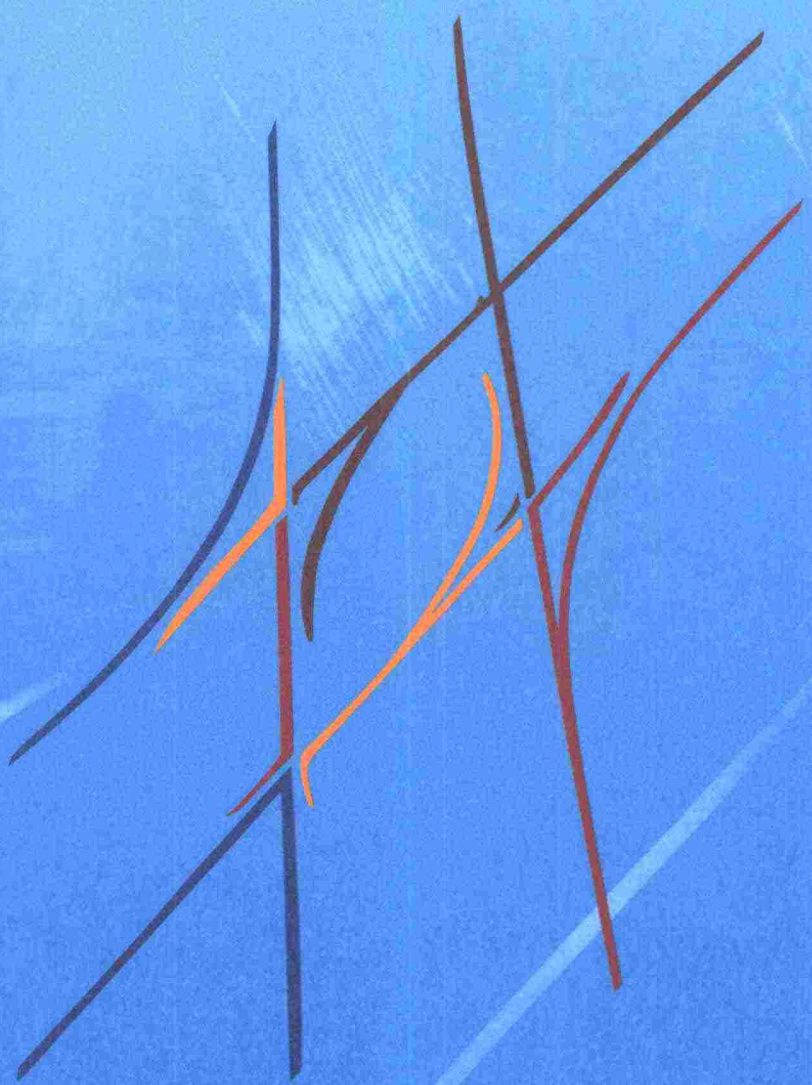
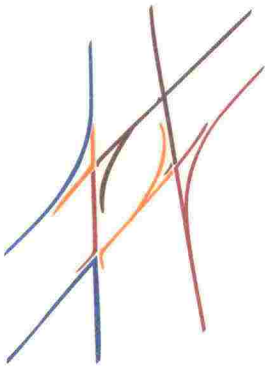
ANNUAL REPORT 2002



FINNISH
RAIL
ADMINISTRATION



CONTENTS

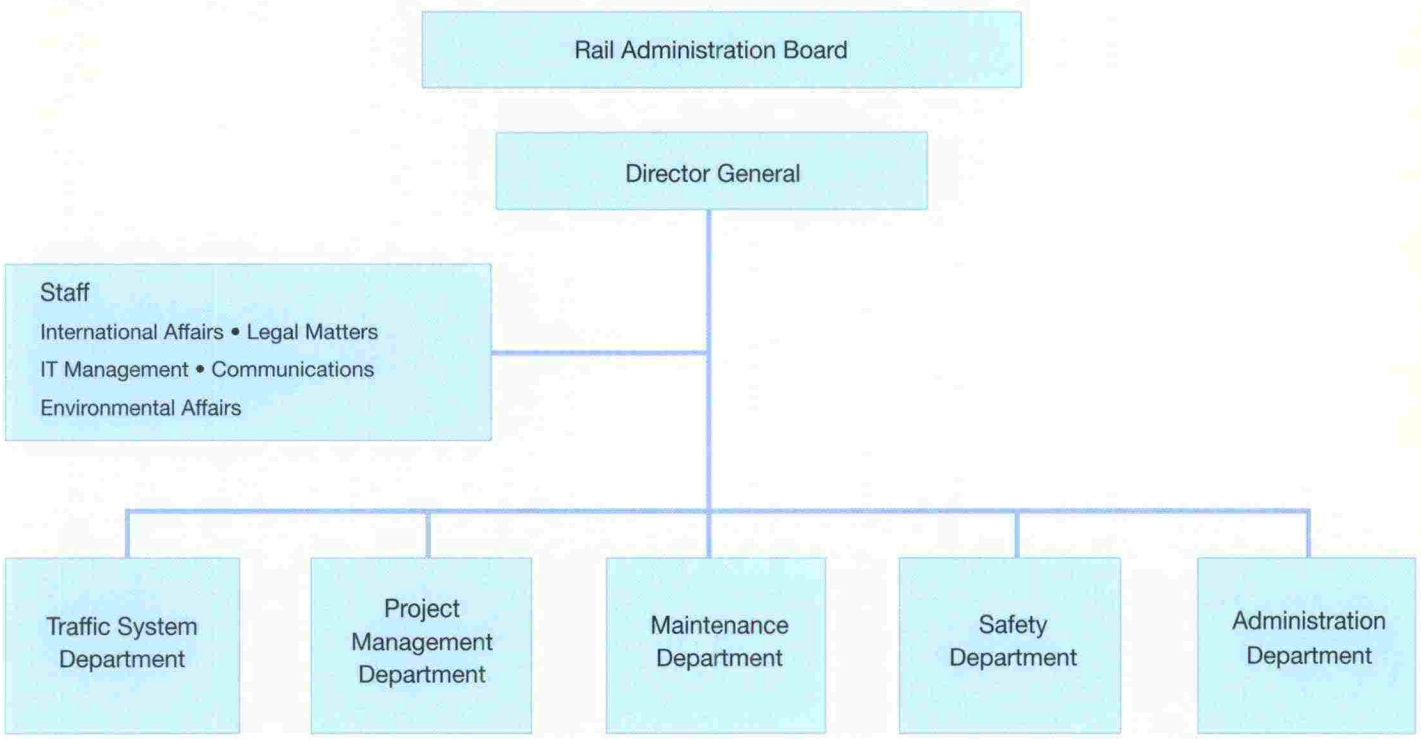
FINNISH RAIL ADMINISTRATION

MISSION

The Finnish Rail Administration (RHK) works to improve the operating conditions of rail traffic as an efficient, safe and environmentally friendly part of the domestic and international traffic system.

- RHK is in charge of maintaining and developing the rail network, is responsible for the safety of rail traffic and provides a competitive transport network for use by railway companies.
- RHK takes into account the transport needs of industry and commerce as well as public transport needs.
- RHK operates in accordance with the principles of sustainable development.
- RHK works actively to influence issues that affect Finland's traffic policy and infrastructure.

ORGANIZATION



RAIL ADMINISTRATION BOARD

Mr Timo Poranen (Chairman), Managing Director, Finnish Forest Industries Federation
Ms Hannele Luukkainen, Chairman, Finnish Traffic Association
Mr Markku Pyy, Planning Manager, Finnish Rail Administration
Mr Veikko Vaikkinen, Director, Economy and Systems Department, VR Group Ltd
Ms Kaisa Leena Välipirtti, Senior Advisor, Infrastructure, Ministry of Traffic and Communications

Director General's Review

When the Finnish Rail Administration went into operation eight years ago, Finland had just become a member of the European Union. We considered what new possibilities membership might bring for infrastructure management and what obligations it might entail. The trans-European rail network, the high-speed network and financial support for these were the top subjects of discussion at that time. Less attention was paid to the significance of membership for RHK's daily work and personnel resources.

The past years have shown that being part of trans-European networks has not signified decisive changes in infrastructure management so far, since Finland's special features – such as its different track gauge – have been taken into account in EU legislation. On the other hand membership of the EU has not brought financial benefits which would have affected basic policies regarding infrastructure management. Financial assistance can be considered mainly symbolic for infrastructure management as a whole. Otherwise the effect of the EU on the rail sector and RHK's activities has been quite significant, since it constantly requires input on the part of personnel.

The European Commission has worked systematically to achieve international rail legislation. The goal has been to revive rail traffic especially in the freight sector. Means have included opening traffic to competition, traffic and technical interoperability and the achievement of international regulation in the same way as air traffic. These matters have been promoted with the help of "rail packages" containing different legislation.

The most significant legislative change in the past year was the transposition of the interoperability directive in the Act on the Interoperability of the Trans-European Rail System and a related Decree. For RHK this legislation means an obligation to take care of market control as well as licences to place different systems such as new track in operation.

The most essential and time-consuming thing for RHK has been preparing technical specifications in international cooperation bodies. These standards determine what type of rolling stock and equipment can or cannot be used in Finland's rail network. It is of primary importance for the special features of Finland's rail network and rail traffic to be taken into account in standardization work at this stage. Finland's links with Russia as well as climatic conditions are good examples of matters related to this work.

International activities keep a considerable part of RHK's personnel busy, although outside help is also used. We hope that this is a passing stage, however.

The most significant effort connected with the first rail package has been the preparation of a new Railway Act. This Act will open international freight traffic in the European Economic Area to competition. Detailed provisions concerning RHK's obligations and rail capacity will be issued by Decree.

In addition to this legislation, RHK has also been responsible for preparing the Network Statemant. This report will tell traffic operators what kind of rail network and rail capacity is available and on what conditions during each timetable period. It is gratifying to note that Finland will be among the first member states to publish its Network Statement.

The new Railway Act will also signify additional tasks for RHK in accident investigation and the supervision of private tracks as well as matters regarding the preparation of timetables and the control of rail capacity. All in all the implementation of the interoperability directives and the first rail package signifies a considerable strengthening of RHK's role as Finland's rail authority.

The European Council and Parliament are presently considering the Commission's second rail package. Its main effects in Finland would be to expand competition to national freight traffic and to establish a separate safety authority. The coming year will no doubt be decisive for the progress of this proposal.

In addition to new legislation, RHK's activities last year were characterized by weakening financial prospects. A cause for serious concern is the collapse of replacement investments in the rail network, which are necessary to ensure efficient traffic.

In the late 1990s we managed to raise investment to roughly the level required to renew the ageing rail network, or €170–180 million a year. Since then funds have been cut by about a third and in the future this will apparently continue so that only about half of the necessary funds will be available for track renewal. This type of development unavoidably leads to traffic restrictions. Simply lowering speeds and axle loads will not be enough. Instead it will be necessary to discontinue traffic on some line sections.

Hopefully, when decisions are made on funding for infrastructure management, a solution will be found to avoid this type of development, which would seriously weaken rail services.

Ossi Niemimuukko

Performance Objectives 2002

The performance objectives which the Ministry of Transport and Communications set for the Finnish Rail Administration in 2002 were achieved as follows (*objective in italics*):

SCOPE OF THE RAIL NETWORK AND LEVEL OF SERVICE

No changes will be made in the scope of the rail network.

No changes were made in the scope of the rail network.

The level of service in freight traffic was improved beyond the objective. The Kirkniemi–Hanko line section was shifted from service class T2 to service class T1. Other service classes were in line with the objective.

Rail network service classes (main lines)

Passenger traffic				Freight traffic			
Service class	Maximum speed	Track-kilometres 2001	2002	Service class	Maximum axle load and speed	Track-kilometres 2001	2002
H1	Over 140 km/h	468	477	T1	25 t and 60–100 km/h	0	0
H2	130–140 km/h	1,246	1,349	T2	22,5 t and 100 km/h	3,954	3,954
H3	110–120 km/h	1,677	1,565	T3	22,5 t and 50–80 km/h	1,051	1,051
H4	100 km/h or under	593	593	T4	20 t and 40 km/h	638	638
H5	No regular passenger traffic	1,659	1,659				
Total		5,643	5,643	Total		5,643	5,643

Traffic delays

Delays lasting over 5 minutes due to track maintenance will not exceed 5% of passenger trains.

Track maintenance delayed 4.94% of passenger trains in long-distance traffic. The figure was 4.50% in 2001 and 3.11% in 2000, so delays have risen slightly. The reason is additional safety equipment (new systems and the expansion of ATP). Special attention must be paid to the reliability of new safety systems (surge protection, software defects). Delays were higher in the latter part of the year because of more difficult track work and damage caused by lightning.

Traffic restrictions

Axle loads according to service classes will not be restricted. A maximum of 270 track-kilometres (4% of track-kilometres) will be under speed restrictions.

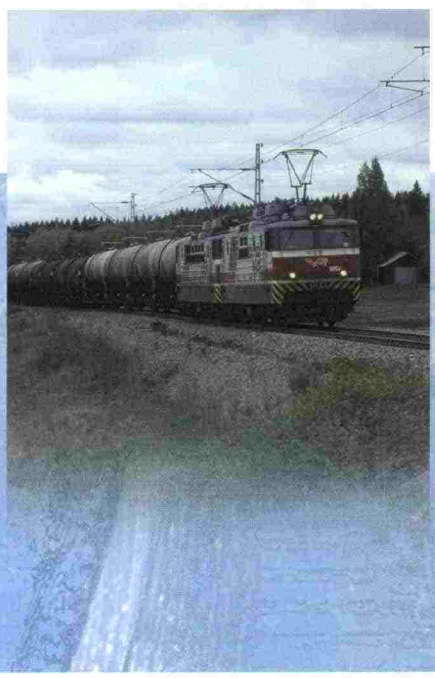
Axle loads were not restricted, so this objective was achieved.

Speed restrictions exceeded the objective. In the second half of the year speed restrictions were reduced, however. At the end of the year 344 track-kilometres were under speed restrictions.

Rail network condition index

The index is calculated as a four-year sliding average. The objective for 1999–2002 is 90.5%.

The condition index's maximum value is 100, in which case the rail network has met geometric condition requirements completely. The condition index is calculated on the basis of spring measurements as a four-year sliding average. In spring 2002 the result was 93%. The four-year sliding average was 90.75%. The result is for the whole year so the objective was achieved, thanks to track maintenance work and good winter conditions.



IMPROVING SAFETY

Accident fatalities

No fatalities will occur in passenger traffic accidents.

No passengers were killed in passenger traffic accidents last year.

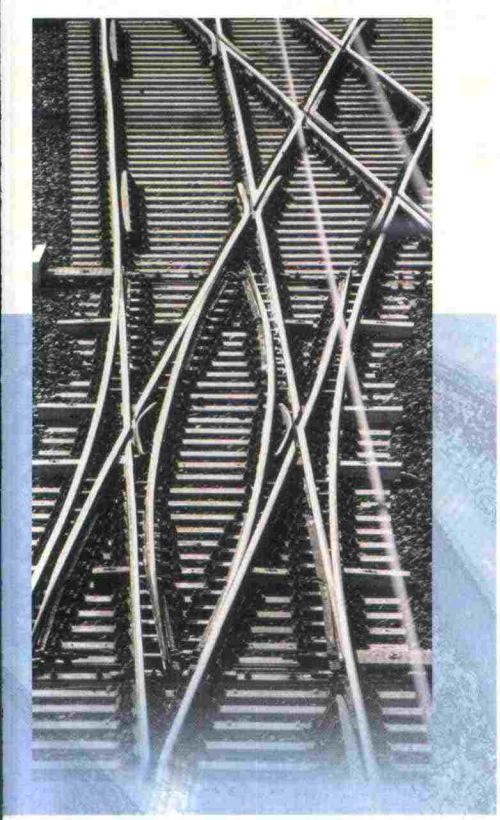
Accidents at level crossings

The number of accidents at level crossings will not exceed 40.

In 2002 there were 42 accidents at level crossings, in which four people died, three were injured seriously and six suffered minor injuries.

Accidents typically occurred at level crossings on line sections with low traffic volumes or low speeds. An exception was the Toijala–Turku line section. The accident toll was lower than usual.

The situation was better than in the preceding years. The number of accidents fell by 12 compared with the year before and casualties were significantly lower as well.



Accidents due to permanent way

The number of accidents due to permanent way will not exceed five.

One accident occurred due to permanent way when three wagons loaded with timber derailed in Huutokoski on 31 May because of track failure. The Savonlinna–Huutokoski line section is among those whose closure has been considered because of low traffic. This being the case, only indispensable maintenance measures have been performed on this line section. One factor behind the accident was a fairly rapid change in temperature: the line's old structures were not able to withstand the extra load this caused.

Three derailings took place in shunting work, two on public lines and one on a private siding.

Traffic was disturbed by a few rail breaks, frost damage, heat curves and landslides, but damage to trains was avoided.

ECONOMY OF INFRASTRUCTURE MANAGEMENT

Unit costs in maintenance will decline by 2%.

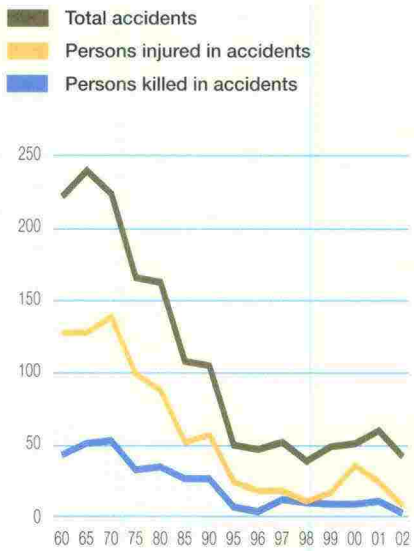
Unit costs in the maintenance contract declined by 3%, exceeding the objective.

Preconditions for tendering will be improved.

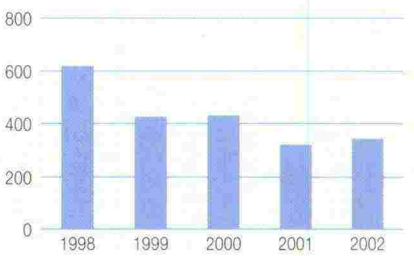
The following percentages of infrastructure management work and materials were put out to tender during the year: development 37%, separate projects 95%, replacement investments 53%, separate maintenance work 70%.

Basic track maintenance has been ordered from VR-Track Ltd on the basis of an annual agreement. A strategy for opening track maintenance to competition has been prepared. Management will be put out to tender in 2003 and the first contracts in 2005.

Development of accidents at level crossings, 1960–2002



Speed restrictions, track-km



REAL ESTATE

Income from real estate activities will exceed annual expenses for maintenance by at least 30%.

The profitability objective for real estate was achieved. Income exceeded expenses by 29.8% in 2002.

INVESTMENT MANAGEMENT SYSTEM

The investment management system will be developed. Steps will be taken to improve project planning and coordination to increase economy.

Track nomenclature was revised and the new nomenclature was placed in use at the beginning of 2003. The nomenclature is used in procurement and cost monitoring. Cooperation with the Finnish Road Administration and the City of Helsinki continued. A new cost management system will be tried in the Vuosaari harbour and airport line projects.

Operating Environment

RHK's task is to create the proper conditions for efficient rail traffic. The point of departure in maintaining and developing the rail network is the transport needs of domestic and international customers. Changes in the operating environment and traffic must be taken into consideration in infrastructure management.

VR Limited, which operates rail passenger services, introduced a number of changes last year. Pendolino services were expanded to Oulu and from Jyväskylä to Kuopio. Travel times on the line between Helsinki and Tampere were cut when speeds were increased to 160 km/h. In long-distance traffic timetables were extensively revised and made more regular. Times between connecting services were also reduced and new services were added.

Upturn in long-distance traffic

The slow decline in long-distance passenger traffic which had continued for several years came to an end in 2002. The number of journeys rose by nearly 1%. The biggest increase was in traffic between Finland and Russia, which grew by 11%. Domestic long-distance traffic remained roughly the same as the year before.

No major changes took place in the number of passengers on different line sections. The expansion of Pendolino services led to an increase in passengers between Helsinki and Oulu, however. Traffic also picked up to Kolari in the north. Nearly everywhere else the number of passengers fell slightly last year. The effect of the Lahti motorway is still visible in passengers between Helsinki and Lahti.

Travel times will again be shortened in spring 2003 when Pendolinos begin operating at 200 km/h between Kerava and Tampere. This will set the stage for further growth in long-distance passengers this year.

Urban line boosts commuter traffic

Commuter services in the Helsinki region were increased when the Helsinki–Leppävaara urban line went into full operation. The number of services between Helsinki and Leppävaara nearly doubled. Services were also increased to Vantaankoski.

The number of passengers in commuter traffic increased by 6%. Commuter traffic increased by 10% in the Helsinki metropolitan area but fell by 6% outside this area.

The rise in commuter traffic has been influenced by increasing land use along lines in the Helsinki region as well as new urban lines.

Work is now under way on the Tikkurila–Kerava urban line. This line will be completed in 2004, after which train intervals will be shortened and the level of service at stations will improve. Commuter traffic is in a good position to continue growing.

Rise in total journeys

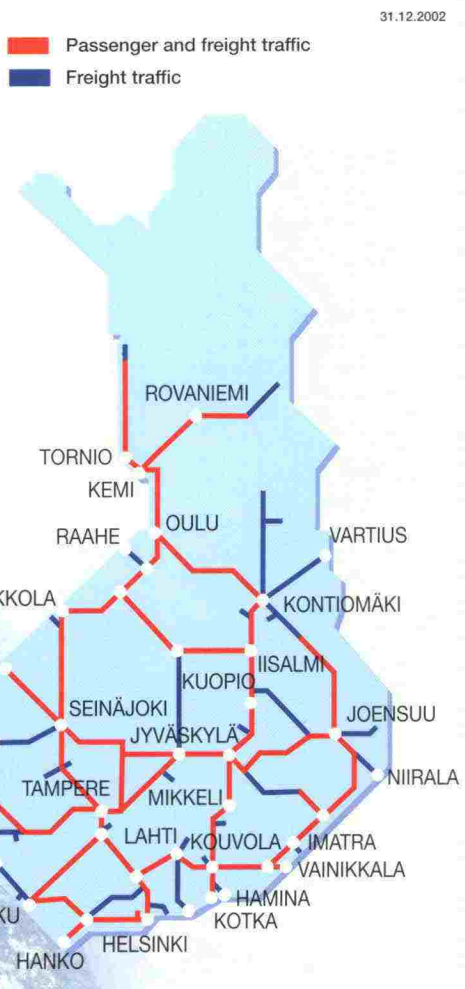
Passenger traffic totalled 57.7 million journeys in 2002. This included 46.1 million in commuter traffic and 11.6 million in long-distance traffic. Traffic between Finland and Russia totalled 266,000 journeys. Passenger traffic rose by 5% compared with the year before.

Railways account for about 5% of passenger traffic in Finland, while the average market share in all the EU countries is 6%. Railways' share of public transport in Finland is about one-fourth.

Freight traffic remains at record level

The competitiveness of rail freight was improved last year by raising the maximum axle load to 25 tonnes on the line section

Rail traffic network



between Kirkniemi and Hanko, which is used for paper transport. This was the first stage in raising axle loads to this level.

Raising axle loads will improve transport efficiency and reduce the burden on the environment, since the same amount of freight can be transported with fewer wagons and shorter trains.

The volume of rail freight totalled 41.7 million tonnes in 2002. This was the same as the record level the year before. Tonne-kilometres fell by 2%, which means that transport distances were slightly shorter.

Domestic freight traffic rose by 3% last year. International freight traffic fell, with western traffic declining by 15% and transit traffic by 14%. Eastern traffic remained at the same level as the year before.

With regard to product groups, traffic for the forest industry rose by about 6% while traffic for the metal and engineering industry fell by about 13%. Traffic for the chemical industry remained at the same level as the year before.

Comparing different line sections, traffic increased most between Riihimäki and Luumäki.

Shift to an integrated transport policy

In 2002 a significant step was taken in planning Finland's transport system when the shift was made to integrated planning under the direction of the Ministry of Transport and Communications. This will replace planning focusing on individual modes of transport.

The point of departure in the integrated strategy up to 2010 is a vision and mission whose implementation will be evaluated from different strategic viewpoints and in terms of critical success factors using a Balanced Scorecard approach.

Basic service level defined

A special working group appointed by the Ministry of Transport and Communications completed its task at the end of the year and defined the basic service level as follows:

"The basic service level allows the development of regions and communities by satisfying people's, businesses' and regions' transport needs in a sustainable manner."

On busy lines the basic service level is the capacity which will allow passenger services to run on schedule and at sufficiently frequent intervals. Lines must support axle loads of at least 22.5 tonnes. On commuter lines and especially urban lines the capacity to allow frequent services is important.

At the other extreme are line sections with low traffic volumes which are used by freight trains, where speeds can be lowered if necessary.

A report on transport services in 2004–2007 has also been prepared under the ministry's direction. Services were evaluated from the viewpoint of people's, businesses' and regions' needs as well as the environment and traffic safety. The point of departure is the state of present infrastructure and challenges in the operating environment. The report calls for longer-term programming in infrastructure management.

Ageing rail network requires replacement investments

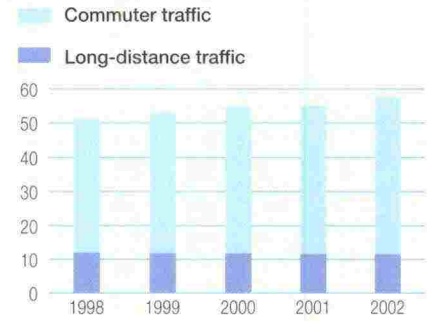
Superstructures last 30–40 years. The present rail network was mainly renewed in the 1960s and 1970s. Nearly 30% of superstructures are nearing the end of their service life.

According to RHK's calculations, replacement investments amounting to €170 million a year are required to ensure the basic service level. A lower level of financing would lead to a sharp rise in speed restrictions in the next few years.

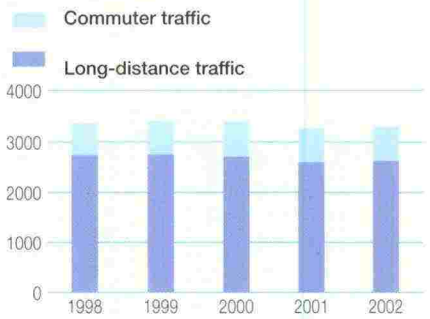
Opening of market underlines RHK's role

The new Railway Act and preparation for a multi-operator model present new challenges for the rail authority. RHK's role as the manager of rail capacity will be underlined. Independence will assume key significance in other respects as well. This requires the broadening and deepening of expertise.

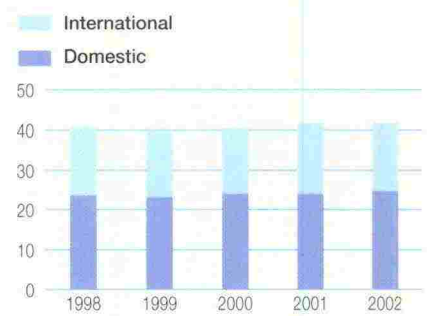
Passenger journeys, million



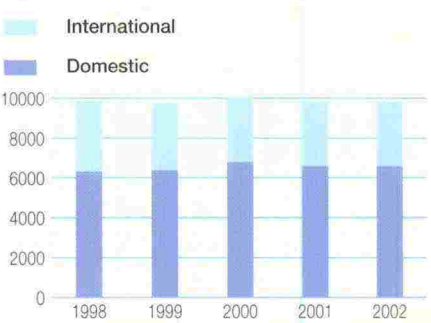
Passenger-km, million



Freight volume, million tonnes



Tonne-km, million



In brief

- Growth in passenger traffic, volume of rail freight unchanged.
- The rail network is an important part of transport policy and basic services.
- Replacement investments require €170 million a year.
- New legislation strengthens RHK's role.

Research and Development

RHK's research and development work mainly involves practical research and the development of guidelines and methods related to infrastructure management. R&D also improves the expertise and competence of personnel.

Research and development work is based on RHK's mission and tasks as well as its vision of the future. R&D is guided by objectives presented in the vision concerning the development of transport and travel chains, maintaining rail traffic's market share, expanding the 25-tonne axle load network and the high-speed network, and raising safety to a top European level.

R&D mainly takes place in three types of projects. In key areas RHK commissions and finances its own studies. RHK also participates in joint studies and is for example represented in research management groups in projects which are commissioned and financed by other organizations. Outside research is also monitored through professional publications, the Internet, seminars and other forums.

R&D based on strategic lines

The focuses of research and development in the coming years have been derived from strategic lines for infrastructure management, which have been presented in the Rail Network 2020 plan and in different policy papers.

Focuses in the near future revolve around improving the competitiveness of rail services, the condition and development of the rail network, the opening of the rail network to new operators, improving safety and developing a strong transport authority. These focuses include both national and international research.

Emphasis on surveying customers' needs

Last year RHK participated in over a hundred research and development projects which it commissioned on its own or in which it was represented in the research management group along with other organizations. All of RHK's units participated in research projects.

Emphasis in R&D work was again placed on surveying rail customers' needs.

Growth expected in freight traffic

During the year RHK analysed transport needs in the freight sector and prepared a forecast for rail freight traffic up to 2025. The volume of rail freight is expected to reach 49.6 million tonnes in 2010. This is about 8 million tonnes more than at present. The figure is expected to reach 52.0 million tonnes in 2025.

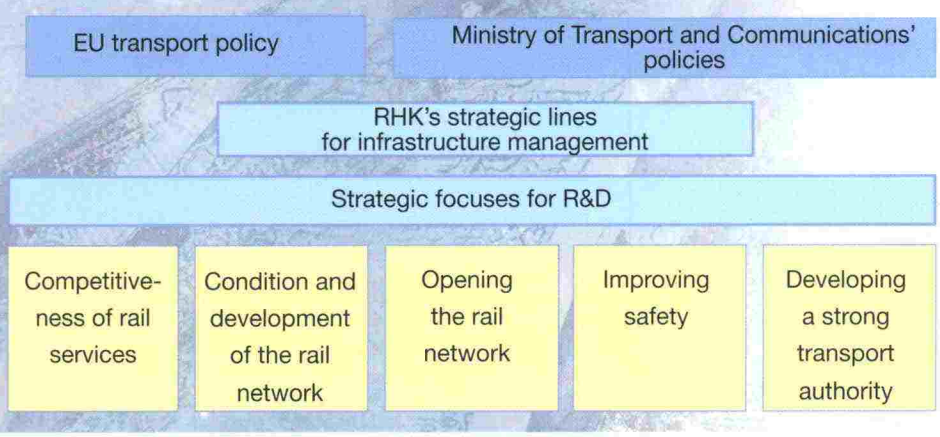
The forest, metal and engineering, and chemical industries are the most important customer for rail freight services. The volume of roundwood transports is projected to grow the most. Other categories in which significant growth is expected are paper and pulp, metals and junk, and intermodal transport.

Effects of opening the rail network to competition

Opening the rail network to competition is one of the transport objectives of the EU. This topic has also been researched. A study prepared by the Ministry of Transport and Communications and RHK evaluated the effects of opening the rail network to competition in freight traffic in Finland on the basis of experience in Sweden. Rail freight prices have fallen by 10% with the expansion of supply in Sweden. The market share of the state railway company's competitors has remained small, however.

The study estimated that broad competition would not be created in Finland. The incentive to enter the market is reduced by small freight flows, long distances and demanding weather conditions, Finland's exceptional track gauge, large rolling stock investments and the need for skilled personnel. VR's strong role on the market also reduces willingness to enter competition, and new operators will most likely prefer to seek cooperation possibilities with VR.

Points of departure and focuses of RHK's research and development work



In brief

- R&D based on strategic lines.
- Emphasis placed on surveying customers' needs.
- Roundwood transports expected to grow.
- Preparations for opening traffic to competition.

Environmental Matters

Last year RHK published a comprehensive environmental report for the programme period 1999–2001. In 2002 it continued measures to reduce environmental impacts begun during the programme period. It also began preparing a new environmental strategy and programme.

Noise control together with local authorities

RHK together with the Helsinki Metropolitan Area Council and local authorities began implementing a noise control programme for the entire region. The revised programme calls for the construction of 6 km of noise barriers in Helsinki in 2003–2005.

RHK also took part in planning noise control programmes in Kotka and Hyvinkää in 2002. A key goal is for local authorities to pay more attention to preventing noise and vibration problems in the planning stage.

In 2002 RHK also participated in a national project aimed at preparing a noise strategy for Finland up to 2020.

Progress in vibration work

During the year RHK adopted new guidelines for measuring vibration which were prepared in cooperation with the Technical Research Centre of Finland. These guidelines were applied in measuring vibration in 2002.

As part of a Nordic vibration survey, vibration risks in the Koria section of Elimäki were evaluated. A study of vibration risks was also completed in cooperation with the City of Oulu. The most problematic parts of the rail network in terms of vibration are the Vainikkala–Sköldvik and Vartius–Raahe line sections, which have heavy freight traffic.

Soil and groundwater studies

RHK devoted considerable attention to resolving soil and groundwater problems in 1997–2002. Different measures were taken in over 100 cases in which soil or groundwater contamination was suspected or confirmed.

During the year soil clean-ups were completed in nine locations around the country, including Haapajärvi, Kajaani, Kemi and Kerava. Groundwater was monitored in 15 locations, mainly in eastern Finland.

Station areas classified

A study of station areas was completed during the year. A maintenance classification model was developed for greenery in

station areas, with areas being classified on the basis of their significance for transport and cultural heritage values. This classification has been used to set maintenance levels and prepare maintenance instructions for station areas.

New cooperation model with local authorities

Local authorities along lines are significant cooperation partners for RHK. In Tampere a comprehensive study of the rail environment got under way in the form of a pilot project. This is intended to serve as a model for similar studies in other parts of Finland.

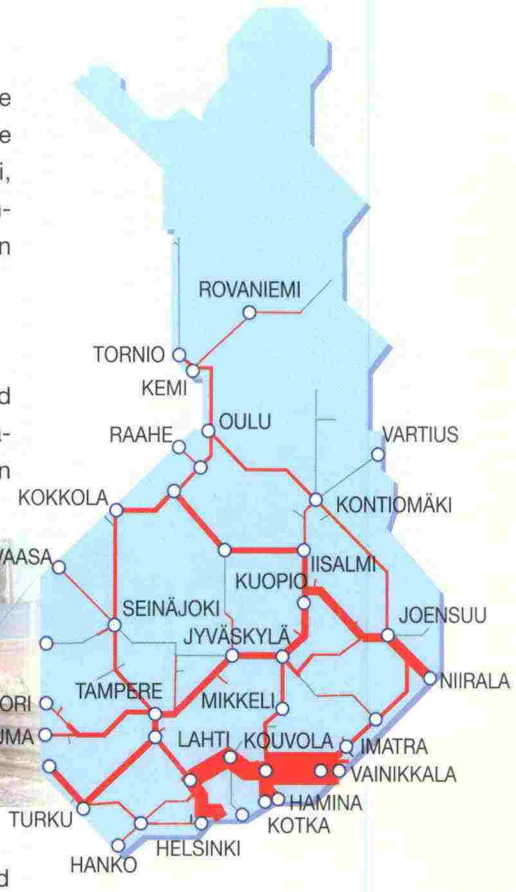
The project has surveyed noise, vibration, smell, natural values, contaminated soil and clean-up requirements, land use and planning, safety, landscaping and city image. On the basis of a preliminary study the intention is to prepare a prioritized action programme to resolve problems.

Studies on the impact of projects

During the year construction of the direct line from Kerava to Lahti began and the decision was made to build the Vuosaari harbour line. Both of these require studies concerning the impact of projects on birds, groundwater and plants during construction and use.

Finland had to send the European Commission a report concerning the impact of the direct line on flying squirrel resting and nesting places. A social impact assessment was conducted to evaluate the effect of the direct line on residents' living conditions, comfort, transport connections and safety.

Distribution of transports of hazardous substances in the rail network



In brief

- Environmental report published.
- Broad cooperation in noise control and vibration work.
- Soil clean-ups in numerous locations.
- Impact studied under way.

Track Renewal

Track renewal proceeded according to plans based on tight funds during the year. To give some idea of the scope of work, around 500,000 wooden sleepers were replaced with concrete sleepers in different parts of the country. This corresponds to about 300 kilometres of track. Rails were replaced on 130 kilometres of track and over 100 new switches were installed.

Emphasis has systematically been placed on track renewal for several years so that lines can be upgraded to meet the needs of passenger and freight traffic. As a result the length of track under speed restrictions has fallen sharply, but in 2002 the figure turned upward because less money was available for replacement investments.

At the end of 2002 there were speed restrictions on 344 kilometres of track. This was 22 kilometres more than the previous year. The supplementary budget which was approved during the year made it possible to prevent further growth in speed restrictions.

Good planning promotes efficient traffic

Most track renewal projects are performed on lines which are kept open to traffic. This requires the careful planning and scheduling of work in order to minimize traffic disruptions. The planning and monitoring of work can substantially influence traffic efficiency and punctuality.

In some cases interruptions in rail services have been arranged and normal rail traffic has been handled by other means. This has made it possible to complete work more quickly and efficiently. Such a procedure was followed on the Oulu–Rovaniemi and Kouvola–Pieksämäki line sections in 2002.

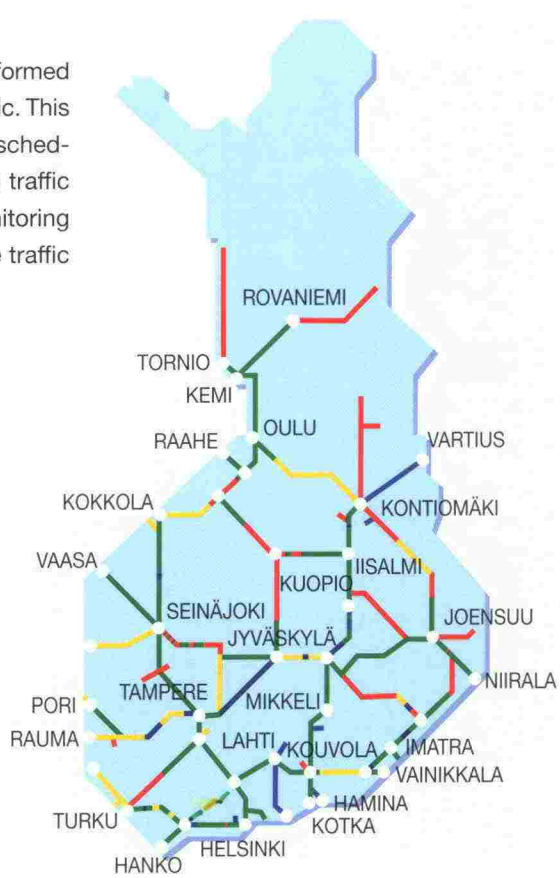
Superstructures renewed

The most significant track renewal projects in 2001 were on the Helsinki–Tampere, Seinäjoki–Kokkola, Oulu–Tornio, Luumäki–Joensuu and Kouvola–Pieksämäki line sections. Work focused mainly on the renewal of superstructures, i.e. sleepers, rails and ballast.

Age of superstructures in the rail network

31.12.2002

- 0–10 years
- 11–20 years
- 21–30 years
- over 30 years



The Helsinki–Tampere line section has been the biggest track renewal project in recent years and has involved significant development investments. During the year work on this line section was completed for all practical purposes and the line was straightened in Lempäälä, among other things. Another large track renewal project which will take several years is the line section between Kouvola and Pieksämäki. In 2002 work on this line section focused on superstructures.

Yards renewed and improved

The renewal of yards is an important part of improving the efficiency of the rail network. The most significant yard renewal project in 2002 was completed in Kerava, where the yard and station area were renewed almost entirely. This will substantially improve station access and make it easier for passengers to change platforms. This was a joint project conducted by RHK and the City of Kerava.

A sizable yard renewal project reached full swing in Hyvinkää during the year. Yards were also renewed in Imatra, Joutseno, Jyväskylä, Kemi and Kolari.

Increased efficiency through competition

Track work, like projects in process industry, must proceed according to the conditions set by production or in this case rail traffic. This work requires special equipment as well as expertise in track construction.

RHK invites tenders for over half of replacement and development investments. Work involving special equipment and expertise has been ordered from VR-Track Ltd on the basis of an annual agreement. The goal, however, is to gradually increase competition among contractors in order to develop efficient markets so as to improve efficiency, raise productivity and make better use of funds, according to the performance objectives set for RHK by the Ministry of Transport and Communications.

In many projects RHK makes use of project management consultants. This operating model is now being applied in track renewal between Kouvola and Pieksämäki, line electrification and related track work in northern Finland, superstructure work between Tampere and Jyväskylä, the Kerava–Lahti direct line project, the extension of the Helsinki–Tikkurila urban line to Kerava, the renewal of the Karelian line and some maintenance projects.

Development of procurement procedure

RHK has invited tenders for safety equipment and electrification work for many years. RHK also purchases key track materials such as rails, switches, and concrete and wooden sleepers on the basis of tenders. Special track work has been put out to tender mainly in the case of superstructure work and bridges.

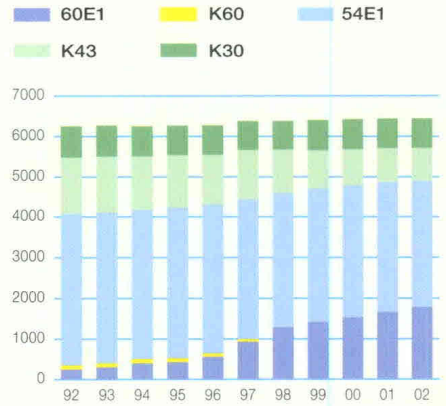
The procurement procedure is being developed. During the year RHK prepared new procurement guidelines which came into force in early 2003. Procurements have also been made more efficient by preparing track nomenclature and related specification guidelines.

Real estate improved

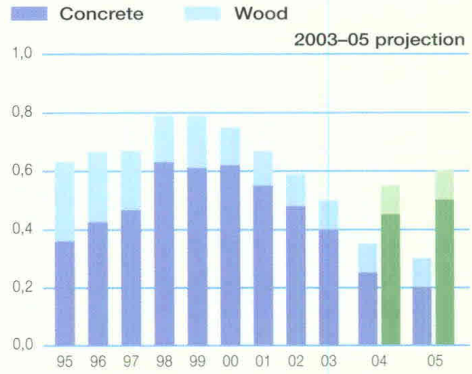
A new traffic control centre was completed in Oulu during the year. This offers modern facilities for monitoring the rail network in connection with further electrification and remote control in northern Finland.

The biggest building repair projects focused on facilities which are important for traffic control and track maintenance. The maintenance centre was renewed in Kouvola and the Ilmala electrical centre and traffic control centre were renewed in Helsinki. Part of the architecturally valuable Pasila locomotive hall was leased after renewal.

Types of rails on main lines track-km



Installed sleepers, million



Projection 2004-05:

- Number of sleepers which can be changed with framework financing (basic infrastructure management about €300 million/year)
- Number of sleepers which need to be changed to ensure the basic service level (basic infrastructure management about €370 million/year)

In brief

- Tight financing for track renewal.
- Helsinki–Tampere project completed.
- Kerava yard renewed.
- New procurement guidelines prepared.
- Oulu traffic control centre ready.

Development Projects

With regard to development project last year was exceptionally impressive. During a half-year period construction began on the extension of the Helsinki–Tikkurila urban line to Kerava and on the direct line from Kerava to Lahti. These projects together with further electrification are of key importance when it comes to improving the competitiveness and operating conditions of rail traffic.

Construction of urban line begins with pile driving

The extension of the Helsinki–Tikkurila urban line to Kerava began in spring 2002 between Hiekkaharju and Koivukylä. During the year the main focus was on earthmoving and bridge work for a new track to the east of existing tracks. The 13.5-kilometre extension of the urban line will include about 7 kilometres supported by piles. About 100 kilometres of steel-reinforced and steel-pipe piles were driven for this purpose. Pile driving was one of the biggest stages of work during the year.

After earthmoving and bridge work is completed in spring 2003, the project will continue with actual track construction. The urban line will go into service in August 2004. A project management consultant has been employed for the extension of the urban line.

Once the urban line is ready, rail traffic can be increased. The line's two easternmost tracks will be reserved for commuter traffic. The urban line will allow services at 10-minute intervals in the best case.

The extension of the urban line to Kerava is a joint project conducted by RHK and the cities of Vantaa and Kerava which will also promote the development of land use along the line.

Direct line under construction with bridge and earthmoving contracts

Construction of the direct line from Kerava to Lahti got under way in the latter part of the year with bridge and earthmoving work. The first project was the Luhdanmäki railway bridge between Hollola and Orimattila.

RHK has enlisted the assistance of a project management consultant which will select contractors on the basis of tenders. Contractors will conclude agreements directly with RHK, however. The project is so large that it will be divided into subprojects for which tenders will be invited according to EU regulations. Tendering and careful planning will result in cost savings and this will make it easier to stay within tight finances.

The construction of the direct line is quite a unique project. The last time such a direct line was built in Finland was in the 1970s, between Jämsänkoski and Jyväskylä.

The direct line from Kerava to Lahti will allow the development of passenger and freight services to eastern Finland and Russia. It will also free capacity on the main line from Helsinki to the north and allow the improvement of services on that line.

The direct line from Kerava to Lahti is intended for high-speed passenger traffic and freight traffic and will be double-track, electrified and equipped with automatic train protection. It will have no level crossings. The direct line will follow the same corridor as the Lahti motorway for the most part, thus limiting the impact on the environment. The direct line will have a total length of 74 km, including 63 km of new track. Construction is scheduled for completion in 2006.

Further electrification in northern Finland

The focus of electrification is in northern Finland. Electrification proceeded on the Oulu–Rovaniemi line section and will be completed in late 2004. Next in line are the Oulu–Kontiomäki–Vartius and Kontiomäki–Iisalmi line sections.

Further electrification of the rail network is socio-economically feasible and will improve preconditions for rail traffic. It is also a significant environmental investment.

In connection with electrification, other major work is carried out, such as elimination of restricting curves, the improvement of superstructures, bridge replacements and yard changes.

Helsinki–Tampere line ready for high-speed traffic

Renewal of the Helsinki–Tampere line was completed during the year, except for finishing touches. The goal has been to improve the level of service and promote traffic safety by eliminating level crossings. The line's geometry has been improved to allow a speed of 160 km/h with conventional rolling stock and 200 km/h with tilting-body trains. Freight traffic will also be made more efficient by increasing the maximum axle load to 25 tonnes in the future.

The service level at the stations on the Helsinki–Tampere line has been upgraded by raising and covering platforms, improving passenger information and developing access arrangements.

Planning of airport line proceeds

The proposed airport line will run between the Martinlaakso line and the main line to the north. This project proceeded to the master plan stage, which will continue up to the end of 2003. The main objectives of master planning, which is being financed by RHK and the City of Vantaa, are to revise plans and construction costs, to design stations and to ensure that the line is environmentally friendly. Measures are also being planned to eliminate any detrimental effects of the line.

The airport line will be one of the most important transport projects in the Helsinki region in the coming years. It also has national and international significance since it will provide a rail connection to the Helsinki airport.

Jyväskylä travel centre completed

RHK has participated in the development of travel centres around the country. The Jyväskylä travel centre was completed late in the year. RHK was responsible for track and platform work in this project. This was the first travel centre to be built in the form of a completely new terminal where passengers can change from one mode of transport to another.

RHK improved the level of service at stations in many ways. In cooperation with Helsinki City Transport a new parking lot with 106 spaces was built at the Malmi station in Helsinki. Surveillance cameras were installed in cooperation with local authorities and VR Limited in Riihimäki, Kerava, Kupittaa and Salo, among other places.

Passenger information at stations has been improved by shifting to a central system which controls display boards. New travel centres can be added to this system as necessary. The system presently includes the display boards in Kouvola, Lappeenranta and Jyväskylä. The technical quality of public address systems was also improved at stations in different parts of the country.

Oritkari terminal under construction

Intermodal transport terminals serve the same purpose as travel centres in freight traffic. The Oritkari terminal is now being constructed in Oulu by RHK, the City of Oulu and VR Limited. This joint project will be completed in 2004, after which a larger portion of road traffic can be shifted to environmentally friendly rail transport over long distances.

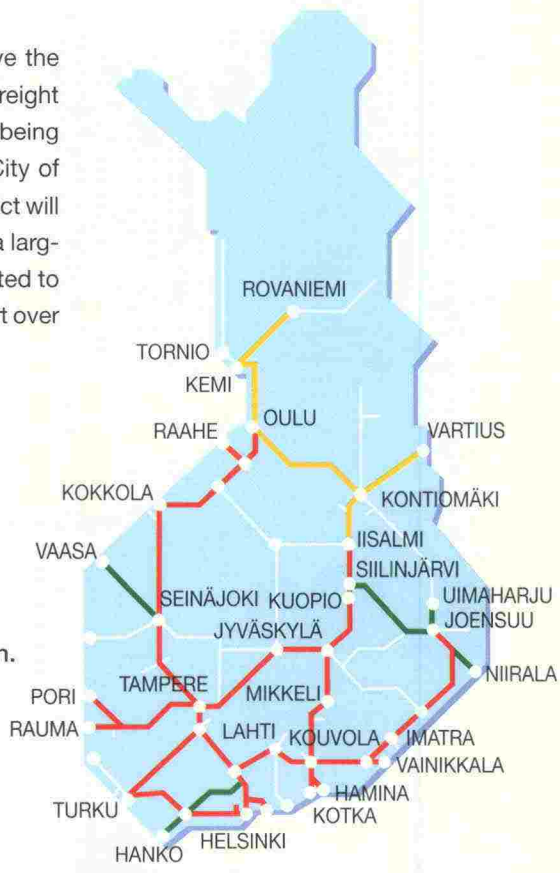
In brief

- Extension of urban line to Kerava under way.
- Direct line under construction.
- Further electrification between Oulu and Rovaniemi.
- Service level improved on main line.
- Emphasis on travel chains.

Electrification of the rail network

31.12.2002

Electrified
Under construction
Line sections scheduled for electrification



Safety

Last year was better than average in terms of rail accidents. Although a large number of incidents were recorded, these were mostly dangerous situations. Development has been influenced by the installation of additional safety equipment and the renewal of old systems as well as the completion of the first two stages of the automatic train protection system.

No casualties in rail traffic

No accidents resulting in casualties occurred in passenger traffic, although a serious incident took place when a passenger train arrived too fast at a switch which was incorrectly set. Three derailings took place in freight traffic. One of these was due to a broken bearing, one to track failure in hot weather and one to human error. Several minor accidents occurred in shunting work.

An alarming feature has been the increase in people's general disregard for safety. This has been reflected in trespassing on tracks and accidents at level crossings, for example. No technical methods can prevent accidents entirely if people do not obey rules and are not careful crossing railways.

Accidents at level crossings on low-volume tracks

The number of accidents at level crossings declined and was close to the target (no more than 40 accidents). The actual figure was 42 accidents, in which four people died, three were injured seriously and six suffered minor injuries. All of these were road users.

Nearly all the accidents which occurred at level crossings in 2002 took place on tracks with low traffic volumes. Three accidents occurred on the busier Toijala–Turku line section. Measured in terms of accidents at level crossings, the most dangerous line section is still Seinäjoki–Kaskinen, which is only used for freight traffic.

Survey of conditions at level crossings

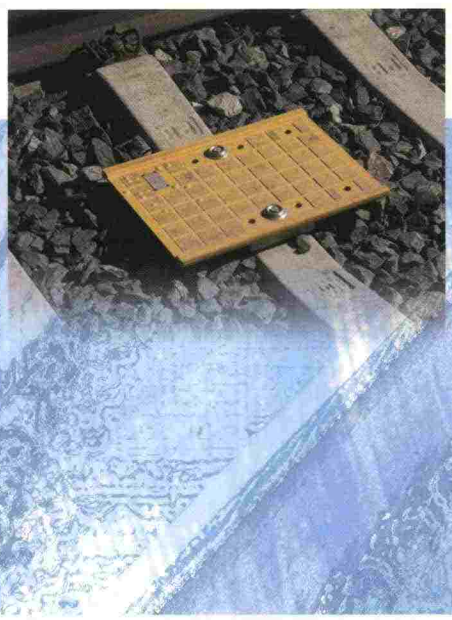
An important part of safety work has been the surveying of conditions at level crossings. Around 400 level crossings were inventoried in 2002. Recommendations aimed at improving safety at individual level crossings are issued on the basis of inventories. Recommended measures include the clearing of approaches, the construction of booms or the lengthening of existing booms. Possible testing areas for full booms and gates have also been sought.

RHK again participated with various cooperation partners in a campaign aimed at increasing safety awareness at level crossings. This time the campaign focused on the Turku, Pori and Rauma areas.

Over a hundred level crossings were eliminated in 2002 with the help of bridges and other arrangements. This total included 26 of the level crossings which were classified as most dangerous by a working group which was appointed by the Ministry of Transport and Communications in 2001. RHK has also developed a model in which a specific person will be placed in charge of safety at each level crossing in future.

Snowmobile routes a new cause for concern

Increased snowmobiling is becoming a problem, since the environmental committees in some municipalities have allowed snowmobile routes to cross railways despite RHK's objections. The Administrative Court has been asked to resolve who is entitled to decide on the matter and alternative solutions are also being sought.



A tentative agreement has already been reached with Nilsiä to build the first light snowmobile bridge. It is hoped that this example will lead to sustainable development in the building of snowmobile routes.

Safety work in schools

Children and young people who climb on wagons or electrical equipment along railways take big risks. To prevent accidents, a CD-ROM/video concerning electrical safety on railways has been sent to schools in areas where electrification work is under way, for example. RHK emphasizes that showing the video to pupils when work begins is not enough; it should be shown to each new group of pupils every year.

RHK, the police and VR continued a joint information campaign aimed at educating school pupils on rules regarding access to railways and reminding them of the dangers involved.

New line radio system under construction

Preparations have been made for a new line radio system based on the European GSM-R standard.

The line radio system is used for communication between traffic controllers and train drivers and ensures safe and efficient traffic. The present system is analog and cannot be expanded to meet the needs of the future.

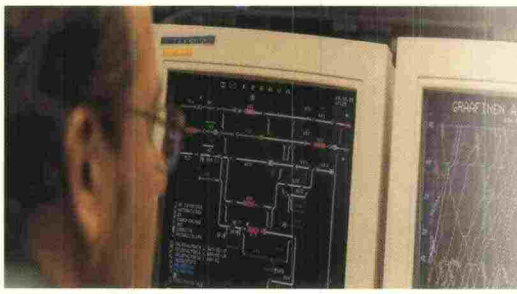
ATP installed on main lines

The installation of automatic train protection on busy main lines was completed at the beginning of 2002. The intention is to expand the system to cover the entire rail network, with only a few exceptions. Last year surveys and plans were made for future investments. The principle is that safety equipment and automatic train protection should correspond to the volume of traffic on lines.

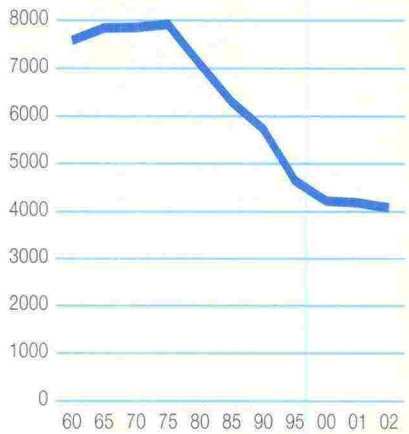
Harmonization of regulations and systems

The safety directive is one of the most important documents being prepared in the area of rail safety work. This directive is in the second rail package, which also includes directives dealing with interoperability, the allocation of capacity and the setting of track access charges.

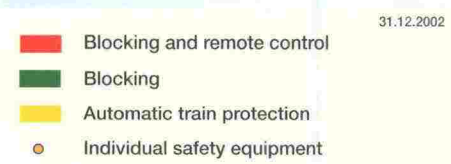
The safety directive will bring with it new actors and new tasks, if the rail package proceeds as planned. Among new actors in Finland will be the national rail safety authority. In addition the infrastructure manager or RHK and rail operators will still have staff responsible for safety.

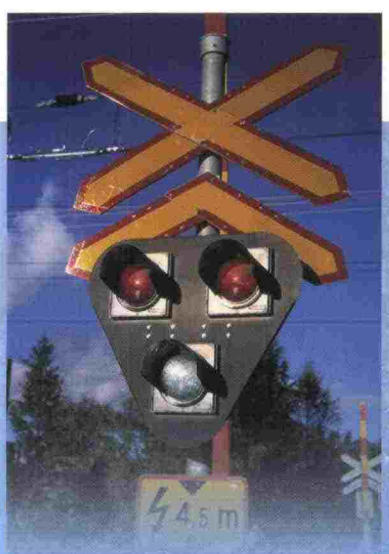


Number of level crossings on state-owned lines 1960–2002



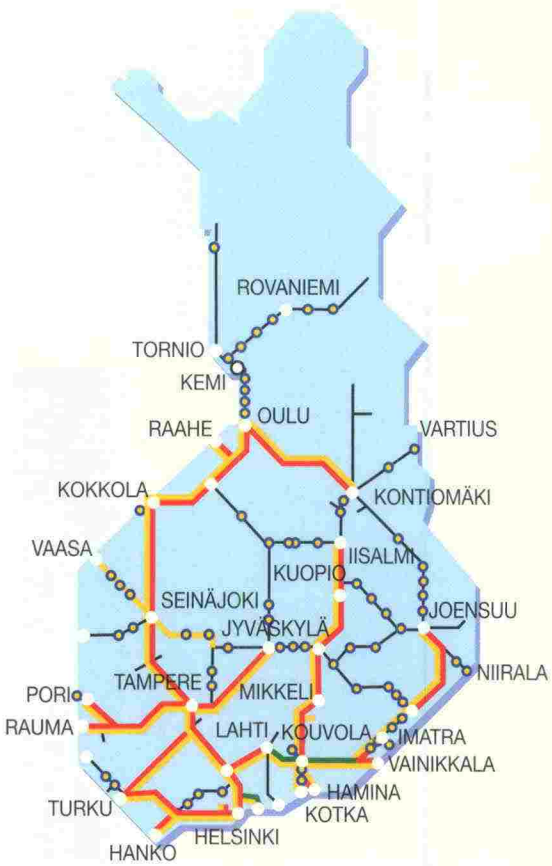
Safety equipment systems





In brief

- No serious rail accidents.
- Safety at level crossings improved.
- Efforts to increase safety awareness.
- New line radio system prepared.
- Second stage of ATP completed.
- New legislation in the pipeline.



Maintenance

The goal of track maintenance is to keep lines in proper condition for traffic. Track maintenance also includes maintaining and repairing platform areas. The intention is to simplify the interface between real estate activities and track maintenance, and in the future tendering for maintenance in these areas will be harmonized.

Expansion of tendering

Up to now, track maintenance has not been put out to tender but has been ordered on a fixed-price basis, with the exception of platform areas. During the year a strategy for opening track maintenance to competition was prepared. Steps were taken to set up the necessary monitoring body at the end of 2002.

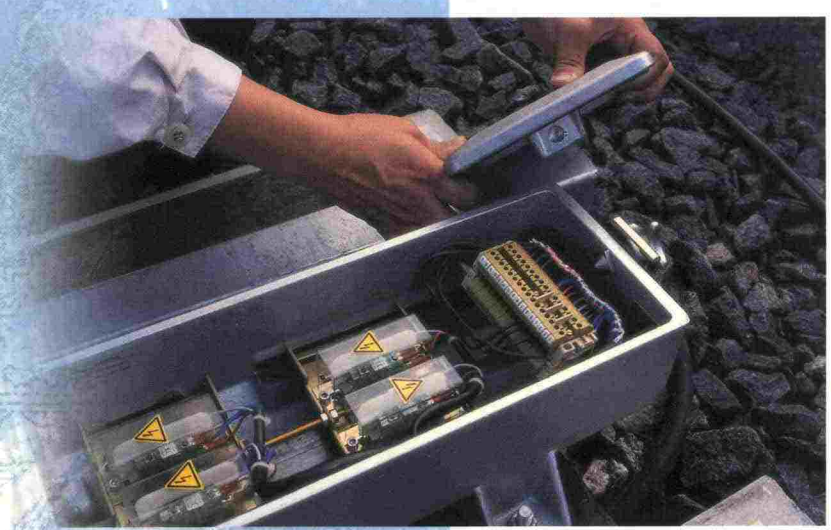
To begin with tendering will be arranged in northern Finland and the first contracts based on tenders will come into force in summer 2005. Last year the monitoring of maintenance costs was revised to provide a basis for cost monitoring when tendering is introduced.

Preventive maintenance

RHK is increasingly shifting to preventive maintenance and the use of equipment diagnostics. Work is carefully planned to minimize traffic disruptions. Last year speed restrictions had to be set on the Iisalmi–Ylivieska line section because of the delay in track investments.

Station areas surveyed

Accessibility at all passenger stations was surveyed last year. The purpose was to see how well disabled persons can reach trains on their own. The findings will be used in planning future work. The classification of station areas continued.



In brief

- Strategy for opening track maintenance to competition.
- Emphasis on correct focusing of work.
- Survey of accessibility at stations.

Technology

Technical research serves the entire authority and improves the competitiveness of the rail network. Standards are being developed to raise rail safety in Finland to a top European level. Standards are also necessary to allow tendering for track work and to open the rail network to competition. Solutions based on standards must be economical without compromising on safety.

New guidelines concerning track geometry, track structure, track superstructures, the inspection and maintenance of switches, and platforms came into force last year.

Special research areas in 2002 included requirements for raising the maximum axle load, structures at level crossings, pillar foundations and concrete sleeper dimensions. The results of technical research were presented broadly at the Track 2002 seminar in Hyvinkää, which was attended by around 300 people.

New era in heavy freight traffic

In December 2002 heavy freight traffic with an axle load of 25 tonnes began on the first line section in Finland. Reinforced track and new wagons procured by the rail operator allow this kind of traffic in paper transport between Kirkniemi and Hanko. The advance was made possible by lengthy research and development work in which Finland and Sweden are on the cutting edge in Europe.

In early 2003 heavy freight traffic was expanded to ore transport between Harjavalta and Mäntyluoto. Expanding heavy traffic requires improvements and repairs especially in culverts and track stability. Experience on the line sections where heavy traffic has begun will be closely monitored.

International safety equipment technology

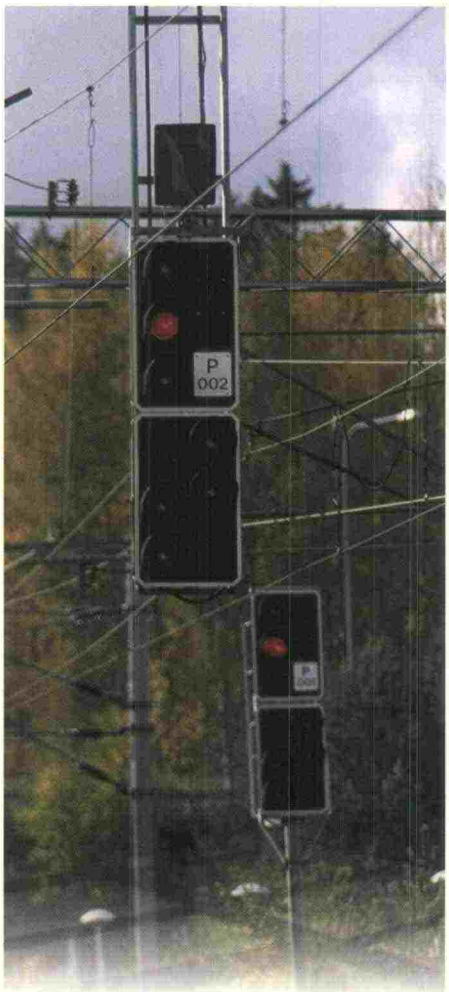
Intensive development work has taken place in the field of safety equipment. RHK has participated in the development of the European Rail Traffic Management System and the European Train Control System.

Last year RHK participated particularly in the development of standards for the Eurointerlocking project and regional ERTMS for low-traffic lines. Development work also began on an STM adapter which will allow the use of new European train control equipment on Finnish lines.

European interoperability

The EU's interoperability directives will have a significant influence on technical solutions and operating rules in the future.

Interoperability work has revolved around the preparation of technical specifications in AEIF working groups. RHK's own representatives and consultants have participated intensively in working groups. This is the best way to influence the content of texts. Progress in the working groups and timely matters in the Interoperability Committee are regularly reviewed at national monitoring sessions arranged by RHK.



In brief

- New guidelines in force.
- Research presented at rail seminar.
- 25 t axle load in use.
- International cooperation intensified.

Annual Report of the Rail Administration Board

Tasks and activities

The Rail Administration Board directs and supervises RHK's activities. It decides on RHK's general operating lines, service and operational objectives, operational and financial plans, budget, the general arrangement of technical inspection, service pricing principles, the establishing and abolishing of permanent posts and the approval of collective bargaining agreements. It also approves significant plans concerning construction and maintenance of the rail network and traffic control and makes proposals concerning transport policy in the rail sector.

The Rail Administration Board met eleven times during the year. During a trip to Tampere it also inspected work in the Toijala yard and station area as well as line straightening in the Hollo section of Lempäälä.

The Rail Administration Board dealt with the following far-reaching matters, among others: the reform of rail legislation, the adequacy of RHK's personnel resources, the tendering strategy for track work, revising the principles for track fees, the arranging of internal audit, the development of rail safety and the intensification of environmental activities. It also discussed a proposal from the Ministry of Transport and Communications concerning the reform of transport administration.

RHK's personnel

RHK recorded 116 person-years of work in 2001, including 76 person-years in actual activities and 40 person-years in ticket inspection activities. This signified an increase of 7 person-years in actual activities and a decrease of 1 person-year in ticket inspection activities compared with the year before. Personnel in actual activities take care of planning track maintenance and real estate services, ordering maintenance and contracting work and traffic control work, official tasks related to technical standards and licences, and RHK's financial and administrative tasks. Ticket inspection personnel are responsible for activities under public law. Personnel at the end of the year totalled 124.

RHK's wages and salaries together with related personnel expenses amounted to €5.6 million. Personnel expenses make up about 1% of RHK's operational expenses.

The average age of personnel at the end of the year was 44.4 years. The average age was 40.8 for inspectors and 46.2 in actual activities. Women made up 30.6% of personnel.

Personnel's job satisfaction and the effectiveness of management have been monitored with the help of a barometer survey. The previous survey was conducted in autumn 2000 and the survey concerning 2002 was conducted in January 2003. The response rate rose from 65% to 74%.

Job satisfaction in 2000 and 2002

	2000	2002	Change % 2002/2000
Work content	68.7	67.3	- 2.0
Management	54.4	56.2	+ 3.3
Org. effectiveness and development support	57.1	60.3	+ 5.6
Other organizational factors	59.7	63.0	+ 5.5
Total	60.0	61.6	+ 2.7
Desire to change or rotate jobs	37.8	24.2	- 36.0

The results of the job satisfaction survey are presented above. The results are presented in the form of an index, with a maximum score of 100. The overall result was 61.6 in 2002 and 60.0 in 2000. Work content had the highest score, 67.3, which was slightly lower than last time. Management had the lowest score, 56.2. Scores for management, the effectiveness of the work community and other factors regarding the effectiveness of the organization improved 3–6 percentage points compared with last time. Scores rose quite well for the following: management feedback on the results of work, RHK's internal cooperation and work atmosphere, and the organization's internal openness and information.

Available funds

Last year €467 million in budget funds was available for RHK's gross expenses. This figure includes funds carried over from the previous year (€22 million), regular and supplementary budget funds (€444 million) and itemized funds (€69 million). The total was €62 million more than the previous year. €36 million was carried over to 2003.

Use of funds

Activities focused on planning and ordering construction and maintenance work. Projects proceeded according to schedule. Spending was practically on budget. €33 million in funding for the line radio network was carried over to the following year. €3 million in funds for construction projects and €0.6 million in subsidies from the EU were also carried over to the following year.

A total of €418 million in budget funds was spent in 2002. This was €35 million or 9% more than the previous year. €88 million was spent on development projects, €2 million on land purchasing, €135 million on basic infrastructure investments and €193 on operational expenses. The biggest items were track maintenance and operation (€130 million) and traffic control (€38 million).

The biggest track renewal projects were on the line sections Helsinki–Tampere (€21 million), Kouvola–Pieksämäki (€19 million), Lappeenranta–Parikkala (€16 million), Tampere–Orivesi–Jyväskylä (€8 million), Oulu–Rovaniemi (€8 million) and Seinäjoki–Oulu (€3 million).

Among development investments €17 million was spent on upgrading the Helsinki–Tampere line section and €12 million on electrification between Oulu and Rovaniemi. €12 million was spent on automatic train protection and €10 million on level crossing arrangements on main lines. €1 million was spent on buildings.

Statement of Income and Expenses

In the business accounts operational income includes fees, rents and other income. Operational income totalled €73 million last year, with the largest item consisting of track fees (€53 million), ticket inspection income (€1.6 million), income from licence fees (€0.4 million) and rents (€10 million). Other income totalled €8 million, including €2 million from the sale of assets taken out of use and €6 million in planning and building subsidies from the EU. €2.7 million of subsidies from the EU were booked as state income and were not made available for track maintenance. Operational income increased by €2.8 million or 4% compared with the previous year.

In RHK's accounts operational expenses include all costs with the exception of investment costs, which are booked with assets in the balance sheet. Operational expenses totalled €414 million. The largest item was depreciation, which amounted to €227 million. Track maintenance and traffic control are outsourced, as are real estate maintenance services and expert and research services. These are the largest items booked under purchased services, which totalled €179 million. Personnel expenses came to €6 million. Rents and other expenses totalled €2.7 million. The largest items in this category were property taxes, membership fees abroad, travel services, office rents and other rents. Operational expenses rose by €25 million or 6% compared with the previous year. Expenses excluding depreciation rose by €12 million or 7%.

The deficit before financial and extraordinary items came to €341 million. Extraordinary income and expenses mainly consist of the costs of unexpected delays resulting from track damage and track work and related compensation. The deficit after financial and extraordinary items came to €344 million. According to the Statement of Income and Expenses, income covered 18% of expenses, which was nearly the same as the previous year.

RHK booked €2 million in VAT received and €89 million in VAT paid. The deficit including VAT was €431 million. This figure rose by €37 million or 9% compared with the previous year.

Balance sheet

The balance sheet total was €2,573 million, down €1.5 million or 0.06% compared with the previous year. The capital value of fixed assets amounted to €2,567 million at the end of the year. This value decreased by €1.4 million during the year. The net increase in assets was €225 million during the year. Depreciation according to plan totalled €227 million. Depreciation exceeded the net increase in assets by €2 million.

Increases in rail structures totalled €220 million, of which development investments amounted to €87 million. Basic renewal totalled €133 million. This was €91 million less than depreciation on the rail network, which totalled €224 million. Annual replacement investments should be at least as large as depreciation so that the value of fixed assets will not decline.

Cost covering

According to a decision by the Ministry of Transport and Communications, RHK charges fees for issuing different types of licences, decisions and technical specifications. It is also responsible for certain real estate activities and ticket inspection activities. Under separate legislation RHK collects track fees, which are set so as to provide a cost structure which is comparable to other modes of transport.

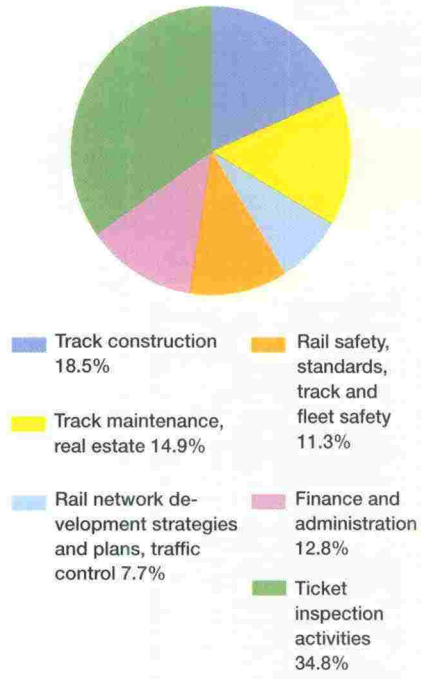
Income from fees totalled €11.7 million, including €1.7 million from ticket inspection and the issuing of licences and decisions. The income from such statutory performances did not entirely cover costs. Income from the issuing of non-statutory licences and decisions amounted to €0.1 million. The return on these performances was 9% of costs.

RHK's real estate activities are the most significant function subject to charges and based on commercial principles. Rent income totalled €9.7 million. Other income from real estate amounted to €0.2 million. This brought total income from real estate to €9.9 million, down 0.3% from the previous year.

Separate expenses from real estate activities totalled €7.7 million, up 5.3% over the previous year. The biggest item, maintenance and repairs, totalled €6.7 million, up 6% from the previous year.

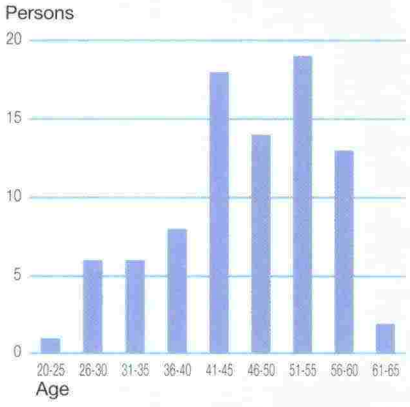
The capital value of income-producing real estate was €70.9 million. The opera

Person-years by type of activity 2002

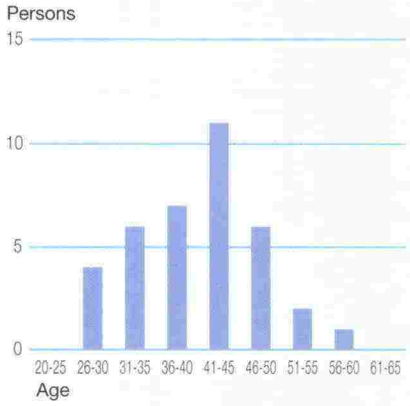


Age breakdown of employees

Persons employed in actual activities



Persons employed in ticket - inspection activities



tional surplus after separate expenses and social costs was €2.1 million, so the return on invested capital was 2.9%. Depreciation on real estate totalled €2.6 million. The operational deficit after depreciation was €0.5 million, leaving a return of -0.7%. According to State Treasury guidelines the nominal interest requirement in calculating cost covering was 4.9% on invested capital. Interest expenses totalled €3.3 million. The operational deficit on real estate activities was €3.3 million, leaving a return of -5.4% on invested capital. RHK's real estate holdings did not produce the required return.

The operational surplus before capital and joint expenses was €2.3 million or 30% of separate expenses. Real estate activities produce this amount of money for infrastructure management. Income from real estate activities also covers depreciation but not interest on invested capital.

The Ministry of Transport and Communications has noted that RHK's real estate activities cannot produce the required return on investment. The objective is for the operational surplus after separate expenses to be at least 30% of costs. This objective was achieved.

Increasing income from real estate activities is difficult because of the age, condition and location of buildings. Income from real estate activities has annually covered over 70% of expenses calculated according to the state's return requirements. Last year the figure was 72%. Most building rents come from buildings linked to rail traffic, whose rent has been set on a commercial basis, taking into account the level and purpose of facilities. Apartment rents account for 13% of income. The location and level of apartment buildings do not allow higher rents. Buildings are hard to make more profitable. Income from land areas accounts for 28% of total income and covers all costs, even producing a surplus.

Costs by task

A calculation of RHK's costs by task is presented on page 26. Activities have been divided into network management and paid activities. Costs include separate costs and administrative costs. Total costs came to €543 million.

Paid activities accounted for about 3% of total costs. The calculation also includes administrative costs of investments, since these are not included in the balance sheet.

Network management consists of traffic control, track maintenance and operation, and planning and research activities.

Traffic control, which ensures safe operations on the rail network, is presented as a separate activity. Traffic control is almost entirely outsourced, so administrative costs are minimal.

The main task in network management is track maintenance and operation, which includes maintaining track and equipment, operating costs such as electricity for lighting and switch heating, and track facility costs. Network management costs amounted to €500 million. The change over the previous year was +3%. Costs excluding capital costs rose by 8%. This was due to the increased need for repairs, the rise in the cost level and an increase in equipment for which track maintenance is responsible. Growth in productivity for track maintenance rose by 3% compared with the previous year. The interest rate for capital costs fell by 0.4 percentage points compared with the previous year.

Planning and research includes strategic plans, project plans, technical research and technical specifications. These activities are minor in scale but account for a third of the administrative costs of network management. This is because RHK's own personnel participate in planning and research work. Three-fourths of planning is purchased as services.

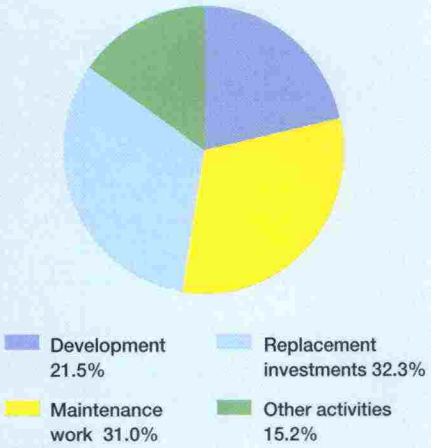
Operating and joint costs account for one-third of network management costs. Two-thirds is capital costs. Depreciation in turn accounts for two-thirds of capital costs. Network management costs are about €100 million higher than annual gross expenses for infrastructure management.

Helsinki, 27 March 2003

Rail Administration Board

Timo Poranen
Hannele Luukkainen
Markku Pyy
Veikko Vaikkinen
Kaisa Leena Välipirtti

Breakdown of expenditure on infrastructure in 2002



Expenditure on the rail network 1993–2002, € million

Investments in the rail network in 1963–2002, € million

(At fixed 2002 prices)

Statement of Income and Expenses

€1,000		1.1.–31.12.2002		1.1.–31.12.2001
OPERATIONAL INCOME				
Fees	55,004		54,953	
Rents and user charges	9,851		9,996	
Other operational income	8,299	73,154	11,030	75,979
OPERATIONAL EXPENSES				
Materials, supplies and goods	- 267		- 145	
Personal expenses	- 5,599		- 4,836	
Rents	- 968		- 835	
Purchased services	- 178,532		- 167,999	
Other expenses	- 1,708		- 1,382	
Depreciation	- 227,279	- 414,353	- 214,278	- 389,475
DEFICIT I		**- 341,199**		- 313,496
FINANCIAL INCOME AND EXPENSES				
Financial income	49		47	
Financial expenses	- 64	- 15	- 56	- 9
EXTRAORDINARY INCOME AND EXPENSES				
Extraordinary income	778		988	
Extraordinary expenses	- 3,447	- 2,669	- 2,392	- 1,404
DEFICIT II		**- 343,883**		- 314,909
INCOME FROM TAXES AND OTHER COMPULSORY CHARGES				
VAT received	1,517		2,318	
VAT paid	- 88,947	- 87,430	- 81,514	- 79,196
DEFICIT FOR THE YEAR		**- 431,313**		- 394,105

Balance Sheet 31.12.2002

€1,000		2002		2001
ASSETS				
FIXED ASSETS				
Intangible assets				
Intangible rights		215		2
Tangible assets				
Land and water areas	4,432		4,424	
Building land and water areas	80,388		79,051	
Buildings	40,761		42,064	
Structures	2,239,056		2,230,843	
Machinery and equipment	6,440		7,100	
Furnishing	5		10	
Advances and projects in progress	195,424	2,566,506	204,601	2,568,093
INVENTORIES AND FINANCIAL ASSETS				
Current receivables				
Accounts receivable	5,385		5,283	
Other current receivable	817	6,202	1,062	6,345
Cash, bank and other				
Cash account		1	0	
TOTAL ASSETS		2,572,924		2,574,440
EQUITY AND LIABILITIES				
EQUITY				
State's equity				
State's equity at 1.1.1998	2,371,022		2,371,022	
Change in equity in previous years	156,926		157,629	
Equity transfers	420,875		393,402	
Deficit for the year	- 431,313	2,517,510	- 394,105	2,527,948
LIABILITIES				
Current liabilities				
Advance payments	50		27	
Accounts payable	54,256		45,537	
Inter-agency transfers	139		116	
Payable items	91		79	
Accrued expenses	878	55,414	733	46,492
TOTAL EQUITY AND LIABILITIES		2,572,924		2,574,440

Fixed Assets 31.12.2002

€1,000 TYPE OF ASSET	Capital value 1.1.2002	Reductions	Increases	Depreciation	Capital value 31.12.2002
INTANGIBLE ASSETS					
Purchased computer programmes	2		235	22	215
Total intangible assets	**2**		**235**	**22**	**215**
TANGIBLE ASSETS					
Gravel and other aggregate areas	4,424		8		4,432
Building land	42,135	265			41,870
Railway beds	36,916	719	2,321		38,518
Housing	3,825	4		277	3,544
Other buildings	38,239		1,277	2,299	37,217
Buildings in progress	543		2,277		2,820
Total real estates	**126,082**	**988**	**5,883**	**2,576**	**128,401**
Railway substructure	749,223		34,389	48,785	734,827
Railway superstructure, bridges	1,048,378		133,239	132,562	1,049,055
Control and safety equipment	225,811		47,251	26,423	246,639
Fixed electirification equipment	182,028		13,125	13,585	181,568
Power current equipment	25,404		3,980	2,418	26,966
Advances	3,163	1,265			1,898
Railway structures in progress	200,895	10,786	597		190,706
Total railway structure	**2,434,902**	**12,051**	**232,581**	**223,773**	**2,431,659**
Computer hardware	9		79	18	70
Office machines	26		32	11	47
Traffic control communications equipment	6,843			817	6,026
Audiovisual equipment	222		133	57	298
Furnishing	10			5	5
Total machinery, equipment and furnishing	**7,110**		**244**	**908**	**6,446**
TOTAL FIXED ASSETS	**2,568,096**	**13,039**	**238,943**	**227,279**	**2,566,721**

DEPRECIATION ACCORDING TO PLAN

RHK's depreciation rate and economic life

Type of asset	Economic life in years 2001	2002	Straight-line depreciation %
Purchased computer programmes	5	5	20.00
Gravel and other aggregate areas	–	–	
Building land	–	–	
Railway beds	–	–	
Housing	50	50	2.00
Other buildings	40	40	2.50
Railway substructure	60	60	1.67
Railway superstructure, bridges	30	30	3.33

Type of asset	Economic life in years 2001	2002	Straight-line depreciation %
Control and safety equipment	20	15	6.67
Fixed electrification equipment	30	30	3.33
Power current equipment	30	20	5.00
Computer hardware	3	3	33.33
Office machines	5	5	20.00
Traffic control communications equipm.	10	10	10.00
Audiovisual equipment	5	5	20.00
Offce furnishing	5	5	20.00

Use of Budget Funds

€ million	1996	1997	1998	1999	2000	2001	2002
BASIC INFRASTRUCTURE MANAGEMENT	**239.4**	**283.9**	**279.0**	**268.9**	**246.2**	**252.8**	**256.6**
Income	**50.8**	**67.6**	**74.2**	**73.0**	**72.2**	**69.3**	**71.2**
Track fees	33.6	50.4	53.7	53.2	53.8	53.0	53.0
Income from real estate activities	11.8	11.8	11.1	10.9	9.3	10.3	10.2
Other income	5.4	5.4	9.4	8.9	9.1	6.0	8.0
Expenses	**290.2**	**351.5**	**353.2**	**341.9**	**318.4**	**322.1**	**327.8**
Administration	4.7	5.2	5.6	5.9	6.4	7.2	8.6
Traffic control	32.6	33.6	35.3	34.8	34.5	37.2	37.8
Real estate activities	6.7	7.6	8.2	11.3	10.6	10.4	11.7
Track maintenance and use	111.0	112.9	109.7	109.6	111.9	120.8	129.6
Planning and research	3.2	4.5	3.0	3.0	3.0	4.0	5.2
Replacement investments	132.0	187.7	191.4	177.3	152.0	142.5	134.9
DEVELOPMENT	**57.2**	**34.8**	**51.1**	**45.9**	**51.1**	**47.8**	**51.6**
HELSINKI–LEPPÄVAARA LINE		**0.3**	**14.0**	**39.5**	**29.8**	**11.6**	**0.4**
CERTAIN RAIL PROJECTS							**35.1**
RADIO NETWORK						**0.3**	**0.6**
RAIL NETWORK LAND AREAS	**0.3**	**0.2**	**0.5**	**1.4**	**0.8**	**1.5**	**2.3**
RHK'S GROSS EXPENSES	**347.7**	**386.8**	**418.8**	**428.7**	**400.1**	**383.3**	**417.8**
RHK'S NET EXPENSES	**296.9**	**319.2**	**344.6**	**355.7**	**327.9**	**314.0**	**346.6**

Costs by Task

€1,000	Costs excluding capital costs			Total costs		
	2001	2002	Change 02/01 %	2001	2002	Change 02/01 %
NETWORK MANAGEMENT	**166,465**	**178,329**	**7.1**	**510,482**	**525,474**	**2.9**
Traffic control	37,304	38,119	2.2	38,530	39,251	1.9
Track maintenance, operation and facilities	123,743	133,672	8.0	466,516	479,681	2.8
Planning and research	5,418	6,538	20.7	5,436	6,542	20.3
PAID ACTIVITIES	**9,316**	**9,673**	**3.8**	**15,197**	**15,575**	**2.5**
Real estate management	7,511	7,866	4.7	13,392	13,768	2.8
Other business	123	117	- 4.9	123	117	
Official tasks	1,682	1,690	0.5	1,682	1,690	0.5
ADMINISTRATION COSTS OF INVESTMENTS	**1,871**	**2,474**	**32.2**	**1,871**	**2,474**	**32.2**
TOTAL COSTS	**177,652**	**190,476**	**7.2**	**527,550**	**543,523**	**3.0**

Facts about Finland's Rail Network

31.12.2002

First line: Helsinki–Hämeenlinna, 1862
Gauge: 1,524 mm
Total length of railway lines: 5,850 km
Total track length including sidings: 8,736 km
Lines with two or more tracks: 507 km
Tracks with concrete sleepers: 3,364 km
Sleepers/km: 1,640
Long-welded tracks: 4,338 km
Type of new rails on main lines: 60E1 (weight 60 kg/m)
Electrified line: 2,400 km
Electrification system: 25 kV 50 Hz
Block-protected line: 2,348 km
Centrally controlled line: 2,200 km
Tunnels: 42
Total length of tunnels: 25,284 m
Railway bridges: 2,142
Bridges over railway line: 827
Number of level crossings: 4,086, including 3,410 on main lines
Land owned by the Finnish Rail Administration: 26,550 ha
Buildings owned by the Finnish Rail Administration: 2,639
with a total volume of 1.4 milj. m^3

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NORDIC ENVIRONMENTAL LABEL
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Contact Information

Finnish Rail Administration
P.O. Box 185 (Kaivokatu 6)
FIN-00101 Helsinki
Tel: +358 9 5840 5111
Fax +358 9 5840 5100
Internet: www.rhk.fi
E-mail: info@rhk.fi

Director General
Ossi Niemimuukko
Tel: +358 9 5840 5101
E-mail: ossi.niemimuukko@rhk.fi

Director General's secretary
Annukka Heinonen
Tel: +358 9 5840 5102
E-mail: anna-leena.heinonen@rhk.fi

Traffic System Department
Director *Anne Herneoja*
Tel: +358 9 5840 5106
E-mail: anne.herneoja@rhk.fi

Project Management Department
Director *Kari Ruohonen*
Tel: +358 9 5840 5131
E-mail: kari.ruohonen@rhk.fi

Maintenence Department
Director *Markku Nummelin*
Tel: +358 9 5840 5180
E-mail: markku.nummelin@rhk.fi

Safety Department
Director *Kari Alppivuori*
Tel: +358 9 5840 5150
E-mail: kari.alppivuori@rhk.fi

Administration Department
Director *Hannu Mäkikangas*
Tel: +358 9 5840 5004
E-mail: hannu.makikangas@rhk.fi

Head of International Affairs
Kari Konsin
Tel: +358 9 5840 5104
E-mail: kari.konsin@rhk.fi

Senior Legal Counsel
Rami Metsäpelto
Tel: +358 9 5840 5158
E-mail: rami.metsapelto@rhk.fi

IT Manager
Teuvo Eronen
Tel: +358 9 5840 5010
E-mail: teuvo.eronen@rhk.fi

Communications Manager
Timo Saarinen
Tel: +358 9 5840 5103
E-mail: timo.saarinen@rhk.fi

Environmental Manager
Arto Hovi
Tel: +358 9 5840 5036
E-mail: arto.hovi@rhk.fi