Updated guidelines for evaluation of ITS projects

Liikennetelematiikkahankkeiden arviointiohjeiden päivitys

**Funding:** National (Finland)
**Duration:** Jan 2001 - Mar 2002
**Status:** Complete with results

**Background & policy context:**

It is necessary to determine the transport-related, socio-economic and other essential impacts of trials of new Intelligent Transport Systems (ITS), applications and services in a reliable and consistent way, so that the wide-range implementation of corresponding systems can be decided upon objectively.

In order to ensure consistent evaluation of projects, the Finnish authorities decided to have guidelines drawn up for evaluating ITS projects.

**Objectives:**

The objective of the project was to draw up guidelines for the impact assessments of ITS (Intelligent Transport Systems) projects, thus enabling the comparison of ITS projects to one another and other investment projects from the point of view of impacts and economic feasibility. These guidelines are an updated version of the guidelines published earlier. Matters learnt using the old guidelines during the TETRA Programme were to be used in drafting the updated guidelines.

**Methodology:**

The study was performed as a desktop study using literature on ITS evaluation methods, the authors' own extensive experience in ITS and other evaluation studies in Finland and abroad, the Finnish general framework for the evaluation of transport projects (YHTALI) and feedback from the use of the earlier version of the ITS evaluation guidelines.

**Parent Programmes:**

FITS - FITS R&D Programme on ITS Infrastructure and Services 2001-2004

**Institute type:** Public institution

**Institute name:** Finnish Ministry of Transport and Communications

**Funding type:** Public (national/regional/local)

**Partners:**

Guidelines development

- VTT Technical Research Centre of Finland
- Strafica Oy
- SysOpen Oyj and
- Traficon Oy

Guidelines development Steering Group
Key Results:

The guidelines present a systematic method for dealing with impacts, which ensures that all projects cover the essential points for decision-making. The evaluation guidelines are based on the YHTALI framework (Finnish Socio-economic cost-benefit framework for transport infrastructure) and they apply the YHTALI template for presenting the results.

Owing to the novelty of ITS projects, the guidelines present extensive checklists of the possible impacts of ITS on the transport system and its users (end users, operators, authorities, etc.) as well as on all the actors linked to logistics systems.

Lists of indicators and their estimation methods cover seven different impact categories:

1. transport network and its costs,
2. fleet and its costs,
3. accessibility,
4. time and predictability,
5. safety,
6. noise, emissions and energy, and
7. valuations and comfort.

The use of specific primary indicators is recommended. The guidelines apply to all modes of transport.

The economic feasibility analyses can build on a cost benefit analysis or a profitability calculation. In addition, multi-criteria analyses and verbal assessments should be used.
For studying the feasibility of the implementation of the projects, the guidelines present checklists for market assessment, human-machine interface analyses, and technological, technical, financial, legal and organisational aspects.

The guidelines for the evaluation of logistics projects emphasise the main objective of these projects, which is to enhance the competitiveness of the companies. The applied Du Pont model acts as an impact checklist while at the same time it produces an estimate of the magnitude of the impacts.

**Policy implications**

The guidelines should be utilised whenever ITS projects are being evaluated. This applies to both ex-ante and ex-post evaluations and assessments.

**Efficiency**

No results directly relevant to this theme. However, please note that findings for the project’s key theme - Intelligent Transport Systems - are generically applicable.

**Decision-support tools**

No results directly relevant to this theme. However, please note that findings for the project’s key theme - Intelligent Transport Systems - are generically applicable.

**Financing tools**

No results directly relevant to this theme. However, please note that findings for the project’s key theme - Intelligent Transport Systems - are generically applicable.

**Information and awareness**

No results directly relevant to this theme. However, please note that findings for the project’s key theme - Intelligent Transport Systems - are generically applicable.

**Intelligent Transport Systems**

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**Related Projects:**

In 2003, the guidelines were taken into use within the VIKING project ([http://www.viking.ten-t.com](http://www.viking.ten-t.com)), supported by the TEN-T/TEMPO programme of the European Commission (part of the European Commission’s Multi-annual Indicative Programme - MIP).

In 2003, the guidelines were used as a building block in developing the European framework for evaluation of ITS projects.

In 2005, the guidelines were complemented with the Excel Evaluation Tool available for download at: [http://www.aino.info/hankkeet/5_palvelup/AINO_evaluation_framework_advice.xls](http://www.aino.info/hankkeet/5_palvelup/AINO_evaluation_framework_advice.xls)

Documents:

- Final Report in English ([Final report](#))

**STRIA Roadmaps:** Network and traffic management systems

**Transport mode:** Multimodal transport

**Transport sectors:** Passenger transport, Freight transport

**Transport policies:** Societal/Economic issues, Decarbonisation,

**Geo-spatial type:** Other