

---

2017  
2018

---

# The Automobile Industry Pocket Guide



ACEA

European  
Automobile  
Manufacturers  
Association

[WWW.ACEA.BE](http://WWW.ACEA.BE)



## Foreword

Each year, ACEA compiles the Automobile Industry Pocket Guide in order to provide a clear and complete overview of one of Europe's most important industries. By now, it has become the point of reference for all those interested in automotive issues and policies – something we are proud of! This 2017-2018 edition contains the latest figures on employment and trade, innovation, the environmental performance of our sector, as well as vehicle production, registration, use and taxation.

More than 12.5 million Europeans work directly or indirectly in the automotive sector now, representing 5.7% of total EU employment. In 2016, EU passenger car production increased by 2.7%, totalling 16.5 million units and thus almost reaching pre-crisis levels. Not only does our industry make a significant contribution to powering economic growth and creating jobs, it also spurs innovation and provides mobility for millions of Europeans.

However, uncertainty is expected to overshadow our sector in the years to come. Much will depend on political developments and the evolution of macro-economic conditions. We therefore urge the EU to continue its efforts to safeguard the competitiveness of our continent, and ensure fair access to the global market place. At the same time, our industry remains committed to addressing tomorrow's challenges, which is reflected in manufacturers' ongoing efforts to reduce their environmental footprint.

Even though car production has been on the rise again since 2013, manufacturers have been able to decouple CO<sub>2</sub> emissions, energy consumption, water usage and waste generation from production growth. Total CO<sub>2</sub> emissions from car production, for example, have remained stable despite a substantial increase in production volume – while CO<sub>2</sub> emissions per car produced dropped by 25.8% between 2007 and 2016.

The same level of ambition applies to our objective of making mobility cleaner, smarter and safer in the future. To that end, the automotive sector invests €50.1 billion in innovation each year. This not only makes us the EU's largest investor in R&D, but also marks our highest annual investment in innovation on record.



A stylized, handwritten signature in black ink, appearing to read 'Erik Jonnaert'.

Erik Jonnaert  
**ACEA Secretary General**

**BMW Group**

**DAF**

**DAIMLER**

**FCA**  
FIAT CHRYSLER AUTOMOBILES



  
**HYUNDAI**

**IVECO**



**PSA**  
GROUPE

**GROUPE  
RENAULT**

**TOYOTA**

**VOLKSWAGEN**  
AKTIENGESELLSCHAFT



**VOLVO**

## ACEA represents Europe's car, van, truck and bus makers

### **Members and partners**

The European Automobile Manufacturers' Association (ACEA) is the advocate for the automobile industry in Europe, representing manufacturers of passenger cars, vans, trucks and buses with production sites in the EU.

ACEA's members are: BMW Group, Daimler, DAF Trucks, Fiat Chrysler Automobiles, Ford of Europe, Hyundai Motor Europe, Iveco, Jaguar Land Rover, Opel Group, PSA Group, Renault Group, Toyota Motor Europe, Volkswagen Group, Volvo Cars, and Volvo Group.

ACEA has permanent cooperation with the European Council for Automotive R&D (EUCAR), which is the industry body for collaborative research and development.

ACEA works closely with the 29 national automobile manufacturers' associations in Europe, and maintains a dialogue on international issues with automobile associations around the world.

## ACEA's mission and priority areas

### **ACEA's mission**

- Define and advocate the common interests, policies and positions of the European automobile industry.
- Engage in dialogue with the European institutions and other stakeholders in order to advance understanding of industry issues, and to contribute to effective policy and legislation at both European and global levels.
- Act as a portal for expert knowledge on vehicle-related regulation.
- Communicate the role and importance of the industry, using reliable data and information.
- Monitor activities that affect the automobile industry, cooperating with the other stakeholders involved.
- Undertake strategic reflection on the increasingly global challenges of mobility, sustainability and competitiveness.

### **Priority fields**

Through its member companies, ACEA taps into a wealth of technical, regulatory and practical expertise in the following priority fields:

- Connected and Automated Driving
- Competitiveness, Market and Economy
- Environment and Sustainability
- International Trade
- Research and Innovation
- Safety
- Transport Policy

## How ACEA works

The ACEA Board of Directors is composed of the CEOs and Presidents of its member companies. Additionally, a Commercial Vehicle Board of Directors addresses the specific issues that face the commercial vehicle manufacturers that ACEA represents: DAF Trucks, Daimler Trucks, Iveco, MAN Truck & Bus, Scania, Volkswagen Commercial Vehicles and Volvo Group.

The day-to-day work of the ACEA secretariat is overseen by the Secretary General, who ensures that the Board of Directors' priorities are addressed. Technical expertise and advisory input comes from working groups on topics as diverse as emissions, road and vehicle safety, general transport policy, and regulatory compliance. These specialist working groups are made up of experts from the member companies.



The European Council for Automotive R&D (EUCAR) is the collaborative research organisation of the major automobile manufacturers in Europe, with the mission to strengthen the competitiveness of the manufacturers through strategic collaborative research and innovation.

Together with its members, EUCAR drives the strategy and assessment of collaborative automotive research and innovation, and establishes common work with the European Commission, member states and other key stakeholders. These activities facilitate the participation of EUCAR's members in high-quality projects with industrially-relevant results. Projects are mainly financed through the European Union Framework Programmes for research and innovation, matched with industry funding.

EUCAR collaborative research and innovation activities cover both passenger and commercial vehicles, focused on the following strategic pillars:



**SAFE & INTEGRATED  
MOBILITY**

Smart and safe vehicles for all purposes, integrated into a secure and intelligent transport system, progressing towards seamless mobility for all, maximum efficiency and ever-fewer accidents



**SUSTAINABLE  
PROPULSION**

Collaborative automotive R&I towards propulsion systems which are clean and energy efficient over the full life-cycle, with cost-effective technologies, while maintaining customer priorities



**AFFORDABILITY  
& COMPETITIVENESS**

New sustainable approach to developing and producing affordable and competitive vehicles in Europe



**COMMERCIAL VEHICLES**

An integrated approach for reliable, clean, safe and efficient freight transport and passenger mobility, through dedicated vehicle concepts and effective logistics

EUCAR is governed by its Council, composed of the heads of the research and advanced development divisions of the member companies.

The EUCAR Chairman is nominated annually from the Council on a rotating basis.

EUCAR's members are:

BMW Group, DAF Trucks, Daimler, Fiat Chrysler Automobiles, Ford of Europe, Hyundai Motor Europe, Iveco, Jaguar Land Rover, Opel Group, PSA Group, Renault Group, Toyota Motor Europe, Volkswagen Group, Volvo Cars, and Volvo Group.

## Key figures

### EMPLOYMENT

Manufacture of motor vehicles (EU28)	2.5 million people = 8.2% of EU employment in manufacturing	2015
Total (EU28 manufacturing, services and construction)	12.6 million people = 5.7% of total EU employment	2015

### PRODUCTION

Motor vehicles (world)	96.1 million units	2016
Motor vehicles (EU28)	19.2 million units = 20% of global motor vehicle production	2016
Passenger cars (world)	77.7 million units	2016
Passenger cars (EU28)	16.5 million units = 21% of global passenger car production	2016

### REGISTRATIONS

Motor vehicles (world)	95.1 million units	2016
Motor vehicles (EU27)	17.0 million units = 18% of global motor vehicle registrations/sales	2016
Passenger cars (world)	77.3 million units	2016
Passenger cars (EU27)	14.6 million units = 19% of global passenger car registrations/sales	2016
Diesel (EU15)	49.9%	2016
Electric (EU15)	1.1%	2016

### VEHICLES IN USE

Motor vehicles (EU28)	294.2 million units	2015
Passenger cars (EU28)	256.1 million units	2015
Motorisation rate (EU28)	573 units per 1,000 inhabitants	2015
Average age (EU25)	10.7 years	2015

### TRADE

Exports (extra-EU28)	€135.4 billion	2016
Imports (extra-EU28)	€45.7 billion	2016
Trade balance	€89.7 billion	2016

### ENVIRONMENT

Average CO2 emissions (EU28)	118.1g CO2/km	2016
------------------------------	---------------	------

### INNOVATION

Automobiles & parts sector	€50.1 billion	2015
----------------------------	---------------	------

### TAXATION

Fiscal income from motor vehicles (EU14)	€395.7 billion	2016
--	----------------	------



1

THE AUTOMOBILE INDUSTRY  
POCKET GUIDE 2017/2018

# Employment



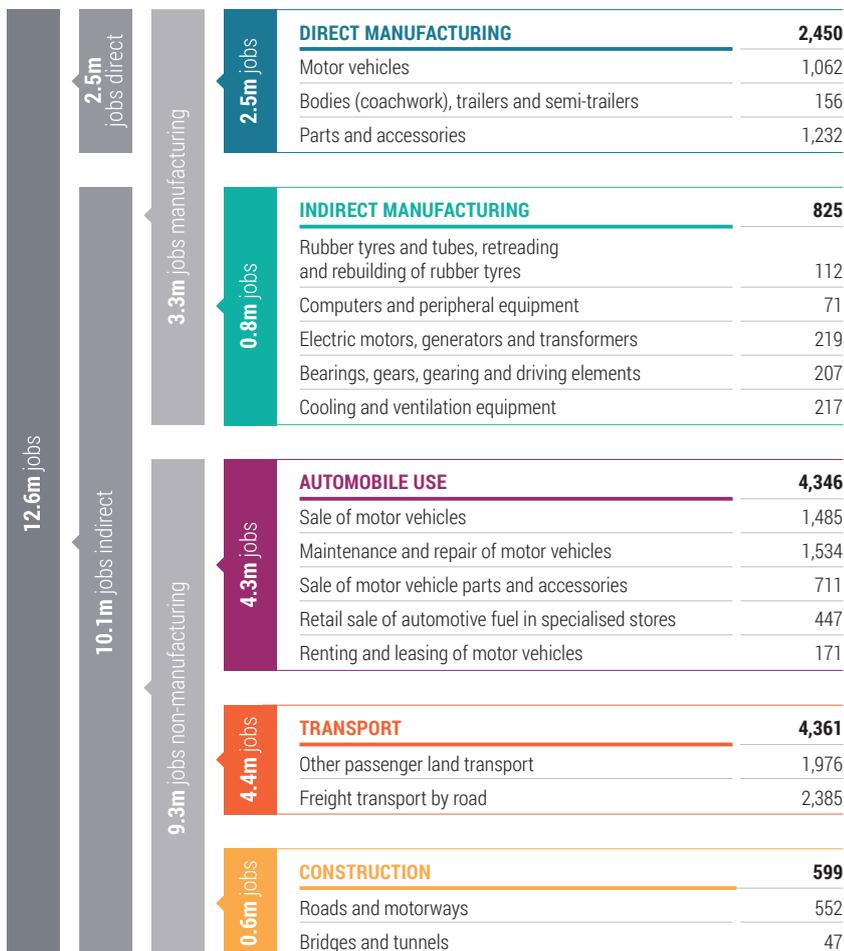
ACEA

European  
Automobile  
Manufacturers  
Association

[WWW.ACEA.BE](http://WWW.ACEA.BE)



## Automotive sector: direct and indirect employment in the EU

IN THOUSANDS / 2015<sup>1</sup>

SOURCE: EUROSTAT

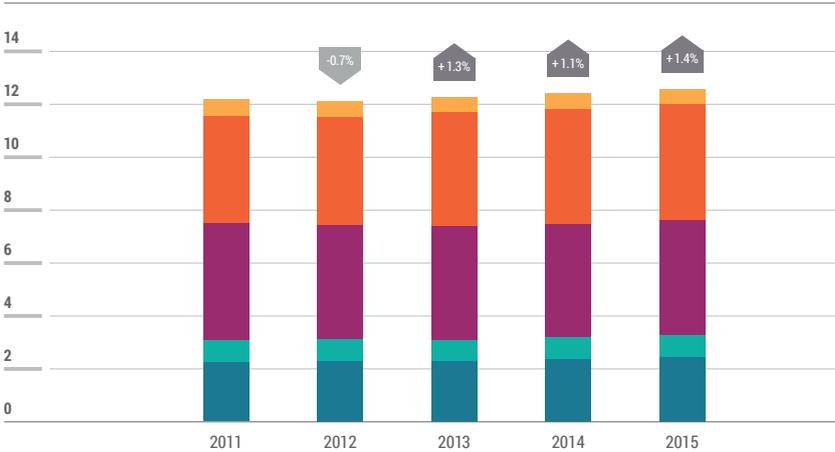
1. Provisional figures

**The automotive industry provides direct and indirect jobs for 12.6 million Europeans**

## EU automotive employment

IN MILLION UNITS / 2011 – 2015

● Manufacturing direct ● Manufacturing indirect ● Automobile use ● Transport ● Construction



SOURCE: EUROSTAT

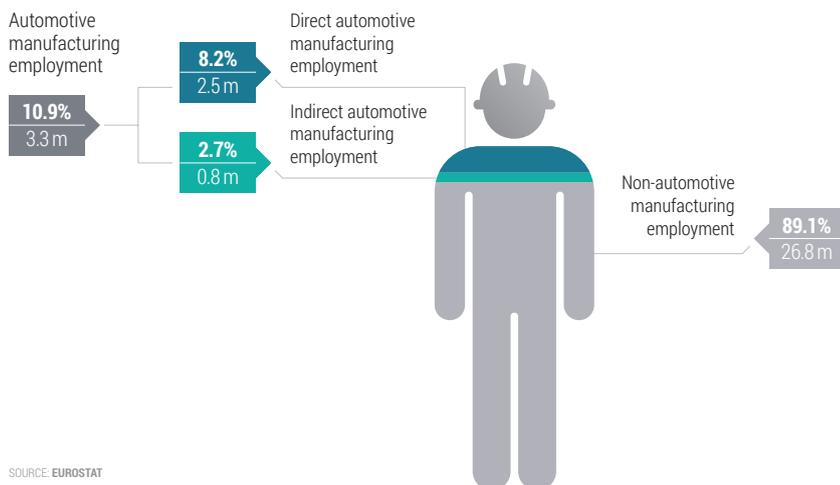
EU automotive employment	2011	2012	2013	2014	2015	% change 15/14
Manufacturing direct	2,233,041	2,290,416	2,296,766	2,372,556	2,449,792	3.3
Manufacturing indirect	853,534	834,712	811,805	818,937	824,710	0.7
Automobile use	4,412,114	4,299,720	4,261,311	4,261,446	4,346,261	2.0
Transport	4,048,414	4,067,166	4,307,820	4,353,541	4,361,336	0.2
Construction	651,016	622,801	588,835	598,130	598,751	0.1
<b>TOTAL</b>	<b>12,198,118</b>	<b>12,114,815</b>	<b>12,266,536</b>	<b>12,404,611</b>	<b>12,580,851</b>	<b>1.4</b>

SOURCE: EUROSTAT

**The automotive sector accounts  
for 5.7% of all EU jobs**

## EU manufacturing employment

% SHARE / 2015



Direct automotive employment (manufacturing)

**2.5m people**

= 8.2% of EU employment in manufacturing

Direct &amp; indirect automotive manufacturing employment

**3.3m people**

= 10.9% of EU employment in manufacturing

Total automotive employment (manufacturing, services and construction)

**12.6m people**

= 5.7% of total EU employment

EU economically-active population (labour force)

**243.0m people**

EU total employment

**220.1m people**

EU employment in the manufacturing sector

**30.1m people**

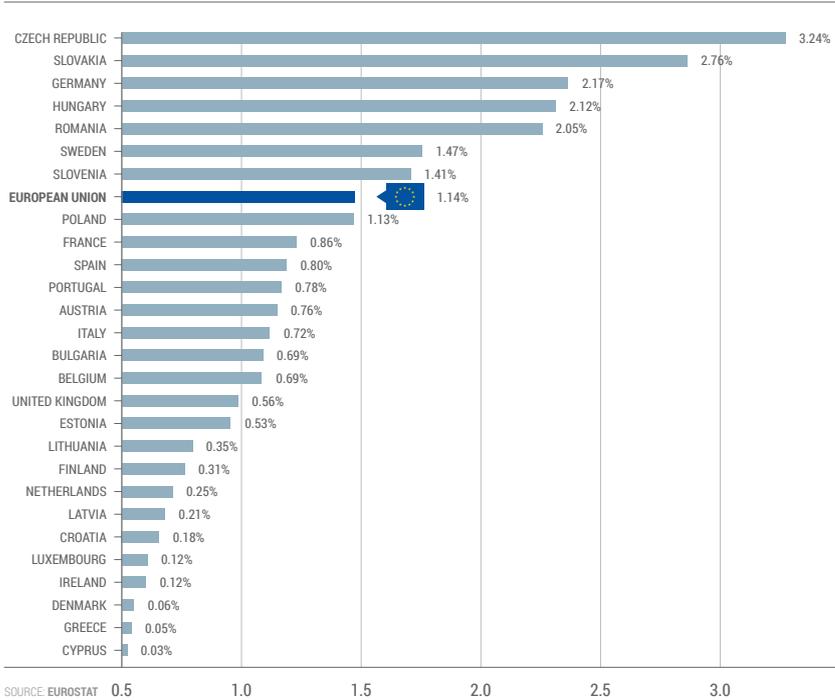
= 13.7% of total EU employment

SOURCE: EUROSTAT

**Almost 11% of EU manufacturing employment is in the automotive sector**

## Direct automotive manufacturing employment / Active population ratio

% SHARE, BY COUNTRY / 2015



## Direct automotive manufacturing employment

BY COUNTRY / 2015

Austria	30,804	France	224,000	Netherlands	20,295
Belgium	30,838	Germany	850,857	Poland	178,274
Bulgaria	20,512	Greece	1,765	Portugal	33,436
Croatia	2,825	Hungary	88,532	Romania	168,689
Cyprus	104	Ireland	2,311	Slovakia	66,356
Czech Republic	159,732	Italy	159,148	Slovenia	12,746
Denmark	1,606	Latvia	1,821	Spain	142,480
Estonia	3,233	Lithuania	4,496	Sweden	68,336
Finland	7,282	Luxembourg	314	United Kingdom	169,000

 European Union 2,449,792

SOURCE EUROSTAT

**The EU automotive sector directly employs  
about 2.5 million people in manufacturing**



---

2

---

THE AUTOMOBILE INDUSTRY  
POCKET GUIDE 2017/2018

---

# Production



ACEA

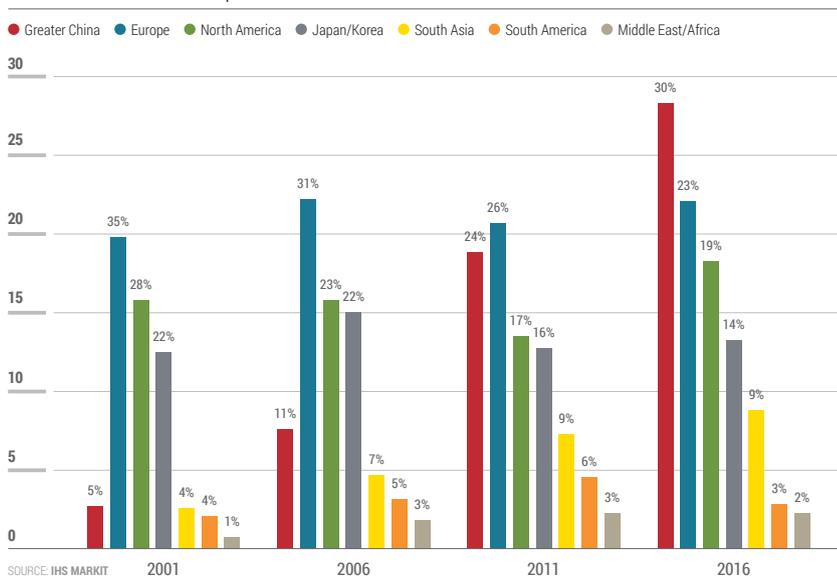
European  
Automobile  
Manufacturers  
Association

[WWW.ACEA.BE](http://WWW.ACEA.BE)



## World motor vehicle production

IN MILLION UNITS, % SHARE / 2001 – 2016



## World motor vehicle production

IN 1,000 UNITS / 2016

	2016	2015	% change 16/15	% share 2016
Europe <sup>1</sup>	22,090	21,494	2.8	23.0
Greater China <sup>2</sup>	28,413	24,931	14.0	29.6
Japan/Korea	13,237	13,629	-2.9	13.8
Middle East/Africa	2,323	1,963	18.3	2.4
North America	18,299	18,013	1.6	19.0
South America	2,856	3,183	-10.3	3.0
South Asia	8,911	8,485	5.0	9.3
<b>WORLD</b>	<b>96,128</b>	<b>91,699</b>	<b>4.8</b>	<b>100.0</b>

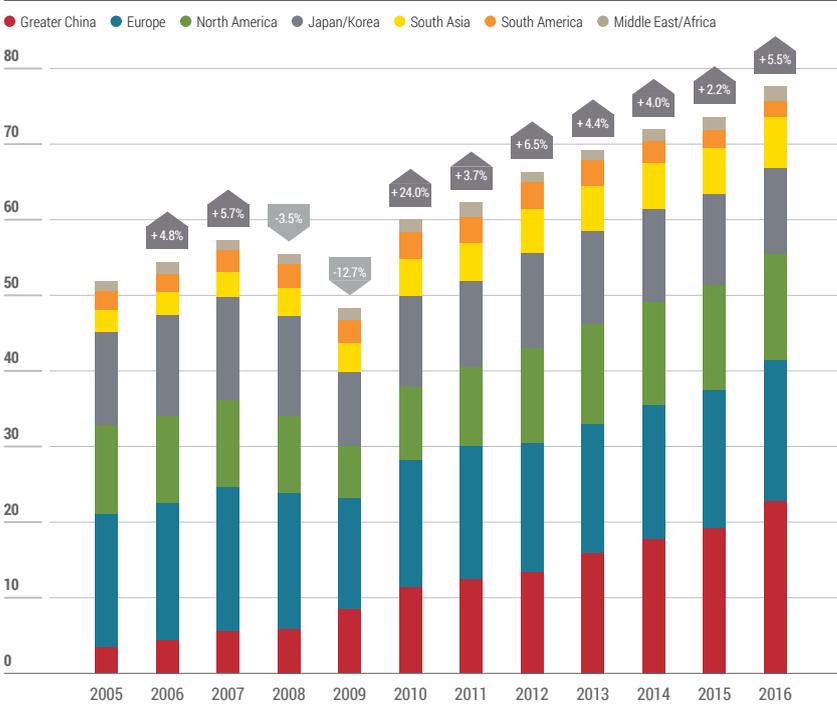
SOURCE: IHS MARKIT

1. Includes Turkey and CIS countries  
 2. Includes Hong Kong and Taiwan

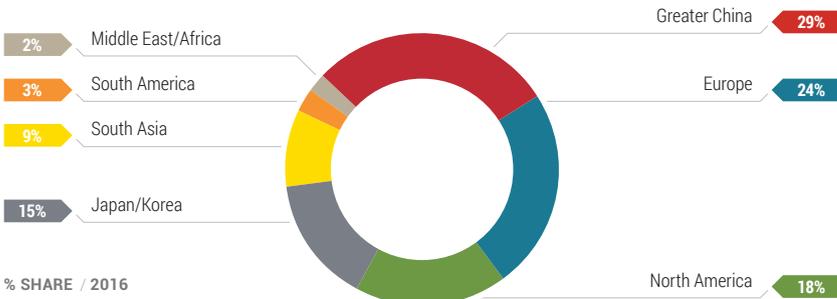
**96.1 million motor vehicles  
 were produced globally in 2016**

## World passenger car production

IN MILLION UNITS, % CHANGE / 2005 – 2016



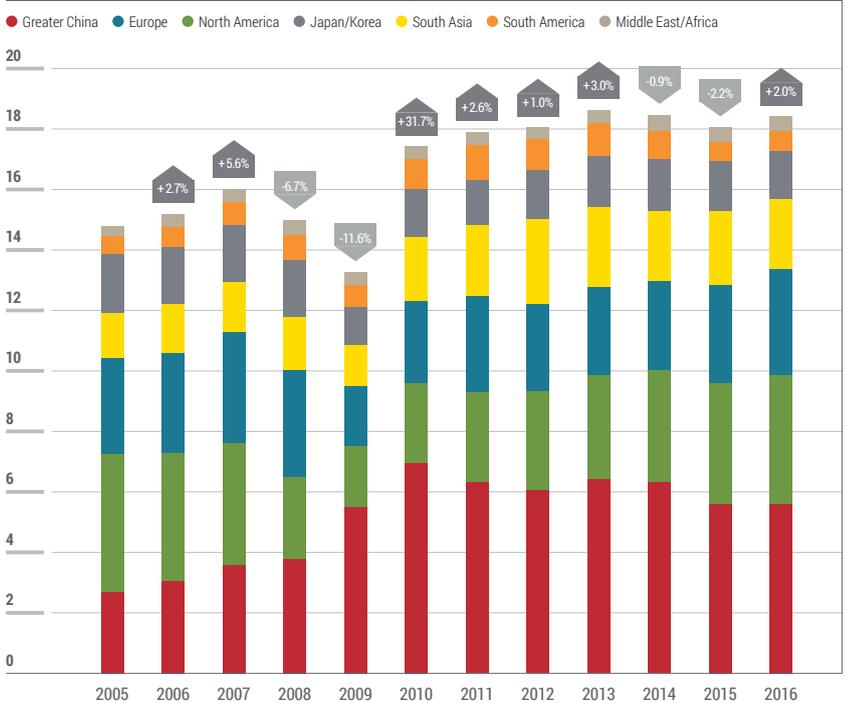
SOURCE: IHS MARKIT



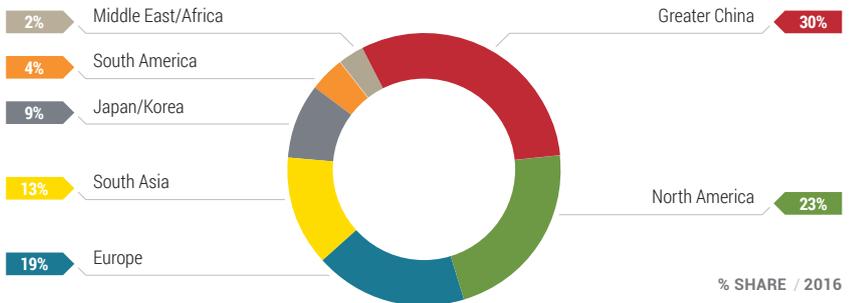
**77.7 million passenger cars  
were produced globally in 2016**

## World commercial vehicle production

IN MILLION UNITS, % CHANGE / 2005 – 2016



SOURCE: IHS MARKIT



**18.4 million commercial vehicles  
were manufactured worldwide in 2016**

## Motor vehicle production in the EU

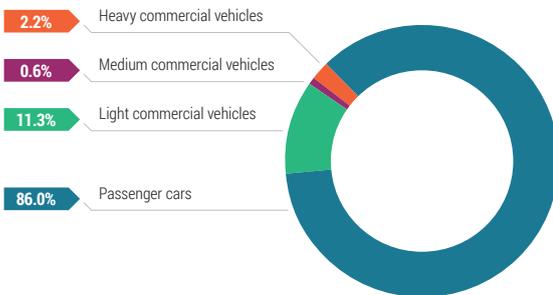
BY COUNTRY / 2016

	PC <sup>1</sup>	LCV <sup>2</sup>	MCV <sup>3</sup>	HCV <sup>4</sup>	TOTAL
Austria	73,573	-	6,131	8,881	88,585
Belgium	355,036	0	0	44,216	399,252
Bulgaria	62	52	-	-	114
Czech Republic	1,342,920	0	0	1,217	1,344,137
Finland	43,247	-	-	65	43,312
France	1,571,809	507,221	15,366	43,726	2,138,122
Germany	5,542,971	414,686	34,835	133,714	6,126,206
Hungary	522,335	-	-	0	522,335
Italy	728,704	310,728	34,832	6,810	1,081,074
Lithuania	-	-	0	39	39
Netherlands	86,805	-	0	84,003	170,808
Poland	469,145	181,752	99	11,260	662,256
Portugal	84,924	54,065	4,034	-	143,023
Romania	362,957	0	0	0	362,957
Slovakia	942,546	-	-	-	942,546
Slovenia	133,700	-	-	-	133,700
Spain	2,269,577	612,277	11,534	29,676	2,923,064
Sweden	205,355	-	-	41,378	246,733
United Kingdom	1,731,656	75,137	4,871	12,354	1,824,018
<b>European Union</b>	<b>16,467,322</b>	<b>2,155,918</b>	<b>111,702</b>	<b>417,339</b>	<b>19,152,281</b>

SOURCE: IHS MARKIT

## EU motor vehicle production by type

% SHARE / 2016

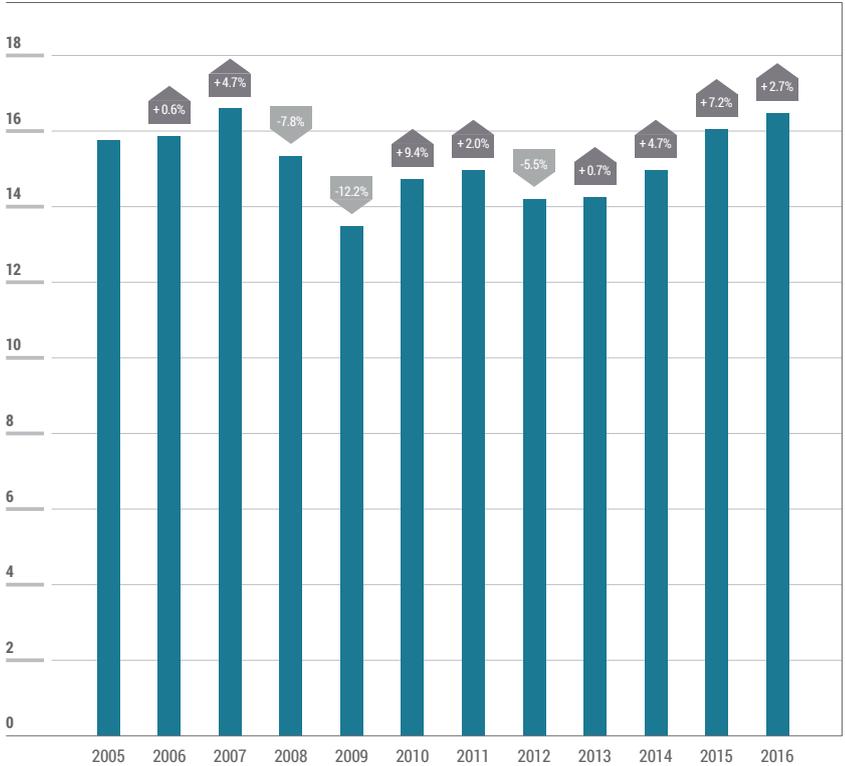


1. Passenger cars
2. Light commercial vehicles up to 3.5t
3. Medium commercial vehicles from 3.5t to 15t
4. Heavy commercial vehicles over 15t (incl. articulated trucks)

**19.2 million motor vehicles  
were manufactured in the EU in 2016**

## Passenger car production in the EU

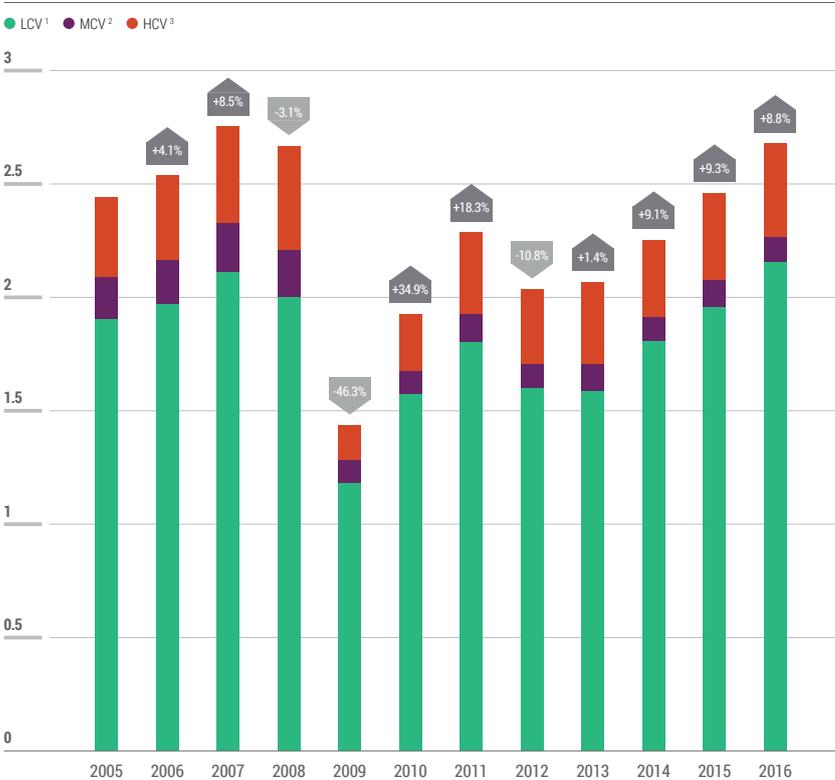
IN MILLION UNITS, % CHANGE / 2005 – 2016



SOURCE: IHS MARKIT

Commercial vehicle production in the EU

IN MILLION UNITS, % CHANGE / 2005 – 2016



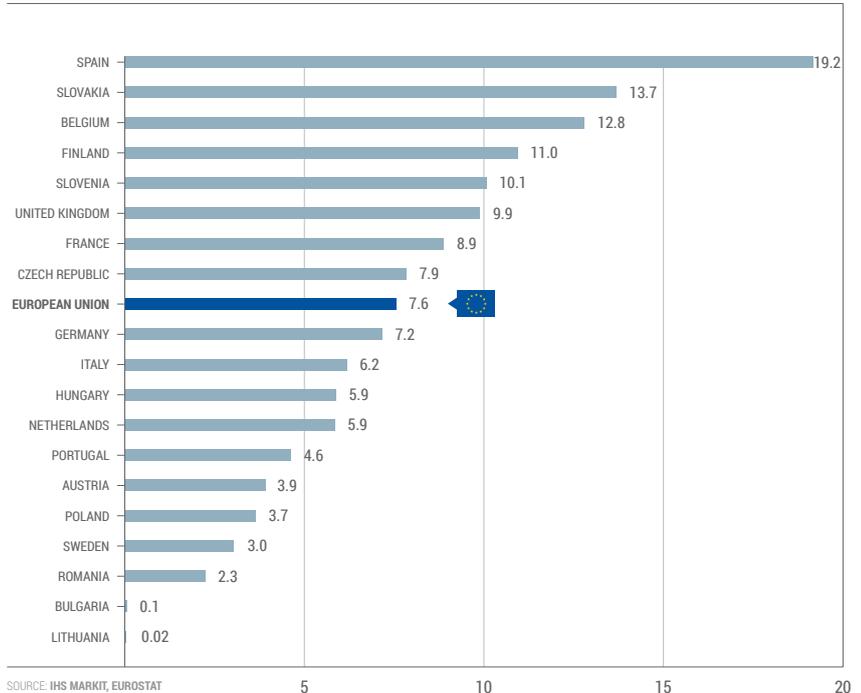
SOURCE: IHS MARKIT

- 1. Light commercial vehicles up to 3.5t
- 2. Medium commercial vehicles from 3.5t to 15t
- 3. Heavy commercial vehicles over 15t (incl. articulated trucks)

**2.7 million commercial vehicles  
were produced in the EU in 2016**

## Motor vehicle production per direct automotive manufacturing employee

IN UNITS, BY COUNTRY / 2015 \*



SOURCE: IHS MARKIT, EUROSTAT

\* Based on most recent direct automotive manufacturing employment data available

Automobile assembly and engine production plants in Europe

2017



ALL MANUFACTURERS



ACEA MEMBERS



SOURCE: ACEA

**There are 230 assembly and production plants in the EU**



---

3

---

THE AUTOMOBILE INDUSTRY  
POCKET GUIDE 2017/2018

---

# Registrations



ACEA

European  
Automobile  
Manufacturers  
Association

[WWW.ACEA.BE](http://WWW.ACEA.BE)



## World new motor vehicle registrations

MARKET SHARES / 2016

Motor vehicles	In 1,000 units	2016	2015	% change 16/15	% share 2016
<b>EUROPE</b>		<b>20,283</b>	<b>19,320</b>	<b>5.0</b>	<b>21.3</b>
EU <sup>1</sup>		16,968	15,798	7.4	17.8
EFTA		571	565	1.0	0.6
Russia		1,480	1,657	-10.7	1.6
Turkey		1,011	1,008	0.3	1.1
Ukraine		69	47	46.5	0.1
Others: Europe <sup>2</sup>		184	245	-24.7	0.2
<b>AMERICA</b>		<b>25,592</b>	<b>25,772</b>	<b>-0.7</b>	<b>26.9</b>
North America		21,578	21,248	1.6	22.7
<i>of which the US</i>		<i>17,950</i>	<i>17,923</i>	<i>0.2</i>	<i>18.9</i>
South America		4,013	4,524	-11.3	4.2
<i>of which Brazil</i>		<i>2,045</i>	<i>2,565</i>	<i>-20.3</i>	<i>2.1</i>
<b>ASIA</b>		<b>44,396</b>	<b>40,870</b>	<b>8.6</b>	<b>46.7</b>
China		28,673	25,357	13.1	30.1
Japan		4,946	5,037	-1.8	5.2
India		3,740	3,457	8.2	3.9
South Korea		1,839	1,843	-0.2	1.9
Others: Asia <sup>3</sup>		5,198	5,177	0.4	5.5
<b>MIDDLE EAST/AFRICA</b>		<b>4,858</b>	<b>4,872</b>	<b>-0.3</b>	<b>5.1</b>
<b>WORLD</b>		<b>95,129</b>	<b>90,834</b>	<b>4.7</b>	<b>100.0</b>

SOURCE: ACEA, IHS MARKIT

1. Data for Malta n.a.

2. Includes Belarus, Bosnia-Herzegovina, Kazakhstan, Macedonia, Serbia and Uzbekistan

3. Includes Hong Kong, Taiwan and other South Asian countries excluding India



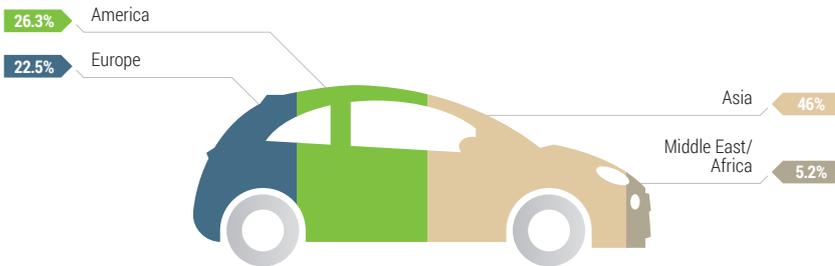
## World new passenger car registrations

MARKET SHARES / 2016

Passenger cars	In 1,000 units	2016	2015	% change 16/15	% share 2016
<b>EUROPE</b>		<b>17,417</b>	<b>16,672</b>	<b>4.5</b>	<b>22.5</b>
EU <sup>1</sup>		14,641	13,714	6.8	18.9
EFTA		490	488	0.4	0.6
Russia		1,317	1,495	-11.9	1.7
Turkey		757	726	4.3	1.0
Ukraine		63	43	45.0	0.1
Others: Europe		148	205	-27.9	0.2
<b>AMERICA</b>		<b>20,373</b>	<b>20,693</b>	<b>-1.5</b>	<b>26.3</b>
North America <sup>2</sup>		17,291	17,173	0.7	22.4
<i>of which the US</i>		<i>14,395</i>	<i>14,506</i>	<i>-0.8</i>	<i>18.6</i>
South America		3,082	3,520	-12.4	4.0
<i>of which Brazil</i>		<i>1,686</i>	<i>2,125</i>	<i>-20.7</i>	<i>2.2</i>
<b>ASIA</b>		<b>35,542</b>	<b>32,010</b>	<b>11.0</b>	<b>46.0</b>
China		23,053	19,717	16.9	29.8
Japan		4,134	4,210	-1.8	5.3
India		3,010	2,823	6.6	3.9
South Korea		1,534	1,527	0.5	2.0
Others: Asia		3,810	3,733	2.1	4.9
<b>MIDDLE EAST/AFRICA</b>		<b>4,012</b>	<b>3,950</b>	<b>1.6</b>	<b>5.2</b>
<b>WORLD</b>		<b>77,344</b>	<b>73,324</b>	<b>5.5</b>	<b>100.0</b>

SOURCE: ACEA, IHS MARKIT

1. Data for Malta n.a.  
2. Based on production type



**77.3 million cars were registered worldwide in 2016**

WWW.ACEA.BE

## World new commercial vehicle registrations

MARKET SHARES / 2016

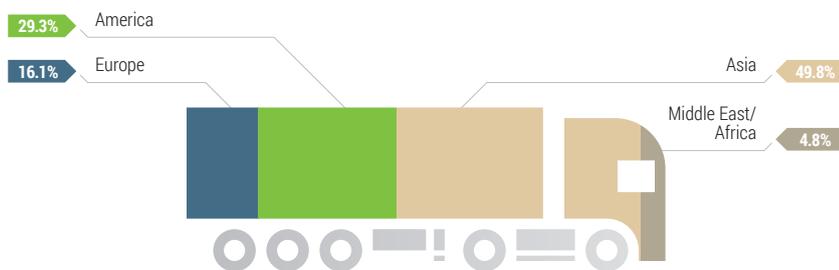
Commercial vehicles <sup>1</sup> in 1,000 units	2016	2015	% change 16/15	% share 2016
<b>EUROPE</b>	<b>2,866</b>	<b>2,648</b>	<b>8.2</b>	<b>16.1</b>
EU <sup>2</sup>	2,327	2,084	11.7	13.1
EFTA	80	77	5.0	0.5
Russia	163	162	0.4	0.9
Turkey	254	282	-10.1	1.4
Ukraine	7	4	62.7	0.4
Others: Europe	36	39	-8.3	0.2
<b>AMERICA</b>	<b>5,218</b>	<b>5,079</b>	<b>2.8</b>	<b>29.3</b>
North America <sup>3</sup>	4,287	4,075	5.2	24.1
<i>of which the US</i>	<i>3,555</i>	<i>3,417</i>	<i>4.0</i>	<i>20.0</i>
South America	931	1,004	-7.2	5.2
<i>of which Brazil</i>	<i>359</i>	<i>440</i>	<i>-18.4</i>	<i>2.0</i>
<b>ASIA</b>	<b>8,854</b>	<b>8,860</b>	<b>-0.1</b>	<b>49.8</b>
China	5,620	5,639	-0.3	31.6
Japan	812	827	-1.8	4.6
India	729	634	15.0	4.1
South Korea	305	316	-3.6	1.7
Others: Asia	1,388	1,444	-3.9	7.8
<b>MIDDLE EAST/AFRICA</b>	<b>847</b>	<b>922</b>	<b>-8.2</b>	<b>4.8</b>
<b>WORLD</b>	<b>17,785</b>	<b>17,510</b>	<b>1.6</b>	<b>100.0</b>

SOURCE: ACEA, IHS MARKIT

1. Includes light, medium and heavy commercial vehicles, and buses and coaches

2. Data for Malta n.a.

3. Based on production type



**17.8 million vans, trucks and buses  
were registered globally in 2016**

## Motor vehicle registrations in the EU<sup>1</sup>

BY COUNTRY / 2016

	PC <sup>2</sup>	LCV <sup>3</sup>	CV <sup>4</sup>	BC <sup>5</sup>	TOTAL
AUSTRIA	329,604	35,919	7,979	1,043	374,545
BELGIUM	539,519	68,165	9,456	714	617,854
BULGARIA	26,370	4,890	-	-	31,260
CROATIA	43,015	8,173	1,346	186	52,720
CYPRUS	12,643	1,856	60	-	14,559
CZECH REPUBLIC	259,693	19,239	11,063	1,013	291,008
DENMARK	222,927	36,628	5,098	736	265,389
ESTONIA	22,429	3,919	881	172	27,401
FINLAND	118,986	13,519	3,330	586	136,421
FRANCE	2,015,177	408,545	48,157	6,593	2,478,472
GERMANY	3,351,607	258,021	92,556	6,683	3,708,867
GREECE	78,873	5,623	321	191	85,008
HUNGARY	96,552	21,331	5,516	408	123,807
IRELAND	146,603	28,246	2,511	362	177,722
ITALY	1,824,968	199,155	23,370	2,799	2,050,292
LATVIA	16,359	2,217	1,590	179	20,345
LITHUANIA	20,320	2,793	6,004	263	29,380
LUXEMBOURG	50,561	4,376	1,227	205	56,369
NETHERLANDS	382,825	70,398	15,347	840	469,410
POLAND	416,123	59,812	26,628	1,987	504,550
PORTUGAL	207,330	34,890	4,824	354	247,398
ROMANIA	94,924	14,127	7,837	1,102	117,990
SLOVAKIA	88,163	7,459	4,612	364	100,598
SLOVENIA	63,674	9,959	2,392	188	76,213
SPAIN	1,147,007	172,334	24,703	3,300	1,347,344
SWEDEN	372,318	51,669	6,498	1,333	431,818
UNITED KINGDOM	2,692,786	375,687	53,916	8,779	3,131,168
 European Union	<b>14,641,356</b>	<b>1,918,950</b>	<b>367,222</b>	<b>40,380</b>	<b>16,967,908</b>
ICELAND	18,442	1,773	285	235	20,735
NORWAY	154,603	36,008	5,982	1,398	197,991
SWITZERLAND	317,318	30,014	4,076	699	352,107
<b>EFTA</b>	<b>490,363</b>	<b>67,795</b>	<b>10,343</b>	<b>2,332</b>	<b>570,833</b>
<b>EU + EFTA</b>	<b>15,131,719</b>	<b>1,986,745</b>	<b>377,565</b>	<b>42,712</b>	<b>17,538,741</b>

SOURCE: ACEA, NATIONAL AUTOMOTIVE ASSOCIATIONS

1. Data for Malta n.a.

2. Passenger cars

3. Light commercial vehicles up to 3.5t

4. Commercial vehicles (trucks) over 3.5t

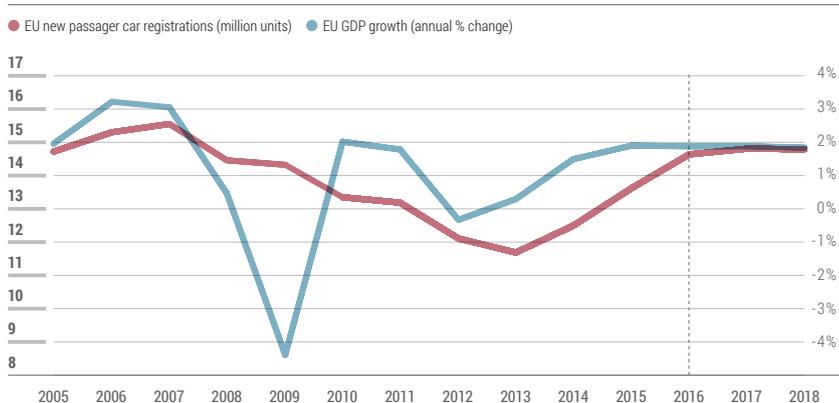
5. Buses and coaches over 3.5t

**The EU represents a market  
of almost 17 million vehicles**

WWW.ACEA.BE

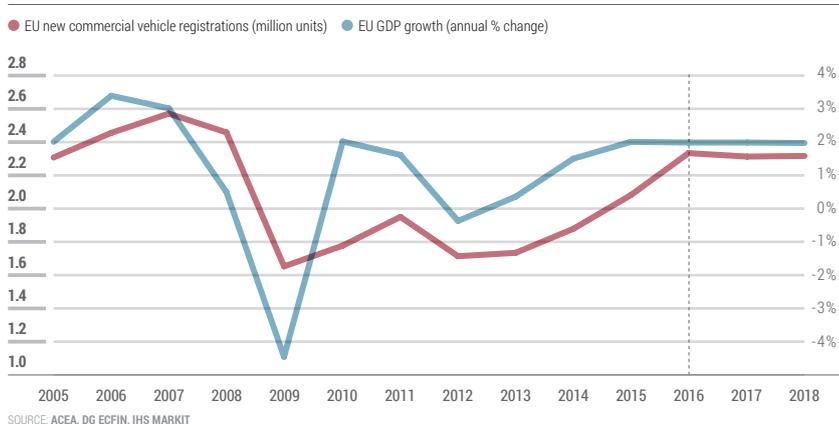
## New passenger car registrations and annual GDP growth in the EU

2005 – 2018

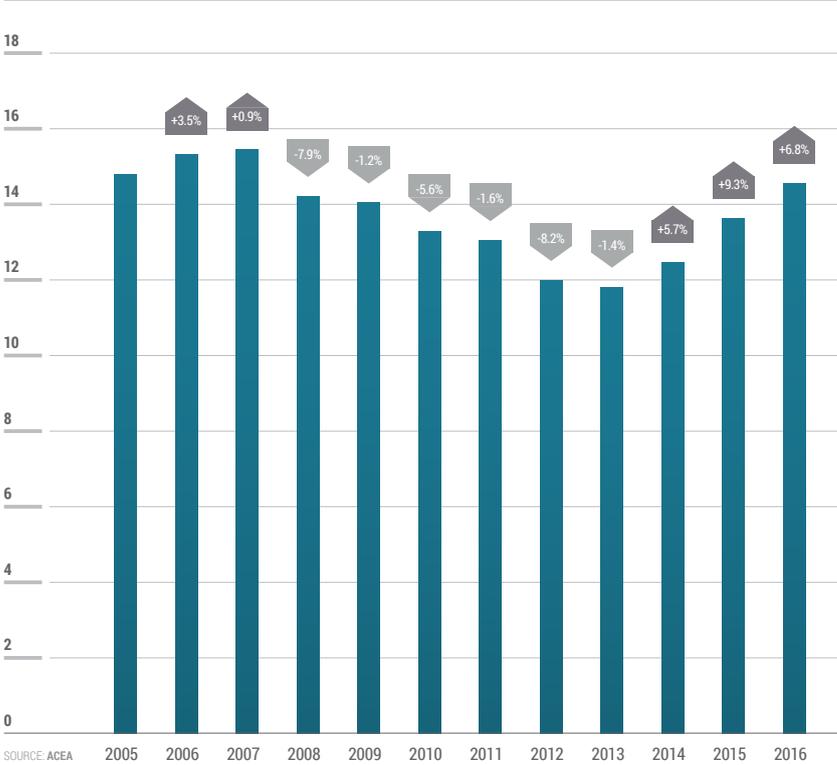


## New commercial vehicle registrations and annual GDP growth in the EU

2005 – 2018

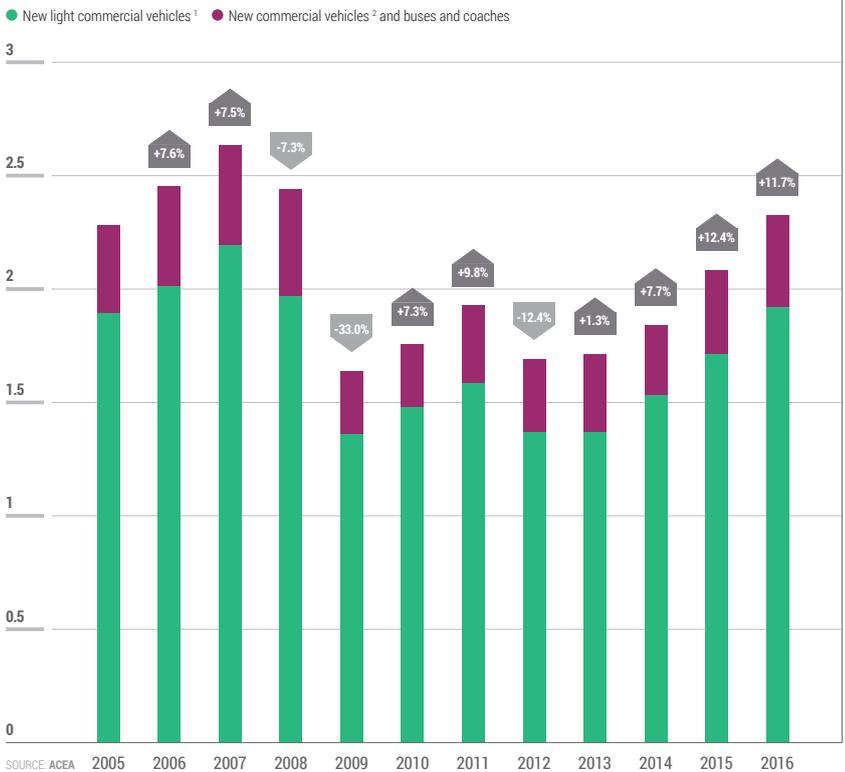


New passenger car registrations in the EU IN MILLION UNITS, % CHANGE / 2005 – 2016



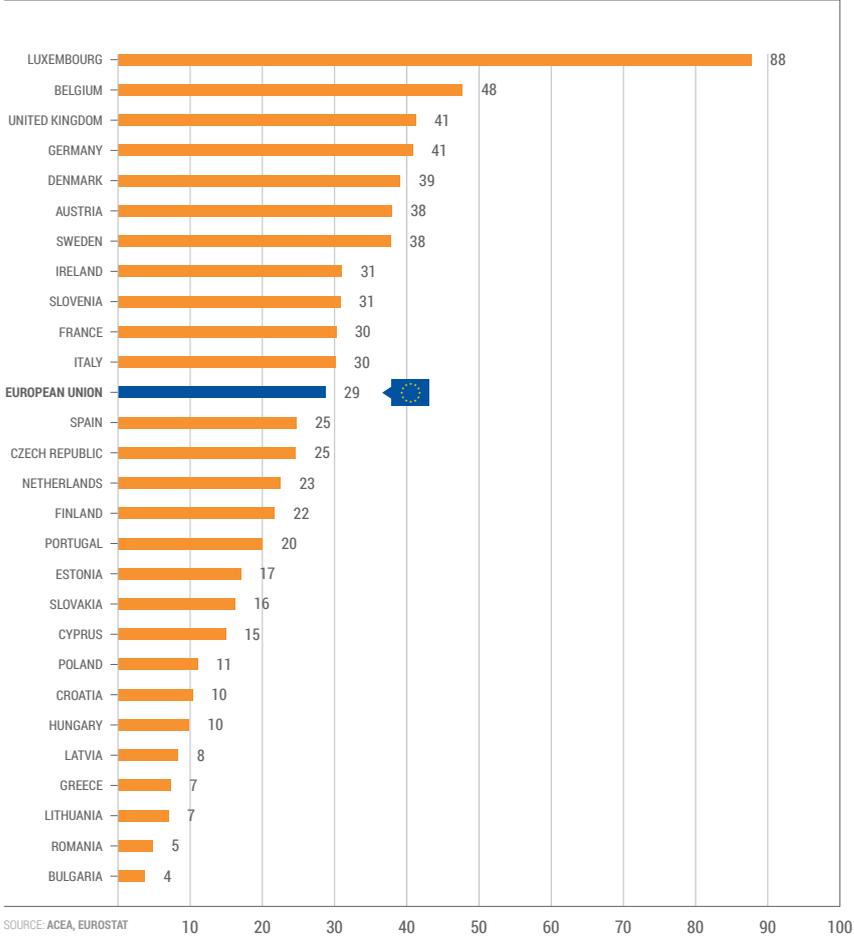
**14.6 million cars were registered in the EU in 2016**

## New commercial vehicle registrations in the EU IN MILLION UNITS, % CHANGE / 2005 – 2016



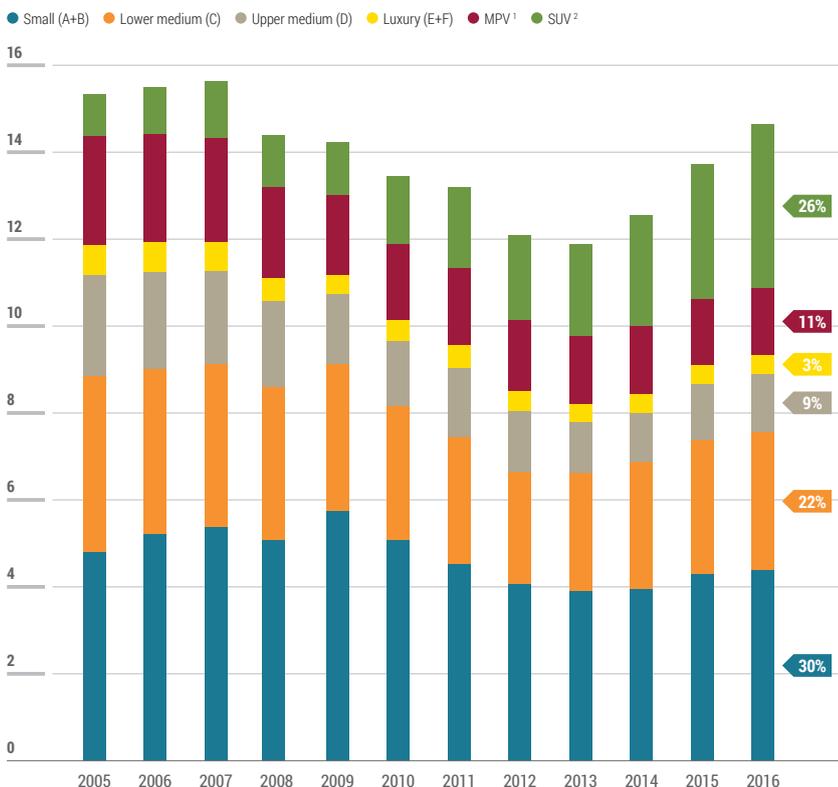
1. Up to 3.5t  
2. Over 3.5t

New passenger car registrations per 1,000 inhabitants **BY COUNTRY, IN UNITS / 2016**



**29 new cars were registered  
per 1,000 inhabitants in the EU in 2016**

## New passenger cars sold in the EU BY SEGMENT, IN MILLION UNITS, % SHARE / 2005 – 2016



SOURCE: IHS MARKIT

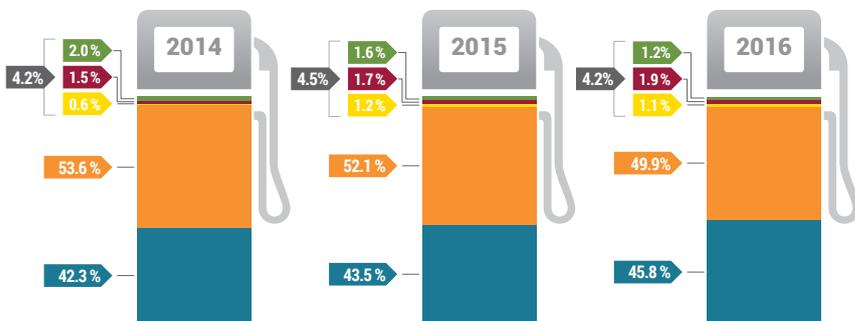
1. Multi-purpose vehicles  
2. Sport utility vehicles

## New passenger cars in the EU15 by fuel type

% SHARE / 2014 – 2016

● Petrol ● Diesel

● Electrically chargeable vehicles<sup>1</sup> ● Hybrid electric vehicles<sup>2</sup> ● Other alternative fuel vehicles<sup>3</sup> ● Total alternative fuel vehicles



SOURCE: ACEA, AAA

1. Includes battery electric vehicles (BEV), extended-range electric vehicles (EREV), plug-in hybrid electric vehicles (PHEV) and fuel cell electric vehicles (FCEV)

2. Includes full and mild hybrids

3. Includes natural gas vehicles (NGV), LPG-fueled vehicles and ethanol (E85) vehicles

**Nearly half of all new cars run on diesel**

WWW.ACEA.BE



4

THE AUTOMOBILE INDUSTRY  
POCKET GUIDE 2017/2018

# Vehicles in use



ACEA

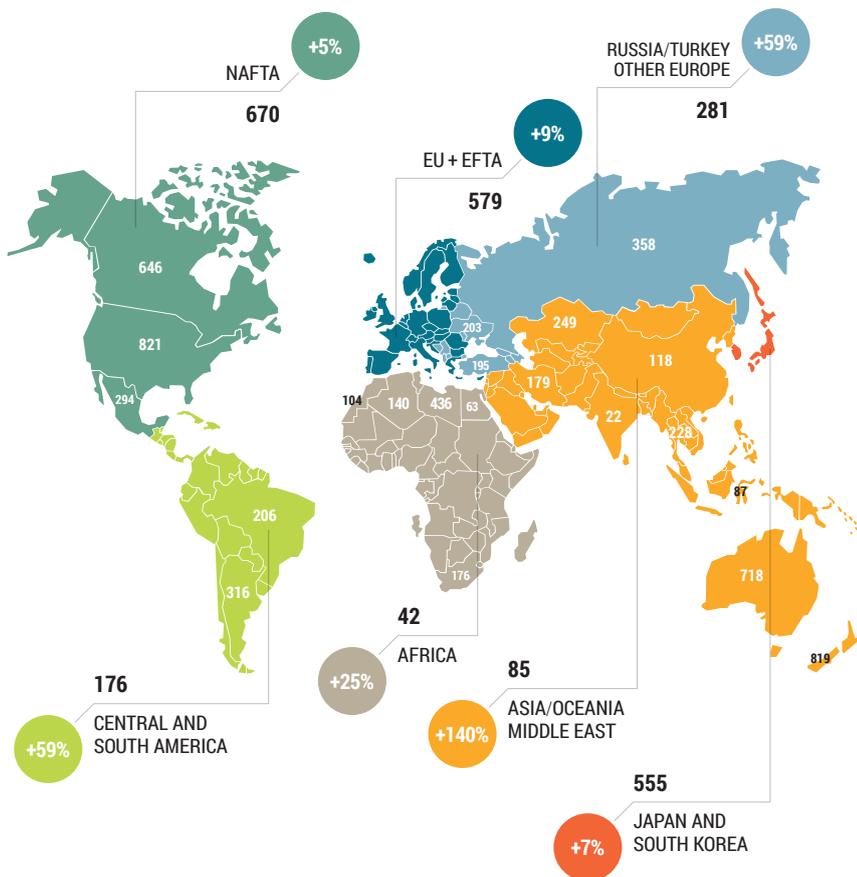
European  
Automobile  
Manufacturers  
Association

[WWW.ACEA.BE](http://WWW.ACEA.BE)



## Motorisation rate per 1,000 inhabitants

IN UNITS, % CHANGE 2015-2005

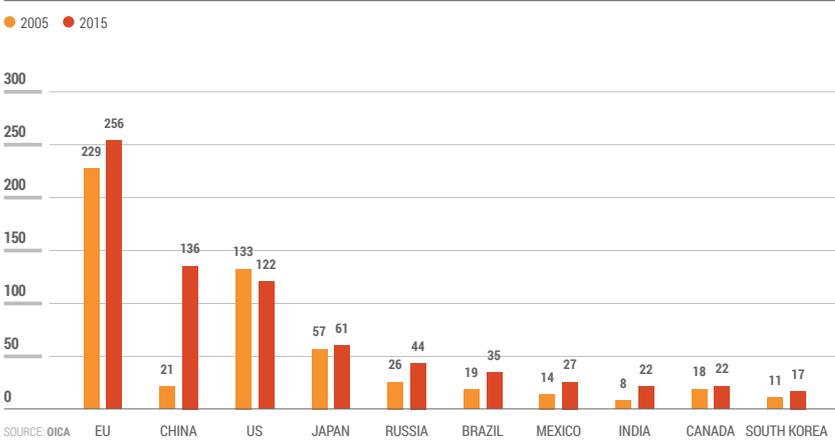


SOURCE: OICA

**The world motorisation rate rose by more than a quarter since 2005**

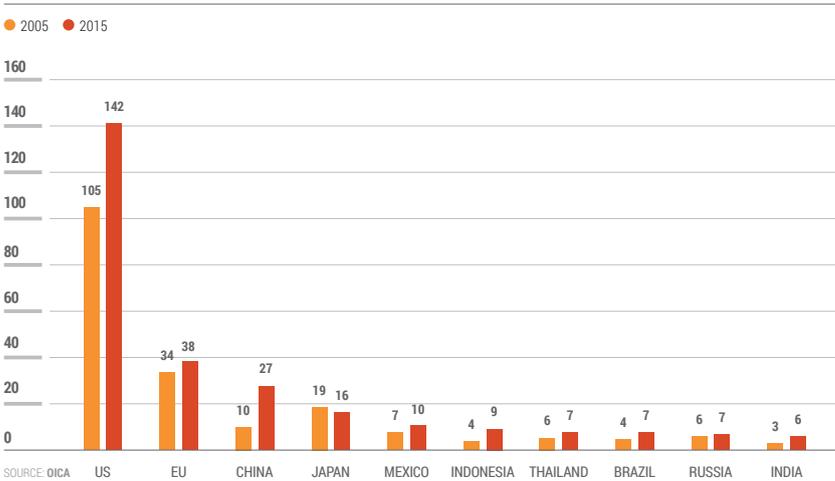
### Passenger cars in use

INTERNATIONAL COMPARISON, IN MILLION UNITS / 2005 – 2015



### Commercial vehicles in use

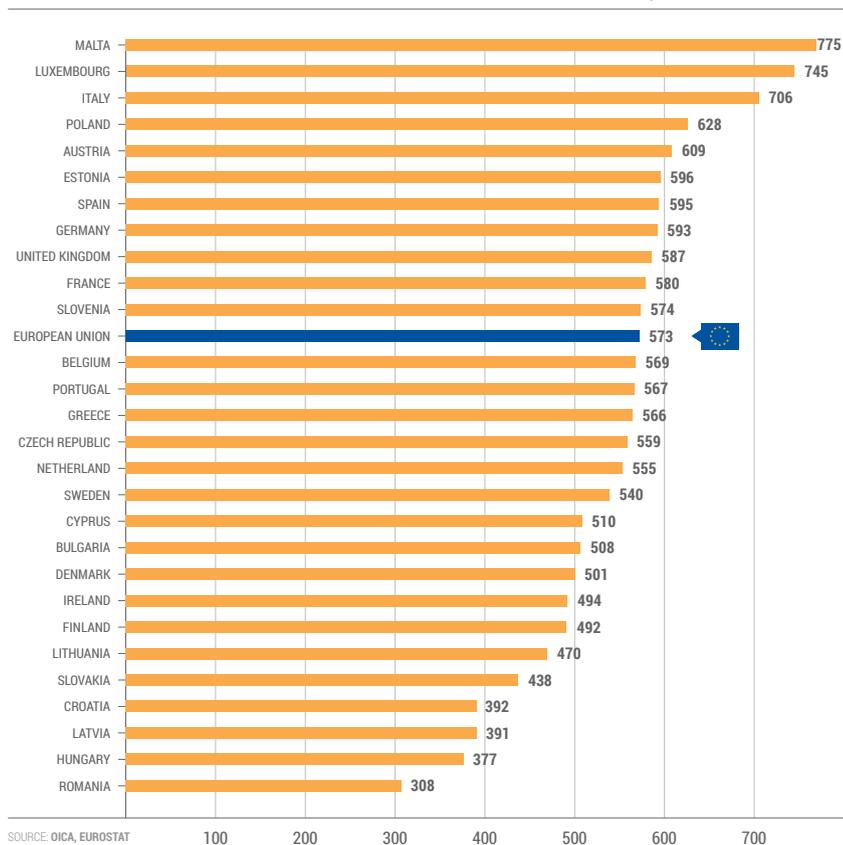
INTERNATIONAL COMPARISON, IN MILLION UNITS / 2005 – 2015



**The EU has a total fleet of 256 million cars**

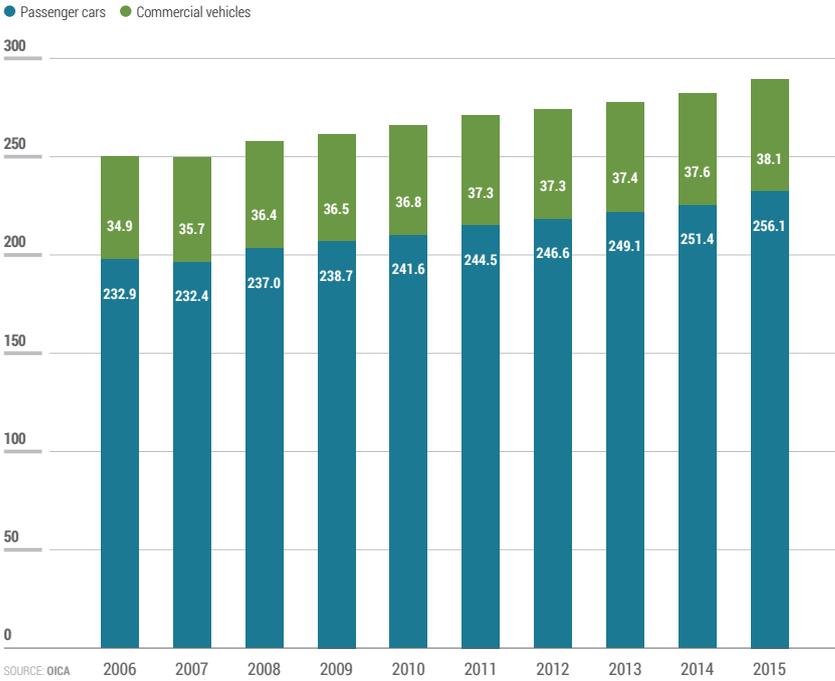
## Motorisation rate in the EU

PER 1,000 INHABITANTS / 2015



## EU vehicle fleet: size and distribution

IN MILLION UNITS / 2006 – 2015



## Average age of the EU vehicle fleet

BY COUNTRY, IN YEARS / 2015

● Passenger cars ● Light commercial vehicles ● Heavy commercial vehicles

■ EU ■ Non-EU



EUROPEAN UNION\*

10.7

10.7

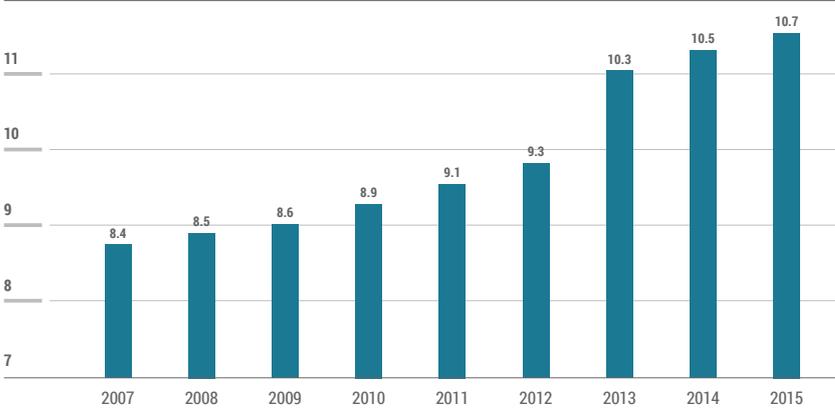
11.7

SOURCE: IHS MARKIT

\* Data for Bulgaria, Cyprus and Malta not available

### Average age of the EU car fleet

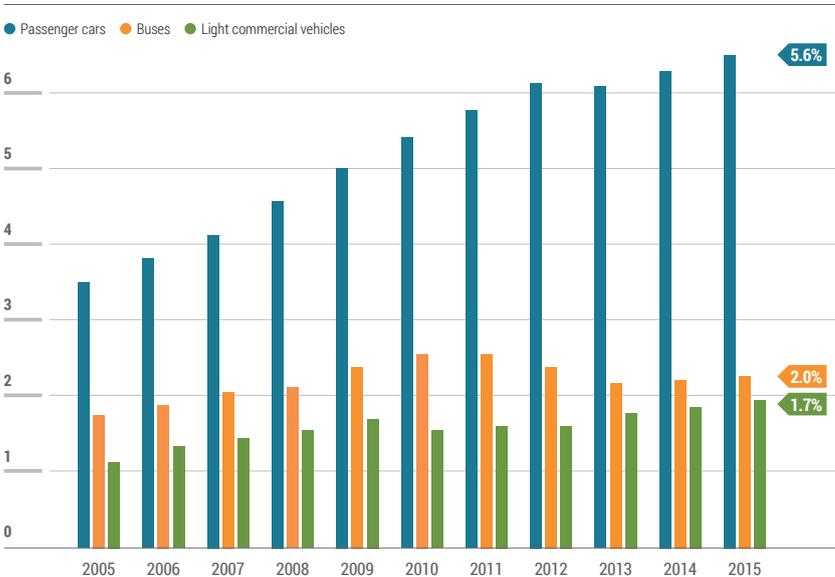
TREND / 2007 – 2015



SOURCE: IHS MARKIT

### Share of alternative fuel vehicles per vehicle segment\*

%SHARE / 2005 – 2015



SOURCE: EEA

\*Includes LPG, natural gas and electric vehicles

**Over 5% of all cars on Europe's roads  
run on alternative fuels**

---

5

---

THE AUTOMOBILE INDUSTRY  
POCKET GUIDE 2017/2018

---

# Trade



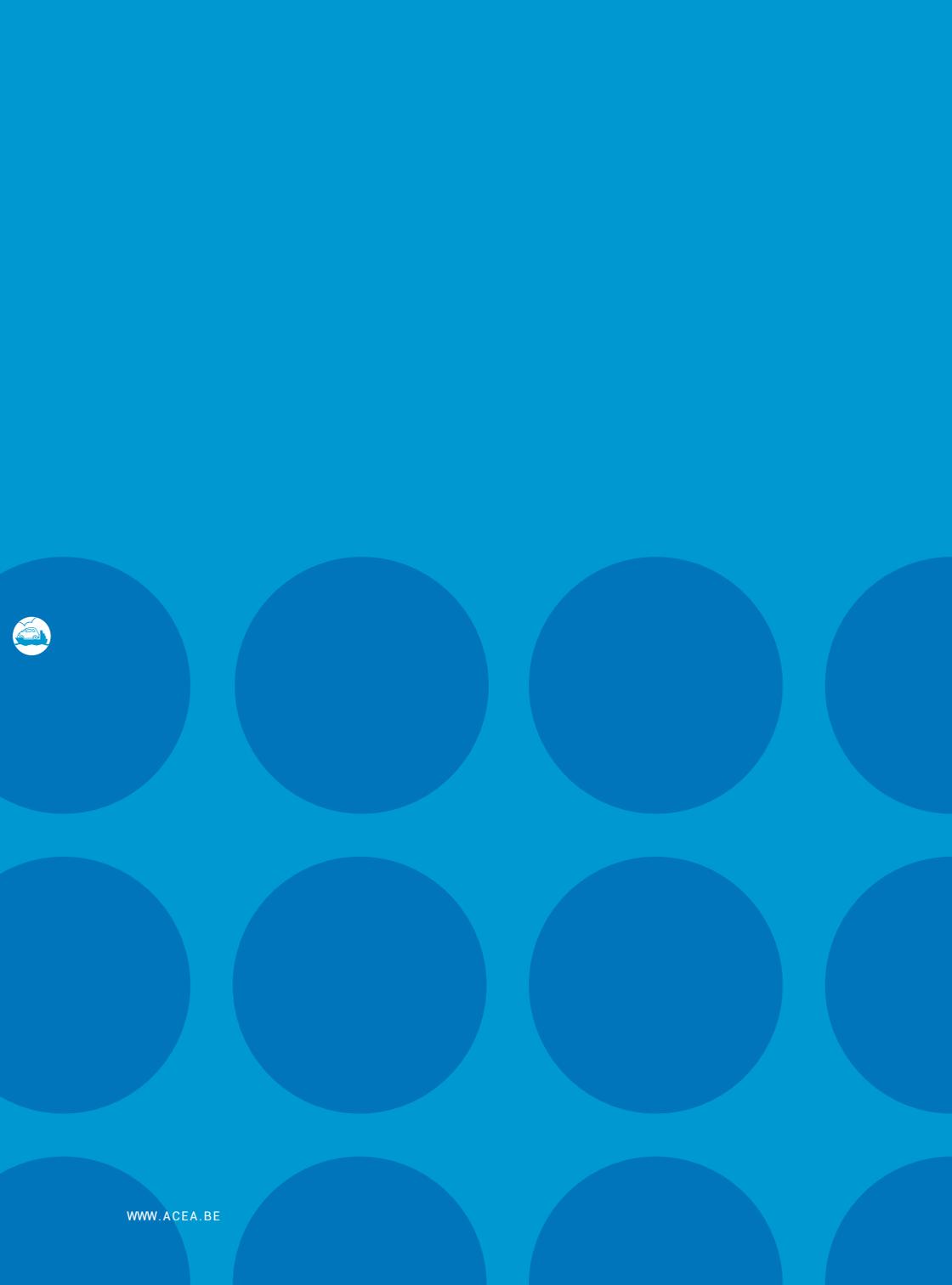
ACEA

European  
Automobile  
Manufacturers  
Association

[WWW.ACEA.BE](http://WWW.ACEA.BE)

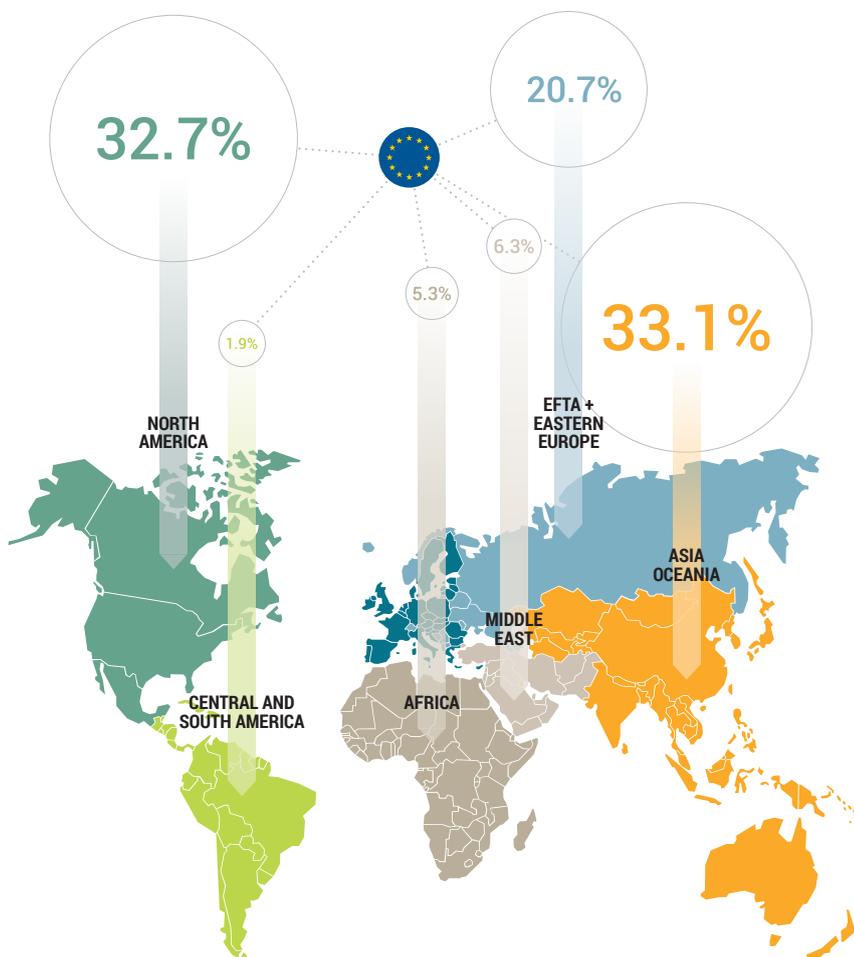
TRADE





## EU exports of motor vehicles

VALUE MARKET SHARE / 2016



SOURCE: EUROSTAT

**The EU exported more than  
6.3 million vehicles in 2016**

## EU motor vehicle trade

BY TYPE, IN MILLION € / 2016

Trade in value	PC <sup>1</sup>	LCV <sup>2</sup>	CV & BC <sup>3</sup>	TOTAL
<b>2016</b>				
Imports	37,991	5,874	1,828	45,693
Exports	125,005	4,088	6,305	135,398
Trade balance	87,014	-1,786	4,476	89,704
<b>2015</b>				
Imports	32,528	5,018	1,561	39,107
Exports	129,100	3,957	6,367	139,424
Trade balance	96,572	-1,061	4,806	100,317
<b>% change 16/15</b>				
Imports	16.8%	17.1%	17.1%	16.8%
Exports	-3.2%	3.3%	-1.0%	-2.9%
Trade balance	-9.9%	68.3%	-6.9%	-10.6%

SOURCE: EUROSTAT

## EU motor vehicle trade

BY TYPE, IN UNITS / 2016

Trade in volume	PC <sup>1</sup>	LCV <sup>2</sup>	CV & BC <sup>3</sup>	TOTAL
<b>2016</b>				
Imports	2,852,367	443,587	90,465	3,395,419
Exports	5,498,518	347,108	491,610	6,337,236
<b>2015</b>				
Imports	2,463,445	390,104	182,218	3,035,767
Exports	5,580,621	319,264	207,994	6,107,879
<b>% change 16/15</b>				
Imports	15.8%	13.7%	-45.4%	11.8%
Exports	-1.5%	8.7%	136.4%	3.8%

SOURCE: EUROSTAT

1. Passenger cars

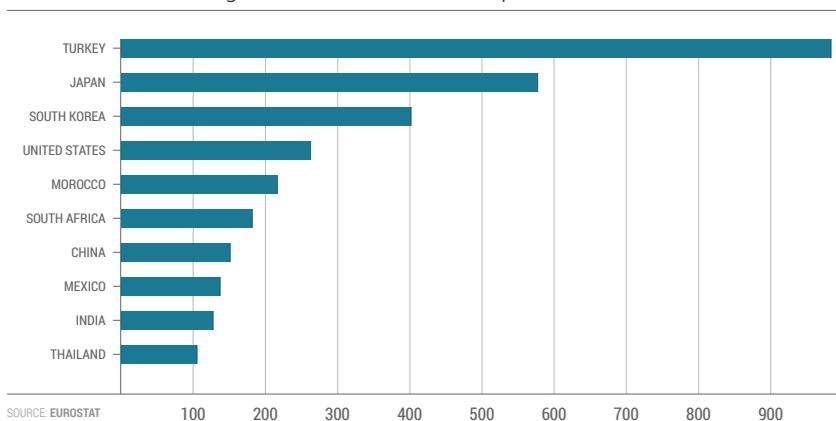
2. Commercial vehicles up to 5t

3. Commercial vehicles over 5t, including buses and coaches

**The automotive industry generates a trade surplus of about €90 billion for the EU**

## Main countries of origin of EU motor vehicle imports

IN THOUSAND UNITS / 2016



## Main countries of origin of EU motor vehicle imports

IN UNITS / 2016

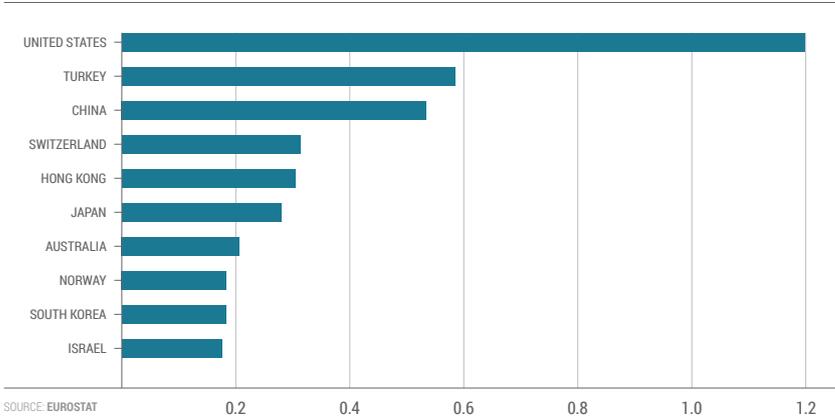
	2011	2012	2013	2014	2015	2016	% change 16/15	% share 2016
<b>WORLD</b>	<b>2,634,179</b>	<b>2,462,253</b>	<b>2,442,309</b>	<b>2,629,379</b>	<b>3,035,767</b>	<b>3,395,419</b>	<b>11.8</b>	<b>100.0</b>
Turkey	580,076	585,392	584,693	708,776	842,209	985,434	17.0	29.0
Japan	526,270	406,982	384,694	439,680	481,324	577,703	20.0	17.0
South Korea	388,230	408,266	406,376	348,815	376,185	403,007	7.1	11.9
United States	244,507	243,926	222,920	243,263	250,439	263,498	5.2	7.8
Morocco	20,302	64,625	99,503	168,995	188,369	217,967	15.7	6.4
South Africa	85,676	67,702	59,515	87,083	141,641	181,948	28.5	5.4
China	179,795	197,908	184,349	191,290	215,981	152,731	-29.3	4.5
Mexico	183,971	179,622	107,429	76,118	121,854	138,291	13.5	4.1
India	234,197	162,652	175,464	107,775	98,501	128,568	30.5	3.8
Thailand	40,471	25,270	41,066	68,184	94,917	106,594	12.3	3.1

SOURCE: EUROSTAT

**Some 3.4 million motor vehicles  
are imported to the EU annually**

## Main destinations for EU motor vehicle exports

IN MILLION UNITS / 2016



## Main destinations for EU motor vehicle exports

IN UNITS / 2016

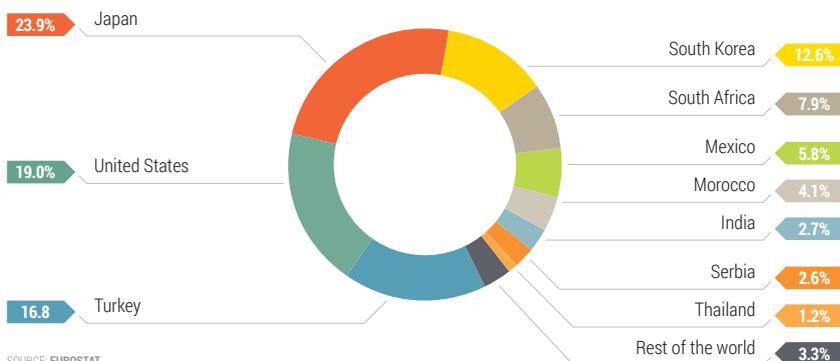
	2011	2012	2013	2014	2015	2016	% change 16/15	% share 2016
<b>WORLD</b>	<b>6,410,008</b>	<b>6,466,867</b>	<b>6,696,077</b>	<b>6,048,329</b>	<b>6,107,879</b>	<b>6,337,236</b>	<b>3.8</b>	<b>100.0</b>
United States	753,660	890,655	963,281	1,010,196	1,271,618	1,200,829	-5.6	18.9
Turkey	434,647	395,544	533,957	416,496	592,120	585,161	-1.2	9.2
China	552,300	534,965	596,703	613,632	472,692	535,459	13.3	8.4
Switzerland	322,462	334,158	303,551	299,572	331,933	314,202	-5.3	5.0
Hong Kong	26,801	27,815	55,344	30,214	24,239	304,690	1157.0	4.8
Japan	178,175	208,865	246,658	237,675	250,844	279,848	11.6	4.4
Australia	157,364	190,833	188,738	183,085	227,921	206,849	-9.2	3.3
Norway	179,249	171,934	227,358	170,682	176,990	184,176	4.1	2.9
South Korea	77,006	96,325	118,431	177,485	230,810	182,917	-20.7	2.9
Israel	107,604	109,292	116,667	108,660	149,293	176,077	17.9	2.8

SOURCE: EUROSTAT

**The US is the biggest market  
for the EU motor vehicle exports**

## Countries of origin of EU passenger car imports

VALUE MARKET SHARE / 2016



## Countries of origin of EU passenger car imports

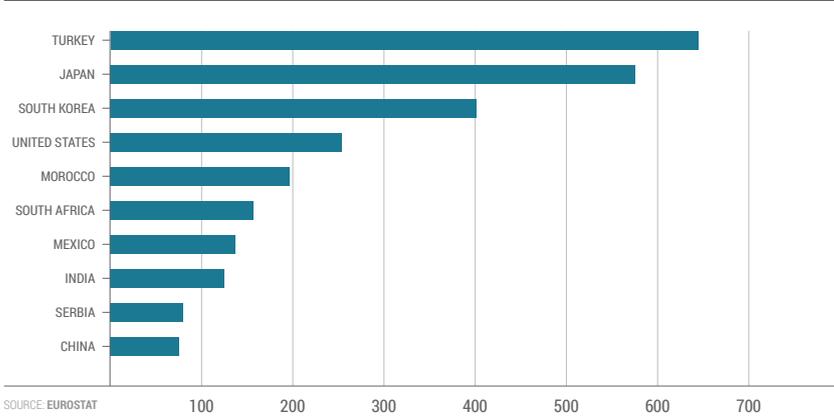
BY VALUE, IN MILLION € / 2016

	2011	2012	2013	2014	2015	2016	% change 16/15	% share 2016
<b>WORLD</b>	<b>25,161</b>	<b>24,724</b>	<b>23,785</b>	<b>26,214</b>	<b>32,528</b>	<b>37,991</b>	<b>16.8</b>	<b>100.0</b>
Japan	7,487	6,262	5,894	6,685	7,719	9,090	17.8	23.9
United States	4,678	5,520	4,320	4,911	6,944	7,226	4.1	19.0
Turkey	3,417	3,162	3,523	4,373	5,056	6,392	26.4	16.8
South Korea	3,424	3,916	4,091	4,009	4,330	4,794	10.7	12.6
South Africa	896	548	586	1,208	2,400	2,999	24.9	7.9
Mexico	2,463	2,500	1,605	1,068	1,641	2,212	34.8	5.8
Morocco	163	608	763	1,225	1,369	1,548	13.1	4.1
India	1,570	1,059	1,077	722	765	1,019	33.2	2.7
Serbia	2	277	1,081	1,149	1,035	999	-3.4	2.6
Thailand	96	38	146	218	442	472	6.7	1.2

SOURCE: EUROSTAT

## Main countries of origin of EU passenger car imports

IN THOUSAND UNITS / 2016



## Countries of origin of EU passenger car imports

IN UNITS / 2016

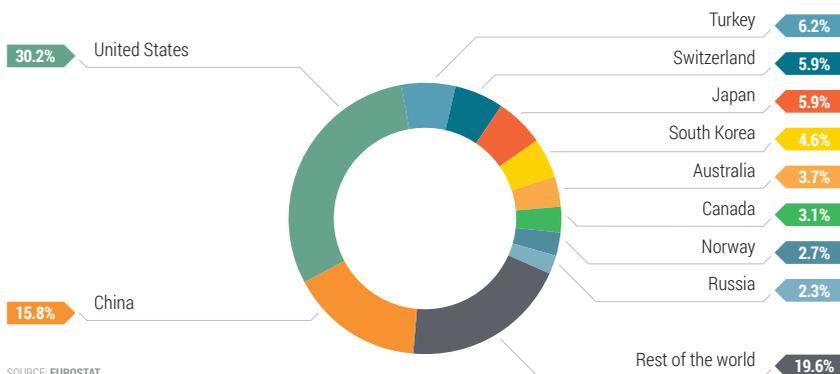
	2011	2012	2013	2014	2015	2016	% change 16 / 15	% share 2016
<b>WORLD</b>	<b>2,279,658</b>	<b>2,037,725</b>	<b>2,064,854</b>	<b>2,223,058</b>	<b>2,463,445</b>	<b>2,852,367</b>	<b>15.8</b>	<b>100.0</b>
Turkey	340,316	322,399	363,006	473,984	526,499	644,372	22.4	22.6
Japan	515,854	405,094	379,238	438,640	479,795	575,223	19.9	20.2
South Korea	386,611	406,699	405,179	347,845	374,769	401,868	7.2	14.1
United States	237,832	236,360	215,437	235,008	242,027	254,489	5.1	8.9
Morocco	19,846	62,386	83,956	152,588	169,822	196,737	15.8	6.9
South Africa	71,601	43,946	42,483	68,078	122,151	157,154	28.7	5.5
Mexico	183,955	179,598	107,154	75,515	120,941	137,132	13.4	4.8
India	233,045	162,077	175,034	107,306	93,941	125,995	34.1	4.4
Serbia	4,243	21,676	84,639	92,031	83,770	80,456	-4.0	2.8
China	167,710	125,267	112,769	117,948	86,590	75,706	-12.6	2.7

SOURCE: EUROSTAT

**The EU imported almost 2.9 million cars in 2016**

## Destinations for EU passenger car exports

VALUE MARKET SHARE / 2016



SOURCE: EUROSTAT

## Destinations for EU passenger car exports

BY VALUE, IN MILLION € / 2016

	2011	2012	2013	2014	2015	2016	% change 16 / 15	% share 2016
<b>WORLD</b>	<b>93,326</b>	<b>107,967</b>	<b>111,594</b>	<b>114,993</b>	<b>129,100</b>	<b>125,005</b>	<b>-3.2</b>	<b>100.0</b>
United States	19,550	25,002	27,854	29,779	40,466	37,727	-6.8	30.2
China	17,337	19,298	19,672	23,492	17,948	19,760	10.1	15.8
Turkey	5,230	4,885	5,999	5,133	7,454	7,776	4.3	6.2
Switzerland	6,659	6,859	6,193	6,375	7,620	7,343	-3.6	5.9
Japan	5,093	6,310	6,404	5,996	6,465	7,342	13.6	5.9
South Korea	1,956	2,497	3,127	4,693	6,910	5,796	-16.1	4.6
Australia	3,179	3,498	3,633	3,482	4,593	4,603	0.2	3.7
Canada	2,482	2,997	2,849	3,014	3,640	3,904	7.3	3.1
Norway	3,044	3,262	3,214	3,179	3,376	3,329	-1.4	2.7
Russia	7,016	8,744	7,049	5,198	3,667	2,928	-20.2	2.3

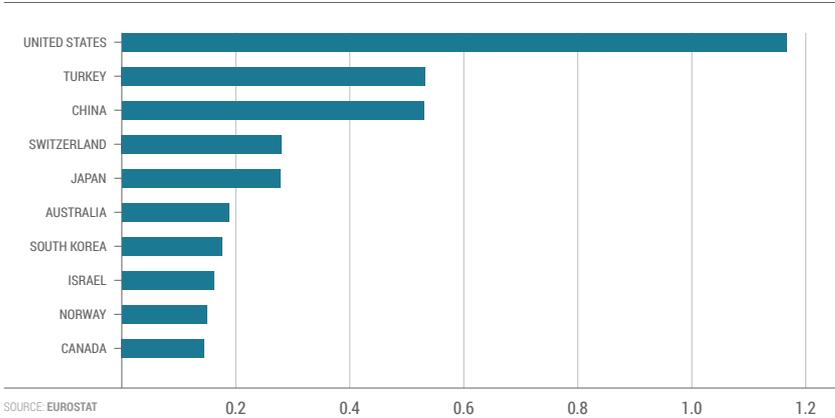
SOURCE: EUROSTAT

Russia

**The United States is the EU's  
most valuable export market for cars**

## Main destinations for EU passenger car exports

IN MILLION UNITS / 2016



## Main destinations for EU passenger car exports

IN UNITS / 2016

	2011	2012	2013	2014	2015	2016	% change 16/15	% share 2016
<b>WORLD</b>	<b>5,195,105</b>	<b>5,819,250</b>	<b>5,970,535</b>	<b>5,513,757</b>	<b>5,580,621</b>	<b>5,498,518</b>	<b>-1.5</b>	<b>100.0</b>
United States	732,974	880,698	952,634	998,504	1,223,025	1,170,409	-4.3	21.3
Turkey	388,268	357,256	488,138	372,753	531,726	534,223	0.5	9.7
China	544,069	527,098	592,053	608,912	469,755	531,784	13.2	9.7
Switzerland	292,362	305,492	275,536	270,741	303,127	280,345	-7.2	5.1
Japan	175,442	208,265	246,550	236,833	247,837	279,256	12.7	5.1
Australia	141,960	150,960	166,768	162,756	206,702	188,619	-8.7	3.4
South Korea	75,189	94,674	116,458	174,496	227,064	176,895	-22.1	3.2
Israel	98,320	102,222	105,065	99,865	134,866	161,922	20.1	2.9
Norway	154,742	148,765	144,106	144,240	151,530	149,161	-1.6	2.7
Canada	94,931	110,068	106,098	123,210	131,183	145,434	10.9	2.6

SOURCE: EUROSTAT

# Environment



ACEA

European  
Automobile  
Manufacturers  
Association

[WWW.ACEA.BE](http://WWW.ACEA.BE)



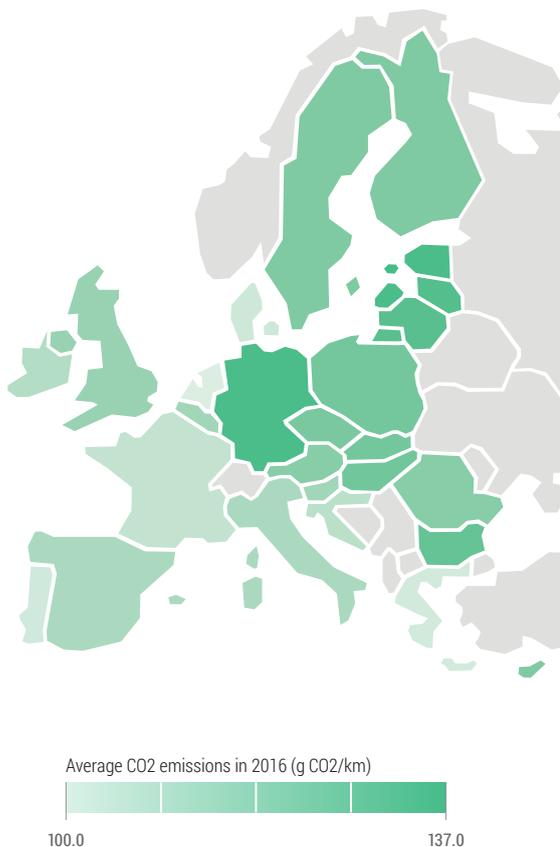


## Average CO2 emissions of new passenger cars by country

IN G CO2/KM / 2016

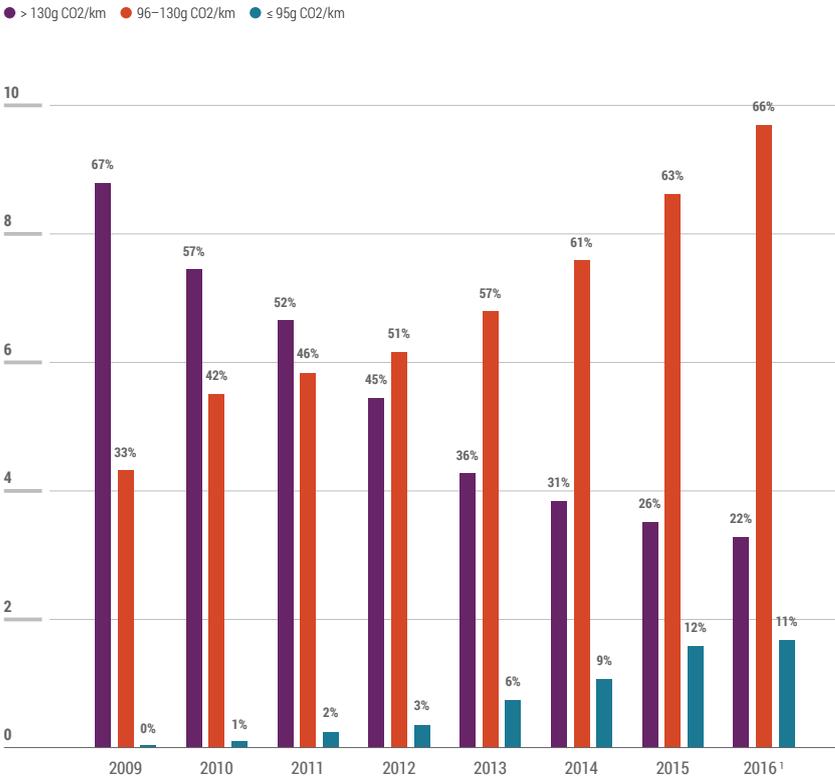
	2016 average emissions (g CO2/km)	% change 2016 – 2015
Austria	120.5	-2.6
Belgium	115.9	-1.7
Bulgaria	125.8	-3.5
Croatia	111.7	-1.0
Cyprus	123.5	-1.8
Czech Republic	121.1	-4.1
Denmark	106.1	-0.1
Estonia	133.9	-2.4
Finland	120.0	-2.4
France	109.8	-1.1
Germany	127.0	-1.1
Greece	106.3	-0.1
Hungary	125.9	-2.9
Ireland	112.0	-2.0
Italy	113.5	-1.6
Latvia	128.9	-6.0
Lithuania	126.2	-2.9
Luxembourg	126.1	-1.1
Malta	111.7	-1.1
Netherlands	105.9	4.7
Poland	125.9	-2.7
Portugal	104.7	-0.9
Romania	122.0	-2.4
Slovakia	124.9	-2.2
Slovenia	119.0	-0.2
Spain	114.4	-0.8
Sweden	123.1	-2.5
United Kingdom	120.1	-1.0
<b>EU average</b>	<b>118.1</b>	<b>-1.2</b>

SOURCE: EEA



## New passenger cars in the EU by emissions classes

IN MILLION UNITS, % SHARE / 2009 – 2016



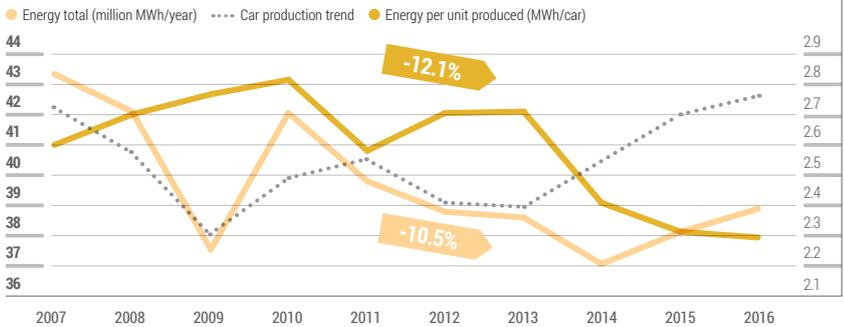
SOURCE: AAA (2009), EEA (2010-2016); THE GEOGRAPHICAL SCOPE OF THE DATA CHANGES OVER TIME FROM EU15 (2009) TO EU27 (2010-2013) AND EU28 (2014-2016)

1. Provisional data

**Market demand for more  
fuel-efficient cars is growing**

## Energy consumption during production

2007 – 2016



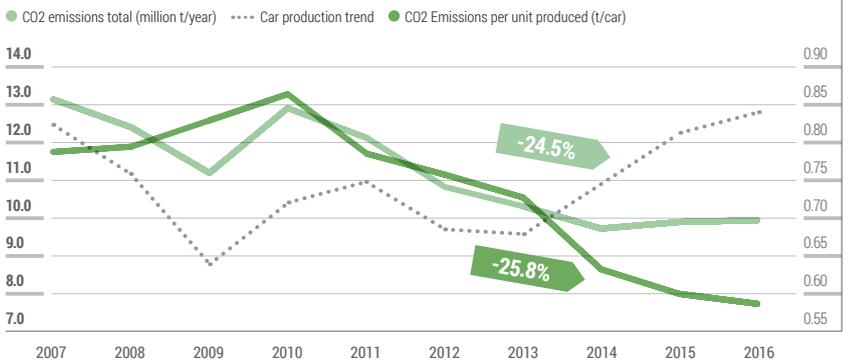
SOURCE: ACEA MEMBERS

As cars have become equipped with ever more features to make them safer, cleaner and smarter, the complexity of vehicle production has increased. This increase in complexity affects energy demand.

Nevertheless, manufacturers have been working continuously to improve the **energy efficiency** of production. As a result, energy consumption per car produced has been decreased by 12.1% over the last decade.

CO<sub>2</sub> emissions from production

2007 – 2016



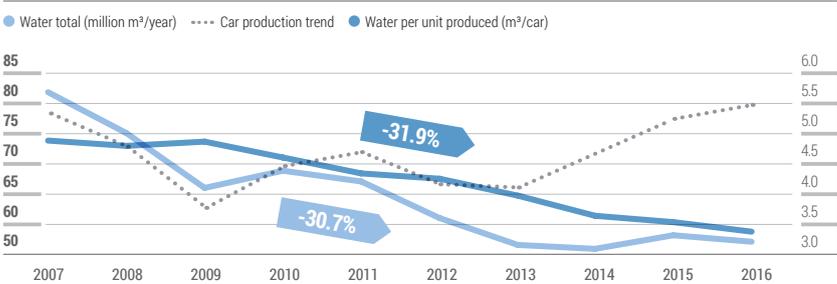
SOURCE: ACEA MEMBERS

The **CO<sub>2</sub> emissions** per car produced dropped by 25.8% between 2007 and 2016, while the overall figure went down by 24.5% over the same period, reflecting the industry's efforts to reduce CO<sub>2</sub> emissions from production. Even though car production has been on the rise again since 2013, manufacturers have been able to decouple CO<sub>2</sub> emissions from production growth by increasingly sourcing energy from renewable and/or low-carbon sources. As the chart shows, total CO<sub>2</sub> emissions have remained stable despite a substantial increase in production volume.

**CO<sub>2</sub> emissions per car produced**  
dropped by 25.8% over the last decade

### Water used in production

2007 – 2016

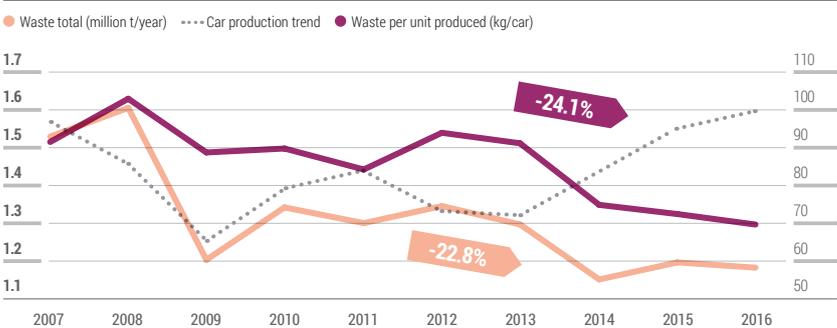


SOURCE: ACEA MEMBERS

Long-term strategies for reducing **water consumption** have made it possible to reduce water use per car produced by 31.9% between 2007 and 2016. This includes the increased application of recirculation technologies for the reuse of water.

### Waste\* from production

2007 – 2016



SOURCE: ACEA MEMBERS

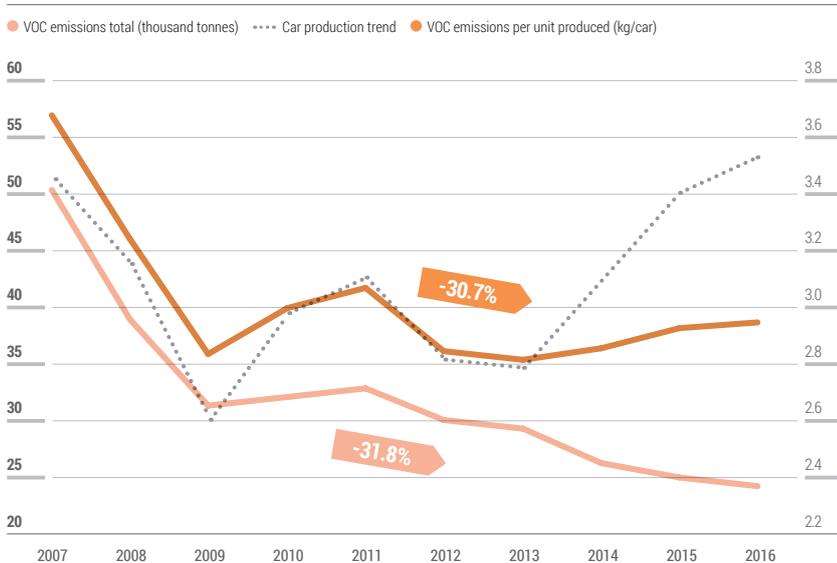
\*Excluding scrap metal and demolition waste

The **waste** generated per unit produced by the manufacturing of passenger cars went down by 24.1% over 10 years. Waste fluctuations, both in absolute and per unit terms, can be explained by the occurrence of singular events, such as a fall in total production during the economic crisis.

## Water consumption per car produced has been reduced by 32% since 2007

## VOC emissions from production

2007 – 2016



SOURCE: ACEA MEMBERS

**Volatile organic compounds (VOC)** are organic solvents mainly emitted from paint shops. The graph shows VOC emissions per car produced and the absolute emissions of all car manufacturers combined. With new technologies, such as the replacement of solvent-based paints with solvent-free, water-based equivalents manufacturers have been able to reduce unit emissions by 30.7% over the last 10 years.

**European manufacturers have significantly reduced the environmental impact of car production over the last decade**



THE AUTOMOBILE INDUSTRY  
POCKET GUIDE 2017/2018

---

# Innovation



ACEA

European  
Automobile  
Manufacturers  
Association

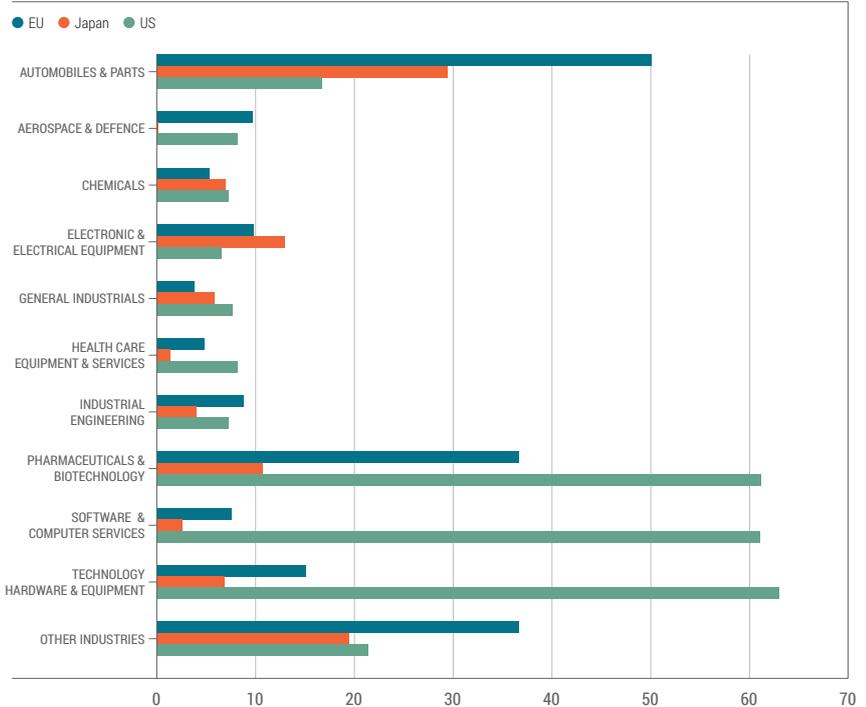
[WWW.ACEA.BE](http://WWW.ACEA.BE)





## R&amp;D expenditure of industrial sectors in the main world regions

IN BILLION € / 2015

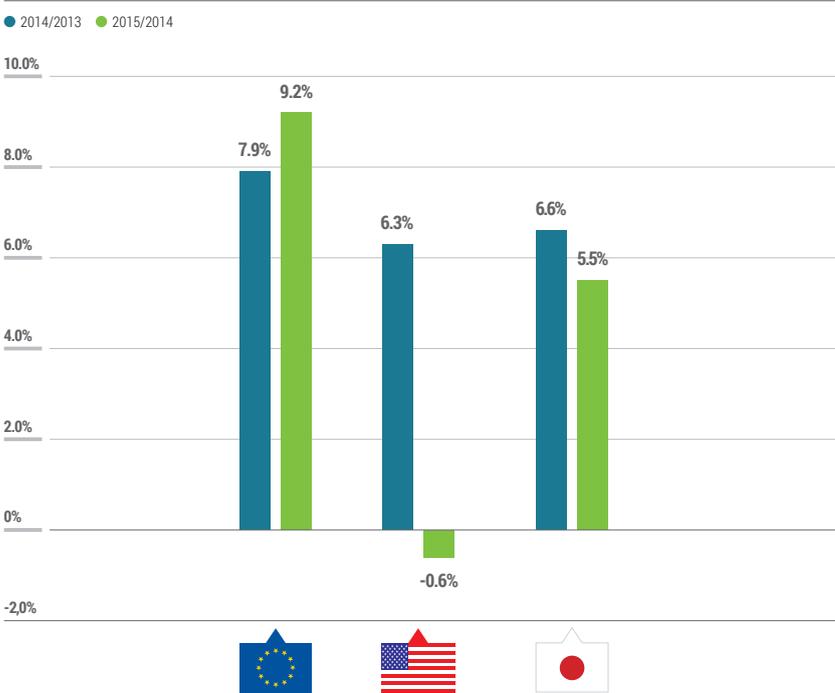


SOURCE: THE 2016 EU INDUSTRIAL R&amp;D INVESTMENT SCOREBOARD, EUROPEAN COMMISSION

**The EU is by far the world's largest investor in automotive R&D**

### R&D growth in the automobile and parts sector for EU, US and Japan-based companies

% CHANGE

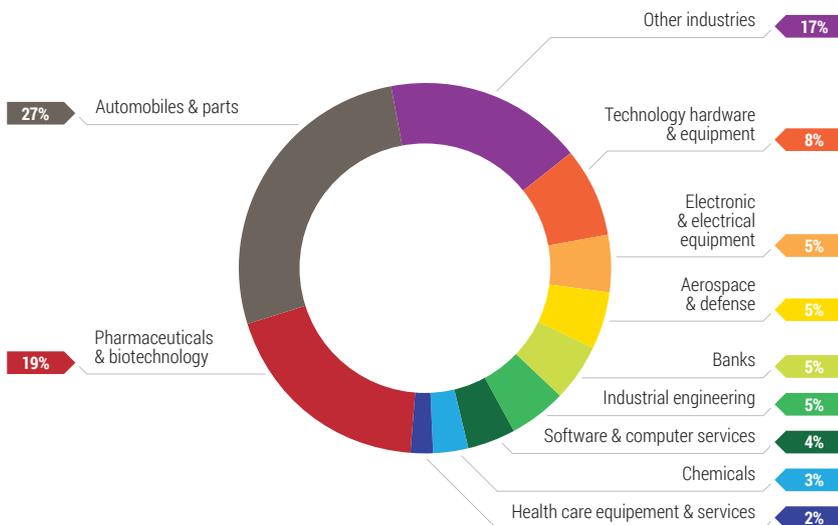


SOURCE: THE 2016 EU INDUSTRIAL R&D INVESTMENT SCOREBOARD, EUROPEAN COMMISSION

**EU automotive companies continue to increase their R&D investments**

## R&amp;D shares of sectors in the EU

%SHARE / 2015



SOURCE: THE 2016 EU INDUSTRIAL R&amp;D INVESTMENT SCOREBOARD, EUROPEAN COMMISSION

## EU R&amp;D investment in the top 10 industrial sectors

IN MILLION € / 2015

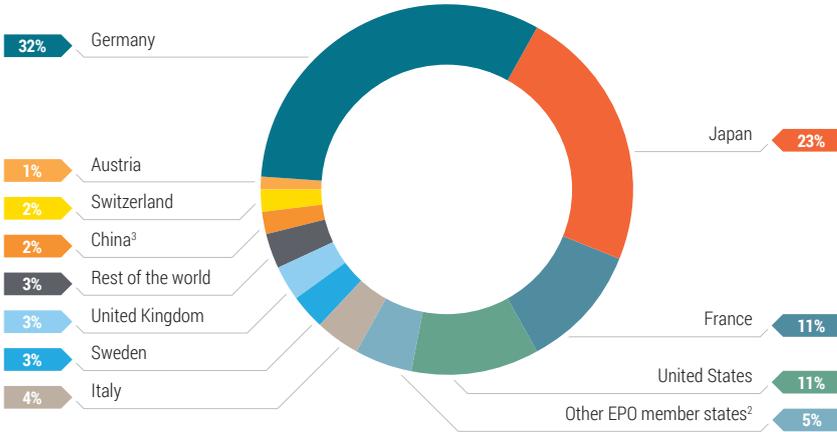
	R&D 2015
Automobiles & parts	50,128
Pharmaceuticals & biotechnology	36,663
Technology hardware & equipment	15,089
Electronic & electrical equipment	9,841
Aerospace & defense	9,745
Banks	9,125
Industrial engineering	8,800
Software & computer services	7,460
Chemicals	5,341
Health care equipment & services	4,740
Other industries	31,341

SOURCE: THE 2016 EU INDUSTRIAL R&amp;D INVESTMENT SCOREBOARD, EUROPEAN COMMISSION

**The automotive sector is the EU's number one investor in R&D, with more than €50 billion invested per year**

Patents granted in the automotive sector <sup>1</sup>

% SHARE / 2016



SOURCE: EUROPEAN PATENT OFFICE (EPO)

Automotive patents

BY COUNTRY / 2016

Germany	2,587
France	858
Italy	333
Sweden	264
United Kingdom	214
Switzerland	135
Austria	103
other EPO member states <sup>2</sup>	376
Japan	1,854
United States	888
China <sup>3</sup>	127
Rest of the world	215
<b>Total</b>	<b>7,954</b>

SOURCE: EUROPEAN PATENT OFFICE (EPO)

1. Includes categories B60, B62, F02 and F16  
 B60: Vehicles in general  
 B62: Land vehicles for travelling otherwise than on rail  
 F02: Combustion engines; hot-gas or combustion-product engine plants  
 F16: Engineering elements or units; general measures for producing and maintaining effective functioning of machines or installations; thermal insulation in general  
 2. Includes Liechtenstein, Monaco, Turkey and the other EU+EFTA countries  
 3. Includes Taipei

**About 8,000 patents are granted to the automotive sector per year**

# Taxation



ACEA

European  
Automobile  
Manufacturers  
Association

[WWW.ACEA.BE](http://WWW.ACEA.BE)





## CO<sub>2</sub>-based motor vehicle taxes in the EU in 2017

COUNTRY	CO <sub>2</sub> / FUEL CONSUMPTION TAXES
Austria	Fuel consumption tax (CO <sub>2</sub> -based) levied upon the first registration of the car. CO <sub>2</sub> -based company car tax.
Belgium	CO <sub>2</sub> -based company car tax (all regions). Under a bonus-malus system, an increasing penalty is paid based on CO <sub>2</sub> emission levels (Wallonia). Registration tax based on CO <sub>2</sub> emissions, exhaust emission standards, fuel and age; annual circulation tax based on CO <sub>2</sub> emissions (Flanders).
Croatia	Registration tax based on CO <sub>2</sub> emissions and fuel consumption.
Cyprus	Registration tax and annual circulation tax based on CO <sub>2</sub> emissions.
Denmark	Annual circulation tax based on fuel consumption (partially based on CO <sub>2</sub> emissions level).
Finland	Registration tax, annual circulation tax and excise duties for road traffic fuels are dependent on CO <sub>2</sub> emissions.
France	Annual circulation tax and company car tax based on CO <sub>2</sub> emissions. Under a bonus-malus system, a premium or a malus is applied based on vehicle's emissions.
Germany	CO <sub>2</sub> -based annual circulation tax.
Greece	Registration tax and annual circulation tax based on CO <sub>2</sub> emissions.
Ireland	Registration tax and annual circulation tax based on CO <sub>2</sub> emissions.
Latvia	CO <sub>2</sub> -based registration tax.
Luxembourg	CO <sub>2</sub> -based annual circulation tax.
Malta	Registration tax based on CO <sub>2</sub> emissions, price and vehicle's length. Annual circulation tax based on CO <sub>2</sub> emissions and vehicle's age.
Netherlands	Registration tax, annual circulation tax and company car tax based on CO <sub>2</sub> emissions.
Portugal	Registration tax and annual circulation tax based on CO <sub>2</sub> emissions.
Slovenia	CO <sub>2</sub> -based registration tax.
Spain	CO <sub>2</sub> -based registration tax.
Sweden	Annual circulation tax based on CO <sub>2</sub> and exhaust emissions. Five-year exemption from paying annual circulation tax for 'green' cars (CO <sub>2</sub> -based). Premium granted for the purchase of new 'green' cars (CO <sub>2</sub> -based).
United Kingdom	Annual circulation tax and company car tax based on CO <sub>2</sub> emissions.

SOURCE: ACEA TAX GUIDE 2017

## Overview of purchase and tax incentives for electric vehicles (EVs) in the EU

COUNTRY	INCENTIVES
Austria	EVs exempt from fuel consumption tax and monthly vehicle tax. Deduction of VAT applicable for zero-emission cars.
Belgium	EVs pay lowest rate for annual circulation tax; deductions on company car tax for zero-emission cars (all regions). Incentives to companies for the purchase of EVs, PHEVs and FCEVs (Brussels). EVs and PHEVs exempt from registration tax; incentives for EVs and hydrogen cars (Flanders).
Bulgaria	EVs exempt from annual circulation tax.
Cyprus	Vehicles emitting less than 120g CO <sub>2</sub> /km are exempt from registration tax.
Czech Republic	EVs, HEVs and other AFVs exempt from road tax.
Denmark	Hydrogen and FCEVs exempt from registration tax up to 2018.
Finland	Pure EVs pay the minimum rate of the CO <sub>2</sub> -based registration tax.
France	Regions can provide exemption from registration tax (total or 50%) for AFVs. EV buyers benefit from a premium (CO <sub>2</sub> -based). EVs and HEVs exempt from company car tax.
Germany	EVs exempt from circulation tax for ten years. Bonus granted for BEVs, FCEVs, PHEVs and EREVs.
Greece	Electric and hybrid vehicles exempt from registration tax, luxury tax and luxury living tax. Electric and hybrid cars exempt from annual circulation tax (based on cylinder capacity).
Hungary	EVs exempt from registration tax, annual circulation tax and company car tax.
Ireland	EVs, PHEVs, hybrids and other AFVs benefit from registration tax relief. EVs pay the minimum rate of the road tax.
Italy	EVs exempt from annual circulation tax for five years (75% reduction for the following years).
Latvia	EVs pay the lowest amount of the company car tax.
Luxembourg	EVs and FCEVs benefit from tax allowances on registration fees. EVs also pay the minimum rate of the annual circulation tax.
Netherlands	EVs exempt from registration tax. Zero-emission cars exempt from annual circulation tax.
Portugal	Pure EVs exempt from registration tax, while PHEVs benefit from a reduction.
Romania	EVs exempt from the annual circulation tax.
Slovakia	Pure EVs pay the lowest rate for registration tax and are exempt from annual circulation tax. Hybrid and CNG vehicles benefit from a 50% reduction on the annual circulation tax.
Slovenia	Financial incentives are granted for the purchase of pure EVs and PHEVs.
Spain	Main city councils are reducing the annual circulation tax for electric and fuel-efficient vehicles. Reductions on company car tax apply for BEVs/PHEVs (30%); HEVs and LPG/CNG vehicles (20%).
Sweden	Five-year exemption from annual circulation tax for EVs and PHEVs. A premium is granted for the purchase of new EVs and PHEVs. Reduction of company car taxation for EVs and PHEVs.
United Kingdom	EVs exempt from annual circulation tax, while other AFVs receive a discount. Pure EVs are exempt from the company car tax, while cars with low emissions pay 5%.

SOURCE: ACEA TAX GUIDE 2017

AFV Alternative fuel vehicle  
BEV Battery electric vehicle  
EREV Extended range electric vehicle

EV Electric vehicle  
FCEV Fuel-cell electric vehicle  
HEV Hybrid electric vehicle

LPG liquefied petroleum gas  
CNG Compressed natural gas  
PHEV Plug-in hybrid electric vehicle

## Incentives for electric vehicles are available in 23 countries

Fiscal income from motor vehicles in the EU15<sup>1</sup>

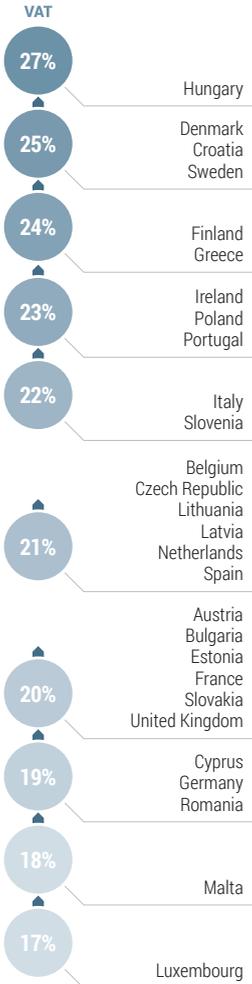
	AUSTRIA	BELGIUM	DENMARK	FINLAND	FRANCE	GERMANY	GREECE
	€ bn 2014	€ bn 2015	DKK bn 2014	€ bn 2015	€ bn 2014	€ bn 2012	€ bn 2015
Purchase or transfer							
1. VAT on vehicle sales servicing/repair, parts, tyres	2.678	6.231	–	1.498	13.744	26.319	–
2. Fuels & lubricants	5.338	6.928	16.607	4.068	37.103	39.304	3.663
3. Sales & registration taxes	0.520	0.410	15.865	0.884	2.071	–	0.117
Annual ownership taxes	2.100	1.600	10.592	0.930	0.997	8.991	1.123
Driving license fees	–	0.014	–	–	–	0.010	–
Insurance taxes	0.324	0.955	1.579	0.387	4.590	3.786	–
Tolls	1.688	–	0.381	–	11.027	–	–
Customs duties	–	–	–	–	–	0.535	–
Other taxes	0.312	0.662	–	–	1.579	1.010	0.135
<b>TOTAL (national currencies)</b>	<b>12.960</b>	<b>16.800</b>	<b>45.024</b>	<b>7.767</b>	<b>71.111</b>	<b>79.955</b>	<b>5.038</b>
<b>TOTAL (EURO)</b>	<b>13.0</b>	<b>16.8</b>	<b>6.1</b>	<b>7.8</b>	<b>71.1</b>	<b>80.0</b>	<b>5.0</b>
	IRELAND	ITALY	NETHER- LANDS	PORTUGAL	SPAIN	SWEDEN	UNITED KINGDOM
	€ bn 2015	€ bn 2015	€ bn 2015	€ bn 2016	€ bn 2015	SEK bn 2014	£ bn 2016 <sup>2</sup>
Purchase or transfer							
1. VAT on vehicle sales servicing/repair, parts, tyres	0.601	16.100	1.517	3.446	–	24.500	12.500
2. Fuels & lubricants	3.028	36.840	7.866	3.259	18.716	48.200	27.900
3. Sales & registration taxes	0.684	1.520	1.462	0.672	3.790	–	–
Annual ownership taxes	1.124	5.950	3.973	0.554	2.637	14.300	5.800
Driving license fees	–	–	0.248	–	0.064	–	–
Insurance taxes	–	4.000	0.948	–	–	2.800	–
Tolls	–	1.950	–	0.320	–	1.800	–
Customs duties	–	–	–	0.050	–	–	–
Other taxes	–	5.500	2.394	0.200	0.657	4.500	1.500
<b>TOTAL (national currencies)</b>	<b>5.437</b>	<b>71.860</b>	<b>18.408</b>	<b>8.501</b>	<b>25.864</b>	<b>96.100</b>	<b>47.700</b>
<b>TOTAL (EURO)</b>	<b>5.4</b>	<b>71.9</b>	<b>18.4</b>	<b>8.5</b>	<b>25.9</b>	<b>10.0</b>	<b>55.9</b>

**GRAND TOTAL = € 395.7 bn**

SOURCE: ACEA TAX GUIDE 2017

1. Latest available data; only country for which sourced data is available are listed  
2. 2012 estimates for income from VAT and other taxes

### Share of VAT in net price of cars



SOURCE: ACEA TAX GUIDE 2017

### Excise duties on fuels in €/1,000 litres

	UNLEADED PETROL 	DIESEL 
Austria	482	397
Belgium	623	513
Bulgaria	363	330
Croatia	519	412
Cyprus	479	450
Czech Republic	475	405
Denmark	564	363
Estonia	465	448
Finland	703	530
France	651	531
Germany	655	470
Greece	700	410
Hungary	388	357
Ireland	588	479
Italy	728	617
Latvia	436	341
Lithuania	434	330
Luxembourg	462	335
Malta	549	472
Netherlands	772	486
Poland	395	345
Portugal	671	446
Romania	368	337
Slovakia	515	368
Slovenia	508	426
Spain	461	367
Sweden	461	367
United Kingdom	680	680
<b>EU minimum rates</b>	<b>359</b>	<b>330</b>

SOURCE: ACEA TAX GUIDE 2017

**Automobiles provide a vital source of government revenue**





ACEA

European  
Automobile  
Manufacturers  
Association

Avenue des Nerviens 85

B-1040 Brussels

T. +32 2 732 55 50

[info@acea.be](mailto:info@acea.be)

[@ACEA\\_eu](https://twitter.com/ACEA_eu)

[WWW.ACEA.BE](http://WWW.ACEA.BE)