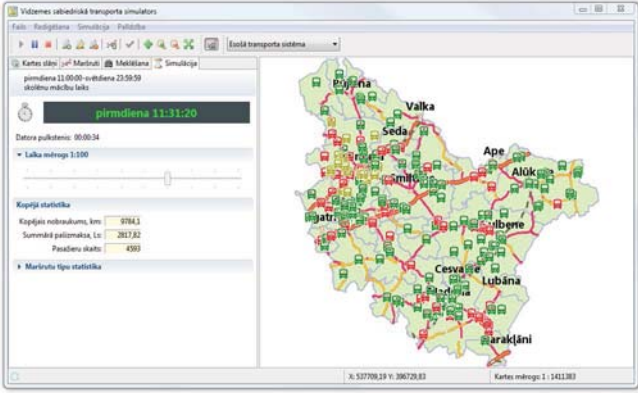
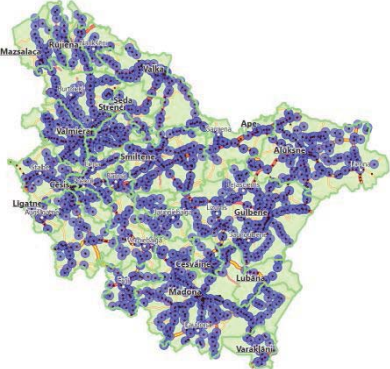


NR	SECTION	DESCRIPTION
0.	Photographs 	
	<p>Figure 1: Interactive simulation user interface</p>	<p>Figure 2: Public transport stops availability</p>
1.	Title of the practice	Public Transport Modelling and Optimization (P11)
2.	Precise theme/ issue tackled by the practice	Public transport simulation and optimization.
3.	Objectives of the practice	<ul style="list-style-type: none"> • To offer a dynamic modelling tool for Vidzeme planning region's transportation planners for public transport analysis and planning. • To provide conceptual recommendations for improvement of unified multimodal public transport route system in Vidzeme planning region.
4.	Location	<ul style="list-style-type: none"> - Country: Latvia - Region: Vidzeme Planning Region
5.	Detailed description of the practice	
	<p><u>Origin:</u></p> <p>The study is carried out within the sub-activity ESF 1.5.1.3.2. of the project "Advancement of Public Transport Service Quality in Vidzeme Planning Region".</p> <p><u>Timescale:</u> November 2011 – May 2012</p> <p><u>Bodies involved/implementation:</u></p> <ul style="list-style-type: none"> • Riga Technical University, "IMINK" Ltd. • Target groups of the research: <ul style="list-style-type: none"> - Residents of Vidzeme planning region, who use public transport for mobility needs, existing municipal structures of Vidzeme planning region responsible for the support of inhabitants with public transport services. - Passenger carriers. 	

	<p><u>Process and detailed content of the practice:</u></p> <p>The following tasks have been realized during the project:</p> <ul style="list-style-type: none"> • Data collection and generalization of regional intercity routes, regional local routes, rail routes, school and local bus routes, as well as routes of city importance ensuring the mobility from the republic cities to nearby surrounding areas. • Analysis of the study results and conclusions summarization. • Preparation of study report. • Presentation of the study results for the project participants. • Model development of the existing public transport system. • Model presentation to the discussion participants. • Development of the optimal public transport system model. • Preparation of recommendations for the Vidzeme planning region's public transport system optimization opportunities based on regional development planning documents. • Presentation of recommendations to the discussion participants. <p><u>Legal framework:</u></p> <p>The study is realized on the basis of the concluded contract Nr.1-26/85 at 31.10.2011 between the Vidzeme planning region and Riga Technical University, as well as on the basis of the agreement concluded between the Riga Technical University and IMINK Ltd.</p> <p><u>Financial framework:</u></p> <p>Implementation of the study has been financed on the basis of the concluded contract. The study is paid in 5 stages, according to the given service execution payment schedule.</p> <p><u>Users degree (%): users/total population:</u></p> <p>The users are the stakeholders and transport planners of Vidzeme planning region (0.005 % of the total population).</p>
<p>6. Evaluation</p>	<p><u>Possible demonstrated results (using indicators):</u></p> <p>Based on the developed public transport model, the following results have been obtained:</p> <ul style="list-style-type: none"> • By using of smaller capacity buses (with smaller fuel consumption) (up to 25 seats), it is possible to achieve cost savings up to 12%. • By introducing of 18 new trips within the 293 bus route kilometres, it is possible in the whole Vidzeme territory to provide at least 2 trips per a working day. • By introducing of partly express buses and by decreasing a number of bus stops within the intercity

		<p>routes, it is possible to decrease the intercity travel time up to 6%.</p> <p><u>Possible success factors:</u></p> <ul style="list-style-type: none"> • Developed an interactive dynamic model for public transport system performance evaluation. • Developed possible variants for further development of multi modal public transport network: <ul style="list-style-type: none"> - To increase number of parishes which are provided with at least 2 trips per day (up to 95%-100%) connecting them with district centres. - To increase number of districts which are provided with at least 2 trips per day (up to 95%-100%), connecting them with regional or metropolitan centres. - To reduce public transport travel time. - To provide progressively greater proportion of population with the accessibility of public transport stop within 2 km. <p><u>Difficulties encountered:</u></p> <ul style="list-style-type: none"> • The difficulties have been exposed to the fact that the public transport planning in the country does not have unified methodical and economically sound legal base. • Significant difficulties during the study realization have been originated from the lack of the necessary input data, as well as the fragmentation and accuracy problems of the existing data. • The project implementation period is relatively short for a simulation modelling system of such scale and scope.
7.	Lessons learnt from practice	<p>Objective and operational decision-making at all planning levels (urban, suburban or regional) requires appropriate public transport dynamic simulation solutions.</p> <p>It is necessary to create an appropriate public transport data base for the existing situation and also for the future needs.</p> <p>For further development perspective in the area of public transport the following is required:</p> <ul style="list-style-type: none"> • To create a data base of the existing and perspective situation forecasts to be able to predict the passenger flows for different transport modes (buses, railroad), the population and the number of jobs, the intense attraction key points for population, etc. • To perform surveys of public transport passenger flows

		<p>and population mobility.</p> <ul style="list-style-type: none"> To create basis of public transport rolling stock adjusted for different size of passenger flows, such as large, medium and small-capacity buses. To develop a transport rolling stock for pupil transportation with different capacity according to the real demand.
8.	Contact information	<p>Ina Miķelsone (Project Manager)</p> <p>Department of Development and Projects</p> <p>Vidzeme Planning Region</p> <p>Cesu Street 19-54, Valmiera</p> <p>Phone +371 64219021</p> <p>Fax +371 64116012</p> <p>Mob. phone +371 29289487</p> <p>ina.mikelsone@vidzeme.lv</p>
9.	Other possible interesting information	<ul style="list-style-type: none"> Additional information provided by the respondent: <ul style="list-style-type: none"> http://www.vidzeme.lv/lv/projekti/sabiedriska_transporta_pak_alpojumu_kvalitates_paaugstinasana_vidzemes_planosanas_regiona/sabiedriska_transporta_kustibai_vidzeme_jaunaplanosanas_sistema/ Other documents (reports, presentations): <ul style="list-style-type: none"> - Data collection and analysis, presentation of results, Cesis, Latvia, 15.02.2012. - Presentation “Vidzeme’s public transport modelling system”, Cesis, Latvia, 27.04.2012.: www.vidzeme.lv/upload/lv/Esfondi/RTU_prezentacija_20120427.ppt - Final project report “Optimization possibilities of public transport route network in Vidzeme by taking into consideration the needs of population and public transport service providers” // RTU, IMINK Ltd., 2012. - Presentation “Optimization possibilities of public transport route network in Vidzeme by taking into consideration the needs of population and public transport service providers” //Conference “Improvement of public transport service quality in Vidzeme”, Cesis, 27.06.2012. - Presentation “Public transport modelling system in Vidzeme Planning Region”, seminar of the Interreg IVC program’s project „GRISI PLUS”, Amata district „Ausmas”, 12.07.2012.