

Sustainable Development
Indicators 2005
» Environment



SUMMARY

GREENHOUSE EFFECT

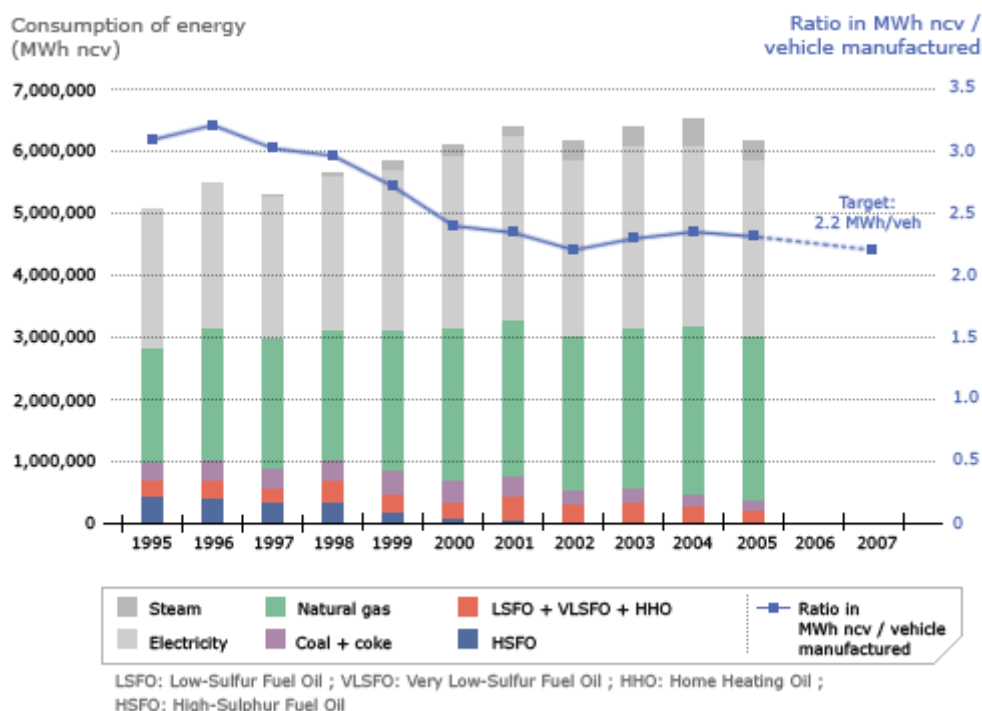
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● Energy consumption (scope: 26 PCA sites)



The increase in the consumption of gas between 1995 and 2005 can be attributed to efforts to replace fuel-oil, coal and electricity by cogeneration.

High-sulphur and low-sulphur fuel-oil have not been used since 2002 and 2004 respectively.

After falling by more than 20% between 1995 and 2003, overall energy consumption per vehicle produced remained stable compared with 2004.

This can be attributed to two factors, offset by continued efforts to improve energy management:

- an increase in the number of engines produced for other vehicle manufacturers (+ 20% at the Trémery site);
- and the ramp-up of solvent-free paint shops, which require more heat to dry cars than conventional paint shops.

PCA is aiming for a target of 2.2 MWh/vehicle in 2007.

● Direct energy consumption by energy and by year: fuel-oil

unit: MWh ncv

		HSF	LSF	VLSF	DFO
PCA	2005	-	-	176,911	19,017
	2004	-	-	223,789	20,239
	2003	-	233,422	68,800	24,981
SCMPL	2005	-	-	-	-
	2004	-	-	-	-
	2003	-	-	-	-
PCI	2005	-	-	-	-
	2004	-	-	-	-
	2003	-	-	-	-
PMTC	2005	-	-	-	49
	2004	-	-	-	14
	2003	-	-	-	30
GEFCO	2005	-	-	-	25,987
	2004	-	-	-	43,377
	2003	33	-	-	11,012
Total	2005	0	0	176,911	45,053
	2004	0	0	223,789	33,194
	2003	33	233,422	68,800	36,023
Faurecia	2005	5,755	5,170	8,020	13,895
	2004	13,180	2,902	2,328	15,832

HSF = High-sulphur fuel; LSF = Low-sulphur fuel; VLSF = Very low-sulphur fuel; DFO = Domestic fuel-oil

Fuel-oil consumption figures for Gefco in 2004 have been revised upwards following the rectification of data concerning subsidiaries.

Energy indicators are consistently expressed using the same unit of measurement (MWh ncv), by applying officially recognised conversion coefficients.

● **Direct energy consumption by activity: natural gas, LPG, coal, coke.**

		Unit: MWh ncv		
		IIG + LPG	Coal	Coke ¹
PCA	2005	2,648,985	26,354	119,475
	2004	2,714,721	37,678	129,679
	2003	2,607,990	37,621	162,167
SCMPL	2005	-	-	-
	2004	11,014	-	-
	2003	6,454	-	-
PCI	2005	14,246	-	-
	2004	14,192	-	-
	2003	12,245	-	-
PMTC	2005	21,511	-	-
	2004	15,696	-	-
PMTC	2005	17,858	-	-
	2004	17,858	-	-
GEFCO	2005	40,702	-	-
	2004	45,581	-	-
	2003	71,169	-	-
Total	2005	2,725,444	26,354	119,475
	2004	2,844,142	37,678	129,679
	2003	2,715,716	37,621	162,167
Faurecia	2005	769,547	-	-
	2004	737,154	-	-

NG = Natural Gas ; LPG = Liquefied Petroleum Gas

Natural gas consumption figures for Gefco in 2004 have been revised downwards following the rectification of data concerning subsidiaries. Energy indicators are consistently expressed using the same unit of measurement (MWh ncv), by applying officially recognised conversion coefficients.

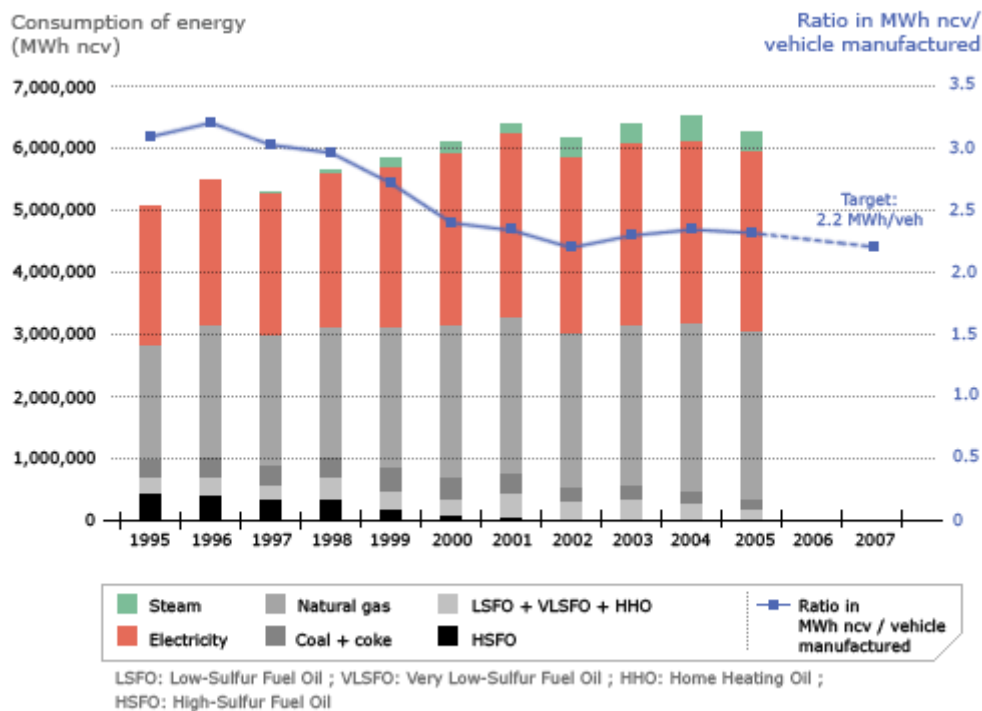
● **Methodology: Calculation of energy consumption**

Energy consumption figures show the meter readings for energy deliveries to each of the 26 PCA sites.

The table of "Direct energy consumption by activity" uses a coherent unit (MWh ncv) to express energy indicators by applying officially recognised conversion coefficients.

Faurecia indicators were included from 2004. Faurecia values for 2005 reflect an assessment based on an 88% response rate, calculated on the basis of the workforce concerned.

● Energy consumption (scope: 26 PCA sites)



The increase in electricity and gas consumption between 1995 and 2005 can be attributed to the higher output of PCA vehicles and engines intended for other vehicle manufacturers.

The plan to improve energy performance is based on:

- major investments to introduce resources that are more energy efficient,
- the ramp-up of cogeneration resources managed by energy professionals at three sites (Sochaux, Mulhouse, Rennes), which has led to increased purchases of steam,
- day-to-day efforts to save energy at all sites.

● Indirect energy consumption by activity and by year: electricity and steam

		Unit: MWh	
		Electricity	Steam
PCA	2005	2,843,459	319,266
	2004	2,962,212	401,738
	2003	2,909,900	302,928
SCMPL	2005	-	-
	2004	4,835	-
	2003	4,769	-
PCI	2005	12,592	-
	2004	12,046	-
	2003	10,795	-
PMTC	2005	16,236	6,593
	2004	15,169	10,157
	2003	17,493	12,687
GEFCO	2005	54,030	-
	2004	51,600	-
	2003	47,753	-
Total	2005	2,926,317	325,859
	2004	3,047,276	411,895
	2003	2,990,710	315,615
Faurecia	2005	1,000,613	27,248
	2004	1,023,658	40,780

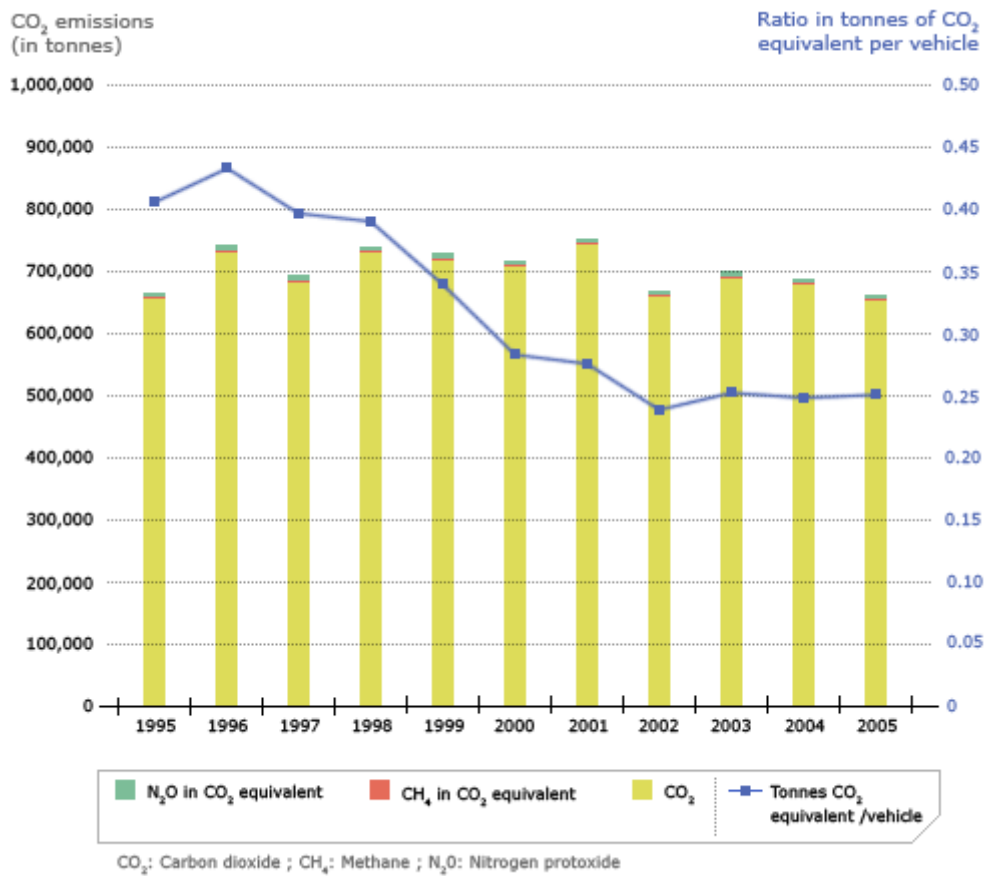
Electricity consumption figures for Gefco in 2004 have been revised upwards (+ 3 %) following the rectification of data concerning subsidiaries.

● Methodology: Calculation of energy consumption

Energy consumption figures show the meter readings for energy deliveries to each of the 26 PCA sites.

Faurecia indicators were included from 2004. Faurecia values for 2005 reflect an assessment based on an 88% response rate, calculated on the basis of the workforce concerned.

Greenhouse gas emissions by gas (scope: 26 PCA sites)



Although vehicle output increased, the impact on greenhouse gas emissions was contained as a result of action taken between 1990 and 2005 to modernise installations, replace fuel-oil and coal by gas, and develop cogeneration.

Calculated per vehicle produced, greenhouse gas emissions have fallen by 39% since 1995.

● Greenhouse gas emissions by activity and by year

		Unit: t			
		CO ₂	H ₂ O	CH ₄	Total eq. CO ₂
PCA	2005	647,505	25.4	41.6	656,237
	2004	675,004	26.3	43.6	684,083
	2003	686,896	25.9	43.0	695,834
SCMPL	2005	-	-	-	-
	2004	2,242	0.1	0.2	2,277
	2003	1,314	0.1	0.1	1,334
PCI	2005	2,928	0.1	0.2	2,973
	2004	2,889	0.1	0.2	2,934
	2003	2,493	0.1	0.2	2,531
PMTC	2005	4,435	0.2	0.3	4,500
	2004	3,199	0.1	0.2	3,247
	2003	3,643	0.2	0.3	3,698
GEFCO	2005	15,248	0.5	0.7	15,421
	2004	20,899	0.6	0.9	21,117
	2003	17,448	0.7	1.1	17,687
Total	2005	670,116	26.2	42.9	679,132
	2004	704,234	27.3	45.1	713,657
	2003	711,794	27.0	44.6	721,085
Faurecia	2005	167,730	7.1	11.4	170,170
	2004	161,711	6.8	10.9	164,060

CO₂ : Carbon Dioxide ; N₂O : Nitrogen protoxide ; CH₄ : Methane

Greenhouse gas emissions by Gefco in 2004 have been recalculated, based on updated fuel consumption figures (see direct energy consumption).

● Methodology: Calculating Greenhouse gas emissions

Greenhouse gas emissions are calculated using data on fossil fuel consumption (fuel-oil, coal, coke, gas). Figures apply international emission factors, as recommended by the French authorities.

• **CO2 emission quotas**

As part of the transposition of European directive 2003/87/CE of 13 October 2003 concerning greenhouse gas emission quotas, eight PCA sites with combustion installations of over 20 MW are taken into consideration for the first period of 2005 to 2007. Of these eight sites, seven are in France (Sochaux, Mulhouse, Rennes, Poissy, Vesoul, La Garenne and Velizy) and one in the UK (Ryton). Two Spanish sites are concerned from 2006 (Madrid et Vigo).

In 2005, as a result of its strong performance, the Group was able to try out the European carbon credit exchange system.

• **Methodology: Calculating CO2 emission quotas**

The calculation of CO2 quotas for the first period 2005-2007 is based on the four years of highest emissions between 1996 and 2002.

● **CO2 emissions produced by logistics activities**

		Unit: t	
		CO₂ emissions	
		2005 method	2004 method
2005		64,000	-
2004		58,000	79,000
2003		-	69,680

CO2 : Carbon dioxide

Gefco produced 64,000 tonnes of CO2 in 2005, an increase of 9% over 2004, based on comparable methods of calculation (1).

This indicator refers only to shipments using Gefco's own resources. These resources increased in 2005, notably with the full-year impact of the fleet set up in Mercosur the previous year.

The modal mix indicator more closely reflects the efforts made by Gefco to combat greenhouse gas emissions. In 2005, Gefco increased its use of non-road transport from 22% to 25%.

Sea transport accounted for 14% of all Gefco's transport activities compared with a European average of 8%.

(1) method adjusted in 2005: cf. methodology tab.

● **Methodology: CO2 emission measurement**

Gefco calculates CO2 emissions on the basis of fuel consumption, using the conversion factors recommended by the CITEPA (French technical centre conducting studies on atmospheric pollution). In 2005 this method was adjusted to eliminate emissions not directly linked to shipments using Gefco's own resources (fuel consumed by company vehicles or sold to third parties). To correctly analyse data, emissions for 2004 were recalculated using this method.

PSA Peugeot Citroën is pursuing a policy aimed at cutting fuel consumption and thus CO2 emissions, as illustrated by the launch of the Citroën C1 and Peugeot 107 and 1007 in 2005.

Launched in October 2005, the Citroën C3 1.4i CNG cuts CO2 emissions by 23% (i.e. 119 g of CO2/km) compared with the C3 1.4i petrol version.

The list of vehicles below applies two selection criteria: sales figures and environmental performance. The most efficient petrol and diesel versions, in terms of CO2 emissions and fuel consumption, are shown for each version. The best-selling models, petrol and diesel versions, are shown in bold. In some cases, the best-selling models are also the most economical.

● **Vehicle fuel consumption and CO2 emissions in 2005**

PEUGEOT							
Model	Fuel (petrol /diesel)	Displacement (cc)	Horsepower (kW)	Consumption			CO ₂ emissions (g/km)
				City (l/100 km)	Motorway (l/100 km)	Combined (l/100 km)	
Peugeot 107							
1.1	E	998	50.0	5.5	4.1	4.6	109
1.4 HDi	D	1398	40.0	5.3	3.4	4.1	109
Peugeot 1007							
1.4i	E	1360	55.0	7.9	5.2	6.2	147
1.4 HDi	D	1398	50.0	5.5	3.8	4.4	115
Peugeot 206							
1.4i	E	1360	55.0	8.8	5.0	6.4	152
1.4 HDi	D	1398	50.0	5.7	3.7	4.4	116
Peugeot 307							
1.4i	E	1360	65.0	8.7	5.3	6.5	155
1.6i 16V	E	1587	80.0	10.0	5.8	7.4	174
1.6 HDi	D	1560	80.0	6.0	4.2	4.8	126
Peugeot 406							
1.8i	E	1761	66.0	11.8	6.4	8.4	205
2.0 HDi 110chDPFS	D	1997	80.0	7.5	4.5	5.6	147
Peugeot 407							
1.8i	E	1749	92.0	10.5	6.0	7.7	183
2.0i	E	1997	103.0	11.0	6.4	8.1	192
1.6 HDi	D	1560	80.0	7.0	4.6	5.5	145
2.0 HDi	D	1997	100.0	10.1	5.6	7.2	192
Peugeot 407 Coupé							
3.0i V6	E	2946	155.0	15.0	7.3	10.2	242
2.7i HDi V6	D	2720	150.0	11.9	6.5	8.5	226

Model	Fuel (petrol /diesel)	Displacement (cc)	Horsepower (kW)	Consumption			CO ₂ emissions (g/km)
				City (l/100 km)	Motorway (l/100 km)	Combined (l/100 km)	
Peugeot 607							
2.2i	E	2 230	120,0	13,0	7,0	9,2	219
2.2i HDi FAP	D	2 179	125,0	8,5	5,2	6,4	170
2.7i HDi V6	D	2 720	150,0	11,6	6,6	8,4	223
Peugeot 807							
2.0i	E	1 997	100,0	12,3	7,3	9,1	218
2.0 HDi	D	1 997	80,0	9,2	5,9	7,0	186
2.2 HDi FAP	D	2 179	94,0	10,1	5,9	7,4	199
Partner Combispace							
1.6i	E	1 587	80,0	9,5	6,2	7,4	175
2.0 HDi	D	1 997	66,0	7,3	5,0	5,8	154

CO₂ : Carbon dioxide

In orange: the best-selling vehicle in each category (petrol version, diesel version)

In bold: the vehicle with the lowest CO₂ emissions in each category (petrol version, diesel version)

CITROËN

Model	Fuel (petrol /diesel)	Displacement (cc)	Horsepower (kW)	Consumption			CO ₂ emissions (g/km)
				City (l/100 km)	Motorway (l/100 km)	Combined (l/100 km)	
Citroën C1							
1.0i	E	998	50,0	5,5	4,1	4,6	109
HDi 55	D	1398	40,0	5,3	3,4	4,1	109
Citroën C2							
1.1i	E	1124	44,1	7,5	4,8	5,8	138
HDi 70	D	1398	50,0	4,9	3,6	4,2	111
Citroën C3							
Stop&Start	E	1360	65,0	6,9	4,9	5,7	135
1.4i	E	1360	54,0	8,2	4,9	6,1	145
HDi 70	D	1398	50,0	5,3	3,8	4,4	115
Citroën C3 Pluriel							
1.4i	E	1360	54,0	9,1	5,4	6,8	163
1.6 16V	E	1587	80,0	8,6	5,6	6,7	160
HDi 70	D	1398	50,0	5,7	4,2	4,7	125
Citroën Berlingo							
1.4i	E	1360	55,0	9,6	6,2	7,4	175
2.0 HDi 90	D	1997	66,0	7,3	5,0	5,8	154
1.6 HDi 90	D	1560	66,0	6,7	4,7	5,4	143
Citroën C4							
1.4i 16V	E	1360	65,0	8,7	5,2	6,4	153
1.6i 16V	E	1587	80,0	9,5	5,7	7,1	169
1.6 HDi 110	D	1560	80,0	6,0	4,0	4,7	125

Model	Fuel (petrol /diesel)	Displacement (cc)	Horsepower (kW)	Consumption			CO ₂ emissions (g/km)
				City (l/100 km)	Motorway (l/100 km)	Combined (l/100 km)	
Citroën Xsara Break							
1.6i 16V	E	1587	80.0	9.3	5.5	6.9	160
2.0 HDi 90	D	1997	66.0	7.5	4.3	5.5	144
Citroën Xsara Picasso							
1.6i	E	1587	70.0	10.0	6.1	7.5	178
1.6i 16V	E	1587	80.0	9.5	6.0	7.3	172
HDi 90	D	1997	66.0	7.0	4.6	5.5	147
Citroën C5							
1.8i 16V	E	1749	92.0	10.4	5.9	7.6	180
2.0i 16V	E	1997	103.0	11.1	6.3	8.0	190
1.6HDi 110	D	1560	80.0	6.8	4.5	5.4	142
Citroën C6							
3.0 V6	E	2946	155.0	16.3	8.2	11.2	266
2.7 HDi	D	2720	150.0	12.0	6.8	8.7	230
Citroën C8 (V)							
2.0i 16V	E	1997	100.0	12.3	7.3	9.1	218
2.0i 16V	E	1997	103.0	12	7.3	9.0	213
2.0 HDi 110	D	1997	80.0	9.2	5.9	7.0	186

CO₂ : Carbon dioxide

In orange: the best-selling vehicle in each category (petrol version, diesel version)

In bold: the vehicle with the lowest CO₂ emissions in each category (petrol version, diesel version)

The new Citroën C1 and Peugeot 107 both emit 109g of CO₂/km. The Peugeot 1007 diesel (the most popular 1.4 litre HDi version) and the Citroën C3 diesel produce 115g of CO₂/km.

The Citroën C3 Stop & Start ranks among the most economical petrol vehicles with emission levels of 135g of CO₂/km over a combined cycle, and up to 15% less in dense urban traffic.

In a certain number of cases (107 petrol and diesel, 1007 diesel, 206 diesel, 406 diesel, Partner diesel, C1 petrol and diesel, C2 diesel, C3 diesel, C3 Pluriel diesel, C4 diesel, C5 diesel, Xsara diesel and Berlingo diesel), the best selling models are also those with the lowest CO₂ emissions.

● Vehicle fuel consumption and CO2 emissions in 2004

PEUGEOT								
Model	Fuel (petrol /diesel)	Displacement (cc)	Horsepower (kW)	Consumption			CO ₂ emissions (g/km)	
				City (l/100 km)	Motorway (l/100 km)	Combined (l/100 km)		
Peugeot 206								
1.1i		G	1,124	44.1	8.2	5.0	6.2	148
1.4i		G	1,360	55.0	8.4	5.0	6.3	149
1.4 HDi		D	1,398	50.0	5.5	3.6	4.3	113

Model	Fuel (petrol /diesel)	Displacement (cc)	Horsepower (kW)	Consumption			CO ₂ emissions (g/km)	
				City (l/100 km)	Motorway (l/100 km)	Combined (l/100 km)		
Peugeot 307								
1.4i		G	1,360	55.0	8.7	5.5	6.7	159
1.6i 16V		G	1,587	80.0	9.5	5.8	7.2	169
1.4 HDI		D	1,398	50.0	5.5	4.0	4.5	120
2.0 HDI 90 bhp		D	1,997	66.0	6.9	4.3	5.2	138
Peugeot 406								
1.8i		G	1,761	66.0	11.8	6.4	8.4	205
2.0 HDI 110 bhp FAP		D	1,997	80.0	7.5	4.5	5.6	147
Peugeot 407								
1.8i		G	1,749	85.0	11.3	6.0	7.9	187
1.6 HDI		D	1,560	80.0	7.0	4.6	5.5	145
2.0 HDI		D	1,997	100.0	7.7	4.9	5.9	155
Peugeot 607								
2.2i		G	2,230	116.0	12.7	7.2	9.2	219
3.0i V6 automatic		G	2,946	152.0	14.4	7.8	10.2	245
2.0 HDI		D	1,997	79.0	8.0	4.8	6.0	160
2.2 HDI FAP		D	2,179	98.0	8.8	5.4	6.6	177
Peugeot 807								
2.0i		G	1,997	100.0	12.3	7.3	9.1	218
2.2i		G	2,230	116.0	12.9	7.8	9.7	231
2.0 HDI		D	1,997	80.0	9.2	5.9	7.0	186
2.2 HDI FAP		D	2,179	94.0	10.1	5.9	7.4	199
Partner Combispace								
1.6i		G	1,587	80.0	9.5	6.2	7.4	175
2.0 HDI		D	1,997	66.0	7.3	5.0	5.8	154

CO₂ : Dioxyde de carbone**CITROËN**

Model	Fuel (petrol /diesel)	Displacement (cc)	Horsepower (kW)	Consumption			CO ₂ emissions (g/km)	
				City (l/100 km)	Motorway (l/100 km)	Combined (l/100 km)		
Citroën C2								
1.1i		G	1,124	44.1	7.6	4.9	5.9	141
HDI 70		D	1,398	50.0	5.3	3.6	4.2	108
Citroën C3								
Stop&Start		G	1,360	65.0	6.9	4.9	5.7	135
1.4i		G	1,360	54.0	8.2	4.9	6.1	145
HDI 70		D	1,398	50.0	5.1	3.7	4.2	109
Citroën C3 Pluriel								
1.4i		G	1,360	54.0	8.9	5.5	6.8	163
HDI 70		D	1,398	50.0	5.5	4.0	4.5	120

Model	Fuel (petrol /diesel)	Displacement (cc)	Horsepower (kW)	Consumption			CO ₂ emissions (g/km)	
				City (l/100 km)	Motorway (l/100 km)	Combined (l/100 km)		
Citroën Berlingo								
1.6i 16V		G	1,587	80.0	9.5	6.2	7.4	175
HDI 90		D	1,997	66.0	7.2	4.9	5.7	152
Citroën C4								
1.4i 16V		G	1,360	60.0	8.7	5.2	6.4	153
1.6i 16V		G	1,587	80.0	10.6	5.8	7.6	180
HDI 92		D	1,560	66.0	5.9	4.1	4.7	125
2.2 HDi FAP		D	1,560	80.0	6.0	4.0	4.7	125
Citroën Xsara Break								
1.6i 16V		G	1,587	80.0	9.3	5.5	6.9	160
HDI 90		D	1,997	66.0	7.5	4.3	5.5	144
Citroën Xsara Picasso								
1.6i		G	1,587	70.0	10.0	6.1	7.5	178
1.8i 16V		G	1,749	85.0	10.7	6.0	7.7	184
HDI 90		D	1,997	66.0	7.0	4.6	5.5	147
HDI 110		D	1,560	80.0	6.3	4.1	4.9	131
Citroën C5								
1.8i 16V		G	1,749	85.0	11.3	6.0	7.9	187
2.0i 16V		G	1,997	103.0	11.1	6.3	8.0	190
HDI 110		D	1,560	80.0	6.8	4.5	5.4	142
Citroën C8								
2.0i 16V		G	1,997	100.0	12.3	7.3	9.1	218
HDI 16V 109 FAP		D	1,997	79.0	9.4	5.9	7.2	189
HDI 16V 130 FAP		D	2,179	94.0	10.1	5.9	7.4	199

CO₂ : Carbon dioxide

The most efficient diesel vehicle in terms of CO₂ emissions is the Citroën C2, which emits 108g CO₂/km travelled. The C4 diesel (the most popular version: 2.2 litre HDi) produces 125g of CO₂/km travelled.

Among the petrol models, the top performer is the C3 fitted with the Stop & Start system, emitting 135g of CO₂/km travelled.

In some cases (206 diesel, 406 petrol, C3 diesel, C4 diesel, C5 diesel, Berlingo diesel and Berlingo petrol), the best-selling models are also those with the lowest CO₂ emissions.

● Methodology: Calculating CO₂ emissions

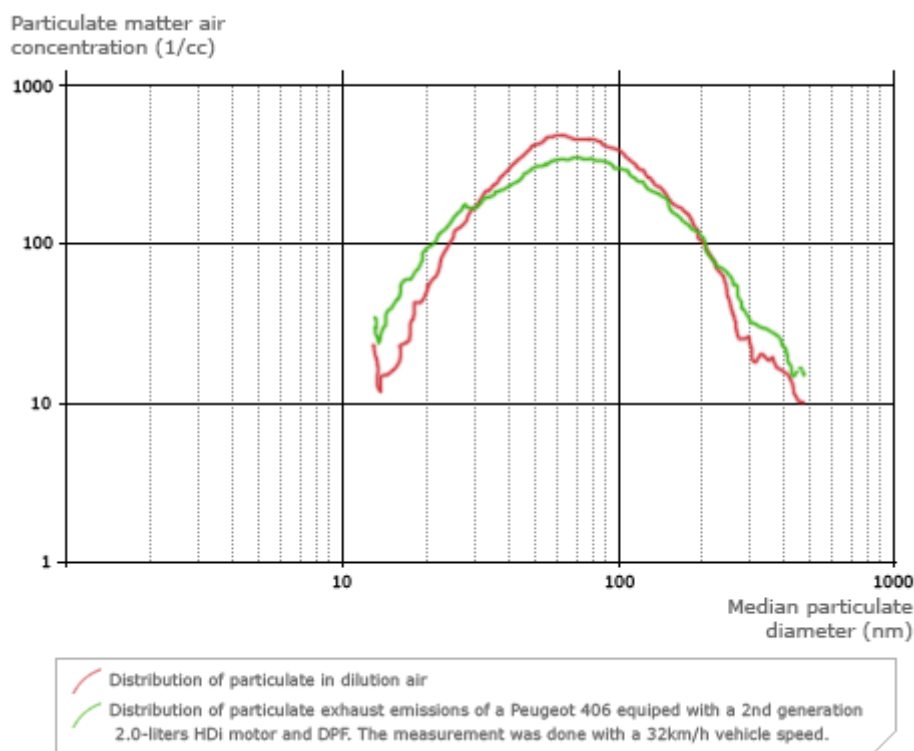
Emissions of atmospheric pollutants are measured on a roller test bench as part of the European regulated MVEG (Motor Vehicle Emission Group) test cycle. This standard includes urban and extra-urban driving cycles. The emissions measured are then calculated per km, and provide a basis on which to calculate consumption per fuel type.

Atmospheric emissions of regulated pollutants are falling, reflecting the technological progress made: emissions from new vehicles have been divided by 20 in 30 years.

Vehicles sold by PSA Peugeot Citroën respect the regulations in force in the country of sale as a minimum.

In Europe, the Group's petrol and diesel passenger vehicles satisfy Euro IV standards on regulated pollutants (CO, NOx, HC, particulates). This new regulation, which came into force in 2005, roughly halves the maximum limit for atmospheric emissions from petrol and diesel vehicles set by Euro III. The EU is currently working on a new draft regulation, referred to as "Euro V".

● **Particulate emissions slashed by the particulate filter**



PSA Peugeot Citroën sells diesel vehicles equipped with a diesel particulate filter system (DPFS) that reduces particulate emissions to near-zero levels. Whatever the particulate size, the DPFS offers a level of efficiency close to 100%. As a result of this technological advance, the diesel is able to combine its intrinsic qualities of low fuel consumption and low CO2 emissions with substantial reductions in emissions of atmospheric pollutants.

In a document published on 12 January 2005 entitled "Fiscal incentives for motor vehicles in advance of Euro V", the European Commission recommends that member states planning to introduce fiscal incentives for diesel vehicles set a limit of less than 5 mg/km on emissions.

● Euro IV standard

Exhaust pollutants emissions

	Petrol vehicle (g/km)	Diesel vehicle (g/km)
CO	1.00	0.50
HC	0.10	-
NOx	0.08	0.25
HC + NOx	-	0.30
Particulate matter	-	0.025
Durability (km)	100,000	100,000

Evaporation pollutants emissions

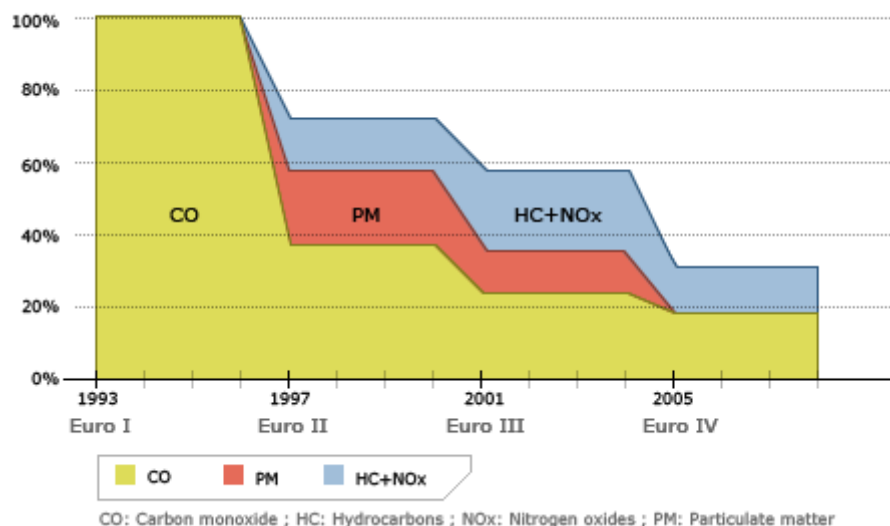
	Petrol vehicle (g/test cycle)	Diesel vehicle
HC	2.0	-

HC: hydrocarbons ; NOx: Nitrogen dioxide ; CO: Carbon monoxide

Euro IV came into force in 2005. It is the latest in a series of standards, the first of which dates back to 1972. Euro IV applies to all new models brought to market from 1 January 2005, and will concern all vehicles in 2006.

● Regulations governing atmospheric emissions from diesel passenger cars (1998-2005)

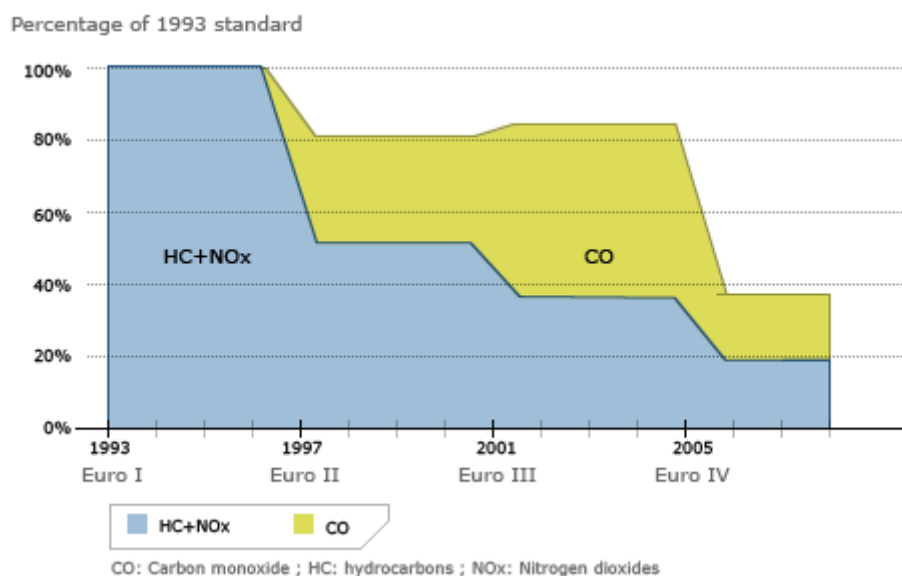
Percentage of 1993 standard



Alongside the particulate filter, the PSA Peugeot Citroën range has benefited from technological advances concerning:

- increased pressure in the common-rail injection system;
- the introduction of a variable function in exhaust gas recirculation systems, for better control of NOx emissions.

● Regulations governing atmospheric emissions from petrol passenger cars (1998 - 2005)

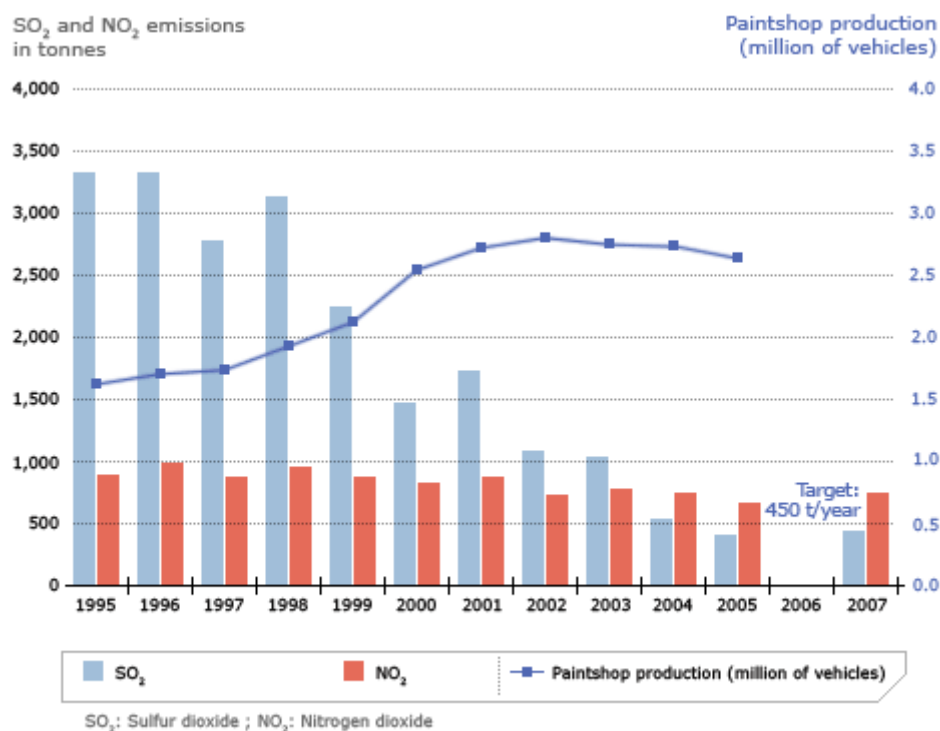


Petrol engine technology has also made progress, in particular through the improved efficiency of the "3-way catalytic converter", linked to a better rise in temperature.

● Methodology: Calculating emissions of atmospheric pollutants

Emissions of atmospheric pollutants are measured on a roller test bench as part of the European regulated MVEG (Motor Vehicle Emission Group) test cycle. This standard includes urban and extra-urban driving cycles. The emissions measured are then calculated per km.

SO₂ and NO₂ emissions (scope: 26 PCA sites)



PCA has reduced its NO₂ emissions by 21% since 1995, while vehicle production has increased by 61%.

SO₂ emissions have been divided by almost eight since 1995 thanks to the gradual replacement of high-sulphur fuels by lower-sulphur fuels. In 2005, the La Garenne site began gradually replacing its oil-fired boilers by a gas-fired boiler, thus contributing to a 22% reduction in SO₂ emissions.

It is partly for this reason that the objective of cutting annual SO₂ emissions to 450 tonnes by 2007 was reached in 2005.

All of these advances contribute to improving air quality around the sites.

● **SO₂ and NO₂ emissions by activity and by year**

		Unit: t	
		SO ₂	NO ₂
PCA	2005	423.5	706.3
	2004	545.6	757.8
	2003	1,041.1	784.4
SCMPL	2005	-	-
	2004	0.0	2.4
	2003	0.0	1.4
PCI	2005	0.0	3.1
	2004	0.0	3.1
	2003	0.0	2.6
PMTC	2005	0.1	4.7
	2004	0.0	3.4
	2003	0.1	3.4
GEFCO	2005	9.0	18.2
	2004	15.0	25.5
	2003	6.1	19.4
Total	2005	432.6	732.2
	2004	560.6	792.1
	2003	1,047.2	811.2
Faurecia	2005	128.6	190.5
	2004	119.2	176.2

SO₂ : Sulfur dioxide ; NO₂ : Nitrogen dioxide

Sulphur and nitrogen dioxide emissions by Gefco in 2004 have been recalculated, based on updated fuel consumption figures (see direct energy consumption).

● **Methodology: Calculated SO₂ and NO₂ emissions**

NO₂ and SO₂ emissions are calculated on the basis of fossil energy consumption (fuel-oil, coal, coke, gas) by applying international emissions factors.

Figures on fuel sulphur content are as measured or, failing this, as stated in regulations.

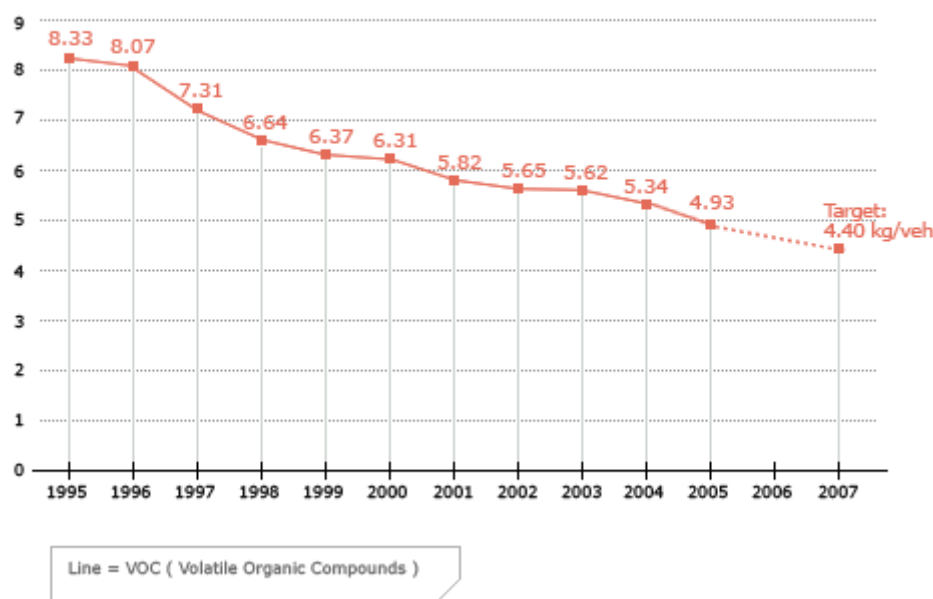
VOC emissions from body paint shops by activity and by year

		VOC (t)	Ratio (kg/veh)
PCA	2005	12,998	4.93
	2004	14,782	5.34
	2003	15,521	5.62
SCMPL	2005	-	na
	2004	1	na
	2003	1	na
PMTC	2005	97	na
	2004	73	na
	2003	171	na
Total	2005	13,095	na
	2004	14,856	na
	2003	15,694	na

VOC = Volatile Organic Compounds ; na : Non Applicable

VOC emissions from body paint shops (scope: PCA bodywork plants)

Ratio in
 kg/vehicle



By applying a strict policy of control, PCA has cut VOC emissions by 41% per vehicle since 1995. Emissions fell in 2005, following the ramp-up of the new paint shop (powder primers and water-soluble paints) at the Mulhouse site.

PCA is aiming to reduce VOC emissions by all possible methods (improved efficiency of paint application, incinerators) in line with the situation at each site (better cost/environmental efficiency ratio) and with industrial opportunities. This policy is expected to cut emissions per vehicle to 4.4 kg by end-2007.

At the same time, for the painting of sub-systems, the Sochaux, Mulhouse and Caen powertrain plants have set up action plans to adapt existing technology to the requirements of European directives on VOCs and on end-of-life vehicles (elimination of chromium-6).

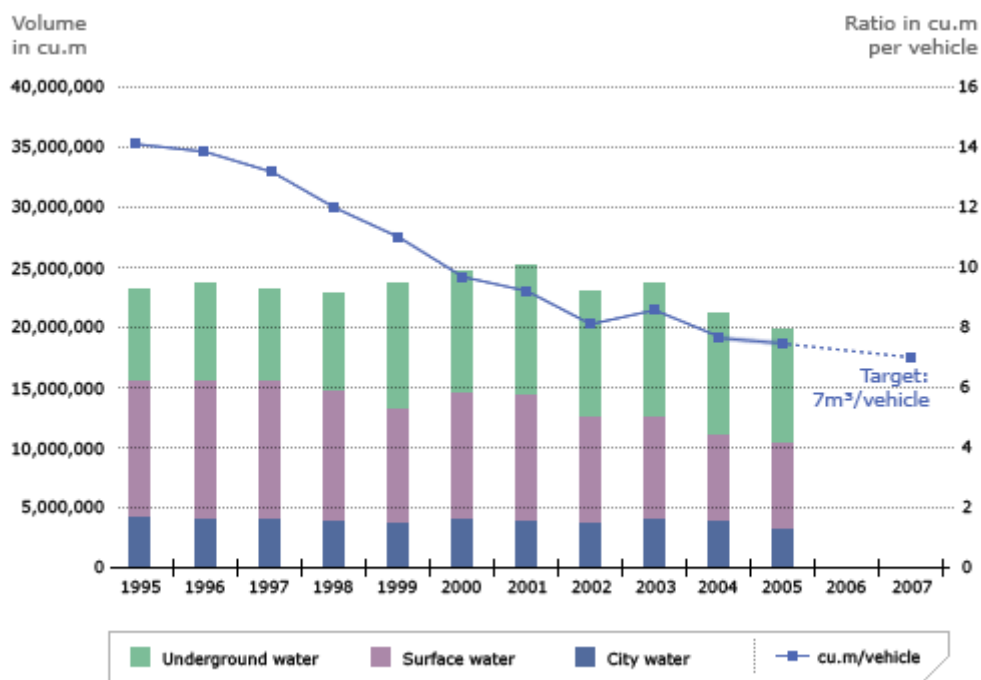
• **Methodology: Calculated VOC emissions**

VOC emissions from PCA body paint shops are determined using the materials balance method, in compliance with European directive 1999/13/CE concerning efforts to cut emissions of volatile organic compounds resulting from the use of organic solvents in certain activities and installations.

• Use and emissions of substances that deplete the ozone layer

Reducing emissions of ozone-depleting gases is a key concern in the site Environmental Management System. The use of trichloroethane and halon was discontinued between 1999 and 2003. CFCs and HFCs are still present in some refrigerating units used to cool production resources (cutting fluids from machine tools, for example), electrical control cabinets or workplace areas. The sealing of installations containing fluids harmful for the ozone layer is checked every year. If leaks are detected, corrective action is taken. CFCs and HFCs are being replaced by fluids that respect the ozone layer.

● **Volumes of water withdrawn (scope: 26 PCA sites)**



Over the period 1995/2005, the volume of water withdrawn decreased by 13%. Per vehicle produced, water consumption fell by 46% over the same period. Through a plan to reduce withdrawals, the Group will reach a target of 7m³ per vehicle in 2007.

• **Water withdrawals by activity and by year**

Unit: cu.m

		City water	Surface water	Underground water	Total
PCA	2005	3,488,832	7,128,167	9,407,372	20,024,371
	2004	3,811,089	7,172,250	10,336,343	21,319,682
	2003	4,010,182	8,660,020	11,090,804	23,761,006
SCMPL	2005	-	-	-	-
	2004	10,540	-	-	10,540
	2003	10,500	-	-	10,500
PCI	2005	25,304	-	-	25,304
	2004	21,767	-	-	21,767
	2003	25,819	-	-	25,819
PMTC	2005	15,699	54,081	-	69,780
	2004	13,809	32,047	-	45,856
	2003	20,798	85,317	-	106,115
GEFCO	2005	203,079	29,569	6,540	239,188
	2004	264,134	34,250	5,490	303,874
	2003	262,020	30,748	12,665	305,433
Total	2005	3,732,914	7,211,817	9,413,912	20,358,643
	2004	4,121,339	7,238,547	10,341,833	21,701,719
	2003	4,329,319	8,776,085	11,103,469	24,208,873
Faurecia	2005	1,237,832	1,169,913	597,337	3,005,082
	2004	1,430,094	2,303,277	616,143	4,349,515

Water withdrawals figures for Gefco in 2004 have been revised upwards (+ 3 %) following the rectification of data concerning subsidiaries.

• **Annual water withdrawals from the aquifer**

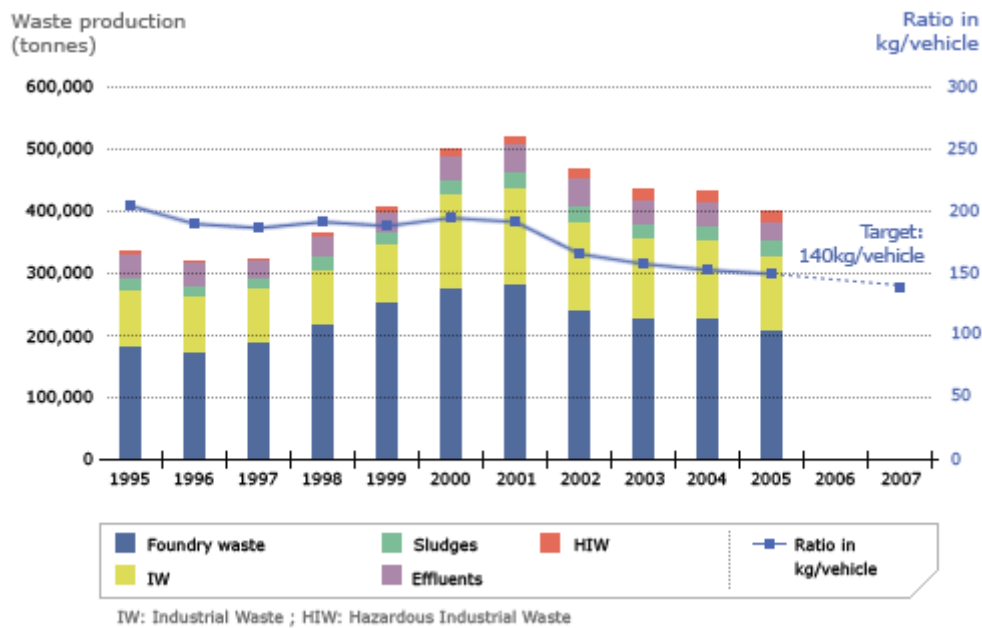
The concept of available resources is specific to each site. The impact studies performed before building new installations include an analysis to determine the water requirements of the future facility (for example, the percentage of river flow to be withdrawn). When there is a risk of depleting water sources, measures are taken to reduce withdrawals. This was the case at the Rennes and Aulnay sites, which achieved the best results among the Group's final assembly plants, with 2.1m³/veh. and 1.8m³/veh. respectively - compared to the 11.2m³/veh. average of the other sites in 2005.

• **Methodology: Calculating water consumption**

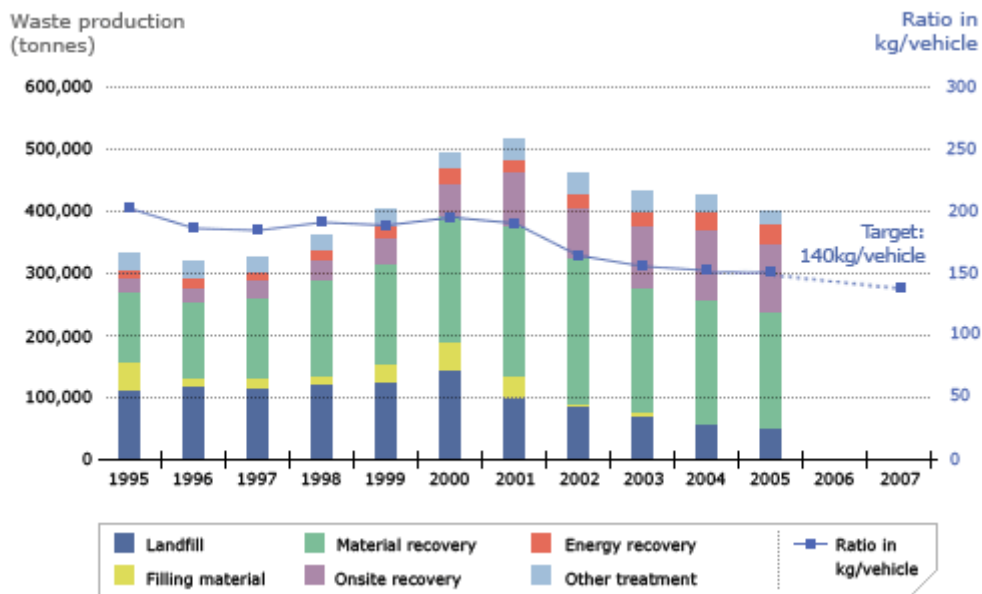
Water consumption is evaluated by meter readings from the 26 PCA sites.

Faurecia indicators were included from 2004. Faurecia values for 2005 reflect an assessment based on an 92% response rate, calculated on the basis of the workforce concerned.

Waste production by type (Scope: 26 PCA sites)



Quantities of waste treated by disposal method (Scope: 26 PCA sites)



Better on-site waste management resources have considerably increased waste recovery and recycling, resulting in a 56% cut in the quantities sent to landfill between 1995 and 2005. Today, landfill disposal accounts for just 12% of the total. Initiatives have also reduced the quantity of waste produced by 28%. The Group has set a target of 140 kg/vehicle by 2007. All metal waste (not shown in the graph), is recycled for use in foundries and steel-making. Of the 672,000 tonnes produced in 2005, 104,000 tonnes were re-used in the Group's foundries.

Quantity of waste treated by type and by disposal method since 2003. Scope: PCA.

excluding metal waste of which almost 100% is recycled

		Unit: t				
		Landfill	Recovery	Onsite recovery	Other treatment	Total
Foundry waste	2005	14,342	83,468	111,455	381	209,647
	2004	15,722	93,884	111,219	387	221,212
	2003	29,080	97,649	96,205	413	223,346
OIW	2005	21,543	92,036	6,282	1,297	121,159
	2004	26,103	96,639	5,660	972	129,374
	2003	28,220	95,551	5,415	866	130,052
Sludge+Liquids +HIW	2005	10,961	39,464	131	19,900	70,455
	2004	10,343	36,356	153	29,267	76,119
	2003	11,430	33,024	145	31,188	75,787
Total	2005	46,846	214,968	117,868	21,579	401,261
	2004	52,168	226,879	117,032	30,626	426,705
	2003	68,730	226,224	101,765	32,467	429,186

OIW= Ordinary industrial waste; HIW = Hazardous industrial waste

Quantity of waste treated by type and by disposal method since 2003. Scope: PCI + PMTC + SCMPL.

		Unit: t			
		Landfill	Recovery	Other treatment	Total
Foundry waste	2005	-	-	238	238
	2004	-	-	242	242
	2003	-	-	225	225
OIW	2005	643	1,969	43	2,655
	2004	632	1,436	100	2,168
	2003	780	1,378	156	2,314
Sludge+Liquids +HIW	2005	12	225	918	1,154
	2004	31	189	1,118	1,338
	2003	8	231	1,316	1,556
Total	2005	654	2,194	1,199	4,047
	2004	662	1,625	1,460	3,748
	2003	788	1,610	1,697	4,095

OIW= Ordinary industrial waste; HIW = Hazardous industrial waste

Waste production figures for 2004 have been revised downwards (- 2%) following the rectification of data concerning a subsidiary.

● Quantity of waste treated by type and by disposal method since 2003. Scope: Gefco

					Unit: t
		Landfill	Recovery	Other treatment	Total
OIW	2005	7,661	2,338	1,070	11,068
	2004	8,585	1,593	467	10,645
	2003	-	-	-	6,969
Sludge+Liquids +HIW	2005	570	319	112	1,001
	2004	430	40	237	707
	2003	-	-	-	374
Total	2005	8,230	2,657	1,182	12,069
	2004	9,015	1,633	704	11,353
	2003	-	-	-	7,343

OIW= Ordinary industrial waste; HIW = Hazardous industrial waste

Waste breakdown based on disposal methods from 2004.

Waste production figures for Gefco in 2004 have been revised upwards (+ 13 %) following the rectification of data concerning subsidiaries.

● Quantity of waste treated by disposal method since 2004. Scope: Faurecia

					Unit: t	
		Landfill	Recovery	Onsite recovery	Other treatment	Total
Total	2005	50,319	72,463	8,590	10,731	142,103
	2004	65,657	49,477	6,612	9,699	131,445

This table does not include metal waste (108,972 tonnes in 2005), of which almost 100% is recycled.

• Methodology: Assessment showing the quantities of waste produced

Waste production results are based on an internal PSA Peugeot Citroën handbook which codifies waste and disposal methods.

Faurecia indicators were included from 2004. Faurecia values for 2005 reflect an assessment based on a 93% response rate, calculated on the basis of the workforce concerned.

• Methodology: Definition of waste disposal methods

1) Recovery:

- materials recovery: materials used for a purpose other than their original use (e.g. recovering foundry sand for use in road building),
- recycling: waste reused for the same purpose (e.g. repairing wooden pallets),
- energy recovery: incineration with energy recovery (e.g. as steam or electricity).

2) Landfill:

- stocking or burying waste in one of the three categories of landfill: hazardous, non-hazardous and inert.

3) Other treatment methods:

- incineration without energy recovery,
- physical/chemical treatment (neutralisation, oxidation-reduction, metal precipitation, etc.),
- biological treatment (materials decomposed by micro-organisms in aerobic or anaerobic environments).

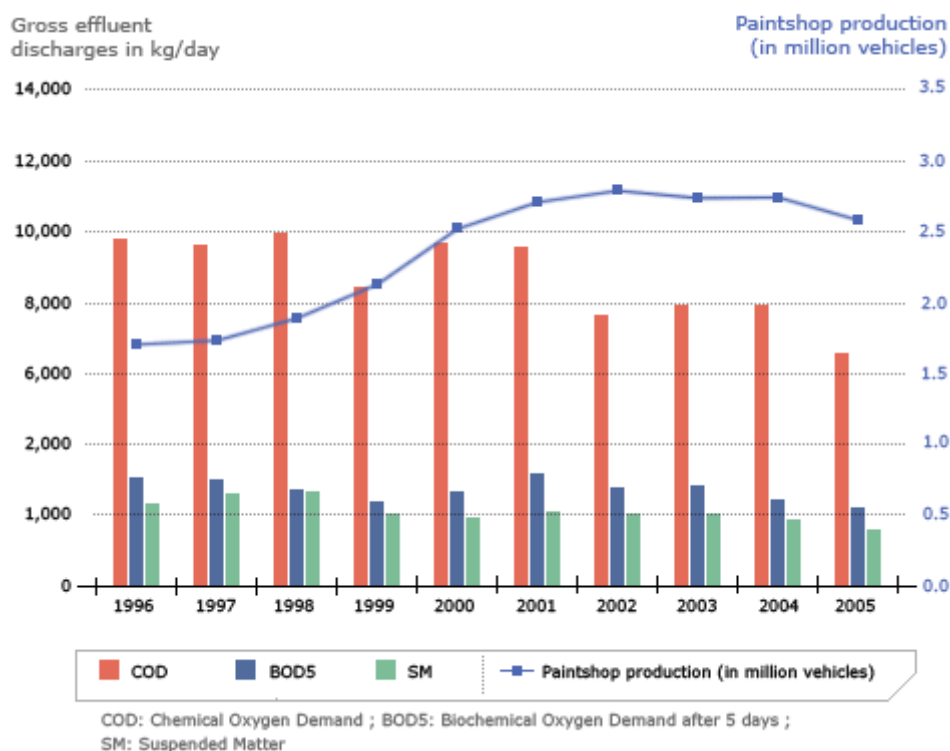
• Transboundary movements of waste in 2005

A small amount of waste (401 tonnes) was exported from France to other countries, of which:

- metal drums (345 tonnes);
- saturated activated carbon (43 tonnes);
- cardboard packaging (13 tonnes).

These disposal channels are based on recovery processes that were chosen, in the same way as for all other options of this type, following a positive assessment of their reliability.

● Gross emissions to water at plant outlet (scope: 26 PCA sites)



This graph shows daily gross emissions at sites performing regular self-monitoring. These sites account for 95% of the water withdrawn by the 26 PCA sites. Over the period 1995/2005, gross SS (suspended solids) discharges, COD (chemical oxygen demand) and BOD5 (biochemical oxygen demand over five days) fell by 39%, 30% and 22% respectively, as a result of more effective on-site effluent management. This was achieved primarily by improving and optimising wastewater treatment resources. Around 90% of emissions undergo complementary treatment in municipal treatment plants where the efficiency ratio is at least 70%.

● **Gross emissions to water at plant outlet, by activity and by year**

		Unit: kg/d		
		COD	BOD5	SS
PCA	2005	6,444	2,228	1,584
	2004	7,931	2,395	1,865
	2003	7,969	2,900	2,057
SCMPL	2005	-	-	-
	2004	1	-	0
	2003	1	-	0
PMTC	2005	3	1	0
	2004	2	1	0
	2003	6	0	0
Total	2005	6,447	2,229	1,584
	2004	7,934	2,396	1,866
	2003	7,975	2,900	2,058

COD: Chemical oxygen demand ; BOD5: Biochemical oxygen demand after 5 days ; SS: Suspended solids
 na : not applicable

NB: a significant proportion of emissions (around 90%) undergo complementary treatment in a municipal treatment plant before being discharged into the natural environment.

Data on gross emissions to water by the Faurecia, Gefco and PCI subsidiaries are not shown in the table above since they are not yet available.

● **Methodology: Calculating emissions to water**

The values correspond to the period of most intense activity for PCA, defined in an in-house standard as the average day in the month of greatest activity.

• **Accidental discharges in 2005**

No significant accidental discharges of chemicals, oil or fuel were recorded in 2005 by the industrial base made up of the 26 PCA sites.