Liikennevirasto

Finnish Transport Agency

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STATISTICS OF THE
FINNISH TRANSPORT AGENCY

Finnish Railway Statistics 2010

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Statistics of the Finnish Transport Agency 9/2010

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FOREWORD

The publication is an English version of the Finnish Railway Statistics 2010. It contains statistical data on railway network and railway traffic in Finland.

The publication is published by the Finnish Transport Agency, which was formed on 1 January 2010 as the Finnish Rail Administration, the waterways functions of the Finnish Maritime Administration and the central administration of the Finnish Road Administration merged.

The publication has been prepared by Harri Lahelma, Finnish Transport Agency, and Vesa Juuti, VR-Group Ltd.

Helsinki, September 2010

Finnish Transport Agency

CONCEPTIONS

Length of line	=	total length of main and secondary lines excluding sidings
Track length	=	total length of main and secondary tracks including sidings
Train-kilometre	=	distance of one kilometre covered by the train
Gross ton-kilometres	=	total gross weight of the locomotive and the carrying stock of a train in tons X corresponding train-kilometres
Gross ton-kilometres hauled	=	gross weight of the carrying stock of a train in tons X corresponding train-kilometres
Vehicle-axle-kilometres	=	number of axles of the vehicles of a train X corresponding train-kilometres
Locomotive-kilometre	=	distance of one kilometre covered by the locomotive
Passenger-kilometre	=	distance of one kilometre covered by the passenger
Tonne-kilometre	=	one conveyance kilometre of one ton of goods

The following symbols have been used in the tables:

"	=	repetition
–	=	nothing to indicate
0 or 0.0	=	the quantity is smaller than half of the unit used
..	=	information not available
.	=	category not applicable

A horizontal line drawn across a time series shows substantial breaks in the homogenity of a series.

CONTENTS

Line [1] and transport stock [2]

		2009	2008	Change, %
Length of line	km	5 919	5 919	0.0
of which electrified	km	3 067	3 067	0.0
Track length	km	8 847	8 848	0.0
Tractive stock strength	number	641	662	-3.2
Hauled stock in commercial traffic		11 557	11 969	-3.4
Passenger stock	number	1 033	1 035	-0.2
Freight stock	number	10 524	10 934	-3.7
Railway operating points	number	349	354	-1.4
Buildings				
VR	number	340	343	-0.9
VR	1 000 m³	3 847	3 855	-0.2

Train traffic [2]

		2009	2008	Change, %
Train-km	1 000	50 019	53 259	-6.1
Passenger traffic		35 120	35 079	0.1
Freight traffic		14 899	18 180	-18.0
Gross tonne-km	1 000 000	31 412	35 512	-11.5
Locomotive-km	1 000	69 244	74 901	-7.6
Energy consumption in train traffic				
Electricity	million kWh	645	664	-2.9
Diesel oil	million l	35.1	42.8	-18.0

Passenger traffic [2]

		2009	2008	Change, %
Journeys	1 000	67 555	69 937	-3.4
Passenger-km	million	3 876	4 052	-4.4

[1] Lines owned by the Finnish Transport Agency.
[2] Data relating to VR.

Freight traffic [2)]

		2009	2008	Change, %
Freight volumes	1 000 tons	32 860	41 937	-21.6
Domestic		21 360	25 484	-16.2
International		11 500	16 453	-30.1
Tonne-km	million	8 872	10 777	-17.7
Domestic		6 141	7 588	-19.1
International		2 731	3 189	-14.4

Rail traffic volume indice [2)] (2000 = 100)

	2009	2008
Passenger traffic	119	123
Freight traffic	81	104
Total rail traffic	100	112

Railway accidents [2)]

	2009	2008
Number of railway accidents	2	0
Passengers		
Killed	0	0
Seriously injured	0	0

1 LINE AND TRANSPORT STOCK [1) 2)]

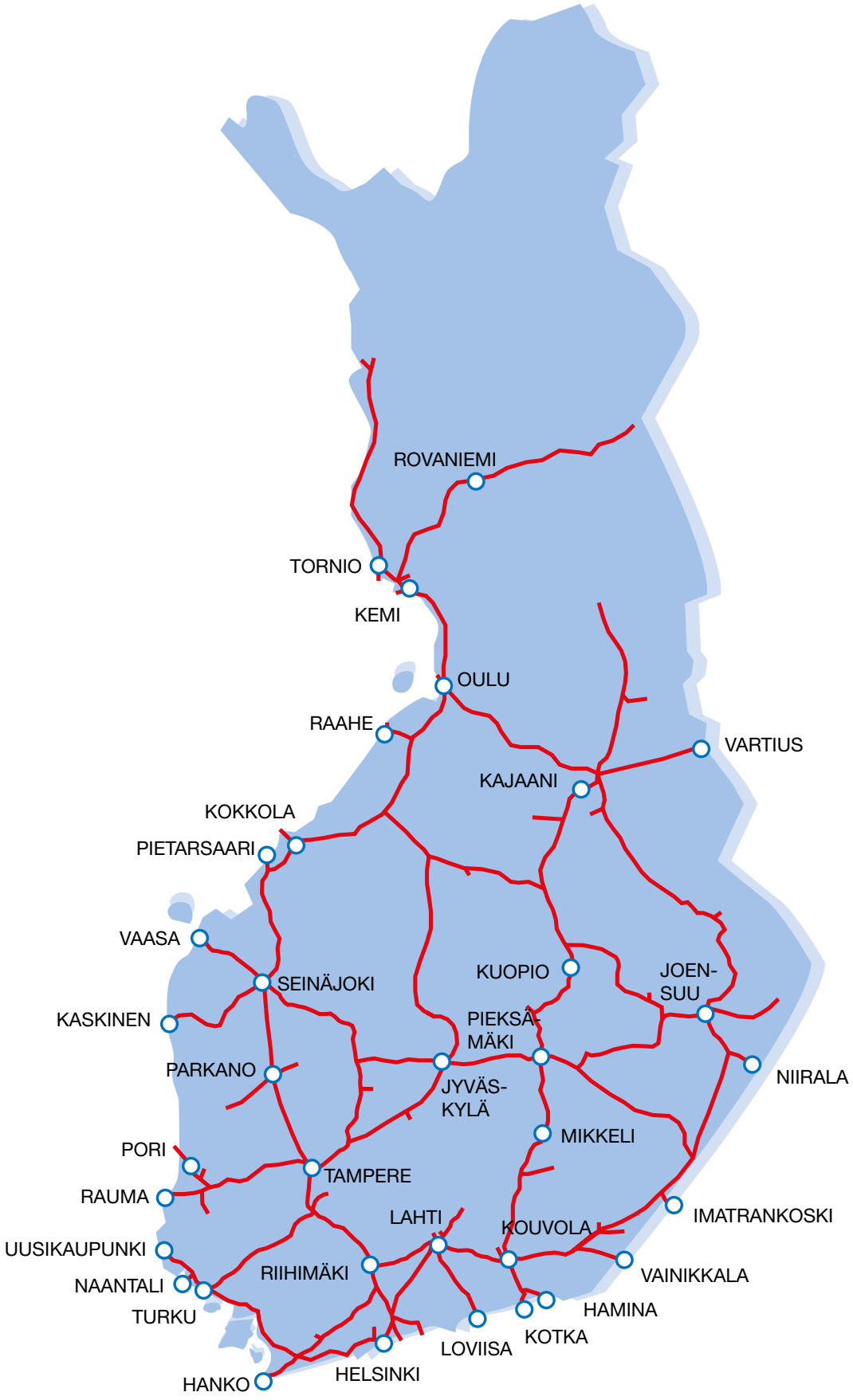
1.1 LINE AND SUPERSTRUCTURE

Rail gauge	1.524 m	2009
Length of line	km	5 919
Single track	km	5 349
	%	90.4
of which electrified	km	2 497
Double track or more	km	570
	%	9.6
of which electrified	km	570
Classification of main lines [3)]		
Line category A	Track-km	633
Line category B	Track-km	967
Line category C	Track-km	2 261
Line category D	Track-km	2 732
Rails		
Track length	Track-km	8 847
Main tracks	Track-km	6 318
	%	71.4
Secondary tracks	Track-km	275
	%	3.1
Sidings	Track-km	2 254
	%	25.5
Switches	Number	5 626
Crossings	Number	43
Tunnels	Number	42
	Metres	38 896

1) At the end of 2009.
2) Lines owned by the Finnish Transport Agency.
3)

Line category	Rails		Ballast
A	K30	kg/m	gravel
B	K43, 54E1, 60E1	"	gravel, macadam
C	54E1, 60E1	"	macadam
D	54E1, 60E1	"	macadam

1.2 RAIL NETWORK



1.3 SECTIONS OF LINE ACCORDING TO DATE WHEN OPENED FOR TRAFFIC

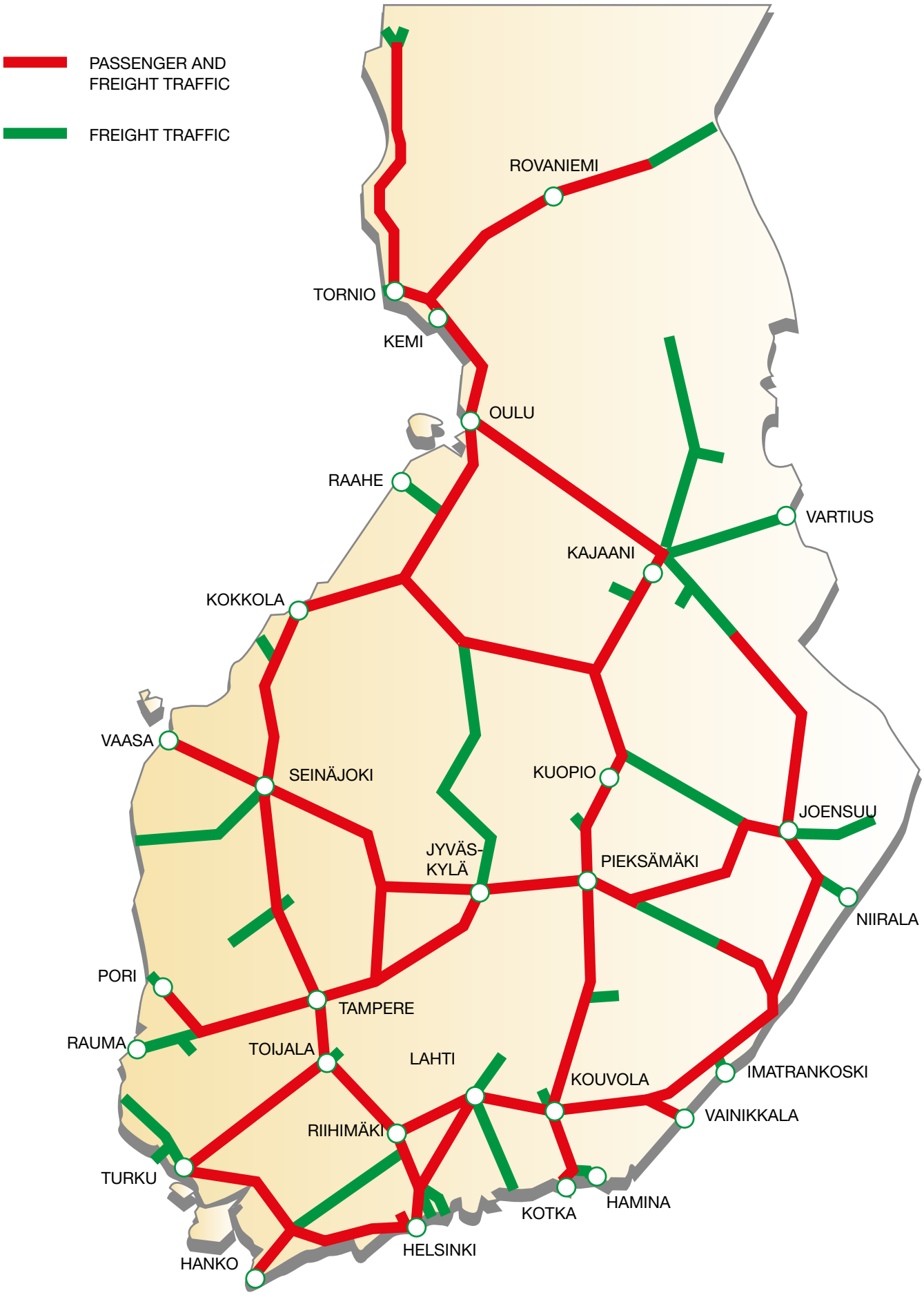
Section of line	Opened for traffic	km
Helsinki – Hämeenlinna	17.3.1862	107
Pasila – Sörnäinen	6.2.1863	3
Riihimäki – Lahti	1.11.1869	59
Lahti – Vesijärvi	1.11.1869	3
Lahti – Vainikkala Border	11.9.1870	155
Hanko – Hyvinkää[1)]	8.10.1873	149
Porvoo – Kerava[2)]	16.7.1874	33
Turku – Toijala	22.6.1876	128
Tampere – Hämeenlinna	22.6.1876	80
Turku – Turku Harbour	22.6.1876	3
Tampere – Vaasa (Nikolainkaupunki)	29.9.1883	306
Simola – Lappeenranta	1.8.1885	18
Seinäjoki – Oulu	1.11.1886	335
Oulu – Toppila	1.11.1886	4
Kokkola – Ykspihlaja	1.11.1886	5
Pännäinen – Leppäluoto	1.11.1887	14
Kouvola – Kuopio	1.10.1889	273
Suonenjoki – Iisvesi	1.10.1889	6
Kouvola – Kotka	1.10.1890	54
Kouvola – Kymintehdas	1.10.1892	9
Imatrankoski Border – Imatrankoski (Imatra)	1.11.1892	5
Vaasa (Nikolainkaupunki) – Vaskiluoto	1.8.1893	4
Joensuu – Niirala Border	1.11.1894	70
Helsinki – Eteläsatama	16.12.1894	4
Eteläsatama – Katajanokka	1.10.1895	1
Imatrankoski (Imatra) – Vuoksenniska	16.10.1895	7
Tampere – Pori	1.11.1895	134
Kokemäki (Peipohja) – Rauma[3)]	15.4.1897	47
Haapamäki – Jyväskylä	1.11.1897	77
Jyväskylä – Suolahti	1.11.1898	40
Inkeroinen – Hamina[4)]	5.10.1899	26
Pori – Mäntyluoto	1.11.1899	21
Turku – Karjaa	1.11.1899	113
Tuomioja (Lappi) – Raahe[5)]	5.12.1899	28
Raahe – Lapaluoto[5)]	1.9.1900	6
Kuopio – Iisalmi	1.7.1902	85
Pasila – Karjaa	1.9.1903	84
Tuira – Tornio	16.10.1903	129
Iisalmi – Kajaani	16.10.1904	83
Savonlinna – Parikkala	1.2.1908	60
Laurila – Rovaniemi	16.10.1909	107
Joensuu – Lieksa	10.9.1910	104
Lieksa – Nurmes	16.10.1911	56
Kiukainen – Kauttua[3)]	1.2.1913	13
Seinäjoki – Kristiinankaupunki	1.8.1913	112
Perälä – Kaskinen	1.8.1913	24
Huutokoski – Varkaus	1.11.1914	18
Pieksämäki – Savonlinna	1.11.1914	106
Jyväskylä – Pieksämäki	1.6.1918	79
Tornio – Tornio Border	1.4.1919	2
Tornio – Kukkola	24.3.1922	17
Kukkola – Karunki	1.1.1923	10
Kajaani – Kontiomäki	1.1.1923	26
Turku – Mynämäki	1.9.1923	30
Raisio – Naantali	16.11.1923	6
Iisalmi – Kiuruvesi	1.12.1923	34
Mynämäki – Kalaranta	1.9.1924	36
Kiuruvesi – Pyhäsalmi	1.1.1925	32
Pyhäsalmi – Haapajärvi	1.8.1925	33
Haapajärvi – Ylivieska	1.12.1925	55
Karunki – Korpikylä	1.1.1926	9
Paltamo (Kiehimä) – Vuokatti	16.10.1926	42
Vuokatti – Sotkamo (Hirvenniemi)	16.10.1926	6
Korpikylä – Aavasaksa	1.11.1927	34
Oulu – Muhos	1.11.1927	36
Joensuu – Sysmäjärvi	1.12.1927	44
Vuokatti – Saviaho	23.1.1928	23
Sysmäjärvi – Outokumpu	15.5.1928	3
Aavasaksa – Kaulinranta (Kauliranta)	1.9.1928	7
Muhos – Utajärvi	1.12.1928	22
Lohja – Tytyri	21.12.1928	3
Vilppula – Mänttä	1.1.1929	8
Saviaho – Rumo	1.2.1929	17
Utajärvi – Vaala	16.10.1929	34
Rumo – Nurmes	1.11.1929	44
Vaala – Paltamo (Kiehimä)	1.12.1930	57
Markkula – Kaupinkangas	15.5.1931	10
Kemi – Ajos	1.11.1931	9
Lahti – Jyränkö	1.1.1932	35
Jyränkö – Heinola	22.5.1932	2
Pori – Niinisalo	16.12.1933	64
Rovaniemi – Kemijärvi	1.9.1934	83
Lappeenranta – Imatra T (Tainionkoski)	1.10.1934	41
Niinisalo – Kairokoski (Parkano)	1.1.1935	37
Imatra T (Tainionkoski) – Kaukopää	16.11.1935	3
Vuoksenniska (Rönkkä) – Simpele	1.11.1937	39
Kairokoski – Virrat	1.11.1937	51
Hillo harbour line	1.12.1937	6
Toijala – Valkeakoski	1.9.1938	18
Virrat – Haapamäki	15.11.1938	40
Kontiomäki – Hyrynsalmi	1.12.1939	46
Varkaus – Vihtari	1.12.1939	65
Vihtari – Viinijärvi	22.4.1940	36
Haukipudas – Martinniemi	1.10.1940	5
Raippo – Melkkola	25.8.1940	2
Kemijärvi – Kelloselkä	1.11.1942	79
Suolahti – Äänekoski	16.11.1942	7
Simpele – Parikkala	1.12.1947	19
Kovjoki – Uusikaarlepyy	10.4.1949	8
Orivesi – Jämsä	15.7.1950	56
Jämsä – Jämsänkoski	1.7.1951	4
Kauppi – Ylihärmä	1.10.1951	3
Jämsä – Kaipola (Perälänlahti)	1.8.1952	7
Hyrynsalmi – Laaja	1.12.1952	18
Murtomäki – Otanmäki	1.11.1953	25
Joutjärvi – Mukkula	1.2.1954	7

1.3 SECTIONS OF LINE ACCORDING TO DATE WHEN OPENED FOR TRAFFIC

Section of line	Opened for traffic	km
Äänekoski – Saarijärvi	1.4.1955	30
Haapajärvi – Muuras	16.12.1954	23
Laaja – Pesiökylä	16.9.1955	10
Pesiökylä – Ämmänsaari	1.12.1955	18
Muuras – Pihtipudas	1.10.1956	25
Siilinjärvi – Sänkimäki	15.11.1956	15
Pesiökylä – Kovajärvi	15.11.1956	11
Joensuu – Keskijärvi	15.11.1957	31
Kovajärvi – Vääkiö	15.11.1957	10
Sänkimäki – Juankoski	15.11.1957	27
Keskijärvi – Tuupovaara	15.9.1958	13
Saarijärvi – Enonjärvi	1.1.1959	29
Pihtipudas – Seläntaus	15.1.1959	7
Vääkiö – Leino	15.1.1959	20
Leino – Taivalniska	1.11.1959	39
Enonjärvi – Kannonkoski	1.11.1959	8
Kannonkoski – Varanen	1.1.1960	11
Seläntaus – Keitelepohja	15.2.1960	12
Lahti – Loviisa Harbour (Valko) [6]	2.5.1960	77
Varanen – Keitelepohja	1.10.1960	19
Porvoo – Porvoo Centre	28.5.1961	1
Taivalniska – Taivalkoski	1.12.1961	2
Luumäki – Lappeenranta	15.9.1962	27
Tuupovaara – Herajärvi	1.8.1963	9
Kaulinranta (Kauliranta) – Pello	3.1.1964	42
Pello – Sieppijärvi	1.12.1965	43
Säkäniemi – Puhos	1.12.1965	28
Sieppijärvi – Kolari	1.12.1966	21
Puhos – Parikkala	1.12.1966	65
Herajärvi – Ilomantsi	1.8.1967	18
Kolari – Äkäsjoki	1.9.1967	17
Juankoski – Luikonlahti	1.11.1968	25
Seinäjoki – Parkano (Uusi-Parkano)	1.1.1970	84
Luikonlahti – Sysmäjärvi	1.1.1970	31
Parkano – Lielahti	1.1.1971	70
Olli – Sköldvik	14.2.1972	11
Vuonos Branch Line	1.3.1972	3
Niesa – Rautuvaara	1.4.1973	10
Vuokatti – Lahnaslampi	1.2.1974	12
Huopalahti – Martinlaakso	1.6.1975	8
Kontiomäki – Vartius Border	1.11.1976	93
Jämsänkoski – Jyväskylä	1.11.1977	53
Mynttilä – Ristiina	22.11.1979	21
Juurikorpi – Salmenkylä	1.2.1984	14
Mäntyluoto – Tahkoluoto	1.2.1984	11
Lautiosaari – Elijärvi	31.10.1985	8
Hovinsaari – Mussalo	1.3.1989	5
Martinlaakso – Vantaankoski	2.9.1991	1
Kytömaa – Hakosilta	3.9.2006	63
Kerava – Vuosaari	28.11.2008	21

1) Purchased by the State 1. 5.1875
2) " " " " 1.10.1917
3) " " " " 1. 7.1950
4) " " " " 1. 1.1916
5) " " " " 1. 3.1926
6) " " " " 1. 1.1959

1.4 OPERATIONS ON THE RAILWAY NETWORK

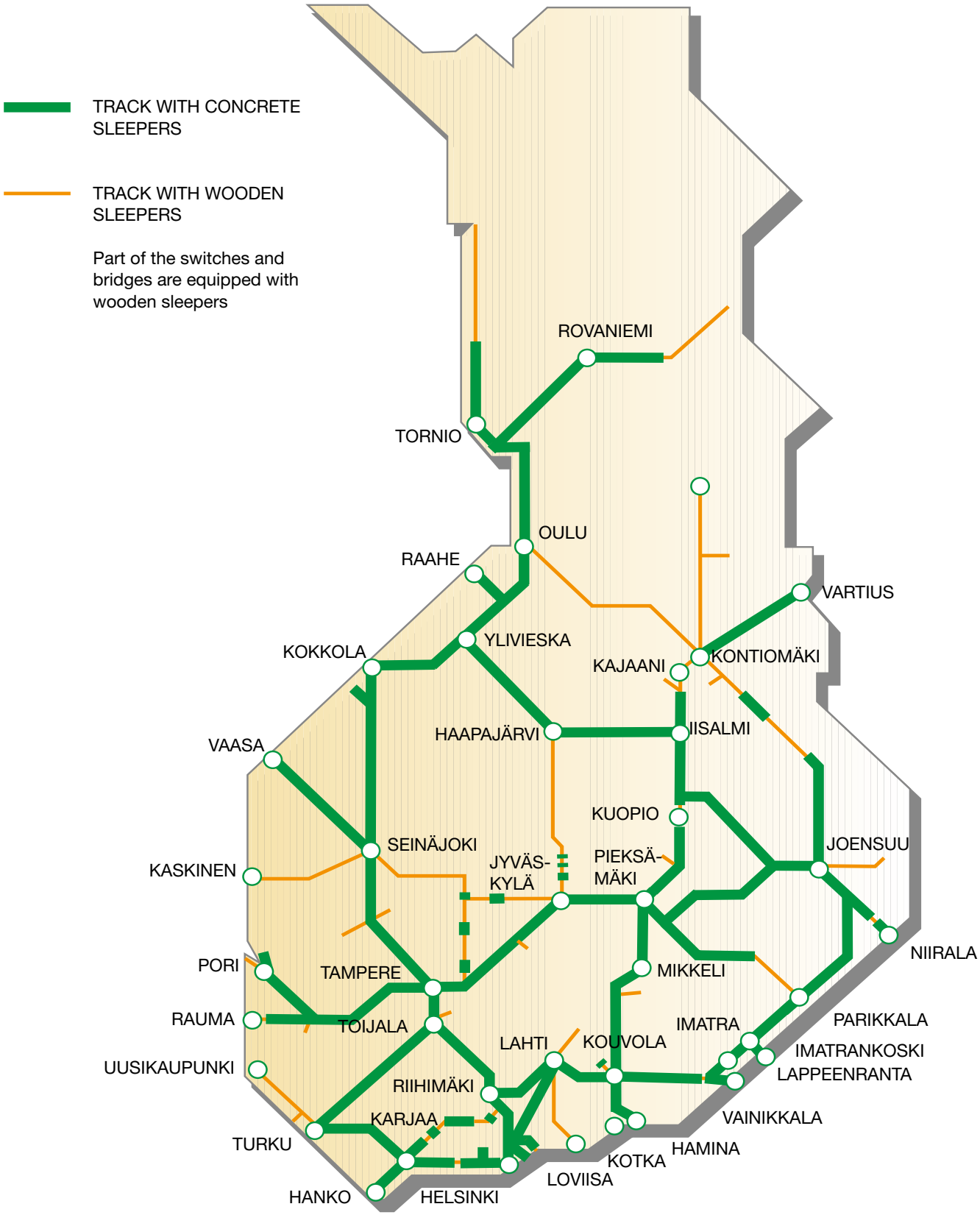


1.5 DISTANCES BETWEEN CERTAIN STATIONS, KM

1.6 TRACK SUPERSTRUCTURE

Tracks with concrete sleepers

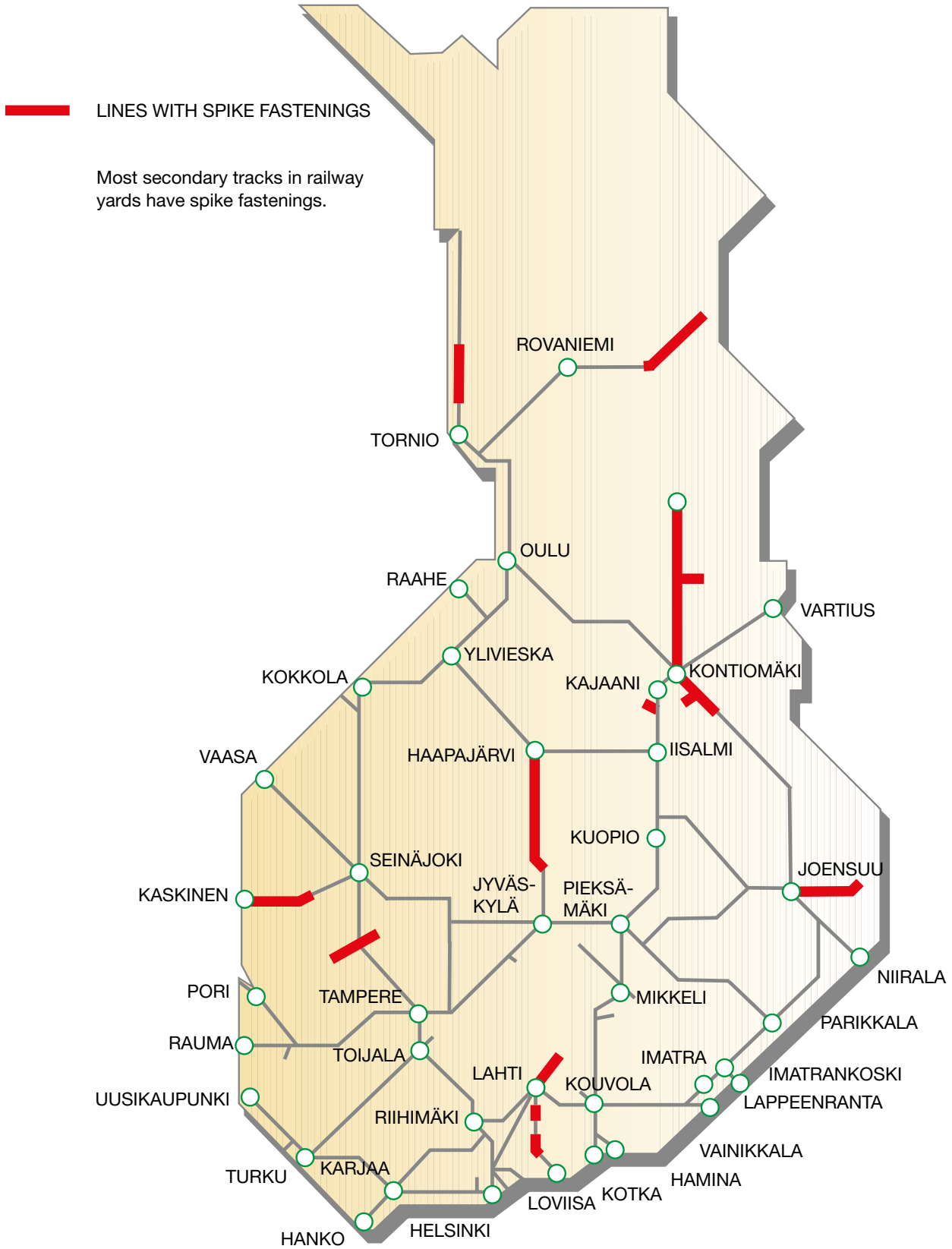
1995		2000		2005		2006		2007		2008		2009	
km	%	km	%	km	%	km	%	km	%	km	%	km	%
1 400	22	2 827	44	3 941	61	4 130	63	4 288	65	4 419	67	4 548	69



1.6 TRACK SUPERSTRUCTURE

Lines with spike fastenings

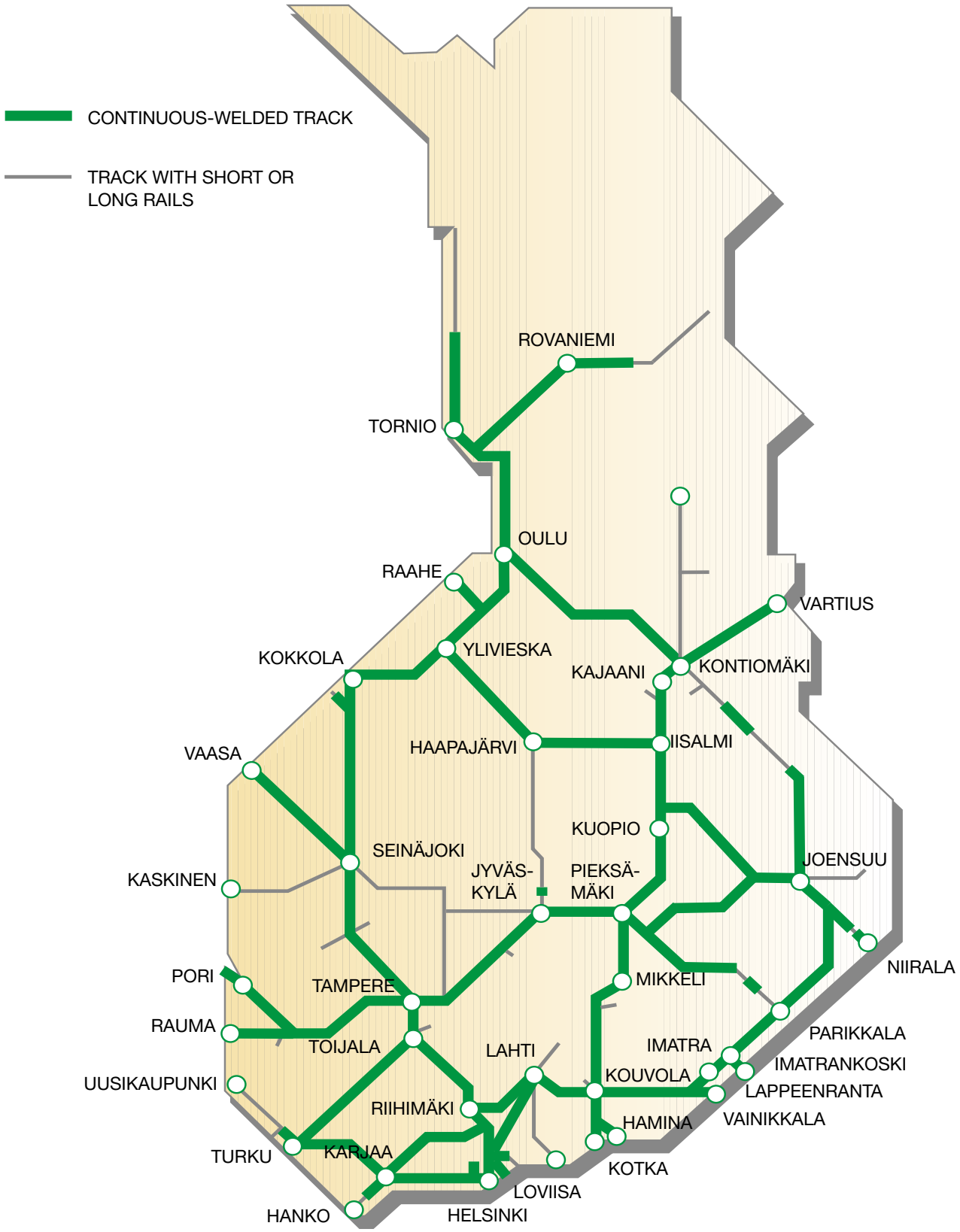
1995		2000		2005		2006		2007		2008		2009	
km	%	km	%	km	%	km	%	km	%	km	%	km	%
1 970	31	1 340	21	1 170	18	1 130	17	1 050	16	940	14	850	13



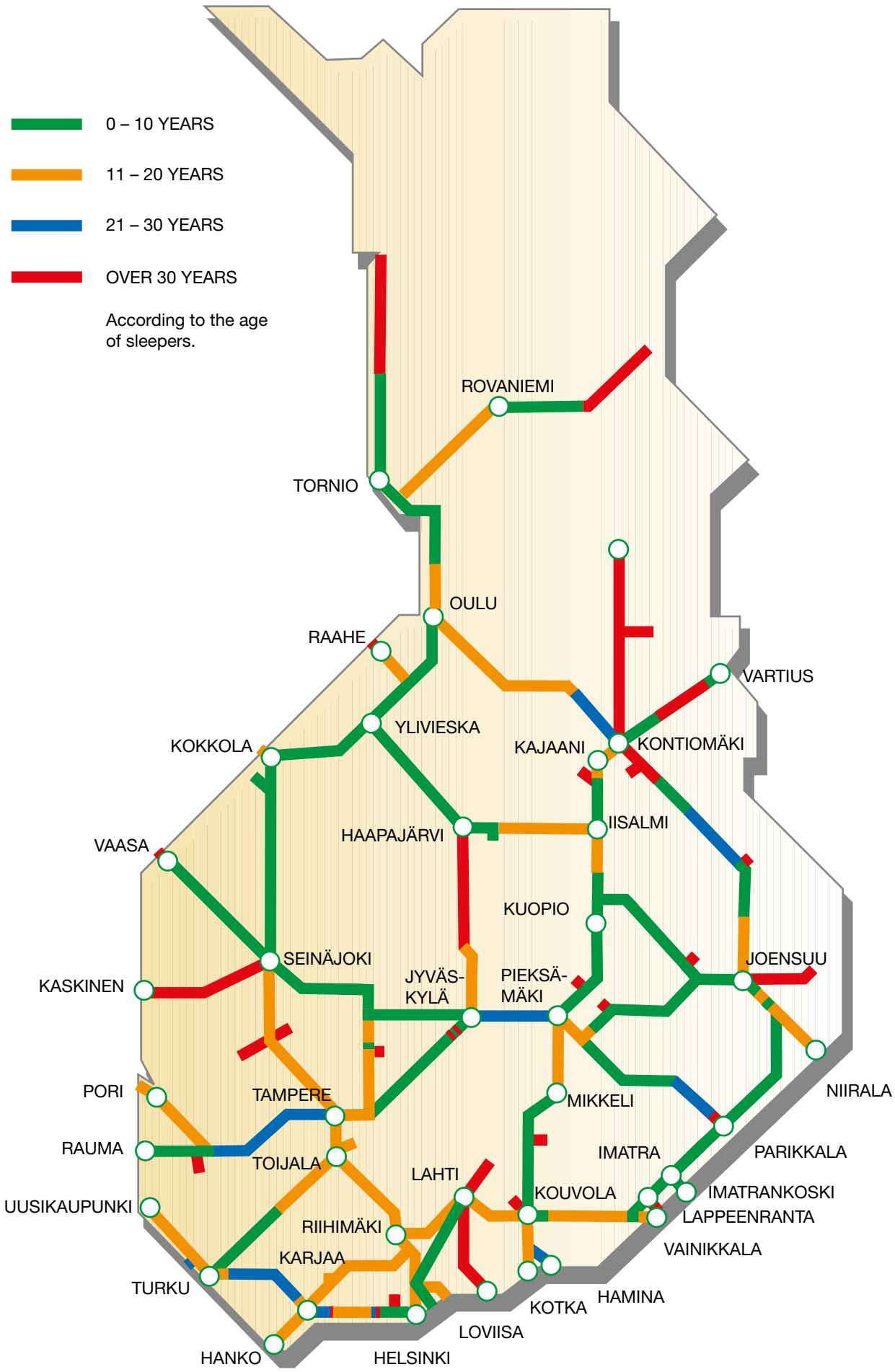
1.6 TRACK SUPERSTRUCTURE

Continuous-welded tracks

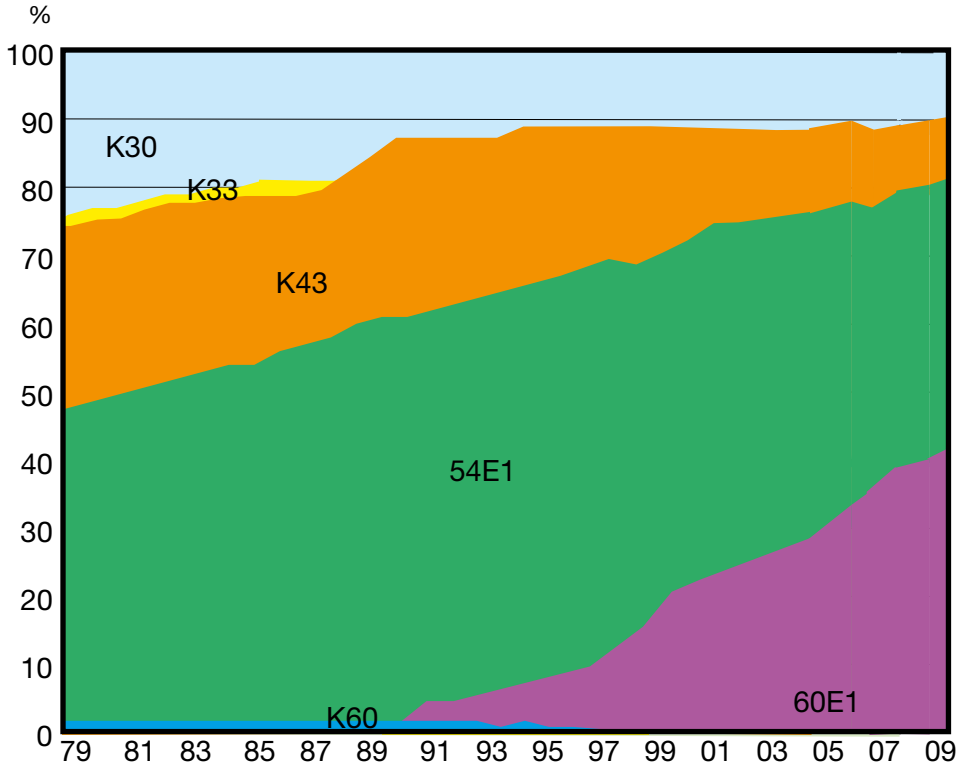
1995		2000		2005		2006		2007		2008		2009	
km	%	km	%	km	%	km	%	km	%	km	%	km	%
3 660	58	4 245	66	4 488	70	4 679	71	4 702	72	4 828	73	4 927	75



1.7 AGE OF TRACK SUPERSTRUCTURE

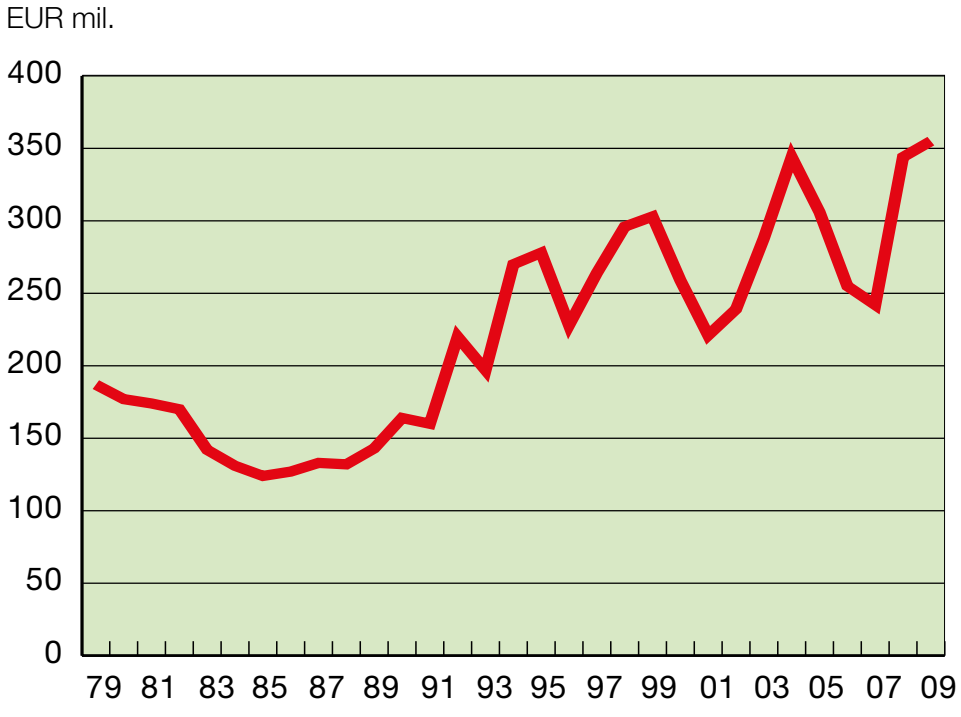


1.8 RAILS ON MAIN LINES IN 1979 - 2009



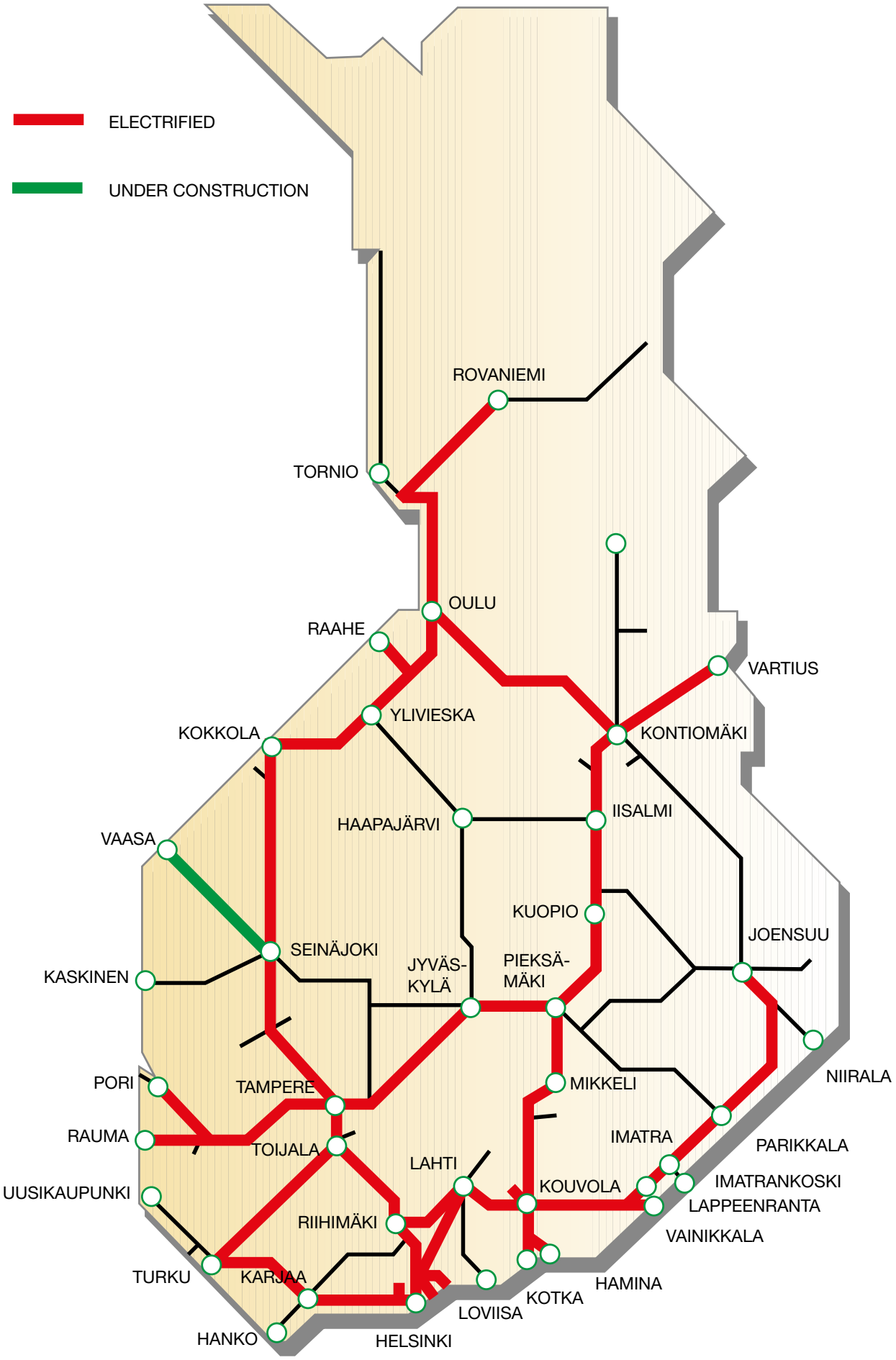
E.g. K30 = rail weight 30 kg/m

1.9 INVESTMENTS IN TRACK CONSTRUCTION AND MAINTENANCE IN 1979 - 2009 [1)]

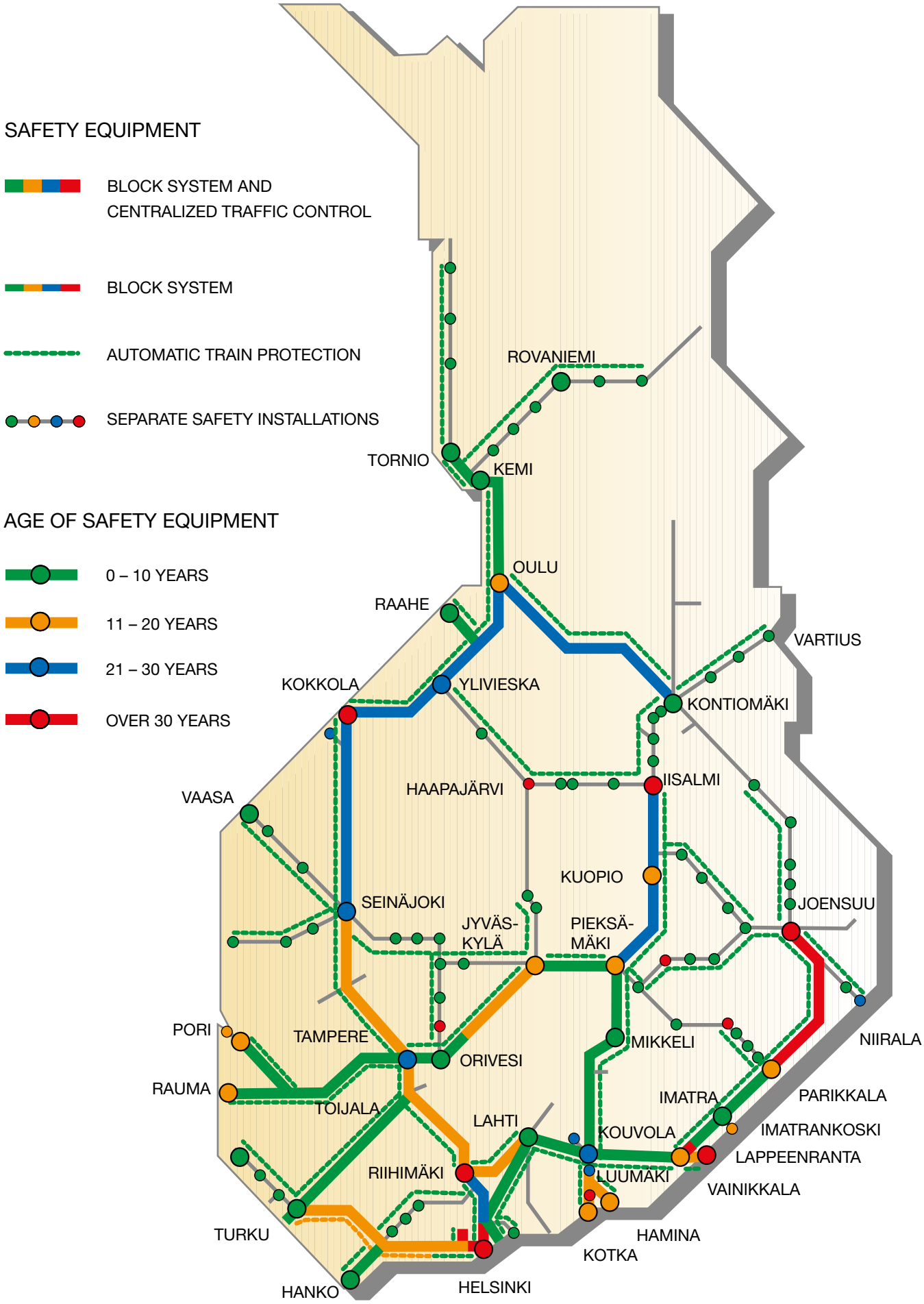


[1)] At fixed 2009 prices.

1.10 ELECTRIFIED LINES



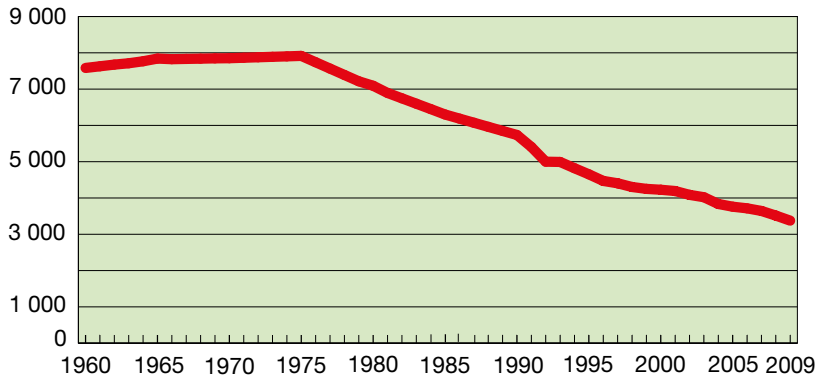
1.11 SAFETY EQUIPMENT AND ITS AGE



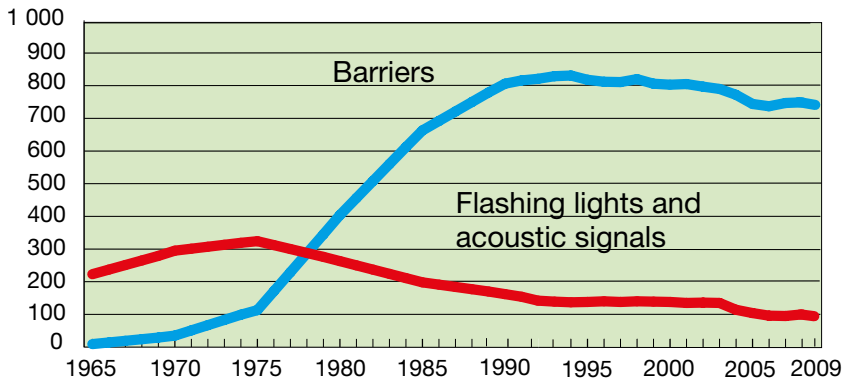
1.12 LEVEL-SEPARATED CROSSINGS AND LEVEL-CROSSINGS IN RAILWAYS

Level-separated crossings		
Overpasses		870
Underpasses		1 201
	Total	2 071
Level-crossings		
With safety equipment		
Barriers		688
Flashing lights and (or) acoustic signals		55
	Total	743
Without safety equipment		2 633
	Total	3 376
Grand total		5 447

1.13 DEVELOPMENT OF THE NUMBER OF LEVEL-CROSSINGS ON THE STATE-OWNED LINES IN 1960 - 2009



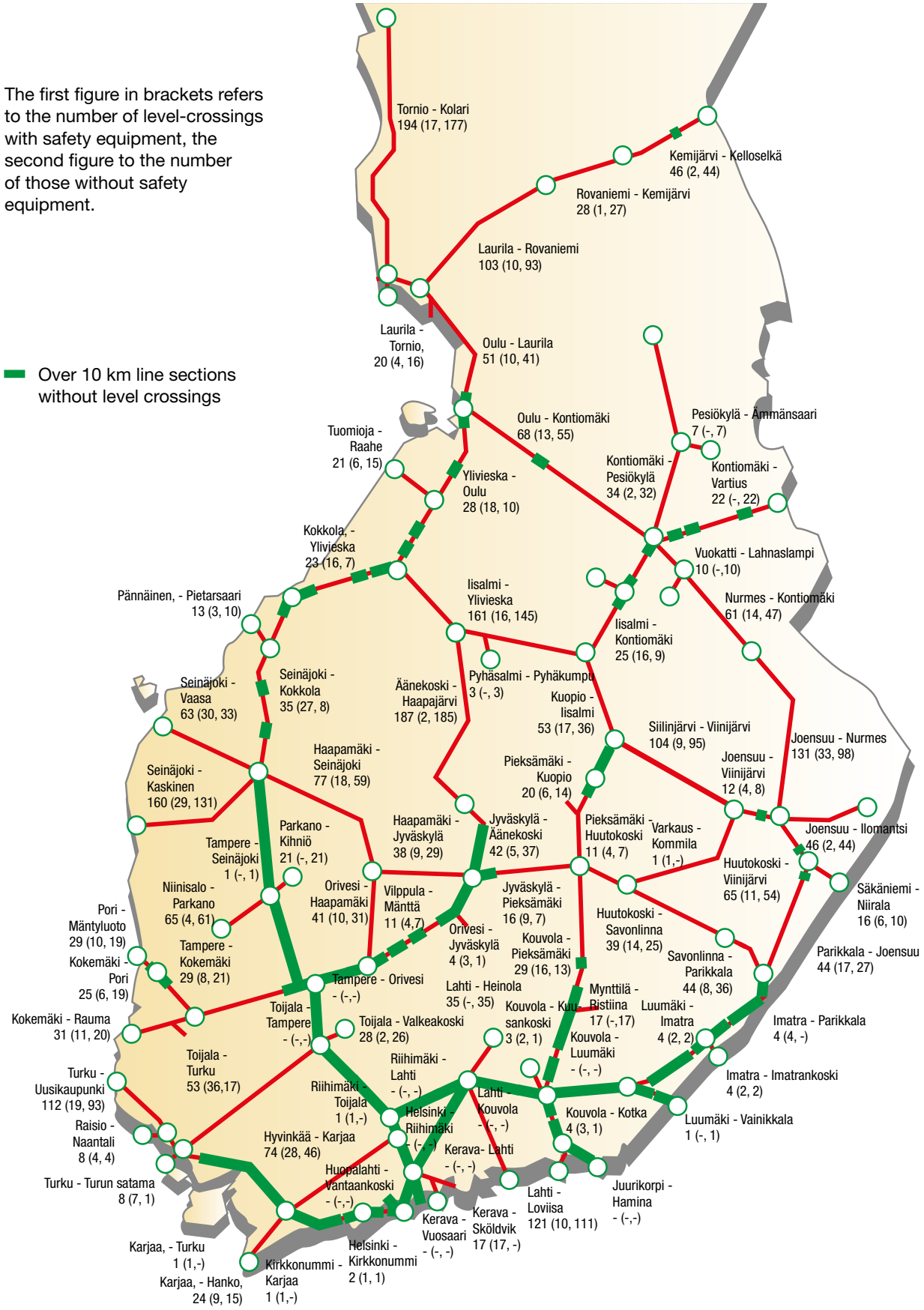
1.14 DEVELOPMENT OF THE NUMBER OF LEVEL-CROSSING SAFETY EQUIPMENT IN 1965 - 2009



1.15 NUMBER OF LEVEL-CROSSINGS AND LEVEL-CROSSING SAFETY EQUIPMENT ON THE MAIN LINES

Total of level-crossings [1]	2 929
With safety equipment	648
Without safety equipment	2 281

[1] Footpaths between platforms and service roads are not included in the statistics.



1.16 RAILWAY OPERATING POINTS

		2009	2008
Railway operating points	**number**	**349**	**354**
Passenger traffic		107	107
Freight traffic		154	159
Passenger and freight traffic		88	88

1.17 BUILDINGS

	VR			
	2009		2008	
	number	1 000 m³	number	1 000 m³
Administrative and traffic buildings	64	786	64	786
Freight terminals, depots, repair workshops	89	1 752	90	1 753
Workshops and main warehouses	37	790	37	790
Warehouses	47	80	46	78
Residential buildings	3	47	3	47
Other buildings	100	392	103	401
Total	340	3 847	343	3 855

1.18 LAND AND WATER AREAS

	VR	
	2009	2008
	hectares	hectares
Land areas	570	569
Water areas	–	–
Total	570	569

1.19 VR'S TRACTIVE STOCK BY TYPE OF TRACTION

	Number	Power (kW)	Total power (kW)
Electric locomotives			
Sr1	110	3 280	360 800
Sr2	46	6 000	276 000
Total	156		636 800
Diesel locomotives			
Dv12	182	1 000	182 000
Dr14	24	875	21 000
Dr16	18	1 500	27 000
Total	224		230 000
Electric railcars			
Sm1	49	860	42 140
Sm2	50	620	31 000
Sm3	18	4 000	72 000
Sm4	30	1 240	37 200
Sm5	2	2 600	5 200
Total	149		187 540
Diesel railcars			
Dm12	16	600	9 600
Other	96		20 400
Total tractive stock	641		1 084 340

1.20 VR'S PASSENGER STOCK AND PASSENGER ACCOMMODATION

Passanger stock in commercial traffic	number	1 033
Electric railcars and railcar trailers	number	374
Diesel railcars	number	16
Restaurant cars	number	49
Guard's vans	number	9
Car-carriers	number	33
Metal-bodied sleeping cars	number	92
Other coaches	number	460
Total passenger accommodation		69 400
Seats		66 086
Sleeping accommodation		3 314

1.21 FREIGHT WAGONS AND THEIR CARRYING CAPACITY

VR-owned freight wagons in commercial traffic		
Number of wagons		10 524
2-axled		4 314
4-axled		6 209
Other		1
Carrying capacity	tons	488 107
Covered wagons		
Number of wagons		4 119
2-axled		2 415
4-axled		1 704
Carrying capacity	tons	172 332
Open wagons		
Number of wagons		5 896
2-axled		1 899
4-axled		3 996
Other		1
Carrying capacity	tons	287 626
Tank wagons		
Number of wagons		509
4-axled		509
Carrying capacity	tons	28 149
Private owner's wagons		
Number of wagons		57
2-axled		5
4-axled		52
Carrying capacity	tons	2 518

2 VR'S TRAIN TRAFFIC

2.1 MAIN DATA ON TRAIN AND TRACTIVE STOCK PERFORMANCE IN 2005 - 2009

		2005	2006	2007	2008	2009
Train performance						
Train-km	**1 000**	**48 227**	**50 880**	**52 577**	**53 259**	**50 019**
By category of train						
Passenger trains		31 408	32 537	34 601	35 079	35 120
	%	65.1	63.9	65.8	65.9	70.2
Freight trains		16 819	18 343	17 976	18 180	14 899
	%	34.9	36.1	34.2	34.1	29.8
By type of traction						
Diesel tractive stock		9 485	10 225	8 762	9 018	7 547
	%	19.7	20.1	16.7	16.9	15.1
Diesel locomotives		9 485	8 993	7 100	7 418	5 989
Diesel railcars		–	1 232	1 662	1 600	1 558
Electric tractive stock		38 742	40 655	43 815	44 241	42 472
	%	80.3	79.9	83.3	83.1	84.9
Electric locomotives		27 311	27 882	28 830	28 604	26 942
Electric railcars		11 431	12 773	14 985	15 637	15 530
Gross tonne-km	**1 000 000**	**33 281.6**	**36 004.8**	**34 636.7**	**35 511.7**	**31 412.1**
Passenger traffic		11 038.4	11 201.0	11 392.8	11 536.9	11 568.6
	%	33.2	31.1	32.9	32.5	36.8
Freight traffic [1]		22 243.2	24 803.8	23 243.9	23 974.8	19 843.5
	%	66.8	68.9	67.1	67.5	63.2
Gross hauled tonne-km	**1 000 000**	**29 596.3**	**32 192.7**	**31 027.7**	**31 858.0**	**28 108.9**
Passenger traffic		9 357.7	9 588.7	9 889.8	10 021.7	10 029.8
	%	31.6	29.8	31.9	31.5	35.7
Freight traffic		20 238.6	22 604.0	21 137.9	21 836.3	18 079.1
	%	68.4	70.2	68.1	68.5	64.3

[1] Including single locomotives.

		2005	2006	2007	2008	2009
Vehicle-axle-km	**1 000 000**	**2 289.3**	**2 471.7**	**2 379.2**	**2 431.5**	**2 114.8**
By category of train						
Passenger traffic		736.7	749.1	769.7	781.5	776.5
	%	32.2	30.3	32.4	32.1	36.7
Freight traffic		1 552.6	1 722.6	1 609.5	1 650.0	1 338.3
	%	67.8	69.7	67.6	67.9	63.3
By category of vehicle						
Passenger stock		762.5	787.2	807.0	811.7	804.7
Coaches		554.9	542.6	518.0	511.2	507.0
Electric railcars		169.5	207.5	247.9	258.1	257.3
Other coaches		38.1	37.1	41.1	42.4	40.4
Wagons		1 526.8	1 684.5	1 572.2	1 619.8	1 310.1
Loaded wagons		832.2	914.4	869.9	897.4	715.9
Empty wagons		694.6	770.1	702.3	722.4	594.2
Coefficient of empty running of a wagon		45.0	45.0	44.0	44.0	45.0
VR-owned wagons		1 041.3	1 146.8	1 144.3	1 147.0	951.7
Private owners' wagons		30.1	19.8	17.6	13.6	8.8
CIS wagons		455.4	517.9	410.3	459.2	349.6
Tractive stock performance						
Locomotive-km	**1 000**	**67 559**	**72 020**	**73 336**	**74 901**	**69 244**
Diesel tractive stock		21 510	23 127	20 033	20 817	17 421
	%	31.8	32.1	27.3	27.8	25.2
Diesel locomotives		21 318	21 497	17 825	18 626	15 299
Light rail motor tractors		192	18	38	32	23
Diesel railcars		-	1 612	2 170	2 159	2 099
Electric tractive stock		46 049	48 893	53 303	54 084	51 823
	%	68.2	67.9	72.7	72.2	74.8
Electric locomotives		31 207	32 026	33 653	33 405	31 181
Electric railcars		14 842	16 867	19 650	20 679	20 642

2.2 GROSS TONNE-KM AND AVERAGE TRAIN WEIGHTS (INCLUDING LOCOMOTIVE) BY TYPE OF TRACTION AND CATEGORY OF TRAIN IN 2009

	Passenger traffic						Freight traffic				
	Long-distance trains										
	Pendolino trains	InterCity trains	Express trains	Regional trains	Commuter trains in the Helsinki Area	Total or on average	Freight trains	Pick-up freight trains	Total or on average	Light locomotives	Grand total or on average
Gross tonne-km											
1 000 000	**1 863**	**4 180**	**3 110**	**1 016**	**1 399**	**11 568**	**18 525**	**1 195**	**19 720**	**124**	**31 412**
Diesel locomotives	–	23	172	221	–	416	4 260	956	5 216	–	5 632
Electric locomotives	–	4 157	2 938	481	11	7 587	14 265	239	14 504	–	22 091
Electric railcars	1 863	–	–	192	1 388	3 443	–	–	–	–	3 443
Diesel railcars	–	–	–	122	–	122	–	–	–	–	122
Light locomotives	–	–	–	–	–	–	–	–	–	124	124
Average train weights (including locomotive) tons											
Hauled by locomotives	–	414.2	570.1	286.1	359.4	443.9	1 371.6	857.4	1 323.6	–	841.9
Diesel locomotives	–	493.5	741.8	241.6	–	348.8	1 160.4	848.2	1 087.1	–	940.3
Electric locomotives	–	413.8	562.5	312.5	359.4	450.6	1 450.4	896.6	1 435.9	–	820.1
Hauled by railcars	365.2	–	–	96.6	158.9	208.6	–	–	–	–	208.6
Electric railcars	365.2	–	–	113.6	158.9	221.7	–	–	–	–	221.7
Diesel railcars	–	–	–	78.1	–	78.1	–	–	–	–	78.1

2.3 GROSS TONS CARRIED ON THE DIFFERENT SECTIONS OF LINE IN 2009

Without SM1-, SM2-, SM4- and SM5- traffic stock

The figures show the gross tons on the different line sections per year (million)

Shunting is not included

2.4 VEHICLE-AXLE-KM BY CATEGORY OF TRAIN AND VEHICLE IN 2009

Train category and type of traction	VR-owned passenger coaches	VR-owned electric railcars	VR-owned diesel locomotives	VR-owned other passenger coaches	Russian passenger coaches	VR-owned covered wagons	VR-owned open wagons	VR-owned other wagons	CIS wagons	Private owners' wagons	Total
	1 000 000 vehicle-axle-km										
Passenger traffic	**466.0**	**257.3**	**8.5**	**15.3**	**16.4**	**12.7**	**–**	**0.3**	**–**	**–**	**776.5**
Long-distance trains	**465.3**	**152.2**	**8.5**	**15.3**	**16.4**	**12.7**	**–**	**0.3**	**–**	**–**	**670.7**
Pendolino trains	**–**	**137.9**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**137.9**
InterCity trains	**252.4**	**–**	**–**	**0.6**	**–**	**–**	**–**	**–**	**–**	**–**	**253.0**
Diesel locomotives	1.3	–	–	–	–	–	–	–	–	–	1.3
Electric locomotives	251.1	–	–	0.6	–	–	–	–	–	–	251.7
Express trains	**171.9**	**–**	**–**	**14.7**	**16.4**	**12.7**	**–**	**0.3**	**–**	**–**	**216.0**
Diesel locomotives	8.9	–	–	1.7	0.2	1.0	–	–	–	–	11.8
Electric locomotives	163.0	–	–	13.0	16.2	11.7	–	0.3	–	–	204.2
Regional trains	**41.0**	**14.3**	**8.5**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**63.8**
Diesel locomotives	14.0	–	–	–	–	–	–	–	–	–	14.0
Electric locomotives	27.0	–	–	–	–	–	–	–	–	–	27.0
Electric railcars	–	14.3	–	–	–	–	–	–	–	–	14.3
Diesel railcars	–	–	8.5	–	–	–	–	–	–	–	8.5
Commuter trains in the Helsinki Area	**0.7**	**105.1**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**105.8**
Electric locomotives	0.7	–	–	–	–	–	–	–	–	–	0.7
Electric railcars	–	105.1	–	–	–	–	–	–	–	–	105.1
Freight traffic	**41.0**	**–**	**–**	**–**	**0.2**	**300.7**	**500.1**	**137.9**	**349.6**	**8.8**	**1 338.3**
Freight traffic trains	**34.2**	**–**	**–**	**–**	**–**	**266.7**	**468.7**	**133.6**	**334.6**	**8.5**	**1 246.3**
Diesel locomotives	9.2	–	–	–	–	55.5	163.3	26.9	32.1	2.8	289.8
Electric locomotives	25.0	–	–	–	–	211.2	305.4	106.7	302.5	5.7	956.5
Pick-up freight trains	**6.8**	**–**	**–**	**–**	**0.2**	**34.0**	**31.4**	**4.3**	**15.0**	**0.3**	**92.0**
Diesel locomotives	2.3	–	–	–	–	24.5	25.4	3.1	13.6	0.3	69.2
Electric locomotives	4.5	–	–	–	0.2	9.5	6.0	1.2	1.4	–	22.8
Total	**507.0**	**257.3**	**8.5**	**15.3**	**16.6**	**313.4**	**500.1**	**138.2**	**349.6**	**8.8**	**2 114.8**
Diesel locomotives	35.7	–	–	1.7	0.2	81.0	188.7	30.0	45.7	3.1	386.1
Electric locomotives	471.3	–	–	13.6	16.4	232.4	311.4	108.2	303.9	5.7	1 462.9
Electric railcars	–	257.3	–	–	–	–	–	–	–	–	257.3
Diesel railcars	–	–	8.5	–	–	–	–	–	–	–	8.5
Grand total	**507.0**	**257.3**	**8.5**	**15.3**	**16.6**	**313.4**	**500.1**	**138.2**	**349.6**	**8.8**	**2 114.8**

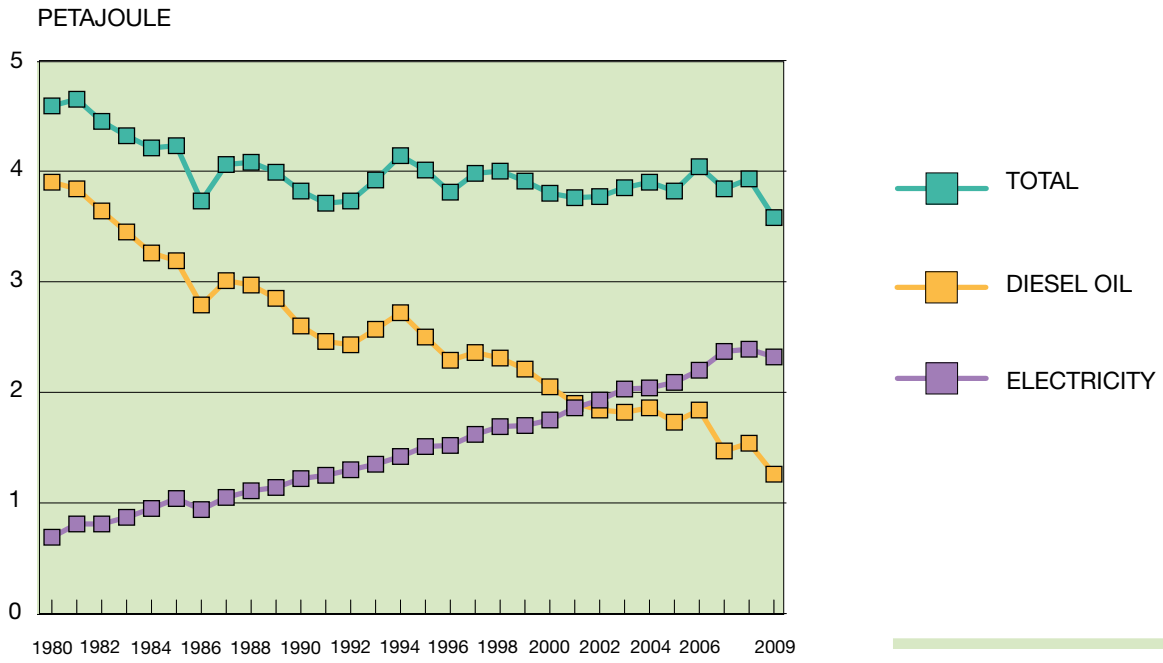
2.5 ENERGY CONSUMPTION IN TRAIN TRAFFIC IN 1980 - 2009

Energy consumption

Year	Electricity		Diesel oil		Total
	million kWh	petajoule [1)]	million l	petajoule [1)]	petajoule [1)]
1980	191	0.69	108.6	3.90	4.59
1981	224	0.81	107.0	3.84	4.65
1982	225	0.81	101.4	3.64	4.45
1983	242	0.87	96.2	3.45	4.32
1984	265	0.95	90.9	3.26	4.21
1985	290	1.04	88.9	3.19	4.23
1986	260	0.94	77.8	2.79	3.73
1987	291	1.05	83.9	3.01	4.06
1988	308	1.11	82.6	2.97	4.08
1989	316	1.14	79.4	2.85	3.99
1990	340	1.22	72.3	2.60	3.82
1991	346	1.25	68.4	2.46	3.71
1992	361	1.30	67.7	2.43	3.73
1993	374	1.35	71.6	2.57	3.92
1994	395	1.42	75.7	2.72	4.14
1995	419	1.51	69.6	2.50	4.01
1996	422	1.52	63.8	2.29	3.81
1997	450	1.62	65.8	2.36	3.98
1998	470	1.69	64.3	2.31	4.00
1999	471	1.70	61.5	2.21	3.91
2000	486	1.75	57.0	2.05	3.80
2001	516	1.86	52.8	1.90	3.76
2002	537	1.93	51.2	1.84	3.77
2003	563	2.03	50.5	1.82	3.85
2004	566	2.04	51.7	1.86	3.90
2005	581	2.09	48.0	1.73	3.82
2006	610	2.20	51.2	1.84	4.04
2007	659	2.37	41.0	1.47	3.84
2008	664	2.39	42.8	1.54	3.93
2009	645	2.32	35.1	1.26	3.58

[1)] Petajoule = 10^{15} joules

ENERGY CONSUMPTION IN TRAIN TRAFFIC



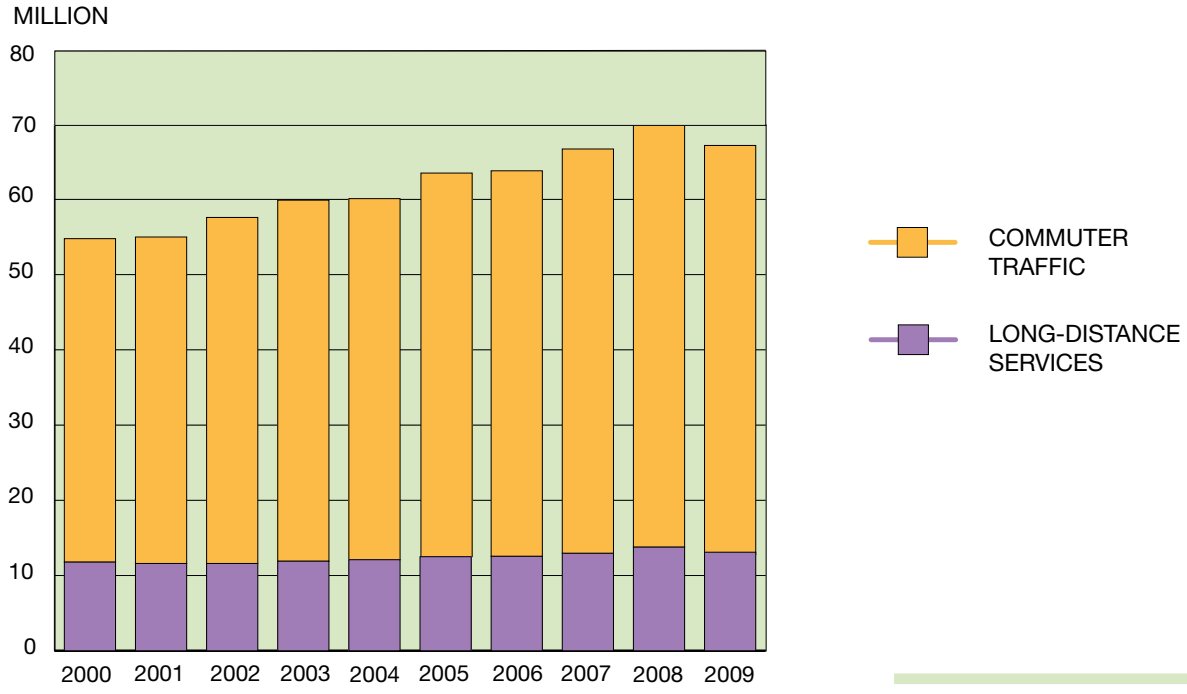
3 VR'S PASSENGER TRAFFIC

3.1 PASSENGER TRAFFIC BY CATEGORY OF TRAFFIC IN 2000 - 2009

Commercial traffic		2000	2001	2002
Number of journeys	1 000			
Long-distance services		11 783	11 561	11 643
	%	21.5	21.0	20.2
Commuter traffic in the Helsinki Area		43 000	43 426	46 052
	%	78.5	79.0	79.8
	Total	54 783	54 987	57 695
Passenger-km	1 000 000			
Long-distance services		2 707	2 596	2 636
	%	79.5	79.1	79.4
Commuter traffic in the Helsinki Area		697	686	682
	%	20.5	20.9	20.6
	Total	3 405	3 282	3 318
Average length of journeys	km	62.2	59.7	57.5

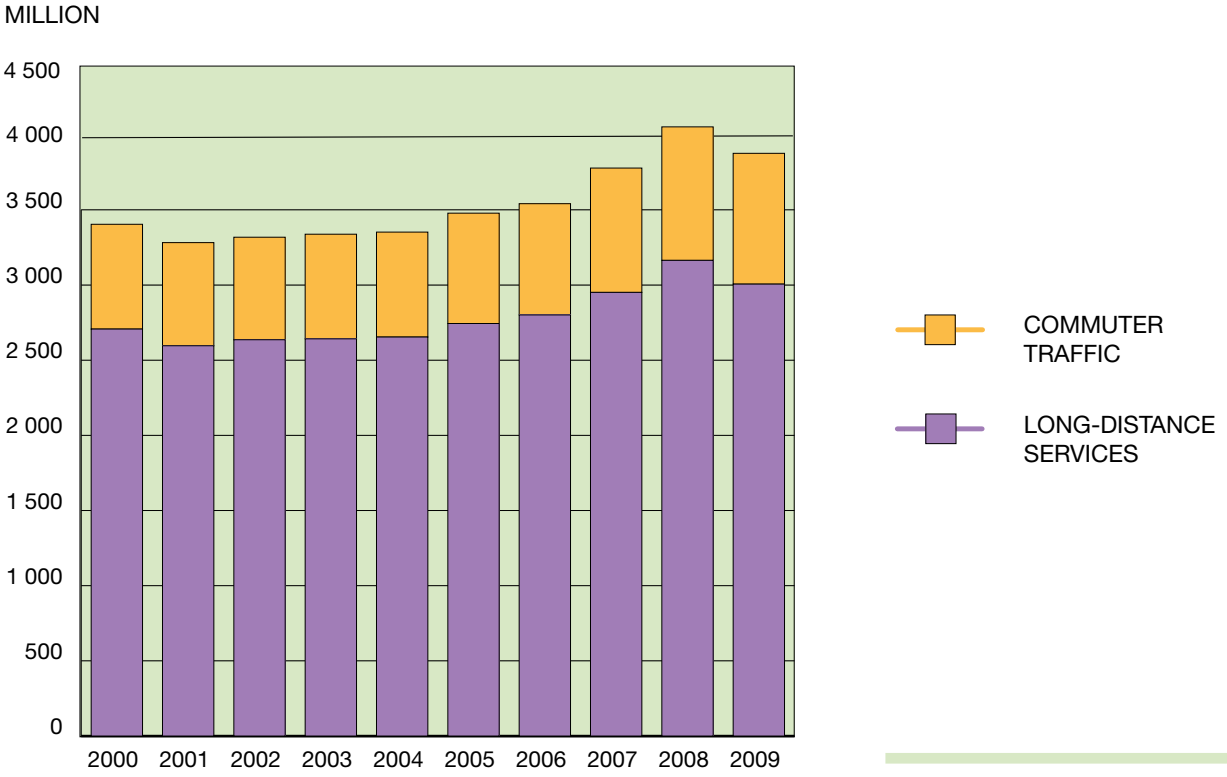
[1] Due to a change in statistical methods, the 2006–2009 figures for the number of journeys and passenger-kilometres by rail are not fully comparable with earlier figures.

NUMBER OF JOURNEYS IN PASSENGER TRAFFIC IN 2000 - 2009 [1]

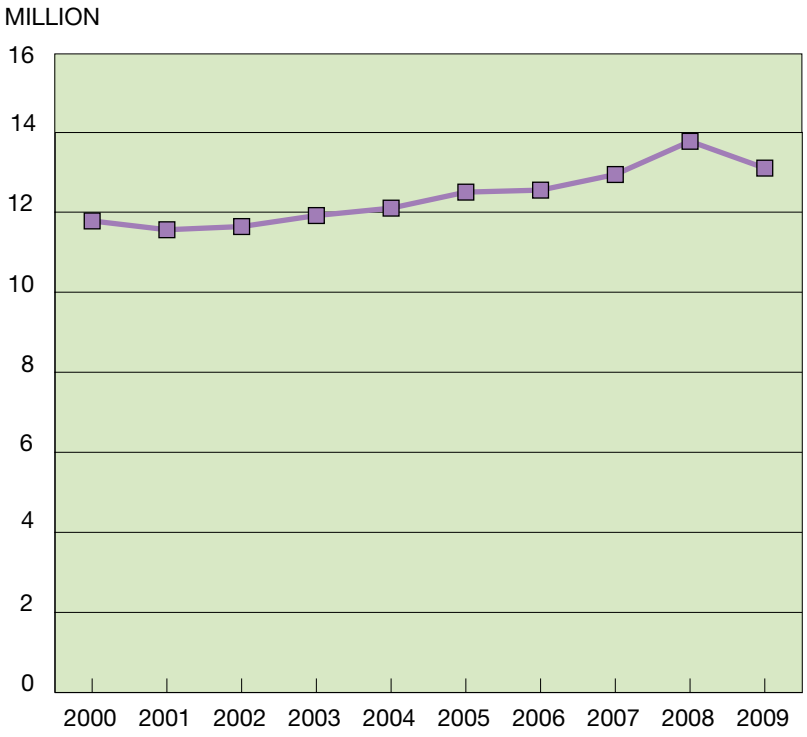


2003	2004	2005	2006 [1)]	2007	2008	2009
11 915	12 129	12 503	12 554	12 944	13 767	13 116
19.9	20.2	19.7	19.7	19.4	19.7	19.4
47 994	48 005	50 990	51 248	53 741	56 170	54 439
80.1	79.8	80.3	80.3	80.6	80.3	80.6
59 909	60 134	63 493	63 803	66 685	69 937	67 555
2 642	2 654	2 744	2 801	2 951	3 164	3 006
79.1	79.2	78.9	79.1	78.1	78.1	77.6
696	698	734	740	827	888	870
20.9	20.8	21.1	20.9	21.9	21.9	22.4
3 338	3 352	3 478	3 540	3 778	4 052	3 876
55.7	55.7	54.8	55.5	56.7	57.9	57.4

PASSENGER-KILOMETRES IN PASSENGER TRAFFIC IN 2000 - 2009 [1)]

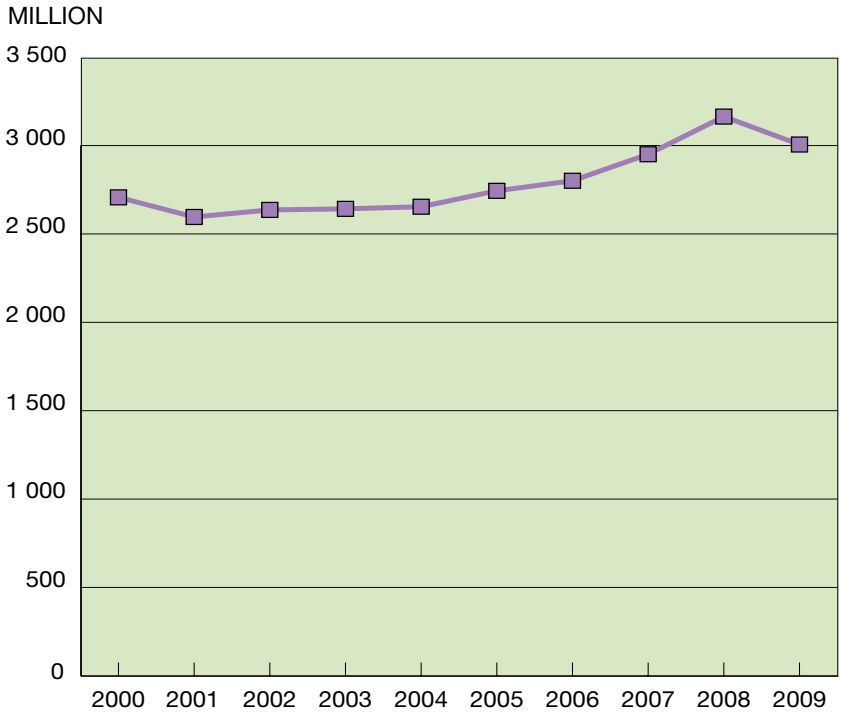


NUMBER OF JOURNEYS IN LONG-DISTANCE TRAFFIC IN 2000 - 2009 [1)]



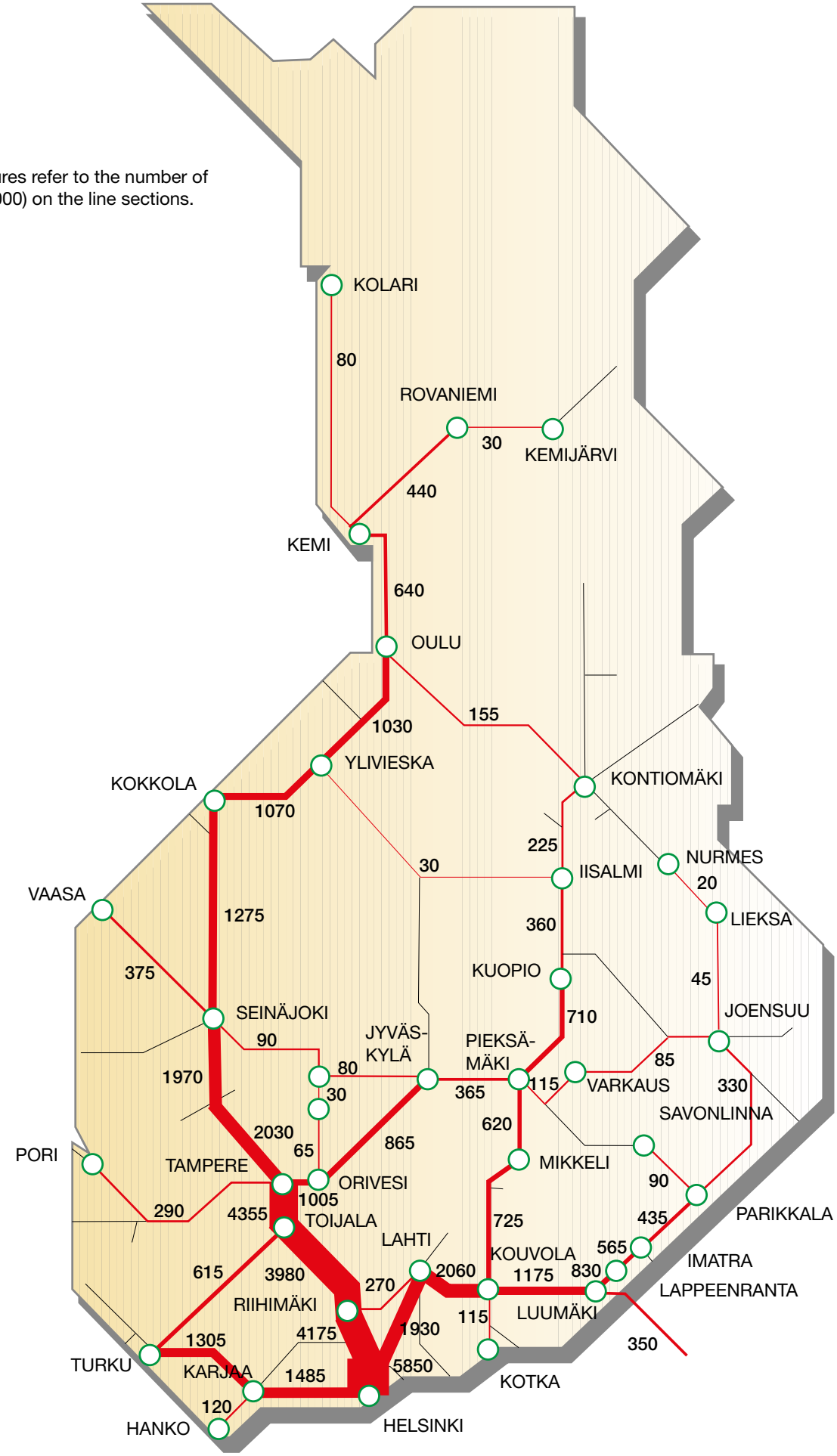
[1)] Due to a change in statistical methods, the 2006–2009 figures for the number of journeys and passenger-kilometres by rail are not fully comparable with earlier figures.

PASSENGER-KILOMETRES IN LONG-DISTANCE TRAFFIC IN 2000 - 2009 [1)]



3.2 PASSENGER FLOWS IN LONG-DISTANCE TRAFFIC IN 2009

The figures refer to the number of trips (1000) on the line sections.

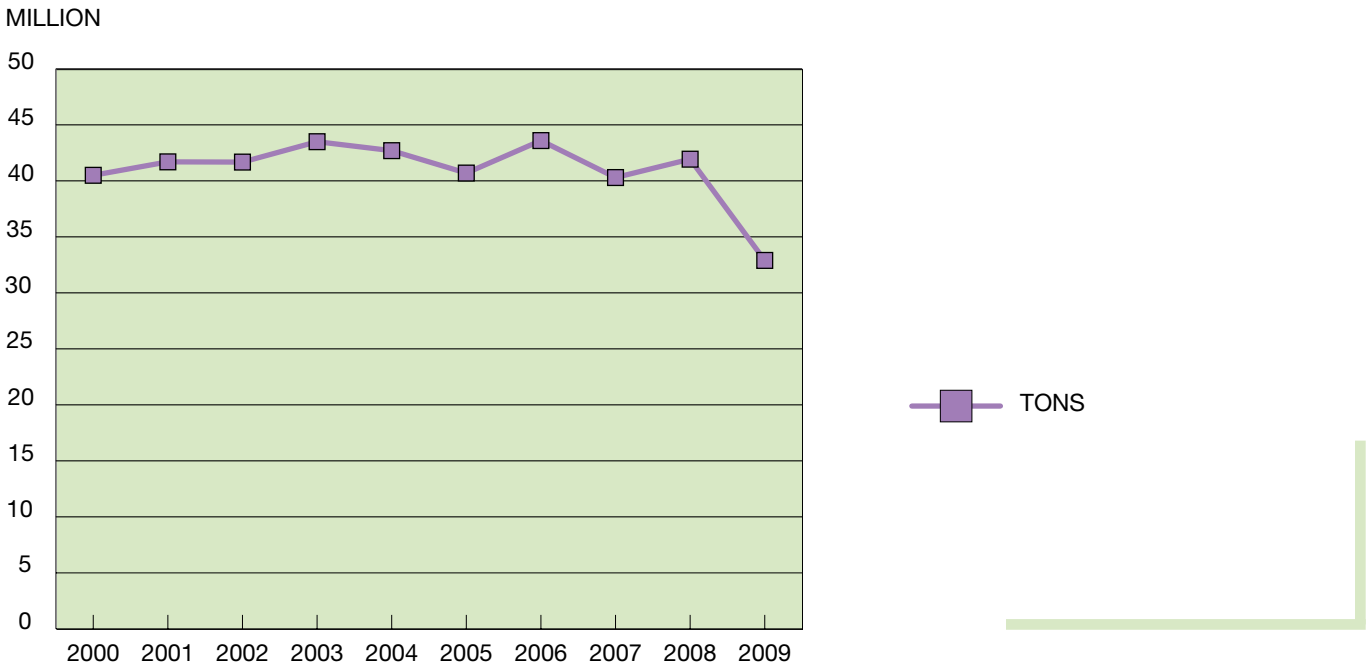


4 VR'S FREIGHT TRAFFIC

4.1 FREIGHT TRAFFIC IN 2000 - 2009

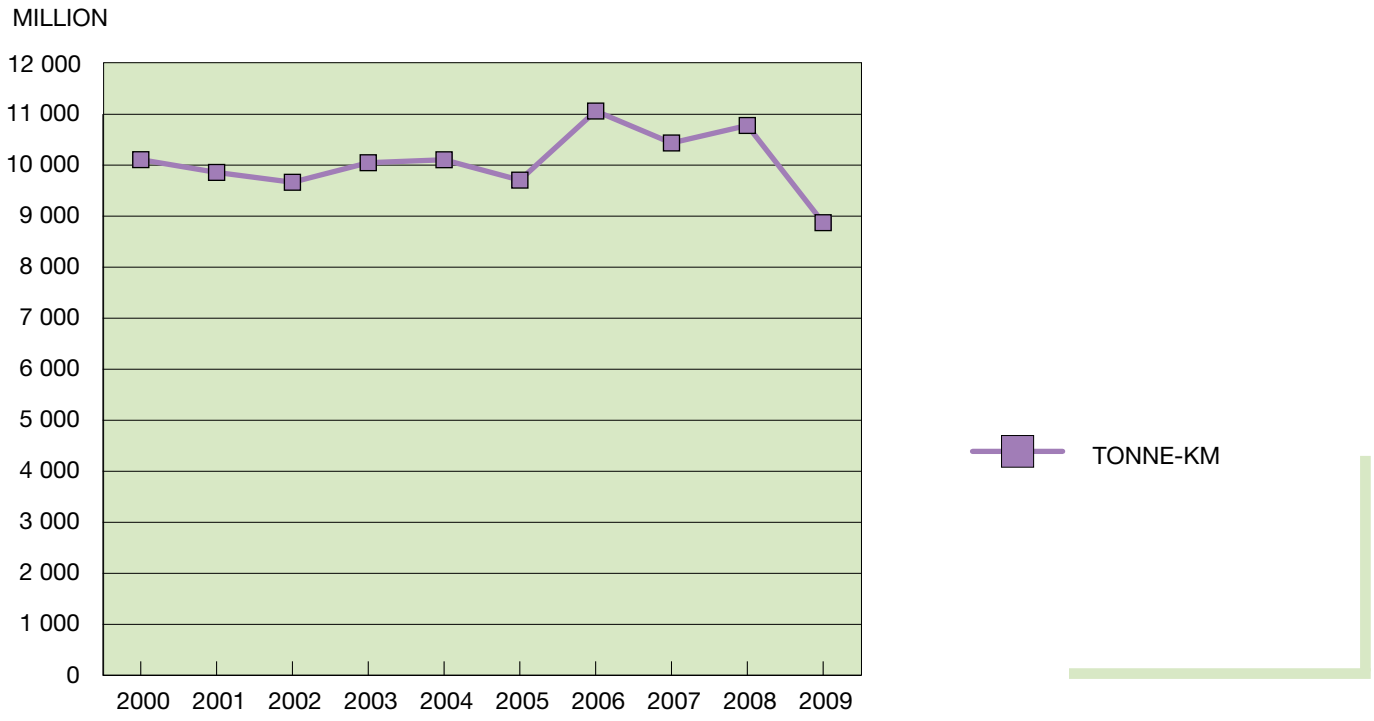
Commercial traffic		2000	2001	2002
Wagonload freight				
Weight of freight	1 000 t	40 501	41 678	41 679
Domestic traffic	1 000 t	24 071	23 993	24 695
International traffic	1 000 t	16 430	17 685	16 984
Tonne-km	1 000 000	10 107	9 857	9 664
Domestic traffic	1 000 000	6 802	6 588	6 695
International traffic	1 000 000	3 305	3 269	2 969
Average length of transport	km	250	236	232
Ratios				
Tonne-km, commercial freight				
Per length of line	1 000	1 726.4	1 685.0	1 651.9
Per train kilometre of freight trains		586.7	586.5	578.2
Per wagon-axle-km		6.3	6.4	6.4

TONS CARRIED IN WAGONLOAD TRAFFIC IN 2000 - 2009



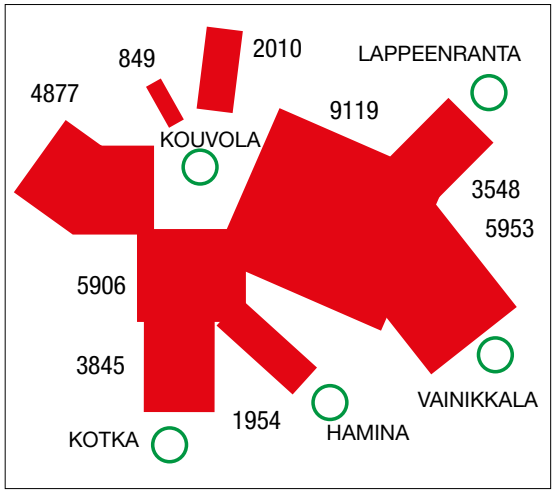
2003	2004	2005	2006	2007	2008	2009
43 503	42 663	40 722	43 560	40 288	41 937	32 860
24 980	26 255	23 479	25 959	26 204	25 484	21 360
18 523	16 408	17 243	17 601	14 084	16 453	11 500
10 047	10 105	9 706	11 060	10 434	10 777	8 872
6 760	7 197	6 607	7 375	7 581	7 588	6 141
3 287	2 908	3 099	3 685	2 853	3 189	2 731
231	237	238	254	259	257	270
1 717.2	1 760.2	1 693.3	1 873.0	1 768.8	1 820.7	1 499.0
598.6	583.3	577.1	603.0	580.4	592.8	595.5
6.3	6.3	6.4	6.6	6.6	6.7	6.8

TONNE-KM IN WAGONLOAD TRAFFIC IN 2000 - 2009



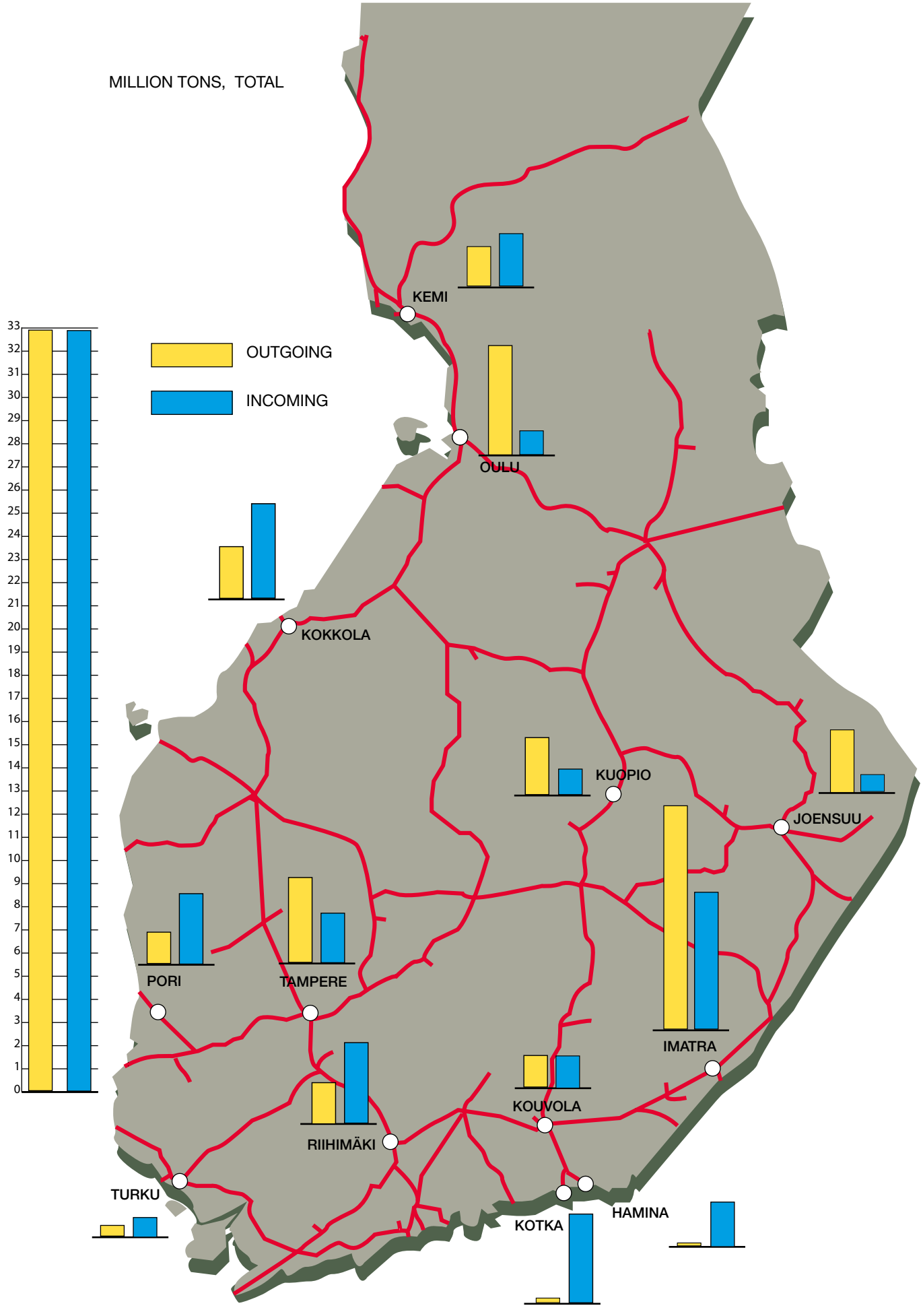
4.2 FREIGHT FLOWS IN 2009

KOUVOLA AREA

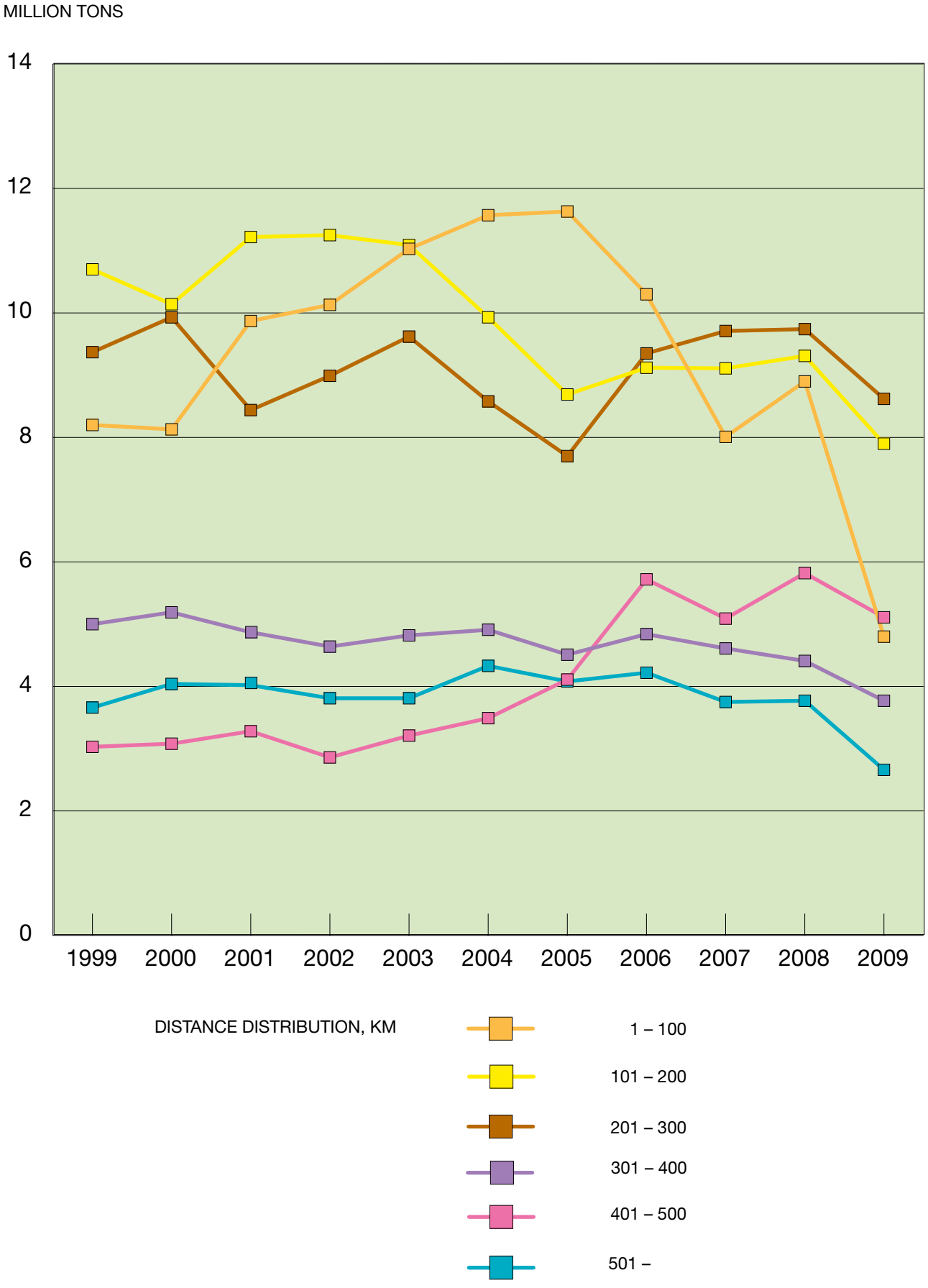


The figures refer to the net tons (1 000) transported on the line sections.

4.3 FREIGHT CARRIED IN COMMERCIAL WAGONLOAD TRAFFIC IN 2009, BY DISTRICTS



4.4 WEIGHT OF FREIGHT CARRIED IN COMMERCIAL WAGONLOAD TRAFFIC IN 1999 - 2009, BY DISTANCE



4.5 TRAFFIC BETWEEN VR AND FOREIGN RAILWAYS IN 2009

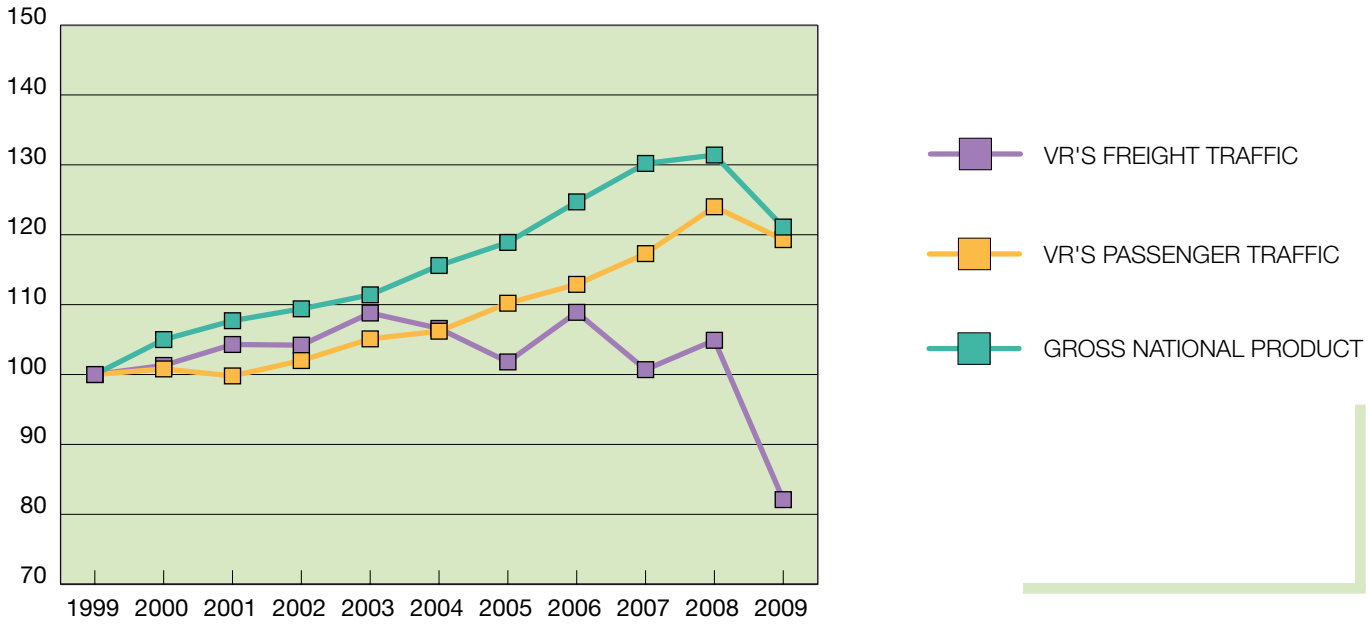
	Wagons									Passenger coaches		
	Finnish wagons			Foreign wagons			Total			Finnish	Foreign	Total
	Loaded	Empty	Total	Loaded	Empty	Total	Loaded	Empty	Grand total			
	Number of vehicles											
Despatched from Finland	**681**	–	**681**	**25 066**	**188 163**	**213 229**	**25 747**	**188 163**	**213 910**	**3 274**	**7 589**	**10 863**
Eastern traffic												
Vainikkala	–	–	–	19 332	98 919	118 251	19 332	98 919	118 251	3 274	7 589	**10 863**
Imatran-koski	–	–	–	86	32 733	32 819	86	32 733	32 819	–	–	–
Niirala	–	–	–	1 618	18 853	20 471	1 618	18 853	20 471	–	–	–
Vartius	–	–	–	1 562	36 530	38 092	1 562	36 530	38 092	–	–	–
Total	–	–	–	**22 598**	**187 035**	**209 633**	**22 598**	**187 035**	**209 633**	3 274	7 589	**10 863**
Western traffic												
Tornio	681	–	681	2 468	1 128	3 596	3 149	1 128	4 277	–	–	–
Arrived in Finland	–	**681**	**681**	**192 082**	**20 676**	**212 758**	**192 082**	**21 357**	**213 439**	**3 274**	**7 589**	**10 863**
Eastern traffic												
Vainikkala	–	–	–	103 527	13 198	116 725	103 527	13 198	116 725	3 274	7 589	10 863
Imatran-koski	–	–	–	31 592	2 343	33 935	31 592	2 343	33 935	–	–	–
Niirala	–	–	–	18 977	1 385	20 362	18 977	1 385	20 362	–	–	–
Vartius	–	–	–	36 850	1 290	38 140	36 850	1 290	38 140	–	–	–
Total	**–**	**–**	**–**	**190 946**	**18 216**	**209 162**	**190 946**	**18 216**	**209 162**	**3 274**	**7 589**	**10 863**
Western traffic												
Tornio	–	681	681	1 136	2 460	3 596	1 136	3 141	4 277	–	–	–
Number of vehicles carried in traffic between VR and foreign railways	**681**	**681**	**1 362**	**217 148**	**208 839**	**425 987**	**217 829**	**209 520**	**427 349**	**6 548**	**15 178**	**21 726**

5 VOLUME OF RAILWAY TRAFFIC

TRAFFIC VOLUME INDEX IN 2000 - 2009

2000 = 100	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Passenger traffic	100	99	101	104	105	110	112	117	123	119
Freight traffic	100	103	103	107	105	101	108	100	104	81
Total railway traffic	100	101	102	106	105	104	109	107	112	100

VOLUME INDEX (1999 = 100)



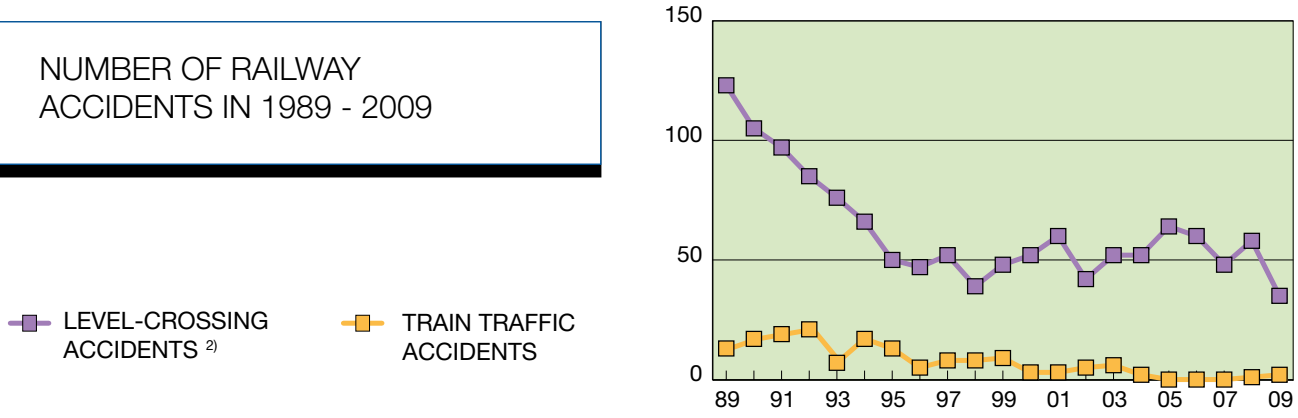
6 RAILWAY ACCIDENTS

6.1 SIGNIFICANT RAILWAY ACCIDENTS IN 2009 [1)]

Type of accident	Number of accidents	Number of persons killed or seriously injured		
	Total	Killed	Seriously injured	Total
Collisions	0	0	0	0
Derailments	2	0	0	0
Accidents involving level crossings	12	11	3	14
Accidents to persons caused by rolling stock in motion	10	3	7	10
Fire in rolling stock in motion	0	0	0	0
Other accidents	2	0	0	0
Total	**26**	**14**	**10**	**24**

[1)] An accident involving rolling stock resulting in a fatality or a serious injury or the damage caused to rolling stock, tracks, track equipment or the environment has amounted to at least €150 000. Also accidents which have caused a rail service disruption on a main rail line of at least six hours.

6.2 NUMBER OF RAILWAY ACCIDENTS IN 1989 - 2009



6.3 RATIOS RELATING TO RAILWAY ACCIDENTS IN 2005 - 2009

	2005	2006	2007	2008	2009
Total of persons killed or seriously injured Per one million train-km	0.73	0.70	0.40	0.51	0.48
Total of railway accidents [3)] Per one million train-km	1.78	2.02	1.10	1.43	0.52
Passengers					
Killed per one million journeys	–	0.02	–	–	–
Seriously injured per one million journeys	0.03	0.02	–	–	–

[2)] Also other than significant level crossing accidents.

[3)] From 2009 only significant accidents.

7 HISTORICAL SURVEY

Year	Length of line on 31.12. [1]	Track length on 31.12. [1]	VR-owned rolling stock on 31.12.									Annual mean strength of VR's staff		VR's passenger traffic		VR's freight traffic	
			Tractive stock							Passenger stock	Freight stock						
			Steam locomotives	Diesel locomotives	Diesel railcars and railbuses	Electric railcars	Electric locomotives	Light rail motor tractors	Total			Primary occupation	Secondary occupation	Number of journeys [2]	Passenger-kilometres [2]	Weight, 1 000 tons [3]	Ton-kilometres [3]
	km													1 000			1 000
1862	108	..	6	–	–	–	–	–	6	13	142	..	..	39	..	13	..
1870	483	531	43	–	–	–	–	–	43	110	993	..	..	2 404	18 028	132	7 925
1880	852	1 005	98	–	–	–	–	–	98	231	2 176	1 594	..	1 813	65 870	506	49 480
1890	1 876	2 179	151	–	–	–	–	–	151	370	3 594	2 612	..	2 542	126 076	954	104 052
1900	2 650	3 304	310	–	–	–	–	–	310	755	8 547	[4] 10 282	..	6 899	337 173	2 463	343 370
1910	3 356	4 568	500	–	–	–	–	–	500	1 114	14 149	15 179	..	14 463	554 928	3 860	462 005
1920	3 987	5 567	539	–	–	–	–	–	539	958	13 016	24 105	..	17 549	775 488	5 439	931 679
1930	5 010	6 983	773	–	3	–	–	–	776	1 364	22 012	29 165	..	22 033	1 035 028	9 574	1 592 327
1935	5 367	7 497	740	1	13	–	–	–	754	1 428	23 348	28 845	..	20 052	947 038	12 334	1 979 598
1938	[5] 5 407	7 858	747	2	20	–	–	–	769	1 469	24 513	31 212	..	23 714	1 227 670	13 731	2 263 070
1945	4 668	6 715	741	4	22	–	–	–	767	1 471	23 261	38 547	..	61 344	3 202 595	[6] 11 489	[6] 2 459 817
1950	4 798	7 022	821	4	20	–	–	–	845	1 648	27 655	38 423	..	45 656	2 182 570	15 803	3 445 637
1955	4 889	7 453	798	18	80	–	–	..	896	1 617	26 169	36 073	..	39 444	2 260 463	19 158	4 482 223
1960	[7] 5 314	[7] 8 166	[7] 659	[7] 120	[7] 192	–	–	..	[7] 971	[7] 1 495	[7] 26 543	35 340	550	36 603	2 342 928	[8] 19 041	4 865 000
1965	5 458	9 560	514	306	261	–	–	184	1 265	1 380	26 887	34 903	558	31 171	2 049 624	20 556	5 182 900
1970	5 804	8 795	262	331	272	20	–	278	1 163	1 080	25 045	27 690	410	23 357	2 156 236	23 620	6 270 300
1975	5 918	8 938	250	369	223	60	27	259	1 188	1 055	24 862	29 002	277	35 546	3 135 164	22 657	[9] 6 438 200
1980	6 075	9 157	–	395	182	96	84	263	1 020	1 102	23 848	28 726	297	39 310	3 215 652	29 574	8 335 400
1985	5 877	8 923	–	384	104	100	110	238	936	1 109	17 796	26 310	165	40 419	3 223 988	30 781	8 067 100
1986	5 878	8 936	–	383	86	100	110	244	923	1 094	17 862	25 484	137	34 763	2 675 570	27 783	6 952 200
1987	5 863	8 921	–	382	60	100	110	234	886	1 035	16 798	24 695	111	45 759	3 061 600	30 108	7 403 400
1988	5 863	8 921	–	382	10	100	110	234	834	991	16 292	23 273	86	46 226	3 147 000	33 006	7 815 900
1989	5 863	8 933	–	364	8	100	110	240	822	994	15 663	21 761	65	45 536	3 207 900	33 639	7 958 400
1990	5 846	8 844	–	358	–	100	110	236	804	1 001	15 395	20 162	45	45 998	3 330 900	34 562	8 356 700
1991	5 853	8 676	–	368	–	100	110	232	810	1 019	15 470	19 569	–	45 795	3 229 000	31 065	7 634 200
1992	5 853	8 836	–	356	–	100	110	223	789	1 027	15 286	18 945	–	45 101	3 057 200	32 587	7 847 800
1993	5 864	8 991	–	350	–	100	111	227	788	1 003	14 691	18 277	–	44 362	3 006 500	37 869	9 259 100
1994	5 859	8 915	–	350	–	100	111	223	784	1 002	14 656	17 368	–	43 989	3 036 800	40 150	9 949 400
1995	5 859	8 977	–	346	–	100	111	217	774	992	14 618	[10] 15 228	–	44 420	3 184 400	[11] 39 387	[11] 9 292 900
1996	5 859	8 940	–	338	–	100	113	215	766	982	14 344	14 820	–	47 000	3 254 000	37 717	8 805 500
1997	5 865	8 730	–	334	–	102	124	215	775	994	13 320	14 346	–	49 980	3 376 000	40 321	9 856 400
1998	5 867	8 725	–	314	–	102	129	216	761	1 003	12 737	13 945	–	51 370	3 377 000	40 740	9 885 000
1999	5 836	8 680	–	312	–	102	130	216	760	1 029	12 647	13 453	–	53 209	3 415 000	39 979	9 752 500
2000	5 854	8 705	–	299	–	112	130	212	753	1 047	12 292	12 722	–	54 783	3 405 000	40 501	10 106 600
2001	5 850	8 734	–	285	–	112	140	205	742	1 056	11 933	12 225	–	54 987	3 282 000	41 678	9 857 300
2002	5 850	8 736	–	279	–	119	148	202	748	1 077	11 528	11 711	–	57 695	3 318 000	41 679	9 663 800
2003	5 851	8 707	–	273	–	119	156	201	749	1 060	11 324	11 115	–	59 969	3 338 000	43 503	10 047 100
2004	5 741	8 596	–	258	–	129	156	217	760	1 029	11 445	10 748	–	60 134	3 352 000	42 663	10 105 200
2005	5 732	8 587	–	257	10	147	156	132	702	1 084	11 162	10 305	–	63 493	3 478 000	40 722	9 705 800
2006	5 905	8 830	–	249	16	147	156	129	697	1 083	10 971	10 180	–	63 803	3 540 000	43 560	11 059 600
2007	5 899	8 816	–	245	16	148	156	129	694	1 024	10 790	9 988	–	66 685	3 778 000	40 288	10 434 100
2008	5 919	8 848	–	235	16	148	156	107	662	1 035	10 934	9 992	–	69 937	4 052 000	41 937	10 776 500
2009	5 919	8 847	–	224	16	149	156	96	641	1 033	10 524	9 935	–	67 555	3 876 000	32 860	8 872 300

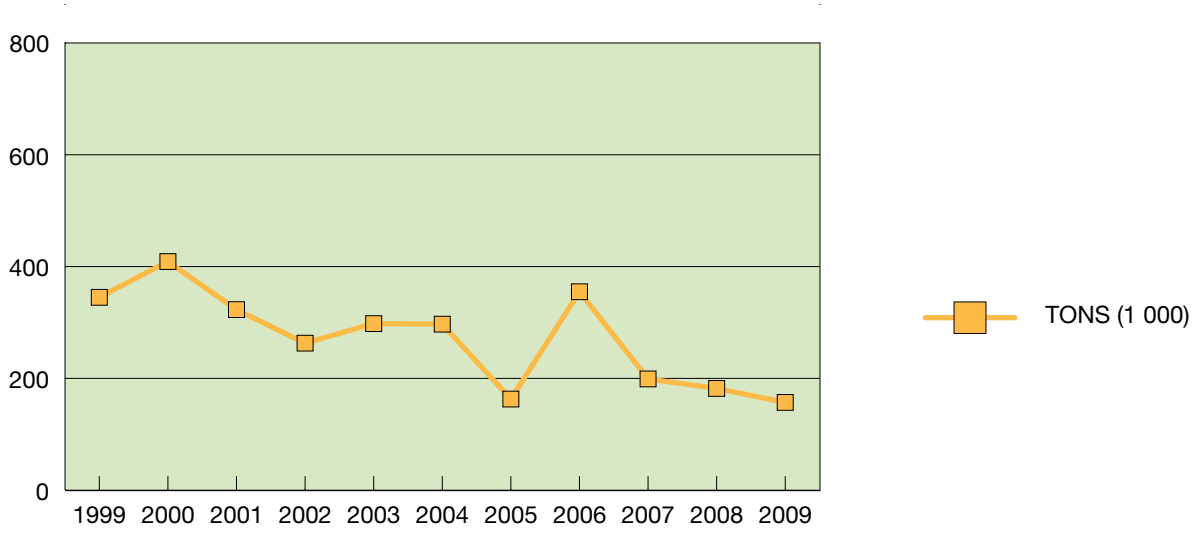
[1] Lines owned by the Finnish Rail Administration.
[2] Excluding free tickets and road traffic.
[3] Excluding parcels and transport of the railway's own freight. Live animals and means of transport included in the ton-kilometres only since 1921.
[4] Since 1900 including contractual staff.
[5] Since 1938 private sidings no longer included in the length of line.
[6] Since 1945 including express goods.
[7] Data on narrow-gauge lines not included.
[8] Since 1960 including local traffic proper.
[9] Since 1971 including local traffic proper.
[10] Since 1995 the staff of VR-Group Ltd, VR Ltd and VR-Track Ltd.
[11] Since 1995 train traffic only.

8 PRIVATE RAILWAYS

PRIVATE RAILWAYS AND THEIR ACTIVITY IN 2005 - 2009

Karhulan-Sunilan Rautatie Oy		2005	2006	2007	2008	2009
Opened for traffic on 3.5.1900						
Rail gauge	1.524 m					
Track length at end of year	km	10.2	10.2	10.2	10.2	10.2
Main tracks	km	6.1	6.1	6.1	6.1	6.1
Sidings	km	4.1	4.1	4.1	4.1	4.1
Length of line operated at end of year	km	6.1	6.1	6.1	6.1	6.1
Railway operating points at end of year		1	1	1	1	1
Rolling stock at end of year						
Motor locomotives		3	3	2	2	2
Staff at end of year		5	5	4	4	4
Number of trains						
Yearly		956	1 414	1 154	1 136	1 022
Daily		3.7	4.4	4.4	4.4	4.1
Train-km		5 736	8 484	6 924	6 816	6 132
Freight carried						
1 000 tons		163	355	199	182	157
1 000 tonne-km		978	2 130	1 195	1 092	942

FREIGHT CARRIED IN 1999 - 2009



9 DATA ON VARIOUS COUNTRIES AND THEIR RAILWAYS IN 2008

Countries

		Finland	Sweden	Norway	Denmark	Spain	France	Austria	Germany
Population	million	5.3	9.3	4.8	5.5	45.8	62.4	8.4	82.0
Area	1 000 km^2	339	450	324	43	507	552	84	357
Gross domestic product (2005=100) [1]	USD	110.9	106.7	107.0	104.2	108.6	105.0	109.3	107.0

Railways / Countries

		VR, RHK	SJ AB, BV, GREEN CARGO	NSB AS, JBV	DSB, BDK	RENFE, FEVE, FGC, EUSKOTREN, ADIF	SNCF, RFF, VEOLIA	ÖBB	DB AG
Staff	1 000	10.1	14.3	5.6	10.0	32.4	162.0	43.0	240.0
Length of line	km	5 919	9 830	4 114	2 131	15 041	29 901	5 664	33 855
		VR	SJ AB	NSB AS	DSB	RENFE	SNCF	ÖBB	DB AG
Train traffic Train-km	million	53.3	44.1	27.3	57.7	184.6	498.6	141.5	919.5
Passenger traffic Number of journeys	million	69.9	40.1	51.2	163.0	499.7	1 076.1	207.6	1 901.4
Passenger-km	million	4 052	7 156	2 705	5 836	22 073	86 664	10 159	76 929
		SUOMI FINLAND	RUOTSI SVERIGE	NORJA NORGE	TANSKA DANMARK	RENFE	SNCF	ÖBB	DB AG
Freight traffic [2] Volumes of transport									
Ton	million	41.9	66.7	25.1 [3]	7.2	25.9	94.0	91.9	292.2
Tonne-km	million	10.8	23.1	3.5 [3]	1.9	10.2	35.9	18.2	91.2

[1] Volume index at constant prices, seasonally adjusted. Source: Statistics Finland.

[2] Commercial traffic.

[3] Year 2007.

10 RESUME SUR LES CHEMINS DE FER DE FINLANDE

FTA & VR

RAPPORT ANNUEL A L'UNION INTERNATIONALE DES CHEMINS DE FER (UIC)

		2009	2008
TABLEAU 11 – LIGNES [1]			
Trafic ferroviaire			
Ecartement des rails: 1,524 m			
Longueur des lignes à la fin de l'année			
Lignes non électrifiées			
total	km	2 852	2 852
à simple voie	"	2 852	2 852
Lignes électrifiées [2]			
total	"	3 067	3 067
à double voie et plus	"	570	570
Total	"	5 919	5 919
Lignes exploitées			
en trafic voyageurs seulement	"	–	–
en trafic marchandises seulement	"	1 757	1 757
Transports routiers			
Longueur exploitée des lignes à la fin de l'année			
à marchandises	km	–	–
TABLEAU 21 – MATERIEL MOTEUR			
Effectifs à la fin de l'année			
Locomotives diesel			
Nombre total		320	342
dont supérieures à 1 500 kW		18	19
Locomotives électriques			
Nombre total		156	156
dont supérieures à 3 000 kW		156	156
Automotrices diesel			
Isolées			
Nombre total		16	16
Rames indéformables			
Nombre		–	–
Nombre total des véhicules		–	–
Automotrices électriques			
Rames indéformables			
Nombre		149	148
Nombre total des véhicules		374	368
TABLEAU 22 – MATERIEL DE TRANSPORT DE VOYAGEURS			
Effectifs à la fin de l'année			
Véhicules des réseaux pour but commercial			
Effectifs			
Voitures		643	651
Automotrices et remorques d'automotrices		390	384
Effectif total		1 033	1 035
dont voitures climatisées		350	337
dont voitures-restaurants		49	49
dont voitures-couchettes		–	–
dont voitures-lits		92	92
Nombre de places			
Assises			
1ère classe		2 404	2 404
2ème classe		63 682	63 697
Couchettes, 2ème classe		–	–
Voitures-lits, 1ère + 2ème classe (nombre maximal)		3 314	3 314
Assises et couchées total		69 400	69 415
Fourgons			
Effectif total		42	42

[1] Propriétaire Administration de la Voie Ferrée Finlandaise.

[2] Lignes alimentées en courant alternatif 25 000 volts 50 périodes, sous caténaire.

10 SUMMARY RELATING TO THE RAILWAYS OF FINLAND

FTA & VR

ANNUAL REPORT TO THE INTERNATIONAL UNION OF RAILWAYS (UIC)

		2009	2008
TABLE 11 – LINES [1]			
Rail Traffic			
Rail gauge: 1.524 m			
Length of lines at the end of the year			
Lines not electrified			
Total	km	2 852	2 852
Single track	"	2 852	2 852
Electrified lines [2]			
Total	"	3 067	3 067
Double and more than double track	"	570	570
Total	"	5 919	5 919
Lines used			
for passenger traffic only	"	–	–
for freight traffic only	"	1 757	1 757
Road traffic			
Length of lines worked at the end of the year			
Freight	km	–	–
TABLE 21 – TRACTIVE STOCK			
Fleet strength at the end of the year			
Diesel locomotives			
Total number		320	342
Above 1 500 kW		18	19
Electric locomotives			
Total number		156	156
Above 3 000 kW		156	156
Diesel railcars			
Single units			
Total number		16	16
Permanently-coupled trainsets			
Number		–	–
Total number of vehicles		–	–
Electric railcars			
Indivisible trainsets			
Number		149	148
Total number of vehicles		374	368
TABLE 22 – PASSENGER TRANSPORT STOCK			
Stock at the end of the year			
Railway-owned vehicles for commercial purpose			
Stock			
Coaches		643	651
Railcars and railcar trailers		390	384
Total stock		1 033	1 035
of which air-conditioned carriages		350	337
of which restaurant cars		49	49
of which couchette coaches		–	–
of which sleeping cars		92	92
Number of places			
Seats			
1st class		2 404	2 404
2nd class		63 682	63 697
Couchettes 2nd class		–	–
Sleeping cars 1st and 2nd class (maximum number)		3 314	3 314
Seating and sleeping accommodation total		69 400	69 415
Vans			
Total stock		42	42

[1] Owned by Finnish Rail Administration.

[2] Lines fed by 25 000 volts, 50 cycle, alternating current (catenary system).

		2009	2008
TABLEAU 23 – MATERIEL DE TRANSPORT DE MARCHANDISES			
Effectifs à la fin de l'année			
Véhicules des réseaux			
Wagons couverts			
Effectif		4 119	4 447
dont à bogies		1 704	1 626
Capacité totale en tonnes		172 332	179 735
Wagons tombereaux			
Effectif		542	542
dont à bogies		492	492
Capacité totale en tonnes		27 506	27 505
Wagons plats			
Effectif		5 353	5 459
dont à bogies		3 504	3 492
Capacité totale en tonnes		259 671	261 861
Autres wagons			
Effectif		510	486
dont à bogies		510	486
Capacité totale en tonnes		28 599	28 112
Total des wagons			
Effectif		10 524	10 934
dont à bogies		6 210	6 096
Capacité totale en tonnes		488 107	497 214
Véhicules de particuliers			
Wagons			
Effectif total		57	58
Capacité totale en tonnes		2 518	2 531
TABLEAU 31 – EFFECTIF MOYEN ANNUEL DU PERSONNEL			
Administration générale			
Direction générale et Directions régionales		808	826
Exploitation ferroviaire			
Mouvement et trafic			
Services centraux et régionaux		283	285
Services des gares		1 114	1 166
Services des trains		2 179	2 226
Total		3 576	3 677
Matériel et traction			
Services centraux et régionaux		132	127
Services de conduite des véhicules moteurs		1 797	1 835
Ateliers principaux		557	567
Autre personnel		604	610
Total		3 090	3 139
Installations fixes			
Services centraux et régionaux		667	563
Entretien et surveillance des installations fixes		1 760	1 736
Total		2 427	2 299
Autres exploitations			
Services routiers		–	–
Diverses		48	51
Travaux d'établissement, de reconstruction, etc		..	..
Total du personnel du réseau			
Total du personnel		9 949	9 992
dont statutaires		9 583	9 698
Travailleurs fournis par des firmes		..	..
TABLEAU 41 – PARCOURS DES TRAINS			
Locomotives diesel			
Total	1 000 km	5 989	7 418
Affectées au trafic voyageurs	"	1 191	1 155
Affectées au trafic marchandises [3]	"	4 798	6 263
Locomotives électriques			
Total	1 000 km	26 942	28 604
Affectées au trafic voyageurs	"	16 841	16 687
Affectées au trafic marchandises	"	10 101	11 917
Automotrices diesel			
Total	1 000 km	1 558	1 600
Affectées au trafic voyageurs	"	1 558	1 600

[3] Y compris les parcours des transports de service.

		2009	2008
TABLE 23 – FREIGHT TRANSPORT STOCK			
Stock at the end of the year			
Railway-owned vehicles			
Covered wagons			
Stock		4 119	4 447
of which bogie wagons		1 704	1 626
Total capacity in tonnes		172 332	179 735
High-sided open wagons			
Stock		542	542
of which bogie wagons		492	492
Total capacity in tonnes		27 506	27 505
Flat wagons			
Stock		5 353	5 459
of which bogie wagons		3 504	3 492
Total capacity in tonnes		259 671	261 861
Other wagons			
Stock		510	486
of which bogie wagons		510	486
Total capacity in tonnes		28 599	28 112
All wagons			
Stock		10 524	10 934
of which bogie wagons		6 210	6 096
Total capacity in tonnes		488 107	497 214
Private owner's vehicles			
Wagons			
Stock		57	58
Total capacity		2 518	2 531
TABLE 31 – ANNUAL MEAN STAFF STRENGTH			
General Management			
General headquarters and regional headquarters		808	826
Railway operations			
Operating and traffic			
Central and regional offices		283	285
Station services		1 114	1 166
Train services		2 179	2 226
Total		3 576	3 677
Traction and rolling stock			
Central and regional offices		132	127
Motor-vehicle driving staff		1 797	1 835
Main workshops		557	567
Other staff		604	610
Total		3 090	3 139
Permanent way			
Central and regional offices		667	563
Permanent way maintenance and supervision		1 760	1 736
Total		2 427	2 299
Other operations			
Road transport services		–	–
Miscellaneous		48	51
Net works, reconstruction, etc.[3]		..	..
Total staff belonging to the railway			
Total staff)		9 949	9 992
of which permanent staff		9 583	9 698
Staff supplied by contractors		..	..
TABLE 41 – TRAIN-KILOMETRES			
Diesel locomotives			
Total	1 000 km	5 989	7 418
Passenger traffic	"	1 191	1 155
Freight traffic [3]	"	4 798	6 263
Electric locomotives			
Total	1 000 km	26 942	28 604
Passenger traffic	"	16 841	16 687
Freight traffic	"	10 101	11 917
Diesel railcars			
Total	1 000 km	1 558	1 600
Passenger traffic	"	1 558	1 600
Electric railcars			
Total	1 000 km	15 530	15 637
Passenger traffic	"	15 530	15 637

[3] Including distances run by trains for departmental traffic.

		2009	2008
Automotrices électriques			
Total	1 000 km	15 530	15 637
Affectées au trafic voyageurs	"	15 530	15 637
Tous modes de traction			
Total	1 000 km	50 109	53 259
Affectées au trafic voyageurs	"	35 120	35 079
Affectées au trafic marchandises	"	14 899	18 180
TABLEAU 42 – TONNAGE KILOMETRIQUE BRUT REMORQUE DES TRAINS			
Locomotives diesel			
Total	1 000 000 km	4 947	6 413
Affectées au trafic voyageurs	"	321	307
Affectées au trafic marchandises	"	4 626	6 106
Locomotives électriques			
Total	1 000 000 km	19 597	21 863
Affectées au trafic voyageurs	"	6 144	6 133
Affectées au trafic marchandises	"	13 453	15 730
Automotrices diesel			
Total	1 000 000 km	122	125
Affectées au trafic voyageurs	"	122	125
Affectées au trafic marchandises	"	–	–
Automotrices électriques			
Total	1 000 000 km	3 443	3 457
Affectées au trafic voyageurs	"	3 443	3 457
Tous modes de traction			
Total	1 000 000 km	28 109	31 858
Affectées au trafic voyageurs	1 000 000 km	10 030	10 022
Affectées au trafic marchandises	"	18 079	21 836
TABLEAU 43 – PARCOURS DU MATERIEL ROULANT [4]			
Parcours des véhicules moteurs par mode de traction			
Locomotives diesel	1 000 km	15 322	18 658
Locomotives électriques	"	31 181	33 405
Automotrices diesel	"	2 099	2 159
Automotrices électriques	"	20 642	20 679
Tous modes de traction	"	69 244	74 901
Voitures, automotrices et remorques d'automotrices (en wagon-kilomètres)		..	..
Wagons (en wagon-kilomètres)			
Total	1 000 000 km	405	477
dont chargés	"	221	262
TABLEAU 51 – TRAFIC COMMERCIAL VOYAGEURS [5]			
Trafic ferroviaire			
Nombre de voyageurs			
Total	1 000	67 555	69 937
en 2ème classe	"	..	..
Nombre de voyageurs-kilomètres			
Total	1 000 000 km	3 876	4 052
en 2ème classe	"	..	..
Parcours moyen d'un voyageur	km	57,4	57,9
Bagages			
Automobiles accompagnées			
Nombre		46 278	48 926
Poids (en tonnes)		69 417	73 390
Autres			
Poids (en tonnes)		–	–

[4] Total des parcours sur le Réseau, y compris les véhicules étrangers.
[5] Voyageurs payants seulement, quel que soit le taux de reduction appliquée.

		2009	2008
All types of traction			
Total)	1 000 km	50 109	53 259
Passenger traffic	"	35 120	35 079
Freight traffic	"	14 899	18 180
TABLE 42 – TRAIN GROSS TONNE-KILOMETRES HAULED			
Diesel locomotives			
Total	1 000 000 km	4 947	6 413
Passenger traffic	"	321	307
Freight traffic	"	4 626	6 106
Electric locomotives			
Total	1 000 000 km	19 597	21 863
Passenger traffic	"	6 144	6 133
Freight traffic	"	13 453	15 730
Diesel railcars			
Total	1 000 000 km	122	125
Passenger traffic	"	122	125
Freight traffic	"	–	–
Electric railcars			
Total	1 000 000 km	3 443	3 457
Passenger traffic	"	3 443	3 457
All types of traction			
Total)	1 000 000 km	28 109	31 858
Passenger traffic	"	10 030	10 022
Freight traffic	"	18 079	21 836
TABLE 43 – ROLLING STOCK-KILOMETRES [4]			
Tractive vehicle kilometres by type of traction			
Diesel locomotives	1 000 km	15 322	18 658
Electric locomotives	"	31 181	33 405
Diesel railcars	"	2 099	2 159
Electric railcars	"	20 642	20 679
All types of traction	"	69 244	74 901
Coaches, railcars and railcar trailers (in wagon-kilometres)		..	..
Wagons (in wagon-kilometres)			
Total	1 000 000 km	405	477
Loaded	"	221	262
TABLE 51 – REVENUE-EARNING PASSENGER TRAFFIC [5]			
Rail traffic			
Number of passengers carried			
Total	1 000	67 555	69 937
2nd class	"	..	..
Number of passenger-kilometres			
Total	1 000 000 km	3 876	4 052
2nd class	"	..	..
Mean passenger distance	km	57.4	57.9
Baggage			
Accompanied cars			
Number		46 278	48 926
Weights (in tonnes)		69 417	73 390
Other			
Weight (in tonnes)		–	–
TABLE 61 – FREIGHT TRAFFIC			
Rail traffic			
Tonnes carried (in thousands)			
Revenue-earning traffic			
By traffic category			
Express parcels and smalls traffic		–	–
Full wagonloads		32 860	41 937
of which full trainloads		..	..
Empty private-owners' wagons		–	–
Total		32 860	41 937
Works traffic		5	11
Grand total		32 865	41 948
Tonne-kilometres			
Revenue-earning-traffic			
By traffic category			
Express parcels and smalls traffic	1 000 000 km	–	–

[4] Total kilometres on the railway network, including foreign vehicles.
[5] Fare-paying passengers only irrespective of the reduction rate applied.

		2009	2008
TABLEAU 61 – TRAFIC MARCHANDISES			
Trafic ferroviaire			
Tonnes transportées (en milliers)			
Transports commercieaux			
par catégorie de trafic			
Colis express et envois de détail		–	–
Wagons complets		32 860	41 937
dont par trains complets		..	..
Wagons de particuliers vides		–	–
Total		32 860	41 937
Transports en service		5	11
Total général		32 865	41 948
Tonnes-kilomètres			
Transports commerciaux			
par catégorie de trafic			
Colis express	1 000 000 km	–	–
Wagons complets	"	8 872	10 777
dont par trains complets	"	..	..
Wagons de particuliers vides	"	–	–
Total	"	8 872	10 777
Transports en service	"	2	4
Total général	"	8 874	10 781
Parcours moyen d'une tonne			
Transports commerciaux	km	270,0	257,0
dont transports intermodaux à charge et à vide			
Nombre d'unités intermodales transportées (en milliers)		83	112
Nombre de wagons chargés d'unités intermodales (en milliers)		63	85
Tonnes transportées (en milliers)		1 258	1 596
Tonnes kilomètres (en millions)		521	617

		2009	2008
Full wagonloads	"	8 872	10 777
of which full trainloads	"	..	..
Empty private-owners' wagons	"	–	–
Total	"	8 872	10 777
Works traffic		2	4
Grand total	"	8 874	10 781
Average length of haul of one tonne			
Revenue-earning traffic	km	270.0	257.0
of which loaded and empty			
intermodal traffic			
Number of intermodal units carried (in thousands)		83	112
Number of wagons loaded with intermodal units (in thousands)		63	85
Tonnes carried (in thousands)		1 258	1 596
Tonne-kilometres (in millions)		521	617

ORGANISATION OF THE FINNISH TRANSPORT AGENCY

Director General

Communications

Director General´s Staff

Internal Audit

Traffic System´s Department

Transport
- Planning Unit for the Transport System
- Transport Information Services Unit

Development
- Strategy Unit
- Research and Development Unit

Public Transport
- Public Transport Unit
- Shipping Subsidies Unit

Maritime Department

Traffic Management
- Maritime Traffic Unit
  - VTS Centres (Gulf of Finland, West Finland and Saimaa)
- Telematics Unit
- Winter Navigation Unit

Waterways
- Waterways Technology Unit
- Regional Waterways Unit:
  - Gulf of Finland
  - Southwest Finland
  - West Finland
  - Inland Waterways

Hydrographic Office
- Hydrographic Survey Unit
- Nautical Charts Unit
- Hydrographic Information Management Unit

Railway Department

Traffic Management
- Traffic Management Unit
- Rail Traffic Management Centre

Investments
- Project Management Unit
- Electrical and Signalling Unit
- Project Planning Unit
- Procurement Services Unit

Rail Network
- Maintenance Unit
- Rail Data Unit
- Technical Unit
- Environment Unit

Road Department

Road Operations
- Road Management Unit
- Road Maintenance Unit
- Road and Traffic Data Unit

Road Investments
- Procurement Unit
- Road Design Unit
- Road Investments Unit

Road and Bridge Engineering
- Road Engineering Unit
- Bridge Design Unit
- Bridge Construction Unit

Road Traffic Centre
- Helsinki, Turku, Tampere, Oulu, Lappeenranta
- Traffic Centre Development Unit

Administration Department

Economy

Personnel
- Personnel Administration Unit
- Competence Development Unit
- Change Management Unit

IT Unit/ICT
- ICT Infra Unit
- Data Administration Unit
- Architecture & Development Unit

Administration
- Administrative Services Unit
- Travel Services Unit
- Interest Groups Unit

Information & Archives
- Record Management Unit

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