

TYRE & RUBBER manufacturers' association



European Tyre Labelling review: the first five years

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This report has been realized with the support of the independent data collection by Lizeo Group.

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Executive Summary

Lizeo Group¹ carried out this study with the objective of taking stock of the evolution of the European tyre market with regard to the performances indicated on the tyre label, implemented in November 2012.

Coherently with the European tyre label that takes into consideration environmental and safety performances at the same time, Lizeo Group has not looked at any of the performance indicators in isolation, but at the combination of rolling resistance and wet grip classes, since these two performances are in trade-off.

Lizeo Group applied this methodology to about 400.000 labels collected across the 28 EU Member States between 2012 and 2017 and looked at the evolution of the presence of different label grades combinations on the European market. The collected labels are classified into passenger car tyres (C1), van tyres (C2) and truck and bus tyres (C3). Within these categories, tyres were divided into budget, mid and premium brands. The 2017 most popular car tyre label (about 25% of the market)



A similar exercise was carried out by the European

Commission in its Impact Assessment accompanying the "Proposal for a Regulation of the European Parliament and of the Council on the labelling of tyres with respect to fuel efficiency and other essential parameters, and repealing Regulation (EC) No 1222/2009" of May 2018.

The main differences in the approach of the two studies regard the following:

- Geographical scope of the study: the EC only looked at the German market, whilst Lizeo Group took into consideration the EU-28;
- Methodology: the EC looked at single performances, whilst Lizeo Group took rolling resistance and wet grip in combination.

Introduction to the European tyre label

ETRMA has supported the tyre label since its inception in 2009 and has been fully engaged in its implementation, since 2012. The tyre label encourages competition and differentiates products based on performance, providing consumers the opportunity to make informed decisions.

The European tyre label consists of three performance indicators:

- The rolling resistance class depends on the ability of the tyre to improve the vehicle's fuel efficiency and lower its CO₂ emissions.
- Tyres with a shorter braking distance on wet roads are awarded a better wet grip class. This performance is an indicator for their safety.
- Noise levels are expressed in decibels, accompanied by one, two or three sound waves, with one black as an indication of the best noise level performance.

Tyres are the only product with a dual labelling designed in a way to show the two performances in trade-off side by side. Refrigerators might have multiple label

¹ An independent Global Information Technology company focused on managing and adding value to Big Data for the Tyre Industry

parameters, but these are not in trade-off. This is why for tyres it is **essential to visualize the market evolution by the two parameters together**.

To understand this concept of trade-off between rolling resistance and wet grip, one can think of a very "hard" tyre – like a train wheel. This will be very fuel efficient (small effort would be needed to move the vehicle) but performing with difficulties on wet braking (a train needs many meters to stop). On the other side of the spectrum, one could think of a very "soft" tyre – like a chewing-gum. This will perform excellently in braking but will be very poor with regard to fuel consumption.

This is why any analysis of the market cannot overlook this peculiarity and should take into consideration the combination of rolling resistance and wet grip performances. Concerning tyre rolling noise performance which is also in trade-off compared to wet grip, this has not been taken into account in this study as not enough data has been collected yet. The next review will include also this performance evolution.

Key findings of the analysis

Passenger car tyres

- In 2012-13, the most common tyre label for passenger car tyres was rated "E" for Rolling Resistance and "C" for Wet Grip. In 2017, this label was still the most common constituting around one-fourth of the passenger car tyre market.
- Across all brands of passenger car tyres, the rolling resistance label of the lowest classes G and F were eliminated (following the application of GSR Regulation 661/2009).
- Most efforts on improving wet grip performance was carried out by premium brands in the passenger car market, as compared to budget or mid-market brands.

Van tyres

• Among van tyres, **E-C labels** were the most common throughout 2012-2017, representing around **one-third of the market**.

Truck and bus tyres

• Among truck and bus tyres, **C-D labels** were the most common throughout 2012-2017 at just below **one-quarter of the market**.

Conclusion

The findings of the analysis indicate there is still room for improvement to obtain the full potential of the European tyre label.

Firstly, the data analysis shows that **the tyre label is still a relatively new tool and that consumers are still in the process of gaining better awareness and understanding of its benefits.** Furthermore, the labeling tool is confronted with an **evolving market**: recent years showed an increasing number of new brands on the market (+20%), especially in the budget segment, which increased by 134% in volume. This is a clear indication that, at present, consumers still choose their tyres mainly on the basis of price.

Furthermore, improvements can be made in relation to the reliability of the label: a considerable amount of tyres contain incorrect labelling, which shows the importance of the Market Surveillance as a key element in ensuring the effectiveness of the tyre label.



Criteria and set-up of the study

Lizeo Group collected and analysed about 400.000 tyre labels across the 28 EU Member States between 2012 and 2017. The collected labels are classified into passenger car tyres (C1), van tyres (C2) and truck and bus tyres (C3) and within these categories, tyres were divided into budget, mid and premium brands.

Grand Total **C1** Budget Mid Premium **C2** Budget Mid Premium C3 Budget Mid Premium **Grand Total**

The data set is composed as follows:

The data clearly indicate an increase in the budget segment over the years, with a rate much higher than Premium/Mid brands.

Analysis

As mentioned above, any analysis must be performed looking at both fuel consumption (rolling resistance) and wet grip, since there is a physical and technological trade-off between these performances.

Passenger Car Tyres ("C1")

The market in 2012-2013 – Car Tyres

The most popular car tyre label in 2012 was "E" for Fuel Consumption and "C" for wet grip.

C1	2012								
	2013	А	В	С	E	F	G		
1	А	0.1%	0.3%	1.7%	2.3%	0.8%	0.1%	5.3%	
	В	0.0%	0.7%	4.6%	9.8%	4.4%	0.6%	20.3%	.W:
g	С	0.0%	0.4%	8.8%	22.9%	12.9%	2.0%	47.0%	g
E S	E	0.0%	0.1%	3.0%	10.4%	6.2%	1.0%	20.7%	NE
	F	0.0%	0.2%	0.7%	2.1%	3.5%	0.2%	6.7 %	
		0.2%	1.7%	18.9%	47.5%	27.8 %	4.0%	100%	

Market in 2012

(values>5% are highlighted)

The market in 2017 – Car Tyres

The most popular car tyre label in 2017 is still "E" for Fuel Consumption and "C" for wet grip. A more detailed analysis of the label evolution from 2012 to 2017 is showing, beside an increasing number of budget tyre offers, some improvement of wet grip label grading of premium brands.

C1	2017								
		А	В	С	E	F	G		
	А	0.1%	0.6%	3.4%	2.4%	0.6%	0.0%	7.1%	
.	В	0.1%	1.2%	8.0%	10.3%	2.8%	0.3%	22.6%	
g	С	0.1%	0.6%	11.0%	26.7%	9.6%	1.0%	48.9 %	g
NET	E	0.0%	0.2%	2.9%	8.7%	4.0%	0.6%	16.3%	NET
	F	0.0%	0.2%	0.7%	2.1%	2.0%	0.1%	5.1%	
		0.2%	2.6 %	26.0%	50.3%	18.9%	2.0%	100%	

Market in 2017

(values>5% are highlighted)

In 2008, the European Commission published an Impact Assessment² accompanying the publication of the first (and currently in implementation) tyre labelling regulation (1222/2009). In this report it analyzed the situation of the market with regard to rolling resistance, in isolation from the other performances. When comparing the situation pictured then to the one of today, for this performance alone, the situation appears in line with the "baseline scenario" as indicated by the European Commission.

		Α	В	С	D	E	F	G
Rolling Resistance Coefficient (kg/t)		below 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	above 12
Price premium (€)		112	77	53	33	16	0	-16
Total	fuel savings (€) ³⁹	280	224	168	112	56	0	-56
Payback period (months) ⁴⁰		8	8	7	7	7	0	0
C0 ₂ r	eal world savings (g/km)	13.6	10.9	8.2	5.4	2.7	0	-2.7
are	in 2012	0%	1%	4%	15%	16%	23%	23%
ırket sha	in 2020 (slow pace)	3%	10%	25%	38%	24%	0%	0%
	in 2020 (fast pace)	10%	15%	25%	25%	25%	0%	0%
Ĕ	in 2020 (baseline scenario)	0%	2%	17%	17%	63%	0%	0%

from 2008 EC Impact Assessment document

A detailed comparison of the figures underlines that the tyre label is still in its early years and additional efforts should be put in place to disseminate the label information to end users, to obtain better overall results.



² European Commission Staff Working Document Sec(2008) 2860 Impact Assessment of 2008 Accompanying Document to the Proposal for the Regulation 1222/2009

Evolution 2012-13 to 2017:

Passenger car tyres in 2017 equal to "B-B or better" are still less than 2% of the market in 2017 (1.2% in 2012). Some improvement can be noted, especially due to wet grip, when considering the market % "C-C or better", that moved from about 17% in 2012-2013 to about 25% in 2017. **75% of the market is below C-C**.

C1	2012	2013	2014	2015	2016	2017
A - A	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
A - B	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
A - C	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%
B - A	0.3%	0.3%	0.4%	0.4%	0.5%	0.6%
B - B	0.7%	0.7%	0.8%	0.9%	1.0%	1.2%
B - C	0.4%	0.4%	0.5%	0.5%	0.6%	0.6%
C - A	1.5%	1.9%	2.1%	2.5%	3.1%	3.4%
C - B	4.4%	4.8%	5.3%	6.3%	7.4%	8.0%
C - C	8.6%	8.9%	9.7%	10.3%	10.4%	11.0%
A - E	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
A - F	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
B - E	0.1%	0.1%	0.1%	0.1%	0.2%	0.2%
B - F	0.1%	0.2%	0.2%	0.2%	0.2%	0.2%
C - E	3.1%	3.0%	3.1%	3.1%	3.1%	2.9%
C - F	0.7%	0.8%	0.8%	0.7%	0.8%	0.7%
E - A	2.3%	2.3%	2.4%	2.4%	2.6%	2.4%
E - B	10.0%	9.7%	10.0%	10.0%	10.2%	10.3%
E - C	22 .7%	23 .1%	23 .7%	25.2 %	25.5 %	26.7 %
E - E	10.6%	10.2%	9.8%	9.5%	9.1%	8.7%
E - F	1.8%	2.3%	2.3%	2.3%	2.2%	2.1%
F - A	0.8%	0.8%	0.8%	0.7%	0.7%	0.6%
F - B	4.5%	4.3%	4.0%	3.5%	3.1%	2.8%
F - C	13.1%	12.6%	11.9%	11.0%	10.1%	9.6%
F - E	6.4%	6.0%	5.5%	4.8%	4.2%	4.0%
F - F	3.6%	3.5%	3.0%	2.6%	2.4%	2.0%
G - A	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%
G - B	0.7%	0.6%	0.6%	0.5%	0.4%	0.3%
G - C	2.1%	1.9%	1.6%	1.4%	1.2%	1.0%
G - E	1.1%	1.0%	0.9%	0.8%	0.7%	0.6%
G - F	0.2%	0.2%	0.2%	0.2%	0.1%	0.1%

RR-WETG. B-B or better: <2% in 2017. Values >5% highlighted

Market distribution by segment:

The market distribution over different segments is indeed showing some market differentiation. Furthermore, it shows that premium brands have preferred to focus on improving the wet grip performance.

C1 2012-13	Budget	Mid	Premium	C1 2017	Budget	Mid	Premium
RR-WETG	100.0%	100.0%	100.0%	RR-WETG	100.0%	100.0%	100.0%
A - A	0.0%	0.0%	0.2%	A - A	0.0%	0.0%	0.3%
A - B	0.0%	0.0%	0.1%	A - B	0.0%	0.0%	0.2%
A - C	0.1%	0.0%	0.0%	A - C	0.1%	0.0%	0.0%
B - A	0.0%	0.0%	1.1%	B - A	0.0%	0.2%	2.1%
B - B	0.2%	1.0%	1.5%	B - B	0.7%	1.0%	2.7%
B - C	0.3%	0.1%	0.6%	B - C	0.4%	0.1%	1.2%
C - A	0.3%	1.5%	4.4%	C - A	0.8%	8.2%	8.2%
C - B	2.9%	4.7%	7.7%	C - B	7.1%	6.5%	11.1%
C - C	7.7%	12.1%	9.1%	C - C	11.4%	11.0%	9.9%
A - E	0.0%	0.0%	0.0%	A - E	0.0%	0.0%	0.0%
A - F	0.0%	0.0%	0.0%	A - F	0.0%	0.0%	0.0%
B - E	0.1%	0.0%	0.1%	B - E	0.1%	0.0%	0.3%
B - F	0.0%	0.0%	0.6%	B - F	0.0%	0.0%	0.6%
С - Е	3.7%	0.8%	2.9%	C - E	3.4%	0.6%	2.6%
C - F	0.3%	0.4%	1.7%	C - F	0.3%	0.9%	1.8%
E - A	0.5%	2.4%	5.4%	E - A	0.7%	3.8%	6.2%
E - B	8.0%	10.9%	12.7%	E - B	9.3%	11.3%	12.6%
E - C	25.8%	22.0%	18.1%	E - C	31.8%	22.0%	15.1%
E - E	12.8%	5.0%	8.6%	E - E	10.6%	3.9%	5.9%
E-F	1.9%	2.6%	2.0%	E - F	2.3%	3.3%	1.2%
F - A	0.3%	0.5%	1.8%	F - A	0.2%	0.4%	1.7%
F - B	3.6%	5.0%	5.6%	F - B	2.0%	3.7%	4.6%
F - C	15.3%	15.5%	7.1%	F - C	10.6%	12.8%	5.3%
F - E	8.0%	4.4%	3.8%	F - E	4.7%	2.7%	2.5%
F-F	3.8%	4.3%	2.6%	F - F	1.7%	3.2%	2.0%
G - A	0.1%	0.0%	0.1%	G - A	0.0%	0.0%	0.0%
G - B	0.8%	0.5%	0.4%	G - B	0.3%	0.3%	0.3%
G - C	1.8%	5.0%	0.9%	G - C	0.7%	3.3%	0.7%
G - E	1.3%	0.9%	0.6%	G - E	0.6%	0.6%	0.4%
G - F	0.2%	0.3%	0.3%	G - F	0.1%	0.1%	0.3%
= or above C-C	11.6%	19.4%	24.6 %	= or above C-C	20.5%	27.1%	35.8%

Values above 2% are highlighted

When looking at 2017 data, some significant positive evolution in the higher classes is visible only below "B-B", with the A-A, A-B and B-A classes remaining substantially unpopulated, even for the premium brands.

Van Tyres ("C2")

Some evolution is visible on this segment where labels equal or above C-C evolved up to 20%. **The most popular label is still E-C, representing one third of the market.**

C2	2012	2013	2014	2015	2016	2017
RR- WETG	100%	100%	100%	100%	100%	100%
B - A	0%	0%	0%	0%	0%	0%
B - B	1%	1%	1%	1%	1%	1%
B - C	0%	0%	0%	0%	0%	0%
C - A	0%	0%	1%	1%	1%	3%
C - B	5%	4%	5%	6%	6%	7%
C - C	7%	7%	7%	8%	9%	9%
A - E	0%	0%	0%	0%	0%	0%
A - F	0%	0%	0%	0%	0%	0%
B - E	0%	0%	0%	0%	0%	0%
B - F	0%	0%	0%	0%	0%	0%
C - E	4%	4%	4%	4%	4%	4%
C - F	0%	0%	0%	0%	0%	0%
E - A	1%	1%	1%	1 %	2%	2%
E - B	8%	7%	7%	8%	9%	9%
E - C	30%	31%	32%	33%	33%	34%
E - E	15%	14%	14%	12%	11%	10%
E - F	1%	2%	2%	2%	2%	2%
F - A	1%	1%	1%	1%	1%	1%
F - B	5%	4%	4%	4%	4%	3%
F - C	10%	11%	11%	10%	9%	8%
F - E	6%	6%	5%	4%	4%	4%
F - F	3%	3%	3%	2%	2%	2%
G - A	0%	0%	0%	0%	0%	0%
G - B	1%	1%	0%	0%	0%	0%
G - C	1%	1%	1%	0%	0%	0%
G - E	1%	1%	1%	1%	1%	0%
G - F	0%	0%	0%	0%	0%	0%
= or above C-C	13%	13%	14%	17%	18%	20%

Values above 5.0% are highlighted.

Truck and Bus Tyres ("C3")

The market in 2012-2013 vs 2017 - Truck Tyres

The market evolution for truck tyres is similar to passenger car tyres: **the "C-D" label was the most popular in 2012 and it is still the most popular in 2017.**

C3	2012-								
	2013	А	В	С	D	Е	F		
	А	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.1%	
. (;	В	0.3%	1.5%	0.8%	0.1%	0.1%	0.0%	2.7%	.
	С	1.3%	12.2%	12.5%	1.1%	2.0%	0.0%	29.1 %	
ETG	D	0.9%	13.1%	24.4%	1.5%	0.0%	0.0%	39.9 %	ETG
≥	E	0.3%	4.2%	16.0%	2.6%	0.0%	0.0%	23.1 %	≥
	F	0.0%	0.3%	3.7%	0.6%	0.3%	0.0%	5.0%	
		2.8%	31.3%	57.5%	5.9 %	2.5%	0.0%	100%	

03	2017								
	2017	А	В	С	D	E	F		
	А	0.1%	0.1%	0.2%	0.0%	0.0%	0.0%	0.4%	
.	В	0.4%	2.2%	1.0%	0.1%	0.1%	0.0%	3.9 %	.
45	С	1.2%	12.6%	12.0%	1.5%	1.9%	0.0%	29.3 %	45
ETG	D	0.8%	14.4%	23.0%	2.1%	0.0%	0.0%	40.4%	ETG
≥	E	0.2%	4.7%	14.5%	2.3%	0.2%	0.0%	21.9 %	≥
	F	0.1%	0.6%	2.9%	0.4%	0.2%	0.0%	4.1%	
		2.8 %	34.7%	53.7%	6.4 %	2.4%	0.0%	100%	
				R	R				



Conclusion

Tyre label market 2012-2017, the Lizeo Group study

The overall youth of the tyre label as tool to foster market evolution appears evident when analyzing a significantly populated EU-wide database. The same can be gathered when looking at other national-related databases, like the VACO database for the Netherlands, confirming, for example, the E_{RR} - C_{WETG} as the most popular C1 label in the Netherlands in 2017.

The most popular labels according to this Lizeo Group study are shown below by tyre segment:



Comparison with the Impact Assessment of the EC

On the occasion of the publication of the Proposal for a Review of the Tyre Label Regulation³, the European Commission published a new Impact Assessment looking at the way the tyre label had influenced the European tyre market.

For the purpose of its report, the European Commission, took into consideration German Market data⁴, without specifying the number of labels included in the study.

The European Commission performed its analysis only focusing on individual tyre performances in isolation. This goes against the very principle behind the tyre label regulation, which clearly states the necessity to take into consideration tyre performances in combination because of their trade-off.

Therefore, the assessment of the EC provided a market evolution far more "optimistic" (especially when looking at 2017 data) than what indicated by the Lizeo Group EU-wide survey.

RRC class Class average	A 6.3	B 7.4	C 8.7	E 10	F 11.5	G 12.4	Market average	Market average with non- compliance
2012	0%	3%	29%	42%	24%	1%	9.92	10.28
2013	1%	6%	36%	39%	17%	1%	9.64	10.01
2014	0%	5%	36%	43%	15%	1%	9.63	10.00
2015	0%	5%	38%	42%	14%	0%	9.57	9.93
2016	0%	5%	34%	43%	17%	1%	9.68	10.05
2017	0%	6%	37%	42%	15%	1%	9.59	9.96

Source: Data from TOL (Tyres On-Line, Germany).

Wet grip class	A 1.6	B 1.47	C 1.32	E 1.17	F 1.04	Market	Market average with non- compliance
2012	10%	27%	61%	9%	3%	1.36	1.32
2013	18%	37%	52%	8%	3%	1.39	1.35
2014	21%	37%	52%	8%	3%	1.40	1.35
2015	23%	40%	50%	8%	1%	1.41	1.36
2016	21%	38%	49%	11%	3%	1.40	1,35
2017	26%	41%	48%	9%	3%	1.41	1.36

Source: Data from TOL (Tyres On-Line, Germany).

When looking at wet grip for 2017, the EC data for the wet grip classes add up to 127%. For this reason, it is difficult to use this data in combination with those of rolling resistance above to make a meaningful comparison with the results of the Lizeo Group study.

The lack of visualization of both rolling resistance and wet grip performances together does not allow a clear view of the actual market evolution. However, an attempt was made to put together the information contained within the EC Impact Assessment of 2008, the relevant projections for 2012 and 2020 (BAU / slow / fast, as referred to in page 7) and the EC Impact Assessment of 2018, together with the rolling resistance-only data from this Lizeo Group 2012-2017 study.

³ Proposal for a Regulation of the European Parliament and of the Council on the labelling of tyres with respect to fuel efficiency and other essential parameters, and repealing Regulation (EC) No 1222/2009" of May 2018 4 Source: Tyres On-Line Germany (TOL).

The results for rolling resistance show that:

- The EC estimated projection for 2012 was more conservative vs the actual performance of the market in 2012 (both according to Lizeo Group data and EC IA 2018 from TOL).
- The actual market RR grading distribution in 2017 ("Today") is somehow better positioned according to EC 2018 Impact Assessment (TOL data), closer to 2008 EC "slow" rump up projection, in comparison with Lizeo Group EU data (closer to 2008 EC BAU scenario).

Since the 2017 data for wet grip from the 2018 Impact Assessment of the European Commission add up to 127%, it is not possible to perform the same comparison with the Lizeo Group study for this performance, in isolation.

Furthermore, data show that Rolling Resistance has moved away from the worse classes (as per request of 661/2009 Regulation). However, **the advancing of both performances to the highest classes has not occurred in a linear manner, since this entails significant technological challenges as well as a better uptake of the label by the consumer.**



C1 - Cumulative distribution - Rolling resistance only

Criteria for the rescaling of the tyre label

The *Framework for Energy Labelling Regulation*⁵ sets the guidelines that need to inform the legislator when the labelling regulations, including the tyre label, need to be reviewed.

This includes the assessment of whether the label classes need to be re-scaled – for example with the addition of new top classes. This is dealt with by Article 11 of this Framework Regulation:

"As regards the products for which the Commission may further rescale the labels in accordance with paragraph 3, the Commission shall review the label with a view to rescaling if it estimates that:

- (a) 30 % of the units of models belonging to a product group sold within the Union market fall into the top energy efficiency class A and further technological development can be expected; or
- (b) 50 % of the units of models belonging to a product group sold within the Union market fall into the top two energy efficiency classes A and B and further technological development can be expected."

Based on these guidelines, the criteria for rescaling are not yet met and the tyre label market should further improve before any rescaling is carried out.

In summary

The state of the market according to the study by Lizeo Group leads to the following main conclusions:

- The criteria for rescaling set in the Labelling Framework Regulation are not met: the current tyre label market for the top class is less than 0.1%.
- The tyre label is still a "young tool": there is still a significant potential for further dissemination and "awareness growth" of the current tyre label.
- There is a strong need for market surveillance: the Lizeo Group study did not mean to seek for irregularities in the application of the tyre label and yet it discovered a high number of tyres that were wrongly labelled.

The Lizeo Group study clearly indicates that the top label classes, in the combination of rolling resistance and wet grip, remain mostly unpopulated. These facts need to be taken into account when reviewing the tyre label regulation (1222/2009) to ensure that the resulting new rules correctly reflect the European tyre label market and are enforceable and effective.

⁵ Article 11 of Regulation (EU) 2017/1369 of the European Parliament and of the Council of 4 July 2017





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