“The European policy Transport Information System (ETIS), Dutch transport in EU perspective”

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Bijdrage aan het Colloquium Vervoersplanologisch Speurwerk 2004,
25 en 26 november 2004, Zeist

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Samenvatting

'Het Europese Transportbeleids- InformatieSysteem (ETIS); Nederlands transport in EU perspectief'.

De afkorting ETIS staat voor European Transport policy Information System. De Europese Commissie werkt momenteel aan een informatiesysteem ten behoeve van de ontwikkeling van transportbeleid en monitoring van transport in de Europese Unie. Het totale ETIS concept heeft als doel alle beleidsonderwerpen van DG Transport en Energie van de Europese Commissie te omvatten, echter, de testversie die nu in ontwikkeling is binnen de lopende ETIS projecten, zal zich specifiek richten op de TEN-T beleidsonderwerpen (Trans Europese Transport Netwerken). In deze notitie worden de achtergronden van het ETIS concept en de aspecten met betrekking tot de data behoefte beschreven. Het is niet zo dat het hebben van een ETIS database nationale statistieken overbodig maakt. In het bijzonder in Nederland is zeer gedetailleerde data beschikbaar die op nationaal niveau nodig zijn. Echter, goede informatie die een Europees perspectief biedt is over het algemeen niet beschikbaar. Deze notitie zet een aantal mogelijkheden uiteen op welke manier Nederland baat zou kunnen hebben aan een Europees perspectief uit ETIS.

Summary

"The European policy Transport Information System (ETIS), Dutch transport in EU perspective"

ETIS stands for *European Transport policy Information System*. The European Commission is currently working on the develop of an information system that assists in transport policy formulation and monitoring in the EU. The broad ETIS concept intends to cover all policy issues covered by DGTREN of the European Commission but the pilot version now being developed in the ongoing ETIS projects has a special focus on the TEN-T (Transport European Transport Network) policies. In this paper the reasoning behind the ETIS concept and the data needs aspects are described. Having an ETIS will not replace national statistics. Especially in the Netherlands, more detailed data is available which are needed at a national level. Proper information providing the European perspective however is generally not sufficiently available. In this paper suggestions are provided how the Netherlands can benefit from the European perspective provided by ETIS.

1 Introduction

ETIS stands for *European Transport policy Information System*. The ambition of the European Commission is currently working on the develop of an information system that assists in transport policy formulation and monitoring in the EU. The broad ETIS concept intends to cover all policy issues covered by DGTREN of the European Commission but the pilot version now being developed in the ongoing ETIS projects has a special focus on the TEN-T (Transport European Transport Network) policies. The development of such an EU wide data system has always been considered as an utopia but thanks to the increasingly EU focussed view of national authorities and the fast developments in the Information Technology facilitating data processing and transfer, ETIS is now becoming a reality.

The development of ETIS involves many details covering data handling, transport modelling, system development, legal aspects and organisational aspects. All this is being described in the reports of the ongoing ETIS projects. It is advised to start your search for more information on http://www.etis-eu.org/.

In this paper the focus is on the reasoning behind the ETIS concept (chapter 2) and the data needs aspects (chapter 3). A special focus is provided on the Link between ETIS and the EU perspective of the Netherlands (chapter 4).

2 The ETIS and its concepts

2.1 ETIS: a (missing) tool for policy makers

Why ETIS? Simply because the Commission and other policy makers are confronted with the difficulty to get a consistent answer to their policy questions. The reasons are various and not new: lack of information (no stop at borders anymore), a lot of different sources, sources are not compatible or are not always up to date. This lack of information does need to be the result of a shortcoming in the data collection, but can be the result of a lack of relevant indicators related to a specific policy question. Often solutions are looked through developing an ad-hoc method to fill the gaps, what makes the results not easily comparable, when methods diverge.

2.2 The TEN-STAC study: the absence of ETIS felt as a lacuna

The Commission has updated – in the TEN-STAC study - the definition of the Trans European Networks, with the help of external data providers. The absence of an ETIS system is felt as a lacuna. When ready, the pan-European ETIS database will become the reference database the European Commission will use in the future for their TEN policy issues and more generally for European strategic modelling. The scope of ETIS is the EU25 countries and other neighbouring countries. Additionally in order to avoid a one-time exercise, a requirement is that the methodology supporting this database should allow its regular updating in a consistent way.

ETIS is a challenging process and his success is the condition sine qua non for the Commission to assess in the future changes in transport policies and infrastructure needs. No need to say that with the enlargement of the EU up to 25 countries, ETIS is quite welcomed by the new countries.

2.3 ETIS, a complex process

A process like ETIS is complex and it is particularly relevant to test a prototype at the constitution of the system. Is the system adapted to the policy questions it has to deal with? Has the user an efficient and comprehensive access to the information? The first question is related to the success of data collection and manipulation, and we know that it is not an easy task. The second question is politically important: another significant added value of a prototype is the promotion of the concept ETIS and the guarantee there is a wide acceptance

which, on its turn, opens the door for an active participation of all potential data providers and policy users.

2.4 ETIS, a feasible process

The TEN-STAC demonstrates that an ETIS-like approach is feasible. The idea has matured to use the TEN-STAC information to test the ETIS prototype. ETIS is going further (all kinds of policies, not only TEN related), and the statistical basis is much more extended. But the principles are quite similar and we can learn a lot of the experience of TEN-STAC, to optimise ETIS.

2.5 Which policies to be supported by ETIS information?

Policies are moving and adapting to the changing world. Some issues are characteristic for the current policy needs:

- With a high level of Community interest (as specified by the Commission with their priority projects declared to be of European interest)
- Dealing with the enlargement of the EU
- Confronted with severe congestion problems
- Where new infrastructure is developed
- Making Europe close to the citizen

The Commission has formulated has specified in a legal form these criteria in article 19 in her document COM (2003) 564 final.

2.6 An illustration of the path policy question towards information needs

Two examples:

- How to measure the infrastructure needs with a European interest? The Commission is willing to encourage the development of a European infrastructure. One possible criterion of choice for the projects to be financed might be the percentage of international traffic on that specific link. Which database today does provide this policy related indicator? None. To obtain in ETIS the percentage of international traffic on a road, we need to identify the origin and destination of the traffic, and this necessitates on its turn an origin/destination matrix of flows on a detailed scale and on a European base. This matrix does not exist and ETIS has been requested as priority to construct it.

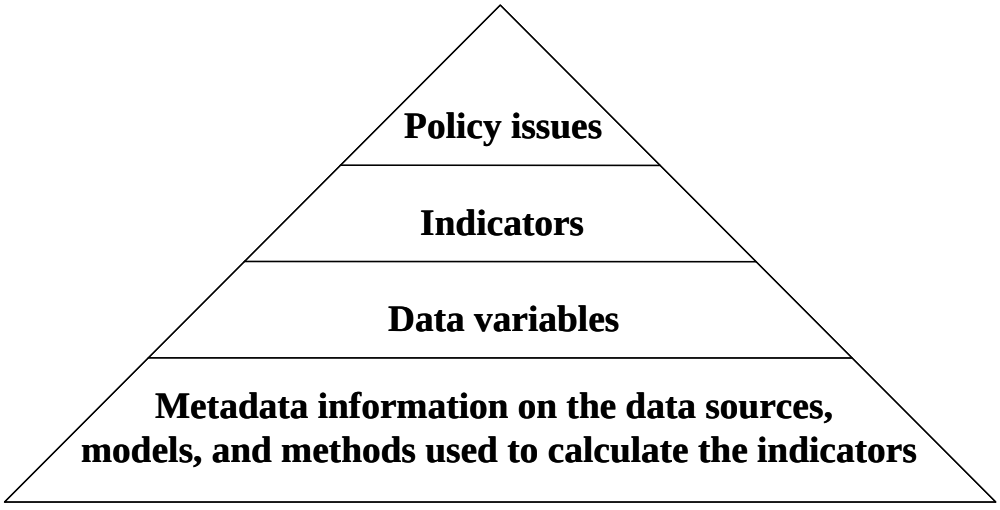
- How to measure the environmental effects of a policy? Emissions and other nuisances are generally derived from the vehicles-kilometres performance in a country and these figures can be provided by the UN-ECE census. On the other hand the Kyoto protocol requests from each country to reduce their emissions to a lower level. The policy question in this context will be for example: how can transport contribute to this objective? A correct knowledge of the source of these vehicles-kilometres is a prerequisite: where does the vehicle come from? Is going to? And which share of the trip is on the territory of the country? What is the role of sea motorways? Without knowledge of the full transport chain it is impossible to look for shifts, not only among modes, but also among routes.

The transport chain database does not exist yet, and even the concept of transport chain is lacking in statistics. ETIS has been requested to provide an answer to both points.

2.7 The path policy issues to indicators and variables, the ETIS pyramid

The ETIS database work is structured along a logical path that extends from policies issues to questions about indicators to measure the effects of policies and finally the basic variables to derive the indicators: Which policies? Which indicators and variables? Which data to collect, which methods have to be defined, how to fill the gaps?

Figure 2.1



The ETIS pyramid

2.8 What will provide the complete and harmonized ETIS reference database?

That is:

- Indicators for monitoring the most important aspects of the European Union's TEN-T policies
- Data variables to calculate the indicators, from many different data sources, describing passenger and freight transport flows, for all modes, and covering the EU25 (as well as Norway and Switzerland)
- Meta-data describing the indicators, data variables, methods, and models.

ETIS will focus primarily on a policy maker rather than on a business community and will be updated in detail at a 5-year interval. Given the costs and complexity of the ETIS product, five year seems to be a proper interval for policy making needs in Europe, also to cope with the road census organised by UN-ECE.

3 ETIS and data needs

3.1 Which data needs to build up ETIS?

The experience from the past suggests that ETIS developers should not take the cooperation and provision of data for ETIS by the international sources for granted. Standardised measures and routines have to be clearly foreseen for that.

The ETIS development is issued from a 4-level perspective: Policy Objectives – Performance Indicators – Supporting Data Required – Data Generation Means. Having in mind that ETIS eventually will be a complex product developed from a variety of heterogeneous data sources with regard to data context, reliability, geographical coverage, publicity, ownership etc, this top-down approach of ETIS building process was also looked at from the legal and organisational point of view. Particularly the legal aspects of data supply, data confidentiality and data access aroused serious debates among the stakeholders and appeared to be extremely sensitive and of significant hindrance risk to the overall success of ETIS.

On the other hand, there was a clear wish expressed by the builders of ETIS to incorporate in ETIS as much as possible the existing data generation sources and minimise the modelling of synthetic data needed for filling data gaps.

Getting the aggregated transport data is often not a problem, however, this is not the case for getting data at a lower disaggregating level which is required for building ETIS. Although it is widely known that road statistics data at detailed level is available at EUROSTAT, however a big problem is who will access this data. ETIS should get the detailed road data from EUROSTAT. Member States put a lot of energy to collect OD tables on NUTS 3 divided by commodity NSTR 24. Therefore, the data is to be used by the Member States. Every Member State needs data about another country, in order to get a complete picture on its own country. ETIS community has to speed EUROSTAT to publish data at least at NUTS2 level.

In addition it should be a solution found out to incorporate in ETIS also the INTRASTAT data, although from the transport point of view the quality of INTRASTAT data is not very good. In any case, it would be pity if legal issue blocks the EUROSTAT data to be included in ETIS.

The reliability of road transport statistics is still a matter of discussions. The methodology to be used for compilation of road statistics by Member States is described by EUROSTAT. In practice however each country (old and new EU members) fills the data in its own way (for instance, depending on the budget). Nevertheless, there are requirements for the reliability of data, namely not larger than 5% error is accepted. In this respect, there are some guarantees for the data quality and coverage.

Although a lot of people acknowledge the necessity of additional data collection, ETIS has to look and use the data that is already available and can only indicate the Commission what is needed next and then ask for support. In addition to the indicator list, it is important to concretise the data needs necessary for transport modelling. ETIS should not strive to have a lot of data the majority of which will not be even used in the future. However such data as counts, surveys, etc, which are necessary for modelling and calibration, is vital. ETIS will specify what is really necessary and what is not. After having these specifications it will take approximately another 2-3 years (lead-time) to get a governmental decision, to institutionalise this and introduce into the data collection process of the additionally identified variables.

The flexibility and openness of the ETIS scope is regarded as important precondition for sustainability. The political agenda is changing constantly. The environmental concerns were even not on the agenda 10 years ago, but they are the priority nowadays. Future demands have to be formulated already now, and ETIS has to foresee this and specify concretely the data requirements for today's and tomorrow's needs.

3.2 The statements which guide future data collection and extension for ETIS

To summarise, the following statements with regard to ETIS call for special attention:

- ETIS should explicitly describe the transport chain of the multimodal flows – the information that is difficult to get from the existing data sources
- ETIS should benefit from the previous work on transport chain data collection
- ETIS should synergise the experience in methodology development being achieved in other projects
- ETIS should consider the reliability and consistency of data it intends to use
- ETIS has to be flexible enough to foresee current and future policy demands by specifying concretely the data requirements for today's and tomorrow's needs
- Although some of the data is granted to ETIS low-cost, the data collection costs for ETIS in general is not low.
- The Commission should create a necessary incentive or institutional/legal environment facilitating data provision for ETIS.

4 ETIS and the EU perspective for the Netherlands

One important question to pose after reading the previous sections in this paper is how the Netherlands can benefit from having such an ETIS system. To answer this we can have a look at some transport related questions when bringing the Netherlands in an EU perspective.

- The transport world is moving and developing also in countries surrounding the Netherlands. How does the growth of the Dutch transport sector look like compared to other EU countries and the EU average?
- What is the effect of the EU enlargement on the transport through the Netherlands? Will trade relations change? What are the routes chosen for intercontinental transport flows? How fast do these flows develop? Will this enlargement lead to more road transport due to lower labour costs?
- The Dutch economical scenarios are calculated on trade flows of the Netherlands mainly. How will the European countries compare to each other when the Dutch scenarios are applied to all EU countries?
- The TEN-Ts are revised; investments on infrastructure will be done in all EU countries; infrastructure investments can lead to modal-shifts. Which effects do infrastructure investments in surrounding EU countries have on the Dutch Modal-split? How can the Netherlands or the Benelux influence this?
- How important is the Dutch mainport for Europe compared to the other important ports in Europe? How will they compare in the future? Which regions are dedicated to the Dutch ports and which regions have a good choice between different transhipment countries/ports.
- What impact will have the EU transport policies on the Netherlands? Will for instance transport from Spain to Germany now going over land through France be deviated to maritime transport (motorways of the sea) though the port of Rotterdam and then over land to Germany? How important will intermodal transport become in the EU and which country will be leading in this?

This is only a selection of possible questions to ask when putting the Netherlands in an EU perspective. Answering these questions is often not or only partly possible because the required data at a European scale is not sufficiently available or only available at an aggregate

level making that no clear conclusions can be drawn. To make a proper analysis a complete, detailed and consistent database is required and this is exactly what ETIS is producing.

Having an ETIS will not replace national statistics. At a national level often, and definitely in the Netherlands, more detailed data is available which are also needed at a national level. For European policy making and monitoring this level of detail is in most cases not needed; here in the first place the European perspective is needed at a medium level of detail. As an example for the regional detail the Netherlands is subdivided into the 12 provinces. So for the Netherlands ETIS should be a system to be used next to the already available systems/modes/data in order to enrich the views being developed. In conclusion it can be stated that also for the Netherlands ETIS will be an important tool for policy development and monitoring.

In order to provide a little bit more insight in the content of ETIS in the following the variety of sources and policy issues covered is depicted. To get a more complete insight in the ETIS content it is advised to consult the web-site: http://www.etis-eu.org/ where also the approved deliverables can be found.

***The ETIS reference database will cover all relevant data for transport policy formulation by including a wide range of data sources*[1]**

CATEGORY OF DATA	TYPE OF DATA INCLUDED	DATA SOURCES
Socio-Economic	GDP, participation in the labor market, population size and age distribution…	EUROSTAT (NEW CRONOS, REGIO, COMEXT, GISCO), EUROGEOGRAPHICS (SABE), Corine land cover, World Bank, IMF (International Monetary Fund), WTO (World Trade Organization), OECD (Organization for Economic Co-operation and Development), Worldfact Book (CIA database), project results including SCENES…
Freight demand	Transport chain OD (origin-destination) matrix, transport volumes, number of truck movements, origin and destination of cross boarder traffic, combined transport, trade volumes, tons of shipments, commodity types…	EUROSTAT (NEW CRONOS, COMEXT), CAFT (Cross Alpine Freight Traffic), National statistical offices, port authorities, UN (United Nations Trade data), Freight operators (ICF International Coach Federation, UIRR International Union of combined Road-Rail transport companies), Project results including INTERMODA and SPIN, diverse websites…
Passenger demand	OD matrix, number of passengers per day, trip purpose, mode of transport,…	EUROSTAT (NEW CRONOS), project results including DATELINE, IATA (International Air Transport Association) Digest on Statistics, UN-ECE (United Nations Economic Commission for Europe Road Transport Census), Official World Airways Guide, Airline Coding Directory, ferry statistics, HAFAS (online German railway schedule information system) , EUROCONTROL flight schedule information, National passenger O/D matrices, UIC (International Union of Railways)…
Transport infrastructure network	GIS data (nodes and links), Kilometers of network, number of railway or motorway lanes, airport capacity, quality of infrastructure…	UN-ECE, UIC, EUROSTAT (GISCO), EU project results like TEN-STAC and GETIS (Geo-Processing Networks in a European Territorial Interoperability Study), ICAO –(International Civil Aviation Organization) statistics, Official Airline Guide (OAG), EUROGEOGRAPHICS, EUROCONTROL (European Organisation for the Safety of Air Navigation), Computer Reservation Systems, government internet websites, tariff database of consolidator (air tariffs) …
Freight services and costs	Transport schedules, Price per ton, equipment deployed and detailed information per vessel/vehicle, operators, …	EUROSTAT (GISCO), Transport operators, shippers, Ports and Terminals, Business directories, project results including RECORDIT, SPIN and GBFM Freight Modeling Project….
Passenger services and costs	Flight, rail and ferry schedules, ticket prices, airport taxes, access times, routing, …	Official Airline Guide (OAG), EUROGEOGRAPHICS (SABE), websites of ferry and rail companies, timetable for passenger ferry services, international rail timetables, tariff database of a consolidator for air tariffs, UIC, EUROCONTROL, ICAO, HAFAS, …
External effects	Emissions, accidents, injuries, …	EUROSTAT, national data sources and publications, project results including COMMUTE, RECORDIT, TEN-STAC, INTERNAT, MEET...

[1] This table does not represent the complete list of data sources included into the ETIS pilot (for the complete list see http://www.etis-eu.org).

ETIS can help to answer questions on a wide range of TEN policies

MOBILITY

1	Improve Level of Service on TEN Infrastructure
2	Eliminate bottlenecks and reduce congestion Optimise capacity on existing infrastructure
3	Optimise modal split along international corridors for road and rail
4	Ensure infrastructure investment according to Trans-European guidelines
5	Reduce cross-border delays for rail transport (included in 1)

OPTIMAL USE OF CAPACITIES

6	Encourage use of TEN-T as major corridors for long-distance and international traffic
7	Seaports shall promote short sea and international shipping
8	Enhance the use of ITS on the TEN-T
8.1	Develop dedicated freight lines where it is relevant

SAFETY

9	Reduce the number of accidents
10	Reduce the number of accident black spots on the overall network
10.1	Safety of airport operations

INTERMODALITY INTEROPERABILITY

11	Encourage unitisation and containerisation of freight
12	Reduce door-to-door transit times for freight
13	Improve accessibility to the intermodal transport system
14	Increase terminal utilization
15	Promote passenger multimodality
16	Increase in interoperable rail infrastructure on the TEN (to be presented on a map)
16.1	Develop international rail traffic

ACCESSIBILITY

17	Increase quality of surface connection of major airports
18	Minimise constraints in trip making and increase service availability to population
19.1	Minimise constraints in trip making and increase service availability to population: -Accessibility of the EU markets through the different networks -Accessibility of the markets in Eastern Europe -Accessibility of peripheral regions
19	Improve connectivity to island areas

ECONOMIC VIABILITY

20	Accommodate increases in demand (through capacity enhancement and modal shift along corridors)
21	Ensuring fair and efficient infrastructure user charges
21.1	Assess the impact of new infrastructure investment on the TEN-T

ENVIRONMENT

22	Decrease atmospheric pollution around TEN links
23	Reduce energy consumption and CO2 emissions at network-level
24	Mitigate noise effects in TEN corridors
25	Minimise effects of transport in environmentally sensitive areas

MODAL BALANCE

26	Increase market shares of non-road modes to a competitive level shifts in selected Corridors/Areas
27	Revitalise passenger demand for railways, rail access to airports, and modal split with air travel
28	Encourage long distance freight market share for railways and waterways

SOCIO-ECONOMICS

29	Insight about key socio-economic indicators

References

http://www.etis-eu.org/

http://www.nea.nl/ten-stac/

http://www.nea.nl/neac/