

ROAD STATISTICS





HEINTZMANN | Group



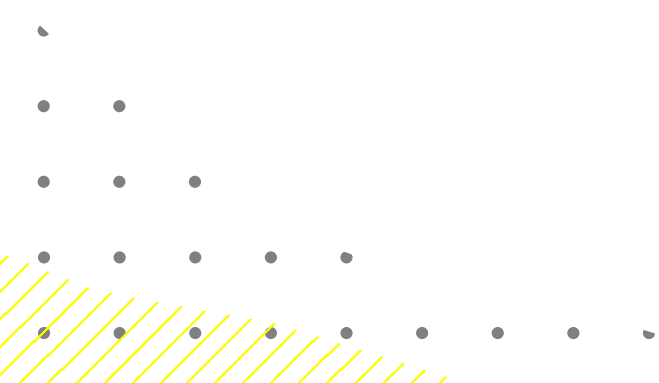
Gold members

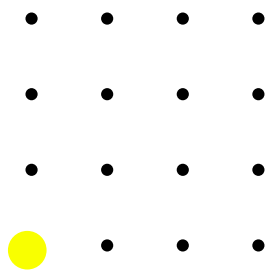
Silver member

European Union Road Federation
Place Stéphanie 6/B
B-1050 Brussels • Belgium
T. +(32) 2 644 58 77
www.erf.be



ROAD STATISTICS
YEARBOOK 2017





INTRODUCTION



The ERF is pleased to present you with the 'ERF Road Statistics Yearbook 2017'.

This new edition contains important updated information on road transport sector and road infrastructure in Europe and beyond.

More than ever, the road infrastructure is an essential key element of the global mobility and the road sector is constantly striving to provide citizens with the accessible, efficient and safe mobility they deserve.

We are convinced that this Yearbook will provide you with the same interesting and fruitful information as the previous editions.

● CONTENTS



1.

General
Data



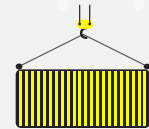
3.

Infrastructure
Financing



2.

Road
Network



5.

Freight
Transport



4.

Road
Maintenance &
Investment



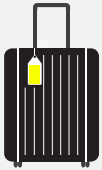
7.

Safety



8.

Taxation



6.

*Passenger
Transport*



10.

*Case
Studies*



9.

Environment

Introduction

Contents

Symbols & Abbreviations

General data

 p.12

1.1 Percentage of turnover by mode of transport in EU 28

1.2 Transport growth in EU 28

1.3 Annual growth rates EU 28

1.4 Employment by mode of transport in EU countries

1.5 Employment by mode of transport in EU 28

Road Network

 p.18

2.1 Length of total road network by category by country

2.2 Length of total road network by country

2.3 Density of the total road network by country

2.4 Length of motorway network by country

2.5 Length and Type of TEN-T Roads in EU 28

2.6 Proportion of motorways compared to the total road network by country

2.7 Density of motorways by country

2.8 Passenger cars per km of motorway by country

2.9 Transport network comparison between EU 28, USA, Japan, Russia and China

2.10 Density of motorways: comparison between EU 28, USA, Japan, Russia and China

Infrastructure Financing

 p.26

3.1 Toll net revenues in selected countries

3.2 Budget managed by INEA

3.3 European Investment Bank Loans for Transport to EU 28

3.4 European Investment Bank Loans for Transport to EU 28

3.5 World Bank Total Transport Lending

3.6 Transport Lending Breakdown by Region

Road Maintenance and Investment

 p.32

4.1 Gross investment spending in road infrastructure in selected countries

4.2 Investment in inland transport infrastructure in EU 28

4.3 Volume of investment in inland transport infrastructure by region

4.4 Distribution of infrastructure investment between modes in EU 28

4.5 Maintenance expenditures in road infrastructure in selected countries

4.6 Maintenance expenditures in road infrastructure in selected countries

Freight Transport

 p.38

5.1 Transport of goods, performance by mode in EU 28

5.2 Goods transport by mode in EU 28

5.3 Inland transport modal split in EU 28

5.4 Inland transport modal split in EU 28

5.5 Performance of inland freight transport by mode in EU countries

5.6 Performance by mode for inland freight transport in EU 28

5.7 Total road transport by group of goods in EU countries

5.8 Transport of dangerous goods in EU countries

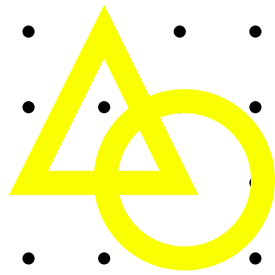
5.9 Registration of commercial vehicles in EU and selected countries

- 6.1 Transport of passengers by mode in EU 28
- 6.2 Evolution of passenger transport by mode in EU 28
- 6.3 Passenger transport modal split in EU 28
- 6.4 Modal split of passenger transport on land by country in EU countries
- 6.5 Passenger vehicles by country
- 6.6 Motorisation by country, 2014
- 6.7 New passenger car registration per 1.000 inhabitants in EU countries
- 6.8 Motorcycle registrations in EU countries
- 6.9 Transport of passengers per mode: comparison EU 28/World
- 6.10 Motorisation: comparison EU 28/ World
- 6.11 Trends and outlooks in passenger transport demand for the different modes of transport in EU

- 7.1 Road accidents involving personal injury by country
- 7.2 Road accidents involving personal injury per one thousand population in EU countries
- 7.3 Road fatalities in EU countries
- 7.4 Percentage change in road fatalities between 2002 and 2015
- 7.5 Road fatalities country rankings
- 7.6 Lives saved per million inhabitants in EU countries in 2015
- 7.7 Evolution of road fatalities and injured in EU 28
- 7.8 Road fatalities by mode of transport in EU 28
- 7.9 PTWs fatalities in selected EU countries
- 7.10 Road fatalities by gender in EU countries
- 7.11 Road fatalities by age group in EU-28 and selected countries
- 7.12 Road Fatalities (per 100.000 population) in EU 28 and selected countries
- 7.13 Speed limits, blood alcohol limits by country
- 7.14 Fatalities at 30 days by road user type in EU countries

- 8.1 Taxes on acquisition of motor vehicles in EU countries
- 8.2 Fiscal income from motor vehicles in EU selected countries
- 8.3 Revenues from environmentally related taxes in % of GDP
- 8.4 CO2 based motor vehicle taxes in EU countries
- 8.5 Excise duties on fuels in EU countries at 1-1-2015 & 1-1-2017
- 8.6 At the pump prices of petroleum in EU countries, first quarter of 2017
- 8.7 Net charges per domestic haul by type in EU countries

- 9.1 Comparison between freight and passenger transport evolution and CO2 emissions in EU 28
- 9.2 CO2 emissions from road transport in EU and selected countries
- 9.3 CO2 emissions from road passenger transport by mode in EU and selected countries
- 9.4 CO2 emissions from road freight transport in EU and selected countries
- 9.5 Average CO2 emissions per km from new passenger cars in EU
- 9.6 Fuel market share for new car registrations in EU
- 9.7 Biodiesel production in EU countries
- 9.8 Biofuels share in transport consumption in EU
- 9.9 Share of total CO2 emissions from fossil fuel by sector in EU
- 9.10 Final energy consumption by sector in EU countries



SYMBOLS AND ABBREVIATIONS

EU-28

AT	Austria
BE	Belgium
DE	Germany
DK	Denmark
EL	Greece
ES	Spain
FI	Finland
FR	France
IE	Ireland
IT	Italy
LU	Luxembourg
NL	The Netherlands
PT	Portugal
SE	Sweden
UK	United Kingdom
BG	Bulgaria
CY	Cyprus
CZ	Czech Republic
EE	Estonia
HR	Croatia
HU	Hungary
LT	Lithuania
LV	Latvia
MT	Malta
PL	Poland
RO	Romania
SI	Slovenia
SK	Slovakia

EU-candidates

AL	Albania
ME	Montenegro
MK	Former Yugoslav Republic of Macedonia
TR	Turkey
RS	Republic of Serbia

EFTA EEA

IS	Iceland
LI	Liechtenstein
NO	Norway
CH	Switzerland

Other Countries

AU	Australia
CA	Canada
CL	Chile
IL	Israel
JP	Japan
KP	Korea
MX	Mexico
NZ	New Zealand
US	United States
RF	Russian Federation

Other abbreviations

ACEA	European Automobile Manufacturers Association
ACEM	European Association of Motorcycle Manufacturers
ASECAP	European Association of tolled motorways, bridges and tunnel operators
Bn	Billion (thousand million)
CARE	European Road Accident Database
CORDIS	Community Research and Development Information Service
EBB	European Biodiesel Board
EC	European Commission
EEA	European Environment Agency
EIB	European Investment Bank
EU	European Union
EUR	Euro
GDP	Gross Domestic Product
g	Gram
INEA	Innovation and Networks Executive Agency
IRTAD	International Road Traffic and Accident Database
ITF	International Transport Forum
n.a.	Not available data
OECD	Organisation for Economic Co-operation and Development
pkm	Passenger-kilometre
PTW	Powered Two-Wheelers
TEN-T	Trans-European Transport Network
tkm	Tonne-kilometre
toe	Tonne of oil equivalent

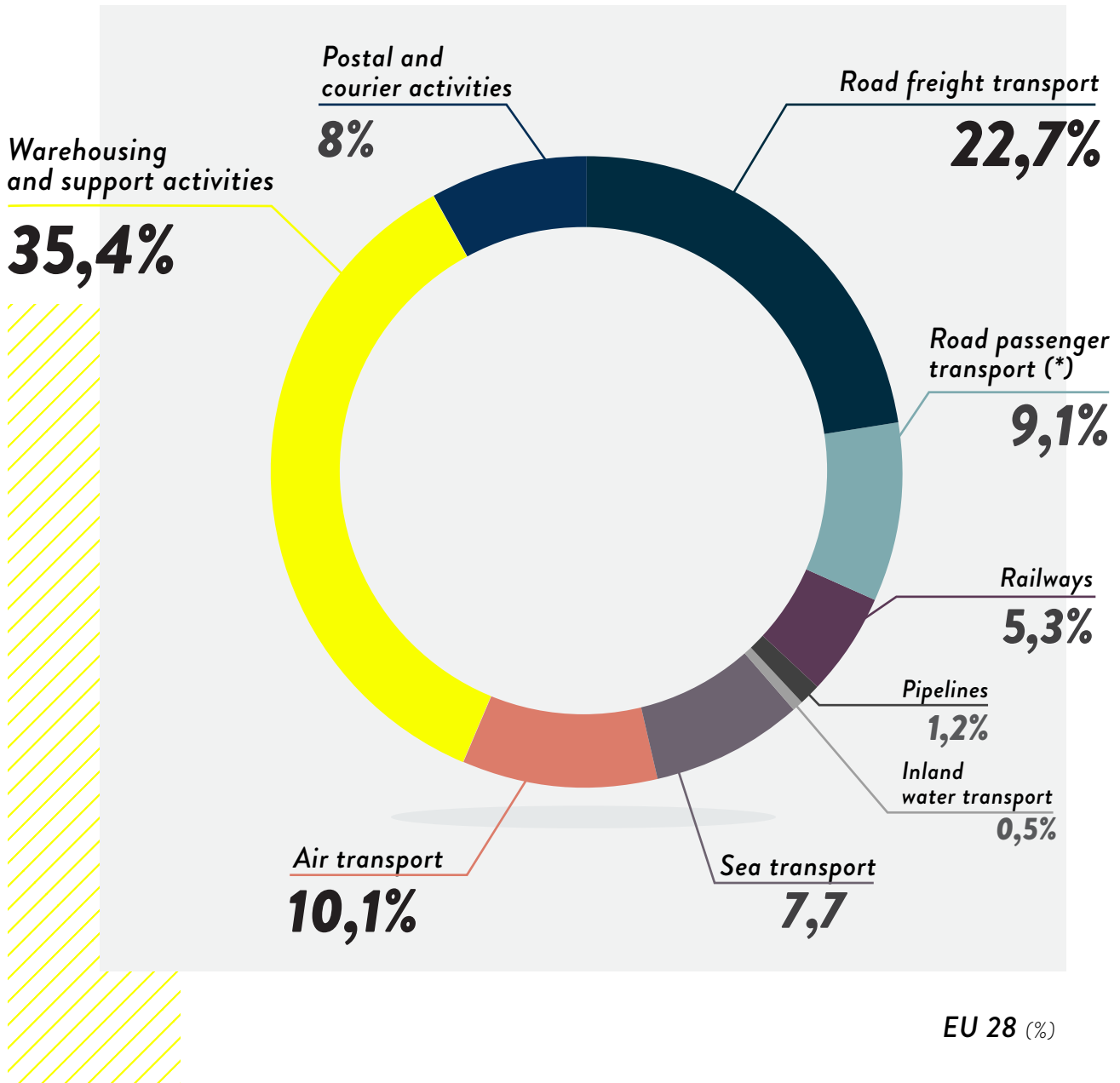


GENERAL DATA



1.1

Percentage of turnover by mode of transport in EU 28, 2013 (total €1,373 billion)



Source : EC

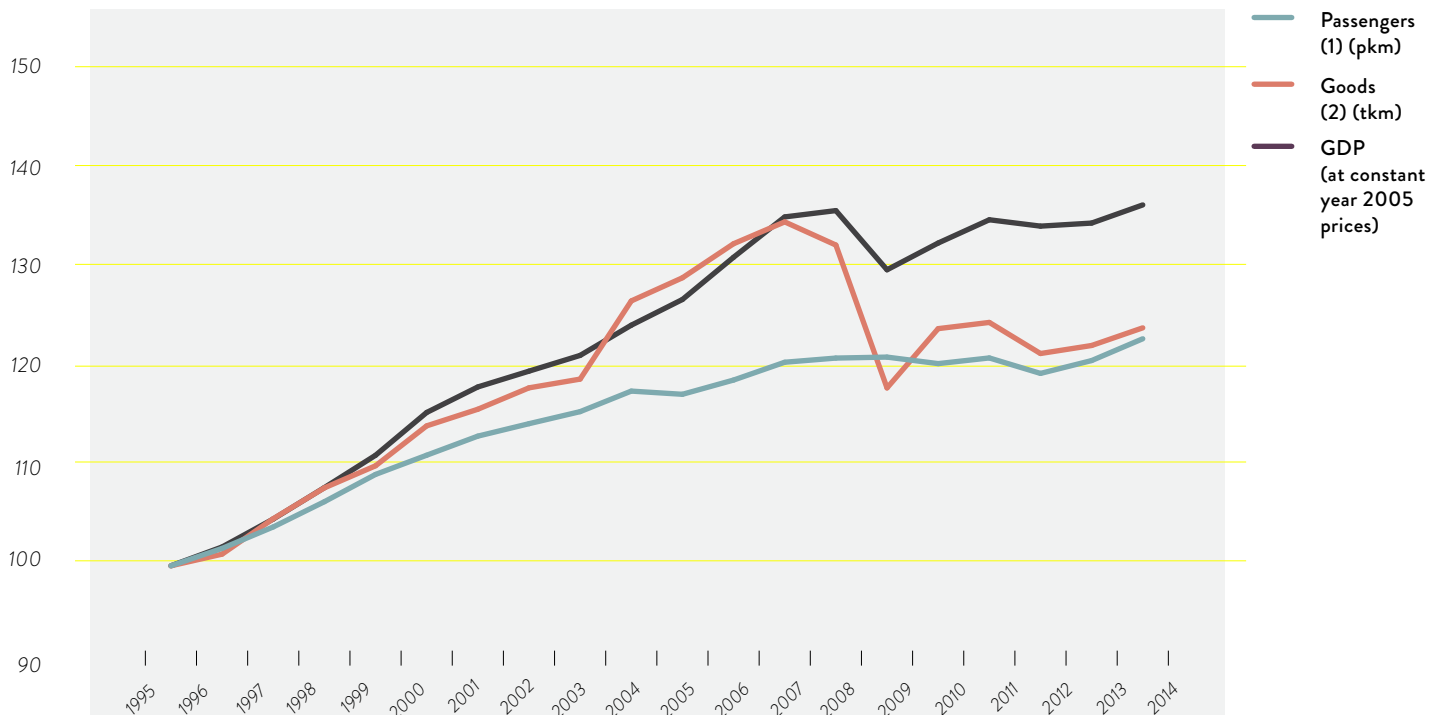
(*) Including all urban and suburban land transport modes (motor bus, tramway, streetcar, trolley bus, underground and elevated railways).

The above figures refer to employment only in those companies whose main activity lies in the mode concerned.



1.2

Transport growth in EU 28, evolution 1995-2014



Source: Eurostat

Notes :

(1) : passenger cars, powered two-wheelers, buses & coaches, tram & metro, railways, intra-EU air, intra-EU sea

(2) : road, rail, inland waterways, oil pipelines, intra-EU air, intra-EU sea

GDP: at constant year 2005 prices and exchange rates

1.3

Annual growth rates EU 28 (% change)

	1995 - 2014 p.a.	2000 - 2014 p.a.	2013 - 2014 p.a.
GDP at year 2005 prices and exchange rates	1,6%	1,2%	1,4%
Passenger transport (pkm)	1,1%	0,7%	1,8%
Freight transport (tkm)	1,1%	0,6%	1,4%

Source : EC



1.4

Employment by mode of transport in EU countries, 2013 (thousand)

	Total	Road freight transport	Road passenger transport (**)	Railways	Pipelines	Inland water transport	Sea transport	Air transport	Warehousing and support activities	Postal and courier activities	
EU-28	10521,3	2938,0	1991,4	559,6	28,5	40,3	164,8	350,2	2635,8	1812,6	EU-28
EU-15	8336,7	2121,6	1593,1	388,3	14,4	33,0	150,6	328,4	2184,8	1522,3	EU-15
EU-13	2184,6	816,4	398,3	171,3	14,1	7,3	14,2	21,8	451,0	290,3	EU-13
BE	215,0	59,9	18,3	1,9	0,1	1,0	1,8	5,3	90,2	36,4	BE
BG	155,5	55,7	32,5	10,9	0,3	0,7	1,6	2,0	32,2	19,5	BG
CZ	262,9	113,9	37,5	27,8	0,6	0,6	0,0	2,5	39,0	41,0	CZ
DK	147,3	32,8	23,3	6,7	0,1	0,2	21,1	9,2	30,6	23,5	DK
DE	2062,4	409,9	385,3	48,1	3,3	8,1	21,3	57,8	625,7	502,9	DE
EE	37,8	15,1	3,8	1,7	0,0	0,1	0,8	0,3	12,4	3,6	EE
IE	79,9	19,8	16,0	2,9	0,0	0,0	0,7	9,5	14,4	16,6	IE
EL	166,6	34,8	67,4	1,0	0,2	0,0	13,2	2,4	35,6	12,0	EL
ES	824,6	305,8	174,0	13,8	2,0	0,4	6,4	28,8	209,9	83,5	ES
FR	1378,5	351,8	256,7	169,4	4,9	2,3	13,1	65,0	259,3	256,0	FR
HR	77,2	20,1	10,5	4,2	0,5	0,3	4,1	2,8	22,9	11,7	HR
IT	1059,7	304,9	166,8	41,1	2,2	2,5	25,6	22,0	333,6	161,0	IT
CY	17,9	1,9	3,1	0,0	0,0	0,0	1,9	1,0	8,7	1,3	CY
LV	74,9	23,9	13,0	3,7	0,2	0,1	0,8	1,3	26,2	5,6	LV
LT	108,7	52,8	14,8	10,8	0,0	0,1	1,4	0,5	19,5	8,7	LT
LU	19,8	7,6	5,0	1,0	0,0	0,3	0,0	1,2	3,4	1,3	LU
HU	216,3	65,1	48,0	11,6	0,9	0,9	0,0	0,9	52,3	36,5	HU
MT	9,9	1,1	1,8	0,0	0,0	0,0	1,1	0,6	4,3	1,0	MT
NL	409,0	113,5	60,0	20,0	0,1	13,8	12,8	25,1	85,3	78,4	NL
AT	206,8	57,9	55,5	11,5	0,5	0,5	0,0	6,6	49,5	24,9	AT
PL	720,8	293,6	131,7	55,3	3,6	1,3	1,9	5,1	130,1	98,2	PL
PT	147,8	58,8	33,2	0,6	0,1	0,6	0,7	10,7	28,5	14,6	PT
RO	337,5	113,8	78,4	31,7	6,6	2,2	0,4	4,0	60,6	39,8	RO
SI	43,4	20,4	5,1	0,7	0,6	0,3	0,2	0,6	8,2	7,3	SI
SK	121,9	38,9	18,0	12,9	0,9	0,5	0,0	0,3	34,6	15,9	SK
FI	148,0	45,5	33,0	8,6	0,2	0,6	8,2	4,7	29,3	21,9	FI
SE	270,0	75,9	68,8	10,3	0,0	1,5	13,3	9,0	48,3	42,8	SE
UK	1205,1	242,5	229,9	59,6	0,9	1,1	12,4	71,0	341,2	246,5	UK

Source: Eurostat

Notes:

(*) Data refers to transportation and storage activities (including postal and courier services).

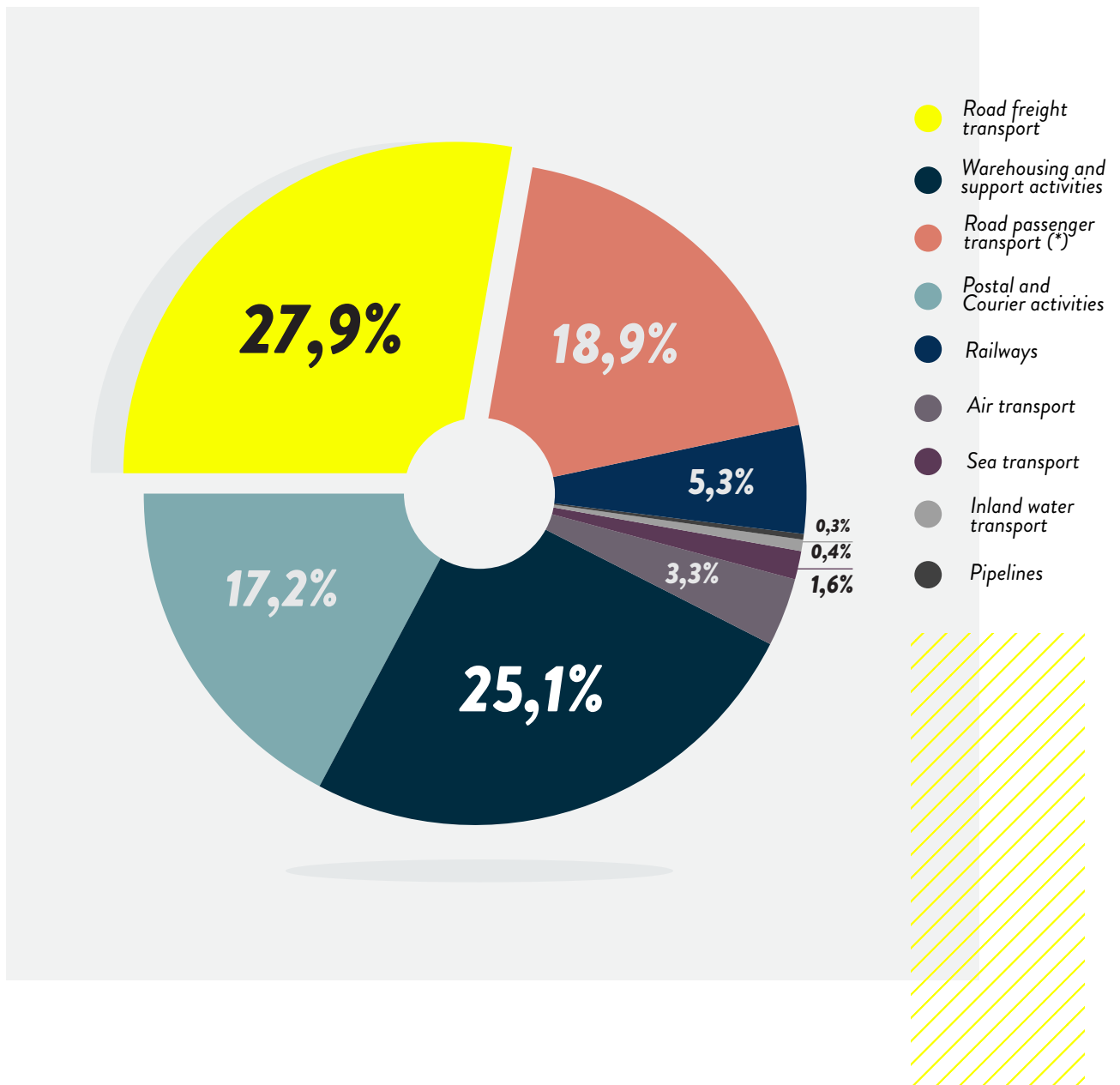
(**) Including all urban and suburban land transport modes (motor bus, tramway, streetcar, trolley bus, underground and elevated railways)

The above figures refer to employment only in those companies whose main activity lies in the mode concerned.



1.5

Employment by mode of transport in EU 28, 2013 (%)



Source: Eurostat

Notes:

(*) Including all urban and suburban land transport modes (motor bus, tramway, streetcar, trolley bus, underground and elevated railways)

The above figures refer to employment only in those companies whose main activity lies in the mode concerned.



ROAD NETWORK



2.1

Length of total road network by category(*) by country, end of 2013 (km)

	Motorways	Main or national roads	Secondary or regional roads	Other roads*	Total	
BE	1 763	13 229	1 349	138 869	155 210	BE
BG	605	2 975	4 035	12 063	19 678	BG
CZ	776	6 250	48 736	74 919	130 680	CZ
DK	1 216	2 646	70268	70 268	74 130	DK
DE	12 917	39 389	178 071		230 377	DE
EE	140	3 873	12 476	42 298	58 787	EE
IE	897	4 531	11 631	78 958	96 017	IE
EL	1 558	9 299	30 864	75 600	117 321	EL
ES	14 981	15 041	135 340	501 053	666 415	ES
FR	11 552	9 658	377 323	673 290	1 071 823	FR
HR	1 295	6 711	9 720	9 094	26 820	HR
IT	6 751	19 920	154 948	74 420	256 039	IT
CY	257	2 203	2 307	4 998	9 765	CY
LV	-	1 674	5 388	63 381	70 443	LV
LT	309	6 372	14 573	51 337	72 591	LT
LU	152	837	1 891	1 891	2 880	LU
HU	1 767	6 824	23 169	171 549	203 310	HU
MT	-	2361	2 361	2 361	2 361	MT
NL	2 678	2 564	7 749	125 650	138 641	NL
AT	1 719	9 997	23 640	88 759	124 115	AT
PL	1 482	17 804	153 753	242 083	415 122	PL
PT	3 065	6 454	4 791		14 310	PT
RO	644	17 110	35 587	32 190	85 531	RO
SI	770	819	5 135	32 150	38 874	SI
SK	420	3 538	13 996	36 852	54 806	SK
FI	810	12 521	13 561	51 201	78 093	FI
SE	2 057	13 553	82 905	118 461	216 976	SE
UK	3 760	49 074	33 111	335 182	421 127	UK
EU28	74340,8	287227,4	1456316,7	3034357,5	4 852 242	EU28
ME	-	7 965	7 965	7 965	7 965	ME
MK	259	651	3 778	9 471	14 159	MK
RS	603	4 794	10 341	29 271	45 009	RS
TR	2 127	31 341	32 155	323 043	388 666	TR
IS	11	4 919	2 950	5 010	12 890	IS
NO	392	10 562	44 382	39 041	94 377	NO
CH	1 419	393	17 926	51 789	71 527	CH

Source: Eurostat, International Road Federation, national statistics

Notes:

The definition of road types varies from country to country, the data are therefore not comparable.

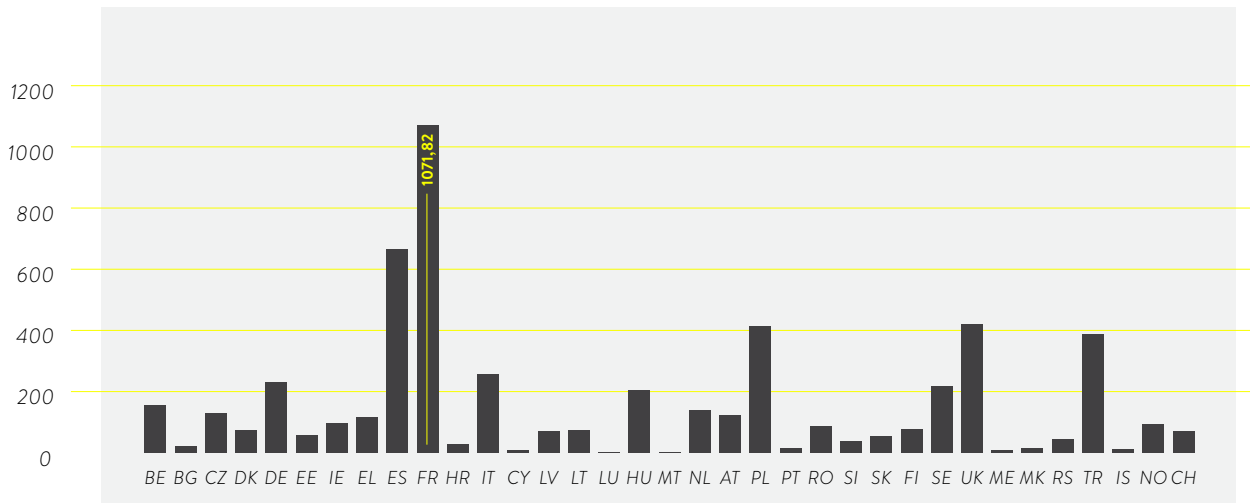
"Other roads" sometimes includes roads without a hard surface.

BE end of 2009 EL end of 2010 UK 1st of April 2014 IS end of 2011 MT end of 2012



2.2

Length of total road network by country, 2013 (thousand km)



Source: EC, IRF

Notes:

"Other roads" sometimes includes roads without a hard surface.

BE end of 2009

EL end of 2010

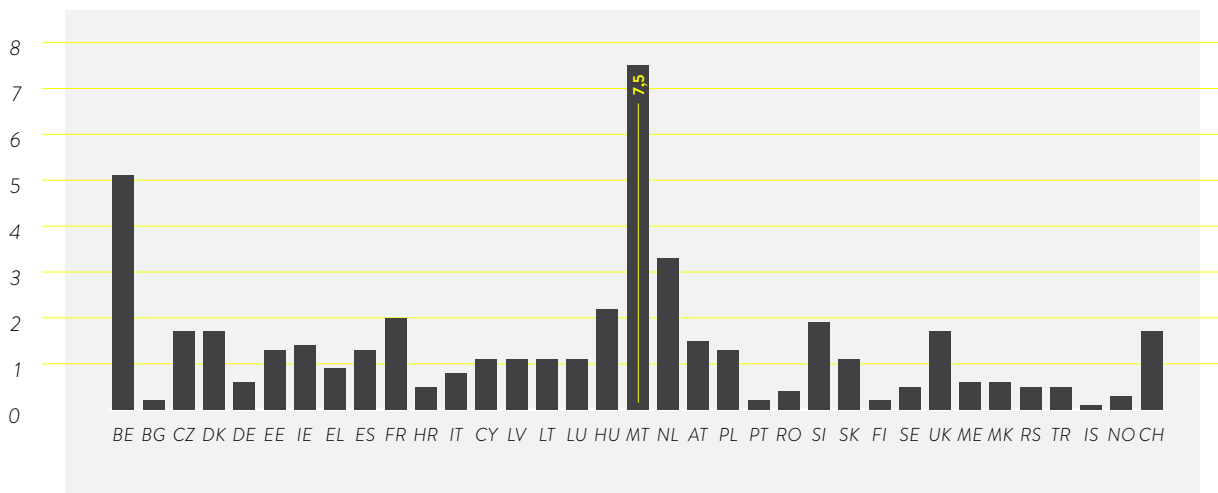
UK 1st April, 2014

IS end of 2011

MT end of 2012

2.3

Density of the total road network by country, 2013 (km road/ km² land area)



Source: EC

Notes:

The definition of road types varies from country to country, the data are therefore not comparable.

"Other roads" sometimes includes roads without a hard surface.

BE end of 2009

EL end of 2010

UK 1st April, 2014

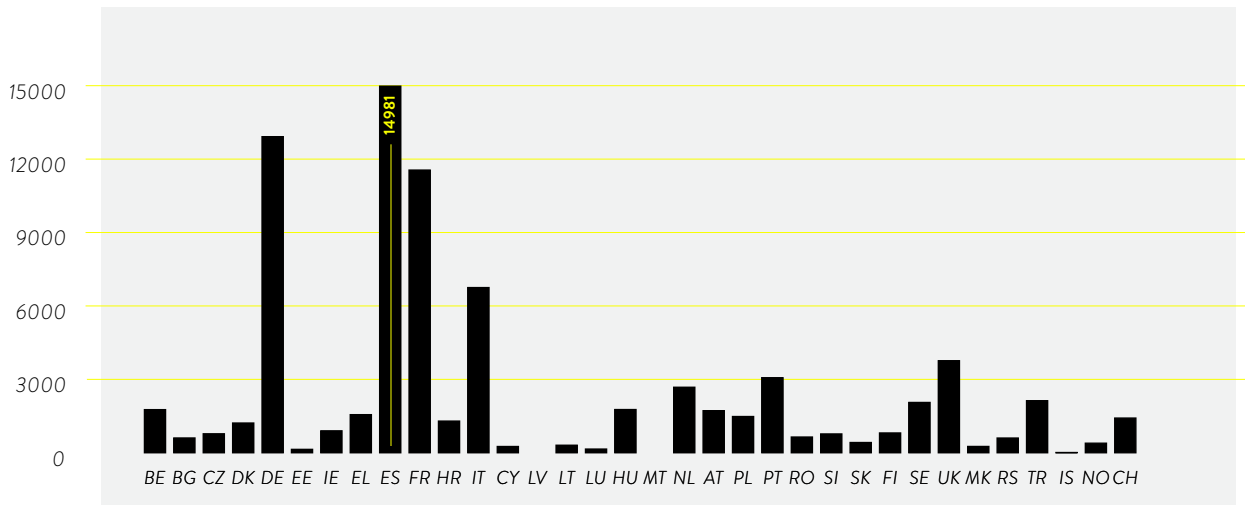
IS end of 2011

MT end of 2012



2.4

Length of motorway network by country, 2013 (km)

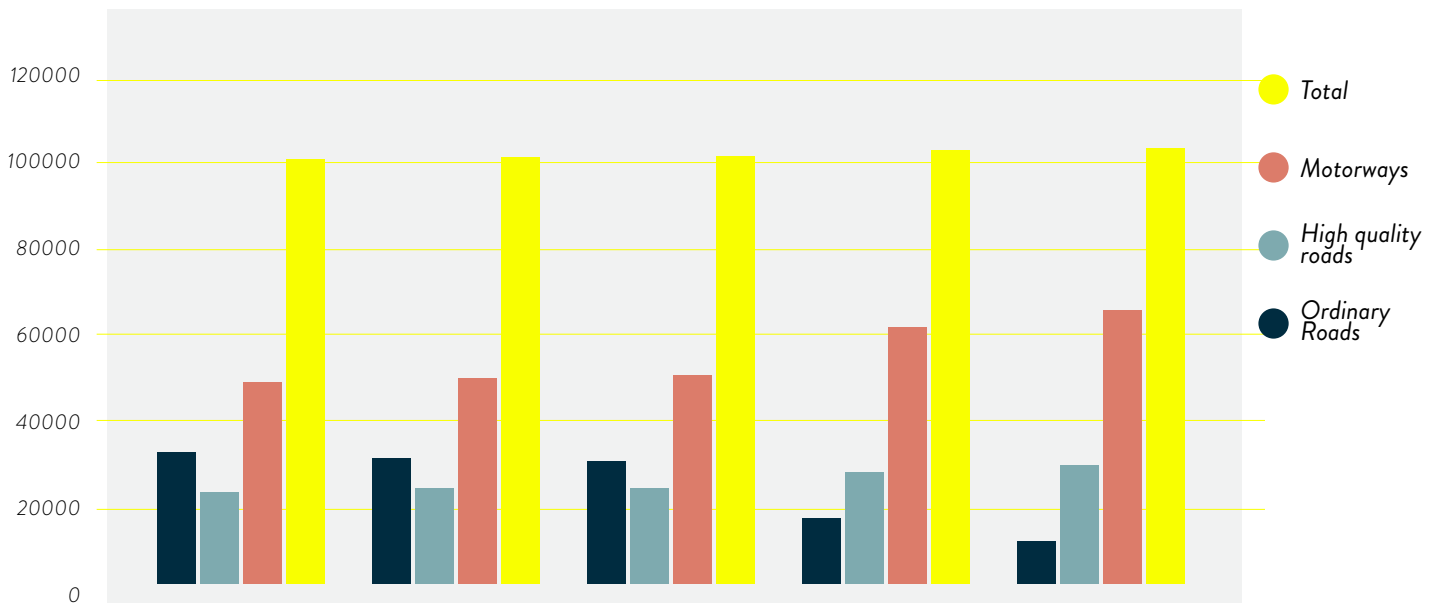


Notes:

- BE end of 2009
- EL end of 2010
- UK 1st April, 2014
- IS end of 2011
- MT end of 2012

2.5

Length (Km) and Type of TEN-T* Roads in EU 28

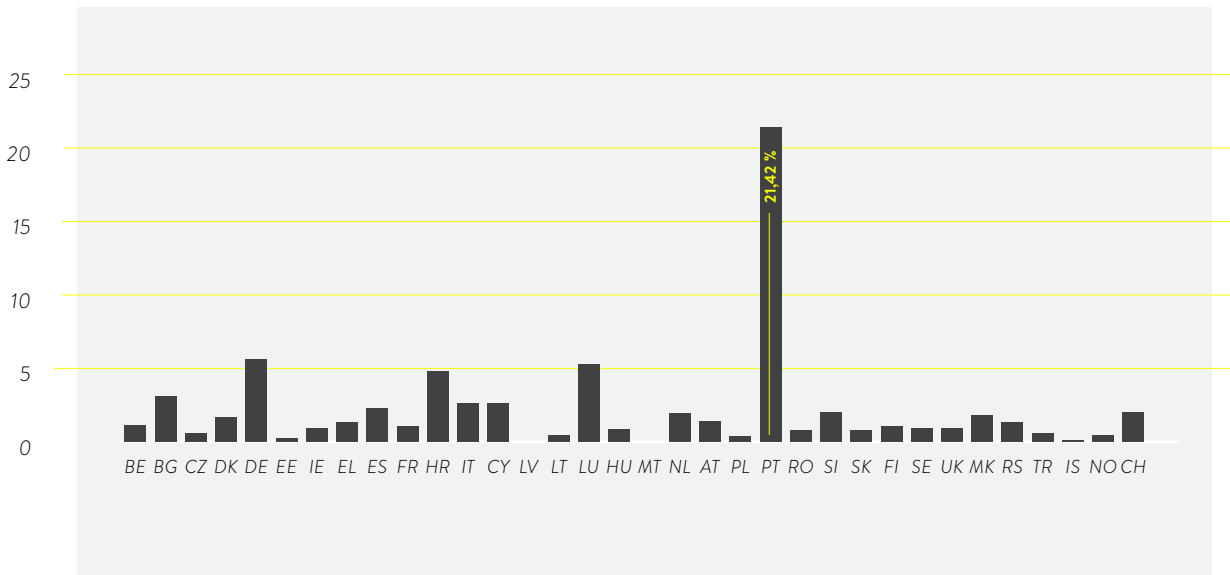


Source: EC

* The Guidelines define the TEN-T roads as composed of motorways and high-quality roads – existing, new or to be adapted

2.6

Proportion of motorways compared to the total road network by country, 2013 (%)



Source: EC

Notes:

"Other roads" sometimes includes roads without a hard surface.

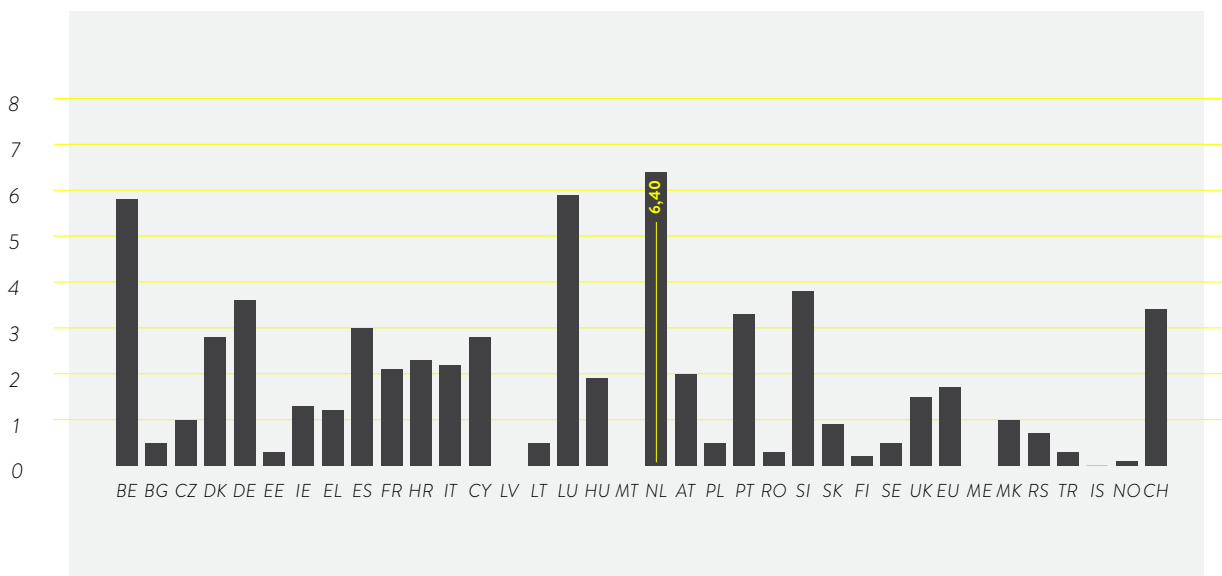
BE end of 2009

IS end of 2011

MT end of 2012

2.7

Density of motorways by country, 2013 (km motorway per 100 km² land area)



Source: Eurostat, EC

BE end of 2009

EL end of 2010

UK 1st April, 2014

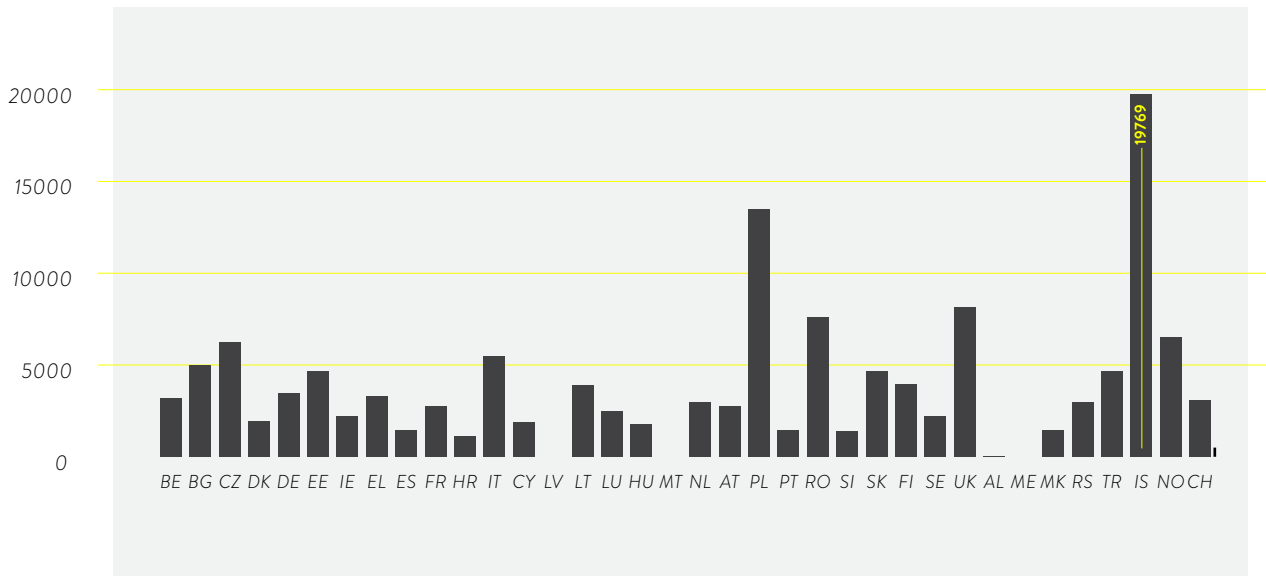
IS end of 2011

MT end of 2012



2.8

Passenger cars per km of motorway by country, 2014



Source: Eurostat, EC, UNECE statistical database

Notes:

Stock at end of year, except for BE: 1 August (1 July in 2012), CH: 30 September

Taxis are usually included.

2.9

Transport network comparison between EU 28, USA, Japan, Russia and China, 2013 (thousand km)

	EU 28	USA ⁽¹⁾	Japan ⁽²⁾	China	Russia
Road network (paved)	5.000	4.310	989	3.756	1.094
Motorway network	74,3	93,3	8,4	104,4	51,0
Railway network	220,0	205,6	19,5	103,1	86,0
Electrified rail lines	115,2		11,7	36,0	43,0

Source: Eurostat, International Road Federation, Union Internationale des Chemins de Fer, national statistics

Notes:

(1): Divided highways with 4 or more lanes (rural or urban interstate, freeways, expressways, arterial and collector) with full access control by the authorities.

(2): Japan: national expressways.

(3): Russia: federal roads.

(4): USA: a sum of partly overlapping networks.

(5): China: both oil and gas pipelines

(6): Russia: only crude oil pipelines. 20 thousand km of oil products pipelines are not included.

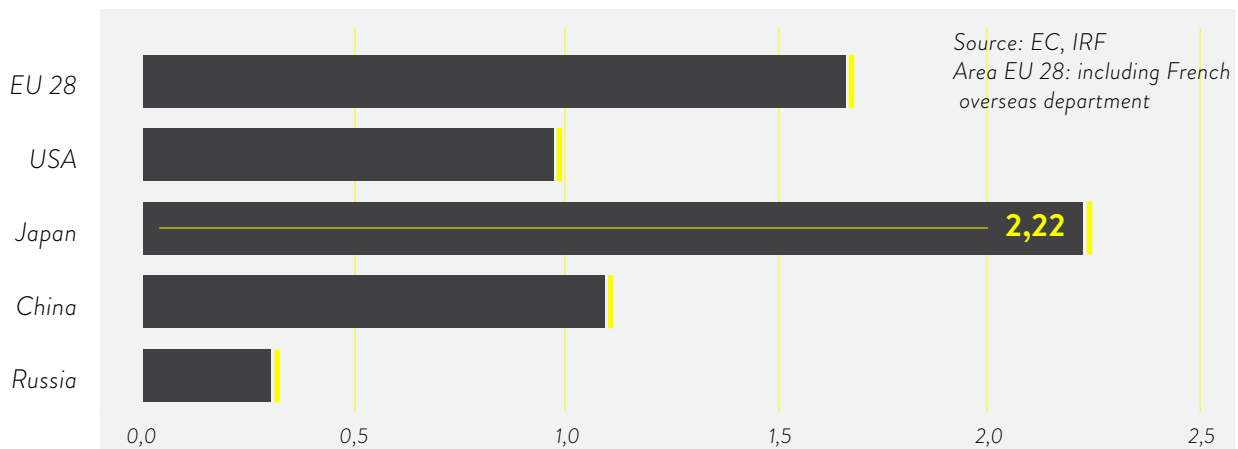
(7): USA: light duty vehicles, short wheel and long wheel base.

(8): Japan: including 31.8 million light motor vehicles (engine capacity up to 660 cubic centimetres).



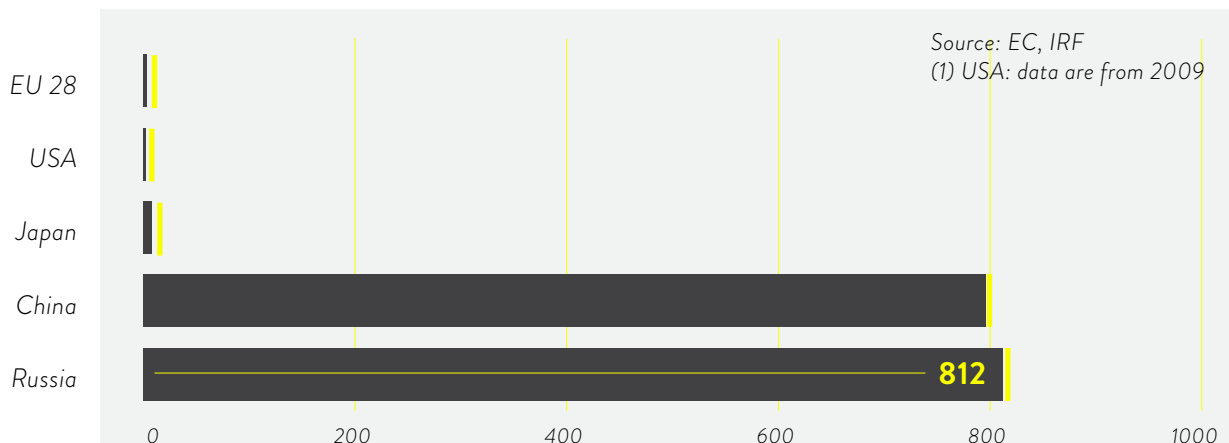
2.10

Density of motorways: comparison between EU 28, USA, Japan, Russia and China, 2013 (km motorway per km² land area)



2.11

Passenger cars per km of motorway comparison between EU 28, USA, Japan, Russia and China, 2014





INFRASTRUCTURE
FINANCING



3.1

Toll net revenues in selected countries, 2010-2015 (EUR million)

	2010	2011	2012	2013	2014	2015	
DK	454,00	472,00	492,0	507,0	537	559	DK
EL	565,00	530,00	516,0	516,0	469	495	EL
ES	1820,56	1808,7	1623,8	1565,0	1608,6	1709,27	ES
FR	7775,6	8442,6	8450,0	9170 (1)	9222,4	9160	FR
IE	184,00	184,00	193,0	200,0	217	217	IE
IT	4835,90	4971,00	4804,5	4914,0	5176,94	5454,86	IT
NL	27,21	28,49	26,8	26,5	27,67	28,3	NL
AT	1535,50	1561,00	1622,1	1687,0	1826	1840	AT
PT	725,31	693,43	627,8	812,5	855,37	915,62	PT
HU	145,50	167,90	167,9	189,2	677,6	677,6	HU
SI	290,10	298,34	294,9	305,0	344,16	349,92	SI
NO	457,30	605,70	641,2	614,4	940,63	940,63	NO
HR	267,40	272,34	282,8	296,69 (2)	297,05	317,25	HR
PL	189,3	148,25	157,0	179,6 (3)	185,86	209	PL
UK	70,1	64,40	71,6	77,6	83,3	102	UK
RS	137,9	137,90	19,0	138,3	138,44	139,55	RS
CZ	262,8	325,00	346,5	342,2 (4)	316	360,18	CZ
DE	4484,00	4498,00	4364,0	4400,0	4460	4370	DE
RF	-	-	-	29,3	75,16	55,5	RF
SK	175,3	199,88	151,3	158,63 (5)	113,7	119,6	SK

Source: ASECAP

Notes:

(1) Provisional figure

(2) Preliminary value for 2013

(3) Toll revenues on motorways A2 and A4

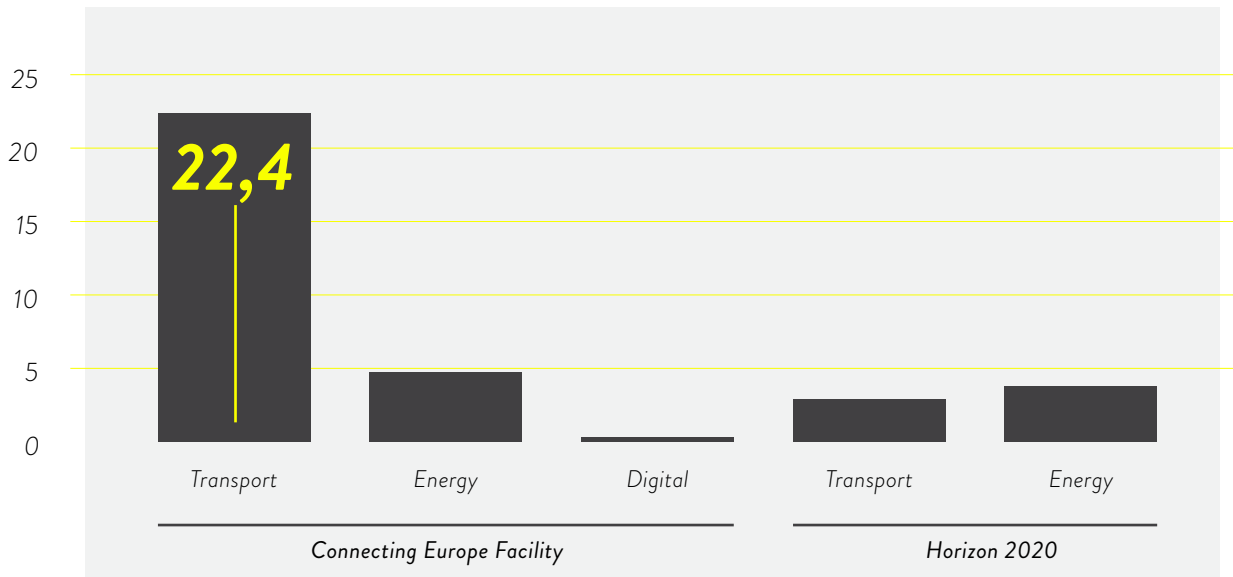
(4) km-based tolling only

(5) Revenue from ETC and the revenue from the vignette on the whole charged network including motorways, expressways and selected 1st class roads



3.2

Budget managed by INEA (Total 34 bn)



Source: EC

3.3

European Investment Bank Loans for Transport to EU 28, 2006-2015 (EUR million)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Roads, Motorways	4384	3542	4932	6030	3716	3876	2726	4728	5384	2827
Railways	2999	3534	2495	2704	4352	4624	3541	3419	3875	5548
Urban Transport	1294	1924	1981	3399	4151	4411	2655	2733	2865	3371
Air Transport	764	644	2458	1740	487	500	261	420	428	18
Maritime Transport	593	454	894	1.821	496	793	863	212	368	586
Intermodal Freight Terminals and Other Transport	36	29	763	n.a.	2	66	28	81	45	15
Total Transport Sector	10.070	10.127	13.523	15.694	13.204	14.270	10.074	11.593	12.965	12.425

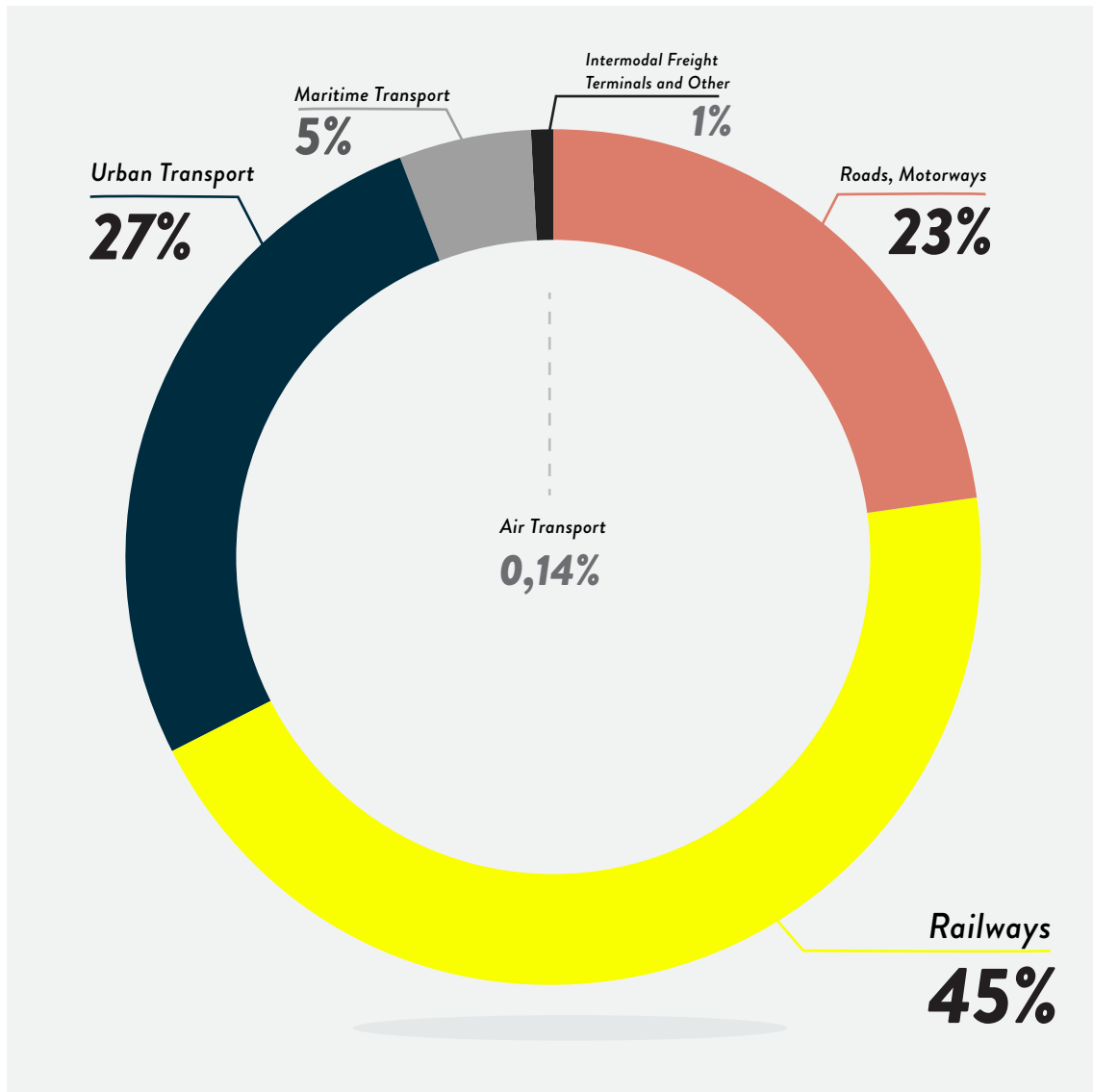
Source: EC



3.4

European Investment Bank Loans for Transport to EU 28, 2015

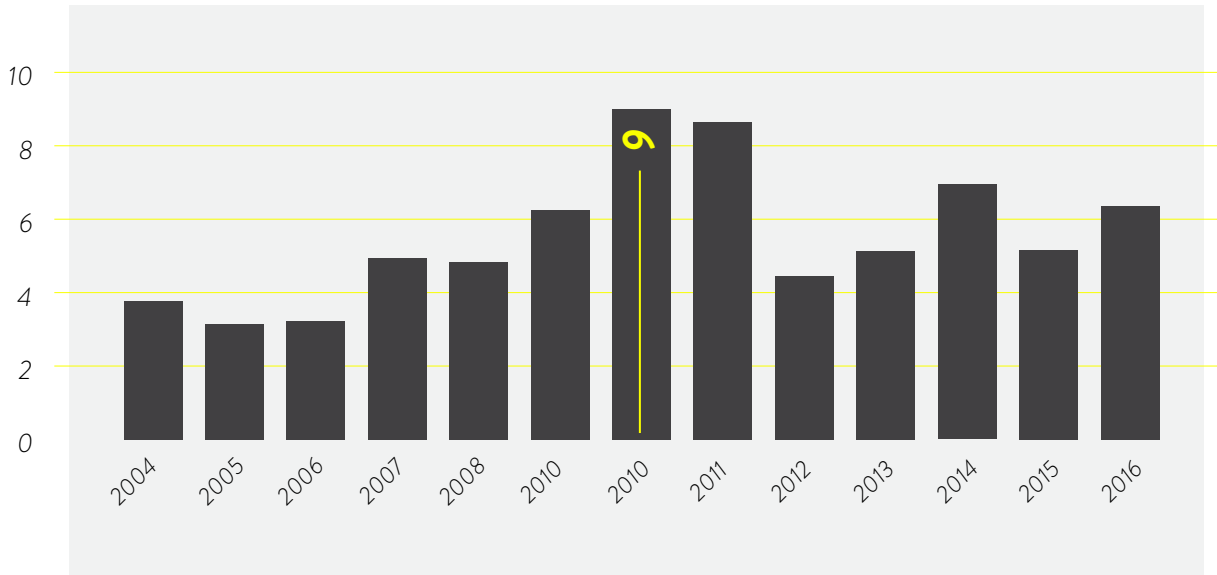
(total € 12.425 million)





3.5

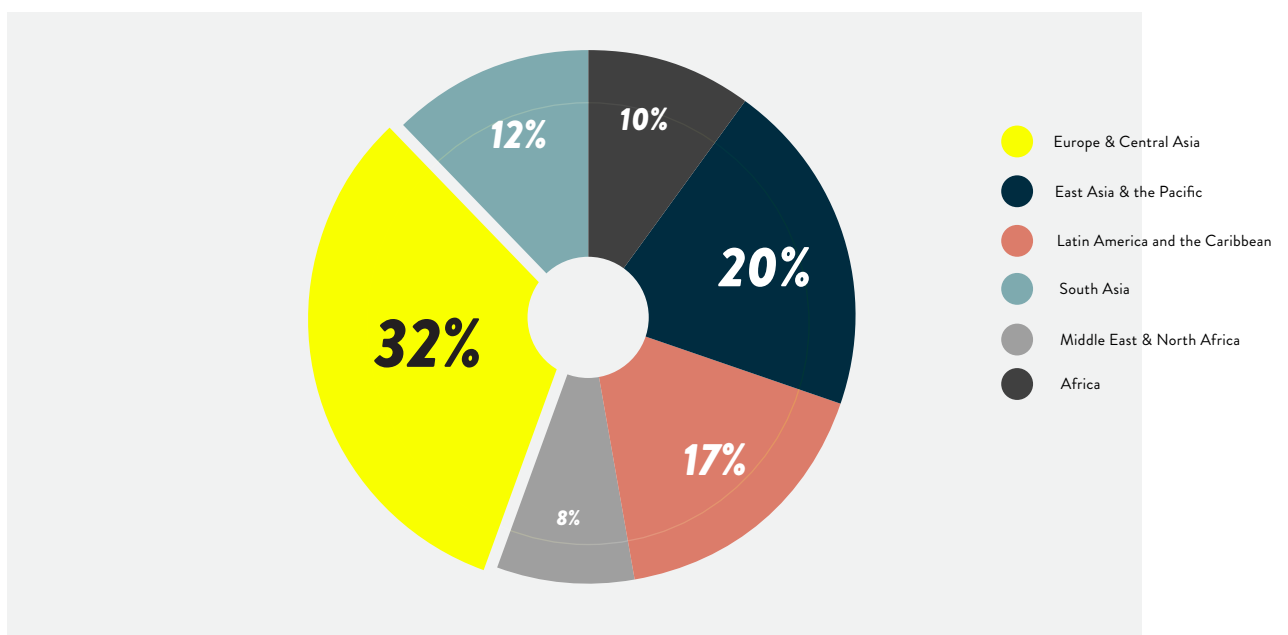
World Bank Total Transport Lending, 2004-2016 (\$ billion)



Source: World Bank

3.6

Transport Lending Breakdown by Region, 2016 (total \$ 6,39 billion)



Source: World Bank



ROAD MAINTENANCE

AND INVESTMENT



4.1

Gross investment spending in road infrastructure in selected countries, 2010 - 2014 (at current prices and exchange rates - million Euros)

	2010	2011	2012	2013	2014	
AT	390	303	327	363	453	AT
BE	348	248	553	587	417	BE
BG	281	344	388	359	253	BG
HR	515	466	479	424	280	HR
CZ	1720	1293	876	648	604	CZ
DK	937	1052	1324	-	1102	DK
EE	137	158	-	-	144	EE
FI	890	973	1127	1115	1132	FI
FR	11942	11876	12006	12093	10735	FR
DE	11240	11340	11530	11730	11780	DE
GR	1394	1310	1088	2181	..	GR
HU	840	298	153	401	164	HU
IE	1188	850	776	561	638	IE
IT	3389	4129	3107	2841	3860	IT
LV	99	159	148	150	188	LV
LT	422	343	243	253	224	LT
LU	183	222	213	220	205	LU
MT	40	37	38	32	39	MT
NL	2300	2287	-	-	..	NL
PL	6510	8319	4382	2465	1721	PL
PT	1511	-	274	211	..	PT
RO	2850	3283	3092	2729	2493	RO
SK	342	432	311	360	550	SK
SI	221	112	102	104	139	SI
ES	7851	5966	5362	4651	4266	ES
SE	1668	1911	2213	2013	1864	SE
UK	6478	5557	5544	6166	7726	UK
ME	18	15	18	20	9	ME
MK	32	38	-	-	..	MK
RS	227	339	255	280	337	RS
TR	5419	5181	4799	4880	4803	TR
IS	79	39	38	42	45	IS
NO	2675	2812	3301	3844	3804	NO
CH	3423	3827	3880	3731	..	CH

Source: ITF, OECD

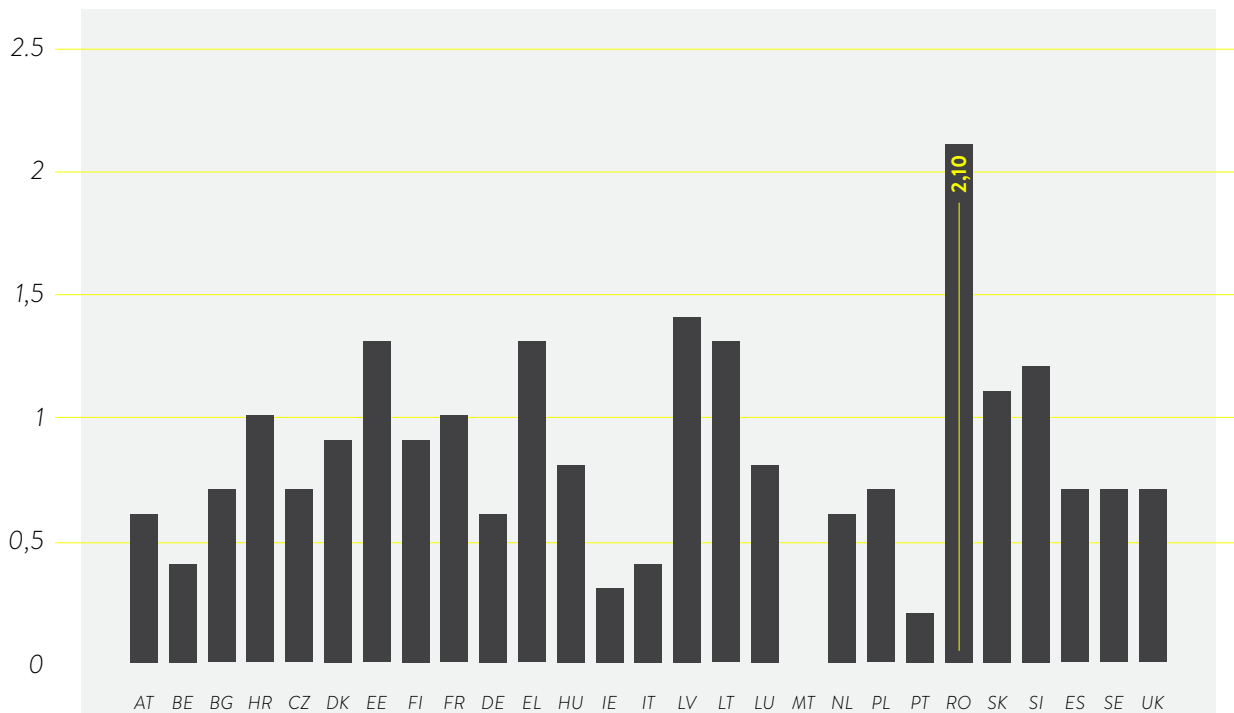
Note: the data coverage varies significantly from a country to another, mainly due to the lack of more detailed common definitions and the difficulty for countries to change their data collection system.



4.2

Investment in inland transport infrastructure in EU 28, 2014

(as a percentage of GDP, at current prices)



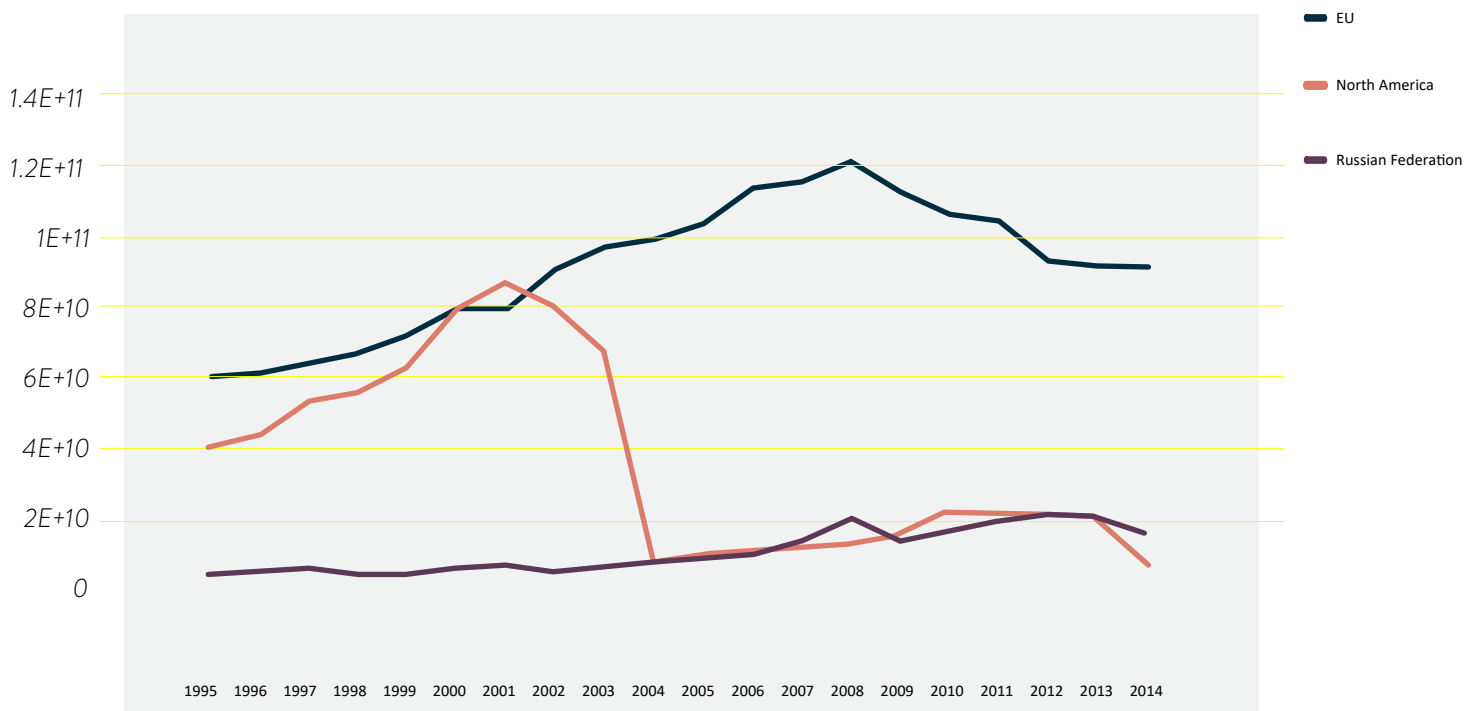
Source: ITF at the OECD

Note: No data for CY

4.3

Volume of investment in inland transport infrastructure by region, 1995 - 2014

(Euro)



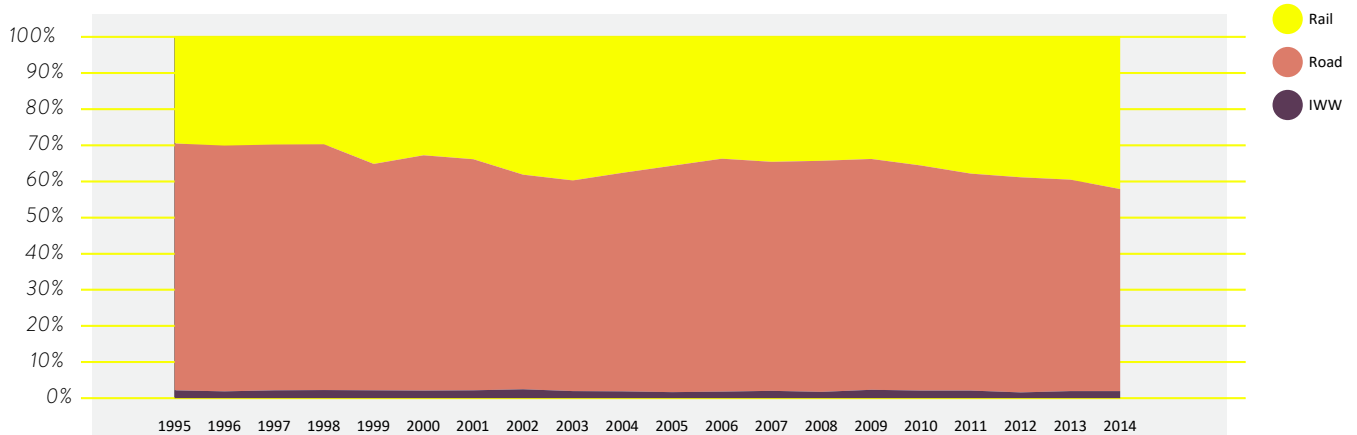
Source: ITF

The drop in North America is due to non existing data for United States after 2004



4.4

Distribution of infrastructure investment between modes in EU 28, 1995-2014 (Euros, current prices, current exchange rates)



Source: ITF

Note: No data for CY

4.5

Maintenance expenditures in road infrastructure in selected countries, 2010-2014 (at current prices and exchange rates - million Euros)

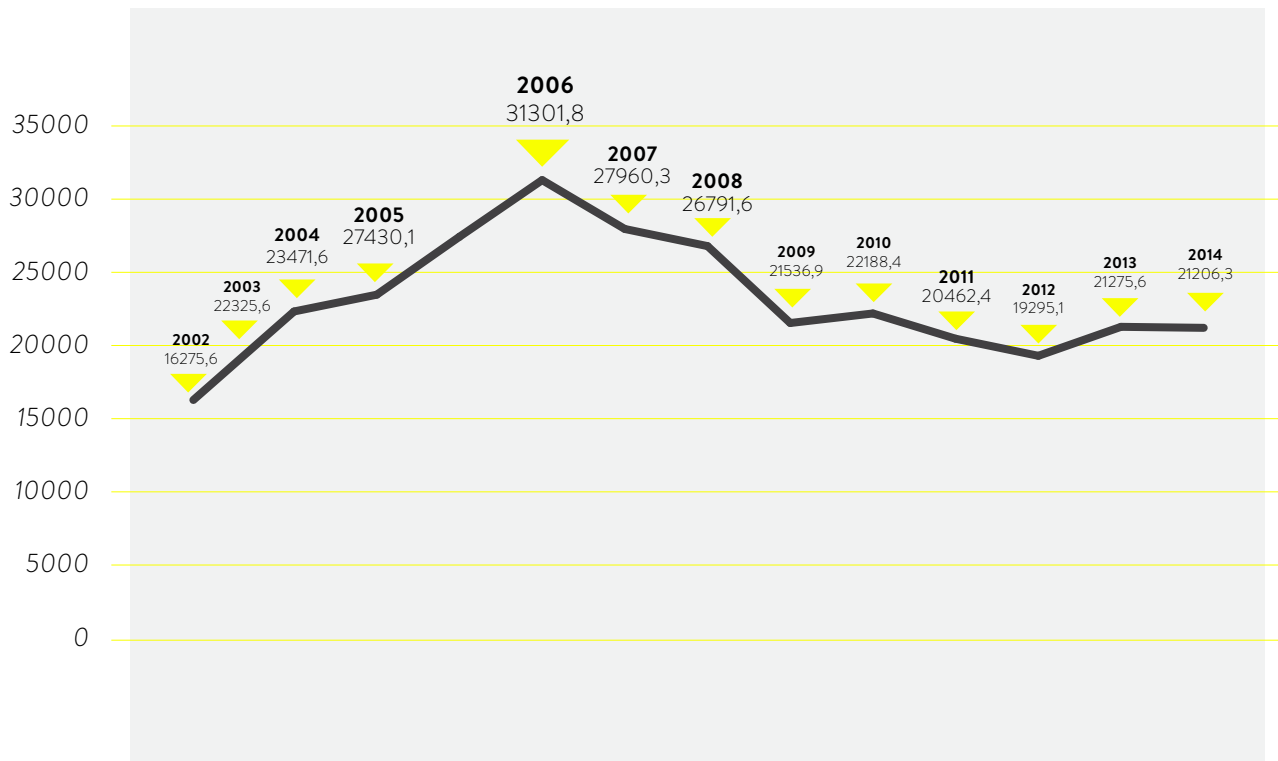
	2010	2011	2012	2013	2014	
AT	559	494	517	559	667	AT
BE	184	156	145	147	206	BE
BG	100	71	103	96	93	BG
HR	195	212	187	209	257	HR
CZ	670	570	571	513	587	CZ
DK	1.058	881	945	920	796	DK
EE	38	39	44	47	45	EE
FI	667	658	574	585	506	FI
FR	2.431	2.746	2.851	2.904	2.760	FR
HU	328	256	296	412	357	HU
IE	164	161	139	128	85	IE
IT	6.437	6.220	7.195	9.134	9.564	IT
LV	85	90	93	100	154	LV
LT	160	153	123	127	143	LT
LU	34	37	34	41	41	LU
MT	25	27	24	25	17	MT
NL	1.209	323			..	NL
PL	2.636	2.678	428	438	383	PL
PT	102		165	174	..	PT
RO					..	RO
SK	175	160	193	204	181	SK
SI	137	122	120	123	118	SI
SE	875	856	959	1.044	1.017	SE
UK	3.919	3.552	3.591	3.346	3.229,13	UK
Total EU	22.188	20.462	19.295	21.276	21.206	Total EU
MK	16	15			..	MK
RS	228	205	208	129	142,98	RS
TR	360	674	600	630	582,14	TR
IS	29	29	29	28	32	IS
NO	1.361	1.615	1.747	1.841	1.997,63	NO
CH	2.001	2.238	2.414	2.402	..	CH

Source: ITF

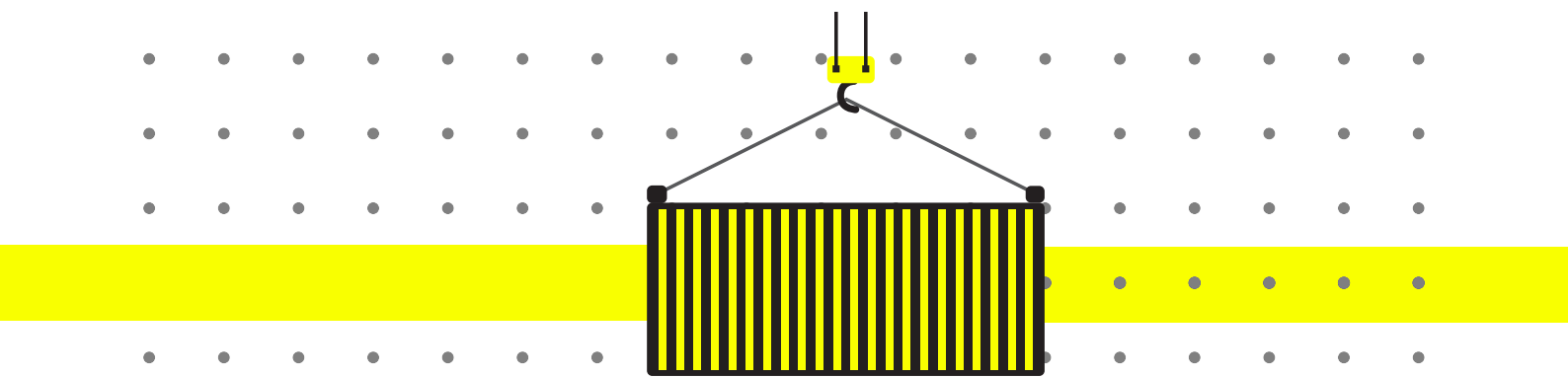


4.6

Maintenance expenditures in road infrastructure in selected countries, 2002 - 2014 (million Euros)



Source: ITF
Note: No data for CY



FREIGHT TRANSPORT



5.1

Transport of goods, performance by mode in EU 28, 1995-2014 (billion tkm)

	Road	Rail	Inland Water- ways	Pipe- lines	Sea ⁽¹⁾	Air	Total	
1995	1 289	388	122	115	930	2	2845, 948	1995
1996	1 303	394	120	119	942	2	2879, 110	1996
1997	1 352	411	128	119	969	2	2980, 161	1997
1998	1 414	394	131	126	1 000	2	3068, 126	1998
1999	1 461	385	129	125	1 029	2	3131, 013	1999
2000	1 509	405	134	127	1 067	2	3244, 912	2000
2001	1 553	388	133	134	1 083	2	3292, 283	2001
2002	1 603	386	133	130	1 100	2	3353, 314	2002
2003	1 608	394	124	132	1 119	2	3378, 221	2003
2004	1 751	419	137	133	1 159	2	3601, 139	2004
2005	1 795	416	139	138	1 178	2	3667, 082	2005
2006	1 858	438	139	137	1 191	2	3764, 233	2006
2007	1 925	452	145	128	1 174	2	3826, 497	2007
2008	1 891	443	146	125	1 153	2	3760, 470	2008
2009	1 700	364	131	122	1 035	2	3353, 069	2009
2010	1 755	394	156	121	1 094	2	3522, 114	2010
2011	1 744	422	142	118	1 111	2	3539, 859	2011
2012	1 693	407	150	115	1 085	2	3451, 158	2012
2013	1 719	406	153	112	1 082	2	3474, 050	2013
2014	1 725	411	151	113	1 122	2	3524, 416	2014
1995 -2014	33,9%	5,8%	23,5%	-1,8%	20,6%	27,0%	23,8%	1995 -2014
2013-2014	0,4%	1,1%	-1,2%	1,0%	3,8%	0,0%	1,4%	2013-2014

Source: EC

Air and Sea: only domestic and intra-EU-28 transport; estimates for air and for sea (1995-2004)

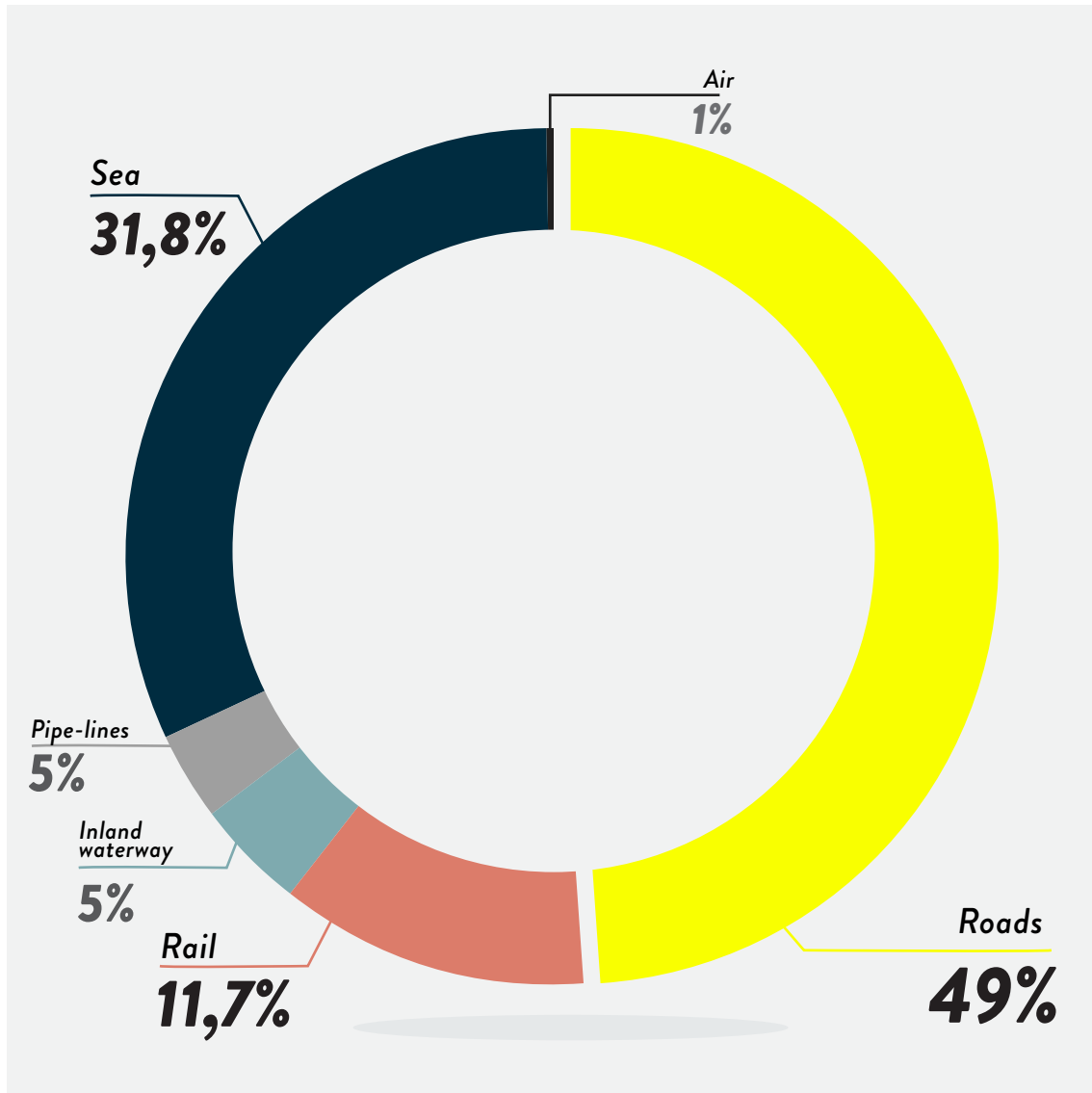
Road: national and international haulage by vehicles registered in the EU-28.

(1) The time series for maritime transport performance has been revised, for the period from 2005 to 2014, by replacing previous estimates on port-to port distances with more accurate measurements by Eurostat. The time series from 1995 to 2004 has been recalibrated by DG MOVE in line with the new Eurostat figures to avoid break in series. The revision of tkm figures mainly concerns the calculation of distance travelled and not the tonnages transported by sea.



5.2

Goods transport by mode in EU 28, 2014 (% of tkm)



Source: EC

Notes:

Air and Sea: only domestic and intra-EU-28 transport; provisional estimates

Road: national and international haulage by vehicles registered in the EU-28



5.3

Inland transport modal split in EU 28, 2000-2014 (% of tkm)

	Road	Rail	Inland waterways	Pipelines	
2000	69,4	18,6	6,2	5,8	2000
2001	70,3	17,6	6,0	6,1	2001
2002	71,2	17,1	5,9	5,8	2002
2003	71,2	17,5	5,5	5,8	2003
2004	71,7	17,2	5,6	5,5	2004
2005	72,2	16,7	5,6	5,5	2005
2006	72,3	17,0	5,4	5,3	2006
2007	72,6	17,1	5,5	4,8	2007
2008	72,6	17,0	5,6	4,8	2008
2009	73,4	15,7	5,6	5,3	2009
2010	72,4	16,2	6,4	5,0	2010
2011	71,9	17,4	5,9	4,9	2011
2012	71,6	17,2	6,3	4,9	2012
2013	71,9	17,0	6,4	4,7	2013
2014	71,9	17,1	6,3	4,7	2014
2000-2014	3,6	-8,1	2,1	-19,5	2000-2014

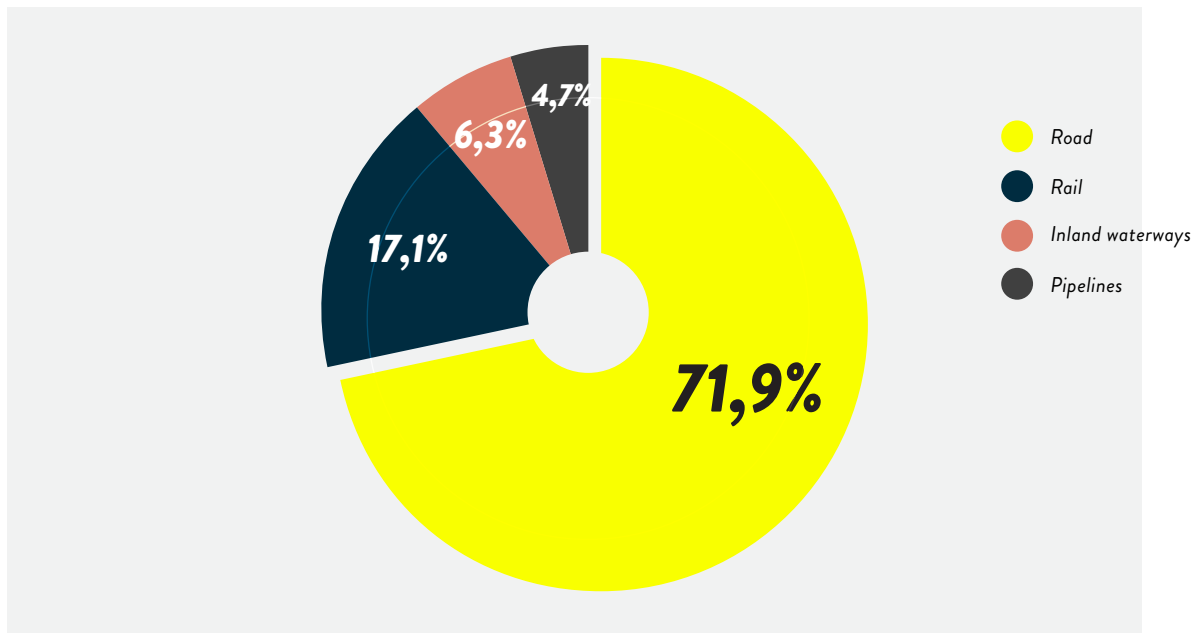
Source: EC

Notes:

Road: national and international haulage by vehicles registered in the EU-28

5.4

Inland transport modal split in EU 28, 2014 (% of tkm)



Source: EC

Notes:

Road: national and international haulage by vehicles registered in the EU-28



5.5

Performance of inland freight transport by mode in EU countries, 2014

(billion tkm)

	Road (*)	Railways	Inland Waterways (**)	Pipelines (Oil) (***)	
EU-28	1725,5	410,8	150,9	112,9	EU-28
BE	31,8	7,3	10,5	1,6	BE
BG	27,9	3,4	5,1	0,6	BG
CZ	54,1	14,6	0,0	2,1	CZ
DK	16,2	2,5	-	2,4	DK
DE	310,1	112,6	59,1	17,5	DE
EE	6,3	3,3	-	-	EE
IE	9,8	0,1	-	-	IE
EL	19,2	0,3	-	0,2	EL
ES	195,8	10,8	-	9,0	ES
FR	165,2	32,2	8,8	11,1	FR
HR	9,4	2,1	0,7	1,1	HR
IT	117,8	20,1	0,1	9,6	IT
CY	0,5	-	-	-	CY
LV	13,7	19,4	-	2,4	LV
LT	28,1	14,3	0,0	0,6	LT
LU	9,6	0,2	0,3	-	LU
HU	37,5	10,2	1,8	2,8	HU
MT	0,3	-	-	-	MT
NL	70,9	6,2	49,3	5,8	NL
AT	24,3	20,5	2,2	8,3	AT
PL	250,9	50,1	0,1	22,1	PL
PT	34,9	2,4	-	0,4	PT
RO	35,1	12,3	11,8	1,0	RO
SI	16,3	4,1	-	-	SI
SK	31,4	8,8	0,9	4,5	SK
FI	23,4	9,6	0,1	-	FI
SE	42,0	21,3	-	-	SE
UK	143,2	22,1	0,2	10,0	UK

Source: EC

(*) National and international haulage by vehicles registered in the reporting country (including cross-trade and cabotage). Only haulage of heavy goods vehicles (usually > 3,5 tonnes load capacity)

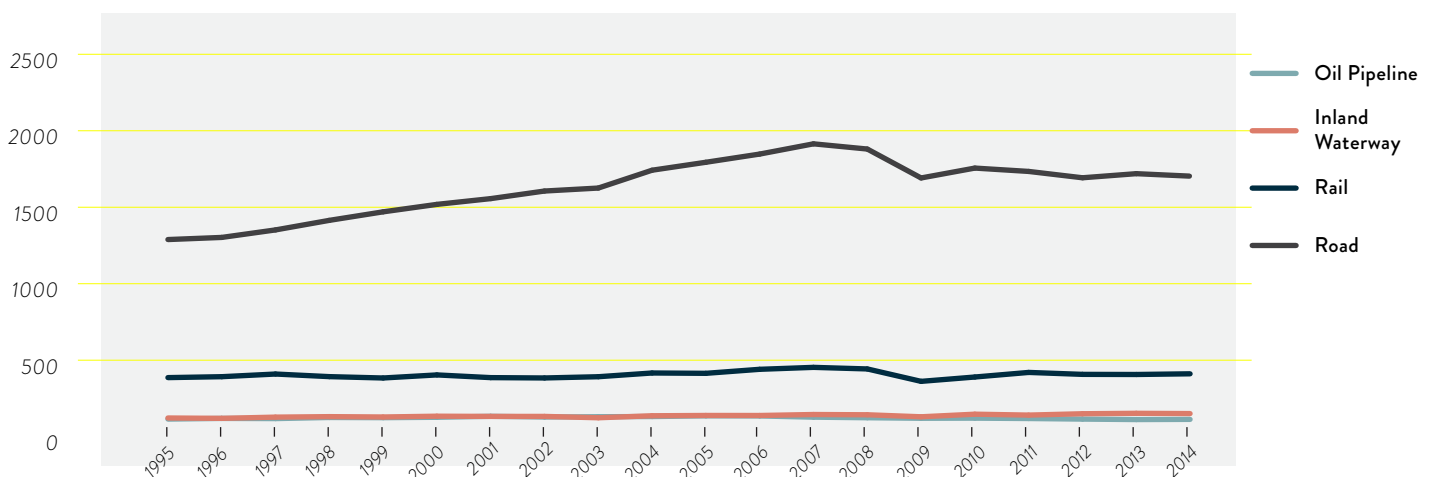
(**) For FI only shipborne transport (i.e. no floating)

(***) Data are not harmonised and therefore not fully comparable; in most countries, only pipelines longer than 40km are included. DE: only crude oil (i.e. no refined petroleum products)

5.6

Performance by mode for inland freight transport in EU 28, 1995-2014

(billion tkm)



Source: EC



5.7

Total road transport by group of goods in EU countries, 2015

(1.000 tonnes and million tkm)

	Thousand tonnes	Million tkm		Thousand tonnes	Million tkm
BE	264.034	31.729	LT	58.601	26.485
BG	161.567	32.297	LU	52.547	8.850
CZ	437.118	57.200	HU	198.744	38.353
DK	181.232	15.500	MT	:	:
DE	3.031.325	314.677	NL	641.538	68.900
EE	28.162	6.263	AT	351.068	24.436
IE	117.090	9.900	PL	1.264.960	260.713
EL	420.005	19.764	PT	150.358	31.835
ES	1.258.261	209.390	RO	198.824	39.023
FR	1.796.755	153.580	SI	70.509	17.909
HR	66.503	10.439	SK	147.225	33.540
IT	957.006	116.820	FI	271.912	24.488
CY	14.402	563	SE	422.891	41.502
LV	62.569	14.690	UK	1.667.627	158.924
			TOTAL	14.292.833	1.767.770

Source: Eurostat

5.8

Transport of dangerous goods* in EU countries, 2013-2015 (million tkm)

	2013	2014	2015
BE	2.124	1.694	2.922
BG	958	684	885
CZ	1.281	1.567	1.869
DK	760	690	814
DE	12.958	12.912	12.420
EE	163	172	146
IE	476	355	347
EL	1.169	1.010	1.446
ES	10.626	11.718	12.269
FR	8.158	7.976	8.281
HR	483	501	455
IT	8.037	7.358	6.942
CY	181	147	138
LV	213	227	315
LT	386	534	488
LU	700	839	454
HU	997	1.023	1.206
MT	n.a.	1.119	1.171
NL	1.342	933	927
AT	946	8.778	9.174
PL	7.024	946	1.158
PT	973	1.664	1.623
RO	1.704	724	714
SI	552	329	364
SK	228	1.423	1.909
FI	1.426	1.283	2.122
SE	1.064	8.583	10.682
UK	9.017	1.029	1.333
EU 28	73.946	76.218	82.574

Source: Eurostat

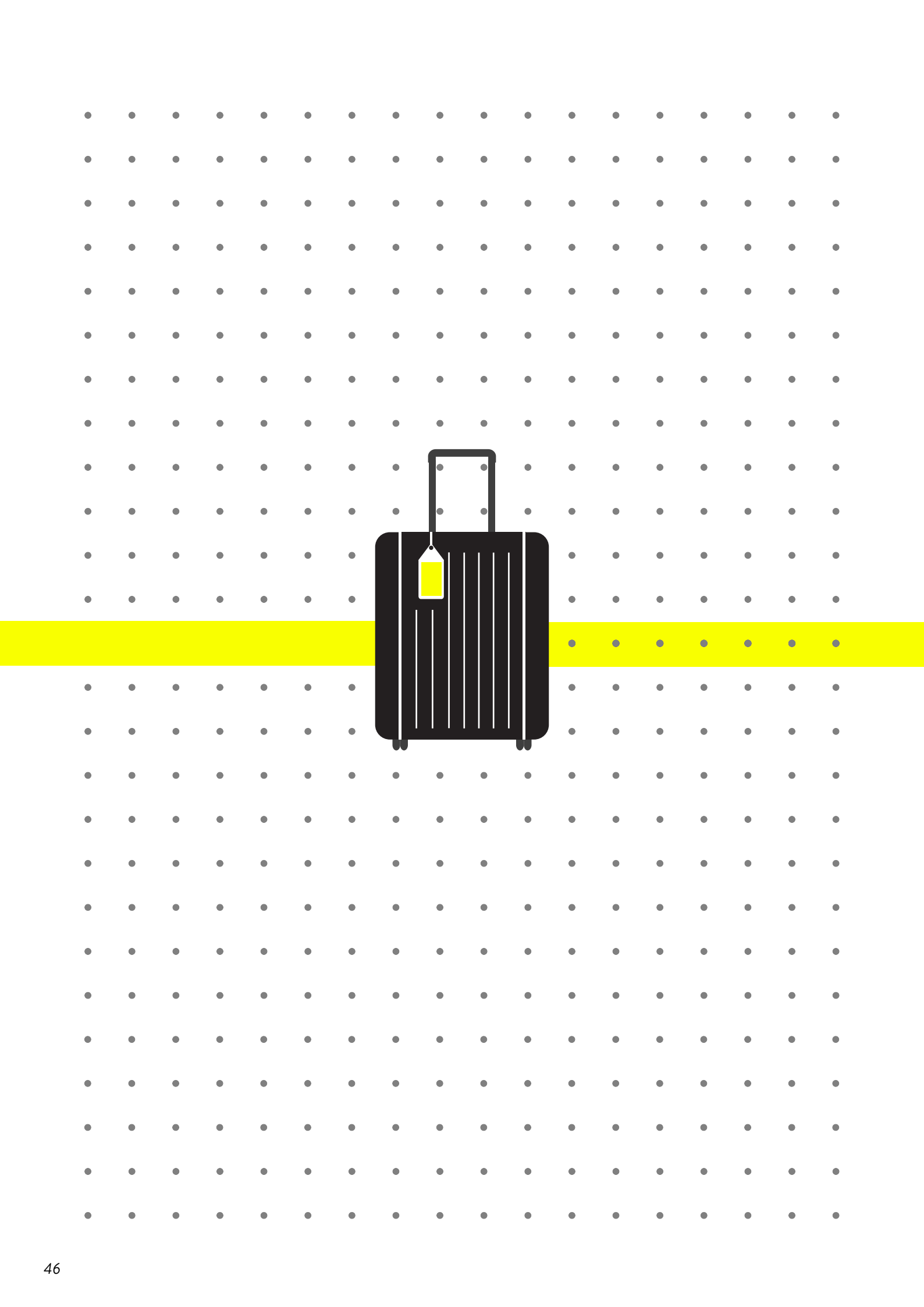
*Total of dangerous goods includes: Explosives; Gases - compressed, liquified, dissolved under pressure; Flammable liquids and solids; Substances liable to spontaneous combustion; Substance emitting flammable gases (with water); Oxidising substances; Organic peroxides; Toxic substances; Substances liable to cause infections; Radioactive material; Corrosives; Miscellaneous dangerous substances.



5.9

Registration of commercial vehicles in EU and selected countries, 2015-2016

	2015	2016	Evolution 2015-2016
AT	32.852	35.906	9,3%
BE	63.856	70.849	11,0%
DK	4.875	4.552	-6,6%
HR	6.843	8.316	21,5%
CZ	17.272	19.236	11,4%
DK	32.456	36.624	12,8%
EE	3.897	4.353	11,7%
FI	11.522	13.678	18,7%
FR	377.741	408.545	8,2%
DE	237.922	258.119	8,5%
EL	5.652	5.623	-0,5%
HU	17.516	21.335	21,8%
IE	23.403	27.514	17,6%
IT	133.680	199.534	49,3%
LV	2.348	2.218	-5,5%
LT	2.369	2.791	17,8%
LU	3.949	4.593	16,3%
NL	57.376	70.025	22,0%
PL	50.307	56.926	13,2%
PT	30.858	34.862	13,0%
RO	11.356	14.372	26,6%
SK	7.289	7.459	2,3%
SI	6.639	7.738	16,6%
ES	154.795	172.191	11,2%
SE	44.799	51.647	15,3%
UK	371.123	374.889	1,0%
EU 28	1.712.695	1.913.895	11,7%
IS	1.269	1.624	28,0%
NO	33.235	36.002	8,3%
CH	33.526	33.250	-0,8%
Light Commercial Vehicles (LCV) Up to 3,5 t			
AT	7291	7992	9,6%
BE	9366	10738	14,6%
DK	0	-	-
HR	977	1325	35,6%
CZ	11386	11862	4,2%
DK	4753	5099	7,3%
EE	767	878	14,5%
FI	2670	3249	21,7%
FR	42780	48157	12,6%
DE	89723	92458	3,0%
EL	465	321	-31,0%
HU	5702	5513	-3,3%
IE	2250	3040	35,1%
IT	15329	21156	38,0%
LV	1255	1588	26,5%
LT	3602	6004	66,7%
LU	1152	1288	11,8%
NL	14080	15720	11,6%
PL	22430	26630	18,7%
PT	4041	4557	12,8%
RO	6125	8032	31,1%
SK	2608	-	-
SI	1907	2392	25,4%
ES	22568	24846	10,1%
SE	5456	6520	19,5%
UK	47890	24678	-48,5%
EU 28	326573	334043	2,3%
IS	220	318	44,5%
NO	5215	5988	14,8%
CH	4416	4483	1,5%
Medium and Heavy Commercial Vehicles Over 3.5 t			



PASSENGER TRANSPORT



6.1

Transport of passengers by mode in EU 28, 1995-2014 (billion pkm)

	Passenger Cars	PTW	Bus & Coach	Railway	Tram & Metro	Air	Sea	Total	
1995	3 935	116	503	350	74	348	44	5 370	1995
1996	4 003	118	507	349	75	368	44	5 464	1996
1997	4 087	122	509	350	76	392	44	5 579	1997
1998	4 191	126	516	351	77	411	43	5 715	1998
1999	4 307	130	518	358	79	427	43	5 862	1999
2000	4 355	108	549	372	81	460	42	5 965	2000
2001	4 454	112	549	374	82	455	42	6 068	2001
2002	4 542	114	539	366	82	447	43	6 135	2002
2003	4 586	117	543	362	83	466	43	6 200	2003
2004	4 652	121	545	369	86	496	43	6 310	2004
2005	4 591	123	542	377	87	530	42	6 293	2005
2006	4 636	123	538	389	89	552	42	6 370	2006
2007	4 690	119	551	396	91	575	43	6 466	2007
2008	4 698	124	557	411	94	560	43	6 488	2008
2009	4 774	122	535	404	94	522	43	6 493	2009
2010	4 726	123	529	405	97	538	40	6 458	2010
2011	4 702	125	531	415	98	579	39	6 489	2011
2012	4 621	126	525	420	100	572	42	6 405	2012
2013	4 678	125	528	425	100	579	39	6 475	2013
2014	4 766	127	526	428	102	605	38	6 592	2014
1995 -2014	21,1%	9,4%	4,5%	22,2%	37,8%	74,0%	-15,5%	22,7%	1995 -2014
per year	1,1%	0,5%	0,2%	1,1%	1,8%	3,1%	-0,9%	1,1%	per year
2000-2014	9,4%	18,2%	-4,2%	15,3%	25,6%	31,7%	-10,1%	10,5%	2000-2014
per year	0,6%	1,2%	-0,3%	1,0%	1,6%	2,0%	-0,8%	0,7%	per year
2013-2014	1,9%	1,8%	-0,5%	0,8%	1,6%	4,5%	-3,9%	1,8%	2013-2014

Source : EC Estimates

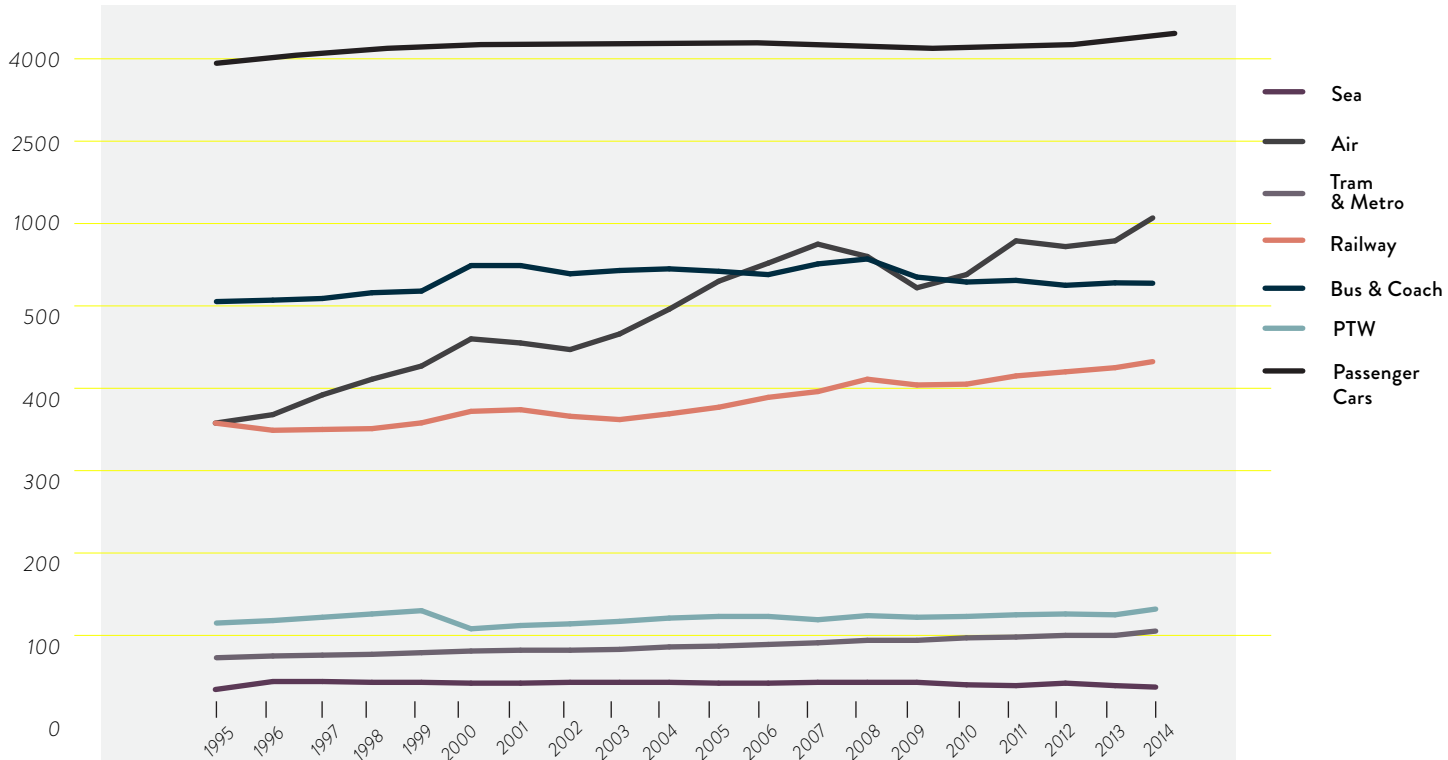
Notes:

Air and Sea: only domestic and intra-EU-28 transport; provisional estimates



6.2

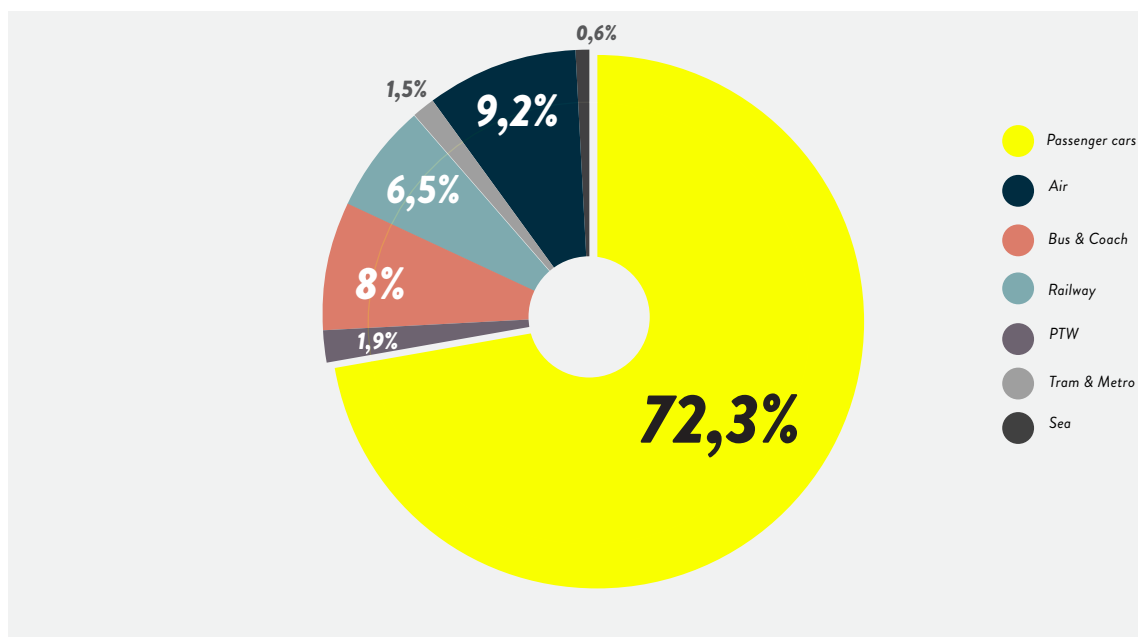
Evolution of passenger transport by mode in EU 28, 1995-2014



Source: EC

6.3

Passenger transport modal split in EU 28, 2014 (pkm in %)



Source: EC

Notes

Air and Sea: only domestic and intra-EU-28 transport; provisional estimates



6.4

Modal split of passenger transport on land by country in EU countries, 2014

(billion pkm and pkm in %)

	Passenger cars		Buses and coaches*		Railways		Urban Rail		Total	
	(billion pkm)"	(%)	(billion pkm)	(%)	(billion pkm)	(%)	(billion pkm)	(%)	(billion pkm)	
BE	109,6	76,12	22,2	15,41	11,0	7,62	1,2	0,01	144,03	BE
BG	54,0	79,51	11,5	16,91	1,7	2,50	0,7	0,01	67,86	BG
CZ	66,3	66,14	16,7	16,69	7,6	7,63	9,6	0,10	100,18	CZ
DK	53,7	79,65	6,6	9,82	6,8	10,10	0,3	0,00	67,37	DK
DE	920,8	84,45	63,2	5,80	89,5	8,21	16,8	0,02	1.090,30	DE
EE	11,9	80,62	2,4	16,28	0,3	1,90	0,2	0,01	14,70	EE
IE	47,2	79,61	10,2	17,21	1,7	2,92	0,2	0,00	59,27	IE
EL	96,9	80,32	21,0	17,42	1,1	0,89	1,7	0,01	120,61	EL
ES	319,7	81,68	39,5	10,08	25,1	6,42	7,1	0,02	391,43	ES
FR	815,7	83,91	53,4	5,50	86,7	8,92	16,2	0,02	972,08	FR
HR	26,1	83,52	3,6	11,69	0,9	2,94	0,6	0,02	31,20	HR
IT	642,9	80,12	102,8	12,81	50,0	6,23	6,8	0,01	802,41	IT
CY	6,1	81,81	1,3	18,19	-	-	-	-	7,40	CY
LV	12,6	80,24	2,3	14,81	0,6	4,09	0,1	0,01	15,73	LV
LT	24,3	88,24	3,0	10,78	0,3	0,98	-	-	27,58	LT
LU	7,1	83,56	1,0	12,16	0,4	4,29	-	-	8,54	LU
HU	52,7	65,18	17,6	21,80	7,7	9,53	2,8	0,03	80,88	HU
MT	2,4	83,08	0,5	16,92	-	-	-	-	2,91	MT
NL	145,0	83,29	11,5	6,60	16,2	9,29	1,4	0,01	174,10	NL
AT	76,6	72,45	10,1	9,59	12,0	11,40	7,0	0,07	105,72	AT
PL	218,9	78,69	39,2	14,08	15,9	6,70	4,2	0,02	278,18	PL
PT	83,3	88,87	5,6	6,00	3,9	4,10	1,0	0,01	93,78	PT
RO	85,2	75,91	14,1	12,53	5,0	4,50	8,0	0,07	112,23	RO
SI	25,6	86,30	3,4	11,61	0,6	2,50	-	-	29,71	SI
SK	27,3	76,88	5,4	15,10	2,6	7,00	0,3	0,01	35,44	SK
FI	65,5	84,60	7,5	9,74	3,9	5,20	0,5	0,01	77,45	FI
SE	114,9	83,19	8,7	6,27	12,1	8,90	2,4	0,02	138,12	SE
UK	654,2	84,69	41,1	5,32	64,7	8,00	12,5	0,02	772,54	UK
EU 28	4766,48	81,87%	525,51	9,03%	428,21	7,36%	101,56	1,74%	5.821,76	EU 28

Source : EC

Notes:

Data are not harmonised and therefore not fully comparable.

BE: Passenger cars data include pkm by vehicles registered as light goods vehicles but used as personal cars.

UK: Passenger data refer to Great Britain only; include pkm by vans.

UK: Buses and coaches data: GB data + 1.5 bln pkm throughout to account for Northern Ireland

FR: Urban rail data refer to the Paris Metro and RER (Réseau Express Régional) systems and to metros in other French cities.

PT: Urban rail data refer only to Lisbon and Porto Metro.

"* Public Service Obligation (PSO) means a requirement defined or determined by a competent authority in order to ensure public passenger transport services in the general interest that an operator, if it were considering its own commercial interests, would not assume or would not assume to the same extent or under the same conditions without reward."



6.5

Passenger vehicles by country, 2014

	Stock of registered passenger cars (thousand)	Stock of registered PTW (thousand)	Stock of registered buses & coaches (thousand)
BE	5572,57	453,01	16,77
BG	3013,90	154,80	23,60
CZ	4833,39	998,82	20,51
DK	2329,58	197,51	13,41
DE	44403,12	6181,74	77,50
EE	653,00	42,30	4,60
IE	1966,24	36,57	8,80
EL	5107,62	1619,62	26,59
ES	22029,51	5033,21	59,80
FR	31800,00	3015,22	89,00
HR	1474,50	153,05	5,04
IT	37080,75	9022,23	97,91
CY	478,49	40,97	2,58
LV	657,80	46,42	4,85
LT	1205,67	33,16	6,94
LU	372,83	27,28	1,78
HU	3107,70	161,54	17,92
MT	265,95	18,40	1,79
NL	7979,08	1772,21	9,60
AT	4694,92	788,18	9,59
PL	20003,86	2406,11	106,06
PT	4496,00	486,00	14,50
RO	4907,56	107,34	44,28
SI	1068,36	95,80	2,56
SK	1949,06	80,79	9,16
FI	3179,80	568,19	16,25
SE	4584,71	618,55	13,99
UK	30557,16	1240,20	112,16
EU 28	249773,13	35399,24	817,53
MK	371,45	8,63	3,16
RS	1797,43	63,17	9,04
TR	9857,92	2828,47	638,46

Source: EC

Notes:

Motorisation: Passenger car stock at end of year *n* has been divided by the population on 1 January of year *n*+1

Stock of registered passenger cars, PTWs and buses and coaches: At end of year, except for BE (1 August).

Stock of registered passenger cars: Taxis are usually included.

Stock of registered buses and coaches: Data include buses, coaches, minibuses and sometimes also trolleybuses.

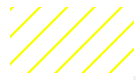
Stock of registered PTW: National vehicle stock data do not always include all powered two-wheelers and are therefore not fully comparable between countries. Break in time series due to inclusion of mopeds from 2001 in ES, from 2002 in SI and HR, from 2004 in LV, from 2005 in PL, from 2007 in LT.

Tricycles and quads are sometimes included in the data.



6.6

Motorisation by country 2014

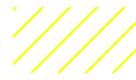


Motorisation (number of passenger cars per 1.000 inhabitants)

BE	495
BG	418
CZ	459
DK	412
DE	547
EE	497
IE	425
EL	472
ES	474
FR	479
HR	349
IT	610
CY	565
LV	331
LT	413
LU	662
HU	316
MT	619
NL	472
AT	547
PL	526
PT	433
RO	247
SI	518
SK	360
FI	581
SE	470
UK	472
EU 28	13170
MK	180
RS	253
TR	127

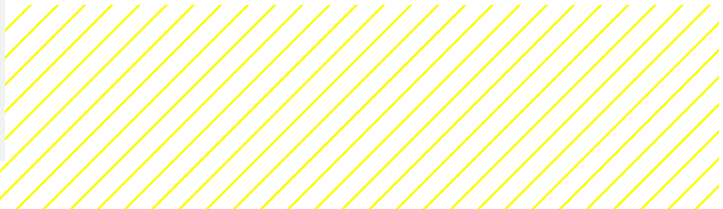
6.7

New passenger car registration per 1.000 inhabitants in EU countries, 2015



Motorisation (number of passenger cars per 1.000 inhabitants)

LU	83
BE	45
UK	41
DE	39
DK	37
AT	36
SE	35
FR	29
SI	29
IE	27
NL	27
EU 28	27
IT	26
CZ	22
ES	22
FI	20
PT	17
EE	15
SK	14
CY	12
PL	9
HR	8
HU	8
EL	7
LV	7
LT	6
RO	4
BG	3



Source : EC Estimates

Notes:

Motorisation: Passenger car stock at end of year n has been divided by the population on 1 January of year $n+1$

Source: ACEA



6.8

Motorcycle registrations in EU countries, 2010-2016

	2010	2011	2012	2013	2014	2015	2016	
AT	21.510	22.750	24.808	25.996	25.155	24.891	29.763	AT
BE	24.271	25.047	23.428	20.644	20.681	21.577	23.621	BE
BG	n.a.	n.a.	127	173	n.a.	n.a.	n.a.	BG
CY	3.060	2.527	2.074	1.675	n.a.	n.a.	n.a.	CY
CZ	5.418	6.056	6.974	n.a.	12.441	13.424	14.086	CZ
DE	122.382	126.991	127.497	129.605	141.623	151.661	174.624	DE
DK	3.258	2.032	1.984	1.870	1.936	2.417	3.139	DK
EE	244	299	364	409	449	489	609	EE
EL	59.638	44.785	31.805	28.522	30.951	32.468	38.632	EL
ES	134.297	119.423	97.931	92.678	111.460	132.536	155.003	ES
FI	6.054	5.692	4.986	3.943	3.467	3.157	3.022	FI
FR	198.086	185.122	169.644	147.915	153.324	153.242	163.335	FR
HR	2.851	2.726	2.397	2.046	n.a.	1.511	1.811	HR
HU	2.453	2.091	1.957	1.778	n.a.	2.093	2.204	HU
IE	1.042	831	663	441	360	1.022	1.420	IE
IT	306.303	254.895	206.291	153.941	156.431	172.073	195.290	IT
LT	229	280	224	241	294	294	390	LT
LU	1.255	1.306	1.201	1.566	1.734	1.654	1.783	LU
LV	278	472	494	477	589	595	642	LV
MT	568	746	n.a.	n.a.	n.a.	n.a.	n.a.	MT
NL	12.843	11.662	10.617	9.570	10.673	11.688	12.872	NL
PL	8.718	8.957	7.758	7.394	9.848	23.865	25.823	PL
PT	18.896	18.937	17.136	14.510	15.335	17.611	19.760	PT
RO	440	469	555	521	n.a.	648	952	RO
SE	9.024	8.223	7.605	7.800	8.378	9.422	13.220	SE
SK	2.324	1.960	1.920	2.840	n.a.	5.309	5.565	SK
SI	2.658	2.139	2.042	2.380	1.707	1.855	2.074	SI
UK	81.060	79.144	80.029	80.951	91.492	105.717	119.889	UK
EU 28	1.029.160	935.562	832.511	739.886	798.328	891.219	1.009.529	EU 28

Source: ACEM

Notes

Data of 2015 available till November



6.9

Transport of passengers per mode: comparison EU 28/World

	EU 28 (2014)	USA (2014)	Japan (2013)	China (2014)	Russia (2014)
Passenger car	4.766,5	6.005,9	-	1.208,4	-
Bus, trolley-bus and coach	525,5	546,1	74,8	-	133,4
Railway	428,2	403,0	414	1.160,5	128,8
Tram and metro	101,6	23,0	-	-	50,4
Waterborne	37,5	0,7	3,1	7,4	0,6
Air (domestic/intra EU)	665,3	978,1	82,7	633,4	241,4

Source: Eurostat, Japan Statistics Bureau, US Bureau of Transportation Statistics, Goskom STAT (Russia), National Bureau of Statistics of China, International Transport Forum, estimates

Notes:

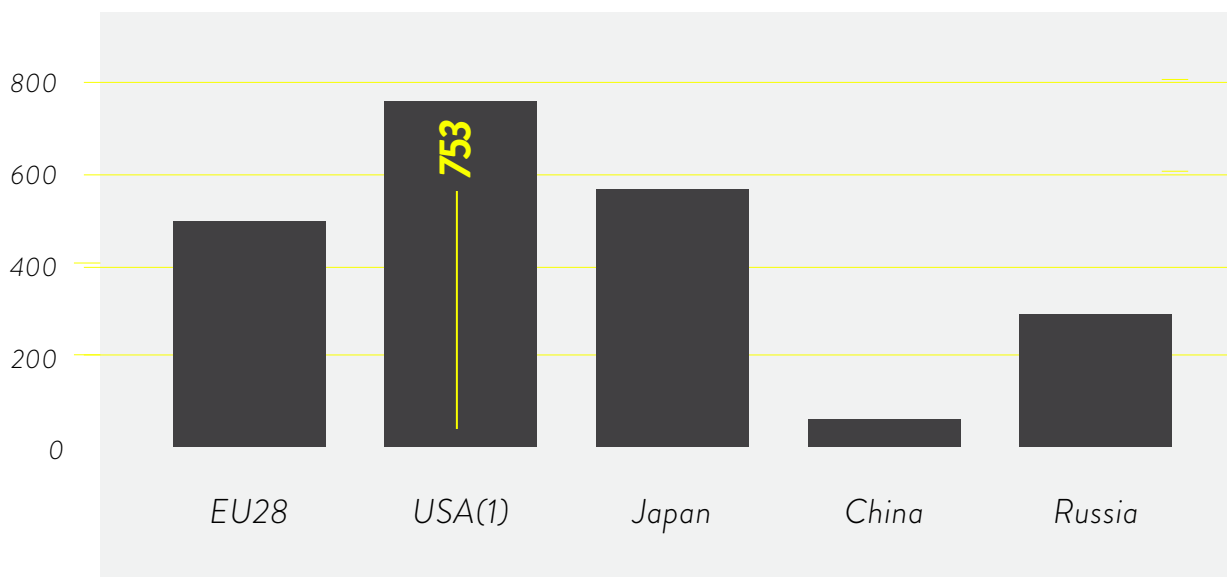
(1): USA: Including light trucks / vans

(2): China: including buses and coaches

(3): Japan: included in railway pkm

6.10

Motorisation: comparison EU 28/ World, 2014 (passenger cars/ 1000 inhabitants)



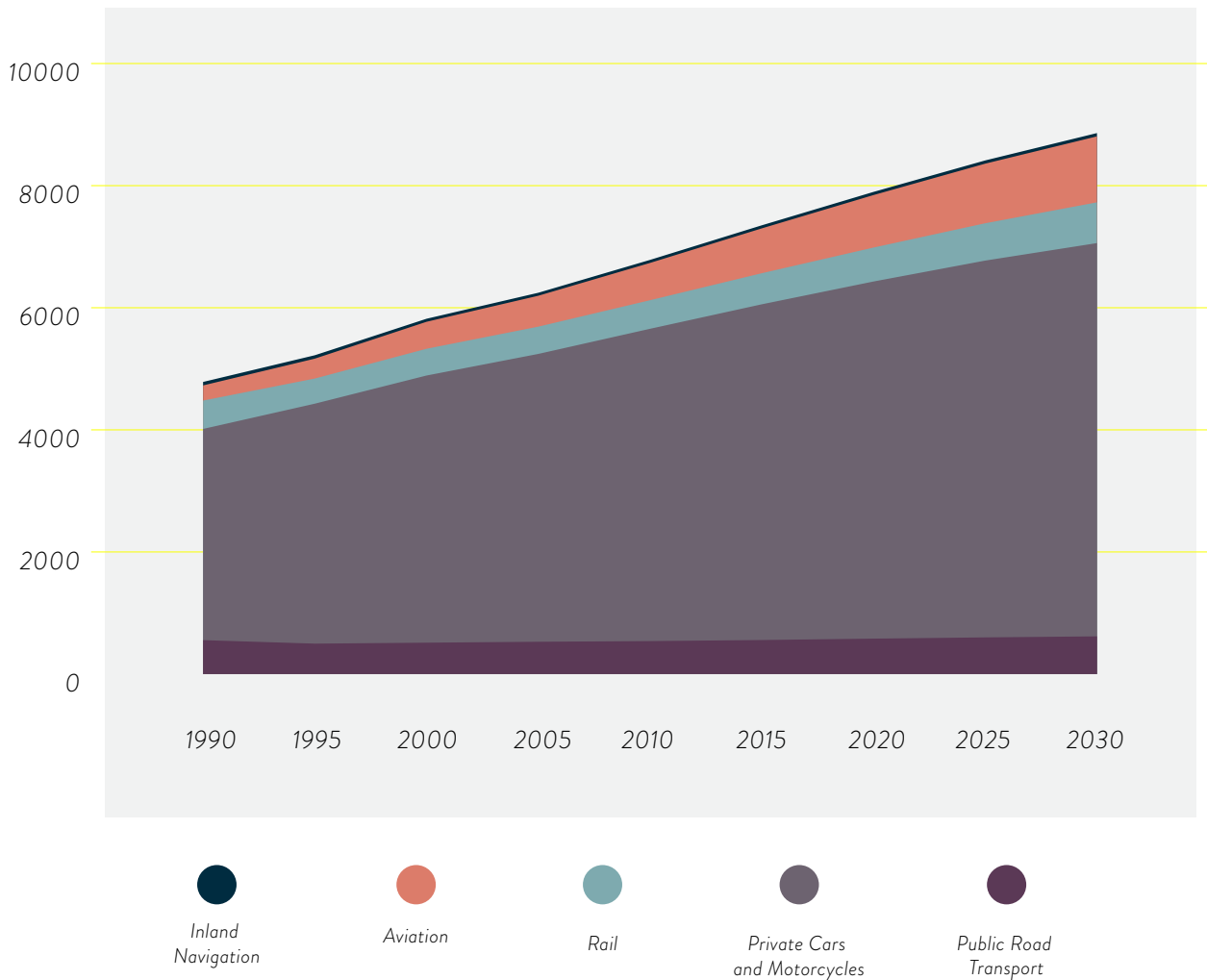
Source: EC

(1) USA: data from 2012



6.11

Trends and outlooks in passenger transport demand for the different modes of transport in EU, 1990-2030 (Gpkm)





SAFETY



7.1

7.1 Road accidents involving personal injury by country, 1990-2015 (thousand)

	1990	1995	2000	2005	2010	2011	2012	2013	2014	2015	Evolution 1990 - 2015 (%)	Evolution 2014 - 2015 (%)	
BE	62,4	50,7	49,1	49,3	42,1	42,1	37,5	35,6	41,5	40,3	-45,1	-2,8	BE
BG	6,5	7,4	6,9	8,2	6,6	6,6	6,7	7,0	7,0	7,2	10,8	3,0	BG
CZ	21,9	28,8	25,4	25,2	19,7	20,5	20,5	20,3	21,1	21,6	-1,4	2,4	CZ
DK	9,2	8,4	7,3	5,4	3,5	3,5	3,1	3,0	2,9	2,9	-85,8	-1,0	DK
DE	389,4	388,0	382,9	336,6	288,3	306,3	299,6	291,1	302,4	305,7	-21,9	1,1	DE
EE	2,1	1,6	1,5	2,3	1,3	1,5	1,4	1,4	1,4	1,4	-47,1	-3,1	EE
IE	6,1	8,1	7,7	6,5	5,8	5,2	5,6	5,0	5,4	5,5	-7,8	1,0	IE
EL	19,6	22,8	23,0	16,9	15,0	13,7	12,2	12,1	11,7	11,6	-35,0	-1,1	EL
ES	101,5	83,6	101,7	91,2	85,5	83,0	83,1	89,5	91,6	97,8	-3,7	6,8	ES
FR	162,6	133,0	121,2	84,5	67,3	65,0	60,4	56,8	58,2	56,6	-87,4	-2,7	FR
HR	14,5	12,7	14,4	15,7	13,3	13,2	11,8	11,2	10,3	11,0	-23,8	6,9	HR
IT	161,8	182,8	256,5	240,0	211,4	205,6	186,7	181,7	177,0	174,5	5,0	-1,4	IT
CY	3,2	3,1	2,4	1,4	1,2	1,1	0,9	0,8	0,8	0,7	-104,2	-12,9	CY
LV	4,3	4,1	4,5	9,3	3,2	3,4	3,4	3,5	3,7	3,7	-14,1	-1,0	LV
LT	5,1	4,1	5,8	6,8	3,5	3,3	3,4	3,4	3,3	3,2	-33,8	-2,6	LT
LU	1,2	1,2	0,9	0,8	0,8	1,0	1,0	0,9	0,9	1,0	-25,9	8,3	LU
HU	27,8	19,8	17,5	20,8	16,3	15,8	15,2	15,7	15,8	16,3	-65,6	3,1	HU
MT	0,2	1,0	1,3	0,8	0,6	0,3	0,4	1,2	1,4	1,4	91,2	-4,8	MT
NL	44,9	42,6	42,3	27,0	12,5	10,8	5,0	9,5	13,4	18,5	-62,4	38,7	NL
AT	46,3	39,0	42,1	40,9	35,3	35,1	40,8	38,5	38,0	38,0	-19,9	0,0	AT
PL	50,5	56,9	57,3	48,1	38,8	40,1	37,0	35,8	35,0	33,0	-30,6	-5,7	PL
PT	45,1	48,3	44,5	37,1	35,4	32,5	29,9	30,3	30,6	32,0	-29,6	4,4	PT
RO	9,7	9,1	7,9	19,8	26,0	26,6	26,9	24,8	25,4	28,9	243,8	14,2	RO
SI	5,2	6,6	9,0	10,5	7,7	7,1	6,9	6,6	6,2	6,6	15,7	6,6	SI
SK	8,2	8,7	7,9	7,9	8,1	5,4	5,4	4,7	5,1	5,2	-38,9	2,1	SK
FI	10,2	7,8	6,6	7,0	6,1	6,4	5,7	5,3	5,3	5,2	-75,5	-3,0	FI
SE	17,0	15,6	15,8	18,1	16,5	16,1	16,5	14,9	13,1	14,7	-14,6	12,1	SE
UK	265,6	237,3	242,1	203,7	160,1	157,1	151,3	144,5	152,4	146,2	-49,3	-4,1	UK
EU 28	1502,1	1433,0	1505,7	1342,0	1130,4	1128,5	1078,4	1054,7	1080,8	1090,3	-27,3	0,9	EU 28
ME					9,1	8,5	8,1	5,3	5,5	n.a.	n.a.	n.a.	ME
MK	2,3	2,4	1,7	2,8	4,2	4,5	4,1	4,2	3,9	n.a.	n.a.	n.a.	MK
IS	0,6	1,1	1,0	0,7	0,9	0,9	0,7	0,8	0,8	n.a.	n.a.	n.a.	IS
NO	8,8	8,6	8,4	8,1	6,4	6,1	6,2	5,2	5,0	n.a.	n.a.	n.a.	NO
CH	23,8	23,0	23,7	21,7	19,6	19,0	18,2	17,5	17,8	n.a.	n.a.	n.a.	CH

Source: CARE; United Nations (Statistics of road traffic accidents), national statistics (MT, candidate countries, IS, CH).

Notes: the definition of an accident involving personal injury differs from country to country.

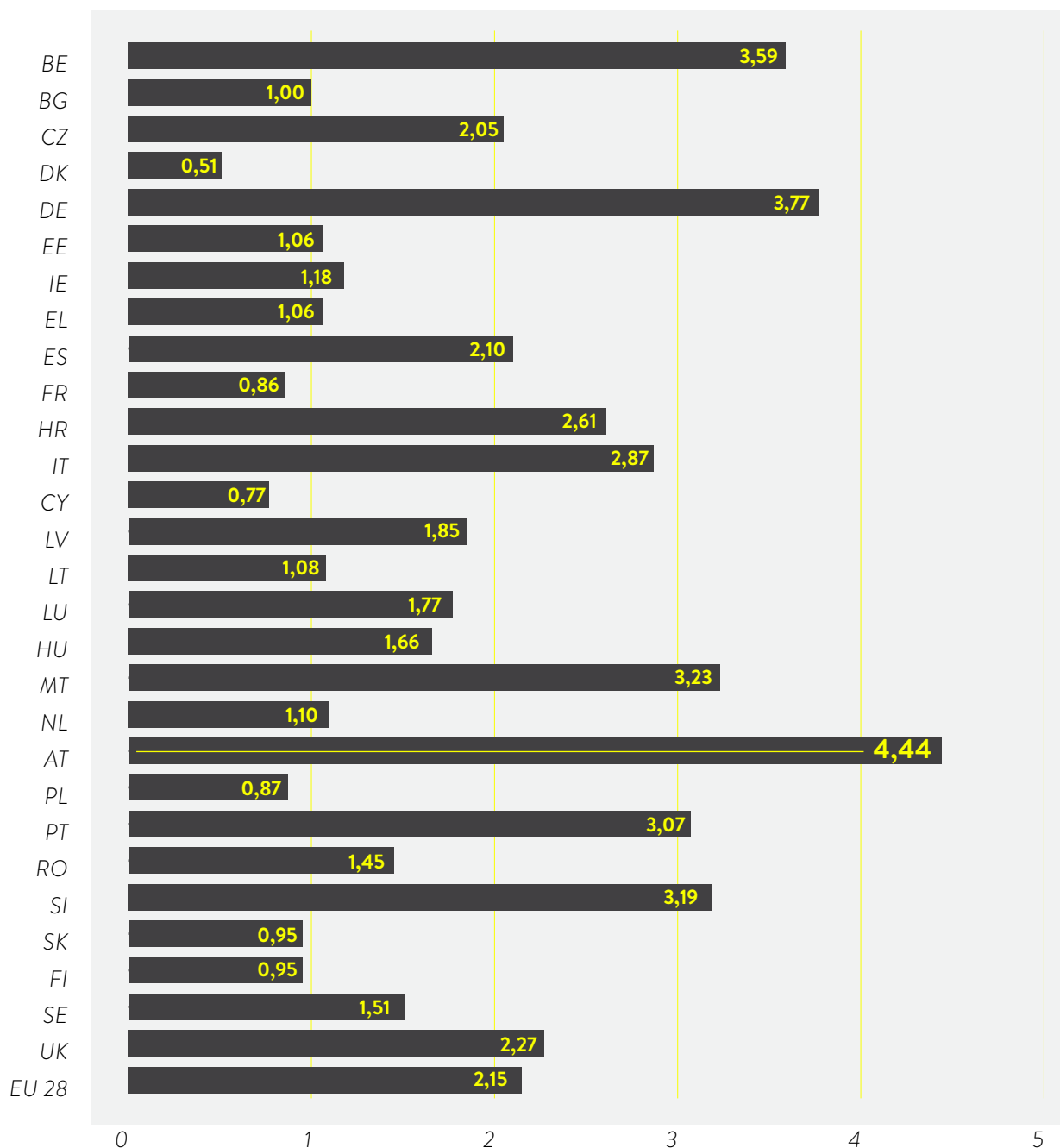
RO: only serious accidents before 2005.

ME: Data used from 2010 and onwards



7.2

Road accidents involving personal injury per one thousand population in EU countries, 2015



Source: EC

Notes:

The definition of an accident involving personal injury differs from country to country.

The number of inhabitants used in this table is the sum of the population at 1 January 2014 and at 1 January 2015 divided by two.



7.3

Road fatalities in EU countries, 2005-2015

	2005	2010	2011	2012	2013	2014	2015	evolution % 14/15	evolution % 05/15	
BE	1 089	840	862	770	723	727	732	0,7	-32,8	BE
BG	957	776	657	601	601	661	708	7,1	-26,0	BG
CZ	1 286	802	772	742	655	688	734	6,7	-42,9	CZ
DK	331	255	220	167	191	182	178	-2,2	-46,2	DK
DE	5 361	3 648	4 009	3 600	3 339	3 377	3 459	2,4	-35,5	DE
EE	170	79	101	87	81	78	67	-14,1	-60,6	EE
IE	400	212	186	162	188	193	166	-14,0	-58,5	IE
EL	1 658	1 258	1 141	988	879	795	805	1,3	-51,4	EL
ES	4 442	2 479	2 060	1 903	1 680	1 688	1 689	0,1	-62,0	ES
FR	5 318	3 992	3 963	3 653	3 268	3 384	3 461	2,3	-34,9	FR
HR	597	426	418	390	368	308	348	13,0	-41,7	HR
IT	5 818	4 114	3 860	3 753	3 401	3 381	3 428	1,4	-41,1	IT
CY	102	60	71	51	44	45	57	26,7	-44,1	CY
LV	442	218	179	177	179	212	188	-11,3	-57,5	LV
LT	773	299	296	302	256	267	242	-9,4	-68,7	LT
LU	47	32	33	34	45	35	36	2,9	-23,4	LU
HU	1 278	740	638	606	591	626	644	2,9	-49,6	HU
MT	17	13	16	9	17	10	11	10,0	-35,3	MT
NL	750	537	546	562	476	477	531	11,3	-29,2	NL
AT	768	552	523	531	455	430	479	11,4	-37,6	AT
PL	5 444	3 908	4 189	3 571	3 357	3 202	2 938	-8,2	-46,0	PL
PT	1 247	937	891	718	637	638	593	-7,1	-52,4	PT
RO	2 629	2 377	2 018	2 042	1 861	1 818	1 893	4,1	-28,0	RO
SI	258	138	141	130	125	108	120	11,1	-53,5	SI
SK	606	353	328	352	251	291	274	-5,8	-54,8	SK
FI	379	272	292	255	258	229	266	16,2	-29,8	FI
SE	440	266	319	285	260	270	259	-4,1	-41,1	SE
UK	3 336	1 905	1 960	1 802	1 770	1 854	1 806	-2,6	-45,9	UK
EU-28	45 943	31 488	30 689	28 243	25 956	25 974	26 112	0,5	-43,2	EU-28

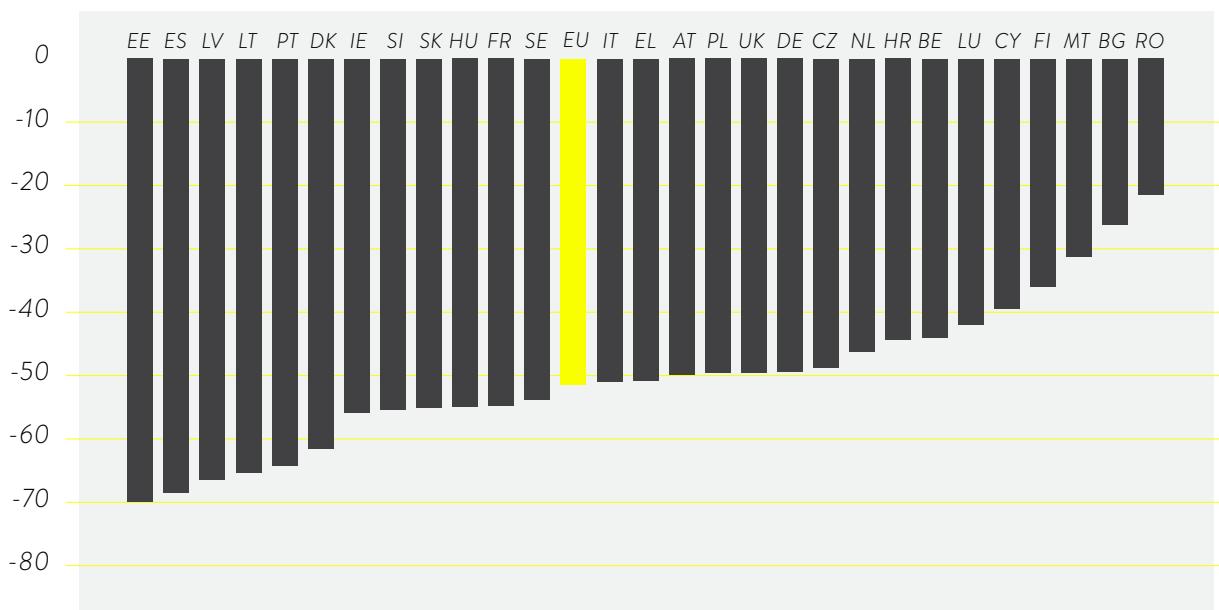
Source: CARE database (DG Mobility and Transport)

Notes: Persons killed are all persons deceased within 30 days of the accident. Corrective factors have been applied to the figures which did not follow this definition.



7.4

Percentage change in road fatalities between 2002 and 2015 (%)



Source: CARE

7.5

Road fatalities country rankings, 2014

per million inhabitants		per 10 billion pkm		per million passenger cars	
MT	23	SE	23	MT	38
SE	28	UK	28	SE	59
NL	28	NL	32	NL	60
UK	29	DK	34	UK	61
DK	32	FI	34	FI	73
ES	36	DE	36	DE	77
DE	42	MT	40	ES	77
IE	42	FR	41	DK	79
FI	42	IE	41	IT	91
AT	50	SI	42	AT	92
FR	51	LU	48	CY	94
EU 28	51	IT	49	LU	95
SI	52	ES	51	IE	99
CY	53	EU 28	53	SI	101
SK	54	AT	55	EU 28	104
IT	56	EE	64	FR	107
EE	59	BE	66	EE	122
PT	61	CY	73	BE	131
LU	63	PT	75	PT	142
HU	63	EL	77	CZ	144
BE	65	CZ	98	SK	152
CZ	65	SK	104	EL	155
HR	73	LT	106	PL	163
EL	73	HR	114	LT	177
PL	84	HU	116	HU	204
LT	91	BG	120	HR	211
RO	91	PL	142	BG	223
BG	92	LV	161	LV	328
LV	106	RO	205	RO	379

Source: EC

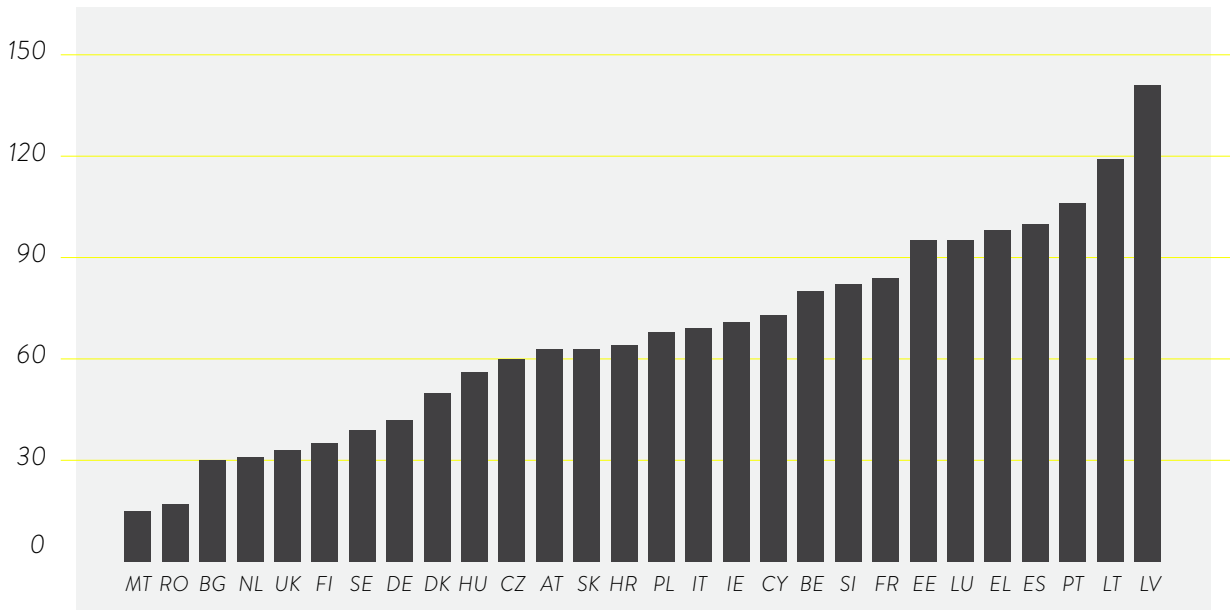
Notes:

Fatalities: all fatalities on the road: car drivers and passengers, bus and coach occupants, powered two-wheelers' riders and passengers, cyclists, pedestrians, commercial vehicle drivers, etc. indicated in table 2.7.1 for 2014.



7.6

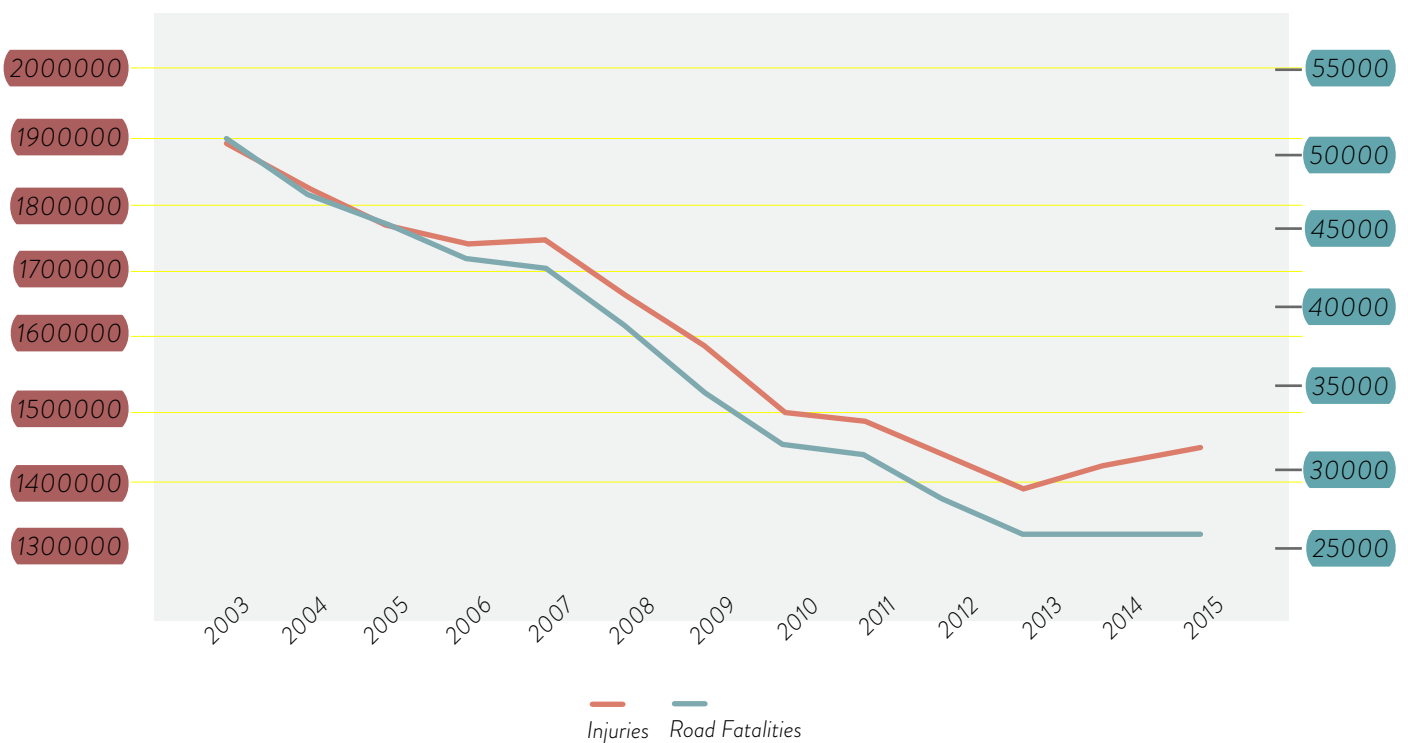
Lives saved per million inhabitants in EU countries in 2015 (compared to 2001)



Source: CARE

7.7

Evolution of road fatalities and injured in EU 28, 2003-2015

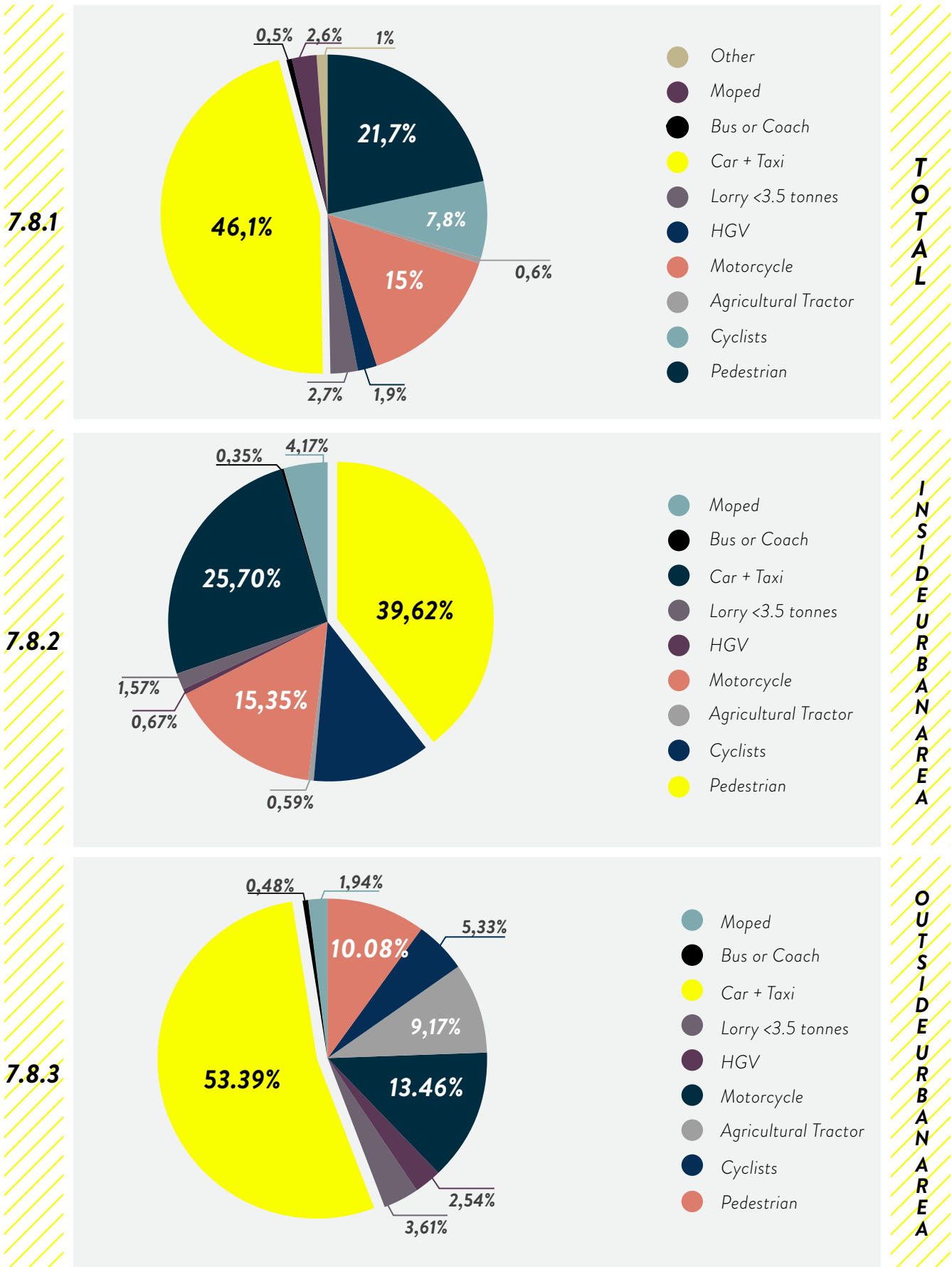


Source: CARE



7.8

Road fatalities by mode of transport in EU 28, 2015

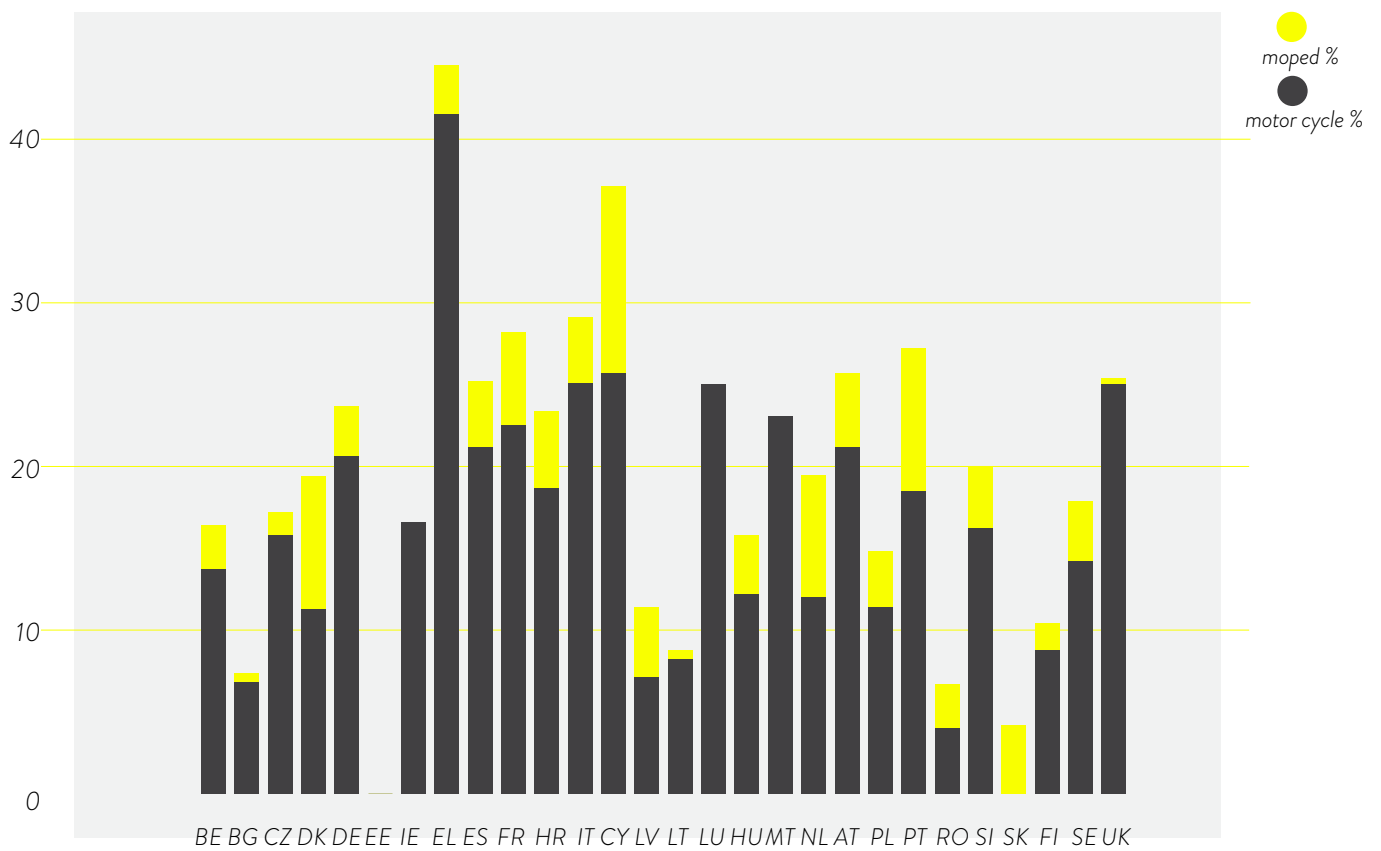


Source: CARE (EU road accidents database) or national publications



7.9

PTWs fatalities in selected EU countries, 2015 (%)



Source: CARE database (DG Mobility and Transport), national sources.

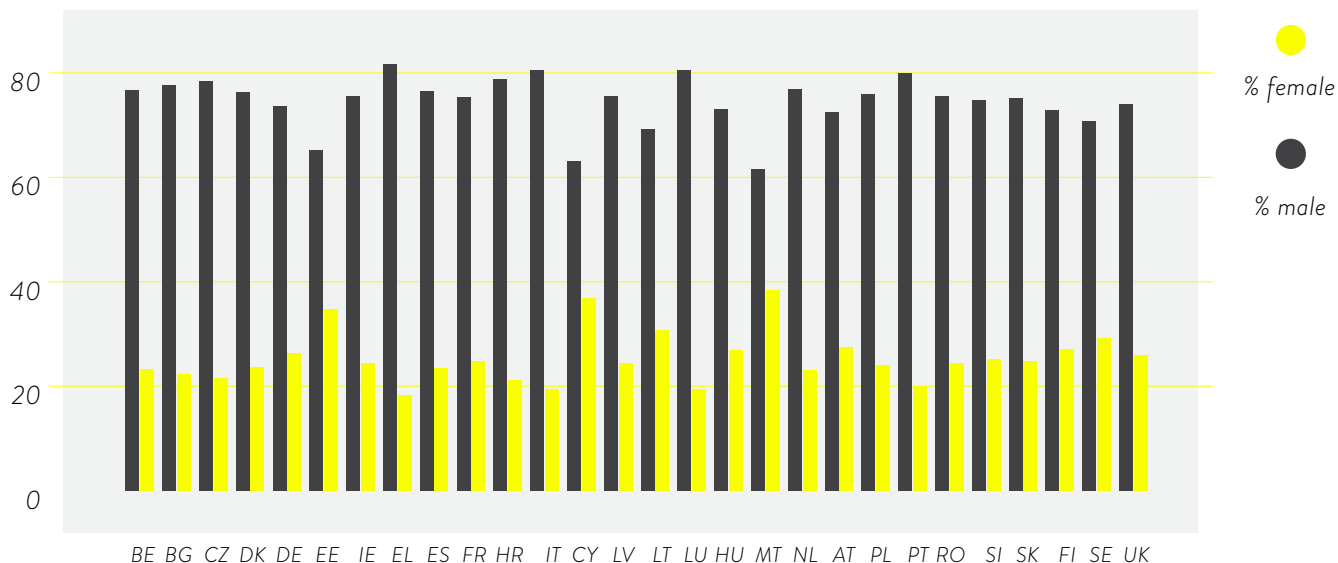
Notes:

Persons deceased within 30 days of their accident.



7.10

Road fatalities by gender in EU countries, 2015 (%)

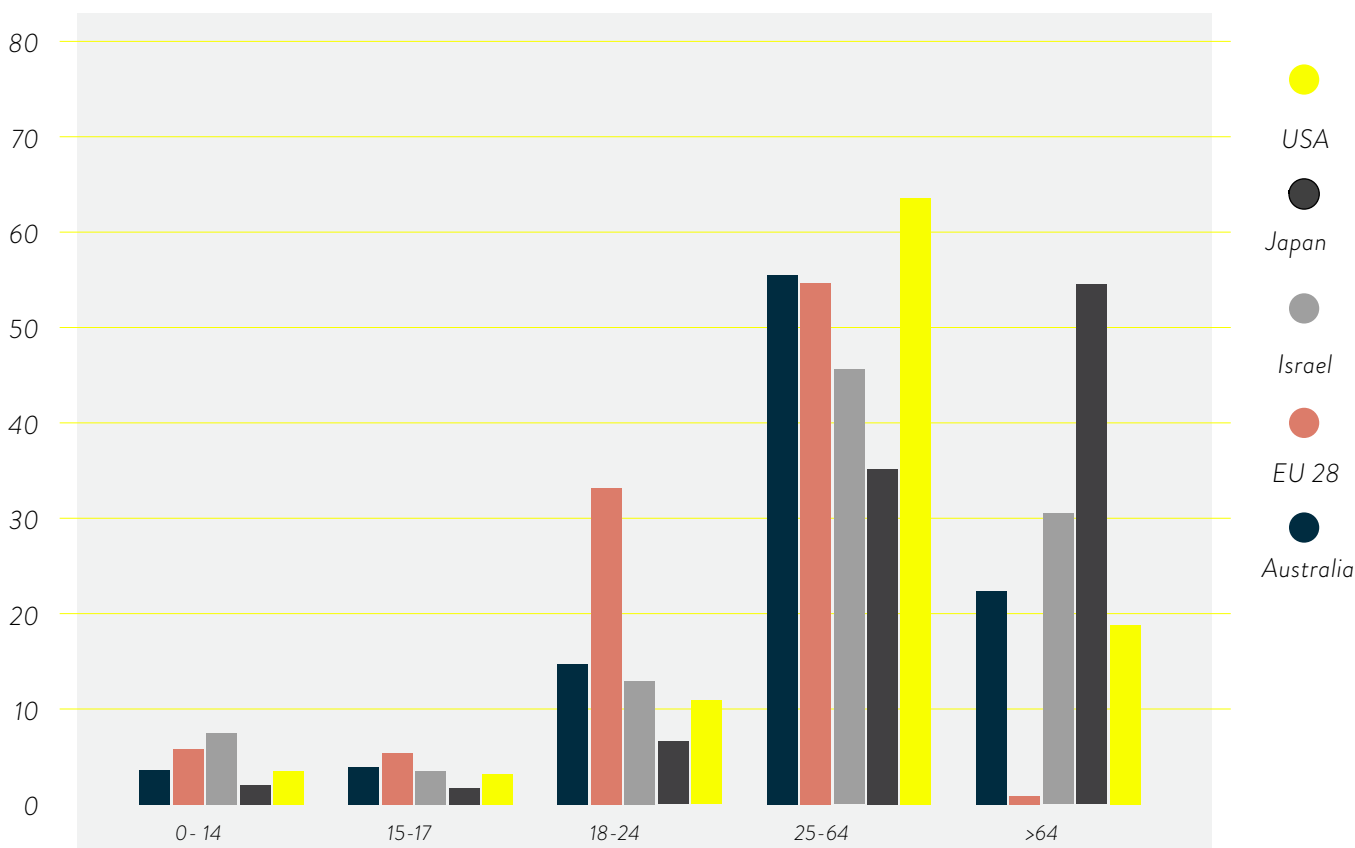


Source: CARE

BE, DK, EL, PL, SE & UK 2014 figures
 BG 2009 figures
 MT, SK 2010 figures
 IE 2013 figures

7.11

Road fatalities by age group in EU 28 and selected countries, 2015 (%)



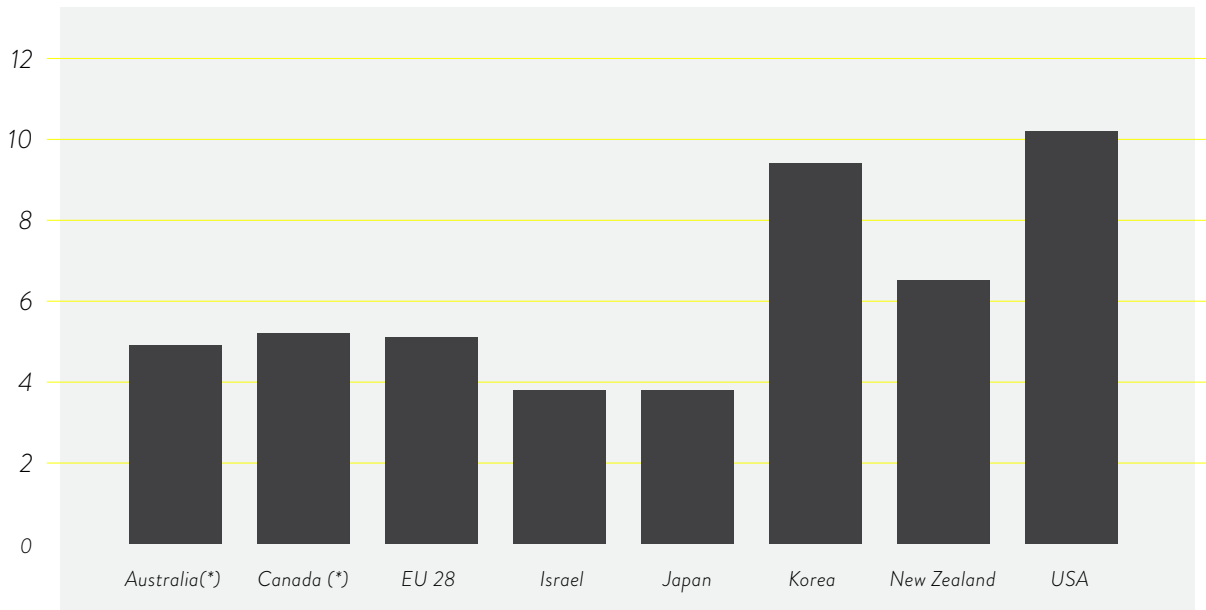
Source: IRTAD, CARE, OECD

Data and figures, EU: 2015, Australia: 2015, Israel: 2015, USA:2014, Japan:2014 figures



7.12

Road Fatalities (per 100.000 population) in EU 28 and selected countries, 2014



Source: OECD

* Figures & Data, USA: 2014, Australia: 2014, Canada:2014, Israel:2015, Japan:2014, Korea: 2014, New Zealand:2014

7.13

Speed limits, blood alcohol limits by country

	Speed limit, cars (in general), km/h:			Blood alcohol limit, grams of alcohol in 1 litre of blood
	Built-up areas	Outside built-up areas	Motorways	
BE	30-50	90-120	120	0,5
BG	50	90	130	0,5
CZ	50	90	130	0,0
DK	50	80	130	0,5
DE	50	100	(130)	0,5
EE	50	90-110	-	0,2
IE	50	80-100	120	0,5
EL	50	90-110	130	0,5
ES	50	90-100	120	0,5
FR	50	80-110	110-130	0,5
HR	50	90-110	130	0,5
IT	50	90-110	130	0,5
CY	50	80	100	0,5
LV	50	90	110	0,5
LT	50	70-90	110-130	0,4
LU	50	90	110-130	0,5
HU	50	90-110	130	0,0
MT	50	80	-	0,8
NL	50	80-100	130	0,5
AT	50	100	130	0,5
PL	50-60	90-120	140	0,2
PT	50	90-100	120	0,5
RO	50	90-100	130	0,0
SI	30-50	90-100	130	0,5
SK	50	90	130	0
FI	40-50	80-100	100-120	0,5
SE	50	70	110	0,2
UK	32-48	96-112	112	0,8



	Speed limit, cars (in general), km/h:			Blood alcohol limit, grams of alcohol in 1 litre of blood
	Built-up areas	Outside built-up areas	Motorways	
AL	40	80-90	110	0,5
ME	50	80-100	130	0,5
MK	60	80-100	120	0,5
RS	50	80-100	120	0,3
TR	50	90-110	120	0,5
IS	50	80-90	-	0,5
NO	50	80	90-100	0,2
CH	50	80-100	120	0,5

Source: National sources, International Transport Forum, EC Road Safety website, TIPSOL, World Health Organization

Notes :

UK, IE, CY and MT drive on the left hand side of the road, the other Member States drive on the right hand side (Sweden since 3 September 1967). Signs in UK are in miles per hour.

The higher figure shown in the "outside built-up areas" column generally refers to the speed limit on dual carriageways that are not motorways.

Speed limits:

DE: Motorways: No general speed limit, recommended speed limit is 130 km/h (more than half the network has a speed limit of 120 km/h or less).

FR: Dual carriageways 110 km/h. If the road is wet : motorways 110 km/h, dual carriageways 90 km/h, other roads outside built-up areas 80 km/h.

IT: 150 km/h on certain 2x3 lane motorways if the operator so requests.

FI: in winter 100 km/h on motorways, 80 km/h on other roads.

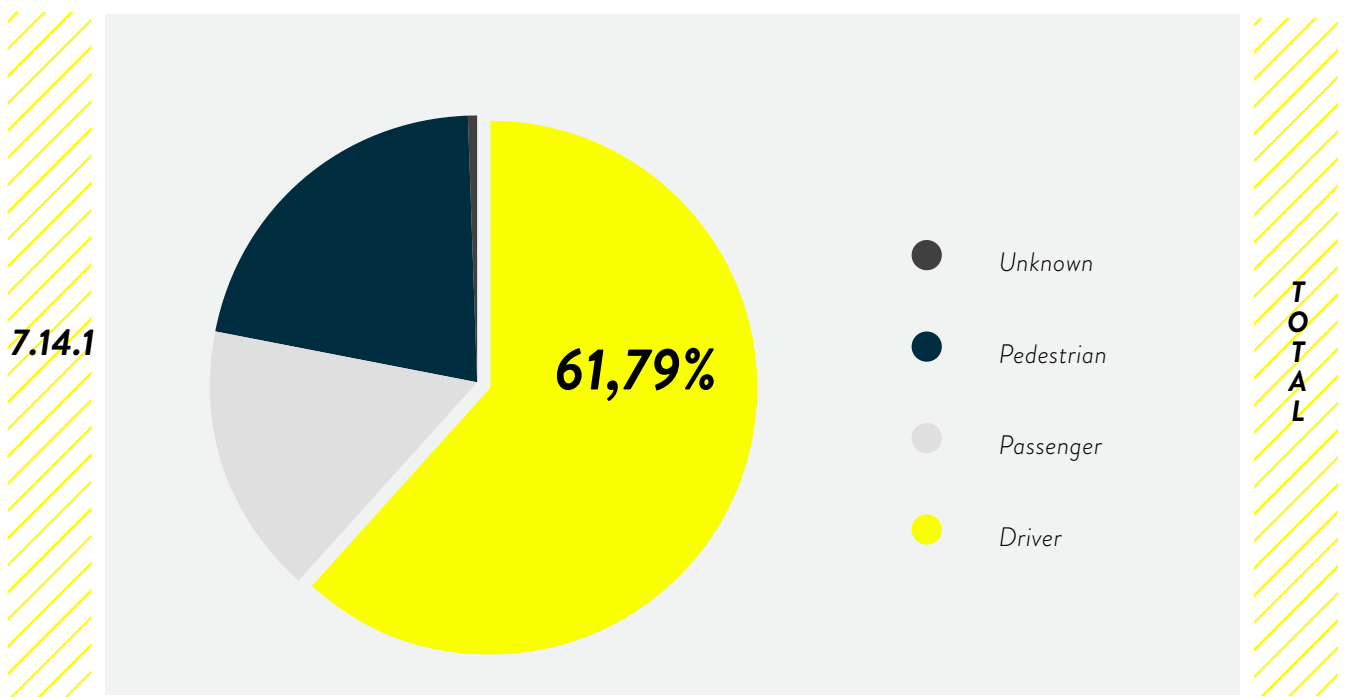
PL: Built-up areas: 50 km/h from 05h00 to 23h00, 60 km/h from 23h00 to 05h00.

Blood alcohol limits:

In many countries, special (more restrictive) rules apply to novice (i.e. new, unexperienced) and professional drivers

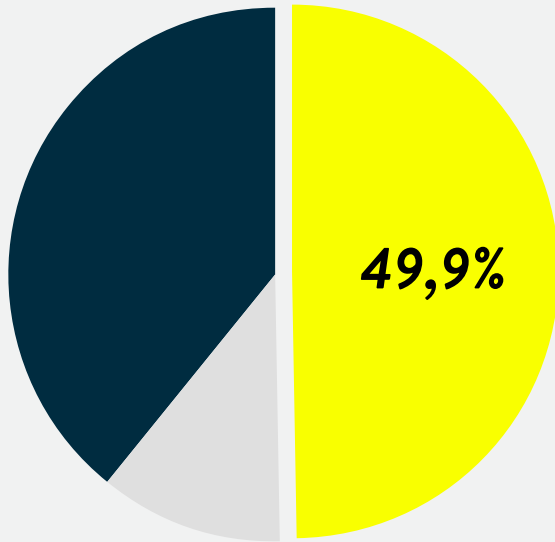
7.14




Fatalities at 30 days by road user type in EU countries





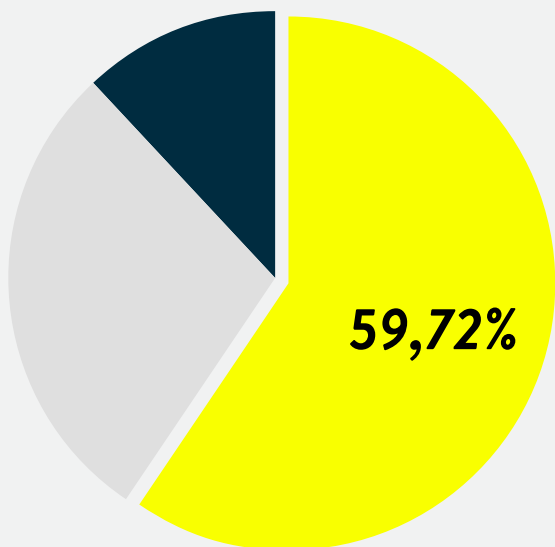
7.14.2






-  *Pedestrian*
-  *Passenger*
-  *Driver*

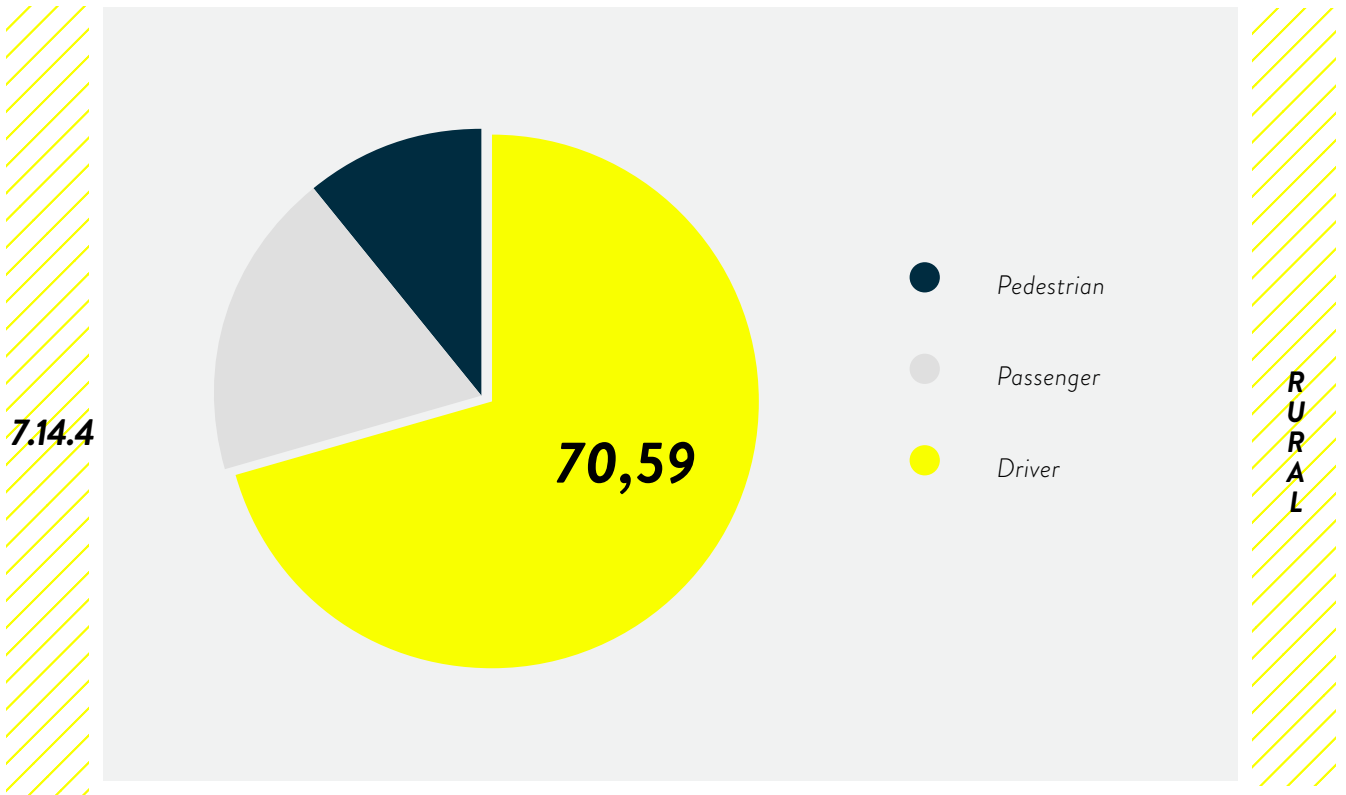
U
R
B
A
N

7.14.3



-  *Pedestrian*
-  *Passenger*
-  *Driver*

M
O
T
O
R
W
A
Y



Source: CARE



TAXATION



8.1

Taxes on acquisition of motor vehicles in EU countries, January 2017



	VAT	Registration Tax	
AT	20%	Based on CO2 emissions (max 32% + bonus/malus)	AT
BE	21%	Based on cylinder capacity and age (Brussels-Capital) Fuel, age, Euro standards and CO2 emissions (Flanders) CO2 emissions (Wallonia)	BE
BG	20%	Based on purchase price + BGN 25 (plate) + BGN 160 (eco tax)	BG
HR	25%	Based on selling price and CO2 emissions	HR
CY	19%	Based on CO2 emissions and cylinder capacity	CY
CZ	21%	Based on vehicle type and Euro standards	CZ
DK	25%	Based on traffic safety equipment and evaluation (105% up to DKK106,600 + 150% on the remainder)	DK
EE	20%	€62 (registration label) + €130 (registration card)	EE
FI	24%	Based on price and CO2 emissions (min 3.8%, max 50%)	FI
FR	20%	Bonus/malus system based on CO2 emissions	FR
DE	19%	Based on purchase price + €26.30 (registration fees)	DE
EL	24%	Based on net retail price and CO2 emissions	EL
HU	27%	Based on age and cylinder capacity	HU
IE	23%	Based on CO2 emissions, from 14 to 36%	IE
IT	22%	Based on kilowatt, weight and seats	IT
LV	21%	Based on weight and fuel type	LV
LT	21%	Based on vehicle type	LT
LU	17%	Based on purchase price + registration fees (€24 or €50)	LU
MT	18%	Based on CO2 emissions, length and vehicle value	MT
NL	21%	Based on CO2 emissions and fuel efficiency	NL
PL	23%	Based on cylinder capacity (3.1-18.6%)	PL
PT	23%	Based on cylinder capacity and CO2 emissions	PT
RO	19%	Based on purchase price + €9 (registration fees)	RO
SK	20%	Based on engine power (kW) and age	SK
SI	22%	Based on CO2 emissions and purchase price	SI
ES	21%	Based on CO2 emissions, from 4.75% (121-159g/km) to 14.75% (200g/km or more)	ES
SE	25%	Based on purchase price and vehicle type	SE
UK	20%	Based on invoice value or resale price	UK

Source: ACEA

8.2

Fiscal income from motor vehicles in EU selected countries, 2015 (EUR billion)

	AT € bn 2014	BE € bn 2015	DK DKK bn 2014	DE € bn 2012	ES € bn 2015	FI € bn 2015	FR € bn 2014	EL € bn 2013	IE € bn 2015	IT € bn 2015	NL € bn 2015	PT € bn 2016	SE SEK bn 2014	UK £bn 2016**
VAT on vehicles, servicing/ repair parts, tyres	2,68	6,23	NA	26,32	-	1,50	13,74	0,16	0,60	16,10	1,52	3,45	24,50	12,50
Fuels & Lubricants	5,34	6,93	16,61	39,30	18,72	4,07	37,10	3,77	3,03	36,84	7,87	3,26	48,20	27,90
Sales & registration taxes	0,52	0,41	15,87	-	3,79	0,88	2,07	0,05	0,68	1,52	1,46	0,67	-	-
Annual ownership taxes	2,10	1,60	10,59	8,99	2,64	0,93	1,00	1,30	1,12	5,95	3,97	0,55	14,30	5,80
Driving license fees	-	0,01	-	0,01	0,06	-	-	-	-	-	0,25	-	-	-
Insurance taxes	0,32	0,96	1,58	3,79	-	0,39	4,59	-	-	4,00	0,948	-	2,80	-
Tolls	1,69	-	0,38	-	-	-	11,03	n.a.	-	1,95	-	0,32	1,80	-
Customs duties	-	-	-	0,54	-	-	-	-	-	-	-	0,05	-	-
Other taxes	0,31	0,66	-	1,01	0,66	-	1,58	0,06	-	5,50	2,39	0,20	4,50	1,50
TOTAL (National currencies)	12,96	16,80	45,02	79,96	25,86	7,77	71,11	5,34	5,44	71,86	18,41	8,50	96,10	47,70
Total in EURO	13,00	16,80	6,10	80,00	25,90	7,80	71,10	5,34	5,40	71,90	18,40	8,50	10	55,9

Total = EUR 395,7bn

Source: ACEA

* latest available data; only countries for which sourced data is available are listed

** 2012 estimates for income from VAT and other taxes



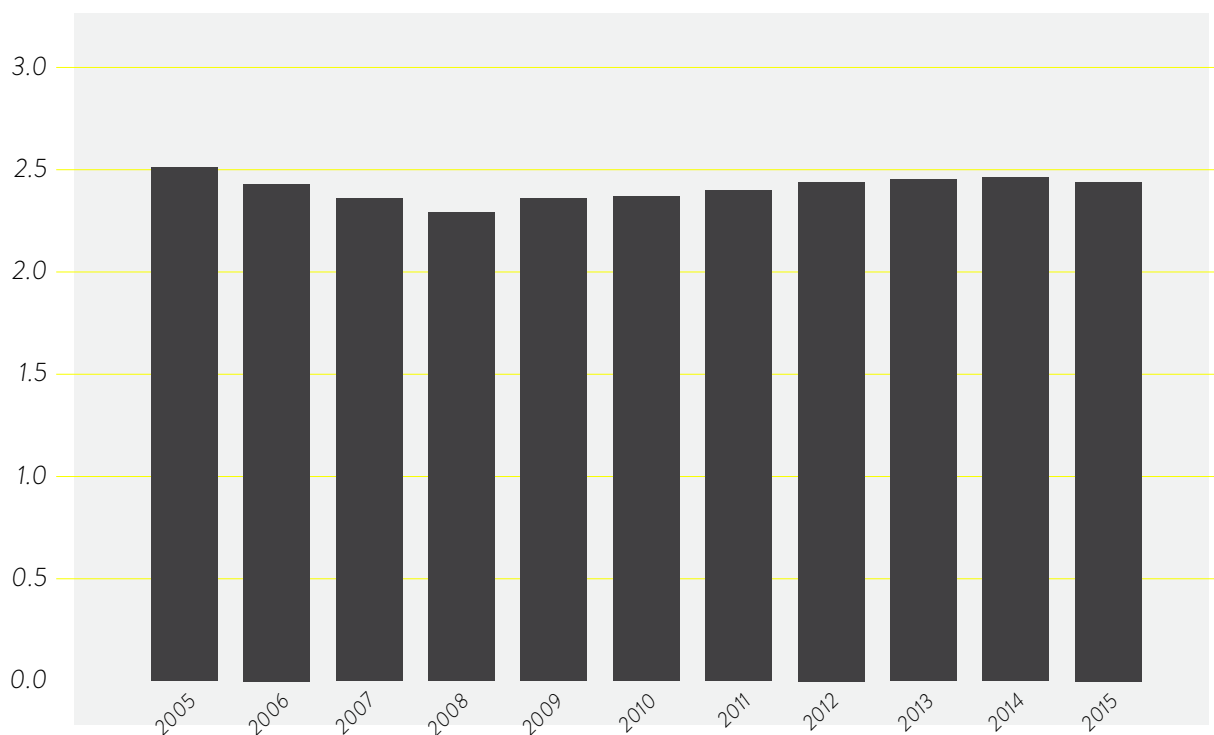
8.3

Revenues from environmentally related taxes in % of GDP

8.3.1 Environmental tax revenues by % of GDP in EU countries, 2015

Country code	2015
BE	2,11
BG	2,9
CZ	2,09
DK	3,99
DE	1,92
EE	2,75
IE	1,92
EL	3,73
ES	1,89
FR	2,18
HR	4,11
IT	3,39
CY	2,98
LV	2,7
LT	1,81
LU	1,85
HU	2,65
MT	2,9
NL	3,39
AT	2,41
PL	2,65
PT	2,43
RO	2,43
SI	3,92
SK	1,77
FI	2,92
SE	2,22
UK	2,47
EU 28	2,44

8.3.2 Evolution of environmental tax revenues by % of GDP in EU 28, 2005-2015



Source: OECD



8.4

CO2 based motor vehicle taxes in EU countries, 2015

Country	CO2 based motor vehicle taxes in the EU in 2015
Austria	Fuel consumption tax (CO2) levied on the first registration of the car
Belgium	CO2-based registration tax (Wallonia). Registration tax based on CO2 emissions, Euro standards, fuel consumption and age (Flanders). CO2-based company car tax.
Cyprus	Registration tax and annual circulation tax based on CO2 emission
Germany	CO2-based annual circulation tax.
Denmark	annual circulation tax based on fuel consumption. Registration tax (based on price) linked to fuel consumption
Spain	CO2-based registration tax.
Finland	Registration tax and annual circulation tax based on CO2 emission
France	Registration tax, annual circulation tax and company car tax based on CO2 emissions.
Greece	CO2-based annual circulation tax
Croatia	Registration tax based on price, CO2 emissions and fuel consumption.
Ireland	Registration tax and annual circulation tax based on CO2 emissions.
Luxembourg	CO2-based annual circulation tax.
Latvia	CO2-based registration tax.
Malta	Registration tax based on price, CO2 emissions and vehicle length. Annual circulation tax based on CO2 emissions and age
Netherlands	CO2-based registration tax
Portugal	Registration tax based on cubic capacity and CO2 emissions. Annual circulation tax based on cubic capacity, CO2 emissions and age
Romania	Registration tax based on CO2 emissions, cubic capacity, exhaust emissions and age.
Sweden	Annual circulation tax based on CO2 emissions and exhaust emissions
Slovenia	CO2-based registration tax.
United Kingdom	Annual circulation tax and company car tax based on CO2 emissions

8.5

Excise duties on fuels in EU countries at 1-1-2015 & 1-1-2017 (EUR/1000 litres)

	1 January 2015		1 January 2017		% change 2015-2017	
	Unleaded Petrol	Diesel	Unleaded Petrol	Diesel	Unleaded Petrol	Diesel
AT	515	425	482	397	-6,4%	-6,6%
BE	615	443	623	513	1,3%	15,8%
DE	670	486	655	470	-2,2%	-3,3%
DK	608	414	564	363	-7,2%	-12,3%
EL	416	383	700	410	68,3%	7,0%
ES	425	331	461	367	8,5%	10,9%
FI	681	506	703	530	3,2%	4,7%
FR	624	468	651	531	4,3%	13,5%
HR	479	374	519	412		
IE	587	479	588	479	0,2%	0,0%
IT	728	617	728	617	0,0%	0,0%
LU	465	338	462	335	-0,6%	-0,9%
NL	759	478	772	486	1,7%	1,7%
PT	617	402	671	446	8,8%	10,9%
SE	646	602	405	260	-37,3%	-56,8%
UK	674	674	680	680	0,9%	0,9%
BG	363	330	363	330	0,0%	0,0%
CY	479	450	479	450	0,0%	0,0%
CZ	469	398	475	405	1,3%	1,8%
EE	423	393	465	448	9,9%	14,0%
HU	397	384	388	357	-2,3%	-7,0%
LT	434	330	434	330	0,0%	0,0%
LV	411	333	436	341	6,1%	2,4%
MT	519	422	549	472	5,8%	11,8%
PL	349	345	395	345	13,2%	0,0%
RO	461	430	368	337	-20,2%	-21,6%
SI	596	495	508	426	-14,8%	-13,9%
SK	551	386	515	368	-6,5%	-4,7%
EU 28 average	554	449	557	441	0,5%	-1,7%

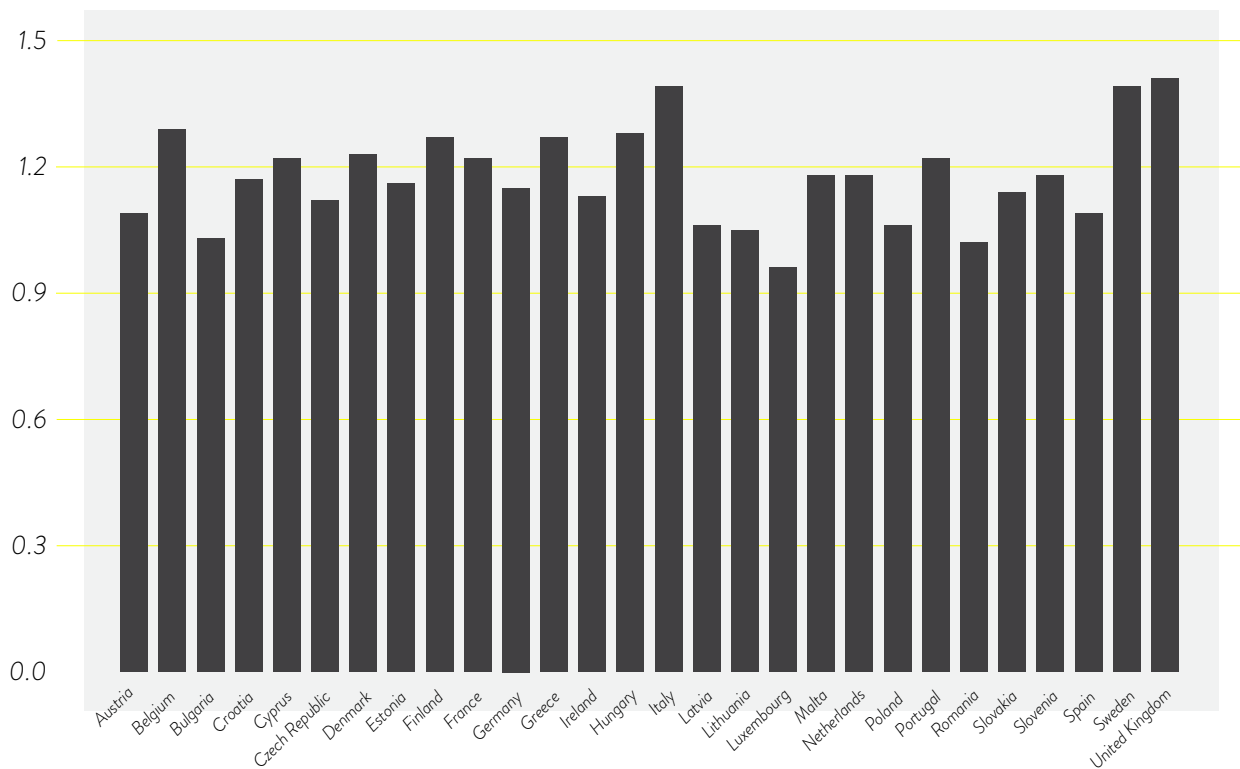
Source: ACEA



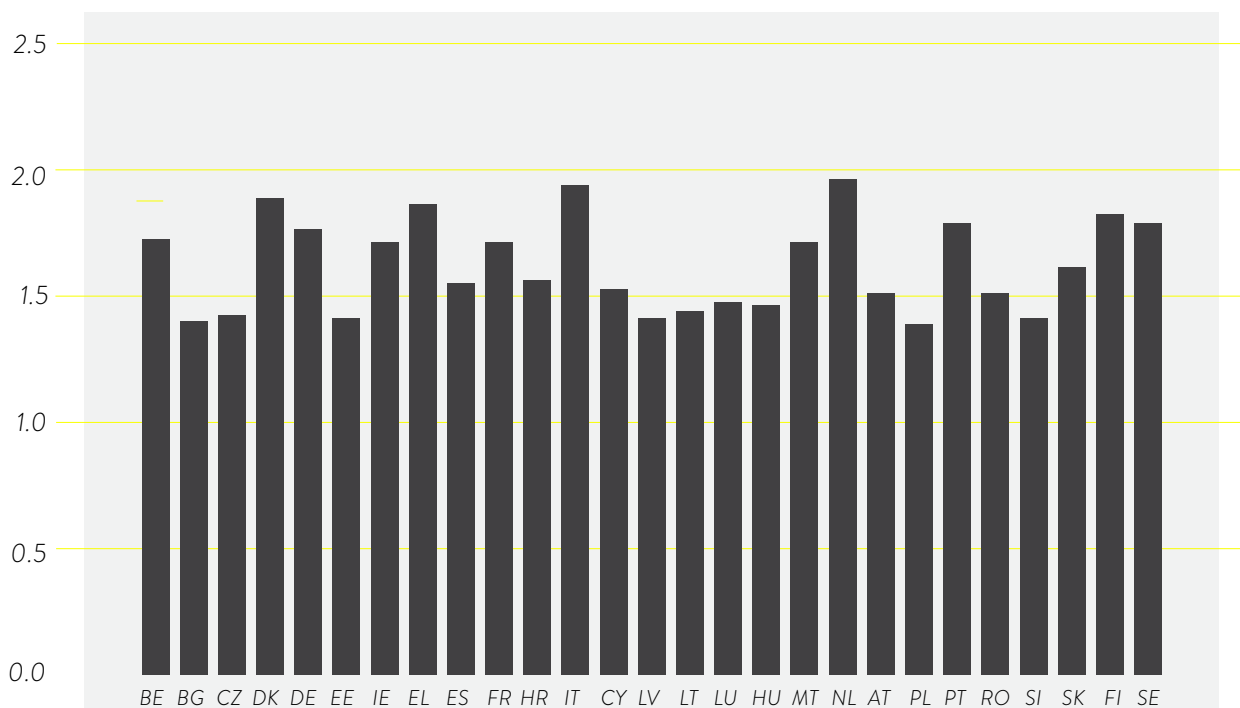
8.6

At the pump prices of petroleum in EU 28, first quarter of 2017* (€/litre)

8.6.1 At the pump prices of automotive diesel in EU countries, 2017 (€/litre)



8.6.2 At the pump prices of premium unleaded gasoline 95 in EU countries, 2017 (€/litre)



Source: DG ENER, Member States, *Average of the First 4 Months of 2012



8.7

Net charges per domestic haul by type in EU countries, 2012 (EUR/litre)

	Vehicle Taxes (EUR/domestic haul)	Fuel Taxes (EUR/do- mestic haul)
Belgium	3,1	55,2
Bulgaria	5	40,96
Czech Republic	7,3	56,32
Denmark	3,4	56,32
Germany	3,4	60,16
Estonia		49,2
Ireland	17,5	64
Greece	4,8	52,48
Spain	3,3	42,24
France	3,4	55,04
Croatia		
Italy	3	56,32
Cyprus		
Latvia	2	42,24
Lithuania	2,8	38,4
Luxembourg	2,6	38,4
Hungary	3,1	49,2
Malta		48,64
Netherlands	4,2	55,04
Austria	6,4	51,2
Poland	2,7	49,2
Portugal	3,4	47,36
Romania	4,4	39,68
Slovenia		46,08
Slovakia	9	47,36
Finland	4,5	60,16
Sweden	4	65,28
United Kingdom	8,3	92,16

Source: OECD

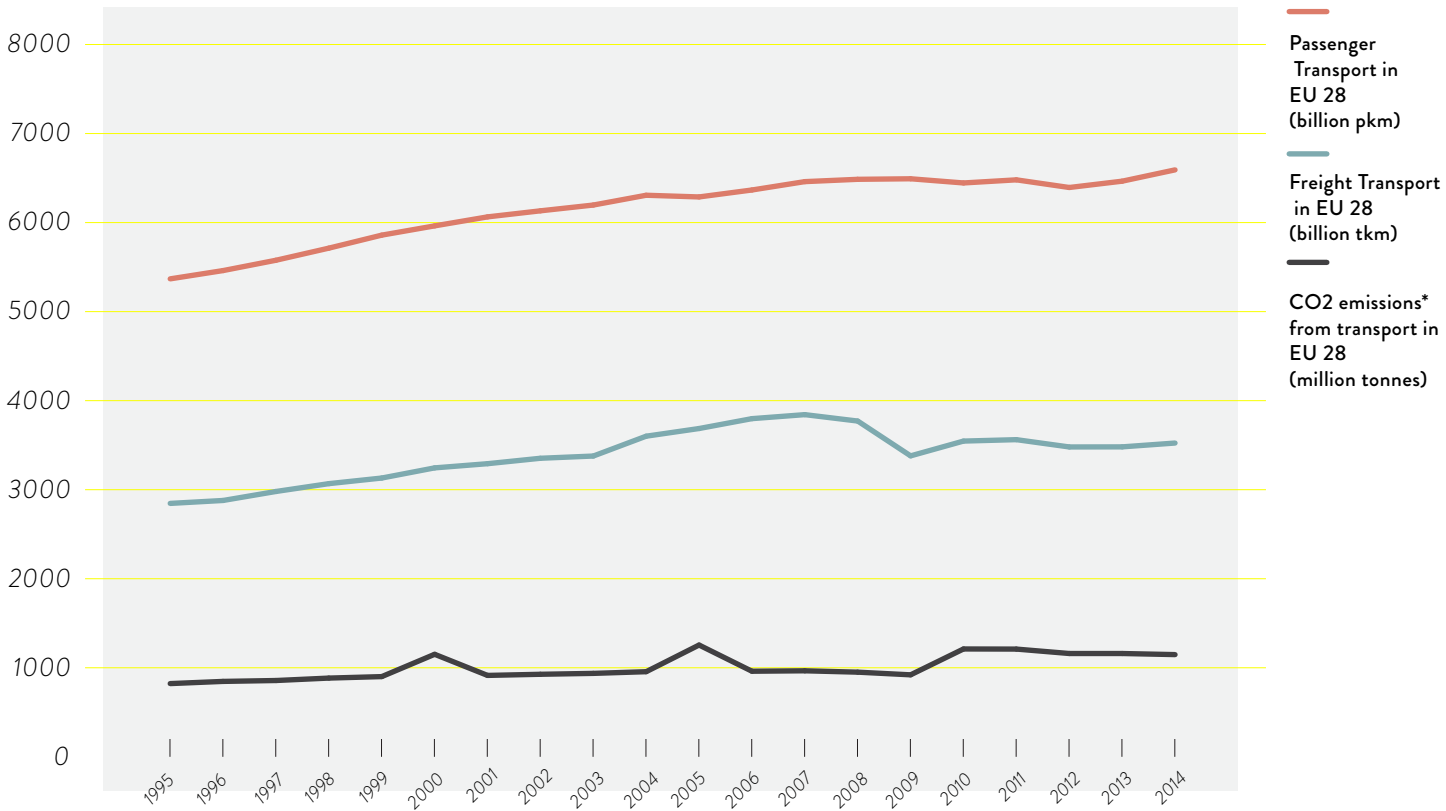


ENVIRONMENT



9.1

Comparison between freight & passenger transport evolution and CO2 emissions in EU 28, 1995-2014

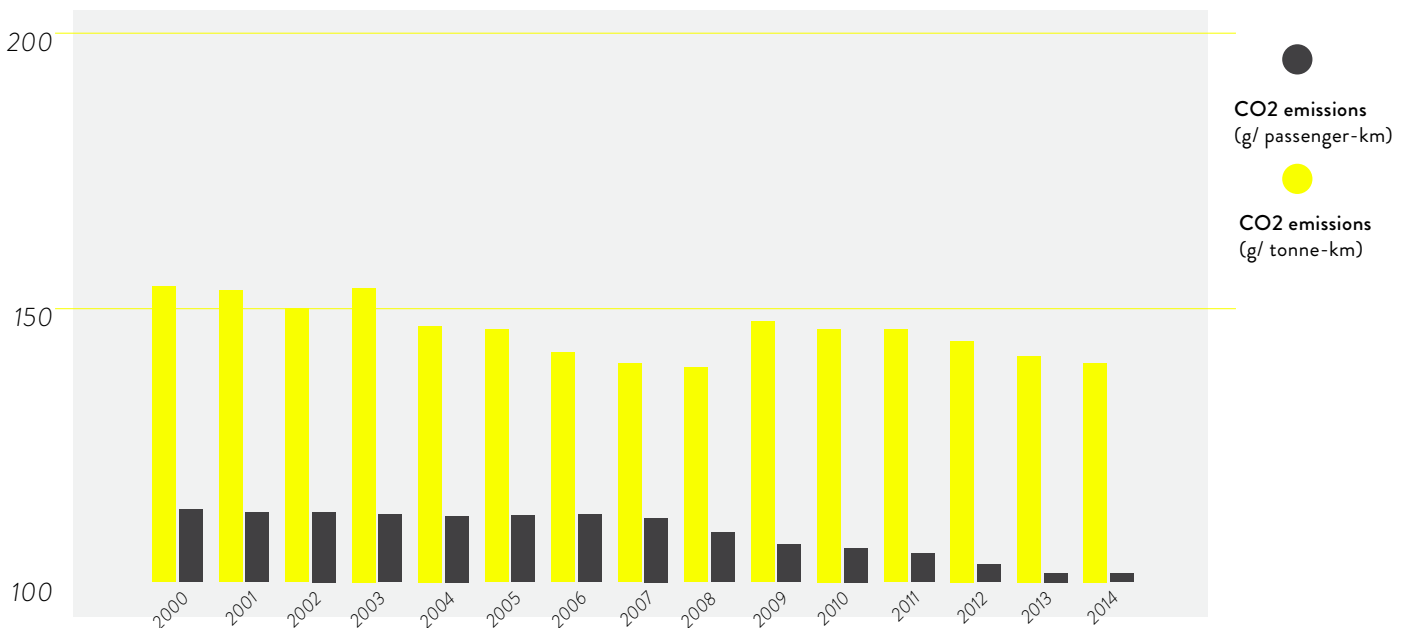


Source: EC

* Including International Bunkers (international traffic departing from the EU)

9.2

CO2 emissions from road transport in EU and selected countries, 2000-2014 (g/ tonne-km & g/ passenger-km)



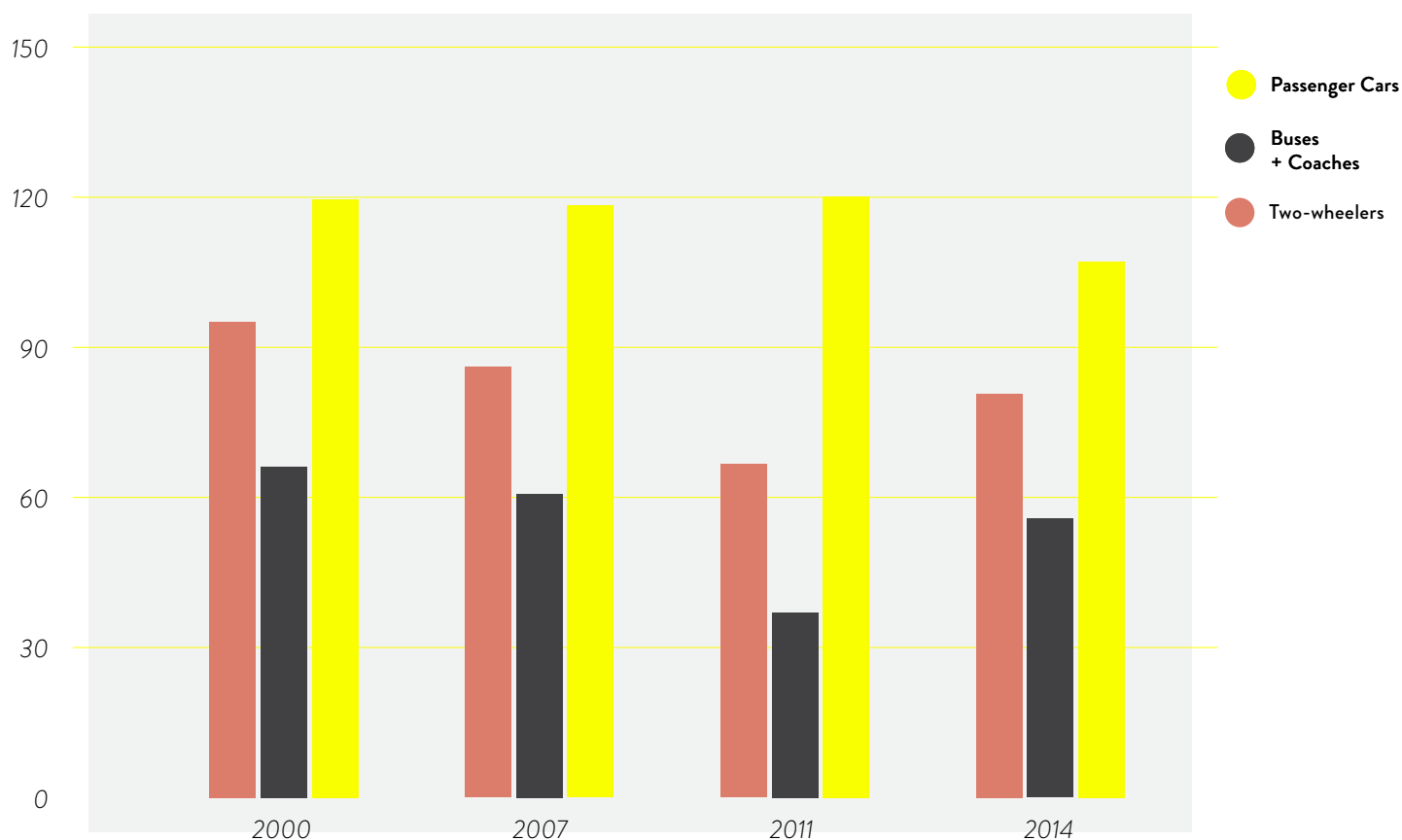
Source: EC

* Including International Bunkers (international traffic departing from the EU)



9.3

CO2 emissions from road passenger transport by mode in EU and selected countries (g/pkm)

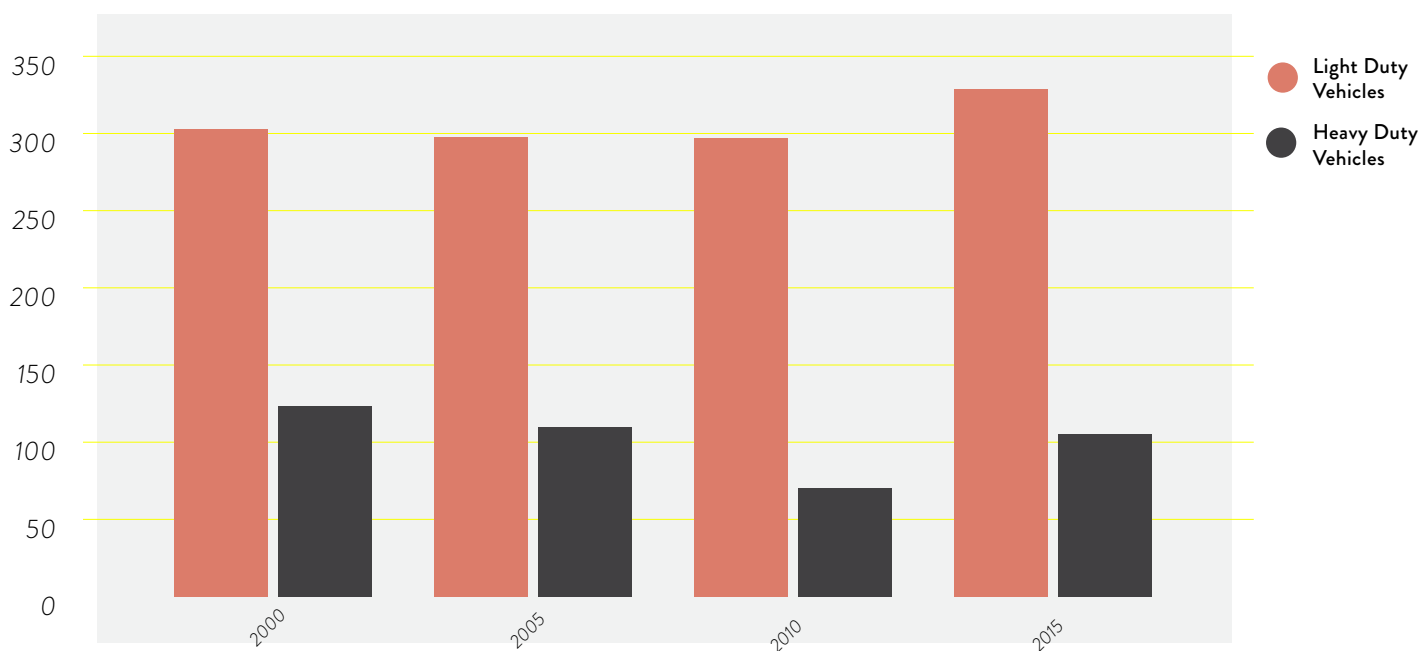


Source: EEA

(*) EU-28 plus Norway, Switzerland and Turkey

9.4

CO2 emissions from road freight transport in EU and selected countries (g/tkm)



Source: EEA

(*) EU-28 plus Norway, Switzerland and Turkey



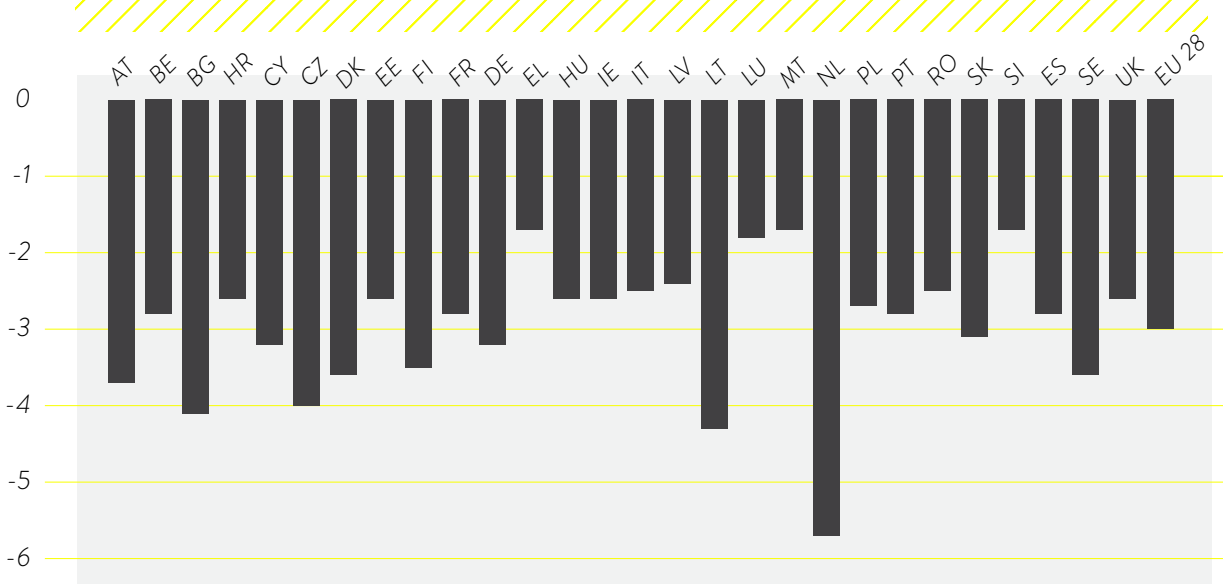
9.5

Average CO2 emissions per km from new passenger cars in EU, 2014-2015

9.5.1 Average CO2 emissions in EU countries, 2014 - 2015 (g CO2 / km)

	2014	2015	Evolution 2014-2015
AT	128,5	123,7	-4%
BE	121,3	117,9	-3%
BG	135,9	130,3	-4%
HR	115,8	112,8	-3%
CY	129,8	125,7	-3%
CZ	131,6	126,3	-4%
DK	110,2	106,2	-4%
EE	140,9	137,2	-3%
FI	127,4	123	-3%
FR	114,2	111	-3%
DE	132,5	128,3	-3%
EL	108,2	106,4	-2%
HU	133	129,6	-3%
IE	117,1	114,1	-3%
IT	118,1	115,2	-2%
LV	140,4	137,1	-2%
LT	135,8	130	-4%
LU	129,9	127,5	-2%
MT	115,3	113,3	-2%
NL	107,3	101,2	-6%
PL	132,9	129,3	-3%
PT	108,8	105,7	-3%
RO	128,2	125	-2%
SK	131,7	127,6	-3%
SI	121,3	119,2	-2%
ES	118,6	115,3	-3%
SE	131	126,3	-4%
UK	124,6	121,3	-3%
EU 28	124,7	120,9	-3%

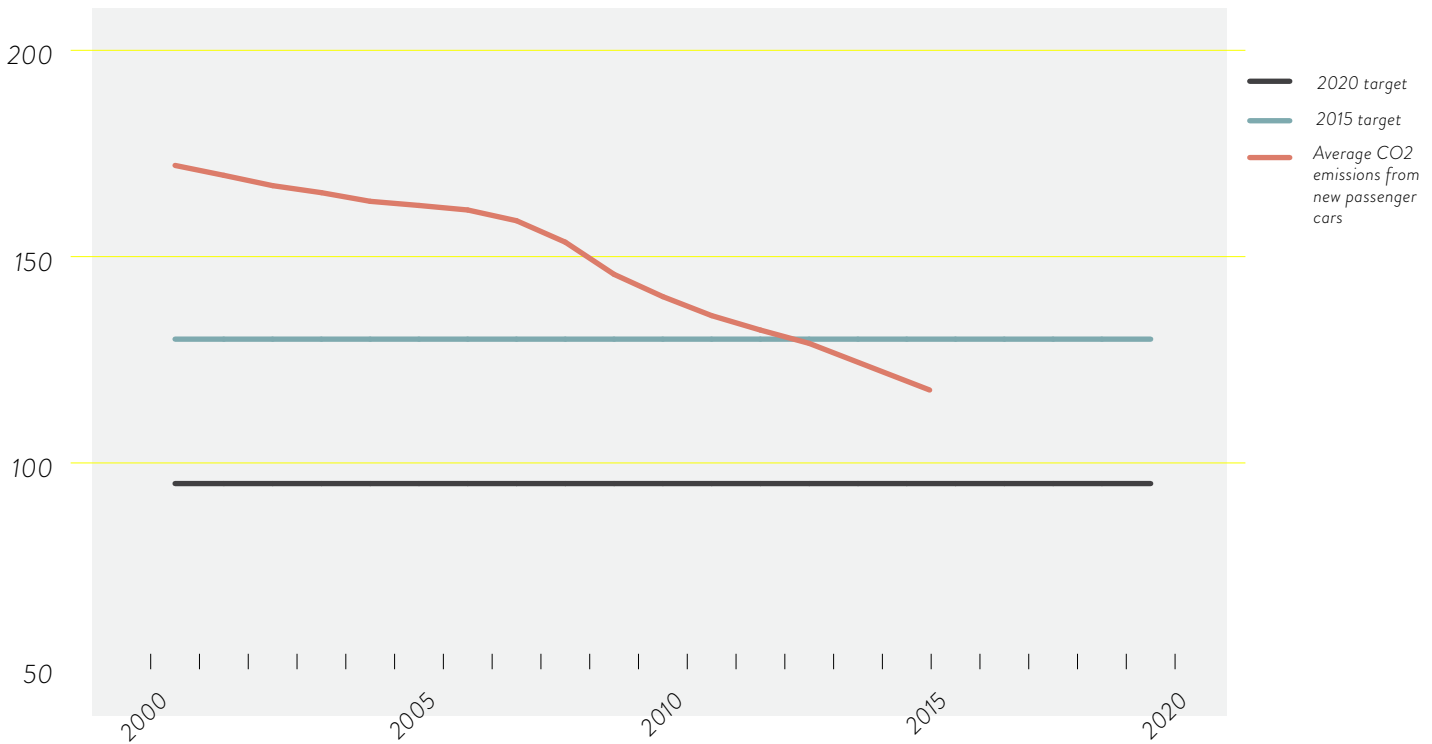
9.5.2 Evolution in CO2 emissions in EU countries, 2014 - 2015 (%)



Source: EC



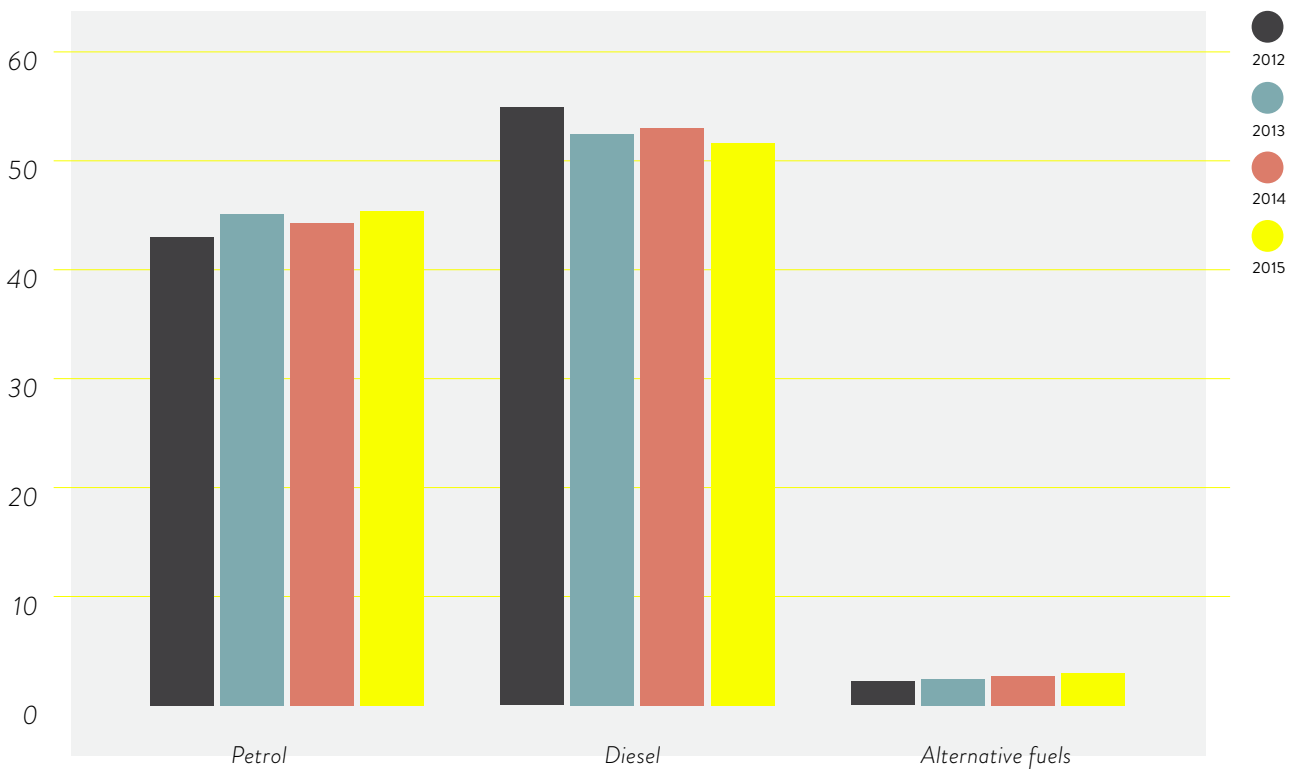
9.5.3 Evolution of CO₂ emissions from new passenger cars in EU (gCO₂/km)



Source: EEA

9.6

Fuel market share for new car registrations in EU, 2012-2015 (%)



Source: ACEA



9.7

Biodiesel production in EU countries, 2005-2014 (1000 tonnes)

	2005	2010	2011	2012	2013	2014	
BE	1	435	472	376	565	741	BE
BG	-	30	26	8	13	378	BG
CZ	133	181	154	117	210	502	CZ
DK	71	246	225	235	334	250	DK
DE	1669	2861	2800	2223	2516	4655	DE
EE	7	3	0	0	0	35	EE
IE	-	28*	26*	27*	24*	74*	IE
EL	3	33	78	219	220	702	EL
ES	73	325	604	400	618	4194	ES
FR	492	1910	1559	1964	1885	2445	FR
HR	-	-	-	11	33	55	HR
IT	396	706	479	349	387	1837	IT
CY	1	6	6	6	1	20	CY
LV	5	43	56	81	61	156	LV
LT	7	85	79	107	118	147	LT
LU	-	0	0	0	0	20	LU
HU	-	149	150	150	150	158	HU
MT	2	0	0	1	1	5	MT
NL	-	368	370	1102*	1248*	2505	NL
AT	85	289	226	114	239	495	AT
PL	100	370	363	602	648	1269	PL
PT	1	289	287	176	314	590	PT
RO	-	70	101	100	137	407	RO
SI	8	22	0	1	2	108	SI
SK	78	88	103	110	105	158	SK
FI	-	288	225*	251*	320*	400*	FI
SE	1	246	225	235	334	282	SE
UK	51	145	218	197	277	505	UK
Total	3183	8723	8083	7398	8590	21500	Total

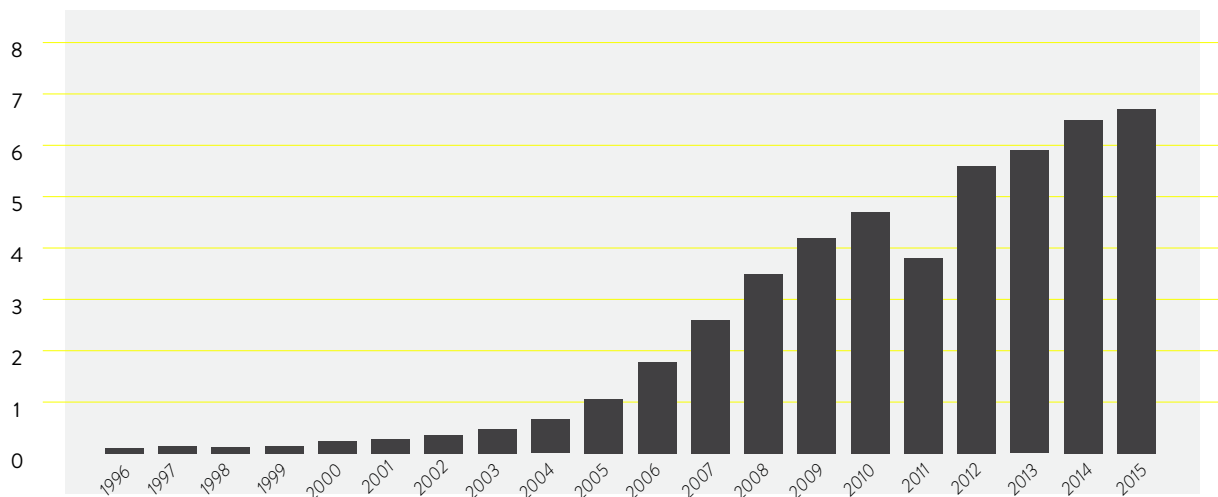
Source: EBB

* IE, FI, NL: Data include hydro-diesel production

(*) 2010 Biodiesel production of SE is included in the 246.000 tonnes indicated for DK

9.8

Biofuels share in transport consumption in EU, 1996-2015 (%)

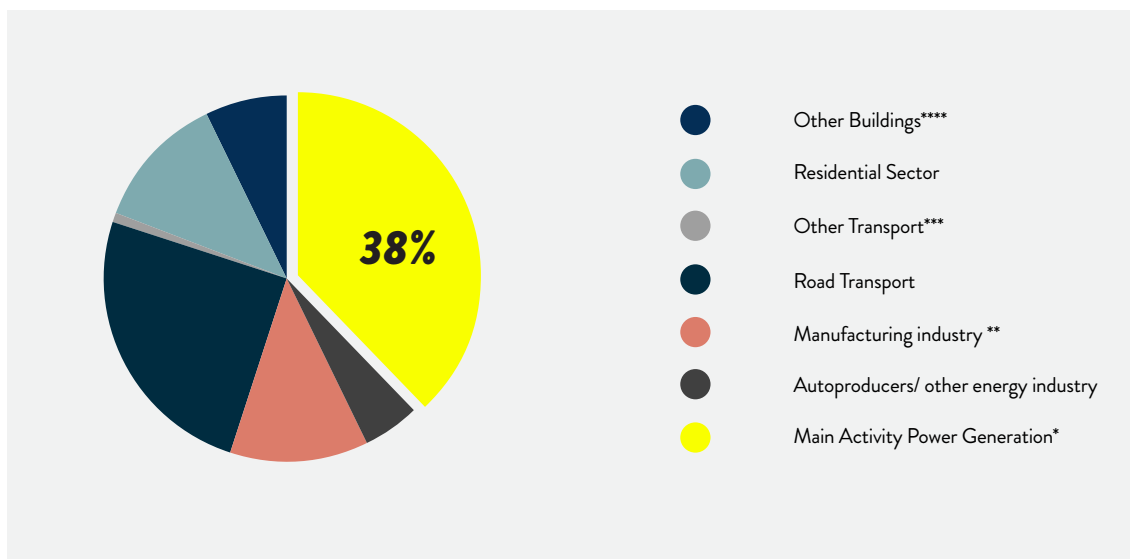


Source: Eurostat



9.9

Share of total CO₂ emissions from fossil fuel by sector in EU (Mt CO₂), 2016



Source: JRC - EDGAR

* Includes public power and heat production

** Excludes emissions from non-energy use and feedstock use of fuels

*** Excludes international marine and aviation bunkers

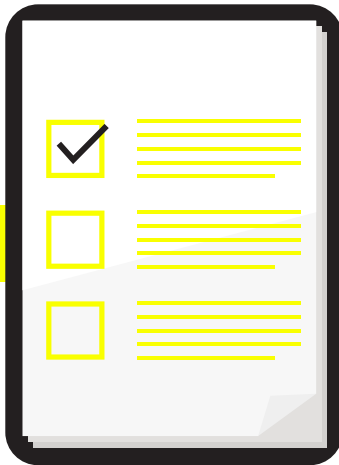
**** Service sector; includes agriculture and forestry

9.10

Final energy consumption by sector in EU countries, 2015 (% of TOE)

	Industry	Transport	Households	Agriculture	Services	Fisheries and other sectors
Belgium	38%	25%	26%	2%	9%	0%
Bulgaria	55%	16%	15%	5%	1%	9%
Czech Republic	53%	9%	22%	5%	9%	2%
Denmark	20%	30%	30%	5%	13%	0%
Germany	32%	26%	27%	1%	13%	1%
Estonia	45%	15%	18%	13%	6%	4%
Ireland	24%	28%	32%	3%	13%	0%
Greece	27%	40%	21%	7%	4%	0%
Spain	35%	40%	16%	3%	6%	0%
France	26%	31%	26%	3%	13%	0%
Croatia	34%	22%	30%	7%	7%	0%
Italy	33%	32%	24%	3%	8%	0%
Cyprus	24%	58%	10%	0%	5%	3%
Latvia	31%	18%	25%	9%	17%	0%
Lithuania	34%	21%	19%	8%	18%	0%
Luxembourg	52%	30%	15%	0%	2%	0%
Hungary	32%	16%	35%	6%	10%	0%
Malta	0%	67%	17%	0%	0%	16%
Netherlands	33%	24%	23%	8%	11%	0%
Austria	32%	26%	30%	3%	9%	0%
Poland	42%	12%	30%	6%	8%	2%
Portugal	40%	32%	19%	4%	5%	0%
Romania	62%	8%	26%	3%	1%	1%
Slovenia	41%	25%	25%	0%	8%	0%
Slovakia	47%	9%	15%	5%	24%	0%
Finland	44%	20%	25%	4%	4%	3%
Sweden	40%	24%	21%	3%	13%	0%
United Kingdom	25%	34%	27%	1%	9%	3%
Iceland	27%	20%	20%	2%	14%	1%
Norway	38%	24%	22%	3%	13%	0%
Albania	35%	12%	27%	0%	0%	25%
Serbia	39%	14%	25%	1%	1%	21%
Turkey	31%	25%	38%	5%	2%	0%
EU (28 countries)	34%	26%	25%	3%	10%	1%

Source: Eurostat



CASE STUDY



***HISTORICAL
BACKGROUND***

Ethiopia is a large country with diverse and complex social fabric. A landlocked nation with an area of 1,1million sq. km.

With a population exceeding 94million Ethiopia is the second most populous country in Africa next to Nigeria. Planned road construction efforts in Ethiopia began in early 18th century. Towards the end of the 19th and early decades of the 20th century, successful advancement in road construction has been witnessed. These efforts grew and led to the establishment of a semi-autonomous agency dedicated to design, construct and maintain roads. Even though the shape and nature of the agency has frequently changed due to the rise and fall of regimes, it has managed to maintain the core function of building, rehabilitating and managing road and road assets of the country until now.

Before 1978, Ethiopian Roads Authority followed a project-by-project approach planning method to construct and maintain roads. In 1997, the Road Sector Development Program (RSDP) was designed, a program which has enormously increased the road network coverage of the country. When RDSP was introduced, the aim was to enhance the quality and extent of road infrastructure. The review of the program showed encouraging results in terms of road coverage expansion and improvement of road condition. Currently, the total road network of Ethiopia stands at 140.000km (paved and unpaved) compared to 24.970km when the program was first initialised 20years ago. Nevertheless, there are still areas currently not served by road.



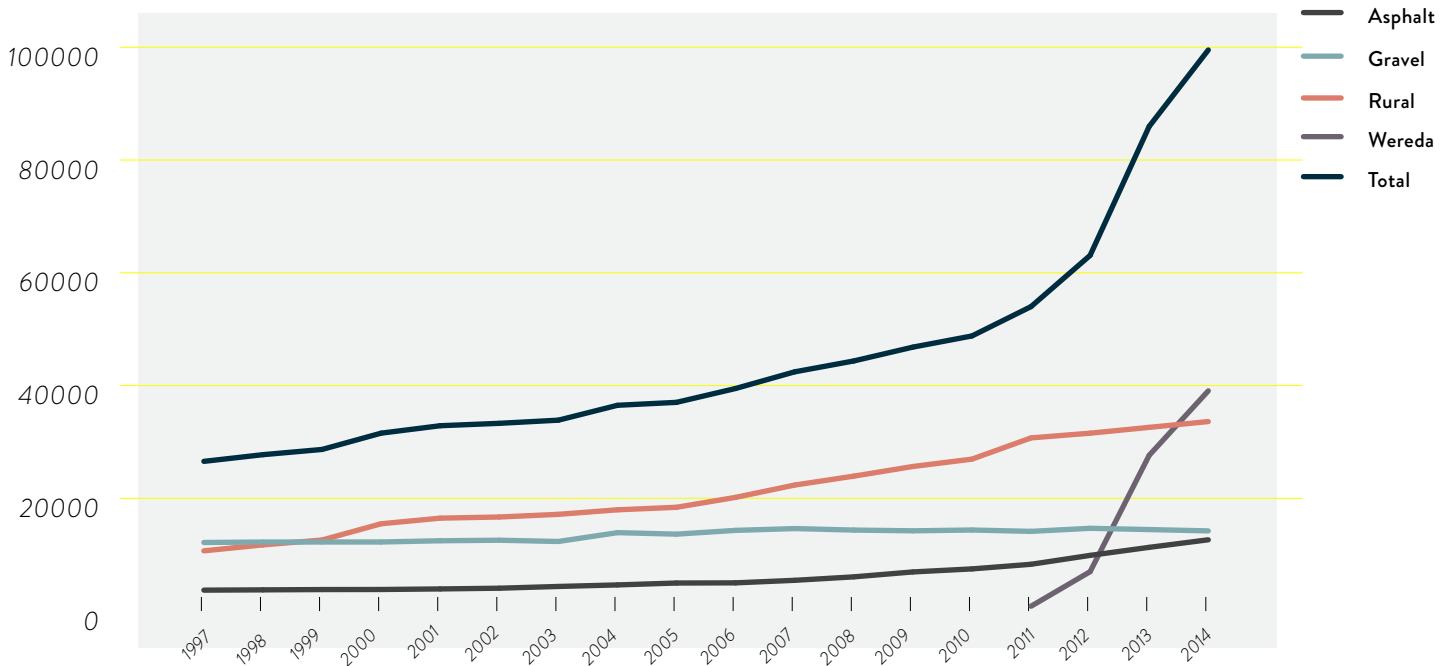
10.1

Total length of federal roads in Ethiopia, 2015 (post RSDP)

	Road Network (km)					Growth Rate (%)	Road Density / 1000 Popn	Road Density / 1000 sq. km	
	Asphalt	Gravel	Rural	Wereda	Total				
1997	3708	12162	10680		26550	-	0,46	24,1	1997
1998	3760	12240	11737		27737	4,5%	0,46	25,2	1998
1999	3812	12250	12600		28662	3,3%	0,46	26,1	1999
2000	3824	12250	15480		31554	10,1%	0,50	28,7	2000
2001	3924	12467	16480		32871	4,2%	0,50	29,9	2001
2002	4053	12564	16680		33297	1,3%	0,49	30,3	2002
2003	4362	12340	17154		33856	1,7%	0,49	30,8	2003
2004	4635	13905	17956		36496	7,8%	0,51	33,2	2004
2005	4972	13640	18406		37018	1,4%	0,51	33,6	2005
2006	5002	14311	20164		39477	6,6%	0,53	35,9	2006
2007	5452	14628	22349		42429	7,5%	0,55	38,6	2007
2008	6066	14363	23930		44359	4,5%	0,56	40,3	2008
2009	6938	14234	25640		46812	5,5%	0,57	42,6	2009
2010	7476	14373	26944		48793	4,2%	0,58	44,4	2010
2011	8295	14136	30712	854	53997	10,7%	0,66	49,1	2011
2012	9875	14675	31550	6983	63083	16,8%	0,75	57,3	2012
2013	11301	14455	32582	27628	85966	36,3%	1,00	78,2	2013
2014	12640	14217	33609	39056	99522	15,8%	1,10	90,5	2014

10.2

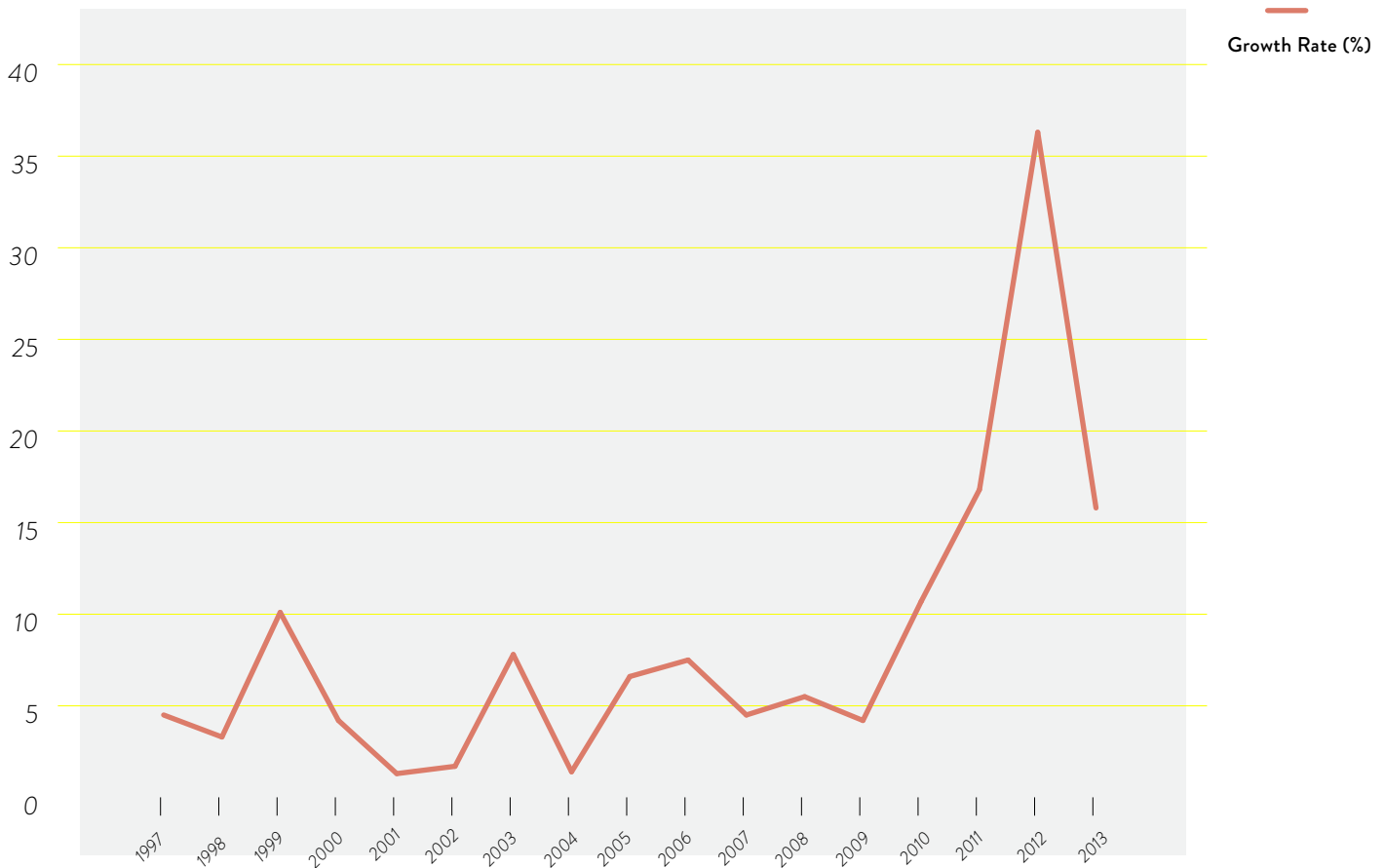
Road Network evolution since the inception of RSDP (km)





10.3

Road Network Growth Rate in Ethiopia Post RSDP



ROAD SAFETY

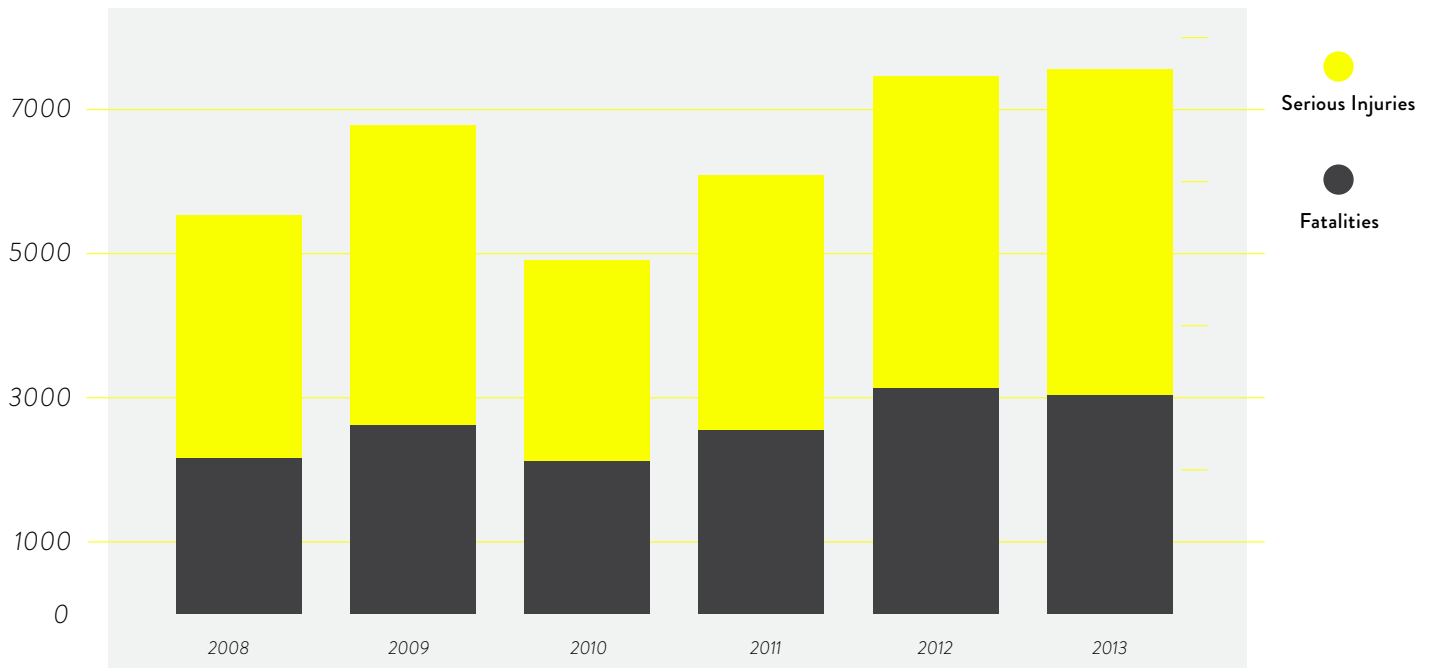
Since the introduction of Road Sector Development Program (RSDP) in 1997 the country is a victim of the inevitable steep increase in road traffic accidents because of the motorisation induced by the growing economy. As a country aspiring to become middle earning, the trend of not coping with the rapid motorisation in terms of safety and infrastructure demand is a significant challenge for Ethiopia. According to the WHO, the country stood among the top countries with devastating road safety status. Behavioural problems, poorly enforced road safety regulations, inadequate and substandard road infrastructure, and higher population of vulnerable road users (mostly pedestrians) combined with an ever-increasing number of vehicles are the core reasons of road safety problems in Ethiopia.

IN ETHIOPIA



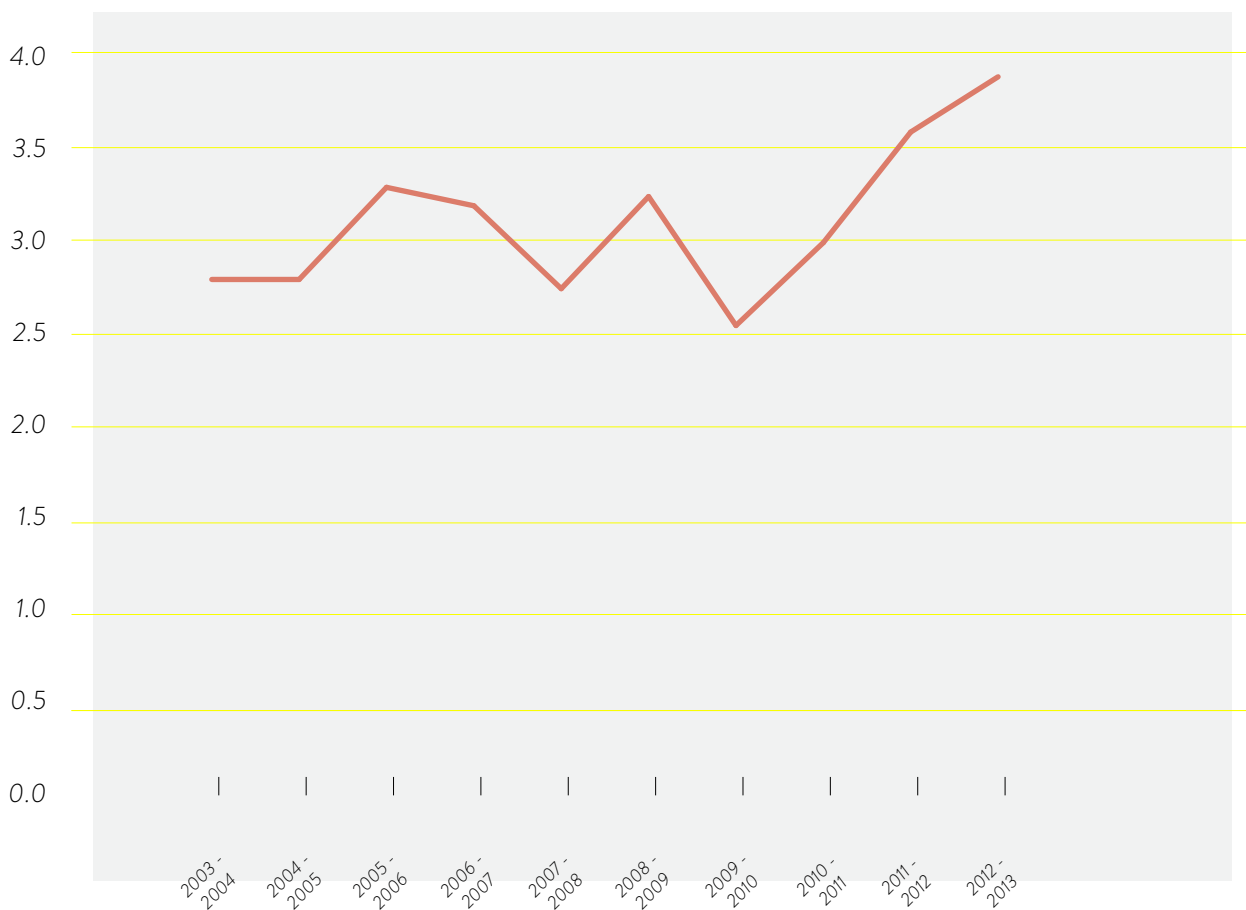
10.4

Road fatalities and serious injuries in Ethiopia, 2008 - 2013



10.5

Evolution of road traffic fatalities in Ethiopia, 2003 – 2013 (%)



Source: World Bank, ERA

Authors:

Christophe Nicodème
Konstandinos Diamandouros
José Diez
Concetta Durso
Kyriaki Arampidou
Ali Kemal Nuri

