

#### **TRANSPORT**

3/2006

Author Simo PASI

# Contents

Highlights	1
Total goods transport	2
National transport	3
International transport	4
Breakdown by group of goods	6

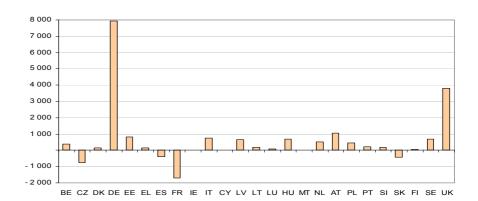


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# Rail goods transport between 2003 and 2004

# **Highlights**

- The total transport performance of rail freight was more than 379 billion tkm in the EU 25 in 2004.
- Between 2003 and 2004, the total volume of goods transported by railways at the level of the EU increased by 15 557 million tkm (4.3%); growth was particularly noticeable in Germany (+7 946 million tkm) and in the United Kingdom (+3 818 million tkm).
- Rail goods transport within the national territory of the EU Member States was as important as international transport and transit together.
- National transport increased by 6.5% at EU level between 2003 and 2004 and particularly in Germany, Italy, the Netherlands and Austria (around 10% for each Member State). Sharp increases were recorded in two new Member States: Latvia and Lithuania.
- At EU level, the growth of international goods transport by rail was less strong (+ 5.1%) between 2003 and 2004. However, particularly positive developments were registered in Germany (+ 3 851 million tkm) and Lithuania (+ 1 574 million tkm).
- Germany, the Netherlands and Sweden are the countries that registered the largest increases of goods transported to all the unloading countries between 2003 and 2004 (+ 4 819, + 1 659 and + 1 477 thousand tonnes of goods respectively).
- With regard to the individual relations, Sweden shipped the largest quantity of goods to Norway (6.4% of the total quantity of goods shipped to other countries by the EU Member States).
- 'Solid mineral fuels', 'Petroleum products' and 'Miscellaneous articles' were the groups of goods for which the highest increases in transport performance have been reported at EU-25 between 2003 and 2004.



Graph 1: The development of rail transport: change between 2003 and 2004 (in million tkm).

Source: Eurostat/NewCronos.

# **Total goods transport**

Since 2003, data on rail goods transport are collected according to Regulation 91/2003 from 23 EU countries and from Norway and Turkey, now including 8 of the 10 new Member States that joined the European Union in May 2004 (excluding Cyprus and Malta that have no The current publication presents comparison of the data available between 2003 and 2004, which have been collected according to both the detailed and the simplified reporting (see railway Methodological notes). In principle, all undertakings are covered. Rail statistics are broken down by national, international and transit transport.

In the EU, the goods transport by rail increased by 4.3% between 2003 and 2004. This corresponds to a volume of 15 557 million tkm. The highest increases of goods forwarded by rail were registered for Germany (+7 946 million tkm) and the United Kingdom (+3 818 million tkm). However, it should be noted that four countries reported decreases in the total volume of goods transported, namely France (-1 714 million tkm), the Czech Republic (-770 million tkm), Slovakia (-438 million tkm) and Spain (-378 million tkm) (see Table 1).

Table 1: Evolution of total goods transport by rail – change 2003 -2004 (in million tkm and in %).

	2003	20	04	Change 2004-	Cnange (%)		
		Detailed reporting	Simplified reporting	Detailed reporting		Detailed reporting	
Belgium	7 293	7 691	:с	398	:с	5.5	
Czech Republic	15 862	15 092	-	- 770	- 770	-4.9	
Denmark	1 985	2 148	22	163	:	8.2	
Germany	78 463	86 409	-	7 946	:	10.1	
Estonia	9 670	10 488	-	818	818	8.5	
Greece	456	592	-	136	136	29.8	
Spain	11 743	11 365	509	- 378	:	-3.2	
France	46 835	45 121	-	- 1 714	- 1 714	-3.7	
Ireland	398	399	-	1	1	0.3	
Italy	20 299	21 047	1 986	748	:	3.7	
Cyprus	-	-	-	-	-	-	
Latvia	17 955	18 618	-	663	663	3.7	
Lithuania	11 457	11 637	-	180	180	1.6	
Luxembourg	525	593	-	68	68	13.0	
Hungary	7 614	8 311	439	697	:	9.2	
Malta	-	-	-	-	-	-	
Netherlands	4 705	5 225	-	520	520	11.1	
Austria	16 866	17 928	829	1 062	:	6.3	
Poland	47 407	47 871	4 461	464	:	1.0	
Portugal	2 073	2 282	-	209	209	10.1	
Slovenia	3 279	3 466	-	187	187	5.7	
Slovakia	10 113	9 675	27	- 438		-4.3	
Finland	10 047	10 105	-	58	58	0.6	
Sweden	20 170	20 856	-	686	686	3.4	
United Kingdom	18 734	22 552	:	3 818	:	20.4	
EU-25	363 949	379 471	:	15 522	:	4.3	

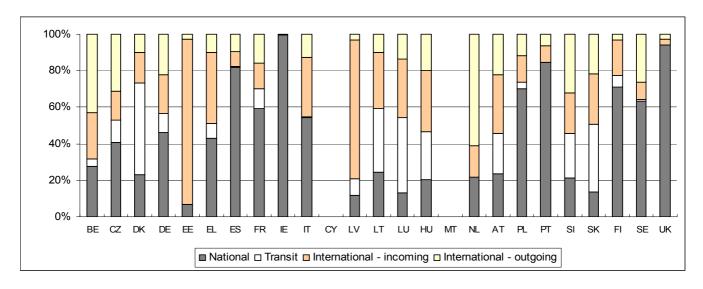
Source: Eurostat/NewCronos and the rail production database.

Graph 2 shows the breakdown of total goods transport in 2004, by national, international (both incoming and outgoing flows) and transit transport.

In 2004, half of the rail goods transport was performed within the national territory of the EU countries. Transit transport took only a limited share (less than 10% of the total transport). The dominance of national rail goods

transport is observed in nine countries, all except Poland being old Member States. The share of national transport ranged from 6.6% (Estonia) to 99.7% (Ireland). In smaller Member States and especially in the new Member States, international transport has a higher share. In 2004, its share accounted for 93.4% in Estonia and for more than 50% in Belgium, Latvia, Hungary, the Netherlands, Austria and Slovenia.





Graph 2: Share of national, international and transit transport in the total goods transport work, 2004 (in detailed reporting)

— in %.

Source: Eurostat/NewCronos.

# **National transport**

In the EU, the performance of national goods transport by rail increased by 6.5% between 2003 and 2004 (based on data declared by EU-25 countries except Ireland). Indeed, an additional 11 479 million tkm were transported compared to 2003. The main countries contributing to the EU increase were Germany (+3 713 million tkm), the United Kingdom (+2 986 million tkm), Lithuania (+1 489 million tkm), Latvia (+1 439 million

tkm) and Italy (+1 038 million tkm). Six countries reported decreases in the total volume of goods transported on their national territory: France (-1 215 million tkm), the Czech Republic (-409 million tkm), Spain (-388 million tkm), Slovakia (-236 million tkm), Estonia (-20 million tkm) and Luxembourg (-1 million tkm).

Table 2: : Evolution of national goods transport by rail - change 2003-2004 (in million tkm and in %).

	2003	20	04	Change 2004-	Change (%)	
		Detailed reporting	Simplified reporting	Detailed reporting	Total	Detailed reporting
Belgium	1 970	2 113	:c	143	:c	7.3
Czech Republic	6 531	6 122	-	- 409	- 409	-6.3
Denmark	344	498	22	154	:	44.8
Germany	36 219	39 932	-	3 713	:	10.3
Estonia	710	690	-	- 20	- 20	-2.8
Greece	194	255	-	61	61	31.4
Spain	9 675	9 287	509	- 388	:	-4.0
France	27 873	26 658	-	- 1 215	- 1 215	-4.4
Ireland	:c	398	-	:	:	:
Italy	10 437	11 475	815	1 038	:	9.9
Cyprus	-	-	-	-	-	-
Latvia	782	2 221	-	1 439	1 439	184.0
Lithuania	1 331	2 820	-	1 489	1 489	111.9
Luxembourg	80	79	-	- 1	- 1	-1.3
Hungary	1 574	1 700	25	126	:	8.0
Malta	-	-	-	-	-	-
Netherlands	1 034	1 145	-	111	111	10.7
Austria*	3 802	4 206	519	404	:	10.6
Poland	32 907	33 534	4 405	627	:	1.9
Portugal	1 773	1 931	-	158	158	8.9
Slovenia	677	741	-	64	64	9.5
Slovakia	1 557	1 321	18	- 236	:	-15.2
Finland	6 760	7 197	-	437	437	6.5
Sweden	12 856	13 190	-	334	334	2.6
United Kingdom	18 253	21 239	:	2 986	:	16.4
EU-25	:	188 752	:		:	:

<sup>\*</sup> Figures declared for small undertakings include 'unknown' type of transport.

Source: Eurostat/NewCronos and rail production database.



# International transport

In the EU in 2004, the international goods transport by rail increased by 5.1% compared to 2003, corresponding to 7 424 million tkm (excluding Ireland). Germany and Lithuania contributed considerably to this increase with +3 851 million tkm and +1 574 million tkm respectively. An important increase was also registered

for the United Kingdom (+832 million tkm). Three countries reported important decreases in the total volume of goods transported in international traffic: Latvia (-1 184 million tkm), Finland (-521 million tkm), the Czech Republic (-340 million tkm).

Table 3: Evolution of international goods transport by rail – change 2003-2004 (in million thm and in %).

	2003	200	04	Change 2004-	Change (%)		
		Detailed reporting	Simplified reporting	Detailed reporting	` ı otaı	Detailed reporting	
Belgium	5 118	5 262	:c	144	:c	2.8	
Czech Republic	7 423	7 083	-	- 340	- 340	-4.6	
Denmark	608	575	-	- 33	:	-5.4	
Germany	33 780	37 631	-	3 851	:	11.4	
Estonia	8 960	9 797	-	837	837	9.3	
Greece	262	290	-	28	28	10.7	
Spain	2 016	2 006	:	- 10	:	-0.5	
France	13 277	13 376	-	99	99	0.7	
Ireland	:c	1	-	:c	:c	:c	
Italy	9 858	9 569	1 171	- 289	:	-2.9	
Cyprus	-	=	-	-	-	-	
Latvia	15 940	14 756	-	- 1 184	- 1 184	-7.4	
Lithuania	3 168	4 742	-	1 574	1 574	49.7	
Luxembourg	235	271	-	36	36	15.3	
Hungary	4 312	4 437	175	125	:	2.9	
Malta	-	=	-	-	-	-	
Netherlands	3 671	4 080	-	409	409	11.1	
Austria	9 343	9 744	3	401	:	4.3	
Poland	12 239	12 531	55	292	:	2.4	
Portugal	299	351	-	52	52	17.4	
Slovenia	1 887	1 882	-	- 5	- 5	-0.3	
Slovakia	5 002	4 770	9	- 232	:	-4.6	
Finland	2 825	2 304	-	- 521	- 521	-18.4	
Sweden	7 063	7 468	-	405	405	5.7	
United Kingdom	481	1 313	:	832	:	173.0	
EU-25	<i>:</i>	154 239	:	:	:	:	

Source: Eurostat/NewCronos and rail production database.

Table 4: : TOP-20 list of the most important international relations in rail goods transport (tonnes) – as a percentage of all relations, in 2004.

	Loading	Unloading	1000 t	in %
1	Sweden	Norway	15 526	6.4
2	Netherlands	Germany	13 345	5.5
3	Germany	Italy	10 835	4.4
4	Poland	Germany	9 426	3.9
5	Germany	Austria	8 478	3.5
6	Austria	Germany	6 484	2.7
7	France	Italy	5 870	2.4
8	Italy	Germany	5 604	2.3
9	Belgium	France	5 598	2.3
10	Czech Rep.	Austria	5 219	2.1
11	France	Belgium	5 148	2.1
12	Slovakia	Czech Rep.	5074	2.1
13	Germany	France	4 731	1.9
14	Czech Rep.	Germany	4 453	1.8
15	Poland	Czech Rep.	4272	1.8
16	Germany	Switzerland	4267	1.8
17	Austria	Italy	4 117	1.7
18	Czech Rep.	Slovakia	3 980	1.6
19	Belgium	Germany	3 948	1.6
20	Poland	Austria	3 581	1.5

Source: Eurostat/NewCronos.

As regards international transport, it is interesting to identify the main countries exchanging goods by rail. Table 4 provides indications on the 20 most important relations in terms of quantity of goods exchanged in 2004. The declaring country is always the loading country. It appears that 53.4% of the total international transport by rail from EU countries was carried out on these 20 relations alone. Sweden shipped the largest quantity of goods to Norway by rail, accounting for 6.4% of the total volume of goods lifted in international rail transport of the EU Member States. Shipments by rail from the Netherlands to Germany achieved the second position.

Table 5 shows, by country of unloading, the evolution of international transport from 2003 to 2004, expressed in thousand tonnes. Germany, the Netherlands and Sweden are the European countries for which the largest increases of goods transported to all the unloading countries were registered between 2003 and 2004 (+4 819, +1 659 and +1 477 thousand tonnes of goods, respectively). The main increases recorded in Germany for this period concerned Austria (+1 547 thousand tonnes), Switzerland (+1 058 thousand tonnes) and the Netherlands (+896 thousand tonnes). For the Netherlands, the sharpest increase was registered in shipments to Germany (+2 022 thousand tonnes). The Czech Republic, Lithuania and Poland are the countries for which the largest decreases were recorded between 2003 and 2004 (-2 236, -2 051, and -1 513 thousand tonnes of goods, respectively).

Table 5: Evolution of goods transport, by country of unloading - change 2003-2004 (in 1000 tonnes).

Loading		Unloading country														
country	BE	CZ	DK	DE	EE	GR	ES	FR	ΙE	IT	CY	LV	LT	LU	HU	МТ
BE		- 10	10	541				696		- 211	-			- 78	- 9	-
CZ	- 17		1	- 939		11	10	4	3	40	-		- 3	3	- 66	-
DK		1		55		1		- 12		- 20	-					-
DE	649	- 638	185			14	- 122	688		450	-		13	85	- 21	-
EE											-	70	54		- 2	_
GR	:	:	:	: "	:		:	:	:	:	-	:	:	:	:	-
ES	154	- 5	- 2	145				199		4	_			- 32	1	_
FR	- 8	- 24	- 5	47			82			91	_			- 212	- 4	_
IE	:	:	:	:	:	:		:		:	:			:	:	_
İΤ	- 27	13	- 3	411	•	9	26	22			-	-	-	20	54	_
CY	-	_	-	-	-	-	_	-		-		-	-	_	-	-
LV					165						-		249			-
LT		10	- 17	- 19	178			- 12		- 2	-	193			5	-
LU	:	:	:	:	:	:	:	:	:	:	-	: -	:		:	-
HU	- 12	115	2	- 78	25	- 37	- 1	- 1		- 59	-	- 4	25	57		-
MT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
NL	- 20	55	- 3	2 022			- 2	34		- 360	-			- 23	84	-
AT	92	16	- 2	61		5	- 3			27	-	4	4	- 2	- 224	-
PL	8	18	- 9	- 202	- 11			65		81	-	- 8	- 61	29	- 73	-
PT							55				-					-
SI	- 1	16	1	68	•	11	_	18		24	-	40			58	-
SK	- 21	251	1	136	- 2	- 1	- 5	- 43		- 216	-	13	4		- 221	-
FI	50	2	- 11	3	- 3		- 1	- 2		- 2	-	1	- 2		_	-
SE UK	52 :c	7 :c	- 42 :c	- 28 :c	:c	:с	:c	- 62 :c	:c	- 17 :c	-	:c	:с	:c	- 6 :c	_
TR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	-	.0	.0	.0	.c - 6	-
NO			- 2	- 131			- 1	- 4		1	-			- 9	- 0	-

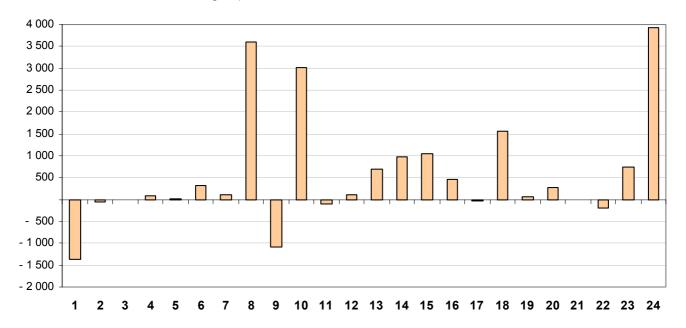
Loading								Unic	ading	country	,						
country	NL	AT	PL	PT	SI	SK	FI	SE	UK	BG	HR	RO	TR	СН	NO	other	Total
BE	- 159	- 799	24	- 1	- 11	- 5		39	- 110			5		- 83		784	623
CZ	- 11	- 735	91	4	- 340	- 485	4	- 6	8	10	- 58	51	19	- 8	1	172	- 2 236
DK	- 3	- 6	- 1		1			- 99			- 7			10	- 11		- 91
DE	896	1 547	263	- 2	8	- 71	2	105	50	13	24	- 1	33	1 058	- 65	- 344	4 819
EE							- 2									- 177	- 58
GR	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
ES	- 8	19	- 6	54		- 141			- 28		- 1			5		- 35	323
FR	96	246	- 6	- 1	15	- 3		- 19	- 22			1		- 89	- 3	- 339	- 157
IE	:	:	:	:	:	:		:	:	:	:	:	:	:	:	:	:
IT	- 348	- 560	32		- 104	- 31	- 1	- 2	- 55	15	18	44		- 152	- 9	10	- 618
CY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LV			259									_		_		- 1 738	- 1 065
LT	- 3		61			2		- 1				4		- 5	- 164	- 2 281	- 2 051
LU	:	117	23	:	242	: - 22	-	:	:	- 30	- 58	221	: - 175	: - 2	:	252	570
HU MT		- 147	23		242	- 22		- 1		- 30	- 58	- 221	- 1/5	- 2		253	- 106
NL	-	- 87	22	-	2	69	-	- 3	- 30	1	1	5	_	- 103	- 2	- 3	1 659
AT	- 17	- 01	45		- 24	- 113		27	- 5	- 5	17	93	- 12	92	- 5	42	113
PL	25	58			63	554		28	ŭ	ŭ	75	80		- 1	- 6	- 2 226	- 1 513
PT														3		- 1	57
SI	1	172	21			7		- 2		9	32		12	1		- 53	395
SK	1	- 31	- 115		- 239			3		- 9	19	72		- 10	- 2	111	- 304
FI	- 1	- 7						115		1				- 1	- 11	149	230
SE	- 7	35	18		2	- 3	44							- 3	1 482	- 1	1 477
UK	:c	:c	:C	:C	:c	:C	:c	:C		:c	:C	:c	:c	:C	:c	:C	:C
TR	•	2				4.4	4 404	000	- 77		- 49			- 4		- 400	- 692
NO	- 2					- 44	- 1 131	890						- 120		- 1	- 554

Source: Eurostat/NewCronos.

# Breakdown by group of goods

The evolution of rail goods transport is strongly related to the type of goods forwarded. Graph 3 shows the evolution of total goods transport in EU-25 between 2003 and 2004 according to the category of goods (NST/R nomenclature – Standard Goods Nomenclature for Transport Statistics / Revised). The groups 8 'Solid mineral fuels', 10 'Petroleum products' and 24 'Miscellaneous articles', are the groups for which the

highest increases in absolute terms have been reported at EU-25 level (without, however, Greece, Latvia, Poland and Luxembourg). The increases amounted to 3 464, 3 010 and 3 902 million tkm respectively. The most noticeable decreases were registered for groups 1 'Cereals' (-1 370 million tkm) and 9 'Crude petroleum' (-1 082 million tkm).



Graph 3: Evolution of goods transport by group of goods (NST/R) in EU25 – change 2003-2004 in million tkm.

Note: Greece, Latvia, Poland and Luxembourg: data not available.

Source: Eurostat/NewCronos.

#### Breakdown by goods groups

Data collected under the Regulation No 91/2003, are broken down by group of goods according to the NST/R nomenclature. The NST/R classification (Standard Goods Nomenclature for Transport Statistics / Revised) consists of 176 headings. The goods are classified as far as possible on the basis of their nature, processing stage, methods of transport and quantities transported.

- 1: Cereals
- 2: Potatoes, other fresh or frozen fruits and vegetables
- 3: Live animals, sugar beet
- 4: Wood and cork
- 5: Textiles, textile articles and man-made fibres, other raw animal and vegetable materials
- 6: Foodstuff and animal fodder
- 7: Oil seeds and oleaginous fruits and fats
- 8: Solid mineral fuels
- 9: Crude petroleum

- 10: Petroleum products
- Iron ore, iron and steel waste and blast furnace dust
- 12: Non-ferrous ores and waste
- 13: Metal products
- 14: Cement, lime, manufactured building materials
- 15: Crude and manufactured minerals
- 16: Natural and chemical fertilisers
- 17: Coal chemicals, tar
- 18: Chemicals other than coal chemicals and tar
- 19: Paper pulp and waste paper
- 20: Transport equipment, machinery, apparatus, engines, whether or not assembled, and parts thereof
- 21: Manufactures of metal
- 22: Glass, glassware, ceramic products
- 23: Leather, textile, clothing, other manufactured articles
- 24: Miscellaneous articles



#### ESSENTIAL INFORMATION – METHODOLOGICAL NOTES

#### Data availability

The figures presented in this publication have been extracted from the Eurostat rail transport database. It includes the statistics of the national, international and transit transport of the Member States, collected according to the new Regulation n°91/2003 that replaced the Council Directive 80/1177/EEC since 2003.

The 2003-2004 data comparison was possible at total transport level for all the Member States. The following table presents the different characteristics of data availability encountered:

#### Country Characteristics of data availability

CY No railways transport No railways transport MT

ΙE 2003 data on national and international transport are

confidential

UK 2004 data on international transport by country of unloading are confidential

#### Methodology

Tables 1 to 3 present data collected under the detailed and simplified reporting. Simplified reporting is an alternative to the normal detailed reporting for undertakings for which the total volume of goods is less than 500 million tkm.

The data used in graphs 1, 2 and 3 and in tables 4 and 5 only correspond to the detailed data reporting.

#### **Definitions of various kinds of rail transport**

#### **Total rail transport**

Total rail transport (in tkm) (in graph 1 and table 1) was calculated as a sum of national, international and transit transport, where international transport is the sum of international loaded and unloaded in the reporting country.

#### National rail transport

Rail transport where the goods are both loaded and unloaded within the same reporting Member State, irrespective of the route followed by the railway vehicle.

#### International rail transport

Rail transport where the goods are either loaded or unloaded, but not both, in the reporting Member State, distinguishing between goods loaded and goods unloaded.

#### Rail transit

Rail transport where the goods pass through the reporting Member State without being loaded, unloaded or transhipped.

#### Tonne-kilometre by rail

Unit of measure of goods transport which represents the transport of one tonne of goods by rail over a distance of one kilometre.

#### Symbols:

not available

not applicable

0 actual zero or very negligible transport

confidential .c

estimated data :e

This publication was prepared with the assistance of Mrs Isabelle DELIN.



# Further information:

# Reference publications

Title Everything on transport statistics - Data 1970-2002 (DVD)

Catalogue No KS-DX-04-001-3A-Z

Price EUR 20

#### **Databases**

<u>EUROSTAT Website/Transport/Railway transport/Transport measurement - goods (detailed data from EC Directive and Regulation from 1982 onwards)</u>/ Goods transported, by type of transport

<u>EUROSTAT Website/Transport/Railway transport/Transport measurement - goods (detailed data from EC Directive and Regulation from 1982 onwards)/Goods transported, by group of goods</u>

<u>EUROSTAT Website/Transport/Railway transport/Transport measurement - goods (detailed data from EC Directive and Regulation from 1982 onwards)/International annual transport by link with loading country and by group of goods</u>

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