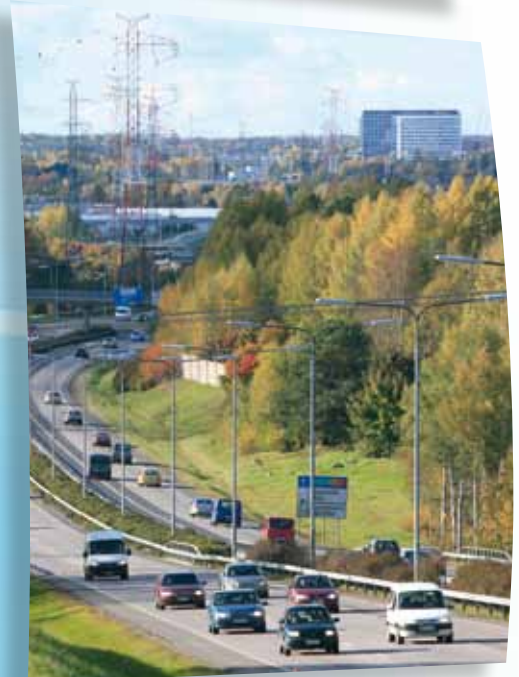




Ministry of Transport
and Communications

Competitiveness and well-being through responsible transport

Government Report on
Transport Policy submitted to
the Parliament of Finland 2012



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1. Background to the drafting of transport policy

The transport system consists of transport infrastructure, means of transport, transport services, people who are travelling and goods that are being transported, as well as the associated services, information, statutes and organisations. Transport policy refers to action pertaining to all these aspects of the transport system. Transport policy and the transport system are closely connected with other activities in society, especially with the operating conditions of business, the economy and employment as well as regional development.

Transport policy contributes to ensuring smooth and safe travel and transport to meet the needs of business and citizens. A good transport infrastructure and a well-functioning transport system are an important aspect of citizens' everyday lives. Almost everyone takes daily trips to work or to school, for business or for pleasure – an average of three such journeys a day. In urban regions, the quality of the transport infrastructure, the provision of high-quality

public transport solutions and good traffic management are particularly important for ensuring smoother functioning of travel and transport chains. In sparsely populated regions, the most important factors affecting the convenience and safety of travel are the quality of the road infrastructure and transport services. Travel needs are influenced by changes in regional and urban structures and in the location of services. Good traffic connections are also a key condition for regional development and one of the most important factors influencing the location and operating environment for companies.

The transport system is a key competitive factor for Finland due to the country's extensive area and long transport distances. Industrial and residential development is dispersed widely throughout the country, and the forest and metal industries, which transport large quantities of heavy products, have accounted for a high proportion of national production.

In foreign trade transport, shipping plays a predominant role. The availability of an adequate service level on the main traffic connections is essential for the functioning of the entire transport system and for Finland's competitiveness. Safety, smooth running and reliability of transport and seamless operation throughout the entire travel and logistics chain are vital service level factors, both in goods transport and in passenger services.

Transport is also a service industry, whose task is to move people and goods, thus creating added value for people's lives, for business and for the entire national economy. The role of transport will be increasingly important in a global world where production is specialising, interdependency between the continents is increasing and thus the needs for communication, networking and transport are growing. Transport accounts for over 7 per cent of Finland's GNP.

More than 5 per cent of the employed work in the transport sector. There are 23,000 transport companies operating in Finland, and they employ 130,000 people in total. Transport also creates jobs indirectly, for example in the civil engineering sector and the technology industry. In the civil engineering sector, the building and maintenance of the state-funded transport infrastructure provides a significant number of jobs. An investment of one million Euros provides work for an average of 17 people for a year. Building the transport infrastructure is a domestic market activity: of every euro spent, 0.75 cents remain in Finland. Transport investments have been successfully used as an instrument of economic recovery, especially during the previous recession.

The transport system is the nation's arterial system. Above all, the transport infrastructure and services provide leverage for the key activities of society – study, housing, work and production – and are the driving force behind economic growth. Some 3 per cent of the Budget is spent on developing and maintaining the transport system, while the indirect effects of the system on society's expenditure are multiple compared to the costs of funding of the transport system. The transport system cannot be planned as a separate component, as its implementation requires multi-sectoral cooperation across administrative boundaries. When planning the transport system, we must thus also take into account its impacts on the development of the national economy and public health.

For Finland the European Union is part of the internal market, and thus the orientation of European transport policy also has a significant impact on national policies and legislation. In March 2011, the European Commission published its White Paper on the future of transport policy entitled *Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system*. The White Paper comprises the transport section of the *European Strategy for Growth and Jobs (Europe 2020 Strategy)*. It outlines the Commission's long-term vision up till 2050 and the most important actions required to realise the vision. A general objective is to reduce transport emissions by 60 per cent from the 1990 levels by 2050.



1.1 Preparation of the report

Prime Minister Katainen's Government Programme states: *"The transport policy report, to be prepared by a broad-based strategic ministerial working group, will outline strategic goals extending beyond this parliamentary term as a foundation of future project entities and key national transport networks. In this work, it must be ensured that the land use, housing, transport, service structure and sustainable development perspectives are taken into account, as well as the prerequisites of economic and regional development. As part of the report, the Government will investigate the bottlenecks and development needs of logistics in foreign trade. As an issue of central importance, the ministerial working group must assess the development needs of the logistics system in terms of national competitiveness. At the same time, the transport system needs related to travel-to-work areas and crossing municipal and provincial boundaries will be taken into consideration."* The Government Programme further states: *"The Government will submit a government report to outline medium-term transport policy projects and reserve funding for the projects mentioned in the report."*

The report was prepared under the leadership of the Government's Ministerial Working Group on Transport and Communications Policy chaired by Minister of Transport *Merja Kyllönen*. The members of the Ministerial Working Group were Minister of Housing and Communications *Krista Kiuru*, Minister of Economic Affairs *Jyri Häkämies*, Minister of Agriculture and Forestry *Jari Koskinen*, Minister of Education and Science *Jukka Gustafsson*, Minister of the Environment *Ville Niinistö*, Minister of Defence *Stefan Wallin* and Minister of the Interior *Päivi Räsänen*. The Ministerial Working Group was supported in its efforts by a group consisting of public servants from the Ministry of Transport and Communications, the Ministry of Employment and the Economy, the Ministry of the Environment, the Ministry of Finance and the Ministry of Social Affairs and Health. The contents of the report were prepared in 12 sub-projects, with the participation of experts from the Ministries that play a key role in transport administration and transport-related matters.

Transport policy challenges¹ and the current status of the transport system² were reported on in separate memorandums, summaries of which are included in Chapters 1.3 and 1.4 of this

1) The role of transport in society and transport policy challenges in the 2010s: <http://www.hare.vn.fi/upload/Asiakirjat/17748/51991.DOC>
2) Current status of the transport system: <http://www.hare.vn.fi/upload/Asiakirjat/17748/56837.PDF>

report. The issue of ensuring Finland's logistic competitiveness was examined by a group of three rapporteurs³. The rapporteurs' recommendations were taken into account where applicable in the policies presented in the report, in addition to which the conclusions of the group are discussed in Chapter 5. Issues relating to the funding of investments were discussed in a working group on funding led by the Ministry of Finance. In the context of drafting this report, there were also eight experimental projects in progress, with the aim of seeking new, efficient operating methods and illustrating the potential benefits of new ways of thinking. (These projects are presented in appendices 4–11.)

Simultaneously with the preparation of this report, other working groups were drawing up their reports (for example, on opening passenger rail services to competition, the transport needs of mining operations in Northern Finland, fair pricing of transport, shipping strategy, shipping subsidies, traffic across the Kvarken, preparation of a road safety programme, fuels of the future). The issues raised in these reports will be resolved later on during the government term, and they are only discussed at a general level in this report.

The stakeholders of transport administration were closely involved in preparing this report. In the early stages of its drafting, the views of stakeholders on the challenges and proposed outlines of future transport policy were collected by conducting a stakeholder survey sent to nearly 500 recipients. A total of 138 responses were received. The sub-projects also consulted key stakeholders in the course of their work. Citizens' views on such issues as the functioning of everyday journeys and public transport as well as the opportunities for walking and cycling, for example, were collected through a debate organised on the otakantaa.fi discussion forum. A total of 258 comments were received, which was the third highest number recorded by the otakantaa.fi forum to date. As the preparation progressed, the preliminary visions and policy proposals of the report were presented in a broad-based discussion and consultation session held on 3 February 2012. The stakeholders also had the opportunity of commenting on the draft report in the period 6–12 March 2012. Some 150 comments were received.



1.2 Formulating transport policy outlines

The transport policy report is part of the process of drafting long-term public policy, which also includes preparedness for rapid changes. The transport policy report "Competitiveness and well-being through responsible transport" is founded on three priority areas of Prime Minister Katainen's Government Programme:

1. *Reduction of poverty, inequality and social exclusion*
2. *Consolidation of public finances*
3. *Enhancing sustainable economic growth, employment and competitiveness.*

The report takes into account and incorporates in its policies the outlines concerning transport policy and other relevant policies in the Government Programme. The report also takes into consideration transport policy development and trends at the international and EU level.

The sub-projects and working groups identified a large number of different development targets regarding the transport system and operating methods. The key policies and actions related to these were collected in the report under the following seven main themes.

- *Service-oriented transport system* (Chapter 3)
- *Funding as the basis for service level* (Chapter 4)
- *Transport system as an enabler of sustainable growth* (Chapter 5)
- *Well-being based on the smooth functioning of everyday life* (Chapter 6)
- *Smart and responsible transport* (Chapter 7)
- *From efficient operating methods to the desired results* (Chapter 8)
- *Special transport policy issues of the 2010s* (Chapter 9)



1.3 Future transport policy challenges

Customers and competitiveness

Central transport corridors play a key role. In order to secure competitiveness and sustainable economic growth in Finland, the priorities will include international connections, the service levels on the key internal routes, and efficient transport systems in the largest urban areas. The possibilities brought by the Barents area and the Northern Sea Route may change global transport chains. Economic growth in the St Petersburg region and elsewhere in Russia, improvement of internal transport connections and Russia's increasingly close integration with the global market may result in significant changes in transport flows in the future. It is believed that the potential opening of the border between Finland and Russia for visa-free travel will multiply passenger volumes and traffic between the countries. We must be able to ensure smooth border crossings and border

security. **International air connections will also be vital for Finland's competitiveness.** In addition to access to Europe, connections to markets in developing countries will play an increasingly important role in the future.

Transport solutions must primarily make it possible to utilise Finland's substantial natural resources domestically, while also providing for the international connections needed by trade. It is predicted that the volume and turnover of mining operations will increase three-fold by the middle of this decade.

The mining industry needs to be supported by effective logistics. The greatest challenges at the moment include the condition and capacity of the main railway lines and ports, connections between mines in Eastern Finland and the Gulf of Bothnia, as well as the transport connections of the mining, metal processing and chemical industries to the growing markets of Asia.

The efficient functioning of the goods transport market will play a key role. At the national level, the development needs of the transport system and transport market must be seen in proportion with the needs of the citizens, society and business. As operations become increasingly international, the risk of the shadow economy making inroads into the Finnish transport market grows. The entry of foreign operators into the market has resulted in tougher competition. The viability of companies is also essential for maintaining a responsible and healthy transport and occupational safety culture.

The majority of transport sector legislation is passed by international organisations and through European law, and this highlights the role of forward-looking lobbying in international forums. Issues that have a direct bearing on transport are often discussed in other contexts than those of the transport authorities, while similar issues are often discussed in overlapping forums, which requires well-functioning national coordination. The role of the EU is also becoming more visible in regional and bilateral cooperation. Due to the global nature of the transport market, the EU's activities relating to external relations are justified and mainly support the targeting of adequate resources to key sets of objectives, while they also restrict the possibilities for bilateral agreements, for example, with Russia as Finland's central trading partner.

The cost pressures of logistics are mounting and environmental and quality requirements are increasing, which is reflected in the competitiveness of business. In logistics, the soaring energy prices, climate and environmental requirements and new forms of energy are pushing transport costs up. The value of predictability in delivery chains will continue to increase and, as a consequence, not only the cost-effectiveness but also the precision and quality of transport needs to be improved. Advanced methods of intelligent transport systems will play an increasingly significant role in the planning and implementation of logistics services. At the same time, higher competence requirements will be placed on actors in the logistics sector. On the other hand, these challenges will offer actors in the sector an opportunity to act as pioneers in developing energy and eco-efficiency and in the utilisation of intelligent technologies. The use of ICT in the transport system

and the development of green technologies will provide new opportunities for solving transport problems and improving the functioning, productivity and efficiency of the transport sector. In order to tap the potential of intelligent transport, a new type of competence in customer relations and cooperation expertise is needed.

Making expertise in demanding conditions an export asset. One of the greatest challenges facing an efficiently functioning transport system in Finland is the country's demanding conditions, and climate change will do nothing to alleviate the situation. The conditions affect all modes of transport and require preparedness. Sudden changes of weather, seasonal variations, increasingly frequent extreme weather events and our geographical location, which is challenging especially from the perspective of winter navigation, all require special expertise from the actors involved. Changing conditions and the risks inherent in the conditions should be taken into consideration in the planning, building and maintenance of the transport system and infrastructure, and knowledge of the conditions should be integrated into traffic control systems. Expertise in year-round management of severe weather and road conditions is an essential part of Finnish specialist expertise. Advancing techniques and new technologies enable the anticipation of significant changes in conditions, thus improving the safety, smooth running, logistic efficiency and cost-effectiveness of transport. Intelligent services for transport in special conditions can help to improve such aspects as the cost-effective implementation of winter maintenance and combating treacherous road conditions, while at the same time promoting road safety and consideration for environmental impacts. Expertise in weather and road conditions and its intelligent exploitation can also offer Finnish companies competitive advantages and international business opportunities. The benefits brought about by climate change should also be anticipated so that they can be used to full advantage. Shipping in the Arctic sea area, for example, will increase with the opening of northern shipping routes, and this will provide new opportunities for using Finnish Arctic expertise and services for varying conditions.

A reliable transport system is needed for the smooth running of travel and transport. Reliability is threatened by such factors as weather conditions, accidents, technical faults, natural catastrophes (including ash clouds), labour market disruptions and human errors. In particular, various types of exceptional weather events, including heavy snow and rainfalls together with storms, have put the functioning of the traffic system to the test in recent years, and it is expected that such phenomena will become more common with climate change. As a result of the increasingly technical systems, the outsourcing of activities and wide-range operating networks, our society is more vulnerable to various types of disruptions than ever before. ICT solutions can help to bring disruptions under control more rapidly and to minimise their effects – while at the same time the increased use of technology makes the system vulnerable to new types of faults and threats. We also need to strengthen our preparedness for extreme weather

3) Finnish Foreign Trade: Logistic Competitiveness and Needs for Development. Final report of the working group. 6/2012 (<http://www.lvm.fi/web/fi/julkaisu/-/view/3786378>)

events, rising sea levels and climate change in emergency plans for the transport system.

Online services make our everyday lives easier, and as opportunities for telework increase, the need for physical travel may decline. Building a broadband network with wide national coverage plays a key role in making this development possible. Step by step, the private and public sector will transfer services to an online environment, enabling the use of services from home. In the future, more and more jobs can be performed as telework, without the need for a daily commute. Online shopping continues to become more popular. This phenomenon results in fragmented goods flows and reduces the need for intermediate storage, but it needs to be supported by efficient distribution transport. The growth of online services may also become a significant cause for concern for various population groups, such as elderly people, who have not become familiar with ICT and for whom using e-services is a major obstacle.

The proportion of free time travel in all travel was increasing, but now this trend appears to have been reversed. Our modes of free time travel are susceptible to changes in values and lifestyles. In free time travel, different needs and service level factors are stressed than in commuting. As regards free time travel, providing public transport that can compete with private cars is a particular challenge. Air traffic has increased, and even in Finland, the offer of direct international flights from regional airports has expanded vigorously in recent years. The air travel market reacts rapidly to changes in demand and the economic situation, and thus the offer of routes is in constant flux.

In the safety vision for transport, **no-one should be killed or seriously injured in traffic.** The greatest number of fatalities occur in non-commercial and non-professional traffic. Compared to middle-aged drivers, the risk of young people (aged 18–20) of dying on the roads is three-fold, and similarly, the risk for elderly drivers (over 75) is two-fold. Particular challenges in traffic are drink-driving (and also being in charge of a boat while under the influence of alcohol), speeding, running red lights and neglecting to use safety equipment, which are reflections of an irresponsible traffic culture. In commercial and professional traffic, the goals of the transport safety vision have already been achieved, excluding road traffic, where heavy goods vehicles are a party (although most often not the cause) of nearly one fatal accident out of three. In air, sea and rail traffic, the aim is to stabilise the achieved standard of safety. Changes in the operating environment mean additional challenges to maintaining the safety level. As maritime traffic on the Baltic Sea increases, for example, so does the risk of a major accident.

In an accessible transport system, the transport environment and services, including transport information services, work well also from the perspective of the travellers with the lowest level of user capacity. Accessibility means physical accessibility, user-friendliness, multi-channel information and seamless travel chains from door to door. Accessibility of transport to all reduces costs in other sectors and prevents exclusion. **The ageing of the population** is another challenge

to the entire transport system, as it affects the need to travel, transport safety and accessibility requirements placed on the transport system.



The environment and urban structure

Climate change concerns all of us. Finland is committed to reducing our greenhouse gas emissions, both internationally and at the EU level. Some 20 per cent of Finland's greenhouse gas emissions are caused by transport. In line with the EU emission reduction targets under the Kyoto Protocol, Finland must achieve a 16 per cent reduction in its transport emissions by 2020 compared to the 2005 levels. The EU's transport policy target is a 60 per cent reduction in greenhouse gas emissions from the 1995 figures by 2050. The emission reduction targets set for the transport sector are challenging. The preconditions for achieving them include rapid modernisation of the vehicle stock, full exploitation of advances in vehicle and fuel technologies, a reduction of transport needs by means of transport system and land use planning and a shift away from private cars towards more sustainable modes of transport. The achievement of these targets will be supported by various forms of car pools and ride-sharing schemes utilising information networks that will change the traditional model of private motoring.

The transport system is almost exclusively powered by oil. Oil prices are quick to react to changes in world politics and economy. In addition, it is predicted that the availability and quality of oil will deteriorate from 2025 on, and possibly even earlier than this. Each litre of petrol or diesel we consume also adds to CO₂ emissions. We must be able to improve the energy efficiency of transport. Over the long term, we must also find an adequate quantity of new fuels or alternative sources of energy for transport, and the decisions on these are topical in the EU and internationally right now. Alternatives for the current oil-intensive solutions do exist, but the suitability of the various technologies for different modes of transport and the time span of their introduction vary. The range and rapidly changing policies on energy forms are confusing to consumers, and clear, long-term policy lines are thus expected of the public sector.

In addition to greenhouse gas emissions, transport causes many other emissions that are harmful to the environment or human health. These include nitrogen oxide emissions, sulphur dioxide, carbon monoxide, hydrocarbons and particles deriving from shipping and road transport. Of these, the so-called conventional emissions, transport accounts for 20–60 per cent, depending on the compound. Sulphur

emissions from shipping affect air quality, in particular in the densely populated coastal areas. There are some 85 million people living in the economic area around the Baltic Sea, about 31 per cent of whom are living within an approximate radius of 50 kilometres from the coast. Emissions of sulphur dioxide, nitrogen oxides, hydrocarbons, carbon monoxide and particles from road traffic in Finland have been reduced to less than one half in the last twenty years. The most recent studies indicate that up to two million Finnish people periodically suffer from respiratory tract symptoms caused by particles and other impurities in the air, and as many as 1,500 suffer premature death annually as a result of these impurities. The noise and vibration from traffic impair the quality of the living environment and negatively affect the comfort of residents.

The structure of urban regions is becoming dispersed.

The population density of Finnish cities is low to start with, and their structure is fragmented compared to cities with a similar population in other EU countries. The decentralisation of population into sub-regional areas has continued in the last few decades. The per capita energy consumption and carbon dioxide emission rates in Finnish cities are among the highest in EU countries. The majority of the high energy consumption derives from housing and transport. It has not been possible to fully capitalise on the environmental benefits of urban settlement. The trend towards dispersal of urban structures undermines the preconditions for both public transport and walking and cycling, and results in increasing reliance on private cars with increasing traffic volumes and more greenhouse gas emissions, which in turn accelerate climate change.

Urban traffic is becoming congested by Finnish standards, especially in Helsinki Metropolitan area. Congestion results in significant losses, both financial and in terms of well-being, causes greenhouse gas emissions and reduces the attractiveness of urban areas. Traffic jams are also a factor undermining the reliability of the transport system. Congestion cannot be permanently eliminated by building more roads, as a system where traffic is running smoothly often also increases the number of cars on the roads, which is why building roads often adversely affects the attractiveness of the living environment. In urban regions, however, investments in road infrastructure are a necessity for growing and evolving goods traffic in order to ensure safe and flexible transport. The functioning of goods traffic in city centres is often overlooked in urban planning, even though it is crucial for maintaining a vital offer of companies and services in city centres and the pull of the entire urban centre.

The rural population has declined. The declining population results in profitability problems in the organisation of transport services. However, it is necessary to ensure viable living and operating conditions for rural inhabitants and enterprises by offering an adequate level of basic travel and transport services. This means that there is a need to introduce new, more cost-effective means for organising transport services. By safeguarding the level of basic transport services, we can ensure that the conditions exist for independent living and thus prevent additional costs for social services.

The service level is a key factor in **making public transport attractive.** An effective chain of travel services must be offered from door to door and, for example, park-and-ride facilities must be arranged. In the peripheral zones of cities in particular, achieving a service level that can compete with the car is challenging. The use of public transport is supported by providing a well-functioning environment for cycling and an attractive and safe setting for walking. The role of walking and cycling in transport system processes needs to be strengthened and mainstreamed. Cycling has considerable potential, especially as a substitute for short car trips. At the moment, 43 per cent of all car trips are less than 5 kilometres in distance.



Efficiency and public finances

The array of transport policy instruments needs to be expanded. The task of transport policy is to ensure that citizens' and companies' day-to-day travel and transport needs are met in an effective, productive and sustainable manner. The stricter constraints on public finances, climate change, the increasingly dynamic operating environment, the evolving range of instruments and changing user needs require transport policy to operate in a way that makes versatile and effective use of a variety of instruments and actors. The Budget spending limit procedure does not fully support the use of a combination of new and different instruments. **A budget procedure** where investment and operating expenditure are not separated has been a key problem in developing the transport system. In other words, inputs in the transport route network are not factually treated as investments, nor are the investment costs divided over the financial lifetime of the investment in the state's on-budget activities.

In recent years, **the roles and funding responsibilities of the state and municipalities in maintaining and developing transport routes have partly become blurred.** A more clear-cut division of responsibilities would promote comprehensive planning of the transport system and urban structure. The state alone spends some EUR 1.5 billion annually on maintaining and developing the transport system, and the expenditure of the municipalities more or less equals this sum. If the products and services currently being procured could be produced at a lower cost and in a manner that was optimised for the entire system, considerable savings could be achieved for the taxpayers.

Cooperation and more extensive preparatory work are needed in the administration. Administration with a silo vision cannot respond to future needs, and cooperation between various administrative branches and at different levels needs to be strengthened

Cooperation and more extensive preparatory work are needed in the administration. Administration with a silo vision cannot respond to future needs, and cooperation between various administrative branches and at different levels needs to be strengthened in order to make operations more customer-centred and effective. The scarce resources available preclude work that overlaps and ignores what is happening in other administrative sectors, and shared resources should be put to rational use for the good of society as a whole. **The municipal reform** under preparation aims to respond to the challenges set by the deteriorating dependency ratio and changes in the demand for services. As the municipal reform is implemented, it will affect both transport itself together with the planning and implementation of the transport system and land use. On the one hand, the centralisation of services will to some extent increase the need to travel. On the other hand, however, the municipal reform will support better cohesion of the urban structure, particularly in large urban regions, and thus improve the accessibility of services for pedestrians, cyclists and those using public transport. The opportunities for integrating public transport systems will improve.

The public sector should by its actions support the smooth functioning of society as a whole and the development of productivity. The reorganisation of transport administration was the most recent step in improving the productivity of the administration's activities. The new roles of the agencies will open up opportunities for new ways of thinking and operating in a more user-centred direction and for developing procurement procedures and expertise in order to make full use of market potential and innovations.



1.4 Current status of the transport system

Transport networks and traffic

Because of its geography and low population density, transport volumes in Finland are low and distances long. Private cars play a dominant role in the division of labour between different modes of transport. The development of shipping is directly dependent on economic fluctuations, while the role of rail traffic is relatively stable over the long term. Road and air transport are increasing. Logistics costs are high in Finland by international comparison, on average 11.9 per cent of a company's turnover,

or approx. EUR 25.3 billion in 2009. The spending of households on transport follows economic trends and has increased considerably in the 2000s. After housing and energy, transport is the biggest expense item for households (16 per cent).

In international transport shipping has a highly significant role, while in domestic transport road traffic plays a predominant part. In 2011, shipping accounted for 98.5 million tons of international transport in Finland, while road transport accounted for 6.9 million tons (data from 2010) and rail transport for 11.3 million tons. The proportion of air cargo in international transport was 0.2 million tons.

In 2011, domestic goods transport by road accounted for 312.9 million tons, while domestic transport by rail amounted to 23.5 million tons, by waterways to 11.0 million tons and by air to 0.01 million tons. The performance of domestic goods transport by road was 23.8 billion tonne-kilometres, that of rail transport 6.8 billion tonne-kilometres and that of waterborne transport 4.2 billion tonne-kilometres.

In international passenger traffic in 2011, 13.6 million passengers travelled by air and 17.7 million by sea. In 2011, the Finnish-Russian border was crossed by 10.6 million people, in which figure road transport accounted for 96 per cent. Rail traffic between Finland and Russia accounted for some 443,000 passengers in 2011, and this number has been increasing dramatically (+28 per cent annually) since a fast rail connection to St Petersburg was launched in 2010.

The performance of Finnish domestic passenger traffic is some 74 billion person-kilometres a year, amounting to 41 km per person a day and 15,110 km a year. Road traffic accounts for the majority of this figure, or some 89 per cent. The total number of journeys is 2.89 journeys/person/day.

The state waterways, rail network and roads are administrated by the Finnish Transport Agency. The Finnish Transport Safety Agency Trafi, for its part, has responsibility for official duties relating to the transport system, for developing its safety and for promoting its environmental friendliness. State enterprise Finavia Corporation is responsible for airports according to the network principle. The municipalities are responsible for streets, and private road maintenance associations for private roads. Municipalities participate in investments to develop the national transport infrastructure on a case-by-case basis. **A total of EUR 1,936 million⁴** of funding was granted to the transport sector in the Budget for 2012. Tax revenue from transport⁵ was EUR 4,753 million, with other charges collected from transport amounting to EUR 136 million. Each Finnish citizen pays some EUR 300 a year for transport routes (the share of development is some EUR 110). In 2010, the **municipalities spent** EUR 1,800 million on transport routes and public transport.

The service level of the transport system has developed in a positive direction in terms of business activities, although it is felt that further development is still needed, in particular as regards railway track for heavy goods traffic, roads with a low volume of traffic, rail connections to industrial plants and means for safeguarding year-round operation for all modes of transport. The international flight connections that are vital for businesses and tourism have increased as desired.

In passenger traffic, those driving regularly are satisfied with the traffic conditions both in the areas where they live and over longer distances. While traffic currently runs smoothly on main roads, the situation will deteriorate unless the growth in traffic volumes can be controlled. People's satisfaction with local public transport varies by area – the most common causes for dissatisfaction being ticket prices, unsuitable routes and departure schedules, and the availability of connections in the evenings and at weekends. The most important development target in long-distance public transport is local public transport connections with the stations.

A special challenge is **winter maintenance**, in which area high standards are expected year-round in order to ensure the efficient functioning and safety of transport. Two successive winters with exceptionally demanding conditions tested the service level of icebreaking. More than 90 per cent of vessels got through without waiting, but the average waiting time for the remaining vessels considerably exceeded the target time of 3.5 hours. Traffic has increased significantly, while icebreaker capacity has remained the same, while the ability of merchant vessels to navigate independently in ice has deteriorated.

In maintaining the condition of transport networks, the challenge lies in the extent of the networks (78,000 km of roads, 26,000 km of streets and 350,000 km of private roads; 5,919 km of railway tracks; and 16,200 km of waterways, of which fairways for merchant shipping 3,900 km) and the greatly dispersed traffic volumes. In the road network, the proportion of roads in poor condition is 670 km (approx. 4% of the main road network) and in the rest of the network 2,700 km (approx. 7% of the network). A great number of road bridges are reaching an age where renovation is needed, and it is currently estimated that approximately 5 per cent of all bridges are in poor condition. In rail traffic, the condition-related factor that has the greatest impact on traffic is speed limits due to ground frost damage in springtime. In 2003–2009, the proportion of railways affected by frost damage was rather low (50 km), while in the last two winters, it was on average 950 km. In waterways lanes, the proportion of fairways in poor condition is approximately 1,000 km, of which less than one half are fairways for merchant shipping.



Traffic safety

Traffic accidents are a problem that affects road traffic in particular. In commercial aviation, shipping and rail traffic, fatalities and serious injuries are rare. Road safety

has improved over the long term in Finland. In 2011, however, the favourable trend was reversed with fatalities on the road increasing by 20 compared to the previous year. The negative trend continued in early 2012, making the goal of reducing fatalities on the roads by one half even more challenging. In 2011, a total of 292 people died and 7,919 were injured on the roads. In previous years, Finland has also ranked relatively high in European road safety comparisons, but recently this situation has deteriorated (11th in proportion to population in 2010, 23rd when comparing the reduction in percentage points over ten years). Finland's aim has been to be among the five top ranking countries in Europe. The average for accidents at railway level crossings (2002–2011) is 34, with an average of 7 casualties each year. In 2011, 25 accidents with 2 fatalities were recorded.

In recent years, there have been no rail accidents leading to the death of passengers. In 2011, there were four fatalities caused by railway accidents, two of which were caused by accidents at level crossings. Fatalities in **commercial aviation** are extremely rare in Finland. The most recent case was a helicopter accident in 2005 with 14 fatalities. In general and recreational aviation, 1–3 fatal accidents have taken place in recent years, and an average of 50–60 people lose their lives in boating accidents each year.



The environment

Mitigating climate change and achieving the emission reduction targets are a challenging task. Carbon dioxide emissions from domestic transport increased since the recession in the early 1990s up till 2007. After a reduction during the recession in 2008–2009, the emissions began to rise again in 2010. In 2010, carbon dioxide emissions from domestic transport were 13.57 million tons. It is predicted that carbon dioxide emissions from Finnish transport will grow until 2017, after which they will more or less stabilise until the end of the predicted period, that is until 2029. Domestic traffic produced less than a quarter of the total national emissions of carbon dioxide in 2009. The majority (73 per cent) of carbon dioxide emissions from transport are caused by road traffic (streets and roads), the proportion of roads in total emissions from transport being 46 per cent.

Resources allocated to combating the environmental impacts of transport have been inadequate. Reducing traffic volumes over the long term will be vital in order to combat climate change, as this will also help to reduce other environmental

4) In this, funding for transport networks, services for transport provided by the authorities, transport subsidies and outsourced services as well as the operating expenses of the Ministry of Transport and Communications, the Finnish Transport Agency and the Finnish Transport Safety Agency have been taken into account, with the value added tax expenditure of the administrative branch excluded.

5) Including fuel tax (EUR 2,675 million), car tax (EUR 1,209 million), vehicle tax (EUR 770 million), railway tax (EUR 19 million) and fairway dues (EUR 80 million).

impacts of traffic. In addition to controlling emissions, the most significant challenges in the transport sector relate to noise, air quality deterioration, the state of the Baltic Sea, ground water contamination, use of natural resources, generation of waste and loss of biodiversity. In addition, routes and other structures needed for transport require a significant amount of space and often reduce the attractiveness of the environment.

Environmental noise may cause direct and indirect health impacts. It is estimated that some 430,000 people are currently exposed to traffic noise exceeding 55 dB. The areas exposed to noise from road transport in particular have increased continuously as transport performance increases, and the challenges of noise abatement will accumulate with efforts to improve the cohesion of the urban structure. In Finland a target has been set to reduce the number of those living in areas exposed to noise exceeding 55 dB by a minimum of 20 per cent by 2020 compared to 2003.

Ensuring the supply of clean drinking water will be a big global challenge in the future. Finland has excellent ground water resources, and we must do everything in our power to ensure that the situation remains good in the future. The construction and maintenance of transport routes and airports require solutions where impacts on ground water play a key role in the planning. Of roads, 6,190 km (approx. 8 per cent) are located in important ground water areas, and 290 km of these roads are structurally protected. Sites where the ground water risk has already been or is about to be realised remain over a distance of approx. 103 km. Reconditioning of contaminated soils will be required mainly in the areas of the old filling stations and railway engine sheds at some 20–25 sites.



The market

About one third of transport market turnover is generated from goods transport, one third from passenger transport and the remainder from forwarding and support activities serving transport. There are 23,000 transport companies operating in Finland, and these employ 130,000 persons in total (more than 5 per cent of employed persons).

The market share of passenger traffic volumes accounted for by public transport in 2009 was 14 per cent, and of person-kilometres 15 per cent. In public transport, buses account for more than one half of the market measured in passenger volumes. The price trend in transport sector

services since 2000 has averaged +3.5 per cent a year on the price of train and bus tickets and +3 per cent a year on taxi journeys, while the price levels of air travel have remained more or less at the 2000 levels. Over the same period, the increase in the consumer price index has been slightly less than 2 per cent annually.

The EU transport market has gradually been opened up for competition since the early 1990s. The freeing of competition progressed from the transport of goods on the roads and by sea to air transport and, most recently, also to rail transport in the 2000s. This development will continue in the years to come.

Long-distance traffic is, as a rule, market driven. Air connections from Helsinki to Savonlinna and Varkaus are co-funded by the state and municipalities, which compensate for the deficit of loss-making traffic in equal shares. In Helsinki urban region as well as in Tampere and Turku, competitive bidding in the transport sector is an established practice, and the areas covered by this activity are about to be extended. The new public transport act will also enable competitive bidding in other regional bus operations after a transition period.

Taxi services are subject to a licensing system. Access to the sector is restricted not only by eligibility criteria applicable to the licence applicant but also by limiting the number of taxi licences issued. Under EU law, rail transport of goods was opened to competition in Finland as from 1 January 2007. Regardless of this, only one rail company, VR Group, to date operates on the state rail network. In practice, the VR Group also has exclusive rights to passenger traffic. The local transport agreement covering the Helsinki Metropolitan Area between Helsinki Region Transport and the VR Group will expire at the end of 2017, and the agreement between the VR Group and the Ministry of Transport and Communications that guarantees the VR Group exclusive rights to passenger traffic on the current passenger network will expire at the end of 2019.

The **infrastructure management contracts** (design, investments and maintenance) of the Finnish Transport Agency are awarded through a bidding process. In infrastructure management contracts, competition as a rule works well. There are numerous tenderers for design contracts and investments, and competition is tough. The supplier market is the most centralised as regards maintenance. The market leader in road maintenance is Destia Ltd and in railway maintenance VR Track Ltd. However, competition has also worked well in competitive bidding for maintenance contracts. In maritime fairway maintenance, competition is being opened up, and the market is still evolving. In icebreaking, the trends in terms of competition and costs have not yet developed as desired.

The availability of trained staff is a key factor in the provision of all transport services and their support services. In comparison with other fields, the transport sector has not been able to attract as many young people to training and education as would be optimal.

2. Vision for transport 2030+

Competitiveness and well-being through responsible transport

The transport system service level is based on customer needs, while supporting the strengths of different parts of the country. Businesses have an operating environment that promotes their global competitiveness, and efficient logistics compensate for Finland's geographical position.



Everyone has the opportunity to live a good everyday life. The living environment and transport services are designed to ensure that travel is safe, easy and sustainable.



The transport system is reliable and predictable. A comprehensive approach based on society's needs backed by financial guidance ensures that sustainable growth is guaranteed, negative impacts of transport are minimised and resources are efficiently deployed.



Users have access to alternatives for various travel needs and the opportunity to make responsible choices. The attractiveness and cleanliness of living environment generate well-being.



3. Service-oriented transport system

Finland's regional structure will be developed as a multi-centred, networking concept based on good transport connections. The centres will be developed as nodes of regional structure, not only regionally but also nationally and internationally. Transport system development will be linked to the development of business, the economy, employment and the regions, and it will be implemented in close cooperation with the planning of regional and urban structures. Connections to international transport networks will also be crucial.

Transport policy will be developed with a strong emphasis on service level thinking by specifying target levels for the

various service level factors involved in travel and transport. Figure 1 illustrates the key service level factors in passenger and goods transport. When specifying the service level, societal impacts should also be taken into account (including environmental sustainability and equality), and the aim should be to create a system that forms a balanced whole.

Transport policy based on service levels sets out to define the service levels required of travel and transport funded from public finances and of up-to-date information related to the transport system. The service level is based on customer needs, societal objectives and the available resources. Political

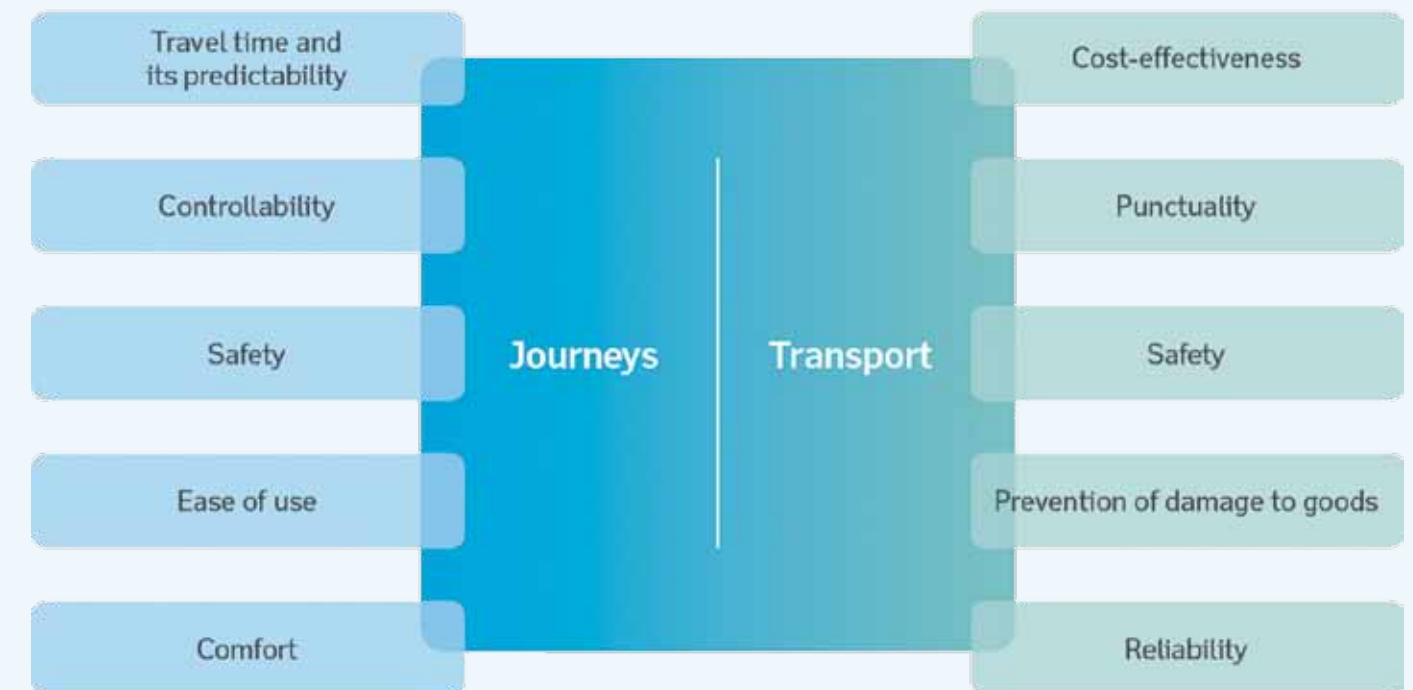


Figure 1.
Key service level factors in passenger and goods transport

decision-making will take place at the level of objectives and resources. The transport administration and transport service providers will both participate in implementing the specified service level. This will be based on cooperation with other administrative branches and service providers. At present transport network maintenance contracts specify quality criteria for maintenance, while the contractor assumes the actual operative responsibility. In public transport, demand-responsive contracting systems based on the service level are being introduced.

The transport network classification under the current legislation has no relation to the needs for travel and transport, and it no longer serves the planning of land use and transport or prioritisation of transport services and route maintenance. The use of the transport network is influenced by the development of municipal and service structures, relocation of services and travel-to-work areas. Transport networks and public transport services should be examined from this perspective of changing needs. Key transport networks and, on the other hand, networks of minor importance need to be identified. A classification of transport networks and nodes (public transport terminals, park-and-ride facilities, railway yards, ports) is also required in order to specify the service level targets. In the context of this classification, the order of priority of connections will be defined, as regards issues such as the infrastructure serving foreign trade, ensuring that the choices will support a logistics structure that offers optimum cost-effectiveness while allowing an adequate service level

of the prioritised targets to be maintained within the current spending limits. Based on the transport network service level descriptions, businesses can assess the status of connections they will need over a time span of 10–15 years for its own operations.

GOVERNMENT POLICIES AND KEY ACTIONS:

- 1** The relevant Ministries will jointly draft a development view on a goal-oriented regional structure and transport system, in cooperation with the Finnish Transport Agency, ELY Centres for Economic Development, Transport and the Environment, Regional Councils, urban regions and other stakeholders.
- 2** The transport network classification will be updated and the responsibilities of the state, municipalities and private actors will be defined more accurately.
- 3** Transport policy instruments and practices based on the service level specification will be developed.



4. Funding as the basis for service level

Long-term approach and steps to safeguard purchasing power

The state's financial situation requires policies that promote the stabilisation of public finances. In the transport sector, funding for basic infrastructure management has tended to fall behind the development in other Budget areas. The aim has been and continues to be improving efficiency by making more efficient use of existing infrastructures and transport services in the maintenance and development of the transport system. As a result post-war construction, industrialisation and urbanisation, Finland has systematically built up road and rail networks together with a network of ports and airports with wide coverage and a relatively high quality standard.

The impacts of transport infrastructure decisions will extend to 30–50 years, and their implications on the urban and regional structure will emerge over a time span even longer than this. On the other hand, the functioning of the transport network, modes of transport and different types of goods transport are integral parts of efficiency, business competitiveness and people's smooth everyday lives today. Transport policy must find a balance between decisions for today and decisions for the future.

Transport policy actions have long-term impacts, and their drafting frequently spans several government terms. Due to the long-term effects it is vital that statutes, regulations and decisions that impact on transport policy drafted in various administrative branches should support future decisions. The practice of drafting up reports is part of the longer time span

of transport policy. In order to achieve this aim, decisions on various actions, their funding and other important issues must be made with sufficient foresight.

A spending limit period of four years is not long enough a time span for the drafting and implementation of actions, and in practice, a frequently encountered problem is that government has no mechanism for committing to various future reservations, commitments and letters of intent. The practice of drawing up letters of intent on transport system plans of various scales has continued for some time, and the binding nature of these documents should be further reinforced. A need for commitments that extend over consecutive government terms is also highlighted in the work on MAL⁶ carried out by the state and urban regions, in planning concerning special land use and transport sites agreed with municipalities (including travel centres) and in general planning reservations for traffic routes, which influence the planning of land use and construction.

Long-term solutions always involve risks associated with the future. Global business cycles move at a considerably faster pace than transport solutions. New, efficient techniques and technologies will be introduced. We have to find means to ensure that investments and the capital tied up in them can be used effectively and the associated risks minimised. In public administration investments, too, the price of the capital should be seen as a cost factor in long-term solutions.

In addition to a long-term approach, we need a clear strategic view in transport policy for responding to the enormous challenges of the future. Transport policy must be capable

of identifying long-term strategic questions that guide not only network service levels but also customer behaviour and demand. Strategic choices and long-term development plans need to be supported by better information and understanding of the customers' current and future needs. Our increasingly technological, global and dynamic operating environment is changing rapidly, and in addition to a long-term effort, we need to preserve – also in funding – the possibility to respond rapidly to changes in the operating environment. At the same time, we have to improve our reactivity and, for example, also our ability to identify and respond to changes in the economy, business and service structure and in people's values. The risks inherent in transport policy solutions, both short and long-term, have to be identified and managed. The development of technology and innovation makes new methods and practices available to us on almost a daily basis, and consequently, we should not attempt to solve tomorrow's problems with today's tools.

The transport administration restructuring that was implemented in 2010 provides an opportunity to examine the service capacity and quality of the transport system as a whole and at the same time to optimise transport policy measures to the benefit of the entire society. Along with structural changes, we also have to develop our ways of thinking and operating to focus on the transport system, the service level and the users. As the increase in traffic volumes will be concentrated in the areas of large growth centres and the connections between them, state and municipal funding decisions must support joint policies.

In infrastructure maintenance, long-term contracts will be used, enabling service providers to develop their activities while facilitating an efficient resource policy. The cuts in personnel affecting the state will in the future necessitate increased reliance on long-term contracts. The index linking of long-term contracts will be a challenge as costs rise. If the spending limits remain unchanged, index-linked contracts will take up more and more resources from other operations. With long-term contracts in force, day-to-day maintenance will also require funding that covers a sufficiently long time span.

Funding for basic transport infrastructure management covers the maintenance of roads, railways and waterways, basic repairs, traffic control and the related systems, as well as icebreaking and car-carrying ferry traffic. In addition, the appropriations should stretch to funding minor investments, without which the transport system will not be able to serve the needs of changing communities. These construction needs involve intersections, pedestrian and cycle paths, good performance of public transport, a high level of traffic safety, connections to terminals, ports and mines, railway yards, access control and other traffic control. Another challenge lies in responding to environmental requirements by building ground water and noise barriers. Individual major investments in the development of the transport network are funded separately from basic infrastructure management.

The purchasing power of basic infrastructure management funding has declined in the 2000s. In the meantime, traffic volumes have increased. The level of funding has not been

sufficient for maintaining the condition of the network. It has been possible to keep the situation under control, however, by reallocating **funds and minimising the number of minor investments**. We can no longer rely on this type of flexibility. It is difficult to imagine that in the future, the entire transport network and the transport system depending on it could function on insufficient maintenance resources, without the possibility of making any changes.

The majority of funding for basic infrastructure management is spent on activities that are vital for keeping the transport system running. These operations are affected by many factors that create pressure to increase funding. These include:

- Rising cost levels (an estimated 4 per cent annually). In the earthworks construction sector, the cost level has usually increased faster than the general inflation trend (as oil-based products account for a large share of its cost structure). An annual increase of four per cent in the cost level means somewhat less than EUR 40 million in basic infrastructure management.
- Increasing repair needs of transport infrastructure, due to its ageing and age structure. For example, increasing numbers of bridges and other structures, together with control systems and railway yards, are reaching an age where renovation is needed. The cumulative need for repairs, or the repair backlog, is growing.
- Rising demands in terms of the scope and quality of transport infrastructure (including those set by the EU). New routes and the associated equipment need to be managed and maintained (including the Ring Rail Line).
- Increasing traffic volumes, especially in the areas of growth centres. In declining areas, daily maintenance cannot be cut back much further.
- Regional maintenance contracts are index-linked. Their additional costs are reflected as less funding for other activities, unless the spending limits are increased.
- It is difficult to reduce the overall extent of routes over the short term (by closing them down or turning them into private roads). Even if this were done, the possible savings would be minor.

GOVERNMENT POLICIES AND KEY ACTIONS:

4

State budgeting practices will be developed to support efficient solutions over a long time span and to enable the state to commit to multi-annual contracts in public transport and transport infrastructure management.

5

The purchasing power of basic transport infrastructure management and public transport will be safeguarded by increases corresponding to the cost level increase made at the end of a government term.

6) MAL = maankäyttö, asuminen, liikenne (land use, housing, transport)

Allocation of transport infrastructure funding

In transport funding, the focus of funding for transport infrastructure will be redirected from transport network investments to minor basic infrastructure management investment programmes and maintenance activities. This will become possible from 2016 on.

Commitment to long-term development of transport networks will contribute to more efficient use of resources, by carrying out planning and implementation with due care. In terms of the functioning of the markets, we should also aim for a steady level of investment. The new development projects to be initiated during the government term have been identified, whereas the ten-year programme is intended to guide planning efforts, and it describes the most important development targets for the transport network and defines the policies on their further planning. The new development projects together with the plans and proposed solutions for road section projects included in the ten-year development programme will be re-evaluated in order to find a solution that is optimally cost-effective and user-centred. In practice,

the government investment programme extends from the middle of the current government term until midway through the next term.

GOVERNMENT POLICIES AND KEY ACTIONS:

6

From 2016, EUR 100 million/year will be transferred from transport infrastructure investments to minor investments and maintenance of the transport network. The investments decided in the government spending limit discussions of spring 2012 will be initiated during the government term. A government resolution has been adopted on the implementation of three key projects of the 10-year development plan (City Rail Loop, phase 2 of the Helsinki–Riihimäki railway line, a double track railway for the Luumäki–Imatra section and improvement of the connection from Imatra to Russia.) Otherwise, the 10-year plan is intended as guidance for planning.

Experiment:

A NEW, MORE COST-EFFECTIVE DEVELOPMENT SOLUTION FOR MAIN ROAD 12 FROM LAHTI TO KOUVOLA

Would it be possible to find a development solution for this road section that is viable and more cost-effective than the earlier plan and that improves the smooth running and safety of traffic sufficiently?

The current development plan for the Lahti–Kouvola section on Road 12 is so expensive (EUR 176 million) that no funding for it will be available in the foreseeable future. The purpose of the experiment was to find a user-centred, more cost-effective and less expensive development solution for this section that would adequately improve the smooth running and safety of traffic.

In cooperation between the Finnish Transport Agency, ELY Centres, municipalities, the Regional Council of Kymenlaakso and consultants, a new conceptual plan was drawn up for this road, in which the project was divided into smaller parts that were each examined separately. Problems and improvement needs experienced by the users were studied by means of interview surveys. The solutions to problems affecting this section were also examined from the perspectives of regional structure and the transport system, while the possibilities for improving rail traffic and other public transport were also assessed.

Of the four alternatives examined, optimal results would be achieved with a solution that would cost EUR 96 million with a cost-benefit ratio of 2.9. This cost-benefit ratio for the planning solution following the general plan is 2.2. The new solution will achieve 75 per cent of the impacts envisaged by the original

solution. It will offer smoothly running goods transport serving the needs of businesses, and the flow of car traffic will be adequate considering the targeted quality standard of a main road. It was estimated that the environmental impacts of road maintenance and traffic can be almost totally eliminated. In terms of safety and flow of traffic, it is estimated that the quality standard of the improved road will be adequate for at least the next 20–30 years.

By means of joint conceptual planning, it was possible to nearly cut the cost estimate of the project by half, to eliminate all essential problems and to improve cost-efficiency. It is far more likely that a project costing only half the original amount will be implemented, and consequently its benefits to society and business will be realised considerably earlier than those envisaged in the original plan.

The results obtained in this experiment indicate that in other projects for main road connections, too, it will in the future be vital to allocate resources for conceptual planning, open brain-storming to find solutions and interaction with users and business. User-centred, interactive planning and linkages with land use planning will help to identify key improvement needs and pinpoint the best and most efficient solutions for developing road sections and the entire transport system, drawing on a versatile selection of tools. At the national level, it will be possible to make a greater number of improvement investments, and the impact of the measures can be enhanced.

Funding for public transport

In addition to having an effect on basic transport infrastructure management, the rising cost levels also undermine the effectiveness of public transport funding. Over the last three years, the costs of bus traffic have gone up by some 15 per cent, while government appropriations for regional public transport, for example, have shown an increase of only 0.7 per cent in this period. This has led to cutbacks in purchased services. From December 2010 until December 2011, the cost index increase for bus transport was 4.6 per cent. The most rapid increase in costs was recorded in salaries, capital depreciations, insurance, fuel and lubricants, and overheads. Considering the index trend and the fact that funding remained unchanged in the 2000s, the funding deficit of state-supported bus traffic is some EUR 20 million annually.

State funding for public transport will be reformed to correspond to the service level specifications and new transport packages replacing the earlier mechanism of funding partly based on modes of transport. The future goal will be to increase statutory government contributions to public transport in those urban regions where the aim is to guarantee a competitive service level and where the municipalities of the region will also increase their funding allocated to public transport. Funding for improving public transport service levels will be sought through structural reforms, by making the state's public transport procurements more efficient, and also by implementing a complete overhaul of the taxation and charging policy.

GOVERNMENT POLICIES AND KEY ACTIONS:

7

The structure of transport services funded and supported from state funds will be redesigned, and separate funding for modes of transport will be discontinued.

8

Funding will be allocated to improving the competitiveness and increasing the use of public transport in urban regions. In other regions, the basic service level of public transport will be secured.

Funding models and spending limits

The policies presented in this report have been reconciled with the Budget spending limits for 2013–2016 adopted in March 2012.

Transport infrastructure development must be a long-term activity subject to prior planning. The aim of government formation talks should thus be to agree on a funding level that will ensure the day-to-day functioning of the transport system and the most significant national projects to be launched during the government term. Decisions on transport projects should be based on their socio-economic viability

and transport policy impact. This is the basis on which the priority of projects will be established, and the possibilities of implementing them will be assessed as a whole within the framework of the spending limits. The project implementation and funding models will then be assessed for each project on the basis of clear criteria of cost-effectiveness and efficiency. When making decisions, it must be ensured that the use of debt-based models does not undermine the stability of public finances and result in unreasonable commitments.

The Government Programme includes a commitment to study various budgeting and funding models for transport investments. To meet this commitment, the Ministry of Finance appointed a working group to examine the requirements for using new funding and budgeting models in transport investments. This work was also to include investigating the opportunities of obtaining public finance savings and other benefits in transport infrastructure projects through a state enterprise concept with the working title Infra Oy. In this context, Infra Oy refers to an expert organisation operating as a limited company fully owned by the state that would specialise in coordinating the funding for partnership projects between the state, companies and municipalities.

The working group concluded that more flexibility is needed in traditional budget funding. In order to improve the flexibility of funding, without risking the prerequisites for controlling public expenditure and stability, an agreement was made, in cooperation with the Ministry of Finance, on developing the transport system budget procedure. Measures agreed include the following:

- The budget authority procedure will be discontinued as regards item 31.10.77 "Transport network development", and a 5-year deferrable appropriation procedure will be introduced.
- Separate funding will be allocated to the planning of development projects for infrastructure management under a development project item, to which the requisite appropriations will be transferred from basic transport infrastructure management.
- TEN aids and third-party co-funding will in the future be processed as structural adjustments to spending limits. The transport aids will be allocated to development projects.
- Legislation on the practical operation of the system will be brought up to date and clarified regarding responsibilities for and funding of transport networks.

If it has been established that the most advantageous way for the state to implement a transport infrastructure project is a PPP project, Infra Oy or a similar operating model could, depending on the situation, be one option for reducing the funding costs of such projects. Infra Oy could also facilitate the obtaining and coordination of funding in projects co-funded by several parties. The Infra Oy model does, however, still involve significant uncertainty factors and problems. It is thus not considered justified at this stage to establish a permanent

Infra Oy institution, but using Infra Oy on a trial basis in individual cases is regarded as a possibility.

The use of Infra Oy should be based on careful case-by-case preparation and comparison with other funding and implementation alternatives. In the preparation particular attention should be given to ensuring that private sector efficiency incentives are adequate and that the state's share of the risks is not excessive. The potential use of Infra Oy is restricted to PPP projects only. Such projects should be handled by applying the same spending limits and restrictions on indebtedness as those applied to other state transport projects.

As certain car-carrying ferries reach the end of their service life, replacing the ferry connection by a bridge should be considered. There are a total of nine short ferry connections in the country, where a bridge could be less expensive than a ferry. In addition, one longer ferry connection has been examined. These sites might be suitable for implementation on the overall responsibility principle with a long contract term and a subsequent funding model. If the premise is that the service charge for subsequent funding is set at a level equalling the current operating costs, it is estimated that this would require a contract term extending to some 30 years.

- 9** **GOVERNMENT POLICIES AND KEY ACTIONS:**
- Funding models that increase efficiency combined with advanced budgeting procedures will be used to fund investments. Subsequent funding will only be used if accelerating project implementation will produce significant benefits to transport or society.**
- 10** **In the future, a preliminary agreement on the scale and key projects of the transport network development programme should be reached in connection with the government formation talks.**
- 11** **Long-term funding models will be investigated in order to identify opportunities for cost savings in transport infrastructure management; for example, the opportunities of viably replacing car-carrying ferries by bridges will be analysed.**
- 12** **Transport pricing will be developed to guide the use of the transport system and make it more efficient, to improve safety and reduce environmental impacts, as well as to fund the maintenance and development of the transport system. A long-term pricing strategy will be specified together with its links with such issues as transport system funding and taxation of motoring. For this purpose, a working group was set up, designated "Towards fair and intelligent transport", which will complete its work by the end of 2013.**
- 13** **In the next few years, development solutions for road connections will be reviewed to find more cost-effective and user-oriented solutions and to define the dimensions of the measures.**



5. Transport system as an enabler of sustainable growth

A key objective of transport policy is to ensure the functioning and development of domestic and international traffic connections supporting Finland's competitiveness and sustainable economic growth. Transport policy solutions can also play an active role in offering companies new business opportunities, thus providing additional benefits for the regions in order to support sustainable growth, employment and competitiveness.

Logistics competitiveness and development needs of Finnish foreign trade

Foreign trade statistics for 2011 contain some harsh facts, with a trade balance that showed a deficit for the first time in 20 years. Reviving Finnish export industries will be a key concern for the current Government in the near future. The bottlenecks affecting the export industry must be resolved without delay, and this also applies to transport. In summer 2010, the World Economic Forum published an extensive comparison of the performance of foreign trade in various countries⁷, looking at factors related to foreign trade transport, border crossings

and Customs activities. In 2010, Finland ranked 12th out of a total of 125 countries. In an international analysis of logistics performance⁸ Finland also ranked 12th in 2010.

When we look at the overall competitiveness of Finnish companies, about one third of competitiveness in trade and about one fifth in industry is generated by competence in logistics. For major companies, the share is even higher. Companies can directly influence approximately one third of their logistics competitiveness. The effective functioning and openness of the basic structures of society combined with the lack of corruption are factors that promote competitiveness in Finland. Our standard of education, training and competence is also high. The coverage and capacity of the current transport network is for the most part adequate from the logistics perspective. Finland has a well-functioning logistics services market and the services offered are of high quality by international standards.

In terms of competitiveness, the high level of taxes and charges levied on transport and their continuous rises constitute a problem. Labour cost levels in the logistics sector in Finland are also high compared to many countries that are our competitors. The degradation of the transport network

7) Enabling Trade Index, ETI

8) Logistics Performance Index, LPI

and problems of year-round operability are a concern for the sector. A large proportion of regulation in the sector derive from international forums, and one of the challenges is to take Finland's special characteristics into account and to ensure that the policies are not drawn up exclusively with the circumstances of congested, densely populated countries in mind. Another burden is Finland's dependence on shipping, which is due to the country's location, which is in some respects insular. Moreover, the long distances combined with relatively sparse goods flows set challenges to the cost-effectiveness of transport.

Political, economic, environmental, social and technological changes will take place in the operating environment for logistics, and these, taken together and separately, may considerably affect Finland's position. Changes in the world economy will increasingly affect the economic development of countries such as Finland that depend on foreign trade. For example, it has been predicted that China will already be the largest economy in the world in the early 2020s, and the focal point of world trade is increasingly shifting towards Eastern and Southern Asia. The demand for logistics services depends on such factors as industrial production in Finland, the structure and location of the industries, and the level of domestic consumption. Economic development in neighbouring areas, and especially Russia, will also be a significant factor steering economic activity in Finland.

Taxes and charges levied on transport in Finland are usually fiscal by nature, with no connection to the costs incurred by transport. The level of these charges is high and continues to increase. The rising cost levels will have direct impacts on Finland's competitiveness. The pricing principles applied to transport should be revised on the basis of a comprehensive analysis that includes all modes of transport. There are significant differences in the relation between the taxes or charges currently levied on various modes of transport and the costs of the infrastructure that needs to be maintained.

Depending on the transport mode, only 10–30 per cent of regulation in the transport sector is national. International lobbying for Finland should be strengthened in order to ensure that regulations drafted by international organisations and the EU will not undermine the competitive position of Finnish logistics compared to that of other countries. One of the vital conditions for proactive lobbying – i.e. influencing the drafting of issues at as early a stage as possible – is to maintain an effective dialogue between the authorities and businesses.

A basic requirement for the reliability of the logistics chain is that the road and rail network as well as fairways and ports are operable year-round. Winter maintenance of transport infrastructure (including icebreaking) must be ensured as indicated by transport needs. One of the key objectives over the long term should be reducing the repair backlog of the road, rail and waterway networks. From the perspective of logistics performance, the focus should in the future be on maintaining the infrastructure rather than developing the transport network. In particular the condition of main arteries with large volumes of traffic needs to be ensured, but it will also be necessary to maintain the lower-volume transport infrastructure with the

greatest importance for trade and industry. The development and maintenance of the transport network needs to be driven by customer needs. The transport network development needs must, however, be examined critically. As a consequence of changes in the production structure, some transport routes may lose their importance over time. In the case of network sections of this type, we must be able to make decisions on network cutbacks. For example, this applies to railway lines with low volumes of traffic.

As regards weights and dimensions in road transport, Finland should also maintain sufficient room for manoeuvring nationally in the future. If we succeed in this, we should then strive by means of national regulation to further develop the efficiency of our road transport fleet's transport capacity. This applies particularly to raw material transport in the forestry sector, for example in Northern Finland. The Finnish weights and dimensions of lorries, which exceed the maximum values generally allowed in Europe, reduce the costs of domestic transport. In this respect, we are on the same starting line as Sweden, although Sweden has already carried out pilot experiments on using vehicle combinations that are clearly larger than today in timber transport.

14 GOVERNMENT POLICIES AND KEY ACTIONS:

Steps will be taken to ensure appropriate operating conditions for Finnish export industries and to maintain the competitiveness of the logistics sector. An assessment of business logistics competitiveness will be conducted in each government term. In connection with transport policy decisions, a comprehensive assessment will be made of the impacts on companies, the functioning of logistics and competitiveness. The availability of skilled labour, including professional drivers, will be ensured.

Transport system service level

Ensuring the daily operability and reliability of the transport system is of key importance, not least for trade and industry. At the current funding levels, it will not be possible to maintain the condition of the entire transport network at a high level, and we must therefore ensure the performance and good condition of our key transport network in particular. The punctuality and reliability of rail traffic is a priority area of the Government Programme. Over the long term, our society will pay dearly if the condition of critical structures is allowed to deteriorate. Infrastructures in a poor condition would also be a safety risk.

Transport logistics is a key part of our society's basic services and critical infrastructure; the predictability and seamless functioning of these logistics services with as little disruption as possible are important for customers, for Finland's competitiveness and for safeguarding the vital functions of

society. Preparedness in transport logistics should therefore be based on the requirement to ensure the continuity of these activities in all situations, from disruptions under normal circumstances to emergency conditions, as part of normal resource planning and decision-making. Recent disruptions in transport, including the impacts of an exceptionally severe winter on rail traffic and shipping, and reoccurring extreme weather events that significantly restrict the operating conditions, have helped to demonstrate how dependent our economy is on transport and what significant implications transport disruptions have on society as a whole. On the other hand, these events have shown how poorly we are prepared for coping with disruptions and ensuring the continuity of activities. The safety, punctuality, prevention of damage and reliability of both passenger and goods transport require procedures for managing the continuity of transport logistics services in an operating environment that is increasingly susceptible to disruptions. As the authorities are ultimately responsible for the availability of the transport logistics services required by society also during disruptions, and even in the case of outsourced activities, close, proactive cooperation between the authorities and business (companies) is needed.

A situation picture of the transport system lays down the foundation for the entire intelligent transport system. The situation picture shows both the current and predicted status of the transport system, including traffic volumes, disruptions, exceptions and punctuality, and operational conditions such as road conditions and flow of traffic, while providing other authorities with basic data for producing the situational awareness needed. The road, rail and sea traffic control systems need to be updated. Preparing a situation picture also involves developing data collection and analysis systems, giving service developers access to public data material and developing multi-channel information and control systems serving travellers and transport, in order to improve reliability, disruption management and traffic safety. In the aviation sector, Finland is at EU level committed to establishing a *North European Functional Airspace Block (NEFAB)*.

Intelligent transport systems provide opportunities for exploiting vital data on conditions in a new way. We must produce temporally and geographically more accurate data on conditions, and we must make optimum use of this data in the entire transport system, for example in traffic control systems, ensuring that the data is available wherever it can produce added value. Among other things, this means bringing the data to individual drivers if necessary, or predicting rail traffic disruptions on the basis of condition data. It is also vital to build the channels for producing and distributing this data in a way ensuring their operation in all circumstances, for example in a crisis.

The viability of shipping is of prime importance for Finland's competitiveness. Through its policies and investments, the state must steer the actors involved towards efficient and customer-centred port arrangements. We need to work together with the stakeholders to create a national port policy in Finland in order to improve logistics performance and to develop the division of labour between ports. Port policy initiatives aiming to improve

the efficiency of port operations are also to be expected at EU level. The operating conditions for winter navigation must be ensured on a comprehensive scale, and more specific policies have to be established on issues such as winter navigation, capability of vessels for winter navigation, maritime safety and fairway dues. A customer-producer model was introduced for icebreaking in 2004, but the benefits this change was intended to produce have not materialised directly. The ability of merchant vessels to navigate in ice has declined, and in the current service model the production costs of icebreaking are rapidly increasing, while the desired service level may still be unattainable.

GOVERNMENT POLICIES AND KEY ACTIONS:

15 Primarily, the appropriate condition of the key transport network and the daily operability and maintenance level of the network as a whole will be ensured. The punctuality and reliability of rail traffic will increasingly be stressed, for example, by replacing obsolete control systems and by more efficient maintenance. Preserving the condition of critical and expensive structures, including bridges and tunnels, is a key element of life cycle efficiency. The condition of the lower-volume transport network will depend on funding.

16 The reliability of logistics operations of the transport system and transport services will be developed in cooperation between the authorities and businesses, ensuring that in the case of serious disruptions and emergencies, we can rely on the continuity of activities and maintenance of a sufficient service level.

17 A situation picture of transport based on up-to-date data and accessible to all service providers will be created. By updating the key control systems for rail, sea and road transport, we can lay a foundation for producing a high-quality situation picture of traffic and traffic predictions, making efficient use of foresight data on conditions. Timetable and traveller information on public transport will also be linked to the real-time situation picture.

18 A comprehensive national shipping strategy will be drawn up to cover the maritime issues of all branches of administration. In the transport sector, this strategy will contain policies on such questions as adjustment to more stringent environmental regulations, aid policy, reform of fairway dues, purchases of icebreaker fleet and port and shipyard issues.



Figure 2.
Transport network development projects to be initiated during government term 2012–2015

Transport networks

Transport networks will be developed through a transport investment programme (Appendices 1 and 2). The investment programme is based on the following statement in the Government Programme: "Important projects include plans serving large volumes of traffic that also support economic growth, have the best cost-benefit ratios, promote traffic safety, reduce emissions, and are of regional importance."

Other perspectives include regional equality, business competitiveness, role as a network (trunk networks and nodes) as well as high traffic volumes and growth centres. Based on their impact, individual projects are categorised in the following five project packages:

During the government term 2012–2015, transport network development projects amounting to approx. EUR 1 billion will be initiated. These projects are listed below and in Figure 2. For project descriptions, see Appendix 1.

Transport network development projects to be initiated during government term 2012–2015:

1	E18 Hamina–Vaalimaa (PPP project, budget authority €560 million)	€240 M
2	E18 waiting area for lorries at Vaalimaa	€25 M
3	Main road 3 Tampere–Vaasa (at Laihia)	€20 M
4	Main road 5 at Mikkeli	€20 M
5	Main road 6 Taavetti–Lappeenranta	€90 M
6	Main road 8 Turku–Pori	€100 M**
7	Repairs of areas with ground frost damage and soft soils on main railway lines	€85 M
8	Riihimäki triangle line	€10 M
9	Improvement of the rail connection Ylivieska–Iisalmi–Kontiomäki (electrification)	€90 M
10	Raumafairway	€20 M
11	Motorway 101, improvement of Ring Road I (state contribution*)	€35 M
12	Capacity improvement on Helsinki–Riihimäki railway section	€150 M
13	E 18, development of Ring Road III (state's contribution*)	€110 M
14	Raw timber terminals	€40 M
15	Main road 22 Oulu–Kajaani	€45 M
16	Main road 4 at Rovaniemi	€25 M*
17	MAL project packages (state contribution €30 M, municipalities €30 M)	€30 M**
18	Renewal of road, sea and rail traffic control systems	€90 M
19	Improvement of the efficiency of Helsinki railway yard	€100 M
20	Development of connections to mines; projects of high industrial policy significance, to be decided separately	
21	Luumäki–Imatra double track and improvement of the connection from Imatra to the Russian border (cost estimate €380 M), planning €10 M	

* Cost sharing between the state and municipalities will be subject to a more detailed study.
** If a PPP project, the budget authority will be €250 M.
*** Funding from basic transport infrastructure management.

In addition to the projects to be initiated during the government term, the government is committed to implementing the following three priority projects under the 10-year investment programme:

- City Rail Loop
- Capacity improvement on Helsinki–Riihimäki railway section, phase 2
- Luumäki–Imatra double track and improvement of the connection from Imatra to the Russian border.

For other targets of the 10-year programme, see Appendix 2.

Improving main corridors

- The functioning and safety of travel and transport on main corridors will be improved. Accessibility between the regions and the competitiveness of business are key objectives.
- The capacity and punctuality of traffic on the rail network will be enhanced while improving the stability and safety standards of railway embankments. Measures targeted at fairways for merchant shipping will improve the functioning and efficiency of shipping in terms of transport economy.
- Road network measures will improve road safety and ensure a more uniform service level in long-distance traffic. Projects affecting the Turku–Vaalimaa section on E18 to be initiated during the programming period will improve the consistency of the service level on the most international road in Finland, and the *Nordic Triangle* prioritised by the EU will be implemented.

Transport system in the Helsinki Metropolitan Area

- The conditions for rail traffic and park-and-ride facilities will be improved in the Helsinki Metropolitan Area. The performance and safety of commuter traffic, public transport and distribution traffic will be improved on the Ring Roads by means of transport infrastructure and traffic management.

Improvements of other main roads and the railway network

- By addressing individual problem areas in the road network, the service level will be maintained and traffic safety improved. The transport system for raw timber will be developed to be more efficient and economical.

Projects in urban regions

- The goals are to promote smoothly functioning travel chains, to improve the prerequisites for public transport, to support efficient use of the existing network, to promote walking and cycling and to reduce adverse effects on the environment. Transport solutions will support new housing areas and areas where jobs are located if they rely on public transport.

Traffic control investments

- Day-to-day operability will be safeguarded and conditions will be created to ensure efficient use of transport networks and punctuality of traffic. Keeping the actors well informed will improve the performance of travel and transport chains. Reducing the risk of environmental catastrophes is a key objective in maritime and inland waterway traffic.

Minor investment programmes provide the opportunity to invest flexibly in meeting the change needs of communities and business at a number of sites, achieving an impact that extends to a larger area and meets current needs. There are several hundred sites and development needs around Finland (amounting to EUR 1.3 billion). Minor investment programmes have been drafted on the basis of regional needs, targeting the following themes:

- traffic safety
- goods transport nodes
- improving the operating conditions for business
- supporting the operating conditions for mining
- promoting walking and cycling in urban areas
- improving the functioning and punctuality of public transport
- nodes in travel chains
- improving the living environment (ground water, noise, vibration).

Roads and railways can be seen as corridors alongside which infrastructures significant for the functioning of society can be put in place. The Highways Act, the Railways Act and the Communications Market Act provide for the installation of electric and telecommunications cables along roads. By permission of the party responsible for road management, electrical leads and cables, telecommunications cables, natural gas pipes, district heat pipes, water supply and sewage pipes, biogas pipe systems and pipe systems for wind turbines can be placed in the road area. In the context of major amendments to the Highways Act and the Railways Act to be drafted in 2012, the Ministry of Transport and Communications is preparing a legislative amendment that will facilitate the locating of cables on roads, while also establishing how the needs to locate cables on roads could already be taken into account when purchasing land for the road. In that case, a wider area could be purchased from the landowner than is needed for the road alone.

The low-volume road network is of vital importance for the operations of the forestry and energy sectors as well as for agriculture. The current threat is that the operability of roads with low traffic volumes will deteriorate. Studies targeting the areas of the ELY Centres of North Savo and Central Finland conducted in connection with the preparation of this report, examined key factors affecting the transport service level in rural areas. The studies also assessed how this service level could be secured as cost-effectively as possible. It was found that even today, the maintenance of the rural road network quite successfully takes into account the various needs of different user groups in the allocation and timing of actions. Cooperation with the forestry sector, for example, is continuous, and important routes for timber transport and annual fluctuations in transport volumes are taken into account in the timing and targeting of the actions. The peak traffic seasons for tourism enterprises are also taken into consideration, as are the various needs of farming. The efficiency of measures aiming to guarantee day-to-day operability of the transport system can be improved further, however, by using such possibilities as geographic information systems and by providing online information for users, for example on the routes and timing of snow ploughing. From the

perspective of fair administration and a systematic approach to the low-volume network, the subsidy system must be examined and the administration of road networks streamlined.

The average age of the low-traffic railway network is high, and as basic repairs become essential, its maintenance will be expensive considering the traffic volume depending on it. Actions safeguarding operability do not always bring additional traffic to the railways. The need to close down railway lines with low traffic volumes due to restricted funding resources for railway maintenance and the low demand for transport has been an issue for decades. Attitudes to such plans in the regions and areas concerned have been strictly negative, appealing to possible future transport needs and to opportunities to maintain the competitive situation between transport modes. On railways with very low traffic volumes, we should limit ourselves to maintenance that enables operability (annual costs approx. EUR 8 million) and forget about repair investments amounting to tens of millions.

In goods transport on inland waterways, development potential has primarily been identified on the Saimaa Canal and the waterways of Vuoksi. New canal construction projects that come up from time to time are mainly associated with tourism or leisure boating, and their implementation will be at the discretion of municipalities and regions. We should, however, review the possibility of utilising inland waterways for goods and passenger transport more extensively than today in the mid-2010s, taking into account especially production trends in bioenergy and the impacts of tourism on demand.

GOVERNMENT POLICIES AND KEY ACTIONS:

- 19** The transport investment programme for this government term will improve the functioning of corridors that play a key role in transport. In 2013–2015, an effort will be made to allocate additional funding to minor investment programmes.
- 20** The government is committed to the electrification of the Finnish railway network in order to reduce carbon dioxide emissions. Electrification of the section between Ylivieska and Iisalmi is the highest priority, followed by the Hanko-Hyvinkää section.
- 21** Various subsidy systems and principles relevant to private roads will be clarified and simplified, and the legislation will be updated.
- 22** Railways for goods transport with extremely low volumes of traffic will not be renovated, while the preconditions for operability will be maintained on a case by case basis.
- 23** The assessment of the development needs and perspectives of inland waterway transport will be updated by the end of the government term.

Transport connections for the mining industry

In recent years, the Finnish mining industry has been developing in a new direction. New deposits are being evaluated, and refining processes have been developed. This is a transport intensive industry, and well-functioning connections are needed for transporting not only the products of mining but also the process materials used. A high degree of domestic processing will benefit Finnish business life while reducing the environmental impacts of international transport.

In October 2011, the Ministry of Transport and Communications commissioned the Finnish Transport Agency examine what companies and authorities considered to be the transport needs and viable transport routes for mining operations in Northern Finland. The objective of the study is to form a shared national view of the transport routes needed by mining operations and their impacts on the transport system over the short and longer term. The task is to establish the transport needs of mining operations in Finland and its neighbouring countries over a short (<20 years) and longer time span (20–50 years). At the same time, the principles and funding models by which the state and mining companies could participate in the construction and maintenance of the transport routes required by mining operations will be considered. The state has earlier committed to paying for certain road connections to the boundary of the mining area and to participating in the costs of building a railway, and the state has also played a part in developing fairways. A report drawn up in cooperation with the mining industry, various actors in the region and the neighbouring countries will be completed by the end of 2012.

A Programme for Eastern and Northern Finland drawn up under the leadership of the Ministry of Employment and the Economy will also be completed in 2012. In Sweden, Norway and Russia, the future outlook and development opportunities of the northern regions have been examined in separate projects with the aim of forming a vision for these regions. Once the Programme for Eastern and Northern Finland and the studies examining the transport needs of the mining industry have been completed in 2012, it may be necessary to put together views concerning the development of northern areas of Finland and prepare a vision for Northern Finland as a cooperative project between various Ministries.

- 24** The development needs and perspectives of the mining industry and the associated infrastructures will be examined on the basis of a working group report in early 2013.
- 25** Various reports and views on regional development in Northern Finland will be collected in order to formulate a vision for Northern Finland prepared in cooperation between various Ministries.

Combating the shadow economy

Combating the shadow economy is a top priority government project. In the transport sector, the shadow economy is seen in the use of illegal labour, and in illegal activities of foreign transport companies in the Finnish market. Other common forms include sales of illegal transport services provided using vehicles registered for private traffic, profiting from bankruptcy and the use of “disposable” companies set up for dishonest purposes. Company surveys⁹ conducted in 2009 indicate that the shadow economy accounted for an estimated ten per cent of the total sales of goods transport by road. One out of two transport companies estimated that the shadow economy had grown in the 2000s. Relatively speaking, the biggest problems relate to removal services, Eastern European traffic and construction industry transport. According to GNP calculations, the shadow economy accounted for four per cent of the profits of goods transport by road in 2009, or approx. EUR 230 million. The estimated undeclared salaries and business income amounted to approx. EUR 70 million.

The insufficient roadside supervision and company inspections facilitate the committing of these crimes. As regards foreign vehicles, there is too little international exchange of information between supervisory authorities, considering the extent of the problem. The measures indicated in the government resolution on combating the shadow economy can also be implemented, as appropriate, in road transport. In order to enable more efficient action by the authorities granting operating licences and supervising the sector, the resources and opportunities for exchanging information must be increased. The rapid growth in cross-border traffic on the external borders adds its own challenges to the task of maintaining even the current levels of supervision of the shadow economy or road traffic. We must take steps to prepare for this in advance. The possibilities of the Finnish Transport Safety Agency to increase road traffic surveillance should be examined.

GOVERNMENT POLICIES AND KEY ACTIONS:

- 26** The Ministry of Transport and Communications will continue its measures and studies to combat the shadow economy in its own sector, in line with the decision on spending limits.

⁹) Situation picture IV/2011 of a working group on the grey economy: <http://www.vero.fi/download/noname/%7BD37002D2-152F-4D2B-8EF0-348C4EBC7258%7D/6901>



6. Well-being based on the smooth functioning of everyday life

Efficiency of travel in urban areas

Travellers and operators transporting goods face the most significant daily traffic problems in large urban regions. In terms of the performance and sustainability of the entire transport system, increasing the proportion of travel undertaken on foot, by cycling or using public transport will play a key role. The objective is that the traffic conditions in urban regions will be improved by utilising technology, the versatile competencies

of the actors involved, efficient cooperation and mobility management. Park-and-ride facilities are a link between the different modes of transport, but clearer practices are needed for their organisation.

Experiment: PARK-AND-RIDE

Would it be possible to find an operating model for accelerating the construction of park-and-ride facilities in large urban regions, thus reducing the number of cars entering urban centres?

Currently, no specific party is responsible for organising park-and-ride facilities, and the building of new facilities is progressing slowly. The experiment seeks models for the sharing of responsibility and for the implementation and funding of park-and-ride facilities and bicycle parks at the terminals and nodes of rail traffic and other public transport, in cooperation between the Finnish Transport Agency, municipalities, Helsinki Region Transport, ELY Centres, users, transport operators, landowners and businesses. The objective is to create a contract model in which responsibility for implementing the project is specified and which is co-funded by the beneficiaries (state, municipalities, other landowners, transport operator, entrepreneurs). In this model, the increase in land value due to station area development will be channelled to the agreed extent into investments in developing park-and-ride facilities.

As a pilot site, the station of Kauniainen in the Helsinki Metropolitan Area was examined. However, Kauniainen City Council decided against zoning an area for a grocery store in connection with the plans for the park-and-ride facility. The area zoned for business premises was small to begin with, and the majority of the costs from the park-and-ride facility would thus have been incurred by the public sector, mainly the city. In terms of the city's funding interests, an excessive proportion of the users would have been residents of other municipalities. In negotiations conducted between the landowners, it was agreed that the city will plan and

implement a park-and-ride facility in the area at its own cost as a temporary solution. In connection with the planning of the Espoo-Leppävaara city railway line, the area will be developed further as an attractive park-and-ride solution and part of the park-and-ride system of the Helsinki Metropolitan Area.

Attractive park-and-ride facilities combined with commercial services will benefit residents, businesses and municipalities. The benefits for trade will also be considerable, as station areas are good trading locations. New services could be developed in connection with the park-and-ride facilities that would make people's everyday lives easier and draw them to use public transport, thus reducing private motoring in urban centres.

A requirement for organising park-and-ride facilities partly with private funding is that the municipality will plan major new building rights in the station area. It would also be in the state's interest to co-fund park-and-ride facilities, as they reduce the investments needed for access routes, the costs of congestion and greenhouse gas emissions. The Finnish Transport Agency is creating an operating method where needs for park-and-ride facilities are assessed and the implementation of the required park-and-ride solutions are included in all significant transport infrastructure investment projects. This method was already followed in the Ring Rail Line project. A park-and-ride strategy for the area covered by Helsinki Region Transport will be prepared under the leadership of HRT, which will address the operating model, the parties involved and funding. In order to achieve a significant increase in park-and-ride facilities, they should be specified as part of the public transport infrastructure, and a host organisation should be appointed for them.

The expansion of urban regions and fragmentation of the urban structure has resulted in longer journeys to work and services and increased the use of private cars. Contributing factors have included in particular scattered development outside planned areas and areas where planning is to a great extent based on the needs of private motoring. In a dispersed urban structure, organising public transport is difficult. Distances to services are also often too far to walk or cycle.

The urban structure has great economic significance, as construction and maintenance costs in a scattered structure are considerable (routes, municipal utility systems). In addition, solutions made when building urban structures are to a great extent permanent and have a long life span.

Urbanisation, however, also opens up opportunities: a dense urban structure creates the prerequisites for high-quality, cost-effective public transport, and many distances are short enough for walking or cycling. Walking and cycling are low-cost modes of transport that promote health and well-being. As cities grow, it is also possible to develop a high standard of public transport between them.

GOVERNMENT POLICIES AND KEY ACTIONS:

27 Accessibility and promotion of public transport, walking and cycling in an appropriate manner will be taken into account in transport policy, the procurement of transport services and the development of transport conditions.

28 Efficiency of travel and transport in the largest and growing urban regions will be a special priority. Key instruments will be more efficient use of the existing infrastructure capacity and finding solutions for organising park-and-ride facilities.

Public transport

The entire transport system has an impact on the smooth functioning of citizens' everyday lives, but significant development needs are emerging in public transport, especially in urban areas. However, it has not been possible to secure funding for resolving these issues. The development targets and top priority measures for public transport are contained in the following four perspectives.

The challenges of organising a public transport service package include the fragmented nature of the public transport sector and the lack of a shared vision and customer perspective. Progress cannot be based solely on official measures or ownership steering, as all actors must be involved. The benefits of an interoperable public transport system are undeniable, and only this will promote the customers' interests, by improving the competitiveness of public transport and creating the conditions for increasing use of sustainable modes of transport.

In procurements relating to the basic service level of long-distance services, it is vital that public resources are not used to fund several alternatives and modes of transport, as the service should as a rule be offered using only one mode of transport that is appropriate for the connection in question, serves the area optimally and ensures accessibility.

In opening up passenger rail services to competition, Finland's goal is to move forward following the policies laid down by EU legislation, while, however, taking into account the fact that genuine competition also requires operative conditions. Following the policies of the Government Programme, a study on the macroeconomic impacts of opening passenger rail traffic to competition is under way. This means that the impacts will be assessed from the perspective of overall cost-effectiveness in terms of society and transport economy, also covering rail safety, availability of services, the position of staff and sustainable development.

The objectives of EU legislation include not only opening up competition but also securing equal access of different actors to maintenance and support services, thus facilitating a fair supply of services in terms of competition and market access. In Finland, this will mean major changes in organisational structures and ownership. Issues relating to the opening up of competition also include fair and equal organisation of traffic control and energy supply, availability of trained personnel and rolling stock as well as the adequacy of railway infrastructure capacity.

In sparsely populated rural areas, various public transport solutions should be explored, seeking cost-effective and user-centred alternatives that tap the possibilities offered by technology, for example demand-responsive public transport. By combining the school transport services provided by the educational and cultural services, social and health care services transport, transport reimbursed by the Social Insurance Institution and open public transport supported by transport administration to form a package planned and managed as a whole, we can both improve the service level and achieve cost-effectiveness.

GOVERNMENT POLICIES AND KEY ACTIONS:

29 In cooperation between various parties, public transport will be developed to provide a service package that is consistent and easy to use for all user groups and that also includes a user-friendly, interoperable payment and information system. Public funding will be granted on the condition that the actors commit themselves to developing and introducing an interoperable payment system.

30 The full implementation of the Act on public transport (joukkoliikennelaki, 869/2009) within the original schedule will be ensured. The effectiveness and impacts of the public transport act will be monitored and assessed, also from the perspective of market access. The creation of new services will be facilitated.

31 The aim will be made to ensure the realisation of a basic service level for long-distance travel nationally. On sections where the basic service level cannot be met in a market-driven manner, public funds will be used to purchase transport services in order to meet the required service level, as a rule relying on a single mode of transport.

32 Passenger transport funded from public resources, including travel to basic education schools, social and health care services transport, transport reimbursed by the Social Insurance Institution and public transport procured by transport administration will be combined, organising these into more flexible and economical service packages, at the same time ensuring transport services for sparsely populated areas.

33 The opening of passenger rail traffic to competition will be promoted, provided that doing so will be sustainable socio-economically and in terms of transport policy. Opening the railways to competition in a wider sense will be assessed once the relevant rapporteur's work is complete. In this case it will be necessary to ensure macroeconomic efficiency, railway safety, the availability of services and fair and equal treatment of staff. Until then, Finland's position at EU level will be to refrain from new solutions that further the opening up of competition.

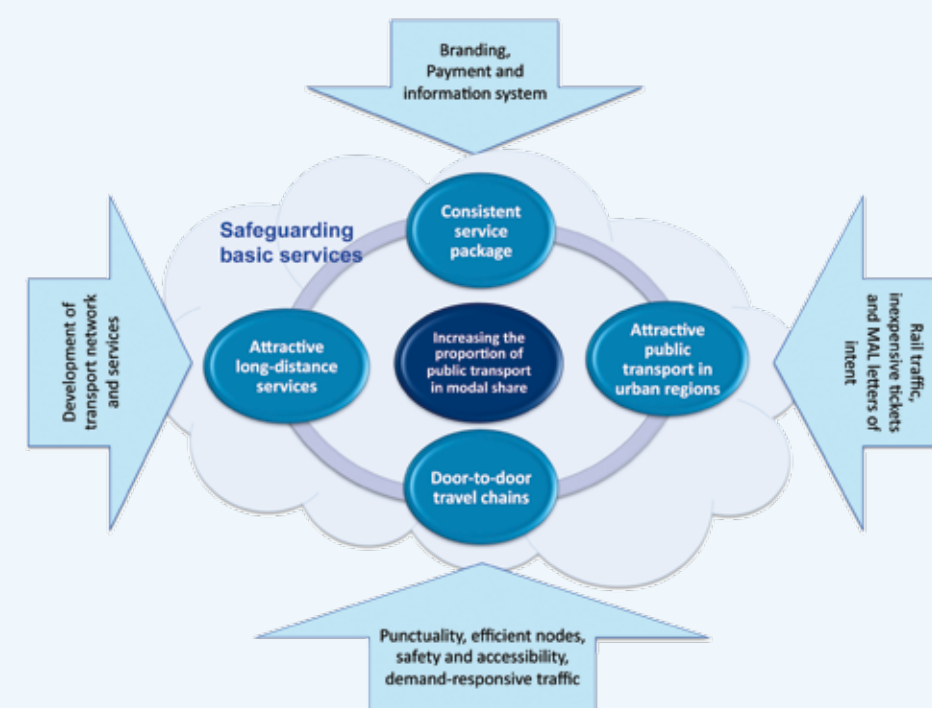


Figure 3. Development targets and key measures for public transport

Experiment:

NEW CONCEPTS OF PASSENGER SERVICES FUNDED FROM PUBLIC RESOURCES

Could the organisation of passenger services funded by society be better coordinated and more cost-effective, while the service level improves?

This experiment was carried out in Kouvola area and it explored ways of making passenger services purchased with public funds more effective. Without intervention, the costs will spiral upwards uncontrollably in the future, the reasons for this include the ageing of the population, the centralisation of municipal services, the general increase in transport costs and shortcomings in transport coordination and procurement. The steering group for the project included representatives from the Ministry of Transport and Communications, Kouvola City, ELY Centres, the Finnish Transport Agency, the Association of Finnish Local and Regional Authorities and consultants.

In connection with a municipal merger in 2009, Kouvola started developing its passenger transport system with the aim of increasing the share of public transport, improving services for the elderly and persons with restricted mobility and increasing the cost-effectiveness of the system. The

system had already been improved by increasing the share of open public transport, creating demand-responsive public transport services and centralising the management and funding of passenger transport to a single body from the beginning of 2012.

The experiment found that the current legislation and its interpretations obstruct the development of productivity. Transport of special groups and transport reimbursed by the Social Insurance Institution are organised as individual journeys by taxi. The measures taken by the local authorities to develop the system do not bring cost savings to the city, as the productivity gains achieved through more effective operation are mainly transferred to the Social Insurance Institution. Significant additional benefits could be achieved by combining journeys reimbursed by the Social Insurance Institution and from other public funds and by introducing a joint management system for all such traffic. The public support system for passenger transport should also be reviewed to ensure that it steers the actors towards optimal solutions. It was noted that the results of the experiment can be generalised to apply at the national level.

An accessible and safe transport system

An accessible transport system offers citizens equal opportunities for participation and prevents exclusion and loneliness. Accessibility means that the transport environment is clear and easy to use and that transport services are efficient and physically accessible, even for those who are most vulnerable in traffic. Information on transport services should be clear and easily accessible. A feeling of insecurity should not constitute an obstacle to using public transport. Both extensive transport policy solutions and individual projects should support equal opportunities of persons with restricted mobility and the elderly to live independently. A transport system that is planned and built to be accessible will serve all user groups better.

The comfort and safety of the travel environment play a key role when selecting the mode of transport. A feeling of insecurity may prevent travellers from selecting walking, cycling or a public transport alternative. In a survey conducted in the Helsinki Metropolitan Area, and the cities of Tampere and Turku in late 2011, one traveller out of five had at times declined to use a certain public transport mode in favour of another transport mode because of feeling insecure. The greatest individual safety problem in public transport is felt to be the disruptive behaviour of persons under the influence of intoxicants. A clear majority of the respondents thus wished to see more surveillance by staff in public transport. Enhanced late night surveillance during the weekends was considered particularly important. Stricter intervention in the use of alcohol at the stops and stations and in vehicles also emerged as a key development target.

Promoting walking and cycling

One third of all travel is made on foot or by bicycle. Efforts to promote walking and cycling are divided into motivation and marketing on the one hand, and infrastructure improvements and investments on the other. A relative increase of walking and cycling in traffic will help to make urban regions and

settlements more attractive, pleasant and safer places to live. On the following page, we look at some good examples taken from European cities which have a high market share of cycling and walking as modes of travel.

Walking and cycling also produce indisputable health benefits. Pedestrian and cycle paths are the exercise environment most frequently used by Finnish people. Lack of exercise is a significant public health problem which, in addition to impacts on individuals, also causes considerable costs to society. It is estimated that insufficient exercise adds EUR 100–200 million annually to health care costs. In addition, increased absences and lower productivity of work are factors that push indirect costs up. For the majority of people, combining exercise with their everyday routines is the easiest way of getting enough exercise for their health. For children, young people and those of working age, walking and cycling to work and school is a natural way of exercising more every day. Independent exercise also keeps an ageing person healthier longer and reduces the need for institutional care and rehabilitation.

A strategy for walking and cycling and an implementation plan for this strategy were completed in 2011–2012. The strategy states as its objective to increase the share of journeys undertaken on foot or by bicycle by 20 per cent, or 300 million trips. A corresponding decrease should take place in short passenger car trips. To implement this strategy proposal, a shared intent and close cooperation between different organisations and various levels of administration will be needed. Other requirements will include targeting sufficient funding to walking and cycling, and full appreciation of their benefits, both by society and by individuals. Implementing the strategic proposals on walking and cycling must be ensured in the transport system plans of urban regions.

There is plenty of scope for improvement in the safety of cycling and walking. An estimated 50,000 people are injured every year due to slipping and falling in winter, and 10–20 fatalities from slip-and-fall accidents are recorded annually. Every year, society incurs costs of up to EUR 600 million for

such accidents, if we include both medical expenses and losses of work input and well-being. In order to reduce the incidence of slip-and-fall accidents, the quality standard of winter maintenance of footpaths should be improved.

Regional development needs of walking and cycling in urban regions amounting to EUR 40 million have been identified in various parts of Finland. These development measures could be implemented as part of minor investment programmes in basic transport infrastructure management. The measures could contribute to developing the quality standard of the infrastructure for cycling and walking from its current level, and solving the problem of lack of continuity of cycle paths, thus promoting walking and cycling as a primary mode of transport in urban regions. The proposed measures typically include improving the safety of cycle paths and intersections through various types of level and interchange solutions, and by developing bicycle parking in connection with public transport stations and stops.

Service levels of traffic in the archipelago and the Kvarken

No decisions have been made on the service level of archipelago traffic, and the relevant funding is lacking. The Act on the development of the archipelago (Laki saariston kehityksen edistämisestä)¹⁰ is based on the principle of the state striving to ensure that permanent residents in the archipelago have access to the transport services necessary for housing, earning a livelihood and using the essential services, and that these transport services are as flexible as possible and free or reasonably priced. In addition, the archipelago decree (saaristoasetus)¹¹ is based on the premise that permanent residents of islands located on a ferry route and the vehicles owned by them and transporting goods for them are exempted from charges in subsidised traffic.

The service level should be specified for permanent residents, for whom free services are offered. Charges collected from other users of archipelago ferries or restrictions to the number

of free journeys for free time residents are alternatives that should be explored. The service level of ferry traffic should be adjusted, taking into consideration the peak periods of demand in summer and winter on the busiest ferry connections and the night-time service level. Archipelago traffic user numbers should be monitored systematically, and the service level should be adjusted if necessary. In order to ensure funding for archipelago traffic, the budget structure could also be examined.

The funding needs of ferry traffic have been increased by such factors as rising cost levels and the increase in capital costs arising from the need for partial renewal of the fleet. This has resulted in funding being transferred to ferry traffic from other areas of basic transport infrastructure management, which is already under strain.

A car ferry has been operating across the Kvarken for nearly 50 years. As a result of Finland's accession to the EU, tax free sales came to an end in 1999, resulting in a dramatic drop in passenger numbers. The Finnish Government, and regional authorities in both Sweden and Finland have subsidised passenger traffic between Vaasa and Umeå from 2010. This subsidy will be discontinued at the end of 2012. In line with the Government Programme, the Government will support efforts to continue ferry traffic in the Kvarken and will prepare a long-term strategy together with representatives from Sweden and the Kvarken in order to safeguard the continuation of this service. This work is under way and it will be completed in September 2012.

GOVERNMENT POLICIES AND KEY ACTIONS:

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A decision will be made on the service level of traffic in the archipelago, and the requisite funding will be allocated. Advanced procurement methods and the use of state budget authorities will serve to ensure the long-term viability and reasonable cost-effectiveness of the traffic.

Good european practices of promoting walking and cycling

In improving the opportunities for walking and cycling, a policy that supports these modes of transport plays a key role. The starting point at policy-making level should be a willingness to promote cycling, walking and public transport. By means of transport and land use planning, cycling and walking should be made faster than driving. It is impossible to efficiently promote cycling and walking – and also public transport – unless the entire transport system has been planned as one concept.

Car traffic to city centres can be efficiently guided by providing viable park-and-ride-facilities. At best, park-and-ride facilities make it possible to combine both driving and cycling with the use of public transport. The pricing of public transport services and park-and-ride facilities must be competitive with driving.

In cities used as examples, a high quality of cycling infrastructure is above all the key factor. The number of cycle paths may even be lower in proportion than it is in Finland. In

Houten (the Netherlands), cycling is facilitated by cycling streets where bicycles take priority over cars. It is also important to separate paths for pedestrians and cyclists from each other. On two-way cycle paths, a central line is needed to separate the directions. Signposting must also be clear. Intersections should be designed so that a cyclist can make a route choice before entering the intersection – in the same way as a motorist. Traffic lights also often have sequences specifically for cyclists.

By organising effective bicycle parking facilities in connection with planning of the living environment – by locating storage facilities for bicycles near the front entrance while car parks are placed further away – it is possible to encourage the use of bicycles rather than cars. In Finnish circumstances, the need for efficient winter maintenance of cycle paths has an important role. Copenhagen, for example, has specific winter maintenance equipment for cycle paths.

Many European cities have excellent pedestrian centres. The pedestrian areas in city centres also have a clear, designated

function, such as a shopping complex, an exercise and recreation park or a restaurant area. Freiburg has one of the largest continuous pedestrian centres stretching over an area of one square kilometre. The short-distance transport and the logistics of goods distribution in the cities are well planned. In pedestrian areas, they are restricted to certain times in the morning and afternoon. Geneva, too, is being developed into a pedestrian city. Fast and attractive routes designed from the user's perspective lead from the nearest housing estates to the city centre and working areas. Active involvement of residents and business in the planning of urban areas is a vital feature.

Accessibility has been improved not only for the visually impaired and persons with restricted mobility, but also for all other travellers. Motoring is restricted in areas with large numbers of pedestrians to ensure that crossing streets does not form an obstacle to mobility. The effectiveness of winter maintenance is improved by installing frost protection systems, as in many cities in Finland.

Building a good infrastructure alone is not sufficient. People must be activated to walk and cycle by means of marketing and general motivation. Measures to improve the physical environment and marketing efforts must be interlinked. It is particularly important that these actions are taken simultaneously. In Finland a start was made last year, and funding has been allocated for mobility management.

In the European cities used as examples, workplaces have been challenged to take part in marketing. Many workplaces offer benefits for those who walk or cycle to work. In addition, services are provided for cyclists, including maintenance, tyre inflating and drink stations, facilities for washing bicycles, self service maintenance stations and storage lockers for helmets, together with cycling centres providing extensive services ranging from bicycle maintenance to cafés. City cycling schemes are gaining ground around the world.

Source: The best European practices in promoting cycling and walking, Transport Research Centre Verne, Tampere University of Technology, Tampere, 2011

10) 494/1982

11) Government decree 371/2001



7. Smart and responsible transport

One of the greatest challenges facing humanity at present is the need to mitigate climate change and adapt to its impacts. Carbon dioxide emissions will remain in the atmosphere for a period extending to hundreds of years, and the consequences of today's decisions and measures will thus reach well into the future and affect the lives of generations to come. In order to reduce the carbon footprint of transport it will be necessary to take effective action that is well coordinated within central government to ensure that Finland is able to meet current and future obligations of reducing emissions at international and EU level. In Finland transport accounts for roughly one fifth of carbon dioxide emissions.

The transport sector is currently dependent on fossil fuels. Apart from electric rail traffic, transport depends almost exclusively on hydrocarbon fuels refined from crude oil. However, easily exploitable oil resources are dwindling globally, while oil consumption in such countries as China is growing rapidly. As a consequence, oil prices will be under severe upward pressure in future decades, and the availability of oil may also deteriorate faster than anticipated. A working group is currently investigating future energy forms for transport. In connection with this work, it will be necessary to define the

energy hierarchy of transport, as well as practical measures by which we can promote the replacement of oil. The changes required to reduce our oil dependency will take place rather slowly, and we will thus already need to make decisions during the current government term.

The vehicle stock in Finland is among the oldest in the EU countries. By renewing the vehicle stock, we could achieve the greatest impact in terms of our obligations to cut down on transport emissions over a period extending up to 2020, that is 80 per cent of the need to reduce emissions in the entire climate policy programme. Studies also indicate that newer cars are on average 10–50 per cent safer than car models that are 10 years older. Developing the technical safety of vehicles has been one of the most important individual factors that has helped to reduce road deaths.

Finland is committed to international targets of reducing greenhouse gas emissions at many levels. In the Kyoto Protocol, an 8 per cent reduction in emissions was set as the target for the EU. Later on, this target was allocated among the various countries at EU level. For Finland the agreed target was to keep the emissions at their 1990 levels. In the period following the *Kyoto Protocol*, the EU is committed to the so-

called 20–20–20 targets. In line with the EU targets, Finland should reduce its transport emissions by 16 per cent compared to 2005 by 2020. Finland's national long-term climate and energy strategy (2008) set a reduction of emissions by 15 per cent as the target for the transport sector. The means for reaching this target were outlined in the *Climate Policy Programme (ILPO)* completed in 2009 for the Ministry of Transport and Communications' administrative branch.

The emission reduction targets are extremely challenging for the transport sector, and they cannot be achieved without effort. The share accounted for by road transport in national transport emissions is approx. 90 per cent. Essential measures for making progress towards the target will include reducing the tonne-kilometres completed, accelerating vehicle stock renewal and introducing low-emission technologies and sustainable fuels. Regardless of the measures taken, transport emissions have been increasing. Without an essential improvement in the impact of the measures, Finland will fail to reach the targets. An intermediate evaluation of the *Climate Policy Programme* for transport will be conducted in 2012. Achieving the climate-related and environmental targets must also be supported by better cooperation and coordination between various parties and authorities.

Several new initiatives for improving logistics have been put forward and are being prepared at EU level; their aim is to facilitate the use of electronic transport documents and e-services. Another significant initiative is the strategy to reduce carbon dioxide emissions from heavy goods vehicles, in the context of which we must ensure that we can maintain our national competitiveness. Finland must play an active role in negotiations on international and EU-level actions to reduce oil dependence and emissions and contribute to finding cost-effective solutions that ensure smooth-running transport, but also are suitable for Finnish conditions and the special features of the Finnish transport sector. In addition, full use of national energy sources should be made possible. At the national level, we should speed up improvements in the energy efficiency of transport by creating operating models and setting aside funding to support measures that reduce greenhouse gas emissions and promote the introduction of new vehicle technologies by transport sector companies (the so-called energy subsidy for transport).

Financial guidance and information steering

One way of achieving the targets is to increase the market share of public transport in transport modes. At the same time, considerable benefits could be achieved in the areas of other environmental issues, the smooth running of traffic and traffic safety. This would involve developing legislation, financial guidance and information steering, particularly guidance relating to mobility. The current complex taxation and charging system applied to transport does not support decision-making related to the choice of transport mode optimally, as required

by climate and transport policy objectives.

Our income tax system contains features that blur the transparency of costs incurred by various modes of transport. The taxation treatment of employer-subsidised commuter tickets, for example, is unnecessarily complicated and fails to promote the introduction of such schemes. By clarifying taxation practices, we could significantly influence the introduction of employer-subsidised commuter tickets and thus the uptake of public transport in large urban regions. The reduction in tax intake that would be a consequence of reforming the taxation practices concerning employer-subsidised commuter tickets could be compensated for by simultaneously examining fringe benefits such as company cars and parking facilities offered by employers. We should reform the entire system so that it would better support environmental and transport policy objectives while retaining the fiscal impacts of the current system.

The overall impacts of taxes and charges on transport and transport services have not been sufficiently studied from the perspective of citizens or companies. When looking at the pricing of traffic, we should also examine various modes of transport in parallel. At EU level, too, the objective is fair pricing of all modes of transport by including external costs and extending the "user pays" and "polluter pays" principles to various modes of transport and removing incentives that have a negative impact on people's behaviour. Finland must play an active role in these efforts.

GOVERNMENT POLICIES AND KEY ACTIONS:

35 Taxation and charging policies and information will be used to influence travel needs and travel and transport choices, and traffic will increasingly be directed towards sustainable modes of transport. The structure of charges and taxes will be subject to an overall analysis covering all modes of transport, and on this basis, a reform will be carried out to remove incentives encouraging development in the wrong direction, also taking into account the indirect impacts of various solutions.

36 An overall reform of the benefits and taxation of work-based traffic will be carried out with the aim of directing and encouraging the use of public transport, walking and cycling whenever practically possible. The tax treatment of employer-subsidised commuter tickets will be clarified. The selection of sustainable modes of transport will be influenced by supporting information, marketing and work towards steering mobility in urban areas and at workplaces.

New methods and technologies

Utilising ICT as part of the transport system is of primary importance in promoting the productivity, safety, flexibility and environmental friendliness of the system. We must ensure that the national intelligent transport strategy is implemented in different modes of transport and that a sustainable distribution of transport modes is developed. To support the implementation of the intelligent transport strategy, it is vital to set up national trial areas for intelligent traffic in Finland in order to develop innovations, research and the transport system. The trial areas could also be used to promote Finnish exports. Long-term inputs to product development from both the public and the private sector will be required to develop new operating methods and technologies. These new technologies will help to create jobs in industry, business for service production and products for export.

The role of the public sector as a leader in promoting and introducing new technologies should be enhanced. We should ensure without delay that there are no regulative or structural obstacles to the wider use of new modes of travel (ride-sharing schemes, car pools etc.) or to the introduction of advanced low-emission technologies. Open dissemination of public information combined with rapid technical development will generate interactive services of a completely new type, which everyone can contribute to. The public sector also has a role to play in encouraging the market to develop new solutions,

and in public procurement of transport services and fleet, emissions and energy efficiency should thus be highlighted as key evaluation criteria. Guidance to support this goal will be prepared by central government, and regulations will be made more stringent if necessary. Cleantech development, including the Finnish electric car cluster, needs references from the domestic market. As a significant customer, the state plays an important role in generating critical mass in traffic, as a result offering consumers more choice and infrastructures that serve low-emission technologies.

In the future, citizens' travel needs can be influenced by utilising ICT and by promoting the development and introduction of digital services. The content of transport policy has traditionally emphasised the development of transport infrastructures and conditions. However, awareness of the limited resources available to society and an environmental and efficiency-oriented approach combined with ICT development have opened up some completely new opportunities for reducing the need for physical travel. Finnish people today have access to, or at least awareness of, telework, distance learning, e-services, mobile telework, social media and videoconferencing. Even if these operating practices are not traditionally a direct part of transport policy, the consequences of their more wide-spread use will in practice serve all transport policy objectives as well as the objectives of environmental and climate policy. In central government, the utilisation of various telepractices should be increased, as they can be recommended on the basis of both their low environmental impact and low costs.

Capitalising on the opportunities offered by telework and other modern services will require efficient broadband connections with extensive coverage everywhere in Finland. Following a government resolution, broadband connections must be developed nationally so that by the end of 2015, nearly all permanent residences (over 99 per cent of the population) and permanent premises of companies and public administration organisations are at a distance not exceeding two kilometres from a fibre-optic or cable network delivering a fast broadband connection (100 Mbit/s). In order to achieve this target, the state is committed to subsidising the construction of fast connections in sparsely populated areas where they will not be provided through the market. Experiments with the subsidy system have now continued for two years, and an interim evaluation of its performance has been completed. Certain minor adjustments are to be made to the subsidy system so as to ensure even smoother project implementation.

The significance of the Baltic Sea as a commercial transport route and a valuable natural environment must be safeguarded. Busy tanker traffic and crossing passenger traffic increase the safety risk in the Gulf of Finland. Eutrophication due to a number of causes is another problem. Sulphur emissions from vessels affect air quality in the densely populated coastal areas. Reducing sulphur emissions will result in significant additional transport costs for the Finnish export industry, which is located far from its main markets. The challenge lies in finding a balanced solution between measures that clearly

improve air quality on the one hand, and the financial impacts of their implementation on businesses and society on the other. The state already provides support for investments that reduce sulphur emissions from new vessels. An initial analysis indicates that it would also be possible to install retrofitted devices, i.e. scrubbers, on some 40–60 vessels sailing under the Finnish flag. The price of retrofitting per vessel will depend on the vessel, but it varies from EUR 3 million up to EUR 6–8 million.

Transport safety

Putting words into action – Road Safety Programme until 2014 is a document containing key measures and policies to improve road safety up to 2020. Key priorities are measures related to driver fitness, behaviour on the road and the traffic safety of urban areas and roads. The Government will issue a resolution on road safety based on the safety programme in spring 2012.

The resolution will also include a policy on intoxicant use in traffic. Road and boating accidents caused by intoxicants are a significant problem in the Finnish traffic safety culture. One road accident victim out of four lose their lives in accidents involving drink-driving. This figure includes a high proportion of young people. In the flow of traffic, one motorist out of 700 is intoxicated. More than one half of drunken drivers who are caught are heavy drinkers, and one third have been found to suffer from intoxicant addiction. Intervention in this problem will require more stringent measures and guidance, including wider use of alcolock devices, more efficient surveillance and campaigns combined with treatment and support measures for those who have been caught. A link can also often be observed between drink-driving and other types of social exclusion, and the means for reducing the incidence of drink-driving must thus be sought on a broad front in all sectors of society.

In addition to developing the infrastructure, we can cost-effectively improve traffic safety by means of surveillance and new technologies. At the same time we must ensure the provision of sufficient resources for traditional traffic surveillance. This will be complemented by developing and increasing the level of automatic surveillance. New means for organising traffic surveillance will be sought by developing the sharing of responsibilities and tasks between the ELY Centres, the municipalities and the police. By enabling the municipalities to assume a larger role in traffic surveillance, we could increase camera surveillance and thus reduce the incidence of behaviours that are a risk to traffic safety, such as speeding and running red lights, and control acts that undermine the competitiveness of public transport (for example, unauthorised use of bus lanes). Municipalities would take part in traffic surveillance on a voluntary basis, which would require a legislative amendment. Enabling municipal traffic surveillance would bring the state extra revenue and be cost-neutral for municipalities. In order to improve traffic safety, we should also modify the speed limit system. This could also have significant impacts on fuel consumption and

the environment. In promoting a responsible traffic culture a key role can be played by traffic education incorporated into the school curriculum.

In the same way as in aviation, rail traffic and shipping, a safety culture oriented mindset and preventive operating methods based on risk analyses should be promoted in professional and licensed road transport. Traffic safety in all modes of transport also features largely in international and EU-level work, and Finland should be actively involved in the preparation of all these issues.

GOVERNMENT POLICIES AND KEY ACTIONS:

37 The development of sustainable fuels, low-carbon vehicle technologies and user-centred forms of travel (including car pools) will be promoted by revising taxation practices and by removing legislative and structural barriers. In the procurement of transport services funded from public resources and in public administration vehicle procurements, environmental and energy efficiency will be applied more stringently as criteria than at present. Annual transport emission targets will be prepared for central government organisations to serve as guidelines in vehicle procurements and as methods used by the organisations in arranging transport.

38 The development and introduction of new vessel technologies, more efficient vessel traffic control systems and maritime fuels will be promoted in order to reduce the emission load on the Baltic Sea and to improve maritime safety. The capacity of ports to receive sewage from vessels will be improved, with the aim of fully implementing the ban on discharging sewage from vessels into the sea.

GOVERNMENT POLICIES AND KEY ACTIONS:

39 Traffic surveillance will be made more efficient by developing the division of responsibilities and tasks between the ELY Centres, municipalities and the police. The municipalities will be given greater opportunities to participate in traffic surveillance. There will be stricter intervention in irresponsible behaviour in traffic and intoxicant use, for example by increasing the use of alcolock devices and by improving treatment and support measures intended for those with intoxicant abuse problems.

40 Steps will be taken to ensure and improve safety culture and promote responsible attitudes in all professional transport by means of regulations and voluntary operating models (for example, the introduction of management systems in road traffic).

41 The assessment of driver health and fitness will be developed, and competence in transport medicine will be ensured both in medical education and in the health care service system.

Living environment

Many environmental impacts and risks caused by traffic are in direct proportion to traffic volumes, and the negative impacts on the climate, air quality, noise and ground water can thus be reduced by influencing transport performances. Noise from traffic impairs the quality of the living environment and reduces its attractiveness. Environmental noise may also cause direct and indirect health impacts. By far the majority of citizens contacting transport administration about environmental issues express concern about noise. Noise abatement measures affecting main corridors and railway lines will have a positive impact on the opportunities for more centralised land use and housing production in central locations.



8. From efficient practices to the desired results

In recent years, it has been noted in various contexts¹² that the current operating methods and tools available to administration are inadequate for promoting the implementation of the objectives of both general public policy and transport policy. Applying conventional operating methods and tools to solving transport problems no longer brings the desired results. What we need is an increasingly cross-administrative approach, the use of versatile means, a customer-centred approach and a participatory operating culture. In its White Paper on transport, the European Commission particularly stresses the need for

bold measures in the introduction of innovations and new technologies. Cross-administrative preparation is also needed because the coordination of policies in the preparation work done by different administrative branches varies, and regional administration, for example, is to some extent steered on the basis of conflicting expectations. Implementation has been obstructed by such issues as conflicts between rural policy and transport policy on the lower-volume road network, and expectations associated with the service level of archipelago traffic.

Reconciliation of land use, housing and transport

Steps in the correct direction have already been taken. The beginning of 2010 saw an organisational reform of regional government and transport administration. At the regional level experiences have been gained on cooperation in business, transport and environmental issues. At the ministerial level there is a need to develop operating methods and guidance in order to create opportunities for closer cooperation, synergy benefits and comprehensive planning in housing, planning and transport. The administrative branches under the Ministry of Transport and Communications, the Ministry of Employment and the Economy and the Ministry of the Environment must be committed to working together and developing their operating practices in a way that ensures more extensive preparation and implementation of urban and transport policy. If necessary, we must also be prepared to examine the needs to reform administrative structures. In this, not only the Ministry of Transport and Communications but also the

Ministry of Employment and the Economy, the Ministry of the Environment and the Ministry of Finance will play a key role.

The forthcoming municipal structure reform will enable the planning of regional transport systems and urban structures as larger entities. In the major urban regions, capacity for a more efficient approach has been built through letters of intent concerning land use, housing and transport. These MAL letters of intent also require state funding, but in return, municipalities in the area must make a commitment to develop their land use as agreed. In the letters of intent, it will be necessary to find a consensus, not only on the most urgent transport investments of the next few years but also on the role and organisation of regional management of public transport and traffic. In the future, the scope of MAL letters of intent needs to be widened by integrating them with the planning of service structures and industries according to the principles of sustainable development (MALPE¹³). The MALPE letter of intent procedure is being piloted in the Lahti region and in the planning of the E18 corridor on the section between Koskenkylä and the Russian border.

Experiment:

E18 GROWTH CORRIDOR BETWEEN KOSKENKYLÄ AND KOTKA

Could a road development project produce direct and clear benefits for the companies and municipalities within the project's scope of influence and for the entire region more efficiently, so as to improve the opportunities for competitiveness, economic growth and well-functioning everyday life in a sustainable way?

During this decade, the state will invest more than half a billion Euros in the construction of the E18 motorway in Eastern Uusimaa and Kymenlaakso. The experiment set out to establish how, through a new type of cooperation between the private and the public sector, the investments could more effectively create competitiveness, work and economic growth for the companies and municipalities within the area of influence of the road.

The experiment was implemented as an extensive, cross-administrative process that took the form of workshops and small working groups in cooperation between the Ministries, the ELY Centres, the Finnish Transport Agency, the Finnish Transport Safety Agency, the border control authorities, the Regional Councils in the area, together with municipalities and businesses. The experiment generated ideas for new business opportunities along the growth corridor, capitalising on its special features: its status as a motorway, its customer potential generated by the proximity of Russia, the green motorway and intelligent transport concepts associated with the road and the excellent connections to ports all offer companies and municipalities an attractive operating environment with exceptional development potential. During the experiment, a joint regional manifesto was also drafted on promoting the project and its follow-on measures in Kymenlaakso and Eastern Uusimaa.

At the regional level, the launching of this new type of cooperation improves the possibilities to utilise road investment for the purpose of developing business and creating new jobs. Following the joint plan, the corridor will be developed as a whole, also utilising the possibilities offered by the old road. The objective is to create an efficient service corridor that will draw customers. The region aims to be prepared in advance for new demand generated by development in Russia.

Led by the Ministries, the experiment will be expanded into an international growth corridor project. The project aims at joint marketing and branding of the entire corridor in order to improve its international pull and to attract investments to the corridor area. The motorway will be developed as a flexible, new-generation intelligent and green development platform that will support the surrounding society as a whole. Development funding for the project will be applied for from the EU Northern Dimension Partnership on Transport and Logistics and TEN-T corridor programmes. With its world class technological solutions, the intelligent, green growth corridor will serve as a reference for the companies taking part in its development when promoting their business internationally.

The experiment helped to formulate a new operating practice founded on broad-based cooperation, which will enable transport administration, together with other branches of administration and actors in the region, to more efficiently create opportunities for promoting the competitiveness, growth and development of businesses, municipalities and the regions. The application of this practice should in the future be considered when planning and implementing transport solutions of public significance.

12) For example, OECD Public Governance Review of Finland 2010, EU Commission White Paper on Transport 2011 and the Government Programme of Prime Minister Jyrki Katainen's Government

13) MALPE = maankäyttö, asuminen, liikenne, palvelurakenne ja elinkeinoelämän toimintaedellytykset (land use, housing, transport, service structure and operating conditions for business)

The objective of the work on the transport system at the regional level and in urban regions is to create a view shared by the various actors in the area on the status of the transport system, the measures required and their prioritisation. The planning starts from issues relevant to land use, housing and service structure changes. In regional planning, the transport system development policies drafted at national level are reconciled with the needs of the region. Steps will be taken to promote interregional cooperation relevant to the regional structure, transport system development and regional development. The letter of intent procedures relating to transport system plans will further support the productivity of this work.

GOVERNMENT POLICIES AND KEY ACTIONS:

42 Steps will be taken to improve the reconciliation of the operating conditions for transport, land use, housing, services and business on the subregional and regional levels and nationally in the administrative branches of the Ministry of Transport and Communications, the Ministry of Employment and the Economy and the Ministry of the Environment. If necessary, administrative structures will be reformed in order to strengthen this cooperation. Cooperation between different areas of responsibility of the ELY Centres will be reinforced, and their expertise consolidated in order to make more efficient use of the ELY Centres' role as a supreme regional expert in business, transport and the environment.

43 As a joint venture between several countries, an E18 growth corridor project will be launched (Oslo–Stockholm–Turku–Helsinki–St. Petersburg). Its aim will be more efficiently to generate opportunities for services and business that support the growth and development of the area through a new type of cooperation between the public sector and businesses.

Cross-administrative effectiveness, productivity and expertise

In order to close the public sector sustainability gap, it is not enough to look at issues by sector, since the entire public policy needs improved effectiveness. The consequences of issues and phenomena tend to recur, and the impacts frequently affect other sectors. It is vital that we pay more attention to the diverse, cross-administrative impacts and, on the other hand, that we focus on working together proactively. For example,

when talking about traffic safety it is important to acknowledge the fact that road accidents resulting in injuries add to social and health care sector costs and curtail careers. In the future, there will be a growing need for cooperation and analyses that extend across administrative and sectoral boundaries.

Priority must be given to the transport system customer – the transport network or service user – in the planning and implementation of services. Inefficiency arising from structures, regulation, unclear division of responsibility or lack of cooperation must be eliminated. Pedestrians, cyclists and public transport customers are user groups whose needs must be taken into account more than ever in planning and implementation.

The challenge faced by contracting agencies is identifying customer needs and converting them into terms of the service level to be procured, while taking the available resources into account. A key role is also played by procurement procedures which contracting agencies can use to encourage companies to develop their expertise, provide new types of services and thus develop and extend their business. The contracting agencies must take a sufficiently long-term perspective in developing procurement procedures to give the actors a realistic opportunity of developing their operations in the right direction. The public sector as a contracting agency plays a key role in terms of developing the markets and the range offered. Transport policy can provide an impetus to create new types of business enterprise and jobs in different parts of the country.

The availability of skilled labour is a future concern in the transport sector. Technological development over the last few decades has contributed to the diversification of skills requirements. Transport sector actors are expected to have ICT skills and an understanding of logistics chains, while transport planners need knowledge of urban planning. The risk is that there will be shortage of employees, especially for jobs in the sectors with lower pay levels. We must tackle these challenges by broadening the range of education and training, by developing pay and by providing good working conditions. The transport sector needs a comprehensive strategy for developing competence and expertise.

R&D activities also play an important role as regards developing competence and expertise, encouraging cooperation and implementing strategic choices in the sector. New expertise will be created through research that produces content for education and training. Education and training will produce skilled employees for a number of transport sector professions as well as experts for the planning and drafting of decisions. In the competition for labour between different sectors, we must make sure that we have a sufficient number of transport professionals and experts in Finland. Investments will be needed in order to build new competences. Finland's scarce research resources should be targeted selectively, but over a long time span, to produce strong clusters of in-depth expertise. The transport sector does not have a research institute dedicated to this field, and its research and development activities are funded by a number of parties, including the Ministry of Transport and

Communications, the Finnish Transport Agency, the Finnish Transport Safety Agency and the Finnish Funding Agency for Technology and Innovation Tekes, and implemented by such parties as the Finnish Meteorological Institute, VTT Technical Research Centre of Finland, universities and higher education institutions and consultants. We need strategic networking of actors in the sector to form virtual research institutes that will bring expertise together, and long-term research programmes to promote more effective development of expertise and to increase its impact.

In the transport sector, formulation of binding regulations has to a great extent been taken over by the European Union and international organisations. In addition, issues that have a direct impact on transport are often discussed in other forums than those specialising in transport. In order to supervise Finland's national interests, we must focus, more efficiently than today and in a timely fashion, on international lobbying and the preparation of regulations both at EU level and in international organisations. In the drafting of regulations the need for systematic and proactive information exchange with stakeholders must also be emphasised.

Impact assessment of transport and other public policy strategies and programmes will be reformed. The wide coverage of impact assessments associated with transport corridor development investments will be ensured. The assessment will also take into account impacts on the transport system and indirect impacts on society (including emissions, regional competitiveness and employment).

GOVERNMENT POLICIES AND KEY ACTIONS:

44 Procurement expertise in the transport sector will be developed towards improving service level and procurement of impacts. We must also focus on the procurement expertise of the competent authorities in the public transport sector in order to ensure that it meets the requirements of the tasks entrusted to the authorities in the public transport act. The Finnish Transport Agency will be developed into a centre of expertise in transport sector procurements.

45 Impact assessments of strategies and programmes relevant to transport policy and other public policy will be updated, and in the impact assessment of transport corridor development investments and other development solutions, their scope will be extended beyond cost-benefit analyses. The more comprehensive impact assessments will also take into account transport system impacts and indirect impacts on society (including emissions, regional competitiveness and employment).

46 The availability and competence of workforce in the transport sector will be ensured through innovation, education and training, labour and immigration policies. A comprehensive strategy for developing expertise and competence will be drawn up for the transport sector, and a network of centres of expertise based on partnerships will be established to foster the long-term development of competence in the sector.

47 Proactive and systematic international lobbying in the transport sector will be developed and promoted together with the stakeholders.

9. Special transport policy issues of the 2010s



9.1 Large and growing urban regions

Large and growing urban regions play a key role in Finland's welfare and competitiveness. The smooth running of journeys to work, school and services is an important factor affecting quality of life. Cooperation between the state and municipalities in urban regions promotes the cohesion of urban structures, efficiency of the transport system and the operating conditions for public transport. The aim in large and growing urban regions is to reduce the need for transport and dependence on cars. The means for achieving this aim include land use and transport planning.

The aim of *MAL* letter of intent procedures (which cover land use, housing and transport) is to create integrated, efficient and competitive urban regions in cooperation between the state and municipalities in the region. Negotiations on letters of intent are pending in the regions of Helsinki, Turku and Oulu, with the aim of signing the letters after the completion of this report. In Tampere region, a letter

of intent has been signed for 2011–2012. **Promoting the *MAL* letter of intent procedure** is considered important in the Government Programme, and its potential extension to other urban regions is seen as desirable. A natural role will be sought for the ELY Centres, the Regional Councils and municipal federations in the reconciliation of land use, housing and transport. In the future, the scope of *MAL* letters of intent needs to be expanded by integrating them with the planning of service structures and industries according to the principles of sustainable development (*MALPE*). A pilot project in Lahti focusing on a transport corridor in the city centre is preparing the ground for the *MALPE* concept. The aim is to deepen cooperation between the municipality, the state and the private sector in the planning, implementation and funding of city centre development, and to speed up the generation of a joint strategic vision and a macroeconomically advantageous urban structure solution that is in line with sustainable development. Concrete results from the pilot project in Lahti can be expected in 2–3 years.

As regards transport, the letters of intent cover both transport services (for example, using public transport subsidies in large urban regions) and measures relevant to the transport infrastructure. The initial term of the letters of intent is 2012–2015, and they also contain preliminary policy proposals for measures in the subsequent period. In terms of the transport system, the letter of intent aims in particular at coordinating land use and transport activities while promoting sustainable modes of transport (public

transport, cycling and walking). The letter of intent procedure supports the productivity of work on the transport system carried out in the region. Extending the *MAL* letter of intent procedure to other urban regions should be kept open as a positive future option. During the current government term, *MAL* coordination in other large and medium-sized urban regions (excluding Helsinki, Turku, Tampere and Oulu) can, if necessary, be treated as part of growth agreements that are being drafted in line with the Government Programme.

State involvement in the *MAL* letters of intent of urban regions will ensure that urban region development will be linked to national development targets for land use, housing and transport. The objective is to find comprehensive, streamlined solutions and to use best practices in continuous development work. *MAL* letters of intent also require state funding, but in return, municipalities in the area must commit to developing their land use and housing as agreed. We need to reinforce the binding nature of *MAL* letters of intent. The signing of letters of intent should be made conditional on comprehensive joint planning work that aims to create suitable operating conditions for land use, housing, transport, service structure and businesses.

Project-specific letters of intent will also be drawn up for major projects together with the Finnish Transport Agency and other parties; these will initially specify the content and funding of the project, along with the responsibilities of both parties for planning, construction, maintenance and use. Public transport in the Helsinki Metropolitan Area has traditionally relied on rail traffic in its different forms. Various forms of rail traffic are also being examined in the Turku and Tampere regions, and state involvement in the specification of needs, planning and implementation of rail traffic systems should be defined in order to clarify procedures for long-term follow-up planning. New rail traffic projects in the Turku and Tampere regions will become topical in mid-2010s. The Government is prepared to commit to signing a letter of intent on state participation in the funding of rail traffic projects of urban regions during this government term. As regards the City Rail Loop, which will serve both local and long-distance traffic, the division of costs between the state and the municipalities will be subject to a separate agreement.

During the following government term, the funding of minor transport infrastructure measures in urban regions will be continued in four large urban regions and extended to other medium-sized urban regions (state co-funding in the Helsinki region will total EUR 20 million/year, while funding in other urban subregions will amount to a total of EUR 15–20 million/year). A programme of *MAL* infrastructure projects will be drafted in the urban regions in cooperation between the various actors as part of regional transport system work and further preparation of *MAL* letters of intent.

GOVERNMENT POLICIES AND KEY ACTIONS:

- 48** The binding nature of *MAL* letters of intent will be reinforced in the four largest urban regions, and they will give more attention to service structures and the operating conditions of businesses. Based on experiences to be gathered in large urban regions, the capacity for extending the letter of intent practices to other growing urban regions will be assessed. The operating model for the programming and funding arrangements of transport projects will be developed.
- 49** In order to promote the *MAL* letter of intent procedures, the state will fund minor cost-effective measures aimed at developing the transport network with a contribution amounting to EUR 30 million during the current government term, provided that an equal contribution to funding is provided by the municipalities. Total funding will amount to EUR 60 million, of which EUR 30 million will be allocated to the Helsinki region and EUR 10 million each to the urban regions of Turku, Tampere and Oulu. The measures will be targeted to improve the conditions for public transport, walking and cycling.
- 50** Public transport subsidies for large cities will be linked to measures promoting public transport subject to agreement in the letters of intent. The joint regional operating models and tools of traffic management together with the organisation of park-and-ride facilities will also be agreed on in the letters of intent. The municipalities for their part will be committed to the agreed land use and housing solutions.
- 51** The state is prepared to co-fund the rail traffic investments of large urban regions (Helsinki, Turku and Tampere), on condition that the costs of the urban rail projects are shared equally between the state and the municipalities. The state will subsidise the building of the metro and urban light railways by a contribution of 30 per cent. The funding contributions to the projects will, however, be decided on a case-by-case basis, depending on the costs of the projects, their scope and viability, and the ownership of the sites. In return for state funding, it will be expected that the state and municipalities jointly agree on the development of land use, housing and transport in the area. Rail traffic investments in large cities must also include park-and-ride arrangements.



9.2 Air traffic and the airport network

Air traffic plays a key role for Finland's international competitiveness and for the efficient functioning of the transport system. Over long distances, air traffic is a fast and efficient mode of transport for carrying passengers and goods in a global world. Effective air connections increase the attractiveness of the regions.

From the logistics point of view, air traffic has become increasingly important for Finland. While in terms of volume air cargo accounts for a relatively small share of transport, its share in the value is significantly greater. However, the crucial importance of air traffic does not lie in moving the actual goods, but in activities that enable Finnish production and create a demand for the services we provide: in marketing, sales and all other types of communication, the need for which continues to grow. In this role, there is no alternative to air traffic.

In Finland it has been found necessary to ensure an adequate air traffic service level based on the network principle. The 25 airports operated by Finavia and the airports of Seinäjoki and Mikkeli offer a dense network considering the population and surface area of the country. Although the offer of air connections has so far given a relatively extensive coverage, maintaining a dense network of airports is a challenge. Traffic flows are sparse, the profitability of many routes is low and when examined independently, most of the airports are making a loss. On some routes, there is no competition. The offer of domestic air traffic has reached a turning point at certain airports. As domestic traffic is struggling to make ends meet, low-cost airlines have entered the market and are opening direct international connections from provincial airports.

Air traffic is part of the transport system and public transport services, even though in Finland it has traditionally been considered a separate sector in every respect. From the transport policy perspective, the extent and service level of the airport network should be evaluated as part of other transport infrastructures and services. When examining the airport network, we also have to look at connections from airports to urban centres and the commitment of municipalities to offering public transport services.

There are currently more airlines operating in Finland and their offer of routes is currently wider than ever before. The extensive international long-distance connections from Helsinki-Vantaa airport bring large numbers of both transit passengers and tourists to Finland. The offer of direct international routes to Europe has increased at several Finnish airports. The role of the airport network will change with market development. Domestic

traffic declined in 2008–2010, recovering to the average 2000s level of 5.5 million passengers in 2011. The demand for domestic flights is affected by the offer of direct international flights and, to some extent, domestic flights being replaced by road and rail travel. The competitive situation and, to a great extent, the level of activity of the various players determine which airports manage to win a share of the growth and which are left without.

Air traffic management in Europe is based on the independence of national air space, and it is controlled by monopolies of national service providers. The European air space is highly fragmented. In 2008, the second legislative package on the Single European Sky was adopted, imposing an obligation on the Member States to set up functional airspace blocks¹⁴ within three years of the enforcement of the regulation, by December 2012. A functional airspace block refers to a block based on operational requirements rather than national boundaries, in which the offer of air navigation services and related activities is performance based and optimised, allowing closer cooperation of air navigation service providers to be initiated or, whenever this is more appropriate, the use of a single provider in each functional airspace block. Finland is part of a North European Functional Airspace Block (NEFAB) together with Latvia, Estonia and Norway. The block will be established by an agreement between the states, which is due to be signed in spring 2012. The parties intend to start the block's operations by the beginning of December 2012.

The objective of the NEFAB project is to improve the efficiency of air traffic, improve safety and reduce fuel consumption, while cutting down carbon dioxide emissions. Studies indicate that NEFAB will create benefits amounting to a minimum of EUR 340 million in 2012–2025. These benefits will mainly concern air traffic and the environment. For air passengers, the establishment of NEFAB should be seen in improved punctuality of air traffic and shorter journey times.

52 GOVERNMENT POLICIES AND KEY ACTIONS:

An air traffic strategy will be prepared, which will examine the future outlook for air traffic and assess the viability of the Finnish airport network and the state's role in providing air services, particularly in terms of transport policy and the accessibility of regions. In addition, an agreement will be made on the goals of air traffic in a changing operating environment, taking into account the overall system of public transport services and transport.



9.3 Growth outlook and infrastructure of Russian traffic

The increasing purchasing power of Russian people and the rapid development of services have made Russia an attractive market in which a number of Finnish companies have been highly successful. Trade partnerships with Russia have offered important growth opportunities for Finnish industrial and logistics companies. After the financial crisis of 2009, transit exports are slowly recovering again, increasing their value by 22 per cent in 2011. The volume of transit traffic increased by 5 per cent from the previous year.

Political and economic development in Russia will have a direct impact on trade relations and on transport and transit transport between the two countries. Russian ports are struggling with problems such as lack of capacity and poor road and rail connections. Finland estimates that goods transport will continue through Finnish ports. The competitive advantages of the Finnish route include safety, availability of storage facilities and added value services, as well as predictable delivery times.

An extended negotiation process on Russia's accession to the *World Trade Organisation* lasting 18 years was concluded in December 2011. Russia is likely to join the organisation in summer 2012. For Finland, Russia's WTO membership will be particularly significant in terms of a general fall in the levels of customs dues and a lowering of charges for import goods in rail transport to match the level of Russia's internal charges.

Along with the decision on Russia's WTO membership, an agreement between Russia and the EU on reforming the system of Siberian overflight fees entered into force on 1 January 2012. The aim of this agreement is to gradually abolish the significant overflight fees levied by Russia. The normalisation of overflight fees will be important for Finnair, which has been paying tens of millions of Euros to Aeroflot annually for connections between Finland and Russia and for flying over Siberia.

Since the financial crisis, the increase in tourism from St Petersburg and Finland's neighbouring areas to Finland has broken all records, and in 2011, 10.6 million travellers crossed the border between the two countries. The EU and Russia set visa free travel as their joint long-term objective in 2003. In 2011, the parties agreed on common steps, i.e. the conditions of visa free travel that must be met before a decision can be made on starting negotiations on a visa free regime. The Border Guard estimates that the number of people crossing the border will double, or reach approximately 20 million, even without the exemption from visa requirements. Visa

free travel from Russia, if realised, would raise these numbers even further.

Needs for developing border crossings for road traffic mainly apply to the four southernmost international border crossings (Vaalimaa, Nuijamaa, Imatra and Niirala), through which 90 percent of the passenger and goods traffic cross the eastern border. The current estimate is that the increase in passenger traffic at the busiest border crossings will in the future be 8–10 per cent annually. It is estimated that cross-border goods traffic will also increase in the future. As far as goods transport is concerned, it is expected that the peak levels of 2008 will be reached in the next few years.

Cross-border traffic and traffic corridors to the border between Finland and Russia need to be developed, and future needs should also be taken into account in the resources available to the authorities concerned. The Finnish road network and connections from the border to major growth centres and to international airports should be improved. The roads leading to border crossings must be repaired to match the traffic volumes and meet the requirements of international traffic. The equipment at border crossings should be improved; after passenger and goods traffic flows at Vaalimaa border crossing have been separated, special priorities will include extending the road border crossing station at Imatra and the new border crossing station opened at Nuijamaa in 2006.

A new agreement on connecting railway traffic between Finland and Russia, applying to direct international rail traffic between the two countries, is being negotiated, with the negotiations due for completion in 2013–2014. Under the new agreement, all border crossing points for rail traffic will be opened for all types of goods transport. The border control authorities have not yet made a final decision on international rail transport of goods across the border at Imatrankoski. The Finnish authorities (Customs/Border Guard) have announced that they are ready to authorise international rail traffic across the border. On the Russian side, arrangements, equipment and devices will be needed at the border crossing before the Russian border control authorities can authorise its opening to international traffic. Directing foreign trade transport through the Imatrankoski border-crossing station will require investments in the rail network from Luumäki to Imatra on the Finnish side. A capacity increase will be absolutely necessary in order to capitalise on the growth in Russia. International rail passenger traffic has been increasing rapidly along with fast rail connections and a better service level. As goods transport may be transferred to the Imatrankoski route, the needs of passenger services from Luumäki to Vainikkala should also be examined. Increasing capacity on the rail section via Vainikkala will enable an increase in popular high-speed rail traffic.

A protocol amending the air services agreement between Finland and Russia was signed in Moscow in September 2011. This protocol aims to remove competition restrictions in air services between Finland and Russia and to bring cooperation between airlines to a level that meets the requirements

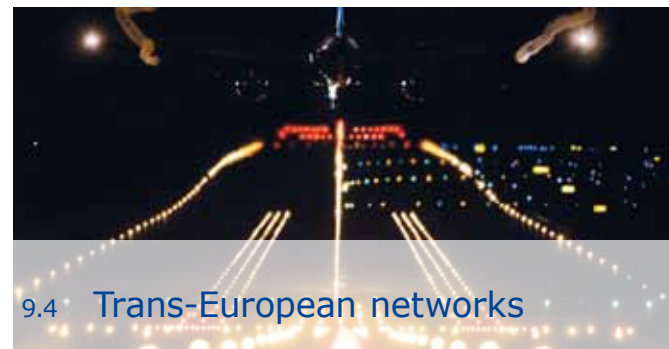
14) FAB, Functional Airspace Block

of practices generally applied in international air traffic. A government proposal on the enforcement of the protocol will be submitted to Parliament in March 2012. When the protocol enters into force, it may at best increase competition between airlines and thus result in a wider offer of air connections and lower flight prices, also due to the normalisation of charges paid by airlines.

GOVERNMENT POLICIES AND KEY ACTIONS:

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The increase in traffic to and from Russia will be taken into consideration, and steps will be taken to ensure the adequate capacity and efficiency of customs and border-crossing station arrangements and traffic corridors to the border-crossing stations. Preparations will be made for opening the border-crossing station at Imatrankoski to international goods transport by rail, and the required investments will be made. Efforts will be made to ensure effective lobbying by Finland in the EU in issues relating to Russia. Cooperation between the Finnish and Russian authorities will be developed on both sides of the border and at all possible levels.



9.4 Trans-European networks

Trans-European networks play a major role in ensuring sustainable traffic and competitiveness in Europe and the well-being of European people, while also guaranteeing the mobility of goods and passengers. In October 2001, the European Commission gave its proposal on reviewing the policies on Trans-European transport networks (TEN-T) and for the new TEN-T transport network. The most significant reform in the Commission's proposal was a dual-layer approach to the TEN-T network. The new TEN-T network will consist of a comprehensive network and a core network. The core network will comprise the strategically most important parts of the transport network and form the backbone of the European transport network. According to the proposal, the core network should be completed by 2030 and the comprehensive network by 2050.

Following this proposal, the Finnish core network will consist of the earlier priority projects, or the Nordic Triangle, Motorways of the Sea and Rail Baltica. In the Finnish context, the Nordic Triangle refers to motorway E18 and the rail link from Turku to Vainikkala. The Motorways of the Sea are the maritime dimension of the TEN-T network. The Baltic Sea motorway connects the EU Member States on the Baltic Sea to Central and Western Europe. Rail Baltica forms a traffic corridor from Helsinki to Tallinn and via the Baltic countries to Warsaw. As a new priority connection, the Bothnian Corridor was added to the Finnish network. On the Finnish side, the Bothnian Corridor around the Gulf of Bothnia comprises the main railway line from Helsinki to Tornio and Main road 4 Helsinki-Jyväskylä-Kemi.

For the Member States, the reviewed guidelines mean more stringent technical criteria for transport network implementation. It is intended that the new guidelines will enter into force after 2013. The first stage of implementing the TEN-T core network will take place in 2014–2020. Finland must be prepared to develop the core network sections to a standard meeting the criteria by the end of 2030. If the new Connecting Europe Facility proposed by the Commission is adopted and introduced, Finland will be eligible for TEN-T subsidies for the railway and Motorways of the Sea projects of the core network for 2014–2020. However, no subsidies will be available from this facility for road projects, which will have to rely on national funding. Funding for the comprehensive network will also to a great extent be the responsibility of the Member States themselves.

GOVERNMENT POLICIES AND KEY ACTIONS:

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Finland will be prepared to develop its TEN-T core network sections to the required standard by the end of 2030.



10. Impact assessment

Transport policy includes target areas and perspectives derived from a large set of societal objectives, with varying levels of specificity and measurability. For the purposes of this report, a frame of reference for assessing impacts and effectiveness was formed by combining features of the transport vision with future challenges described in the report and domestic and international references. Six fundamental target areas were identified: (1) service level, (2) economic growth, (3) safety, (4) climate and the environment, (5) equality and (6) public finances. These can be divided into more specific targets and have further linkages with the policy proposals and measures described in the report. The impact assessments discussed in the report analyse the consequences of the policy proposals and the way in which the proposals will promote reaching the set objectives from the perspective of impacts. In addition, it was assessed whether the proposals have positive or negative effects that deviate from the direction of the objectives.

Service level. The report proposes that in the future, citizens' service level needs and experiences be used to an increasing extent as starting points for planning and decision-making. This policy will affect the content of planning and R&D activities in the transport sector during the government term. An attempt will be made to break down the silo mentality existing in various administrative branches, to build up networks of actors and, at least partially, to bring the activities closer to the local level. The realisation of concrete results will, however, take time.

The main objective of the transport network development programme (Appendix 1) proposed for the government term is to increase transport infrastructure capacity and to improve the punctuality and cost-effectiveness of travel and transport. An additional objective will be to improve safety, although the environmental impacts are likely to remain minor.

Important service level factors in passenger traffic are the travel time and predictability of journeys as well as the availability of traffic information. The development programme projects with the most significant impacts on these factors will be those serving the high traffic volumes of the Helsinki Metropolitan Area (Motorway 101 Ring Road I and E18 Ring Road III, the Helsinki–Riihimäki railway line and Helsinki railway yard), which will improve the performance, punctuality and safety of traffic. The railway projects in particular will have positive impacts on travel times and their predictability over an extensive area in Finland, as a significant proportion of travel chains extend to the Helsinki Metropolitan Area, and the performance of rail traffic in this area will have an impact on the efficiency of the system nationally. The daily operability on main roads will remain at a good level, and the service level will be developed by both major and minor investments in various parts of the country.

The policy proposal to focus on public transport and promote walking and cycling in urban regions will have an impact on the service level of everyday travel. In the next few years, work to develop public transport will focus on ticket and information systems. During subsequent government terms, the results of this emphasis will start to be seen in an improvement in the rail traffic service level. In public transport between cities, transport services and their pricing will be diversified and a basic service level will be ensured. The incidence of disruptions in rail traffic will be reduced or, at least, disruptions will be dealt with more efficiently. Introducing a consistent ticket and information system will make the system more manageable as a whole. On the other hand, the opening up of competition will increase the number of actors, which may be an obstacle to the development of consistency. To respond to the needs of motoring traffic, management and information services will be developed.

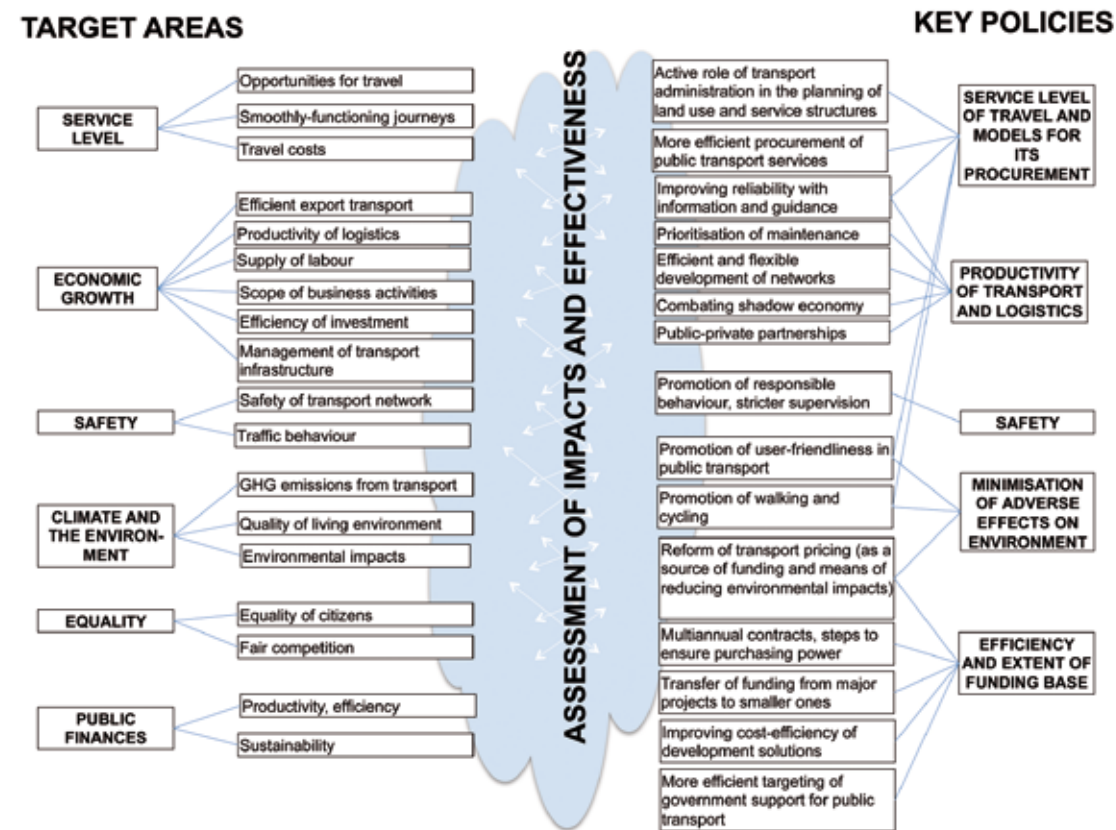


Figure 4.
Frame of reference for assessing transport policy impacts and effectiveness

The policy proposal to give taxes and charges a stronger guiding role in transport policy aims to influence people's choices of travel alternatives. Considering the objectives of changes in pricing, it is obvious that the price of motoring will go up and thus increase the transport costs incurred by households. This will happen regardless of the transport policy proposals as subsidies allocated to road traffic are reduced and taxes increased to balance public finances. The extent and regional targeting of these impacts cannot yet be anticipated.

Economic growth. Improving the service level of main corridors will have an impact above all on the productivity of transport intensive enterprises by improving the quality of one factor of production (infrastructure). Less funding will be available for maintaining lower-volume roads and minor investments, and in this area, the service level may deteriorate in places. Service level improvements targeting export transport are the most important for economic growth. A strategy that aims at preserving the service level of icebreaking and the procurement of icebreakers will be crucial for export transport.

The transport network development programme aims to improve the service levels of foreign trade transport chains and domestic long-haul transport on key transport routes. A good service level of the main corridors will support economic growth and the competitiveness of regions. Punctuality can in particular be promoted by developing Motorway E18 (Ring Road III, Hamina–Vaalimaa, the waiting area for lorries at

Vaalimaa), but also other main corridor projects. Railway and waterway projects (including the Rauma fairway, the Ylivieska–Iisalmi–Kontiomäki railway connection and the Riihimäki triangle line) will improve the cost-effectiveness of transports.

In urban regions, improving the transport service level will have an impact on accessibility and thus improve the availability of another production factor (workforce). The policy proposals on developing procurement of services in construction, maintenance, operation and transport by providing incentives for innovation and productivity will benefit business, as will the opening of new business opportunities, for example in intelligent transport services and in connection with traffic corridor investments. Companies are also increasingly taking part in the planning and funding of transport investments as various new contract models become more common. If successful, these policies will increase the turnover of business operations, improve productivity and increase the added value of the economy. The extent of this impact cannot yet be assessed.

As a main theme, economic growth will benefit if transport policy aims at better productivity by allocating a larger proportion of funding on the basis of need, or demand, to urban regions and to the core network. Improving public sector productivity will reduce pressures to increase taxation, which, as a rule, would undermine the possibilities for business operation. A reform of the taxation and charging system will

also have impacts on businesses. The nature and magnitude of these impacts will depend on the details of the tax reform, including how the taxes and subsidies currently targeting goods transport and mobility of labour are handled.

The proposal in this report to shift the focus of funding from major network development projects towards repair investments, maintenance and, in general, to offering a wider range of development solutions will benefit economic growth. The change will take place slowly, and it is therefore important to identify needs and take prompt action.

Safety. The transport network development programme will renew control systems for road, sea and rail traffic, improving the safety of shipping in particular. Road network projects will improve traffic safety in many areas. The proposals of the report also address irresponsible behaviour on the roads and the use of intoxicants in traffic, for example by seeking new operating practices that will enable more efficient traffic surveillance, by introducing new techniques for monitoring drink-driving limits and by promoting traffic education and treatment and support measures for those with a drinking problem. Increased surveillance and lower speeds could rapidly reduce fatalities in traffic. The impacts of awareness-raising will be realised over a longer time span through changing attitudes.

Climate and the environment. The key objective of taxation and charging practices proposed in the report is to reduce greenhouse gas emissions from transport. Pricing changes could potentially reduce private motoring by up to one fifth. The real impact will naturally depend on the nature of the reforms to be implemented and the entire system of transport taxes and subsidies. Improving the energy efficiency of public transport services and public procurement targets (including fleet) will not have a significant impact on total greenhouse gas emissions in the short term, but over a longer time span it may encourage responsible action in a wider sense and thus even produce considerable knock-on effects.

Measures that improve the energy efficiency of transport and reduce the amount of greenhouse gases often also have a positive impact on other environmental impacts, including noise, the quality of the transport environment and air quality. In shipping, regulating speeds has a highly significant potential to reduce emissions of all compounds. On the other hand, slower maritime transport would add to the challenges of efficient export industry logistics.

Equality. The report actively addresses the issue of equality in the transport system as regards basic service level and accessibility. On the other hand, the report also includes proposals that have negative impacts on equality objectives. In order to uphold equality in different parts of the country, basic long-distance connections will be ensured as far as possible. On the other hand, the service level of regional public transport will continue to vary in different parts of the country. Equality will also be influenced by the extent to which transport pricing changes the taxes and subsidies currently affecting residents of sparsely populated areas and low-wage commuters.

Public finances. The report's proposals on improving efficiency address the structural challenges of transport sector funding. Firstly, these proposals will reduce pressures to increase public expenditure on the procurement of transport services, thus enabling greater efficiency in maintaining the service level of public transport. A greater proportion of public transport funding will be directed to urban regions, where its impact on such factors as the growth of user numbers will be the greatest. Secondly, better productivity in developing the service level of traffic routes will be sought through cooperation and better planning. The experiments referred to in the report indicate that in the development of main roads in particular, solutions of a new type have considerable potential for improving efficiency. The search for more efficient solutions will continue, especially regarding the planning targets earmarked in the report for implementation during the current government term.

The third structural challenge facing the transport system is increases in transport emissions, congestion and safety problems, and on the other hand, the repair backlog of transport infrastructure. While the report contains several proposals that address this challenge, the one with the highest potential impact concerns the use of taxes and charges as a transport policy instrument. The pricing of transport can help to guide current choices in a more sustainable direction in the long term. At the same time, pricing reforms will have an impact on public revenue: increasing a tax or a charge will increase the revenue from this tax directly, while on the other hand it will reduce the revenue from other forms of taxation through changes in consumption.

The traffic route investments amounting to over EUR 1.3 billion to be initiated during this government term will have a direct impact on the turnover, added value and labour input of the companies selected for the design and construction work. In addition to the direct impact, the investments will generate intermediate inputs in the delivery chain and, further, indirect consequential effects. In all, the transport infrastructure investments to be initiated during this government term will increase the turnover of an extremely large number of companies by a total of EUR 2.6 billion and raise the demand for workforce by 15,800 person-years. Based on the location of the investment targets, the strongest impacts in terms of demand and employment will be felt in the regions of Uusimaa (34 per cent), Kymenlaakso (20 per cent), Varsinais-Suomi (9 per cent) and South Karelia (7 per cent). However, the impacts will filter through to large areas, depending on the contractors selected for the projects and their procurement chains.

The implementation of the policy proposals in this report will be monitored during the government term. In addition to policy implementation, transport administration will monitor the development of the transport system status on a continuous basis. The following key indicators and data sources for monitoring can be set for the objectives discussed in this report.

Table 1. Key indicators for the objectives discussed in the report

QUESTIONS DERIVED FROM THE TRANSPORT VISION (2030)	MONITORING INDICATORS	DATA SOURCES FOR MONITORING
Service level		
<ul style="list-style-type: none"> DOES THE TRANSPORT SYSTEM SERVICE LEVEL MEET CITIZENS' NEEDS? 	Citizens' satisfaction with the transport system and travel chains	Finnish Transport Agency survey
Economic growth		
<ul style="list-style-type: none"> DOES THE TRANSPORT SYSTEM PROVIDE BUSINESSES WITH OPPORTUNITIES FOR GLOBALLY COMPETITIVE OPERATION? 	Satisfaction of businesses with the transport system <i>Global Competitiveness Index</i> <ul style="list-style-type: none"> ranking of Finnish infrastructure as part of competitiveness 	Finnish Transport Agency survey <i>World Economic Forum</i>
<ul style="list-style-type: none"> DOES FINLAND'S LOGISTIC EFFICIENCY COMPENSATE FOR OUR GEOGRAPHICAL LOCATION? 	<i>Logistics Performance Index</i> <ul style="list-style-type: none"> quality level of Finnish logistics ranking of Finnish logistics 	World Bank
<ul style="list-style-type: none"> IS THE TRANSPORT SYSTEM RELIABLE AND PREDICTABLE? 	Monitoring of transport network condition <ul style="list-style-type: none"> restrictions in the network due to poor condition 	Finnish Transport Agency
	Monitoring of traffic punctuality <ul style="list-style-type: none"> punctuality of local trains punctuality of long-distance trains waiting times for icebreaking 	Finnish Transport Agency
	Monitoring of travel times on the main road network	Finnish Transport Agency
Safety		
<ul style="list-style-type: none"> IS TRAVEL AND TRANSPORT SAFE? 	Hazardous situations in air, sea and rail traffic	Accident Investigation Board
	Road accident statistics <ul style="list-style-type: none"> fatalities in road traffic injuries in road traffic 	Statistics Finland
	Monitoring of traffic behaviour <ul style="list-style-type: none"> cases of drink-driving driving speeds 	Liikenneturva (central organisation for Finnish traffic safety work)
Climate and the environment		
<ul style="list-style-type: none"> HAVE THE IMPACTS OF TRANSPORT BEEN MINIMISED? 	Trends in emissions and energy consumption of domestic road, rail, waterborne and air traffic <ul style="list-style-type: none"> volume of CO₂ emissions from transport 	LIPASTO model by VTT
<ul style="list-style-type: none"> IS THE LIVING ENVIRONMENT CLEAN AND ATTRACTIVE? 	Vehicle register <ul style="list-style-type: none"> CO₂ emissions from cars and vans registered for the first time 	Finnish Transport Safety Agency
	Traffic noise studies <ul style="list-style-type: none"> number of those exposed to noise 	Ministry of the Environment
Equality		
<ul style="list-style-type: none"> DOES EVERY CITIZEN HAVE AN OPPORTUNITY FOR A VIABLE EVERYDAY LIFE? 	Citizens' satisfaction with the transport system and travel chains	Finnish Transport Agency survey
	Public transport performance statistics <ul style="list-style-type: none"> provision of public transport services travel reimbursements 	Finnish Transport Agency
Public finances		
<ul style="list-style-type: none"> ARE RESOURCES USED EFFICIENTLY? 	Efficiency of resource use <ul style="list-style-type: none"> Transport expenses in proportion to benefits gained with the inputs (described by all the indicators listed above) 	Ministry of Transport and Communications, expert assessment

11. Conclusion

The preparation of the Transport Policy Report falls in a period that has been characterised by mounting uncertainty about the future of common European economic policy. It has become obvious that recovering from the recession will take time and that we are facing a long period of slow growth. At the same time, the Government will have to shoulder the responsibility for balancing central government finances in the long term, which cannot be achieved without tightening the state's purse strings further.

In government budget discussions on 22 March 2012, an agreement was reached on Budget spending limits for 2013–2016 and transport projects to be launched during this period. On the basis of an examination of the current status of transport networks and the wishes of regional actors, urgent development targets amounting to EUR 8 billion were identified for the next few years. During the current government term, the focus will be on reducing emissions, improving traffic safety and implementing vital business projects that will promote growth. Reviving the export sector will play a key role in the recovery of our economy. This will also determine the direction of transport policy. It is not possible to fulfil all the wishes, but an input of one billion Euros in transport infrastructure while the country is facing today's economic pressures is a major decision that will support positive development of the economy and employment as well as regional development.

In addition to transport investments, this report was expected to identify new instruments for funding the transport system. In order to remedy the shortcomings of the transport network at a faster pace or to increase the volume of investments, it has been suggested that Infra Oy or private investors should be called in to help with the efforts. An analysis conducted while preparing the Transport Policy Report indicated that it will be possible to increase the flexibility of current budget funding to facilitate project management and to ensure that projects can be carried through in a way that is efficient from the socio-economic point of view. The doors were not closed on the possibility of new funding arrangements, but their role must be found alongside normal budget funding and they must support efficient use of this type of funding.

Funding granted to the transport system will always be a compromise between the different needs of society. In spite of the scarcer resources, we have managed to maintain the Finnish transport network in a reasonable condition. As this decade draws to a close, the backdrop for transport sector funding is likely to be different from today's situation. One of the long-term objectives of EU transport policy is to apply user charges to every vehicle in the entire transport network. In Finland, a long-term progress plan for

transport pricing is being drafted under the direction of Jorma Ollila.

The Government Programme stresses that transport policy will be linked comprehensively and across administrative borders to the framework of economic, financial, employment and regional development. The E18 growth corridor project that is currently underway will be an excellent platform for testing this, as it seeks new perspectives for value production in transport solutions. In a sustainable, user-centred service society, infrastructure, travel and logistics are approached as services and sources of growth, competitiveness and well-being. In this mindset, the corridor becomes a flexible and intelligent platform which, together with the services connected to it, enables innovations and business development and thus supports the sustainable growth and the well-being of the surrounding community. The first steps along this road are being taken right now.

Transport policy is faced with new types of expectations, which challenge us to widen our horizons. A perspective that examines issues by individual sector is no longer sufficient, and we need to improve the impact of our entire public policy. In the context of preparing this report, new fundamental development needs were identified in the procedures for assessing the impact of transport policy – and public policy in a wider sense – which should be addressed during the government term. Systematic development of procedures will support the long-term effect of the policy and the continuity of objectives set, while also enabling both content-related and processual learning.

The slower economic and productivity growth and cost pressures resulting from the ageing population will force Finland to increase the efficiency of its public sector. The task of central government is to assume its share of the responsibility for ensuring that society functions in a manner that is economically, socially and environmentally sustainable. Typically, productivity growth can no longer be achieved by doing more, but by doing things in a new, smarter way than before. We need administration that has the courage to question our current actions and ways of operating, and the enthusiasm to create new solutions to problems that are increasingly complex and extend across the boundaries of administrative sectors. Administration was not traditionally designed to be innovative but to maintain stability and existing structures. Assuming a new role is a challenge, but by no means impossible. The new role of the transport administration as a facilitator and producer of innovations will require goal-oriented development of an operating culture that releases hidden potential. This is the future outlook and common intent that this report aims to bring to the fore.

Appendix 1: Transport network development programme 2012–2015, project descriptions

E18 Hamina–Vaalimaa, EUR 240 million (PPP project, budget authority EUR 560 million)

The entire section (32 km) of this road between Hamina and Vaalimaa will be built as a motorway running to the north of the current road. Five interchanges will be built on this section. The current road will also remain in use. At the western end, this project will join the Hamina bypass to be completed in 2014. After this, E18 will be a continuous motorway throughout its length as foreseen by EU objectives, excluding sections on Ring Road III.

This project is suitable for implementation as a Public-Private Partnership project. The total cost of design, investment, maintenance and funding of the PPP project amounts to EUR 560 million, of which the investment costs at the price levels of the estimated time of implementation are EUR 240 million. The cost-benefit ratio will be 1.1.

The project will improve the opportunities for business operations, trade and tourism between Finland and Russia, as well as the smooth running and safety of traffic on a road section with a significant load of heavy goods traffic.

E18 waiting area for lorries at Vaalimaa, EUR 25 million

Vaalimaa is the busiest border crossing for traffic across the Finnish-Russian border. In order to reduce queues of lorries, the waiting area for lorries at the border crossing has already been expanded, and a waiting lane for heavy traffic has been built on Main road 7.

In this project, a waiting area for 500 lorries will be built to the south of the border crossing. A traffic control system, lighting and necessary basic services will also be built in the area. The road plan will enable further enlargement of the area to take 1,000 lorries. A charge for using the area is being planned for lorry traffic.

When the project is implemented, queues of trucks and lorries on the road will be shortened by some 15 km, and long queues will only occur on rare occasions. Congestion on the road will be reduced and traffic safety improved.

Main road 3 Tampere–Vaasa (at Laihia), EUR 20 million

Phase I of this connection project, an intersection of Main roads 3 and 18 will be built at Laihia.

Measures of phase I of the project are part of the development of Main road 3 from Tampere to Vaasa, and the construction projects also include a 4-lane bypass in Hämeenkyrö, bypasses around key urban settlements, new roads with median barriers, as well as parallel roads and interchanges. The cost of the entire project concerning this section will be EUR 185 million. The cost-benefit ratio will be 1.6.

The project as a whole will enable the development of land use in urban settlements. Separating the driving directions and constructing interchanges will improve traffic safety and the smooth flow of traffic on this road section.

Main road 5 at Mikkeli, EUR 20 million

On Main road 5, the section between Pitkäjärvi and Visulahti will be converted into a four-lane road, interchanges will be improved and ground water and noise barriers will be built. The project will eliminate capacity problems on Main road 5 on the busiest section at Mikkeli town centre. The number of those exposed to noise will be reduced on the section between Mikkeli and Visulahti. The risk of contamination of the Pursiala ground water area will be reduced.

The project is part of the development of the Mikkeli-Juva section of Main road 5. The cost of the entire project will be EUR 100 million, and the cost-benefit ratio will be 2.3.

Main road 6 Taavetti–Lappeenranta, EUR 90 million

The service level of Main road 6 on the Taavetti-Lappeenranta section will be improved. The plans for this section will be reviewed to find a cost-effective, optimal and user-centred solution. Brainstorming to find a solution will be open and will involve interaction with users and businesses. Any cost savings resulting from a less complex planning solution can be allocated to starting the Lahti-Kouvola section on Main road 12.

Main road 8 Turku–Pori, EUR 100 million

The service level of Main road 8 on the Turku-Pori section will be improved. The plans for this section will be reviewed to find a cost-effective, optimal and user-centred solution. Brainstorming to find a solution will be open and will involve interaction with users and businesses. The objective is to improve the service level, traffic safety and smooth flow of traffic over the entire section. As part of this project, the risk of contamination in ground water areas and pumping stations important for water supply will be reduced (Masku).

Repairs of areas with ground frost damage and soft soils on main railway lines, EUR 85 million

Sections where railway stability needs to be improved are found almost everywhere on the rail network. In this project, ground frost damage will be repaired at the most critical sites, to be specified in the planning stage.

The project aims to improve the safety and punctuality of train traffic and to ensure the stability of railways and ability to prevent collapse. Trains meeting the new European standards expose the railway bed to heavier loads, and for this reason, the stability of the railway has deteriorated in some soft soil areas to the point where it no longer meets an acceptable degree of safety. Railways in soft soil areas will be repaired, for example by building supporting embankments, by stabilisation and constructing retaining steel walls beside the track. By replacing the existing sub-base of the railway, stability can be improved while eliminating the cause of ground frost damage in the subsoil.

Riihimäki triangle line, EUR 10 million

The aim of this project is to build the Riihimäki Triangle Line from the direction of Kouvola towards Tampere over a distance of approx. 1.5 km, which will enable direct and flexible operation of goods trains between the busiest railway marshalling yards on the rail network. Currently, trains have to be directed to the goods yard at Riihimäki, due to the change of running direction. The cost-benefit ratio will be 1.1.

The project will reduce the number of train manoeuvres and make traffic operation more efficient. Building the triangle line will reduce the need to invest in railway yards.

Improvement of the rail connection Ylivieska–Iisalmi–Kontiomäki (electrification), EUR 90 million

The project consists of the electrification of the Ylivieska-Iisalmi rail section, construction of the Iisalmi triangle line and station arrangements to ensure smoother flow of traffic. The cost-benefit ratio will be 2.2.

The project can help to increase the capacity of the railway, facilitating the transportation of calcinate from Siilinjärvi together with Talvivaara mine traffic. Operation costs will be cut. The greatest savings will be obtained through the Iisalmi triangle line and the electrification of the Iisalmi-Ylivieska section, especially in the export transportation of industrial products. Electrification of the Ylivieska-Iisalmi section will reduce carbon dioxide emissions from trains.

Rauma fairway, EUR 20 million

The project comprises the dredging and depositing of soils in connection with deepening the current 10.0 m Rauma fairway, as well as aids to navigation required for marking the fairway. In this project, the fairway depth will be increased to meet the requirements of a navigation depth of 11.0 metres. The cost-benefit ratio will be 2.1.

The project will improve the economy of long-distance transport of paper, raw material transport and container traffic.

Motorway 101, improvement of Ring Road I, state share EUR 35 million

Ring Road I (Länsiväylä–Itäväylä) is the road subject to the worst congestion in the Helsinki Metropolitan Area. Due to its high traffic volumes of 30,000–106,000 vehicles a day, the traffic is highly vulnerable to disruptions. Long, stationary queues are seen on Ring Road I on a daily basis, and the road is very prone to accidents.

Improvements of Ring Road I will be made at several sites. The most urgent of these for the smooth running of Ring Road I are the following: construction of an interchange at Kivikontie, building additional lanes on Ring Road I on the stretch between the Espoo boundary and Vihdintie (Motorway 120), and implementing phase I ramp arrangements at the Hämeenlinnaväylä interchange (Main road 3). The estimated cost of this project will be EUR 50 million, of which the state's contribution will be EUR 35 million.

The Ring Road I improvement project also comprises the construction of the Itäväylä interchange, to be implemented later. The cost estimate of the entire project is EUR 175 million.

Capacity improvement on Helsinki–Riihimäki railway section (Kyrölä–Jokela, Riihimäki), EUR 150 million

In this project, two additional sets of tracks will be built between Kyrölä and Jokela, and track arrangements that will increase capacity will be made at stations.

The entire project of increasing the capacity of the Helsinki–Riihimäki section will also include the construction of one set of tracks for goods traffic on the Hyvinkää–Riihimäki section. Additional tracks will also be built from Kytömaa to Kyrölä and Purola to Jokela, as well as a goods track in Kerava in the direction of the Kerava-Lahti direct line. The cost estimate of the entire project is approx. EUR 350 million. The cost-benefit ratio will be 1.0.

The opportunities for developing the provision of train services will increase and the flow of traffic in the event of disruptions will improve. The supply of commuter train services can be increased to four pairs of trains an hour between Helsinki and Riihimäki.

E18, development of Ring Road III (interchange of Lentoasemantie, improvement of the Lahdentie–Porvoonväylä section), statutory government contribution EUR 110 million

Land use along Ring Road III is growing rapidly, and light-controlled level intersections are badly congested in both mornings and afternoons. The short entry and exit ramps of interchanges obstruct smooth entry and exit from Ring Road III. The smooth running of traffic is also impeded by too short acceleration lanes at bus stops.

Priority measures of this project include improving the section between Lahdenväylä (Road 4) and Porvoonväylä (Road 7). Between Lahdentie and the interchange at Hakunila, third lanes will be built, and new ramps will be built at the Porvoonväylä intersection, after which the left turns and traffic lights on Ring Road III will be eliminated. The interchange at Lentoasemantie on Ring Road III will be improved by building extra ramps. The light-controlled level intersection of Lentoasemantie and Tikkurilantie will be replaced by an interchange. Bus ramps and stops will be improved. A traffic management system will be implemented between Ring Road III and Porvoo. The estimated cost of these measures will be EUR 150 million, of which the state's contribution will be EUR 110 million. The project will considerably improve the capacity of the corridor, and the smooth flow and reliability of traffic during peak periods.

Improvement measures on Ring Road III to be implemented later include ramp and public transport arrangements as well as noise barriers at interchanges on the Vanhakartano-Lentoasemantie section. The cost estimate of the project package is EUR 290 million. The cost-benefit ratio will be 2.5.

Raw timber terminals, EUR 40 million

The project consists of minor investments in the existing loading areas for raw timber (20 sites). In addition, terminals will be built, the most urgent of which are the Kemijärvi terminal, the expansion of the Kontionmäki terminal and extending the track at the Kitee terminal.

This project is part of the development of biofuel and raw timber transport, which involves not only the improvement of raw timber terminals but also of sites exposed to ground frost damage and weak bridges on road transport routes. The cost estimate of the project package is EUR 120 million. *

Main road 22 Oulu–Kajaani, EUR 45 million

Main road 22 will be widened at Oulu on the Joutsentie–Iinatti section to comprise four lanes, and new ramps will be built at the interchange of Iinatti. The intersections of Poikkimaantie, Oulunlahdentie, Heikkilänkangas and Madekoski will be improved. The road will be widened on the Utajärvi–Vaala and Vaala–Paltamo sections. Overtaking lanes will be built at Pikkarala, Hyrkkää and Kivesvaara. Intersection and cycle path arrangements will also be implemented at Oulu, Muhos, Utajärvi, Vaala and Paltamo, and ground water barriers will be built at Vaala.

The smooth flow of car traffic will be improved especially in the urban region of Oulu, and on other sections with high volumes of traffic, traffic fluency will remain at least at the current levels despite the increasing traffic volumes. Traffic safety will be improved on the main road and at intersections.

Main road 4 at Rovaniemi, EUR 25 million

In this project, the four-lane section will be extended to Oijustie, interchanges will be built at Oijustie and Vierustie, noise barriers will be built and pedestrian and cycle path arrangements implemented.

The project is part of developing Main road 4 at Rovaniemi. In the entire project, the plan is to extend the current four-lane section of the road to the south and to replace intersections on the whole section with interchanges. The cost estimate of the entire project is EUR 60 million. The cost-benefit ratio will be 1.4. The fluency of traffic on the road and the associated street network will be improved.

MAL project packages (state contribution EUR 30 million, municipalities EUR 30 million)

The basic objective of the letter of intent procedure in land use, housing and transport is to create integrated, viable and competitive urban regions. It is of key importance to target measures promoting a sustainable urban structure at areas where the changes will have the highest impact. The programme contains minor actions relevant to coordinating land use and transport as agreed in the MAL letters of intent to be drawn up with four large urban regions.

The funding will amount to EUR 60 million, which will be allocated as follows: Helsinki region EUR 30 million and the regions of Turku, Tampere and Oulu EUR 10 million each. The state contribution to funding will be 50 per cent, and the municipalities will commit to investing a similar amount in the implementation of the measures and other land use and housing solutions as agreed. The state contribution will be funded from basic transport infrastructure management.

Renewal of road, sea and rail traffic control systems, EUR 90 million

Road, sea, and rail traffic in Finland is controlled 24/7, mainly by technical systems. In the development of road traffic, priority is given to management of disruptions and the overall situation on the roads, in shipping, safety and exchange of information between the different parties involved, and in rail traffic, punctuality and more efficient control operations.

The project of renewing the control systems comprises ICT system projects related to developing the road, sea and rail traffic control systems, as well as equipment and service procurements. The project must be implemented as a whole, but it can proceed in steps. The project will enable more efficient utilisation of the transport network and a better supply of information services in cooperation with other actors.

The cost estimate of the project is EUR 90 million, of which rail traffic accounts for EUR 31 million, road traffic for EUR 30 million and sea traffic for EUR 29 million.

Improvement of the efficiency of Helsinki railway yard, EUR 100 million

The project comprises the procurement of a new railway interlocking system and implementation of an ETCS system. The railway interlocking system has not yet come to the end of its life span, but the renewal process will take some 10 years and it must be initiated in the next few years.

The measures will help to reduce disruptions to train services in the Helsinki area.

Development of connections to mines; projects of high industrial policy significance

Decisions on these projects will be made separately.

Luumäki–Imatra double track and improvement of the connection from Imatra to the Russian border (cost estimate EUR 380 million), planning and design, EUR 10 million

Goods trains from Russia to Finland currently mainly enter via Vainikkala. There are plans to open a new international border crossing station at Imatra and to develop the Imatra border crossing so that it would be suited for other traffic than raw timber transport. The focus of transport from Russia to Finland would in this case shift from Vainikkala to Imatra.

Significant changes to improve capacity must be made on the Luumäki–Imatra railway section to ensure smooth operation on the line as traffic volumes rise. Equipping the section with a double set of tracks will be the most efficient way of increasing its capacity. The connection from Imatra to the Russian border should also be developed.

The cost estimate of designing the Luumäki–Imatra double track and the improvement of the railway from Imatra to Russia is EUR 10 million.

Appendix 2: Transport network development programme 2016–2022, planning targets

In 2016–2022, the Government is committed to the implementation of the following key projects (approx. EUR 1,300 million):

- City Rail Loop, Helsinki EUR 750 million
- Capacity improvement on the Helsinki–Riihimäki railway section, phase 2 EUR 200 million
- Luumäki–Imatra double track and improving the connection from Imatra to the Russian border EUR 380 million

As regards other targets, the list for 2016–2022 is intended as a programme that guides the planning efforts, describing important sites that require development in the transport network. Steps will be taken to bring the plans for these targets to completion, and further planning efforts will assess alternative solutions and the opportunity to utilise a range of measures. The nature of the programme also enables rapid response, for example to important new projects relating to industrial policy and new priorities. The cost estimate of implementing the planning programme targets totals some EUR 2.2 billion.

The sites included in the ten-year programme also include the project for Savonlinna town centre, phase 3. A decision was made to postpone the implementation of this target in connection with the spending limit discussions on 22 March 2012. The project plans are ready to be implemented.

Other targets of the planning programme (approx. EUR 2,200 million):

Improvement of key corridors (road, rail, waterways) (EUR 900 million)

- Main road 3 Tampere–Vaasa section
- Main road 4 Jyväskylä–Oulu section
- Main road 4 Oulu–Kemi section
- Main road 5 Mikkeli–Juva section
- Main road 9 Tampere–Orivesi section
- Road 12 Lahti South Ring Road
- Main road 12 Lahti–Kouvola
- Improvement of service level on railway section Kouvola–Kotka/Hamina
- Improvement of railway yards
- Kokkola fairway

Helsinki region transport system (EUR 700 million)

- Motorway 101, improvement of Ring Road I
- E18, development of Ring Road III
- Minor, cost-effective projects in the Helsinki Metropolitan Area (KUHA)
- Helsinki Metropolitan Area metro projects (discretionary government grant 30 per cent)
- Espoo urban railway

Other improvements of main roads and railway network (EUR 200 million)

- Ensuring biofuel and raw timber transport
- Electrification of the Hyvinkää–Hanko railway section
- Other improvements of the main road network (targets to be specified)
- Other improvements of the main railway network (sites to be specified)

Other projects in urban regions (EUR 300 million)

- Tram and local train traffic in Tampere and Turku (discretionary government grant 30–50 per cent)
- MAL project packages of urban regions (discretionary government grant 50 per cent)
- Other projects in urban regions (targets to be specified)

Traffic control investments (EUR 100 million)

Supplementary material





Appendix 3: Parliamentary communication 17/2012 vp.

Parliamentary communication 17/2012 vp.

1. If this is allowed by the state of central government finances, additional funding must be allocated to basic transport infrastructure maintenance during the budget planning period. In that case, particular attention should be focused on minor projects that promote the smooth running and safety of traffic. Over the long term, additional funding should be reserved for basic transport infrastructure maintenance that will ensure the adequate condition and necessary development of the transport network, as well as a reduction in real terms of the repair backlog of the ageing transport network.
2. In cooperation with municipalities and road maintenance associations, an overall financial and legislative solution must be found for the maintenance and development of the lower level road network and private roads that will ensure more adequate funding for the lower level and private road network and clarify the responsibilities of various parties.
3. The competitiveness of trade and industries in Finland compared to our competitors must be improved by lowering logistics costs. In particular, the possibilities of introducing a refund system of the diesel tax increase for professional transport should be investigated.
4. The opportunities brought by economic growth in Russia must be more empathically taken into consideration in the national transport policy, and they must also have higher visibility in national formulation of positions related to EU decision-making.
5. The transport sector must reach the transport emission reduction targets set for Finland, for example by promoting the use and development of the latest vehicle technology and sustainable biofuels. In addition, the use of hybrid and electric cars should be promoted, for instance by developing the charging infrastructure and investing in domestic innovation and product development activities in this sector.
6. In cooperation with key representative associations, national lobbying in connection with the preparation of transport policy decisions that play a key role for Finland must be made more effective and put into a sharper focus both in the EU and in various international decision-making forums.

Appendix 4: E18 Growth corridor between Koskenkylä and Vaalimaa

E18 Growth corridor between Koskenkylä and Vaalimaa

Could a road development project produce direct and clear benefits for the companies and municipalities within the project's scope of influence and for the entire region more efficiently, so as to improve the opportunities for competitiveness, economic growth and well-functioning everyday life in a sustainable way?

Current status and challenges

The Koskenkylä-Vaalimaa section of E18 was selected as the target area for the experiment because of the many opportunities it offers. Planning of the easternmost section of the motorway is still underway, and the construction of the Koskenkylä-Kotka section was launched recently. Passenger traffic originating in Russia is already showing strong growth. Russia's future WTO membership and the possibility of visa free travel between Russia and the EU will accelerate this growth even further. The motorway, the large customer potential, the "green motorway" and the "intelligent transport concepts" associated with the road combined with the excellent connections to ports offer companies and municipalities an attractive operating environment with an exceptional number of development opportunities. The E18 road corridor has good potential to develop into a significant, well-functioning transport corridor between the EU and Russia with a high standard of services.

Experiment

The experiment was implemented as an extensive, cross-administrative process together with the Regional Council, municipalities and businesses in the area. The process took the form of small groups and workshops, involving the participation of some 100 people. Responsibility for the practical leadership of the project was assumed by the ELY Centre of Southeast Finland, and the steering group included representatives of the Ministry of Transport and Communications, the Ministry of Employment and the Economy, the Ministry of the Environment, the Finnish Transport Agency, the Finnish Transport Safety Agency, the ELY Centre of Uusimaa and representatives of the Regional Council of Kymenlaakso and municipalities. During the experiment, principles for coordinating the operating conditions for land use, housing, transport, service structures and industries in a sustainable manner were outlined, the participants' joint view on developing the growth corridor in the target area was drafted, and the actors drew up a manifesto on the progress and follow-up measures of the project. The project will not require additional central government investments compared to the current plans, as the "beneficiary pays" principle will be applied to new needs. The old road's new role as a section of the development corridor enabling a variety of activities was recognised, and more attention should be given to this role in the future.

A marketing video was released on the growth corridor, the concept will be presented on international forums, and funding for promoting the project will be applied for from

such sources as the Transport and Logistics Partnership programme of the EU's Northern Dimension.

Key results

The opportunities associated with E18 were recognised; it has potential to develop into a growth corridor in the target area and into an interesting and important traffic corridor between the EU and Russia in general. Drawing on intelligent transport solutions in the E18 growth corridor will create an opportunity for Finnish ICT companies to implement advanced intelligent transport services and to market their expertise. The green aspect brings the corridor opportunities for developing new business as well as offering elements of eco-efficiency and sustainable use of natural resources. In an ideal situation, the corridor will produce the energy it needs from renewable energy sources – wind, solar power and geothermal heat. A joint manifesto on the objectives and follow-up measures of the project was adopted by actors in the area. The businesses in the area, municipalities and the Regional Council will continue the planning and implementation of the growth corridor project together with the ELY Centre and the Finnish Transport Agency.

Conclusions and follow-up measures


As the outcome of the experiment, a new mode of operating was found, in which transport administration together with other branches of administration and actors in the area can more efficiently create opportunities for the competitiveness, growth and development of businesses, municipalities and regions. The application of this practice should in the future be considered in the planning and implementation of transport solutions of public importance.

The success of the close cooperation in the three areas of responsibility of the ELY Centre, which assumed the role of the contracting agency in this experiment, shows that the ELY Centres have good capacity for acting in a more versatile and stronger role, bringing together a number of different administrative branches and promoting regional development. Developing the E18 corridor into a significant growth corridor between the EU and Russia will bring new, international business and jobs to Finland.

Government policy:

As a joint venture between several countries, an E18 growth corridor project will be launched (Oslo-Stockholm-Turku-Helsinki-St. Petersburg). Its aim will be more efficiently to generate opportunities for services and business that support the growth and development of the area through a new type of cooperation between the public sector and businesses.

Cooperation between different areas of responsibility of the ELY Centres will be reinforced, and their expertise ensured in order to make more efficient use of the ELY Centres' role as comprehensive regional experts in business, transport and the environment.



Transport Policy Report 2012 / Experiments
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Appendix 5: More cost-effective development solution for Main road 12 from Lahti to Kouvola




More cost-effective development solution for Main road 12 from Lahti to Kouvola

Would it be possible to find a development solution for this road section that is viable and more cost-effective than the earlier plan and that improves the smooth running and safety of traffic sufficiently?

Current status and challenges

If the current situation persists, growing traffic volumes will result in an increased number of serious road accidents and fatalities, congestion on this road section will increase, and commercial transport will move to other routes. In 2007–2011, 50 accidents resulting in personal injury took place on this section, of which 6 were fatalities and 44 resulted in injuries. It is expected that by 2040, the traffic volumes will have gone up by 40–60 per cent on this connecting road, depending on the section. The volume of motor traffic could at maximum be reduced by 5 per cent by improving public transport (train, bus), but this would have only a minor effect on alleviating the current situation on this main road.

The current development plan, which envisages a standard almost equal to that of a motorway, is so expensive (EUR 176 million) that there is no prospect of funding for its implementation in the present situation. Planning solutions that reach well into the future were considered to be out of scale in view of current needs, and Nastola, Iitti, Kouvola and the Regional Council of Kymenlaakso thus proposed that the plan should be reviewed in order to accelerate its implementation.

Experiment

The ELY Centre of Southeast Finland is responsible for leading the experiment. Its steering group comprises representatives from the Finnish Transport Agency, the ELY Centre of Uusimaa, municipalities and the Regional Council of Kymenlaakso, as well as consultants. In a process of broad-based cooperation, a new conceptual plan was produced for the road, dividing the project into smaller sections, each of them to be examined separately. The problems and improvement needs of users were studied by means of interview surveys targeted at various user groups, with emphasis on business and transport sector actors and municipalities in the area. Solving the problems affecting this section was also examined from the perspective of the regional structure and the transport system, and improving rail traffic and other public transport was also assessed.

Key results

Four alternative solutions were formulated for the project, for which cost-benefit ratios were calculated, and the expected impacts of each solution were assessed. The solutions were investigated from the perspectives of smoothly running traffic, safety and project cost-efficiency, as well as in terms of the environment and regional structure. The assessment also took into consideration the findings of user interviews. Optimal results would be achieved with a solution costing €96 million, with a cost-benefit ratio of 2.8. This solution could achieve 75 per cent of the targeted impacts. The cost-benefit ratio of the original planning solution costing €176 million was 2.2.

Significant cost savings can be achieved by cutting out expensive split-level intersection solutions, shortening the 4-lane sections from those envisaged in the original plans and building overtaking lanes. Furthermore, by making better use of the existing road, the distance over which a new road alignment needs to be constructed can be shortened. For road sections of a poor standard with the densest roadside habitation and at the Kausala urban settlement, new road alignments to bypass these areas are unavoidable. In the new solution, the road will have 2+2 lanes between Lahti and Nastola, and the other sections will have a median barrier and overtaking lanes.

Conclusions and follow-up measures

By means of joint conceptual planning, it was possible to nearly halve the cost estimate, to eliminate all essential problems and to significantly improve the cost-efficiency of the project. It is far more likely that a project costing only half of the original amount will be implemented, and consequently its benefits to society and business will be implemented considerably earlier than those of the original planning solution. It is vital that a similar procedure be followed in other main road section projects in the future. By examining the road sections in a user-centred way and as smaller sub-sections, problems can better be identified, and the most useful and efficient solutions can be selected. At the national level, a greater number of improvement investments can be made, and the impact of the measures can be improved.

Government policy:

Development solutions for road sections to be implemented in the next few years will be reviewed to find a more cost-effective and user-oriented solution and to determine an appropriate scale for the measures.



Transport Policy Report 2012 / Experiments
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Appendix 6: New concepts of passenger services funded from public resources



New concepts of passenger services funded from public resources

Could the organisation of passenger services funded by society be better co-ordinated and more cost-effective, while the service level improves?

Current status and challenges

In 2010, approx. EUR 650 million of reimbursements for special transport services were paid by society, and these costs go up by approx. 8–10 per cent every year. Unless measures are taken to enhance these activities, it is estimated that the annual total of reimbursements will in current values amount to almost EUR 1.4 billion by 2030. Reasons for the soaring costs include the ageing of the population, the centralisation of municipal services, the general increase in transport costs and shortcomings in the coordination and procurement of transport. Various municipal and central government authorities purchase transport services following the guidelines of the Social Welfare Act, the Act on services and assistance for persons with disabilities (laki vammaisuuden perusteella järjestettävistä palveluista ja tukitoimista 380/1987), the Act on special care for persons with intellectual disabilities (laki kehitysvammaisten erityishuollosta 519/1977) the Basic Education Act and the Act on health insurance (sairausvakuutuslaki 1224/2004). Only some of the passenger transport services make use of public transport services that are supported by the municipalities and available to all. Cooperation between the actors is inadequate due to legislative restrictions and boundaries between administrative branches, among other reasons.

Experiment

In this experiment, Kouvola was taken as an example. Kouvola is a city of some 90,000 inhabitants that was formed in 2009 as the result of a merger of six municipalities. The project steering group included representatives from the Ministry of Transport and Communications, Kouvola City, Centres for Economic Development, Transport and the Environment (ELY Centres), the Finnish Transport Agency, and the Association of Finnish Local and Regional Authorities. This work drew on earlier studies on the theme. Kouvola started developing the passenger transport system as part of a programme to develop the finances and productivity of the new town. The system was developed by strengthening cooperation between the various administrations and increasing the share of public transport available for all by introducing

demand-responsive public transport services. The aim is to increase the proportion of all transport services accounted for by public transport, to improve the cost-effectiveness of the transport system and to provide improved services for the elderly and persons with restricted mobility.

The development of productivity is limited not only by the practices of various administrative sectors, but also by the fact that due to the current legislation and funding system, special transport services, including transport reimbursed by the Social Insurance Institution, is to a great extent provided as individual taxi journeys, for which there is an increasing need. The town's measures to promote open public transport and demand-responsive services will not reduce the responsibilities or expenditure of the town. The productivity benefits achieved by making the system more efficient would thus mainly be transferred to the Social Insurance Institution which, unlike the town, is not seeking to gain cost benefits by combining transport or by using public transport. Significant benefits could be gained by combining journeys reimbursed by the Social Insurance Institution and those reimbursed by other public bodies.

Key results

In the future, passenger transport should be planned for the entire sub-region in cooperation with all parties, and compatible e-payment and invoicing systems should be developed. Outdated obstacles and interpretations that artificially restrict efforts to make passenger transport more efficient should be removed from the legislation, for example as regards the division of labour between taxis and buses. The support system for passenger transport purchased with public funds should be reviewed as a whole, to ensure that it steers the parties involved towards service solutions that are economical, rational and acceptable for the user.

Conclusions and follow-up measures

In the future, statutory passenger transport should be planned and provided more efficiently as part of the entire system of passenger transport services in order to avoid soaring costs. If the procurement and planning of transport services can be made more efficient and rational, it is estimated that by 2030, the amount of reimbursements will increase to only EUR 900 million, compared with the projected EUR 1.4 billion. In other words, the potential savings in the 2030 situation are nearly EUR 500 million annually.

Government policy:

Passenger transport funded from public resources, including travel to basic education schools, social and health care services transport, transport reimbursed by the Social Insurance Institution and public transport procured by transport administration will be combined, organising these into more flexible and economical service packages, at the same time ensuring transport services for sparsely populated areas.



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Appendix 7: Key factors in service level and improvement needs of the rural transports network



Key factors in service level and improvement needs of the rural transports network

Which are the key factors in the service level of rural transport, and how could this service level be ensured as cost-effectively as possible? What are the transport network development needs from the perspective of rural industries and forestry, services, companies and short-distance logistics?

Current status and challenges

In terms of rural transports, the road network owned and maintained by the state and private parties comprises the most important traffic corridor. As traffic volumes decline, similar efficiency targets can no longer be set for maintaining the network as for busier corridors. The condition of the unpaved road network is significant for rural industries, including agriculture, forestry and tourism. The service level of the low-volume transport network does not satisfy the users.

Experiment

The ELY Centres of Central Finland and Pohjois-Savo together with the Finnish Transport Agency assessed the service level factors in rural transport and, in particular, development targets for the rural road network, utilising their cooperation networks and the results of a user satisfaction and transport needs survey, as well as the feedback system.

Key results

The study arrived at the three most important key customer groups for reference in dimensioning the measures, through which the service level will be defined: these are raw material supply for forestry/the energy industry, basic agricultural production and the regular travel needs of permanent

residents. The criteria for the classification and quality of roads with low traffic volumes should be specified in cooperation with residents, taking variations dependent on time and place into account. Aspects relevant to transport and the environment should be incorporated in the advisory services and licensing decisions for industrial activities at the ELY Centres.

Shortcomings in the service level of unpaved roads are caused, especially in Northern, Eastern and Central Finland, by poor road conditions in the spring. The problem affecting the paved road network with low traffic volumes is deterioration of the roads' load-bearing capacity and damage to the surface of main roads, which impedes road maintenance especially in the winter. The difficulties of winter maintenance result in traffic operating problems and uncertain transport in places. Repairing unpaved roads, which is important for rural transport, would require additional funding of some EUR 15 million annually. Expanding customer-centred targeted maintenance would require at least EUR 10 million in additional funding annually.

Conclusions and follow-up measures

Even today, the maintenance of the rural road network is relatively successful in allowing for the different needs of various user groups in the allocation and timing of measures. Cooperation with the forest sector, for example, is continuous, and the timing and allocation of measures takes into account important routes for timber transport and annual fluctuations in traffic as well as peak traffic seasons for tourism enterprises and the various needs of agriculture. Regardless of this, the users are not satisfied with the situation. Measures aiming to guarantee day-to-day operability can be made more efficient by using such facilities as geographic information systems and by providing online information for users, for example on the routes and timing of snow ploughing.

In line with the Transport Policy Report, the responsibilities of public and private actors will be clarified; similarly, the various systems and principles for subsidising private roads will be clarified, and the relevant legislation will be updated. In this way, the needs of rural living and businesses can be combined in the allocation of discretionary government grants, also in the case of private roads.



Transport Policy Report 2012 / Experiments

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The national MALPE+Y project on Lahti station area

Is it possible to achieve closer cooperation between the municipality, different central government actors and the private sector in the planning, implementation and funding of urban development to arrive at a solution that reinforces the vitality of the city and is macroeconomically advantageous while implementing the government's strategic goals?

Current status and challenges

The station area is one of the most important areas of growth and development in the City of Lahti. Land ownership in the area is fragmented, and the number of state enterprise landowners alone in the area is five. Key landowners are the state (Finnish Transport Agency, the VR Group, Senate Properties), Renor Oy, KOy Lahden Mannerheiminkatu 13 / Pasi Tinnilä, KOy HTC Aeros c/o Nordisk Renting Oy and the City of Lahti. State enterprises play a key role in developing the area both as the biggest landowner and as a result of transport arrangements. The railway with the associated goods yard and Main road 12 cut right through the Lahti station area and the entire urban structure of the City of Lahti. An essential challenge in developing this area has been the funding of the city's southern main road 12.

Experiment

The MALPE+Y project is associated with a larger planning project on the station area, which comprises an international conceptual design competition concerning the area and the ensuing planning and design process. The planning project focuses primarily on an area located along the railway line through the City of Lahti that is some 300 m wide and 2 km long (approx. 53 ha). The entire area under scrutiny is larger than this, however, totalling more than 100 hectares.

In line with the City of Lahti strategy, the station area will be developed as an example of an ecological and energy-efficient working and residential area. Its traffic arrangements will prioritise walking, cycling and public transport and minimise car traffic.

The aims of the MALPE+Y project include:

- 1) to develop new types of planning practices and, based on a conceptual design competition, to prepare a strategic development plan that combines the objectives of land use, housing, transport, development of business and services as well as environmental objectives.
- 2) to find a new type of operating model for urban development cooperation between the municipality and the state, for reconciling various interests and for overall steering by state agencies.
- 3) to implement the state's real estate strategy and the general interest of the state, in which not only financial impacts but also other societal perspectives will be taken into account, including cohesion of urban structures, life cycle thinking, sustainable development and energy efficiency.
- 4) to develop agreement procedures between municipalities and the state, especially the drawing up of letters of intent (growth, MAL) and targets for their application.

Key results

In addition to developing the actual area, the project also aims to produce results that can be generalised and utilised elsewhere. These include in particular:

- 1) a new type of planning process that takes into account land use, housing, transport, services and businesses
- 2) descriptions of the problems encountered in development cooperation between the city, landowners and the state and the views of the various interested parties as well as development proposals for a planning, negotiation and agreement model between the city and the state.

The results will be described in the final report of the project.

Conclusions

The project will contribute to developing a process that aims at an overall optimum solution for the various parties involved. It will take into consideration the parties' objectives in terms of competitiveness, sustainable development, urban structure development, attractiveness of public transport, walking and cycling and the functioning of the transport system. The financial burdens incurred and the benefits gained by the parties will also be included in the examination. Established good practices can be applied in similar projects in other urban regions.



Transport Policy Report 2012 / Experiments
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Park-and-ride

Would it be possible to find an operating model for accelerating the construction of park-and-ride facilities in large urban regions, thus reducing the number of cars entering urban centres?

Current status and challenges

There is no specific party that has responsibility for park-and-ride facilities. The general principles of an implementation, maintenance and funding model are lacking, which is why the construction of new facilities is slow and uncoordinated. The greatest needs for park-and-ride facilities are in the centres of suburban municipalities, where land value is also the highest. In bus transport, there is a need to develop park-and-ride facilities for new terminals or express bus stops.

Experiment

The trial seeks to create models for the implementation, sharing of responsibility and funding of park-and-ride facilities and bicycle parks at the terminals and nodes of rail traffic and other public transport as a cooperative project involving the Finnish Transport Agency, municipalities, Helsinki Region Transport, the ELY Centres, users, transport operators, landowners and businesses. The objective is to create a contract model for arranging park-and-ride facilities near stations, with defined responsibilities for implementing the project and co-funded by the beneficiaries (state, municipalities, other landowners, transport operator, entrepreneurs). In this model, the increase in land value resulting from station area development will be targeted / earmarked for investments in developing park-and-ride facilities to the extent agreed. As a pilot site, the area of Kauniainen station in the Helsinki Metropolitan Area was examined.

Key results

In the park-and-ride project at Kauniainen, the city council decided not to zone space for a grocery store in connection with the plans for the park and ride facility. The building rights for other uses than park-and-ride facilities that were discussed in the negotiation phase were rather limited



to begin with, and the majority of the costs of the park-and-ride system would thus in any case have been borne by the public sector. In terms of the financial interests of Kauniainen, an excessive proportion of the beneficiaries would have come from Espoo. In negotiations between the landowners (the City of Kauniainen, the VR Group and the Finnish Transport Agency), it was agreed that the City of Kauniainen will plan and implement a car park in the area at its own cost as a temporary solution, using an area owned by the Finnish Transport Agency for parking. Later on, city railway tracks will be built in this area. In connection with the planning of the Espoo-Leppävaara city railway line and before its implementation, the area will be developed further as an attractive park-and-ride solution and part of the park-and-ride system of the Helsinki Metropolitan Area.

Conclusions and follow-up measures

Attractive park-and-ride facilities combined with commercial services is a project that benefits inhabitants and all municipalities in the urban region. The benefits for trade will also be considerable, as station areas are among the most attractive trading locations. New services can be developed in connection with the park-and-ride facilities that would make people's everyday lives easier and draw them to public transport, thus reducing private motoring in urban centres. A requirement for organising park-and-ride facilities partly by private funding is that the municipality will zone extensive new building rights in the plans for the station area.

It is also in the state's interest to co-fund park-and-ride facilities, as they will reduce the investments needed for access routes, the costs of congestion and greenhouse gas emissions. For this reason, simultaneously with this experiment an operating concept is being created where the needs for park-and-ride facilities are assessed and the implementation of the required park-and-ride solutions are included in all significant traffic corridor investment projects. This has already been done in the case of the Ring Rail Line project.

A park-and-ride strategy for the Helsinki Region Transport area will be prepared under the leadership of HRT. This strategy will cover the operating concept, the parties involved and funding. To enable a significant increase in park-and-ride facilities they will have to be specified as part of the public transport infrastructure, and a host organisation will be appointed for them.

Transport Policy Report 2012 / Experiments
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Appendix 10: Supporting the elderly and persons with disabilities living at home



Supporting the elderly and persons with disabilities living at home

What types of new communication possibilities could be used to support the elderly and people with disabilities living at home, and to ensure a safe and stimulating environment for them?

Current status and challenges

People live longer, the baby boom age groups are retiring, and there are fewer and fewer people working in the service sectors. At the same time, a majority of the ageing population would like to live at home for as long as possible. As our technical skills advance, our capacity to use online services improves. To support the ageing population and enable special groups, including the persons with disabilities, to live at home, many types of services exist and are being developed; these services may be ordered through an information network, but implementing the actual service or product requires physical transport (for example, meal services, distribution of medicines, delivering shopping, taking care of basic examinations in the health care sector).

New types of services can be used to support the capacity of elderly people and persons with disabilities to live at home independently, safely and comfortably, at the same time reducing transport needs. From the customers' perspective, the availability of services and the opportunity to live at home are facilitated. There are new ways for family members to keep in touch. The attraction of rural municipalities and their possibilities for organising services will be maintained, also from the viewpoint of the ageing population, and the equality of residents will be improved. The new services will make the municipal employees' work easier.



Thanks to better coordination, transport will be more efficient, and savings can be made in the costs of institutional care, as the aged can go on living at home longer. New business opportunities will emerge for companies. Combining and rationalising transport will reduce transport emissions. A great number of various projects to develop the services are underway. The differentiation of projects in the private and the public sector is an obstacle to the creation of new, more efficient practices. Overall coordination and a long-term shared development vision are lacking.

Experiment

The experiment examined the possibilities offered by current transport legislation. In addition, interfaces with ongoing programmes and projects of wider scope were identified. The Ministry of the Interior, the Ministry of Finance, the Ministry of Employment and the Economy and the Finnish Funding Agency for Technology and Innovation Tekes are currently working on extensive projects that are relevant to this issue.

Key results

The experiment pointed to essential problems and obstacles to developing customer-centred services and their introduction across a broad front. For example, up till now services have been planned for the use of individual municipalities, without necessarily considering the end user. The fragmented and customer-specific nature of service development is also an obstacle to creating effective national solutions. As the outcome of the experiment, it can be said that changes will be needed in the procurement practices, knowledge of the operating licence legislation and competitive bidding processes of the municipalities. Cooperation between different administrative branches must be enhanced in order to create service packages that make sense for the customer.

Conclusions

A joint decision and common intent need to be formulated in order to promote this issue, preferably at the political level. Legislation and operating practices must be developed when necessary to enable efficient action.

Appendix 11: Trafisafe



TRAFISAFE

Is it possible to use intelligent transport technology to develop a device which would automatically give feedback on driver behaviour and steer it in a more responsible direction and which would be sufficiently interesting to motivate parents to take an active part in their children's learning process?

Current status and challenges

The incidence of traffic accidents involving recently qualified drivers has not declined in the last few decades. The safety trends in particular with regard to new drivers is constantly deteriorating compared to European safety trends. Parents have no resources for participating in their children's learning process at the beginning of their driving career, a period during which young drivers are at the greatest risk of accident in their driving careers.

Experiment

A project was initiated to develop a background system (modelling of driving behaviour) and a method for providing feedback (mobile user interface) that automatically gives feedback on the driver's behaviour in traffic. The project was initiated as an R&D project, and the first results of user studies of the device used as the testing platform, the background system and the user interface will be obtained in 2012. In 2013, the experiments and development will continue in Austria.

The principal questions are:

- 1) will the increased volume of feedback change the behaviour of new drivers into a more responsible direction?
- 2) will the device offer functionalities and features that are interesting enough to motivate parents to use it?

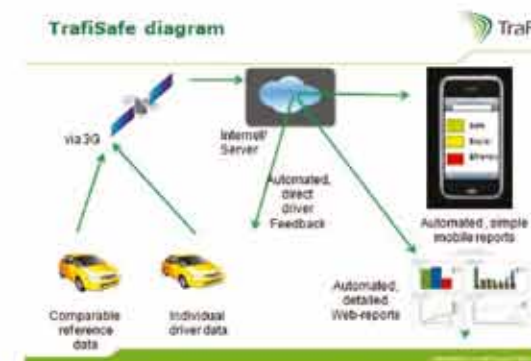
If necessary, the project can be expanded into a research programme in which several devices giving feedback on driver behaviour can be developed on the platform of the background system. Participants in this project include the Finnish Transport Safety Agency Trafi, Test&Training International Planning and Service GmbH of Austria and VTT Technical Research Centre of Finland.

Observations

TrafiSafe is generally considered to be a promising idea. Similar devices are already in use in several countries, but they are built on a different foundation. In a comparison of the different devices' potential in changing driver behaviour, the TrafiSafe concept is at least competitive with any other existing system. A service of this type would have a large market; all countries are struggling with similar problems. In addition, applications of the same service could, for example, be used in transport companies (in guiding the driver behaviour of professional drivers), to guide driver behaviour of elderly drivers and to develop driver instruction and examinations.

Conclusions

TrafiSafe will technically be ready for testing later this spring, and the results of the experiment will be available in 2013. Based on the results, the opportunities of introducing the background system for wider use and its productisation by commercial actors will be assessed. In the future, the greatest challenges will be associated with the productisation and marketing of the system. To motivate people to use the service, it should be made interesting (user-friendly, attractive) and presented in cooperation between the public and the private sector, as a mobile service package associated with the car, safety and the environment.





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