Railway freight transport statistics

This article focuses on recent rail freight transport statistics in the European Union (EU) . The total performance in the EU-28 can be estimated at around 416 billion tonne-kilometres in 2017.

Positive trend of the EU-28 transport performance since 2013

The evolution of the EU-28 rail freight transport performance between 2006 and 2017 is presented in Figure 1. The EU-28 rail freight transport peaked at 438 billion tonne-kilometres in 2007 after an increase of 4.4 % compared with 2006. A sharp decrease was observed between 2008 and 2009 (-17.4 %), down to 353 billion tonne-kilometres, as result of the economic crisis. A recovery immediately followed with steady increases in 2010 and 2011 (+8.0 % and +7.3 %). After a decline in 2012 (-3.8 %), rail freight transport performance rebounded in 2013 (+1.3 %) and remained relatively stable between 2014 and 2016 (+0.4 %). Eventually, a noticeable increase of rail freight transport performance has been registered in 2017 (+3.2 %), reaching a post economic crisis peak at 416 million tonne-kilometres.
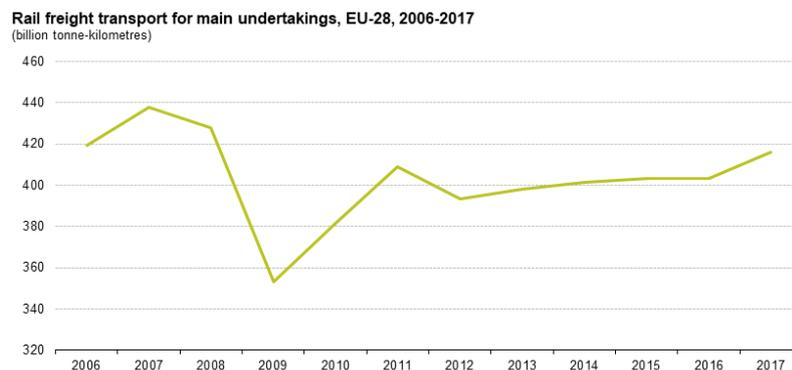
Rail freight transport for main undertakings, EU-28, 2006-2017
(billion tonne-kilometres)

Note: Data for Belgium have been estimated for period 2013-2017. Data for Croatia have been estimated in 2016. Quarterly data have been used for Belgium in 2012 and for Luxembourg for the period 2008-2011.
Source: Eurostat (online data codes: rail_go_typepas and rail_go_quartal)

eurostat

Figure 1: Rail freight transport for main undertakings, EU-28, 2006-2017 (billion tonne-kilometres) Source: Eurostat (rail_go_typepas) and (rail_go_quartal)

The evolution of the EU-28 rail freight transport performance at quarterly level is presented in Figure 2. At quarterly level, the movements were more erratic. No seasonal pattern can be identified according to the trend observed.Post economic crisis, a peak of activity was reached in the 2nd quarter of 2011 with 104 billion

tonne-kilometres. Since this period, the transport performance never went below 93 billion tonnes (lowest point reached in 1st quarter 2013). Focusing on 2017, transport performance substantially increased in all quarters compared to the same quarters of previous year (+7.1 % in the 1st quarter, +3.1 % in the 2nd quarter, +3.6 % in the 3rd quarter, +1.1 % in the 4th quarter).
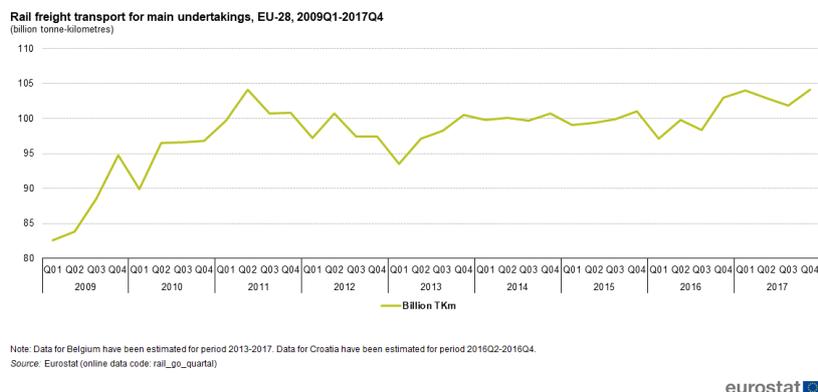

Rail freight transport for main undertakings, EU-28, 2009Q1-2017Q4
(billion tonne-kilometres)

Note: Data for Belgium have been estimated for period 2013-2017. Data for Croatia have been estimated for period 2016Q2-2016Q4.
Source: Eurostat (online data code: rail_go_quartal)

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Figure 2: Rail freight transport for main undertakings, EU-28, 2009Q1-2017Q4 (billion tonne-kilometres)Source: Eurostat (rail_go_quartal)

Year-to-year development differs significantly at national level

The change in transport performance between 2016 and 2017 is presented for each reporting country in Figure 3. A growth in transport performance between 2016 and 2017 was registered for seventeen EU Member States , the EFTA country Norway, and the candidate countries Montenegro, the former Yugoslav Republic of Macedonia and Turkey. In absolute terms, Germany recorded the largest decrease between 2016 and 2017 (-3.9 billion tonne-kilometres), followed by Latvia (- 0.9 billion tonne-kilometres) and Italy (-0.3 billion tonne-kilometres). In contrast, four countries reported absolute increases of more than 1 billion tonne-kilometres over the same period, namely Poland (+6.2 billion tonne-kilometres), Hungary (+2.8 billion tonne-kilometres), Lithuania (+1.6 billion tonne-kilometres) and Romania (+1.5 billion tonne-kilometres).

Rail transport for main undertakings: change between 2016 and 2017
(million tonne-kilometres)

Note: Cyprus and Malta have no railways. Data are confidential for Belgium (2016 and 2017) and Croatia (2016). Quarterly data have been used for Montenegro in 2016.
Source: Eurostat (online data codes: rail_go_typepas and rail_go_quartal)
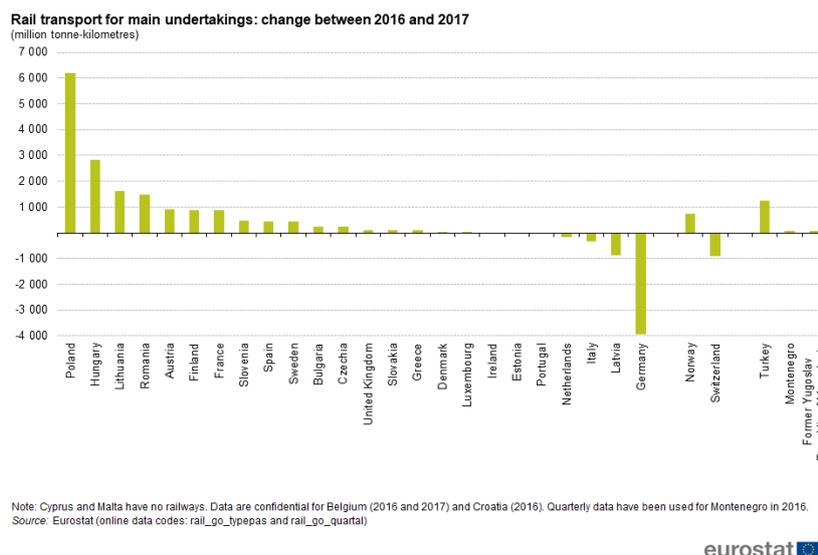
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Figure 3: Rail transport for main undertakings_change between 2016 and 2017 (million tonne-kilometres) Source: Eurostat (rail_go_typepas) and (rail_go_quartal)

The change in tonnes of freight transported between 2016 and 2017 is presented for each reporting country in Figure 4. The picture is slightly different compared with transport performance in tonne-kilometres. Indeed,

sixteen EU Member States, along with Norway, Montenegro, the former Yugoslav Republic of Macedonia and Turkey, registered an increase between 2016 and 2017, while a drop was observed for eight EU Member States and Switzerland.In absolute terms, Germany recorded the largest decrease between 2016 and 2017 (-15.0 billion tonnes), followed by Latvia (-4.0 billion tonnes) and the United Kingdom (-2.2 billion tonnes). In contrast, Poland reported an increase of 33.4 million tonnes and three countries reported absolute increases of more than 4 billion tonnes over the same period, namely Romania (+8.2 billion tonnes), Lithuania (+5.0 billion tonnes) and Austria (+4.7 billion tonnes).
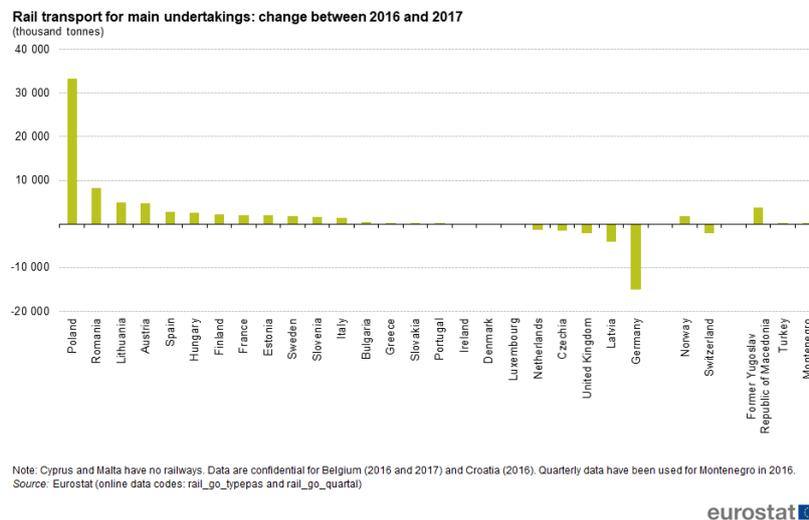

Rail transport for main undertakings: change between 2016 and 2017
(thousand tonnes)

Note: Cyprus and Malta have no railways. Data are confidential for Belgium (2016 and 2017) and Croatia (2016). Quarterly data have been used for Montenegro in 2016.
Source: Eurostat (online data codes: rail_go_typepas and rail_go_quartal)

eurostat

Figure 3: Rail transport for main undertakings _ change between 2016 and 2017 (thousand tonnes) Source: Eurostat (rail_go_typepas) and (rail_go_quartal)

In percentage, the highest increase between 2016 and 2017 in total rail freight transport performance among the EU Member States was recorded by Greece (+41.1 %), followed by Hungary (+26.9 %), Poland (+13.1 %) and Romania and Slovenia (both +12.2 %). Substantial growths were also observed for Montenegro (+50.2 %), the former Yugoslav Republic of Macedonia (+24.6 %), Norway (+22.0 %) and Turkey (+11.0 %). At the other end of the scale, the largest decrease between 2016 and 2017 was registered in Latvia (-5.4 %) followed by Germany (-3.4 %), with a large decrease also observed in Switzerland (-7.8 %)

Geographical location plays a key role in the share of international transport

Rail freight transport performance by type of transport (national, international loadings/unloadings and transit) in total tonne-kilometres performed is shown in Figure 5 and Table 1. The share of international transport in the various countries is strongly linked to their geographical position within Europe. For the EU-28 as a whole, the share of international loadings could be estimated at almost 16 % in 2017, international unloadings at 22 %, transit at 12 % and national at 50 %.

The Member States registering the highest share of international transport are located in key corridors within the European market. In the Baltic States of Latvia and Estonia, situated at the border between the EU and Russia, international unloadings accounted for 86 % and 62 % of the total transport performance in 2017, respectively. The Netherlands, strategically situated in the heart of the European market, registered a share of international loadings of 61 % in total tonne-kilometres performed. The key import port of Rotterdam, with large sea/rail transfers of goods dispatched within the European Union, strongly influence these figures. By contrast, countries with specific geographical characteristics (at the periphery of the European Union or islands) recorded a low share of international transport by rail. Small shares are observed for the United Kingdom (3 %) and Denmark (11 %). For such countries, the preferred mode for international freight transport remains maritime transport, goods being delivered at the nearest port to the point of their destination and then being forwarded in the country mainly by road, but also by rail (accounted as national transport). Turkey also recorded a low percentage (3 %) which may also be linked to its peripheral position.

Rail freight transport by type of transport for main undertakings, 2017
(% on total tonne-kilometres)

Note: Cyprus and Malta have no railways.
Source: Eurostat (online data code: rail_go_typepas)

Figure 5: Rail freight transport by type of transport for main undertakings, 2017 (% on total tonne-kilometres)Source: Eurostat (rail_go_typepas)

Regarding transit transport, Denmark registered the highest share in 2017, with 83 %, followed by Switzerland (63 %) and the former Yugoslav Republic of Macedonia (62 %). In contrast, six EU Member States and Norway did not report any transit transport.

When looking at national transport, the highest shares were observed in 2017 for the United Kingdom (97 %), Spain (81 %), Portugal (79 %) , Romania (73 %), Bulgaria (72 %) and Poland (70 %). In contrast, national transport represented only 1 % in the former Yugoslav Republic of Macedonia, 3 % in Latvia, 6 % in Denmark, 7 % in the Netherlands and 9 % in Luxembourg.

The largest increases in national transport performance among the EU member States were observed for Hungary (+26.1 %), Estonia (+17.1 %), Greece (+16.9 %), Poland (+13.0 %) and Bulgaria (+12.2 %). Substantial growth was also registered in Montenegro (+96.1 %), Norway (+23.2 %) and Turkey (+11.7 %). On the contrary, substantial decreases were registered in Luxembourg (-13.7 %), Denmark (-12.0 %) and the former Yugoslav Republic of Macedonia (-11,3%).

For total international transport performance the highest increase was for Greece (+46.8 %) followed by Norway (+19.3 %), Bulgaria (+15.9 %) , Finland (+14.9 %) and Romania (+14.1 %). In contrast, Denmark registered the largest decrease (-10.8 %), followed by Latvia (-9.9 %) and Turkey (-8.8 %).

Regarding transit transport, the highest rise was observed for Latvia (+111.6 %) and Romania (+105.3 %) while the largest decrease was registered by Spain (no transit reported in 2017), followed by Bulgaria (-35.7 %).

Rail freight transport by type of transport for main undertakings, 2016-2017
(million tonne-kilometres)

	2016						2017						Growth rates 2016-2017 (%)					
	National	International			Transit	Total	National	International			Transit	Total	National	International			Transit	Total
		Loadings	Unloadings	Total				Loadings	Unloadings	Total				Loadings	Unloadings	Total		
EU-28	:c	:c	:c	:c	:c	:c	:c	:c	:c	:c	:c	:c	:c	:c	:c	:c	:c	:c
Belgium	:c	:c	:c	:c	:c	:c	:c	:c	:c	:c	:c	:c	:c	:c	:c	:c	:c	:c
Bulgaria	2 013	364	215	579	312	2 903	2 259	439	232	671	200	3 130	12.2	20.7	7.7	15.9	-35.7	7.8
Czechia	5 325	4 061	3 911	7 972	2 321	15 619	5 499	4 127	3 667	7 794	2 550	15 843	3.3	1.6	-6.2	-2.2	9.9	1.4
Denmark	185	94	231	325	2 106	2 616	163	82	208	290	2 201	2 653	-12.0	-12.9	-10.0	-10.8	4.5	1.4
Germany	57 227	21 968	22 885	44 853	14 085	116 164	56 072	20 860	22 096	42 956	13 203	112 232	-2.0	-5.0	-3.4	-4.2	-6.3	-3.4
Estonia	575	182	1 583	1 765	0	2 340	674	198	1 453	1 651	0	2 325	17.1	9.1	-8.2	-6.4	-	-0.6
Ireland	44	58	0	58	0	101	41	59	0	59	0	100	-5.7	2.5	-	2.5	-	-1.1
Greece	50	90	114	204	0	254	58	124	175	299	0	358	16.9	38.1	53.6	46.8	-	41.1
Spain	7 921	1 030	857	1 887	0	9 808	8 337	1 059	853	1 912	0	10 248	5.2	2.8	-0.5	1.3	-100.0	4.5
France	20 484	4 691	4 049	8 740	3 345	32 569	20 605	5 049	4 115	9 164	3 672	33 442	0.6	7.6	1.6	4.8	9.8	2.7
Croatia	:c	:c	:c	:c	:c	:c	934	604	290	894	681	2 509	:c	:c	:c	:c	:c	:c
Italy	11 102	4 276	7 015	11 291	0	22 394	10 272	4 372	7 420	11 792	0	22 064	-7.5	2.2	5.8	4.4	-	-1.5
Cyprus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Latvia	391	687	14 255	14 942	540	15 873	406	555	12 912	13 466	1 142	15 014	3.7	-19.3	-9.4	-9.9	111.6	-5.4
Lithuania	3 643	976	7 018	7 995	2 152	13 790	3 772	1 235	7 586	8 821	2 821	15 414	3.5	26.5	8.1	10.3		11.8
Luxembourg	22	65	94	160	20	201	19	65	107	171	23	213	-13.7	-1.3	13.3	7.3	15.5	5.9
Hungary	1 579	2 596	2 701	5 297	3 652	10 528	1 989	2 815	3 052	5 867	5 499	13 356	26.1	8.4	13.0	10.8	50.6	26.9
Malta	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Netherlands	421	4 397	1 468	5 865	356	6 641	423	3 967	1 508	5 475	569	6 467	0.6	-9.8	2.7	-6.7	59.9	-2.6
Austria	4 439	4 070	6 034	10 104	6 818	21 361	4 584	4 170	6 131	10 301	7 372	22 256	3.3	2.5	1.6	1.9	8.1	4.2
Poland	33 145	5 253	7 298	12 550	1 647	47 342	37 456	5 940	8 062	14 002	2 096	53 554	13.0	13.1	10.5	11.6	27.2	13.1
Portugal	2 218	142	404	546	9	2 774	2 185	139	419	557	9	2 751	-1.5	-2.3	3.6	2.0	-6.8	-0.8
Romania	9 242	1 212	1 541	2 752	291	12 285	10 045	1 330	1 810	3 140	598	13 782	8.7	9.7	17.5	14.1	105.3	12.2
Slovenia	577	1 694	1 026	2 720	665	3 963	629	1 919	1 028	2 947	871	4 447	9.0	13.3	0.2	8.3	31.0	12.2
Slovakia	1 082	1 736	2 320	4 056	3 232	8 370	982	1 792	2 563	4 355	3 140	8 477	-9.2	3.2	10.5	7.4	-2.8	1.3
Finland	6 091	77	3 278	3 355	0	9 445	6 464	70	3 784	3 854	0	10 319	6.1	-8.2	15.4	14.9	-	9.2
Sweden	13 044	5 698	1 714	7 412	950	21 406	13 195	5 663	1 709	7 372	1 272	21 638	1.2	-0.6	-0.3	-0.5	33.9	2.0
United Kingdom	16 624	215	214	429	0	17 053	16 706	245	217	461	0	17 167	0.5	13.7	1.4	7.6	-	0.7
Norway	2 236	146	930	1 076	0	3 312	2 756	335	949	1 284	0	4 040	23.2	129.0	2.1	19.3	-	22.0
Switzerland	2 903	323	898	1 221	7 526	11 650	2 740	352	899	1 251	6 754	10 745	-5.6	9.0	0.1	2.4	-10.3	-7.8
Montenegro	49	5	56	61	3	112	95	6	56	62	12	169	96.1	24.9	-1.2	0.8	-	50.2
Former Yugoslav Republic of Macedonia	3	17	79	96	124	222	2	21	82	103	172	277	-11.3	21.9	4.2	7.4	38.7	24.6
Turkey	10 971	243	202	445	8	11 424	12 259	224	182	406	11	12 676	11.7	-7.8	-10.1	-8.8	26.9	11.0

Note: Cyprus and Malta have no railways. ':' not available. '-' not applicable. 'c' confidential.
Source: Eurostat (online data code: rail_go_typepas)

Table 1: Rail freight transport by type of transport for main undertakings, 2016-2017(million tonne-kilometres)Source: Eurostat (rail_go_typeall), (rail_go_typepas)

Rail freight transport by type of transport (national, international loadings/unloadings and transit) in tonnes are shown in Figure 6 and Table 2. The picture for tonnes is quite similar to tonne-kilometres. In 2017, 99 % of goods in tonnes concerned national transport in the United Kingdom but only 4 % in Latvia. The Netherlands registered a share of 61 % of international loadings. By contrast, Finland has only 1 % of international loadings in 2017. The registered shares of international unloadings in 2017 are highest in Latvia (84 %), among all countries, while Ireland does not have international unloadings. In 2017, transit represented 74 % of goods transported by rail transport in Denmark.

Rail freight transport by type of transport for main undertakings, 2017
(% on total tonnes)
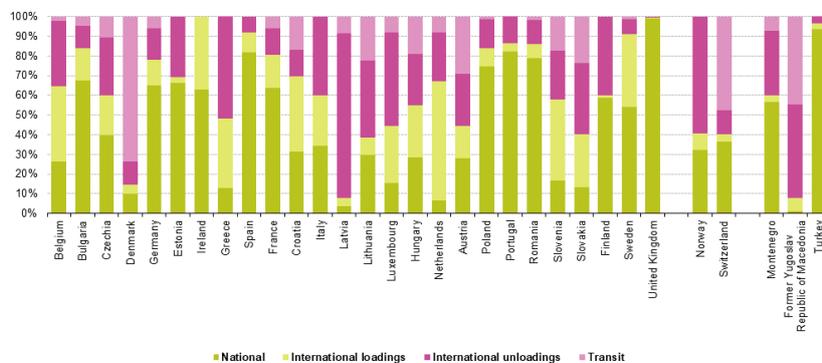
Note: Cyprus and Malta have no railways.
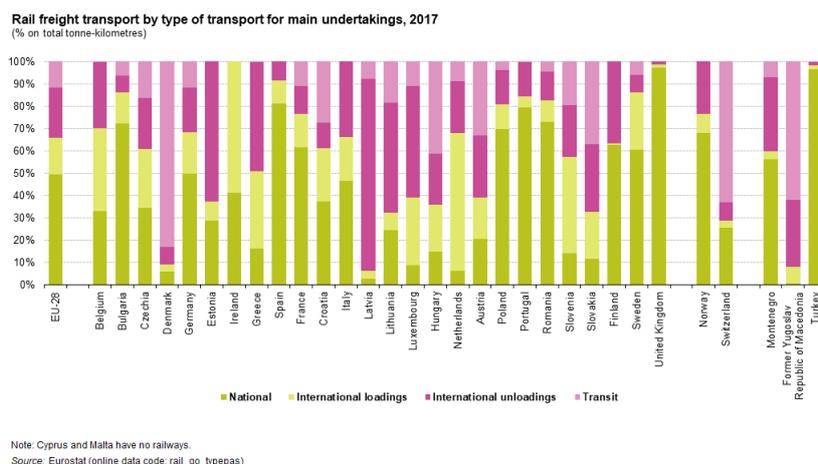Source: Eurostat (online data code: rail_go_typepas)

Figure 6: Rail freight transport by type of transport for main undertakings, 2017 (% on total tonnes)Source: Eurostat (rail_go_typepas)

At national level, the biggest increase between 2016 and 2017 was registered in Greece (+39.2 %). In contrast, the highest decrease was observed in Luxembourg (-30.7 %). When looking at international transport, Romania registered the highest increase (+24.3 %), followed by Poland (+23.1 %), while Latvia (+-13.5 %) observed the largest decrease, along with Montenegro (-22.8 %).,

|	2016						2017						Growth rates 2016-2017 (%)					
	National	International		Total	Transit	Total	National	International		Total	Transit	Total	National	International		Total	Transit	Total
		Loadings	Unloadings					Loadings	Unloadings					Loadings	Unloadings			
EU-28	:c	:c	:c	:c	:c	:c	:c	:c	:c	:c	:c	:c	:c	:c	:c	:c	:c	:c
Belgium	:c	:c	:c	:c	:c	:c	:c	:c	:c	:c	:c	:c	:c	:c	:c	:c	:c	:c
Bulgaria	7 002	1 517	1 201	2 718	789	10 508	7 420	1 809	1 252	3 061	493	10 974	6.0	19.3	4.2	12.6	-37.4	4.4
Czechia	39 692	19 650	29 138	48 788	9 555	98 034	38 440	19 661	28 319	47 980	10 097	96 516	-3.2	0.1	-2.8	-1.7	5.7	-1.5
Denmark	1 015	492	1 223	1 715	6 653	9 383	934	431	1 096	1 527	6 853	9 314	-8.0	-12.4	-10.4	-11.0	3.0	-0.7
Germany	234 833	49 226	57 888	107 114	21 565	363 512	226 129	46 761	54 972	101 733	20 697	348 559	-3.7	-5.0	-5.0	-5.0	-4.0	-4.1
Estonia	15 716	869	8 778	9 647	0	25 364	18 089	762	8 405	9 167	0	27 256	15.1	-12.3	-4.3	-5.0	-	7.5
Ireland	392	189	0	189	0	581	343	203	0	203	0	546	-12.5	7.4	-	7.4	-	-6.1
Greece	122	397	575	971	0	1 094	170	473	683	1 156	2	1 328	39.2	19.2	18.9	19.0	-	21.4
Spain	19 675	2 535	2 104	4 639	1	24 314	22 103	2 673	2 203	4 876	0	26 979	12.3	5.4	4.7	5.1	-100.0	11.0
France	56 991	14 953	12 295	27 249	4 867	89 107	57 926	15 555	12 092	27 647	5 531	91 105	1.6	4.0	-1.7	1.5	13.6	2.2
Croatia	:c	:c	:c	:c	:c	:c	3 394	3 159	1 083	4 242	3 846	11 482	:c	:c	:c	:c	:c	:c
Italy	32 781	23 812	35 670	59 482	0	92 263	32 325	24 047	37 294	61 341	0	93 666	-1.4	1.0	4.6	3.1	-	1.5
Cyprus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Latvia	1 482	2 384	42 036	44 420	1 917	47 819	1 649	1 839	36 584	38 422	3 713	43 785	11.3	-22.9	-13.0	-13.5	93.7	-8.4
Lithuania	15 048	3 840	19 714	23 554	9 048	47 651	15 539	4 665	20 781	25 446	11 653	52 638	3.3	21.5	5.4	8.0	28.8	10.5
Luxembourg	991	1 306	1 918	3 224	281	4 495	687	1 273	2 093	3 366	352	4 406	-30.7	-2.5	9.1	4.4	25.5	-2.0
Hungary	13 558	12 514	13 042	25 555	10 934	50 047	15 093	13 856	13 733	27 590	10 000	52 682	11.3	10.7	5.3	8.0	-8.5	5.3
Malta	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Netherlands	2 892	27 469	9 885	37 354	2 369	42 615	2 732	24 971	10 105	35 076	3 383	41 190	-5.6	-9.1	2.2	-6.1	42.8	-3.3
Austria	28 900	17 313	28 150	45 463	28 472	102 835	29 982	17 716	28 672	46 388	31 210	107 579	3.7	2.3	1.9	2.0	9.6	4.6
Poland	152 536	17 610	27 630	45 240	2 852	200 628	174 855	21 664	34 022	55 686	3 439	233 980	14.6	23.0	23.1	23.1	20.6	16.6
Portugal	8 472	410	1 360	1 769	18	10 259	8 604	428	1 404	1 832	16	10 453	1.6	4.6	3.2	3.5	-6.8	1.9
Romania	38 723	3 225	5 479	8 704	449	47 875	44 254	4 042	6 776	10 818	1 004	56 076	14.3	25.4	23.7	24.3	123.7	17.1
Slovenia	2 840	7 101	4 473	11 573	2 514	16 927	3 064	7 740	4 604	12 344	3 189	18 597	7.9	9.0	2.9	6.7	26.9	9.9
Slovakia	6 723	13 026	16 762	29 789	11 036	47 548	6 369	12 857	17 332	30 189	11 202	47 760	-5.3	-1.3	3.4	1.3	1.5	0.4
Finland	21 595	415	14 137	14 552	0	36 147	22 606	427	15 373	15 800	0	38 406	4.7	2.8	8.7	8.6	-	6.2
Sweden	36 329	25 140	5 445	30 584	566	67 479	37 631	25 433	5 481	30 914	805	69 350	3.6	1.2	0.7	1.1	42.4	2.8
United Kingdom	77 813	368	368	736	0	78 549	75 614	381	398	779	0	76 393	-2.8	3.4	8.2	5.8	-	-2.7
Norway	9 994	2 710	20 556	23 266	0	33 260	11 294	2 868	20 812	23 680	0	34 974	13.0	5.9	1.2	1.8	-	5.2
Switzerland	22 497	2 269	7 524	9 793	28 858	61 148	21 599	2 186	7 262	9 448	28 049	59 097	-4.0	-3.7	-3.5	-3.5	-2.8	-3.4
Montenegro	603	60	698	758	34	1 395	905	57	528	585	113	1 603	50.1	-4.4	-24.4	-22.8	-	14.9
Former Yugoslav Republic of Macedonia	46	103	710	813	499	1 358	14	110	742	851	692	1 558	-69.0	6.3	4.5	4.7	38.7	14.7
Turkey	22 716	781	1 042	1 823	7	24 546	26 473	849	956	1 806	9	28 287	16.5	8.7	-8.2	-1.0	24.1	15.2

Note: Cyprus and Malta have no railways. ':' not available. '-' not applicable. 'c' confidential.
Source: Eurostat (online data code: rail_go_typepas)

eurostat

Table 1: Rail freight transport by type of transport for main undertakings, 2016-2017 (thousand tonnes) Source: Eurostat (rail_go_typeall), (rail_go_typepas)

Source data for tables and graphs

- Rail freight transport statistics: tables and figures

Data sources

The figures presented in this article have been extracted from the Eurostat rail transport database. They include data on national, international and transit transport of the Member States, EFTA and Candidate countries, collected according to the Regulation (EU) No 2018/643 recast of Regulation (EU) No 2016/2032 . There is no railway in Cyprus and Malta. The various elements present data collected under the detailed reporting system, meaning that data include only main undertakings which are defined as follows:

- Until 2015: undertakings with a total transport performance greater than 500 million tonne-km or 200 million passenger-km.

- From 2016: undertakings with a total volume of goods transport of at least 200 million tonne-km or at least 500 000 tonnes or o total volume of passengers transport of at least 100 million passenger-km.

Railway undertakings which are below the thresholds may be included for some countries. Basic results and derived indicators (such as growth rates and shares in % of total) in the tables are rounded. However, the figures are based on the non-rounded original data. As a result, the sum of shares in % of total, as shown in the tables, is not necessarily equal to 100 %. Explanatory notes for countries are available in the metadata on the Eurostat website. **Symbols**

:	not available
-	not applicable
0	actual zero or very negligible transport
c	confidential data

Context

The content of this statistical article is based on data collected within the framework of Regulation (EU) No 2018/643 recast of Regulation (EU) No 2016/2032 .

Other articles

- All articles on transport
- Transport statistics at regional level

Tables

- Transport , see:

Railway transport (t_rail)

Goods transport by rail (ttr00006)

Database

- Transport , see:

Railway transport (rail)

Railway transport measurement - Goods (rail_go)
Historical data (1982-2002) (rail_go_h)

Dedicated section

- Transport

Publications

- Energy, transport and environment indicators - 2018 edition

Methodology

- Illustrated glossary for transport statistics - 4th edition
- Reference manual on rail transport statistics

Legislation

- Regulation (EU) No 2018/643 recast of Regulation (EU) No 2016/2032 .