

## Finnish Railway Statistics 2012





# Finnish Railway Statistics 2012

Statistics of the Finnish Transport Agency 6/2012

Finnish Transport Agency  
Helsinki 2012

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# FOREWORD



The publication is an English version of the Finnish Railway Statistics 2012. 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 2012

*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 tonne-kilometres	= total gross weight of the locomotive and the carrying stock of a train in tonnes X corresponding train-kilometres
Gross tonne-kilometres hauled	= gross weight of the carrying stock of a train in tonnes 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 tonne 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 homogeneity of a series.

# QUALITY STATEMENT

## Relevance of the statistical data

The Finnish Railway Statistics is the basic statistic of the Finnish railways.

The Finnish Railway Statistics describes the state of the rail network with time series by line section. The data includes information on the tracks, rolling stock, rail traffic, passenger services, freight traffic, financing and accidents. The data covers the entire Finnish rail transport system. The statistic serves the entire rail sector by producing statistical information for planning, follow-up, monitoring and decision making.

Regarding tracks, information is presented on the length of line which is classified according to the number of tracks, line classification and operational classification. Lines are shown on a map and classified according to line section to passenger and freight lines and showing the line length, lines superstructure properties, line age, electrification and signalling systems and their age, the number of level crossings and their warning devices. The line sections are also listed according to the date on which they were opened for traffic. Time series are shown for part of the data.

The changes in rail types and investments in track construction and maintenance are also shown as time series. In addition, the number of rail traffic operating points divided into passenger and freight traffic is shown and buildings and land and water areas connected to the railways.

Regarding tractive stock, information is presented on VR's rolling stock by type of tractive stock and locomotive, passenger services' cars and the number of seats and freight wagons and their carrying capacity in tonnes.

The main data on train and tractive stock performance are shown as a time series. The volume of rail traffic by line section is shown as a map of gross tonnes carried. Vehicle-axle-kilometres which represents the distance covered by the wagons by train and wagon type and rail traffic energy consumption as a time series are presented.

Passenger traffic journeys and freight traffic volumes are presented as a time series. Long-distance passenger and freight volumes by line section are shown as a map. The development of freight transport distances is shown as a time series. Wagon-specific data is presented on Finland's international traffic.

Rail traffic volume are presented as indexed time series. The number of railway accidents classified according to the type of accident, fatalities and serious injuries is presented. A historical survey for the main quantities related to the railways, key figures for private railways and data on various countries is also presented.

The Railway Act (304/2011) obliges the operator to provide the Finnish Transport Agency with information on services it operates for e.g. statistical purposes.

The EC regulation No 91/2003 states the classifications and definitions on the basis of which the member states produce railway statistics. The International Union of Railways (UIC) has issued more detailed specifications on the matter.

## Statistics production process description

Data concerning the track is obtained from the Finnish Transport Agency's track databases. The information is updated every year to reflect the changes brought by maintenance work and investments in the rail network.

Data concerning rail traffic and rolling stock is obtained for the most part from the operator's continually updated statistical databases which number several dozen. Some of the data is connected to monitoring of sales and some to separate registers.

## Correctness and accuracy of the data

The coverage of the data is good because the rail network is a closed system. The accuracy and reliability of the data is for the most part good also at international standards because there is only one rail operator in Finland at the moment. Nearly all rail statistics is based on so called "full statistics". An exception are commuter services passenger volumes which have to be estimated based on occasional passenger countings.

## The accuracy and timeliness of published data

The Finnish Railway Statistics is published annually by the end of June and it includes the final annual data of the previous year.

## Availability of the information

The Finnish Railway Statistics is published annually in print and as pdf on the Finnish Transport Agency's website. Unpublished, more detailed statistical information is available from the Finnish Transport Agency and the operator.

## Comparability of the statistics

The data from different periods offers good comparability. Comparable time series is available from several decades. Changes have, however, been made in the classifications and definitions over the years and they are indicated in the footnotes of the point in question.

The Finnish Railway Statistic has been compiled from 1933 and before that the statistics were published as reports of the National Board of Railways from 1873 to 1932.

## Clarity and coherence

The statistical titles of the railways are determined at the international level by the EU statistical authority (Eurostat) and the International Union of Railways (UIC). The various concepts and definitions used by EU member states have made it harder to compare international railway statistics. The EC regulation on railway statistics from 2003 has, however, improved the situation.

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# THE YEAR 2011 IN BRIEF

## Line <sup>1)</sup> and transport stock <sup>2)</sup>

		2011	2010	Change, %
Length of line	km	5 944	5 919	0.4
of which electrified	km	3 172	3 072	3.3
Track length	km	8 885	8 862	0.3
Tractive stock strength	number	643	644	-0.2
Hauled stock in commercial traffic		11 466	11 535	-0.6
Passenger stock	number	1 102	1 071	2.9
Freight stock	number	10 364	10 464	-1.0
Railway operating points	number	349	350	-0.3
Buildings				
VR	number	360	362	-0.6
VR	1 000 m <sup>3</sup>	3 864	4 013	-4.2

## Train traffic <sup>2)</sup>

		2011	2010	Change, %
Train-km	1 000	51 070	51 000	0.1
Passenger traffic		35 578	35 048	1.5
Freight traffic		15 492	15 952	-2.9
Gross tonne-km	1 000 000	32 712	33 091	-1.1
Locomotive-km	1 000	71 813	70 822	1.4
Energy consumption in train traffic				
Electricity	million kWh	652	665	-2.0
Diesel oil	million l	37.8	37.8	0.0

## Passenger traffic <sup>2)</sup>

		2011	2010	Change, %
Journeys	1 000	68 376	68 950	-0.8
Passenger-km	million	3 882	3 959	-1.9

<sup>1)</sup> Lines owned by the Finnish Transport Agency.

<sup>2)</sup> Data relating to VR.



### Freight traffic <sup>2)</sup>

		2011	2010	Change, %
Freight volumes	1 000 tons	34 827	35 795	-2.7
Domestic		23 505	23 249	1.1
International		11 322	12 545	-9.7
Tonne-km	million	9 395	9 750	-3.6
Domestic		6 797	6 915	-1.7
International		2 598	2 835	-8.4

### Rail traffic volume indice <sup>2)</sup> (2000 = 100)

	2011	2010
Passenger traffic	119	120
Freight traffic	86	88
Total rail traffic	101	103

### Railway accidents <sup>2)</sup>

	2011	2010
Number of railway accidents	2	1
Passengers		
Killed	0	0
Seriously injured	0	0

# 1 LINE AND TRANSPORT STOCK <sup>1) 2)</sup>

## 1.1 LINE AND SUPERSTRUCTURE

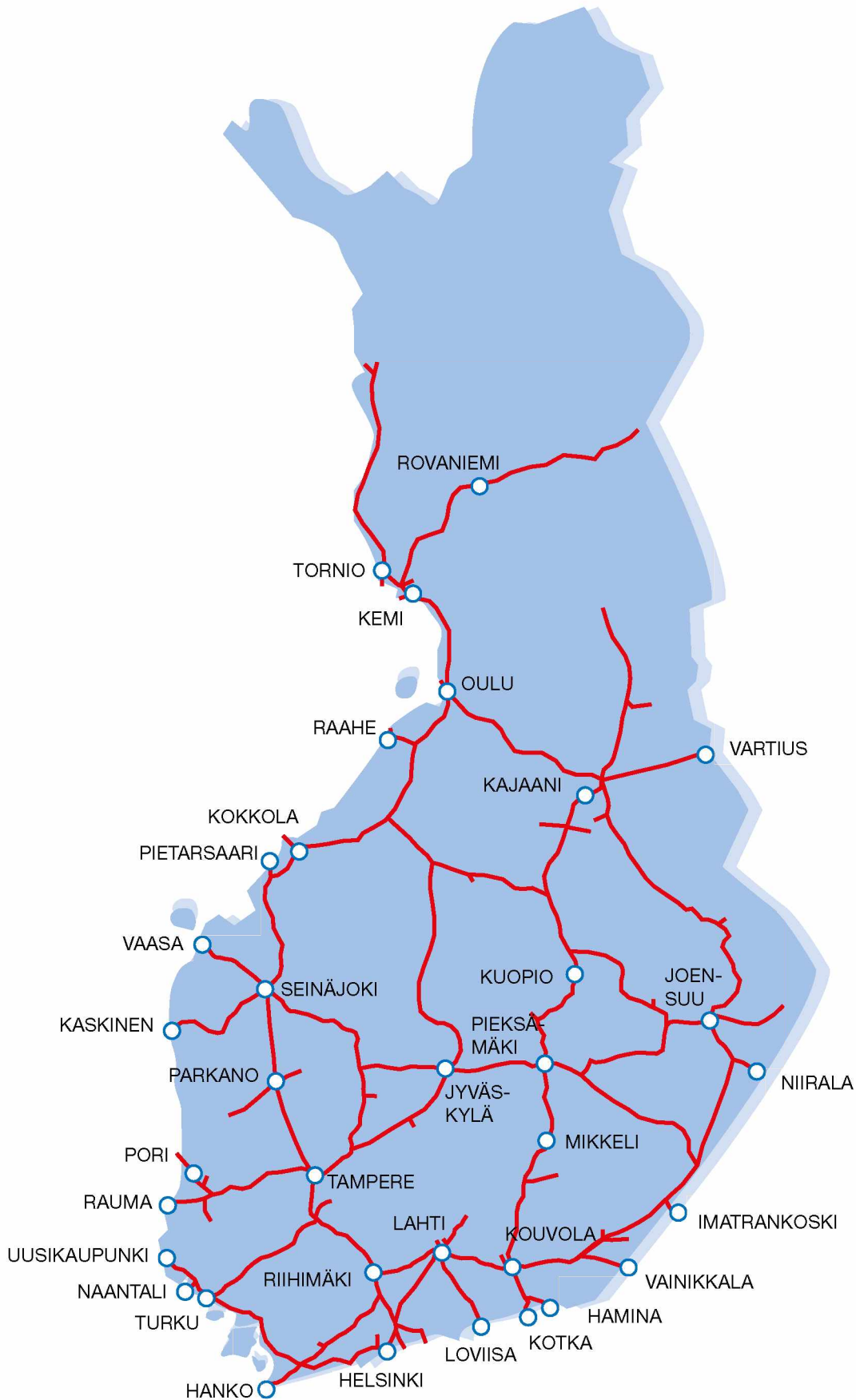
Rail gauge	1.524 m	2011
Length of line	km	5 944
Single track	km	5 371
of which electrified	%	90.4
of which electrified	km	2 599
Double track or more	km	573
of which electrified	%	9.6
of which electrified	km	573
Classification of main lines <sup>3)</sup>		
Line category A	Track-km	553
Line category B	Track-km	935
Line category C	Track-km	2 156
Line category D	Track-km	2 973
Rails		
Track length	Track-km	8 885
Main tracks	Track-km	6 342
of which electrified	%	71.4
Secondary tracks	Track-km	275
of which electrified	%	3.1
Sidings	Track-km	2 268
of which electrified	%	25.5
Switches	Number	5 547
Crossings	Number	40
Tunnels	Number	42
	Metres	38 896

<sup>1)</sup> At the end of 2011.

<sup>2)</sup> Lines owned by the Finnish Transport Agency.

<sup>3)</sup> 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	Section of line	Opened for traffic	km
Helsinki – Hämeenlinna	17.3.1862	107	Turku – Mynämäki	1.9.1923	30
Pasila – Sörnäinen	6.2.1863	3	Raisio – Naantali	16.11.1923	6
Riihimäki – Lahti	1.11.1869	59	Iisalmi – Kiuruvesi	1.12.1923	34
Lahti – Vesijärvi	1.11.1869	3	Mynämäki – Kalaranta	1.9.1924	36
Lahti – Vainikkala Border	11.9.1870	155	Kiuruvesi – Pyhäsalmi	1.1.1925	32
Hanko – Hyvinkää <sup>1)</sup>	8.10.1873	149	Pyhäsalmi – Haapajärvi	1.8.1925	33
Porvoo – Kerava <sup>2)</sup>	16.7.1874	33	Haapajärvi – Ylivieska	1.12.1925	55
Turku – Toijala	22.6.1876	128	Karunki – Korpikylä	1.1.1926	9
Tampere – Hämeenlinna	22.6.1876	80	Paltamo (Kiehimä) – Vuokatti	16.10.1926	42
Turku – Turku Harbour	22.6.1876	3	Vuokatti – Sotkamo (Hirvenniemi)	16.10.1926	6
Tampere – Vaasa (Nikolainkaupunki)	29.9.1883	306	Korpikylä – Aavasaksa	1.11.1927	34
Simola – Lappeenranta	1.8.1885	18	Oulu – Muhos	1.11.1927	36
Seinäjäki – Oulu	1.11.1886	335	Joensuu – Sysmäjärvi	1.12.1927	44
Oulu – Toppila	1.11.1886	4	Vuokatti – Saviaho	23.1.1928	23
Kokkola – Ykspihlaja	1.11.1886	5	Sysmäjärvi – Outokumpu	15.5.1928	3
Pännäinen – Leppäluoto	1.11.1887	14	Aavasaksa – Kaulinranta (Kauliranta)	1.9.1928	7
Kouvola – Kuopio	1.10.1889	273	Muhos – Utajärvi	1.12.1928	22
Suonenjoki – Iisvesi	1.10.1889	6	Lohja – Tytyri	21.12.1928	3
Kouvola – Kotka	1.10.1890	54	Vilppula – Mänttä	1.1.1929	8
Kouvola – Kymintehdas	1.10.1892	9	Saviaho – Rumo	1.2.1929	17
Imatrankoski Border – Imatrankoski (Imatra)	1.11.1892	5	Utajärvi – Vaala	16.10.1929	34
Vaasa (Nikolainkaupunki) – Vaskiluoto	1.8.1893	4	Rumo – Nurmes	1.11.1929	44
Joensuu – Niirala Border	1.11.1894	70	Vaala – Paltamo (Kiehimä)	1.12.1930	57
Helsinki – Eteläsatama	16.12.1894	4	Markkula – Kaupinkangas	15.5.1931	10
Eteläsatama – Katajanokka	1.10.1895	1	Kemi – Ajos	1.11.1931	9
Imatrankoski (Imatra) – Vuoksenniska	16.10.1895	7	Lahti – Jyränkö	1.1.1932	35
Tampere – Pori	1.11.1895	134	Jyränkö – Heinola	22.5.1932	2
Kokemäki (Peipohja) – Rauma <sup>3)</sup>	15.4.1897	47	Pori – Niinisalo	16.12.1933	64
Haapamäki – Jyväskylä	1.11.1897	77	Rovaniemi – Kemijärvi	1.9.1934	83
Jyväskylä – Suolahti	1.11.1898	40	Lappeenranta – Imatra T (Tainionkoski)	1.10.1934	41
Inkeroinen – Hamina <sup>4)</sup>	5.10.1899	26	Niinisalo – Kairokoski (Parkano)	1.1.1935	37
Pori – Mäntyluoto	1.11.1899	21	Imatra T (Tainionkoski) – Kaukopää	16.11.1935	3
Turku – Karjaa	1.11.1899	113	Vuoksenniska (Rönkkä) – Simpele	1.11.1937	39
Tuomioja (Lappi) – Raahe <sup>5)</sup>	5.12.1899	28	Kairokoski – Virrat	1.11.1937	51
Raahe – Lapaluoto <sup>5)</sup>	1.9.1900	6	Hillo harbour line	1.12.1937	6
Kuopio – Iisalmi	1.7.1902	85	Toijala – Valkeakoski	1.9.1938	18
Pasila – Karjaa	1.9.1903	84	Virrat – Haapamäki	15.11.1938	40
Tuira – Tornio	16.10.1903	129	Kontiomäki – Hyrynsalmi	1.12.1939	46
Iisalmi – Kajaani	16.10.1904	83	Varkaus – Vihtari	1.12.1939	65
Savonlinna – Parikkala	1.2.1908	60	Vihtari – Viinijärvi	22.4.1940	36
Laurila – Rovaniemi	16.10.1909	107	Haukipudas – Martinniemi	1.10.1940	5
Joensuu – Lieksa	10.9.1910	104	Raippo – Melkkola	25.8.1940	2
Lieksa – Nurmes	16.10.1911	56	Kemijärvi – Kelloselkä	1.11.1942	79
Kiukainen – Kauttua <sup>3)</sup>	1.2.1913	13	Suolahti – Äänekoski	16.11.1942	7
Seinäjäki – Kristiinankaupunki	1.8.1913	112	Simpele – Parikkala	1.12.1947	19
Perälä – Kaskinen	1.8.1913	24	Kovjoki – Uusikaarlepyy	10.4.1949	8
Huutokoski – Varkaus	1.11.1914	18	Orivesi – Jämsä	15.7.1950	56
Pieksämäki – Savonlinna	1.11.1914	106	Jämsä – Jämsänkoski	1.7.1951	4
Jyväskylä – Pieksämäki	1.6.1918	79	Kauppi – Ylihärmä	1.10.1951	3
Tornio – Tornio Border	1.4.1919	2	Jämsä – Kaipola (Perälänlahti)	1.8.1952	7
Tornio – Kukkola	24.3.1922	17	Hyrynsalmi – Laaja	1.12.1952	18
Kukkola – Karunki	1.1.1923	10	Murtomäki – Otanmäki	1.11.1953	25
Kajaani – Kontiomäki	1.1.1923	26	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	Section of line	Opened for traffic	km
Äänekoski – Saarijärvi	1.4.1955	30	Sieppijärvi – Kolari	1.12.1966	21
Haapajärvi – Muuras	16.12.1954	23	Puhos – Parikkala	1.12.1966	65
Laaja – Pesiökylä	16.9.1955	10	Herajärvi – Ilomantsi	1.8.1967	18
Pesiökylä – Ämmänsaari	1.12.1955	18	Kolari – Äkäsjoki	1.9.1967	17
Muuras – Pihtipudas	1.10.1956	25	Juankoski – Luikonlahti	1.11.1968	25
Siilinjärvi – Sänkimäki	15.11.1956	15	Seinäjoki – Parkano (Uusi-Parkano)	1.1.1970	84
Pesiökylä – Kovajärvi	15.11.1956	11	Luikonlahti – Sysmäjärvi	1.1.1970	31
Joensuu – Keskijärvi	15.11.1957	31	Parkano – Lielähti	1.1.1971	70
Kovajärvi – Vääkiö	15.11.1957	10	Olli – Sköldvik	14.2.1972	11
Sänkimäki – Juankoski	15.11.1957	27	Vuonos Branch Line	1.3.1972	3
Keskijärvi – Tuupovaara	15.9.1958	13	Niesa – Rautuvaara	1.4.1973	10
Saarijärvi – Enonjärvi	1.1.1959	29	Vuokatti – Lahnaslampi	1.2.1974	12
Pihtipudas – Seläntaus	15.1.1959	7	Huopalahti – Martinlaakso	1.6.1975	8
Vääkiö – Leino	15.1.1959	20	Kontiomäki – Vartius Border	1.11.1976	93
Leino – Taivalniska	1.11.1959	39	Jämsänkoski – Jyväskylän	1.11.1977	53
Enonjärvi – Kannonkoski	1.11.1959	8	Mynttilä – Ristiina	22.11.1979	21
Kannonkoski – Varanen	1.1.1960	11	Juurikorpi – Salmenkylä	1.2.1984	14
Seläntaus – Keitelelohja	15.2.1960	12	Mäntyluoto – Tahkoluoto	1.2.1984	11
Lahti – Loviisa Harbour (Valko) <sup>6)</sup>	2.5.1960	77	Lautiosaari – Eljäjärvi	31.10.1985	8
Varanen – Keitelelohja	1.10.1960	19	Hovinsaari – Mussalo	1.3.1989	5
Porvoo – Porvoo Centre	28.5.1961	1	Martinlaakso – Vantaankoski	2.9.1991	1
Taivalniska – Taivalkoski	1.12.1961	2	Kytömaa – Hakosilta	3.9.2006	63
Luumäki – Lappeenranta	15.9.1962	27	Kerava – Vuosaari	28.11.2008	21
Tuupovaara – Herajärvi	1.8.1963	9	Murtomäki – Talvivaara <sup>7)</sup>	16.9.2009	25
Kaulinranta (Kauliranta) – Pello	3.1.1964	42			
Pello – Sieppijärvi	1.12.1965	43			
Säkäniemi – Puhos	1.12.1965	28			

- 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  
 7) " " " " 1.9.2011



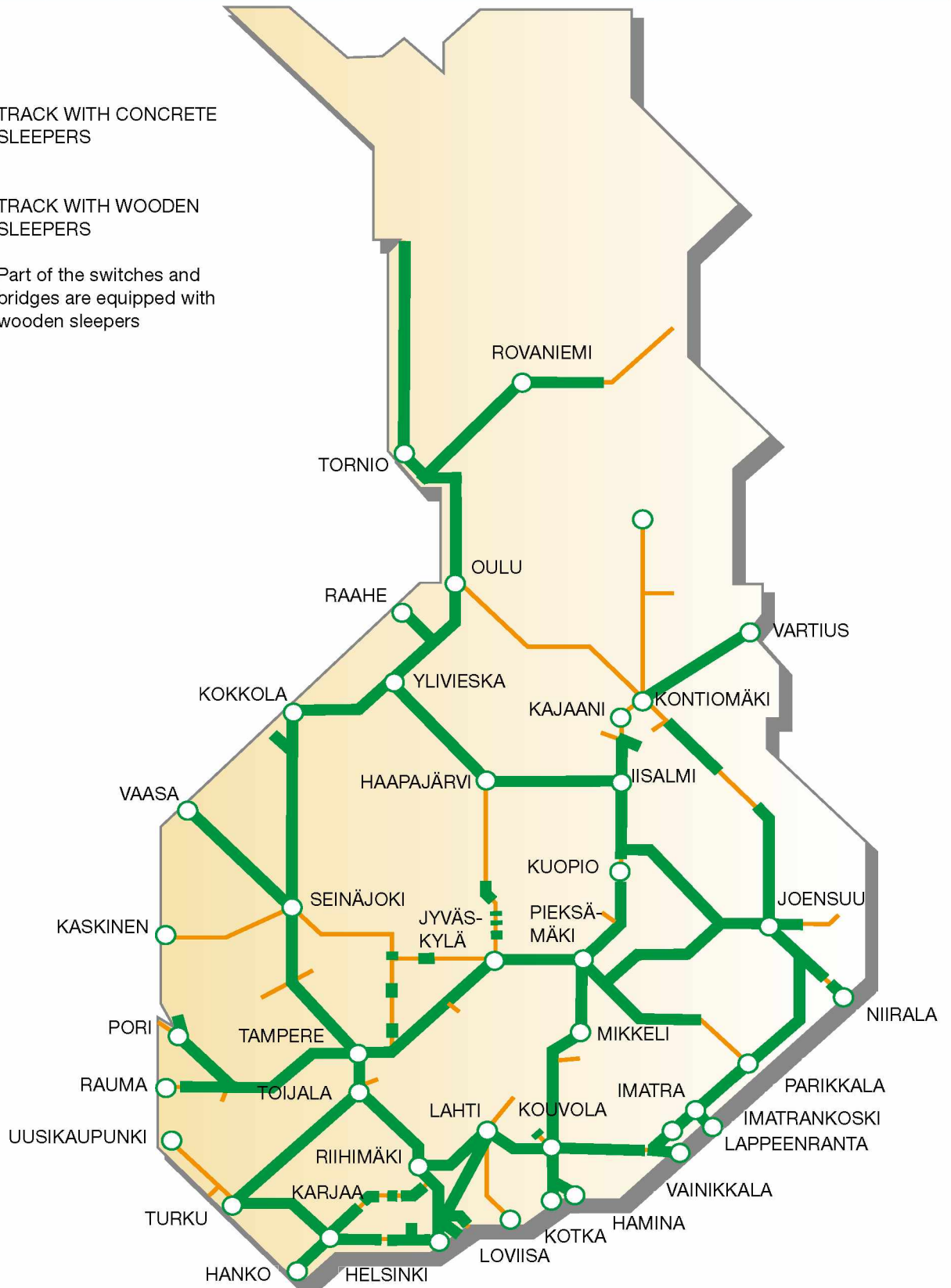


# 1.6 TRACK SUPERSTRUCTURE

## Tracks with concrete sleepers

1995		2000		2005		2008		2009		2010		2011	
km	%	km	%	km	%	km	%	km	%	km	%	km	%
1 400	22	2 827	44	3 941	61	4 419	67	4 548	69	4 634	70	4 749	72

- █ TRACK WITH CONCRETE SLEEPERS
  - █ TRACK WITH WOODEN SLEEPERS
- Part of the switches and bridges are equipped with wooden sleepers





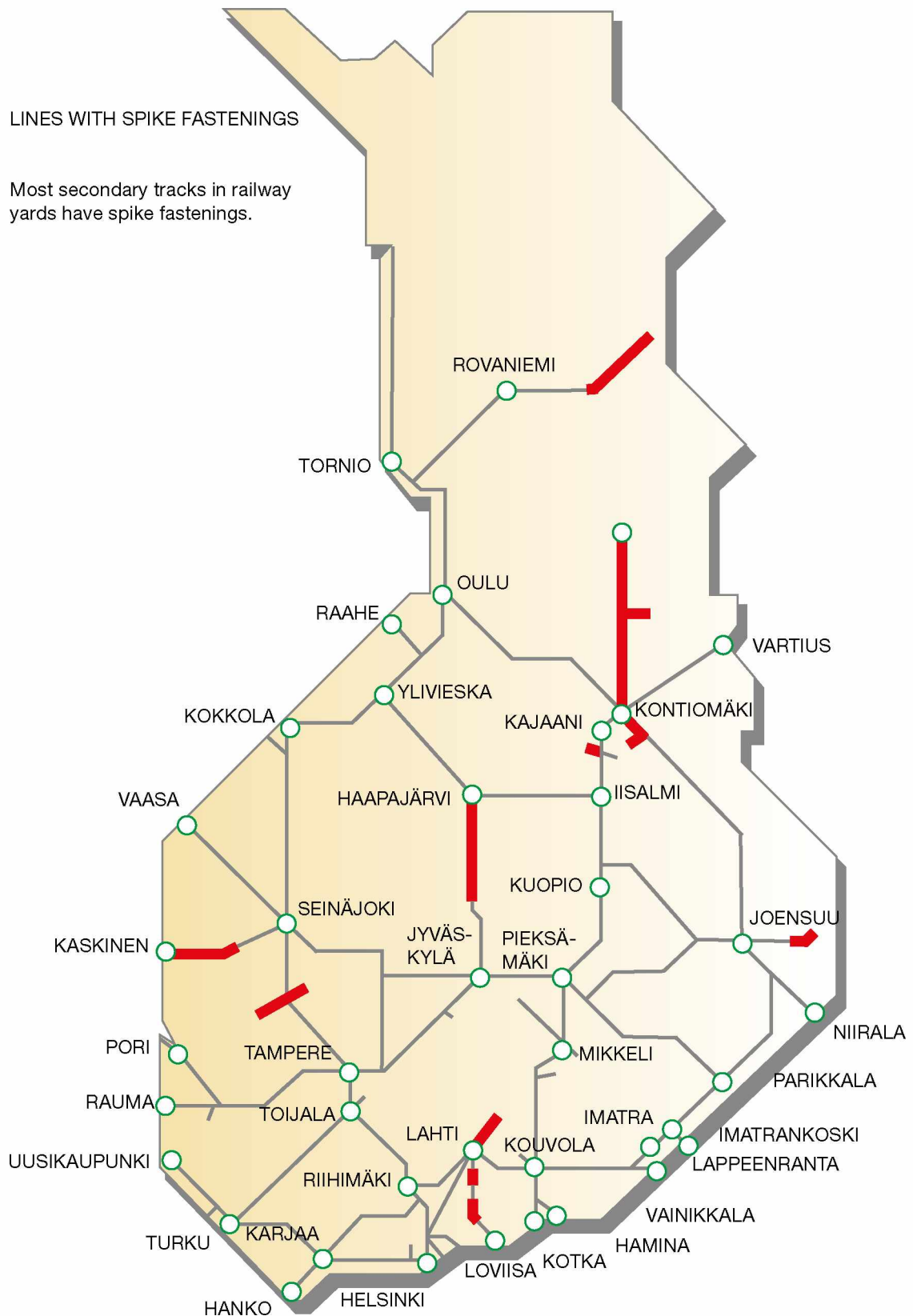
# 1.6 TRACK SUPERSTRUCTURE

## Lines with spike fastenings

1995		2000		2005		2008		2009		2010		2011	
km	%	km	%	km	%	km	%	km	%	km	%	km	%
1 970	31	1 340	21	1 170	18	940	14	850	13	730	11	700	11

 LINES WITH SPIKE FASTENINGS

Most secondary tracks in railway yards have spike fastenings.



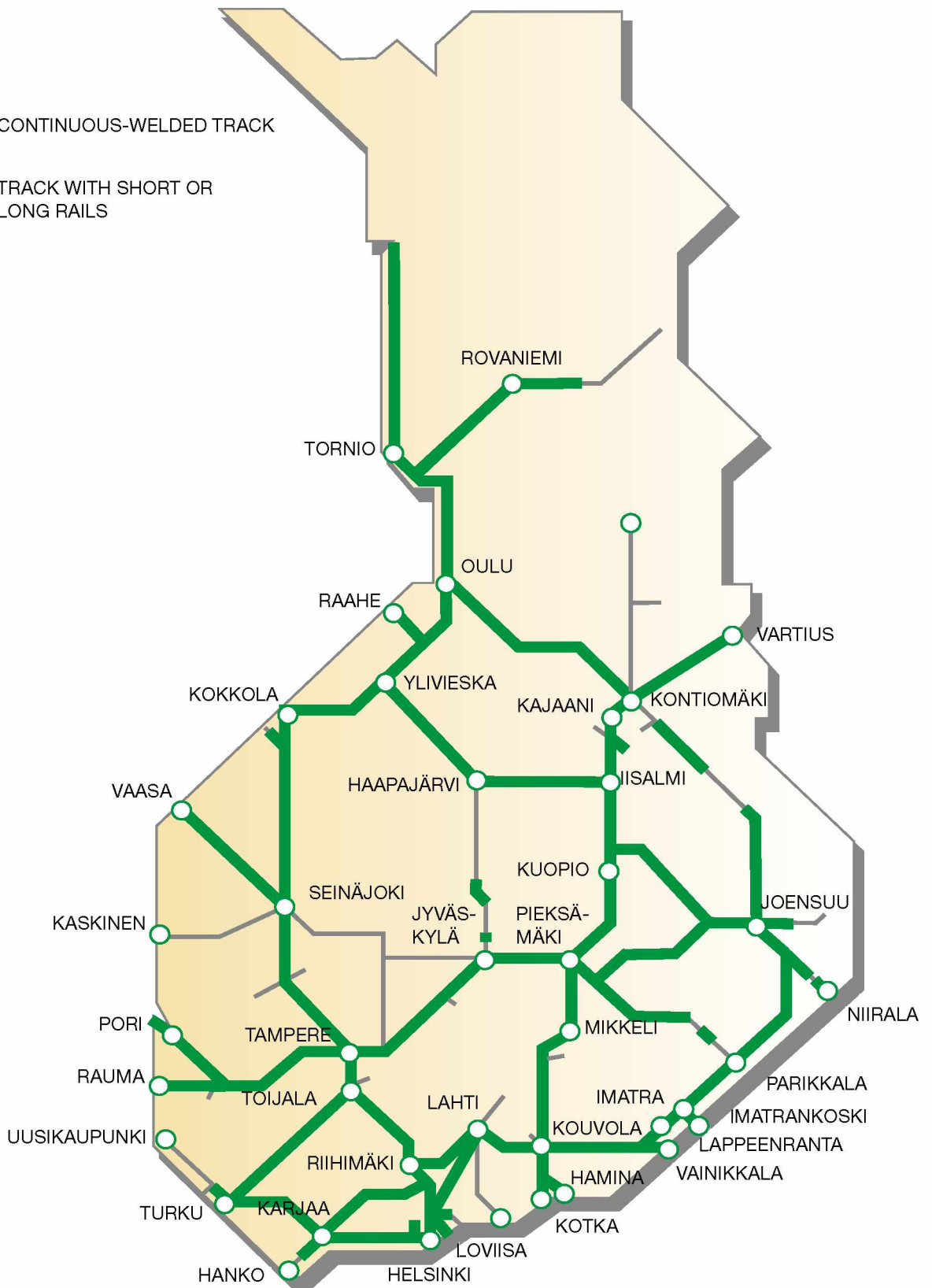
# 1.6 TRACK SUPERSTRUCTURE

## Continuous-welded tracks

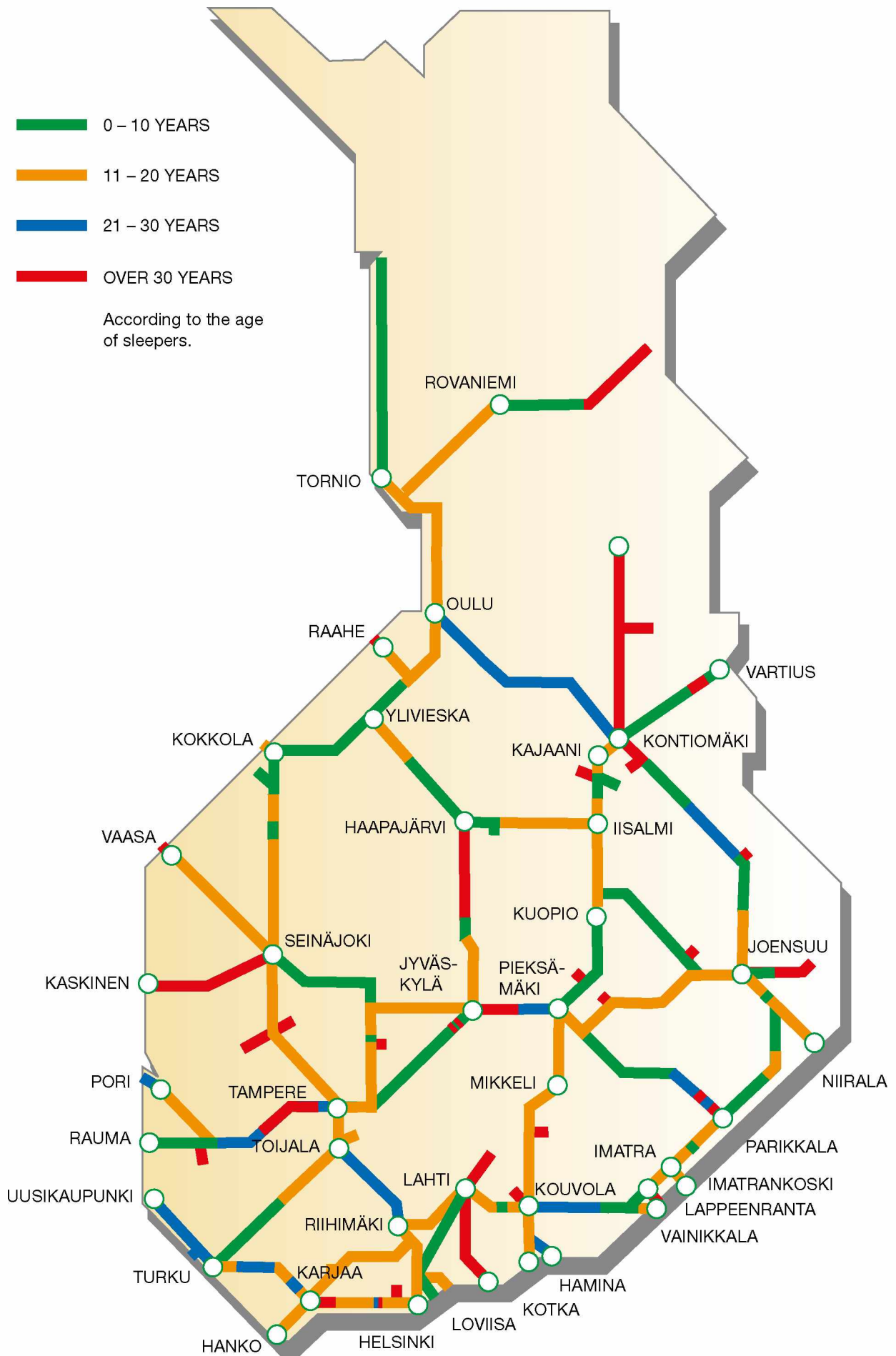
1995		2000		2005		2008		2009		2010		2011	
km	%	km	%	km	%	km	%	km	%	km	%	km	%
3 660	58	4 245	66	4 488	70	4 828	73	4 927	75	5 010	76	5 117	77

 CONTINUOUS-WELDED TRACK

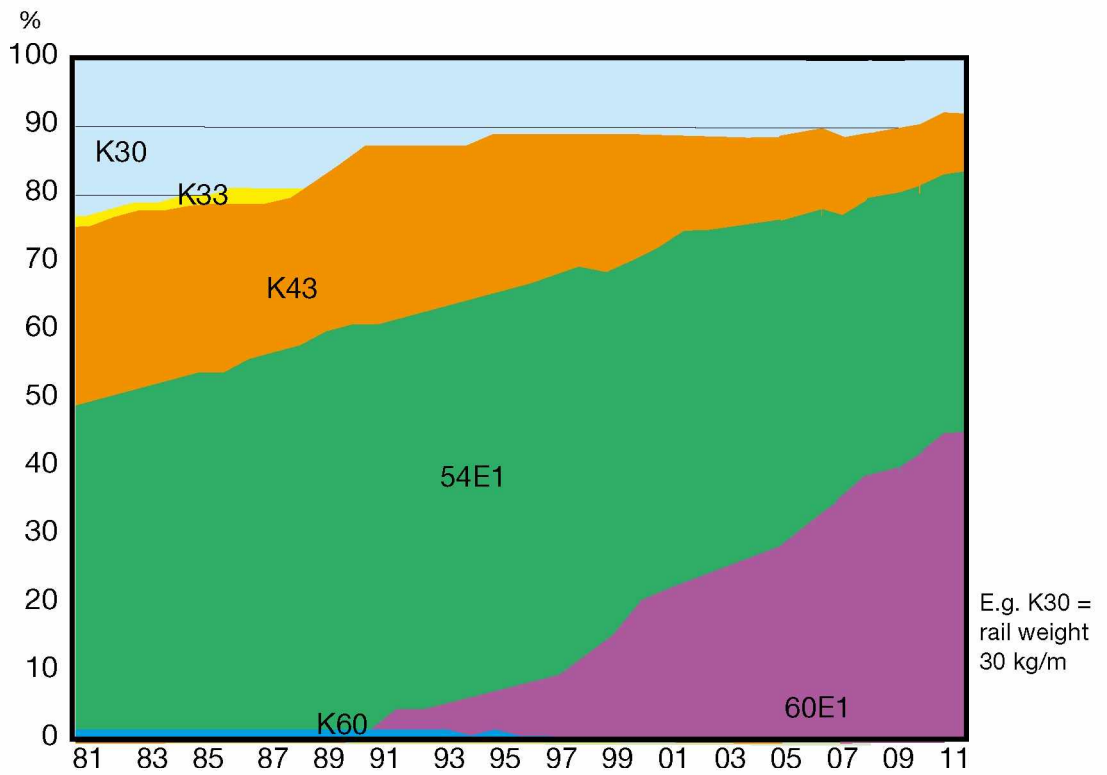
 TRACK WITH SHORT OR LONG RAILS



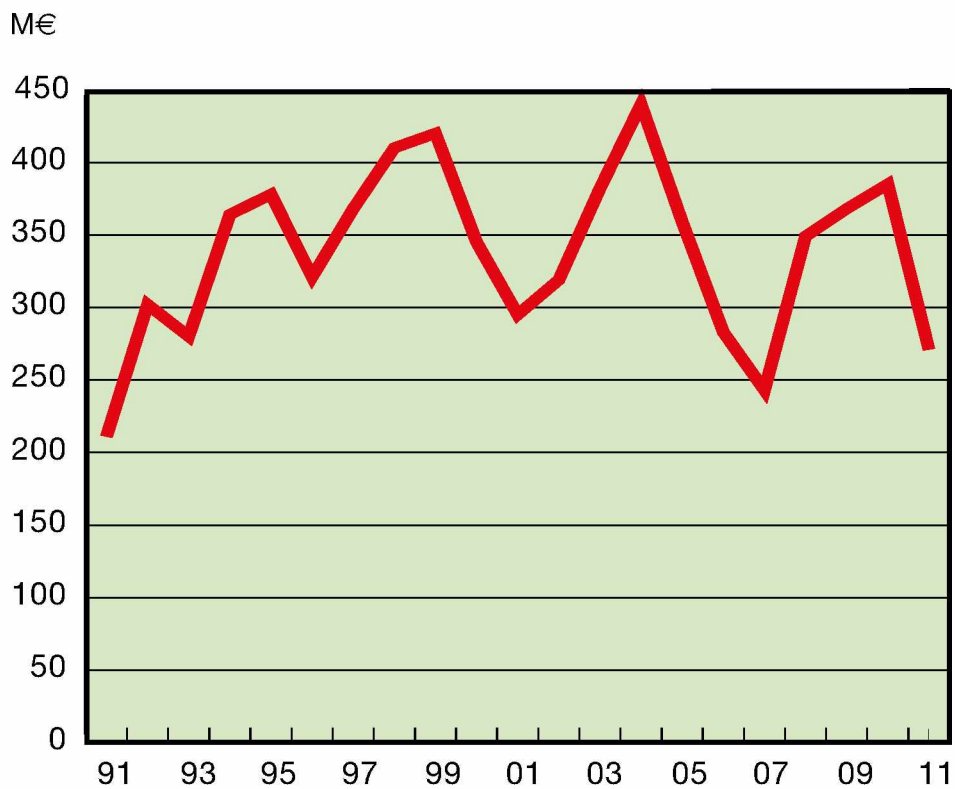
1.7 AGE OF TRACK SUPERSTRUCTURE



1.8 RAILS ON MAIN LINES IN 1981 - 2011

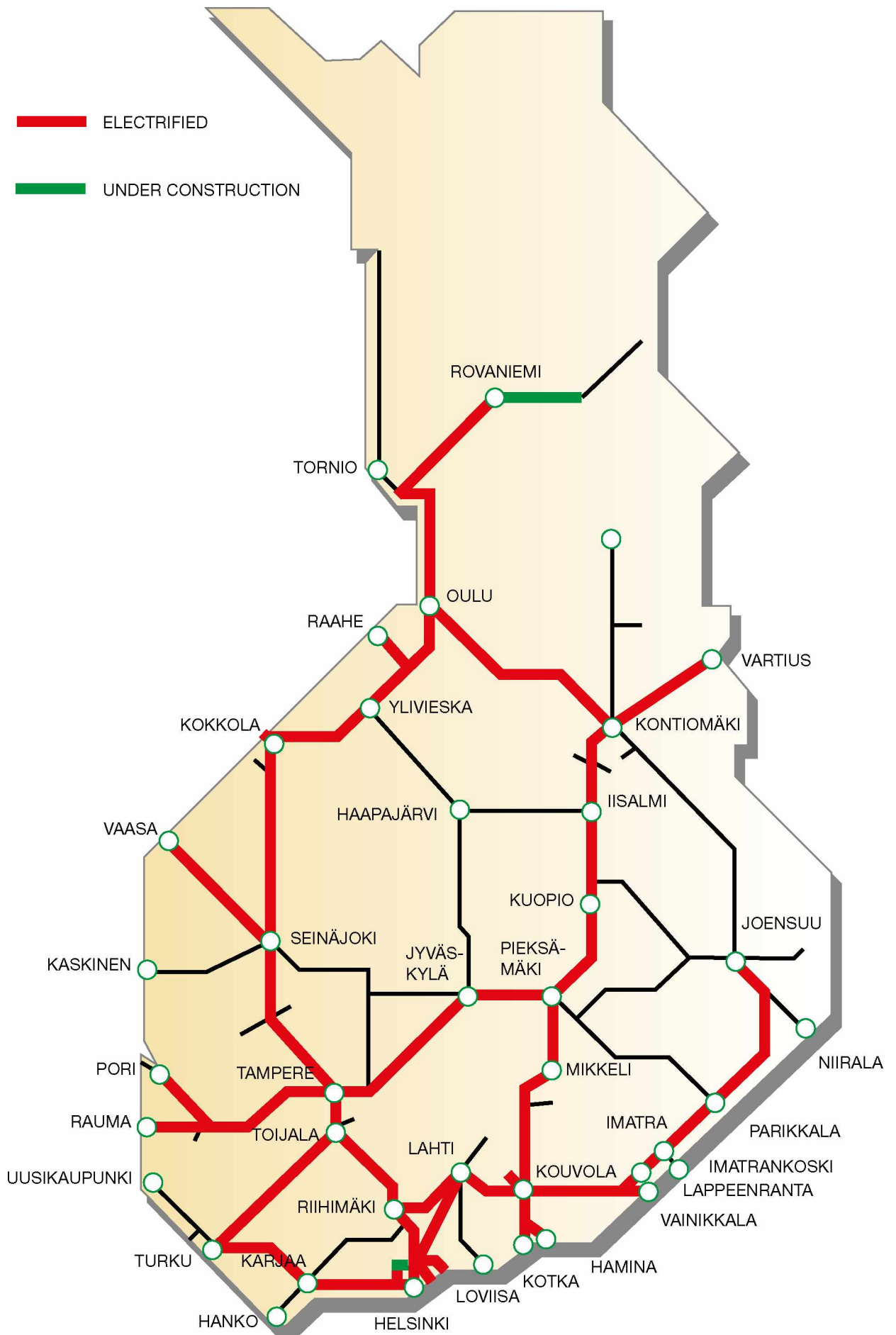


1.9 INVESTMENTS IN TRACK CONSTRUCTION AND MAINTENANCE IN 1991 - 2011 <sup>1)</sup>




<sup>1)</sup> At fixed 2011 prices.

1.10 ELECTRIFIED LINES



1.11 SAFETY EQUIPMENT AND ITS AGE

SAFETY EQUIPMENT


 BLOCK SYSTEM AND CENTRALIZED TRAFFIC CONTROL

 BLOCK SYSTEM


 AUTOMATIC TRAIN PROTECTION

 SEPARATE SAFETY INSTALLATIONS

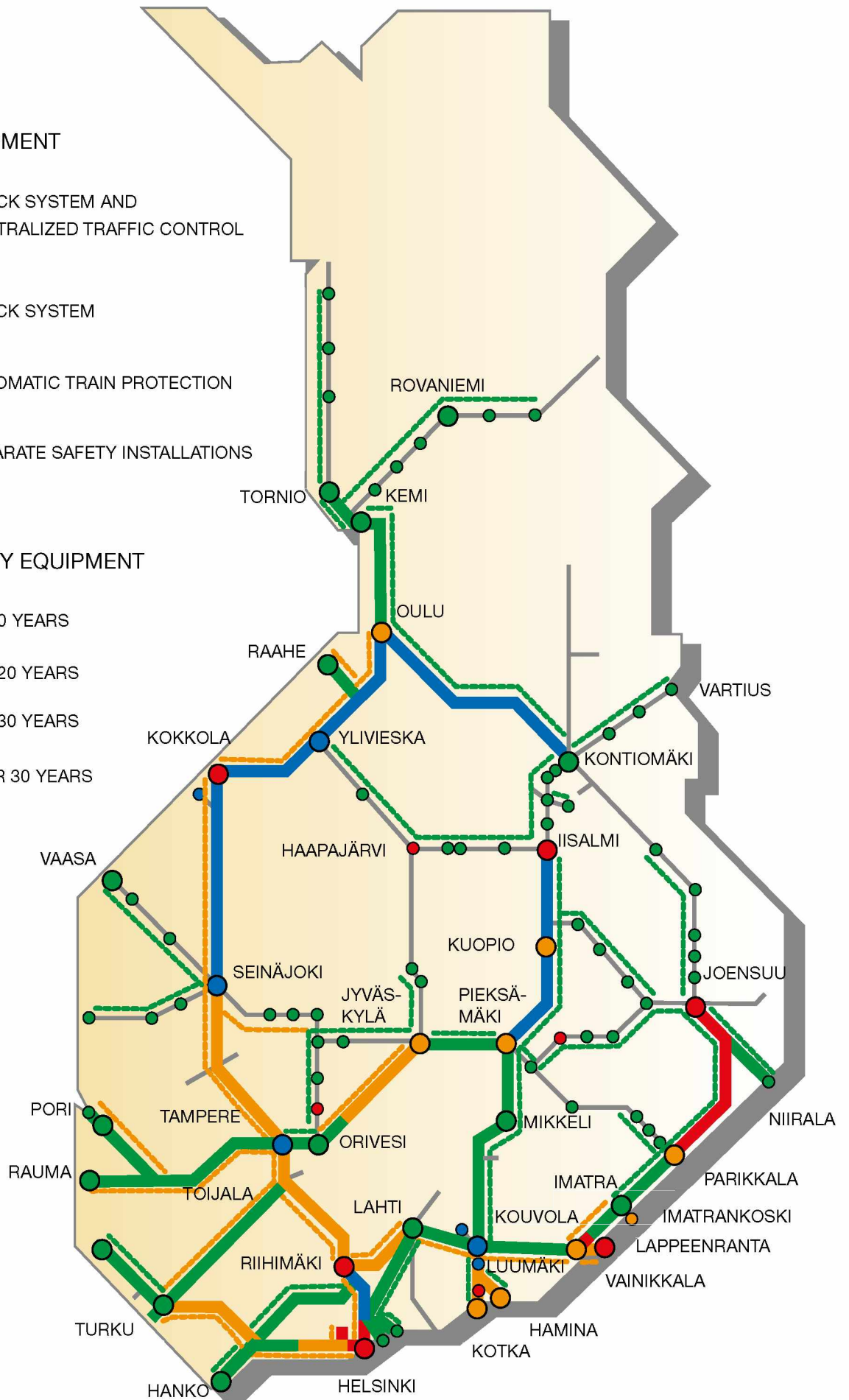
AGE OF SAFETY EQUIPMENT

 0 – 10 YEARS

 11 – 20 YEARS

 21 – 30 YEARS

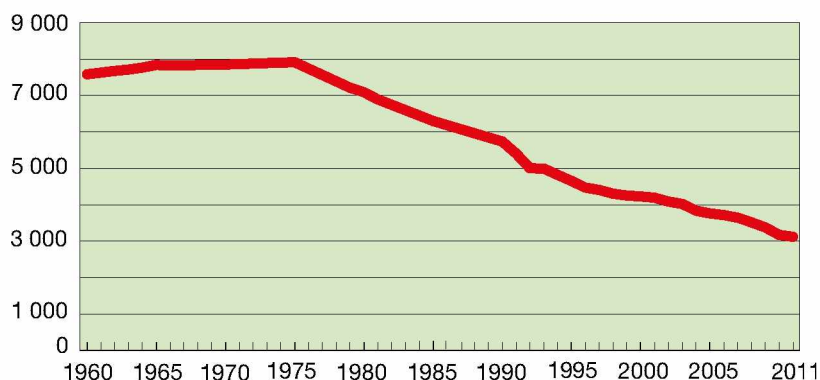
 OVER 30 YEARS



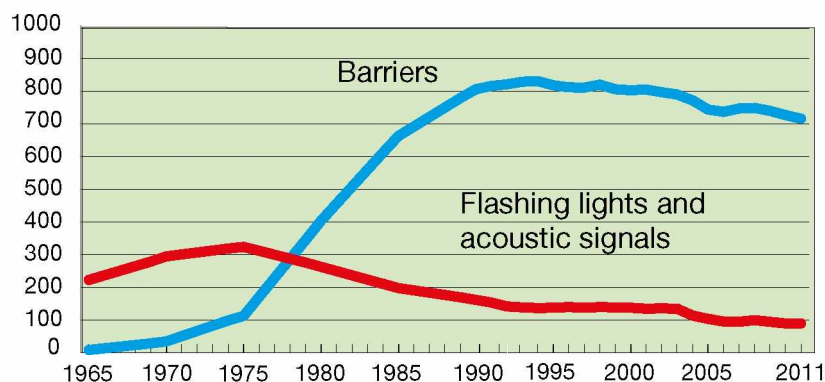
1.12 LEVEL-SEPARATED CROSSINGS AND LEVEL-CROSSINGS IN RAILWAYS

Level-separated crossings		
Overpasses		882
Underpasses		1 220
	Total	2 102
Level-crossings		
With safety equipment		
Barriers		662
Flashing lights and (or) acoustic signals		48
	Total	710
Without safety equipment		2 406
	Total	3 116
Grand total		5 928

1.13 DEVELOPMENT OF THE NUMBER OF LEVEL-CROSSINGS ON THE STATE-OWNED LINES IN 1960 - 2011



1.14 DEVELOPMENT OF THE NUMBER OF LEVEL-CROSSING SAFETY EQUIPMENT IN 1965 - 2011







## 1.16 RAILWAY OPERATING POINTS

		2011	2010
Railway operating points	number	349	350
Passenger traffic		106	108
Freight traffic		153	153
Passenger and freight traffic		90	89

## 1.17 BUILDINGS

	VR			
	2011		2010	
	number	1 000 m <sup>3</sup>	number	1 000 m <sup>3</sup>
Administrative and traffic buildings	69	681	70	773
Freight terminals, depots, repair workshops	101	1 831	101	1 831
Workshops and main warehouses	25	790	25	790
Warehouses	44	68	44	68
Residential buildings	3	47	3	47
Other buildings	118	429	119	504
Total	360	3 846	362	4 013

## 1.18 LAND AND WATER AREAS

	VR	
	2011	2010
	hectares	hectares
Land areas	590	606
Water areas	–	–
Total	590	606

### 1.19 VR'S TRACTIVE STOCK BY TYPE OF TRACTION

	Number	Power (kW)	Total power (kW)
<b>Electric locomotives</b>			
Sr1	109	3 280	357 520
Sr2	46	6 000	276 000
Total	155		633 520
<b>Diesel locomotives</b>			
Dv12	181	1 000	181 000
Dr14	24	875	21 000
Dr16	18	1 500	27 000
Total	223		229 000
<b>Electric railcars</b>			
Sm1	44	860	37 840
Sm2	50	620	31 000
Sm3	18	4 000	72 000
Sm4	30	1 240	37 200
Sm5 <sup>1)</sup>	12	2 600	31 200
Sm6 <sup>2)</sup>	4	5 500	22 000
Total	158		231 240
<b>Diesel railcars</b>			
Dm12	16	600	9 600
Other	91		19 645
<b>Total tractive stock</b>	<b>643</b>		<b>1 123 005</b>

<sup>1)</sup> The Sm5 city trains owned by Pääkaupunkiseudun Junakalusto Oy.

<sup>2)</sup> The Allegro trains owned by Oy Karelian Trains Ltd.

### 1.20 VR'S PASSENGER STOCK AND PASSENGER ACCOMMODATION

<b>Passanger stock in commercial traffic</b>	number	1 102
Electric railcars and railcar trailers	number	432
Diesel railcars	number	16
Restaurant cars	number	48
Guard's vans	number	3
Car-carriers	number	33
Metal-bodied sleeping cars	number	110
Other coaches	number	460
<b>Total passenger accommodation</b>		<b>73 321</b>
Seats		69 317
Sleeping accommodation		4 004

## 1.21 FREIGHT WAGONS AND THEIR CARRYING CAPACITY

<b>VR-owned freight wagons in commercial traffic</b>		
Number of wagons		10 364
2-axled		4 085
4-axled		6 278
Other		1
Carrying capacity	tonnes	487 702
<b>Covered wagons</b>		
Number of wagons		3 949
2-axled		2 259
4-axled		1 690
Carrying capacity	tonnes	167 821
<b>Open wagons</b>		
Number of wagons		5 907
2-axled		1 826
4-axled		4 080
Other		1
Carrying capacity	tonnes	290 810
<b>Tank wagons</b>		
Number of wagons		508
4-axled		508
Carrying capacity	tonnes	29 071
<b>Private owner's wagons <sup>1)</sup></b>		
Number of wagons		69
2-axled		5
4-axled		64
Carrying capacity	tonnes	3 202

<sup>1)</sup> Includes domestically operated wagons with VR's maintenance responsibility.

## 2 VR'S TRAIN TRAFFIC

### 2.1 MAIN DATA ON TRAIN AND TRACTIVE STOCK PERFORMANCE IN 2007 - 2011

		2007	2008	2009	2010	2011
<b>Train performance</b>						
<b>Train-km</b>	<b>1 000</b>	<b>52 577</b>	<b>53 259</b>	<b>50 019</b>	<b>51 000</b>	<b>51 070</b>
By category of train						
Passenger trains		34 601	35 079	35 120	35 048	35 578
	%	65.8	65.9	70.2	68.7	69.7
Freight trains		17 976	18 180	14 899	15 952	15 492
	%	34.2	34.1	29.8	31.3	30.3
By type of traction						
Diesel tractive stock		8 762	9 018	7 547	7 690	7 739
	%	16.7	16.9	15.1	15.1	15.2
Diesel locomotives		7 100	7 418	5 989	6 177	6 204
Diesel railcars		1 662	1 600	1 558	1 513	1 535
Electric tractive stock		43 815	44 241	42 472	43 310	43 331
	%	83.3	83.1	84.9	84.9	84.8
Electric locomotives		28 830	28 604	26 942	27 771	27 085
Electric railcars		14 985	15 637	15 530	15 539	16 246
<b>Gross tonne-km</b>	<b>1 000 000</b>	<b>34 636.7</b>	<b>35 511.7</b>	<b>31 412.1</b>	<b>33 090.7</b>	<b>32 712.0</b>
Passenger traffic						
		11 392.8	11 536.9	11 568.6	11 518.1	11 743.5
	%	32.9	32.5	36.8	34.8	35.9
Freight traffic <sup>1)</sup>						
		23 243.9	23 974.8	19 843.5	21 572.6	20 968.5
	%	67.1	67.5	63.2	65.2	64.1
<b>Gross hauled tonne-km</b>	<b>1 000 000</b>	<b>31 027.7</b>	<b>31 858.0</b>	<b>28 108.9</b>	<b>29 678.8</b>	<b>29 344.3</b>
Passenger traffic						
		9 889.8	10 021.7	10 029.8	9 985.0	10 232.2
	%	31.9	31.5	35.7	33.6	34.9
Freight traffic						
		21 137.9	21 836.3	18 079.1	19 693.8	19 112.1
	%	68.1	68.5	64.3	66.4	65.1

<sup>1)</sup> Including single locomotives.

		2007	2008	2009	2010	2011
<b>Vehicle-axle-km</b>	<b>1 000 000</b>	<b>2 379.2</b>	<b>2 431.5</b>	<b>2 114.8</b>	<b>2 199.8</b>	<b>2 169.1</b>
By category of train						
Passenger traffic		769.7	781.5	776.5	773.3	788.3
	%	32.4	32.1	36.7	35.2	36.3
Freight traffic		1 609.5	1 650.0	1 338.3	1 426.5	1 380.8
	%	67.6	67.9	63.3	64.8	63.7
By category of vehicle						
Passenger stock		807.0	811.7	804.7	795.6	801.9
Coaches		518.0	511.2	507.0	500.4	492.8
Electric railcars		247.9	258.1	257.3	257.1	257.6
Other coaches		41.1	42.4	40.4	38.1	33.5
Wagons		1 572.2	1 619.8	1 310.1	1 404.2	1 367.2
Loaded wagons		869.9	897.4	715.9	769.9	749.9
Empty wagons		702.3	722.4	594.2	634.3	617.3
Coefficient of empty running of a wagon		44.0	44.0	45.0	45.0	45.0
VR-owned wagons		1 144.3	1 147.0	951.7	1 042.3	1 045.0
Private owners' wagons		17.6	13.6	8.8	10.1	7.8
CIS wagons		410.3	459.2	349.6	351.8	314.4
<b>Tractive stock performance</b>						
<b>Locomotive-km</b>	<b>1 000</b>	<b>73 336</b>	<b>74 901</b>	<b>69 244</b>	<b>70 822</b>	<b>71 813</b>
Diesel tractive stock		20 033	20 817	17 421	17 847	18 189
	%	27.3	27.8	25.2	25.2	25.3
Diesel locomotives		17 825	18 626	15 299	15 830	16 095
Light rail motor tractors		38	32	23	24	27
Diesel railcars		2 170	2 159	2 099	1 993	2 067
Electric tractive stock		53 303	54 084	51 823	52 975	53 624
	%	72.7	72.2	74.8	74.8	74.7
Electric locomotives		33 653	33 405	31 181	32 234	31 519
Electric railcars		19 650	20 679	20 642	20 741	22 105

2.2 GROSS TONNE-KM AND AVERAGE TRAIN WEIGHTS (INCLUDING LOCOMOTIVE) BY TYPE OF TRACTION AND CATEGORY OF TRAIN IN 2011

	Passenger traffic							Freight traffic				Grand total or on average
	Long-distance trains							Freight trains	Pick-up freight trains	Total or on average	Single locomotives	
	Pendolino-trains	Allegro-trains	InterCity-trains	Express-trains	Regional trains	Commuter trains in the Helsinki Area	Total or on average					
<b>Gross tonne-km</b>												
<b>1 000 000</b>	<b>1 818</b>	<b>238</b>	<b>4 370</b>	<b>2 825</b>	<b>1 018</b>	<b>1 474</b>	<b>11 744</b>	<b>19 577</b>	<b>1 245</b>	<b>20 822</b>	<b>146</b>	<b>32 712</b>
Diesel locomotives	-	-	22	167	218	-	407	5 027	974	6 001	-	6 407
Electric locomotives	-	-	4 384	2 658	479	31	7 515	14 551	271	14 821	-	22 337
Electric railcars	1 818	238	-	-	202	1 444	3 702	-	-	-	-	3 702
Diesel railcars	-	-	-	-	120	-	120	-	-	-	-	120
Single locomotives	-	-	-	-	-	-	-	-	-	-	146	146
<b>Average train weights (including locomotive) tons</b>												
Hauled by locomotives	-	-	419.3	579.3	288.7	351.7	445.1	1 394.7	855.5	1 344.1	-	863.5
Diesel locomotives	-	-	495.5	663.1	237.9	-	335.8	1 301.2	862.1	1 201.8	-	1 032.8
Electric locomotives	-	-	419.0	574.7	319.8	351.7	453.1	1 430.2	832.6	1 411.7	-	824.7
Hauled by railcars	368.1	392.1	-	-	95.2	163.0	214.9	-	-	-	-	214.9
Electric railcars	368.1	392.1	-	-	109.4	163.0	227.8	-	-	-	-	227.8
Diesel railcars	-	-	-	-	78.1	-	78.1	-	-	-	-	78.1



2.4 VEHICLE-AXLE-KM BY CATEGORY OF TRAIN AND VEHICLE IN 2011

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										
<b>Passenger traffic</b>	466.2	275.6	8.3	14.1	11.1	12.3	0.3	0.3	-	0.1	778.3
Long-distance trains	464.4	166.6	8.3	14.1	11.1	12.3	0.3	0.3	-	0.1	677.5
Pendolino-trains	0.1	134.4	-	-	-	-	-	-	-	-	134.5
Allegro-trains	-	16.9	-	-	-	-	-	-	-	-	16.9
InterCity-trains	263.8	-	-	0.5	-	-	-	-	-	-	264.3
Diesel locomotives	1.2	-	-	-	-	-	-	-	-	-	1.2
Electric locomotives	262.6	-	-	0.5	-	-	-	-	-	-	263.1
<b>Express-trains</b>	157.2	-	-	13.6	10.5	12.3	-	0.1	-	-	193.7
Diesel locomotives	8.7	-	-	1.6	0.1	0.9	-	-	-	-	11.3
Electric locomotives	148.5	-	-	12.0	10.4	11.4	-	0.1	-	-	182.4
<b>Regional trains</b>	43.3	15.3	8.3	-	0.6	-	0.3	0.2	-	0.1	68.1
Diesel locomotives	13.6	-	-	-	-	-	0.1	0.1	-	0.1	13.9
Electric locomotives	29.7	-	-	-	0.6	-	0.2	0.1	-	-	30.6
Electric railcars	-	15.3	-	-	-	-	-	-	-	-	15.3
Diesel railcars	-	-	8.3	-	-	-	-	-	-	-	8.3
<b>Commuter trains in the Helsinki Area</b>	1.8	109.0	-	-	-	-	-	-	-	-	110.8
Electric locomotives	1.8	-	-	-	-	-	-	-	-	-	1.8
Electric railcars	-	109.0	-	-	-	-	-	-	-	-	109.0
<b>Freight traffic</b>	26.6	-	-	-	-	332.1	502.1	197.9	314.4	7.7	1 380.8
<b>Freight traffic trains</b>	23.8	-	-	-	-	290.4	474.0	193.6	299.9	7.5	1 289.2
Diesel locomotives	5.7	-	-	-	-	66.2	197.1	34.8	32.4	3.0	339.2
Electric locomotives	18.1	-	-	-	-	224.2	276.9	158.8	267.5	4.5	950.0
<b>Pick-up freight trains</b>	2.8	-	-	-	-	41.7	28.1	4.3	14.5	0.2	91.6
Diesel locomotives	1.9	-	-	-	-	27.8	24.1	3.5	11.9	0.2	69.4
Electric locomotives	0.9	-	-	-	-	13.9	4.0	0.8	2.6	-	22.2
<b>Total</b>	492.8	275.6	8.3	14.1	11.1	344.4	502.4	198.2	314.4	7.8	2 169.1
Diesel locomotives	31.1	-	-	1.6	0.1	94.9	221.3	38.4	44.3	3.3	435.0
Electric locomotives	461.6	-	-	12.5	11.0	249.5	281.1	159.8	270.1	4.5	1 450.1
Electric railcars	0.1	275.6	-	-	-	-	-	-	-	-	275.7
Diesel railcars	-	-	8.3	-	-	-	-	-	-	-	8.3
<b>Grand total</b>	492.8	275.6	8.3	14.1	11.1	344.4	502.4	198.2	314.4	7.8	2 169.1



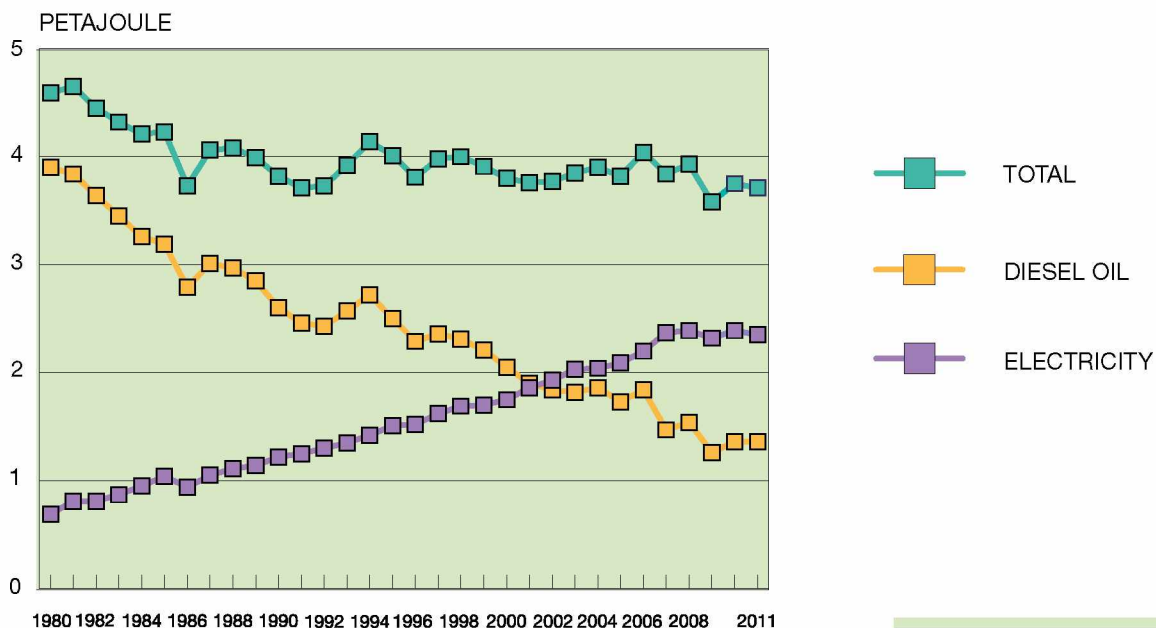
## 2.5 ENERGY CONSUMPTION IN TRAIN TRAFFIC IN 1980 - 2011

### Energy consumption

Year	Electricity		Diesel oil		Total petajoule <sup>1)</sup>
	million kWh	petajoule <sup>1)</sup>	million l	petajoule <sup>1)</sup>	
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
2010	665	2.39	37.8	1.36	3.75
2011	652	2.35	37.8	1.36	3.71

<sup>1)</sup> Petajoule = 10<sup>15</sup> joules

### ENERGY CONSUMPTION IN TRAIN TRAFFIC



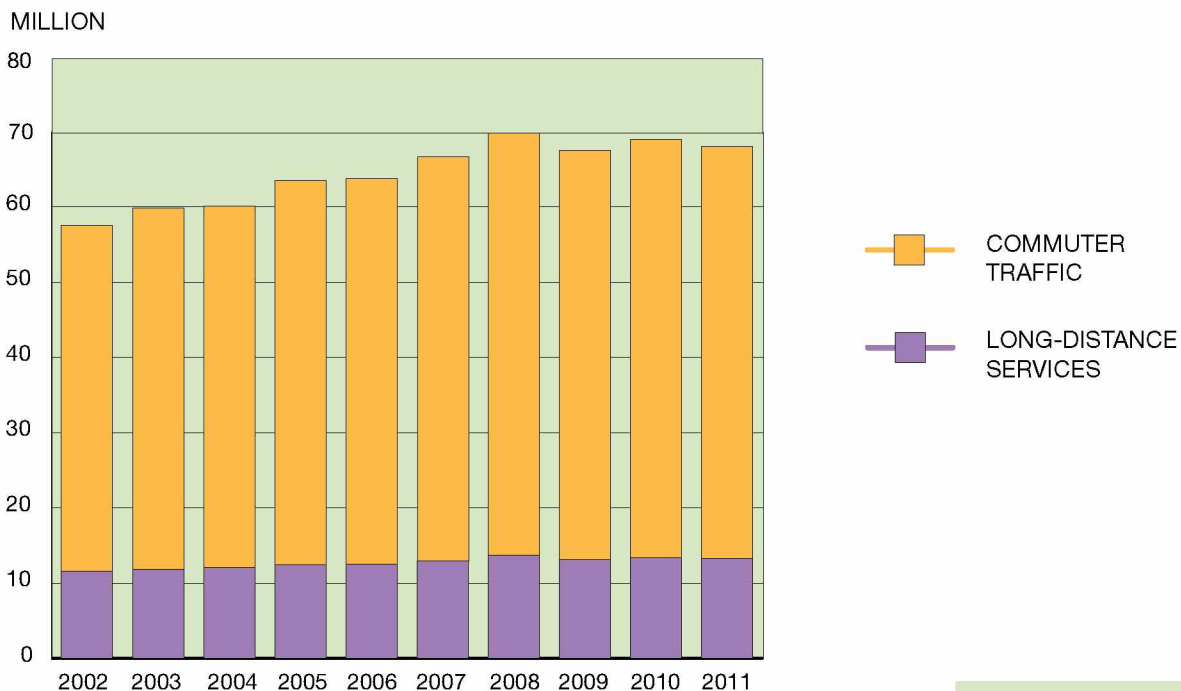
### 3 VR'S PASSENGER TRAFFIC

#### 3.1 PASSENGER TRAFFIC BY CATEGORY OF TRAFFIC IN 2002 - 2011

Commercial traffic		2002	2003	2004
Number of journeys	1 000			
Long-distance services		11 643	11 915	12 129
	%	20.2	19.9	20.2
Commuter traffic in the Helsinki Area		46 052	47 994	48 005
	%	79.8	80.1	79.8
	Total	57 695	59 909	60 134
Passenger-km	1 000 000			
Long-distance services		2 636	2 642	2 654
	%	79.4	79.1	79.2
Commuter traffic in the Helsinki Area		682	696	698
	%	20.6	20.9	20.8
	Total	3 318	3 338	3 352
Average length of journeys	km	57.5	55.7	55.7

<sup>1)</sup> Due to a change in statistical methods, the 2006–2011 figures for the number of journeys and passenger-kilometres by rail are not fully comparable with earlier figures.

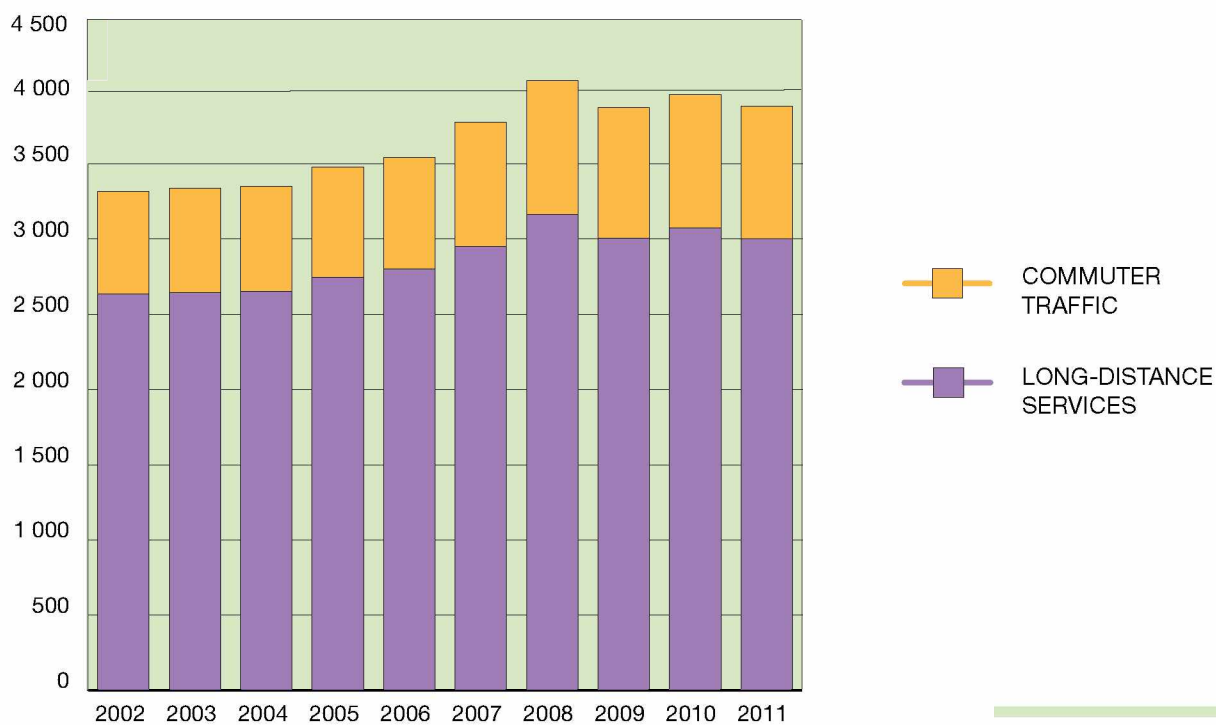
#### NUMBER OF JOURNEYS IN PASSENGER TRAFFIC IN 2002 - 2011 <sup>1)</sup>



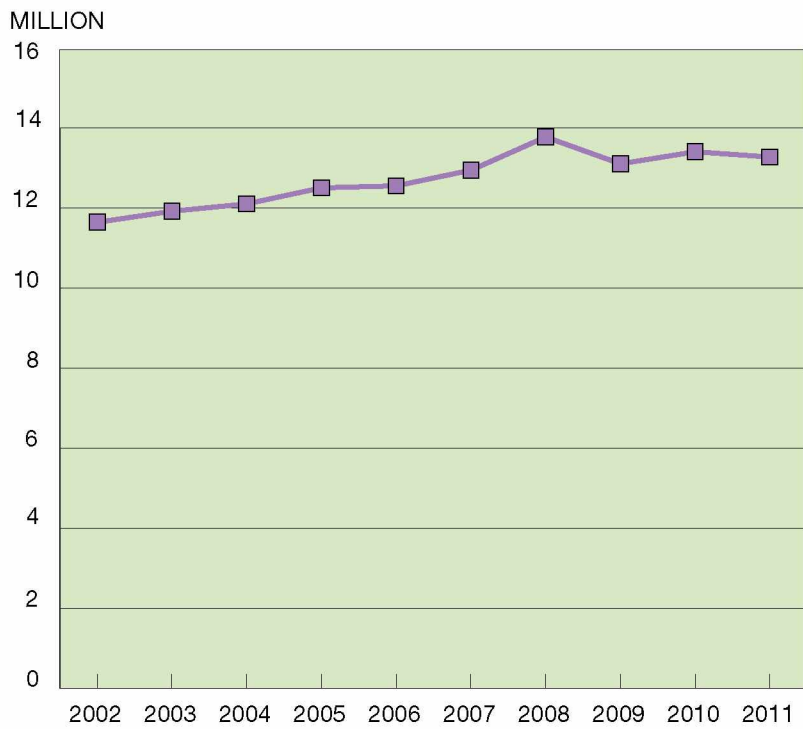
2005	2006 <sup>1)</sup>	2007	2008	2009	2010	2011
12 503	12 554	12 944	13 767	13 116	13 399	13 274
19.7	19.7	19.4	19.7	19.4	19.4	19.4
50 990	51 248	53 741	56 170	54 439	55 551	55 102
80.3	80.3	80.6	80.3	80.6	80.6	80.6
63 493	63 803	66 685	69 937	67 555	68 950	68 376
2 744	2 801	2 951	3 164	3 006	3 073	3 003
78.9	79.1	78.1	78.1	77.6	77.6	77.4
734	740	827	888	870	886	879
21.1	20.9	21.9	21.9	22.4	22.4	22.6
3 478	3 540	3 778	4 052	3 876	3 959	3 882
54.8	55.5	56.7	57.9	57.4	57.4	56.8

PASSENGER-KILOMETRES IN PASSENGER TRAFFIC IN 2002 - 2011 <sup>1)</sup>

MILLION

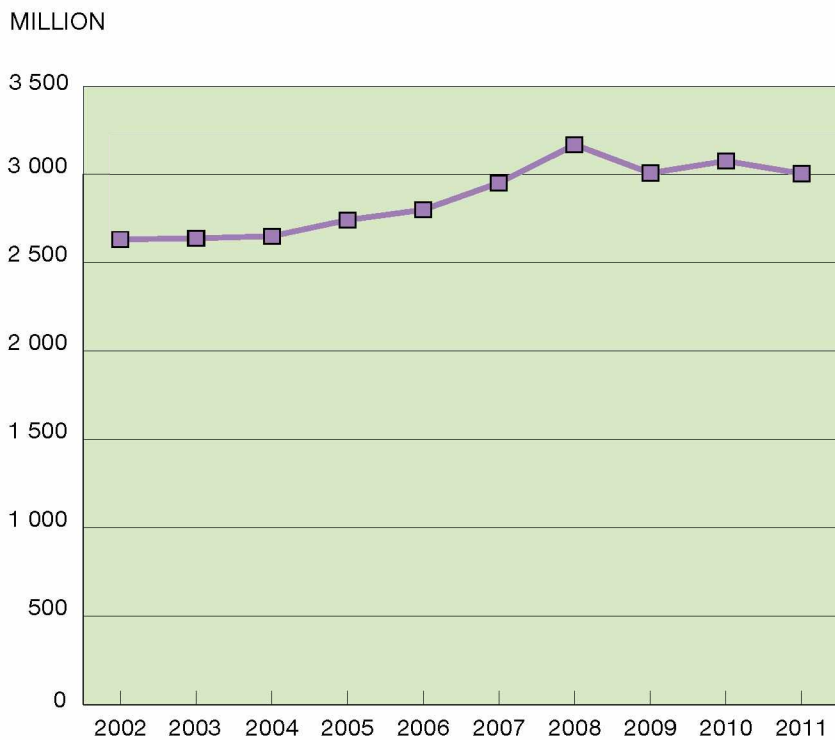


NUMBER OF JOURNEYS IN LONG-DISTANCE TRAFFIC IN 2002 - 2011 <sup>1)</sup>



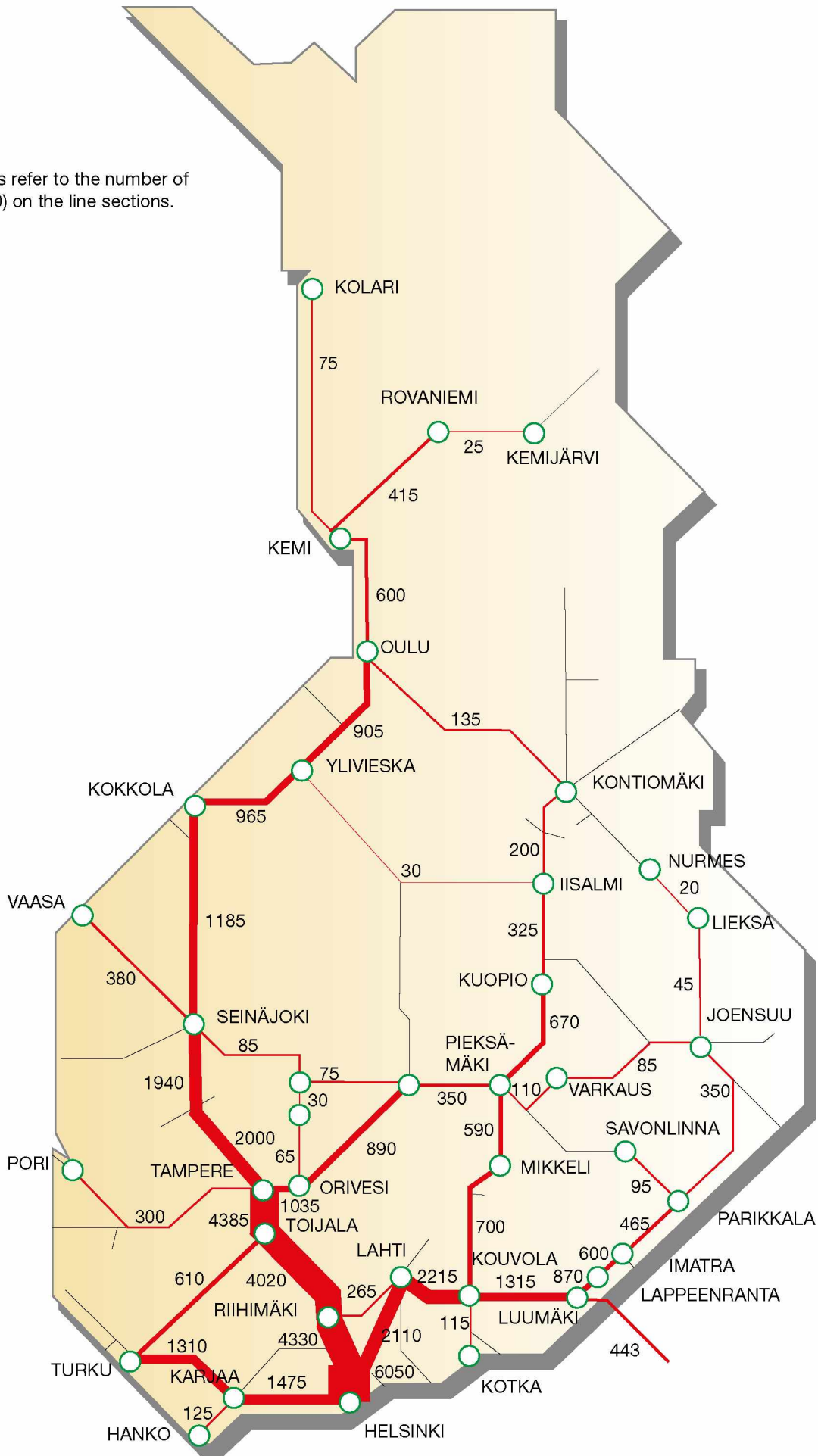
<sup>1)</sup> Due to a change in statistical methods, the 2006–2011 figures for the number of journeys and passenger-kilometres by rail are not fully comparable with earlier figures.

PASSENGER-KILOMETRES IN LONG-DISTANCE TRAFFIC IN 2002 - 2011 <sup>1)</sup>



### 3.2 PASSENGER FLOWS IN LONG-DISTANCE TRAFFIC IN 2011

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



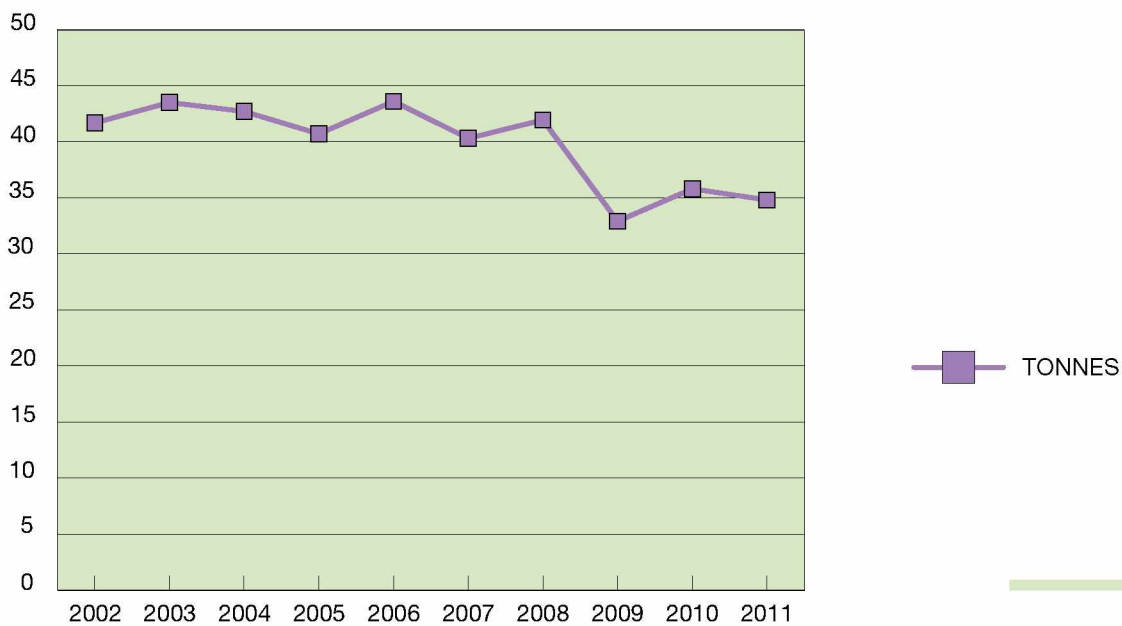
# 4 VR'S FREIGHT TRAFFIC

## 4.1 FREIGHT TRAFFIC IN 2002 - 2011

Commercial traffic		2002	2003	2004
Wagonload freight				
Weight of freight	1 000 t	41 679	43 503	42 663
Domestic traffic	1 000 t	24 695	24 980	26 255
International traffic	1 000 t	16 984	18 523	16 408
Tonne-km	1 000 000	9 664	10 047	10 105
Domestic traffic	1 000 000	6 695	6 760	7 197
International traffic	1 000 000	2 969	3 287	2 908
Average length of transport	km	232	231	237
<b>Ratios</b>				
Tonne-km. commercial freight				
Per length of line	1 000	1 651.9	1 717.2	1 760.2
Per train kilometre of freight trains		578.2	598.6	583.3
Per wagon-axle-km		6.4	6.3	6.3

## TONNES CARRIED IN WAGONLOAD TRAFFIC IN 2002 - 2011

MILLION



2005	2006	2007	2008	2009	2010	2011
40 722	43 560	40 288	41 937	32 860	35 795	34 827
23 479	25 959	26 204	25 484	21 360	23 249	23 505
17 243	17 601	14 084	16 453	11 500	12 545	11 322
9 706	11 060	10 434	10 777	8 872	9 750	9 395
6 607	7 375	7 581	7 588	6 141	6 915	6 797
3 099	3 685	2 853	3 189	2 731	2 835	2 598
238	254	259	257	270	273	270
1 693.3 577.1 6.4	1 873.0 603.0 6.6	1 768.8 580.4 6.6	1 820.7 592.8 6.7	1 499.0 595.5 6.8	1 647.2 611.2 6.9	1 580.6 606.5 6.9

TONNE-KM IN WAGONLOAD TRAFFIC IN 2002 - 2011







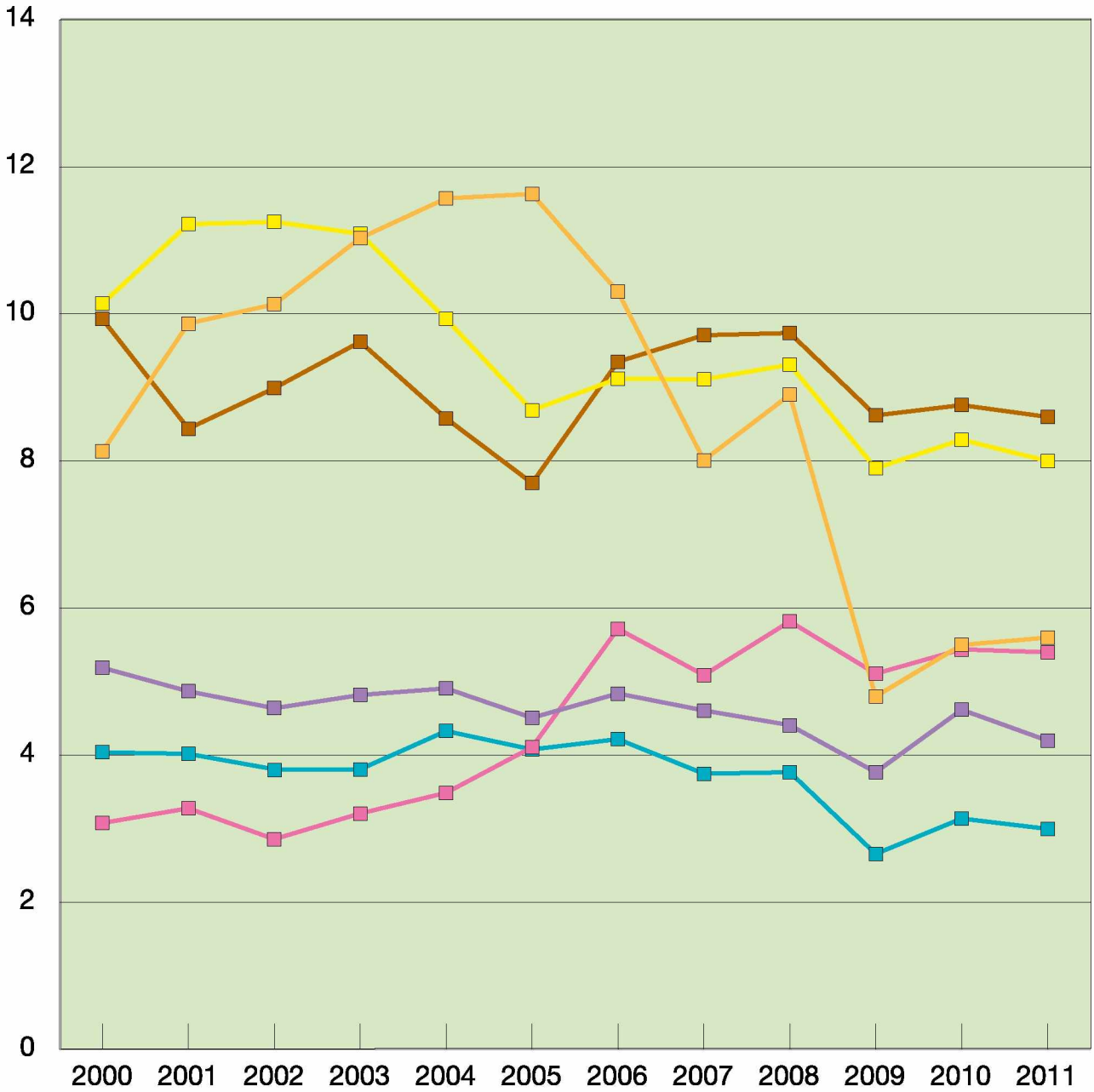
4.3 WAGON-LOADS CARRIED AND TONNE-KILOMETRES PER FREIGHT CATEGORY, 2000 - 2011

Million tonnes	2000	2006	2007	2008	2009	2010	2011
<b>Total</b>	<b>40.5</b>	<b>43.6</b>	<b>40.3</b>	<b>41.9</b>	<b>32.9</b>	<b>35.8</b>	<b>34.8</b>
Plant and animal products	0.4	0.2	0.2	0.1	0.1	0.1	0.1
Mineral products	7.6	7.6	6.5	7.7	7.0	7.6	8.1
Wood and wood products	15.7	18.0	16.3	16.3	12.0	13.5	12.3
Products of paper industry	7.9	9.2	9.2	9.0	7.0	7.2	7.2
Products of metal industry	3.8	3.3	2.9	2.8	2.0	2.3	2.3
Machines and equipment	0.6	0.8	0.7	0.7	0.6	0.5	0.3
Products of chemical industry	4.3	4.2	4.3	5.0	4.0	4.5	4.4
Miscellaneous products	0.2	0.3	0.2	0.2	0.2	0.1	0.1

Million tonne-kilometres	2000	2006	2007	2008	2009	2010	2011
<b>Total</b>	<b>10 107</b>	<b>11 060</b>	<b>10 434</b>	<b>10 777</b>	<b>8 872</b>	<b>9 750</b>	<b>9 395</b>
Plant and animal products	124	73	62	43	36	23	22
Mineral products	1 825	2 351	1 870	2 288	2 168	2 342	2 501
Wood and wood products	3 091	3 201	3 286	3 333	2 830	3 169	2 786
Products of paper industry	2 020	2 401	2 406	2 311	1 680	1 801	1 759
Products of metal industry	1 494	1 325	1 107	1 045	710	857	841
Machines and equipment	299	410	395	385	335	282	158
Products of chemical industry	1 165	1 201	1 220	1 285	1 043	1 226	1 281
Miscellaneous products	89	97	88	87	70	51	47

4.4 WEIGHT OF FREIGHT CARRIED IN COMMERCIAL WAGON-LOAD TRAFFIC IN 2000 - 2011, BY DISTANCE

MILLION TONNES



DISTANCE DISTRIBUTION, KM

- 1 - 100
- 101 - 200
- 201 - 300
- 301 - 400
- 401 - 500
- 501 -

## 4.5 TRAFFIC BETWEEN VR AND FOREIGN RAILWAYS IN 2011

	Wagons									Passenger coaches		
	Finnish wagons			Foreign wagons			Total			Finnish <sup>1)</sup>	Foreign	Total
	Loaded	Empty	Total	Loaded	Empty	Total	Loaded	Empty	Grand total			
Number of vehicles												
<b>Despatched from Finland</b>	<b>396</b>	<b>-</b>	<b>396</b>	<b>20 457</b>	<b>147 384</b>	<b>167 841</b>	<b>20 853</b>	<b>147 384</b>	<b>168 237</b>	<b>8 048</b>	<b>4 231</b>	<b>12 279</b>
<b>Eastern traffic</b>												
Vainikkala	-	-	-	15 498	66 394	81 892	15 498	66 394	81 892	8 048	4 231	12 279
Imatrankoski	-	-	-	9	35 104	35 113	9	35 104	35 113	-	-	-
Niirala	-	-	-	1 466	11 440	12 906	1 466	11 440	12 906	-	-	-
Vartius	-	-	-	1 552	33 635	35 187	1 552	33 635	35 187	-	-	-
<b>Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>18 525</b>	<b>146 573</b>	<b>165 098</b>	<b>18 525</b>	<b>146 573</b>	<b>165 098</b>	<b>8 048</b>	<b>4 231</b>	<b>12 279</b>
<b>Western traffic</b>												
Tornio	396	-	396	1 932	811	2 743	2 328	811	3 139	-	-	-
<b>Arrived in Finland</b>	<b>-</b>	<b>396</b>	<b>396</b>	<b>146 873</b>	<b>18 063</b>	<b>164 936</b>	<b>146 873</b>	<b>18 459</b>	<b>165 332</b>	<b>8 048</b>	<b>4 231</b>	<b>12 279</b>
<b>Eastern traffic</b>												
Vainikkala	-	-	-	69 442	10 269	79 711	69 442	10 269	79 711	8 048	4 231	12 279
Imatrankoski	-	-	-	31 537	3 005	34 542	31 537	3 005	34 542	-	-	-
Niirala	-	-	-	12 150	1 144	13 294	12 150	1 144	13 294	-	-	-
Vartius	-	-	-	33 088	1 558	34 646	33 088	1 558	34 646	-	-	-
<b>Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>146 217</b>	<b>15 976</b>	<b>162 193</b>	<b>146 217</b>	<b>15 976</b>	<b>162 193</b>	<b>8 048</b>	<b>4 231</b>	<b>12 279</b>
<b>Western traffic</b>												
Tornio	-	396	396	656	2 087	2 743	656	2 843	3 139	-	-	-
<b>Number of vehicles carried in traffic between VR and foreign railways</b>	<b>396</b>	<b>396</b>	<b>792</b>	<b>167 330</b>	<b>165 447</b>	<b>332 777</b>	<b>167 726</b>	<b>165 843</b>	<b>333 569</b>	<b>16 096</b>	<b>8 462</b>	<b>24 558</b>

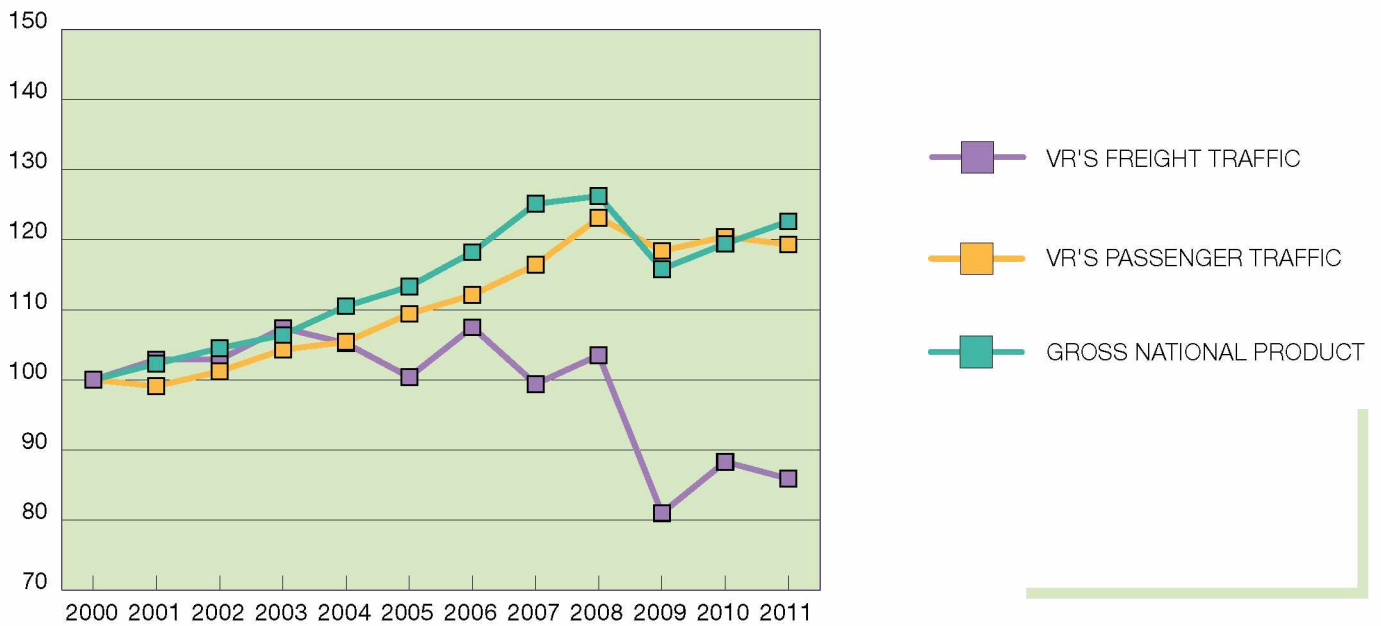
<sup>1)</sup> Including Allegro-trains.

# 5 VOLUME OF RAILWAY TRAFFIC

TRAFFIC VOLUME INDEX IN 2000 - 2011

2000 = 100	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Passenger traffic	100	99	101	104	105	109	112	116	123	118	120	119
Freight traffic	100	103	103	107	105	101	108	100	104	81	88	86
Total railway traffic	100	101	102	106	105	104	109	107	112	100	103	101

VOLUME INDEX (2000 = 100)



## 6 RAILWAY ACCIDENTS

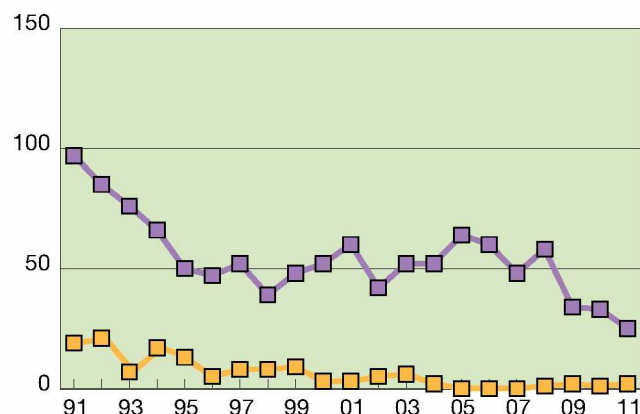
### 6.1 SIGNIFICANT RAILWAY ACCIDENTS IN 2011 <sup>1)</sup>

Type of accident	Number of accidents	Number of persons killed or seriously injured		
		Total	Killed	Seriously injured
Collisions	2	1	0	1
Derailments	0	0	0	0
Accidents involving level crossings	5	2	3	5
Accidents to persons caused by rolling stock in motion	7	2	5	7
Fire in rolling stock in motion	0	0	0	0
Other accidents	0	0	0	0
<b>Total</b>	<b>14</b>	<b>5</b>	<b>8</b>	<b>13</b>

<sup>1)</sup> 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 1991 - 2011

■ LEVEL-CROSSING ACCIDENTS <sup>2)</sup>
■ TRAIN TRAFFIC ACCIDENTS



### 6.3 RATIOS RELATING TO RAILWAY ACCIDENTS IN 2007 - 2011

	2007	2008	2009	2010	2011
Total of persons killed or seriously injured Per one million train-km	0.40	0.51	0.48	0.41	0.25
Total of railway accidents <sup>3)</sup> Per one million train-km	1.10	1.43	0.52	0.45	0.27
Passengers					
Killed per one million journeys	-	-	-	-	-
Seriously injured per one million journeys	-	-	-	-	-

<sup>2)</sup> Also other than significant level crossing accidents.

<sup>3)</sup> From 2009 only significant accidents.

# 7 HISTORICAL SURVEY

Year	Length of line on 31.12. <sup>1)</sup>		VR-owned rolling stock on 31.12.									Annual mean strength of VR's staff		VR's passenger traffic		VR's freight traffic			
	km	Track length on 31.12. <sup>1)</sup>	Tractive stock								Passenger stock	Freight stock	Primary occupation	Secondary occupation	Number of journeys <sup>2)</sup>	Passenger-kilometres <sup>2)</sup>	Weight, 1 000 tonnes <sup>3)</sup>	Tonne-km <sup>3)</sup>	
			Steam locomotives	Diesel locomotives	Diesel railcars and rail-buses	Electric railcars	Electric locomotives	Light rail motor tractors	Total	Passenger stock									Freight stock
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	<sup>4)</sup> 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	<sup>5)</sup> 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	<sup>6)</sup> 11 489	<sup>6)</sup> 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	<sup>7)</sup> 5 314	<sup>7)</sup> 8 166	<sup>7)</sup> 659	<sup>7)</sup> 120	<sup>7)</sup> 192	-	-	..	<sup>7)</sup> 971	<sup>7)</sup> 1 495	<sup>7)</sup> 26 543	35 340	550	36 603	2 342 928	<sup>8)</sup> 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	<sup>9)</sup> 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	<u>34 763</u>	<u>2 675 570</u>	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	<u>17 368</u>	-	43 989	3 036 800	<u>40 150</u>	<u>9 949 400</u>		
1995	5 859	8 977	-	346	-	100	111	217	774	992	14 618	<sup>10)</sup> 15 228	-	44 420	3 184 400	<sup>11)</sup> 39 387	<sup>11)</sup> 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	-	<u>63 493</u>	<u>3 478 000</u>	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		
2010	5 919	8 862	-	224	16	152	156	96	644	1 071	10 464	<sup>12)</sup> 9 619	-	68 950	3 959 000	35 795	9 749 600		
2011	5 944	8 885	-	223	16	158	155	91	643	1 102	10 364	8 990	-	68 376	3 882 000	34 827	9 395 200		

<sup>1)</sup> Lines owned by the Finnish Rail Administration from 1995 and by the Finnish Transport Agency from 2010.

<sup>2)</sup> Excluding free tickets and road traffic.

<sup>3)</sup> Excluding parcels and transport of the railway's own freight. Live animals and means of transport included in the ton-kilometres only since 1921.

<sup>4)</sup> Since 1900 including contractual staff.

<sup>5)</sup> Since 1938 private sidings no longer included in the length of line.

<sup>6)</sup> Since 1945 including express goods.

<sup>7)</sup> Data on narrow-gauge lines not included.

<sup>8)</sup> Since 1960 including local traffic proper.

<sup>9)</sup> Since 1971 including local traffic proper.

<sup>10)</sup> Since 1995 the staff of VR-Group Ltd, VR Ltd and VR-Track Ltd.

<sup>11)</sup> Since 1995 train traffic only.

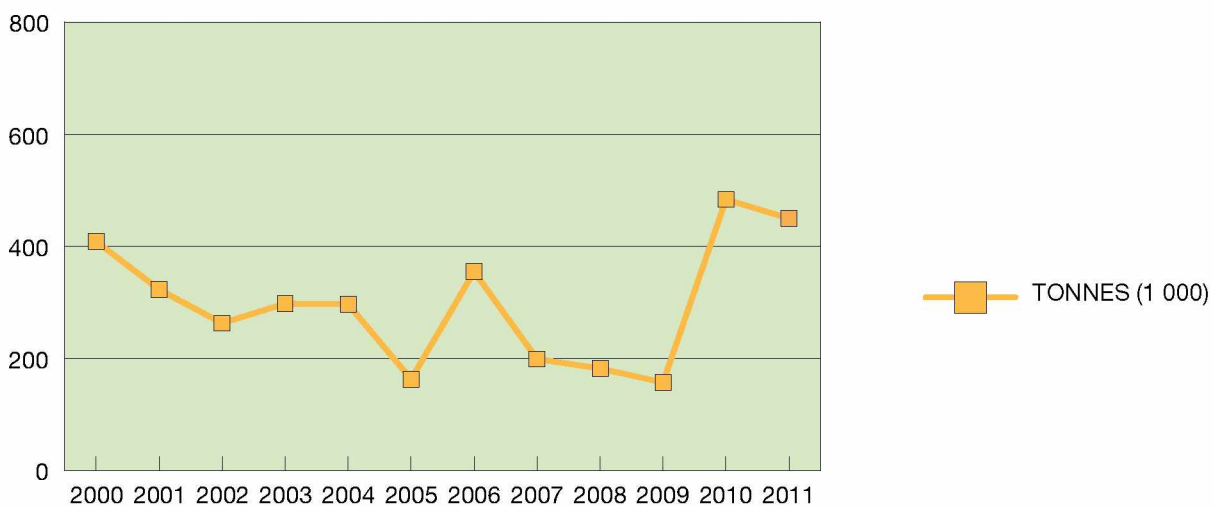
<sup>12)</sup> Since 2010 the staff of VR-Group Ltd and VR-Track companies.

## 8 PRIVATE RAILWAYS

### PRIVATE RAILWAYS AND THEIR ACTIVITY IN 2007 - 2011

Karhulan-Sunilan Rautatie Oy		2007	2008	2009	2010	2011
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		2	2	2	2	2
Staff at end of year		4	4	4	5	4
Number of trains						
Yearly		1 154	1 136	1 022	1 022	1 384
Daily		4.4	4.4	4.1	5.0	3.8
Train-km		6 924	6 816	6 132	10 068	8 304
Freight carried						
1 000 tonnes		199	182	157	484	450
1 000 tonne-km		1 195	1 092	942	2 904	2 700

### FREIGHT CARRIED IN 2000 - 2011



## 9 DATA ON VARIOUS COUNTRIES AND THEIR RAILWAYS IN 2010

Countries									
		Finland	Sweden	Norway	Denmark	Spain	France	Austria	Germany
Population	million	5.4	9.3	4.9	5.5	46.0	64.0	8.4	81.8
Area	1 000 km <sup>2</sup>	339	450	324	43	507	552	84	357
Gross domestic product (2005=100) <sup>1)</sup>		104.9	107.9	104.2	99.4	104.5	103.4	107.3	106.5

Railways / Countries									
		VR, FTA	SJ, Trafikverket, Green Gargo	NSB, JBV	DSB, BDK	RENFE, FEVE, FGC, EUSKOTREN, ADIF, ETS	SNCF, RFF, VEOLIA	ÖBB	DB AG
Staff	1 000	10	13	6	11	32	155	45	252
Length of line	km	5 944	9 957	4 114	2 131	15 317	29 871	5 066	33 708
		VR	SJ	NSB	DSB	RENFE	SNCF	ÖBB	DB AG
Train traffic									
Train-km	million	51	50	29	74	178	455	148	885
Passenger traffic									
Number of journeys	million	69	38	50	198	457	1 078	210	1 950
Passenger-km	million	3 959	6 774	2 674	7 405	21 022	84 883	10 186	78 582
		FINLAND	SWEDEN	NORWAY	DENMARK	RENFE	SNCF	ÖBB	DB AG
Freight traffic <sup>2)</sup>									
Volumes of transport									
Ton	million	36	55 <sup>3)</sup>	23 <sup>3)</sup>	6 <sup>3)</sup>	16	64	118	415
Tonne-km	million	9.7	23.1 <sup>3)</sup>	3.6 <sup>3)</sup>	1.9 <sup>3)</sup>	7.4	22.8	23.1	105.8

<sup>1)</sup> Volume index at constant prices, seasonally adjusted. Source: Statistics Finland.

<sup>2)</sup> Commercial traffic.

<sup>3)</sup> Year 2009.



# 10 RESUME SUR LES CHEMINS DE FER DE FINLANDE

# 10 SUMMARY RELATING TO THE RAILWAYS OF FINLAND

## FTA & VR

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

	2011	2010
<b>TABLEAU 11 – LIGNES <sup>1)</sup></b>		
<b>Trafic ferroviaire</b>		
Ecartement des rails: 1,524 m		
Longueur des lignes à la fin de l'année		
Lignes non électrifiées		
total	km 2 772	2 847
à simple voie	" 2 772	2 847
Lignes électrifiées <sup>2)</sup>		
total	" 3 172	3 073
à double voie et plus	" 570	570
Total	" 5 944	5 919
Lignes exploitées		
en trafic voyageurs seulement	" –	–
en trafic marchandises seulement	" 1 762	1 738
<b>Transports routiers</b>		
Longueur exploitée des lignes à la fin de l'année		
à marchandises	km –	–
<b>TABLEAU 21 – MATERIEL MOTEUR</b>		
<b>Effectifs à la fin de l'année</b>		
Locomotives diesel		
Nombre total	314	320
dont supérieures à 1 500 kW	18	18
Locomotives électriques		
Nombre total	155	156
dont supérieures à 3 000 kW	155	156
Automotrices diesel		
Isolées		
Nombre total	16	16
Rames indéformables		
Nombre	–	–
Nombre total des véhicules	–	–
Automotrices électriques		
Rames indéformables		
Nombre	158	152
Nombre total des véhicules	432	402
<b>TABLEAU 22 – MATERIEL DE TRANSPORT DE VOYAGEURS</b>		
<b>Effectifs à la fin de l'année</b>		
Véhicules des réseaux pour but commercial		
Effectifs		
Voitures	654	653
Automotrices et remorques d'automotrices		
Effectif total	448	418
dont voitures climatisées	1 102	1 071
dont voitures-restaurants	453	389
dont voitures-couchettes	48	49
dont voitures-lits	–	–
110	107	
Nombre de places		
Assises		
1ère classe	2 957	2 572
2ème classe	66 360	64 447
Couchettes, 2ème classe		
–	–	–
Voitures-lits, 1ère + 2ème classe (nombre maximal)		
4 004	3 884	
Assises et couchées total		
73 321	70 903	
Fourgons		
Effectif total	42	42

<sup>1)</sup> Propriétaire Finnish Transport Agency.

<sup>2)</sup> Lignes alimentées en courant alternatif 25 000 volts 50 périodes, sous caténaire.

## FTA & VR

ANNUAL REPORT TO THE INTERNATIONAL UNION OF RAILWAYS (UIC)

	2011	2010
<b>TABLE 11 – LINES <sup>1)</sup></b>		
<b>Rail Traffic</b>		
Rail gauge: 1.524 m		
Length of lines at the end of the year		
Lines not electrified		
Total	km 2 772	2 847
Single track	" 2 772	2 847
Electrified lines <sup>2)</sup>		
Total	" 3 172	3 073
Double and more than double track	" 570	570
Total	" 5 944	5 919
Lines used		
for passenger traffic only	" –	–
for freight traffic only	" 1 762	1 738
<b>Road traffic</b>		
Length of lines worked at the end of the year		
Freight	km –	–
<b>TABLE 21 – TRACTIVE STOCK</b>		
<b>Fleet strength at the end of the year</b>		
Diesel locomotives		
Total number	314	320
Above 1 500 kW	18	18
Electric locomotives		
Total number	155	156
Above 3 000 kW	155	156
Diesel railcars		
Single units		
Total number	16	16
Permanently-coupled trainsets		
Number	–	–
Total number of vehicles	–	–
Electric railcars		
Indivisible trainsets		
Number	158	152
Total number of vehicles	432	402
<b>TABLE 22 – PASSENGER TRANSPORT STOCK</b>		
<b>Stock at the end of the year</b>		
Railway-owned vehicles for commercial purpose		
Stock		
Coaches	654	653
Railcars and railcar trailers		
Total stock	448	418
of which air-conditioned carriages	1 102	1 071
of which restaurant cars	453	389
of which couchette coaches	48	49
of which sleeping cars	–	–
110	107	
Number of places		
Seats		
1st class	2 957	2 572
2nd class	66 360	64 447
Couchettes 2nd class		
–	–	–
Sleeping cars 1st and 2nd class (maximum number)		
4 004	3 884	
Seating and sleeping accommodation total		
73 321	70 903	
Vans		
Total stock	42	42

<sup>1)</sup> Owned by Finnish Transport Agency.

<sup>2)</sup> Lines fed by 25 000 volts, 50 cycle, alternating current (catenary system).

	2011	2010	
<b>TABLEAU 23 – MATÉRIEL DE TRANSPORT DE MARCHANDISES</b>			
<b>Effectifs à la fin de l'année</b>			
Véhicules des réseaux			
Wagons couverts			
Effectif	3 949	4 052	
dont à bogies	1 690	1 691	
Capacité totale en tonnes	167 821	170 620	
Wagons tombereaux			
Effectif	526	527	
dont à bogies	476	477	
Capacité totale en tonnes	26 294	26 581	
Wagons plats			
Effectif	5 380	5 375	
dont à bogies	3 604	3 563	
Capacité totale en tonnes	264 066	262 602	
Autres wagons			
Effectif	509	510	
dont à bogies	509	510	
Capacité totale en tonnes	29 521	29 575	
Total des wagons			
Effectif	10 364	10 464	
dont à bogies	6 278	6 241	
Capacité totale en tonnes	487 702	489 378	
Véhicules de particuliers			
Wagons			
Effectif total	69	67	
Capacité totale en tonnes	3 202	2 699	
<b>TABLEAU 31 – EFFECTIF MOYEN ANNUEL DU PERSONNEL</b>			
<b>Administration générale</b>			
Direction générale et Directions régionales	565	958	
<b>Exploitation ferroviaire</b>			
Mouvement et trafic			
Services centraux et régionaux	715	262	
Services des gares	1 891	1 116	
Services des trains	796	2 090	
Total	3 402	3 468	
Matériel et traction			
Services centraux et régionaux	236	162	
Services de conduite des véhicules moteurs	1 638	1 711	
Ateliers principaux	509	526	
Autre personnel	784	427	
Total	3 167	2 826	
Installations fixes			
Services centraux et régionaux	502	456	
Entretien et surveillance des installations fixes	1 331	1 742	
Total	1 833	2 198	
<b>Autres exploitations</b>			
Services routiers	–	–	
Diverses	–	95	
<b>Travaux d'établissement, de reconstruction, etc</b>			
	..	..	
<b>Total du personnel du réseau</b>			
Total du personnel	8 967	9 545	
<b>TABLEAU 41 – PARCOURS DES TRAINS</b>			
<b>Locomotives diesel</b>			
Total	1 000 km	6 204	6 177
Affectées au trafic voyageurs	"	1 211	1 226
Affectées au trafic marchandises	"	4 993	4 951
<b>Locomotives électriques</b>			
Total	1 000 km	27 085	27 771
Affectées au trafic voyageurs	"	16 586	16 770
Affectées au trafic marchandises	"	10 499	11 001
<b>Automotrices diesel</b>			
Total	1 000 km	1 535	1 513
Affectées au trafic voyageurs	"	1 535	1 513

	2011	2010	
<b>TABLE 23 – FREIGHT TRANSPORT STOCK</b>			
<b>Stock at the end of the year</b>			
Railway-owned vehicles			
Covered wagons			
Stock	3 949	4 052	
of which bogie wagons	1 690	1 691	
Total capacity in tonnes	167 821	170 620	
High-sided open wagons			
Stock	526	527	
of which bogie wagons	476	477	
Total capacity in tonnes	26 294	26 581	
Flat wagons			
Stock	5 380	5 375	
of which bogie wagons	3 604	3 563	
Total capacity in tonnes	264 066	262 602	
Other wagons			
Stock	509	510	
of which bogie wagons	509	510	
Total capacity in tonnes	29 521	29 575	
All wagons			
Stock	10 364	10 464	
of which bogie wagons	6 278	6 241	
Total capacity in tonnes	487 702	489 378	
Private owner's vehicles			
Wagons			
Stock	69	67	
Total capacity	3 202	2 699	
<b>TABLE 31 – ANNUAL MEAN STAFF STRENGTH</b>			
<b>General Management</b>			
General headquarters and regional headquarters	565	958	
<b>Railway operations</b>			
Operating and traffic			
Central and regional offices	715	262	
Station services	1 891	1 116	
Train services	796	2 090	
Total	3 402	3 468	
Traction and rolling stock			
Central and regional offices	236	162	
Motor-vehicle driving staff	1 638	1 711	
Main workshops	509	526	
Other staff	784	427	
Total	3 167	2 826	
Permanent way			
Central and regional offices	502	456	
Permanent way maintenance and supervision	1 331	1 742	
Total	1 833	2 198	
<b>Other operations</b>			
Road transport services	–	–	
Miscellaneous	–	95	
<b>Net works, reconstruction, etc.</b>			
	..	..	
<b>Total staff belonging to the railway</b>			
Total staff )	8 967	9 545	
<b>TABLE 41 – TRAIN-KILOMETRES</b>			
<b>Diesel locomotives</b>			
Total	1 000 km	6 204	6 177
Passenger traffic	"	1 211	1 226
Freight traffic	"	4 993	4 951
<b>Electric locomotives</b>			
Total	1 000 km	27 085	27 771
Passenger traffic	"	16 586	16 770
Freight traffic	"	10 499	11 001
<b>Diesel railcars</b>			
Total	1 000 km	1 535	1 513
Passenger traffic	"	1 535	1 513
<b>Electric railcars</b>			
Total	1 000 km	16 246	15 539
Passenger traffic	"	16 246	15 539

		2011	2010
<b>Automotrices électriques</b>			
Total	1 000 km	16 246	15 539
Affectées au trafic voyageurs	"	16 246	15 539
<b>Tous modes de traction</b>			
Total	1 000 km	51 070	51 000
Affectées au trafic voyageurs	"	35 578	35 048
Affectées au trafic marchandises	"	15 492	15 952
<b>TABLEAU 42 – TONNAGE KILOMETRIQUE BRUT REMORQUE DES TRAINS</b>			
<b>Locomotives diesel</b>			
Total	1 000 000 km	5 683	5 350
Affectées au trafic voyageurs	"	315	322
Affectées au trafic marchandises	"	5 368	5 028
<b>Locomotives électriques</b>			
Total	1 000 000 km	19 845	20 722
Affectées au trafic voyageurs	"	6 100	6 107
Affectées au trafic marchandises	"	13 744	14 665
<b>Automotrices diesel</b>			
Total	1 000 000 km	120	116
Affectées au trafic voyageurs	"	120	116
Affectées au trafic marchandises	"	–	–
<b>Automotrices électriques</b>			
Total	1 000 000 km	3 697	3 445
Affectées au trafic voyageurs	"	3 697	3 445
<b>Tous modes de traction</b>			
Total	1 000 000 km	29 344	29 683
Affectées au trafic voyageurs	1 000 000 km	10 232	9 990
Affectées au trafic marchandises	"	19 112	19 693
<b>TABLEAU 43 – PARCOURS DU MATERIEL ROULANT<sup>3)</sup></b>			
<b>Parcours des véhicules moteurs par mode de traction</b>			
Locomotives diesel	1 000 km	16 122	15 854
Locomotives électriques	"	31 519	32 234
Automotrices diesel	"	2 067	1 993
Automotrices électriques	"	22 105	20 741
Tous modes de traction	"	71 822	70 822
<b>Voitures, automotrices et remorques d'automotrices (en wagon-kilomètres)</b>			
		..	..
<b>Wagons (en wagon-kilomètres)</b>			
Total	1 000 000 km	417	434
dont chargés	"	227	238
<b>TABLEAU 51 – TRAFIC COMMERCIAL VOYAGEURS</b>			
<b>Trafic ferroviaire</b>			
Nombre de voyageurs			
Total	1 000	68 376	68 950
en 2ème classe	"	..	..
Nombre de voyageurs-kilomètres			
Total	1 000 000 km	3 882	3 959
en 2ème classe	"	..	..
Parcours moyen d'un voyageur	km	56,8	57,4
<b>Bagages</b>			
Automobiles accompagnées			
Nombre		40 906	43 029
Poids (en tonnes)		61 359	64 543
Autres			
Poids (en tonnes)		–	–

<sup>3)</sup> Total des parcours sur le Réseau, y compris les véhicules étrangers.

		2011	2010
<b>All types of traction</b>			
Total )	1 000 km	51 070	51 000
Passenger traffic	"	35 578	35 048
Freight traffic	"	15 492	15 952
<b>TABLE 42 – TRAIN GROSS TONNE-KILOMETRES HAULED</b>			
<b>Diesel locomotives</b>			
Total	1 000 000 km	5 683	5 350
Passenger traffic	"	315	322
Freight traffic	"	5 368	5 028
<b>Electric locomotives</b>			
Total	1 000 000 km	19 845	20 722
Passenger traffic	"	6 100	6 107
Freight traffic	"	13 744	14 665
<b>Diesel railcars</b>			
Total	1 000 000 km	120	116
Passenger traffic	"	120	116
Freight traffic	"	–	–
<b>Electric railcars</b>			
Total	1 000 000 km	3 697	3 445
Passenger traffic	"	3 697	3 445
<b>All types of traction</b>			
Total )	1 000 000 km	29 344	29 683
Passenger traffic	"	10 232	9 990
Freight traffic	"	19 112	19 693
<b>TABLE 43 – ROLLING STOCK-KILOMETRES<sup>3)</sup></b>			
<b>Tractive vehicle kilometres by type of traction</b>			
Diesel locomotives	1 000 km	16 122	15 854
Electric locomotives	"	31 519	32 234
Diesel railcars	"	2 067	1 993
Electric railcars	"	22 105	20 741
All types of traction	"	71 822	70 822
<b>Coaches, railcars and railcar trailers (in wagon-kilometres)</b>			
		..	..
<b>Wagons (in wagon-kilometres)</b>			
Total	1 000 000 km	417	434
Loaded	"	227	238
<b>TABLE 51 – REVENUE-EARNING PASSENGER TRAFFIC</b>			
<b>Rail traffic</b>			
Number of passengers carried			
Total	1 000	68 376	68 950
2nd class	"	..	..
Number of passenger-kilometres			
Total	1 000 000 km	3 882	3 959
2nd class	"	..	..
Mean passenger distance	km	56.8	57.4
<b>Baggage</b>			
Accompanied cars			
Number		40 906	43 029
Weights (in tonnes)		61 359	64 543
Other			
Weight (in tonnes)		–	–
<b>TABLE 61 – FREIGHT TRAFFIC</b>			
<b>Rail traffic</b>			
Tonnes carried (in thousands)			
Revenue-earning traffic			
By traffic category			
Express parcels and smalls traffic		–	–
Full wagonloads		34 827	35 795
of which full trainloads		..	..
Empty private-owners' wagons		–	–
Total		34 827	35 795
Works traffic		54	6
Grand total		34 881	35 801
Tonne-kilometres			
Revenue-earning-traffic			
By traffic category			
Express parcels and smalls traffic	1 000 000 km	–	–

<sup>3)</sup> Total kilometres on the railway network, including foreign vehicles.

	2011	2010
<b>TABLEAU 61 – TRAFIC MARCHAN- DISES</b>		
<b>Trafic ferroviaire</b>		
Tonnes transportées (en milliers)		
Transports commerciaux par catégorie de trafic		
Colis express et envois de détail	–	–
Wagons complets	34 827	35 795
dont par trains complets	..	..
Wagons de particuliers vides	–	–
Total	34 827	35 795
Transports en service	54	6
Total général	34 881	35 801
Tonnes-kilomètres		
Transports commerciaux par catégorie de trafic		
Colis express 1 000 000 km	–	–
Wagons complets	9 395	9 750
dont par trains complets	..	..
Wagons de particuliers vides	–	–
Total	9 395	9 750
Transports en service	31	4
Total général	9 426	9 754
Parcours moyen d'une tonne		
Transports commerciaux km	269,8	272,5
dont transports intermodaux à charge et à vide		
Nombre d'unités intermodales transportées (en milliers)	58	68
Nombre de wagons chargés d'unités intermodales (en milliers)	39	50
Tonnes transportées (en milliers)	794	1 053
Tonnes kilomètres (en millions)	298	436

	2011	2010
Full wagonloads	" 9 395	9 750
of which full trainloads	" ..	..
Empty private-owners' wagons	" –	–
Total	" 9 395	9 750
Works traffic	" 31	4
Grand total	" 9 426	9 754
Average length of haul of one tonne		
Revenue-earning traffic km	269.8	272.5
of which loaded and empty intermodal traffic		
Number of intermodal units carried (in thousands)	58	68
Number of wagons loaded with intermodal units (in thousands)	39	50
Tonnes carried (in thousands)	794	1 053
Tonne-kilometres (in millions)	298	436



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