European Vehicle Market Statistics – Pocketbook 2013

Dr. Peter Mock ICCT, Berlin

ICCT Webinar Nov 26, 2013



- 1. Introduction
- 2. Structure of the pdf / print version
- 3. Some highlights of the 2013 edition
- 4. Structure of the online version



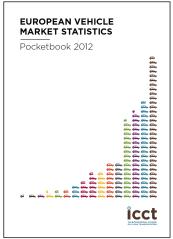
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Introduction



2011



2012



http://www.theicct.org/european-vehicle-market-statistics-2013





Introduction





In the US:

Environmental Protection Agency Fuel Economy Trends (1975-2012) report

http://www.epa.gov/fueleconomy/fetrends/1975-2012/420s13001.pdf



In the EU:

European Environmental Agency CO₂ emissions performance report



http://www.eea.europa.eu//publications/monitoring-co2-emissions-from-new-cars http://www.eea.europa.eu//publications/co2-emissions-performance-of-car-1

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Structure of the pdf / print version

1

1 EXECUTIVE SUMMARY

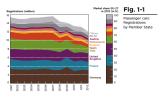
EUROPEAN VEHICLE MARKET STATISTICS 2013

The 2013 edition of European Vehicle Market Statistics offers a statistical portrait of passenger car and light commercial vehicle fleets in the European Union from 2001 to 2012. As in previous editions, the emphasis is on which technologies, fuel consumption, and emissions of greenhouse gases and other air pollutants.

and emissions of greennouse gases and orner air pollutaris. The following pages give a concise overview of subsequent chapters, which then focus more closely on the Member States, manufacturers' brands, and vehicle segments with the highest number of vehicle registrations. More comprehensive tables are included in the americ, along with information on facilities.

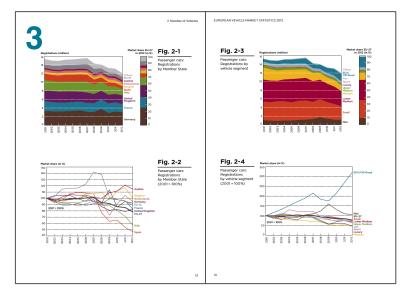
Number of vehicles

New passenger car registrations continued on the generally downward past started in 2007, since that year they have fallen from 15.6 million to 12.0 million, a decline of 23%. The tender fleets the close relationship between velnicle sales and the economic climate. Accordingly, it is most protomored in sectionate. Accordingly, it is most protomored in sectionate. Accordingly, it is most protomored in 100 million. The control of the control of the past of the past of the control of the 2007. On the other hand, in Genmary the number of vehicles sold in 2012 was about the same as in 2007. A brief sales sole in 2009 did interrupt the overall downward tred of the past five years, but this is attributable to other past five years, but this is attributable to detablished by many reational governments at that time, which encouraged citizens to bury new cars, rather than any surturural change in the market.



The European market remains centered on a handful of countries. Some 75% of all new passenger car registrations occur in the five largest markets (Germany, France, United Kingdom, Italy, and Spain). But from the point of view of makes and manufacturers, the market is much more diverse: the top seven brands capture only about 50% of the market.

the market is much more deverse; the forp seven brands capture only double control of the contro



Neary-duty vehicle stock (in million vehicles)

The stock of the stock

The proportions of engiona/countries Business the respective number of webcles in comparison to the total vehicle stock workfeelds. Data source ICCT Global Transportation Business (ECT Global Transportation Business (ECT Global Transportation Business (ECT Global Transportation Business (ECT Global Transportation-road response). http://www.theicct.org/global-transportation-road-rape-model





In 2010, there were about 1 billion cars and trucks on the road worldwide. For 2030, it is expected that number will reach about 1.7 billion, with the strongest growth taking place in Asia and the Middle East. Motorcycles made up another 0.4 billion vehicles in 2010, and it is estimated that their number will reach 0.9 billion in 2030 (not shown here).

EUROPEAN VEHICLE MARKET STATISTICS 2013	Annex

2012 🖁	
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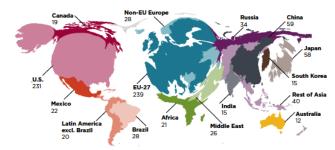
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2 NUMBER OF VEHICLES

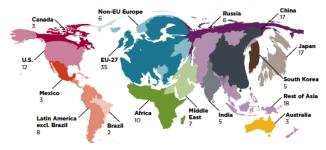
2010

Light-duty vehicle stock (in million vehicles)



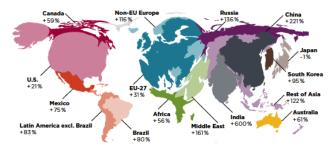
2010

Heavy-duty vehicle stock (in million vehicles)



2030

Light-duty vehicle stock (+/- variation 2010 and 2030)



2030

Heavy-duty vehicle stock (+/- variation 2010 and 2030)



In 2010, there were about 1 billion cars and trucks on the road worldwide. For 2030, it is expected that number will reach about 1.7 billion, with the strongest growth taking place in Asia and the Middle East. Motorcycles made up another 0.4 billion vehicles in 2010, and it is estimated that their number will reach 0.9 billion in 2030 (not shown here).





http://www.theicct.org/global-transportation-roadmap-model

ON CLEAN TRANSPORTATION

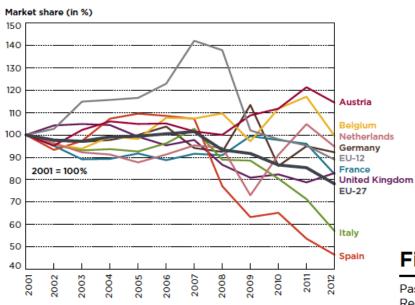
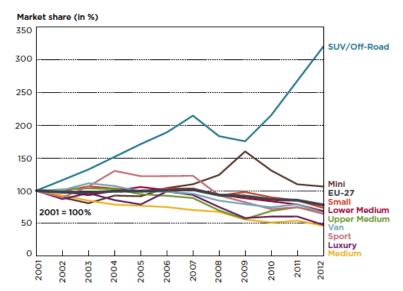


Fig. 2-2

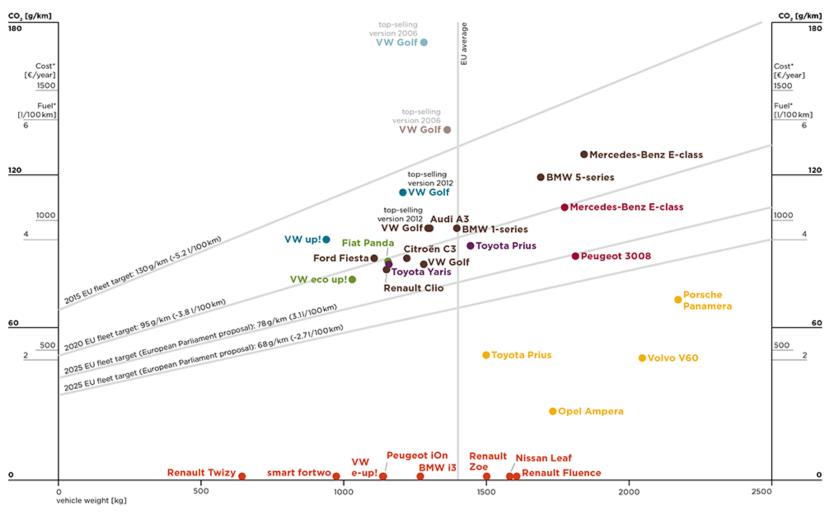
Passenger cars: Registrations by Member State (2001 = 100%)

Fig. 2-4

Passenger cars: Registrations by vehicle segment (2001 = 100%)









Assuming gasoline fuel, 15,000 km/year of driving and 1.5 €/I fuel price; only tank-to-wheel emission.

Data source: (DAT, 2013), manufacturers' websites. Only a selection of available vehicles is shown.

Gasoline Gasoline hybrid Diesel Diesel hybrid Plug-in hybrid Natural gas Full electric



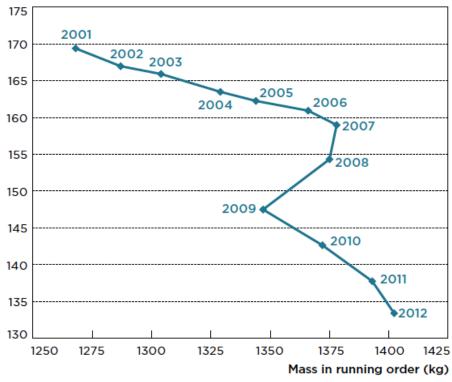


Fig. 3-16

Passenger cars: CO₂ emissions vs. vehicle mass



4 TECHNOLOGIES

New hybrid cars in the EU

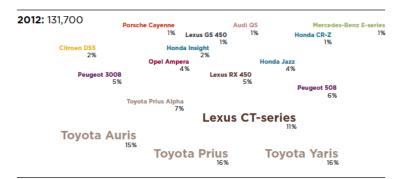
2001: 2,200

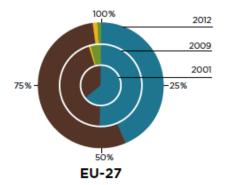
Honda Insight 5%

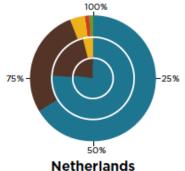
Toyota Prius



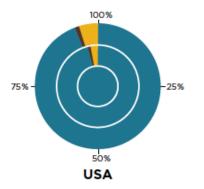
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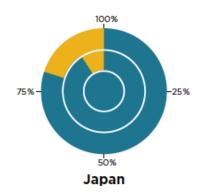






(highest share of hybrid vehicles in the EU)





Gasoline Diesel Hybrid Natural gas Electric

Toyota Honda Lexus Peugeot Opel Citroen Audi Porsche Mercedes-Benz

EU emission limits for gasoline passenger cars (in g/km)

	Effective date*	СО	нс	NMHC	NOx	HC+NO _x	PM	PN
Euro 3	Jan 2000	2.30	0.20	-	0.15	-	-	-
Euro 4	Jan 2005	1.00	0.10	-	0.08	-	-	_
Euro 5	Sep 2009	1.00	0.10	0.068	0.06	-	0.0050	_
Euro 6	Sep 2014	1.00	0.10	0.068	0.06	-	0.0045	6.0 x 10 ¹¹ **

EU emission limits for diesel passenger cars (in g/km)

	Effective date*	СО	нс	NMHC	NOx	$HC+NO_x$	PM	PN
Euro 3	3 Jan 2000	0.64	-	-	0.50	0.56	0.0500	-
Euro 4	4 Jan 2005	0.50	-	-	0.25	0.30	0.0250	-
Euro 5	Sep 2009	0.50	-	-	0.18	0.23	0.0050	-
Euro 6	Sep 2014	0.50	-	-	0.08	0.17	0.0045	6.0 x 10 ¹¹ **

^{*}For new vehicle types

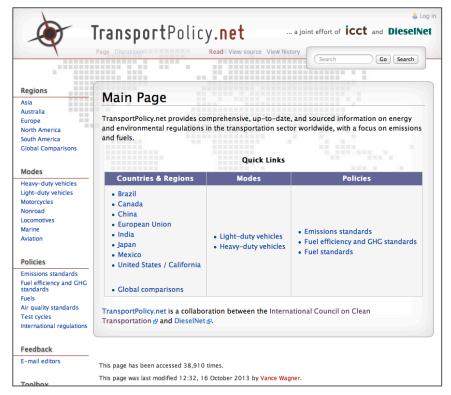
Applies only to diesel and direct-injection gasoline cars.

Emission limits for light-commercial (N1) vehicles class I are identical to passenger car limits listed in Tab. 6-1. N1 class II and N1 class III emission limits are not listed here.

Tab. 6-1

EU emission limits for gasoline and diesel passenger cars

http://www.transport policy.net





^{** 6.0 × 1012} within first three years from Euro 6 effective dates.

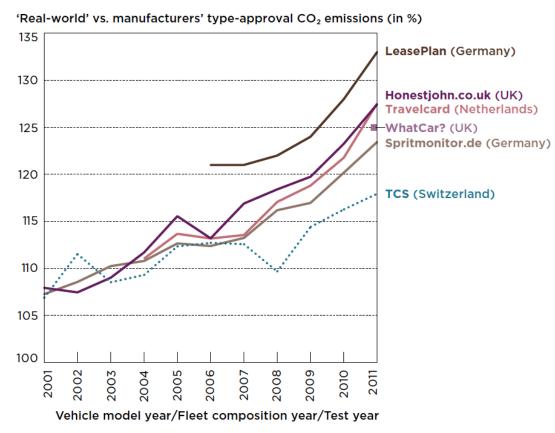
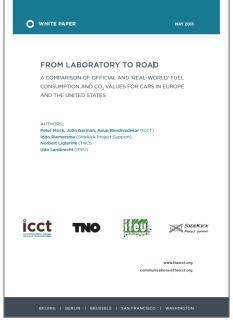


Fig. 1-5

Divergence, real-world vs. manufacturers' type-approval CO₂ emissions for various on-road data sources

http://www.theicct.org/ laboratory-road





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