



PRESENTATION OF THE FIRST PARTIAL RESULTS

Data collection of traffic in the EU land transportation system

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EUROPEAN YEAR
OF RAIL 2021



PRESENTATION OF THE FIRST PARTIAL RESULTS

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- Data collection is the structure on which the Study is based.
- The data has been collected from different information sources
- These data were arranged in tables country by country.
- Finally with the tables the maps have been made
- Broadly speaking, there are two kinds of data tables: those of traffic (rail, road and waterways) and those of technical characteristics (infrastructure and operation) on interconnection links of the different strategic hubs as we can see below



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Rail Traffic

FERRMED STUDY OF TRAFFIC AND MODAL SHIFT OPTIMISATION.- BOTTLENECKS

COUNTRY: HUNGARY

		4	5	6	9	10	11	12	13	14	15	16	17
RAILWAY													
SECTION			MAXIMUM CAPACITY					Tons Freight	TOTAL Tons	Share %	FORECAST		
FROM	TO	Kms	Trains / day			Acceptance	Saturation				Tons Freight	TOTAL Tons	Share %
			Freight	Passenger	TOTAL								
Rajka /Border Slovakia	Hegyeshalom	12,5	24	0	24	190	-166	16.560	71.730	23,1	16.498		
Nickelsdorf /Bord Austria	Hegyeshalom	23,2	38	60	98	190	-92	26.220	109.920	23,9	25.282		
	Hegyeshalom	Gyor	52,0	24	70	94	190	-96	16.560	156.300	10,6	35.949	
	Sopron	Gyor	92,5	21	0	21	95	-74	14.490	47.160	30,7	10.847	
	Gyor	Bif Gyorszabadhegy	4,2	16	49	65	190	-125	11.040	237.540	4,6	54.634	
	Bif Gyorszabadhegy	Komaron	40,2	28	87	115	190	-75	19.320	251.970	7,7	57.953	
	Komaron	Tatabanya	38,6	34	112	146	190	-44	23.460	256.110	9,2	58.905	
	Tatabanya	Budapest	60,6	36	113	149	190	-41	24.840	280.605	8,9	64.539	
	Murakeresztur	Kotoriba (Croatia)	11,2	10	0	10	95	-85	6.900	15.820	43,6	3.639	
	Murakeresztur	Gyekenyes	20,3	8	27	35	95	-60	5.520	63.375	8,7	14.576	
	Gyekenyes	Kaposvar	78,1	1	29	30	95	-65	690	68.925	1,0	15.853	
	Kaposvar	Dombovar	30,2	21	24	45	95	-50	14.490	64.095	22,6	14.742	
	Dombovar	Princehely	48,2	1	37	38	95	-57	690	85.335	0,8	19.627	
	Princehely	Pusztaszabolcs	88,4	1	64	65	95	-30	690	71.595	1,0	16.467	
	Pusztaszabolcs	Erd	34,5	33	82	115	190	-75	22.770	93.675	24,3	21.545	
	Erd	Budapest	23,5	33	150	183	380	-197	22.770	241.395	9,4	55.521	
	Budapest	Hatvan	57,9	1	62	63	190	-127	690	88.605	0,8	20.379	
	Hatvan	Fuzesabony	64,1	3	84	87	190	-103	2.070	90.135	2,3	20.731	
	Fuzesabony	Miskolc	73,1	3	88	91	190	-99	2.070	79.500	2,6	18.285	
	Miskolc	Felsolzsolca	6,9	2	94	96	190	-94	1.380	74.115	1,9	17.046	
	Felsolzsolca	Nyiregyhaza	96,5	1	99	100	95	5	690	35.145	2,0	8.083	
	Nyiregyhaza	Zahony	67,1	2	45	47	190	-143	1.380	31.530	4,4	7.252	
	Zahony	Chop (Ukraine)	22,5	2	14	16	190	-174	1.380	31.530	4,4	7.252	

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Rail Traffic

MED STUDY OF TRAFFIC AND MODAL SHIFT OPTIMISATION.- BOTTLENECKS FORE

COUNTRY: HUNGARY

SECTION		MAXIMUM CAPACITY					FORECAST 2025		FORECAST 2030	
FROM	TO	Trains / day			Saturation	Tons Freight	Trains Freight	Tons Freight	Trains Freight	
		Freight	Passenger	TOTAL						
Rajka /Border Slovakia	Hegyeshalom	24	0	24	190	-166	16.498	0	21.519	7
Nickelsdorf /Bord Austria	Hegyeshalom	38	60	98	190	-92	25.282	-1	32.976	10
Hegyeshalom	Gyor	24	70	94	190	-96	35.949	28	46.890	44
Sopron	Gyor	21	0	21	95	-74	10.847	-5	14.148	0
Gyor	Bif Gyorszabadhegy	16	49	65	190	-125	54.634	63	71.262	87
Bif Gyorszabadhegy	Komaron	28	87	115	190	-75	57.953	56	75.591	82
Komaron	Tatabanya	34	112	146	190	-44	58.905	51	76.833	77
Tatabanya	Budapest	36	113	149	190	-41	64.539	58	84.182	86
Murakeresztur	Kotoriba (Croatia)	10	0	10	95	-85	3.639	-5	4.746	-3
Murakeresztur	Gyekenyes	8	27	35	95	-60	14.576	13	19.013	20
Gyekenyes	Kaposvar	1	29	30	95	-65	15.853	22	20.678	29
Kaposvar	Dombovar	21	24	45	95	-50	14.742	0	19.229	7
Dombovar	Princehely	1	37	38	95	-57	19.627	27	25.601	36
Princehely	Pusztaszabolcs	1	64	65	95	-30	16.467	23	21.479	30
Pusztaszabolcs	Erd	33	82	115	190	-75	21.545	-2	28.103	8
Erd	Budapest	33	150	183	380	-197	55.521	47	72.419	72
Budapest	Hatvan	1	62	63	190	-127	20.379	29	26.582	38
Hatvan	Fuzesabony	3	84	87	190	-103	20.731	27	27.041	36
Fuzesabony	Miskolc	3	88	91	190	-99	18.285	24	23.850	32
Miskolc	Felsolzsolca	2	94	96	190	-94	17.046	23	22.235	30
Felsolzsolca	Nyiregyhaza	1	99	100	95	5	8.083	11	10.544	14
Nyiregyhaza	Zahony	2	45	47	190	-143	7.252	9	9.459	12
Zahony	Chop (Ukraine)	2	14	16	190	-174	7.252	9	9.459	12

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Passengers Traffic: Rail vs Plane

DETERMINATION OF THE EXISTING PLANE TRAFFIC RELATED TO EU STRATEGICS HUBS OF THE EU BACKBONE NETWORK									
HUB	CONNECTION	FLIGHTS DAY	PASSENGER	TRANSFER %	PASSENGER/TRANSF	TOTALTRAIN	HSL TRAIN	CL TRAIN	NIGHT TRAIN
Paris-Île de France	PAR -Lyon	12	1.800	5	90	0			
	PAR-Marseille	26	3.900	5	195	1	1		
	PAR-Toulouse	14	2.100	40	840	3		3	
	PAR-Bordeaux	14	2.100	70	1.470	5	5		
	PAR-Strasbourg	6	900	70	630	2	2		
	PAR-Perpignan	12	1.800	40	720	2		2	
	PAR-Barcelona	56	8.400	70	5.880	20	20		
	PAR-Bilbao/San Sebastian	23	3.450	20	690	2		2	
	PAR-Brussels	4	600	50	300	1	1		
	PAR-Amsterdam/Rotterdam	15	2.250	20	450	2		2	
	PAR-Hamburg	22	3.300	10	330	1			1
	PAR-Dusseldorf	14	2.100	25	525	2		2	
	PAR-Berlin	15	2.250	10	225	1			1
	Lyon -Marseille	LYON-Paris	12	1.800	5	90	0		
LYON-Barcelona		6	972	60	583	2	2		
LYON-Toulouse		6	864	60	518	2	2		
MARS-Paris		26	3.900	5	195	1	1		
MARS-Barcelona		2	324	70	227	1			
MARS-Brussels/Amsterdam		18	2.700	10	270	1			1
MARS-Frankfurt/Koln/Dussel		22	3.300	5	165	1			1
MARS-Toulouse		20	2.880	60	1.728	6	6		
Kobenhavn - Malmö	MARS-Seville/Malaga	16	2.400	10	240	1			1
	KOB - Stockholm	16	2.400	25	600	2		2	
	KOB - Oslo	16	2.400	25	600	2		2	
	KOB - Hamburg	12	1.800	10	180	1			1

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Road Traffic

New_table

STUDY OF TRAFFIC AND MODAL SHIFT OPTIMISATION TABLE OF DATA C

Version
original
table

COUNTRY: LITHUANIA

1	24	25	27	28	29,0	30	31	32
CORRIDOR	ROAD							Tonnes/truck = 14,9
NAME	NAME ROAD	CORRIDOR A-Additional	FROM	TO	Kms	Trucks/day		Tonnes transported/day (31) x (Ton/Truck)
						Real	Average	
							0	0
NS - Baltic	A-12	C	Latvia Border/Joniška	Siauliai	52,2	695	695	10.356
NS - Baltic	A1/E77	C	Draugyste / Klaipėda	Siauliai	172,2	2.305	2.305	34.345
NS - Baltic	A-9	C	Siauliai	Radviliskis	22,4	2.250	2.250	33.525
NS - Baltic	A-9	C	Radviliskis	Gaiziunai	114,2	2.305	2.305	34.345
NS - Baltic	N-142	C	Gaiziunai	Kaisiadorys	42,3	2.600	2.600	38.740
NS - Baltic	A-1	C	Kaisiadorys	Lentvaris	57,4	2.705	2.705	40.305
NS - Baltic	A1/A18	C	Lentvaris	Paneriai	13,8	3.710	3.710	55.279
NS - Baltic	A-1	C	Paneriai	Vilnius	11,6	3.605	3.605	53.715
NS - Baltic	N-103	A	Vilnius	Naujoji Vilnia	10,8	802	802	11.950
NS - Baltic	N-101	A	Naujoji Vilnia	Kyviakes	11,8	850	850	12.665
NS - Baltic	N-101	A	Kyviakes	Kena / Belarus Border	9,0	806	806	12.009
NS - Baltic	A-19	A	Paneriai	Vaidotai	5,7	865	865	12.889
NS - Baltic	N-106	A	Vaidotai	Kyviakes	29,9	860	860	12.814
NS - Baltic	A 1	C	Kaysadoris	Palemonas	30,0	5.900	5.900	87.910
NS - Baltic	A-6	C	Gaiziunai	Palemonas	42,5	5.502	5.502	81.980
NS - Baltic	A-1	C	Palemonas	Kaunas	15,0	4.800	4.800	71.520
NS - Baltic	N-130	C	Kaunas	Jiesia	4,8	4.850	4.850	72.265
NS - Baltic	A-5	C	Jiesia	Kazlu Ruda	34,4	4.910	4.910	73.159
NS - Baltic	N137/A7	A	Kazlu Ruda	Kybartai / Rusia Border	53,2	465	465	6.929
NS - Baltic	A-5	C	Kazlu Ruda	Sestokai	52,1	4.930	4.930	73.457
NS - Baltic	N-134	C	Sestokai	Mockava	19,3	5.080	5.080	75.692
NS - Baltic	DK8	C	Mockava	Poland Border	22,7	5.100	5.100	75.990
NS - Baltic	A-9	A	Radviliskis	Pagegiai / Rusia Border	154,9	135	135	2.012
NS - Baltic	A-9	A	Radviliskis	Panevezys	57,5	2.500	2.500	
NS - Baltic	KK-192	A	Panevezys	Rokiskis	89,7	2.600	2.600	



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Data collection of traffic in the EU land transportation system Technical Parameters

Basically we have the followings:

- Length of the trains
- Loading gauge
- International track gauge
- ERTMS implementation
- Number of tracks
- Electrification
- Operation issues
- Rolling stock issues



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Technical Parameters

FERRMED STUDY OF TRAFFIC AND MODAL SHIFT OPTIMISATION.- INTERCONNECTION LINKS (RAILWAY)																						
Version Revised Table 21-01-2021		COUNTRY: LUXEMBURG																				
CORRIDOR		RAILWAY																				
NAME	INTERCONNECT ION LINK M-Main B- Back-up F-Feeder	NETWORK SECTION IDENTIFIER	SECTION				NUMBER OF TRACKS	SIDING TRACKS	MAXIMUM CAPACITY					TRACK GAUGE (mm)	ELECTRIFICATION		CONTROL SIGNALING		MAXIMUM LENGHT FREIGHT TRAINS (M)	LOADING GAUGE	TRAIN SPEED (KM/H)	GRADIENT (0/00)
			NUM.	FROM	TO	Kms			Trains / day				SATURATION		YES/NO	TYPE OF CURRENT	ERTMS Y/N/YEAR	NATIONAL				
									Freight	Passenger	TOTAL	Acceptance										
N.S.-Med	M	LUS10500	1	Kleinbettingen B Border	Luxemburg	18,8	2		8	89	97	210	-113	1.435	Y	25KVAC	Y	Crocodile	740	GC - C80	100<V<120	10
N.S.-Med	M	LUS10600	2	Luxemburg	Bettembourg	14,1	2		19	174	193	210	-17	1.435	Y	25KVAC	Y	Crocodile	740	GC - C80	100<V<120	10
N.S.-Med	M	LUS10601	3	Bettembourg	Bettembourg / F Border	2,5	2		20	56	76	210	-134	1.435	Y	25KVAC	Y	Crocodile	740	GC - C80	100<V<120	12
N.S.-Med	M	LUS10620	4	Bettembourg	Pelange	25,2	2		25	122	147	210	-63	1.435	Y	25KVAC	Y	Crocodile	740	GC - C80	90<V<100	18
N.S.-Med	M	LUS10701	5	Pelange	Rodange	2,6	2		15	204	219	210	9	1.435	Y	25KVAC	Y	Crocodile	740	GC - C80	90<V<100	15
N.S.-Med	M	LUS10720	6	Rodange	Rodange BB / Aubange	1,5	1		12	17	29	105	-76	1.435	Y	25KVAC	Y	Crocodile	740	GC - C80	90<V<100	15
N.S.-Med	M	LUS10300	7	Luxemburg	Oetrange	12	1		0	79	79	105	-26	1.435	Y	25KVAC	Y	Crocodile	740	GC - C80	100<V<120	10
N.S.-Med	M	LUS10400	8	Luxemburg	Berchem Est	6,3	1		2	0	2	105	-103	1.435	Y	25KVAC	Y	Crocodile	740	GC - C80	100<V<120	10
N.S.-Med	M	LUS10410	9	Oetrange	Berchem	9,9	1		12	0	12	105	-93	1.435	Y	25KVAC	Y	Crocodile	740	GC - C80	100<V<120	10
N.S.-Med	F	LUS10301	10	Vasserbillig Ger Border	Oetrange	25,4	2		12	80	92	210	-118	1.435	Y	25KVAC	Y	Crocodile	740	GC - C80	100<V<120	10
N.S.-Med	B	LUS10700	11	Luxemburg	Pelange	20,4	2		9	86	95	210	-115	1.435	Y	25KVAC	Y	Crocodile	740	GC - C80	100<V<120	10
N.S.-Med	F	LUS10730	12	Rodange	Pelange	1,5	2		1	99	100	210	-110	1.435	Y	25KVAC	Y	Crocodile	740	GC - C80	100<V<120	10



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Information Sources

- EUROSTAT Statistics 2015
- https://ec.europa.eu/eurostat/data/database?node_code=rail_tf_ns15_de
- UNECE Statistics 2015
- https://unece.org/trans/main/wp6/e-rails_census_2015.html
- Corridors compliance maps & studies
- https://ec.europa.eu/transport/themes/infrastructure/downloads_en
- Interactive Map by Corridors
- <https://ec.europa.eu/transport/infrastructure/tentec/tentec-portal/map/maps.html>
- Roads performance indicators
- http://trt.serverlet.com/cedr/index_cedr.php#
- RFCs in Rail Network European
- <https://info-cip.rne.eu/what-is-cip/>
- [CIP Interactive Map \(rne.eu\)](#)
- rfc-rhin-danube.eu
- MCRIT
- <http://nis.geovincles.com/clients/viewer/trails/visor.php>
- DB Netze
- www.dbnetze.com/isr-karte
- www.dbnetze.com/laengeregueterzuege
- www.dbnetze.com/isr-grundsuetze
- FRANCE ROADS
- <https://www.statistiques.developpement-durable.gouv.fr/memento-de-statistiques-des-transports-2017>



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