

GENERAL INFORMATION

PETUS description of tool in use						
Name of the case	Helsinki Metropolitan Area Transport System Plan (PLJ 2002)					
Name of the tool	Multi-criteria analysis (Helsinki Metropolitan Area Council (YTV))					
Country	Finland					
City / region	Helsinki Metropolitan Area (4 cities)					
Total area (km ²)	744					
Population	973 000					
Density (people/km ²)	1 308					
Tool user's profile						
a. Organisation name (municipality, NGO, national or regional department, company, etc.)	a. Pääkaupunkiseudun Yhteistyövaltuuskunta = Helsinki Metropolitan Area Council (YTV); a regional organisation formed by four municipalities					
b. Field of activity	b. Development planning, transport, waste management, air quality management, data service					
c. Detailed contact/feedback (project website, e-mail, address, tel., fax)	c. www.ytv.fi, ytv@ytv.fi, P.O. Box 521, FIN-00520 Helsinki, tel. 358-9-15611, fax 358-9-1561369					
Reviewer, date	Kari Ojala, 1.2.2005					
Short description of the case						
<p>The Helsinki Metropolitan Transport System Plan is a long-term plan that takes an overall, strategic view of the transportation system, defining the common aims for its development, giving a direction to regional transport policies, and drawing up a development scheme that can implement common goals within a realistic financial framework. The plan is the expression of the common will of the participant bodies, and in it the emphasis is on regional cooperation.</p> <p>In February 1999 the Board of the Helsinki Metropolitan Area Council (YTV) approved the amendment to the existing transport system plan (PLJ 1998) and also decided that the planning of the transport system should be continued so that the next revision (PLJ 2002) could be approved by the end of the year 2002.</p> <p>Simultaneously with the production of PLJ 2002, YTV's Development Office drew up a projection of the future overall land use in the Helsinki metropolitan area, PKS 2025. PLJ 2002 and PKS 2025 were prepared in close cooperation, both within the YTV organisation and also with other participants and interest groups.</p> <p>From the beginning, the impacts of all measures studied were assessed in the planning. Finally, in the impact estimates of PLJ 2002 four alternative transport systems (0+ = the current system including investments already accepted, 1 = the former plan emphasising infrastructure investments, 2 = an alternative based on traffic and mobility management, 3 = trying to minimize transport demand through land use planning) were compared with regards to the development objectives defined for the plan. The impacts of the alternatives were examined in relation to both the present and the year 2025 situation. Those responsible for drawing up the Transport System Plan Draft had been aware of the results of the impact assessment, and thus the results were able to influence the content of the Draft Plan – whose impacts have also been assessed. The results of this assessment had a strong influence on decision-making.</p>						
Why was the case chosen? To which PETUS key-problem is this case study related?						
The case is a nice example on the way of handling a complicated problem (comparing thousands of alternative investments and creating various overall policies for their implementation) and decision-making procedure (having tens of independent decision-makers and a strong public interest on the results). The case is slightly related to the key problem of implementing new transport connections.						
Sector	Waste	Energy	Water	Transport	Green/blue	Buildin g & Land Use
				X		

Scale of project	Component	Building	Neighbourhood	City	Region
Status of project	Starting up	Ongoing	Finished	Start date	End date (exp.)
			X	2/1999	12/2002
Key words					
Multi-criteria analysis, transport, region, policies					
Project	a. Object (building, city park, wind farm, etc.) b. Type of activity (regeneration, renovation, new development, etc.) c. Type of product (plan, scheme, design project, etc.)				
	a. transport infrastructure b. building new roads, rails etc. c. strategy				
Tool	a. Character (according to WP3final0704.doc) b. Benchmarks (qualitative or quantitative) c. Availability (paid/ free)				
	a. a sector-oriented assessment method b. both c. free				
Decision-making process	a. Stage of the tool implementation (preliminary, midterm, etc.) b. Level (political, technical, etc.) c. Public participation				
	a. in the early strategic planning stage b. political c. web pages, meetings				
Other (optional, if needed)					

DETAILED INFORMATION

A. Detailed description of project and tool	
1. Description of context (existing strategies, laws, policy, action plans, etc.): EU, national, regional, municipal	The aim was to renew the existing regional transport strategy.
2. Description of project a. Background (What caused the initiation of the project?; What was the problem? Who initiated the project?); b. Objectives/aims (sustainability statement – what issues of sustainability were attacked); c. Time interval and stages of project realisation; d. Financing – amount, sources, institutions involved, partnerships, levels. e. Other sectors involved in the particular project/problem (conflicts and/or links) f. The steps of the project	a. The existing transport system plan was rather road transport -oriented, and politicians and the public wanted to this investigated. The official decision on starting the process was made by the Council. b. The project objectives were environmental (e.g. air pollution and energy consumption), economical (e.g. transport costs) and social (e.g. accessibility). c. The project took 3 years d. The cost of the whole planning process (to achieve the regional strategy) was about 500 000 € in money plus 10-11 person years of office work. The cost if the impact estimates (included in the total cost) was about 80 000 €. Half of the costs were paid by the Council, the other half by state organisations (Ministry of Transport and Communications and administrations under the Ministry). The office costs were mainly paid by the Council and the participating municipalities. e. Land use planning at the regional level and in the participating 4 municipalities was closely involved. f. A. Four alternative transport policies were determined: 0+ = the current system including investments already accepted, 1 = the former 1998 plan emphasising infrastructure investments, 2 = an alternative based on traffic and mobility management, 3 = trying to minimise transport demand through land use planning. B. The most important proposals for investments and actions (public transport projects, road projects and actions

in traffic policy) were placed into the alternatives according to the impacts of the investment/action; the result was, that each policy alternative became a collection of concrete projects.

C. The criterias for the assessment were chosen (the full list is more detailed, these are the headlines only):

Overall economic impact on society
 Transportation functionality
 - Public transport: functionality and competitiveness
 - Functionality of motor vehicle traffic
 - Interconnectivity between various modes of transport
 Preconditions for business and commerce
 - Goods traffic
 - Working-place accessibility
 Funding Traffic safety
 Health
 Urban structure
 Living environment

D. The alternatives were compared against these criterias using a weighted multi-criteria-analyses: the impacts of each policy alternative to every criteria was measured or estimated, and the impacts were placed into a scale from very clearly negative to very clearly positive. The criterias were not weighted numerically, but their different importance had probably influence on choosing the elements to the final plan (next step).The results are shown in the Table 1 below.

PLJ 2002 Programme of measures

Transportation policy measures	Cost est. mill. euros	phase 1 before 2010	phase 2 2010-2019	phase 3 2020-2029	after 2030	Comments
Planning of land-use to minimise traffic		X	X	X	X	
Measures to speed-up public transport		X	X	X	X	
Additional public transport departures		X	X	X	X	
Qualitative improvements in public transport		X	X	X	X	
Camera monitoring (speeding, bus lanes)		X	X	X	X	
Development of park-and-ride facilities		X	X	X	X	
Tightening-up of parking policy in central areas			X	X	X	
Improving conditions for cycling		X	X	X	X	
Separate public transport projects						
Espoo City Rail link, Leppävaara-Espoo Centre	100	20	80			*), ready to start in 2007
Increasing Coastal Railway Line capacity, Espoo-Kirkkonummi						Project partly outside YTV area
City Rail link to Kerava (under construction)	52	8				*) Project partly outside YTV area
Marja railway line	280+28	224	56			*), ready to start in 2006
Mini-Pisara	219-244				244	
Metro/ rail connection, Ruoholahti-Matinkylä	412	82	330			*), ready to start in 2008
2nd Helsinki metro line, Kamppi-Pasila	165			165		
2nd Helsinki metro line, Helsinki Centre-Laajasalo	385				385	
Jokeri Rail link and other light-rail connections	109				109	Cost estimate includes Jokeri Rail link
Cross-town connections at the level of Pasila	10		10			
Cross-town connections in the vicinity of Ring Roads I and III	17-50		17			
Bus transport trunk network	50	25	25			*)
Minor measures for public transport	35	10	12	12		Thematic project
Extension of tram routes in the inner city of Helsinki	50	20	15	15		*)
Public transport information system and new technology	50	20	15	15		*)
Development of park-and-ride facilities	37	17	10	10		*)
Totals for separate public transport projects		426	570	217		

E. The final plan was then composed including the best elements of each alternative to the plan: so, none of the assessed alternatives was chosen or recommended as such.

F. Finally the final plan was "operationalised" listing the investments and actions following the choice of policy elements (and using the data of part B above), and creating a schedule for implementation of the investments and actions. An example of the policy measures and public transport projects included is shown in Table 2 below.

Aims = criterias for comparison	Change from today to 2025 Alternative 0+	Difference of the alternatives compared to alt 0+ at 2025		
		Alt. 1 Plan 1998	Alt. 2 Mobility Management	Alt. 3 Land Use Management
Service level and costs of the traffic system				
- public transport service level, competitiveness, modal share	+	+	+++	++
- car traffic functioning	---	+	+++	++
- prerequisite for walking and cycling	+	++	++	+++
- intermodality	+	++	+++	+++
- freight transport functioning	--	++	++	++
- public transport connections to working areas	+	++	++	++
- system efficiency	--	+	+++	++
- restraining car traffic growth	0	-	++	+
- financial share to public transport and walking+cycling	--	++	+++	++
Safety and health				
- traffic safety	+	+	+	+
- traffic emissions, influence on air quality	+	0	0	0
- extent of noise zones, population exposed	---	0	0	0
Social sustainability				
- accessibility/obstacles	+	+	+	+
- travel possibilities of those without car	++	++	++	++
- accessibility to basic services	-	+	+	++
- car dependence of the communities	--	+	+	++
Development of areas and communities				
- city structure that supports PT and W+C	--	++	++	+++
- livability of sub centers	-	+	++	+++
- restraining city sprawl	---	+	++	+++
- functionality, safety and healthiness of the surroundings	+	+	+	+
- obstacles from traffic routes	-	-	-	-
- city scene and cultural landscape	-	-	-	-
- consistency of green area network	0	-	-	-
Impacts on nature				
- CO2 emissions from traffic, energy consumption	+	0	+	+
- biodiversity, nature values of protected objects	-	0	0	0
- the use of areal and natural resources	-	--	--	--
- traffic customs that save the environment	-	0	+	+

Change from current situation or impact compared to the basic alternative:

+++	Very clearly positive	---	Very clearly negative
++	Clearly positive	--	Clearly negative
+	Slightly positive	-	Slightly negative
0	Neutral, insignificant	?	Not enough information to know the direction of impact

<p>3. Description of tool</p> <p>a. Character (according to WP3final0704.doc) - calculation tools, process tools, assessment methods, generic tools, simulation tools, guidelines, framework tools, schemes, indicators and monitoring, checklists, case-specific tools;</p> <p>b. Availability of the tool (web-based / paper, paid / free, etc.)</p> <p>c. Based on existing tool or newly elaborated;</p> <p>d. Adaptation of the tool to the local context (are there local experts involved in tool's development?)</p> <p>e. Other tools implemented to support the project development</p>	<p>a. The tool is a multi-criteria analysis involving various steps; the steps of this case study are described above in section 2. In principle you determine the alternatives, choose the criterias for assessment (=often the same as the targets of the whole project), measure the impact of each alternative to each criteria (how much the alternative benefits or harms the fulfillment of the criteria) and sum up the assessments so that you can see which alternative gives the best overall fulfillment of the criterias. Note that you can emphasize the criterias (give more weight for the important ones).</p> <p>b. Available for free on web page or in paper, but used manually.</p> <p>c. Based on existing ideas on multi-criteria-analyses.</p> <p>d. The tool was adapted to the local context by the local experts.</p> <p>e. Bench-marking data was collected and indicators were used.</p>
B. Tool implementation	
<p>1. Argumentation for choosing the tool</p> <p>a. What were the reasons for the implementation of the tool? (voluntary or requested by what local, national, etc regulation)</p> <p>b. Who took the initiative for choosing /elaboration the tool?</p> <p>c. What were the criteria for choosing the tool?</p> <p>d. Was there knowledge of other tools and were they considered?</p>	<p>a. The tool was implemented on a voluntary basis and not requested by anybody. The complexity of decision making process had to be assisted with some procedure to simplify the problems and find the answers.</p> <p>b. The experts working in the Council office.</p> <p>c. See a.</p> <p>d. Common knowledge existed, but there were no tools available exactly fitting in the local circumstances; adaptation was needed in any case.</p>
<p>2. Barriers for the tool implementation</p> <p>What were the main problems in the tool implementation? (Regulation, information available, public awareness, lack of clear SD definitions and benchmarks, communication etc.)</p>	<p>The huge amount of information needed on all the possible future transport investments, calculation of the impacts of measures investigated; various steps were needed to compare all the strategic alternatives with each others and against the former ones.</p>
C. Influence of the tool on the decision-making process	
<p>1. Description of the decision-making process/ procedures</p> <p>a. Stages</p> <p>b. Levels (political, technical, etc.)</p> <p>c. Sources of information used during the dmp;</p> <p>d. Who are the decision-makers?</p> <p>e. Who made the final decision for the project implementation? Was it political or technical decision?</p>	<p>a. Firstly a transport system plan was produced and the impacts of all measures were studied. Simultaneously a land use estimate was formed in close co-operation, and finally four alternative transport systems were compared in an impact assessment. On the basis of the results the alternatives were finalised, and a combined approach was composed and recommended to the decision makers. This alternative was also operationalised: the list of investments included was released.</p> <p>b. The decision-making during the process was mainly technical and done by a project group consisting of e.g. mayors, experts and representatives of various (state) administrations - but the politicians were informed regularly.</p> <p>c. Transport and land-use planners in the municipalities provided information during the decision making process as did the transport operators, road and rail administrations etc. with all their knowledge and data; forecasts.</p>

	<p>d. The project decision-makers were members of the project group (see b.). The political decision on accepting the strategy was made in the Metropolitan Area Council, where the members are politicians chosen by the participating municipalities. The organisations involved, but not in control by the Metropolitan Area (e.g State Road Administration) were asked successfully to approve the strategy.</p> <p>e. The decision of implementing the chosen strategy in principle was political (see d.). What is essential is that the implementing of particular investments included in the strategy needs another (political) decision by the organisation implementing the investment in the future, and that is not self-evident. For example, even if the State Road Administration now accepted the Plan, in reality there could not be a 100% certainty that a particular road would be built in the year 2010, accordingly to the plan as situations can change.</p>
<p>2. Tool in decision-making process</p> <p>a. At what stage was the tool implemented? By whom? (experts, politicians, etc.)</p> <p>b. How did the tool output influence the process (added or skipped levels/stages in the existing decision-making process, etc.)?</p> <p>c. Quantitative goals or benchmarks defined? (If YES, which – and what were they compared to?)</p> <p>d. Was the tool used to support argumentations?</p>	<p>a. The tool was implemented by the experts and the results were used by politicians at all stages of the process.</p> <p>b. The whole procedure was composed around the tool output; there is no existing decision-making process for this kind of complex procedure, which is only needed from time to time.</p> <p>c. The benchmarks were concerned with efficiency in transport investments, compared to economical possibilities of various collaborators. Plenty of data on pollution, travel times etc. etc. was collected for every alternative and compared to each others.</p> <p>d. Yes. The result of the strategy was public transport and rail transport -oriented, and all this was supported by the results achieved by using the tool.</p>
<p>3. Transparency of decision-making process</p> <p>a. How was the information of the dmp disseminated? - directly (decision makers – public) or indirectly (decision makers - NGO, PR company, etc. - public); sources of dissemination used (mass media, internet, brochure, etc.)</p> <p>b. How was the public involved?</p> <p>c. Was there a public discussion over the project and at what stage of the project development?</p>	<p>a. The whole decision making process was very open. Information was distributed to all decision-makers and NGO-organisations involving. Both mass media, internet and brochures were used to increase debate on the item.</p> <p>b. See a. Exhibitions, leaflets and hearings were used to involve and inform the public.</p> <p>c. Public discussions was lively, especially during the last stages with political decisions.</p>
D. Expert assessment/analysis/comment of the tool effectiveness	
<p>1. Assessment by tool users</p> <p>a. Were there measurable improvements as a result of the tool implementation? If YES, what? If no: why not?</p> <p>b. Were there any spun-off's or unintended consequences?</p> <p>c. General view on the tool? Lessons learned?</p> <p>d. Potentials for further use of the tool?</p> <p>e. Will the actors recommend it or use it in other cases - why / why not?</p>	<p>a. Not necessarily measurable, but in any case clear improvements were achieved: the quality of the final strategy and the measures included in it increased because there was sufficient knowledge on the impacts all the time, and data to support the proposed solutions.</p> <p>b. No. The procedure was familiar from the former planning circles and only developed further.</p> <p>c. Assessing the impacts of all the measures studied and comparing the impacts to the development objectives through the whole process, from the first beginning, is very useful. Difficult part is to figure the chains of the impacts: there are more and more aspects all the time which should be included, and the impact of them to each others should be understood.</p> <p>d. Yes, the next procedure of same kind is soon beginning: the strategy will be updated soon using the same, but further developed method.</p> <p>e. Yes. Finally, rather similar procedures will be more and more common in Finland at least, using almost the same</p>

	transport policy objectives: this gives comparability and synergy.
2. Reviewer's assessment of the tool (usefulness, sustainability relevance, who are the actors excluded? etc.) Suggestions and needs for further development of the tool	Very useful, an excellent way to keep a complicated planning process with several stake-holders in hand and achieve sustainability. In the final decision-making, however, the strategic alternatives didn't play as important role as it was expected: the politicians were more interested in particular investments than the overall strategies. Simplifying and clarifying the results is a challenge in future, too.
E. Additional information on the case study available	
Websites	www.ytv.fi/english/transport
References <i>concerning the case but also the key words or problem</i> (papers, articles, reports, laws, etc.)	see above
Other sources (Interviews, conferences, discussions, etc.)	No.
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