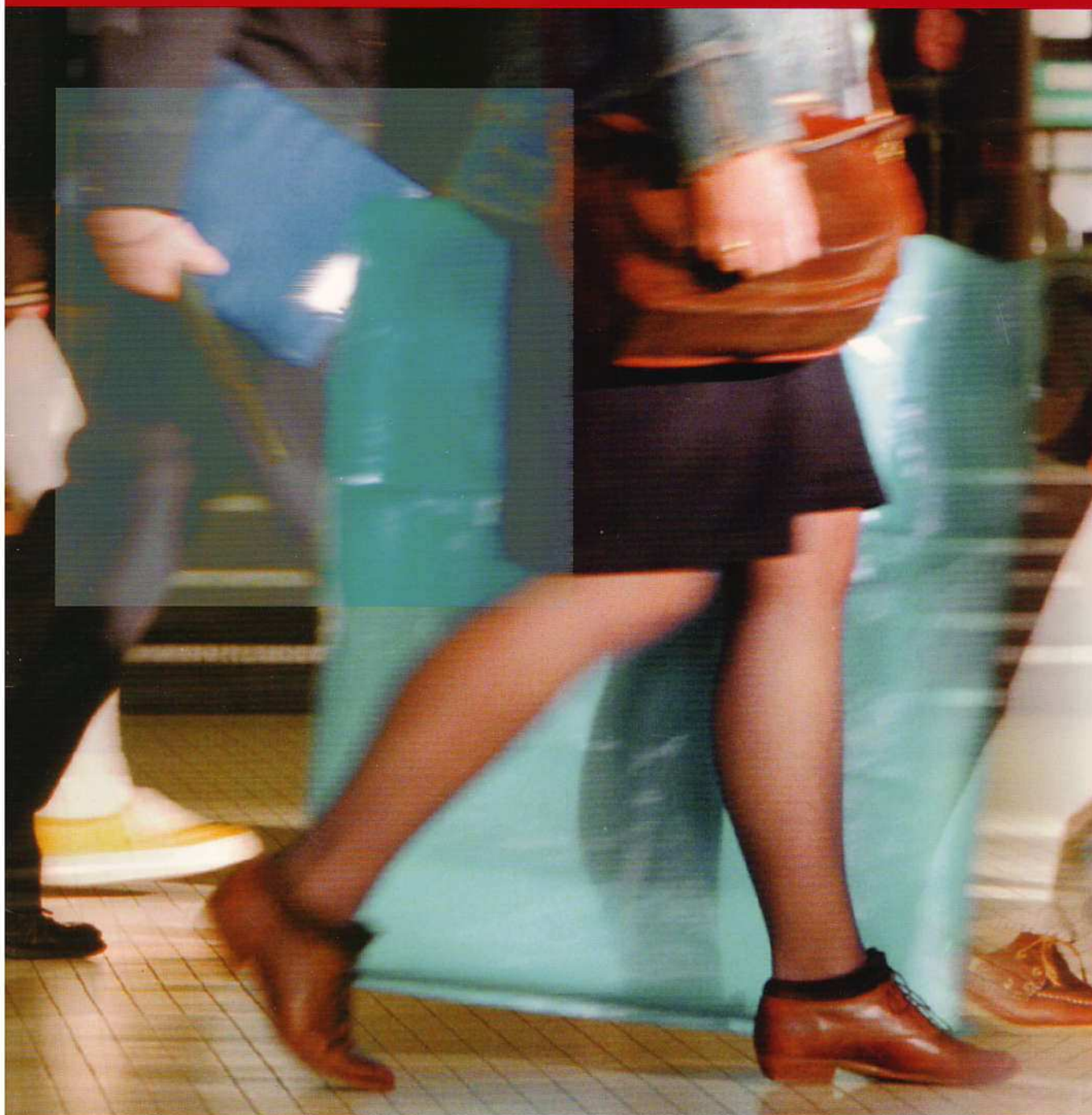


**Policy Document
on traveller information**



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Travellers can get up-to-the-minute information.

1. BETTER INFORMATION FOR TRAVELLERS

Imagine it is the year 2010. Travellers can get the information they need much faster now. Whether they are at home, at work, or en route, they have easy access to reliable information on their destination, the modes of transport they can take, routes they can choose, departure and arrival times, duration of the journey, and on the situation at the other end - whether they will be able to park their cars, or take public transport to their final destinations, for instance. This information comes to them with all kinds of extras - tourist information, and information on hotels, restaurants and such like.

It will be easy for the average traveller to decide whether to go by car or take public transport. And it does not end there. Once in their cars, motorists will have access to all kinds of information on the situation ahead - whether there are delays, and whether alternative routes are available. At the same time, their in-car navigation systems will make driving easier.

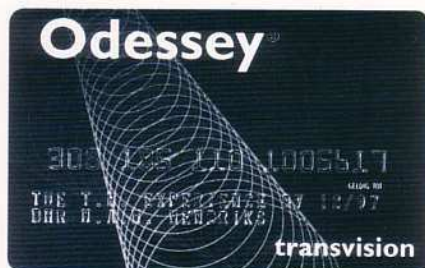
Better informed, and conscious of it, the motorist will have a mental image that the journey ahead is safe, reliable and efficient. For greater convenience, traveller information will be combined with electronic booking and payment systems - a move that can be seen as an incentive to take public transport. What matters is that the information is reliable and consistent, since this is the way to guarantee quality.

Nowadays, most people tend to choose a mode of transport and stick to it. They either go by bike, hop in their cars, or take public transport. But in 2010 travellers will be far more likely to use flexible combinations of public and private transport, with all kinds of intermediate forms. And for this new approach - for which the term 'interlinking' has been coined - integrated traveller information is needed. The traveller will no longer seek information solely about a specific mode of transport, but about the journey itself, i.e. the most efficient, cost-effective and/or fastest way of travelling from A to B.

But it is not only travellers who are interested in reliable information. Think of theme parks, industrial estates, hospitals, hotels, shopping malls etc. And then there is the goods transport sector. In 2010, the road haulage sector will - like now - be one of the major users of traveller information. Generally speaking, drivers have little say over the route they take, which is usually decided by the planners. If they are to do their work properly, and if they are to change their routes during their journeys, they will need up-to-date information. In other words, if hauliers are to introduce fleet management for the efficient, effective use of their resources, accurate, up-to-the minute information will be a must. Large-scale enterprises can set up their own systems, while smaller businesses will use collective facilities.

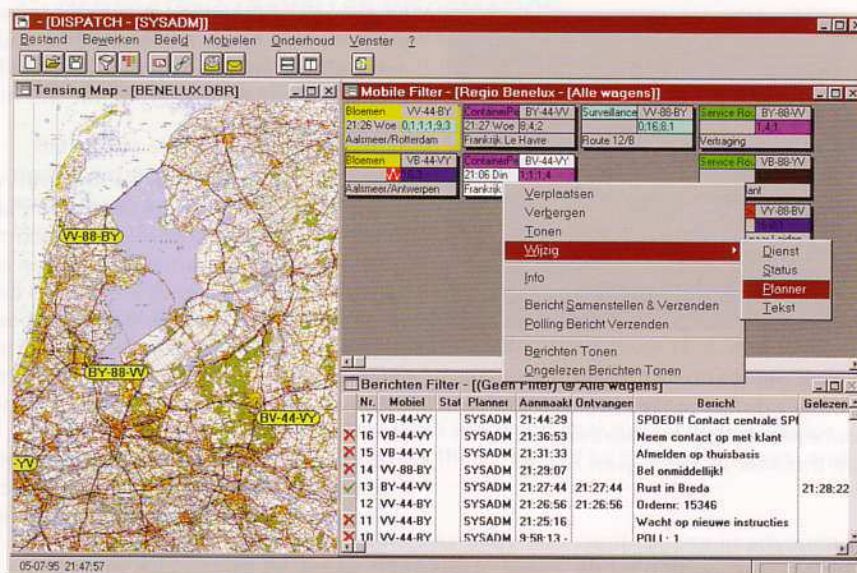
There are many 'ifs' and 'buts' at the moment. High-quality, consistent information cannot yet be obtained in every situation. And then there are the legal ramifications: to what extent can an information provider be held liable if the information he gives proves to be inaccurate? The distribution of traveller information is not yet commercially viable. The traveller has always been used to getting information free-of-charge, via radio bulletins, for instance.

On the other hand, the technology needed to access information rapidly will be readily available in the foreseeable future. In a few years, practically every Dutch home will be equipped with a PC complete with CD-ROM drive. The number of homes with an Internet connection will have grown enormously. And with the introduction of optical fibre cable networks, and increasingly competitive telecom rates, an excellent, low-price telematics infrastructure will have been created. With innovations such as these, the operation of traveller information services becomes a whole new ball game.



Interlinking services: tailor-made door-to-door travel plans, combining information, booking and electronic payment.

Dynamic route planning in goods transport. The monitor displays a road map pinpointing the positions of a number of trucks. Mobile communication allows the planner to pass on up-to-the minute traffic information to the driver.



Joint action - fast

The Netherlands is threatened with gridlock. Tailbacks are longer, more frequent, and more persistent. Our main economic centres are becoming more and more difficult to reach, and the ring roads around our major cities are always congested. Public transport is still not a viable alternative for the car. Nor is rail transport a viable alternative for goods transport by road. Meanwhile, the economy is increasingly feeling the pinch - with people stuck in their cars instead of at their places of work. In 1995, the cost was NLG 1.5 billion¹. The accessibility targets set out in the Second Transport Structure Plan are under threat². Congestion on routes to and from the west of the country - the mainports of Rotterdam and Schiphol Airport in particular - is posing an increasingly serious threat to vital sectors of the country's economy.

From the start, the government has placed plans to strengthen the economic infrastructure high on its agenda, and has set itself the task of assessing future urban and rural planning needs. The aim is to ensure that the Netherlands can both fulfil its economic potential and pursue sustainable environmental policies. And the government is faced with a number of challenges.

The first of these is to create sufficient employment opportunities for the fast-growing workforce. The country owes its prosperity in large measure to its geographic location, thanks to which it has developed highly active transport, distribution, service and industrial sectors. But investment in the accessibility and quality of our mainports is needed if the country is to achieve its full potential.

As a result of population growth, much-needed economic growth and the greater mobility that goes with it, space is becoming a scarce commodity, and the space that is available is being used more and more intensively. If the economy is to continue to grow, - and that is our aim - the situation is more likely to deteriorate than to improve. At the same time, however, poorer accessibility will stunt economic growth.

That is the challenge we face. If quality of life and accessibility are to continue to take first place in this densely-populated country, a fresh incentive is needed. Policy plans will need to be implemented faster, better



Traveller information provides splendid opportunities for cooperation based on clear role allocation.



A new generation of multifunctional mobile phones makes multimodal route planning possible even when the traveller is already en route.

and more astutely. We will need to work together and take vigorous action if we are to succeed in keeping this country moving, remaining internationally competitive and preserving quality of life. We will have to understand that this will involve measures that will hit us in our pockets - or affect us in other equally painful ways.

The point of departure is and will remain the integrated approach adopted in the Second Transport Structure Plan, the National Environmental Policy Plan - 2, and the Fourth Policy Document on Town and Country Planning (VINEX). Car-use, particularly in the rush hours, must be strongly discouraged. And, to this end, we will be deploying heavy artillery - in the form of price measures, parking policies, more rapid improvements to public transport, and measures to ensure the optimum utilisation of existing road infrastructure for both goods and passenger transport. Better traveller information will play an important role.

In its policy document on accessibility³, the government presented its complete package of measures. Specific information on traveller information was presented to Parliament in the document now before you.

1) Source: Nea: the costs of congestion on the Dutch motorway network in 1995, Rijswijk, June 1996.

2) The document assessing the status of the measures put forward in the Second Transport Structure Plan (25581, no.1) expresses concern at this development.

3) *Samen werken aan bereikbaarheid* (Working together towards accessibility), Ministry of Transport, Public Works and Water Management, The Hague, September 1996.

n verkeer		
Id	752	Hoofdroutes N
er	753	Werk onderweg
d,	754	Oproepen ANWB
r	757	Spoorwegen/
1		openbaar verv
a	758	Schiphol AANK
ol	759	Schiphol VERT
	760	Schiphol extr
	761	Binnenscheepv

753	NOS-TT	753 dl 14 nov 13.31:5
NS verkeersinformatie spoorwijziging vanaf 13 november		
Vertreksporen in Utrecht gewijzigd (2)		
Vanaf maandag 13 november vertrekken veel treinen in alle richtingen voortaan van andere sporen.		
EC/Int Amsterdam - Duitsland: was spoor 8 b, wordt spoor 11 b / 14 b		
Utrecht - Rhenen: was spoor 11 b, wordt spoor 8.		
Utrecht - Tiel: was spoor 12 a, wordt spoor 14 a.		
Utrecht - Eindhoven		

For many, Teletext is a useful source of up-to-date information on public transport and the situation on the roads.

2. GENERATING TRAVELLER INFORMATION: PROBLEMS AND FRAMEWORKS

What role does traveller information play in transport policy?

Estimates show that the 'information' scenario as set out in the policy document *Meer benutting, minder files* (Better utilisation, fewer tailbacks)⁴ could lead to a drop of between 10 and 20 percent in time lost in tailbacks. However, highly advanced traveller information systems are needed.

Traveller information contributes towards efficient, effective road management, better traffic flow, and greater safety on the road network. Traveller information systems can cut congestion or influence modal split, and thus enhance road safety.

Reliable traveller information enables people to make a conscious choice between modes of transport. It lowers the threshold to public transport, and promotes road safety.

Travellers look for reliability and flexibility and want to plan in advance. People who travel by car do not have to worry about getting to and from stations or bus stops and are therefore highly flexible. What they need is information on parking facilities, travel times, tailbacks and possible hold-ups due to road works. On the basis of this information, the motorist might decide to choose an alternative - such as public transport. But then they will need the relevant information on delays, connections, changeover points and comfort.

Much has already been set in motion. The Policy Document on Telematics and Transport⁵ explicitly stated that efforts must be made to produce multimodal traveller information and reliable traffic information. The policy document 'Better Utilisation, Fewer Tailbacks' pinpoints how traffic information will be used in the next few years in the management of the motorway network.

Multimodal Traveller Information compares a variety of travel alternatives, or modalities - motorcycle, bicycle, car, bus, tram, underground and taxi. Monomodal information systems, on the other hand, provide information on either the roads or public transport.

The quality of traveller information has improved considerably in the past few years, and the Ministry of Transport, Public Works and Water Management has allocated NLG 71.2 for its further development in 1997. Focus will be placed on Dynamic Route Information Panels, improving radio traffic bulletins, radio traffic information via RDS-TMC, in-car route and route guidance systems, traffic information centres, and a monitoring network.

The Ministry defines its task as: *the provision of reliable, up-to-date information to enable travellers both before and during their journeys to choose the time at which they will travel, and the route and transport mode they will take.*

Although we are on the right road, traveller information could be improved considerably to make it more reliable, up-to-date and accurate. Particular focus should be placed on integration, since ultimately travellers are better

⁴ Better Utilisation, Fewer Tailbacks: policy document on the management of the motorway network. Ministry of Transport, Public Works and Water Management, The Hague, April 1994.

⁵ Policy Document on Telematics and Transport. Ministry of Transport, Public Works and Water Management, The Hague, 1993.

served by door-to-door information. But the people responsible for managing the roads and devising policy would also benefit if this information were to be collected, processed and distributed more efficiently and effectively than at present.

If traveller information is to be interlinked in the next few years, bridges must literally be built - not only between transport modalities, but also between the motorway network and the subsidiary and urban road networks.

This document will look at things from the viewpoint of the traveller and attempt to give an overview of current initiatives and the current situation, and the initiatives that will be needed in future. It will first outline the general frameworks.

Definitions

Traveller information comprises the entire body of route and traffic information. Route information can be defined as: reliable, up-to-date information on the best route to choose to get from A to B. Traffic information is up-to-the-minute information on the situation on the roads and on public transport, as well as information on matters such as weather conditions, diversions, park-and-ride facilities and suchlike.

Traffic information is reliable, according to the Ministry's definition, if it is no more than five minutes old and the travel times given include any possible delays. In this connection, terms such as ATIS - Advanced Traffic Information Systems - and ATMS - Advanced Traffic Management Systems - are used. The Ministry of Transport, Public Works and Water Management also regards reliable traffic information as a traffic management instrument.

The information chain: collection - processing - distribution

The quality of traveller information depends on the organisation of the information chain - how information is collected, processed and distributed. This document is arranged on the basis of these three factors.

Section 3 - *Collection* - examines the collection of data and the intensification of the current monitoring programme, i.e. combining Floating Car Data with roadside data within a multiple monitoring concept.

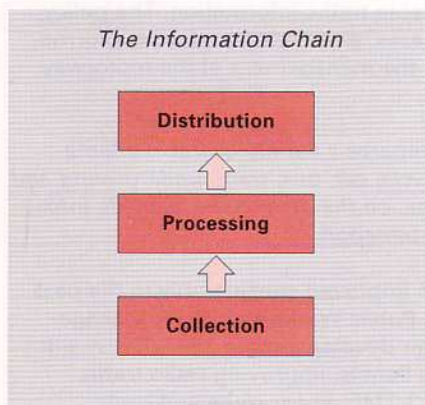
Section 4 - *Processing* - examines the Traffic Information Centre (TIC) and the supply of basic information.

Section 5 - *Distribution* - examines the development of new distribution channels, and the principles underpinning the distribution of traveller information.

Coordination

This is a very broad subject. Travellers use a whole variety of road and public transport networks and if they are to be given reliable, up-to-date information, the chain approach - collection, processing and distribution - will need to be adopted throughout. Coordination between the various network operators is a prerequisite for the provision of information about the entire chain.

Collection, processing and distribution together form a chain which requires cooperation between the various parties involved. The government's main role is to collect data, to process them to ensure they are both up-to-date and reliable, and to make them available. The commercial sector is responsible for providing services, distributing data and producing and marketing equipment. The consumer is the final user.





Dynamic Route Information Panels provide objective, reliable, up-to-date information for motorists.



In Utrecht, motorists can now obtain up-to-the-minute information on public transport facilities - departure times, return trips and frequency - at the Galgenwaard park-and-ride facility.

The Public Transport Traveller Information Service (OVR) already provides integrated information on municipal, regional and national timetables. The provision of dynamic traveller information is the next step, and collection and processing will make new demands on public transport operators. Traveller information also plays a role in the development of transport-on-demand.

Of importance here are efforts to coordinate organisation strategies, information management, instruments, the allocation of roles and development programmes etc. Money and effort will also need to be invested in facilities. The Ministry will play a pioneering role and will take the initiative in coordinating functional relationships, bringing parties together and ensuring an exchange of views.

Allocation of roles

Where traffic information is concerned, many parties are involved in the information chain. These include public transport operators, government authorities, industry and service providers. If traveller information is to improve, these parties will need to cooperate. Cooperation is only possible if each is aware of the others' primary interests; after all parties complement each other.

The Ministry plays a variety of roles. It is responsible for policy-making, for example, to ensure adequate mobility and the Rijkswaterstaat (Directorate-General for Public Works and Water Management), as manager of the motorway network, is responsible for collecting and processing traffic information, and for supplying it to motorists via Dynamic Route Information Panels.

The National Police Services Agency (KLPD) is also involved in collecting, processing and distributing information. Radio bulletins keep travellers informed of tailbacks and accidents etc. As far as distribution is concerned, the Agency will, in future, focus its attention on information on specific situations, relating, for example, to public order and safety. As a result, it will need to have permanently updated round-the-clock information on the situation on the roads. However, the Agency wishes to remain independent of third parties for its information supply.

The National Police Services Agency collects information on tailbacks on the motorway network. Sources include patrols both on the road and in the air, and traffic information collected by Rijkswaterstaat, as well as information provided by bridge and service station operators, motorists and the Royal Dutch Touring Club's (ANWB) breakdown service. The National Police Services Agency processes all these data into national traffic information, which is distributed to a wide range of agencies.

The Royal Dutch Touring Club, the Dutch automobile association, also maintains its own information collection, processing and distribution chain to enable it to perform one of its main tasks - the provision of traffic information, at regional level too. The Club is already an important partner, and it has announced that it wishes to grow into a market leader in traveller information in the future.

The Royal Dutch Touring Club collects traffic information from, for example, the police, bridge and service station operators, motorists and its own breakdown service. It processes the information and supplies it to a wide range of agencies.

For accurate, reliable traveller information it is vital that the collection and processing of basic data are well coordinated. It is of the utmost importance to travellers that they are not confronted with conflicting information. For this reason, the National Police Services Agency, the Royal Dutch Touring Club



In-car systems can cut down problems offering alternative routes. These systems benefit both motorists and road managers.

and the Rijkswaterstaat have taken the initiative of setting up a national Traffic Information Centre (TIC). The objective is to produce high-quality, well-coordinated traveller information.

The European link

Traveller information does not of course start and end at the country's borders. Information on the traffic situation in the rest of Europe is of particular importance where international transport is concerned. Since Europe's internal borders are expected to become even more indistinct in the near future, attention will increasingly need to be focused on the wishes and needs of travellers for reliable Europe-wide information.

International coordination and cooperation and international agreements on standards are prerequisites of reliable, up-to-date traveller information.

Traveller information is also needed on international public transport facilities; both before and during their journeys international travellers seek not only information but booking and payment facilities too.

Collection, processing and distribution

Each country is responsible for collecting its own traveller information, and will also have to supply its neighbours with information that is relevant to them.

Foreign data should be processed in the TIC, and the information produced in this way should be supplied under the same conditions as national traffic information. For distribution to travellers, in particular motorists, it is essential that in-car systems - such as radio data systems and traffic message channels - can be used in other countries too. Here too, agreements on technical standards and functions are needed.

Organisation

Consultation at European level is needed in developing the various systems. More importantly, however, agreement must be reached on their introduction. It is here that industry plays a vital role. Indeed, where some developments are concerned, the Dutch market alone is too small to justify the manufacture of the systems in question.

ERTICO - the European Road Transport Implementation Coordination Organisation - which was set up in 1992, is the forum in which government authorities, infrastructure managers, industry and representatives of interest groups work together towards the development of smart transport systems. Information for the traveller is an important component of many of these systems.

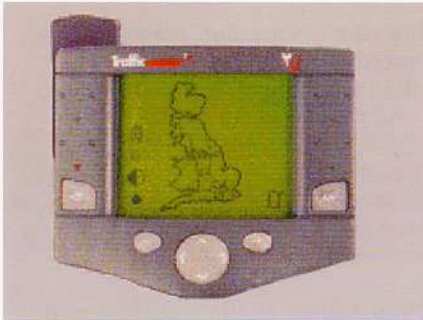
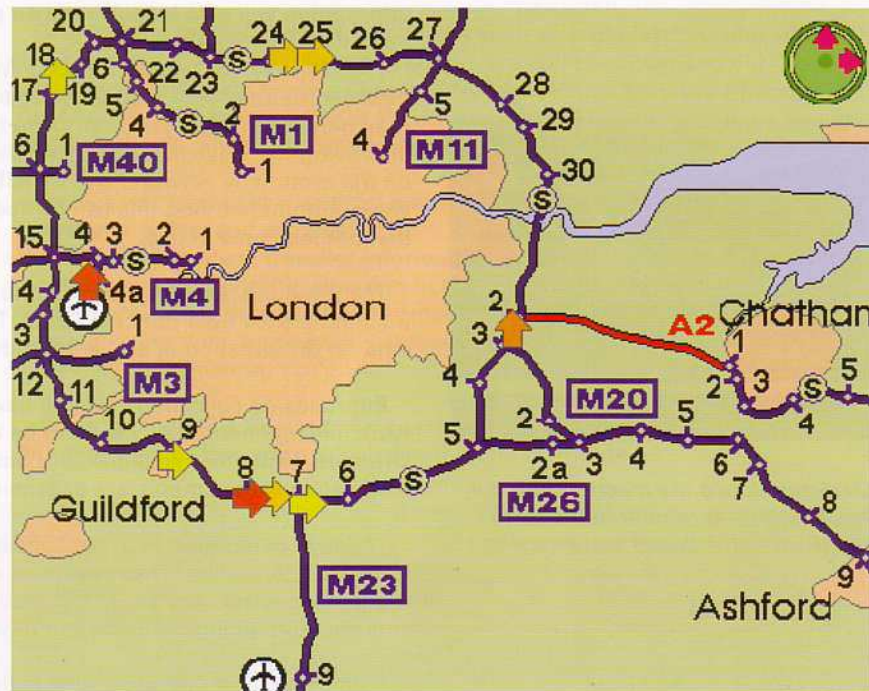
In the wake of ERTICO's establishment, various countries have set up their own organisations with a similar membership. The Netherlands decided to set up its national organisation on 8 October 1996.



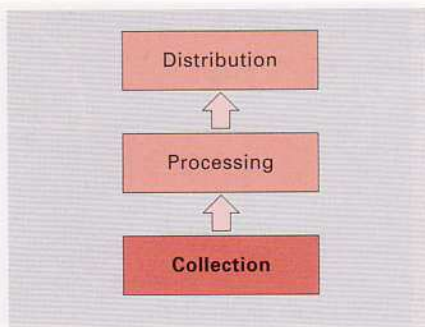
In December 1995, the European Commission established the High Level Group for Road Telematics (HLG), in which the EU member states are represented. The HLG's main aim is the large-scale introduction of smart transport systems. It has set the following priorities:

- Radio traffic information via the Radio Data System/Traffic Message Channel (RDS-TMC); the provision of information on the routes in which the traveller is interested;
- Automatic Fee Collection (AFC);
- Information management, exchanges of information between both countries and systems;
- Human-machine interface, in which focus is placed on safety.

RDS-TMC provides current traveller information via the radio. If changes occur, the system interrupts the radio programme, or CD or cassette track to which the motorist was listening to give the latest information. The system always uses the motorist's own language.



An example of a successful traveller information system used abroad. A portable monitor displays a map of the road network system. Tailbacks are pinpointed on the map. The motorist can zoom in on the local situation. This information can also be accessed on the Internet.



3. COLLECTION

What travellers want is reliable, accurate, up-to-date information. They are now used to the radio traffic bulletins that are broadcast every fifteen or thirty minutes. But more is needed. In fact, what they want is to be able to decide from one moment to the next which route and transport mode they will take.

The quality of traveller information ultimately depends on the quality of its collection and processing. A problem in this regard is that data are still partly collected manually on the basis of observation.

Better traffic information entails improving the way in which it is collected on the motorway network and on the subsidiary and urban road networks. A great effort is now being made to improve roadside collection, i.e. the collection of information by means of observation or detection loops in the road surface. In future, in-vehicle collection will be introduced, while information will also be collected on public transport.

The Ministry of Transport, Public Works and Water Management, as the national road network manager, regards the collection of basic data on the road networks as its task. Improving the quality of traffic information entails improving the ways in which it is collected. It is for this reason that collection on the motorway network, and on subsidiary and urban roads is being extensively automated. And this can be seen as a giant leap forward if we consider the methods now in use.

The provincial and municipal authorities are responsible for collecting information on their own road networks. Traffic control installations now collect data on the situation in and around the cities.

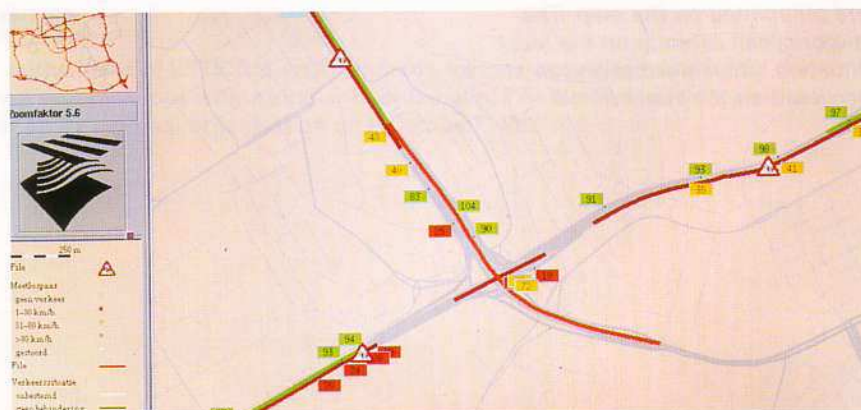
But roadside collection systems have their limitations. For integrated network management, data needs to be collected throughout the road infrastructure, including the subsidiary and urban road networks. But detection loops and video cameras are expensive, and their uses are limited.

The new generation of in-car systems could lead to great improvements in traveller information. These systems send relevant data (Floating Car Data) to the traffic control centres. The Ministry is now developing a multimonitoring concept, combining roadside and in-vehicle collection.

Public transport operators now collect information on the movements of their vehicles. This produces up-to-date information ensuring punctual services and optimum deployment of resources. The operators are increasingly supplying this information to their customers, i.e. travellers.



Detection loops are inserted into the road surface at regular intervals to measure traffic speed and intensity.



Computerised collection gives the road manager reliable, up-to-date information on the traffic situation.

4. PROCESSING

The development of a Traffic Information Centre

Once accurate, detailed data have been collected, they need to be interpreted for their indication of the traffic situation. Low traffic density can, for example, indicate that the roads are quiet, but it can also indicate that an accident has occurred, and that a road is blocked.

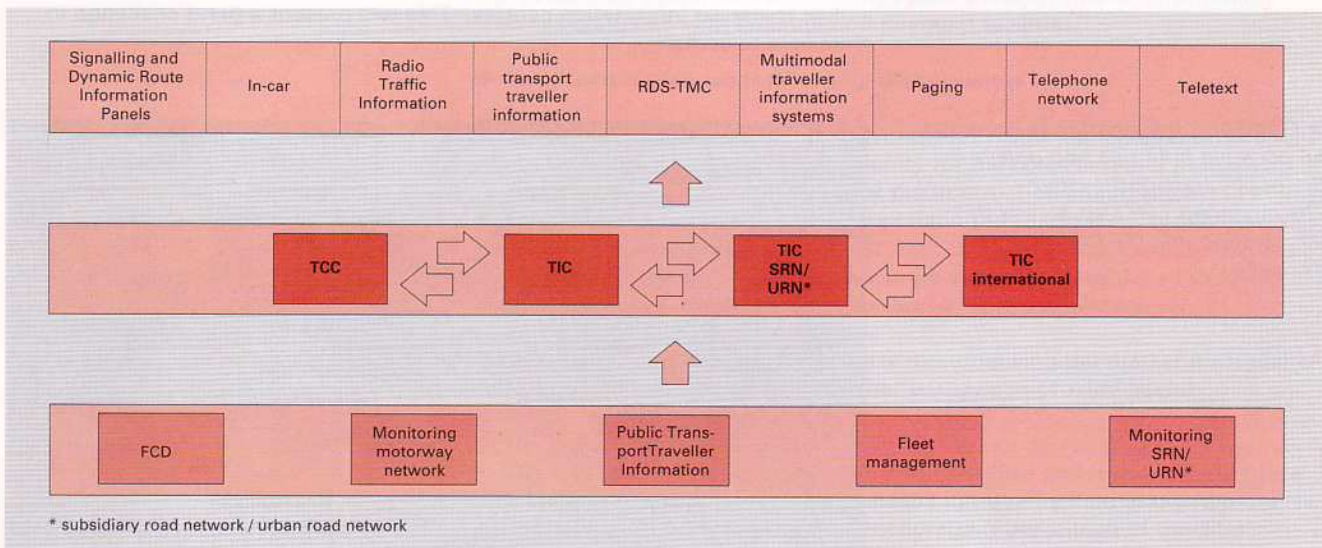
This example shows the difference between traffic data and traffic information. Traffic data are raw data, and they are only of value to the traveller once they have been processed into meaningful traffic information.

Processing entails the interpretation of data to give consistent, reliable traffic information. This will take place in a Traffic Information Centre (TIC-see figure).

The TIC is a logical concept, but details such as organisation, allocation of roles, technical, legal and financial factors are still being worked out. To this end, the Royal Dutch Touring Club, the National Police Services Agency and the Ministry of Transport, Public Works and Water Management have recently concluded a TIC covenant containing the following common objectives and principles:

- parties will supply in a uniform manner all traffic information they and their systems collect and process;
- parties will produce traveller information giving a single, consistent, real-time report of the traffic situation in the Netherlands;
- parties will pass on traveller information to neighbouring countries;
- in collecting data, parties will use every source which may lead to better traveller information.

It will be the TIC's task to collect and process information and to produce an up-to-date traffic report which can then be distributed.

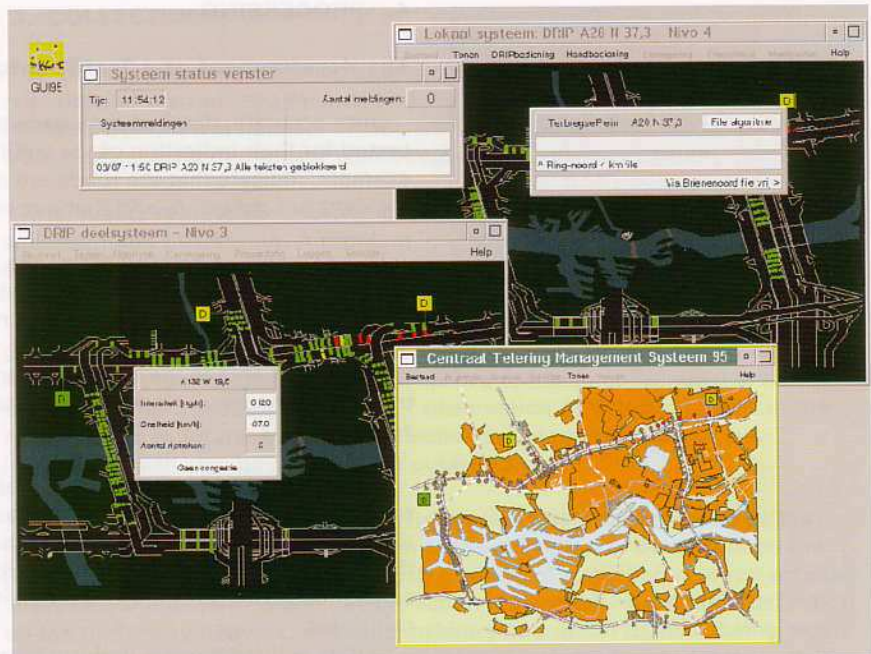


The TIC collects and processes traffic information, as well as information on weather conditions and road works, to which it will later add information on public transport. The TIC supplies this reliable, up-to-date information to road managers, police forces and commercial service providers.

The Dynamic Route Information Panel as seen on the Rijkswaterstaat's monitors in Rotterdam.



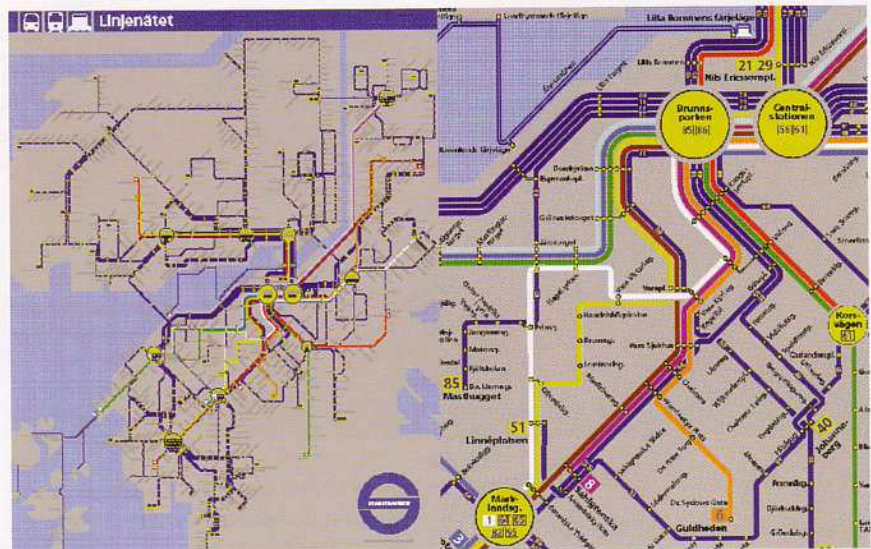
The National Police Services Agency's (KLPD) traffic control centre in Driebergen.

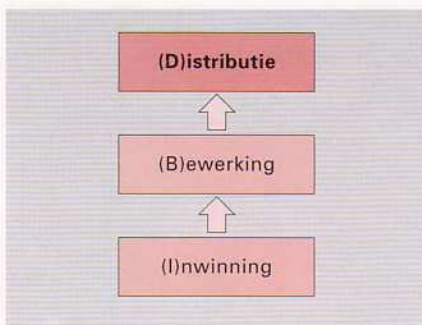


The TIC is being set up in stages. To gain practical experience with this new concept, a test-site, with the name Eurodelta, has been designated, at which a TIC prototype will be operational in 1997. The results of the evaluation will be used in deciding what form the final version of the TIC will take.

One condition for the successful introduction of interlinking with public transport is the provision of integrated traveller information. The collection, processing and distribution will therefore have to be coordinated with the public transport information centres. This will present a great challenge in the years to come.

In Göteborg, information is collected on possible hold-ups and delays in the public transport system. The customer can also access this information, via the Internet, for example.





5. DISTRIBUTION

The market for traveller information

Distribution is the vital final link in the information chain. It is this link which has to guarantee the traveller reliable, multimodal information.

With the aid of new technologies, manufacturers have come up with numerous innovative systems for the distribution of traveller information. Some are already in operation, others are at the prototype stage. Examples include radio, television, teletext, dynamic information panels, mobile phones, PCs (with diskette and CD ROM stations), pagers, watches and in-car navigation systems etc. The latest technology is now being used on a small scale. It will take a few years before its use is widespread.

It is not only up to road managers and public transport operators to distribute traveller information. VASPs (Value Added Service Providers) can also provide it as part of their commercial service package. The Ministry of Transport, Public Works and Water Management feels that there is, in principle, a basis for the operation of travel information services, but it wishes to provide incentives rather than develop and operate them itself. Wherever possible, the Ministry will allow the market to play its own role, and it will encourage creative entrepreneurship. What it boils down to is organisation, cooperation and confidence.

Traveller Information providers fall into three categories:

- road managers and the providers of transport services: for them, traveller information is product information;
- providers of information services; traveller information is their product;
- providers of other kinds of services; for them, traveller information is part of the package. Operators of shopping centres, industrial estates and amusement parks, for instance, benefit by reliable information on available routes. A new group are the providers of interlinked transport facilities who provide their customers with door-to-door transport. Here, information comes complete with booking and payment facilities.

General principles underpinning distribution

The Ministry of Transport, Public Works and Water Management has opted where possible to shoulder responsibility for the collection and processing of data, both of which are at the base of the information chain, since it is in this way that it can keep a grip on matters relating to road safety, traffic flow and road management. Other types of services can give added value to the basic data. This added value would appear to be a condition for the successful operation of traveller information services by other providers.

The Ministry is opposed to one party monopolising the market for traveller information, since it believes that other parties can provide useful contributions too.

Automatic collection and processing will produce better-quality and more consistent basic data. By supplying these high-quality data to distributors free of charge, the Ministry is indirectly encouraging the launch of traveller information services to meet demand from an emerging market.

However, in supplying these basic data, the Ministry sets conditions. Distributors will be required to safeguard the quality, consistency and objectivity of the information they provide, while ensuring that it is up-to-date, does not endanger road safety, and is accessible to the public. All of



Matrix signs above the motorways give urgent information on tailbacks, fog patches, hold ups, and maximum speeds, which are adapted to weather and/or traffic conditions.



With the aid of digital maps, motorists can choose the shortest, fastest or cheapest route. The monitor will even display pictures of the road to be travelled, so that a new route will not be wholly unfamiliar.



these factors will be set down in agreements. After all, the Ministry cannot be held responsible for the information distributed by these parties.

Digital maps are a basic facility in the development and distribution of traveller information and vigorous efforts are now being made to produce them for the entire Dutch road network.

Separate distribution channels

Matrix signs and Dynamic Route Information Panels are essential components of modern traffic management and the Ministry is responsible for the relevant information chain. Matrix signs instruct motorists to adapt their driving style to the situation ahead, while Dynamic Route Information Panels provide information on local routes. Tests are now being carried out near Rotterdam to establish whether displaying travel times on the panels is a feasible option.

The Ministry is endeavouring to interest third parties in the operation of RDS-TMC, on either a commercial or non-commercial basis. As an incentive, it will provide a one-off financial contribution. The systems will be introduced by module, independent of location. The service must be available for different types of receiver and forms of presentation other than the spoken word must be possible.

The service must be sufficiently reliable and it is for this reason that the Ministry is endeavouring to produce better quality basic data. The service will only be available to travellers when the data are of an acceptable standard.

The Ministry has also commissioned the development of a multimodal traveller information system, to be operated commercially. The system must provide travellers with objective information on the basis of which they can compare the pros and cons of transport modalities. Innovative distribution channels, coupled to booking and payment systems, are matters for the more distant future.



Thanks to solar energy and mobile communications, dynamic traveller information can be provided at any public transport stop, even in the most isolated locations.



reiswizzer

Travel instructions

From: Plesmanweg, The Hague
 To: RAI Exhibition Centre, Amsterdam
 Date: Saturday 6 July 1996
 Travel time: 1 hour and 26 minutes with two changes

- **The Hague**
 Departure from Plesmanweg
 Walk to the Plesmanweg bus stop (2 minutes)
 8.04 Take bus 22 (HTM), direction Voorburg
 Damsigt
 ↓
 8.16 Exit bus at Central Station stop
 Walk to The Hague Central Station railway
 station (5 minutes)
 8.28 Take the Amsterdam CS train (platform 12)
 ↓
 • **Schiphol**
 9.04 Exit train at Schiphol station
 9.12 Take Utrecht CS train (platform 1)
 ↓
 • **Amsterdam**
 9.21 Exit train at Amsterdam RAI station and
 walk to Exhibition Centre (7 minutes)

Have a good journey

The Public Transport Tripplanner offers - just like the traveller information telephone line 0900-9292 - the traveller information about the fastest way of travelling from A to B.

These services will be provided within a market in which complex forces are at work, and the operational base is narrow. The Ministry has therefore taken the initiative with the development of a strategic concept and the organisation of tendering procedures. It will also provide support in the form of one-off starter subsidies.

The distribution of information on public transport is essentially the responsibility of the operators themselves, who have now set up a joint Public Transport Information Service. The Ministry of Transport, Public Works and Water Management has provided financial support in setting up this service. In addition to a traveller information telephone line (0900-9292), the Information Service, working in consultation with the Ministry and other parties, is now developing other forms of distribution, such as information panels and a network version of the Public Transport trip planner.

Where distribution does not meet individual needs, in-car systems can fill the gaps. And because they can cut down the number of hours motorists lose on travel, these systems are vital. They form a new and powerful instrument in efforts to encourage travellers to choose flexible, multimodal transport routes, both on the motorway network and on the subsidiary and urban road networks.

The Ministry does not plan to introduce in-car systems itself. But it is in the Ministry's interests for cars to be equipped with them. Action is therefore called for if these systems are to be effectively implemented in the not-too-distant future. The Ministry therefore encourages and supports initiatives to develop in-car systems, particularly where organisational factors are concerned.

It is also in the interests of service providers to cooperate with the Ministry in its capacity as road manager. Indeed, they cannot operate without the traffic information the road manager supplies, while permission will be needed before any facilities can be installed on the roads. In its capacity as road manager, the Ministry is also a potential customer for up-to-date traveller information.

The document would not be complete without a reference to the dynamic two-way systems which supply Floating Car Data (FCD); moving vehicles can call up traveller information while exchanging monitoring data (location - with or without the use of Global Positioning System - direction, vehicle speed). FCD can be processed together with other data to produce up-to-date traveller information. A multiple monitoring concept will therefore need to be worked out, with coordination of information flows between the operators and the TIC. Traveller information will probably be supplied by the TIC only on condition that the operator is prepared to supply FCD in return.


So what will travellers expect in the year 2010? Reliability, flexibility, efficiency and cost effectiveness - these are what count, together with, of course, road safety. Traffic and transport will no longer be the unpredictable adversaries of long-suffering, time-conscious travellers, but reliable, flexible, efficient, time-saving, cost-effective partners aiding them in their endeavour to get from A to B. Turning this future prospect into reality - the Road to 2010 - that is at the core of this document.

Abbreviations

AFC	Automatic Fee Collection
ANWB	The Royal Dutch Touring Club ANWB
ATIS	Advanced Traffic Information Systems
ATMS	Advanced Traffic Management Systems
ERTICO	European Road Transport Implementation Coordination Organisation
FCD	Floating Car Data
GPS	Global Positioning System
HLG	High Level Group
KLPD	National Police Services Agency
OVR	Public Transport Traveller Information Service
P&R	Park and Ride
RDS-TMC	Radio Data System/Traffic Message Channel
TIC	Traffic Information Centre
TCC	Traffic Control Centre
VASP	Value Added Service Provider

Illustrations

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