1015	4796
		% within country	20,9%	16,9%	19,6%	13,8%	20,4%	18,7%
Total		Count	3431	6560	7825	2296	4910	25022
		% within country	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Chart 8.1

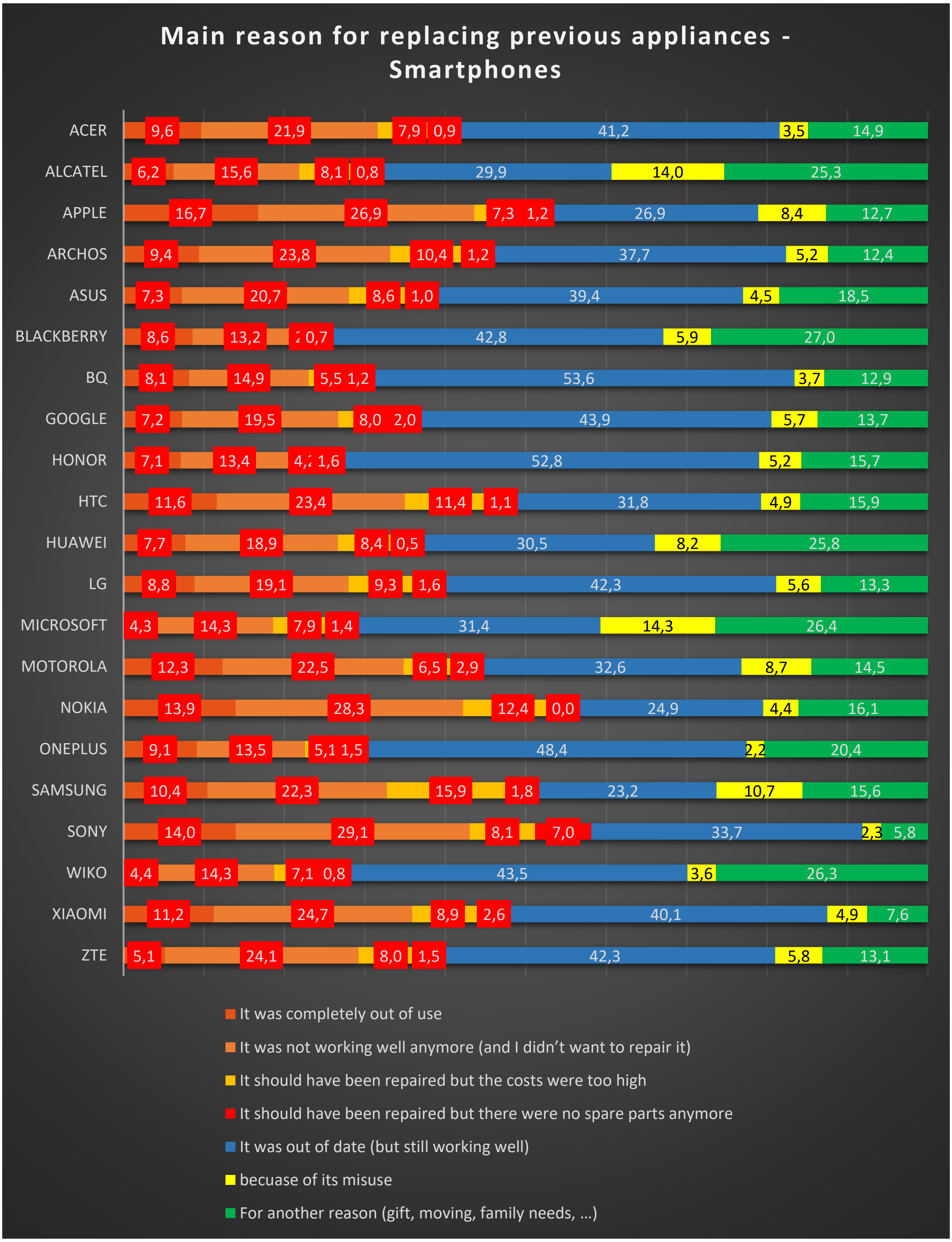
Hi-Tech Devices 2019

Smartphones have been divided into early, intermediate and late replacement through a Two-steps cluster analysis (poor/early = 1, 2 or 3 years (52%), intermediate/fair =4 or 5 years (39%), late/good = 6, 7, 8, 9, 10 or more than 10 years (9%)). 39% of early replaced smartphones were replaced because of reliability-related reasons; this is significantly higher than in the other groups (*Pearson chi square = 55,8*).

Table 8.1 Main reason for replacing the previous SMARTPHONES – BY REPLACEMENT

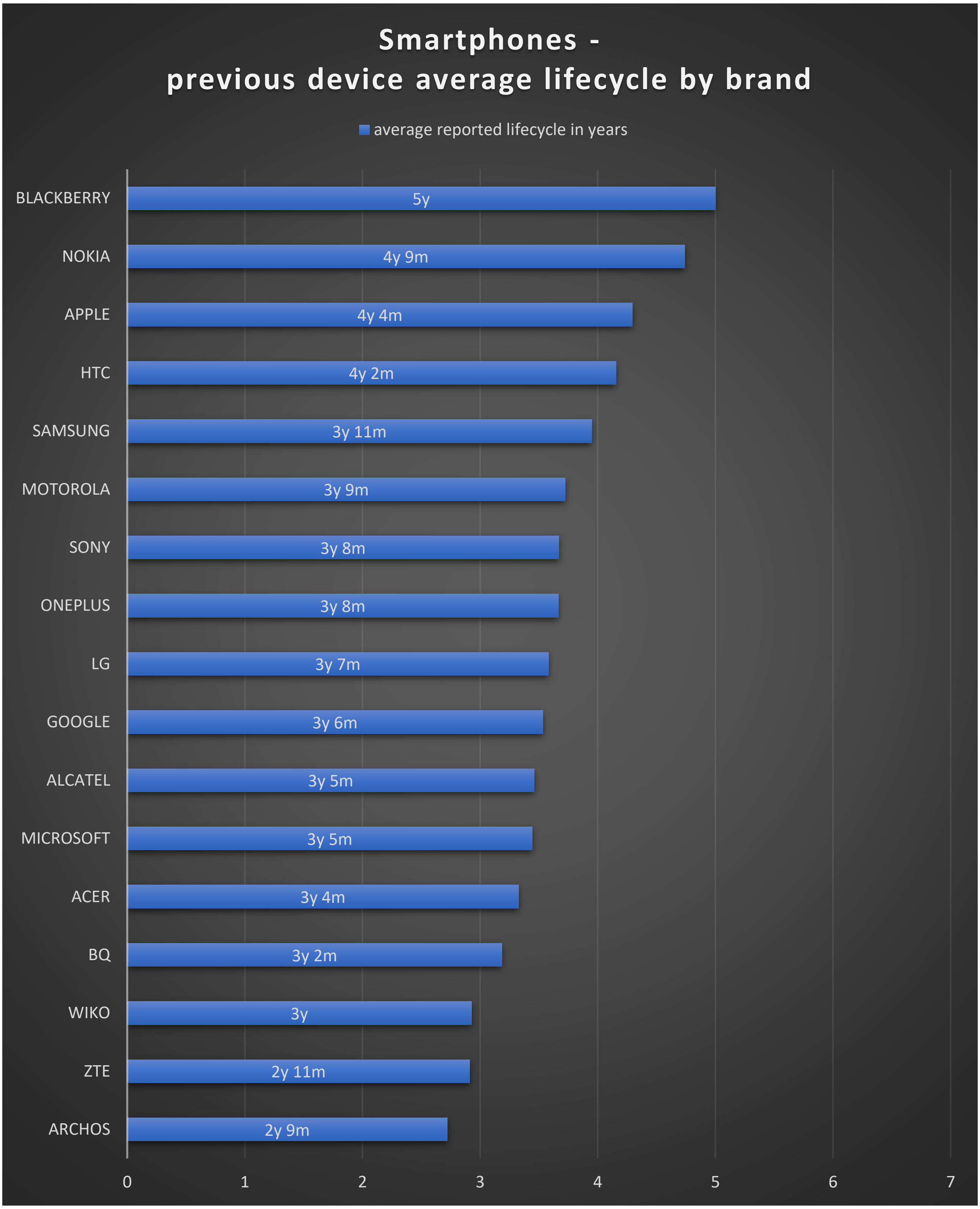
			Early	Intermediate	Late	TOTAL
	completely out of use	Count	999	636	242	1877
		% within country	8,7%	6,7%	6,9%	7,6%
	not working well anymore (and didn't want to repair it)	Count	2219	1903	664	4786
		% within country	19,4%	19,9%	18,8%	19,5%
	repair costs too high	Count	1114	712	216	2042
		% within country	9,7%	7,4%	6,1%	8,3%
	no spare parts available anymore	Count	131	79	58	268
		% within country	1,1%	0,8%	1,6%	1,1%
	RELIABILITY-RELATED REASONS	***% within country***	**39,0%**	**34,8%**	**33,4%**	**36,6%**
	out of date (but still working well)	Count	3393	4359	1832	9584
		% within country	29,6%	45,6%	51,9%	39,1%
	because of its misuse (e.g. fall)	Count	801	372	85	1258
		% within country	7,0%	3,9%	2,4%	5,1%
	another reason (gift, moving, family needs, …)	Count	2794	1499	431	4724
		% within country	24,4%	15,7%	12,2%	19,3%
Total		Count	11451	9560	3528	24539
		% within country	100,0%	100,0%	100,0%	100,0%

Chart 8.2



Hi-Tech Devices 2019 - these results should be read within the context of a varying lifecycle duration of the respective brands

Chart 9.



Hi-Tech Devices 2019

Considering only reliability-related reasons for replacing, the **average lifecycle of previous smartphones** has been analysed, by including all brands with at least 30 valid cases. Further statistical analysis was done with One-Way ANOVA in order to detect homogenous subsets of brands.

Table 9. Average lifecycle of smartphones in years (reliability-related reasons) – BY BRAND

brand	N	Mean
BLACKBERRY	79	5 years
NOKIA	448	4 years and 9 months
APPLE	1246	4 years and 4 months
HTC	142	4 years and 2 months
SAMSUNG	3294	3 years and 11 months
MOTOROLA	142	3 years and 9 months
ONEPLUS	33	3 years and 8 months
SONY	446	3 years and 8 months
LG	473	3 years and 7 months
GOOGLE	60	3 years and 6 months
ALCATEL	141	3 years and 6 months
MICROSOFT	99	3 years and 5 months
ACER	52	3 years and 4 months
BQ	221	3 years and 2 months
WIKO	266	2 years and 11 months
ZTE	46	2 years and 11 months
ARCHOS	50	2 years and 9 months

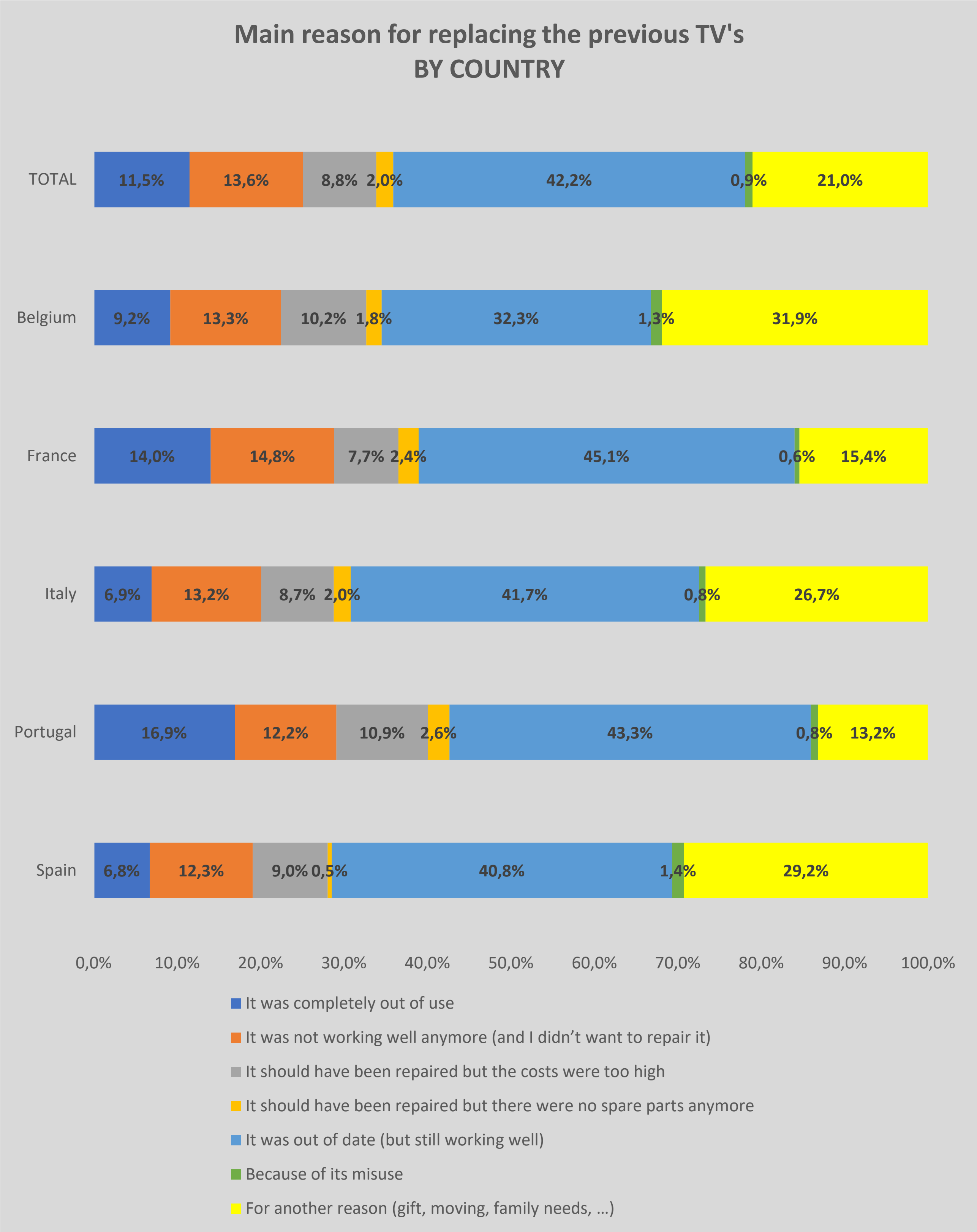
Only devices that have been replaced because of lack of (good) functioning reasons were considered for this analysis.

For lifecycle duration, brands more recently on the market cannot be fairly compared with brands being on the market for a longer period already. Therefore, the 95th percentile of each brand current device age (assumed to be a realistic indicator of the presence on the market) has been compared with the highest average age (within all previous devices brands) plus half of the specific brand standard deviation of the previous device. Brands having their 95th percentile below this value have been excluded from the analysis: For these specific brands, the overview below gives a (less accurate) indication of their lifecycle.

brand	N	Mean
HUAWEI	611	3 years and 1 months
HONOR	37	2 years and 10 months
ASUS	165	2 years and 9 months
XIAOMI	110	2 years and 6 months

3.3 TV's

Chart 10.



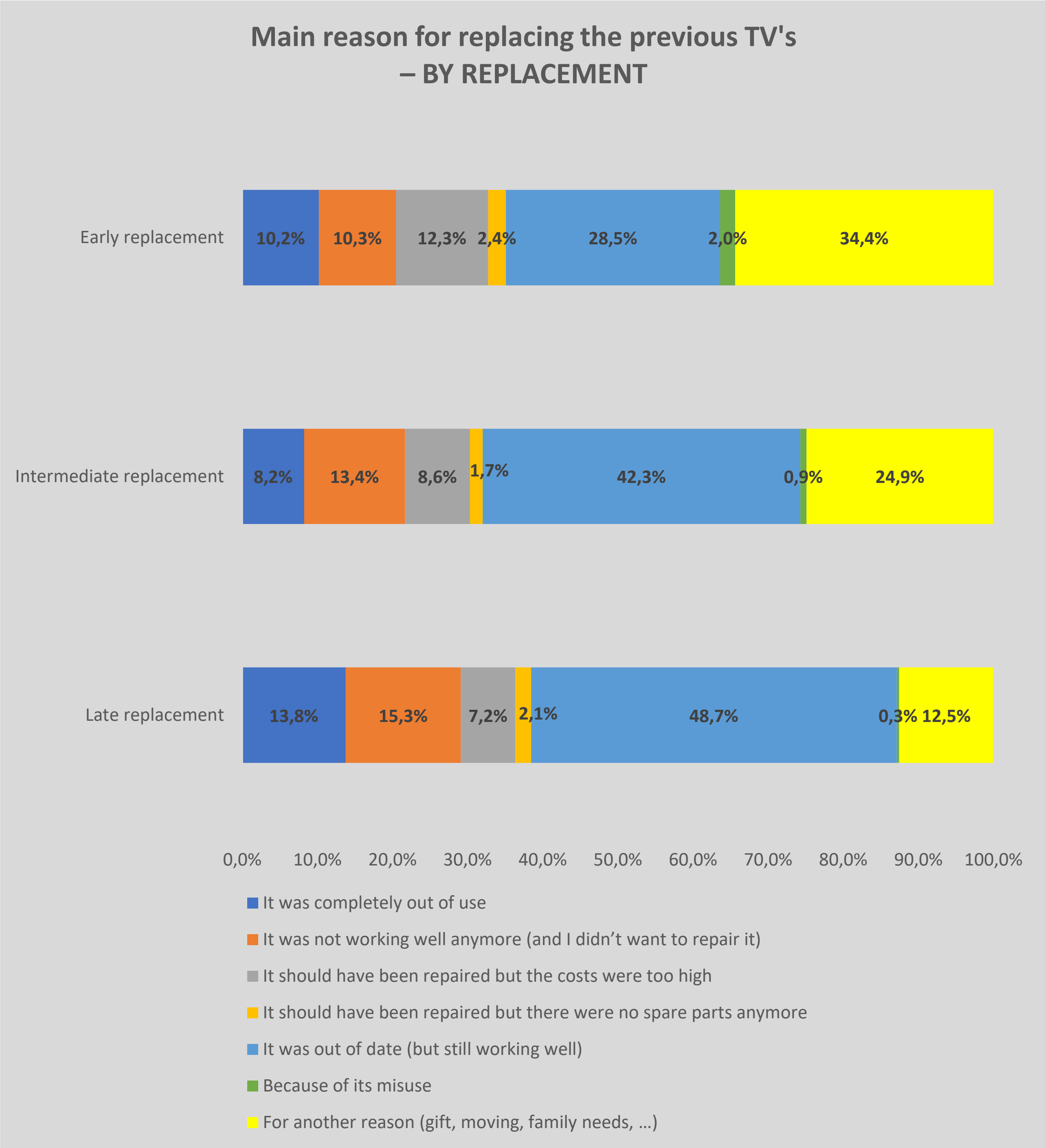
Hi-Tech Devices 2019

34% of previously owned TV's (BEL 32% FRA 37% ITA 29% POR 41% SPA 27%) were replaced because of reliability-related reasons.

Table 10. Main reason for replacing the previous TV's – BY COUNTRY

			Belgium	France	Italy	Portugal	Spain	TOTAL
	completely out of use	Count	199	1167	266	442	185	2259
		% within country	8,6%	13,3%	6,6%	16,2%	6,5%	10,9%
	not working well anymore (and didn't want to repair it)	Count	287	1231	504	319	337	2678
		% within country	12,5%	14,0%	12,5%	11,7%	11,8%	12,9%
	repair costs too high	Count	221	641	332	286	246	1726
		% within country	9,6%	7,3%	8,3%	10,5%	8,6%	8,3%
	no spare parts available anymore	Count	40	201	78	68	14	401
		% within country	1,7%	2,3%	1,9%	2,5%	0,5%	1,9%
	RELIABILITY-RELATED REASONS	***% within country***	**32,4%**	**36,9%**	**29,4%**	**40,9%**	**27,4%**	**34,2%**
	out of date (but still working well)	Count	698	3749	1599	1132	1117	8295
		% within country	30,3%	42,7%	39,8%	41,5%	39,1%	40,1%
	Because of its misuse (e.g. fall)	Count	29	49	30	22	39	169
		% within country	1,3%	0,6%	0,7%	0,8%	1,4%	0,8%
	another reason (gift, moving, family needs, …)	Count	690	1281	1021	345	801	4138
		% within country	30,0%	14,6%	25,4%	12,6%	28,0%	20,0%
Total		Count	2164	8319	3830	2614	2739	19666
		% within country	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Chart 10.1



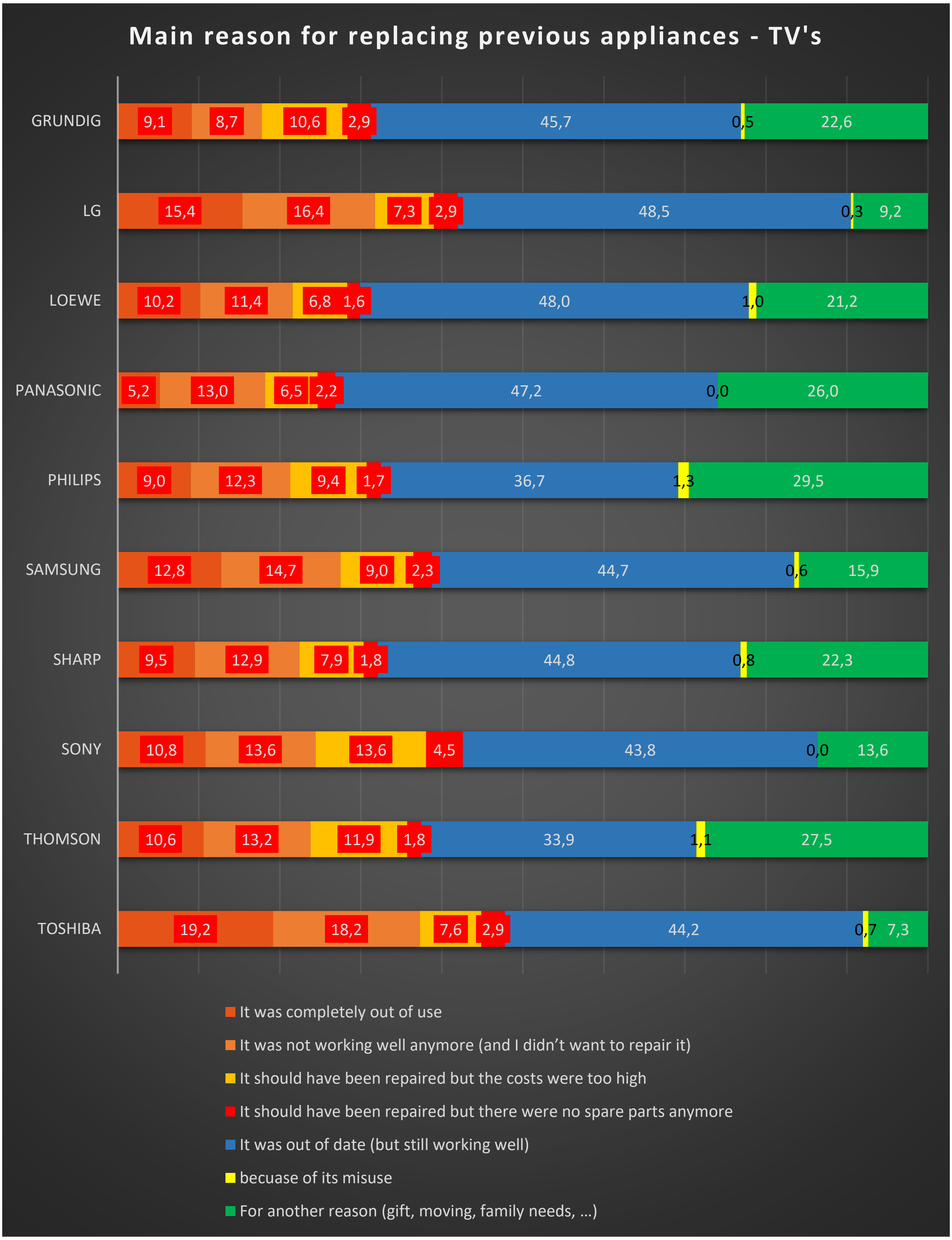
Hi-Tech Devices 2019

TV's have been divided into early, intermediate and late replacement through a Two-steps cluster analysis. (poor/early = 1, 2, 3, 4 or 5 years (34%), intermediate/fair =6, 7 or 8 years (38%), late/good = 9, 10 or more than 10 years (28%)). 38% of lately replaced TV's were replaced because of reliability-related reasons; this is significantly higher than in the other groups (*Pearson chi square = 64,2*).

Table 10.1 Main reason for replacing the previous TV's – BY REPLACEMENT

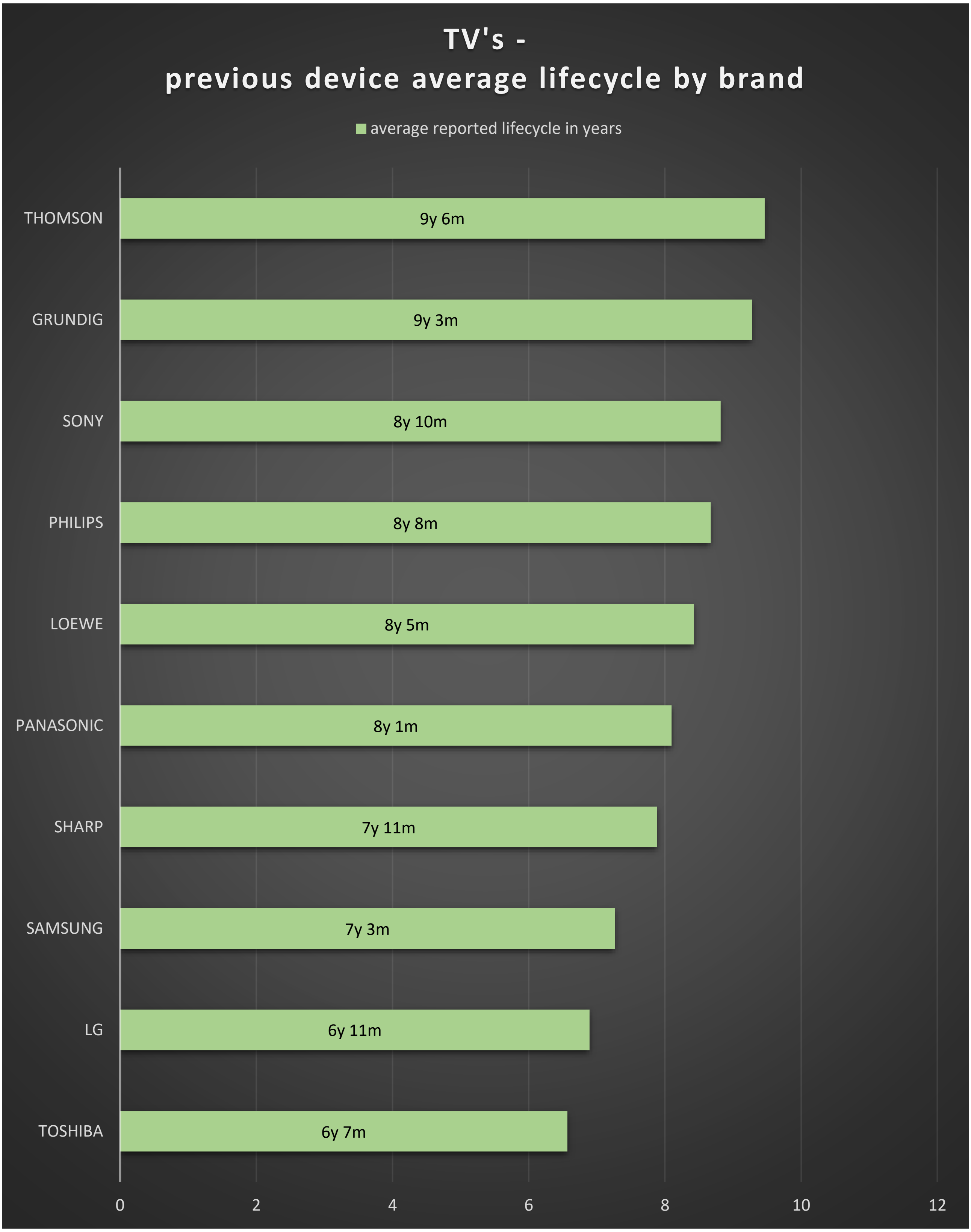
			Early	Intermediate	Late	TOTAL
	completely out of use	Count	435	471	1265	2171
		% within country	10,2%	8,2%	13,8%	11,3%
	not working well anymore (and didn't want to repair it)	Count	437	767	1410	2614
		% within country	10,3%	13,4%	15,3%	13,6%
	repair costs too high	Count	522	493	664	1679
		% within country	12,3%	8,6%	7,2%	8,8%
	no spare parts available anymore	Count	101	98	193	392
		% within country	2,4%	1,7%	2,1%	2,0%
	RELIABILITY-RELATED REASONS	***% within country***	**35,1%**	**32,0%**	**38,4%**	**35,8%**
	out of date (but still working well)	Count	28,5%	42,3%	48,7%	42,3%
		% within country	85	49	30	164
	because of its misuse (e.g. fall)	Count	2,0%	0,9%	0,3%	0,9%
		% within country	1464	1419	1150	4033
	another reason (gift, moving, family needs, …)	Count	34,4%	24,9%	12,5%	21,1%
		% within country	28,5%	42,3%	48,7%	42,3%
Total		Count	4259	5710	9187	19156
		% within country	100,0%	100,0%	100,0%	100,0%

Chart 10.2



Hi-Tech Devices 2019 - these results should be read within the context of a varying lifecycle duration of the respective brands

Chart 11.



Hi-Tech Devices 2019

Considering only reliability-related reasons for replacing, the **average lifecycle of previous TV's** has been analysed, by including all brands with at least 30 valid cases. Further statistical analysis was done with One-Way ANOVA in order to detect homogenous subsets of brands.

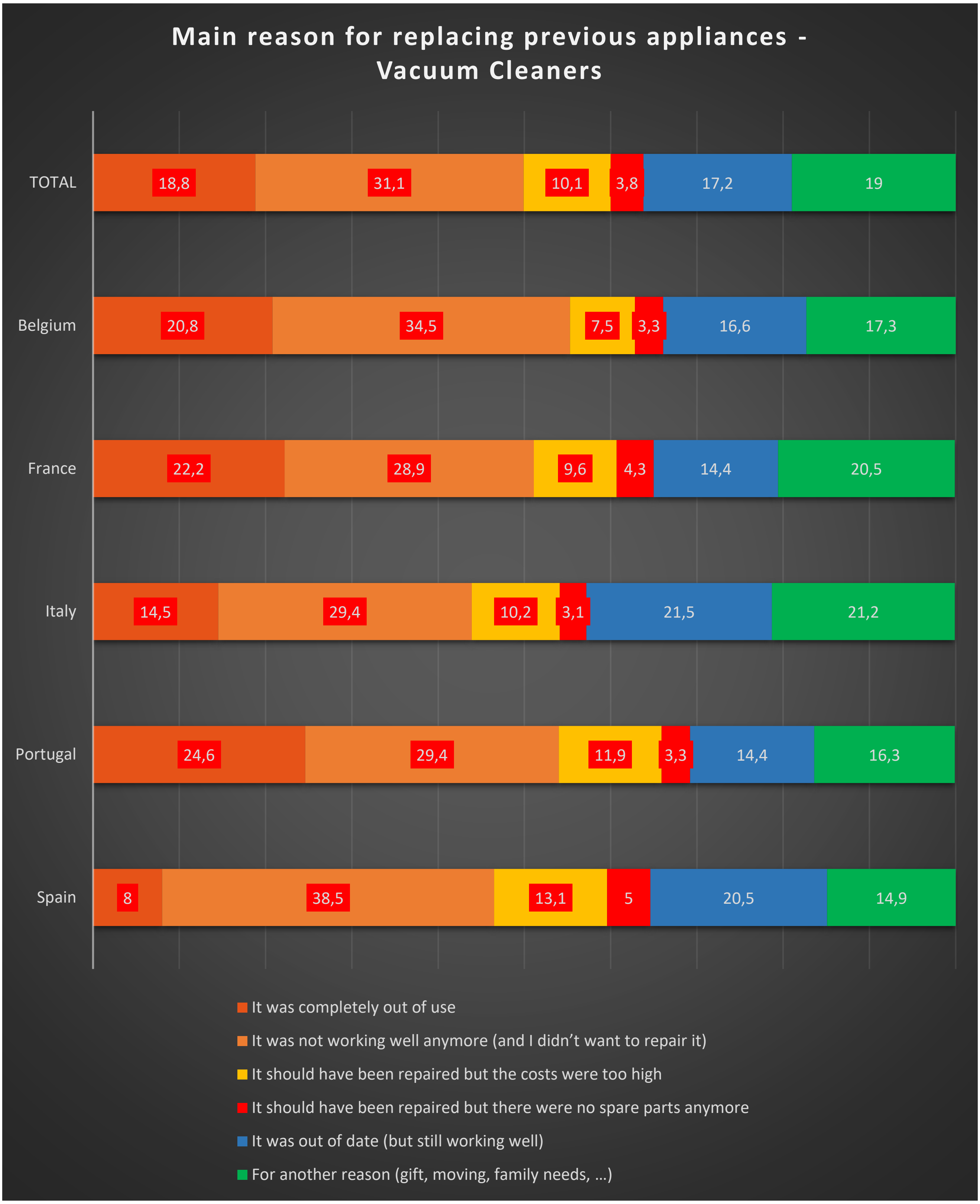
Table 11. Average lifecycle of TV's in years (reliability-related reasons) – BY BRAND

brand	N	Mean
THOMSON	395	9 years and 6 months
GRUNDIG	415	9 years and 3 months
SONY	991	8 years and 10 months
PHILIPS	1527	8 years and 8 months
LOEWE	73	8 years and 5 months
PANASONIC	442	8 years and 1 months
SHARP	62	7 years and 11 months
SAMSUNG	1385	7 years and 3 months
LG	776	6 years and 11 months
TOSHIBA	65	6 years and 7 months

Only devices that have been replaced because of lack of (good) functioning reasons were considered for this analysis.

3.4 VACUUM CLEANERS

Chart 12.



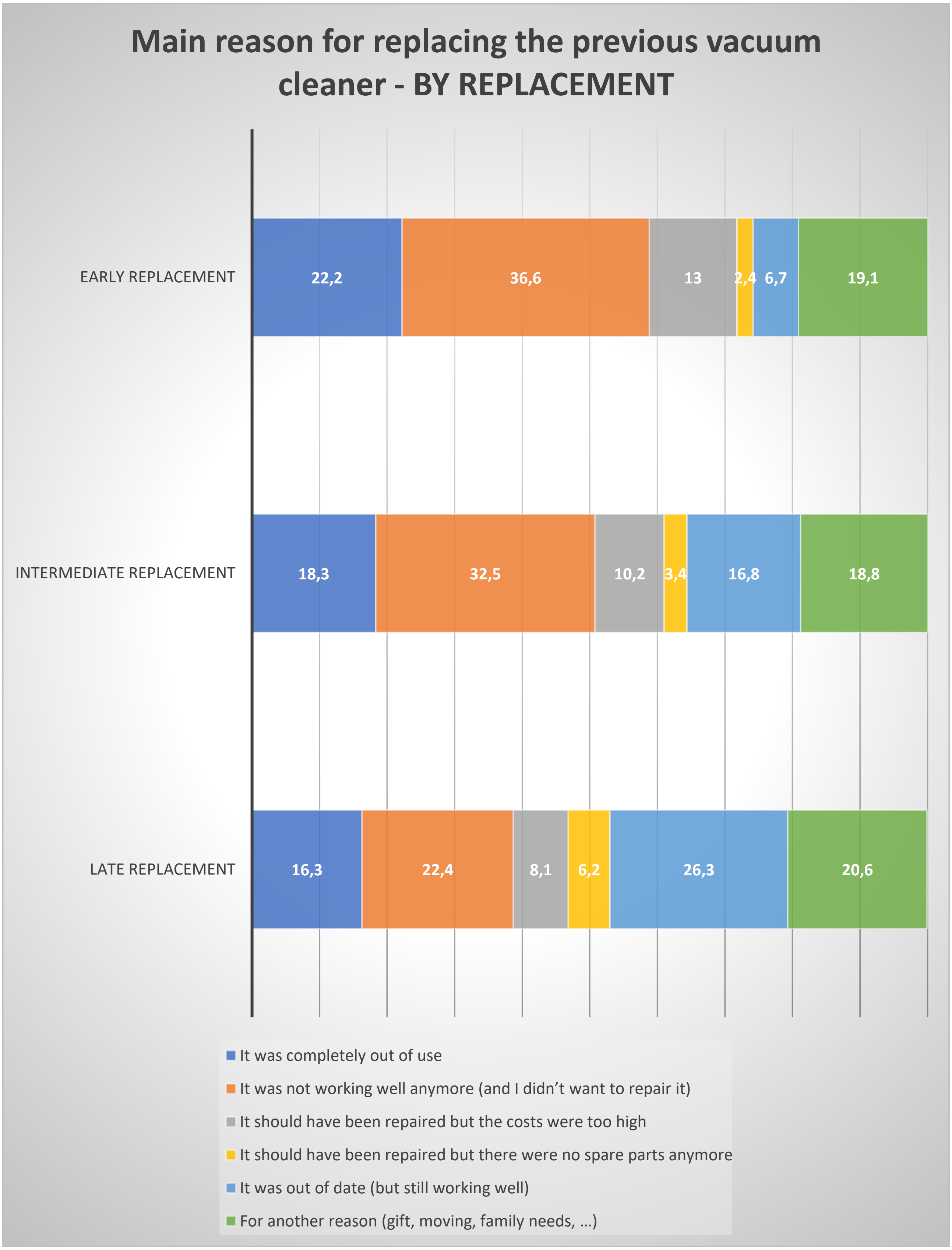
SHHA Appliances 2019-2020

64 % of vacuum cleaners (BEL 66% FRA 65% ITA 57% POR 69% SPA 65%) were replaced because of reliability-related reasons.

Table 12. Main reason for replacing the previous vacuum cleaners – BY COUNTRY

		Belgium	France	Italy	Portugal	Spain	TOTAL
completely out of use	Count	1593	3595	1709	1388	396	8681
	% within country	20,8%	22,2%	14,5%	24,6%	8,0%	18,8%
not working well anymore (and didn't want to repair it)	Count	2648	4677	3462	1658	1912	14357
	% within country	34,5%	28,9%	29,4%	29,4%	38,5%	31,1%
repair costs too high	Count	577	1552	1205	672	652	4658
	% within country	7,5%	9,6%	10,2%	11,9%	13,1%	10,1%
no spare parts available anymore	Count	252	699	368	186	250	1755
	% within country	3,3%	4,3%	3,1%	3,3%	5,0%	3,8%
RELIABILITY-RELATED REASONS	***% within country***	**66,1%**	**65,1%**	**57,3%**	**69,3%**	**64,6%**	**63,7%**
Out-dated or consuming too much (but still working well)	Count	1276	2332	2532	811	1018	7969
	% within country	16,6%	14,4%	21,5%	14,4%	20,5%	17,2%
another reason (e.g. gift)	Count	1324	3306	2492	918	741	8781
	% within country	17,3%	20,5%	21,2%	16,3%	14,9%	19,0%
Total	Count	7670	16161	11768	5633	4969	46201
	% within country	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Chart 12.1



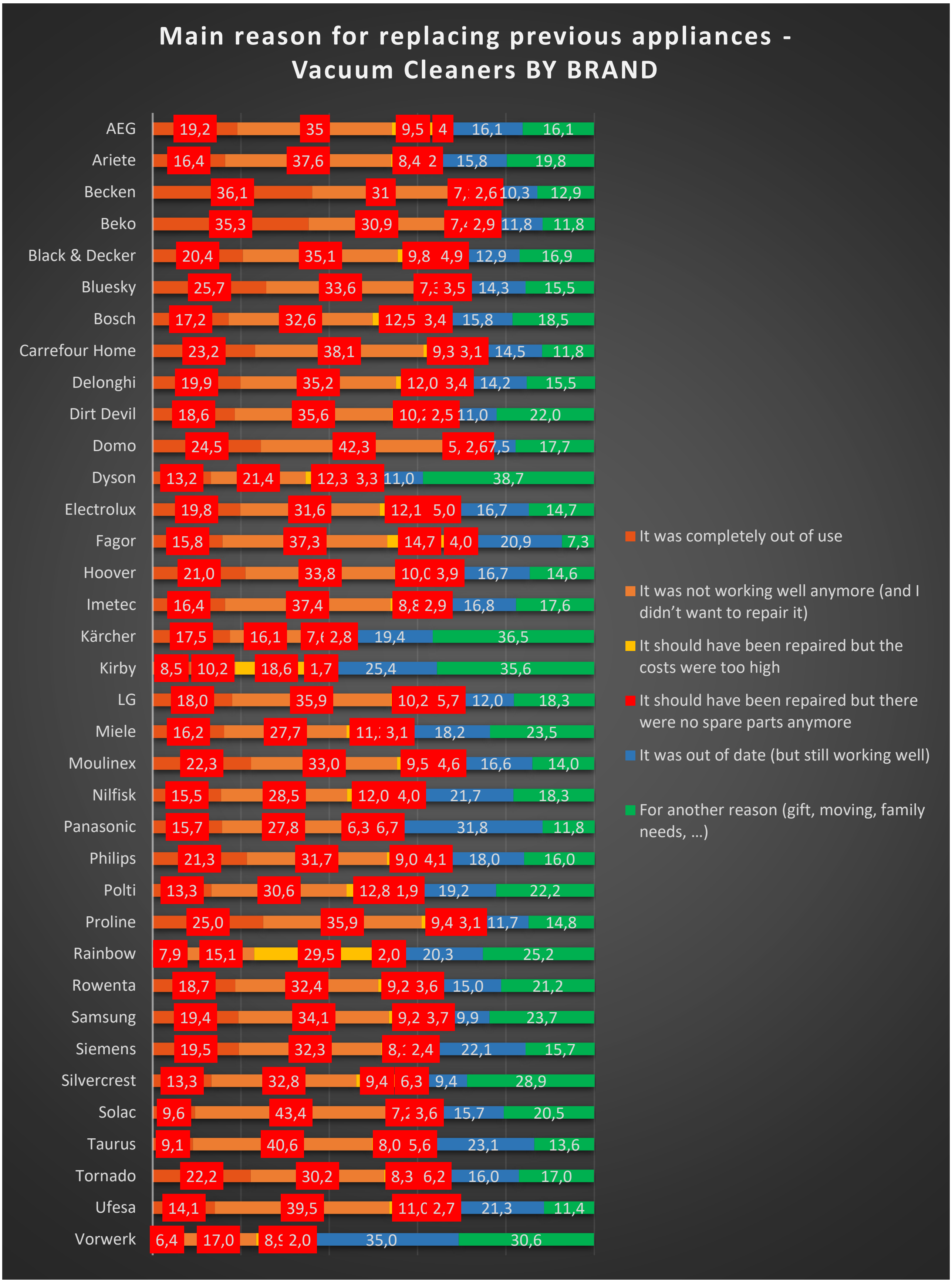
SHHA Appliances 2019-2020

Vacuum cleaners have been divided into early, intermediate and late replacement through a Two-steps cluster analysis (poor/early = 1 to 4 years (15%), intermediate/fair = 5 to 12 years (64%), late/good = more than 12 years (22%)). 74% of early replaced vacuum cleaners were replaced because of reliability-related reasons; this is significantly higher than in the other groups.

Table 12.1 Main reason for replacing the previous VACUUM CLEANERS – BY REPLACEMENT

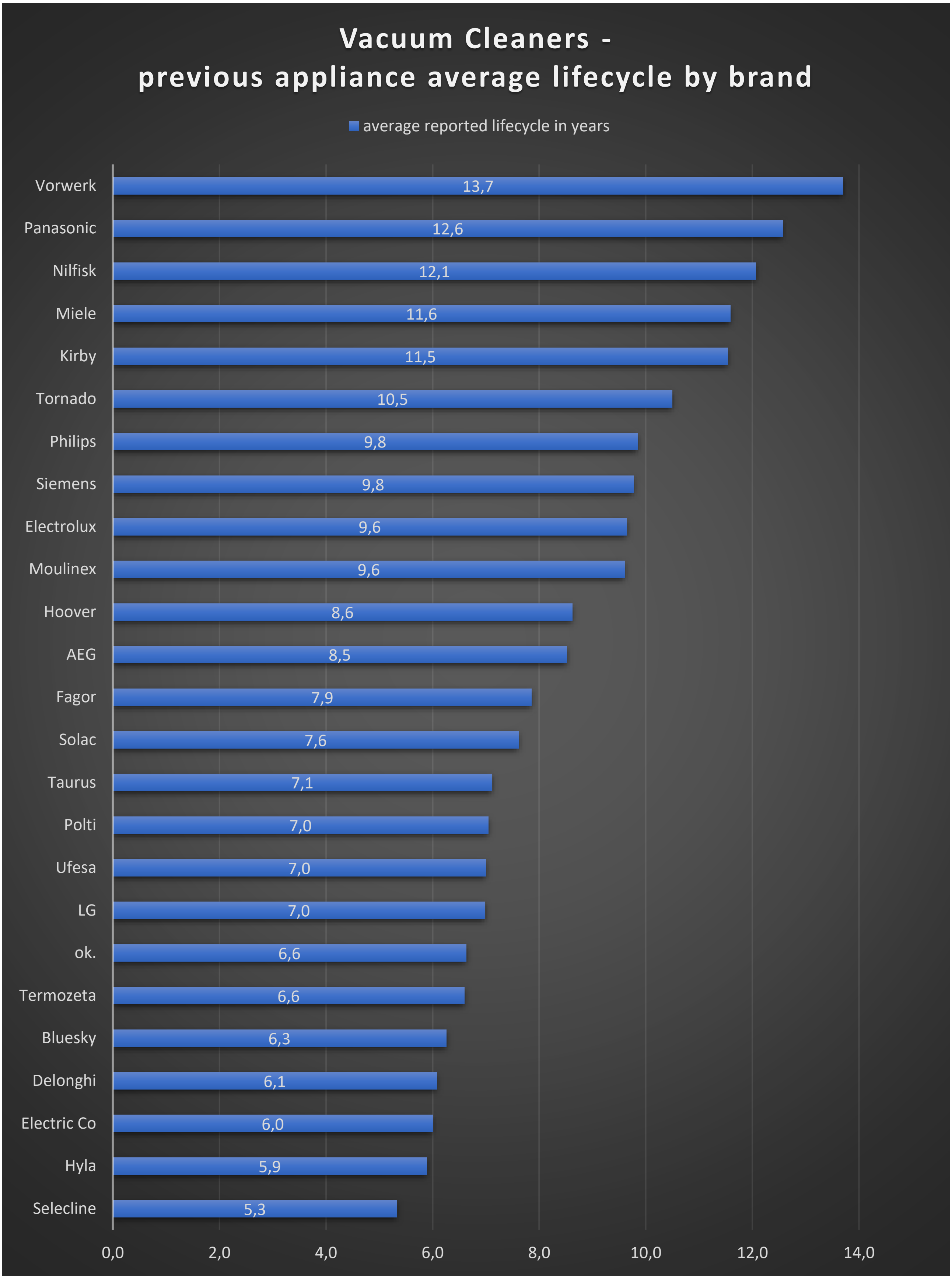
		Early	Intermediate	Late	TOTAL
completely out of use	Count	1444	5007	1511	7962
	% within country	22,2%	18,3%	16,3%	18,5%
not working well anymore (and didn't want to repair it)	Count	2382	8882	2082	13346
	% within country	36,6%	32,5%	22,4%	31,0%
repair costs too high	Count	847	2782	755	4384
	% within country	13,0%	10,2%	8,1%	10,2%
no spare parts available anymore	Count	157	927	576	1660
	% within country	2,4%	3,4%	6,2%	3,9%
RELIABILITY-RELATED REASONS	***% within country***	**74,2%**	**64,5%**	**53,1%**	**63,5%**
out of date (but still working well)	Count	434	4574	2439	7447
	% within country	6,7%	16,8%	26,3%	17,3%
another reason (gift, moving, family needs, …)	Count	1243	5130	1915	8288
	% within country	19,1%	18,8%	20,6%	19,2%
Total	Count	6507	27302	9278	43087
	% within country	100,0%	100,0%	100,0%	100,0%

Chart 12.2



SHHA Appliances 2019-2020 - these results should be read within the context of a varying lifecycle duration of the respective brands

Chart 13.



SHHA Appliances 2019-2020

Considering only reliability-related reasons for replacing, the **average lifecycle of previous vacuum cleaners** has been analysed, by including all brands with at least 30 valid cases. Further statistical analysis was done with One-Way ANOVA in order to detect homogenous subsets of brands.

Table 13. Average lifecycle of vacuum cleaners in years (reliability-related reasons) – BY BRAND

brand	N	Mean
Vorwerk	844	13 y 8 m
Panasonic	142	12 y 6 m
Nilfisk	746	12 y 0 m
Miele	2285	11 y 7 m
Kirby	67	11 y 6 m
Tornado	582	10 y 5 m
Philips	2165	9 y 10 m
Siemens	400	9 y 9 m
Electrolux	2433	9 y 7 m
Moulinex	658	9 y 7 m
Hoover	3065	8 y 7 m
AEG	1469	8 y 6 m
Fagor	120	7 y 10 m
Solac	98	7 y 7 m
Taurus	166	7 y 1 m
Polti	196	7 y 0 m
Ufesa	165	6 y 11 m
LG	221	6 y 11 m
ok.	31	6 y 7 m
Termozeta	42	6 y 7 m
Bluesky	227	6 y 3 m
Delonghi	453	6 y 0 m
Electric Co	47	6 y 0 m
Hyla	46	5 y 10 m
Selecline	30	5 y 3 m

Only devices that have been replaced because of lack of (good) functioning reasons were considered for this analysis.

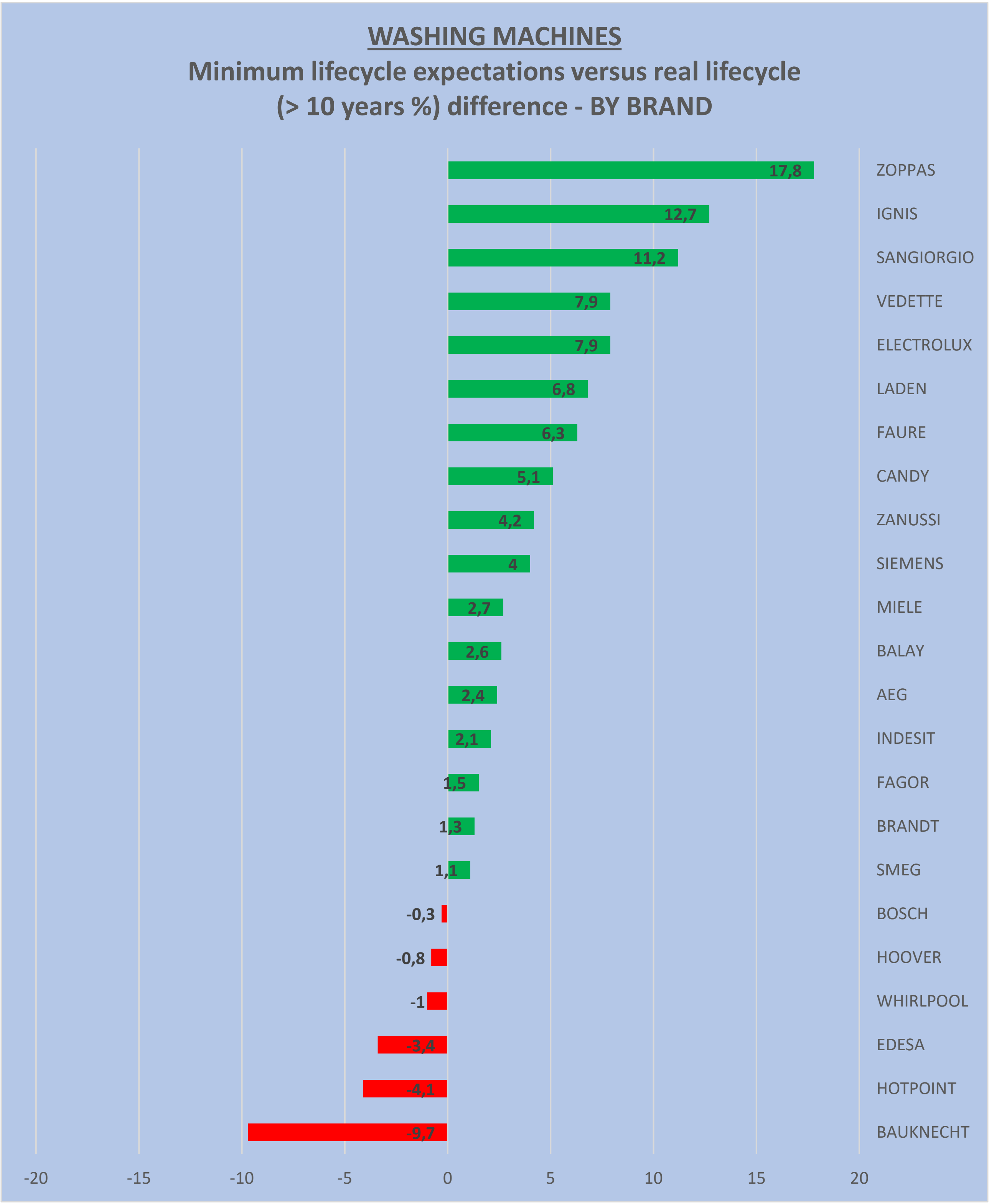
For lifecycle duration, brands more recently on the market cannot be fairly compared with brands being on the market for a longer period already. Therefore, the 95th percentile of each brand current appliance age (assumed to be a realistic indicator of the presence on the market) has been compared with the highest average age (within all previous appliances brands) plus half of the specific brand standard deviation of the previous appliance. Brands having their 95th percentile below this value have been excluded from the analysis. For these specific brands, the overview below gives a (less accurate) indication of their lifecycle.

brand	N	Mean
Ariete	184	6 y 3 m
Becken	117	5 y 8 m
Beko	102	5 y 3 m
Black & Decker	148	6 y 11 m
Bosch	1614	7 y 8 m
Carrefour Home	201	6 y 0 m
Dirt Devil	150	4 y 5 m
Domo	180	5 y 2 m
Dyson	813	7 y 5 m
Imetec	144	6 y 2 m
Kärcher	87	7 y 8 m
Proline	89	6 y 7 m
Quigg (Aldi)	37	5 y 7 m
Rowenta	2586	7 y 11 m
Samsung	267	6 y 11 m
Severin	42	6 y 8 m
Silvercrest	77	4 y 9 m
Zanussi	55	8 y 2 m

4. DIFFERENCES BETWEEN EXPECTATIONS AND REAL DURATION

4.1 WASHING MACHINES

Chart 15.



LHHA Appliances 2019

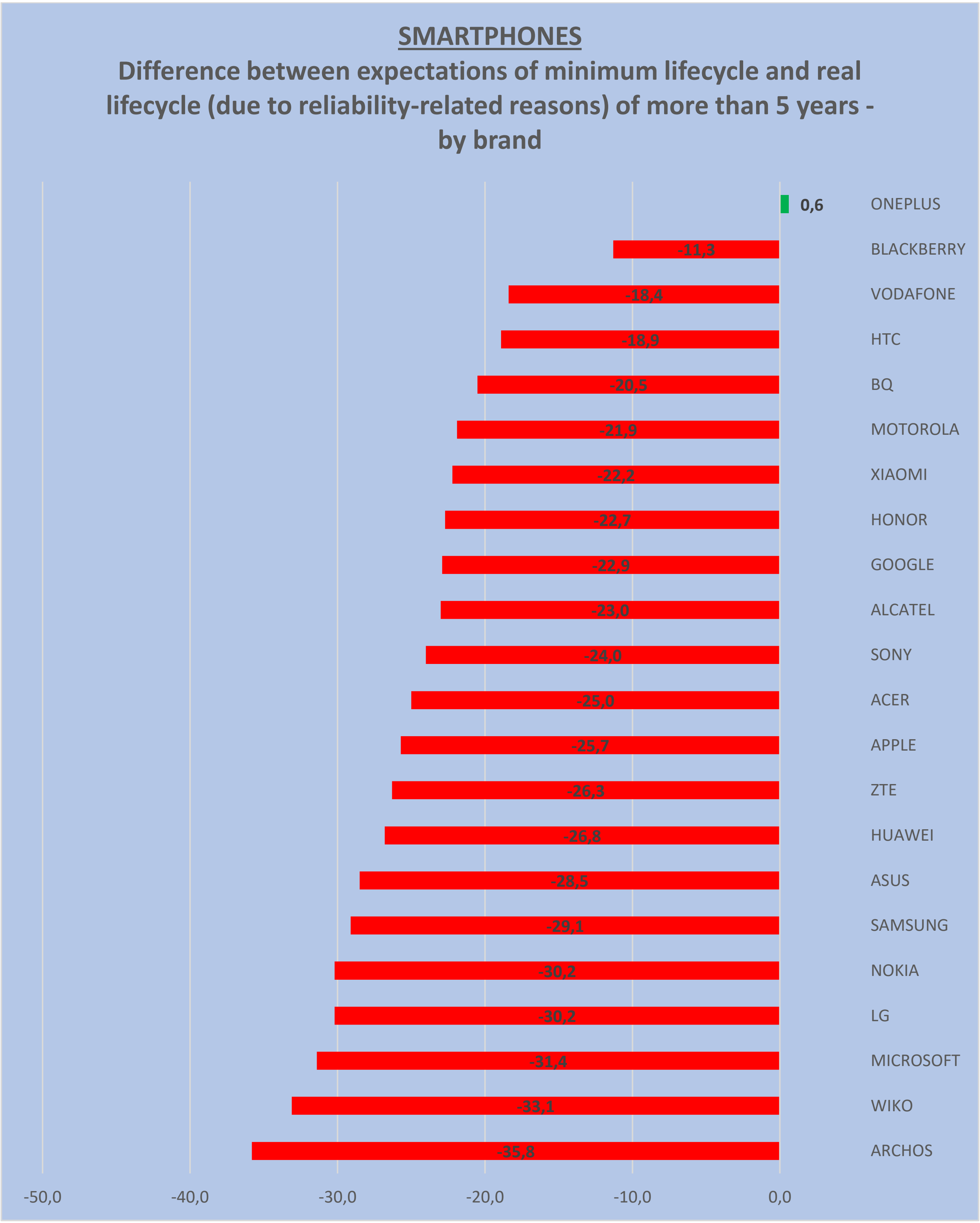
Table 15. WASHING MACHINES - Minimum lifecycle expectations versus real lifecycle (> 10 years %) difference - BY BRAND

	Expectation of more than 10 years minimum lifecycle (%)	Real lifecycle of more than 10 years* (%)	Difference (%)
AEG	48,3%	50,7%	2,4%
Balay	42,9%	45,5%	2,6%
Bauknecht	53,1%	43,4%	-9,7%
Bosch	42,3%	42,0%	-0,3%
Brandt	37,9%	39,2%	1,3%
Candy	30,9%	35,9%	5,1%
Edesa	38,6%	35,2%	-3,4%
Electrolux	32,6%	40,6%	7,9%
Fagor	39,1%	40,6%	1,5%
Faure	28,8%	35,1%	6,3%
Hoover	35,3%	34,5%	-0,8%
Hotpoint	35,4%	31,3%	-4,1%
Ignis	29,1%	41,8%	12,7%
Indesit	30,0%	32,0%	2,1%
Laden	28,9%	35,7%	6,8%
Miele	75,3%	78,0%	2,7%
Sangiorgio	40,0%	51,2%	11,2%
Siemens	48,7%	52,7%	4,0%
Smeg	41,5%	42,6%	1,1%
Vedette	30,5%	38,3%	7,9%
Whirlpool	32,8%	31,8%	-1,0%
Zanussi	42,2%	46,5%	4,2%
Zoppas	41,9%	59,7%	17,8%

***real lifecycle (excluding non-reliability related replacements)**

4.2 SMARTPHONES

Chart 16.



Hi-Tech Devices 2019

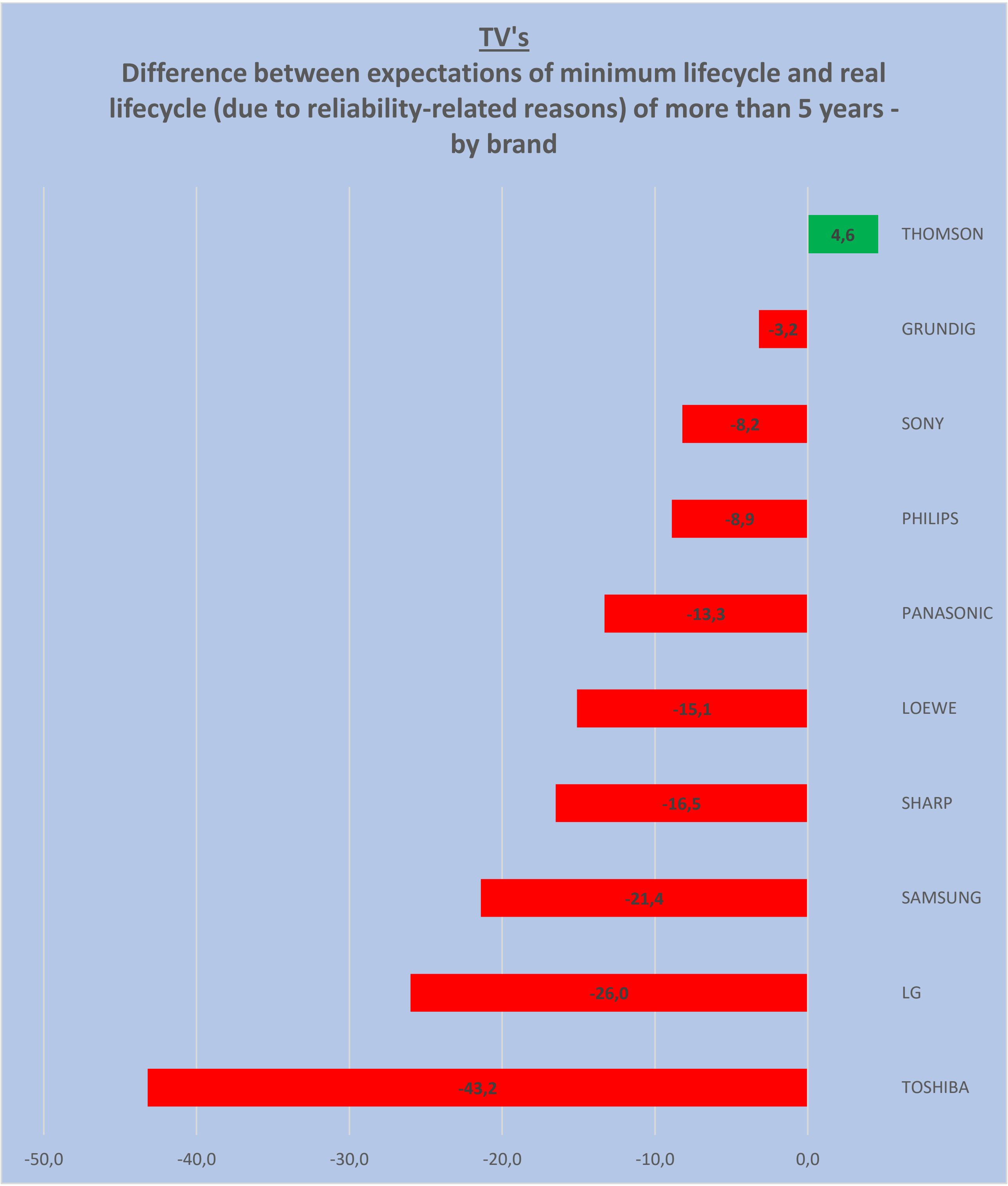
Table 16. SMARTPHONES- Minimum lifecycle expectations versus real lifecycle (> 5 years %) difference - BY BRAND

	Expectation of more than 10 years minimum lifecycle (%)	Real lifecycle of more than 10 years* (%)	Difference (%)
ACER	34,6%	9,6%	-25,0
ALCATEL	36,5%	13,5%	-23,0
APPLE	44,4%	18,7%	-25,7
ARCHOS	39,8%	4,0%	-35,8
ASUS	30,3%	1,8%	-28,5
BLACKBERRY	41,7%	30,4%	-11,3
BQ	25,5%	5,0%	-20,5
GOOGLE	27,9%	5,0%	-22,9
HONOR	22,7%	0,0%	-22,7
HTC	36,5%	17,6%	-18,9
HUAWEI	31,1%	4,3%	-26,8
LG	33,1%	2,9%	-30,2
MICROSOFT	40,7%	9,3%	-31,4
MOTOROLA	33,0%	11,1%	-21,9
NOKIA	45,7%	15,5%	-30,2
ONEPLUS	30,2%	30,8%	0,6
SAMSUNG	38,2%	9,1%	-29,1
SONY	38,7%	14,7%	-24
VODAFONE	29,8%	11,4%	-18,4
WIKO	35,7%	2,6%	-33,1
XIAOMI	23,1%	0,9%	-22,2
ZTE	28,5%	2,2%	-26,3

***real lifecycle (excluding non-reliability related replacements)**

4.3 TV's

Chart 17.



Hi-Tech Devices 2019

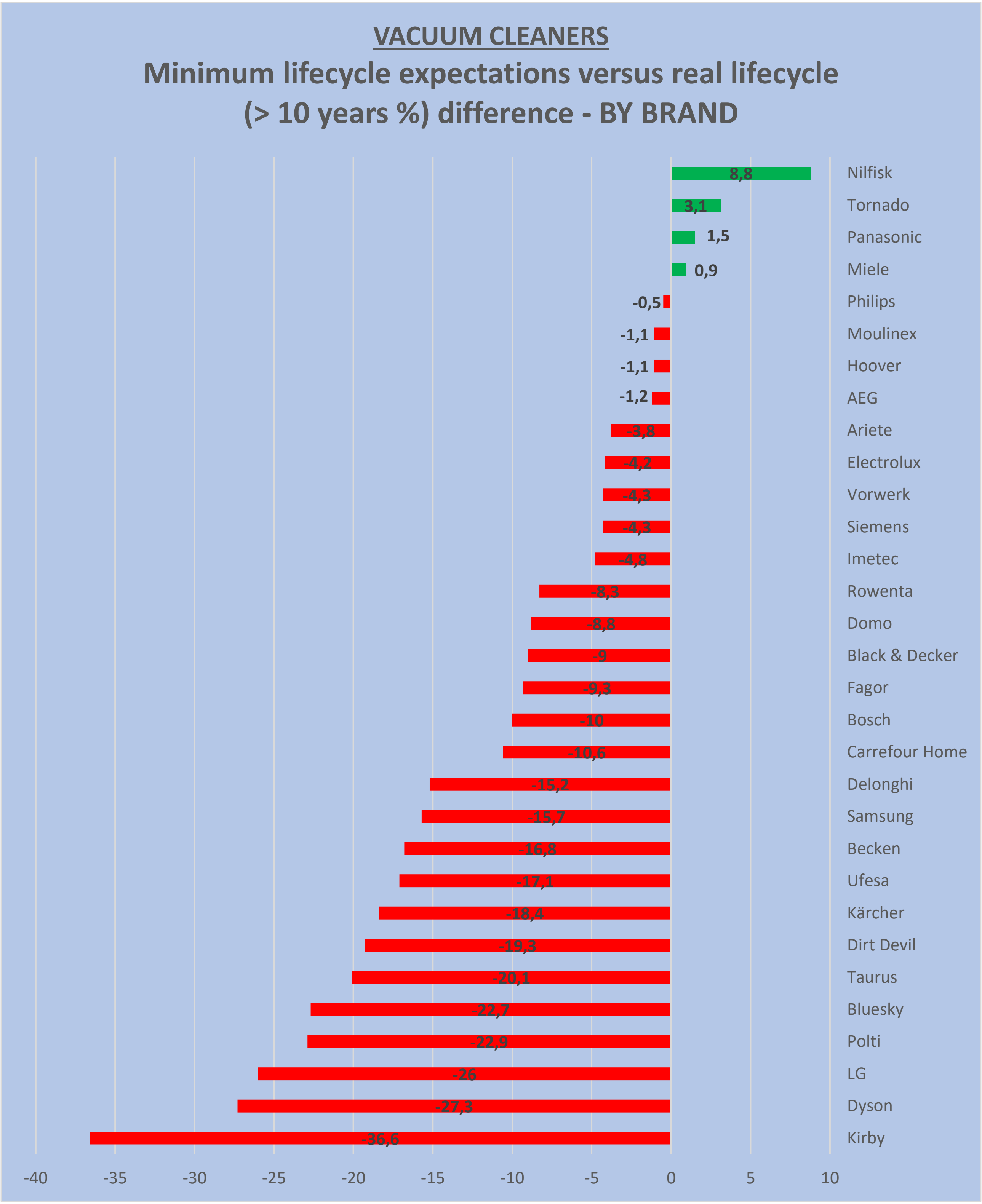
Table 17. TV'S- Minimum lifecycle expectations versus real lifecycle (> 5 years %) difference - BY BRAND

	Expectation of more than 10 years minimum lifecycle (%)	Real lifecycle of more than 10 years* (%)	Difference (%)
GRUNDIG	91,6%	88,4%	-3,2
LG	88,4%	62,4%	-26
LOEWE	95,9%	80,8%	-15,1
PANASONIC	93,2%	79,9%	-13,3
PHILIPS	92,7%	83,8%	-8,9
SAMSUNG	89,8%	68,4%	-21,4
SHARP	92,3%	75,8%	-16,5
SONY	92,5%	84,3%	-8,2
THOMSON	86,8%	91,4%	4,6
TOSHIBA	92,4%	49,2%	-43,2

***real lifecycle (excluding non-reliability related replacements)**

4.4 VACUUM CLEANERS

Chart 18.



SHHA Appliances 2019-2020

Table 18. VACUUM CLEANERS - Minimum lifecycle expectations versus real lifecycle (> 10 years %) difference - BY BRAND

	Expectation of more than 10 years minimum lifecycle (%)	Real lifecycle of more than 10 years* (%)	Difference (%)
AEG	31,3%	30,1%	-1,2%
Ariete	19,2%	15,4%	-3,8%
Becken	26,2%	9,4%	-16,8%
Black & Decker	25,3%	16,3%	-9,0%
Bluesky	36,8%	14,1%	-22,7%
Bosch	34,3%	24,3%	-10,0%
Carrefour Home	22,6%	12,0%	-10,6%
Delonghi	28,0%	12,8%	-15,2%
Dirt Devil	24,2%	4,9%	-19,3%
Domo	14,9%	6,1%	-8,8%
Dyson	47,4%	20,1%	-27,3%
Electrolux	43,3%	39,1%	-4,2%
Fagor	34,5%	25,2%	-9,3%
Hoover	31,9%	30,8%	-1,1%
Imetec	20,3%	15,5%	-4,8%
Kärcher	44,5%	26,1%	-18,4%
Kirby	80,5%	43,9%	-36,6%
LG	42,2%	16,2%	-26,0%
Miele	52,8%	53,7%	0,9%
Moulinex	39,4%	38,3%	-1,1%
Nilfisk	50,7%	59,5%	8,8%
Panasonic	59,8%	61,3%	1,5%
Philips	41,2%	40,7%	-0,5%
Polti	42,7%	19,8%	-22,9%
Rowenta	34,3%	26,0%	-8,3%
Samsung	31,1%	15,4%	-15,7%
Siemens	46,2%	41,9%	-4,3%
Taurus	42,5%	22,4%	-20,1%
Tornado	42,4%	45,5%	3,1%
Ufesa	34,4%	17,3%	-17,1%
Vorwerk	65,3%	61,0%	-4,3%

***real lifecycle (excluding non-reliability related replacements)**

SHHA Appliances 2019-2020 – brands with more than 100 respondents in both current and previous appliances