

Strategy for the development and maintenance of Finland's transport infrastructure in 2004–2013

Report of the Ministerial Working Group



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Abstract <p>The Ministerial Committee on Economic Policy appointed the Ministerial Working Group on 27.5.2003 for the preparation of the proposal on the general guidelines of maintaining and developing transport infrastructure during the next decade and on the emphasis of transport infrastructure development during this government period. The objectives of the investment programme set by the Government Programme were considered as the starting point of work by the Working Group. The Working Group completed its work on 10.2.2003 after seven meetings.</p> <p>According to the dimensions of the proposal by the Working Group, the volume of transport network development will remain at the same level with the proposals of the previous Governments. The previous Governments have launched large development projects valued at about one billion Euros. The Working Group proposes that large projects worth about 940 million Euros will be launched at the end of this government period during the years 2005-2007. In addition, thematic projects worth about 340 million Euros are proposed for securing the condition of transport network (appropriations for maintenance will be used for thematic projects). According to previous decisions, the construction of the E 18 Muurla-Lohja motorway will also be started. Five of the large development investments are proposed to be implemented using the so-called life cycle model which is based on public private partnership.</p> <p>The Working Group proposes that the E 18 Muurla-Lohja motorway will be implemented using the life cycle model (justified order of about 700 million Euros). In addition to this project, it is proposed that four other road projects will be included in the life cycle model package (justified order of also about 700 million Euros). The life cycle model can be also used for several other projects. The use of the life cycle model for a railway project will be tested in the upgrading of the railway section Lahti-Luumäki. An Expert Working Group will be appointed for the preparation of this project.</p> <p>Based on the statement by the Parliament, a supplementary allowance of 50 million Euros for track maintenance is needed as "quick-aid" already in the first supplementary budget of 2004. In addition, the Working Group proposes additional financing of 15 million Euros for private roads during the years 2005-2007. The Working Group tentatively proposes the implementation of five thematic projects (about 23 million Euros) and 23 large development investments (about 1930 million Euros) during the years 2008-2013 after this government period. The remaining projects of the Nordic Triangle should be started during the final years of the financial period at the latest. The Working Group believes that the programming of transport infrastructure management should be renewed so that investments will be considered independently from annual operating costs (e.g. maintenance).</p>			
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APPENDIX

1. Decision on the appointment of the Ministerial Working Group
2. Summary of the projects included in the investment programme 2004 - 2007

In addition to this report, a technical report has been prepared to support the opinions of the Working Group. For example, a review on the financial methods examined by the Working Group and a report by the Working Group on the life cycle model appointed by the Ministry of Transport and Communications are included in the appendix of the preliminary report.

TO THE GOVERNMENT

The Ministerial Committee on Economic Policy appointed the Working Group on 27.5.2003 for the preparation of a proposal on the general guidelines of maintaining and developing transport infrastructure during the next decade and on the emphasis of transport infrastructure development during this government period. The Working Group should take a position on the renovation of the transport infrastructure programme development, the level of transport infrastructure maintenance and the investment programme for the next ten years. A proposal should also be made on financing of the investment programme. The decision on the appointment of the Working Group is attached in the appendix.

The Working Group completed its work in seven meetings. A separate technical report has also been prepared for supporting the opinions presented by the Working Group in this report. A seminar on the financing methods of transport infrastructure investments was arranged upon commencement of the work. With regard to all new projects during this government period, financing has been confirmed only for the E18 Muurla –Lohja motorway, which has been the greatest challenge of the Working Group.

The permanent experts of the Working Group have been Director General Tuomas Sukse-lainen from the Ministry of Finance, Permanent Secretary Sirkka Hautojärvi from the Ministry of the Environment, Permanent Secretary Juhani Korpela from the Ministry of Transport and Communications, Director General Eero Karjaluoto from the Finnish National Road Administration, Director General Ossi Niemimuukko from the Finnish Rail Administration and Director General Jukka Hirvelä from the Finnish Maritime Administration. In addition, Director General Kalevi Hemilä and Director Raimo Mansukoski from the Confederation of Finnish Industry and Employers, Director General Mikko Talvitie from the Finnish Civil Aviation Administration, Director Eero Yrjö-Koskinen from the Finnish Association for Nature Conservation, Permanent Under-Secretary of State Martti Hetemäki from the Ministry of Finance, Director General Henri Kuitunen from the VR-Group Ltd as well as the Chairman of the Transport Sub-Committee of the Parliament Finance Committee Matti Saarinen and the Chairman of the Transport and Communications Committee of the Parliament Markku Laukkanen have presented their comments and opinions in the meetings of the Working Group. Director of Infrastructure Unit Juhani Tervala and Senior Engineer Juha Parantainen from the Ministry of Transport and Communications have been the Secretaries of the Working Group.

An intermediate report by the Working Group was presented to the Ministerial Committee on Economic Policy on 2.12.2003. The Ministerial Committee then supported further development of the life cycle model to be applied as part of the proposed projects during the government period. In addition, the Ministerial Committee on Economic Policy discussed on 14.1.2004 the implementation of the E 18 Lohja-Muurla motorway using the life cycle model. The Working Group has not addressed public transport, as the Ministerial Working Group on Administration and Regional Development has already taken a position on measures regarding public transport.

The objectives of the investment programme set by the Government Programme were considered as the starting point of work by the Working Group. According to the Government Programme, the objective of the Government is to aim for long-standing maintenance and development of transport infrastructure. The Government will prepare a separate, long-standing investment programme for transport infrastructure which includes all modes of transport.

The investment programme should strengthen the regional structure, competitiveness of business life and Finland's international connections. The financing and possible funding solutions of the programme will be examined and agreed on separately.

Transport infrastructure management should be planned consistently and as one system. It is proposed that the transparency of strategic guidance and decision making of transport infrastructure management should be improved so that long-acting investments and annual maintenance will be clearly decided on independently. It is justified that small investments will be categorized into special themes comprised of similar impacts and these will be decided on in the same way as larger investments.

The existing level of transport infrastructure management is not adequate. New development projects and their financing should be addressed during this government period. Also, the resources for transport infrastructure maintenance should be increased. These resources can be secured by starting a sufficient number of thematic projects focused on solving the main problems.

According to the dimensions of the proposal by the Working Group, **the volume of transport network development will remain at the same level as proposals of previous Governments.** Previous Governments have launched large development projects valued at approximately one billion Euros. The Working Group proposes that large projects worth about 940 million Euros will be launched at the end of this government period during the years 2005-2007. In addition, thematic projects worth about 340 million Euros are proposed for securing the condition of the transport network (maintenance appropriations will be used for thematic projects). According to previous decisions, the construction of the E 18 Muurla-Lohja motorway will also commence. Nine of the larger development projects are proposed to be implemented using budget financing and five of the larger development investments using the so-called life cycle model which is based on public private partnership. The implementation of projects using the life cycle model will not generate any costs to the Government during the government period.

The Working Group proposes that the E 18 Muurla-Lohja motorway will be implemented using the life cycle model and that the project will be included in the first supplementary budget of the year 2004 (justified order of about 700 million Euros). In addition to the E 18 Lohja-Muurla motorway project, it is proposed that four other road projects will be included in the life cycle model package (justified order of also about 700 million Euros). The life cycle model can be also used for several other projects. If the use of the life cycle model turns out to be problematic in some selected projects, they can be substituted by other projects. The use of the life cycle model for a railway project will be tested in the upgrading of the rail section Lahti-Luumäki. An Expert Working Group will be appointed for the preparation of this project.

Based on the statement by the Parliament, a supplementary allowance of 50 million Euros for track maintenance is needed as "quick-aid" already in the first supplementary budget of 2004. In addition, the Working Group proposes additional financing of 15 million Euros for private roads during the years 2005-2007. The Working Group proposes tentatively the implementation of five thematic projects (about 23 million Euros) and 23 large development investments (about 1930 million Euros) during the years 2008-2013 after this government period. The remaining projects of the Nordic Triangle should be started during the final years of the finan-

cial period at the latest. Finland has committed to the implementation of the Nordic Triangle projects before the year 2015.

The Working Group proposes that the implementation of the projects included in the investment programme will be decided in connection with the scope and budget decisions during the government period. For securing the consistency of transport infrastructure management, the Working Group considers necessary that the Government will be clearly committed to the priority order and the life cycle model presented by the Working Group already when the budget scope for the Ministry of Transport and Communications is discussed for the years 2005 - 2008.

In addition to the financial resources included in the budget scope for the Ministry of Transport and Communications for the years 2004 – 2007, about 550 million Euros (+about 120 million Euros of value added tax) of budget or other financing is needed for the implementation of the projects proposed by the Working Group. For mitigating the financial pressure to the state budget, the Working Group proposes that possibilities for using new financial methods will be examined as part of the planning of each project.

The Working Group believes that the implementation of its proposals will create opportunities for economic growth, improve the daily mobility of people and promote balanced development of different parts of the country. The proposals will support the implementation of the Government Programme.

The investment programme presented by the Working Group will provide both short and long term job opportunities. A labour input of about 15 000 – 25 000 person-years is needed for the investment programme worth one billion Euros during construction. Consequently, transport projects implemented during the four year period will employ annually an average of 4 000 – 6 000 people during construction. The boost of economic development caused by improved transport conditions will, however, have the greatest employment effects. This means the growth of the demand for goods and services as a result of improved transport connections and the number of permanent jobs created by this development.

The Working Group proposes that after a review by the Government, the Prime Minister's statement will be given to the Parliament on this work.

Helsinki, February 10, 2004

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1 INTRODUCTION

The statements of the Government Programme were considered as the starting point of the work by the Working Group:

- Reliable transport network of good quality is a basic requirement for efficient, regionally and socially balanced and internationally competitive operations of the society.
- The investment programme should strengthen the regional structure, competitiveness of business life and international connections of Finland.
- The goal is to maintain the condition and capital value of transport infrastructure and the basic level of service of the road and railway networks as well as private roads.
- The maintenance of transport infrastructure and connections will be attended to for securing regional development.

The experts invited by the Working Group have emphasised the significance of the transport network for the competitiveness of business life and the development of regions. Transport projects have provided a boost to the development of many regions. The construction of the Hanko-Skogby road connection is a good example of this. Due to this road project, a new sea connection was opened from Germany to Hanko, which has activated the economic life in many ways. The development of many large cities at the nodal points of the transport network is also a reflection of the interconnection between transport infrastructure and regional development. The operation of transport connections is of special importance to Finland. The additional transport costs of foreign trade due to remote location, severe climate and long distances can be compensated by a good transport network.

The State is governing transport infrastructure property valued at about 19 billion Euros. The Working Group has paid attention to the shortsighted management of this large state property. The development projects are decided on every year project by project. Due to this shortsighted decision-making of small projects, the socioeconomic impacts of transport network development cannot be identified, and it is impossible to practice comprehensive and long-range transport infrastructure policy based on balanced distribution of benefits and disadvantages. Also, the long-standing license and redemption processes require sustained activity. In many countries transport infrastructure investments are decided on as long standing programmes.

The poor condition of the transport network has become evident after a few decades and a long-standing upgrading programme has been started for restoring the condition of the road and railway networks. Actions will usually be taken after the condition of transport infrastructure has deteriorated below the critical threshold. In this way, the maintenance of the transport network will be significantly more expensive than maintenance which foresees problems and minimises the costs during the life cycle of the transport network.

Conclusions by the Working Group:

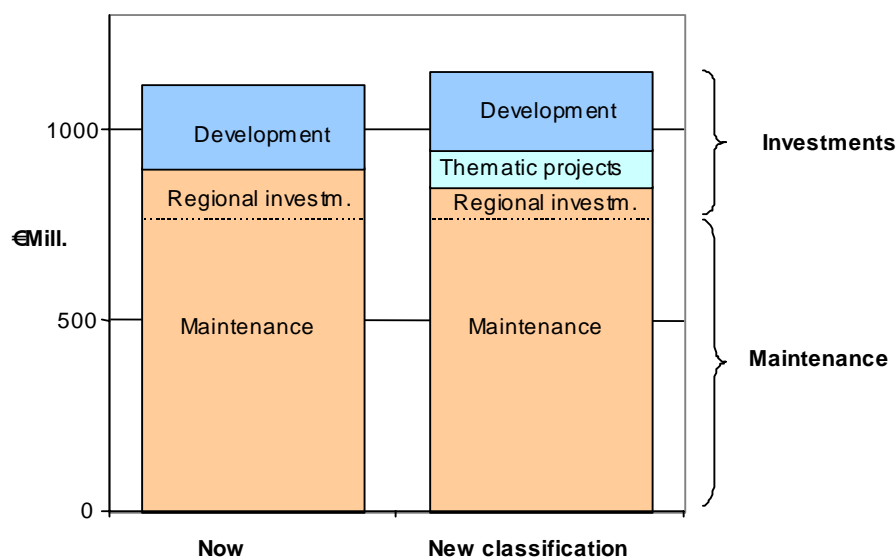
- *The planning of transport infrastructure management should be a sustained activity during every government period based on long-term strategies and investment programmes.*
- *Investment programme including all modes of transport should be decided on as one system always in the beginning of the government period.*
- *It can be argued that the cyclical process of transport infrastructure management or the preparation of an infrastructure upgrading programme every few decades should be substituted by controlled transport infrastructure management which optimises the life cycle costs.*

2 RENEWAL OF THE TRANSPORT INFRASTRUCTURE MANAGEMENT PROGRAMME

According to a review obtained by the Working Group, improving the clarity and transparency of decision-making will support a practice in which investments and maintenance will be clearly and independently decided upon. Currently, investments are included both in the development and maintenance of transport network.

Moreover, according to a review obtained by the Working Group, the effectiveness of efficient small investments can neither be fully utilised. Small investments are now part of transport infrastructure maintenance and are prioritised based on the same principles as maintenance and other operating expenses. These investments are too small to be development projects. According to an opinion by the Working Group, the use of thematic projects collected from small investments will significantly improve the potential for strategic guidance of transport infrastructure management.

New classification of transport infrastructure operations



Budget frame is currently defined for the development of the transport network only, and not defined for ongoing and new projects. Thus, short-term budget frame includes the construction costs of ongoing projects. There are no rules for including new investments in budgeting. The Working Group considers it important to develop these rules so that special solutions are not needed any more when organising funding for new development projects.

Conclusions by the Working Group:

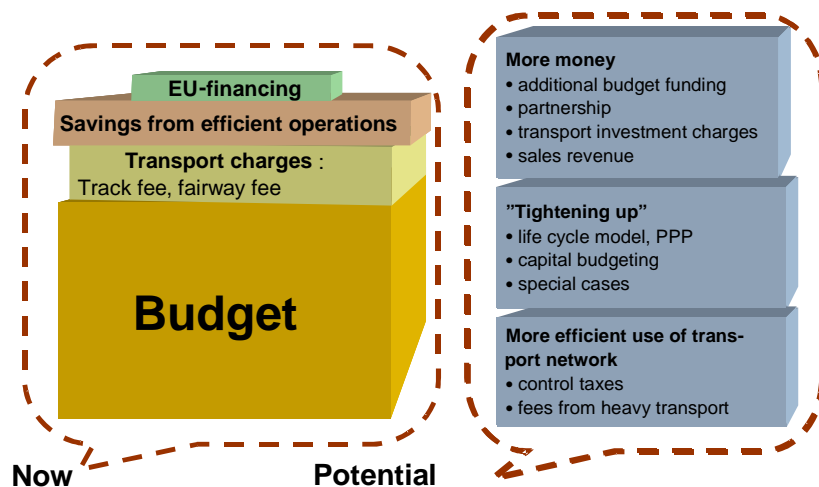
- *Investments and maintenance should be handled separately and in different ways in the budget. Practical considerations regarding the budgeting reform (e.g. budgetary appropriations) should be examined separately.*
- *Thematic projects comprised of similar impacts should be collected from small investments, which will be decided on in the same way as large development investments. The “product development” of thematic projects should be continued.*
- *Budget frame is currently defined only for ongoing development projects. The budgeting of transport projects should be developed so that the financing need of new projects included in the investment programme will be also considered in the budget frame of the government period.*

3 NEW FINANCING METHODS FOR TRANSPORT INFRASTRUCTURE

According to the assignment, the Working Group should also prepare a recommendation on the financing of its proposal on transport infrastructure development. The Working Group has conducted an extensive review on the financing methods of transport infrastructure and examined related international experiences. A seminar on the financing methods of transport infrastructure was organised upon the commencement of the work.

Budget financing is the main method for financing transport investments in all countries. Other supplementary methods have also been developed. The methods of financing can be basically divided into three parts: methods generating extra money, methods activating operations and methods activating use.

Financial methods of transport infrastructure



The time for adopting a new method of financing is a significant aspect for the availability of a method. Part of the methods can be implemented immediately, while part of the methods needs significant preparatory work, transitional periods and applicable technology enabling their adoption.

According to the estimation by the Working Group, the following methods can be implemented during this government period:

- Additional budget financing
- Life cycle model, which is already considered feasible. If the model is used, the implementation of a programme consisting of several projects should be decided on.
- Public private partnership, which is already in use and which is based on the partial use of zoning etc. benefits in the financing of transport investment.
- Investment loan from a municipality or company if this enables the implementation of a project in accordance with the schedule stated in the investment programme. In Sweden, projects can be advanced in this way, an interest-free loan is a prerequisite for this method.
- Investment charges from railway operator (e.g. electrification of railway network, rail sections with 25 tonne axle loads). It has already been decided that this charge will be used in partial financing of the construction costs of the direct rail line Kerava – Lahti (total investment charge of 60 million Euros will be collected from the VR Group during the 15 years after the completion of the project).

According to reviews received by the Working Group, regional traffic tolls in urban areas have become more common in foreign countries. The development of toll collection techniques will reduce the maintenance costs of these payment systems in a ten-year time period. After this, a regional traffic toll can be considered in the Helsinki Metropolitan Area. Also, the kilometre charges of heavy transport based on the EU directive may become of current interest with technological development, if these charges are widely adopted in other parts of the EU.

Conclusions by the Working Group:

- *Positive international experience has been obtained from project implementation methods (PPP) which correspond to the Finnish life cycle model. The construction of the motorway Järvenpää – Lahti in Finland using this model can be considered as a successful experiment. The use of the model should be more widely adopted and a programme consisting of 3 – 6 investments should be started using the life cycle model.*
- *Continued use of the practice in the Helsinki Metropolitan Area, according to which part of the costs of a transport project will be covered by the benefits from more efficient land use (“partnership financing”).*
- *Investment charges from the railway operator will be adopted. Investment charges can be collected in projects which provide direct financial benefits to the operator. In this case, part of the benefits to the operator will be used for financing the investment. The principles and amount of this charge should be determined project by project.*
- *Interest-free investment loans from a municipality or company based on the Swedish method may in some cases be applied in Finland. This method of financing requires further investigation.*
- *The adoption of a regional traffic toll system in the Helsinki Metropolitan Area should be examined in a longer time period. Kilometre charges from heavy transport need to be considered later along with the development of payment collection techniques, if these charges are more widely adopted in other parts of the EU.*

4 CONDITION OF THE TRANSPORT NETWORK AND THE NEED FOR FINANCING MAINTENANCE

According to reviews and expert hearings obtained by the Working Group, the current condition of the road and railway network will require significant extra costs and disturb the daily mobility of people.

Spring thaw on gravel roads during a few weeks in spring will disturb the mobility of rural residents and heavy transport, such as bus traffic and transport of raw wood and milk. The deterioration of paved roads has been stopped in recent years, but the overall road condition is still poor.

According to an opinion by the Working Group, the railway network is in even poorer condition than the road network. Also, many primary national railway connections are in need of urgent upgrading. The poor condition will seriously decrease the competitiveness of railway traffic in its most suitable sector, namely long-distance heavy transport and high-speed rail services between cities. According to an estimate by the Finnish Rail Administration, the current level of financing enables the maintenance of only about two-thirds of the railway network with no traffic limitations.

The Parliament has demanded in its statement included in the budget for the year 2004 that after the completion of the work by the Ministerial Working Group, the Government should estimate the real financing need for track maintenance and allocate the needed funds in the first supplementary budget of the year 2004.

There are no practical alternatives to sea transport due to the location of Finland. About 80 % of Finnish international freight is transported by sea. Based on a review obtained by the Working Group, fairways have become shallow at locations especially on the coast of the Gulf of Bothnia, which will cause problems and financial losses to transport. According to a statement by the Finnish Maritime Administration, additional annual financing of two million Euros during the past couple of years has been sufficient. Similar additional financing will also be needed in forthcoming years to overcome the problem of shallow fairways.

According to an opinion by the Working Group, a total of about 1040 million Euros or an extra 100 million Euros/year is needed for the maintenance of the road, railway and waterway networks. This financial need will be overcome by starting an adequate number of thematic projects aimed for solving specific problems.

	<i>Financing for maintenance (€million / year)</i>				<i>Needed financing</i>
	<i>Current financing</i>				
	2001	2002	2003 (estimate)	2004 (budget)	
Public roads	540	630	630	585 ^{**)}	630^{***)}
Railways	320 ^{*)}	330 ^{*)}	345 ^{*)}	310	370
Waterways	35	37	37	37	37
TOTAL	895	997	1012	932	approx. 1040

^{*)} *Includes the use of profit allocation from the VR Group for track maintenance which is separately approved in the additional budget.*

^{**)} *Includes additional financing of 25 million Euros for road maintenance approved by the Parliament.*

^{***)} *Includes lower financing need of 26 million Euros due to the reform of the Road Administration at the end of the service project.*

The Working Group considers it necessary that **savings** as a result of **improved productivity** in transport infrastructure management will be **entirely applied towards transport infrastructure management**. Productivity has improved during the past decades due to e.g. new organisational models (customer-producer –model, privatization of the production of the Road Administration, incorporation of the VR Group etc.) as well as due to the competitive bidding of transport infrastructure management and administrative development. The competitive bidding of road management has already provided permanent annual savings of about 50 million Euros. When the service project included in the reform of the Road Administration will be concluded at the end of the transitional period, an additional 26 million Euros/year can be used for road management starting from the year 2005. Administrative reform should be continued but savings from these measures cannot be obtained until the next government periods.

The development and maintenance of airports is financed by charges from airlines and other customers collected by the Finnish Civil Aviation Administration. There is no need for large investments in the near future and it is estimated that the revenue of the Finnish Civil Aviation Administration will cover the costs. The Working Group has, however, noticed that air transport infrastructure is mainly managed by business principles, and integration of the air transport system as part of the whole transport system is insufficient. Due to geographical reasons, air transport is a vital mode of transport for Finland and the Working Group considers it necessary to integrate air transport as part of the strategic planning of the whole transport system.

The Working Group emphasises the role of private roads as part of the transport system. In addition to insufficient financing, the problems of private roads include the fragmentation and inefficiency of management. Private road management has been broken into such small parts that the economical maintenance of private roads is not possible. The development of different forms of cooperation between private road associations is important.

Conclusions by the Working Group:

- *The current resources of transport infrastructure maintenance are not sufficient to secure seamless transport conditions for business life, daily mobility needs of people and the vitality of regions. Additional resources should be provided by starting thematic projects for specific problems.*
- *The completion of the railway upgrading programme must be secured. The poor condition of railways is a threat to the competitiveness of railway transport and jeopardizes the existence of the entire railway transport system in the long run. A “quick-aid” of 50 million Euros for track maintenance has already been proposed in the first supplementary budget of the year 2004.*
- *The impacts of spring thaw on gravel roads on e.g. wood transport and the vitality of rural areas should be fully examined as a basis for the preparation of national guidelines.*
- *Dredging of shallow maritime fairways to original depth is necessary for the economy of international transport. The dredging costs of these fairways are eventually collected as fairway dues from vessels.*
- *Savings from improved productivity in transport infrastructure management should be directed back to transport infrastructure management in full.*
- *The development needs of air transport and infrastructure should be clarified as part of the entire transport system.*
- *The management and maintenance of private roads should be made more efficient by developing a cooperation between different private road associations. Additional financing of 5 million Euros/year is proposed or a total of 15 million Euros during the final years 2005 – 2007 of the government period.*

5 INVESTMENT PROGRAMME

5.1 Preparation process of the Investment Programme

The Working Group has prepared a 10-year investment programme until the year 2013. While preparing this proposal, the Working Group has obtained project proposals from the Finnish Road Administration, the Finnish Rail Administration and the Finnish Maritime Administration. In addition, the Regional Councils have prepared project proposals valued at about six billion Euros.

Setting priorities to projects is considered a process in which projects are to be selected and discarded in multiple phases. The arguments behind the proposed new projects generally include problems with regard to the competitiveness of business life, regional development or the mobility of people. Project proposals are evaluated by socioeconomical principles. In most cases, only socioeconomically feasible projects are eligible for further consideration (benefit-cost ratio over 1,5). Also, regional balance, international commitments (e.g. the Nordic Triangle project), completed transport system plans and letters of intent as well as the priorities of the Regional Councils have a significant role in the preliminary selection. The final scheduling of projects is affected by planning preparedness, administrative decisions and impacts on the market conditions of the earthworks sector. The selection process is presented in more detail in the preliminary report.

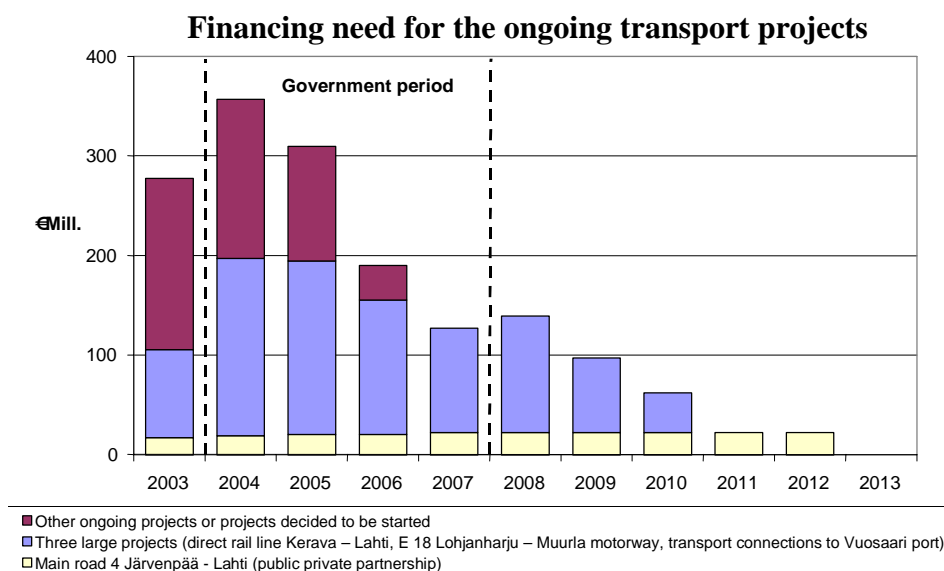
A priority order for the projects to be implemented during the years 2005 – 2007 has been assigned. Projects for the years 2008 – 2013 are presented in a separate list, but these **projects have not been prioritised** by the Working Group. The Working Group observed the following principles in preparing project lists:

- Investment programme also includes thematic projects consisting of smaller investments which will increase the resources for maintenance. Thematic projects will be prioritised ahead of large investments.
- The volume of the transport network development during previous Governments will be continued. Large investment projects valued at **about one billion Euros** will be started during the government period.
- E 18 Muurla – Lohja motorway (€335 million) will be handled independently, as a separate political decision which has already been made with regard to its implementation.
- Projects will be evaluated according to the principles confirmed by the Ministry of Transport and Communications.

An attempt has been made to include the preferred projects by the Regional Councils in the investment programme given the technical and administrative preparedness of the projects. The preferred projects by the Regional Councils, which will be started during the final years 2005 – 2007 of the government period, include E18 Muurla - Lohja -motorway, upgrading of Hakamäentie, main road 6 Lappeenranta - Imatra, upgrading of rail sections Seinäjoki - Oulu and Lahti - Luumäki, main road 4 Heinola - Jyväskylä and main road 4 at Kemi. In addition, many of the smaller investments proposed by the Regional Councils are included in thematic projects or in projects implemented by using financing for transport infrastructure maintenance.

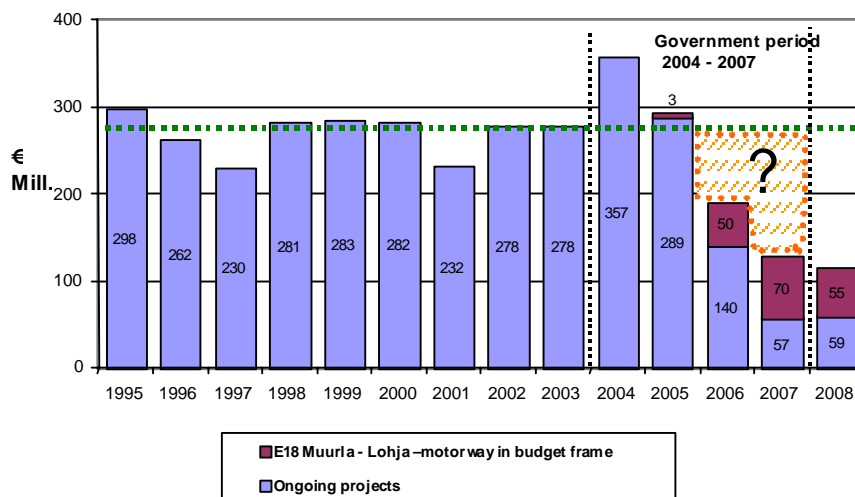
5.2 Ongoing projects and commitments

There are still about 20 ongoing transport projects which have been started or decided on by previous Governments (including E18 Muurla – Lohja motorway). The ongoing projects are valued at about two billion Euros. **The ongoing projects will generate costs of about 835 million Euros during this government period and about 235 million Euros during the next government period.**



The annual costs of development projects have amounted to 250 - 300 million Euros in the late 1990s and in the early 2000s. **Not a single new project has been included in the budget frame of this government period.** The Working Group considers this situation untenable, development of the transport network should also continue during this government period. The planning of large development projects should be continuous. When compared to the previous levels of financing for the transport network development, the budget frame has a total deficit of about 220 million Euros during the final years 2006 – 2007 of this government period.

Volume of transport network development since the year 1995



In the Essen Meeting of 1994, Finland has committed to completing the Nordic Triangle projects by the year 2010. Extra time has been approved for these projects in the proposal for the TEN-Guidelines published by the European Commission in October 2003 and approved by the Council of Ministers in December 2003. The new schedule by project is as follows:

Project	Year of completion by the TEN-guidelines	Cost (€million)
Motorway Helsinki - Turku (segment Muurla - Lohja)	2010	335
Direct rail line Kerava - Lahti	2006	330
Motorway Helsinki - Vaalimaa	2015	410
Rail line Helsinki - Vainikkala (section Lahti - Vainikkala)	2014	235

The Nordic Triangle road connection to the west of Helsinki (Helsinki - Turku) will be completed before the year 2010 and the focus of construction will then move to the section from Helsinki to Russian border. The rail section Helsinki – Turku is completed and the direct rail line Kerava – Lahti will be completed during the government period. The rail section Lahti – Vainikkala will be completed after this government period. Shorter travel time between Helsinki and St.Petersburg is considered very important by the Working Group

Benefits gained by the State from the zoning of central Pasila are estimated to be at least €105 million. This will generate costs of about €36 million to the State (rail works €20 million and the removal of contaminated soil €16 million). Municipal engineering costs of about €20 million will be accrued to the city of Helsinki. The entry of the revenue from zoning benefits will be solved during the government period.

5.3 Investment programme for the years 2004 - 2007

According to the dimensions of the proposal by the Working Group for the investment programme during the government period, **the volume of transport network development will remain at the same level as the proposals of previous Governments.**

Previous Governments have launched large development projects valued at approximately one billion Euros. The Working Group proposes that large projects worth about 940 million Euros will be launched at the end of this government period during the years 2005-2007. In addition, thematic projects worth about 340 million Euros are proposed for securing the condition of the transport network (maintenance appropriations will be used for thematic projects). According to previous decisions, the construction of E 18 Muurla-Lohja motorway will also commence. The upgrading of Ilmala rail yard (whole project of about €160 million, state subsidy of €100 million) should still be examined and the financing of the project should be evaluated. The project should be implemented during this government period.

The Working Group presumes that the Transport Administrations will care for the renewal of old plans so that the planning preparedness of projects included in the investment programme will allow for implementation in the proposed order.

The Working Group tentatively proposes that in addition to the E 18 Muurla-Lohja motorway (justified order of about €700 million), four other projects (construction costs of €314 million, justified order of about €700 million) will be implemented using the **life cycle model** which is based on the cooperation between the public and private sectors. The exact starting date of the following four projects during the years 2005 – 2007 will be determined separately:

- Upgrading of Hakamäentie
- Main road 6 Lappeenranta - Imatra
- Main road 4 Lusi - Vaajakoski
- Ring Road I Turunväylä - Vallikallio

For some parts, the implementation of the above mentioned projects by using the life cycle model still requires further investigation. In case that the implementation of tentative projects using the life cycle model turns out to be problematic in more detailed analysis, the Working Group has listed “reserve projects” to be included in the life cycle model package (main road 4 at Kemi including bridges, main road 51 Kirkkonummi – Kivenlahti and main road 14 in Savonlinna city centre). In principle, these projects can also be implemented by using the life cycle model.

It is proposed that the **use of the life cycle model for a railway project** will be tested in the upgrading of the rail section Lahti-Luumäki (€150 million). An **Expert Working Group will be appointed** for the preparation of this project. The justified order for the project is about €240 million (15-year contract period, interests of €50 million, maintenance costs of €8 million).

Summary of projects for the years 2004 - 2007
(excluding the already decided E18 Muurla - Lohja motorway project)

	Number	€Million
Road projects	15	730
Railway projects	5	500
Waterway projects	3	50
Projects, total	23	1280
Large projects	15	940 (73 %)
Thematic projects	8	340 (27 %)
Total	23	1280 (100 %)

The proposal by the Working Group for the investment programme for the years 2004 – 2007 in priority order is presented in the following table. Thematic projects are prioritised ahead of large investments.

Project	€ million	B/c-ratio	Financing implementation	Remarks
THEMATIC PROJECTS				
Renewal of overaged superstructure of railway network	100	feasible		Upgrading of overaged rail sections (e.g. Pieksämäki - Kuopio, Siilinjärvi - Viinijärvi and Turku - Toijala).
Development of road connections to ports and terminals	30	feasible		Project includes the construction and improvement of port roads e.g. in Kokkola, Rauma, Hamina, Tornio, Kemi, Naantali and Kuopio as well as the road connection to Seinäjoki airport and road arrangements to waste treatment plants in Tampere and Lappeenranta.
Supporting the development of growing regions	60	feasible		Projects promoting seamless commuter traffic conditions e.g. in the Helsinki Metropolitan Area and in the commuting areas of Tampere, Turku, Jyväskylä, Oulu and Joensuu (main road 6 Niitty-lahti - Reijola).
Small development projects of waterways and safety device	8	feasible	F	Improving safety and navigability on sea and inland waterways in the Gulf of Finland, the Gulf of Bothnia, the Archipelago Sea and Lake Saimaa.
Improving traffic safety on main roads	40	feasible		Improving problematic segments on busy main roads in different parts of Finland.
Promoting freight transport on railways in eastern Finland	40	feasible		Upgrading of important rail yards critical to seamless freight transport operations in Imatra, Vainikkala and Kouvola in eastern Finland.
Promoting public transport on the main radial roads in the Helsinki Metropolitan Area	32	feasible	M	Project is scheduled for the years 2004 – 2007 in the letter of intent of the Helsinki Metropolitan Area transport system plan. Projects promoting public transport on main road 3, Vihdintie, Tuusulanväylä and Länsiväylä.
Improving the conditions for school trips in rural built-up areas	30	feasible		Improving safety on school trips in 50 – 60 rural built-up areas in different parts of Finland.
Total of 8 thematic projects	340			

LARGE INVESTMENTS				
Political decision made: E18 (main road 1) Muurla – Lohja	335	1,7	L	Finland has committed to the implementation of project before the year 2010 (part of the EU priority project “Nordic Triangle”).
Tornio fairway	11	4,4	F	Dredging of the incoming fairway of the port will enable larger vessel size and more efficient transport. The main user of the port is Outokumpu Ltd steel factory.
Upgrading of Hakamäentie	76	2,9	L, M	Project is scheduled for the years 2004 – 2007 in the letter of intent of the Helsinki Metropolitan Area transport system plan.
Raahe fairway	30	3,4	F	Dredging of the incoming fairway of the port will enable larger vessel size and more efficient transport. The fairway is used by the port of the city and the industrial port of Rautaruukki Ltd.
Improving the level of service on rail section Seinäjoki - Oulu, phase 1 (whole project €400 million)	195	2,5	I	Improving the main railway connection between southern and northern Finland. Project will shorten travel times and enable more efficient freight transport.
Main road 2 Vihti - Pori	40	feasible		Improving the most problematic segments on the road connection between the Helsinki Metropolitan Area and Pori.
Main road 6 Lappeenranta - Imatra	119	1,6	L	Construction of additional roadway on the main road between a pair of cities, road has high accident risk and large volumes of heavy traffic. The most important wood industrial area locates in the area.
Main road 4 at Kemi including bridges	49	2,2	(L)	Upgrading of congested main road with high accident risk to a motorway and construction of bridges across the Kemijoki River.
Improving the level of service on rail section Lahti - Luumäki	150	2,5	I, L [*]	Finland has committed to the implementation of the project before the year 2014 (part of the EU priority project “Nordic Triangle” and high-speed rail connection Helsinki - St.Petersburg).
Ring Road I Turunväylä - Vallikallio	65	5,7	L, M	Project is scheduled for the years 2004 – 2007 in the letter of intent of the Helsinki Metropolitan Area transport system plan.
Improving the level of service on rail section Tampere - Seinäjoki	15	3,0	I	Upgrading of the main railway connection between southern and northern Finland.
Main road 51 Kirkkonummi - Kivenlahti	42	3,8	(L)	Upgrading of congested main road with high accident risk to a motorway. Main road in the western coastal area of the Uusimaa Region.
Main road 5 Lusi – Mikkeli, upgrading of remaining road segments	17	feasible		Main road 5, which is the most important route in eastern Finland, has been upgraded for the most part. Project includes three remaining upgrading projects between Heinola and Mikkeli.
Main road 8, Sepänkylä by-pass road, Vaasa	25	2,3		Construction of by-pass road on this road segment having high accident risk and numerous junctions. Old road is left for local traffic use.
Main road 4 Lusi - Vaajakoski	54	1,6	L	Upgrading of narrow, curvy and hilly main road from the northside of Heinola to Jyväskylä.

Main road 14 at Savonlinna city centre	50	4,5	(L)	Project includes road, railway and waterway development. The content of project should be further evaluated prior to commencement.
Total of 15 large investments	940			

L= life cycle model project, **(L)** = possible life cycle model project, **L^{*}** = applicability of the life cycle model to railway project tested, **I**= investment charge for railway project taken into use, **M**= significant municipal share of payment, **F**= costs covered by fairway dues

Thematic project packages to be started during the years 2005 - 2007

ROAD THEMES

- Improving the conditions for school trips in rural built-up areas, 30 million Euros (63 projects)
- Developing road connections to ports and terminals, 30 million Euros (10 projects)
- Improving traffic safety on main roads, 40 million Euros (13 projects)
- Supporting the development of growing regions, 60 million Euros (8 projects)
- Promoting public transport in the Helsinki Metropolitan Area, 32 million Euros (4 projects)

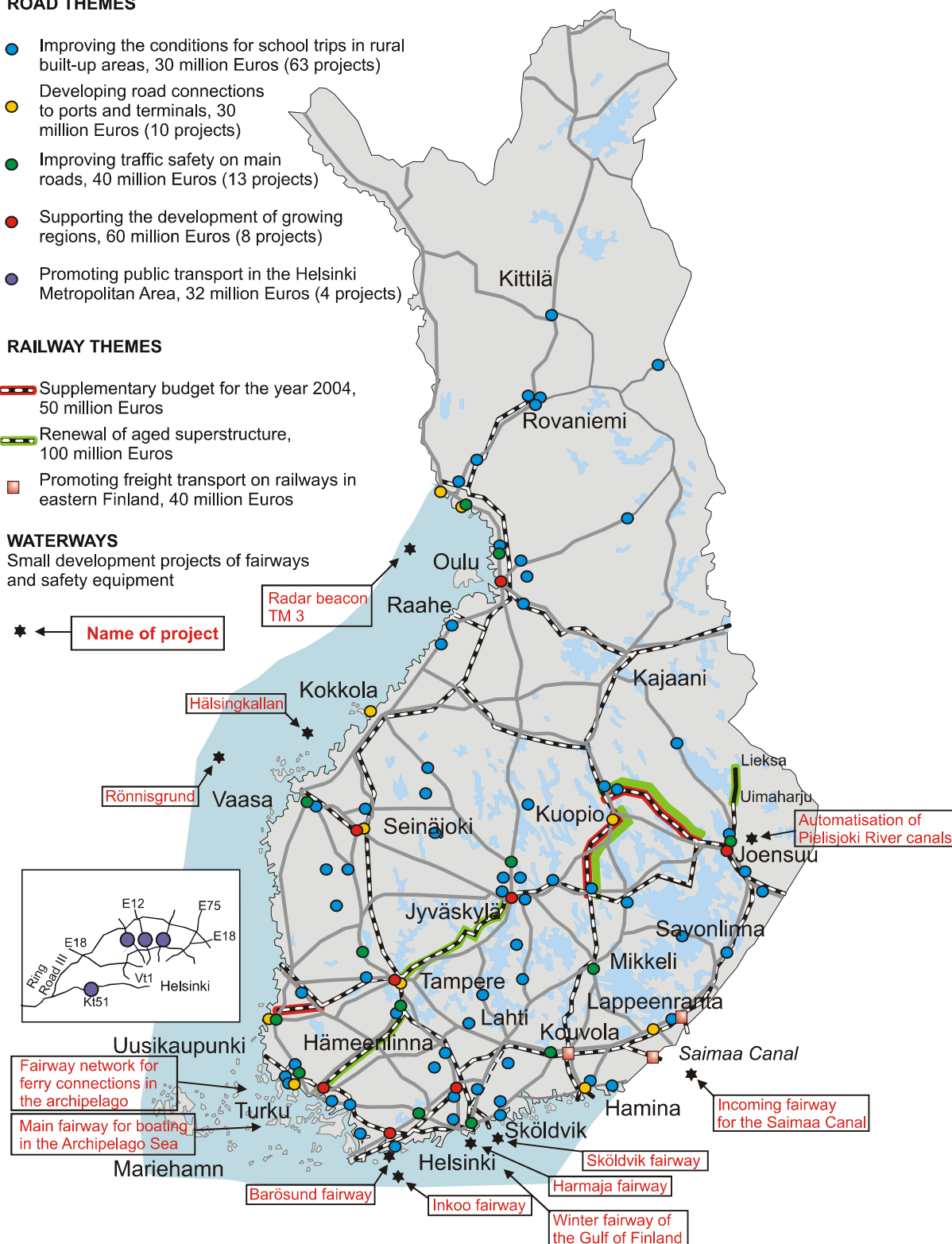
RAILWAY THEMES

- ▬ Supplementary budget for the year 2004, 50 million Euros
- ▬ Renewal of aged superstructure, 100 million Euros
- ▬ Promoting freight transport on railways in eastern Finland, 40 million Euros

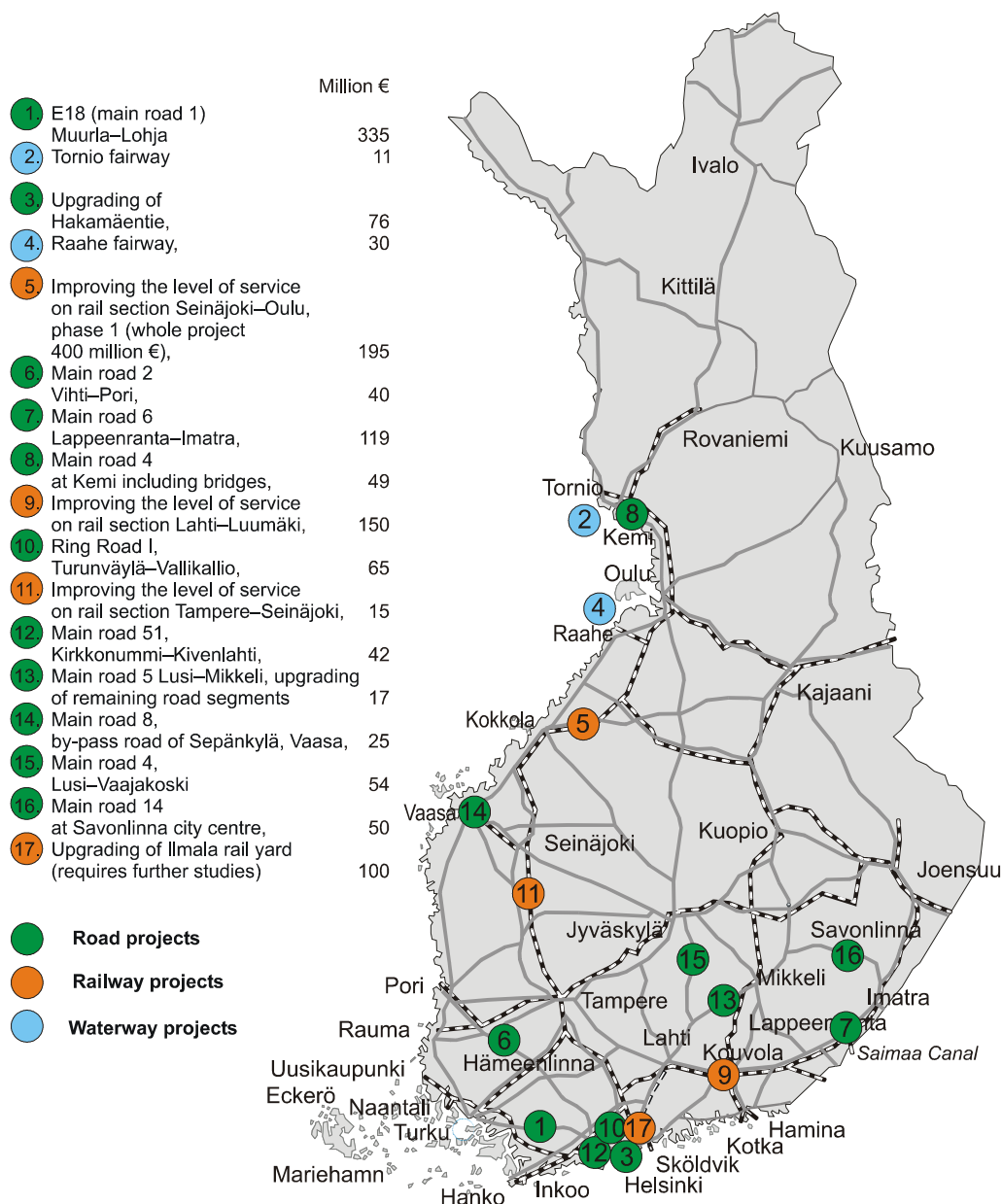
WATERWAYS

Small development projects of fairways and safety equipment

★ ← **Name of project**



Large investments to be started during the years 2005 – 2007



5.4 Project package for the years 2008 - 2013

The list of projects included in the 10-year programme to be started after the government period is preliminary. Information on the impacts of projects will be specified as planning proceeds. The operating environment will also change. These aspects will affect the priority order of projects. According to the opinion by the Working Group, the 10-year programme is worth updating during every government period.

According to the preliminary proposal by the Working Group, projects valued at about 2,2 billion Euros (large investments worth €1930 million and thematic projects worth €235 million) would be implemented during the years 2008 – 2013. In principle, ten projects out of the total 28 projects (construction costs of about one billion Euros) can be implemented using the life cycle model.

Summary of projects for the years 2008 - 2013

	Number	€Million
Road projects	19	1175
Railway projects	8	984
Waterway projects	1	5
Total	28	2164

Large investments	23	1928 (89 %)
Thematic projects	5	236 (11 %)
Total	28	2164 (100 %)

Projects for the years 2008 - 2013 (not in priority order) are presented in the following table:

Project	€ million	B/c-ratio	Use of life cycle model	Remarks
THEMATIC PROJECTS				
Electrification of railway network	90	feasible		Electrification of rail sections in Joensuu region as well as the rail sections Hyvinkää - Hanko and Seinäjoki - Vaasa. Project will be started right in the beginning of the year 2008 after the completion of ongoing electrification projects.
Removing of level crossings	65	feasible		Removing of level crossings on the rail sections Luumäki - Imatra, Seinäjoki - Oulu, Jyväskylä - Kuopio and Turku - Toijala.
Promoting freight transport on railways in western Finland	35	feasible		Upgrading of the Tampere and Riihimäki rail yards as well as upgrading of the rail section Jämsänkoski - Rauma to allow for 25 tonne axle loads.
Providing real-time, comprehensive road user information by developing the information network of road traffic	26	feasible		Real-time traffic monitoring system for the most important main road segments and the largest urban areas.
Noise abatement in the Helsinki Metropolitan Area	20	feasible		Project is scheduled after the year 2007 in the letter of intent of the Helsinki Metropolitan Area transport system plan.
Total of 5 thematic projects	236			
LARGE INVESTMENTS				
MARJA-railway	300	1,6	L ^{*)}	Project is scheduled after the year 2007 in the letter of intent of the Helsinki Metropolitan Area transport system plan.
Ring Road II between Turuntie - Hämeenlinnanväylä	260	2,7		Improving of orbital connections in the Helsinki Metropolitan Area by extending Ring Road II.
Improving the level of service on rail section Seinäjoki - Oulu, phase 2	205	2,5		Second phase of project.

E18 (main road 7) Koskenkylä – Loviisa - Kotka	150	feasible	L	Finland has committed to the implementation of project before the year 2015 (part of the EU priority project “Nordic Triangle”).
Metro rail connection Ruoholahti - Matinkylä (state subsidy 30 % or €124 million, whole project €412 million)	124	feasible		Project is scheduled after the year 2007 in the letter of intent of the Helsinki Metropolitan Area transport system plan.
E18 (Ring Road III) Vantaankoski - Lentoasemantie	116	3,1	L	Project is scheduled for the years 2004 - 2007 in the letter of intent of the Helsinki Metropolitan Area transport system plan.
Ring Road I in Espoo and Helsinki	96	feasible	L	Project is scheduled after the year 2007 in the letter of intent of the Helsinki Metropolitan Area transport system plan.
Additional track on the rail section Luumäki - Vainikkala	85	special reasons		Finland has committed to the implementation of project before the year 2014 (part of the EU priority project “Nordic Triangle” and high-speed rail connection Helsinki – St. Petersburg).
Upgrading of the rail section Luumäki - Imatra	80	2,5		Extension of Lahti - Luumäki project.
E18 (main road 7) Hamina - Vaalimaa	73	special reasons		Finland has committed to the implementation of project before the year 2015 (part of the EU priority project “Nordic Triangle”).
E18 (main road 7) Hamina by-pass road	60	1,5	L	Finland has committed to the implementation of project before the year 2015 (part of the EU priority project “Nordic Triangle”).
Main road 12 Lahti - Kouvola	58	feasible	L	Upgrading of partly narrow, curvy and hilly main road used by heavy traffic, road has high accident risk.
Main road 3 western by-pass of Tampere, phase 2	57	2,9	L	Extension of by-pass road.
Main road 3 Tampere (Ylöjärvi) - Vaasa	48	feasible	L	Upgrading of the most problematic segments on the Tampere - Vaasa road connection.
Main road 5 Päiväranta - Vuorela, Kuopio	40	special reasons	L	Upgrading of congested road segment with high accident risk in Kuopio. Project requires expensive special technical solutions.
Main road 8 Turku - Pori	37	feasible		Upgrading of the most problematic segments on Turku – Pori road connection.
Main road 15 Kotka - Kouvola	37	feasible	L	Upgrading of port connection with high accident risk used by large-scale industry.
Main road 21 Palojoensuu - Kilpisjärvi	27	special reasons		Significant connection from Finland to Norway. Hilly road has dips caused by spring thaw.
Main road 20 Kuusamontie Oulu, Hintta - Korvenkylä	23	2,6		Improving safety and the level of service of the entrance road to Oulu.
Main road 6 at Joensuu	22	2,6		Improving safety and seamless traffic conditions on the Joensuu ring road.

Main road 19 eastern by-pass of Seinäjoki	15	2,0		Realignment of main road from the congested street network with high accident risk.
Main road 15 entrance road to Kotka	10	2,0		Improving safety and the level of service of the road connection to Kotka city centre and ports.
Hamina fairway	5	3,4		Dredging of the incoming fairway of the port will enable larger vessel size and more efficient transport.
Total of 23 large investments	1928			

5.5 Other development projects

The Working Group has examined projects valued at about six billion Euros, and based on reviews selected the most feasible projects for the 10-year programme and the investment programme of the government period.

The Working Group also states that aspects other than transport criteria can in some cases affect the timing of projects. An example of this kind of project is the construction of a cover over the main road 12 Tampere coastal route (about 100 million Euros). The project has considerable land use benefits which cover a significant part of the construction costs. If zoning development requires road construction in the near future, this project should be decided on as a special case. There can also be other similar projects.

The Päijänne-Saimaa Canal or the so-called **Savo Canal** (32 million Euros) is a project which significantly supports regional impacts on business life and tourism. The implementation of it is significant for the development of tourism, inland waterway traffic and related business activities of the entire Päijänne-Saimaa Lake District. The possible sources of financing of the project include funding from the EU Structural Fund, funding for the promotion of employment, municipal financing and financial support from the Ministry of Trade and Industry. The Cooperation Working Group of the Northern Savo Region has by decision and recommendation allocated financing from the European Regional Development Fund and matching national financing for the construction of the canal. The State's share of the construction of the whole project can be a maximum of 50 % (matching financing). The Working Group proposes that the decision on this project will be made by the Government during the spring of 2004.

Further planning of the canal projects in eastern Finland (e.g. the implementation of Kymijoki – Mäntyharju pair of canals, maintenance of the existing Saimaa Canal, starting of the lease agreement negotiations) has been decided on 14.12.2000 and this issue was also discussed in the Ministerial Committee on Economic Policy and the "Evening Session" of the Government. The Working Group considers that no new aspects have emerged to bring up the discussion now. This issue will be re-evaluated, if needed, depending on the progress of the lease agreement negotiations of the Saimaa Canal.

5.6 Impacts of the investment programme

The benefit-cost ratios of the selected projects in the investment programme for the years 2004 – 2007 vary between 1,6 - 5,7 so the investments are socioeconomically very feasible.

Most of the investments are so feasible that a double or triple refund will be obtained as socioeconomic benefits during 30 years.

The content of the investment programme has been selected so that the following impacts are as well balanced as possible:

- promotion of daily mobility needs of people
- promotion of international competitiveness of companies
- supporting balanced regional development
- good environment and traffic safety.

The impacts of projects are illustrated in the following figure:

	Justified order (€mill.)	Profitability of project (B/c-ratio)				Needs of business life				Daily mobility needs of people				Balanced regional development				Environment and safety			
		1,5 - 2,0	2,0 - 2,5	2,5 - 3,0	> 3,0	support small ↔ great				support small ↔ great				support small ↔ great				support small ↔ great			
Hakamäentie	76			2,9																	
Main road 2 Vihti - Pori	40				1)																
Main road 6 Lappeenranta – Imatra	119	1,6																			
Main road 4 at Kemi + bridges	49		2,2																		
Ring road I Turunväylä - Vallikallio	65				5,7																
Main road 51 Kirkkonummi - Kivenlahti	42				3,8																
Main road 5 Lusi - Mikkeli	17				1)																
Main road 8 Sepänkylä by-pass	25		2,3																		
Main road 4 Lusi - Vaajakoski	54	1,6																			
Main road 14 at Savonlinna city centre	50				4,5																
Rail section Seinäjoki - Oulu, phase 1	195		2,5																		
Rail section Lahti - Luumäki	150		2,5																		
Rail section Tampere – Seinäjoki	15			3,0																	
Tornio fairway	11				4,4																
Raahe fairway	30				3,4																
Theme: Road connections to ports and terminals	30				2)																
Theme: Development of growing regions	60				2)																
Theme: Safety on main roads	40				2)																
Theme: Public transport in the Helsinki Metropolitan Area	32				2)																
Theme: School trips in rural built-up areas	30				2)																
Theme: Renewal of overaged superstructure of railways	100				2)																
Theme: Freight transport on railways in eastern Finland	40				2)																
Theme: Small development projects of waterways	8				2)																

- 1) The most problematic road segments along the connection will be upgraded in the project (efficient project)
- 2) Thematic projects include carefully considered small investments aimed at improving problematic transport sections (efficient projects)

Impacts on the markets in the earthworks sector should be considered in the preparation of the investment programme. According to the opinion by the Working Group, the proposed investment programme will cause no disturbances to the markets in the earthworks sector. The share of annual costs of new development projects of the markets in the earthworks sector is relatively small, about 7 % at the maximum. Conversely, the long-standing investment pro-

gramme will make the use of the resources in the earthworks sector more efficient due to more long-standing planning. However, the Working Group considers it important that balanced volume of construction will be aimed at when scheduling single projects of the investment programme.

The Ministry of the Environment is currently preparing a Government proposal on the Law of environmental impact assessment of plans and programmes. The Directive 2001/42/EY by the European Parliament and the Council of Europe, which should be enforced in the member states by 21.7.2004, constitutes the starting point for the preparation of the Law. After becoming operative, the Law will be applied to plans and programmes which will be prepared after the enforcement of the Law. According to the proposal for statutory order, which is under preparation, the Law would not be applied to plans of investment programme type. Thus, principally the Law will not be applied to the investment programme prepared now. However, the Working Group considers it important that environmental aspects will be sufficiently considered in the implementation of the investment programme. An environmental impact assessment is currently conducted on all large projects in the investment programme. The Working Group proposes that a summary of environmental impacts will be prepared as part of further preparation of the investment programme.

Conclusions by the Working Group:

- *The condition of the road and railway network can be secured during the government period, if thematic projects consisting of small investments valued at about 340 million Euros will be started. All thematic projects proposed by the Working Group will be prioritised ahead of development.*
- *The subprojects of the EU priority project “Nordic Triangle” should be implemented in the schedule, which Finland has committed to in the decision on the TEN-guidelines. E 18 Muurla – Lohja motorway will be implemented using the life cycle model and the project will be included in the first supplementary budget of the year 2004 (order authorization of 700 million Euros including financing and maintenance costs).*
- *Approximately a similar number of large development projects of about 940 million Euros (15 projects) will be started as during the previous government periods. Projects have been ranked in priority order. The upgrading of Ilmala rail yard will be further studied and the aim is to implement the project by special arrangements.*
- *In addition to the E18 Lohja – Muurla -project, tentatively four other road projects will be implemented using the life cycle model. There are even more appropriate projects for the life cycle model and if the use of the model turns out to be problematic in more detailed analysis of some of the tentatively selected projects, they can be replaced by other projects. The total service charge of the projects implemented using the life cycle model is about 70 million Euros or about 25 % of the annual financing for development.*
- *A Working Group will be appointed for the preparation of a proposal for implementing the rail section Lahti - Luumäki by using the life cycle model with the VR Group. The justified order of the project is about 240 million Euros, which requires a maximum service charge of 19 million Euros during a 15-year time period.*
- *For the moment, the project package for the years 2008 – 2013 includes projects valued at about 2,2 billion Euros (€1930 million of large projects and €235 million of thematic projects).*

6 FINANCING OF THE PROPOSALS OF THE WORKING GROUP

Maintenance

Sufficient **maintenance resources** of transport infrastructure operations by their new classification will be achieved if **additional financing is allocated to it through thematic projects**. According to the opinion by the Working Group, all the proposed thematic projects are necessary for securing the condition of transport network, and they will be prioritised ahead of new development projects. Thematic projects will increase the financing for maintenance in two ways:

- Part of thematic projects include measures which directly affect the structural condition of transport network (for example theme “renewal of overaged superstructure of railways”)
- Thematic projects include investments which are now implemented by financing for maintenance. When these investments are implemented as part of thematic projects financed by transport network development funds, correspondingly more financial resources will be left for maintenance.

A “quick-aid” of 50 million Euros will, however, be needed for track maintenance already in the first supplementary budget of the year 2004. This is necessary for re-establishing the delayed upgrading programme.

Also, the Working Group considers it important that profit allocation from the VR Group, the Finnish Road Enterprise and the Finnish Civil Aviation Administration will be used for transport infrastructure management.

Investments

The implementation of E18 Muurla – Lohja motorway by using the life cycle model has been taken as the starting point for the financing of the investment programme. **Budget frame of €123 million** reserved for the implementation of the project during this government period will **then be available for allocation to** other projects.

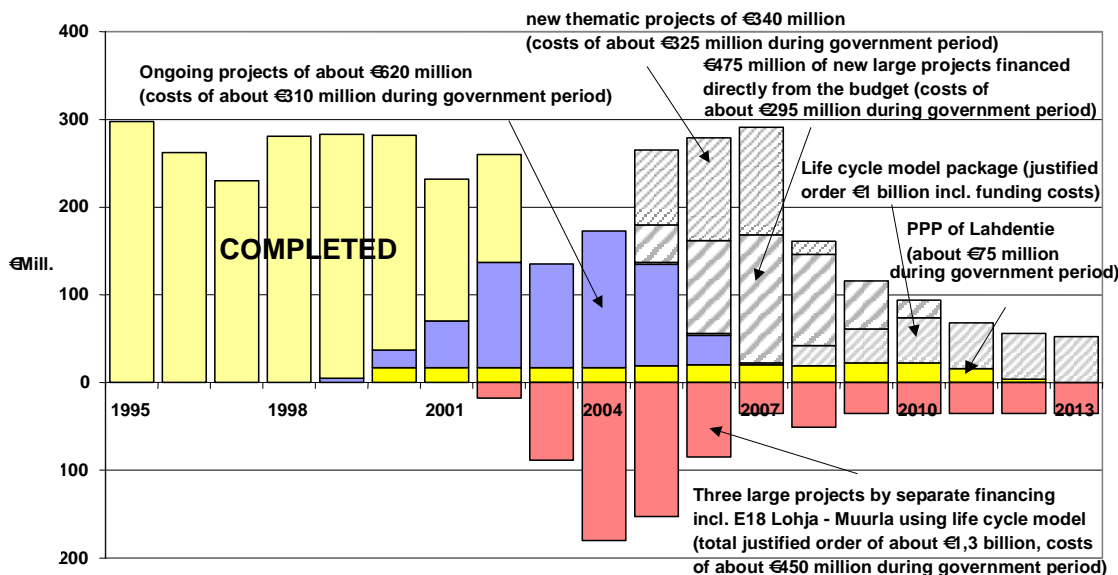
According to the funding solution of this government period, in addition to the E18 Muurla – Lohja –project, four other road projects will be started using the **life cycle model**. The cost estimate of these projects is €314 million and their implementation by using the life cycle model requires a justified order of about 700 million Euros (includes maintenance and financing costs for 25-year time period). Also other projects can be implemented by using this model, if needed. Projects will be programmed independently.

When all four projects have been completed in the end of the 2000s, their total annual service charge is about €35 million. In addition, an annual service charge of about €35 million will be paid for the E18 - Lohja - Muurla –project.

The total annual service charge of all road projects implemented by using the life cycle model is €70 million, which constitutes a share of about 25 % of the annual financing for transport network development. No financing is needed for projects implemented by using the life cycle model during the government period of 2004 - 2007.

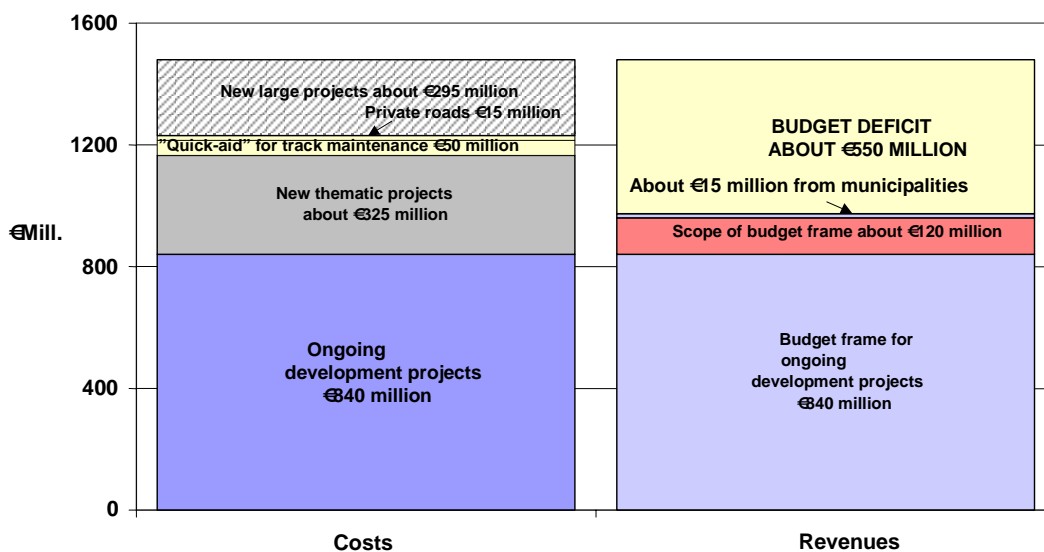
If the rail section Lahti – Luumäki will be implemented by using the life cycle model, it will generate an **annual service charge of about €19 million** (15-year contract period, construction costs of €150 million, interests of €50 million and maintenance costs of €38 million).

Budget impacts of ongoing projects and projects included in the investment programme for the years 2004 - 2007



It is proposed that **projects** worth about €15 million **funded by traditional budget financing** will be started during the government period (large development projects of €475 million and thematic projects of €340 million). The cost of new projects funded by traditional budget financing during the government period is about €620 million and about €195 million thereafter.

Budget deficit of the government period 2004 - 2007 (excluding Iimjala rail yard, share of the State €100 million)



The Working Group proposes that the implementation of projects included in the investment programme will be decided on at regular intervals during the government period in connection with the budget frame decisions. For securing long-standing transport infrastructure management, the Working Group considers it, however, important that the Government will be clearly committed to the priority order and proposed life cycle model programme presented by the Working Group already when discussing the budget frame of the Ministry of Transport and Communications for the years 2005 - 2008.

In addition to the funds allocated in the budget frame of the Ministry of Transport and Communications for the years 2004 – 2007, the need for state or other financing for the implementation of projects proposed by the Working Group is about 550 million Euros (+ about 120 million Euros of value added tax). For mitigating the pressure towards the expenditure of the State budget, the Working Group proposes that the possibilities for using new methods of financing will still be examined as part of the planning of each project.

Conclusions by the Working Group:

- *In addition to funds allocated in the budget frame of the Ministry of Transport and Communications for the years 2004 – 2007, the need for state or other financing for the implementation of projects proposed by the Working Group is about 550 million Euros. For mitigating the pressure towards the expenditure of the State budget, the Working Group proposes that the possibilities for using new methods of financing will still be examined as part of the planning of each project.*
- *A separate study will be conducted on the upgrading of Ilmala rail yard and the share of State financing (100 million Euros) will be handled by special arrangements*
- *In addition to the budget frame, profit allocation from the VR Group, the Finnish Road Enterprise and the Finnish Civil Aviation Administration should be used for transport infrastructure management. The estimated annual profit allocation from the VR Group is €17 million and about €3 million from the Finnish Road Enterprise.*
- *Current amount of financing will be needed for the maintenance of waterways also in the forthcoming years.*

7 MONITORING OF THE INVESTMENT PROGRAMME AND FURTHER PREPARATION

According to the Working Group, part of the transport network should be prioritised so that scarce resources can be allocated as efficiently as possible. Long-distance freight and passenger transport concentrates on certain routes and transport corridors. Maintaining the international competitiveness of Finland's national economy requires reliability and uniform level of quality from these most important transport network connections. The Working Group emphasises that economic aspects should be considered when determining the level of quality of these important connections. For example, extensive construction of motorways is not relevant in Finland's circumstances, and thus other types of high-quality roads should be developed. The Working Group emphasises that seamless transport conditions and safety should be secured also on those parts of the transport network which do not belong to the nationally most important transport network.

As the prepared investment programme for this government period is the first one of its kind in Finland, the Working Group considers it important that the implementation of it will be monitored. The Working Group has decided to have a meeting every year during the government period before the budget negotiations to conduct a review and program measures for the remaining period of government.

Experience gained during the preparation of this investment programme must be utilised in the preparation of the next programme. According to the opinion by the Working Group, additional studies (possibly conducted by a Working Group) as the basis for the preparation of the next investment programme are needed at least on the following issues:

- impacts of the length of the transport network
- developing the arguments for transport projects from the viewpoint of social benefits (e.g. what kind of boosts of growth to business life are generated by transport projects?)
- principles for the prioritisation of transport investments
- monitoring the condition of the transport network as well as impact assessment and demonstration of the investment programme (so-called strategic impacts)
- further development of the concept of thematic projects (e.g. principles of budgeting and impact assessment of thematic projects)

Conclusions by the Working Group:

- *Evaluation of the development needs of different parts of the transport network should be continued based on the report by the so-called Core Network Working Group and statements received on it.*
- *Directives on low-volume, unprofitable rail sections should be clarified. Also, the distinction between public roads and private roads should be examined.*
- *The Ministerial Working Group will have a meeting, if needed, every year before the budget negotiations to conduct a review on the implementation of its proposals and transport infrastructure financing.*

GOVERNMENT

MEMORANDUM

14/2003

MINISTERIAL COMMITTEE ON
ECONOMIC POLICY

1 (2)

Time: 27.5.2003 at 8.30**Venue:** The Government Palace, meeting room Plenum**Participants:** Prime Minister Anneli Jäätteenmäki, chairman
Minister of Finance Antti Kalliomäki
Coordinate Minister of Finance Ulla-Maj Widenroos
Minister of Trade and Industry Mauri Pekkarinen
Minister of Labour Tarja Filatov
Minister of Transport and Communications Leena Luhtanen
Minister of Social Affairs and Health Sinikka Mönkkäre
Minister of Defence Matti Vanhanen
Minister of Health and Social Services Liisa HyssäläSpecial adviser Timo Laaninen
Special adviser Maria Kaisa Aula
Special adviser Timo Koivisto
Head of Government Information Asko Mattila
Director General Martti Hetemäki
Deputy Director General Hannu Mäkinen
Head of Department, Director General Tuomas Sukselainen, secretary**1. Appointment of the Ministerial Working Group on Transport Investment Programme**Document: Memorandum of the Ministry of Transport and Communications
23.5.2003

Minister of Transport and Communications Luhtanen presented the issue.

Experts: Permanent Secretary Juhani Korpela and Director of Infrastructure Unit
Juhani Tervala

The Ministerial Committee supported the proposal by the Ministry of Transport and Communications in the following format:

1) The Ministerial Working Group is appointed for the preparation of the transport investment programme. The task of the Working Group is to prepare by 30.11.2003 a proposal on the general guidelines of the maintenance and development of transport infrastructure during the next decade as well as on more detailed emphasis of transport infrastructure development during this government period.

2) *The working Group should take a position on the renovation of the programming of transport infrastructure development, the level of transport infrastructure maintenance, the investment programme for the years 2004 – 2007 and possible prevailing projects to be started during the years 2008-2013. Assessment on securing the level of road maintenance is included in the evaluation.*

3) *The Working Group should evaluate different methods of financing and make a proposal on the financing of the investment programme. The Working Group should prepare its proposal to conform to the budget frame for the administrative sector of the Ministry of Transport and Communications allocated by the Government on 22.5.2003. The additional costs to the Government by new financial methods should then be considered.*

4) *Minister of Transport and Communications Leena Luhtanen is appointed as the chairman of the Working Group and Minister of Regional and Municipal Affairs Hannes Manninen, Minister of the Interior Kari Rajamäki, Minister of Agriculture and Forestry Juha Korkeaoja and Coordinate Minister for Finance Ulla-Maj Wideroos are appointed as members of the Working Group.*

5) *Director General Tuomas Sukselainen from the Ministry of Finance, Permanent Secretary Sirkka Hautojärvi from the Ministry of the Environment, Permanent Secretary Juhani Korpela from the Ministry of Transport and Communications, Director General Eero Karjaluoto from the Finnish National Road Administration, Director General Ossi Niemimuukko from the Finnish Rail Administration and Director General Jukka Hirvelä from the Finnish Maritime Administration are invited to permanent experts of the Working Group. Director of Infrastructure Unit Juhani Tervala and Senior Engineer Juha Parantainen from the Ministry of Transport and Communications are appointed as secretaries.*

SUMMARY OF THE PROJECTS INCLUDED IN THE INVESTMENT PROGRAMME OF 2004 - 2007

(Upgraded sections of thematic projects have also been indicated in the map in chapter 5.3)

Thematic projects

Renewal of overaged superstructure of railway network (€100 million)

Upgrading of overaged rail sections, length 200 - 250 km (e.g. Pieksämäki - Kuopio, Siilinjärvi - Viinijärvi and Turku - Toijala). The condition of the railway network will be improved and the number of traffic limitations can be reduced.

Development of road connections to ports and terminals (€30 million)

In many urban areas the main route to the port or other significant transport terminal is guided through urban structure. This is a problem both to residential areas and transport. This theme provides for the implementation of new connections or alternative connections outside of the street network to ports, other transport terminals and to a regional waste treatment plant.

Projects included in this theme are Kokkola port road, Rauma port road, Hamina port road, new road connection to Seinäjoki airport, upgrading of Röyttä port road in Tornio, upgrading of Ajos port road in Kemi, improving of Naantali port connection by upgrading the junctions on main road 40, new road connection to the waste treatment plant in southern Karelia (Soskua road connection) in Lappeenranta and junction development at Kuopio deep-water port.

Supporting the development of growing regions (€60 million)

As growing regions and built-up areas develop, delayed by-pass road projects will complicate the regional development based on land use plans which will deteriorate the operating conditions of business life. In addition, congested through traffic routes cause problems to long-distance and internal traffic as well as public transport, impose a safety risk especially to pedestrian and bicycle traffic and reduce the comfort of residential areas.

Road projects in growing regions will be implemented by this theme, which create preconditions

for integrated land use and city centre development and the growth of business life.

Projects included in the theme are Klaukkala by-pass road in Nurmijärvi, development of regional road 847 in Haukipudas and Kempele, northern by-pass road in Seinäjoki, western by-pass road in Karjaa, Kuokkala ring road in Jyväskylä, traffic arrangements in Ylöjärvi, junction improvements on main road 40 in Lieto and upgrading of main road 6 between Niittylahti - Reijola in Joensuu.

Small development projects of waterways and safety device (€8 million)

Safety and navigability on sea and inland waterways will be improved in the Gulf of Finland, the Gulf of Bothnia, the Archipelago Sea and Lake Saimaa. The level and safety of the fairway network will be improved to comply with the needs of transport. Project includes the widening of narrow channels and dredging of single shallows, straightening of curves, better marking of dangerous areas, modernisation of safety device technology, development of remote control system as well as automation of canals and development of their safety device.

The theme includes e.g. fairway markings in the Gulf of Bothnia, development of main boating network in the Archipelago Sea, fairway dredging in the Gulf of Finland as well as dredging of the incoming fairway to Saimaa Canal and automation of Pielisjoki River canals in inland waters.

Improving traffic safety on main roads (€19 million)

Main roads have a share of 60 % of fatal accidents. Projects, which promote traffic safety in the main road network, will be efficiently implemented by this theme. Measures include the construction of passing lanes with middle guardrails, private road arrangements and construction of parallel roads, construction of additional roadways and interchanges, junction improvements and road illumination.

The theme includes 13 independent projects in a distance of about 60 kilometres. Projects are located on the busiest main road segments which have a high number of serious accidents. This theme will especially contribute to a lower number of serious head-on collisions.

Promoting freight transport on railways in eastern Finland (€40 million)

Important rail yards critical to seamless freight transport operations will be upgraded in Imatra, Vainikkala and Kouvola in eastern Finland. The capacity of Imatra rail yard, which limits the import transport of raw wood, will be upgraded to handle the existing and the estimated transport volumes informed by the wood industry. Trains arriving from Russia can be handled in Kouvola sorting rail yard and at the same time the capacity of Vainikkala rail yard for departing and arriving transport will be significantly improved. The performance of Kouvola sorting rail yard will be clearly improved and it has sufficient capacity for transport to container terminal and logistics centre.

Promoting public transport on the main radial roads in the Helsinki Metropolitan Area (€32 million)

The conditions of public transport in the Helsinki Metropolitan Area have deteriorated on main radial roads due to growing traffic volumes. This theme will improve the status of public transport as well as pedestrian and bicycle traffic connections through the construction of bus stops, HOV-lanes, traffic signals, noise barriers, underpasses and pedestrian and bicycle routes to bus stops.

Large investments

E18 (Main road 1) Muurla - Lohja -motorway (€335 million, previous decision made, benefit-cost ratio 1,7)

Finland's most significant international E 18 road connection will be entirely upgraded to a motorway between Turku and Helsinki. The road is connecting regions with strong development to the Helsinki Metropolitan Area and to important terminals of foreign trade. A policy decision on the implementation of the project has been made in the budget for the year 2002. Finland has committed to the implementation of the project before the year 2010 (part of the EU priority project "Nordic Triangle").

These are necessary quick improvement measures. Project is scheduled for the years 2004 – 2007 in the letter of intent of the Helsinki Metropolitan Area transport system plan.

Road segments included in the theme are main road 3 (Hämeenlinnanväylä) between Kannelmäki - Kaivoksela, regional road 120 (Vihdintie) between Haaga – Ring Road III, main road 45 (Tuusulanväylä) between Käpylä - Kulomäentie and interchange development on main road 51 (Länsiväylä).

Improving the conditions for school trips in rural built-up areas (€30 million)

There are about 500 fatal and injury accidents/year on public roads in built-up areas. Especially in rural built-up areas, conditions for pedestrian and bicycle traffic between schools, residences and services are often unsafe particularly for children and the elderly people. Most of the project initiatives by municipalities concern the improvement of conditions for pedestrian and bicycle traffic.

Safety on school trips will be improved by this theme by promoting the conditions for pedestrian and bicycle traffic in 50 – 60 rural built-up areas in different parts of Finland. Measures include the construction of pedestrian and bicycle routes, wider shoulders, parallel routes, underpasses, safe pedestrian crossings and connections to bus stops. Projects are located between residential areas and schools as well as between residential areas and the business district. The total length of projects is 150 - 200 km, and it is planned that the same number of projects (tentatively seven projects) will be implemented in every Road District.

Tornio fairway (€1 million, benefit-cost ratio 4,4)

Dredging of the incoming fairway to port will enable larger vessel size and more efficient transport. The main user of the fairway is the Outokumpu Ltd steel factory. The fairway will be dredged from 8,0 metres to 9,0 metres. The project will also ensure icebreaker assistance and secure vessel traffic in the strongly variable water levels of the Gulf of Bothnia.

Upgrading of Hakamäentie (€76 million, benefit-cost ratio 2,9)

The construction of an additional roadway on the northside by-pass road connection of Pasila will alleviate congestion in east-west direction through the northern parts of the Helsinki peninsula. Currently, especially commuter traffic and daily delivery traffic are significantly congested. The financial share of the State is € 50 million. The project is scheduled for the years 2004 -2007 in the letter of intent of the Helsinki Metropolitan Area transport system plan.

Raaha fairway (€30 million, benefit-cost ratio 3,4)

Dredging of the incoming fairway to port will enable larger vessel size and more efficient transport. The fairway is used by the port of the city and the industrial port of Rautaruukki Ltd. There will be changes in current raw material transport system of Rautaruukki Ltd based on barges which demand dredging of fairway from 8,0 metres to 10,0 metres. The project will also ensure icebreaker assistance and secure vessel traffic in the strongly variable water levels of the Gulf of Bothnia.

Improving the level of service on rail section Seinäjoki - Oulu, phase 1 (€195 million, whole project €400 million, benefit-cost ratio 2,5)

Improving the main railway connection between southern and northern Finland. The project will shorten travel times and enable more efficient freight transport. Rail section will be upgraded to allow for 25 tonne axle loads, and bottlenecks will be removed by developing railway sidings and constructing double-track sections between Seinäjoki - Kokkola.

Main road 2 Vihti - Pori (€40 million)

Improving the most problematic road segments between the Helsinki Metropolitan Area and Pori. Traffic safety and the level of service will be improved by e.g. removing junctions through the construction of parallel roads, upgrading and constructing interchanges, improving overtaking possibilities and implementing other traffic safety measures. Connections to the ports of Helsinki, Pori and Rauma will be improved. Seamless commuter traffic connections will be provided in the vicinity of cities.

Main road 6 Lappeenranta - Imatra (€19 million, benefit-cost ratio 1,6)

Construction of an additional roadway on the main road between a pair of cities. Road has high accident risk and large volumes of heavy traffic. Finland's most important wood industrial area locates in the area. The by-pass road of Lappeenranta and its extension to Imatra will be upgraded to a high-class four-lane road for large traffic volumes. Road is very significant in connecting different regions and provinces.

Main road 4 at Kemi including bridges (€49 million, benefit-cost ratio 2,2)

Upgrading of congested main road with high accident risk to a motorway and construction of bridges across the Kemijoki River. Construction of an additional roadway at Kemi and on the bridge across the Kemijoki River. New road alignment will also be extended to the south. The project will promote land use development in Kemi and the level of service of main road network in the so-called Bothnian Arc Region.

Improving the level of service on the rail section Lahti - Luumäki (€150 million, benefit-cost ratio 2,5)

Construction of double-track main railway to eastern Finland and Russia. Upgrading of railway to allow for 25 tonne axle loads and increased travel speed of 160 - 200 km/h. Finland has committed to the implementation of the project before the year 2014 (part of the EU priority project "Nordic Triangle" and high-speed rail connection Helsinki - St. Petersburg).

Ring Road I Turunväylä - Vallikallio (€65 million, benefit-cost ratio 5,7)

Upgrading of the most congested bottleneck in the Helsinki Metropolitan Area by constructing interchanges and additional lanes. New tunnel segments protect adjacent residential areas from noise and pollution. The operating conditions and traffic safety of public transport will be improved. The city of Espoo will be responsible for most of the costs. The project is scheduled for the years 2004 - 2007 in the letter of intent of the Helsinki Metropolitan Area transport system plan.

Improving the level of service on the rail section Tampere - Seinäjoki (€15 million, benefit-cost ratio 3,0)

Upgrading of the main railway connection between southern and northern Finland. Single-track rail section with no level crossings. The project includes the improvement of substructure which allows for 25 tonne axle loads and shorter travel times.

Main road 51 Kirkkonummi - Kivenlahti (€42 million, benefit-cost ratio 3,8)

Upgrading of congested main road with high accident risk to a motorway. The existing motorway (Länsiväylä) will be extended to Kirkkonummi. Road segment is very congested especially in commuter traffic and access from minor roads is very difficult. Land use development is continuously complicating the situation.

Main road 5 Lusi – Mikkeli, upgrading of remaining road segments (€17 million)

Main road 5, which is the most important route in eastern Finland, has been upgraded for the most part. Project includes three remaining upgrading projects between Heinola and Mikkeli.

Main road 8, by-pass road of Sepänkylä, Vaasa (€25 million, benefit-cost ratio 2,3)

New main road alignment by-passing Sepänkylä, which is the centre of the municipality of Mustasaari and “suburb” of Vaasa. The project will enable land use development in Sepänkylä, improve conditions for commuter and long-distance traffic and promote safety and comfort in Sepänkylä.

Main road 4 Lusi - Vaajakoski (€54 million, benefit-cost ratio 1,6)

Upgrading of narrow, curvy and hilly main road from the northside of Heinola to Jyväskylä. Road is the main freight transport route across Finland but it is narrow and has poor geometry. Especially overtaking possibilities are currently poor. The worst road segments will be realigned, overtaking possibilities and junctions will be improved as well as shoulders will be widened. Upgrading of this road segment is the most important project on main road 4 leading across Finland.

Main road 14 at Savonlinna city centre (€50 million, benefit-cost ratio 4,5)

Through traffic and incoming traffic to the city will be directed to a new road. The environment, safety and comfort of city’s street network (Olavinkatu) will be significantly improved. New areas will be opened for land use development in the city centre. The principal solutions for project implementation have not been decided (railway alignment in city centre, implementation of waterway etc.)