

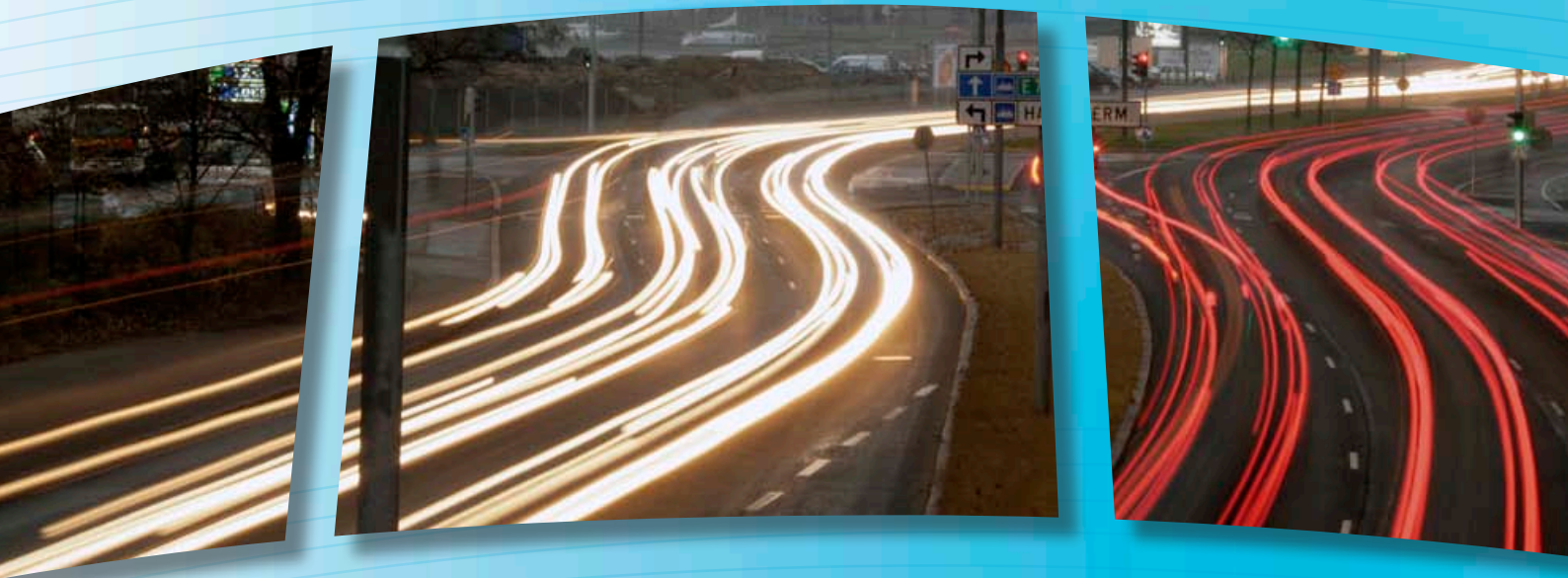


Ministry of Transport  
and Communications

intelligent  
transport

# From Bitumen to Bits

Finland's National Strategy for Intelligent Transport



## Intelligent transport serves both transport system users and the environment

### What is intelligent transport?

Intelligent transport refers to the use of information and communications technology to improve traffic flow and safety. Intelligent transport solutions allow people to travel with greater ease and predictability, whether using their own car or travelling by public transport.

With intelligent transport the aim is to shift the focus of transport policy away from the construction and maintenance of transport networks and towards the smooth operation of passenger and goods traffic flows.

- Intelligent transport represents sustainable development
- Intelligent transport systems treat all users equally
- Intelligent transport services are easy and inexpensive to use
- Intelligent transport systems respect their users' privacy
- Intelligent transport systems utilise existing solutions
- Intelligent transport services are interoperable and compatible
- Intelligent transport systems are based on a high level of network co-operation

[Finland's Strategy for Intelligent Transport. Rapporteur's Proposal.](#) (Ministry of Transport and Communications, Programmes and strategies 6/2009)

The strategy proposal is available on the Ministry of Transport and Communications' website at [www.lvm.fi/web/en/intelligent\\_transport](http://www.lvm.fi/web/en/intelligent_transport)

News 18 November 2015



### Intelligent transport applications have saved about 300 million in road costs

Despite the lack of any new motorway construction projects in Finland since the E18 was built, and traffic flow has improved. And this despite the steady increase in the amount of traffic. In this decade, around 300 million fewer euros have been spent on traditional transport network investments than was originally budgeted. This information comes from an extensive new study looking at transport policy reforms commissioned by the Ministry of Transport and Communications.

The main reason for this is believed to be the substantial investment in developing intelligent transport solutions since 2010. In particular, the Finnish Transport Agency and the Finnish Transport Safety Agency, both set up in 2010, have focused much of their resources on intelligent solutions for road transport. Drivers have been able to obtain real-time information on where the traffic jams are, when best to start their journeys and what driving speed to use, which has also meant a great improvement in transport safety.

## « Aim to be at the forefront of intelligent transport by 2020

Finland's aim is that its transport system will be one of the most advanced and efficient in the world by 2020. This means that the transport system will operate more smoothly, be more environmentally friendly and safer.

In order to reach this objective, an action programme co-ordinated by the Ministry of Transport and Communications has been initiated with the aim of promoting the development and use of intelligent transport.

Vision for intelligent transport 2020:  
**Finland's intelligent transport system will be one of the most advanced in the world.**

This means that

- transport services will be better, safer, more reliable and more environmentally-friendly
- passengers will be provided with real-time information on traffic conditions
- the transport infrastructure will be utilised efficiently
- transport policy will solve mobility problems rather than merely building transport infrastructure
- cost-effective logistics will improve Finland's competitiveness
- Finland will be a force to be reckoned with on the global intelligent transport market.

News 18 November 2016

### Study: **Work done on trains and buses will soon account for 10 per cent of all working hours**



A study commissioned by the Ministry of Transport and Communications indicates that nearly 95 per cent of Finns have already used broadband on trains or buses, and almost one in ten have telecommuted on a mode of public transport.

If this development continues apace, in a few years over 10 per cent of all working hours will be on journeys to and from work, says Ministry of Transport and Communications expert Mauli Maukkonen.

Teleworking while commuting has increased considerably during the past few years especially outside the capital region. This is due to the significant increase in the availability of broadband services on both buses and trains.

Increased broadband availability has triggered an upward spiral. More and more workers are commuting by public transport because more and more employers are approving work done during such journeys as effective working hours. This, in turn, has increased the demand for public transport and led to cuts in ticket prices, says Maukkonen.

People's use of public transport during their free time and at their own expense has also increased.

Many respondents found it much more relaxing to be able to surf the web during trips instead of just staring out the window. In Maukkonen's view, this is not surprising at all.

## « Towards a new transport policy

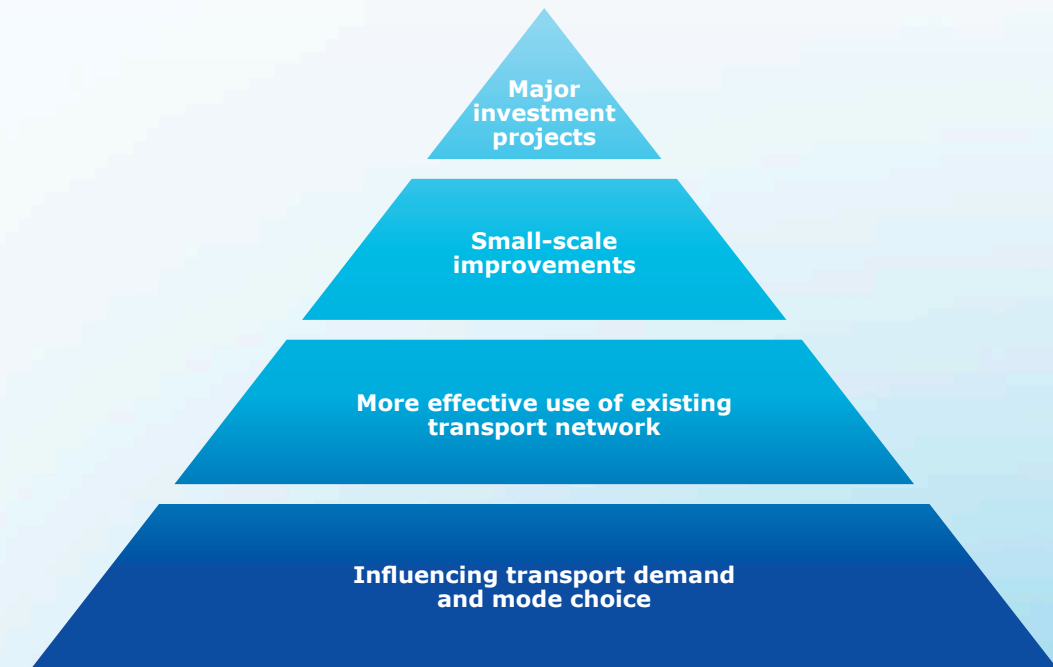
Intelligent transport provides new, efficient means and opportunities for carrying out an entirely new kind of transport policy. The transport administration reform carried out in early 2010 will also transform the traditional focus of transport administration from individual transport modes to the transport system as a whole.

Globalisation is transforming economic structures, which is why transport requirements are also in constant flux. A key trend here is the move away from heavier transport to lighter, higher value transport options. The timespan of transports is also reduced.

Lack of sufficient public funding will have an impact on transport policy. In the future, it will be essential to devise new solutions based on information technology innovations, replacing the need for heavy infrastructure construction – i.e. replacing bitumen with bits. Traditional infrastructure investment projects will still be needed, but the rapid development of information and communications technology provides plenty of possible alternatives. Intelligent transport may mean that new investments can be postponed and may even obviate the need for them entirely.

### Key priorities to ensure attainment of objectives:

- Enhanced co-operation between the public and private sectors
- Focus on R&D to get the most out of innovations
- Active participation and networking on the international stage
- Favourable conditions ensured through information society policy and regulations



Four-step principle for transport system development



## Examples of key projects

### Finland's intelligent transport strategy lists eight key projects, including:

- A national mobile public transport payment system
- Wireless broadband for trains and buses
- Public transport signal priorities
- An open joint database for public transport
- Vehicle safety systems (eCall, alcolock, warning system at level crossings)
- The possible introduction of a GPS-based road charging system in the 2010s

### The strategy also sets clear objectives that should be reached by 2020:

- Productivity of transport infrastructure management and the transport system itself to improve by 10 per cent more than the general trend
- 50 lives saved annually in road transport
- Logistics costs nearly on a par with those of competing countries
- Traffic delays caused by congestion reduced by 20 per cent
- Market share of public transport, pedestrians and cyclists up by 20 per cent

News 18 November 2017



### IT investment has led to 15 new scheduled trains

15 more trains travel the Finnish rail network every day than in 2010. This is due to the increased efficiency of transport management and control. Over the past six years a new control system has been introduced in stages across the Finnish rail network. The system has significantly increased the rail capacity utilisation rate

and improved the provision of real-time passenger information.

This investment has amounted to around EUR 60 million.

It is difficult to assess the benefits of 15 new scheduled trains, but e.g. the reduction in the need for further invest-

ment and the increase in train use caused by higher customer satisfaction levels will quite quickly cover the cost of this investment, states Ministry of Transport and Communications expert Maui Maukkonen.

As the rail network is utilised more efficiently, the number of passengers has increased

greatly, despite the lack of any new investment in rail network infrastructure since the construction of the Ring Rail Line.

## 3.8 per cent of the traditional funding level

The total cost of the key projects in the intelligent transport programme would come to about EUR 400 million between 2010 and 2015. Of this, the state would cover approximately EUR 324.8 million, most of which would come from the Ministry of Transport and Communications' main title of expenditure.

This amounts to only 3.8 per cent of the funding currently allocated to transport infrastructure construction and maintenance.

Intelligent transport will create significant efficiency benefits for the state. For instance, the improvements in traffic safety alone are estimated to create a savings of around EUR 100 million annually. Municipalities and businesses will also gain additional revenue from intelligent transport.

### The cost of key projects will total approx. EUR 400 million in 2010-2015:

State	EUR 325 million
Municipalities	EUR 20 million
Businesses	EUR 20 million
Users	EUR 35 million

## Network of co-operation

Co-operation and networking form the basis for the development of intelligent transport. An intelligent transport advisory board, consisting of key governmental, municipal, research and business stakeholders, has been established to manage the national ITS strategy. The advisory board has a genuine opportunity to influence the development of intelligent transport and itself create new intelligent transport solutions.

Additional information:  
[www.lvm.fi/web/en/intelligent\\_transport](http://www.lvm.fi/web/en/intelligent_transport)





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