

CO₂ emissions performance of car manufacturers in 2010



Executive summary

Data collected by the European Environment Agency (EEA) on CO₂ emissions from passenger cars reveal that the majority of the larger car manufacturers are well on track to achieve the CO₂ emissions target for 2012 set by Regulation (EC) 443/2009 of the European Parliament and the Council setting emissions performance standards for new passenger cars as part of the Community's integrated approach to reduce the CO₂ emissions from light duty vehicles.

Additional efforts are needed to achieve the regulation's target for 2015 but manufacturers still

have four years to reduce CO₂ emissions further and ensure compliance. From 2012, the regulation provides that manufacturers that are not compliant with the targets must pay an 'excess emissions premium'.

Using the Member State data verified by the EEA, this note provides an overview of the performance of cars manufacturers in meeting their CO₂ emissions targets set by the regulation.

1 Calculating the CO₂ emissions performance of car manufacturers

To reduce CO₂ emissions in the road transport sector, the European Parliament and the Council adopted Regulation (EC) No 443/2009 introducing mandatory CO₂ emissions performance standards for new passenger cars.

The regulation sets a CO₂-specific emissions ⁽¹⁾ target of 130 g CO₂/km by 2015, defined as the average value for the fleet of newly registered passenger cars in the EU. A long-term target of 95 g CO₂/km is set for 2020.

The performance of manufacturers is evaluated on an annual basis by calculating the following three parameters:

1. average specific emissions of CO₂;
2. the specific emissions target;
3. the difference between the average specific emissions and the emissions target.

The data used for the calculations are collected by Member States each calendar year, based on Member State registrations of new passenger cars. Once transmitted to the Commission and the EEA, the data are communicated to manufacturers for verification. The Commission considers the manufacturers' corrections and confirms their average CO₂ emissions and specific emissions targets.

1.1 Average specific emissions

Average specific emissions of CO₂ are calculated as a weighted average of the manufacturer's fleet. Several adjustments must also be considered (Table 1.1):

- phase-in;
- super-credits;
- E85 extra credits;
- eco-innovation.

Phase-in

A phase-in schedule applies for calculating average specific emissions. During the period 2012–2014,

only a certain percentage (65 % in 2012, 75 % in 2013, 80 % in 2014) of the best performing registered cars will be taken into account in determining the performance of manufacturers. From 2015 onwards, 100 % of the new cars of each manufacturer will be taken into account.

Super-credits

The regulation foresees the allocation of super-credits for new passenger cars with CO₂ emissions lower than 50 g CO₂/km. These vehicles are given a higher weight in calculating CO₂-specific emissions as they are considered equivalent to 3.5 cars in 2012 and 2013, 2.5 cars in 2014, 1.5 cars in 2015, 1 car from 2016 onwards.

E85 extra credits

Additional reductions of average specific emissions are assigned for vehicles capable of running on a mixture of petrol with 85 % ethanol ('E85'). Their CO₂ emissions will be reduced by 5 % until 2015 in recognition of their ability to reduce emissions when running on biofuels. This reduction can be applied only where at least 30 % of the filling stations in the Member State in which the vehicle is registered provide this type of alternative fuel.

Eco-innovation

Certain innovative technologies cannot demonstrate their CO₂-reducing effects under the current type approval test procedure. The procedure is expected to be reviewed by 2014 and until then manufacturers can be granted a maximum of 7 g CO₂/km of emissions credits on average for their fleet for innovative technologies, based on independently verified data. Detailed rules on this procedure are set out in Commission Regulation (EU) No 725/2011 establishing a procedure for the approval and certification of innovative technologies for reducing CO₂ emissions from passenger cars pursuant to Regulation (EC) No 443/2009 of the European Parliament and the Council.

⁽¹⁾ In this context 'specific emissions' implies 'emissions per vehicle kilometer'.

1.2 Targets

Each manufacturer has an annual target, calculated on the basis of the mass of the registered cars. The following formula applies:

$$\text{Specific emissions of CO}_2 = 130 + a * (M - M_0)$$

where:

- M is the mass of the vehicle in kilograms (kg)
- M₀ is 1 372.0 kg
- a is 0.0457

This means that if the average mass of a manufacturer's cars in a given year is 1 472 kg, the target for that manufacturer is 134.57 g CO₂/km. If the average mass of the cars is 1 272 kg, the target will be 125.43 g CO₂/km.

This formula aims to guarantee undistorted competition between manufacturers while taking into account their differences. M₀ in this formula will be updated by 2016, in order to reflect market developments.

Manufacturers have the right to create a pool with other manufacturers in order to be monitored as one entity for the purpose of achieving their targets. Manufacturers selling less than 10 000 vehicles per year can apply for derogations to the Commission. Special derogations are foreseen also for manufacturers responsible for 10 000–300 000 new vehicle registrations. In this case a special target is established, corresponding to a 25 % reduction compared to the average specific emissions in 2007.

Table 1.1 Summary of the parameters applying to the calculation of manufacturer performance from 2012 to 2016

	2012	2013	2014	2015	2016
Phase-in	65 %	75 %	80 %	100 %	100 %
Super-credit for vehicle emitting less than 50 g CO ₂ /km	3.5	3.5	2.5	1.5	1
Emissions reduction for E85 vehicles *	5 %	5 %	5 %	5 %	0 %

Note: * Applies only where at least 30 % of the filling stations in the Member State in which the vehicle is registered provide this type of alternative fuel.

2 Manufacturer emissions in 2010

Table 2.1 presents data for manufacturers that have registered more than 100 000 vehicles in 2010. These manufacturers sold around 12.4 million vehicles in the EU in 2010, equivalent to 94 % of the new registrations.

The average CO₂ emissions of the major EU manufacturers is 138.6 g CO₂/km, which is 1.7 g CO₂/km below the average EU level for all manufacturers of 140.3 g CO₂/km.

Among the larger manufacturers, FIAT had the lowest average CO₂ emissions in 2010 (125 g CO₂/km). This low value results from a combination of a relatively

high share of light vehicles in its total fleet and a relatively high share of vehicles fuelled with liquefied petroleum gas (LPG) and compressed natural gas (14 % of the total fleet). Compared to the previous year, FIAT reduced emissions by 5 g CO₂/km.

As in 2009, Toyota Motor Europe maintains the second lowest average emissions (129 g CO₂/km) due to the high penetration of hybrid vehicles. Toyota has the highest percentage of vehicles with emissions below 100 g CO₂/km (11 % of its fleet). In 2010 Toyota recorded an average emissions value 3 g CO₂/km lower than the preceding year's fleet.

Table 2.1 Main specific emissions statistics for the largest car manufacturers (> 100 000 vehicle registrations per year)

Manufacturer	Registrations 2010	Average emissions 2010 (g CO ₂ /km)	Average car mass (kg)	Average emissions 2009 (g CO ₂ /km)
Fiat Group Automobiles Spa	977 789	125	1 137	130
Toyota Motor Europe	565 867	129	1 336	132
Automobiles Peugeot	974 758	131	1 322	134
Seat	291 330	131	1 278	140
Automobiles Citroen	816 418	131	1 314	138
Renault	1 125 788	134	1 307	138
Hyundai	326 924	134	1 300	138
Ford-Werke GmbH	1 077 900	137	1 289	140
Skoda	423 958	139	1 311	148
Opel	935 967	140	1 383	148
Volkswagen	1 470 906	140	1 388	151
GM Daewoo Auto U Tech Comp	147 072	144	1 255	146
Kia	253 878	143	1 399	146
Honda Motor Co *	102 973	144	1 344	147
Dacia	251 990	145	1 237	152
Bayerische Motoren Werke AG	640 525	146	1 534	151 **
Nissan International SA	390 376	147	1 348	154
Mazda Motor Corporation	170 102	149	1 340	149
Audi AG	591 305	152	1 599	160
Volvo	205 859	156	1 663	173
Daimler AG	647 351	160	1 533	167

Note: * Honda Motor Co is a manufacturer included in the pool Honda. Data here are presented by manufacturer and not by pool.

** In 2009 BMW emissions included Bayerische Motoren Werke AG and BMW M BMGH.

Apart from Mazda Motor Corporation, all manufacturers decreased their average emissions level since 2009. Compared to 2009, the largest emissions reductions were achieved by Volvo (16.7 g CO₂/km) and Volkswagen (10.4 g CO₂/km).

Table 2.2 presents data by manufacturer pool. The difference between the average emissions of manufacturers participating in a pool is quite high. The smallest range is found in the Honda pool, where the performance of the individual manufacturers varies between 126 g CO₂/km and 162 g CO₂/km — a difference of 36 g CO₂/km. By contrast, the difference between the two manufacturers in the Daimler pools is 148 g CO₂/km.

The average CO₂ emissions for small volume manufacturers responsible for less than 10 000 vehicle registrations a year, were 222 g CO₂/km in 2010. In total only 42 000 vehicles were registered for this group of manufacturers in 2010. This corresponds to 0.3 % of the total number of registrations. Among the 47 manufacturers in this group, 33 have average CO₂ emissions higher than 160 g CO₂/km, representing

66 % of the 42 000 vehicles. Three manufacturers produce electric vehicles only (Tesla, Micro-Vett and Think Global). They were responsible for almost 300 registrations in 2010.

The average CO₂ emissions for manufacturers registering more than 10 000 but less than 100 000 vehicles a year was 163 g CO₂/km. The lowest average CO₂ emissions of a manufacturer in this group (Table 2.3) were 104 g CO₂/km, which is 21 g CO₂/km lower than in the group of large manufacturers. The highest value in this group was 237 g CO₂/km, which is 77 g CO₂/km higher than in the group of large manufacturers.

Cars produced by Maruti Suzuki India Ltd have, overall, the lowest CO₂ emissions level (104 g CO₂/km). The average mass of its fleet is the lowest among all the car manufacturers registering vehicles in Europe. Chevrolet Italia and GM Italia mainly produce LPG cars, a factor that is likely to contribute to the low emissions value of these two manufacturers.

Table 2.2 Main statistics for the manufacturers' official pools in 2010

Pool	Manufacturers	Registrations	Average emissions (g CO ₂ /km)
	Ford-Werke GMBH	1 077 900	136
	CNG-Technik	583	226
Ford		1 078 483	137
	Daimler AG	647 351	160
	Mercedes-AMG GmbH	1 504	308
Daimler		648 855	160
	Honda Automobile China Co	20 879	126
	Honda Automobile Thailand Co	1 444	143
	Honda Motor Co	102 973	144
	Honda of the UK Manufacturing	47 881	162
	Honda Turkiye AS	1 591	156
Honda		174 768	147
	Mitsubishi Motors Corporation MMC	74 030	165
	Mitsubishi Motors Europe BV MME	16 555	127
Mitsubishi		90 585	158

Table 2.3 Main statistics for manufacturers registering 10 000–100 000 vehicles per year

Manufacturer	Registrations 2010	Average emissions 2010 (g CO ₂ /km)	Average mass (kg)	Average emissions 2009 (g CO ₂ /km)
Maruti Suzuki India Ltd	19 610	104	932	104
Chevrolet Italia	26 367	113	1 078	122
GM Italia	37 671	124	1 273	*
Honda Automobile China Co	20 879	126	1 133	*
Mitsubishi Motors Europe BV MME	16 555	127	1 039	*
Magyar Suzuki Corporation Ltd	87 229	137	1 178	138
Suzuki Motor Corporation	85 274	144	1 176	146
Daihatsu Motor Co	18 990	145	1 109	142
BMW M GmbH	77 460	156	1 653	*
Honda of the UK Manufacturing	47 881	162	1 446	*
Mitsubishi Motors Corporation MMC	74 030	165	1 560	*
SAAB Automobile AB	20 031	175	1 677	184
Fuji Heavy Industries Ltd	30 747	179	1 608	178
Jaguar Cars Ltd	26 437	198	1 902	196
Chrysler Group LLC	32 778	213	1 973	216
Land Rover	65 954	230	2 350	244
Porsche	34 829	237	1 855	256

Note: * Manufacturers not available in 2009 submission.

3 Distance to the 2012 target

The distance of manufacturers to their specific emissions targets is calculated by taking into account the adjustments (phase-in, super-credits, E85 reductions and eco-innovations). There are no binding targets for 2010 or 2011 but an indicative target is provided for these years, giving manufacturers an indication of the effort required to meet the binding target in 2012.

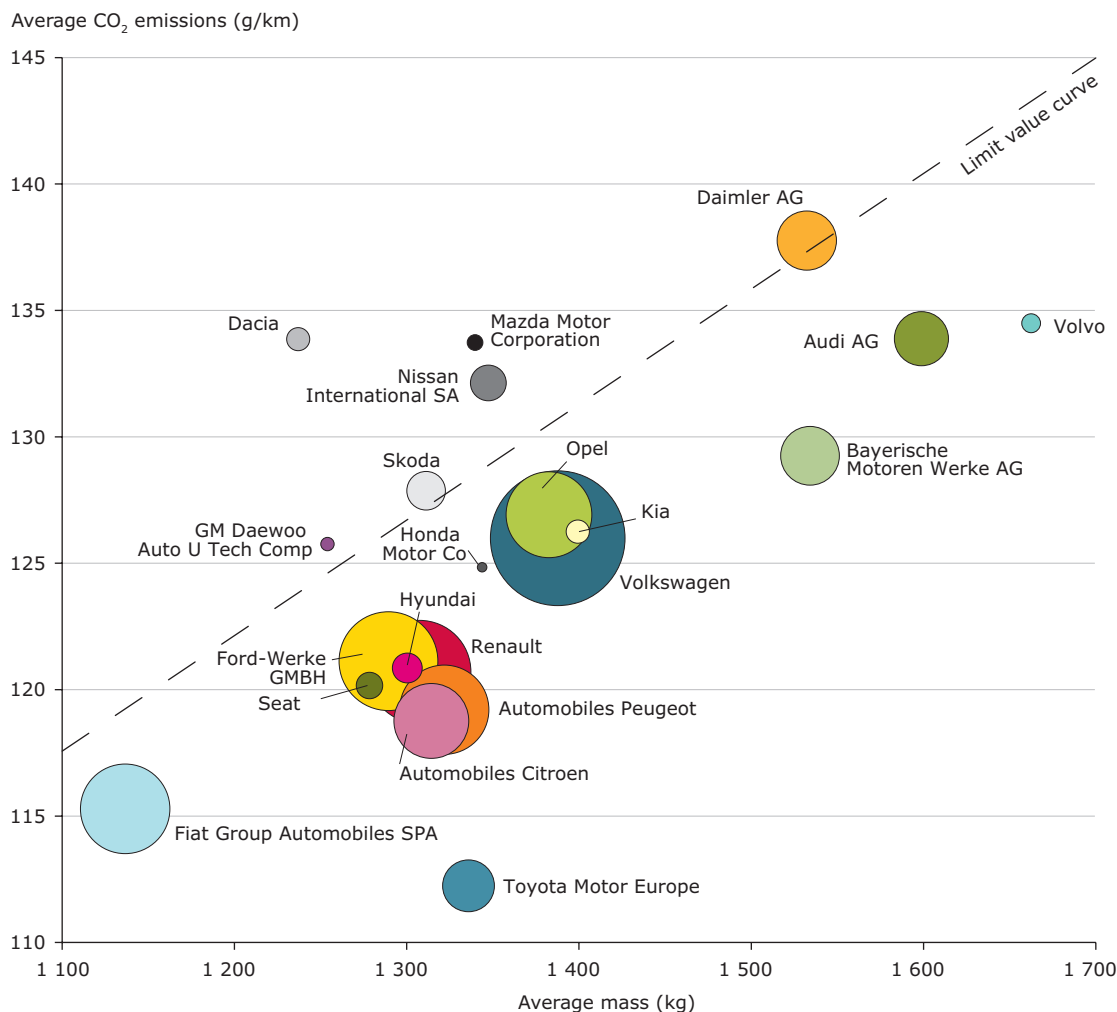
Based on their average CO₂ emissions in 2010 as confirmed by the Commission after taking into account errors notified by manufactures, 32 manufacturers, representing 80 % of the registrations in the EU, already achieve their specific emissions targets for the year 2012.

Figure 3.1 presents the distance-to-target curve for the 21 largest manufacturers. In 2010, 15 of the 21 larger carmakers achieved the 2012 target set by the regulation.

The distance to the target varies between 'achieving the target' and up to having average emissions of 10 g CO₂/km above the target.

The majority of the manufacturers above the limit value curves are very close to meeting their targets. Mazda and Nissan, for example, exceed their target by 3–5 g CO₂/km. The data presented in Figure 3.1 are set out in Annex 1.

Figure 3.1 Distance to 2012 target by individual manufacturers in 2010 (only manufacturers registering > 100 000 vehicles in Europe)



Note: The size of the bubble is proportional to the number of vehicles registered in Europe.

The distance to target for pools of manufacturers is presented in Table 3.1.

Table 3.1 Distance to target for the pool

Pool	Manufacturers	Average emissions (g CO ₂ /km)	Target	Distance to target
	Ford-Werke GmbH	121	126	- 5
	CNG-Technik	225	135	90
Ford		121	126	- 5
	Daimler AG	138	137	0.4
	Mercedes-AMG GmbH	308	145	163
Daimler		138	137	0.5
	Honda Automobile China	125	119	6
	Honda Automobile Thailand	142	121	21
	Honda Motor Co	125	129	-4
	Honda of the UK Manufacturing	146	133	13
	Honda Turkiye	156	126	30
Honda		129	129	- 0.1
	Mitsubishi Motors Corporation	145	139	6
	Mitsubishi Motors Europe	120	115	5
Mitsubishi		137	134	3

4 Distance to the 2015 target

The distance of the largest manufacturers to their 2015 target is calculated based on their 2010 CO₂ emissions levels and should therefore only be considered as indicative. The calculation does not take into account all potentially available flexibilities that may be used by manufactures to achieve that target, such as eco-innovation credits, new pool agreements or new derogations. The calculation includes 100 % of the vehicle fleet. Manufacturers receive super-credits in the order of 1.5 cars for vehicles emitting less than 50 g CO₂/km (Figure 4.1). Manufacturers have four more years to further reduce CO₂ emissions and ensure compliance with their targets; if they continue to reduce emissions as in past years then they will meet their targets.

Already in 2010, Toyota Motor Europe is nearly compliant with its 2015 target. Although the

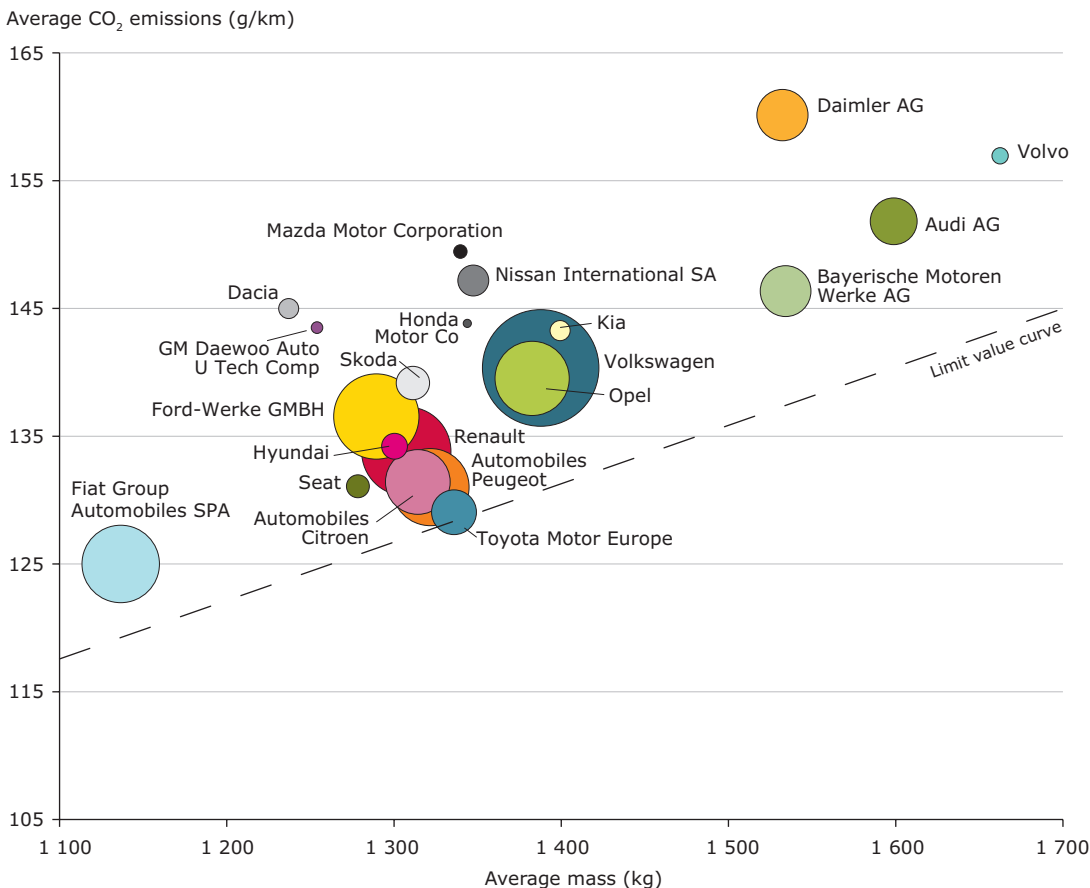
manufacturer's average specific emissions are above the limit curve, the distance to target is relatively small (< 1 g CO₂/km).

The manufacturers Peugeot and Citroen are close to reaching their targets. The remaining decrease of emissions needed to comply with the 2015 target is less than 5 g CO₂/km.

The manufacturers Volvo, Nissan, GM, Mazda and Dacia will have to reduce the average emissions of their fleets by more than 14 g CO₂/km over the next five years.

The complete data presented in Figure 4.1 are set out in Annex 1.

Figure 4.1 Distance to 2015 target by individual manufacturers in 2010 (only manufacturers registering > 100 000 vehicles in Europe)



Note: The size of the bubble is proportional to the number of vehicles registered in Europe.

5 Excess emissions premiums

If a manufacturer's or pool's average specific CO₂ emissions exceed the specific average target, Regulation 443/2009 requires the payment of an excess emissions premium. The excess emissions premium for failing to meet the specific CO₂ emissions target is calculated by multiplying the following three elements:

- the distance to the emissions target in a given year (in g CO₂/km);
- the number of vehicles registered by the manufacturer during that year;
- the premium level as described in Table 5.1.

The premium amounts to EUR 5 for the first g CO₂/km of exceedance, EUR 15 for the second g CO₂/km, EUR 25 for the third g CO₂/km, and EUR 95 for each subsequent g CO₂/km. A higher distance to the target therefore implies a higher excess premium per g CO₂/km emitted (Table 5.1).

For example, if a manufacturer registers 100 000 vehicles in the EU, the formula to be used for calculating the excess emissions premium varies depending on the distance to the target as follows:

- if the distance to the target is 0.5 g CO₂/km, the first formula in Table 5.1 applies and the excess emissions premium = $0.5 * 5 * 100\,000 = \text{EUR } 250\,000$;
- if the distance to the target is 1.5 g CO₂/km, the second formula in Table 5.1 applies and the excess emissions premium = $(1 * 5 + (1.5 - 1) * 15) * 100\,000 = \text{EUR } 1\,250\,000$;
- if the distance to the target is 2.5 g CO₂/km, the third formula in Table 5.1 applies and the excess emissions premium = $(1 * 5 + 1 * 15 + (2.5 - 2) * 25) * 100\,000 = \text{EUR } 3\,250\,000$;
- if the distance to the target is 3.5 g CO₂/km, the fourth formula in Table 5.1 applies and the excess emissions premium = $(1 * 5 + 1 * 15 + 1 * 25 + (3.5 - 3) * 95) * 100\,000 = \text{EUR } 9\,250\,000$.

Table 5.1 Coefficients to be used in the formula for calculating excess emissions premium

Excess emission (g CO ₂ /km)	Fine (euro)				Number of vehicles	Formula for calculating excess emissions premium (euro)
	5	15	25	95		
0-1	(EE)	-	-	-	NV	((EE) * 5) * NV
1-2	1	(EE - 1)	-	-	NV	(1 * 5 + (EE - 1) * 15) * NV
2-3	1	1	(EE - 2)	-	NV	(1 * 5 + 1 * 15 + (EE - 2) * 25) * NV
> 3	1	1	1	(EE - 3)	NV	(1 * 5 + 1 * 15 + 1 * 25 + (EE - 3) * 95) * NV

Note: 'EE' is the distance to target or excess emission; 'NV' is the number of vehicles registered.

Annex 1

Table A.1 presents the data used in calculating the CO₂ emissions performance of car manufacturers in 2010 without taking into account the uncertainties notified by manufactures for that year (see notes below table). The number of registrations represents the number of vehicles having both a mass and an

emissions value. Average emissions and distance to target are calculated using the calculation rules for 2012 and 2015. The parameters used in calculating manufacturer performance for 2012 and 2015 are set out in Table 1.1.

Table A.1 Data used in calculating the CO₂ emissions performance of car manufacturers in 2010

	Pools and derogations	Number of registrations	Specific average CO ₂ emissions using 2010 dataset (g CO ₂ /km)		Target 2012/2015 using 2010 dataset (g CO ₂ /km)	Distance to target using 2010 dataset (g CO ₂ /km)		Uncertainty adjustments for 2010 (g CO ₂ /km)
			Applying 2012 rules (Table 1.1)	Applying 2015 rules (Table 1.1)		Applying 2012 rules (Table 1.1)	Applying 2015 rules (Table 1.1)	
Alpina		173	187.795	210.341	147.429	40.366	62.912	
Artega		2	220.000	220.000	132.194	87.806	87.806	
Aston Martin Lagonda Ltd	D	1 415	333.482	348.372	320.000	13.482	196.037	0.825
Audi AG		589 855	133.883	151.823	140.365	- 6.482	11.458	0.075
Automobiles Citroen		815 936	118.764	131.416	127.361	- 8.597	4.055	
Automobiles Peugeot		974 248	119.208	131.018	127.704	- 8.496	3.314	
Avtovaz		3 911	212.171	219.516	126.410	85.761	93.106	
Bayerische Motoren Werke AG		640 021	129.253	146.355	137.409	- 8.156	8.946	0.054
Bentley		1 187	391.423	395.939	181.363	210.060	214.576	
BMW M GmbH		77 120	133.513	156.242	142.836	- 9.323	13.406	4.212
Bugatti		8	584.600	589.250	159.225	425.375	430.025	
Caterham	D	135	166.920	180.237	210.000	- 43.080	80.392	
Chevrolet Italia		25 442	113.042	117.604	116.356	- 3.314	1.248	0.045
Chrysler Group LLC		31 121	192.081	215.249	157.480	34.601	57.769	
CNG-Technik	P1	583	225.000	226.252	134.782	90.218	91.470	0.265
Dacia		251 938	133.865	144.989	123.831	10.034	21.158	0.403
Daihatsu Motor Co		18 972	128.351	145.373	117.975	10.376	27.398	
Daimler AG	P2	646 067	137.762	160.133	137.323	0.439	22.810	0.090
DR Motor Company		4 943	122.413	138.566	120.642	1.771	17.924	
Ferrari	D	2 361	300.718	322.463	303.000	- 2.282	175.137	
Fiat Group Automobiles Spa		975 822	115.285	125.003	119.240	- 3.955	5.763	
Ford-Werke GmbH	P1	1 076 887	121.128	136.544	126.226	- 5.098	10.318	0.507
Fuji Heavy Industries Ltd	ND	30 655	165.182	179.310	164.616	0.566	38.523	0.046
Geely		918	115.916	131.480	140.077	- 24.161	- 8.597	
General Motors Company		1 490	270.134	296.464	151.750	118.384	144.714	4.396
GM Daewoo Auto U Tech Comp		146 117	125.759	143.502	124.606	1.153	18.896	0.015
GM Italia		37 670	119.750	124.405	125.467	- 5.717	- 1.062	
Great Wall Motor	D	344	222.000	224.314	195.000	27.000	69.292	
Gumpert		2	310.000	310.000	132.879	177.121	177.121	

Table A.1 Data used in calculating the CO₂ emissions performance of car manufacturers in 2010 (cont.)

	Pools and derogations	Number of registrations	Specific average CO ₂ emissions using 2010 dataset (g CO ₂ /km)		Target 2012/2015 using 2010 dataset (g CO ₂ /km)	Distance to target using 2010 dataset (g CO ₂ /km)		Uncertainty adjustments for 2010 (g CO ₂ /km)
			Applying 2012 rules (Table 1.1)	Applying 2015 rules (Table 1.1)		Applying 2012 rules (Table 1.1)	Applying 2015 rules (Table 1.1)	
Honda Automobile China Co	P3	20 876	125.023	126.094	119.099	5.924	6.995	0.013
Honda Automobile Thailand Co	P3	1 444	142.000	142.615	120.816	21.184	21.799	
Honda Motor Co	P3	102 890	124.841	143.827	128.710	- 3.869	15.117	0.214
Honda of the UK Manufacturing	P3	47 840	145.932	162.280	133.391	12.541	28.889	0.307
Honda Turkiye AS	P3	1587	155.953	156.624	125.560	30.393	31.064	
Hyundai		325 603	120.858	134.218	126.725	- 5.867	7.493	
Iveco Spa		49	213.548	216.694	180.265	33.283	36.429	
Jaguar Cars Ltd	D	23 740	178.656	196.808	178.025	0.631	42.663	
Kia		253 706	126.251	143.269	131.248	- 4.997	12.021	
KTM	D	57	173.432	179.000	200.000	- 26.568	71.352	
Lamborghini		265	323.977	358.834	141.293	182.684	217.541	0.178
Land Rover	D	65 534	209.295	231.476	178.025	31.270	56.716	
Lotus Group PLC	D	825	189.108	196.582	280.000	- 90.892	76.307	
LTI Carbodies		1 662	225.087	227.858	154.227	70.860	73.631	
Magyar Suzuki Corporation Ltd		87 204	130.004	136.665	121.130	8.874	15.535	0.031
Mahindra		48	246.839	251.500	160.042	86.797	91.458	
Maruti Suzuki India Ltd		19 577	103.000	104.287	109.908	- 6.908	- 5.621	
Maserati Spa		1 626	353.473	362.557	159.119	194.354	203.438	
Mazda Motor Corporation		170 007	133.729	149.457	128.523	5.206	20.934	0.375
Mercedes-AMG GmbH	P2	1 503	308.000	308.000	144.857	163.143	163.143	0.005
MG	D	264	184.871	184.917	184.000	0.871	63.684	
Micro-Vett		4	0.000	0.000	133.507	- 133.507	- 133.507	
Mitsubishi Motors Corporation MMC	P4	72 594	145.036	164.746	138.601	6.435	26.145	0.058
Mitsubishi Motors Europe BV MME	P4	16 530	119.878	127.284	114.793	5.085	12.491	0.001
Morgan	D	415	164.342	189.607	180.000	- 15.658	71.413	
Nissan International SA		389 818	132.131	147.186	128.875	3.256	18.311	
OMCI		46	156.862	167.848	120.759	36.103	47.089	
Opel		935 499	126.920	139.528	130.483	- 3.563	9.045	0.204
OSV		67	135.512	136.836	140.208	- 4.696	- 3.372	
Perodua		690	136.480	140.239	113.634	22.846	26.605	
PGO		29	185.000	189.828	115.657	69.343	74.171	
Porsche		34 512	220.872	238.843	152.089	68.783	86.754	
Potenza Sports Cars		31	178.000	178.000	99.975	78.025	78.025	
Proton	D	792	143.315	153.553	185.000	- 41.685	22.507	
Quattro		2596	279.097	299.034	154.102	124.995	144.932	0.229
Renault		1 125 141	120.700	133.821	127.045	- 6.345	6.776	0.033
Rolls-Royce Motor Cars Ltd		413	315.616	332.063	181.297	134.319	150.766	1.281
SAAB Automobile AB		19 979	156.561	174.954	143.922	12.639	31.032	
Santana		382	168.351	204.921	135.765	32.586	69.156	
SEAT		288 629	120.162	131.087	125.722	- 5.560	5.365	0.087
SECMA		26	155.000	155.000	97.370	57.630	57.630	

Table A.1 Data used in calculating the CO₂ emissions performance of car manufacturers in 2010 (cont.)

	Pools and derogations	Number of registrations	Specific average CO ₂ emissions using 2010 dataset (g CO ₂ /km)		Target 2012/2015 using 2010 dataset (g CO ₂ /km)	Distance to target using 2010 dataset (g CO ₂ /km)		Uncertainty adjustments for 2010 (g CO ₂ /km)
			Applying 2012 rules (Table 1.1)	Applying 2015 rules (Table 1.1)		Applying 2012 rules (Table 1.1)	Applying 2015 rules (Table 1.1)	
Shuanghuan		44	266.357	267.682	152.951	113.406	114.731	
Skoda		420 718	127.869	139.167	127.225	0.644	11.942	0.073
Sovab		94	227.066	230.138	166.119	60.947	64.019	
Ssangyong	D	4 785	203.851	215.729	180.000	23.851	55.974	
Suzuki Motor Corporation		85 177	124.055	144.108	121.050	3.005	23.058	0.024
Tata	D	3582	137.754	151.669	178.025	- 40.271	25.279	
Tesla		40	0.000	0.000	128.309	- 128.309	- 128.309	
Think Global		144	0.000	0.000	120.248	- 120.248	- 120.248	
Toyota Motor Europe		564 633	112.241	129.050	128.349	- 16.108	0.701	0.165
Volkswagen		1 469 419	125.987	140.343	130.715	- 4.728	9.628	0.035
Volvo		204 926	134.492	156.946	143.273	- 8.781	13.673	
Westfield		3	178.000	178.000	99.975	78.025	78.025	
Wiesmann	D	8	253.000	257.250	274.000	- 21.000	125.519	

Notes: In confirming the 2010 CO₂ emissions, the Commission has taken into account errors notified by manufacturers and where relevant assigned an uncertainty adjustment, which modifies the distance to their targets (see Commission Decision (EU) No .../2011). In most cases the calculated uncertainty is below 1 g CO₂/km. Because the uncertainty of the dataset in 2012 and 2015 is not yet known, the uncertainty adjustment was not used in calculation of distance to target the table above. The uncertainty is tied to data quality issues and therefore cannot automatically be transferred between years. For information the 2010 uncertainty adjustments are shown in the table.

'D' indicates that a derogation for small-volume manufacturers has been granted in accordance with the Commission Implementing Decision C(2011)8334 final.

'ND' indicates that a derogation for niche manufacturers has been granted in accordance with Commission Implementing Decision C(2011)8336 final.

'P' indicates that the manufacturer is member of a pool in accordance with Article 7 of Regulation (EC) No 443/2009.

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