

European Vehicle Market Statistics – Pocketbook 2013

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**ICCT Webinar
Nov 26, 2013**

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THE INTERNATIONAL COUNCIL
ON CLEAN TRANSPORTATION

Agenda

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

Agenda

1. Introduction

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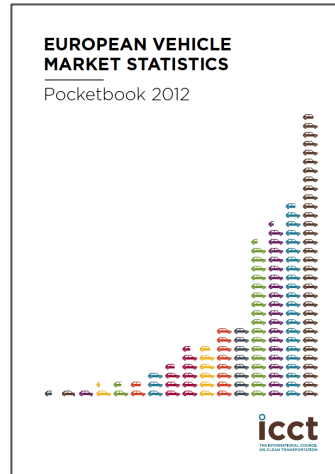
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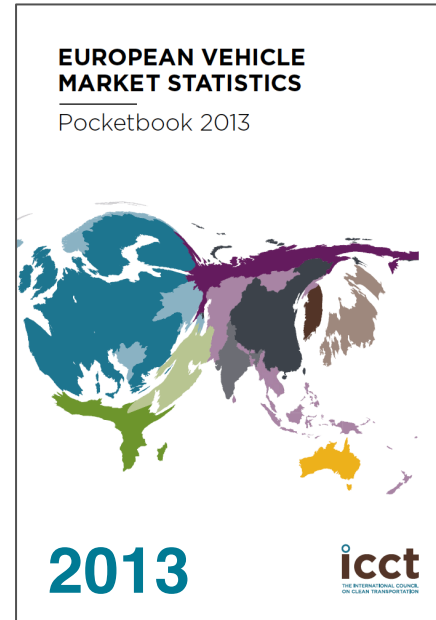
Introduction



2011



2012



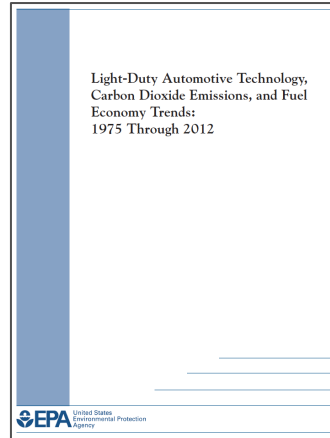
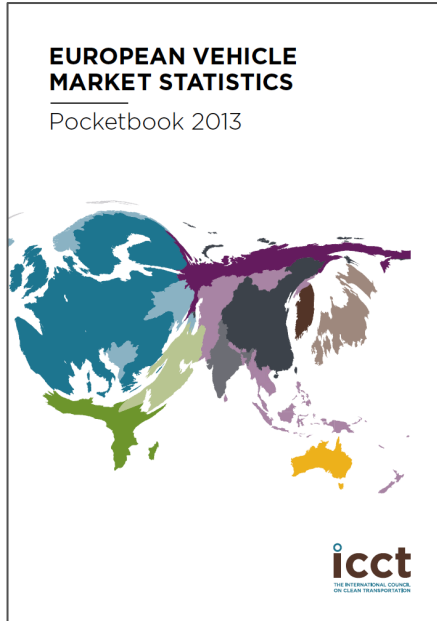
2013

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



<http://www.theicct.org/new-passenger-car-fleet-china-2010>

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

EUROPEAN VEHICLE MARKET STATISTICS 2013

1 EXECUTIVE SUMMARY

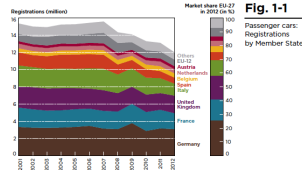
The 2013 edition of *European Vehicle Market Statistics* offers a statistical portrait of passenger car and light commercial vehicle fleets in the European Union from 2001 to 2012. As in previous editions, the emphasis is on vehicle technologies, fuel consumption, and emissions of greenhouse gases and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

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 annex, along with information on sources.

Number of vehicles

New passenger car registrations continued on the generally downward path started in 2007, since that year they have fallen from 15.6 million to 12.0 million, a decline of 23%. The trend reflects the close relationship between vehicle sales and the economic climate. Accordingly, it is most pronounced in southern Europe, where vehicle sales have decreased by 60% in Spain and 45% in Italy since 2007. On the other hand, in Germany the number of vehicles sold in 2012 was about the same as in 2007. A brief sales spike in 2009 did interrupt the overall downward trend of the past five years, but this is attributable to economic stimulus programs (scrappage schemes) established by many national governments at that time, which encouraged citizens to buy new cars, rather than any structural change in the market.

Fig. 1-1



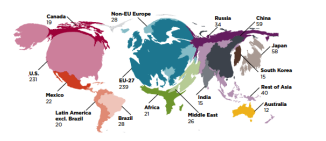
The European market remains centered on a handful of countries. Some 75% of all new passenger car registrations occur in the five largest markets (Germany, France, United Kingdom, Italy, and Spain). But from the point of view of makes and manufacturers, the market is much more diverse: the top seven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

Internationally, total vehicle sales were at about 77 million in 2012, a 6% increase from 2011. This includes about 50 million cars and 27 million commercial vehicles. The top three markets are China (19 million vehicles sold in 2012), the U.S. (15 million), and the EU (14 million). Of the top 15 markets, the fastest growing in 2012 were Thailand (+80% from 2011 to 2012), Japan (+28%), Indonesia (+25%), and the U.S. (+13%). Since 2007, vehicle sales have about doubled in China, India, Thailand, and Indonesia. At the same time, vehicle markets in the EU, North America, and Japan remained constant or decreased within the same time period.

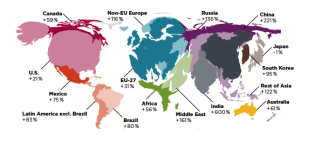
EUROPEAN VEHICLE MARKET STATISTICS 2013

2 NUMBER OF VEHICLES

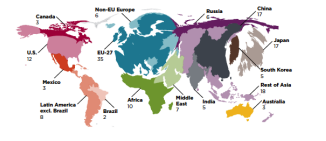
2010 Light-duty vehicle stock (in million vehicles)



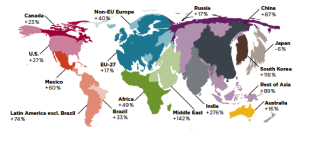
2030 Light-duty vehicle stock (+/- variation 2010 and 2030)



2010 Heavy-duty vehicle stock (in million vehicles)



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).

The proportions of agricultural tractors illustrate the respective number of vehicles in comparison to the total vehicle stock worldwide. Data source: ICCT Global Transportation Database (ICCT Global Transportation Database, 2012)

2 Number of Vehicles

3

EUROPEAN VEHICLE MARKET STATISTICS 2013

Fig. 2-1

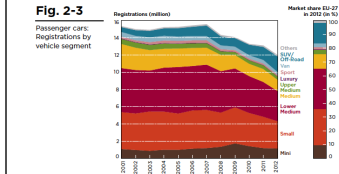
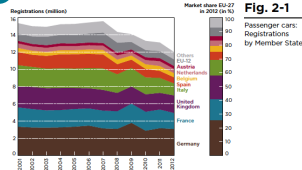
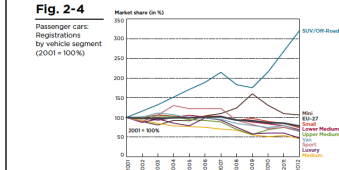
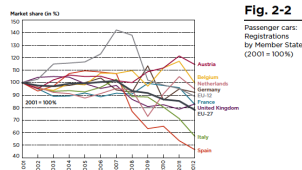


Fig. 2-2



EUROPEAN VEHICLE MARKET STATISTICS 2013

2012 Passenger cars

Country	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001
Germany	1,838,307	1,838,307	1,838,307	1,838,307	1,838,307	1,838,307	1,838,307	1,838,307	1,838,307	1,838,307	1,838,307	1,838,307
France	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000
UK	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Italy	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000
Spain	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000
Sweden	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000
Denmark	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000
Finland	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000
Netherlands	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000
Austria	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Portugal	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000
Belgium	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000
Switzerland	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000
Poland	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Czechia	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000
Slovakia	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000
Slovenia	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
Lithuania	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000
Latvia	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Estonia	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
Turkey	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000
Ukraine	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
Belarus	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Armenia	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
Georgia	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Albania	800	800	800	800	800	800	800	800	800	800	800	800
Bosnia and Herzegovina	700	700	700	700	700	700	700	700	700	700	700	700
Montenegro	600	600	600	600	600	600	600	600	600	600	600	600
Serbia	500	500	500	500	500	500	500	500	500	500	500	500
Moldova	400	400	400	400	400	400	400	400	400	400	400	400
Romania	300	300	300	300	300	300	300	300	300	300	300	300
Bulgaria	200	200	200	200	200	200	200	200	200	200	200	200
Greece	150	150	150	150	150	150	150	150	150	150	150	150
Cyprus	100	100	100	100	100	100	100	100	100	100	100	100
Malta	50	50	50	50	50	50	50	50	50	50	50	50

Agenda

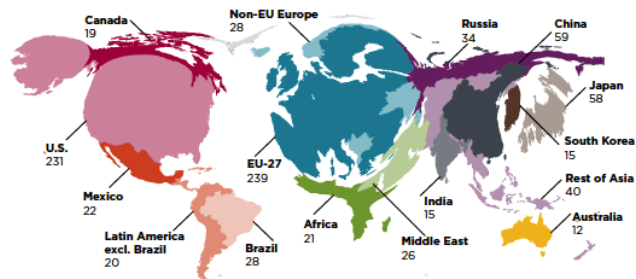
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Some highlights

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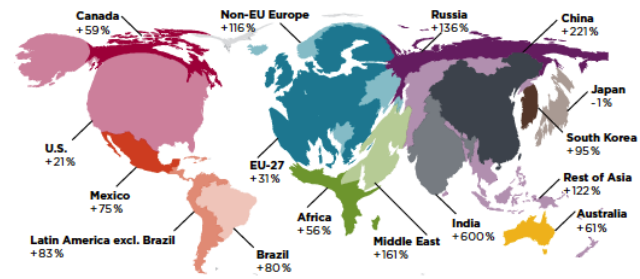
2010

Light-duty vehicle stock (in million vehicles)



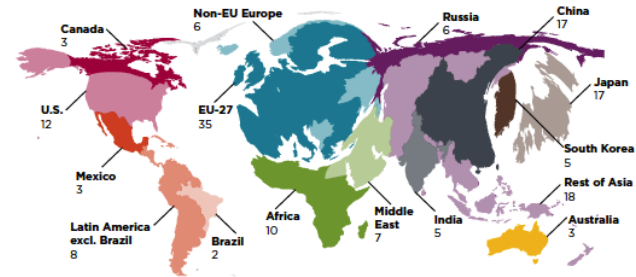
2030

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



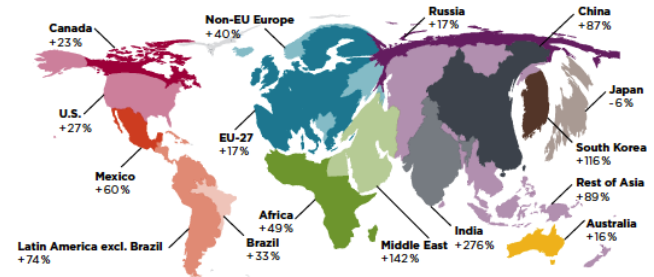
2010

Heavy-duty vehicle stock (in million vehicles)



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).



The proportions of regions/countries illustrate the respective number of vehicles in comparison to the total vehicle stock worldwide. Data source: ICCT Global Transportation Roadmap Model (ICCT, 2013b) and (NREL, 2013)
<http://www.theicct.org/global-transportation-roadmap-model>

Some highlights

Market share (in %)

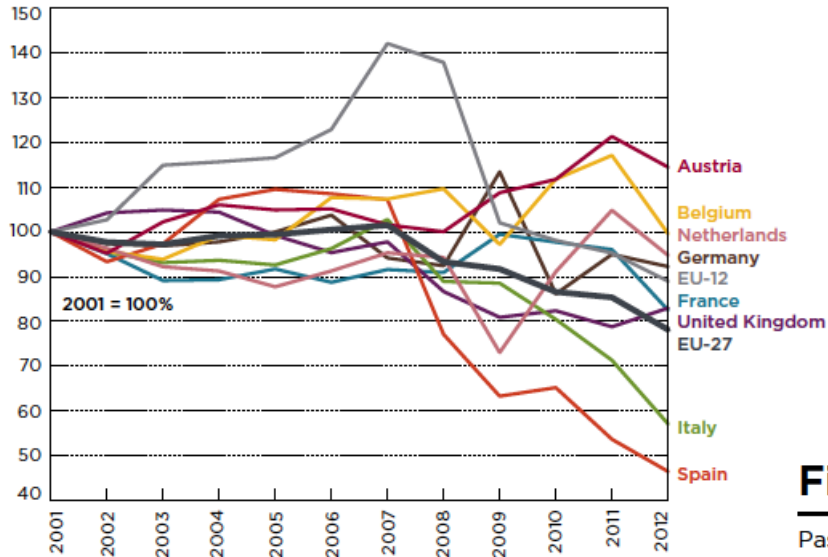


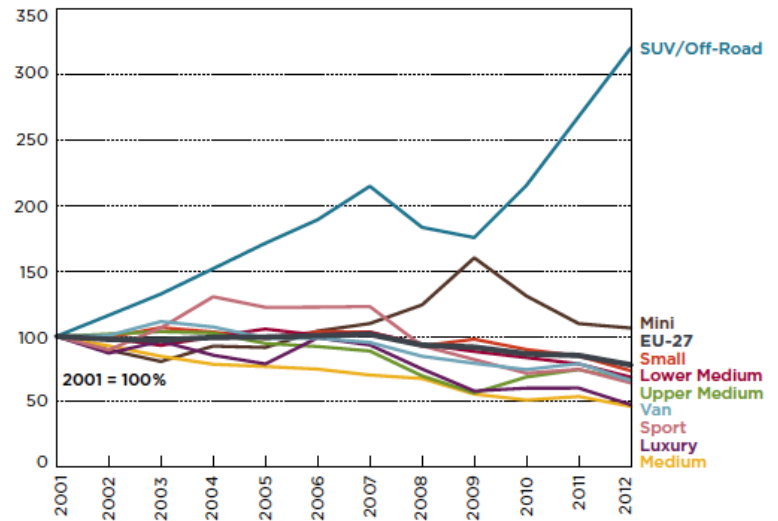
Fig. 2-2

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

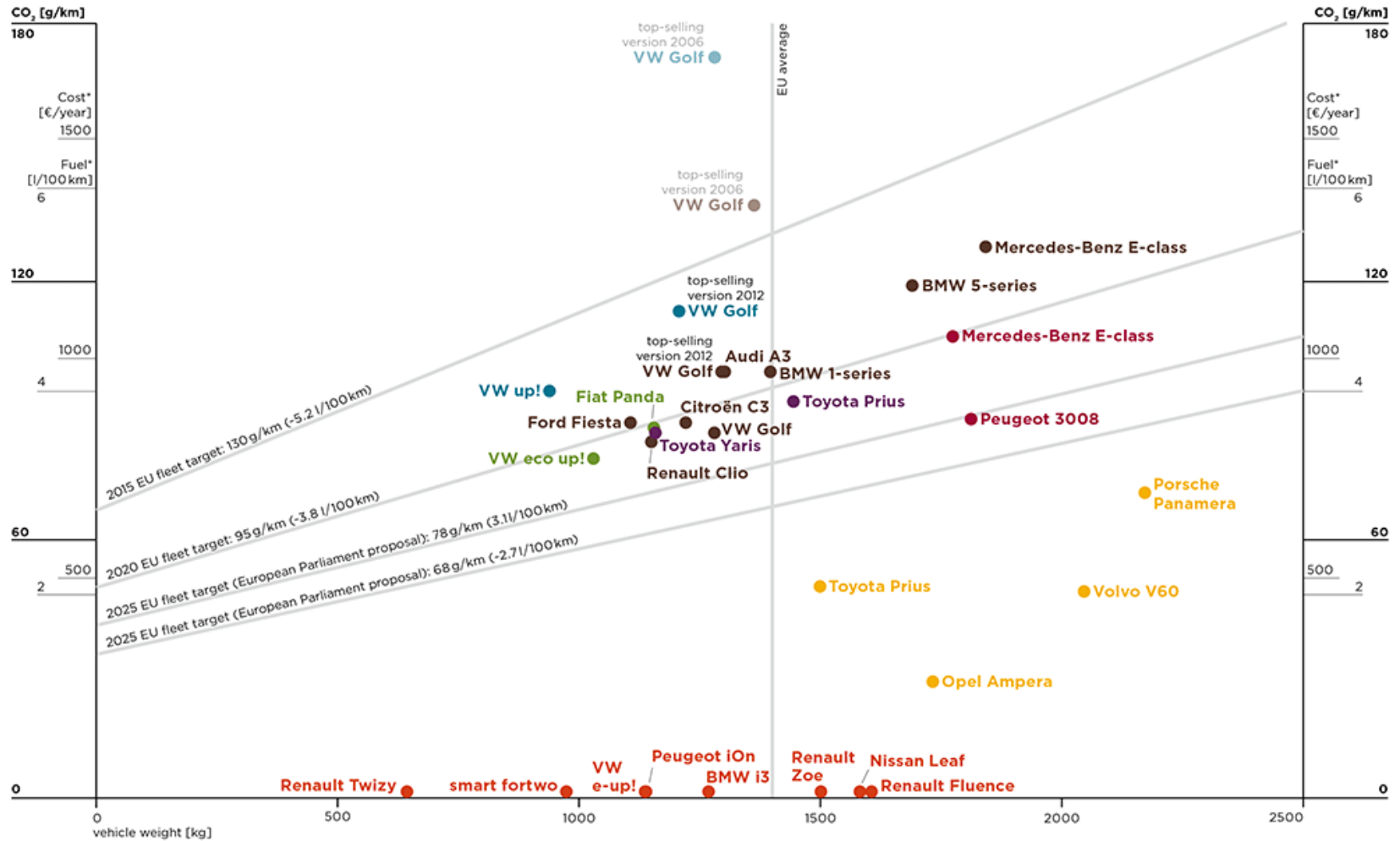
Fig. 2-4

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

Market share (in %)



Some highlights



Some highlights

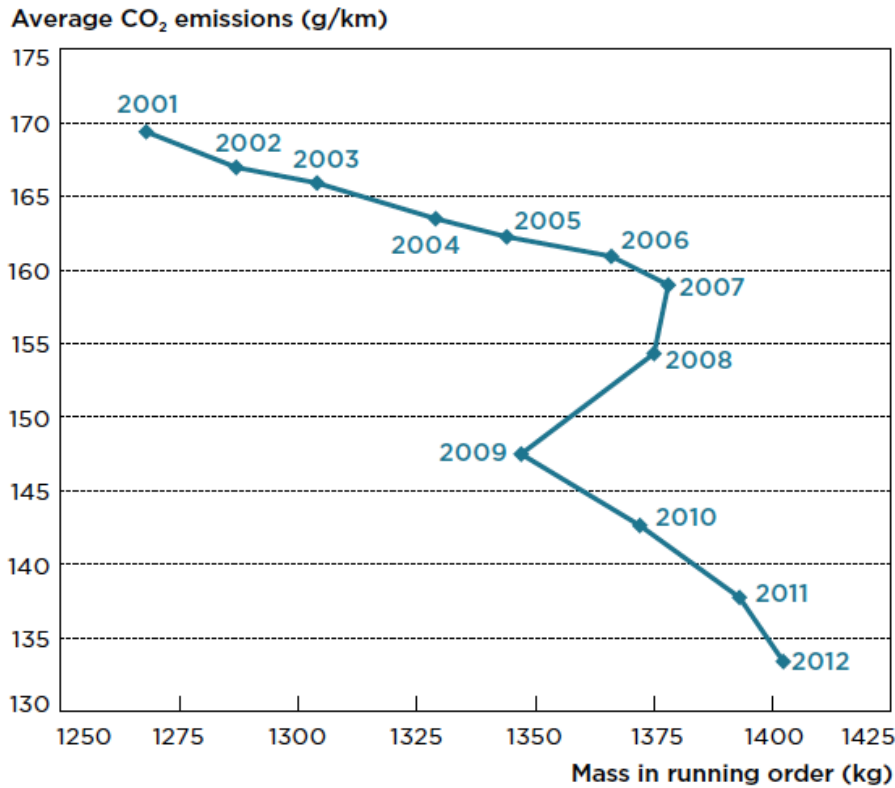


Fig. 3-16

Passenger cars:
CO₂ emissions
vs. vehicle mass

Some highlights

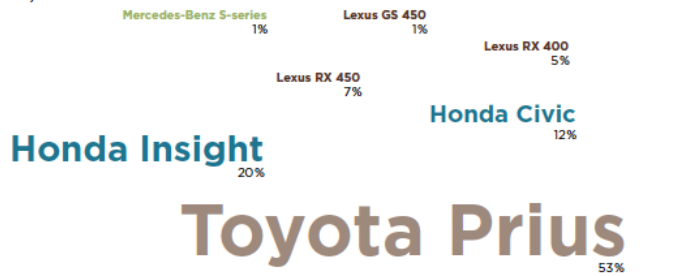
4 TECHNOLOGIES

New hybrid cars in the EU

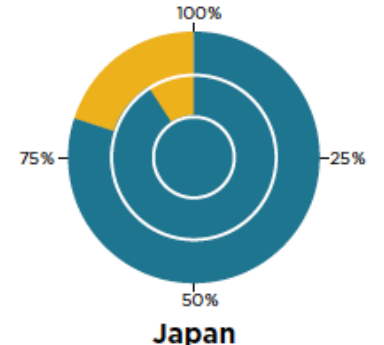
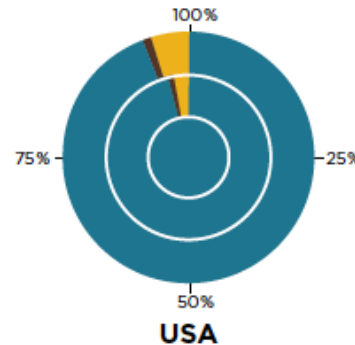
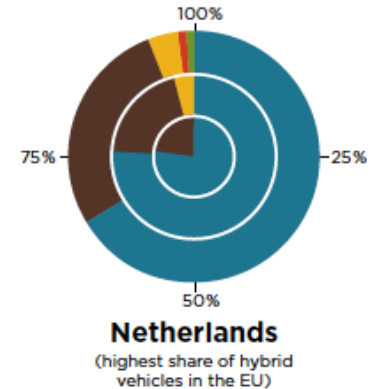
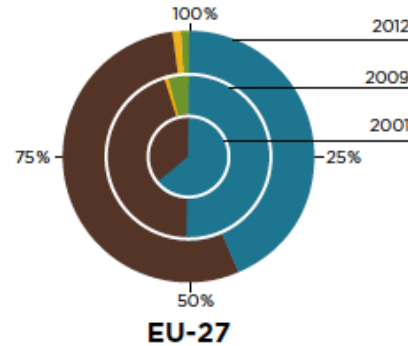
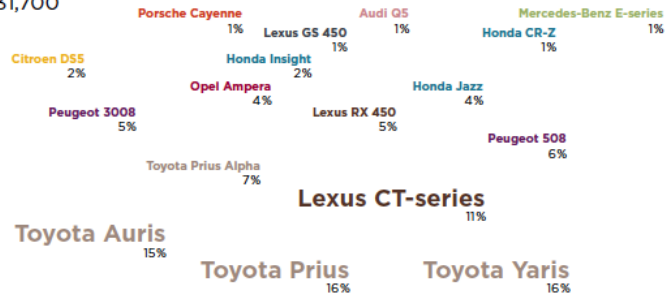
2001: 2,200



2009: 72,500



2012: 131,700



Gasoline Diesel Hybrid Natural gas Electric

Toyota Honda Lexus Peugeot Opel Citroen Audi Porsche Mercedes-Benz

Some highlights

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

	Effective date*	CO	HC	NMHC	NO _x	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	6.0x10 ¹¹ **

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

	Effective date*	CO	HC	NMHC	NO _x	HC+NO _x	PM	PN
Euro 3	Jan 2000	0.64	-	-	0.50	0.56	0.0500	-
Euro 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	6.0x10 ¹¹ **

* For new vehicle types

** 6.0x10¹² within first three years from Euro 6 effective dates.

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.transportpolicy.net>

The screenshot shows the TransportPolicy.net website. At the top, there is a logo and navigation links for 'Page', 'Discussion', 'Read', 'View source', and 'View history'. A search bar is located in the top right. The main content area is titled 'Main Page' and includes a world map background. Below the map, there are 'Quick Links' organized into three columns: 'Countries & Regions' (listing Brazil, Canada, China, European Union, India, Japan, Mexico, and United States / California), 'Modes' (listing Light-duty vehicles and Heavy-duty vehicles), and 'Policies' (listing Emissions standards, Fuel efficiency and GHG standards, and Fuel standards). A sidebar on the left lists various categories like 'Regions' (Asia, Australia, Europe, North America, South America, Global Comparisons), 'Modes' (Heavy-duty vehicles, Light-duty vehicles, Motorcycles, Nonroad, Locomotives, Marine, Aviation), and 'Policies' (Emissions standards, Fuel efficiency and GHG standards, Fuels, Air quality standards, Test cycles, International regulations). At the bottom, there is a 'Feedback' section with 'E-mail editors' and a 'Toolbox' section. The footer indicates the page has been accessed 38,910 times and was last modified on 16 October 2013 by Vance Wagner.

Some highlights

'Real-world' vs. manufacturers' type-approval CO₂ emissions (in %)

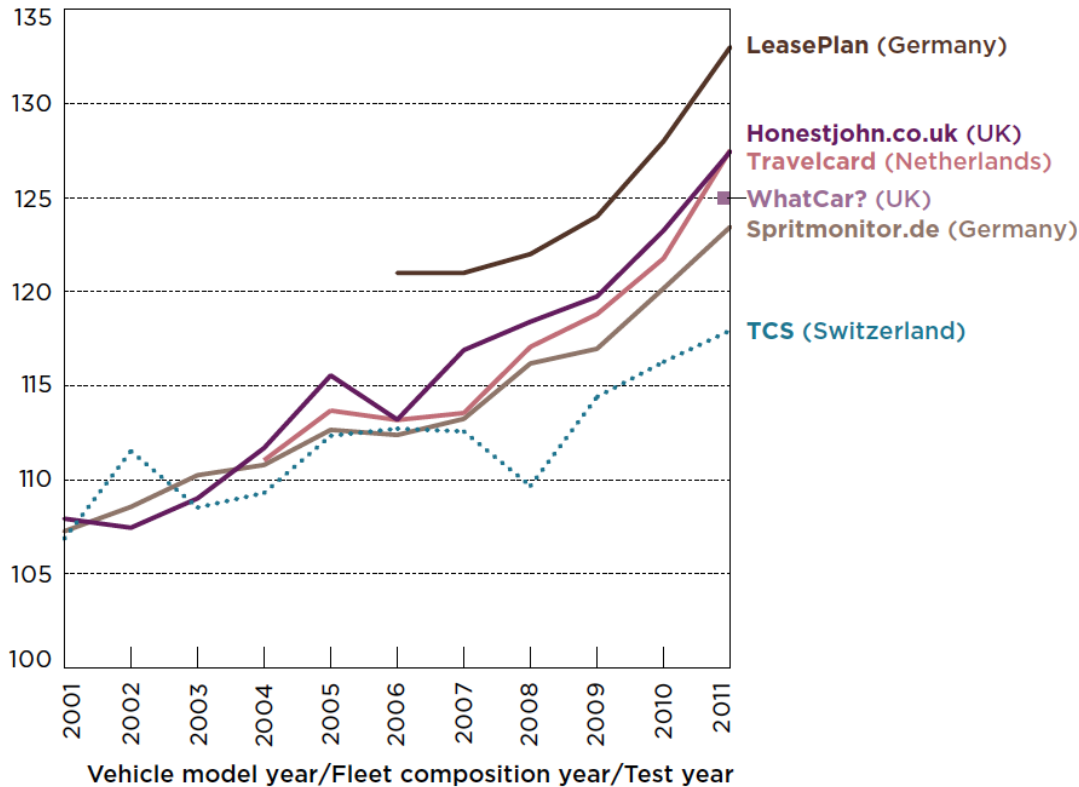


Fig. 1-5

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





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

○ WHITE PAPER
MAY 2013

FROM LABORATORY TO ROAD

A COMPARISON OF OFFICIAL AND 'REAL-WORLD' FUEL CONSUMPTION AND CO₂ VALUES FOR CARS IN EUROPE AND THE UNITED STATES

AUTHORS:
 Peter Mock, John German, Anup Bandivadekar (ICCT)
 Iddo Rielemersma (Sidekick Project Support)
 Norbert Ligtnerink (TNO)
 Udo Lambrecht (IFEU)

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<http://eupocketbook.theicct.org>

The screenshot displays the website's header with the ICCT logo and navigation links (CHARTS, DATA, CONTACT, ABOUT). A search bar is present. The main content area is titled 'FEATURED CHARTS' and includes a 'VIEW/SEARCH ALL CHARTS' button. Three featured charts are shown: 'Registrations by brand' (stacked area chart), 'CO2 emissions by Member State' (line chart), and 'Hybrid-electric vehicles by brand' (line chart). Below these are sections for 'FROM THE ICCT.ORG' and 'CURRENT EDITION', each with a list of articles and a small thumbnail image.

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EUROPEAN VEHICLE MARKET STATISTICS

CHARTS DATA CONTACT ABOUT

Search...

> FEATURED CHARTS VIEW/SEARCH ALL CHARTS

Registrations (million)
PC: Registrations by brand

Average CO₂ emissions (g/km)
PC: CO₂ emissions by Member State

Market share, gasoline hybrid-electric vehicles
PC: Hybrid-electric vehicles by brand

> FROM THE ICCT.ORG

- Electric vehicles on the rise in California
- Renewed and enhanced subsidies for energy-efficient vehicles in China
- World-Harmonized Light-Duty Vehicles Test Procedure

> CURRENT EDITION

EUROPEAN VEHICLE MARKET STATISTICS Pocketbook 2015

The European Vehicle Market Statistics Pocketbook offers a statistical portrait of passenger car and light commercial vehicle fleets in the European Union, updated annually. The emphasis is on vehicle technologies and emissions of greenhouse gases and other air pollutants. Brief introductions to each chapter note important trends and