

EUROPEAN UNION

ENERGY & TRANSPORT IN FIGURES

2003

**European Commission
Directorate-General for Energy and Transport**

in co-operation with **Eurostat**

Preface

The main aim of this pocket book is to provide **energy and transport statistics** for the EU Member States in a user-friendly way.

Most of the data cover the period **1970-2001**.

The pocket book is based on a range of **sources**, including Eurostat, international organisations, national statistics, studies and, where no data was available, estimates.

The tables of this book, and links to the sources of data, may also be found on the Europa internet site at the following URL (some tables may be updated on the web before the publication of the next paper version):

http://europa.eu.int/comm/energy_transport/etif/index.html

Eurostat may be accessed directly on the Europa internet site at the

<http://www.europa.eu.int/comm/eurostat/>

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SYMBOLS AND ABBREVIATIONS

12	<i>Estimates are printed in italic</i>
—	break in time series
%	per cent
-	nil
n.a.	data not available
0	figure less than half of unit used
ca.	circa = approximately
1970=100	reference year for an index
€	euro
EUR	euro
ECU	European Currency Unit
bio	1 billion = 10 ⁹
DG	Directorate-General of the European Commission
dwt	deadweight ton
GDP	Gross Domestic Product
grt	gross registered tonnage
mio	1 million
mio p	1 million persons
mio t	1 million tonnes
mtow	maximum take-off weight
pkm	passenger-kilometre: a unit of measure: 1 passenger transported a distance of 1 kilometre
PPP	Purchasing Power Parities
TEU	Twenty foot Equivalent Unit
tkm	tonne-kilometre : a unit of measure: 1 tonne transported a distance of 1 kilometre

Conversion factors:

1 Statute mile	= 1.609 km
1 nautical mile	= 1.852 km
1 US ton	= 0.907 tonnes
1 ton-mile	= 1.46 tonne-km
1 tonne Carbon (C)	= 3.667 tonnes CO ₂

COUNTRY ABBREVIATIONS

European Union Countries (EU-15) (also EEA since 1994)

Member State since :

A	Austria	1995
B	Belgium	1958
D	Germany	1958
[D-E (East Germany) included in D , unification on 3.10.1990]		
DK	Denmark	1973
E	Spain	1986
EL	Greece	1981
F	France	1958
FIN	Finland	1995
I	Italy	1958
IRL	Ireland	1973
L	Luxembourg	1958
NL	The Netherlands	1958
P	Portugal	1986
S	Sweden	1995
UK	United Kingdom	1973

Other European Economic Area (EEA) and in EFTA

IS	Iceland	EEA : 1994	EFTA:1960
FL	Liechtenstein	EEA : 1994	EFTA:1991
N	Norway	EEA : 1994	EFTA:1960

Other European Free Trade Association (EFTA)

CH	Switzerland	EFTA:1960
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European Union Acceding Countries

CY	Cyprus
CZ	Czech Republic
EE	Estonia
HU	Hungary
LV	Latvia
LT	Lithuania
MT	Malta
PL	Poland
SK	Slovak Republic
SI	Slovenia

European Union Candidate Countries

BG	Bulgaria
RO	Romania
TR	Turkey

Other Countries

USA	United States of America
J	Japan
CS	Czechoslovakia (until 1992)

The **list of publications** available from the Directorate-General for Energy and Transport is described in :

http://europa.eu.int/comm/energy_transport/en/publication/index_en.htm

Further copies of this pocket-book may be obtained from :

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or by sending an e-mail to the contact given in **the list of publications** mentioned above.

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Part 1 : GENERAL DATA

General Economic Data

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15
G.D.P. (nominal), €billion, 2002	261	183	2108	141	694	1521	128	1258	22.3	444	217	129	140	255	1659	9161
G.D.P. per head in PPP (EU=100)																
1981-90	105	113	115	63	73	109	68	103	140	104	106	57	102	114	100	100
1995	113	118	110	65	78	104	93	103	172	109	110	70	97	106	97	100
2001	109	115	103	65	84	103	118	103	196	115	111	69	104	102	101	100
2002	109	114	103	67	84	103	122	102	190	113	110	69	102	102	103	100
G.D.P. growth % (real growth, constant prices)																
2000	3.7	2.9	2.9	4.2	4.2	3.8	10.0	3.1	8.9	3.3	3.5	3.7	5.5	4.4	3.1	3.5
2001	0.8	1.4	0.6	4.1	2.7	2.1	5.7	1.8	1.2	1.3	0.7	1.6	0.6	1.1	2.1	1.6
2002	0.7	1.6	0.2	4.0	2.0	1.2	6.0	0.4	1.1	0.2	1.0	0.5	1.6	1.9	1.8	1.1
Industrial production growth % (excluding construction)																
2000	5.2	5.7	6.2	7.2	4.4	3.6	15.6	4.0	5.0	4.0	8.9	-0.2	11.8	6.3	1.6	4.7
2001	-0.5	1.3	0.5	1.0	-1.5	1.1	10.1	-1.1	3.2	1.4	0.8	3.1	-0.8	-0.3	-2.1	0.0
2002	1.5	1.5	-1.1	1.7	0.2	-1.0	7.8	-1.3	0.4	-2.1	0.1	-0.2	1.7	-1.2	-3.5	-1.0

Source : Economic and Monetary Affairs DG, Eurostat

Note : G.D.P. : Gross Domestic Product, PPP : Purchasing Power Parities

Socio-economic Data

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15
Unemployment rate %																
1998	9.3	4.9	9.1	10.9	15.2	11.4	7.5	11.7	2.7	3.8	4.5	5.1	11.4	8.2	6.2	9.4
1999	8.6	4.8	8.4	11.8	12.8	10.7	5.6	11.3	2.4	3.2	3.9	4.5	10.2	6.7	5.9	8.7
2000	6.9	4.4	7.8	11.0	11.3	9.3	4.3	10.4	2.3	2.8	3.7	4.1	9.8	5.6	5.4	7.8
2001	6.7	4.3	7.8	10.4	10.6	8.5	3.9	9.4	2.1	2.4	3.6	4.1	9.1	4.9	5.0	7.4
2002	7.3	4.5	8.6	10.0	11.3	8.8	4.4	9.0	2.8	2.7	4.3	5.1	9.1	4.9	5.1	7.7
Share of employment % (2001)																
Agriculture	2.0	3.3	2.4	16.3	6.5	4.3	7.0	4.8	1.6	3.4	5.6	10.9	5.8	2.6	1.4	4.3
Industry	23.3	22.6	28.6	24.2	29.8	22.7	29.1	29.4	23.1	19.8	29.9	30.8	27.7	23.3	24.8	26.4
Services	74.8	74.1	68.9	59.5	63.8	72.9	64.1	65.8	75.4	76.7	64.5	58.9	66.5	74.1	73.5	69.3
Urban population %																
1980	95.0	84.0	83.0	58.0	73.0	73.0	55.0	67.0	85.0	88.0	65.0	n.a.	60.0	83.0	89.0	76.8
1990	96.5	84.8	85.3	58.8	75.4	74.0	56.9	66.7	86.3	88.7	64.5	46.7	61.4	83.1	89.1	77.8
1995	97.0	85.1	86.5	59.2	76.5	74.7	57.9	66.6	89.1	89.0	64.3	56.4	64.4	83.1	89.2	78.6
2000	97.3	85.3	87.5	60.1	77.6	75.6	59.0	67.0	91.5	89.4	64.7	64.4	67.3	83.3	89.5	80.1

Source : Eurostat, DG Employment, Economic and Monetary Affairs DG, World Bank

Population

	million															average for the year
	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15
1970	9.7	4.9	77.7	8.8	33.8	50.8	3.0	53.8	0.3	13.0	7.5	8.7	4.6	8.0	55.6	340.2
1980	9.8	5.1	78.3	9.6	37.4	53.9	3.4	56.4	0.4	14.1	7.5	9.8	4.8	8.3	56.3	355.3
1990	10.0	5.1	79.4	10.2	38.9	56.7	3.5	56.7	0.4	15.0	7.7	9.9	5.0	8.6	57.6	364.5
1995	10.1	5.2	81.7	10.5	39.2	57.8	3.6	57.3	0.4	15.5	8.0	9.9	5.1	8.8	58.6	371.8
1996	10.2	5.3	81.9	10.5	39.3	58.0	3.6	57.4	0.4	15.5	8.1	9.9	5.1	8.8	58.8	372.8
1997	10.2	5.3	82.1	10.5	39.3	58.2	3.7	57.5	0.4	15.6	8.1	9.9	5.1	8.8	59.0	373.7
1998	10.2	5.3	82.0	10.5	39.4	58.4	3.7	57.6	0.4	15.7	8.1	10.0	5.2	8.9	59.2	374.5
1999	10.2	5.3	82.1	10.5	39.4	58.6	3.7	57.6	0.4	15.8	8.1	10.0	5.2	8.9	59.5	375.4
2000	10.3	5.3	82.2	10.5	39.9	58.9	3.8	57.8	0.4	15.9	8.1	10.2	5.2	8.9	59.7	377.2
2001	10.3	5.4	82.3	10.6	40.3	59.2	3.9	57.9	0.4	16.0	8.1	10.3	5.2	8.9	59.9	378.7
	Area															1000 km ²
2001	30.5	43.1	357.0	132.0	506.0	544.0	70.3	301.3	2.6	41.5	83.9	91.9	338.1	450.0	244.1	3236.2
	Density															persons / km ²
2001	337	124	231	80	80	109	55	192	170	387	97	112	15	20	245	117

Source : Eurostat

D: population : includes D-E: 1970=17.1, 1980=16.7, 1990=16.1

External Trade by Member State and Partner

2002

€ billion

	EXPORTS to								IMPORTS from									
	Total Exports	EU-15 (sendings)		EFTA		Candidate Countries		USA		Total Imports	EU-15 (arrivals)		EFTA		Candidate Countries		USA	
B	226.2	164.3	73%	3.7	2%	7.6	3%	17.8	8%	208.7	148.0	71%	3.3	2%	5.7	3%	13.4	6%
DK	60.4	40.0	66%	4.5	7%	2.6	4%	3.8	6%	52.2	37.0	71%	4.1	8%	2.6	5%	1.9	4%
D	648.2	354.8	55%	31.8	5%	65.2	10%	66.6	10%	522.0	289.8	56%	32.6	6%	60.7	12%	32.8	6%
EL	10.9	4.8	44%	0.1	1%	2.2	20%	0.6	5%	33.1	17.2	52%	0.6	2%	2.0	6%	1.6	5%
E	126.0	87.9	70%	1.8	1%	6.0	5%	5.7	5%	163.6	106.7	65%	3.3	2%	4.6	3%	6.0	4%
F	350.8	215.4	61%	12.5	4%	16.2	5%	27.5	8%	348.2	230.0	66%	14.6	4%	11.6	3%	23.7	7%
IRL	93.4	60.8	65%	3.6	4%	1.2	1%	15.7	17%	55.0	36.5	66%	1.2	2%	0.7	1%	8.4	15%
I	265.4	141.1	53%	10.6	4%	23.1	9%	25.9	10%	256.9	146.2	57%	11.8	5%	16.6	6%	12.5	5%
L	10.8	9.3	86%	0.3	3%	0.3	3%	0.3	3%	13.9	10.9	78%	0.1	1%	0.3	2%	0.5	4%
NL	258.3	199.4	77%	6.2	2%	9.9	4%	11.8	5%	232.4	123.2	53%	7.4	3%	6.7	3%	21.1	9%
A	83.2	51.1	61%	4.8	6%	11.8	14%	4.1	5%	82.8	55.8	67%	4.0	5%	11.7	14%	2.9	4%
P	27.1	21.6	80%	0.5	2%	0.5	2%	1.6	6%	40.6	31.3	77%	0.9	2%	1.1	3%	0.9	2%
FIN	47.7	25.7	54%	1.9	4%	3.8	8%	4.3	9%	36.2	23.4	65%	1.6	4%	2.0	6%	1.3	4%
S	85.9	46.4	54%	8.9	10%	4.3	5%	9.9	11%	70.2	46.3	66%	6.2	9%	3.9	6%	3.7	5%
UK	295.9	173.9	59%	7.9	3%	9.8	3%	44.4	15%	365.5	191.8	52%	14.4	4%	12.9	4%	44.1	12%
EU15	2 590.4	1 596.5	62%	99.3	4%	164.6	6%	239.9	9%	2 481.2	1 494.0	60%	106.2	4%	143.1	6%	174.8	7%

Source : Eurostat

Note : Candidate Countries in 2002: Bulgaria, Cyprus, Czech Rep., Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovak Rep., Slovenia, Turkey

External Trade of EU-15 with Other European Countries

€ billion (ECU until 1998)

Country		EU-15 EXPORTS to				EU-15 IMPORTS from			
		1995	2000	2001	2002	1995	2000	2001	2002
Iceland	IS	0.81	1.73	1.54	1.35	0.92	1.64	1.69	1.76
Liechtenstein	FL	0.45	0.89	0.82	0.74	0.27	0.86	0.93	0.91
Norway	N	17.48	25.60	25.97	26.49	25.52	45.76	45.06	44.80
Switzerland	CH	51.04	70.78	74.27	70.67	43.22	60.02	60.27	58.77
Bulgaria	BG	2.05	3.24	3.77	4.22	1.84	3.08	3.39	3.61
Cyprus	CY	2.02	3.12	2.60	2.89	0.74	1.00	0.93	0.71
Czech Rep.	CZ	11.66	24.00	27.34	29.23	9.00	21.64	24.96	27.53
Estonia	EE	1.35	3.21	3.02	3.53	0.89	3.18	3.00	2.98
Hungary	HU	8.73	23.04	23.64	25.02	7.61	22.05	24.19	25.29
Latvia	LV	0.94	2.03	2.42	2.58	1.13	1.90	1.95	1.96
Lithuania	LT	1.02	2.58	3.39	4.01	0.97	2.17	2.61	2.72
Malta	MT	2.02	2.79	2.46	2.69	1.08	1.03	1.16	1.12
Poland	PL	15.31	33.81	35.44	37.34	12.26	23.31	26.46	28.15
Romania	RO	3.79	8.74	10.25	11.44	3.39	7.65	9.29	10.43
Slovakia	SK	3.19	6.60	7.86	8.75	3.09	6.94	8.12	9.71
Slovenia	SI	5.18	8.14	8.38	8.65	4.24	6.28	6.56	6.84
Turkey	TR	13.39	29.95	20.03	24.26	9.24	17.55	20.09	22.02

Source : Eurostat

1.6

Other European Countries Population, G.D.P., Unemployment

	Popul- ation	G.D.P.	G.D.P. (PPP) / capita	Unempl- oyment
	2001	2002		2002
	million	€ billion	EU=100	%
Iceland	0.285	7.9	113*	4.1
Liechtenst.	0.033	n.a.	n.a.	n.a.
Norway	4.514	179.2	144*	3.9
Switzerland	7.233	251.6	117*	2.5
Bulgaria	7.910	16.6	25	18.1
Cyprus (1)	0.702	10.8	72	3.8
Czech Rep.	10.268	73.9	59	7.3
Estonia	1.367	6.9	41	9.1
Hungary	10.188	69.9	56	5.6
Latvia	2.355	8.9	35	12.8
Lithuania	3.478	14.6	39	13.1
Malta	0.393	4.1	53**	7.4
Poland	38.638	200.2	39	19.9
Romania	22.430	48.4	24	7.0
Slovak Rep.	5.391	25.1	47	18.6
Slovenia	1.992	23.4	73	6.0
Turkey	66.362	191.7	23	10.4

Source : Eurostat, World Bank, Organisation for Economic Co-operation and Development, national sources

Notes : G.D.P. = Gross Domestic Product

PPP = Purchasing Power Parities **: 2000 *: 2001

(1) : figures refer to the Government controlled area.

Comparison EU-15 - World

	EU-15	USA	Japan	China	Russia
General data (2000)					
Population					
million	378	282	127	1 261	146
Population growth					
%	0.2	1.2	0.2	1.0	-0.5
Urban population					
% of total	80	77	79	32	78
Area					
million km ²	3.24	9.36	0.38	9.56	17.08
Population density					
Persons/km ²	117	30	334	132	9
GDP (nominal)					
€ billion	8 524	10 689	5 162	1 170	272
GDP per capita (in PPP)					
EU= 100	100	155	111	16	32
Exports (1)					
€ billion	942	840	487	292	117
Imports (1)					
€ billion	1 033	1 324	384	269	63

Sources : Eurostat, World Bank

Notes : (1): without intra-EU trade

PPP: Purchasing power parities

Part 2 : ENERGY

Chapter 1 : General Information

2.1.1

Glossary

bbl	Barrel, unit for measuring physical amounts of oil
Btu	British thermal unit, unit for measuring energy
CHP	Cogeneration of heat and power, results usually in a high conversion efficiency
Conventional thermal power	Technology for production of electricity by combustion. May or may not include also biomass use, which is also considered a renewable source of electricity
FEC	Final energy consumption, energy supplied to final consumers for all energy uses
Gcal	Gigacalorie, billion calories, old unit for measuring energy
GCV	Gross calorific value, standard for determining energy content
GIC	Gross inland consumption, it represents for the reference period the quantity of energy necessary to satisfy the inland consumption of a geographical area
GW	Gigawatt, billion watts, unit for measuring production capacity of electricity
GWh	Gigawatthour, unit for measuring energy, in particular electricity
kgoe	Kilogramme of oil equivalent, unit for measuring energy
MJ	Megajoule, million joules, unit for measuring energy
Mtoe	million tonnes of oil equivalent, unit for measuring energy
MW	Megawatt, million watts, unit for measuring production capacity of electricity
NCV	Net calorific value, standard for determining energy content
Pumping, pumped storage	Method for storing electrical energy at hydroelectric installations by pumping water between reservoirs at different altitudes
TJ	Terajoule, thousand billion joules, unit for measuring energy
toe	Tonne of oil equivalent, unit for measuring energy

2.1.2

Conversion Factors

I. Energy		To: ►	TJ	Gcal	Mtoe	MBtu	GWh
From:	TJ	multiply by:	1	238.8	$2.388 \cdot 10^{-5}$	947.8	0.2778
	Gcal		$4.1868 \cdot 10^{-3}$	1	$1 \cdot 10^{-7}$	3.968	$1.163 \cdot 10^{-3}$
	Mtoe		$4.1868 \cdot 10^4$	$1 \cdot 10^7$	1	$3.968 \cdot 10^7$	11630
	MBtu		$1.0551 \cdot 10^{-3}$	0.252	$2.52 \cdot 10^{-8}$	1	$2.931 \cdot 10^{-4}$
	GWh		3.6	860	$8.6 \cdot 10^{-5}$	3412	1
II. Volume		To: ►	Barrel (bbl)	Litre (l)	U.S gallon	Imperial U.K. gallon	
From:	Barrel (bbl)	multiply by:	1	158.9872	42	34.9723	
	Litre (l)		$0.6290 \cdot 10^{-2}$	1	0.2642	0.2200	
	U.S gallon		$0.2381 \cdot 10^{-1}$	3.7854	1	0.8327	
	Imperial U.K. gallon		$0.2859 \cdot 10^{-1}$	4.5461	1.2009	1	
III. Mass		To: ►	Tonne (t)	Long ton (lt) U.K.	Short ton (st) U.S.		
From:	Tonne (t)	multiply by:	1	0.9842	1.1023		
	Long ton (lt) U.K.		1.0160	1	1.1200		
	Short ton (st) U.S.		0.9072	0.8929	1		

2.1.3

Average Energy Content

(used in EU statistics)

Net Calorific Values	kgoe (NCV)/kg
Hard coal	0.411 - 0.733
Patent fuels	0.640 - 0.750
Hard coke	0.681
Brown coal	0.134 - 0.251
Black lignite	0.251 - 0.502
Peat	0.186 - 0.330
Brown coal briquettes	0.478
Crude oil	0.994 - 1.022
Feedstocks	1.015
Refinery gas	1.194
LPG	1.099
Motor spirit	1.051
Kerosene, jet fuel	1.027
Naphta	1.051
Gas diesel oil	1.01
Residual fuel oil	0.955
Gross Calorific Values	kgoe (NCV)/MJ(GCV)
Nuclear energy	0.0239
Biomass	"
Solar energy	"
Geothermal energy	"
Derived heat	"
Blast-furnace gas	"
	kgoe (NCV)/kWh
Hydro energy	0.086
Wind energy	"
Electrical energy	"
	kgoe (NCV)/MJ(GCV)*
Natural gas	0.0215
Coke-oven gas	"
Work gas	"
* Net heat content for gas = 0.9 * gross heat content (except for blast-furnace gas)	
Import crude oil	1 tonne = 7.45 bbl 1 Mio bbl/day = 49 Mio t

Source: Eurostat

Part 2 : ENERGY

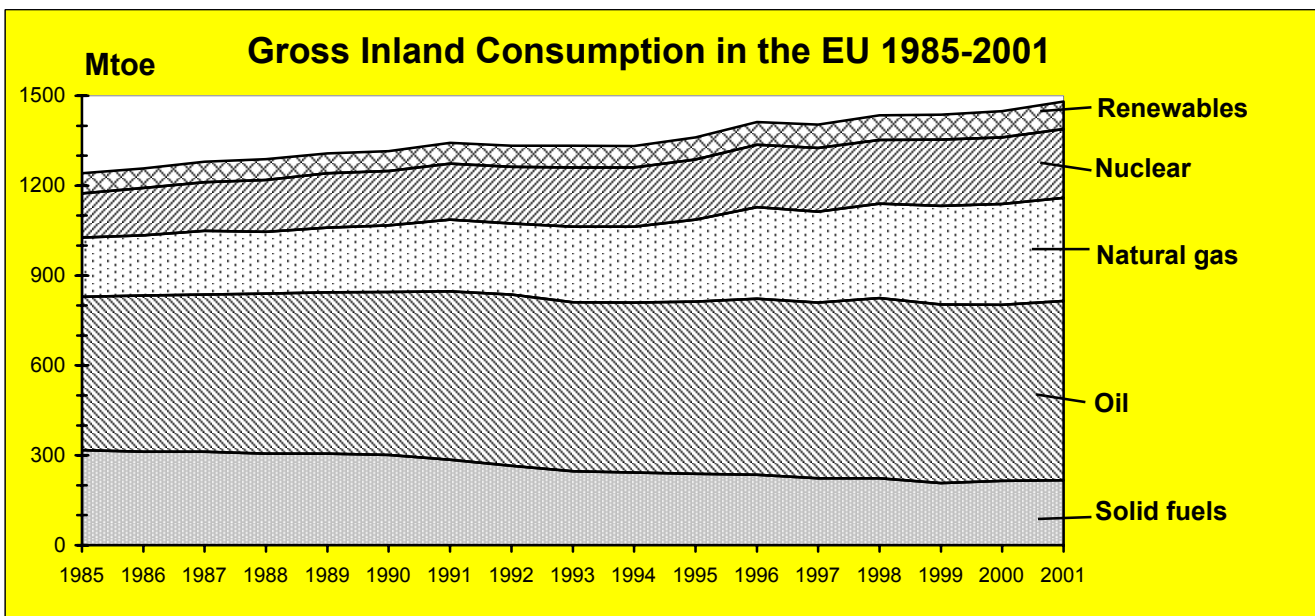
Chapter 2 : EU Overview, Security of Supply

2.2.1

European Union: Gross Inland Consumption

2001 - Mtoe	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15
All Fuels	55.6	19.9	348.8	28.9	126.3	262.3	14.4	176.6	3.8	77.6	30.3	24.2	33.2	51.6	232.5	1486.2
<i>of which</i>																
Solid fuels	7.1	4.2	85.0	9.3	18.5	12.6	2.6	13.5	0.1	8.3	3.7	3.2	6.1	2.8	39.6	216.6
Oil	21.7	9.0	132.7	16.4	66.2	94.6	8.0	87.3	2.4	29.4	12.7	15.4	8.9	15.1	79.2	598.9
Natural gas	13.2	4.6	75.6	1.7	16.4	33.8	3.6	58.1	0.7	35.5	7.0	2.3	3.7	0.8	86.8	343.7
Nuclear	12.0	-	44.2	-	16.4	108.6	-	0.0	-	1.0	-	-	5.9	18.6	23.2	229.9
Renewables	0.8	2.2	9.9	1.3	8.3	18.6	0.3	13.5	0.1	1.6	6.7	3.4	7.6	15.0	2.7	91.9
<i>Hydro</i>	0.0	0.0	1.8	0.2	3.5	6.4	0.1	4.0	0.0	0.0	3.6	1.2	1.1	6.8	0.3	29.1
<i>Wind</i>	0.0	0.4	0.9	0.1	0.6	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1	2.3
<i>Geothermal</i>	0.0	0.0	0.0	0.0	0.0	0.1	0.0	3.2	-	-	0.0	0.1	-	-	0.0	3.4
<i>Solar</i>	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.4
<i>Biomass</i>	0.7	1.8	7.1	1.0	4.2	12.0	0.2	6.2	0.0	1.5	3.0	2.1	6.4	8.1	2.3	56.6

Source: Eurostat



Source: Eurostat

2.2.3

European Union: Final Energy Consumption

2001 - Mtoe	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15
By Fuel	37.2	14.7	214.9	19.1	83.3	155.7	10.7	129.7	3.7	50.7	23.6	17.4	24.7	33.2	151.9	970.3
Solid fuels	3.3	0.2	10.3	0.9	1.8	5.0	0.5	3.8	0.1	1.3	0.6	0.2	1.1	1.2	5.9	36.3
Oil	16.2	6.8	100.8	13.0	47.2	76.3	7.0	57.5	2.4	16.5	10.2	10.8	7.7	11.1	62.3	445.9
Gas	10.1	1.8	56.7	0.3	13.4	30.1	1.2	38.8	0.6	21.5	4.3	1.0	1.4	0.7	52.0	233.9
Electricity	6.7	2.8	42.1	3.8	17.3	34.0	1.8	23.8	0.5	8.5	4.8	3.4	6.6	11.4	28.7	196.5
Derived heat	0.5	2.4	-	0.0	0.0	-	-	-	0.0	2.6	1.1	0.2	3.0	3.8	2.3	15.9
Renewables	0.4	0.6	5.0	1.0	3.6	10.2	0.2	5.8	0.0	0.2	2.5	1.7	4.8	5.0	0.6	41.7
By Sector	37.2	14.7	214.9	19.1	83.3	155.7	10.7	129.7	3.7	50.7	23.6	17.4	24.7	33.2	151.9	970.3
Industry	13.5	3.0	55.4	4.5	27.2	37.2	2.0	40.6	0.9	13.8	6.3	5.6	11.6	12.7	35.2	269.5
Domestic & tertiary	14.2	7.2	95.0	7.3	21.9	66.7	4.4	47.1	0.8	22.7	10.3	5.2	8.6	11.9	65.6	388.9
<u>Transport</u>	9.4	4.5	64.5	7.4	34.2	51.8	4.3	42.0	2.0	14.2	6.9	6.5	4.5	8.6	51.1	311.9
Road	8.0	3.5	55.2	5.4	27.4	43.1	3.5	37.5	1.6	10.5	6.0	5.7	3.7	7.2	38.7	257.0
Railways	0.2	0.1	1.9	0.1	0.9	1.2	0.0	0.8	0.0	0.2	0.4	0.1	0.1	0.3	1.2	7.5
Air	1.2	0.8	7.0	1.2	4.5	6.6	0.7	3.4	0.3	3.3	0.6	0.8	0.5	1.0	10.6	42.5
Inland navigation	0.1	0.1	0.3	0.7	1.4	0.8	0.0	0.3	-	0.3	0.0	0.0	0.1	0.2	0.7	4.9

Source: Eurostat

2.2.4

Indicators for the European Union

	Energy Intensity (toe/ Meuro) (*)	Carbon Intensity (t. of CO2 /toe)	GIC per capita (kgoe /inhab.)	CO2 emissions per capita (kg/inhab.)
1985	236.5	2.41	3465.8	8348.2
1986	233.3	2.40	3503.5	8418.2
1987	231.4	2.38	3558.3	8484.3
1988	223.9	2.36	3572.0	8420.9
1989	219.5	2.34	3610.5	8444.0
1990	215.3	2.33	3616.7	8434.5
1991	216.6	2.31	3673.6	8495.7
1992	212.3	2.29	3629.2	8328.7
1993	213.1	2.25	3614.0	8143.2
1994	207.3	2.24	3600.9	8077.9
1995	206.9	2.24	3667.7	8205.3
1996	211.0	2.22	3790.4	8408.3
1997	204.7	2.18	3760.7	8199.0
1998	203.4	2.17	3836.1	8331.4
1999	198.3	2.16	3833.0	8265.6
2000	193.5	2.16	3855.5	8311.5
2001	194.7	2.14	3924.7	8383.3

Source: Eurostat

Definitions :

carbon intensity

= CO₂ emissions / gross inland consumption (GIC)

energy intensity

= gross inland consumption / gross domestic product

* **Note:** For GDP at 1995 prices

2.2.5

European Union: Import Dependency
2001
 %

2001 - %	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15
All Fuels	80.1	-27.2	61.4	68.9	74.3	50.0	90.0	82.1	97.9	34.1	64.7	87.2	55.9	35.9	-8.9	50.1
Solid Fuels	106.7	96.6	30.3	9.2	60.1	89.2	70.7	101.0	100.0	100.8	88.9	92.9	69.0	85.6	55.6	55.1
Oil	100.8	-66.8	97.4	98.5	98.3	98.3	102.9	94.0	98.8	94.8	88.9	102.7	107.1	100.0	-43.5	77.0
Natural Gas	99.7	-66.0	77.0	99.2	96.5	93.1	81.6	77.1	100.0	-56.7	72.1	99.9	100.0	100.0	-9.6	43.3

Source: Eurostat

Definition: Import Dependency = Net Imports / (Bunkers+Gross Inland Consumption)

Note: A simplified formula, not taking bunkers into account, is used occasionally.

This variant gives higher values for import dependency by overlooking maritime transport.

Negative numbers indicate that the country is a net exporter. Values over 100 % are possible due to changes in stocks.

2.2.6

Imports of Oil and Gas to the EU

Oil	2001		2002	
	Volume Mbbbl	Share %	Volume Mbbbl	Share %
Imports from non-EU countries				
Norway	840.0	24.1	793.5	23.0
Russia	636.4	18.3	770.8	22.3
Saudi Arabia	421.4	12.1	381.9	11.1
Libya	305.3	8.8	271.9	7.9
Iran	212.9	6.1	185.3	5.4
Syria	136.3	3.9	138.0	4.0
Nigeria	189.4	5.4	136.9	4.0
Iraq	148.8	4.3	119.7	3.5
Algeria	120.6	3.5	118.6	3.4
Kazakhstan	59.8	1.7	92.4	2.7
Mexico	64.4	1.9	67.8	2.0
Angola	47.2	1.4	60.0	1.7
Venezuela	51.8	1.5	48.5	1.4
Kuwait	55.9	1.6	45.7	1.3
Other Africa	29.4	0.8	37.9	1.1
Others	161.0	4.6	182.3	5.3
Total Imports	3480.6	100.0	3451.0	100.0

Source: Commission services

Gas	2001	
	Volume, million cubic	Share %
Imports from non-EU countries		
Russia	74118	38.7
Norway	50180	26.2
Algeria	48581	25.4
Nigeria	7711	4.0
Oman	953	0.5
Libya	782	0.4
Qatar	646	0.3
Trinidad & Tobago	577	0.3
United Arab Emirates	145	0.1
Others	7683	4.0
Total Imports	191376	100.0

Source:

Organisation for Economic Co-operation and Development

2.2.7

Imports of Coal to the European Union
2001
kilo tonnes

Imports from non-EU countries	Steam Coal		Coking Coal		Total Hard Coal	
	volume	share	volume	share	volume	share
South Africa	47 699	33.6%	1 136	2.5%	48 835	26.2%
Australia	9 111	6.4%	19 980	44.5%	29 091	15.6%
Colombia	22 024	15.5%	99	0.2%	22 123	11.8%
United States	7 863	5.5%	12 053	26.9%	19 916	10.7%
*Poland	16 841	11.9%	1 534	3.4%	18 375	9.8%
Russian Federation	15 984	11.3%	232	0.5%	16 216	8.7%
Indonesia	9 112	6.4%	756	1.7%	9 868	5.3%
Canada	149	0.1%	6 557	14.6%	6 706	3.6%
People's Republic of China	4 005	2.8%	199	0.4%	4 204	2.3%
Venezuela	2 591	1.8%	364	0.8%	2 955	1.6%
*Czech Republic	1 452	1.0%	1 237	2.8%	2 689	1.4%
Others	5 014	3.5%	702	1.6%	5 716	3.1%
TOTAL	141 845	100.0%	44 849	100.0%	186 694	100.0%

Source: Organisation for Economic Co-operation and Development

*: From May 2004 onwards, Member State of the European Union

Part 2 : ENERGY

Chapter 3 : Community Activities and Infrastructure

2.3.1

Taxation of Energy

Community schemes, May/June 2003

Excises in euro per 1000 litres*

	unleaded		light
	petrol	diesel	heating oil
B	507	305	13
DK	548	370	283
D	655	470	61
EL	296	245	245
E	396	294	85
F	589	392	57
IRL	401	327	52
I	542	403	403
L	372	253	5
NL	635	357	203
A	415	290	77
P	507	309	88
FIN	597	347	72
S	517	349	317
UK	647	647	60
EU min.	287	245	18

Source: Commission services

VAT rates

	std. rate	electricity	natural gas
B	21%	21%	21%
DK	25%	25%	25%
D	16%	16%	16%
EL	18%	8%	8%
E	16%	16%	16%
F	19.6%	19.6%**	19.6%**
IRL	21%	13.5%	13.5%
I	20%	10%	10%
L	15%	6%	6%
NL	19.0%	19.0%	19.0%
A	20%	20%	20%
P	19%	5%	5%
FIN	22%	22%	22%
S	25%	25%	25%
UK	17.5%	5%	5%
EU min.	15%	5%	5%

***Note:** directive 92/81/EEC covers also leaded petrol, industrial gas oil use, LPG, methane, kerosene and heavy fuel oil

****France** applies 5.5 % to the fixed connection charge (abonnement)

Note: IRL, L, P and UK apply reduced VAT rates to some oil products

2.3.2

Electricity Market Opening

	Market opening 2003	Unbundling transmission	Unbundling distribution	Regulator
B	52%	Legal	Legal	ex-ante
DK	100%	Legal	Legal	ex-post
D	100%	Legal	Accounting	NTPA
EL	34%	Legal / Mgmt	Accounting	ex-ante
E	100%	Ownership	Legal	ex-ante
F	34%	Management	Accounting	ex-ante
IRL	56%	Legal / Mgmt	Management	ex-ante
I	70%	Ownsh. / Legal	Legal	ex-ante
L	57%	Management	Accounting	ex-ante
NL	63%	Ownership	Management	ex-ante
A	100%	Legal	Accounting	ex-ante
P	45%	Legal	Accounting	ex-ante
FIN	100%	Ownership	Management	ex-post
S	100%	Ownership	Legal	ex-post
UK	100%	Ownership	Legal	ex-ante

Source: SEC(2003) 448 of 16/04/2003

Note:

Directive 2003/54/EC of 26 June 2003, requires opening to all non-household customers by July 2004, and all customers by July 2007.

Unbundling: see article 19 of 2003/54/EC

NTPA: Negotiated third party access

2.3.3

Gas Market Opening

	Market opening 2003	Unbundling transmission	Unbundling distribution	Regulator
B	59%	Legal	Legal	ex-ante
DK	35%	Legal	Legal	ex-post
D	100%	Accounts	Accounts	NTPA
EL				
E	100%	Ownership	Legal	ex-ante
F	20%	Accounts	Accounts	ex-ante
IRL	82%	Management	Management	ex-ante
I	100%	Legal	Legal	ex-ante
L	72%	Accounts	Accounts	ex-ante
NL	60%	Management	Accounts	hybrid
A	100%	Legal	Legal	ex-ante
P				
FIN				
S	47%	Accounts	Accounts	ex-post
UK	100%	Ownership	Ownership	ex-ante

Source: SEC(2003) 448 of 16/04/2003

Notes:

Finland, Greece and Portugal qualify as emergent markets and are entitled to substantial derogation.

Directive 2003/55/EC of 26 June 2003, requires opening to all non-household customers by July 2004, and all customers by July 2007.

Unbundling: see article 17 of 2003/55/EC

2.3.4

Oil Refining Capacity in the European Union

2000 Million tonnes per year	Atmospheric Distillation	Vacuum Distillation	Reforming	Hydro- cracking	Catalytic Cracking	Visbreaking and/or Thermal Cracking	Coking
Austria	10.3	3.5	1.4	-	1.4	1.0	-
Belgium	37.9	16.2	5.1	-	5.9	4.4	-
Denmark	9.2	1.6	1.7	0.3	-	3.6	-
Finland	12.5	5.8	2.2	1.1	3.0	2.0	-
France	98.5	42.2	12.1	0.9	19.7	8.7	-
Germany	112.9	45.3	17.0	8.0	17.8	11.9	5.9
Greece	20.4	4.6	2.4	2.2	3.9	2.9	-
Ireland	3.5	-	0.5	-	-	-	-
Italy	115.5	41.2	13.5	16.4	15.3	21.7	2.6
Netherlands	59.6	23.3	7.4	8.5	5.3	5.7	2.2
Portugal	14.4	4.3	2.2	0.4	1.7	1.4	-
Spain	65.7	21.6	7.8	-	8.6	8.5	2.3
Sweden	19.2	6.6	3.5	-	1.8	3.5	-
United Kingdom	88.8	40.2	12.9	2.1	24.6	5.5	3.9
EU-15	668.4	256.2	89.6	39.8	108.8	80.7	16.9

Source: National Administrations

Part 2 : ENERGY

Chapter 4 : EU Electricity

2.4.1

European Union: Gross Electricity Generation

2001 - TWh	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15
Total	79.7	37.7	581.6	53.7	238.0	549.2	25.0	279.0	1.2	93.7	64.1	46.5	74.5	161.7	385.8	2 671.4
Nuclear	46.3	-	171.3	-	63.7	421.1	-	-	-	4.0	-	-	22.8	72.1	90.1	891.4
Conventional thermal	30.7	31.3	369.7	50.2	121.5	45.3	23.6	216.8	0.3	85.4	18.6	30.2	30.0	6.6	283.3	1 343.3
Pumped storage	1.2	-	2.7	0.6	2.8	5.3	0.3	7.1	0.7	-	1.6	0.3	-	0.0	2.4	25.3
Renewables	1.4	6.4	37.9	2.9	50.0	77.5	1.0	55.1	0.2	4.4	43.8	16.0	21.7	83.0	10.1	411.4
of which:																
Hydro *	0.4	0.03	22.2	2.1	41.0	73.8	0.6	46.8	0.1	0.1	41.8	14.0	13.2	79.1	4.1	339.5
Geothermal	-	-	-	-	-	-	-	4.5	-	-	-	0.1	-	-	-	4.6
Wind	0.03	4.3	10.5	0.8	7.0	0.12	0.3	1.2	0.03	0.8	0.17	0.3	0.07	0.5	1.0	27.0
Biomass	0.9	2.1	5.3	-	2.0	3.6	0.1	2.6	0.06	3.5	1.8	1.6	8.4	3.3	5.1	40.3
<u>Conventional thermal</u>	<u>30.7</u>	<u>31.3</u>	<u>369.7</u>	<u>50.2</u>	<u>121.5</u>	<u>45.3</u>	<u>23.6</u>	<u>216.8</u>	<u>0.3</u>	<u>85.4</u>	<u>18.6</u>	<u>30.2</u>	<u>30.0</u>	<u>6.6</u>	<u>283.3</u>	<u>1 343.3</u>
Coal	9.9	17.8	293.2	35.4	70.4	18.4	9.3	31.7		23.7	7.0	13.6	16.9	2.1	131.5	680.9
Oil	1.7	4.2	6.1	8.5	24.6	5.4	5.2	75.0	0.0	3.1	2.0	9.3	0.7	2.7	7.1	155.5
Gas	18.6	9.3	65.0	6.1	24.7	21.5	9.1	101.0	0.3	58.3	9.5	7.2	12.2	1.5	144.7	488.9
Others	0.5	0.0	5.4	0.2	1.8	-	-	9.1	-	0.3	0.2	-	0.3	0.2	-	18.0

Source: Eurostat

* Note: This entry does not include pumped storage presented above

2.4.2

**European Union: Electricity Production Capacity
2001
GW**

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15
Total	15.5	12.8	119.4	11.0	55.5	115.5	4.7	76.1	1.2	20.3	17.7	11.0	16.5	33.7	79.8	590.6
Nuclear	5.7	-	22.4	-	7.5	63.2	-	-	-	0.4	-	-	2.6	9.5	12.5	123.9
Conventional thermal	8.4	10.2	79.4	7.6	26.9	27.0	4.1	54.5	0.0	19.3	6.0	6.3	10.9	7.3	62.6	330.5
Hydro	1.4	0.01	8.9	3.1	17.8	25.3	0.5	20.4	1.1	0.0	11.6	4.6	2.9	16.6	4.3	118.5
of which: pumping	1.3	-	4.6	0.7	2.5	4.3	0.3	4.8	1.1	-	3.6	0.6	0.0	0.0	2.8	26.5
Geothermal	-	-	-	-	-	-	-	0.6	-	-	-	0.01	-	-	-	0.6
Wind	0.03	2.6	8.8	0.27	3.3	0.08	0.1	0.7	0.02	0.5	0.07	0.1	0.04	0.3	0.4	17.2

Source: Eurostat

2.4.3

Electricity from Renewable Sources in 2001

Share in gross consumption of electricity

	Hydro*	Wind	Biomass	Geo-thermal	Total
B	0.5%	0.0%	1.1%	0.0%	1.6%
DK	0.1%	11.6%	5.7%	0.0%	17.4%
D	3.8%	1.8%	0.9%	0.0%	6.5%
EL	3.8%	1.4%	0.0%	0.0%	5.1%
E	17.2%	2.9%	0.8%	0.0%	20.9%
F	15.5%	0.0%	0.8%	0.0%	16.3%
IRL	2.4%	1.4%	0.4%	0.0%	4.2%
I	14.6%	0.4%	0.8%	1.4%	17.2%
L	2.2%	0.4%	1.0%	0.0%	3.6%
NL	0.1%	0.7%	3.1%	0.0%	4.0%
A	66.8%	0.3%	2.9%	0.0%	69.9%
P	30.2%	0.6%	3.4%	0.2%	34.5%
FIN	15.6%	0.1%	10.0%	0.0%	25.7%
S	51.3%	0.3%	2.2%	0.0%	53.8%
UK	1.0%	0.2%	1.3%	0.0%	2.6%
EU-15	12.7%	1.0%	1.5%	0.2%	15.4%

Source: Eurostat.

N.B. Definition changed from production to **consumption**.

* Note: Does not include pumped storage.

Tentative targets for 2010

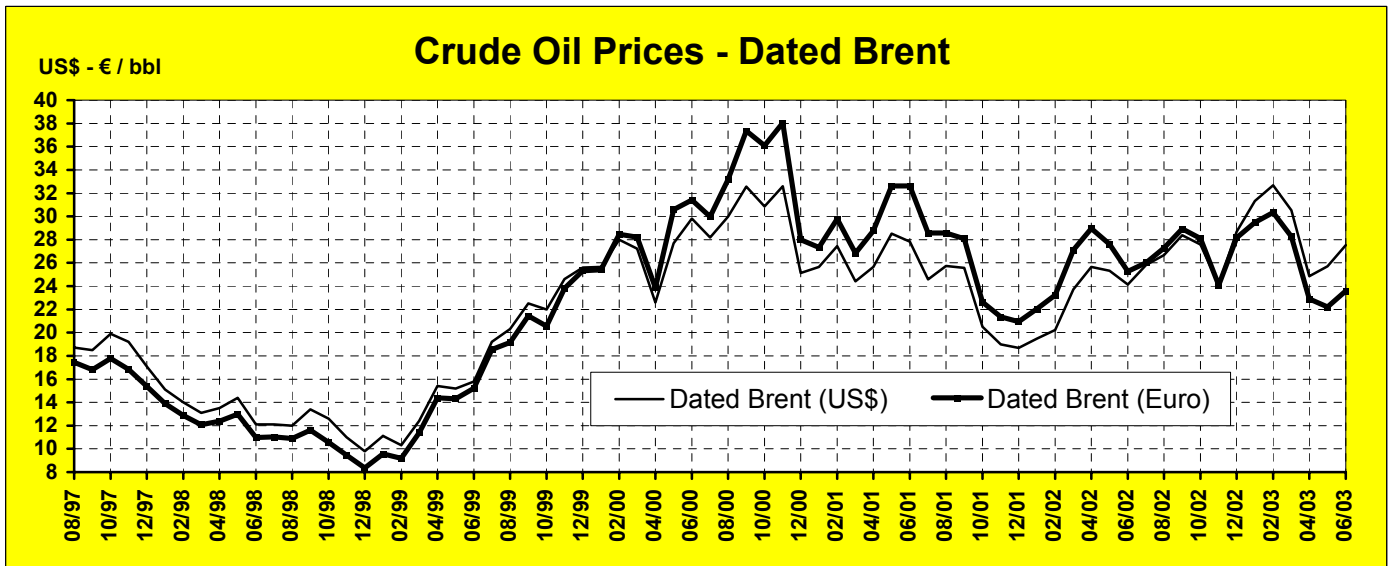
	Share of renewables
B	6.0%
DK	29.0%
D	12.5%
EL	20.1%
E	29.4%
F	21.0%
IRL	13.2%
I	25%*
L	5.7%*
NL	9.0%
A	78.1%*
P	39%*
FIN	31.5%*
S	60%*
UK	10.0%
EU-15	22.0%

Source : Directive 2001/77/EC on the promotion of electricity produced from renewable energy sources in the internal electricity market.

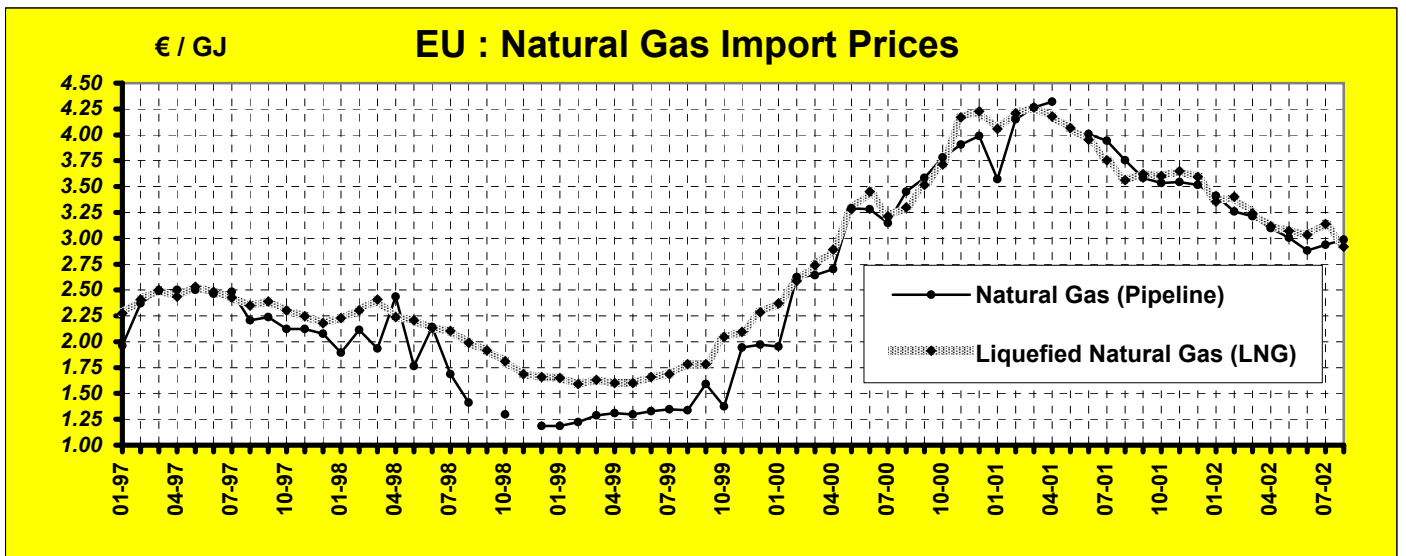
* : These targets involve further definitions, please see Annex of Directive 2001/77/EC.

Part 2 : ENERGY

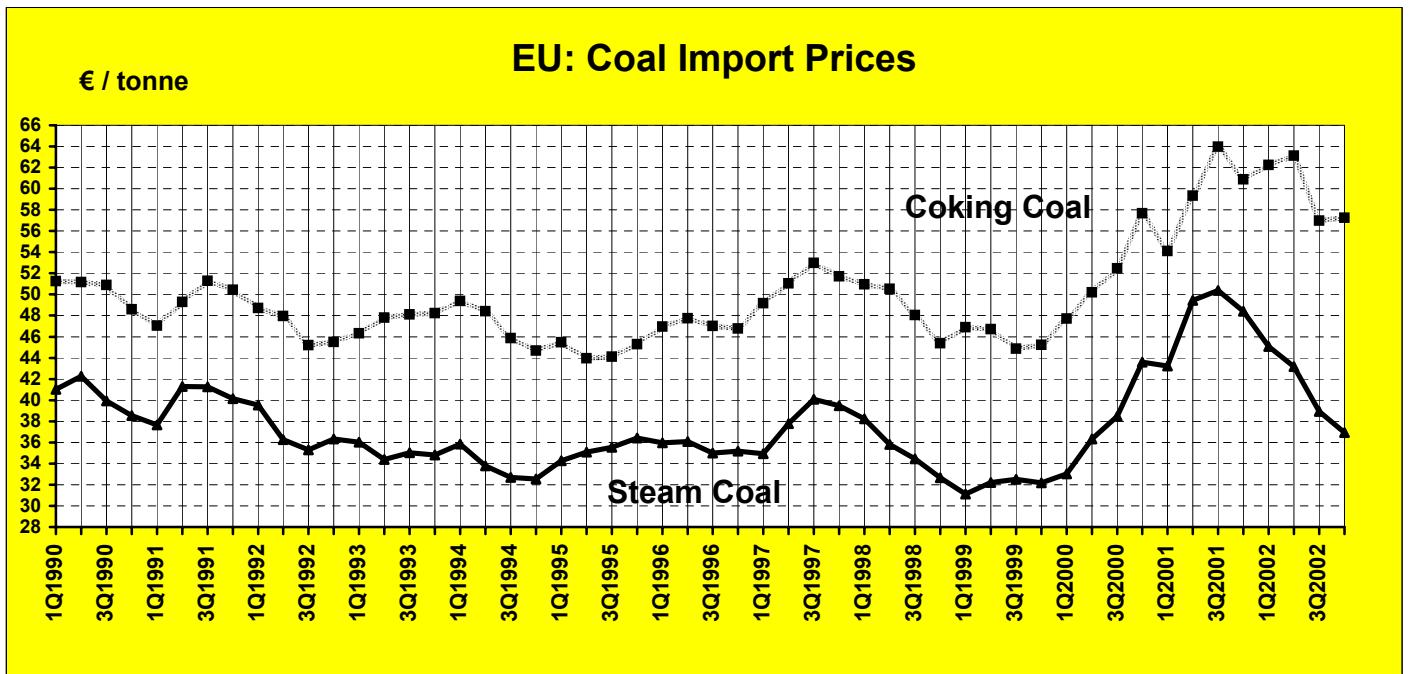
Chapter 5 : EU Prices



Source: Commission services



Source: Organisation for Economic Co-operation and Development



Source: Organisation for Economic Co-operation and Development

2.5.4

Automotive Diesel Fuel Prices

(Non-commercial use, all taxes included)

Current prices in euro per litre

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15
1990	0.507	0.587	0.519	0.197	0.447	0.525	0.722	0.613	0.364	0.471	n.a.	0.468	n.a.	n.a.	0.539	0.527
1991	0.604	0.634	0.534	0.309	0.564	0.548	0.743	0.727	0.384	0.509	n.a.	0.564	n.a.	n.a.	0.617	0.587
1992	0.543	0.560	0.515	0.378	0.548	0.495	0.665	0.715	0.368	0.476	n.a.	0.566	n.a.	n.a.	0.605	0.558
1993	0.608	0.638	0.552	0.521	0.557	0.518	0.707	0.649	0.461	0.579	n.a.	0.567	n.a.	n.a.	0.595	0.573
1994	0.615	0.597	0.593	0.478	0.529	0.596	0.675	0.655	0.493	0.615	n.a.	0.535	n.a.	n.a.	0.693	0.608
1995	0.615	0.623	0.593	0.473	0.507	0.588	0.657	0.625	0.508	0.613	0.620	0.535	n.a.	0.779	0.688	0.604
1996	0.644	0.644	0.637	0.508	0.548	0.639	0.680	0.694	0.531	0.661	0.667	0.541	0.627	0.759	0.684	0.643
1997	0.689	0.697	0.666	0.556	0.584	0.703	0.797	0.780	0.577	0.707	0.699	0.590	0.707	0.779	0.848	0.708
1998	0.626	0.647	0.591	0.515	0.542	0.673	0.735	0.733	0.542	0.670	0.679	0.569	0.668	0.728	0.955	0.682
1999	0.588	0.615	0.552	0.476	0.520	0.633	0.677	0.687	0.488	0.640	0.600	0.549	0.629	0.665	0.910	0.639
2000	0.730	0.822	0.759	0.619	0.621	0.805	0.771	0.836	0.632	0.782	0.733	0.549	0.768	0.810	1.258	0.817
2001	0.735	0.821	0.820	0.641	0.725	0.805	0.940	0.902	0.645	0.825	0.771	0.648	0.870	0.857	1.286	0.864
2002	0.721	0.796	0.813	0.597	0.673	0.745	0.742	0.836	0.620	0.770	0.695	0.648	0.783	0.801	1.211	0.813

Source: Eurostat

2.5.5

Unleaded Petrol (95 RON) Prices

(All taxes included)

Current prices in euro per litre

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15
1990	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0.693	n.a.	n.a.	n.a.	n.a.	0.529	0.557
1991	0.685	0.668	0.575	0.600	0.658	0.774	0.785	0.951	0.474	0.714	n.a.	0.767	n.a.	n.a.	0.600	0.621
1992	0.657	0.637	0.665	0.531	0.696	0.720	0.761	0.936	0.479	0.775	n.a.	0.770	n.a.	n.a.	0.608	0.673
1993	0.719	0.668	0.704	0.716	0.696	0.737	0.765	0.819	0.536	0.804	n.a.	0.772	n.a.	n.a.	0.596	0.697
1994	0.743	0.686	0.794	0.664	0.653	0.792	0.687	0.822	0.560	0.851	n.a.	0.739	n.a.	n.a.	0.681	0.763
1995	0.779	0.754	0.811	0.636	0.644	0.847	0.688	0.789	0.628	0.873	0.755	0.785	n.a.	0.822	0.684	0.780
1996	0.853	0.824	0.832	0.645	0.680	0.900	0.686	0.860	0.642	0.908	0.831	0.781	0.932	0.887	0.671	0.811
1997	0.916	0.858	0.856	0.691	0.694	0.939	0.806	0.957	0.667	0.941	0.851	0.836	0.984	0.939	0.835	0.872
1998	0.888	0.856	0.808	0.689	0.678	0.941	0.761	0.925	0.648	0.966	0.834	0.807	0.960	0.956	0.951	0.872
1999	0.835	0.876	0.794	0.594	0.641	0.892	0.720	0.878	0.602	0.944	0.777	0.803	0.868	0.853	0.895	0.831
2000	0.957	1.001	0.956	0.672	0.749	1.039	0.815	0.999	0.741	1.057	0.868	0.803	1.062	1.004	1.219	1.010
2001	1.004	1.065	0.972	0.725	0.788	1.003	0.955	1.038	0.781	1.140	0.871	0.913	1.086	1.036	1.212	1.023
2002	0.946	1.040	0.989	0.692	0.768	0.959	0.802	0.996	0.736	1.102	0.821	0.858	1.004	0.954	1.134	0.980

Source: Eurostat

2.5.6

Electricity Prices for Industry

(Excise taxes included)

Current prices in euro per 100 kWh

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15
1990	5.75	4.37	7.43	5.52	7.08	4.96	5.24	6.00	4.83	4.36	n.a.	6.41	n.a.	n.a.	5.68	6.19
1991	5.52	4.30	7.36	5.42	7.74	4.99	5.25	6.53	4.49	4.27	n.a.	7.08	n.a.	n.a.	6.33	6.38
1992	5.43	4.04	7.49	5.88	7.95	5.16	5.27	7.00	4.43	4.09	n.a.	8.25	n.a.	n.a.	5.46	6.42
1993	5.78	4.67	7.73	5.29	7.45	5.51	5.44	6.09	4.68	4.44	n.a.	8.72	n.a.	n.a.	5.20	6.33
1994	5.65	4.66	7.88	4.96	6.48	5.61	5.19	6.33	4.72	4.49	n.a.	6.95	n.a.	n.a.	5.60	6.35
1995	6.03	4.71	8.05	4.82	6.16	5.61	5.06	6.24	4.83	4.74	6.88	6.55	4.42	n.a.	5.19	6.27
1996	6.01	5.14	7.47	4.85	6.37	5.61	4.95	6.28	4.90	4.83	6.93	6.18	4.20	3.34	4.64	5.89
1997	5.76	5.06	6.68	4.93	5.92	5.47	5.58	7.13	4.85	4.74	7.29	6.12	4.10	3.64	5.44	5.87
1998	5.64	5.50	6.43	4.94	5.49	5.15	5.31	7.13	4.64	4.70	7.00	5.81	3.91	3.28	5.39	5.68
1999	5.54	5.30	6.07	4.90	5.52	5.04	5.30	6.66	4.73	4.87	6.71	5.27	3.90	2.76	5.51	5.48
2000	5.53	n.a.	5.47	4.80	5.63	4.91	5.30	7.21	4.46	n.a.	n.a.	5.25	3.80	2.83	5.76	5.45
2001	5.72	n.a.	5.34	4.80	5.14	4.82	5.31	8.48	3.94	n.a.	n.a.	5.30	3.77	2.43	5.32	5.49
2002	5.84	n.a.	5.32	5.00	4.90	4.87	6.48	8.32	4.01	n.a.	n.a.	5.56	4.08	2.62	5.24	5.49

Source: Eurostat

Low Sulphur Fuel Oil Prices for Industry

(Excise taxes included)

Current prices in euro per tonne

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15
1990	116.2	154.0	128.8	127.1	127.5	120.3	138.2	142.2	121.0	169.2	n.a.	139.4	n.a.	n.a.	119.3	129.8
1991	127.9	130.8	158.1	132.4	145.6	138.2	142.1	185.0	129.2	163.2	n.a.	152.2	n.a.	n.a.	135.8	150.2
1992	62.5	96.9	109.3	121.9	92.1	75.7	101.7	134.8	97.2	128.7	n.a.	146.8	n.a.	n.a.	79.2	101.5
1993	99.7	99.5	97.5	138.8	97.4	90.0	119.3	129.9	100.5	139.1	n.a.	151.3	n.a.	n.a.	85.8	105.0
1994	80.6	107.4	97.3	120.4	97.9	117.2	106.0	120.1	92.7	133.1	n.a.	135.9	n.a.	n.a.	81.9	103.4
1995	114.5	130.8	122.6	155.7	143.7	141.4	133.7	144.6	123.1	164.0	117.4	148.1	n.a.	327.0	121.4	143.5
1996	114.3	149.8	120.8	168.1	153.1	131.7	142.7	145.3	120.3	173.0	128.1	145.5	167.5	340.6	113.6	148.6
1997	125.1	142.3	126.7	178.4	162.4	132.7	169.8	155.9	129.9	183.4	138.5	169.5	187.5	363.7	144.5	159.5
1998	100.8	135.3	113.9	165.8	145.5	106.4	161.8	138.3	117.4	155.2	140.3	150.2	186.8	357.9	129.8	146.2
1999	81.8	153.6	91.0	140.3	128.8	108.9	122.0	118.3	89.5	136.4	106.8	133.6	157.7	308.3	108.1	127.5
2000	142.2	194.7	155.0	209.4	194.3	165.1	n.a.	188.3	157.6	200.1	165.0	204.9	207.5	418.9	n.a.	196.2
2001	158.7	224.9	164.6	237.2	244.0	189.0	n.a.	211.7	180.9	220.1	190.8	293.9	222.2	533.7	n.a.	231.5
2002	141.0	229.9	169.5	196.4	210.6	190.9	n.a.	202.6	145.4	202.0	168.4	247.0	277.4	469.3	n.a.	216.8

Source: Eurostat

Natural Gas Prices for Industry

(Excise taxes included)

Current prices in euro per GJ (GCV)

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15
1990	3.50	n.a.	4.29	n.a.	3.43	3.06	2.27	3.09	3.89	2.84	n.a.	n.a.	n.a.	n.a.	3.38	3.46
1991	3.90	n.a.	4.43	n.a.	3.89	3.19	2.60	3.78	4.20	2.95	n.a.	n.a.	n.a.	n.a.	3.49	3.74
1992	3.61	2.60	4.53	n.a.	2.58	3.22	n.a.	3.65	4.09	2.47	n.a.	n.a.	n.a.	n.a.	3.60	3.62
1993	3.35	2.73	4.49	n.a.	2.52	2.94	n.a.	3.27	4.21	2.63	n.a.	n.a.	n.a.	n.a.	3.36	3.44
1994	3.37	2.45	4.50	n.a.	2.11	3.00	n.a.	3.42	4.03	2.65	n.a.	n.a.	n.a.	n.a.	n.a.	3.50
1995	3.29	3.16	4.37	n.a.	2.80	2.85	n.a.	3.28	3.85	3.05	n.a.	n.a.	2.63	n.a.	3.09	3.41
1996	3.16	3.25	4.12	n.a.	2.95	2.90	n.a.	3.52	4.12	2.93	4.00	n.a.	2.95	n.a.	2.08	3.26
1997	3.39	3.75	4.66	n.a.	3.54	3.15	n.a.	4.14	4.90	3.31	4.92	n.a.	3.90	n.a.	2.49	3.70
1998	3.48	3.42	4.65	n.a.	3.50	3.27	n.a.	3.95	4.82	3.32	4.74	n.a.	3.59	n.a.	2.84	3.72
1999	2.68	2.66	3.97	n.a.	2.67	2.79	n.a.	3.33	3.72	2.70	4.80	n.a.	2.56	n.a.	2.81	3.19
2000	3.64	4.29	4.45	n.a.	3.89	3.83	n.a.	4.00	4.82	3.68	n.a.	n.a.	4.33	n.a.	2.98	3.78
2001	5.53	5.55	7.06	n.a.	5.38	5.50	n.a.	5.84	6.61	n.a.	6.62	n.a.	5.22	8.42	3.52	5.26
2002	4.46	4.33	6.57	n.a.	4.18	4.30	4.51	5.22	5.12	n.a.	5.88	4.17	4.90	7.73	5.09	4.91

Source: Eurostat

2.5.9

Steam Coal Prices for Industry

(Excise taxes included)

Current prices in euro per toe (NCV)

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
1990	62.16	134.56	202.30	n.a.	n.a.	105.83	n.a.	65.66	n.a.	70.38	91.46	n.a.	78.47	109.20	99.06
1991	59.59	132.72	204.32	n.a.	n.a.	106.08	n.a.	66.56	n.a.	67.87	93.72	n.a.	76.67	138.09	99.27
1992	n.a.	127.58	220.13	n.a.	n.a.	108.86	n.a.	56.98	n.a.	n.a.	97.27	n.a.	70.45	n.a.	93.42
1993	n.a.	92.60	231.81	n.a.	n.a.	113.82	n.a.	65.32	n.a.	n.a.	90.38	n.a.	63.17	n.a.	82.79
1994	n.a.	89.13	233.40	n.a.	n.a.	114.30	n.a.	61.29	n.a.	n.a.	87.50	n.a.	75.99	n.a.	82.24
1995	n.a.	92.77	n.a.	n.a.	n.a.	115.56	n.a.	62.52	n.a.	n.a.	92.94	n.a.	102.36	n.a.	71.45
1996	n.a.	n.a.	n.a.	n.a.	n.a.	116.14	n.a.	62.61	n.a.	n.a.	86.46	n.a.	97.01	n.a.	69.17
1997	n.a.	n.a.	n.a.	n.a.	n.a.	114.37	n.a.	67.34	n.a.	n.a.	84.56	59.19	120.51	n.a.	78.98
1998	n.a.	n.a.	n.a.	n.a.	n.a.	117.08	n.a.	58.74	n.a.	n.a.	85.28	45.05	119.57	n.a.	82.55
1999	n.a.	n.a.	n.a.	n.a.	n.a.	121.76	n.a.	50.88	n.a.	n.a.	79.00	42.73	126.34	n.a.	84.17
2000	n.a.	n.a.	n.a.	n.a.	n.a.	118.24	n.a.	66.19	n.a.	n.a.	n.a.	58.20	133.80	n.a.	106.30
2001	n.a.	n.a.	n.a.	n.a.	n.a.	104.15	n.a.	81.29	n.a.	n.a.	n.a.	73.37	150.21	n.a.	100.14
2002	n.a.	n.a.	n.a.	n.a.	n.a.	90.78	n.a.	71.04	n.a.	n.a.	n.a.	51.39	141.06	n.a.	103.05

Source: Organisation for Economic Co-operation and Development

Electricity Prices for Households

(All taxes included)

Current prices in euro per 100 kWh

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15
1990	11.49	12.54	11.72	7.93	10.37	10.96	8.18	14.99	9.89	9.89	n.a.	9.27	n.a.	n.a.	7.82	10.79
1991	11.42	12.38	11.60	7.92	11.96	11.10	8.18	17.46	9.64	9.64	n.a.	9.89	n.a.	n.a.	8.88	11.39
1992	11.52	12.72	12.96	9.21	12.47	11.55	8.38	22.28	9.71	9.71	n.a.	11.39	n.a.	n.a.	9.68	12.64
1993	12.53	13.12	13.90	8.29	12.36	12.27	8.66	18.73	10.35	10.35	n.a.	12.67	n.a.	n.a.	8.77	12.51
1994	12.79	13.46	14.30	7.78	11.17	12.54	8.26	19.30	10.56	10.56	n.a.	11.72	n.a.	n.a.	9.19	12.71
1995	13.54	13.80	14.60	7.95	11.25	12.61	8.06	18.29	10.95	10.95	n.a.	11.73	7.35	n.a.	9.27	12.57
1996	13.66	15.09	14.00	9.22	11.63	13.04	7.87	18.68	11.20	11.20	12.51	11.75	8.09	n.a.	8.63	12.60
1997	13.22	15.53	13.56	8.23	11.17	12.81	8.88	20.75	11.03	11.03	12.83	11.92	8.10	9.72	9.76	12.61
1998	13.24	16.87	13.38	8.33	10.59	12.29	8.60	20.75	10.91	10.91	12.69	11.67	8.06	10.63	9.96	12.51
1999	13.19	17.28	13.91	7.56	10.39	11.83	8.59	19.37	11.08	11.08	12.73	11.21	7.54	9.28	9.06	12.14
2000	13.20	18.40	14.05	6.86	10.01	11.57	8.59	18.48	10.86	10.86	12.35	11.14	7.48	9.52	10.12	12.26
2001	13.57	19.43	14.49	6.85	9.61	11.32	8.59	19.73	11.33	11.33	13.30	11.19	7.37	9.69	9.55	12.40
2002	13.43	20.74	15.12	7.10	9.61	11.43	9.36	18.51	11.82	11.82	13.35	11.43	7.89	10.51	9.83	12.56

Source: Eurostat

Light Fuel Oil Prices for Households

(All taxes included)

Current prices in euro per 1000 litres

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15
1990	194.2	530.2	228.6	197.4	265.4	335.9	270.5	582.2	225.2	304.7	n.a.	n.a.	n.a.	n.a.	212.3	318.7
1991	257.7	576.8	339.0	309.0	360.9	358.4	302.1	701.2	241.6	341.2	n.a.	n.a.	n.a.	n.a.	244.1	398.9
1992	169.4	496.5	213.6	378.1	303.3	297.0	236.4	728.5	177.4	269.9	n.a.	n.a.	n.a.	n.a.	168.3	314.3
1993	197.7	547.9	231.7	365.4	333.9	312.3	249.5	649.9	210.9	312.5	n.a.	n.a.	n.a.	n.a.	170.8	312.3
1994	189.0	539.7	227.0	326.4	288.2	319.4	239.0	656.7	203.2	299.5	n.a.	n.a.	n.a.	n.a.	170.4	297.6
1995	177.5	528.7	214.0	315.3	252.7	308.1	219.8	615.8	196.6	292.8	314.0	n.a.	n.a.	472.1	176.7	292.7
1996	201.5	569.7	229.6	346.4	269.0	325.9	253.7	661.3	203.6	337.3	343.5	n.a.	261.4	479.9	187.9	310.4
1997	255.6	615.3	295.3	359.1	322.3	380.9	298.7	756.5	256.3	400.6	345.6	n.a.	337.9	536.2	249.1	366.0
1998	198.9	564.7	223.3	287.5	281.6	329.5	263.3	722.5	220.8	371.0	312.9	n.a.	280.1	505.3	206.0	309.1
1999	158.4	573.4	186.5	209.3	242.6	283.6	201.0	688.4	163.6	339.0	256.5	n.a.	228.7	413.4	161.8	273.6
2000	278.4	683.0	327.4	278.2	359.5	411.0	405.2	799.5	280.1	490.5	395.3	334.2	347.3	547.6	293.7	396.3
2001	328.2	699.9	377.4	314.8	392.9	407.8	502.5	816.5	309.9	590.8	413.9	359.1	454.1	671.8	322.9	431.5
2002	273.0	664.9	312.9	302.9	339.0	314.1	397.5	816.0	260.0	552.0	371.7	359.0	334.0	648.4	251.9	374.5

Source: Eurostat

Natural Gas Prices for Households

(All taxes included)

Current prices in euro per GJ(GCV)

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15
1990	12.77	n.a.	12.16	n.a.	12.84	12.22	14.30	11.67	11.00	7.94	n.a.	n.a.	n.a.	n.a.	8.03	10.23
1991	13.48	n.a.	11.48	n.a.	13.76	12.62	14.65	11.94	11.67	9.53	n.a.	n.a.	n.a.	n.a.	9.20	10.85
1992	13.38	n.a.	11.87	n.a.	15.05	12.97	17.54	10.76	11.49	9.70	n.a.	n.a.	n.a.	n.a.	9.26	10.78
1993	13.99	n.a.	13.84	n.a.	14.24	12.99	18.08	9.15	10.49	9.38	n.a.	n.a.	n.a.	n.a.	7.99	10.47
1994	14.62	n.a.	14.50	n.a.	12.41	13.08	17.23	10.38	10.51	9.84	n.a.	n.a.	n.a.	n.a.	8.47	11.14
1995	15.07	n.a.	14.19	n.a.	12.77	12.60	16.83	10.05	10.75	9.99	n.a.	n.a.	n.a.	n.a.	8.91	11.19
1996	15.21	n.a.	13.54	n.a.	13.70	13.10	16.44	10.70	11.46	9.82	10.33	n.a.	n.a.	n.a.	8.26	11.04
1997	15.05	n.a.	13.86	n.a.	13.52	13.03	18.01	11.52	11.40	11.10	11.30	n.a.	n.a.	15.74	9.44	11.77
1998	15.21	n.a.	13.48	n.a.	13.43	13.82	17.04	11.31	11.33	10.96	11.15	n.a.	n.a.	15.49	9.83	11.80
1999	14.64	13.97	13.30	n.a.	13.06	13.02	16.18	11.37	10.89	10.26	11.27	n.a.	n.a.	14.86	8.98	11.39
2000	15.87	18.14	14.06	n.a.	13.50	12.38	16.20	12.21	11.30	10.39	11.27	n.a.	n.a.	15.70	10.03	12.07
2001	18.49	22.00	17.16	n.a.	16.30	14.72	16.20	14.39	13.37	8.57	15.19	n.a.	n.a.	18.44	9.56	13.49
2002	17.25	17.98	17.35	n.a.	15.42	15.74	16.19	13.80	12.32	9.45	15.19	16.66	n.a.	19.75	10.07	13.62

Source: Eurostat

2.5.13

Methodology for the calculation of EU-wide average fuel prices

All available price data has been used in the calculation of EU-wide fuel price averages. The overall EU price is an average of the prices in the individual countries weighted by their consumption.

Electricity

The prices are as of January 1st in the year shown. Prices are collected at a variety of locations in each country.

The reference consumer used for domestic prices corresponds to a standard dwelling of 100 m² with 4-5 rooms plus kitchen with an annual consumption of 7500 kWh.

For industrial prices, the standard consumer's annual consumption is 24000MWh.

The average price in each country is calculated as the median of the prices in the various locations. These country average prices are weighted by their final consumption (Domestic or Industry) to have the EU-wide price average.

The domestic prices shown here are the final selling prices while industrial prices are shown less VAT.

Gas

The same methodology is used for gas prices, but the standard used for domestic consumers corresponds to an annual consumption of 16.74 GJ while for industrial consumers this annual consumption is 418000 GJ.

Petroleum Products

Heating gasoil, low sulphur fuel oil, unleaded petrol and automotive diesel prices are supplied to Energy and Transport DG by the Member States as those being the most frequently encountered for the specific categories of sales. The prices given are as of January 15th in each year.

The heating gasoil prices given are for deliveries of between 2000 and 5000 litres while those for low sulphur fuel oil are for monthly deliveries of less than 2000 tonnes or annual deliveries of less than 24000 tonnes. The average pump prices are given for motor fuels.

The EU average prices are calculated by weighting the prices from each country by the corresponding final energy consumption.

Part 2 : ENERGY

Chapter 6 : Acceding and Candidate Countries

2.6.1

Acceding and Candidate Countries: Gross Inland Consumption
2000
Mtoe

	EU-15	Acceding Countries	CY	CZ	EE	HU	LV	LT	MT	PL	SK	SI	Candidate Countries	BG	RO	TR
All Fuels	1454.8	196.7	2.38	40.11	4.57	24.94	3.68	7.23	0.94	89.99	16.46	6.37	133.5	18.29	37.01	78.20
Solid fuels	215.0	90.8	0.03	21.65	2.98	3.96	0.17	0.10	-	56.36	4.25	1.31	37.4	6.42	7.75	23.28
Oil	587.7	46.8	2.31	7.58	0.51	6.93	1.20	2.33	0.94	20.22	2.44	2.38	45.3	4.16	10.10	31.00
Natural gas	335.7	37.0	-	7.50	0.66	9.66	1.09	2.09	-	9.96	5.25	0.78	29.0	2.64	13.68	12.64
Nuclear	222.8	14.8	-	3.51		3.66	-	2.17	-	-	4.25	1.23	6.1	4.69	1.41	-
Renewables	87.8	8.1	0.04	0.60	0.50	0.44	1.06	0.65	-	3.56	0.50	0.74	15.8	0.78	4.03	10.99
Other fuels*	5.7	-0.9	-	-0.73	-0.08	0.30	0.15	-0.11	-	-0.10	-0.23	-0.07	-0.1	-0.39	0.04	0.29

Source: Eurostat

*: Industrial wastes & electricity

2.6.2

Acceding and Candidate Countries: Final Energy Consumption

2000

Mtoe

	EU-15	Acceding Countries	CY	CZ	EE	HU	LV	LT	MT	PL	SK	SI	Candidate Countries	BG	RO	TR
By Fuel	951.1	118.9	1.64	24.08	2.36	15.74	2.91	3.65	0.52	55.56	7.90	4.52	86.4	8.48	22.43	55.50
Solid fuels	37.4	21.5	0.03	5.24	0.12	0.74	0.06	0.09	-	13.73	1.41	0.10	12.8	0.86	0.70	11.20
Oil	435.7	33.8	1.31	5.35	0.75	4.17	0.94	1.36	0.37	15.43	1.91	2.24	31.6	2.98	5.60	22.97
Gas	230.4	23.9		6.44	0.13	6.50	0.33	0.37	-	7.31	2.14	0.65	12.9	1.14	6.87	4.90
Electricity	191.7	19.6	0.26	4.24	0.43	2.53	0.38	0.53	0.15	8.32	1.89	0.90	13.2	2.07	2.92	8.24
Derived heat	15.0	13.5		2.62	0.51	1.44	0.59	0.72	-	6.89	0.55	0.20	4.4	0.88	3.57	-
Renewables	40.8	6.5	0.04	0.19	0.42	0.36	0.62	0.58	-	3.89	0.00	0.43	11.5	0.56	2.78	8.18
By Sector	951.1	118.9	1.64	24.08	2.36	15.74	2.91	3.65	0.52	55.56	7.86	4.52	86.4	8.48	22.43	55.50
Industry	270.8	39.6	0.45	10.72	0.53	3.49	0.67	0.67	0.07	18.81	2.76	1.42	33.2	3.54	9.01	20.60
Domestic & tertiary	369.7	56.3	0.34	9.26	1.26	9.00	1.55	1.93	0.13	27.50	3.56	1.79	35.9	3.12	10.00	22.73
Transport	310.5	23.0	0.85	4.10	0.58	3.25	0.69	1.05	0.32	9.25	1.55	1.31	17.4	1.82	3.42	12.16
Road	253.6	20.3	0.56	3.60	0.50	2.85	0.58	0.94	0.21	8.33	1.47	1.27	14.8	1.64	2.73	10.44
Railways	7.7	1.3	0.00	0.30	0.05	0.17	0.08	0.08	-	0.54	0.08	0.02	0.8	0.08	0.45	0.27
Air	44.0	1.3	0.29	0.20	0.02	0.22	0.03	0.03	0.11	0.37	0.00	0.02	1.5	0.10	0.13	1.26
Inland navigation	5.3	0.0	-	0.00	0.01	-	0.01	0.00	-	0.01	-	-	0.3	0.00	0.11	0.19

Source: Eurostat

2.6.3

**Acceding and Candidate Countries: Gross Electricity Generation
2000
TWh**

	EU-15	Acc. Cntrs.	CY	CZ	EE	HU	LV	LT	MT	PL	SK	SI	Cand. Cntrs.	RO	BG	TR
Total	2601.0	327.5	3.37	73.47	8.51	35.19	4.14	11.42	1.92	145.18	30.69	13.62	217.8	51.93	40.92	124.92
Nuclear	863.9	57.4	-	13.59	-	14.18	-	8.42	-	-	16.49	4.76	23.6	5.46	18.18	-
Conventional thermal	1325.5	250.3	3.37	57.04	8.49	20.72	1.31	2.36	1.92	140.84	9.22	5.00	145.2	31.70	19.78	93.77
Pumping	24.0	3.1	-	0.56	-	-	-	0.30	-	2.01	0.25	-	0.3	-	0.28	-
Renewables	387.5	16.7	0.00	2.28	0.02	0.29	2.82	0.34	0.00	2.33	4.73	3.86	48.6	14.78	2.69	31.15
of which:																
Hydro *	321.3	15.8	-	1.76	0.01	0.18	2.82	0.34	-	2.11	4.73	3.83	48.3	14.78	2.67	30.88
Geothermal	4.8	0.0	-	-	-	-	-	-	-	-	-	-	0.1	-	-	0.08
Wind	22.24	0.01	-	-	-	-	0.00	-	-	0.01	-	-	0.03	-	-	0.03
Biomass	39.2	0.9	-	0.52	0.01	0.11	0.00	0.00	-	0.22	-	0.03	0.2	0.00	0.02	0.17
Conventional thermal	1325.5	250.3	3.37	57.04	8.49	20.72	1.31	2.36	1.92	140.84	9.22	5.00	145.2	31.70	19.78	93.77
Coal	675.0	216.0	-	52.54	7.68	9.59	0.08	0.00	0.00	135.89	5.58	4.61	73.2	18.93	16.94	37.33
Oil	166.5	13.1	3.37	0.37	0.06	4.40	0.11	0.65	1.92	1.92	0.20	0.06	14.5	3.40	0.66	10.46
Gas	475.8	20.6	-	3.93	0.76	6.73	1.13	1.60	-	2.71	3.43	0.29	57.5	9.38	2.18	45.92
Others	8.3	0.7	0.00	0.20	0.00	0.00	0.00	0.11	0.00	0.33	0.00	0.04	0.1	0.00	0.00	0.05

Source: Eurostat

* Note: This entry does not include pumped storage presented above

2.6.4

Acceding and Candidate Countries: Import Dependency* 2000 %

	All Fuels	Solid fuels	Oil	Natural gas
EU-15	49.3	51.2	75.0	45.2
CY	99.2	101.9	100.6	-
CZ	23.2	-22.0	97.9	99.8
EE	31.7	9.5	101.9	100.0
HU	56.2	27.3	77.3	75.4
LV	62.6	37.9	95.0	101.9
LT	59.5	88.4	94.8	100.0
MT	100.5	-	100.5	-
PL	11.0	-28.9	98.5	66.3
SK	64.5	80.6	91.7	98.8
SI	52.1	18.8	101.4	99.3
Acceding Countries	29.9	-17.4	95.0	84.3
EU-25	47.1	30.8	76.5	49.1
BG	45.8	35.2	96.6	93.5
RO	21.9	24.6	35.1	19.8
TR	64.7	39.7	93.3	95.4
Candidate Countries	50.3	35.8	80.7	59.5
EU-28	47.3	31.4	76.7	49.8

Source: Eurostat

*: **Definition** of Import Dependency =

$$\frac{\text{Net Imports}}{\text{Bunkers} + \text{Gross Inland Consumption}}$$

Notes:

The averages for the current Member States (EU), the acceding countries and the candidate countries are weighted.

A negative number indicates that the country is a net exporter.

Values over 100 % are possible due to changes in stocks.

EU-25 = EU-15 + Acceding countries

EU-28 = EU-25 + Candidate countries

2.6.5

Indicators for Acceding Countries and Candidate Countries

	Energy intensity (toe/Meuro)*			Carbon intensity (tonnes of CO ₂ /toe)			GIC per capita (kgoe/inhabitant)			CO ₂ emissions per capita (kg/inhab.)		
	AC	CC	EU-15	AC	CC	EU-15	AC	CC	EU-15	AC	CC	EU-15
1990	n.a.	879	215	2.98	3.20	2.33	3120	1519	3605	9286	4858	8406
1991	n.a.	798	217	3.01	2.73	2.31	3014	1331	3661	9067	3639	8467
1992	1217	747	212	2.96	2.71	2.29	2844	1266	3617	8421	3430	8301
1993	1188	719	213	2.96	2.68	2.25	2799	1281	3601	8295	3432	8114
1994	974	718	208	3.00	2.69	2.24	2695	1220	3588	8086	3281	8049
1995	947	736	207	2.92	2.61	2.24	2764	1323	3654	8082	3447	8176
1996	946	745	211	2.84	2.59	2.22	2888	1400	3777	8202	3625	8379
1997	886	694	205	2.83	2.63	2.18	2836	1368	3747	8015	3599	8168
1998	826	659	204	2.78	2.57	2.17	2746	1313	3822	7622	3377	8302
1999	773	694	199	2.82	2.38	2.16	2655	1319	3820	7487	3138	8238
2000	694	694	194	2.78	2.46	2.16	2623	1362	3844	7299	3345	8286
2001	698	677	195	2.76	2.60	2.14	2717	1269	3907	7500	3299	8346

Source: Eurostat

AC = Acceding Countries, CC = Candidate Countries

Definition of carbon intensity = CO₂ emissions / gross inland consumption

Definition of energy intensity = Gross Inland Consumption (GIC) of energy / gross domestic product

* Note: In real (1995) value of money

Part 2 : ENERGY

Chapter 7 : EFTA Countries

2.7.1

EFTA Countries

Gross Inland Consumption

2000 - Mtoe	EU-15	AC	EFTA	IS	N	CH
All Fuels	1454.8	196.7	55.8	3.2	26.1	26.5
Solid fuels	215.0	90.8	1.3	0.1	1.1	0.1
Oil	587.7	46.8	23.3	0.8	9.7	12.7
Natural gas	335.7	37.0	6.1	-	3.6	2.4
Nuclear	222.8	14.8	6.9	-	-	6.9
Renewables	87.8	8.1	20.5	2.3	13.3	4.9
Other fuels	5.7	-0.9	-2.2	-	-1.6	-0.6

Source: Eurostat, Organisation for Economic Co-operation and Development

Final Energy Consumption

2000 - Mtoe	EU-15	AC	EFTA	IS	N	CH
By Fuel	951.1	118.9	40.7	2.1	18.0	20.6
Solid fuels	37.4	47.0	1.2	0.1	1.0	0.1
Oil	435.7	96.9	19.4	0.7	6.1	12.6
Gas	230.4	49.7	2.4	-	0.2	2.2
Electricity	191.7	46.1	14.5	0.6	9.4	4.5
Derived heat	15.0	22.4	0.6	0.2	0.1	0.3
Renewables	40.8	29.5	2.5	0.5	1.2	0.9
By sector	951.1	118.8	40.7	2.1	18.0	20.6
Industry	270.8	105.9	11.8	0.7	7.0	4.2
Domestic & tertiary	369.7	128.0	17.0	1.0	6.6	9.4
Transport	310.5	57.8	11.8	0.3	4.4	7.1
Road	253.6	49.9	8.3	0.2	3.0	5.1
Railways	7.7	2.9	0.4	-	0.1	0.2
Air	44.0	4.3	2.5	0.1	0.7	1.7
Inland navigation	5.3	0.6	0.7	0.0	0.7	0.0

Source: Eurostat, Organisation for Economic Co-operation and Development

Note: EFTA: without Lichtenstein (= N / IS / CH)

AC = Acceding Countries

2.7.2

EFTA Countries Gross Electricity Generation

2000 - TWh	EU-15	AC	EFTA	IS	N	CH
Total	2577.0	324.4	213.3	7.7	139.7	66.0
Nuclear	863.9	57.4	26.4	-	-	26.4
Conv. thermal	1325.5	250.3	1.8	0.0	0.7	1.1
Renewables	387.5	16.7	185.1	7.7	138.9	38.5
Conv. thermal	1325.5	250.3	1.8	0.0	0.7	1.1
Solid fuels	675.0	216.0	0.0	-	0.0	0.0
Oil	166.5	13.1	0.2	0.0	0.1	0.1
Gas	475.8	20.6	1.3	-	0.3	1.0
Indust.wastes	8.3	0.7	0.2	0.0	0.2	-

Source: Eurostat, Organisation for Economic Co-operation and Development (*without pumping*)

Import Dependency

2000 - %	EU-15	AC	EFTA	IS	N	CH
All Fuels	49.3	29.9	-322.0	31.2	-735.5	31.9
Solid fuels	51.2	-17.4	67.6	100.0	55.8	136.2
Oil	75.0	95.0	-585.6	104.3	-1470.2	96.3
Nat. gas	45.2	84.3	-655.5	-	-1161.4	100.0

Source: Eurostat, Organisation for Economic Co-operation and Development

Definition: Import Dependency = Net Imports / (Bunkers+Gross Inland Consumption)

Notes:

A negative number indicates that the country is a net exp
Values over 100 % are possible due to changes in stocks

EFTA: without Lichtenstein (= N / IS / CH)

AC = Acceding Countries

2.7.3

Indicators for EFTA Countries

	Energy intensity (toe/Meuro)*	Carbon intensity (tonnes of CO ₂ /toe)	GIC per capita (kgoe/inhabitant)	CO ₂ emissions per capita (kg/inhab.)
1990	146	1.52	4362	6644
1991	147	1.51	4361	6598
1992	148	1.56	4383	6851
1993	150	1.53	4432	6780
1994	147	1.54	4419	6826
1995	145	1.54	4379	6752
1996	143	1.60	4386	7000
1997	144	1.54	4527	6986
1998	144	1.57	4647	7279
1999	146	1.55	4753	7374
2000	140	1.47	4666	6845

Source: Commission services, Organisation for Economic Co-operation and Development

Definition: carbon intensity = CO₂ emissions / gross inland consumption

Definition: energy intensity = gross inland consumption of energy / gross domestic product

Notes:

EFTA: without Lichtenstein (= N / IS / CH)

* In real (1995) value of money

Part 2 : ENERGY

Chapter 8 : World Context

2.8.1

World Gross Inland Energy Consumption

	World Mtoe	USA %	EU-15 %	Japan %	Russia %	China* %	India %
1985	7709	23.1	16.1	4.7	n.a.	9.1	3.8
1990	8591	22.4	15.3	5.1	n.a.	10.1	4.2
1991	8692	22.4	15.5	5.1	n.a.	10.0	4.4
1992	8732	22.7	15.3	5.2	8.9	10.4	4.5
1993	8834	22.9	15.1	5.2	8.4	10.8	4.6
1994	8891	23.2	15.0	5.4	7.3	11.2	4.7
1995	9107	22.9	15.0	5.4	6.9	11.7	4.8
1996	9377	22.8	15.1	5.4	6.6	11.9	4.8
1997	9456	22.9	14.9	5.4	6.3	11.8	4.9
1998	9518	22.9	15.1	5.4	6.1	11.7	5.1
1999	9702	23.2	14.9	5.3	6.2	11.5	5.2
2000	9946	23.2	14.6	5.3	6.2	11.5	5.3

Source: Commission services, Organisation for Economic Co-operation and Development

*: Includes Hong Kong

2.8.2

World Gross Inland Energy Consumption

2000	World Mtoe	USA %	EU-15 %	Japan %	Russia %	China*	India %
All Fuels	9977.7	23.1	14.9	5.3	6.2	11.4	5.2
Solid fuels	2336.0	23.2	9.4	4.1	4.7	28.1	7.5
Oil	3482.7	25.6	17.2	7.5	3.7	6.4	3.2
Natural gas	2112.4	26.0	16.3	3.1	15.1	1.3	1.1
Nuclear	680.4	30.6	33.8	12.3	5.1	0.6	0.6
Renewables	1367.1	8.0	6.7	1.2	1.5	17.1	15.2
<i>Hydro</i>	227.4	9.6	12.8	3.3	6.2	8.4	2.8
<i>Geothermal</i>	43.5	30.1	7.9	6.6	0.1	0.0	0.0
<i>Wind/Solar</i>	7.2	27.4	37.8	12.6	0.0	0.0	1.9
<i>Biomass</i>	1089.0	6.7	5.2	0.5	0.6	19.7	18.5

Source: Commission services, Organisation for Economic Co-operation and Development

* Includes Hong Kong

2.8.3

World Energy Intensity toe/ Meuro*

	World	USA	EU-15	Japan	Russia	China	India
1985	448.5	418.82	237.0	122.9	n.a.	3381.6	1905.5
1986	443.9	405.41	233.7	120.8	n.a.	3218.9	1883.2
1987	444.4	408.99	231.7	117.1	n.a.	3032.5	1875.8
1988	440.2	408.11	223.9	117.7	n.a.	2874.4	1793.0
1989	431.1	400.11	219.5	116.1	n.a.	2816.0	1768.2
1990	426.0	386.67	215.4	115.7	n.a.	2863.3	1726.1
1991	426.3	391.78	216.6	114.7	n.a.	2630.0	1787.3
1992	420.6	387.7	212.4	115.8	2297.1	2384.7	1757.6
1993	419.8	385.1	213.3	116.4	2422.4	2219.4	1720.7
1994	410.0	377.5	207.5	120.8	2418.9	2060.9	1658.2
1995	408.7	372.3	207.1	122.4	2433.9	1992.3	1622.8
1996	407.7	368.3	211.2	121.5	2472.2	1898.8	1557.4
1997	397.3	356.3	205.0	120.9	2365.0	1752.4	1534.2
1998	391.2	344.4	203.7	121.3	2429.3	1616.9	1495.2
1999	387.4	340.7	198.8	121.5	2390.7	1517.2	1461.2
2000	382.4	336.5	194.0	120.7	2233.1	1435.2	1465.6

Source: Commission services, Organisation for Economic Co-operation and Development

Definition of energy intensity = gross inland consumption of energy / gross domestic product

* Note: In real (1995) value of money

2.8.4

World Carbon Intensity
tonnes of CO₂/toe

	World*	USA	EU-15	Japan	Russia	China	India
1985	2.40	2.56	2.47	2.38		2.46	1.43
1986	2.39	2.54	2.45	2.35		2.51	1.47
1987	2.39	2.52	2.42	2.34		2.57	1.53
1988	2.39	2.53	2.39	2.36		2.62	1.57
1989	2.40	2.51	2.36	2.34		2.66	1.63
1990	2.37	2.50	2.35	2.32		2.60	1.62
1991	2.36	2.46	2.34	2.33		2.72	1.69
1992	2.37	2.47	2.31	2.31	2.43	2.77	1.73
1993	2.36	2.49	2.26	2.26	2.44	2.76	1.75
1994	2.36	2.48	2.25	2.26	2.47	2.81	1.79
1995	2.35	2.45	2.24	2.21	2.53	2.79	1.83
1996	2.36	2.47	2.24	2.20	2.53	2.82	1.87
1997	2.35	2.49	2.21	2.16	2.44	2.74	1.87
1998	2.35	2.49	2.20	2.16	2.47	2.78	1.88
1999	2.32	2.44	2.16	2.19	2.44	2.66	1.89
2000	2.32	2.46	2.17	2.20	2.45	2.62	1.87

Source: Commission services, Organisation for Economic Co-operation and Development

Definition: Carbon intensity = CO₂ emissions / gross inland consumption

* *Bunkers included*

Part 2 : ENERGY

Chapter 9 : EU Summary Balance Sheets

2.9.1

Energy Balance for the European Union

Mtoe	1990	1995	2001
Production	708.87	740.13	761.19
Fossil fuels	460.44	464.14	437.21
Nuclear energy	181.44	201.24	229.94
Renewable energy	66.99	74.75	94.05
Net Imports	642.09	651.08	765.86
Solid fuels	88.95	94.47	119.42
Oil	458.52	446.39	494.58
Natural gas	92.23	108.61	148.89
Electricity	2.33	1.50	2.87
Gross Inland Consumption	1318.56	1364.23	1486.16
Solid fuels	301.69	237.91	216.63
Oil	543.81	575.20	598.85
Natural gas	222.03	273.51	343.73
Others	251.03	277.61	326.95
Electricity Generation (TWh)	2060.84	2327.23	2671.37
Nuclear power (TWh)	720.20	810.27	891.39
Renewable* (TWh)	296.76	339.07	436.68
Conventional Thermal (TWh)	1043.88	1177.90	1343.31
Fuel Inputs for Thermal Power	267.78	271.75	299.07
Solid fuels	182.28	161.85	157.45
Oil	42.04	43.49	32.39
Gas	36.66	55.12	91.46
Biomass and geothermal	6.79	11.29	17.77
Non-Energy Uses	84.11	93.95	92.95
Total Final Energy Demand	861.21	897.76	970.31
Solid fuels	79.89	48.46	36.34
Oil	395.35	417.08	445.95
Gas	178.61	208.15	233.94
Electricity	155.93	169.31	196.47
Derived Heat	16.44	19.15	15.91
Renewable sources	34.99	35.62	41.71
CO₂ Emissions (Mt)**	3075.00	3052.02	3174.48

Energy intensity (toe/M€95)	215.35	207.07	195.19
Import dependency, %	47.47	46.54	50.07

Source: Eurostat

* including pumping **without maritime bunkers

2.9.2

Energy Balance for Belgium

Mtoe	1990	1995	2001
Production	12.53	11.34	12.90
Fossil fuels	1.09	0.27	0.11
Nuclear energy	10.71	10.34	11.96
Renewable energy	0.73	0.73	0.83
Net Imports	38.86	43.78	48.71
Solid fuels	9.49	9.34	7.55
Oil	21.47	23.58	27.14
Natural gas	8.22	10.42	13.13
Electricity	-0.32	0.35	0.78
Gross Inland Consumption	47.26	50.46	55.62
Solid fuels	10.24	8.55	7.08
Oil	17.73	19.79	21.69
Natural gas	8.17	10.61	13.18
Others	11.11	11.50	13.67
Electricity Generation (TWh)	70.85	74.43	79.70
Nuclear power (TWh)	42.72	41.36	46.35
Renewable* (TWh)	1.40	1.84	2.63
Conventional Thermal (TWh)	26.73	31.23	30.72
Fuel Inputs for Thermal Power	6.56	7.18	6.43
Solid fuels	3.88	3.76	2.27
Oil	0.32	0.23	0.25
Gas	1.98	2.72	3.43
Biomass and geothermal	0.39	0.47	0.48
Non-Energy Uses	2.74	3.29	5.83
Total Final Energy Demand	31.30	34.50	37.21
Solid fuels	3.79	3.31	3.30
Oil	14.76	16.26	16.25
Gas	7.25	8.52	10.07
Electricity	4.99	5.88	6.72
Derived Heat	0.21	0.22	0.48
Renewable sources	0.31	0.31	0.39
CO₂ Emissions (Mt)**	106.64	113.00	112.53
Energy intensity (toe/M€95)	241.64	238.34	226.50
Import dependency, %	75.68	80.53	80.05

Source: Eurostat

* including pumping **without maritime bunkers

2.9.3

Energy Balance for Denmark

Mtoe	1990	1995	2001
Production	10.67	15.74	26.94
Fossil fuels	8.87	14.01	24.78
Nuclear energy	0.00	0.00	0.00
Renewable energy	1.80	1.73	2.16
Net Imports	7.74	7.53	-5.71
Solid fuels	5.33	7.66	4.06
Oil	2.73	1.43	-6.72
Natural gas	-0.93	-1.50	-3.05
Electricity	0.61	-0.07	-0.05
Gross Inland Consumption	17.64	20.42	19.94
Solid fuels	5.22	6.50	4.20
Oil	8.20	9.09	8.96
Natural gas	1.82	3.17	4.63
Others	2.41	1.67	2.15
Electricity Generation (TWh)	25.82	36.79	37.71
Nuclear power (TWh)			
Renewable* (TWh)	0.78	2.09	6.45
Conventional Thermal (TWh)	25.04	34.70	31.27
Fuel Inputs for Thermal Power	6.02	8.42	8.20
Solid fuels	5.54	6.06	3.94
Oil	0.24	1.01	1.29
Gas	0.17	0.98	2.19
Biomass and geothermal	0.06	0.38	0.79
Non-Energy Uses	0.29	0.29	0.24
Total Final Energy Demand	13.80	14.72	14.75
Solid fuels	0.40	0.41	0.24
Oil	7.06	7.13	6.83
Gas	1.16	1.69	1.77
Electricity	2.52	2.69	2.84
Derived Heat	2.10	2.23	2.44
Renewable sources	0.57	0.59	0.63
CO₂ Emissions (Mt)**	51.56	59.23	52.90

Energy intensity (toe/M€95)	141.16	148.22	125.41
Import dependency, %	41.65	34.26	-27.16

Source: Eurostat

* including pumping **without maritime bunkers

2.9.4

Energy Balance for Germany

Mtoe	1990	1995	2001
Production	186.39	141.34	133.01
Fossil fuels	142.53	96.83	77.74
Nuclear energy	37.67	37.32	44.19
Renewable energy	6.20	7.19	11.08
Net Imports	166.85	195.15	215.65
Solid fuels	4.84	10.99	25.77
Oil	120.13	130.81	131.44
Natural gas	41.81	52.93	58.20
Electricity	0.07	0.41	0.23
Gross Inland Consumption	356.07	337.09	348.84
Solid fuels	133.10	92.17	85.04
Oil	124.04	133.57	132.71
Natural gas	55.00	66.42	75.59
Others	43.94	44.93	55.50
Electricity Generation (TWh)	453.59	536.24	581.58
Nuclear power (TWh)	152.47	154.09	171.31
Renewable* (TWh)	23.06	29.71	40.63
Conventional Thermal (TWh)	278.07	352.44	369.65
Fuel Inputs for Thermal Power	89.89	85.69	87.29
Solid fuels	75.54	69.15	68.35
Oil	2.86	2.07	1.11
Gas	10.09	12.19	15.03
Biomass and geothermal	1.40	2.28	2.80
Non-Energy Uses	22.80	22.82	24.85
Total Final Energy Demand	227.22	222.34	214.87
Solid fuels	37.14	14.89	10.29
Oil	96.74	104.47	100.78
Gas	42.72	52.59	56.70
Electricity	38.39	38.91	42.15
Derived Heat	9.15	8.74	0.00
Renewable sources	3.07	2.73	4.96
CO₂ Emissions (Mt)**	944.89	869.70	835.09
Energy intensity (toe/M€95)	205.06	179.28	168.82
Import dependency, %	46.53	57.54	61.43

Source: Eurostat

* including pumping **without maritime bunkers

2.9.5

Energy Balance for Greece

Mtoe	1990	1995	2001
Production	9.15	9.70	9.94
Fossil fuels	8.05	8.41	8.62
Nuclear energy	0.00	0.00	0.00
Renewable energy	1.10	1.29	1.32
Net Imports	15.37	18.21	22.32
Solid fuels	0.99	0.92	0.86
Oil	14.32	17.21	19.58
Natural gas	0.00	0.00	1.67
Electricity	0.06	0.07	0.21
Gross Inland Consumption	22.25	24.14	28.94
Solid fuels	8.09	8.78	9.31
Oil	12.85	13.95	16.41
Natural gas	0.14	0.04	1.68
Others	1.17	1.36	1.53
Electricity Generation (TWh)	35.00	41.55	53.70
Nuclear power (TWh)			
Renewable* (TWh)	2.00	3.82	3.48
Conventional Thermal (TWh)	33.00	37.74	50.22
Fuel Inputs for Thermal Power	8.72	9.88	11.61
Solid fuels	6.89	7.79	8.44
Oil	1.80	2.08	1.87
Gas	0.03	0.01	1.27
Biomass and geothermal	0.00	0.00	0.03
Non-Energy Uses	0.64	0.44	0.66
Total Final Energy Demand	14.53	15.81	19.11
Solid fuels	1.07	1.08	0.90
Oil	10.05	10.80	12.99
Gas	0.01	0.01	0.32
Electricity	2.45	2.93	3.83
Derived Heat	0.00	0.00	0.03
Renewable sources	0.95	0.98	1.04
CO₂ Emissions (Mt)**	71.10	78.22	91.04
Energy intensity (toe/M€95)	263.26	268.52	261.57
Import dependency, %	62.06	65.79	68.90

Source: Eurostat

* including pumping **without maritime bunkers

2.9.6

Energy Balance for Spain

Mtoe	1990	1995	2001
Production	33.72	31.36	33.08
Fossil fuels	13.75	11.33	8.16
Nuclear energy	13.70	14.30	16.43
Renewable energy	6.28	5.72	8.48
Net Imports	59.86	75.42	98.76
Solid fuels	7.04	9.15	11.09
Oil	49.17	58.36	71.55
Natural gas	3.69	7.52	15.83
Electricity	-0.04	0.39	0.30
Gross Inland Consumption	89.40	102.21	126.25
Solid fuels	18.94	19.52	18.46
Oil	45.55	54.56	66.18
Natural gas	4.97	7.72	16.40
Others	19.94	20.41	25.21
Electricity Generation (TWh)	151.84	167.33	237.99
Nuclear power (TWh)	54.27	55.46	63.71
Renewable* (TWh)	26.80	26.04	52.79
Conventional Thermal (TWh)	70.77	85.83	121.50
Fuel Inputs for Thermal Power	16.68	18.60	24.98
Solid fuels	13.88	13.59	15.94
Oil	2.17	3.65	5.07
Gas	0.49	0.99	3.18
Biomass and geothermal	0.15	0.38	0.79
Non-Energy Uses	5.85	8.01	9.42
Total Final Energy Demand	56.65	63.54	83.25
Solid fuels	3.52	2.23	1.80
Oil	33.49	38.97	47.24
Gas	4.87	6.84	13.37
Electricity	10.82	12.12	17.28
Derived Heat	0.00	0.04	0.00
Renewable sources	3.95	3.33	3.56
CO₂ Emissions (Mt)**	203.52	226.31	284.55
Energy intensity (toe/M€95)	215.58	228.71	228.13
Import dependency, %	64.22	71.58	74.32

Source: Eurostat

* including pumping **without maritime bunkers

2.9.7

Energy Balance for France

Mtoe	1990	1995	2001
Production	108.32	123.32	131.95
Fossil fuels	13.54	11.44	4.70
Nuclear energy	79.13	93.99	108.62
Renewable energy	15.66	17.90	18.64
Net Imports	119.76	115.30	132.43
Solid fuels	13.00	9.01	11.20
Oil	86.56	85.42	95.65
Natural gas	24.10	26.88	31.46
Electricity	-3.91	-6.01	-5.88
Gross Inland Consumption	223.12	235.63	262.32
Solid fuels	19.96	15.29	12.56
Oil	87.67	85.50	94.59
Natural gas	24.61	28.96	33.79
Others	90.88	105.88	121.38
Electricity Generation (TWh)	419.96	493.44	549.18
Nuclear power (TWh)	314.08	377.23	421.07
Renewable* (TWh)	58.77	78.13	82.85
Conventional Thermal (TWh)	47.11	38.08	45.26
Fuel Inputs for Thermal Power	10.91	8.49	10.72
Solid fuels	7.33	5.44	4.85
Oil	1.92	0.61	0.95
Gas	1.42	1.22	3.33
Biomass and geothermal	0.23	1.22	1.58
Non-Energy Uses	13.08	16.59	14.48
Total Final Energy Demand	136.00	141.24	155.71
Solid fuels	9.05	6.90	5.04
Oil	67.57	68.03	76.33
Gas	23.69	27.10	30.08
Electricity	25.96	29.46	34.01
Derived Heat	0.00	0.00	0.00
Renewable sources	9.73	9.75	10.24
CO₂ Emissions (Mt)**	354.14	344.99	374.07
Energy intensity (toe/M€95)	197.98	198.32	190.00
Import dependency, %	53.08	48.42	49.97

Source: Eurostat

* including pumping **without maritime bunkers

2.9.8

Energy Balance for Ireland

Mtoe	1990	1995	2001
Production	3.50	4.26	1.73
Fossil fuels	3.33	4.03	1.47
Nuclear energy	0.00	0.00	0.00
Renewable energy	0.17	0.22	0.26
Net Imports	7.08	7.60	13.11
Solid fuels	2.08	1.83	1.85
Oil	5.00	5.68	8.36
Natural gas	0.00	0.08	2.93
Electricity	0.00	0.00	-0.02
Gross Inland Consumption	10.25	11.02	14.39
Solid fuels	3.53	2.90	2.61
Oil	4.65	5.57	7.96
Natural gas	1.89	2.33	3.58
Others	0.17	0.22	0.24
Electricity Generation (TWh)	14.51	17.86	24.96
Nuclear power (TWh)			
Renewable* (TWh)	0.98	0.98	1.35
Conventional Thermal (TWh)	13.53	16.88	23.61
Fuel Inputs for Thermal Power	2.95	3.88	5.18
Solid fuels	1.77	2.11	2.11
Oil	0.33	0.61	1.19
Gas	0.84	1.15	1.85
Biomass and geothermal	0.00	0.00	0.02
Non-Energy Uses	0.61	0.54	0.45
Total Final Energy Demand	7.11	7.75	10.68
Solid fuels	1.56	0.88	0.50
Oil	3.85	4.63	6.98
Gas	0.57	0.80	1.23
Electricity	1.02	1.28	1.80
Derived Heat	0.00	0.00	0.00
Renewable sources	0.11	0.16	0.16
CO₂ Emissions (Mt)**	29.60	32.82	43.16

Energy intensity (toe/M€95)	253.45	216.62	165.32
Import dependency, %	68.97	68.19	90.05

Source: Eurostat

* including pumping **without maritime bunkers

2.9.9

Energy Balance for Italy

Mtoe	1990	1995	2001
Production	27.40	30.84	30.28
Fossil fuels	19.07	21.73	16.67
Nuclear energy	0.00	0.00	0.00
Renewable energy	8.32	9.11	13.61
Net Imports	131.95	134.69	147.26
Solid fuels	13.79	12.99	13.62
Oil	89.88	89.96	84.67
Natural gas	25.30	28.53	44.81
Electricity	2.98	3.22	4.16
Gross Inland Consumption	154.76	162.74	176.61
Solid fuels	14.64	12.33	13.49
Oil	89.82	93.43	87.25
Natural gas	39.00	44.65	58.10
Others	11.30	12.33	17.77
Electricity Generation (TWh)	216.88	241.11	279.00
Nuclear power (TWh)			
Renewable* (TWh)	38.47	45.74	62.20
Conventional Thermal (TWh)	178.41	195.37	216.80
Fuel Inputs for Thermal Power	39.62	42.80	46.24
Solid fuels	7.07	5.34	6.99
Oil	21.53	25.01	16.51
Gas	8.90	10.16	19.05
Biomass and geothermal	2.11	2.29	3.70
Non-Energy Uses	9.84	13.88	10.33
Total Final Energy Demand	109.48	115.75	129.70
Solid fuels	4.28	4.14	3.81
Oil	53.62	53.10	57.46
Gas	29.68	34.51	38.80
Electricity	18.41	20.44	23.85
Derived Heat	0.00	0.00	0.00
Renewable sources	3.49	3.56	5.79
CO₂ Emissions (Mt)**	388.26	402.46	424.39
Energy intensity (toe/M€95)	196.48	193.96	188.47
Import dependency, %	83.82	81.56	82.07

Source: Eurostat

* including pumping **without maritime bunkers

2.9.10

Energy Balance for Luxembourg

Mtoe	1990	1995	2001
Production	0.05	0.05	0.05
Fossil fuels	0.00	0.00	0.00
Nuclear energy	0.00	0.00	0.00
Renewable energy	0.05	0.05	0.05
Net Imports	3.52	3.26	3.69
Solid fuels	1.13	0.51	0.11
Oil	1.62	1.76	2.40
Natural gas	0.43	0.56	0.69
Electricity	0.34	0.43	0.49
Gross Inland Consumption	3.55	3.34	3.77
Solid fuels	1.13	0.51	0.11
Oil	1.61	1.79	2.42
Natural gas	0.43	0.56	0.69
Others	0.38	0.48	0.54
Electricity Generation (TWh)	1.38	1.24	1.24
Nuclear power (TWh)			
Renewable* (TWh)	0.87	0.88	0.96
Conventional Thermal (TWh)	0.52	0.36	0.28
Fuel Inputs for Thermal Power	0.19	0.13	0.09
Solid fuels	0.00	0.00	0.00
Oil	0.00	0.00	0.00
Gas	0.16	0.11	0.06
Biomass and geothermal	0.03	0.02	0.03
Non-Energy Uses	0.02	0.02	0.01
Total Final Energy Demand	3.32	3.15	3.69
Solid fuels	0.75	0.37	0.11
Oil	1.58	1.75	2.41
Gas	0.62	0.58	0.64
Electricity	0.35	0.43	0.48
Derived Heat	0.00	0.00	0.03
Renewable sources	0.02	0.02	0.02
CO₂ Emissions (Mt)**	10.63	8.71	9.28

Energy intensity (toe/M€95)	310.50	241.10	193.32
Import dependency, %	99.00	97.66	97.91

Source: Eurostat

* including pumping **without maritime bunkers

2.9.11

Energy Balance for the Netherlands

Mtoe	1990	1995	2001
Production	60.29	65.99	60.84
Fossil fuels	58.64	64.02	58.00
Nuclear energy	0.88	1.04	1.03
Renewable energy	0.77	0.93	1.82
Net Imports	17.39	16.34	31.41
Solid fuels	9.52	8.90	8.40
Oil	30.88	32.83	41.69
Natural gas	-23.80	-26.37	-20.17
Electricity	0.79	0.98	1.49
Gross Inland Consumption	66.81	73.35	77.59
Solid fuels	9.15	9.08	8.33
Oil	24.42	27.24	29.37
Natural gas	30.81	34.09	35.55
Others	2.44	2.95	4.33
Electricity Generation (TWh)	71.97	81.07	93.75
Nuclear power (TWh)	3.50	4.02	3.98
Renewable* (TWh)	1.19	1.96	4.40
Conventional Thermal (TWh)	67.28	75.10	85.37
Fuel Inputs for Thermal Power	14.51	16.84	18.90
Solid fuels	5.70	5.90	5.37
Oil	0.70	0.88	0.65
Gas	7.65	9.47	11.37
Biomass and geothermal	0.46	0.60	1.51
Non-Energy Uses	9.33	9.33	9.47
Total Final Energy Demand	43.00	47.43	50.70
Solid fuels	1.71	1.41	1.34
Oil	13.16	14.68	16.51
Gas	21.24	22.52	21.47
Electricity	6.32	7.14	8.55
Derived Heat	0.27	1.38	2.61
Renewable sources	0.30	0.30	0.23
CO₂ Emissions (Mt)**	153.02	167.32	169.08
Energy intensity (toe/M€95)	233.85	231.16	201.81
Import dependency, %	22.40	19.32	34.07

Source: Eurostat

* including pumping **without maritime bunkers

2.9.12

Energy Balance for Austria

Mtoe	1990	1995	2001
Production	8.08	8.62	9.70
Fossil fuels	2.93	2.62	2.77
Nuclear energy	0.00	0.00	0.00
Renewable energy	5.15	6.00	6.93
Net Imports	16.71	17.44	19.64
Solid fuels	3.11	2.54	3.33
Oil	9.15	9.69	11.32
Natural gas	4.44	5.40	5.03
Electricity	-0.04	-0.21	0.02
Gross Inland Consumption	24.64	26.28	30.35
Solid fuels	4.04	3.34	3.74
Oil	10.27	10.82	12.74
Natural gas	5.19	6.32	6.97
Others	5.14	5.81	6.90
Electricity Generation (TWh)	50.29	56.59	64.07
Nuclear power (TWh)			
Renewable* (TWh)	33.57	39.63	45.45
Conventional Thermal (TWh)	16.72	16.96	18.62
Fuel Inputs for Thermal Power	4.08	4.24	4.16
Solid fuels	1.51	1.06	1.48
Oil	0.35	0.57	0.41
Gas	1.97	2.16	1.81
Biomass and geothermal	0.25	0.45	0.46
Non-Energy Uses	2.13	1.70	2.19
Total Final Energy Demand	18.60	20.14	23.56
Solid fuels	1.16	0.89	0.64
Oil	7.96	8.56	10.24
Gas	3.02	3.63	4.31
Electricity	3.67	3.95	4.78
Derived Heat	0.61	0.85	1.06
Renewable sources	2.17	2.25	2.53
CO₂ Emissions (Mt)**	51.56	54.46	61.51
Energy intensity (toe/M€95)	151.65	146.14	147.10
Import dependency, %	67.82	66.37	64.71

Source: Eurostat

* including pumping **without maritime bunkers

2.9.13

Energy Balance for Portugal

Mtoe	1990	1995	2001
Production	2.81	2.60	3.37
Fossil fuels	0.12	0.00	0.00
Nuclear energy	0.00	0.00	0.00
Renewable energy	2.69	2.60	3.37
Net Imports	15.16	17.88	21.54
Solid fuels	2.79	3.80	2.97
Oil	12.37	14.00	16.30
Natural gas	0.00	0.00	2.25
Electricity	0.00	0.08	0.02
Gross Inland Consumption	16.89	19.61	24.23
Solid fuels	2.58	3.49	3.19
Oil	11.61	13.44	15.40
Natural gas	0.00	0.00	2.26
Others	2.70	2.68	3.39
Electricity Generation (TWh)	28.50	33.27	46.51
Nuclear power (TWh)			
Renewable* (TWh)	10.00	9.50	16.34
Conventional Thermal (TWh)	18.50	23.77	30.17
Fuel Inputs for Thermal Power	4.30	5.49	6.47
Solid fuels	2.03	2.92	2.96
Oil	2.10	2.37	1.92
Gas	0.02	0.02	1.18
Biomass and geothermal	0.15	0.19	0.42
Non-Energy Uses	2.10	1.87	1.90
Total Final Energy Demand	11.21	13.04	17.35
Solid fuels	0.62	0.55	0.20
Oil	6.68	8.19	10.80
Gas	0.10	0.10	1.04
Electricity	2.02	2.48	3.43
Derived Heat	0.03	0.04	0.15
Renewable sources	1.75	1.70	1.72
CO₂ Emissions (Mt)**	39.04	48.30	58.77
Energy intensity (toe/M€95)	222.42	237.33	239.33
Import dependency, %	86.66	88.98	87.19

Source: Eurostat

* including pumping **without maritime bunkers

2.9.14

Energy Balance for Finland

Mtoe	1990	1995	2001
Production	11.74	13.15	15.04
Fossil fuels	1.46	2.06	1.38
Nuclear energy	5.01	4.96	5.87
Renewable energy	5.27	6.13	7.79
Net Imports	18.03	15.42	18.91
Solid fuels	4.38	3.77	4.21
Oil	10.48	8.21	10.14
Natural gas	2.26	2.84	3.71
Electricity	0.92	0.60	0.86
Gross Inland Consumption	28.70	28.82	33.23
Solid fuels	5.07	5.95	6.10
Oil	9.94	8.33	8.90
Natural gas	2.26	2.84	3.71
Others	11.43	11.70	14.52
Electricity Generation (TWh)	54.36	63.90	74.45
Nuclear power (TWh)	19.22	19.22	22.77
Renewable* (TWh)	15.89	19.57	21.69
Conventional Thermal (TWh)	19.26	25.11	29.99
Fuel Inputs for Thermal Power	5.24	6.71	8.25
Solid fuels	3.01	3.88	4.19
Oil	0.29	0.26	0.13
Gas	1.02	1.58	2.37
Biomass and geothermal	0.93	1.00	1.56
Non-Energy Uses	1.41	0.83	0.99
Total Final Energy Demand	21.63	22.23	24.69
Solid fuels	1.57	1.30	1.12
Oil	8.06	7.73	7.67
Gas	1.51	1.51	1.38
Electricity	5.07	5.62	6.65
Derived Heat	1.91	2.13	3.04
Renewable sources	3.52	3.94	4.84
CO₂ Emissions (Mt)**	53.19	56.15	59.69

Energy intensity (toe/M€95)	280.57	291.40	260.65
Import dependency, %	61.62	52.90	55.95

Source: Eurostat

* including pumping **without maritime bunkers

2.9.15

Energy Balance for Sweden

Mtoe	1990	1995	2001
Production	29.73	31.51	33.87
Fossil fuels	0.22	0.33	0.28
Nuclear energy	17.76	18.04	18.60
Renewable energy	11.75	13.15	14.99
Net Imports	17.87	19.21	18.99
Solid fuels	2.33	2.66	2.37
Oil	15.17	16.01	16.48
Natural gas	0.53	0.68	0.77
Electricity	-0.15	-0.14	-0.63
Gross Inland Consumption	47.12	50.37	51.60
Solid fuels	2.68	2.89	2.77
Oil	14.55	15.75	15.10
Natural gas	0.53	0.68	0.77
Others	29.36	31.04	32.96
Electricity Generation (TWh)	146.92	148.38	161.70
Nuclear power (TWh)	68.19	69.94	72.11
Renewable* (TWh)	75.16	70.71	83.02
Conventional Thermal (TWh)	3.57	7.74	6.57
Fuel Inputs for Thermal Power	1.49	3.24	3.33
Solid fuels	0.56	0.70	0.50
Oil	0.25	0.74	0.41
Gas	0.25	0.40	0.45
Biomass and geothermal	0.43	1.40	1.97
Non-Energy Uses	1.77	1.77	2.15
Total Final Energy Demand	30.51	33.68	33.19
Solid fuels	1.23	1.19	1.15
Oil	12.00	12.57	11.14
Gas	0.59	0.60	0.71
Electricity	10.35	10.71	11.41
Derived Heat	1.71	3.54	3.77
Renewable sources	4.64	5.08	5.00
CO₂ Emissions (Mt)**	50.45	53.94	46.62

Energy intensity (toe/M€95)	264.27	274.35	239.97
Import dependency, %	37.41	37.36	35.85

Source: Eurostat

* including pumping **without maritime bunkers

2.9.16

Energy Balance for the United Kingdom

Mtoe	1990	1995	2001
Production	204.49	250.31	258.49
Fossil fuels	186.85	227.06	232.52
Nuclear energy	16.57	21.25	23.24
Renewable energy	1.07	2.00	2.73
Net Imports	5.93	-36.13	-20.83
Solid fuels	9.12	10.38	22.04
Oil	-10.40	-48.55	-35.42
Natural gas	6.18	0.64	-8.35
Electricity	1.03	1.40	0.89
Gross Inland Consumption	210.09	218.75	232.49
Solid fuels	63.31	46.61	39.64
Oil	80.90	82.38	79.17
Natural gas	47.20	65.12	86.82
Others	18.67	24.65	26.87
Electricity Generation (TWh)	318.96	334.04	385.83
Nuclear power (TWh)	65.75	88.96	90.09
Renewable* (TWh)	7.83	8.46	12.45
Conventional Thermal (TWh)	245.38	236.62	283.28
Fuel Inputs for Thermal Power	56.62	50.15	57.20
Solid fuels	47.57	34.15	30.06
Oil	7.17	3.40	0.62
Gas	1.67	11.97	24.90
Biomass and geothermal	0.21	0.62	1.62
Non-Energy Uses	11.50	12.55	9.97
Total Final Energy Demand	136.83	142.44	151.86
Solid fuels	12.04	8.90	5.88
Oil	58.77	60.20	62.32
Gas	41.56	47.15	52.04
Electricity	23.60	25.27	28.70
Derived Heat	0.45	0.00	2.31
Renewable sources	0.42	0.93	0.61
CO₂ Emissions (Mt)**	567.40	536.40	551.81
Energy intensity (toe/M€95)	264.15	252.10	227.85
Import dependency, %	2.79	-16.34	-8.87

Source: Eurostat

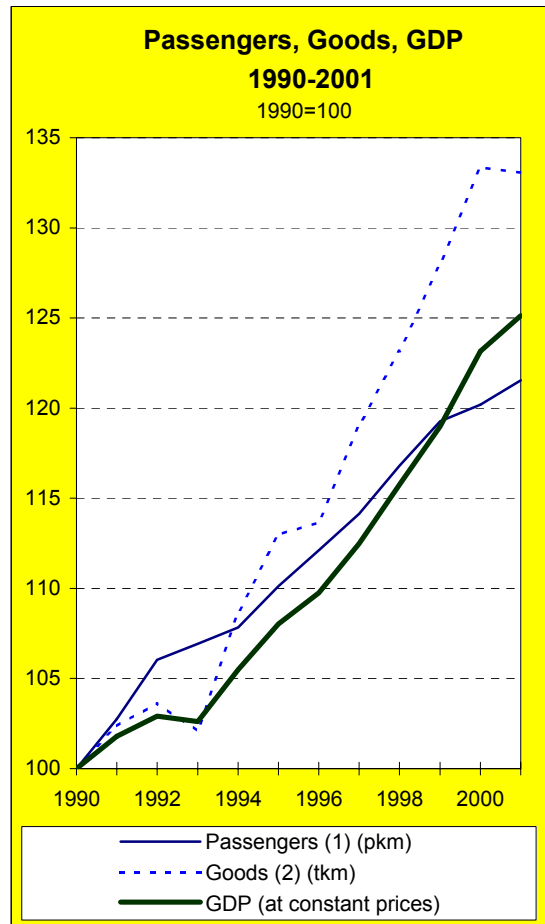
* including pumping **without maritime bunkers

Part 3 : TRANSPORT

Chapter 1 : General

3.1.1

Transport Growth EU-15



Notes :

(1) : passenger cars, buses & coaches, tram+metro, railways, air

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

Annual Growth Rates EU-15

% change

	1980-1990	1991-2001	2000-2001
GDP (real growth)	2.3	2.1	1.6
Industrial production	1.8	1.0	0.0
Passenger transport pkm (5 modes)	3.0	1.7	1.1
Freight transport tkm (5 modes)	1.6	2.7	-0.2

3.1.2

Statistical Overview EU Transport

data for 2001, otherwise indicated

Employment	About 7 million persons are employed in the transport services sector, of which 57% in land transport (road, rail, inland waterways), 3% in sea transport, 6% in air transport and 34% in supporting and auxiliary transport activities (such as cargo handling, storage and warehousing, travel and transport agencies, tour operators).
Household expenditure	Private households in the EU spend € 695 billion per year or 14% of their total consumption on transport - of which about € 579 billion for private transport (mainly cars) and € 116 billion for purchased passenger transport services.
Goods transport	Transport demand is 3102 billion tkm or 8185 tkm per person - of which road 45%, sea 40.4%, rail 7.8%, inland waterways 4%, pipelines 2.8%
Passenger transport	Intra-EU and domestic transport demand is ca. 4834 billion pkm or 12755 pkm per person - of which car 78.2%, bus & coach 8.6%, railway 6.4%, air 5.9%, tram & metro 1%
Transport growth	Goods transport :ca. 2.7% per year (1991-2001). 120% growth since 1970 Passenger transport: ca. 1.7% per year (1991-2001). 128% growth since 1970
Safety	<u>Road</u> : 39849 persons killed in 2001 (fatalities within 30 days) <u>Rail</u> : 70 passengers killed in 2001
Environment	Share of emissions (man made) originating from transport: CO ₂ : 29% (road transport: 24%; other modes: 5%) NOx : 65% (road transport: 46% in 1999; other modes: 19%)

3.1.3

External Trade by Mode of Transport 2002

	Value (billion €)								Weight (million tonnes)							
	Extra EU-15				Intra EU-15				Extra EU-15				Intra EU-15			
	Export		Import		Export + Import		Import		Export		Import		Export + Import		Import	
Sea	392.1	39.5%	413.5	41.9%	805.6	40.7%	178.8	12.0%	295.2	68.0%	1038.6	70.5%	1333.8	69.9%	216.9	19.7%
Road	237.2	23.9%	195.5	19.8%	432.7	21.8%	725.5	48.6%	85.3	19.7%	81.3	5.5%	166.6	8.7%	366.5	33.3%
Rail	19.6	2.0%	18.3	1.9%	37.9	1.9%	46.3	3.1%	17.5	4.0%	52.8	3.6%	70.3	3.7%	42.1	3.8%
Inland waterway	3.6	0.4%	5.5	0.6%	9.1	0.5%	12.2	0.8%	8.6	2.0%	23.8	1.6%	32.4	1.7%	70.3	6.4%
Pipeline	2.3	0.2%	35.5	3.6%	37.8	1.9%	17.7	1.2%	4.4	1.0%	194.2	13.2%	198.6	10.4%	90.1	8.2%
Air	255.3	25.7%	206.4	20.9%	461.7	23.3%	42.5	2.8%	4.5	1.0%	3.0	0.2%	7.5	0.4%	0.4	0.0%
Other/unknown	83.5	8.4%	112.4	11.4%	196.0	9.9%	471.0	31.5%	18.4	4.2%	79.8	5.4%	98.2	5.1%	314.9	28.6%
Total	993.6	100.0%	987.0	100.0%	1980.6	100.0%	1494.0	100.0%	433.8	100.0%	1473.5	100.0%	1907.3	100.0%	1101.3	100.0%

Value density of goods transported (Intra EU-15 imports €/tonne) :

Sea	824	Road	1979	Rail	1101
Inland waterway	173	Pipeline	196	Air	95453

Source : Eurostat

3.1.4

Household Expenditure for Transport

Final consumption of households

		B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15
Final consumption in transport, % of total consumption	1980	n.a.	12.1	n.a.	n.a.	n.a.	n.a.	n.a.	12.2	n.a.	n.a.	13.9	n.a.	14.6	n.a.	14.9	n.a.
	1985	n.a.	14.9	n.a.	n.a.	n.a.	14.8	n.a.	12.3	n.a.	n.a.	13.2	n.a.	15.0	n.a.	15.3	n.a.
	1990	n.a.	11.7	n.a.	n.a.	n.a.	14.8	11.8	12.2	n.a.	n.a.	13.0	15.1	14.9	n.a.	15.4	n.a.
	1995	13.3	13.5	14.2	9.0	11.6	15.3	11.4	12.3	15.4	12.2	12.6	16.2	12.8	12.1	14.2	13.7
	2000	15.5	12.2	14.3	8.6	13.0	15.2	12.2	12.5	15.4	12.5	12.8	17.9	13.4	13.2	14.8	13.9
	2001	15.2	11.5	14.2	8.5	12.6	15.1	10.6	12.2	13.6	11.8	12.6	16.8	12.3	12.5	14.8	13.7
Total consumption in transport, bio EUR 2001		20.2	9.5	164.7	8.1	51.4	122.6	5.4	90.1	1.2	24.4	15.4	12.9	8.1	13.9	147.6	695.4
of which :																	
personal transport equipment		8.0	2.8	65.6	2.8	21.9	33.9	2.0	27.8	0.1	9.0	5.0	5.0	2.6	3.6	57.1	246.9
operation of personal transport equipment		11.0	5.5	77.8	1.6	21.6	70.1	2.1	49.1	0.6	12.5	7.9	7.0	3.9	8.2	53.1	332.3
purchased transport		1.2	1.3	21.4	3.7	7.9	18.6	1.3	13.2	0.5	2.9	2.5	0.9	1.5	2.1	37.4	116.2
Consumption per capita (EUR)		1967	1778	2000	763	1276	2072	1408	1556	2752	1524	1888	1254	1553	1565	2466	1836

Source : Eurostat, national statistics

3.1.5

Employment by Mode of Transport

2000

1000 persons

	Railways	Pipelines	Road passenger transport	Road freight transport	Sea transport	Inland water transport	Air transport	Travel agencies & tour operators	Other* auxiliary transport activities	Transport total
B	41.4	0.0	29.9	62.0	0.6	0.8	14.0	8.8	40.1	197.6
DK	9.6	0.2	30.6	44.0	10.6	0.2	12.0	5.7	20.0	132.8
D	257.0	0.7	163.0	390.0	11.8	8.3	52.0	n.a.	n.a.	n.a.
EL	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
E	39.1	-	154.7	301.6	7.0	0.1	37.2	41.4	133.6	714.7
F	174.8	1.3	168.6	305.1	12.8	3.1	67.2	42.5	235.5	1 010.9
IRL	5.2	-	7.1	12.8	1.6	0.0	7.0	4.3	6.8	44.8
I	129.5	0.5	141.5	308.6	15.9	4.4	25.3	40.6	217.8	884.2
L	3.1	-	2.0	5.5	n.a.	0.8	2.9	0.7	1.5	16.5
NL	24.0	0.2	n.a.	122.1	6.8	7.0	33.0	25.3	57.3	n.a.
A	52.0	n.a.	38.1	47.7	0.0	0.3	8.8	10.4	24.0	n.a.
P	6.3	-	38.3	45.7	1.2	0.6	11.2	7.4	25.5	136.3
FIN	9.8	-	24.0	38.0	8.2	0.3	9.7	5.3	17.5	112.8
S	12.3	0.0	51.3	63.5	14.4	1.1	13.2	13.8	40.3	209.8
UK	n.a.	0.4	193.1	329.0	15.5	2.0	103.2	127.9	228.4	n.a.

Source : Eurostat (employment according to NACE classification), national statistics

Note : * : cargo handling and storage, other supporting activities, activities of other transport agencies

3.1.6

Employment in Railways

		Main railways staff in 1000					
Company		1970	1980	1990	1995	2000	2001
<i>B</i>	SNCB	56.7	65.7	45.2	41.9	41.4	41.8
<i>DK</i>	DSB	24.0	22.1	20.4	15.7	9.7	8.4
<i>D-W</i>	DB AG	392.7	329.0	236.0	294.9	222.2	181.3
<i>D-E</i>	DR	252.6	237.9	246.3	(DB)	(DB)	(DB)
<i>EL</i>	CH	12.6	12.1	13.3	12.5	n.a.	9.6
<i>E</i>	RENFE	85.1	71.5	49.7	39.0	33.7	32.9
<i>F</i>	SNCF	303.0	254.4	202.1	181.1	175.2	177.4
<i>IRL</i>	CIE	22.3	18.1	11.8	11.1	5.4	5.7
<i>I</i>	FS	197.6	220.7	200.4	129.8	109.5	104.0
<i>L</i>	CFL	4.4	4.2	3.5	3.2	3.1	3.2
<i>NL</i>	NS	26.8	26.9	26.2	26.6	24.7	24.7
<i>A</i>	ÖBB	73.9	72.5	66.9	61.3	50.7	48.5
<i>P</i>	CP	25.6	24.7	22.1	13.1	6.3	6.1
<i>FIN</i>	VR	27.7	28.7	20.2	15.2	12.7	12.2
<i>S</i>	SJ	n.a.	n.a.	n.a.	n.a.	3.5	3.6
<i>UK</i>	BR	274.3	241.9	135.3	-	-	
<i>UK</i>	All railways	237.0	191.0	140.0	113.0	50.0	n.a.

		Other railway companies staff in 1000		
Company		1995	2000	2001
<i>D</i>	German non-federal railways	14.0	15.0	15.0
<i>E</i>	FEVE	2.0	2.0	2.0
<i>E</i>	FGC	1.3	1.2	1.2
<i>I</i>	Ferrovie in concessione	15.7	n.a.	n.a.
<i>UK</i>	EWS	-	6.1	6.1
<i>UK/F</i>	Eurotunnel	3.0	3.6	3.6
<i>UK</i>	NIR	0.8	0.7	0.7

<i>USA</i>	AAR (freight)	566.3	459.0	216.4	188.2	168.4	162.2
<i>J</i>	JR	459.7	413.6	193.8	192.5	158.7	154.9

Source : Union Internationale des Chemins de Fer, national statistics

D: 1994 creation of DB AG out of former DB and DR

		Infrastructure companies staff in 1000			
Company		1995	2000	2001	
<i>DK</i>	Banestyrelsen	founded 1.1.97	-	3.0	3.2
<i>E</i>	GIF	founded 1997	n.a.	n.a.	n.a.
<i>F</i>	RFF	founded 1997	-	0.2	0.3
<i>NL</i>	Railinfrabeheer	founded 1.1.95	n.a.	1.0	1.4
<i>P</i>	REFER	founded 1.7.97	-	6.2	5.8
<i>FIN</i>	RHK	founded 1.1.95	0.1	0.1	0.1
<i>S</i>	Banverket	founded 1.1.88	7.4	6.7	6.5
<i>UK</i>	Railtrack	founded 1.4.94	11.5	n.a.	11.4

3.1.7

Airline companies : Employment, Number of Aircraft, Turnover 2002

Company	Number of employees	Aircraft in fleet	Turnover mio €
<i>F</i> Air France	70 156	252	12687.0
<i>UK</i> British Airways	61 460	348	11900.9
<i>D</i> Lufthansa	39 822	384	16971.0
<i>NL</i> KLM	33 038	103	6485.0
<i>E</i> Iberia	25 692	145	4700.0
<i>I</i> Alitalia	22 536	152	4843.0
<i>CH</i> Swiss Int. Air Lines	11 425	135	2985.3
<i>TR</i> Turkish Airlines	10 984	66	1235.1*
<i>P</i> TAP	8 200	36	1084.7
<i>DK/S</i> SAS	7 566	199	4095.7
<i>FIN</i> Finnair	7 381	59	1639.9
<i>A</i> Austrian Airlines	7 271	95	2398.0
<i>UK</i> Virgin Atlantic	6 671	26	2301.2
<i>EL</i> Olympic	5 027	47	988.1*
<i>YU</i> JAT Yugoslav Air.	4 952	22	163.2
<i>UK</i> British Midland	4 853	41	1120.4
<i>CZ</i> Czech Airlines	4 556	31	472.2*
<i>IRL</i> Aer Lingus	4 500	34	958.6
<i>PL</i> LOT Polish Airlines	3 800	51	702.6
<i>HU</i> Malev Hungarian Air.	2 922	25	445.5
<i>UK</i> Easyjet	2 870	69	770.0
<i>E</i> Spanair	2 854	54	783.4
<i>RO</i> TAROM Romanian	2 645	18	195.9
<i>L</i> Luxair	2 184	16	302.0
<i>IS</i> Icelandair	2 181	13	452.5
<i>CY</i> Cyprus Airways	2 126	15	319.5
<i>MT</i> Air Malta	1 945	13	417.3
<i>IRL</i> Ryanair	1 897	55	800.0
<i>B</i> SN Brussels Air.	1 846	38	464.9
<i>D</i> Air Berlin	1 527	45	660.0
<i>I</i> Meridiana	1 393	21	358.6
<i>L</i> Cargolux	1 342	12	822.0
<i>CR</i> Croatia Airlines	992	11	164.8

Source : Association of European Airlines

Note : Turnover sometimes refers to the turnover of the group of which the airline is a part. *: 2001

3.1.8

Number of Enterprises by Mode of Transport 2000

	Railways	Pipelines	Road passenger transport	Road freight transport	Sea transport	Inland water transport	Air transport	Travel agencies & tour operators	Other* auxiliary transport activities	Transport total
B	3	10	2 310	7 298	79	248	119	1 332	2 137	13 536
DK	17	4	3 917	7 994	422	35	99	564	1 320	14 372
D	106	29	21 212	32 885	702	1 121	270	7 400	10 066	73 791
EL	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
E	7	n.a.	67 236	130 141	171	16	51	5 897	12 448	215 967
F	30	33	33 741	44 311	740	1 190	531	4 303	6 471	91 350
IRL	2	n.a.	191	2 919	41	0	34	227	541	4 120
I	139	22	23 360	112 173	591	807	196	8 902	15 672	161 862
L	1	1	166	478	n.a.	85	1	111	111	953
NL	10	15	3 680	10 290	670	3 690	170	2 245	3 815	23 510
A	14	2	4 116	5 019	15	51	79	1 253	1 003	11 552
P	1	n.a.	11 265	5 906	78	23	23	978	1 417	19 691
FIN	4	n.a.	9 066	11 843	223	90	61	745	1 145	23 177
S	27	11	9 637	15 447	478	359	175	2 227	2 454	30 815
UK	111	28	9 506	36 819	1 020	215	934	6 555	10 062	65 250

Source : Eurostat (according to NACE classification)

Note : * : cargo handling and storage, other supporting activities, activities of other transport agencies

3.1.9

Turnover by Mode of Transport

2000

million EUR

	Railways	Pipelines	Road passenger transport	Road freight transport	Sea transport	Inland water transport	Air transport	Travel agencies & tour operators	Other* auxiliary transport activities	Transport total
B	1 576	45	1 150	8 095	1 284	123	4 200	4 546	12 019	33 037
DK	891	n.a.	1 872	4 433	12 458	19	2 388	2 186	4 642	n.a.
D	11 836	347	10 573	23 457	8 604	1 196	7 397	19 442	48 945	131 796
EL	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
E	1 564	-	4 996	21 366	1 194	3	6 449	10 858	21 691	68 121
F	12 951	590	10 198	27 216	5 110	438	14 926	11 296	42 019	124 744
IRL	n.a.	-	650	1 508	270	3	1 700	1 638	1 565	n.a.
I	6 119	151	4 312	31 837	4 807	432	10 972	10 683	30 120	99 434
L	258	-	86	670	n.a.	27	1 113	227	320	n.a.
NL	n.a.	270	2 302	13 934	3 676	1 523	n.a.	4 240	5 639	n.a.
A	n.a.	n.a.	1 895	5 355	19	71	2 304	3 215	7 559	n.a.
P	n.a.	-	922	2 685	344	18	1 429	1 915	2 904	n.a.
FIN	725	-	1 238	3 726	2 208	18	1 654	1 061	3 368	13 999
S	1 322	2	4 489	7 351	3 662	100	3 200	4 380	10 520	35 025
UK	8 682	290	12 010	34 577	6 777	178	29 385	50 988	41 894	184 781

Source : Eurostat (according to NACE classification), national statistics

Note : * : cargo handling and storage, other supporting activities, activities of other transport agencies

Road transport

Speed Limits, Blood Alcohol Limits, Maximum Gross Vehicle Weight

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Speed limit, cars (in general), km/h :															
Built-up areas	50	50	50	50	50	50	48	50	50	50	50	50	50	30-50	48
Outside built-up areas (one lane roads)	90	80	100	90	90	90	96	90	90	80	100	90-100	80-100	70	96
Motorways	120	110	-	120	120	130	112	130	130	120	130	120	120	110	112
Blood alcohol limit, grams of alcohol in 1 litre of blood	0.5	0.5	0.5	0.5	0.5	0.5	0.8	0.8	0.8	0.5	0.5	0.5	0.5	0.2	0.8
Maximum gross vehicle weight :															
General, tonnes	44	48	40	40	40	40	40	44	44	50	40	40	60	60	40
Combined transport, tonnes	44	48	44	44	44	44	44	44	44	50	44	44	60	60	44

Source : European Commission, national sources

Notes :

UK and **IRL** drive on the left hand side of the road, the other Member States on the right hand side (Sweden since 3.9.1967). Signs are in miles per hour.

Speed limits :

Germany : 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).

France : Dual carriageways 110 km/h. If road is wet : motorways 110 km/h, dual carriageways 100 km/h, national roads 80 km.

Italy : 150 km/h on certain 2x3 lane motorways. If road is wet : motorways 110 km/h, dual carriageways 90 km/h.

Finland : in Winter : 100 km/h on motorways, 80 km/h on other roads.

Blood alcohol limit:

Change from 0.8 mg/ml to 0.5: Germany in 1998, Spain in 1999

3.1.11

Comparison EU-15 - World : Infrastructure and Vehicles

	EU-15	USA	Japan	China	Russia
Transport infrastructure (2000)					
Road network					
1000 km	4 300	6 370	1 166	1 698	952
Motorway network					
1000 km	51.8	89.2	6.6	19.4	n.a.
Railway network					
1000 km	155.0	315.3	20.2	58.6	86.0
Electrified railway lines					
1000 km	79.1	n.a.	12.2	14.8	40.3
Nav. inland waterways					
1000 km	29.5	41.8	1.8	110.0	84.6
Oil Pipelines					
1000 km	21.9	287.5	0.4	9.6	61.0
Vehicle stock and production (2000)					
Passenger cars stock					
million	180.6	132.4	52.4	8.5	20.4
Motorization					
cars / 1000 persons	479	480	413	7	141
Commercial vehicles		(1)			
million	24.2	82.3	20.2	7.2	5.4
Car production					
million	14.8	5.6	8.4	1.0	1.0
Comm. vehicles prod.					
million	2.3	7.4	1.8	0.6	0.2
Bicycle production					
million	12.3	2.5	5.7	23.1	n.a.

Sources : Eurostat, International Road Federation, Union Internationale des Chemins de Fer, Central Intelligence Agency, US Bureau of Transportation Statistics, Interbike, Japan International Transport Institute

Note: (1): In the USA many private vehicles (pick-ups, vans are classified as commercial vehicles)

3.1.12

Comparison EU 15 - World : Passenger and Freight Transport

	EU-15	USA	Japan	China	Russia
Passenger transport 2000 billion pkm					
Passenger car (1)	3 735	6 464	741	n.a.	n.a.
Bus / coach	410	259	87	660	192
Railway	304	24	385	449	167
Tram + metro	46	24	33	n.a.	71
Waterborne	24.4**	n.a.	4	10	1
Air (domestic / intra-EU)	284	854	80	100	53
Freight transport 2000 billion tkm					
Road	1 378	1 667	313	597	23
Rail	250	2 140	22	1 362	1 373
Inland waterways	125	527	-	n.a.	65
Oil pipeline	85	843	-	n.a.	1 916
Sea (domestic/intra-EU)	1 270	414	242	n.a.	165

Transport impact						
Road fatalities						
thousands	2000	40.8	41.9	10.4	n.a.	29*
Transport CO₂ emiss.						
million tonnes	1998	872	1771	278	219	137

Source: Eurostat, Energy and Transport DG, Japan Statistics Bureau, US Bureau of Transportation Statistics, Goskom STAT (Russia), National Bureau of Statistics of China, Organisation for Economic Co-operation and Development, International Road Traffic and Accident Database

Notes :

Transport CO₂ emissions: EU-15: 2001: 910.5 m t do not include marine bunkers (=410 m t)

(1): Incl. light trucks / vans in the USA and light vehicles in Japan

*: 1999 data

**: 1998data

Part 3 : TRANSPORT

Chapter 2 : Infrastructure

Railways : Length of Lines

km

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15	index 1970 =100
1970	4232	2352	43777	2571	15850	36117	2189	16069	271	3148	5901	3588	5870	11544	19330	172 809	100
1980	3971	2015	42765	2461	15724	34382	1987	16133	270	2760	5857	3609	6096	11377	18030	167 437	97
1990	3479	2344	40981	2493	14539	34260	1944	16086	271	2798	5624	3064	5867	10801	16914	161 465	93
1995	3368	2349	41718	2474	14291	31939	1954	16003	275	2739	5672	2850	5880	11289	17069	159 870	93
1996	3380	2349	40826	2474	14294	31852	1954	16014	274	2739	5672	2850	5859	11345	17066	158 948	92
1997	3422	2232	38450	2590	14294	31821	1945	16030	274	2805	5672	2856	5865	11366	17176	156 798	91
1998	3470	2264	38150	2590	14284	31735	1909	19080	274	2808	5643	2794	5867	11448	17179	159 495	92
1999	3472	2324	37535	2590	14310	31589	1909	16092	274	2802	5618	2813	5836	11498	17064	155 726	90
2000	3471	2047	36652	2600	14303	31589	1915	16499	274	2802	5563	2814	5854	11560	17067	155 010	90
2001	3454	2047	36040	2377	13869	31385	1919	16356	274	2809	5980	2814	5850	11827	16397	153 398	89

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

D: includes D-E: 1970=14250, 1980=14248, 1990=14031

of which, % electrified :

2001	78%	31%	53%	3%	54%	46%	2%	68%	95%	73%	56%	32%	41%	68%	30%	51%
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% of total with double and more than double tracks :

2001	76%	44%	49%	15%	25%	51%	26%	39%	51%	67%	31%	18%	9%	17%	n.a.	n.a.
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Rail

3.2.2

Railways : High Speed Rail Network

Length in km

	B	D	E	F	I	EU-15
1981	-	-	-	285	-	285
1983	-	-	-	402	-	402
1988	-	-	-	402	-	402
1990	-	n.a.	-	667	n.a.	n.a.
1995	-	n.a.	376	1 124	n.a.	n.a.
1996	12	434	376	1 152	237	2 211
1997	71	434	376	1 152	259	2 292
1998	71	486	376	1 147	259	2 339
1999	73	491	377	1 147	259	2 347
2000	73	510	377	1 147	259	2 366
2001	73	510	377	1 395	259	2 614
2002	135	687	377	1 395	259	2 853

Source : Union Internationale des Chemins de Fer

Note : Lines capable of speeds of 250 km/h or more

High speed lines under construction*

LINE	Length km
B Antwerpen - Nederland	38
B Liege - German border	33
B Antwerp - Dutch border	38
D Cologne - Airport link	15
D Nuremberg - Ingolstadt	88
E Madrid - Barcelona	400
E Barcelona - French border	145
E Madrid - Valladolid	194
E Cordoba - Malaga	155
F TGV-Est	320
I Milan - Bologna	196
I Milan - Torino	143
I Verona - Venezia	24
I Rome - Naples	220
I Florence - Bologna	77
NL Amsterdam/Schiphol - Belgian border	120
S Södertälje - Linköping	140
S Nyland - Umeå	190
UK Channel Tunnel - London (St. Pancras)	37 (tunnels 22)

Source : Union Internationale des Chemins de Fer

Notes:

The length under construction is not the distance between the above-mentioned places

Opened in 2003: **UK**: 72km, **E**: 200 km

* As defined by Directive 96/48/EC : specially built or upgraded lines, not all capable of speeds of 250 km/h

3.2.3

Main Railway Gauge and Electric Current Used

	Track Gauge mm	Electric current	
		dc volts	ac volts
B	1435	3000	25000 50Hz
DK	1435	3000	25000 50Hz
D	1435	800-1200 (contact rail)	15000 16.7Hz
EL	600 1000 1435		25000 50Hz
E*	1000 1435 1668	1500 3000	25000 50Hz
F	1000 1435	750-850 (contact rail) 1500	25000 50Hz
IRL	1600	1500	
I	1435	3000	
L	1435		25000 50Hz
NL	1435	1500	
A	1435		15000 16.7Hz
P	1000 1668		25000 50Hz
FIN	1524		25000 50Hz
S	1435		15000 16.7Hz
UK	1435 1600 (N-IRL)	750 (contact rail)	25000 50Hz

Source: Union Internationale des Chemins de Fer, railway companies

Notes : 1435 mm = standard gauge

* **E:** new lines have a gauge of 1435 mm and an electric current of 25000 50Hz

3.2.4

Airport Rail Links

Type of rail link	N° of Air-ports	Airports
High speed trains (long distance or local)	4	Frankfurt, Lyon*, Paris CDG, Stockholm-Arlanda
Long distance or local trains (not high speed)	7	Amsterdam, Berlin-Schönefeld, Birmingham, Kobenhaven, Leipzig, Manchester, Southampton
Local trains only	22	Barcelona, Belfast City, Brussels, Düsseldorf, Dresden, Friedrichshafen, Glasgow-Prestwick, Graz, Hannover, London-Gatwick, London-Heathrow, London-Stansted, London-Luton, Malaga, Milano-Malpensa, München, Pisa, Roma-Fiumicino, Stuttgart, Wien, Graz, Torino
Underground trains	5	London-Heathrow, Newcastle, Paris Orly (people mover), Madrid-Barajas, Nürnberg
Tramway	2	Bremen, Essen-Mülheim
Under construction	1	Köln [2004], Athens E.V.

Note : * : Lyon has high speed train services only.

Intra-airport rail systems	4	Frankfurt, London-Stansted, London-Gatwick, Roma-Fiumicino ('people mover' system)
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Source: Energy and Transport DG, International Air Rail Organisation

Urban Tram and Light Rail Systems

	Historic evolution of the number of electric urban tram and light rail systems															Metro systems	
	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15	EU-15
1930	6	3	131	6	20	79	2	50	1	8	9	6	2	11	104	438	8
1940	6	3	126	6	20	59	1	47	1	7	8	6	2	11	38	341	8
1950	6	3	118	5	18	37	-	36	1	5	7	6	2	9	19	272	9
1960	6	2	86	-	16	8	-	10	1	4	7	5	2	6	4	157	11
1970	4	2	67	-	3	5	-	6	-	3	6	4	2	4	2	108	14
1980	4	-	60	-	2	3	-	5	-	3	5	3	1	3	2	91	22
1990	4	-	56	-	3	5	-	6	-	4	5	2	1	3	3	92	24
2000	4	-	57	-	3	8	-	6	-	4	5	2	1	4	8	102	28

Note : Countries in the borders of today. Horse trams and interurban systems not included. Estimates in italic.

Electric tram systems closed during 1920-1929: United Kingdom 27, Germany 5, France 4, Italy 1.

Belgium: Urban tram type services (Brugge, Mons, Namur) provided by the chemins de fer vicinaux (SNCV) not included.

New systems (opened since 1991):	
Metro	Toulouse 1993, Napoli 1995, Bilbao 1997, Catania 1999
Tram/ Light rail	Manchester, Paris 1992, Sheffield 1993, Strasbourg, Valencia, Rouen 1994, Oberhausen 1996, Saarbrücken 1997, Birmingham 1999, Croydon 1999, Montpellier, Orléans 2000, Lyon 2001

Motorways

Length at end of year

km

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15	index 1970 =100
1970	488	184	6 061	11	387	1 553	0	3 913	7	1 209	478	66	108	403	1 183	16 051	100
1980	1 203	516	9 225	91	2 008	4 862	0	5 900	44	1 798	938	132	204	850	2 683	30 454	190
1990	1 631	601	10 809	190	4 693	6 824	26	6 193	78	2 092	1 445	316	225	939	3 180	39 242	244
1995	1 666	796	11 190	420	6 962	8 275	72	6 435	123	2 208	1 596	687	394	1 262	3 307	45 393	283
1996	1 674	832	11 246	470	7 295	8 596	80	6 465	115	2 208	1 607	710	431	1 350	3 344	46 423	289
1997	1 679	855	11 309	500	7 750	8 864	94	6 469	118	2 336	1 613	797	444	1 423	3 412	47 663	297
1998	1 682	873	11 427	500	8 269	9 303	103	6 478	115	2 225	1 613	1 252	473	1 439	3 473	49 225	307
1999	1 691	902	11 515	500	8 893	9 626	103	6 478	115	2 291	1 634	1 441	512	1 484	3 579	50 764	316
2000	1 702	922	11 712	707	9 049	9 766	103	6 478	115	2 289	1 633	1 482	549	1 506	3 612	51 625	322
2001	1 727	953	11 786	742	9 571	9 934	125	6 478	115	2 291	1 645	1 659	602	1 529	3 605	52 762	329

Source: Eurostat, International Road Federation, national statistics

D: includes D-E : 1970=1600, 1980=1687, 1990=1850

Toll roads

km

2001	1	8	-	917	2 445	7 771	-	5 593	-	-	2 000	1 219	-	8	-	19 962
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Source : Association Européenne des Concessionnaires d'Autoroutes et d'Ouvrages à Péage

Note : Not all toll roads are motorways.

3.2.7

Length of Road Network

km in 2000

	Motorways	Highways, Main or National Roads	Secondary or Regional Roads	Other Roads
B	1 702	12 600	1 349	132 540
DK	922	718	9 986	60 018
D	11 712	41 321	177 899	n.a.
EI	707	9 100	31 300	75 600
E	9 049	24 124	139 656	489 698
F	9 766	27 500	358 500	586 000
IRL	103	5 326	11 628	78 657
I	6 621	46 009	114 909	312 149
L	115	837	1 911	2 347
NL	2 289	6 650	57 500	59 400
A	1 633	10 280	23 086	98 000
P	1 482	11 991	58 990	n.a.
FIN	549	13 271	28 633	35 993
S	1 506	15 349	82 892	114 720
UK	3 612	48 194	113 105	207 256
EU-15	51 768	273 270	1 211 344	2 252 378
IS	-	4 310	3 897	4 791
N	173	26 762	27 153	37 455
CH	1 669	18 110	51 397	n.a.
BG	324	3 011	3 818	30 133
CY	257	2 178	n.a.	8 973
CZ	517	20 727	34 183	72 300
EE	94	3 902	12 439	35 603
HU	448	30 060	23 057	105 233
LV	-	6 962	13 358	49 412
LT	417	1 307	19 592	55 258
MT	-	185	196	1 873
PL	399	17 637	28 381	318 280
RO	113	14 711	63 791	119 988
SK	296	3 221	3 828	35 611
SI	435	1 101	4 796	13 904
TR	1 851	31 376	29 929	291 217

Source : International Road Federation, national statistics

Note : The definition of road types varies from Country to Country

3.2.8

Pipelines

Length of oil pipelines

	km															
	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15
1970	52	-	2 879	-	1 099	3 609	-	1 860	-	323	604	-	-	-	1 634	12 060
1980	458	77	2 880	-	1 753	5 254	-	3 069	-	391	777	-	-	-	3 166	17 825
1990	301	444	3 038	-	2 678	4 948	-	4 086	-	391	777	-	-	-	2 422	19 085
1993	294	336	2 704	-	3 536	4 830	-	4 235	-	391	777	-	-	-	3 086	20 189
1994	294	336	2 460	-	3 536	4 830	-	4 235	-	391	777	-	-	-	2 996	19 855
1995	294	330	2 460	-	3 691	4 983	-	4 235	-	391	777	-	-	-	3 470	20 631
1996	294	330	2 460	-	3 691	4 983	-	4 233	-	391	777	-	-	-	3 459	20 618
1997	294	330	2 460	-	3 691	5 746	-	4 145	-	391	777	-	-	-	3 936	21 770
1998	294	330	2 370	-	3 691	5 746	-	4 331	-	418	777	-	-	-	3 953	21 910
1999	294	330	2 370	-	3 698	5 746	-	4 364	-	418	777	-	-	-	3 923	21 920
2000	n.a.	n.a.	2 370	-	3 780	5 746	-	4 347	-	n.a.	777	-	-	-	3 954	n.a.
2001	n.a.	n.a.	2 370	-	3 779	5 746	-	n.a.	-	n.a.	777	-	-	-	4 368	n.a.

Length of gas pipelines (on 1 January 2002)

	km															
Transmission	3701	1439	59000	961	12295	34400	1250	30500	320	11600	5213	960	1000	530	19005	182 174
Distribution	49046	19243	311000	1940	27818	165100	7500	190000	1700	119000	24099	7936	1280	1900	261765	1 189 327

Source : Eurostat, United Nations, European Conference of Ministers of Transport, Eurogas, national statistics

D : includes D-E : 1970=1300, 1980=1301, 1990=1323

3.2.9

Inland Waterways

Length in use (Navigable canals, rivers and lakes regularly used for transport)

km

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15	1970= 100
1970	1 553	-	6 808	6	70	7 433	-	2 337	37	5 599	350	124	6 000	390	1 631	32 338	100
1980	1 510	-	6 697	6	70	6 568	-	2 337	37	4 843	350	124	6 057	390	1 631	30 620	95
1990	1 513	-	6 669	6	70	6 197	-	1 366	37	5 046	351	124	6 237	390	1 631	29 637	92
1996	1 531	-	7 339	6	70	5 678	-	1 466	37	5 046	351	124	6 245	390	1 153	29 436	91
1997	1 540	-	7 339	6	70	6 051	-	1 463	37	5 046	351	124	6 245	390	1 153	29 815	92
1998	1 569	-	7 300	6	70	5 732	-	1 477	37	5 046	351	124	6 245	390	1 153	29 500	91
1999	n.a.	-	7 300	n.a.	70	5 576	-	1 477	n.a.	n.a.	351	n.a.	6 245	n.a.	1 153	n.a.	

Source : Eurostat, United Nations, national statistics

D : includes D-E : 1970=2300, 1980=2302, 1990=2319

Notes : the inland waterways of Greece (Korinthos Canal), Spain (Guadalquivir), Portugal (Douro, Guadiana, Tejo) and Sweden are used by seagoing ships only

Sweden: data relate to Göta canal system; only 91 km (Göta river) are regularly used for goods transportGermany: includes 978 km of non-classified waterways, some of them not regularly used for transportItaly: figure includes 428 km of rivers (of which Po: 389 km), 201 km of canals, 225 km coastal and Venice lagoon waterways (total 854 km) and in addition 612 km of passenger transport lines on the lakes in Northern Italy and in VeniceAustria : Danube canal in Vienna not regularly used.Ireland: inland waterway freight transport ceased in the late 1950sNew infrastructure: the last part of the Main-Danube Canal/Germany opened in 1992, the Niffer canal link in France opened in 1995

3.2.10

Other European Countries : Transport Infrastructure

2000	km															
	IS	N	CH	BG	CY	CZ	EE	HU	LV	LT	MT	PL	RO	SK	SI	TR
Roads (1000 km)	13.0	91.5	71.2	37.3	11.4	127.7	52.0	158.8	69.7	76.6	2.3	364.7	198.6	43.0	20.2	354.4
of which: motorways (km)	-	173	1669	324	257	517	94	448	-	417	-	399	113	296	435	1851
Railway lines (km)	-	4179	3216	4320	-	9365	968	8005	2331	1905	-	22560	11364	3662	1201	8671
of which: electrified (km)	-	2519	3197	2744	-	2843	132	2784	258	122	-	11826	3929	1536	503	1752
Inland waterways (km)	-	-	745	470	-	664	320	1373	106	369	-	3812	1779	172	-	-
Pipelines (km)	-	7908	108	578	-	736	-	848	766	500	-	2278	4423	-	-	2112
Area (1000 km²)	103.0	324.2	41.3	110.9	9.3	78.9	45.2	93.0	64.6	65.2	0.3	312.7	237.5	48.8	20.3	780.6
Railway lines density (length of lines/area) m/km ²	-	13	78	39	-	119	21	86	36	29	-	72	48	75	59	11

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

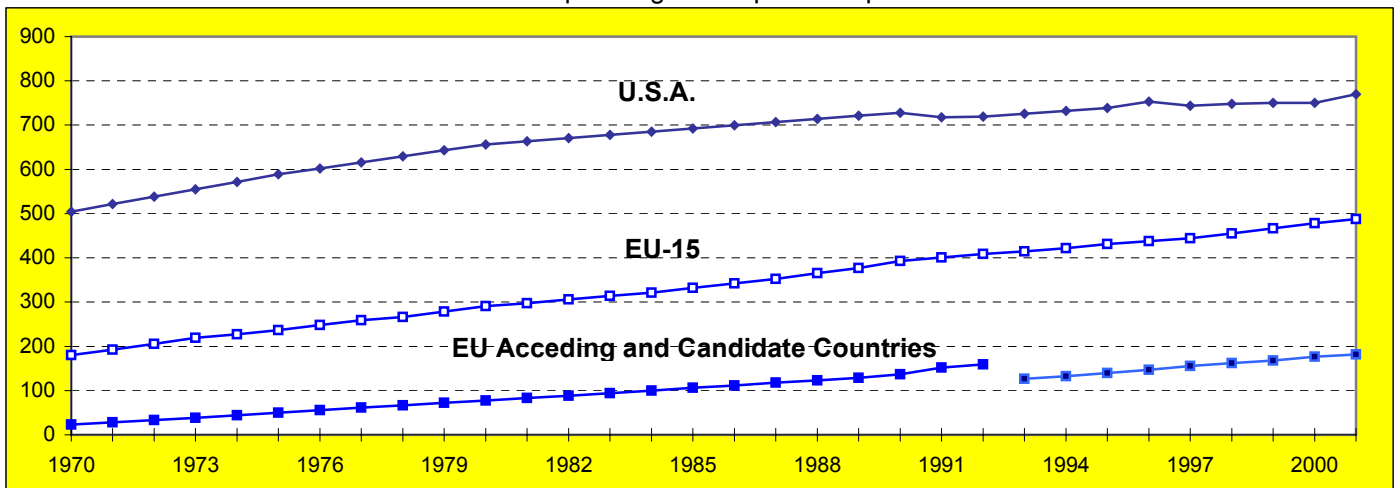
Note : The railways of Estonia, Latvia and Lithuania are broad gauge (1524 mm). The other railways are standard gauge.

Part 3 : TRANSPORT

Chapter 3 : Means of transport

Section 1 : Road

Motorization 1970-2001
Number of passenger cars per 1000 persons



Notes : **USA:** the figures, in addition to automobiles, include pickups, vans and sports utility vehicles. Some of these vehicles are used for commercial purposes.

EU Candidate Countries: from 1993 : change in time series due to the inclusion of Cyprus, Malta and Turkey in the total

Road

3.3.1.2

Motorization
Number of passenger cars per 1000 inhabitants

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15	index 1970=100
1970	213	218	194	26	70	234	133	189	212	197	160	49	155	284	214	184	100
1980	321	271	330	89	202	354	217	313	353	322	298	94	257	347	277	292	159
1990	388	309	447	171	309	415	227	483	480	368	387	187	389	421	360	393	214
1995	418	322	495	211	362	434	275	529	559	364	447	258	370	411	415	433	236
1996	424	331	500	214	376	439	291	521	558	370	458	277	377	413	423	438	239
1997	430	338	504	229	389	448	310	524	562	380	469	297	376	418	434	446	243
1998	437	344	508	244	408	459	323	539	594	390	481	316	390	428	443	457	249
1999	445	347	516	267	427	469	339	556	609	401	495	347	401	439	450	469	255
2000	452	345	532	299	437	476	347	564	624	411	505	351	410	451	455	479	261
2001	455	350	539	322	451	485	359	574	618	418	514	364	414	452	464	488	266

Source : Energy and Transport DG calculations

Percentage of tax added to the price of a new passenger car *

2002	22.0	164.1	16.0	30.6	23.0	19.6	51.7	20.0	15.0	49.2	28.4	50.6	89.0	25.8	17.5
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Source : Commission services * Example used: VW Golf 75 (in certain countries tax may be higher for cars with a larger engine)

Road

3.3.1.3

Passenger Cars Stock of vehicles

million

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15	index 1970= 100
1970	2.06	1.08	15.11	0.23	2.38	11.90	0.39	10.18	0.07	2.56	1.20	0.42	0.71	2.29	11.90	62.48	100
1980	3.16	1.39	25.87	0.86	7.56	19.10	0.74	17.69	0.13	4.55	2.25	0.92	1.23	2.88	15.60	103.92	166
1990	3.86	1.59	35.50	1.74	12.00	23.55	0.80	27.42	0.18	5.51	2.99	1.85	1.94	3.60	20.70	143.22	229
1991	3.97	1.59	36.77	1.78	12.54	23.80	0.82	28.44	0.19	5.55	3.10	2.01	1.92	3.62	20.80	146.90	235
1992	4.02	1.61	37.95	1.83	13.10	24.00	0.86	29.43	0.20	5.66	3.25	2.02	1.94	3.59	20.90	150.34	241
1993	4.11	1.62	38.89	1.96	13.44	24.40	0.89	29.65	0.21	5.76	3.37	2.21	1.87	3.57	21.30	153.24	245
1994	4.18	1.63	39.77	2.07	13.73	24.90	0.94	30.00	0.22	5.88	3.48	2.40	1.87	3.59	21.70	156.36	250
1995	4.24	1.69	40.40	2.20	14.21	25.10	0.99	30.30	0.23	5.63	3.59	2.56	1.89	3.63	24.31	160.98	258
1996	4.31	1.74	40.99	2.24	14.75	25.50	1.06	29.91	0.23	5.74	3.69	2.75	1.93	3.66	24.87	163.37	261
1997	4.37	1.79	41.37	2.40	15.30	26.09	1.13	30.16	0.24	5.93	3.78	2.95	1.94	3.70	25.59	166.74	267
1998	4.46	1.82	41.67	2.57	16.05	26.81	1.20	31.06	0.25	6.12	3.89	3.15	2.01	3.79	26.27	171.11	274
1999	4.55	1.85	42.32	2.81	16.85	27.48	1.27	32.04	0.26	6.34	4.01	3.47	2.07	3.89	26.78	175.98	282
2000	4.63	1.84	43.77	3.16	17.45	28.06	1.32	32.58	0.27	6.54	4.10	3.59	2.12	4.00	27.19	180.62	289
2001	4.68	1.88	44.38	3.42	18.15	28.70	1.39	33.24	0.27	6.71	4.18	3.75	2.15	4.02	27.79	184.70	296

Source : Eurostat, national statistics , study for Energy and Transport DG

D : includes D-E : 1970=1.2, 1980=2.7, 1990=4.8

Road

3.3.1.4

Buses and Coaches Stock of vehicles

1000

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15	index 1970= 100
1970	16.2	5.0	63.9	10.5	30.7	41.0	2.0	32.9	0.6	9.5	6.8	5.9	8.1	14.3	84.2	331.6	100
1980	19.6	7.4	95.8	18.0	42.6	59.0	2.7	58.1	0.6	11.2	9.0	8.5	9.0	12.8	83.3	437.6	132
1990	15.6	8.1	100.4	21.4	45.8	70.0	4.0	77.7	0.8	12.1	9.4	12.1	9.3	14.6	78.0	479.4	145
1991	15.4	10.0	89.6	22.1	46.6	77.0	4.4	78.6	0.8	12.4	9.3	12.3	9.0	14.5	77.0	478.9	144
1992	15.0	11.3	90.9	22.7	47.2	75.9	4.6	78.2	0.8	12.3	9.4	12.8	8.7	14.2	77.0	480.9	145
1993	15.0	13.0	88.4	23.2	47.0	77.7	4.8	77.0	0.8	12.2	9.5	13.6	8.3	14.1	78.0	482.6	146
1994	14.9	13.6	88.5	23.5	47.0	78.7	5.0	78.0	0.8	11.0	9.6	14.2	8.1	14.3	80.0	487.1	147
1995	14.6	13.5	86.3	24.6	47.4	81.8	5.3	75.0	0.9	12.0	9.8	15.0	8.1	14.6	80.0	488.8	147
1996	14.7	14.0	85.0	25.1	48.4	82.1	5.5	78.2	0.9	11.0	9.7	15.7	8.2	14.8	82.0	495.3	149
1997	14.7	13.8	84.0	25.6	50.0	82.0	5.8	83.6	0.9	11.0	9.7	16.4	8.5	14.8	84.0	504.9	152
1998	14.6	13.9	83.3	26.3	51.8	85.0	6.1	85.8	0.9	11.0	9.7	17.5	9.0	14.9	87.0	516.9	156
1999	14.7	13.9	84.7	26.8	53.5	85.7	6.6	85.8	1.0	11.2	9.8	18.6	9.5	14.9	93.0	529.5	160
2000	14.7	14.0	86.7	28.0	54.7	85.7	7.0	88.0	1.1	11.4	9.9	19.8	9.9	14.4	95.0	540.1	163
2001	14.7	14.0	86.5	30.0	56.1	85.7	7.0	88.0	1.1	11.3	9.9	19.8	9.9	14.2	95.0	543.1	164

Source : Eurostat, national statistics, Comité des Constructeurs Français d'Automobiles, study for Energy and Transport DG

D : includes D-E : 1970=16.7, 1980=25.3, 1990=30.0

Road

3.3.1.5

Goods Vehicles Stock of vehicles

1000

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15	index 1970= 100
1970	212	245	1 188	105	710	1 504	49	877	9	286	121	157	103	145	1 749	7 460	100
1980	268	249	1 511	401	1 338	2 457	65	1 338	9	314	184	350	149	182	1 828	10 642	143
1990	343	287	1 653	743	2 333	4 670	143	2 349	11	553	253	781	264	310	2 706	17 399	233
1991	364	291	1 660	793	2 495	4 763	148	2 440	12	578	259	847	264	310	2 640	17 864	239
1992	367	297	1 849	798	2 650	4 781	145	2 532	13	619	269	928	263	305	2 639	18 454	247
1993	375	306	2 020	826	2 735	4 814	135	2 585	14	641	276	1 011	253	302	2 589	18 882	253
1994	391	322	2 114	849	2 832	4 881	136	2 638	15	644	283	1 118	249	304	2 585	19 360	260
1995	402	333	2 215	884	2 937	4 926	142	2 709	16	654	290	1 175	252	308	2 565	19 807	266
1996	417	330	2 273	902	3 057	4 976	147	3 000	16	684	294	1 246	259	322	2 618	20 540	275
1997	435	336	2 315	939	3 206	5 100	158	3 059	17	727	301	1 333	267	322	2 679	21 194	284
1998	453	347	2 371	974	3 393	5 214	171	3 171	18	795	310	1 436	281	338	2 726	21 998	295
1999	480	362	2 466	1 010	3 605	5 320	189	3 221	19	872	319	1 541	294	354	2 803	22 855	306
2000	503	373	2 527	1 043	3 780	5 456	206	3 298	20	939	327	1 658	304	374	2 861	23 670	317
2001	526	393	2 611	1 047	3 949	5 816	220	3 360	21	985	331	1 735	309	396	2 960	24 659	331

Source : Eurostat, national statistics , Association des Constructeurs Européens d'Automobiles, study for Energy and Transport DG

D : includes D-E : 1970=160, 1980=234, 1990=264

Road

3.3.1.6

Vehicles by Category

		B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15
Passenger cars by type of engine (%) 2000 - 2001	Petrol - engine	56%	94%	84%	99%	70%	65%	87%	80%	82%	81%	61%	90%	89%	95%	84%	78.4%
	Diesel - engine	42%	6%	16%	1%	24%	33%	13%	15%	18%	14%	39%	10%	10%	5%	13%	19.1%
	other	2%	0%	0%	0%	6%	2%	0%	5%	0%	5%	0%	0%	1%	0%	3%	2.4%
Goods vehicles by carrying capacity (number in 1000) 2000 - 2001	< 3 tonnes	n.a.	342	2 172	n.a.	3 648	4 869	146	n.a.	n.a.	811	280	n.a.	253	332	2 651	n.a.
	3 - 7 tonnes	n.a.	13	261	n.a.	148	157	19	n.a.	n.a.	30	25	n.a.	13	19	97	n.a.
	7 - 15 tonnes	n.a.	10	105	n.a.	113	167	8	n.a.	n.a.	17	13	n.a.	25	21	33	n.a.
	> 15 tonnes	n.a.	4	54	n.a.	197	32	6	1 543	n.a.	13	5	n.a.	12	11	20	n.a.
	Total	576	368	2 592	1 047	4 105	5 225	178	3 298	20	872	323	1 658	304	383	2 801	23 749

Source : Eurostat

Note : Passenger cars functioning on LPG or LNG : 1.8 million. Passenger cars powered by electric motors: ca. 10 000

Road

3.3.1.7

Powered Two-Wheelers

Stock of vehicles

million

	B*	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15
1994	0.19	0.06	3.76	1.73	3.37	2.35	0.23	7.84	0.03	0.77	0.53	0.86	0.15	0.27	0.91	23.04
1995	0.20	0.05	3.92	1.82	3.40	2.29	0.23	7.91	0.03	0.85	0.55	0.84	0.16	0.26	0.90	23.40
1996	0.21	0.06	4.18	1.93	3.45	2.28	0.23	8.34	0.03	0.88	0.56	0.78	0.16	0.27	0.92	24.28
1997	0.22	0.06	4.37	2.04	3.50	2.30	0.23	8.66	0.03	0.90	0.58	0.79	0.17	0.28	0.96	25.08
1998	0.24	0.06	4.55	2.14	3.59	2.32	0.24	8.83	0.03	1.05	0.60	0.76	0.17	0.29	1.02	25.89
1999	0.26	0.07	4.92	2.33	3.67	2.37	0.26	9.36	0.03	0.96	0.62	0.74	0.18	0.30	1.04	27.12
2000	0.28	0.07	5.06	2.34	3.65	2.41	0.30	9.75	0.03	0.97	0.63	0.73	0.19	0.31	1.16	27.89
2001	0.29	0.08	5.13	2.34	3.60	2.44	0.30	9.75	0.03	0.97	0.64	0.71	0.21	0.33	1.21	28.02

Source : Eurostat, national sources, Study for Energy and Transport DG

Note: *: Not including mopeds

Road

3.3.1.8

Vehicle Production : Cars and Commercial Vehicles

	B	DK	D	EL	E	F*	IRL	I	L	NL	A	P	FIN	S	UK	EU-15
Passenger cars (1000)																
1990	1 160	-	4 661	-	1 679	3 295	-	1 875	-	121	15	60	-	336	1 296	14 498
1995	1 168	-	4 360	-	1 959	3 051	-	1 422	-	100	59	73	-	388	1 532	14 113
2000	912	-	4 803	-	2 366	2 880	-	1 422	-	215	116	179	38	260	1 641	14 833
2001	1 059	-	4 972	-	2 211	3 182	-	1 272	-	189	131	177	42	251	1 492	14 978
2002	937	-	4 826	-	2 267	3 284	-	1 126	-	182	131	183	41	238	1 628	14 842
Light Commercial vehicles (1000)																
2000	89	-	239	-	642	410	-	270	-	-	0	64	-	-	155	1 869
2001	99	-	207	-	564	395	-	265	-	-	-	59	-	-	176	1 766
2002	89	-	178	-	520	359	-	260	-	-	-	65	-	-	175	1 646
Heavy Trucks (1000)																
2000	30.5	-	142.6	-	22.6	55.1	-	42.6	-	28.9	25.0	4.3	0.5	33.6	14.7	400.4
2001	26.2	-	171.2	-	73.2	48.0	-	40.6	-	48.4	24.3	2.7	0.4	30.2	14.9	480.1
2002	26.2	-	158.2	-	66.7	47.5	-	38.9	-	47.5	19.8	3.0	0.4	29.9	15.6	453.7
Buses & Coaches (1000)																
2000	1.5	0.0	13.5	-	1.5	3.5	-	3.2	-	1.6	0.0	0.2	-	7.8	2.6	35.4
2001	3.8	-	11.9	-	1.4	3.6	-	2.2	-	1.3	0.0	0.2	-	7.9	2.0	34.3
2002	4.4	-	9.7	-	1.4	2.5	-	2.8	-	1.4	0.0	0.2	-	8.3	2.1	32.8

Source : Organisation Internationale des Constructeurs d'Automobiles

Note : * : Passenger cars: France: from 1996: production of vehicles assembled in France only.

Road

3.3.1.9

Vehicle Production : Two-Wheelers

1000

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15
Motorcycles and Mopeds																
1995	-	-	44.6	-	279.9	394.6	-	1101.1	-	-	13.2	-	-	0.1	13.5	1 847.0
1996	-	-	40.6	-	255.4	398.7	-	992.4	-	-	15.9	-	-	0.1	13.2	1 716.2
1997	-	-	58.7	-	299.7	405.4	-	1077.7	-	-	18.7	-	-	0.1	15.1	1 875.4
1998	-	-	60.7	-	382.3	472.0	-	1127.8	-	-	19.6	-	-	0.5	16.9	2 079.7
1999	-	-	76.0	-	312.6	469.2	-	1032.1	-	-	21.6	-	-	0.6	20.8	1 933.0
2000	-	-	112.6	-	284.8	451.4	-	1048.2	-	-	29.2	-	-	0.1	25.6	1 951.9
2001	-	-	120.8	-	253.4	253.4	-	749.0	-	-	40.1	0.1	-	0.2	29.8	1 446.8
2002	-	-	n.a.	-	223.7	n.a.	-	736.5	-	-	52.4	0.1	-	n.a.	n.a.	n.a.
Bicycles																
1995	160	180	3 220	40	410	1 421	-	5 200	-	750	100	590	110	140	1 250	13 571
1996	390	170	2 840	40	280	1 334	-	3 950	-	705	110	580	100	130	1 230	11 859
1997	420	180	2 820	45	290	1 291	-	3 400	-	730	110	560	100	145	1 270	11 361
1998	410	170	3 170	65	480	1 640	-	2 990	-	730	115	470	95	140	1 170	11 645
1999	280	115	3 230	89	530	1 750	-	3 210	-	760	125	440	85	110	1 295	12 019
2000	370	95	3 340	90	547	1 880	-	3 200	-	780	130	420	82	140	1 200	12 274

Source : Association des Constructeurs Européens de Motocycles, European Bicycle Manufacturers Association

Road

3.3.1.10

Vehicle Registrations**Passenger Cars and Motorised Two-Wheelers**

1000

Passenger cars					
	1998	2000	2001	2002	chg. % 02/01
B	452	515	489	468	-4.3
DK	163	113	96	112	+16.0
D	3 736	3 378	3 342	3 253	-2.7
EL	180	290	280	268	-4.2
E	1 193	1 381	1 437	1 332	-7.3
F	1 944	2 134	2 255	2 145	-4.9
IRL	146	231	165	156	-5.3
L	36	42	43	43	+1.3
I	2 379	2 423	2 425	2 278	-6.1
NL	543	598	530	511	-3.7
A	296	309	294	279	-4.9
P	248	258	249	226	-9.0
FIN	126	135	110	117	+6.7
S	253	291	247	255	+3.2
UK	2 247	2 222	2 459	2 564	+4.3
EU-15	13 941	14 319	14 419	14 006	-2.9
Motorcycles					
	1995	2000	2001	2002	chg. % 02/01
B	14.6	25.3	21.2	21.5	+1.3
DK	2.3	3.3	1.7	2.6	+53.5
D	218.2	252.6	227.0	204.1	-10.1
EL	25.5	64.0	66.8	56.1	-16.1
E	34.6	72.0	64.1	62.2	-3.0
F	85.0	179.6	179.6	168.8	-6.0
IRL	1.9	6.9	6.9	5.6	-19.1
L	1.0	1.3	n.a.	n.a.	
I	81.3	524.6	420.4	392.8	-6.6
NL	17.8	19.6	17.6	16.8	-4.1
A	18.7	23.8	20.0	16.7	-16.4
P	12.8	17.7	17.1	14.2	-16.8
FIN	1.0	5.2	4.4	4.9	+11.6
S	4.4	15.2	21.1	23.1	+9.4
UK	47.4	121.9	123.9	123.4	-0.4
EU-15	566.5	1 333.0	1 191.7	1 112.8	-6.6
Mopeds	1 352	1 117	824	482	-41.5

Source : Association des Constructeurs Européens d'Automobiles,
Association des Constructeurs Européens de Motocycles

3.3.1.11

Vehicle Registrations Commercial Vehicles

thousands

	Heavy goods vehicles > 3.5 tonnes				Light goods vehicles < 3.5 tonnes			
	1990	2001	2002	Change	1990	2001	2002	Change
				02/01 %				02/01 %
B	10.7	12.4	10.1	-18.6	52.5	59.7	47.7	-20.1
DK	3.5	4.6	4.1	-10.7	19.6	31.5	31.4	-0.2
D	73.8	96.0	82.2	-14.4	125.4	195.6	182.7	-6.6
EL	0.5	2.0	1.8	-12.3	29.5	20.1	18.2	-9.6
E	30.4	35.4	33.6	-5.2	229.8	283.1	267.6	-5.5
F	50.0	57.9	51.6	-11.0	393.8	433.1	404.0	-6.7
IRL	2.7	4.9	4.0	-18.2	24.1	37.9	33.6	-11.3
L	1.1	1.3	1.0	-18.5	1.9	3.8	3.9	+3.6
I	32.0	38.1	39.7	+4.2	157.0	208.1	268.4	+29.0
NL	14.8	17.2	14.5	-15.6	53.1	84.6	80.3	-5.2
A	7.2	8.0	6.9	-13.6	21.5	24.3	22.3	-8.4
P	7.2	6.7	4.8	-29.2	64.2	105.3	78.8	-25.2
FIN	4.2	3.2	3.2	+1.0	27.5	14.8	14.6	-1.5
S	6.0	5.5	5.1	-8.4	26.4	28.6	28.3	-1.0
UK	45.8	54.8	51.1	-6.7	247.7	256.7	259.6	+1.1
EU-15	290.0	348.0	313.6	-9.9	1474.1	1787.2	1741.3	-2.6
	Buses and coaches > 3.5 tonnes				Total Commercial vehicles			
	1990	2001	2002	Change	1990	2001	2002	Change
				02/01 %				02/01 %
B	0.58	0.89	1.02	+14.2	63.8	73.0	58.8	-19.5
DK	0.31	0.38	0.57	+47.9	23.5	36.5	36.2	-1.0
D	4.24	5.98	5.59	-6.4	203.4	297.6	270.4	-9.1
EL	0.63	0.71	0.19	-73.6	30.6	22.8	20.1	-11.8
E	2.38	3.43	3.08	-10.2	262.6	321.9	304.3	-5.5
F	3.16	5.26	5.30	+0.7	447.0	496.3	460.9	-7.1
IRL	0.02	0.08	0.08	+1.3	26.9	42.9	37.7	-12.0
L	0.06	0.15	0.09	-41.6	3.1	5.2	5.0	-3.1
I	3.83	5.52	4.81	-12.8	192.8	251.7	312.9	+24.3
NL	1.07	0.85	0.71	-16.8	69.0	102.7	95.5	-7.0
A	0.45	0.60	0.70	+17.4	29.2	32.9	29.9	-9.2
P	0.48	0.87	0.69	-20.9	71.9	112.9	84.2	-25.4
FIN	0.43	0.18	0.36	+97.3	32.2	18.2	18.2	-0.1
S	0.86	1.11	1.17	+5.1	33.2	35.3	34.6	-2.0
UK	3.32	4.60	4.83	+5.0	296.8	316.1	315.5	-0.2
EU-15	21.81	30.61	29.18	-4.7	1785.9	2165.9	2084.1	-3.8

Source : Association des Constructeurs Européens d'Automobiles

Road

3.3.1.12

Other European Countries: Vehicle Stock: Passenger Cars

million

	IS	N	CH	BG	CY	CZ	EE	HU	LV (1)	LT	MT	PL	RO	SK	SI	TR
1970	n.a.	0.69	n.a.	0.16	0.06	0.69	0.03	0.24	0.04	0.04	n.a.	0.48	0.04	0.16	0.15	n.a.
1980	n.a.	1.23	n.a.	0.82	0.09	1.78	0.13	1.01	0.17	0.25	n.a.	2.38	0.24	0.55	0.42	n.a.
1985	n.a.	1.42	n.a.	1.06	0.13	2.07	0.18	1.44	0.22	0.34	n.a.	3.67	0.95	0.72	0.50	n.a.
1990	0.12	1.61	2.99	1.32	0.18	2.41	0.24	1.94	0.28	0.49	n.a.	5.26	1.29	0.88	0.58	n.a.
1991	0.12	1.62	3.06	1.36	0.19	2.48	0.26	2.02	0.33	0.53	0.12	6.11	1.43	0.93	0.59	n.a.
1992	0.12	1.62	3.09	1.41	0.20	2.58	0.28	2.06	0.35	0.57	0.13	6.51	1.59	0.97	0.61	n.a.
1993	0.12	1.63	3.11	1.51	0.20	2.83	0.32	2.09	0.37	0.60	0.15	6.77	1.79	0.99	0.64	2.62
1994	0.12	1.65	3.17	1.59	0.21	2.92	0.34	2.18	0.25	0.65	0.17	7.15	2.02	0.99	0.67	2.86
1995	0.12	1.68	3.23	1.65	0.22	3.04	0.38	2.25	0.33	0.72	0.18	7.51	2.20	1.02	0.71	3.06
1996	0.13	1.66	3.27	1.71	0.23	3.19	0.41	2.26	0.38	0.79	0.18	8.05	2.39	1.06	0.74	3.27
1997	0.13	1.76	3.32	1.73	0.24	3.39	0.43	2.30	0.43	0.88	0.18	8.53	2.61	1.14	0.78	3.57
1998	0.14	1.79	3.38	1.81	0.25	3.49	0.45	2.22	0.48	0.98	0.17	8.89	2.82	1.20	0.81	3.84
1999	0.15	1.81	3.47	1.91	0.26	3.44	0.46	2.26	0.53	1.09	0.18	9.28	2.98	1.24	0.85	4.07
2000	0.16	1.84	3.55	1.99	0.27	3.44	0.46	2.36	0.56	1.17	0.19	9.99	3.13	1.27	0.87	4.42
2001	0.16	1.87	3.63	2.09	0.28	3.53	0.41	2.48	0.59	1.13	0.20	10.50	3.23	1.29	0.88	4.53
Cars per 1000 inhabitants :																
2001	561	414	502	264	399	344	298	244	249	326	497	272	144	240	444	68

Source : Eurostat, national statistics, study for Energy and Transport DG

Notes : (1) change in vehicle register, vehicle stock overestimated before 1994

Road

3.3.1.13

Other European Countries: Vehicle Stock: Commercial Vehicles

1000

	IS	N	CH	BG	CY	CZ	EE	HU	LV	LT	MT	PL	RO	SK	SI	TR
Buses and Coaches																
1980	n.a.	n.a.	n.a.	21.0	1.6	20.3	6.4	22.2	n.a.	10.5	n.a.	66.4	25.0	10.0	2.5	n.a.
1990	1.3	21.2	12.5	25.3	2.3	26.0	7.9	26.1	n.a.	15.2	n.a.	92.0	28.3	14.3	3.1	n.a.
1995	1.3	32.5	37.0	41.8	2.7	19.7	7.1	20.5	16.8	17.6	1.0	85.1	42.0	12.1	2.5	263.2
1997	1.5	35.2	38.5	41.2	2.8	20.8	6.6	18.9	18.9	15.4	1.1	84.5	44.1	11.5	2.4	298.9
1998	1.5	36.2	39.1	42.3	2.8	20.0	6.4	18.8	11.8	15.7	1.1	80.6	45.5	11.5	2.3	319.9
1999	1.6	37.0	39.7	42.7	2.8	19.0	6.3	18.0	11.9	16.1	1.1	78.7	47.3	11.3	2.3	333.9
2000	1.7	36.7	40.3	43.0	2.9	18.9	6.2	18.1	11.8	15.5	1.1	82.4	48.1	11.1	2.3	354.3
2001	1.7	35.6	41.3	43.6	3.0	18.4	5.5	18.1	11.6	15.6	1.1	82.2	48.5	10.9	2.2	358.7
Goods road vehicles																
1980	n.a.	n.a.	169	n.a.	24	130	62	197	n.a.	66	n.a.	n.a.	250	n.a.	n.a.	n.a.
1990	13	199	246	n.a.	74	156	68	262	n.a.	83	n.a.	n.a.	259	n.a.	n.a.	n.a.
1995	14	217	256	244	100	203	66	292	61	101	41	1299	318	148	39	719
1997	16	230	257	251	105	247	77	315	68	85	46	1422	356	148	44	883
1998	16	231	260	283	109	280	81	337	85	99	48	1564	410	156	50	1034
1999	17	229	266	293	111	289	81	346	90	97	50	1684	442	160	52	1109
2000	19	222	279	301	115	298	n.a.	353	97	99	n.a.	1880	449	153	55	1229
2001	20	220	285	312	118	321	n.a.	380	100	100	n.a.	1979	456	161	56	1271

Source : Eurostat, national statistics, study for Energy and Transport DG

Part 3 : TRANSPORT

Chapter 3 : Means of transport

Section 2 : Rail, Inland Waterways, Maritime, Air

Rail

3.3.2.1

Locomotives and Railcars

Stock of vehicles

units

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15	index 1970= 100
1970	1 536	480	18 071	514	1 928	6 261	307	4 715	95	2 140	1 423	626	877	1 408	9 510	49 891	100
1980	1 740	461	18 949	313	1 791	6 204	192	4 916	85	2 174	1 428	583	752	1 576	5 452	46 616	93
1990	1 727	524	17 741	400	1 922	7 279	166	4 818	97	2 372	1 543	530	669	1 350	5 610	46 748	94
1995	1 579	507	11 784	430	1 856	7 009	171	4 660	110	2 345	1 542	633	761	1 039	4 000	38 426	77
1996	1 535	487	11 670	430	1 806	6 998	162	4 567	110	2 383	1 557	637	763	1 007	4 000	38 112	76
1997	1 579	456	12 802	523	1 764	6 952	158	4 490	97	2 339	1 557	618	747	950	4 000	39 032	78
1998	1 595	438	11 715	638	1 730	6 952	158	4 454	104	2 240	1 526	618	746	948	3 900	37 762	76
1999	1 621	433	9 847	244	1 670	7 129	172	4 623	113	2 170	1 531	624	742	929	3 800	35 648	71
2000	1 670	415	9 656	244	1 693	7 158	172	4 697	124	1 965	1 530	589	735	887	n.a.	n.a.	
2001	1 706	495	9 514	290	1 951	7 224	169	4 650	132	2 128	1 606	536	724	n.a.	n.a.	n.a.	

Source : Union Internationale des Chemins de Fer; UK: Department of Transport, Local Government and the Regions; E: Red Nacional de Ferrocarriles Espanoles only, NL:Centraal Bureau voor Statistiek, L:Chemins de Fer Luxembourgeois

Note : Data relate to main railways (UIC members)

D : includes D-E : 1970=10000, 1980=10761, 1990=9635

Rail

3.3.2.2

Passenger Transport Vehicles (coaches + railcars + trailers)

Stock of vehicles

units

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15	index 1970= 100
1970	3 415	1 526	31 506	574	3 904	15 663	484	11 060	114	1 919	4 125	980	1 032	2 746	18 678	97 726	100
1980	3 609	1 613	29 118	660	3 721	16 032	348	13 444	102	1 958	4 025	1 137	1 100	1 998	17 042	95 907	98
1990	3 286	1 594	24 139	810	3 839	15 748	314	14 025	114	2 268	3 689	1 232	957	1 747	12 514	86 276	88
1991	3 252	1 586	23 949	820	3 948	15 764	317	13 959	142	2 332	3 833	1 252	971	1 708	12 451	86 284	88
1994	3 109	1 623	19 616	861	4 193	15 589	318	13 744	146	2 510	3 779	1 346	968	1 623	10 982	80 407	82
1995	3 110	1 688	19 083	869	4 230	15 799	318	13 527	146	2 611	3 740	1 341	977	1 655	10 637	79 731	82
1996	3 235	1 532	18 573	869	4 289	15 782	321	13 250	146	2 670	3 191	1 394	952	1 612	10 600	78 416	80
1997	3 371	1 375	18 548	448	4 263	15 714	332	12 735	146	2 690	3 224	1 367	953	1 603	10 600	77 369	79
1998	3 415	924	18 364	462	3 947	15 739	341	12 218	146	2 705	3 617	1 406	964	1 595	10 450	76 293	78
1999	3 397	929	20 442	475	3 771	15 762	359	12 014	146	2 776	3 584	1 431	981	1 542	10 300	77 909	80
2000	3 494	918	21 097	475	3 765	15 656	421	11 914	149	2 742	3 468	1 303	1 003	1 000	10 150	77 555	79
2001	3 462	n.a.	21 139	509	4 262	15 650	421	11 933	152	2 742	3 332	1 313	1 011	781	10 425	n.a.	

Source : Union Internationale des Chemins de Fer, national statistics

D : includes D-E : 1970=138.0, 1980=142.2, 1990=163.2

Note : Data relate to main railways (UIC members)

In addition tramcars ca. 12000, metro cars ca. 17000

Rail

3.3.2.3

Goods Transport Wagons

Stock of vehicles

1000

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15	index 1970 =100
1970	44.7	11.0	459.0	9.0	53.3	291.5	9.7	125.2	4.2	18.8	39.1	9.0	22.8	53.4	389.8	1 540.6	100
1980	43.0	6.9	476.4	10.9	40.8	239.8	4.4	115.2	3.7	11.4	38.7	5.9	21.5	45.9	141.2	1 205.5	78
1990	30.3	4.6	366.7	11.0	37.7	148.1	1.8	99.7	2.7	6.7	34.3	4.6	15.2	27.5	34.4	825.4	54
1991	29.6	4.5	363.9	11.0	36.1	141.8	1.8	97.4	2.5	6.4	34.8	4.4	14.7	25.0	30.9	804.7	52
1994	20.0	4.2	271.5	11.1	33.0	124.6	1.8	90.0	2.6	6.0	31.9	4.2	14.0	21.0	14.2	650.2	42
1995	20.3	4.1	245.9	11.1	29.7	116.1	1.8	89.1	2.4	5.9	28.9	3.9	14.0	20.4	n.a.	n.a.	n.a.
1996	19.6	3.6	240.5	11.1	28.7	112.2	1.6	80.6	2.3	5.8	27.1	4.2	13.7	19.9	n.a.	n.a.	n.a.
1997	18.9	3.2	224.1	8.6	28.5	106.0	1.6	76.7	2.3	4.7	26.3	4.2	13.0	18.3	n.a.	n.a.	n.a.
1998	19.0	2.9	205.4	2.7	27.5	100.5	1.6	76.4	2.3	4.6	24.4	4.3	12.4	17.2	n.a.	n.a.	n.a.
1999	18.6	2.3	192.8	3.5	26.5	96.3	1.6	76.2	2.3	4.7	23.9	4.2	12.0	17.6	41.0	523.7	34
2000	18.8	2.2	188.8	3.5	26.5	94.8	1.9	65.0	2.4	4.7	24.0	3.9	11.8	17.6	n.a.	n.a.	n.a.
2001	19.7	2.2	188.9	3.5	27.0	109.8	1.8	59.2	2.5	3.3	25.1	3.9	11.9	17.6	n.a.	n.a.	n.a.

Source : Union Internationale des Chemins de Fer, national statistics

D : includes D-E : 1970=138.0, 1980=142.2, 1990=163.2

Note : Data relate to main railways (UIC members)

3.3.2.4

Inland Waterways Transport Equipment

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15
Self-propelled goods vessels, tugs and pushers (units)																
1970	5 092	-	6 038	-	-	5 790	-	3 124	17	9 885	57	-	90	-	390	30 483
1980	3 107	-	4 464	-	-	4 254	-	2 347	18	6 966	64	-	113	-	381	21 714
1990	1 871	-	3 230	-	-	2 514	-	2 755	25	6 136	61	-	136	-	396	17 124
1994	1 650	-	3 018	-	-	1 803	-	2 853	44	5 678	40	-	160	-	403	15 649
1996	1 566	-	3 538	-	-	1 640	-	3 020	44	5 345	47	-	164	-	277	15 641
1997	1 524	-	3 425	-	-	1 479	-	3 184	n.a.	4 447	42	-	164	-	277	n.a.
1998	n.a.	-	3 294	-	-	1 443	-	3 184	n.a.	4 086	44	-	168	-	277	n.a.
1999	n.a.	-	3 142	-	-	1 408	-	3 197	n.a.	n.a.	51	-	170	-	277	n.a.
Dumb and pushed barges (units)																
1970	455	-	2 200	-	-	1 591	-	393	-	1 523	225	-	70	-	1 610	8 067
1980	190	-	1 732	-	-	1 211	-	217	-	925	150	-	57	-	1 228	5 710
1990	164	-	1 566	-	-	768	-	372	-	937	171	-	23	-	411	4 412
1994	171	-	1 313	-	-	775	-	410	-	900	130	-	23	-	427	4 149
1996	169	-	1 277	-	-	760	-	430	-	922	157	-	20	-	361	4 096
1997	157	-	1 273	-	-	694	-	459	-	838	141	-	23	-	361	3 946
1998	n.a.	-	1 230	-	-	695	-	474	-	809	141	-	28	-	361	n.a.
1999	n.a.	-	1 197	-	-	679	-	437	-	n.a.	146	-	27	-	361	n.a.

Source : Eurostat, European Conference of Ministers of Transport, United Nations-Economic Commission for Europe, national statistics

Note : figure for Italy includes a large number (year 1993: 1939) of small vessels (<10t) used in Venice

3.3.2.5

EU Merchant Fleet

Ships of 1000 grt and over

Data as at January 1st, 2002

	B	DK*	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15	as at 1.1. 2001
	Total fleet controlled																
Number	123	629	2169	3122	224	215	45	593	2	651	38	49	135	327	643	8 965	8 885
mio dwt	7.1	16.9	37.2	145.2	3.7	6.0	0.20	12.6	0.01	5.4	0.8	1.4	1.9	7.9	18.2	264.5	257.3
	National flag																
Number	2	310	402	775	134	121	26	472	2	484	20	32	97	157	263	3 297	3 316
mio dwt	0.01	7.98	7.26	45.62	1.71	2.86	0.14	8.49	0.01	3.25	0.10	0.45	0.98	1.35	7.77	88.0	84.8
	Foreign flag																
Number	121	319	1767	2347	90	94	19	121	-	167	18	17	38	170	380	5 668	5 569
mio dwt	7.05	8.92	29.95	99.55	2.02	3.13	0.06	4.10	-	2.18	0.67	0.98	0.91	6.58	10.45	176.5	172.5
	Share of foreign flag in total fleet																
Number	98%	51%	81%	75%	40%	44%	42%	20%	0%	26%	47%	35%	28%	52%	59%	63%	63%
dwt	100%	53%	80%	69%	54%	52%	31%	33%	0%	40%	87%	68%	48%	83%	57%	67%	67%

Source : ISL merchant fleet data bases; aggregates based on quarterly updates from the Lloyd's Maritime Information System

* : including international registers like the Danish International Ship Register; including vessels registered at territorial dependencies

3.3.2.6

World Merchant Fleet

by world region

Total controlled fleet					
dwt (million)					
(ships of 1000 gt and over)	1995	1999	2000	2001	2002
Europe	312.6	345.7	351.1	361.4	372.3
of which: EU-15	207.5	242.0	247.5	257.3	264.5
North America	51.0	46.5	49.4	45.4	42.6
Latin America	18.7	16.0	15.7	14.3	15.5
Asia/Oceania	245.4	286.6	291.3	301.2	303.1
Africa	6.7	7.0	7.1	5.4	5.1
Unknown	38.0	40.1	38.6	42.4	52.7
Total	672.4	741.9	753.2	770.2	791.3
of which: EU controlled	31%	33%	33%	33%	33%
EU-15 fleet: Foreign flag share	52.1%	60.2%	60.9%	60.2%	59.0%

by type of ship

Total registered fleet					EU controlled*
January 1st, 2002	Number		dwt (1000)		dwt 1000
(ships of 300 gt and over)	World	EU flag	World	EU flag	
Oil tankers	7 311	957	303 234	51 905	100 962
Chemical tankers	1 291	207	8 489	1 312	1 675
Liquid gas tankers	1 114	158	18 994	2 097	4 180
Bulk carriers	5 907	435	277 067	22 960	93 337
Ore/bulk/oil carriers	197	6	14 108	391	
General cargo ships	15 642	1 550	88 763	7 486	26335**
Container ships	2 726	545	76 131	18 904	35 844
Pass./Cargo & Ro-Ro	3 561	1 418	11 448	4 757	2190**
Passenger ships	1 364	319	1 528	359	
[gt (1000)]			[9 938]	[2 340]	
Cruise ships	257	62			n.a.
(ships of 1000 gt and over) [gt (1000)]			[9 529]	[2 439]	

Source : Institute for Shipping Economics and Logistics, Bremen

* : ships of 1000 gt and over

** : Ro-Ro cargo with general cargo instead of passenger ships

No dwt for cruise ships, since dwt is a measure of the weight admissible

Air

3.3.2.7

Aircraft Number of Civil Aircraft In Service in mid-2002

Type of aircraft	B	DK*	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S*	UK	EU-15
Passenger																
50 seats or less	10	45	141	16	44	142	4	54	13	37	38	15	7	53	148	767
51 to 150 seats	42	51	203	41	116	183	49	126	3	54	37	32	43	43	292	1 315
151 to 250 seats	15	25	185	11	143	65	33	123	2	57	16	20	14	20	177	906
251 seats and more	4	9	74	8	16	95	7	21	0	47	11	7	4	4	172	479
Freight / Cargo																
under 100 000lbs mtow	11	2	32	2	41	9	-	13	-	4	1	2	-	15	28	160
over 100 000lbs mtow	34	11	22	1	12	16	14	3	11	6	2	-	-	-	32	164
Quick-change convertible (pass. / cargo) Multi-role	-	7	14	-	14	23	-	-	2	6	3	1	1	12	27	110
Special purpose / Ambulance	1	2	14	-	9	32	2	6	-	3	4	2	2	2	41	120
Business/Corporate/Executive	14	39	214	9	43	99	10	93	25	19	51	37	11	29	158	851
Total	131	191	899	88	438	664	119	439	56	233	163	116	82	178	1 075	4 872

Source : Airclaims

Note: * : includes those SAS passenger aircraft registered in Denmark and Sweden respectively, for which the operator country is "multi-national". More than 30000 small private planes not included.

Air

3.3.2.8

Major Airports
Total Movements of Aircraft
 (take-off + landing)

Airport, Country	2000	2001	2002	change 02/01 %
1 Paris Charles de Gaulle, F	517.7	523.4	510.1	-2.5
2 London Heathrow, UK	466.8	463.6	466.5	+0.6
3 Frankfurt Rhein/Main, D	458.7	456.5	458.4	+0.4
4 Amsterdam Schiphol, NL	432.5	432.1	417.1	-3.5
5 Madrid Barajas, E	358.5	375.6	368.1	-2.0
6 Munich, D	319.0	337.7	344.4	+2.0
7 Rome Fiumicino, I	283.4	283.7	282.8	-0.3
8 Barcelona, E	256.9	273.1	271.0	-0.8
9 Copenhagen, DK	303.7	288.7	266.9	-7.6
10 Bruxelles, B	326.1	305.5	256.9	-15.9
11 Stockholm Arlanda, S	279.4	276.4	245.7	-11.1
12 London Gatwick, UK	260.9	252.5	242.4	-4.0
13 Milan Malpensa, I	249.7	237.0	236.4	-0.3
14 Paris Orly, F	243.6	219.5	211.1	-3.8
15 Vienna Schwechat, A	207.0	204.6	206.3	+0.8
16 Hamburg, D	164.9	158.6	199.9	+26.1
17 Manchester, UK	197.7	197.2	192.5	-2.4
18 Dusseldorf, D	194.0	193.5	190.3	-1.7
19 Nice, F	217.4	204.2	188.5	-7.7
20 Dublin, IRL	180.2	185.7	181.9	-2.1
21 Lyons, F	129.3	130.9	176.7	+35.0
22 London Stansted, UK	165.8	169.6	170.5	+0.6
23 Palma De Mallorca, E	177.0	169.6	160.2	-5.5
24 Athens E.V., EL	-	150.9	159.5	+5.7
25 Helsinki Vantaa, FIN	165.7	166.1	157.7	-5.1
Berlin Tegel, D	134.3	131.6	127.5	-3.2
Lisbon, P	112.1	113.8	115.7	+1.7
Luxembourg, L	85.5	86.2	82.5	-4.2
Total of top 25 above	6 555.9	6 656.3	6 561.7	-1.4

Source : Airports Council International, airport authorities

3.3.2.9

Major Airports Movements of Aircraft by Type Year 2001 (take-off + landing) 1000

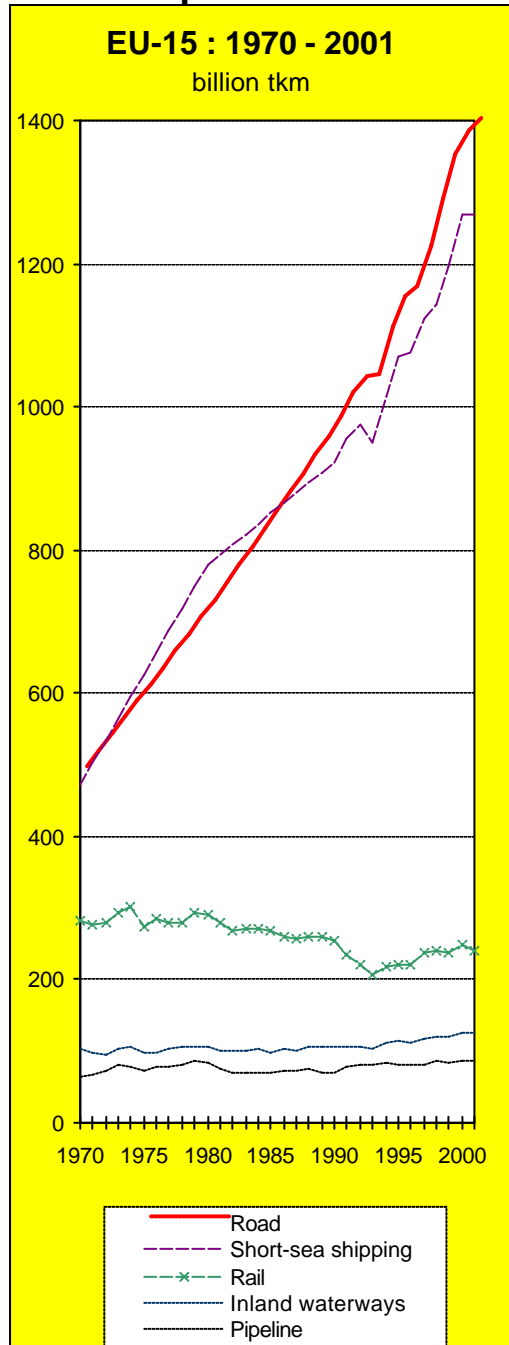
Airport, Country	Pass-enger	Cargo + Mail	General aviation (+ other)	Total
1 Paris Charles de Gaulle, F	476.4	38.7	8.3	523.4
2 London Heathrow, UK	454.4	3.2	5.9	463.6
3 Frankfurt Rhein/Main, D	426.4	22.1	8.0	456.5
4 Amsterdam Schiphol, NL	404.8	11.7	15.6	432.1
5 Madrid Barajas, E	374.7		0.9	375.6
6 Munich, D	306.3	4.0	27.4	337.7
7 Bruxelles, B	264.8	22.0	18.8	305.5
8 Copenhagen, DK	271.0	14.0	3.8	288.7
9 Rome Fiumicino, I	273.3	10.4		283.7
10 Stockholm Arlanda, S	258.7	8.7	9.0	276.4
11 Barcelona, E	270.4		2.8	273.1
12 London Gatwick, UK	242.0	3.2	7.2	252.5
13 Milan Malpensa, I	229.4	3.8	3.9	237.0
14 Paris Orly, F	215.4	0.2	3.9	219.5
15 Vienna Schwechat, A	181.1	2.5	21.0	204.6
16 Nice, F	191.3	1.9	11.1	204.2
17 Manchester, UK	181.1	2.5	13.6	197.2
18 Dusseldorf, D	176.8	1.1	15.6	193.5
19 Dublin, IRL	170.1		15.6	185.7
20 Palma De Mallorca, E	167.3		2.3	169.6
21 London Stansted, UK	138.7	13.9	17.0	169.6
22 Helsinki Vantaa, FIN	157.6		8.5	166.1
23 Hamburg, D	131.0	1.9	25.6	158.6
24 Stuttgart, D	111.8		39.9	151.7
25 Cologne / Bonn, D	102.4	32.5	15.2	150.2
26 Berlin Tegel, D	124.2	1.3	6.1	131.6
27 Lyon, F	121.0	5.7	4.2	130.9
28 Marseille, F	85.2	7.7	32.7	125.6
29 Birmingham, UK	111.4	0.4	13.3	125.1
30 Basel - Mulhouse, CH/F	89.0	5.5	26.4	120.9
31 Lisbon, P	106.7	1.8	5.3	113.8
32 Milan Linate, I	83.3	1.3	28.4	113.0
33 Edinburgh, UK	90.4	8.8	13.2	112.4
34 Glasgow, UK	93.3	1.2	16.5	111.0
35 Toulouse, F	77.6	6.7	20.4	104.7
36 Aberdeen, UK	83.9	2.9	17.1	104.0
37 Malaga, E	88.4		9.8	98.2
38 Belfast, UK	34.8	24.3	36.1	95.2
39 Gran Canaria, E	88.4		4.9	93.3
40 Rotterdam, NL	19.2		74.0	93.2
41 Montpellier, F	24.6		66.9	91.5
42 Hannover, D	65.2	1.9	22.8	89.9
43 Luxembourg, L	42.0	8.5	35.6	86.2
Athens, EL	n.a.	n.a.	n.a.	n.a.

Source : Airports Council International-Europe

Part 3 : TRANSPORT

Chapter 4 : Goods transport

Performance by Mode of Transport for Goods



3.4.2

Performance by Mode of Transport for Goods

EU-15

1000 mio tkm

	Road	Rail	Inland Waterways	Pipelines	Sea	Total
1970	488	282	102	64	472	1 409
1980	720	290	106	85	781	1 982
1990	976	255	107	70	923	2 332
1991	1 010	235	106	79	955	2 385
1995	1 144	221	114	82	1 070	2 632
1997	1 214	237	118	82	1 124	2 775
1998	1 283	240	120	85	1 142	2 870
1999	1 344	236	120	85	1 197	2 983
2000	1 378	250	125	85	1 270	3 108
2001	1 395	242	125	87	1 254	3 102
1991-01	+ 38 %	+ 3 %	+ 18 %	+ 10 %	+ 31 %	+ 30 %

Source : tables 3.4.5, 3.4.7, 3.4.8, 3.4.9

Average annual change

% per year

	Road	Rail	Inland Waterways	Pipelines	Sea	Total
1970-80	+4.0	+0.3	+0.4	+2.9	+5.2	+3.5
1980-90	+3.1	-1.3	+0.1	-1.9	+1.7	+1.6
1991-00	+3.5	+0.7	+1.9	+0.9	+3.2	+3.0
2001	+1.3	-3.2	-0.2	+1.6	-1.3	-0.2

Modal split

(%)

	Road	Rail	Inland Waterways	Pipelines	Sea
1970	34.7	20.0	7.3	4.5	33.5
1980	36.3	14.6	5.3	4.3	39.4
1990	41.9	11.0	4.6	3.0	39.6
1991	42.4	9.8	4.4	3.3	40.1
1995	43.5	8.4	4.3	3.1	40.7
1997	43.7	8.5	4.3	3.0	40.5
1998	44.7	8.3	4.2	3.0	39.8
1999	45.1	7.9	4.0	2.8	40.1
2000	44.3	8.0	4.0	2.7	40.9
2001	45.0	7.8	4.0	2.8	40.4

Note: Sea: Intra-EU traffic including domestic traffic. The estimates for maritime traffic are based on different statistical sources as from 2001 and remain subject to revision.

**Modal Split by Country
for 4 modes of transport (not incl. Sea)**

Year 2001

tkm in %

	Road	Rail	Inland Waterways	Pipelines
B	71.0	12.6	13.5	2.8
DK	73.2	8.6	0.0	18.3
D	69.5	14.7	12.8	3.1
EI	98.0	2.0	-	-
E	87.6	7.5	-	4.8
F	77.8	14.3	1.9	6.0
IRL	93.3	6.7	-	-
I	87.9	8.1	0.1	3.9
L	71.2	17.1	11.7	-
NL	46.6	4.0	43.4	6.0
A*	50.4	30.8	4.5	14.3
P	87.2	12.8	-	-
FIN	72.6	25.9	1.4	-
S	60.5	39.5	-	-
UK	83.4	10.3	0.1	6.1
EU-15	75.5	13.1	6.8	4.7

Source : see tables 3.4.5, 3.4.7, 3.4.8, 3.4.9

* Austrian road traffic data have been revised compared with earlier editions which only included transport by national operators. To secure comparability with other countries, transport on Austrian territory by operators of all nationalities has been included.

Evolution of modal split for EU 15

tkm in %

	Road	Rail	Inland Waterways	Pipelines
1970	52.1	30.2	10.9	6.8
1980	60.0	24.1	8.8	7.1
1990	69.3	18.1	7.6	5.0
1995	73.3	14.1	7.3	5.3
1997	73.5	14.4	7.2	5.0
1998	74.2	13.9	7.0	4.9
1999	75.3	13.2	6.7	4.8
2000	75.0	13.6	6.8	4.6
2001	75.5	13.1	6.8	4.7

Distance classes by mode of transport

%

km	Road		Rail		Inland Waterways	
	tkm	tonnes	tkm	tonnes	tkm	tonnes
0-49	5.1	53.7	2.3	24.1	5.3	29.2
50-149	16.4	22.8	9.3	22.7	29.0	39.6
150-499	41.9	18.4	49.1	40.4	54.1	28.9
500-	36.5	5.1	39.2	12.8	11.5	2.3
Total	100	100	100	100	100	100

Source: table 3.4.4

3.4.4

Distance Classes by Mode of Transport

		Tonnes (mio)																
	km	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15*	
Road																		
	2001	0-49	154.9	94.2	1871.2	n.a.	552.9	1140.6	137.6	484.3	24.0	283.3	177.1	69.3	229.0	161.1	763.4	6142.8
		50-149	112.0	62.1	627.2	n.a.	233.4	407.4	40.8	308.9	5.8	155.0	49.1	35.3	79.9	81.6	408.5	2607.0
		150- 499	92.3	38.6	451.6	n.a.	171.4	338.4	19.8	280.3	10.0	118.0	35.2	24.2	61.7	58.2	405.9	2105.6
		500-	27.3	10.4	110.3	n.a.	90.5	105.1	2.4	86.5	5.7	37.0	22.5	8.9	8.8	12.2	51.7	579.4
	Total	386.5	205.3	3060.2	n.a.	1048.3	1991.5	200.6	1159.9	45.5	593.4	283.9	137.6	379.4	313.2	1629.6	11434.8	
Rail																		
	1994 - 2001	0-49	9.3	0.1	67.7	0.0	1.4	4.8	0.2	1.4	1.4	0.9	3.6	0.2	3.3	0.4	33.9	128.5
		50-149	11.4	0.5	39.0	0.1	1.0	15.0	1.1	6.2	1.4	1.2	5.9	2.7	3.3	2.6	29.6	120.8
		150- 499	2.1	1.0	66.8	0.2	9.2	46.3	1.4	16.2	-	2.3	9.7	5.3	13.7	10.0	30.5	214.9
		500-	-	-	16.1	0.1	9.1	22.8	0.0	7.7	-	-	1.0	0.1	3.6	6.4	1.4	68.3
	Total	22.8	1.6	189.6	0.3	20.7	88.9	2.7	31.5	2.7	4.4	20.1	8.3	24.0	19.4	95.4	532.5	
Inland water - ways																		
	1993- 2001	0-49	5.9	-	10.8	-	-	7.2	-	0.1	0.0	37.7	0.7	-	-	-	-	62.4
		50-149	16.4	-	15.0	-	-	7.8	-	0.1	-	45.2	0.2	-	-	-	-	84.6
		150- 499	3.2	-	26.6	-	-	9.5	-	0.4	-	21.9	0.3	-	-	-	-	61.9
		500-	-	-	4.6	-	-	0.3	-	-	-	-	-	-	-	-	-	4.9
	Total	25.5	-	57.0	-	-	24.8	-	0.6	0.0	104.7	1.2	-	-	-	-	213.8	

Source : Eurostat

Notes: Road: International transport Rail and Inland Waterways : National transport only

*: Road: not including Greece Rail and Inland Waterways: different years for different countries Inland Waterways: I: 1993;

B: 2000

Rail: L: 1992 size class estimate; Values: UK: 1994; F:1998; IRL:1998; EL:1999; P: 1999; S: 1999

Road : Haulage on National Territory National and International

(Estimates)

1000 mio tkm

	B	DK	D	EL	E	F	IRL	I	L	NL	A (2)	P	FIN	S (3)	UK (3)	EU-15	Index 1970= 100	modal share % (1)
1970	13.5	7.0	117.2	4.9	27.9	107.4	4.0	58.7	0.3	16.3	9.0	7.2	12.4	20.9	81.6	488.3	100	52.1
1980	16.5	11.3	168.3	7.3	48.2	165.7	5.0	119.6	0.6	23.2	14.0	10.0	18.4	21.4	90.8	720.3	148	60.0
1990	25.0	13.7	221.8	10.9	78.9	193.9	3.9	177.9	1.3	31.8	16.0	12.2	26.3	26.5	136.3	976.3	200	69.3
1991	26.5	13.4	245.7	12.1	82.7	199.6	4.2	183.0	1.4	32.3	18.0	11.2	24.7	25.4	130.0	1010.2	207	70.7
1995	34.6	14.7	279.7	14.8	94.6	227.1	5.5	194.8	1.9	42.2	20.9	11.6	23.2	29.3	149.6	1144.4	234	73.3
1996	31.4	14.5	280.7	15.9	92.5	231.1	5.7	198.3	1.9	43.9	22.2	11.7	24.1	31.2	153.9	1158.9	237	73.7
1997	34.1	14.7	301.8	16.5	96.2	238.2	5.7	207.2	2.0	45.0	23.9	12.7	25.4	33.1	157.1	1213.6	249	73.5
1998	35.5	16.2	321.2	17.0	114.9	246.5	5.9	219.8	2.1	46.5	25.4	13.4	26.5	32.7	159.5	1283.0	263	74.2
1999	38.2	16.9	341.7	17.7	123.5	260.3	6.1	232.8	2.2	48.6	26.4	14.1	26.5	32.8	156.7	1344.4	275	75.3
2000	38.4	17.8	346.3	18.8	133.1	266.5	6.6	242.4	2.4	45.7	27.5	14.3	28.5	31.4	158.0	1377.5	282	75.0
2001	40.0	17.6	353.0	19.6	141.9	273.7	7.2	236.9	2.4	45.0	28.5	14.5	27.6	30.0	156.9	1394.8	286	75.5

Source : Eurostat, national statistics, study for Energy and Transport DG

Notes : (1) road + railways + inland waterways + pipelines(oil)

(2) For comparability, Austrian data have been revised compared with earlier editions

in order to include international transport and transport by foreign operators on national territory

(3) national operators only

D: includes D-E : 1970=12.2, 1980=21.0, 1990=13.0

Road : Haulage by Vehicles Registered in the Country

1000 mio tkm

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15
National haulage																
1995	18.6	9.3	201.3	12.4	78.7	135.3	4.7	150.3	0.5	26.7	11.1	11.1	21.8	28.4	146.7	856.9
1998	16.7	10.1	210.4	19.3	91.3	145.5	4.7	164.2	0.4	28.2	11.7	14.7	25.6	30.4	155.4	928.6
1999	15.8	10.4	226.9	20.0	98.1	159.0	7.7	152.0	0.4	32.7	12.3	14.2	25.6	30.4	149.0	954.5
2000	19.8	11.0	226.5	20.0	106.9	163.2	8.3	158.3	0.4	31.5	12.4	7.5	27.7	31.5	150.3	975.3
2001	20.6	10.9	230.0	20.0	114.0	168.6	9.1	154.7	0.5	31.0	12.5	9.7	26.7	30.0	149.8	988.0
2002	20.4	11.1	225.5	n.a.	129.5	171.8	11.3	n.a.	0.6	30.3	12.7	8.5	28.1	31.8	150.9	n.a.
International haulage (excluding cross-trade and cabotage)																
1995	22.8	12.4	33.7	0.9	22.5	40.0	0.9	12.5	1.2	33.9	12.5	n.a.	n.a.	3.1	14.4	n.a.
1998	19.9	10.8	42.2	1.3	32.8	40.3	0.9	19.9	1.2	36.8	14.6	10.2	2.4	2.9	16.1	252.3
1999	17.3	12.3	45.7	1.5	35.1	42.0	1.7	24.5	1.5	41.0	15.7	11.0	3.7	2.7	16.9	272.3
2000	25.3	12.2	48.7	1.5	40.5	37.9	2.7	25.7	1.5	37.9	16.7	11.3	4.0	3.7	15.0	284.5
2001	26.5	10.5	52.2	1.5	45.3	35.9	2.3	30.6	2.0	37.5	18.6	11.7	3.7	3.7	13.0	294.9
2002	25.2	10.9	52.2	n.a.	52.4	32.8	2.7	n.a.	2.4	36.4	19.0	12.5	3.7	4.1	12.8	n.a.

Source : Eurostat

Railways

1000 mio tkm

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15	index 1970 = 100	modal share % (1)
1970	7.9	1.7	113.0	0.7	9.7	67.6	0.5	18.1	0.8	3.7	9.9	0.8	6.3	17.3	24.6	282.5	100	30.2
1980	8.0	1.6	121.3	0.8	11.3	68.8	0.6	18.4	0.7	3.5	11.0	1.0	8.3	16.6	17.8	289.8	103	24.1
1990	8.4	1.7	101.7	0.6	11.6	50.7	0.6	19.4	0.6	3.1	12.2	1.5	8.4	19.1	16.0	255.4	90	18.1
1991	8.2	1.9	81.8	0.6	10.8	51.5	0.6	20.0	0.6	3.0	12.3	1.7	7.6	18.8	15.3	234.6	83	16.4
1994	8.1	2.0	70.6	0.3	9.0	48.8	0.6	20.4	0.6	2.8	12.4	1.6	9.9	19.1	13.0	219.3	78	14.5
1995	7.3	2.0	69.5	0.3	10.4	48.1	0.6	21.7	0.5	3.1	13.1	2.0	9.6	19.4	13.3	220.9	78	14.1
1996	7.2	1.8	67.9	0.3	10.4	49.5	0.6	21.0	0.5	3.1	13.1	1.9	8.8	18.8	15.1	220.1	78	14.0
1997	7.5	2.0	72.6	0.3	11.5	53.9	0.5	22.9	0.6	3.4	13.9	2.2	9.9	19.2	16.9	237.2	84	14.4
1998	7.6	2.1	73.6	0.3	11.8	54.0	0.5	22.5	0.6	3.8	14.5	2.0	9.9	19.2	17.3	239.5	85	13.9
1999	7.4	1.9	71.0	0.3	12.0	53.4	0.5	21.5	0.6	3.5	14.7	2.2	9.8	19.1	18.2	236.3	84	13.2
2000	7.7	2.1	76.8	0.4	12.1	55.4	0.5	22.8	0.6	3.8	17.1	2.2	10.1	20.1	18.1	249.8	88	13.6
2001	7.1	2.1	74.5	0.4	12.2	50.4	0.5	21.8	0.6	3.8	17.4	2.1	9.9	19.5	19.4	241.7	86	13.1
2002	7.3	2.1	72.4	0.4	12.3	50.0	0.4	20.4	0.6	3.7	17.6	2.2	9.7	19.1	18.7	236.9	84	

Source : Union Internationale des Chemins de Fer, European Conference of Ministers of Transport, study for Energy and Transport DG, national statistics

Note : (1): road + railways + inland waterways + pipelines(oil)

D: includes D-E : 1970=41.5, 1980=56.4, 1990=39.8

Inland Waterways

1000 mio tkm

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15	index 1970 = 100	modal share % (1)
1970	6.7	-	48.8	-	-	12.2	-	0.4	0.3	30.6	1.3	-	1.6	-	0.3	102.2	100	10.9
1980	5.9	-	51.4	-	-	10.9	-	0.2	0.3	33.5	1.6	-	1.9	-	0.4	106.0	104	8.8
1990	5.4	-	54.8	-	-	7.2	-	0.1	0.3	35.7	1.7	-	1.2	-	0.3	106.7	104	7.6
1991	5.2	-	56.0	-	-	6.8	-	0.1	0.3	34.8	1.5	-	1.1	-	0.2	106.0	104	7.4
1992	5.1	-	57.2	-	-	6.9	-	0.1	0.3	33.5	1.4	-	1.0	-	0.2	105.7	103	7.3
1993	5.0	-	57.6	-	-	6.0	-	0.1	0.3	32.1	1.5	-	0.8	-	0.2	103.6	101	7.3
1994	5.6	-	61.8	-	-	5.6	-	0.1	0.3	36.0	1.8	-	0.7	-	0.2	112.2	110	7.4
1995	5.8	-	64.0	-	-	5.9	-	0.1	0.3	35.5	2.0	-	0.6	-	0.2	114.4	112	7.3
1996	5.8	-	61.3	-	-	5.7	-	0.1	0.3	35.5	2.1	-	0.5	-	0.2	111.5	109	7.1
1997	5.9	-	62.2	-	-	5.7	-	0.2	0.3	41.0	2.1	-	0.6	-	0.2	118.1	116	7.2
1998	6.1	-	64.3	-	-	6.2	-	0.1	0.3	40.4	2.3	-	0.5	-	0.2	120.3	118	7.0
1999	6.5	-	62.7	-	-	6.8	-	0.2	0.3	41.1	2.2	-	0.5	-	0.2	120.4	118	6.7
2000	7.3	-	66.5	-	-	7.3	-	0.2	0.4	40.5	2.4	-	0.5	-	0.2	125.2	122	6.8
2001	7.6	-	64.8	-	-	6.7	-	0.2	0.4	41.9	2.6	-	0.5	-	0.2	125.0	122	6.8

Source : Eurostat, European Conference of Ministers of Transport, national statistics

Note : (1): road + railways + inland waterways + pipelines(oil)

D: includes D-E : 1970=2.4, 1980=2.2, 1990=1.9

Finland: data published in national statistics include domestic sea traffic (results in table 3.4.11: without sea)

Pipelines (Oil)

1000 mio tkm

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15	index 1970 =100	modal share % (1)
1970	0.3	0.0	16.9	-	1.0	28.2	-	7.0	-	4.1	3.6	-	-	-	2.7	63.7	100	6.8
1980	1.8	0.0	14.3	-	3.0	34.6	-	9.0	-	5.0	7.1	-	-	-	10.1	84.9	133	7.1
1990	1.0	1.7	13.3	-	4.2	19.6	-	9.2	-	4.9	5.3	-	-	-	11.1	70.3	110	5.0
1991	1.1	2.2	15.7	-	4.8	22.5	-	9.3	-	5.4	6.7	-	-	-	11.1	78.8	124	5.5
1992	1.2	2.4	15.7	-	5.3	23.4	-	9.4	-	5.5	6.7	-	-	-	11.0	80.6	126	5.6
1993	1.3	2.5	16.1	-	5.4	23.3	-	9.5	-	5.5	6.7	-	-	-	11.6	81.9	128	5.7
1994	1.4	3.0	16.8	-	5.5	22.2	-	9.6	-	5.6	7.0	-	-	-	12.0	83.1	130	5.5
1995	1.4	3.1	16.6	-	5.9	22.3	-	9.7	-	5.3	6.8	-	-	-	11.1	82.1	129	5.3
1996	1.5	3.5	14.5	-	6.1	21.9	-	10.1	-	6.0	7.1	-	-	-	11.6	82.2	129	5.2
1997	1.5	3.8	13.2	-	6.5	22.1	-	9.8	-	6.0	8.0	-	-	-	11.2	82.2	129	5.0
1998	1.6	3.9	14.8	-	6.9	21.6	-	10.6	-	6.0	8.2	-	-	-	11.7	85.3	134	4.9
1999	1.6	4.3	15.0	-	7.0	21.3	-	10.4	-	6.0	7.6	-	-	-	11.6	84.8	133	4.8
2000	1.6	4.4	15.0	-	7.5	21.7	-	10.3	-	5.9	7.6	-	-	-	11.4	85.4	134	4.6
2001*	1.6	4.4	15.8	-	7.8	21.1	-	10.6	-	5.8	8.1	-	-	-	11.6	86.8	136	4.7

Source : European Conference of Ministers of Transport, Eurostat, national sources

Notes :

D: includes D-E : 1970=2.2, 1980=5.0, 1990=3.3

(1): road + railways + inland waterways + pipelines(oil)

* 2000 data for Belgium and Denmark

Only pipelines longer than 40km are included

Sea Domestic Transport of Member States

1000 mio tkm

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15
1970	0.1	1.8	0.9	2.4	24.5	8.0	0.3	26.2	-	0.0	-	0.8	2.4	6.9	23.0	97.3
1980	0.2	1.9	1.4	5.2	31.1	8.6	0.2	31.1	-	0.0	-	1.1	3.4	10.3	54.0	148.4
1990	0.2	1.9	0.3	6.6	33.0	6.7	0.2	35.7	-	0.0	-	1.9	2.9	8.3	55.5	153.3
1991	0.2	2.3	0.9	6.2	34.8	6.5	0.3	37.1	-	0.0	-	1.0	2.7	7.5	55.6	154.9
1992	0.2	2.0	0.9	6.6	32.7	6.3	0.3	34.8	-	0.0	-	1.2	2.8	7.1	52.9	147.8
1993	0.1	1.7	0.7	7.0	28.9	6.4	0.3	34.0	-	0.0	-	1.3	3.0	7.4	49.2	140.1
1994	0.1	1.7	0.7	6.1	32.5	6.4	0.3	34.7	-	0.0	-	1.4	3.2	7.7	50.1	144.7
1995	0.1	2.3	0.8	7.1	38.0	6.2	0.3	35.3	-	0.0	-	1.4	2.8	8.3	51.2	153.8
1996	0.1	2.4	0.8	7.3	35.1	6.2	0.3	39.9	-	0.0	-	1.3	3.2	8.6	53.3	158.6
1997	0.1	2.3	0.9	7.5	36.5	5.6	0.3	44.5	-	0.0	-	0.9	2.9	8.4	46.1	155.9
1998	0.1	1.6	0.8	7.9	32.3	6.7	0.4	47.2	-	0.0	-	1.0	2.8	8.3	55.0	164.3
1999	0.1	1.1	1.2	8.2	33.7	6.0	0.4	46.1	-	0.0	-	1.0	2.7	7.7	56.8	164.9
2000	0.1	1.2	0.9	8.0	35.9	6.1	0.6	47.1	-	0.0	-	0.9	2.4	8.2	66.2	177.5
2001	0.1	1.4	0.8	8.8	38.4	6.2	0.5	48.5	-	0.0	-	0.9	2.6	7.6	57.4	173.2

Sources: national statistics (E, I, UK, FIN), results from Energy and Transport DG study (1970-96), estimates based on Eurostat statistics

Note: UK data show structural breaks in 1991 and 2000. The strong decrease of UK traffic in 2001 is mainly due to traffic from rigs.

Sea International Intra-EU Transport

1000 mio tkm

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15
1970	21.5	11.6	43.8	9.7	15.0	33.4	10.7	57.3	-	33.9	-	4.9	56.1	5.7	71.4	374.9
1980	36.9	12.5	59.6	43.6	40.6	74.5	6.1	97.2	-	67.5	-	17.0	70.3	11.1	96.0	632.8
1990	54.2	13.6	62.5	49.9	59.0	79.6	8.7	116.1	-	80.4	-	21.4	81.5	15.5	127.8	770.0
1991	54.9	15.6	60.3	50.2	63.1	82.8	8.9	127.3	-	83.3	-	21.1	83.3	16.2	133.4	800.5
1992	56.5	16.2	71.5	52.5	64.7	84.1	9.0	123.0	-	84.1	-	23.4	86.3	18.6	136.5	826.2
1993	53.0	16.0	72.6	45.2	63.3	82.7	9.6	120.2	-	79.1	-	22.0	86.7	19.0	141.1	810.4
1994	56.4	17.6	79.8	49.4	68.7	85.3	10.7	126.7	-	84.1	-	25.2	91.9	21.3	152.8	869.8
1995	57.5	18.1	83.8	56.0	76.6	86.1	11.3	132.5	-	89.1	-	27.1	98.6	21.7	158.1	916.5
1996	54.7	18.9	84.8	55.3	73.9	85.3	11.4	132.9	-	89.1	-	24.6	101.3	22.2	159.6	914.0

Source : Energy and Transport DG (results from a study)

D : includes D-E : 1970=2.8, 1980=4.2, 1990=5.5

3.4.12

Sea Port Traffic (Major Seaports)

million tonnes loaded / unloaded

Port, Country	1970	1980	1990	2000	2001	change 01/00 %
Rotterdam, NL	226.0	276.0	288.0	320.0	313.7	-1.9
Antwerp, B	78.0	82.0	102.0	130.5	130.1	-0.4
Hamburg, D	47.0	63.0	61.0	85.9	92.7	+8.0
Marseille, F	74.0	103.0	90.0	94.1	92.4	-1.8
Le Havre, F	58.0	77.0	54.0	67.5	69.0	+2.2
Amsterdam, NL	21.0	34.0	47.0	64.1	68.4	+6.8
Grimsby & Imm.,UK	n.a.	n.a.	59.7	50.0	51.4	+2.8
London, UK	64.0	48.0	58.0	47.9	50.7	+5.8
Genoa, I	53.0	51.0	44.0	50.8	50.2	-1.2
Tees & Hartlep., UK	23.0	38.0	40.0	51.5	49.7	-3.4
Trieste, I	27.0	38.0	34.0	47.6	49.1	+3.2
Algeciras, E	8.0	22.0	25.0	44.0	49.0	+11.4
Bremen/B'haven, D	23.0	25.0	28.0	44.8	46.0	+2.8
Dunkirk, F	25.0	41.0	37.0	45.3	44.5	-1.8
Forth ports, UK	25.0	29.0	25.4	41.1	41.6	+1.1
Wilhelmshaven, D	22.0	32.0	16.0	43.4	40.9	-5.6
Southampton, UK	28.0	25.0	29.0	34.8	n.a.	
Milford Haven, UK	41.0	39.0	32.0	33.8	33.8	+0.1
Gothenburg, S	20.0	22.0	26.0	33.1	33.5	+1.1
St. Nazaire, F	n.a.	n.a.	24.9	36.6	33.1	-9.6
Calais, F	n.a.	n.a.	n.a.	31.9	32.7	+2.7
Zeebrugge, B	8.0	12.0	30.0	35.5	32.1	-9.6
Barcelona, E	n.a.	n.a.	18.0	29.8	31.5	+5.6
Felixstowe, UK	n.a.	n.a.	16.1	31.6	30.5	-3.5
Liverpool, UK	31.0	13.0	23.0	30.6	30.5	-0.2
Valencia, E	n.a.	n.a.	n.a.	25.2	28.4	+12.8
Tarragona, E	4.4	19.8	24.2	27.3	26.7	-2.5
Bilbao, E	11.0	21.0	25.0	27.5	26.7	-3.1
Dublin, IRL	7.0	7.0	8.0	21.0	21.9	+4.2
Pireas, EL	n.a.	n.a.	9.9	15.6	16.3	+4.4
Leixoes, P	n.a.	n.a.	12.1	13.5	13.3	-2.1
Copenhagen, DK	6.0	7.0	9.0	14.9	13.2	-11.4
Lisbon, P	9.0	14.0	14.0	11.6	11.6	-0.2
Helsinki, FIN	4.0	5.0	8.0	10.9	11.4	+4.9

Source : Institute of Shipping Economics and Logistics, Bremen

3.4.13

Sea Container Port Traffic

1000 TEU

Port, Country	1990	1995	1999	2000	2001	change 01/00 %
Rotterdam, NL	3667	4787	6245	6268	6102	-2.6
Hamburg, D	1969	2890	3750	4248	4689	+10.4
Antwerp, B	1549	2329	3614	4082	4218	+3.3
Bremen/B'haven, D	1198	1524	2201	2712	2896	+6.8
Felixstowe, UK	n.a.	n.a.	n.a.	2853	2800	-1.9
Gioia Tauro, I	0	16	2253	2653	2488	-6.2
Algeciras, E	553	1155	1835	2009	2152	+7.1
Genoa, I	310	615	1234	1501	1527	+1.7
Le Havre, F	858	970	1378	1465	1525	+4.1
Valencia, E	387	672	1005	1308	1507	+15.2
Barcelona, E	448	689	1235	1388	1411	+1.7
Piraeus, EL	426	600	965	1161	1196	+3.0
Southampton, UK	345	681	920	1061	1161	+9.5
La Spezia, I	450	965	843	910	975	+7.1
Zeebrugge, B	342	528	850	965	876	-9.3
Marseille, F	482	498	664	722	742	+2.7
Gothenburg, S	352	458	624	696	698	+0.4
Livorno, I	n.a.	n.a.	n.a.	501	532	+6.1
Liverpool, UK	239	406	515	540	524	-2.9
Helsinki, FIN	246	296	321	376	438	+16.5
Sum of 1st 20 ports	13821	20080	30455	37420	38456	+2.8
Dublin, IRL	215	n.a.	n.a.	445	435	-2.2
Lisbon, P	264	309	369	389	438	+12.7
Aarhus, DK	n.a.	223	327	404	409	+1.2
Hong Kong	5101	12550	16211	18098	17900	-1.1
Singapore	5224	11846	15945	17087	15520	-9.2

Source : Containerisation International; Institute of Shipping Economics and Logistics, Bremen

Sea**Container Service Maritime Operators**

as of October 1, 2002

	Carrier	Country	TEU in service
1	AP Moller Group ¹	Denmark	773 931
2	Mediterranean Shipping Co	Switzerland / Italy	413 814
3	P&O Nedlloyd ²	UK / NL	406 654
4	Evergreen Group ³	Taiwan	397 600
5	Hanjin / Senator	South Korea	304 409
6	Cosco Container Lines	China	255 937
7	APL	Singapore / USA	227 749
8	CMA - CGM ⁴	France	225 436
9	Mitsui Lines (MOL)	Japan	188 326
10	CP Ships ⁵	Canada	187 890
11	NYK Line ⁶	Japan	177 700
12	K Line	Japan	168 413
13	Zim Israel Navigation	Israel	165 398
14	OOCL	China	157 493
15	China Shipping Container Lines	China	148 212
16	Hapag-Lloyd	Germany	135 953
17	Hyundai Merchant Marine	Korea	122 713
18	Yang Ming Marine Transport Corp	Taiwan	120 319
19	PIL Group ⁷	Singapore	97 827
20	Compania Sud Americana de Vapores ⁸	Chile	90 625
Sum of the above			4 766 399

Source : Containerisation International Yearbook**Notes** :

- 1: includes Maersk Sealand, Portlink, Safmarine and Torm Lines
- 2: includes Farrell Lines, Mercosul and P&O Swire
- 3: includes Hatsu and Lloyd Trestino
- 4: includes ANL and Feeder Associated Systems
- 5: comprises the fleets of ANZDL, Canmar, Cast, Contship, Italia, Lykes and TMM Lines
- 6: includes TSK Lines
- 7: comprises Pacific International Lines and Advance Container Lines
- 8: includes Libra, Montemar & Norasia

Inland Ports Traffic
Freight loaded and unloaded
 River and sea-river traffic (million tonnes)

Port, Country	1995	1999	2000	2001
1 Rotterdam NL	n.a.	106.4	n.a.	101.1
2 Antwerp B	54.2	62.3	70.2	72.3
3 Amsterdam NL	n.a.	47.0	47.3	n.a.
4 Liege B	13.7	19.1	19.6	n.a.
5 Paris F	20.3	19.1	19.8	18.5
6 Duisburg D	n.a.	n.a.	14.0	13.6
7 Strasbourg F	9.7	9.6	10.8	9.6
8 Cologne D	6.8	8.7	9.6	9.6
9 Mannheim D	7.7	7.7	7.9	8.3
10 Ludwigshafen D	8.2	7.2	8.2	7.6
11 Karlsruhe D	10.3	5.5	6.7	6.2
12 Charleroi B	3.7	4.7	5.4	5.6
13 Neuss D	4.9	4.6	4.5	4.7
14 Heilbronn D	4.9	5.3	4.5	4.4
15 Le Havre F	n.a.	4.4	4.1	3.9
16 NV Zeekanaal, Brabant B	8.5	3.8	n.a.	n.a.
17 Brussels B	5.1	3.6	3.5	3.7
18 Kehl D	3.1	3.0	3.4	3.4
19 Thionville-Ilange F	n.a.	2.9	3.5	3.3
20 Frankfurt am Main D	3.6	3.4	3.6	3.2
21 Mulhouse-Ottmarsheim F	n.a.	2.5	2.8	3.1
22 Rouen F	n.a.	4.1	3.5	3.1
23 Krefeld D	3.4	2.9	3.1	3.1
24 Saarlouis / Dillingen D	2.5	3.2	3.8	3.0
25 Dortmund D	5.4	3.4	3.1	3.0
26 Magdeburg D	2.4	2.8	3.3	2.8
27 Vänerhamn S	n.a.	2.8	n.a.	n.a.
28 Dusseldorf D	3.0	2.8	2.8	2.5
29 Andernach D	2.6	2.2	2.6	2.5
30 Hanau D	2.2	2.4	2.4	2.4
31 Regensburg D	2.1	2.1	2.3	2.2
Metz F	n.a.	2.0	2.1	1.8
Mondelange-Richemont F	n.a.	1.6	1.3	1.7

Source : European Federation of Inland Ports, national sources

Air Transport**Major Airports****Cargo (and mail) loaded and unloaded**

1000 tonnes

Airport, Country	1995	2000	2001	2002	change 02/01 %
1 Frankfurt Rhein/Main, D	1 297	1 710	1 613	1 631	+1.1
2 Paris Charles de Gaulle, F	824	1 610	1 592	1 626	+2.2
3 London Heathrow, UK	1 043	1 402	1 264	1 311	+3.7
4 Amsterdam Schiphol, NL	978	1 267	1 234	1 289	+4.4
5 Luxembourg, L	286	501	510	550	+7.9
6 Brussels National, B	427	687	584	510	-12.6
7 Cologne/Bonn, D	276	442	458	509	+11.1
8 Copenhagen, DK	310	419	379	374	-1.4
9 Madrid Barajas, E	230	338	331	331	+0.1
10 Liege, B	8	270	273	329	+20.4
11 Milan Malpensa, I	126	301	289	294	+1.6
12 London Gatwick, UK	232	338	295	252	-14.5
13 East Midlands, UK	83	194	209	234	+11.7
14 London Stansted, UK	93	183	183	193	+5.6
15 Rome Fiumicino, I	257	201	186	176	-5.2
16 Munich, D	65	148	146	167	+14.4
17 Stockholm Arlanda, S	104	154	145	155	+6.4
18 Paris Orly, F	276	121	114	125	+9.3
19 Vienna Schwechat, A	93	135	120	124	+3.3
20 Manchester, UK	51	122	112	118	+4.6
21 Dublin, IRL	60	120	140	117	-16.7
22 Milan Bergamo, I	n.a.	99	95	115	+20.9
23 Athens E.Venizelos, EL	98*	n.a.	n.a.	107	
24 Lisbon, P	89	116	94	92	-2.0
25 Helsinki, FIN	78	96	85	86	+1.9
Barcelona, E	n.a.	93	86	81	-5.9
Ostend, B	n.a.	93	89	n.a.	
Basel - Mulhouse, CH/F	n.a.	80	71	31	-55.4
Total of top 25 above	n.a.	10 975	10 452	10 815	+3.5

Source : Airports Council International, Aéroports Magazine, national sources

*: previous Athens airport

3.4.17

Combined Transport

Traffic by company

Traffic of UIRR companies					
Consignments* (thousands)					
Company	2000	2001	2002	change 02/01 %	
International traffic					
Kombiverkehr, D	374.8	372.8	378.1	+1.4	
Hupac, CH	231.1	223.5	216.4	-3.2	
Ökombi, A	148.8	166.0	181.1	+9.1	
Cemat, I	149.4	159.5	176.5	+10.7	
Novatrans, F	77.3	72.8	74.7	+2.6	
Hungarocombi, H	61.8	66.6	66.1	-0.7	
T.R.W., B	57.7	60.8	64.6	+6.3	
Bohemiacombi, CZ	59.0	47.5	35.8	-24.6	
Trailstar, NL	26.4	31.8	34.1	+7.4	
Adria Combi, SLO	19.2	20.8	31.9	+53.5	
National traffic					
Novatrans, F	176.1	166.3	169.0	+1.6	
Cemat, I	194.3	162.4	161.5	-0.6	
Kombiverkehr, D	163.3	161.2	155.2	-3.7	
Ökombi, A	117.1	132.1	155.2	+17.5	
Hupac, CH	16.2	14.4	17.7	+22.4	
*Consignment = equivalent of an average road transport (= 2.3 TEU)					
Tonne-kilometres			Traffic % of consignments		
Year	bio tkm	of which national	Semi- trailers	Rolling road	Swap bodies
1990	19.0	7.0	20%	18%	62%
1995	25.0	7.3	14%	19%	67%
1996	27.2	7.6	12%	20%	68%
1997	29.9	8.3	10%	19%	71%
1998	30.2	8.3	9%	20%	71%
1999	28.6	7.8	9%	22%	69%
2000	32.5	8.2	9%	23%	68%
2001	31.9	7.2	9%	24%	67%
2002	33.1	8.0	8%	23%	69%

Traffic of Intercontainer-Interfrigo				
1000 TEU				
Type of transport	2000	2001	2002	change 02/01 %
Combined transport	961.7	834.9	758.6	-9.1

Source: International Union of Road-Rail Transport Companies;
Intercontainer

Note : TEU : twenty foot equivalent unit (corresponds to 10-12 tonnes)

3.4.18

Combined transport by mode within the European Union

1000 million tkm

	1990	1991	1992	1993	1994	1995	1996	1997	1998
Sea	80.8	85.7	90.3	97.9	107.0	120.2	140.7	164.5	178.5
Combined as % of total sea traffic	8.8 %	9.0 %	9.3 %	10.3 %	10.5 %	11.2 %	13.1 %	14.6 %	15.6 %
Rail	33.4	33.2	34.8	37.2	42.2	46.5	53.7	61.1	62.0
Combined as % of total rail traffic	13.1 %	14.1 %	15.7 %	18.1 %	19.2 %	21.0 %	24.4 %	25.8 %	25.9 %
Inland waterway	2.7	2.9	2.7	3.3	3.8	4.0	4.7	5.0	5.1
Combined as % of total inland waterway traffic	2.5 %	2.7 %	2.6 %	3.2 %	3.4 %	3.5 %	4.2 %	4.2 %	4.2 %
Total of combined transport	116.9	121.8	127.8	138.4	153.0	170.7	199.1	230.6	245.6
Total traffic (all modes)	2330.7	2385.6	2415.6	2378.9	2532.0	2632.9	2648.7	2775.1	2870.1
Combined as a % of total traffic	5.0 %	5.1 %	5.3 %	5.8 %	6.0 %	6.5 %	7.5 %	8.3 %	8.6 %

Source: DG Energy & Transport estimates

Traffic through the Alps

(Alpine Arc : Mt. Cenis / Fréjus to Brenner)

Rail

million net-tonnes

	Switzerland		Austria	France	Total
	St. Gotthard	Simplon/ Lötschberg	Brenner	Mont-Cenis	
1985	11.2	2.8	4.7	7.5	26.2
1990	13.6	4.3	5.5	7.2	30.6
1994	13.2	4.7	8.3	7.7	33.9
1995	13.6	4.4	8.4	8.0	34.4
1996	11.7	4.0	7.9	9.7	33.3
1997	13.7	4.3	7.8	10.1	35.9
1998	15.0	4.3	8.6	9.3	37.2
1999	14.9	3.5	8.3	9.2	35.9
2000	16.8	3.8	8.7	9.4	38.7
2001	15.8	4.8	10.7	8.6	39.9
2002	14.2	4.8	10.1	8.6	37.7
average annual growth (%)					
85-90	4.0 %	9.0 %	3.2 %	-0.8 %	3.2 %
90-01	1.4 %	1.0 %	6.2 %	1.6 %	2.4 %
2002	-10.1 %	0.0 %	-5.6 %	0.0 %	-5.5 %

Road

million net-tonnes

	Switzerland		Austria	France	Total
	St. Gotthard	Simplon G.St. Bernard St. Bernardino	Brenner	Fréjus Mont-Blanc	
1985	1.9	0.8	14.3	12.3	29.3
1990	3.1	1.1	13.6	21.8	39.6
1994	5.1	1.1	17.6	26.5	50.3
1995	5.5	1.1	20.0	25.8	52.4
1998	6.5	1.2	22.5	26.3	56.5
1999	7.0	1.4	25.2	25.7	59.3
2000	7.6	1.3	25.4	25.8	60.1
2001	7.4	3.0	25.0	25.7	61.1
2002	7.5	3.0	25.8	25.4	61.7
average annual growth (%)					
85-90	10.3 %	6.6 %	-1.0 %	12.1 %	6.2 %
90-01	8.2 %	9.5 %	5.7 %	1.5 %	4.0 %
2002	1.4 %	0.0 %	3.2 %	-1.2 %	1.0 %
Number of heavy goods vehicles (1000)					
1990	548	185	925	1 279	2 937
1999	1 101	216	1 550	1 541	4 408
2000	1 187	217	1 560	1 553	4 517
2001	966	405	1 550	1 549	4 470
2002	858	391	1 600	1 531	4 380

Source : Gesamtverkehrsfragen, Switzerland

Note : Internal, import, export and transit traffic

3.4.20

Pyrenee Crossing Traffic

Rail goods transport

million tonnes

	West coast Hendaye - Irun	East coast Cerbère / Port Bou	Total
1997	2.0	2.8	4.8
1998	1.9	2.5	4.4
1999	1.6	2.6	4.2
2000	1.8	2.8	4.6
2001	1.8	2.4	4.2

Road goods traffic

Goods vehicles crossing the French / Spanish border per day

	West coast Bariatou (inc. A63)	East coast Le Perthus (inc. A9)	Other crossings	Total
1997	5 657	6 729	880	13 266
1998	6 447	7 413	905	14 765
1999	6 914	8 018	914	15 846
2000	7 604	8 429	2 017	18 050
2001	8 200	8 855	2 128	19 183

Note : If only heavy goods vehicles are counted then West coast= 7329 per day and East coast= 8050 per day

Road passenger car traffic

vehicles per day

	West coast Bariatou (inc. A63)	East coast Le Perthus (inc. A9)	Other crossings	Total
1997	30 200	19 400	27 800	77 400
1998	30 230	20 601	33 168	83 999
1999	33 188	20 678	33 412	87 278
2000	42 134	23 838	32 241	98 273
2001	41 847	25 201	34 096	101 144

Source : Observatoire des trafics au travers des Pyrénées, Ministère de l'Équipement, France

Goods Transport

3.4.21

**Other European Countries :
Performance by Mode
2000**

tkm in %

	Road	Rail	Inland Water-ways	Pipe-lines
IS	100.0	-	-	-
N	66.6	14.3	-	19.1
CH	68.7	30.2	0.4	0.7
BG	50.7	43.8	2.5	3.0
CY	-	-	-	-
CZ	66.3	29.7	1.3	2.7
EE	25.7	74.3	0.0	-
HU	58.2	26.8	2.7	12.2
LV	19.5	54.2	0.0	26.3
LT	39.0	44.7	0.0	16.3
MT	-	-	-	-
PL	48.9	36.6	0.8	13.8
RO	41.2	47.1	7.6	4.0
SK	36.4	56.7	7.0	-
SI	41.4	58.6	-	-
TR	76.0	4.6	-	19.4

Source : tables 3.4.22, 3.4.23, 3.4.24, 3.4.25

**Other European Countries : Road
Haulage by Vehicles Registered in the Country**

1000 mio tkm

	IS	N	CH*	BG	CY	CZ	EE	HU	LV	LT	MT	PL	RO	SK	SI	TR
1970	n.a.	3.2	4.8	26.0	n.a.		2.4	5.8	2.9	3.4	n.a.	15.8	5.2		1.5	n.a.
1980	n.a.	5.3	7.3	49.0	n.a.		4.2	11.4	5.1	6.9	n.a.	44.6	11.8		2.8	n.a.
1990	n.a.	8.2	11.5	52.0	3.7		4.5	15.2	5.9	7.3	2.5	40.3	29.0		3.5	n.a.
1991	n.a.	8.3	11.7	30.0	n.a.		3.8	14.0	4.9	7.0	n.a.	39.6	20.7		3.0	n.a.
1992	n.a.	8.4	12.6	26.5	n.a.		1.5	12.8	2.5	5.0	n.a.	42.0	15.7		2.0	n.a.
1993	n.a.	8.3	13.0	31.9	n.a.	n.a.	1.1	13.1	1.3	6.9	n.a.	40.7	15.4	5.5	2.0	97.8
1994	n.a.	8.7	14.4	32.6	n.a.	23.5	1.4	13.4	1.4	4.6	n.a.	45.4	18.3	4.9	1.9	95.0
1995	n.a.	9.7	15.0	31.0	4.6	31.3	1.5	13.8	1.8	4.7	3.2	51.2	19.7	5.2	1.7	112.5
1996	n.a.	10.7	16.3	27.3	n.a.	30.1	1.9	14.3	2.2	4.2	n.a.	55.5	19.8	5.2	1.5	135.8
1997	n.a.	11.8	17.9	26.5	n.a.	40.6	2.8	14.9	3.4	5.1	n.a.	62.6	21.8	3.8	1.6	139.8
1998	n.a.	12.6	19.5	22.5	5.0	33.9	3.8	18.7	4.1	5.6	3.5	68.5	15.8	4.8	1.7	152.2
1999	n.a.	11.9	20.5	19.2	n.a.	37.0	4.0	18.6	4.2	7.7	n.a.	69.8	13.5	8.5	1.6	151.0
2000	n.a.	12.1	21.9	n.a.	n.a.	39.0	2.7	19.1	4.8	7.8	n.a.	72.2	14.3	7.2	1.8	161.6

Source : European Conference of Ministers of Transport, national statistics, Eurostat, studies for Energy and Transport DG

CS: 1970: 10.1, 1980: 21.3, 1989: 23.2, 1990: 23.3, 1991:17.4, 1992:14.0

*: haulage by national and foreign vehicles on national territory

Other European Countries : Railways

1000 mio tkm

	IS	N	CH	BG	CY	CZ	EE	HU	LV	LT	MT	PL	RO	SK	SI	TR
1970	-	2.6	6.9	13.7	-		5.7	19.8	15.5	13.6	-	98.0	43.1		3.3	5.5
1980	-	3.0	7.8	17.7	-		6.5	24.4	17.6	18.2	-	132.4	64.8		3.8	5.0
1990	-	2.6	8.9	14.1	-		7.0	16.8	18.5	19.3	-	81.6	48.8		4.2	7.8
1991	-	2.7	8.7	8.7	-		6.5	11.9	16.7	17.7	-	65.2	32.6		3.2	8.0
1992	-	2.7	8.3	7.8	-		3.4	10.0	10.1	11.3	-	57.8	24.4		2.6	8.2
1993	-	2.9	7.8	7.7	-	25.2	3.7	7.7	9.9	9.9	-	64.4	22.0	14.2	2.3	8.4
1994	-	2.7	8.6	7.8	-	22.8	3.3	7.7	9.5	8.0	-	65.8	21.6	12.2	2.5	8.2
1995	-	2.7	8.7	8.6	-	22.6	3.8	8.4	9.8	7.2	-	69.1	24.2	13.8	3.1	8.5
1996	-	2.6	7.9	7.5	-	22.3	4.2	7.6	12.4	8.1	-	68.4	24.3	12.0	2.6	8.9
1997	-	2.4	8.7	7.4	-	21.0	5.9	8.1	14.0	8.6	-	68.7	22.1	12.4	2.9	9.6
1998	-	2.4	9.1	6.2	-	18.7	5.8	8.2	13.0	8.3	-	61.8	17.7	11.8	2.9	8.4
1999	-	2.5	10.0	5.2	-	16.7	7.0	8.5	12.2	7.8	-	55.1	14.7	9.9	2.6	8.2
2000	-	2.6	9.7	5.5	-	17.5	7.8	8.8	13.3	8.9	-	54.0	16.3	11.2	2.6	9.8

Source : Union Internationale des Chemins de Fer (UIC), European Conference of Ministers of Transport, Eurostat, national statistics

Note : non-UIC rail traffic larger than 5 % in Estonia and the Czech Republic

CS: 1970: 55.9, 1980: 66.2, 1989: 66.2, 1990: 59.4, 1991: 45.8, 1992: 44.0

Other European Countries : Inland Waterways

1000 mio tkm

	IS	N	CH	BG	CY	CZ	EE	HU	LV	LT	MT	PL	RO	SK	SI	TR
1970	-	-	0.14	1.83	-		0.01	1.76	0.05	0.12	-	2.30	1.35		-	-
1980	-	-	0.13	2.61	-		0.01	2.15	0.09	0.15	-	2.33	2.35		-	-
1990	-	-	0.20	1.61	-		0.00	2.04	0.29	0.16	-	1.03	2.09		-	-
1991	-	-	0.19	1.02	-		0.00	1.72	0.34	0.14	-	0.74	2.03		-	-
1992	-	-	0.18	0.84	-		0.00	1.60	0.40	0.05	-	0.75	1.89		-	-
1993	-	-	0.17	0.46	-	1.20	0.00	1.62	0.00	0.05	-	0.66	1.59	0.84	-	-
1994	-	-	0.16	0.36	-	1.19	0.00	1.35	0.00	0.03	-	0.79	1.90	0.85	-	-
1995	-	-	0.16	0.53	-	1.35	0.00	1.21	0.00	0.02	-	0.88	3.11	1.47	-	-
1996	-	-	0.14	0.51	-	1.12	0.00	1.40	0.00	0.01	-	0.85	3.77	1.60	-	-
1997	-	-	0.12	0.60	-	0.78	0.00	1.44	0.00	0.01	-	0.93	4.33	1.52	-	-
1998	-	-	0.13	0.56	-	0.91	0.00	1.56	0.00	0.01	-	1.10	4.20	1.53	-	-
1999	-	-	0.13	0.19	-	0.91	0.00	0.96	0.00	0.00	-	0.98	2.80	1.66	-	-
2000	-	-	0.13	0.31	-	0.77	0.00	0.89	0.00	0.00	-	1.17	2.63	1.38	-	-

Source : European Conference of Ministers of Transport, Eurostat, national statistics

Note : CS: 1970: 2.43, 1980: 3.59, 1989: 5.10, 1990: 4.42, 1991: 3.89, 1992: 2.98

Other European Countries : Pipelines (Oil)

1000 mio tkm

	IS	N	CH	BG	CY	CZ	EE	HU	LV	LT	MT	PL	RO	SK	SI	TR
1970	-	-	1.2	0.0	-	-	-	1.0	n.a.	n.a.	-	7.0	1.8	-	-	1.3
1980	-	-	1.1	0.8	-	-	-	4.4	n.a.	n.a.	-	17.1	5.2	-	-	13.8
1990	-	2.1	1.2	0.6	-	-	-	5.3	n.a.	n.a.	-	13.9	5.1	-	-	n.a.
1991	-	2.5	1.2	0.5	-	-	-	5.0	n.a.	n.a.	-	10.4	3.2	-	-	n.a.
1992	-	3.1	1.3	0.3	-	-	-	4.3	n.a.	n.a.	-	11.9	2.6	-	-	3.1
1993	-	3.4	1.2	0.3	-	2.0	-	4.1	n.a.	2.0	-	12.2	2.5	-	-	3.1
1994	-	4.0	1.2	0.4	-	2.2	-	4.1	4.6	1.9	-	14.3	2.8	-	-	3.1
1995	-	5.3	1.2	0.4	-	2.3	-	3.9	5.3	2.0	-	13.5	2.9	-	-	3.2
1996	-	5.1	1.2	0.4	-	2.3	-	4.5	6.1	2.3	-	15.3	2.7	-	-	4.0
1997	-	4.2	0.3	0.3	-	2.1	-	4.5	6.4	2.7	-	15.0	2.3	-	-	21.0
1998	-	4.1	0.2	0.2	-	2.1	-	4.8	6.6	3.0	-	18.4	2.3	-	-	39.7
1999	-	4.0	0.2	0.3	-	1.8	-	4.5	6.1	2.6	-	19.4	1.6	-	-	43.5
2000	-	3.5	0.2	0.4	-	1.6	-	4.0	6.5	3.3	-	20.4	1.4	-	-	41.3

Source : European Conference of Ministers of Transport, Eurostat, national statistics

Notes : CS: 1970: 6.4, 1980: 9.8, 1989: 8.5, 1990: 7.5, 1991: 6.2, 1992: 5.3

3.4.26

Other European Countries

Port Traffic (Major Seaports)

Million tons loaded / unloaded

		1996	1998	1999	2000	2001	change 01/00 %
Ventspils	<i>LV</i>	35.7	36.0	34.1	34.8	37.9	+9.1
Constantza	<i>RO</i>	44.2	39.9	32.5	33.1	33.8	+2.1
Tallinn	<i>EE</i>	14.1	21.3	26.3	29.2	32.1	+9.7
Gdansk	<i>PL</i>	16.5	20.6	18.7	16.6	17.8	+7.6
Klaipeda	<i>LT</i>	14.8	15.0	15.0	19.4	17.2	-11.1
Szceczin	<i>PL</i>	16.3	15.2	16.0	15.6	16.1	+3.7
Riga	<i>LV</i>	7.5	12.2	12.0	13.4	14.9	+11.5
Icel (Mersin)	<i>TR</i>	11.6	13.9	14.0	13.4	13.6	+1.9
Narvik	<i>N</i>	13.4	14.1	12.0	14.2	12.3	-13.7
Bourgas	<i>BG</i>	15.6	13.0	10.9	12.4	n.a.	
Koper	<i>SI</i>	6.5	8.6	8.3	9.3	9.4	+0.3
Izmir	<i>TR</i>	5.5	6.3	7.2	8.2	8.4	+3.2
Gdynia	<i>PL</i>	8.6	7.6	7.3	7.8	8.0	+2.6
Oslo	<i>N</i>	6.8	6.7	6.7	6.3	6.2	-1.2
Istanbul	<i>TR</i>	5.8	6.2	5.7	5.6	4.8	-14.2
Marsaxlokk	<i>MT</i>	3.1	3.7	4.4	n.a.	n.a.	
Limassol	<i>CY</i>	3.4	3.0	3.4	3.6	n.a.	
Reykjavik	<i>IS</i>	2.2	2.1	2.2	2.1	2.0	-7.0

Source : Institute of Shipping Economics and Logistics (Bremen), national statistics

3.4.27

Other European Countries
Air Transport
Major Airports
Cargo (and mail) loaded and unloaded

1000 tonnes

Airport, Country	1998	2000	2001	2002	change 02/01 %
Zurich <i>CH</i>	350.7	417.1	374.3	332.7	-11.1
Istanbul <i>TR</i>	151.5	233.7	167.5	215.2	+28.5
Oslo <i>N</i>	80.7	77.9	72.7	69.2	-4.8
Budapest <i>HU</i>	26.4	43.5	45.2	46.5	+2.8
Warsaw <i>PL</i>	49.7	45.5	37.1	45.2	+21.8
Keflavik <i>IS</i>	29.4	40.4	43.0	43.7	+1.8
Prague <i>CZ</i>	29.4	34.9	34.0	39.6	+16.6
Geneva <i>CH</i>	61.6	44.8	37.4	38.0	+1.6
Larnaca <i>CY</i>	31.1	33.3	32.1	31.8	-0.9
Ankara <i>TR</i>	21.7	20.8	16.5	16.7	+1.4
Tulcea <i>RO</i>	n.a.	n.a.	n.a.	15.7	
Bucharest <i>RO</i>	13.0	14.0	14.5	13.9	-4.1
Bergen <i>N</i>	11.1	9.6	10.0	12.7	+27.5
Izmir <i>TR</i>	14.3	14.6	12.1	12.5	+3.6
Sofia <i>BG</i>	10.4	11.0	10.2	12.5	+22.1
Stavanger <i>N</i>	10.9	10.0	9.9	9.7	-1.7
Riga <i>LV</i>	4.9	4.7	5.2	6.6	+26.3
Ljubljana <i>SI</i>	6.6	7.0	7.0	6.6	-6.8
Trondheim <i>N</i>	7.5	11.8	10.3	6.4	-38.1
Tromsoe <i>N</i>	6.9	6.7	6.3	5.6	-10.9
Vilnius <i>LT</i>	5.3	5.6	4.9	5.1	+2.7
Tallinn <i>EE</i>	6.0	4.7	4.5	4.3	-5.7
Katowice <i>PL</i>	1.2	7.7	2.2	2.9	+31.4
Malta <i>MT</i>	12.0	13.7	12.9	n.a.	
Bratislava <i>SK</i>	1.8	3.7	4.3	n.a.	
Bodo <i>N</i>	5.7	4.9	3.6	n.a.	
Antalya <i>TR</i>	4.5	3.9	2.9	n.a.	

Source : Airports Council International, Aéroports Magazine

USA**Performance by Mode of Transport**

1000 mio tkm

	Road (1)	Rail (2)	Inland Water- ways	Pipe- lines	Total
1970	602	1 117	343	629	2 691
1980	810	1 342	422	859	3 433
1985	891	1 280	410	824	3 405
1990	1 073	1 510	516	853	3 951
1995	1 345	1 906	534	878	4 663
1996	1 423	1 985	518	906	4 832
1997	1 458	1 974	520	901	4 853
1998	1 499	2 010	521	905	4 935
1999	1 596	2 093	528	902	5 119
2000	1 667	2 140	527	843	5 177
1990-00	+ 55.4 %	+ 41.8 %	+ 2.1 %	- 1.2 %	+ 31.0 %

Average length of haul (km)

1999	733	1 336	781	880	1 011
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Source : US Department of Transport, Eurostat

Notes : (1) Intercity truck traffic

(2) Class 1 railways (ca. 90% of rail freight traffic)

(3) Average length of haul (1999) : Air : 1600 km, Water coastwise : 2046 km, Water lakewise : 802 km, Pipeline : petroleum products : 669 km

Average annual change

% per year

	Road	Rail	Inland Water- ways	Pipe- lines	Total
1970-80	+3.0	+1.9	+2.1	+3.2	+2.5
1980-90	+2.8	+1.2	+2.0	-0.1	+1.4
1990-99	+4.5	+3.7	+0.3	+0.6	+2.9
2000	+4.5	+2.3	-0.3	-6.5	+1.1

Modal split

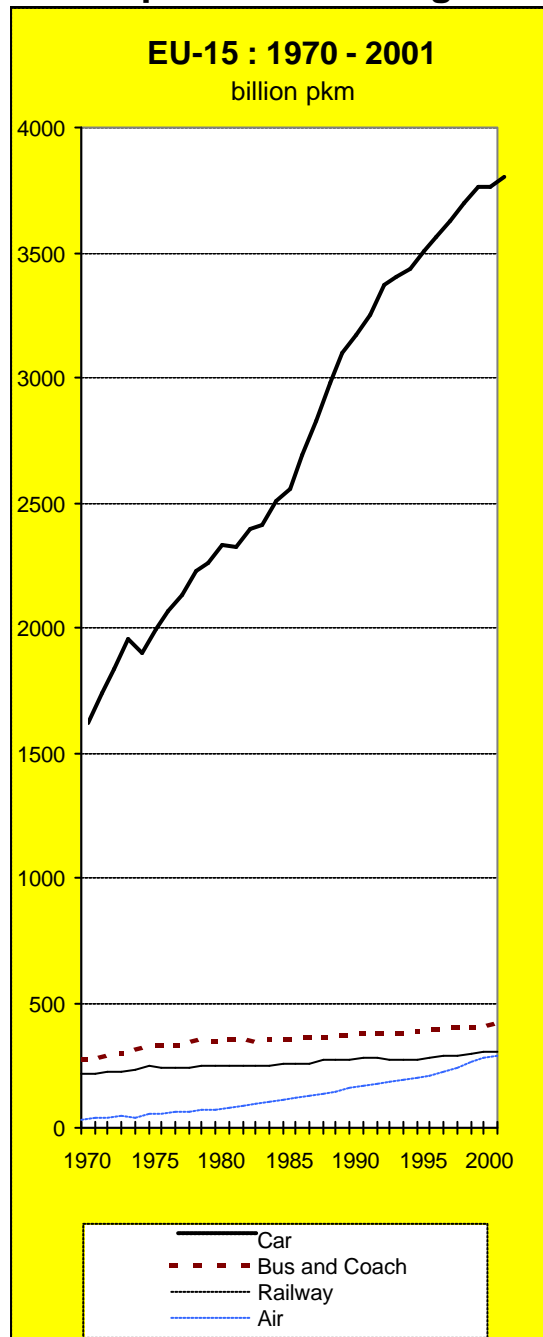
%

	Road	Rail	Inland Water- ways	Pipe- lines
1970	22.4	41.5	12.8	23.4
1980	23.6	39.1	12.3	25.0
1985	26.2	37.6	12.0	24.2
1990	27.2	38.2	13.1	21.6
1999	31.2	40.9	10.3	17.6
2000	32.2	41.3	10.2	16.3

Part 3 : TRANSPORT

Chapter 5 : Passenger transport

Performance by Mode of Transport for Passengers



**Performance by Mode of Transport
EU-15**

1000 mio pkm

	Passenger cars	Buses & Coaches	Tram + Metro	Railway	Air	Total
1970	1 562	269	34	219	33	2 118
1980	2 246	348	35	248	74	2 951
1990	3 141	369	42	268	157	3 977
1991	3 222	378	44	276	166	4 086
1995	3 481	382	41	273	202	4 379
1996	3 534	391	42	282	209	4 458
1997	3 597	393	43	285	222	4 539
1998	3 673	400	44	287	241	4 645
1999	3 739	404	44	295	261	4 743
2000	3 735	410	46	304	284	4 779
2001	3 779	414	48	307	286	4 834
1991-01	+ 17 %	+ 9 %	+ 8 %	+ 11 %	+ 72 %	+ 18 %

Source : tables 3.5.4, 3.5.6, 3.5.7, 3.5.8, 3.5.11

Average annual change (% per year)

	Passenger cars	Buses & Coaches	Tram + Metro	Railway	Air	Total
1970-80	+3.7	+2.6	+0.4	+1.2	+8.4	+3.4
1980-90	+3.4	+0.6	+1.6	+0.8	+7.8	+3.0
1991-00	+1.7	+0.9	+0.6	+1.1	+6.1	+1.8
2001	+1.2	+0.8	+2.9	+1.0	+0.9	+1.1

Modal split (%)

	Passenger cars	Buses & Coaches	Tram + Metro	Railway	Air
1970	73.8	12.7	1.6	10.4	1.6
1980	76.1	11.8	1.2	8.4	2.5
1990	79.0	9.3	1.0	6.7	4.0
1991	78.8	9.3	1.1	6.8	4.1
1995	79.5	8.7	0.9	6.2	4.6
1996	79.3	8.8	0.9	6.3	4.7
1997	79.2	8.7	0.9	6.3	4.9
1998	79.1	8.6	0.9	6.2	5.2
1999	78.8	8.5	0.9	6.2	5.5
2000	78.1	8.6	1.0	6.4	5.9
2001	78.2	8.6	1.0	6.4	5.9

Performance by Mode of Land Transport

pkm in % for 2001

	Passenger cars	Bus and Coach	Railway	Urban rail (tram & metro)	Powered two-wheelers
B	82.5	9.5	6.1	0.7	1.1
DK	79.3	12.2	7.5	-	1.0
D	80.8	7.9	8.5	1.0	1.9
EI	64.9	17.5	1.3	1.1	15.3
E	76.9	13.0	5.2	1.3	3.6
F	84.1	5.1	8.3	1.2	1.4
IRL	81.0	14.5	3.5	-	0.9
I	75.5	10.9	5.3	0.6	7.7
L	79.9	13.9	5.3	-	0.9
NL	82.9	6.9	7.9	0.8	1.5
A	72.9	13.9	8.6	2.9	1.7
P	79.3	10.7	3.3	0.5	6.2
FIN	82.2	11.1	4.7	0.7	1.3
S	80.3	9.7	7.4	1.9	0.7
UK	86.4	6.4	5.4	1.1	0.7
EU-15	80.4	8.8	6.5	1.0	3.2

Source :
tables 3.5.4, 3.5.5, 3.5.6, 3.5.7, 3.5.8

Passenger Cars

1000 mio pkm

Year	B	DK	D	EL	E (2)	F	IRL	I	L	NL	A	P	FIN	S	UK*	EU-15	index 1970 =100	modal share % (1)
1970	41.1	33.3	394.6	8.6	64.3	304.7	11.0	211.9	2.1	67.1	32.9	13.8	23.7	56.1	297.0	1562.3	100	73.8
1980	64.6	38.1	513.7	27.6	130.9	452.5	17.6	324.0	2.7	108.1	47.8	29.0	34.8	66.7	388.0	2246.2	144	76.1
1990	89.2	47.8	683.1	48.8	174.4	585.6	18.1	522.6	4.0	139.3	62.4	40.5	51.2	85.7	588.0	3140.7	201	79.0
1991	93.0	49.2	700.0	49.6	207.5	591.4	19.2	538.3	4.2	136.7	70.4	43.2	50.6	86.4	582.0	3221.6	206	78.2
1994	97.1	52.6	719.2	56.0	239.7	623.3	21.8	600.3	4.6	140.4	68.2	57.6	49.6	86.6	591.0	3408.0	218	79.3
1995	97.5	54.3	730.0	58.8	250.4	640.1	23.2	614.7	4.7	143.0	68.1	61.4	50.0	88.4	596.0	3480.5	223	79.5
1996	100.9	55.8	730.8	61.7	259.0	649.1	25.1	627.4	4.8	143.0	65.7	66.0	50.4	88.8	606.0	3534.4	226	79.3
1997	103.0	57.1	735.4	64.4	267.6	659.5	27.1	638.8	4.9	146.2	67.0	70.8	51.9	88.9	614.0	3596.6	230	79.2
1998	105.5	58.5	738.8	68.0	276.2	678.6	28.5	662.5	5.0	146.4	68.5	75.6	53.3	89.5	618.0	3672.9	235	79.1
1999	107.8	59.3	745.2	73.0	293.5	699.6	31.0	663.3	5.0	150.6	69.0	81.6	54.9	92.0	613.0	3738.9	239	78.8
2000	106.3	59.1	714.5	77.1	300.9	699.6	33.3	665.2	5.1	151.5	69.2	86.5	55.7	92.9	618.0	3734.9	239	78.1
2001	108.0	58.6	705.5	81.6	306.2	727.6	34.9	666.4	5.2	152.0	69.5	89.4	57.0	93.1	624.0	3778.9	242	78.2

passenger-km per person per year

2001	10499	10933	8567	7698	7603	12292	9063	11509	11725	9475	8548	8675	10987	10464	10424	10018
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Source : European Conference of Ministers of Transport, national statistics, studies

Note (1): Passenger cars + buses and coaches + tram and metro + railways + air

D: incl.D-E: 1970=24.5, 1980=56.0, 1990=90.3

(2): revised series from 1991 (Ministerio de Fomento), *estimates* obtained by extrapolation

* Great Britain

Powered Two-Wheelers

1000 mio pkm

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK*	EU-15	index 1970 =100
1970	1.1	0.7	19.8	1.0	9.3	20.0	0.2	45.0	0.02	5.8	1.8	5.1	0.8	0.8	4.2	115.6	100
1980	1.3	0.6	19.6	2.1	11.6	17.4	0.2	55.0	0.03	2.9	1.5	5.2	0.8	1.0	8.1	127.2	110
1990	1.2	0.4	15.3	6.6	12.4	14.2	0.3	60.1	0.03	2.1	1.5	5.8	0.8	0.5	5.9	127.1	110
1994	1.3	0.4	12.6	11.9	13.7	13.2	0.3	58.7	0.06	2.9	1.5	4.8	0.9	0.6	4.4	127.3	110
1995	1.4	0.4	12.8	13.2	13.7	12.4	0.3	59.9	0.06	2.3	1.6	5.1	0.9	0.6	4.3	128.8	111
1996	1.4	0.4	13.5	14.1	13.8	12.2	0.3	61.1	0.06	2.5	1.6	5.5	0.9	0.6	4.4	132.3	114
1997	1.4	0.5	14.4	14.8	13.9	12.2	0.4	62.9	0.06	2.5	1.6	5.8	0.9	0.7	4.3	136.3	118
1998	1.4	0.6	15.4	17.4	14.0	12.2	0.4	64.0	0.06	2.6	1.6	6.3	0.9	0.7	4.2	141.7	123
1999	1.4	0.7	16.4	19.1	14.2	12.3	0.4	65.5	0.06	2.7	1.6	6.6	0.9	0.8	5.0	147.6	128
2000	1.5	0.7	16.7	19.2	14.3	12.3	0.4	66.9	0.06	2.8	1.6	7.0	0.9	0.8	5.0	150.2	130
2001**	1.5	0.7	17.0	19.2	14.3	12.3	0.4	68.4	0.06	2.8	1.6	7.0	0.9	0.8	5.0	152.0	131
passenger-km per person per year																	
2000	141	133	203	1821	359	209	97	1159	137	174	200	688	174	90	84	398	

Source : national statistics, studies

** 2000 data for B, EL, E, F, IRL, L, NL, A, P, S

* Great Britain

D: includes D-E : 1970=8.29, 1975=8.52, 1980=8.14, 1985=7.47, 1990=6.30

Buses & Coaches

1000 mio pkm

Year	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK*	EU-15	index 1970 =100	modal share % (1)
1970	9.3	4.6	67.7	9.4	20.9	25.2	3.3	32.0	0.8	9.5	9.1	4.4	7.5	5.5	60.2	269.4	100	12.7
1980	9.1	7.3	90.0	15.6	28.1	38.0	4.5	57.8	0.8	11.2	9.8	7.6	8.5	7.3	52.2	347.8	129	11.8
1990	10.9	9.3	73.1	17.7	33.4	41.3	3.9	84.0	0.9	11.1	8.7	10.3	8.5	9.7	46.2	368.8	137	9.3
1991	11.2	9.2	77.7	18.0	35.5	42.9	4.1	84.7	0.9	11.2	9.0	10.7	8.1	10.1	45.2	378.4	140	9.2
1995	12.5	10.6	68.5	20.2	39.6	41.6	5.2	87.1	0.9	11.8	10.5	11.3	8.0	10.1	44.3	382.2	142	8.7
1996	11.4	11.4	68.3	20.4	44.0	42.4	5.3	88.7	0.9	12.0	12.5	11.1	8.0	10.3	44.2	390.9	145	8.8
1997	11.9	11.2	68.0	20.7	44.0	42.0	5.5	90.0	0.9	12.0	12.5	11.6	8.0	10.6	44.2	393.1	146	8.7
1998	12.0	9.1	68.2	21.2	49.4	42.7	5.7	90.6	0.9	12.6	12.7	11.6	7.8	10.7	45.0	400.2	149	8.6
1999	12.2	9.1	68.0	21.5	50.0	42.9	5.9	92.5	0.9	12.6	12.9	11.5	7.6	11.0	45.0	403.6	150	8.5
2000	12.4	9.1	69.0	21.7	50.3	45.3	6.1	94.0	0.9	12.6	13.1	11.8	7.7	11.1	45.0	410.2	152	8.6
2001	12.5	9.0	68.7	22.0	51.7	43.8	6.3	95.8	0.9	12.7	13.2	12.0	7.7	11.3	46.0	413.6	154	8.6
passenger-km per person per year																		
2001	1215	1685	834	2077	1284	740	1624	1655	2037	788	1628	1169	1484	1270	768	1092		

Source : European Conference of Ministers of Transport, Eurostat, national statistics

Notes : (1): Passenger cars + buses and coaches + tram and metro + railways + air

* Great Britain

(2): from 1993 onwards extrapolation of 1992 result

D: includes D-E : 1970=19.1, 1980=24.4, 1990=16.5

Tram + Metro

1000 mio pkm

	B	DK	D	EL	E	F (2)	IRL	I	L	NL	A	P	FIN	S	UK*	EU-15	index 1970 =100	(1) modal share %
1970	0.86	-	9.8	0.63	3.67	6.5	-	2.21	-	1.24	1.50	0.93	0.10	1.44	5.2	34.1	100	1.6
1980	0.77	-	8.5	0.68	3.88	7.7	-	3.66	-	1.35	1.65	0.74	0.13	1.97	4.3	35.3	104	1.2
1990	0.74	-	8.5	0.83	4.38	9.7	-	4.57	-	1.26	2.10	0.67	0.35	2.01	6.5	41.6	122	1.0
1991	0.75	-	10.7	0.81	4.30	9.4	-	5.33	-	1.29	2.20	0.65	0.34	1.93	6.2	43.9	129	1.1
1995	0.80	-	8.5	0.74	4.25	8.3	-	5.20	-	1.38	2.56	0.53	0.39	1.94	6.8	41.4	121	0.9
1996	0.81	-	8.4	0.74	4.49	8.8	-	5.28	-	1.39	2.65	0.54	0.40	1.98	6.7	42.1	124	0.9
1997	0.82	-	8.2	0.75	4.57	9.0	-	5.32	-	1.40	2.67	0.50	0.42	2.00	7.0	42.6	125	0.9
1998	0.82	-	8.2	0.80	4.84	9.3	-	5.25	-	1.40	2.68	0.55	0.44	2.01	7.5	43.8	128	0.9
1999	0.82	-	8.2	0.81	5.06	9.7	-	5.22	-	1.42	2.73	0.56	0.48	2.06	7.3	44.4	130	0.9
2000	0.87	-	8.3	1.19	5.23	10.1	-	5.38	-	1.43	2.76	0.58	0.50	2.14	7.7	46.2	136	1.0
2001	0.88	-	8.5	1.33	5.34	10.3	-	5.41	-	1.44	2.79	0.60	0.50	2.15	8.3	47.5	139	1.0

passenger-km per person per year

2001	85	-	103	125	133	174	-	93	-	90	343	58	96	242	139	126
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Source : 1970-95: International Union of Public Transport, 1996-98: national statistics, study for Energy and Transport DG

Note : (1) : Passenger cars + buses and coaches + tram and metro + railways + air

* Great Britain

(2): Metro and RER (Réseau Express Régional)

D: includes D-E: 1970=4.83, 1975=5.06, 1980=5.34, 1985=7.07, 1990=6.50

Railways

1000 mio pkm

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15	index 1970= 100	modal share % (1)
1970	7.6	3.9	62.4	1.5	14.0	41.0	0.8	32.6	0.3	8.0	6.4	3.5	2.2	4.6	30.6	219.4	100	10.4
1980	7.0	3.8	62.5	1.5	14.8	54.3	1.0	39.6	0.2	8.9	7.6	6.1	3.2	7.0	30.4	247.9	113	8.4
1990	6.5	4.9	61.1	2.0	15.5	63.8	1.2	44.7	0.2	11.1	8.7	5.7	3.3	6.4	33.2	268.1	122	6.7
1991	6.8	4.7	67.3	2.0	15.0	62.1	1.3	45.1	0.2	15.2	9.2	5.7	3.2	5.7	32.5	276.0	126	6.7
1995	6.8	4.8	75.0	1.6	16.6	55.3	1.3	43.9	0.3	14.0	9.6	4.8	3.2	6.3	30.0	273.4	125	6.2
1996	6.8	4.7	76.0	1.8	16.9	59.5	1.3	44.8	0.3	14.1	9.7	4.5	3.3	6.3	32.1	282.0	129	6.3
1997	7.0	5.0	73.9	1.9	17.9	61.6	1.4	43.6	0.3	14.4	8.1	4.6	3.4	7.0	34.7	284.7	130	6.3
1998	7.1	5.4	72.4	1.6	18.9	64.2	1.4	41.4	0.3	14.9	8.0	4.6	3.4	7.2	36.3	286.9	131	6.2
1999	7.4	5.1	73.6	1.6	19.7	66.3	1.5	43.4	0.3	14.3	8.0	4.3	3.4	7.6	38.5	295.0	134	6.2
2000	7.7	5.3	74.0	1.9	20.2	69.9	1.4	47.1	0.3	14.8	8.2	3.7	3.4	8.2	38.2	304.3	139	6.4
2001	8.0	5.5	74.0	1.6	20.8	71.5	1.5	46.7	0.3	14.4	8.2	3.7	3.3	8.6	39.1	307.3	140	6.4
2002	8.3	5.5	69.3	n.a	21.1	73.5	1.6	46.8	0.4	14.2	8.3	3.7	3.3	9.1	39.7	306.7*	140	

passenger-km per person per year

2001	784	1035	900	152	522	1214	400	808	791	904	1016	361	634	970	654	815
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Source : Union Internationale des Chemins de Fer, European Conference of Ministers of Transport, national statistics

Notes : (1): Passenger cars + buses and coaches + tram and metro + railways + air

*: total calculated with 2001 figures for Greece

D: includes D-E: 1970=17.7, 1980=22.0, 1990=17.!

3.5.9

Rail

High Speed Rail Transport

1000 mio pkm

	B	D	E	F	I	NL	FIN	S	UK	EU-15	% of total rail pkm
1990	-	-	-	14.9	0.3	-	-	-	-	15.2	5.7%
1991	-	2.0	-	17.9	0.4	-	-	0.1	-	20.4	7.4%
1992	-	5.2	0.4	19.0	0.4	-	-	0.2	-	25.2	9.1%
1993	-	7.0	0.9	18.9	0.5	-	-	0.3	-	27.6	10.2%
1994	-	8.2	0.9	20.5	0.8	-	-	0.3	n.a	30.7	11.3%
1995	-	8.7	1.2	21.4	1.1	-	-	0.5	n.a	32.9	12.0%
1996	-	8.9	1.1	24.8	1.3	-	-	1.1	n.a	37.2	13.2%
1997	0.6	10.1	1.3	27.6	2.4	-	0.1	1.3	n.a	43.4	15.2%
1998	0.8	10.2	1.5	30.6	3.6	0.1	0.1	1.6	n.a	48.5	16.9%
1999	0.8	11.6	1.7	32.2	4.5	0.1	0.1	1.8	n.a	52.8	17.9%
2000	0.9	13.9	1.8	34.7	5.1	0.1	0.1	2.1	n.a	58.7	19.3%
2001	0.9	15.5	2.4	37.4	6.8	0.1	0.1	2.1	n.a	65.3	21.3%
2002	0.9	15.3	2.5	39.9	7.5	0.1	0.1	2.3	n.a	68.6	22.4%

Source : Union Internationale des Chemins de Fer

Notes:

- Japan: 1999: 73.2 billion pkm

- Number of passengers transported in high speed rail traffic in 1999:
EU 15 : 147.4 million, Japan : 277.4 million

Channel Tunnel

(United Kingdom - France)

	Shuttle			Through-train	
	Number of vehicles		Number of passengers 1000	Passenger 1000	Freight 1000 tonnes
	Passenger 1000	Freight 1000			
1995	1 246	391	4 161	2 920	1 411
1996	2 135	519	7 933	4 866	2 361
1997	2 383	268	8 609	6 004	2 925
1998	3 448	705	12 189	6 307	3 141
1999	3 342	839	10 831	6 593	2 865
2000	2 864	1 133	9 280	7 130	2 947
2001	2 605	1 198	8 400	6 947	2 447
2002	2 408	1 231	7 800	6 603	1 464

Source : UK Department for Transport, Local Government and the Regions; Eurotunnel

Note : The Channel Tunnel opened in 1994

Passengers embarked and disembarked in all ports by Country

thousand

Country	1997		1998		1999		2000		2001	
	inwards	outwards	inwards	outwards	inwards	outwards	inwards	outwards	inwards	outwards
Belgium	925	1 021	839	857	775	778	764	756	689	689
Denmark	37 899	38 030	31 661	31 787	28 649	28 696	25 958	25 872	23 994	23 868
Germany	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	15 719	15 659	15 985	15 832
Greece	16 169	16 090	17 312	18 053	18 177	19 003	14 040	13 827	n.a.	n.a.
Spain	6 949	6 990	7 739	7 610	8 131	8 093	7 924	6 659	7 650	6 573
France	16 576	16 548	15 426	15 400	15 233	15 203	13 956	13 887	13 906	13 849
Ireland	2 209	2 171	2 354	2 329	2 203	2 155	2 094	2 124	1 940	1 955
Italy	40 128	40 056	40 398	40 223	42 744	42 695	43 215	43 161	43 438	43 444
Luxembourg	-	-	-	-	-	-	-	-	-	-
The Netherlands	974	989	928	912	976	973	1 003	1 001	1 019	1 022
Austria	-	-	-	-	-	-	-	-	-	-
Portugal	n.a.	n.a.	238	235	237	235	268	267	273	269
Finland	7 617	7 574	8 012	7 974	8 096	8 051	8 008	7 956	8 405	8 324
Sweden	20 580	20 369	20 955	20 794	20 914	20 660	18 457	18 116	16 201	16 149
United Kingdom	18 103	18 183	18 407	18 477	17 872	17 941	16 867	16 985	17 224	17 291

Source : Eurostat

Air Transport
Intra-EU 15 : from country of origin within EU15; plus domestic flights
 1000 million pkm

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15	index 1990= 100	modal share % (1)
1990	3.0	3.5	20.9	11.9	30.3	18.0	2.0	14.4	0.3	4.1	2.6	5.2	3.7	8.8	28.4	157.3	100	4.0
1995	3.9	4.5	28.7	16.1	40.1	21.2	2.8	18.1	0.4	5.8	3.7	6.8	3.9	9.0	36.6	201.5	128	4.6
1996	4.1	5.0	29.4	15.3	41.8	22.6	3.0	19.4	0.4	6.2	3.8	7.0	4.2	9.5	36.8	208.7	133	4.7
1997	4.8	5.2	30.8	15.2	45.2	23.1	3.5	21.3	0.4	7.0	4.0	7.3	4.6	10.2	39.1	221.9	141	4.9
1998	5.6	5.7	33.0	16.0	49.4	24.1	3.9	22.7	0.5	7.9	4.3	8.1	5.1	11.1	43.2	240.8	153	5.2
1999	6.0	6.1	36.0	18.5	54.5	26.0	4.4	24.1	0.5	8.9	4.5	8.5	5.3	11.5	46.5	261.3	166	5.5
2000	6.5	6.3	38.3	21.4	59.3	27.2	5.1	27.2	0.5	9.6	4.6	8.8	5.7	12.6	50.5	283.6	180	5.9
2001	6.3	6.6	36.9	21.5	61.1	25.7	5.5	27.5	0.5	9.4	4.5	9.0	5.7	12.6	53.6	286.3	182	5.9

passenger-km per person per year

2001	610	1224	448	2028	1517	434	1432	475	1222	588	552	877	1089	1414	895	756
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Source : Energy and Transport DG study and calculations based on Eurostat data

Note : Excluding non-EU traffic

(1): Passenger cars + buses and coaches + tram and metro + railways + air

Air Traffic between countries (intra-EU)

2001

million passengers

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15
B		0.57	1.58	0.74	2.99	1.38	0.20	1.99	0.08	0.30	0.32	0.56	0.23	0.46	2.42	13.82
DK	0.57		1.60	0.64	1.30	0.95	0.20	0.60	0.06	0.66	0.26	0.19	0.55	2.27	1.94	11.78
D	1.57	1.60		4.82	17.48	5.06	0.53	5.57	0.22	2.38	2.81	2.02	0.84	1.02	7.87	53.78
EL	0.74	0.64	4.82		0.25	1.27	0.11	1.64	0.04	1.33	0.91	0.00	0.31	0.97	6.41	19.44
E	3.16	1.28	18.98	0.25		5.23	1.80	4.32	0.29	3.77	0.72	1.56	0.74	2.01	27.63	71.74
F	1.32	0.91	5.21	1.27	5.06		1.00	5.35	0.15	1.84	0.63	1.64	0.30	0.76	7.97	33.42
IRL	0.46	0.19	0.59	0.11	1.78	1.00		0.32	0.01	0.48	0.05	0.25	0.03	0.10	9.09	14.47
I	2.08	0.57	5.62	1.64	4.24	5.34	0.30		0.12	1.64	0.59	0.57	0.13	0.31	6.81	29.94
L	0.08	0.06	0.24	0.04	0.28	0.16	0.00	0.12		0.07	0.03	0.10	0.00	0.02	0.21	1.41
NL	0.37	0.66	2.38	1.33	3.50	1.79	0.49	1.67	0.07		0.52	0.84	0.30	0.83	6.98	21.72
A	0.31	0.26	2.82	0.91	0.71	0.61	0.05	0.61	0.04	0.51		0.05	0.11	0.21	1.27	8.47
P	0.52	0.13	1.82	0.00	1.52	1.58	0.25	0.58	0.09	0.85	0.02		0.03	0.12	3.33	10.84
FIN	0.22	0.56	0.83	0.31	0.74	0.31	0.04	0.16	0.00	0.29	0.11	0.08		1.31	0.68	5.64
S	0.48	2.01	1.01	0.97	2.00	0.75	0.12	0.37	0.02	0.83	0.22	0.16	1.49		1.65	12.08
UK	2.69	2.00	8.48	6.41	27.58	8.74	9.29	7.46	0.20	7.31	1.28	3.75	0.75	1.96		87.89
EU-15	14.57	11.43	55.97	19.43	69.44	34.17	14.38	30.78	1.38	22.27	8.45	11.77	5.81	12.34	84.26	396.45

Source : Eurostat

Note : table is meant to be read horizontally (i.e. Belgium declares that departures from Belgium to Spain + arrivals in Belgium from Spain = 2.99 mio)

3.5.13

Number of Passengers travelling by air within the same Country

	2000	2001	2001 / 2000 (%)
B	n.a.	n.a.	n.a.
DK	n.a.	1 800 363	n.a.
D	22 075 802	20 920 308	-5.2
EL	6 111 359	n.a.	n.a.
E	28 884 191	29 688 003	2.8
F	30 813 516	28 555 645	-7.3
IRL	666 925	673 971	1.1
I	22 935 089	22 486 588	-2.0
L	0	0	0.0
NL	211 280	185 782	-12.1
A	545 316	558 858	2.5
P	2 821 848	2 937 082	4.1
SF	3 121 931	3 058 000	-2.0
S	8 042 961	8 086 459	0.5
UK	19 500 885	20 788 773	6.6

Source : Eurostat

Air Transport
Traffic at Selected Major Airports
Passengers arriving and departing and in transit*
million passengers

Airport	1970	1980	1990	1999	2000	2001	2002	change 02/01 %
1 London Heathrow, UK	15.6	27.5	43.0	62.3	64.6	60.7	63.4	+4.3
2 Frankfurt Rhein-Main, D	9.4	17.6	29.4	45.9	49.4	48.6	48.5	-0.2
3 Paris Ch. de Gaulle, F	2.2	10.1	22.5	43.2	48.2	48.0	48.4	+0.7
4 Amsterdam Schiphol, NL	5.2	9.4	16.5	36.8	39.6	39.5	40.7	+3.0
5 Madrid Barajas, E	4.8	10.1	16.2	27.7	32.9	34.0	33.9	-0.4
6 London Gatwick, UK	3.7	9.7	21.2	30.6	32.1	31.2	29.6	-5.0
7 Rome Fiumicino, I	6.5	11.4	17.7	24.0	26.3	25.6	25.3	-0.9
8 Paris Orly, F	10.4	15.7	24.3	25.3	25.4	23.0	23.2	+0.6
9 Munich, D	3.6	6.0	11.4	21.3	23.1	23.6	23.2	-2.0
10 Barcelona, E	4.0	5.8	9.0	17.4	19.8	20.7	21.3	+2.9
11 Manchester, UK	1.9	4.3	10.1	17.8	18.8	19.6	19.0	-2.7
12 Copenhagen Kastrup, DK	6.5	8.6	12.1	17.4	18.3	18.0	18.2	+0.9
13 Palma de Mallorca, E	4.8	7.3	11.3	19.0	19.4	19.2	17.8	-7.2
14 Milan Malpensa, I	-	-	-	17.0	20.7	18.6	17.4	-6.1
15 Stockholm Arlanda, S	2.6	4.3	14.0	17.4	18.4	18.3	16.5	-9.6
16 London Stansted, UK	-	-	-	9.5	11.9	13.7	16.1	+17.5
17 Dublin, IRL	1.9	2.6	5.5	12.8	13.8	14.3	15.1	+5.2
18 Dusseldorf, D	3.6	7.2	11.9	15.9	16.0	15.4	14.7	-4.2
19 Brussels National, B	2.8	5.1	7.1	20.0	21.6	19.7	14.4	-26.8
20 Vienna, A	1.5	2.7	5.5	11.2	11.9	11.9	12.0	+1.0
21 Athens E.V., EL	-	-	-	-	13.5	12.7	11.8	-6.6
22 Malaga, E	n.a.	n.a.	n.a.	8.5	9.4	9.9	10.4	+4.9
23 Hamburg, D	n.a.	n.a.	n.a.		9.9	9.5	10.2	+7.0
24 Berlin Tegel, D	n.a.	n.a.	n.a.	9.6	10.3	9.9	9.9	-0.3
25 Helsinki, SF	n.a.	n.a.	n.a.	9.7	10.0	10.0	9.6	-4.2
Lisbon, P	n.a.	n.a.	n.a.	8.7	9.4	9.4	9.4	+0.1
Luxembourg, L	0.5	0.7	1.1	1.6	1.7	1.7	1.5	-9.3
Total of top 25 above	n.a.	n.a.	n.a.	529.0	585.6	575.6	570.6	-0.9

Source: Airports Council International, International Civil Aviation Organisation, Aéroports Magazine, airport authorities

Notes : * : counted once
Munich airport moved from Riem to Erding in 1991
Athens E.Venizelos airport opened in March 2001

Air Transport
Major Regular European Airlines
International + domestic
1000 million pkm

Airline	1980	1990	1998	2000	2001	change 01/00
British Airways (UK)	16.08	66.97	116.50	119.39	104.02	-12.9
Air France (F)	25.40	36.78	74.58	91.85	95.82	+4.3
Lufthansa (D)	21.06	41.97	75.44	94.29	91.48	-3.0
KLM (NL)	14.06	26.41	57.28	60.33	57.54	-4.6
Iberia (ES)	14.85	22.11	32.52	40.04	41.30	+3.1
Alitalia (I)	12.88	23.42	35.56	40.85	36.29	-11.2
Virgin Atlantic (UK)	-	-	20.65	29.47	28.41	-3.6
SAS (DK/N/S)	7.53	16.66	21.20	22.92	23.30	+1.6
THY Turkish (TR)	n.a.	5.79	13.81	17.40	15.68	-9.9
Finnair (FIN)	2.12	9.28	13.10	12.59	12.96	+2.9
Air Berlin (D)	n.a.	n.a.	n.a.	7.81	10.63	+36.1
Spanair (ES)	-	n.a.	8.03	9.66	10.42	+7.9
TAP Air Portugal (P)	3.43	6.85	9.36	10.41	10.35	-0.7
Aer Lingus (IRL)	2.05	4.60	7.60	9.48	8.94	-5.7
Olympic Airways (EL)	5.06	7.82	8.60	8.88	8.44	-5.0
Austrian Airlines (A)	1.12	2.82	8.65	8.80	8.14	-7.5
Ryanair (IRL)	-	0.40	2.64	4.99	7.25	+45.4
LOT (PL)	n.a.	4.18	5.15	5.71	5.97	+4.5
Easyjet (UK)	-	-	1.45	4.73	5.90	+24.8
bmi British Midland (UK)	n.a.	1.98	3.37	4.48	4.96	+10.6
Czech Airlines (CZ)	n.a.	2.29	2.90	3.62	4.00	+10.5
Icelandair (IS)	n.a.	1.79	3.77	4.11	3.96	-3.7
SWISS (Crossair)	n.a.	n.a.	2.55	3.48	3.83	+9.9
Malev Hung. (HU)	n.a.	1.63	3.05	3.56	3.49	-1.8
Cyprus Airw. (CY)	n.a.	2.41	2.72	2.79	3.02	+8.3
Air Malta (MT)	n.a.	1.81	2.49	2.92	2.87	-2.0
SN Brussels Airlines (B) *	-	-	-	2.35	2.13	-9.2
Virgin Express (B)	-	-	3.68	2.47	2.08	-15.8
Tarom Roum. (RO)	n.a.	n.a.	1.77	2.16	1.96	-9.1
Luxair (L)	n.a.	n.a.	0.82	1.00	1.06	+6.5
Adria (SI)	n.a.	1.56	0.72	0.87	0.79	-8.8
Swissair** (CH)	n.a.	15.89	29.77	36.21	n.a.	
Sabena*** (B)	4.85	7.57	15.34	19.38	n.a.	
Balkan Bulg. (BG) ****	n.a.	3.76	2.75	1.70	-	

Source : Association of European Airlines, International Air Transport Association, air companies

Scheduled and non-scheduled flights

* until 2002 flying for SABENA under the name Delta Air Transport

** ceased activity in March 2002

*** ceased activity in November 2001

**** ceased activity in March 2001

Air Transport

Main Town-to-Town Routes in the EU

Inter-city pairs	Number of Passengers		% change 01/00
	2000	2001	
	thousands		
London - Dublin	4 392	4 204	-4.3
Madrid - Barcelona	n.a.	3 971	
London - Amsterdam	3 619	3 524	-2.6
Milano - Roma	n.a.	3 320	
London - Paris	2 926	2 700	-7.7
Nice - Paris	n.a.	2 324	
Toulouse - Paris	n.a.	2 286	
London - Frankfurt	2 185	2 083	-4.7
Marseille - Paris	n.a.	1 890	
London - Malaga	1 646	1 854	12.7
Paris - Madrid	1 584	1 771	11.9
London - Rome	1 644	1 685	2.5
London - Madrid	1 740	1 644	-5.5
London - Milan	1 676	1 606	-4.2
Frankfurt - Berlin	n.a.	1 594	
Edinburgh - London	n.a.	1 579	
London - Barcelona	1 375	1 516	10.3
Frankfurt - Munich	n.a.	1 467	
Madrid - Palma de Mallorca	n.a.	1 464	
Barcelona - Palma de Mallorca	n.a.	1 462	
London - Palma de Mallorca	1 372	1 446	5.4
Munich - Berlin	n.a.	1 407	
Frankfurt - Hamburg	n.a.	1 402	
Glasgow - London	n.a.	1 390	
Dusseldorf - Munich	n.a.	1 332	
London - Munich	1 358	1 328	-2.3
Manchester - London	n.a.	1 285	
Hamburg - Munich	n.a.	1 267	
Paris - Rome	1 307	1 259	-3.7
Madrid - Gran Canaria	n.a.	1 242	
London - Copenhagen	1 317	1 214	-7.8
London - Brussels	1 395	1 210	-13.3
Stockholm - Copenhagen	1 205	1 199	-0.5
Madrid - Malaga	n.a.	1 186	
London - Tenerife	1 028	1 158	12.6
London - Nice	1 084	1 158	6.8
London - Stockholm	1 329	1 153	-13.2
Paris - Milan	1 150	1 128	-1.9

Source : Eurostat

Notes : Based on departure declarations, so the figures refer to passengers departing from each of the pair of cities for the other.

Cycling
1000 mio pkm

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15	index 1992 =100
1992	3.4	5.3	23.7	0.8	0.8	4.5	0.7	9.0	0.0	12.5	1.3	0.3	1.4	2.2	4.7	70.6	100
1993	3.3	5.1	23.6	0.8	0.8	4.4	0.7	9.0	0.0	12.4	1.3	0.3	1.4	2.2	4.5	69.8	99
1994	3.3	4.6	23.6	0.8	0.8	4.4	0.7	9.0	0.0	13.0	1.2	0.3	1.0	2.3	4.5	69.5	98
1995	3.3	5.1	23.8	0.8	0.8	4.4	0.7	9.0	0.0	13.2	1.2	0.3	1.3	2.4	4.5	70.8	100
1996	3.3	4.8	23.7	0.8	0.8	4.4	0.7	9.0	0.0	12.6	1.1	0.3	1.3	2.1	4.3	69.2	98
1997	3.3	4.9	23.8	0.8	0.8	4.4	0.7	9.0	0.0	13.5	1.1	0.3	1.3	2.4	4.4	70.7	100
1998	3.3	5.0	23.8	0.8	0.8	4.4	0.7	8.9	0.0	13.3	1.1	0.3	1.3	2.3	4.4	70.4	100
1999	3.3	5.0	23.9	0.8	0.8	4.4	0.7	8.9	0.0	13.4	1.1	0.3	1.3	2.4	4.4	70.7	100
2000	3.3	5.0	23.9	0.8	0.8	4.4	0.7	8.9	0.0	13.5	1.1	0.3	1.3	2.4	4.5	70.9	100
passenger-km per person per year																	
2000	322	936	291	76	20	75	184	154	23	848	136	29	251	271	75	188	

Source : study for Energy and Transport DG

Walking
1000 mio pkm

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15	index 1992 =100
1992	3.7	2.1	29.8	3.8	13.5	22.4	1.2	22.8	0.2	5.7	3.2	3.5	2.0	3.2	20.2	137.3	100
1993	3.7	2.1	30.0	3.8	13.5	22.3	1.2	22.6	0.2	5.7	3.3	3.5	2.0	3.2	20.2	137.3	100
1994	3.7	2.2	29.9	3.8	13.6	22.5	1.3	22.6	0.2	5.7	3.3	3.5	2.0	3.2	20.2	137.7	100
1995	3.8	2.2	30.4	3.9	13.8	22.5	1.3	23.2	0.2	5.8	3.3	3.5	2.0	3.3	20.5	139.7	102
1996	3.7	2.3	30.2	3.9	13.6	22.6	1.3	23.2	0.2	5.8	3.4	3.5	2.0	3.3	20.5	139.5	102
1997	3.8	2.3	30.3	4.0	14.1	23.0	1.3	23.3	0.2	5.8	3.4	3.5	2.0	3.3	20.7	141.0	103
1998	3.8	2.3	30.4	4.0	14.4	23.3	1.4	23.3	0.2	5.9	3.4	3.5	2.0	3.4	20.9	142.2	104
1999	3.8	2.3	30.4	4.1	14.5	23.5	1.4	23.5	0.2	5.9	3.4	3.5	2.0	3.4	21.0	142.9	104
2000	3.9	2.3	30.6	4.1	14.7	23.8	1.4	23.7	0.2	6.0	3.4	3.5	2.0	3.4	21.2	144.2	105
passenger-km per person per year																	
2000	380	431	372	389	368	404	368	410	457	377	419	342	386	383	355	382	

Source : study for Energy and Transport DG

Distribution of Long-distance* Journeys per Year by Distance

Country		Journeys thousands	100 - 249 km	250 - 499 km	400 - 999 km	>= 1000 km	Total	Average km
Belgium	B	19 830	58%	13%	15%	14%	100%	642
Denmark	DK	11 252	60%	10%	11%	19%	100%	909
Germany	D	184 734	41%	35%	11%	13%	100%	661
Greece	EI	35 223	70%	24%	2%	4%	100%	286
Spain	E	99 617	58%	27%	10%	5%	100%	361
France	F	177 323	55%	28%	13%	4%	100%	441
Ireland	IRL	5 540	55%	9%	6%	30%	100%	1 121
Italy	I	59 425	45%	29%	18%	8%	100%	570
Luxembourg	L	484	20%	35%	22%	23%	100%	851
The Netherlands	NL	30 685	59%	11%	14%	16%	100%	750
Austria	A	15 532	58%	23%	8%	11%	100%	531
Portugal	P	16 839	77%	15%	2%	6%	100%	360
Finland	FIN	18 591	61%	25%	6%	8%	100%	419
Sweden	S	30 218	48%	29%	9%	14%	100%	705
United Kingdom	UK	151 111	55%	22%	6%	17%	100%	796
European Union	EU-15	856 404	53%	27%	10%	10%	100%	580
			451 578	228 127	89 012	87 687	856 404	

Source : research project of the European Commission

* : more than 100km, all modes of transport

Distribution of Long-distance* Journeys according to Distance and Main Mode of Transport

	100 - 149 km	150 - 199 km	200 - 249 km	250 - 299 km	300 - 499 km	500 km and more
Car	81.8%	78.2%	74.9%	66.5%	60.2%	29.2%
Bus	4.9%	6.6%	6.0%	7.9%	7.8%	5.9%
Train	9.9%	11.9%	13.1%	17.0%	18.2%	8.7%
Aeroplane	0.4%	0.8%	2.1%	4.8%	10.6%	53.2%
Ship	0.8%	0.6%	1.4%	1.9%	1.5%	1.7%
Motorcycle	0.4%	0.3%	0.3%	0.3%	0.4%	0.2%
Other	1.8%	1.6%	2.2%	1.6%	1.3%	1.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source : research project of the European Commission

* : more than 100km, all modes of transport

Other European Countries : Railways

1000 mio pkm

	IS	N	CH	BG	CY	CZ	EE	HU	LV	LT	MT	PL	RO	SK	SI	TR
1970	-	1.9	8.1	6.2	-		1.2	15.2	3.8	2.1	-	36.9	17.8		1.5	5.6
1980	-	2.4	9.2	7.1	-		1.6	13.7	4.8	3.3	-	46.3	23.2		1.4	6.0
1989	-	2.1	11.0	7.6	-		1.6	11.9	5.6	3.5	-	55.9	35.5		1.4	6.8
1990	-	2.1	11.1	7.8	-		1.5	11.4	5.4	3.6	-	50.4	30.6		1.4	6.4
1992	-	2.3	11.5	5.4	-		1.0	8.5	3.7	2.7	-	32.6	24.3		0.5	7.1
1994	-	2.4	12.1	5.1	-	8.5	0.5	8.5	1.8	1.6	-	27.6	18.3	4.5	0.6	6.3
1995	-	2.4	11.7	4.7	-	8.0	0.4	8.4	1.4	1.1	-	26.6	18.9	4.2	0.6	5.8
1996	-	2.4	11.7	5.1	-	8.1	0.3	8.6	1.2	0.9	-	26.6	18.4	3.8	0.6	5.2
1997	-	2.6	12.4	5.9	-	7.7	0.3	8.7	1.1	0.8	-	25.8	15.8	3.1	0.6	5.8
1998	-	2.6	12.5	4.7	-	7.0	0.2	8.8	1.1	0.7	-	25.7	13.4	3.1	0.6	6.2
1999	-	2.7	13.1	3.8	-	6.9	0.2	9.4	1.0	0.6	-	26.2	12.3	3.0	0.6	6.1
2000	-	2.6	13.3	3.5	-	7.3	0.3	9.7	0.7	0.6	-	24.1	11.6	2.9	0.7	5.8

passenger-km per person per year

2000	-	587	1 853	425	-	707	183	971	296	165	-	623	518	534	353	89
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Source : Union Internationale des Chemins de Fer, European Conference of Ministers of Transport, national statistics

CS: 1970: 20.5, 1980: 18.0, 1989: 19.7, 1990:19.4, 1992: 16.6

IS, CY, MT : no passenger railway network

Other European Countries : Buses and Coaches

1000 mio pkm

	IS	N	CH*	BG	CY	CZ	EE (1)	HU	LV	LT (2)	MT	PL (1)	RO	SK (1)	SI	TR
1970	n.a.	3.7	1.9	7.7	n.a.		2.6	7.4	3.3	4.9	n.a.	29.1	8.2		2.6	n.a.
1980	n.a.	4.3	2.5	13.6	n.a.		3.7	11.9	4.6	6.7	n.a.	49.2	24.9		4.9	n.a.
1990	n.a.	3.9	3.3	16.3	n.a.		4.5	10.5	5.9	6.7	n.a.	46.3	24.9		6.6	n.a.
1991	n.a.	3.9	3.6	12.0	n.a.		3.8	9.4	4.5	6.5	n.a.	41.7	21.5		4.4	n.a.
1992	n.a.	3.9	3.6	10.6	n.a.		3.0	8.6	2.6	5.2	n.a.	39.0	26.2		3.4	n.a.
1993	n.a.	3.9	3.5	8.8	n.a.	13.6	2.5	8.6	1.7	3.7	n.a.	37.8	20.5	11.5	2.8	86.9
1994	n.a.	4.0	3.5	7.9	n.a.	11.5	2.4	8.6	1.8	3.8	n.a.	34.3	14.1	10.6	2.6	79.2
1995	n.a.	3.8	3.2	7.1	n.a.	11.0	2.1	9.6	1.8	3.3	n.a.	34.0	12.3	11.2	2.5	85.7
1996	n.a.	4.1	3.2	5.3	n.a.	9.7	2.1	9.8	1.6	2.9	n.a.	32.0	12.8	11.1	2.4	91.7
1997	n.a.	4.2	3.1	4.4	n.a.	8.8	2.2	10.2	1.7	2.6	n.a.	33.1	13.5	10.0	2.2	95.4
1998	n.a.	4.2	3.1	3.9	n.a.	8.7	2.3	10.6	1.9	2.4	n.a.	34.0	9.0	8.8	2.1	94.9
1999	n.a.	4.2	3.1	2.1	n.a.	8.6	2.2	11.3	2.4	2.1	n.a.	33.3	8.3	7.8	1.9	91.3
2000	n.a.	4.2	3.1	1.3	n.a.	9.6	2.4	12.1	2.3	1.7	n.a.	31.7	7.7	8.4	1.6	87.4

Source : Eurostat, European Conference of Ministers of Transport, national statistics, study for Energy and Transport DG

Notes : (1): without urban bus transport (urban bus, 1000 mio pkm: Poland: ca. 10; Slovenia 0.5; Estonia 0.4)

(2): Lithuania: public transport only (figures exclude trolleybuses)

* Swiss figures have been corrected since the last edition in order to exclude tramways

CS: 1970: 21.4, 1980: 33.8, 1990: 43.4, 1991: 43.1, 1992: 35.0

Other European Countries**Traffic at Selected Major Airports****Passengers arriving and departing and in transit***

Million passengers

Airport, Country	1997	2000	2001	2002	change 02/01 %
Zurich <i>CH</i>	18.20	22.63	20.97	17.95	-14.4
Oslo <i>N</i>	12.70	14.23	13.96	13.44	-3.7
Geneva <i>CH</i>	6.12	7.76	7.49	7.55	+0.8
Prague <i>CZ</i>	4.36	5.55	6.09	6.32	+3.7
Larnaca <i>CY</i>	3.80	4.88	5.30	4.99	-5.9
Warsaw <i>PL</i>	3.52	4.33	4.71	4.94	+4.7
Budapest <i>HU</i>	3.62	4.68	4.58	4.48	-2.2
Bergen <i>N</i>	4.94	3.93	3.67	3.55	-3.3
Malta <i>MT</i>	2.70	3.01	2.81	2.67	-4.9
Stavanger <i>N</i>	4.07	2.85	2.69	2.57	-4.6
Trondheim <i>N</i>	2.73	2.83	2.71	2.53	-6.5
Bucharest <i>RO</i>	1.47	1.90	2.02	2.15	+6.6
Paphos <i>CY</i>	1.00	1.39	1.55	1.46	-5.9
Tromsø <i>N</i>	1.91	1.55	1.55	1.38	-11.0
Bodø <i>N</i>	1.79	1.44	1.44	1.28	-11.2
Keflavik <i>IS</i>	1.10	1.46	1.36	1.22	-10.4
Sofia <i>BG</i>	1.08	1.13	1.11	1.21	+9.6
Varna <i>BG</i>	0.58	0.71	0.94	1.09	+16.6
Sandefjord <i>N</i>	0.37	0.76	0.77	1.03	+33.2
Ljubljana <i>SI</i>	0.71	0.98	0.89	0.87	-2.5
Bourgas <i>BG</i>	n.a.	0.41	0.60	0.77	+28.4
Kristiansand <i>N</i>	1.28	0.89	0.82	0.74	-10.4
Vilnius <i>LT</i>	n.a.	0.52	0.58	0.64	+8.7
Alesund <i>N</i>	n.a.	0.75	0.71	0.64	-11.1
Riga <i>LV</i>	n.a.	0.58	0.62	0.63	+1.8
Tallinn <i>EE</i>	n.a.	0.56	0.57	0.61	+5.7

Source : Airport Council International, Aéroports magazine, airport authorities
 *: counted once

USA

Performance by Mode of Transport

1000 mio pkm

	Car *	Railway	Bus	Tram + Metro	Air	Total
1970	3 181	17	81	18	189	3 486
1980	4 076	18	111	18	353	4 575
1985	4 478	18	153	17	467	5 134
1990	5 280	21	196	19	578	6 094
1995	5 702	22	219	18	667	6 629
1996	5 887	22	219	20	719	6 867
1997	6 064	21	233	21	745	7 085
1998	6 187	23	239	22	767	7 237
1999	6 321	23	261	23	808	7 435
2000	6 464	24	259	24	854	7 625
1990-00	+ 22.4 %	+ 13.8 %	+ 32.6 %	+ 25.9 %	+ 47.8 %	+ 25.1 %

Source : US Department of Transport

Notes :

* : Passenger car (2000: 4099 bio pkm) and other 2-axle 4-tyre vehicles (2000: 2364 bio pkm)

Air : includes general aviation (2000 : 22 bio pkm)

Motorcycles (not included in above total): 2000 : 18.6 bio pkm

Average annual change

% per year

	Car	Railway	Bus	Tram + Metro	Air	Total
1970-80	+2.5	+0.2	+3.2	+0.1	+6.4	+2.8
1980-90	+2.6	+1.8	+5.9	+1.0	+5.1	+2.9
1990-99	+2.0	+0.8	+3.3	+1.8	+3.8	+2.2
2000	+2.3	+5.7	-0.8	+7.7	+5.7	+2.6

Modal split

%

	Car	Railway	Bus	Tram + Metro	Air
1970	91.3	0.5	2.3	0.5	5.4
1980	89.1	0.4	2.4	0.4	7.7
1985	87.2	0.4	3.0	0.3	9.1
1990	86.6	0.3	3.2	0.3	9.5
1999	85.0	0.3	3.5	0.3	10.9
2000	84.8	0.3	3.4	0.3	11.2

**Part 3 :
TRANSPORT**

Chapter 6 : Safety

Road Fatalities

Number of persons killed

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15	Index 1991 =100
1970	2950	1208	21332	1099	5456	16448	540	11004	132	3181	2507	1842	1055	1307	7770	77 831	139
1980	2396	690	15050	1445	6522	13672	564	9220	98	1997	2003	2941	551	848	6240	64 237	115
1990	1976	634	11046	2050	9032	11215	478	7137	71	1376	1558	3017	649	772	5402	56 413	101
1991	1873	606	11300	2112	8836	10483	445	8109	83	1281	1551	3218	632	745	4753	56 027	100
1995	1449	582	9454	2411	5749	8891	437	7020	70	1334	1210	2711	441	572	3765	46 096	82
1996	1356	514	8758	2157	5482	8541	453	6676	71	1180	1027	2730	404	537	3740	43 626	78
1997	1364	489	8549	2105	5604	8444	473	6713	60	1163	1105	2521	438	541	3743	43 312	77
1998	1500	499	7792	2182	5957	8918	458	6314	57	1066	963	2126	400	531	3581	42 344	76
1999	1397	514	7772	2116	5738	8487	414	6633	58	1090	1079	2028	431	580	3564	41 901	75
2000	1470	498	7503	2037	5777	8079	418	6410	70	1082	976	1874	396	591	3580	40 761	73
2001	1486	431	6977	1880	5516	8160	412	6682	69	993	958	1671	433	583	3598	39 849	71
2002	n.a.	463	6842	1654	5347	7655	376	n.a.	62	987	956	1655	415	560	3581		

Source: From 1991 : CARE / Energy and Transport DG, national statistics Up to 1990 : IRTAD (OECD) D: includes D-E : 1970 =2139; 1980 =2009; 1990 = 3140

Notes: Persons killed are all persons killed within 30 days of the accident.

Corrective factors applied to the figures from the Member States not currently using this definition:

France (6 days): 1.09 up to 1993, 1.057 from 1994; **Italy** (7 days): 1.078; **Portugal** (1 day): 1.3

Corrective factors applied to some previous figures :

Greece : 1.18 (up to 1995); **Spain** : 1.3 (up to 1992); **Austria** : 1.12 (up to 1991)

Number of persons killed per year per million population (2002 except B & I : 2001)

2002	144	86	83	157	132	129	97	115	140	61	117	160	80	63	60	102
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3.6.2

Road Accidents

Number of accidents involving personal injury

1 000

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15	index 1970 =100
1970	77.0	19.8	377.6	18.3	58.0	228.1	6.4	173.1	1.6	58.9	51.6	22.7	11.4	16.6	267.5	1 388.5	100
1980	60.8	12.3	379.2	18.2	67.8	241.0	5.7	163.8	1.6	49.4	46.2	54.1	6.8	15.2	257.3	1 379.5	99
1990	62.4	9.2	340.0	19.6	101.5	162.6	6.1	161.8	1.2	44.9	46.3	45.1	10.2	17.0	265.6	1 293.5	93
1994	53.0	8.3	392.8	22.5	78.5	132.7	6.6	170.7	1.2	41.4	42.0	45.8	6.2	15.9	234.1	1 251.7	90
1995	50.7	8.4	388.0	22.8	83.6	132.9	8.1	182.8	1.1	42.6	39.0	48.3	7.8	15.6	230.4	1 262.2	91
1996	48.8	8.1	373.1	23.6	85.6	125.4	8.7	190.1	1.1	41.0	38.3	49.3	7.3	15.3	235.9	1 251.4	90
1997	50.1	8.0	380.8	24.3	86.1	125.2	8.5	190.1	1.0	41.0	39.7	49.4	7.0	15.8	240.0	1 267.0	91
1998	51.2	7.4	377.3	24.8	97.6	124.4	8.2	204.6	1.1	41.3	39.2	51.2	6.9	15.5	246.4	1 297.1	93
1999	51.6	7.6	395.7	24.2	97.8	124.5	7.8	219.0	1.1	42.3	42.3	49.9	7.0	15.8	242.6	1 329.3	96
2000	49.1	7.3	382.9	23.1	101.7	121.2	7.8	211.9	0.9	37.9	42.1	46.0	6.6	15.8	242.1	1 296.6	93
2001	47.4	7.5	375.3	21.5	100.4	116.7	6.9	220.9	0.8	35.3	43.1	44.8	6.5	15.8	236.5	1 279.4	92

Source : International Road Traffic and Accident Database (Organisation for Economic Co-operation and Development), United Nations (Statistics of road traffic accidents), Eurostat, national sources

Number of accidents involving personal injury per year per 1000 population

2001	4.6	1.4	4.6	2.0	2.5	2.0	1.8	3.8	1.8	2.2	5.3	4.4	1.2	1.8	4.0	3.4
------	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Note : Definition of an accident involving personal injury differs from Country to Country

3.6.3

Railway Fatalities

Persons killed in accidents involving railways including at railway crossings

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU-15	Index 1970 =100
1970	90	26	599	50	75	273	5	296	2	84	110	200	65	40	129	2 044	100
1980	52	18	338	38	74	203	20	228	4	27	75	186	24	49	59	1 395	68
1990	20	6	250	34	30	188	14	83	2	43	54	131	36	19	78	988	48
1996	26	9	252	42	21	136	8	106	3	36	47	122	12	16	25	861	42
1997	18	12	235	43	37	117	14	97	3	35	23	119	21	24	48	846	41
1998	30	5	325	47	13	138	14	97	1	35	35	97	24	25	67	953	47
1999	27	n.a.	230	29	20	106	10	86	-	n.a.	45	105	16	20	82	n.a.	
2000	29	n.a.	225	n.a.	20	122	2	93	-	n.a.	43	73	20	n.a.	73	n.a.	

Source : Eurostat, Union Internationale des Chemins de Fer

D : includes D-E : 1970=50, 1980=50, 1990=51

Number of railway passengers killed in accidents involving railways

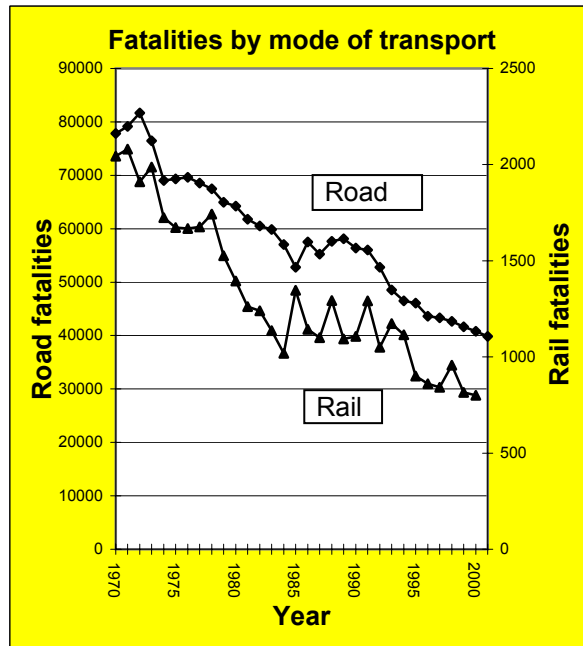
1970	3	7	151	1	17	54	-	41	-	10	26	19	5	6	41	381	100
1980	4	3	74	1	17	33	16	48	1	8	9	29	4	25	46	318	83
1990	-	1	50	-	4	30	1	9	-	2	6	22	-	3	37	165	43
1996	6	-	25	-	-	14	-	14	-	1	3	10	3	-	17	93	24
1997	1	-	28	2	20	22	1	16	-	-	1	14	1	2	26	134	35
1998	3	-	114	-	1	14	-	16	-	-	4	8	10	-	16	186	49
1999	3	2	28	1	-	12	-	21	-	1	8	8	1	-	37	122	32
2000	3	3	38	20	-	15	2	8	-	n.a.	4	2	2	n.a.	13	n.a.	
2001	10	0	13	4	-	11	2	9	-	-	3	6	2	-	10	70	18

Source : Union Internationale des Chemins de Fer, national statistics

D : includes D-E : 1970=5, 1980=5, 1990=5

3.6.4

Traffic Safety EU-15



Note : Road : change in time series from 1991

Mode of transport	Fatalities	billion pkm	Fatalities per billion pkm
	2001*	2001	
Road :			
Pedestrians	5 618	146	38.6
Bicycles	2 134	71	30.0
Powered two-wheelers	6 806	152	44.8
Buses and coaches	169	414	0.4
Passenger cars	22 473	3 779	5.9
Other	2 665	n.a.	n.a.
Railway passengers	70	308	0.2
Airline passengers	123	286	0.4

Source : International Road Traffic and Accident Database, United Nations, Energy and Transport DG

Note: Road fatalities include drivers and passengers of vehicles.

* for road 2001 except for B, EL, IT, L (2000 data)

3.6.5

Air and Sea Fatalities

Victims in aviation accidents

	Over EU territory by any operator	By EU operators anywhere
1970-79	277	242
1980-89	164	106
1990-95	43	77
1996	12	11
1997	71	1
1998	27	56
1999	50	70
2000	112	112
2001	123	123
2002	96	25

Source : Airclaims

Note: onboard fatalities only

Lives lost at sea

Throughout the world, by type of ship

Type of ship	1996	1997	1998	1999	2000	2001
Oil and oil products	10	21	7	7	11	26
Bulk dry cargo	50	82	111	3	20	65
General cargo	172	108	158	257	107	118
Passenger / general cargo	-	2	-	-	-	-
RoRo cargo	1	2	2	-	-	43
Passenger / RoRo cargo	342	-	150	-	90	-
Passenger	4	-	40	74	-	-
other	131	42	98	98	144	54
Total	710	257	566	439	372	306

Source : Lloyd's Register : World Casualty Statistics

**Part 4 :
ENVIRONMENTAL
ASPECTS**

CO₂ Emissions (World)

Million tonnes CO₂

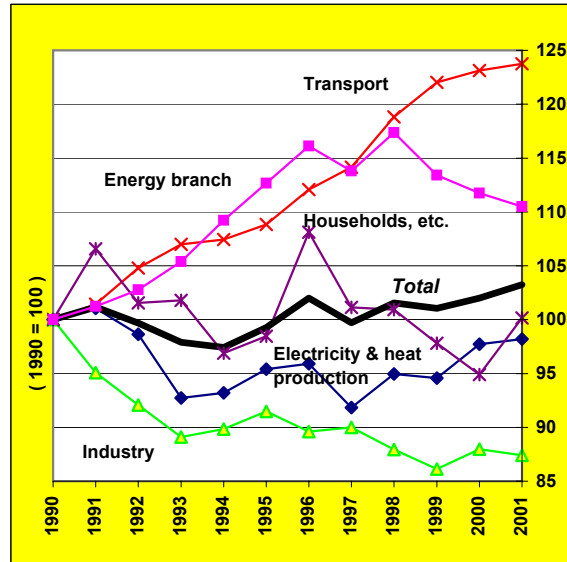
Emissions from fossil fuels	1990	1995	1999	2000	00/90 * increase	00/90 * % p.a	% of World	tons per person
World	20 720.7	21 809.4	22 844.7	23 422.3	+13.0%	+1.2%	100.0	3.9
EU-15	3 114.8	3 083.1	3 130.3	3 161.7	+1.5%	+0.1%	13.5	8.4
USA	4 825.7	5 108.7	5 488.0	5 665.4	+17.4%	+1.6%	24.2	20.6
Japan	1 018.7	1 099.9	1 127.7	1 154.8	+13.4%	+1.3%	4.9	9.1
Russia	n.a.	1 588.9	1 473.4	1 505.7	-5.2%	-1.1%	6.4	10.3
China	2 289.5	3 009.6	3 017.2	3 035.5	+32.6%	+2.9%	13.0	2.4
India	583.4	787.9	917.3	937.3	+60.7%	+4.9%	4.0	0.9

Source : Organisation for Economic Co-operation and Development, Eurostat

* : Russia: Growth rate 1995-2000

4.2

CO₂ emissions from fossil fuels in the European Union by sector



Million Tons CO₂ and Annual Change

Sectoral approach

	1990	% p.a. 95/90	1995	% p.a. 01/95	2001	% of total
Electricity & heat production	998.8	-0.9	952.8	+0.5	980.8	30.9%
Energy Branch	130.1	+2.4	146.6	-0.3	143.8	4.5%
Final energy consumption of which:	1946.1	+0.1	1952.6	+0.8	2049.9	64.6%
Industry	572.4	-1.8	523.6	-0.8	500.3	15.8%
Transport	735.7	+1.7	800.7	+2.2	910.5	28.7%
-Rail Transport (1)	8.9	-1.1	8.4	-3.0	7.0	0.2%
-Road Transport	625.0	+1.6	675.6	+2.0	762.3	24.0%
-Air Transport	82.2	+3.2	96.2	+4.6	126.0	4.0%
-Inland Navigation	19.6	+1.0	20.5	-5.0	15.1	0.5%
Households etc.	638.0	-0.3	628.3	+0.3	639.1	20.1%
-Households	421.9	-0.4	414.2	+0.9	437.0	13.8%
-Services	108.1	+2.7	123.8	+0.6	128.5	4.0%
-Other Sectors	108.0	-3.5	90.3	-3.4	73.5	2.3%
Total inland emissions	3075.0	-0.1	3052.0	+0.7	3174.5	100.0%

Source: Eurostat

Note: (1) without fossil fuel for electricity production

4.3

Emissions by Type of Pollutant

Pollutant		Total emissions EU-15	of which : transport	of which : road transport
		1000 tonnes	1000 tonnes	1000 tonnes
NOx	1990	13 284	8 121 61%	6 303 47%
	Nitrogen oxyde 1999	9 936	6 415 65%	4 607 46%
	Evolution 1990-99	-25%	-21%	-27%
CO	1990	50 104	34 192 68%	31 707 63%
	Carbon monoxyde 1999	34 065	21 941 64%	19 552 57%
	Evolution 1990-99	-32%	-36%	-38%
NM VOC	1990	15 173	6 461 43%	5 862 39%
	Volatile organic compounds 1999	10 872	4 003 37%	3 373 31%
	Evolution 1990-99	-28%	-38%	-42%
SO₂	1990	16 362	828 5%	535 3%
	Sulphur dioxide 1999	6 734	470 7%	177 3%
	Evolution 1990-99	-59%	-43%	-67%

Source : European Environment Agency

Emissions of greenhouse gases

2000	Total emissions	Emissions expressed in CO ₂ equivalents	of which, CO ₂ equivalents from transport
	mio tonnes	mio tonnes	mio tonnes
CO ₂ (carbon dioxide)	3127	3127	904
Methane (CH ₄)	16.3	342	3.23
N ₂ O (nitrous oxide)	1.1	338	23.70

Notes : other greenhouse gases (HFC, PFCs, SF₆) : 66 Mio tonnes CO₂ equivalents, of which a negligible part from transport.

Emissions from international aviation and maritime are not included, in compliance with the United Nations Framework Convention on Climate Change.

In CO₂ equivalents these amount to (mio tonnes) :

CO₂ (carbon dioxide)	232
Methane (CH₄)	0.24
N₂O (nitrous oxide)	1.42

Emissions of CO₂ are net and include removals due to land-use change and forestry.

4.4

Oil Spills at Sea

Number of oil spills, total amount spilt

Period	Number of spills		Quantity
	7-700 tonnes	over 700 tonnes	tonnes of oil
1970-1979) avge	53	24	313 000
1980-1989) per	35	9	108 000
1990-1999) year	27	7	110 000
2000	18	3	12 000
2001	16	3	8 000

Source : International Tanker Owners Pollution Federation Limited

Selected major oil spills

World outside Europe

Shipname	Year	Location	Oil lost (t)
Atlantic Empress	1979	off Tobago, West Indies	287 000
ABT Summer	1991	700 miles off Angola	260 000
Castillo de Bellver	1983	off Saldanha Bay, South Africa	252 000
Odyssey	1988	700 miles off Nova Scotia, Canada	132 000
Hawaiian Patriot	1977	300 miles off Honolulu	95 000
:	:	:	:
Exxon Valdez	1989	Prince William Sound, Alaska	37 000

Europe

Shipname	Year	Location	Oil lost (t)
Amoco Cadiz	1978	off Brittany, France	223 000
Haven	1991	Genoa, Italy	144 000
Torrey Canyon	1967	Scilly Isles, United Kingdom	119 000
Urquiola	1976	La Coruna, Spain	100 000
Independenta	1979	Bosphorus, Turkey	95 000
Jakob Maersk	1975	Oporto, Portugal	88 000
Braer	1993	Shetland Islands, United Kingdom	85 000
Prestige	2002	Cape Finistere, Spain	77 000*
Aegean Sea	1992	La Coruna, Spain	74 000
Sea Empress	1996	Milford Haven, United Kingdom	72 000
:	:	:	:
Erika	1999	Brittany, France	20 000

Source : International Tanker Owners Pollution Federation Limited

*: amount in the hold