

Chisinau E-Ticketing System

Assignment Name: Chisinau Public Transport Project – E-Ticketing System Design

Country: Moldova

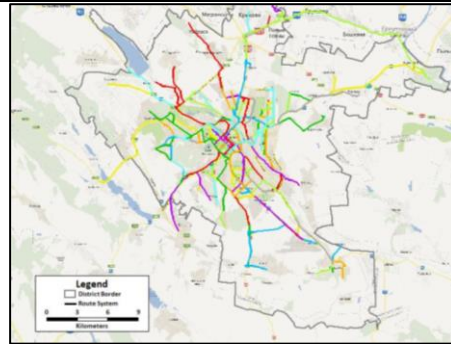
Location within Country: Chisinau

Name of Client: EBRD

Financing Agency: EBRD

Start Date: Mar 2013

Completion Date: Ongoing



Name of Associated Firm(s): ACI Partners, PCENTRA

Detailed Narrative Description of the Project:

The EBRD is supporting the City's Transport Strategy through a project that aims to update the fare structure and ticketing system of the City of Chisinau. The project that aims to help the City and transport operators to introduce a modern tariff and e-ticketing system, to enhance revenue yield, collection and accounting and improve sector governance and management through the introduction of multi-year PSC between a local authority and transport operators, incorporating 'payment for public service obligations' rather than old-style 'subsidies'.

Description of Services provided:

ROM provided the following tasks:

- Analysis of the existing demand, revenue, ticketing technology, fare structure and current bus technology
- Definition of the basic fare structure, including fees and ticket types
- Development of e-ticketing institutional organization and owner-operator arrangements
- Selection of type of ticketing system and its specification
- Detailed Procurement and Implementation Plan
- Preparation of detailed tender documents
- Assistance with contract award
- Assistance with implementation supervision

Vinnytsia Automated Fare Collection

Assignment Name: Vinnytsia Automated Fare Collection – Regulatory Framework

Country: Ukraine

Location within Country: Vinnytsia

Name of Client: Vinnytsia Card Services

Financing Agency: EBRD

Start Date: 2016 **Completion Date:** ongoing

Name of Associated Firm(s): Civitta, Sayenko Kharenko

**Detailed Narrative Description of the Project:**

The City of Vinnytsia aimed to strengthen its public transport system by implementing a new smart card automated fare collection system and automatic vehicle location system. The project involved the following tasks:

- Development of the City's Public transport strategy
- Drafting legal documents for implementation of the Automated Fare Collection and Vehicle Location Systems
- Preparation of New Passenger and Luggage Carriage Rules
- Development of Tender Documentation for Transport
- Project Management and Reporting

Arad Urban Rehabilitation and Parking Management

Assignment Name: Arad Urban Rehabilitation and Parking Management - Due Diligence

Country: Romania

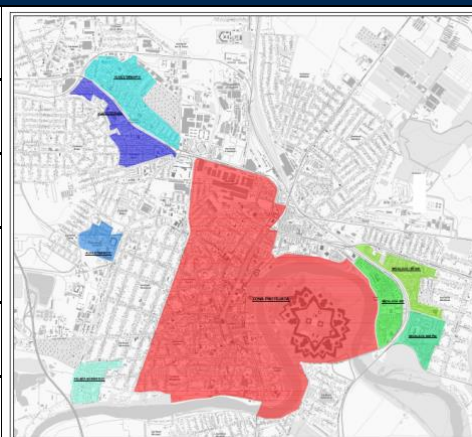
Location within Country: Arad City

Name of Client: EBRD

Financing Agency: EBRD

Start Date: March 2016

Completion Date: May 2016

**Detailed Narrative Description of the Project:**

Arad City has approached the Bank with a request to support structuring of an integrated parking management system and financing of its priority investments, as part of the City's objective to improve mobility in the region in line with the City's Urban Rehabilitation Programme. This followed EBRD's support for the urban transport sector, as part of a Memorandum of Understanding with Romania designed to increase absorption of EU funds. As a response to several similar requests, the Bank prepared the SMART Framework intended to reach a critical mass of clients and investments that has the potential to increase the quality of the public transport in Romania.

This Project is focused on implementation of a modern, integrated parking management system and associated investments. In addition, it will enable the City to: (i) set-up and enforce a parking regulation, with clear price policy and sustainable revenue-generation for the City, and potentially attract private sector participation for parking management; (ii). update its Public Service Contract ("PSC"), in line with EU requirements, for all public transport and parking operations; (iii) to participate in a benchmarking programme for the UT sector.

The project is also expected to boost the economic competitiveness in the region by improving mobility in and to the City, since Arad is one of the main urban centers and a transport hub in the Western part of Romania, at the border with Hungary.

Description of Services provided:

ROM provided technical assistance to the Arad Municipality in the following areas:

1. Review project rationale and current status

- Review all available studies and information from various sources (urban planning, parking strategy, legal framework for parking, performance of existing city parking operations, etc.)

2. Review feasibility study and identify key gaps

- Review the existing performance of Arad's unit responsible for parking enforcement
- Review the existing feasibility study prepared by the City
- Perform initial environmental screening
- Assessment of gaps to be filled for successful project delivery

3. Define action plan including further studies and implementation arrangements

- Define an action plan including further studies and implementation arrangements required to prepare the project and meet the requirements of the financiers to mobilize investment funds

4. Environmental and Social due diligence

- Amend existing Environmental and Social Action Plan ("ESAP")
- Preparation of a Performance Requirements (PR) non-compliance table for the investments detailed in a Non-Technical Summary

Bucharest SUMP

Assignment Name: Bucharest-Ilfov Agglomeration Sustainable Urban Mobility Plan (SUMP)

Country: Romania

Location within Country: Bucharest –Ilfov County

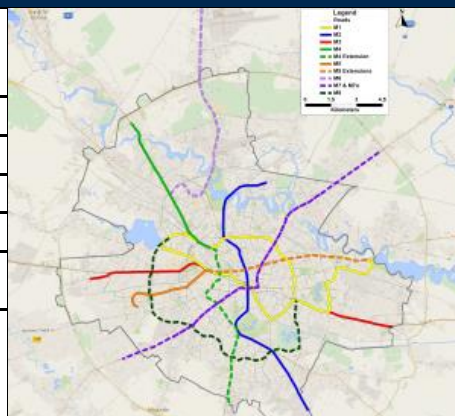
Name of Client: EBRD

Financing Agency: EBRD

Start Date: September 2014

Completion Date: December 2015

Name of Associated Firm(s): Avenza Consulting, Trachtebel Engineering



Detailed Narrative Description of the Project:

Based on the European Guidelines, the Bucharest-Ilfov Agglomeration is developing a Sustainable Urban Mobility Plan with the objectives of ensuring that all citizens of the metropolitan area are offered transport options, that enable access to key destinations and services, improving the safety and security of the transport system, reducing air and noise pollution, greenhouse gas emissions and energy consumption, improving the efficiency and cost-effectiveness of the transportation of persons and goods and contributing to the enhancement, attractiveness and quality of the urban environment and urban design for the benefits of citizens, the economy and society as a whole.

This undertaking includes a full range of transportation planning activities, in addition to the development of a full multi-modal transportation system. The regional model is to be updated and improved upon and projects are to be designed, analyzed and prioritized to develop comprehensive mobility options for the region. A financial and environmental analysis of each project is to be undertaken. The development of the Sustainable Urban Mobility Plan is being completed as an integrative approach to transportation planning, incorporating all modes of transportation, land use considerations and involve the input of multiple governmental agencies and stakeholders. The plan will also ensure the improved safety of the regional road system and will include an environmental impact assessment. The result will be a full sustainable urban mobility plan and an action plan to ensure that projects are developed on time. ROM has undertaken a large number of surveys, including a travel habits survey, stated preference survey, traffic surveys and parking surveys. ROM used multiple technologies in order to complete the surveys. Based on the surveys and collected data, ROM developed a regional travel demand model for Bucharest and Ilfov County. ROM is currently analyzing project costs and testing the model against various scenarios to undertake a cost-benefit analysis for all projects, which will result in a ranking of all potential sustainable transport projects for the region.

Description of Services provided:

ROM provided technical assistance to the Bucharest Municipality in the following areas:

- Review of studies and plans
- Data collection and analysis
- Survey execution and analysis
- Situational analysis
- Set transportation vision for the region
- Design and calibration of Travel Demand Model
- Design, evaluation and prioritization of transport projects
- Comprehensive planning and conceptual design of project package
- Risk assessment
- Institutional and regulatory planning
- Strategic Environmental Assessment
- Financial and economic analysis
- Development of phased action plan

Botosani Sustainable Mobility Strategy**Assignment Name:** Botosani Sustainable Mobility Strategy**Country:** Romania**Location within Country:** Botosani**Name of Client:** Botosani Municipality**Financing Agency:** Botosani Municipality**Start Date:** April 2014**Completion Date:** June 2014**Name of Associated Firm(s):** Avenza Consulting**Detailed Narrative Description of the Project:**

ROM Transportation Engineers recently completed a Sustainable Mobility Strategy for the Municipality of Botosani, a city of 106,000 people. The major objective of this project was to create a strategic sustainable transportation plan for the entire city of Botosani and near villages, to be implemented over time through specific projects. This project marks an effective, sustainable improvement to public transport service provision and traffic management in the City.

The project scope included: Infrastructure; urban PT services- Tram and minibuses; Regional PT services- Train station, buses; traffic and parking management, NMT, transportation policy.

This project provided Botosani with a range of transportation planning activities, infrastructure and services for the municipality. A financial and environmental analysis of the selected projects was completed. The development of the Sustainable Mobility Strategy was completed to integrate with municipal land use planning, and involved the input of multiple governmental agencies and stakeholders. The plan will also ensure the improved safety of the municipal road system. The result is a sustainable urban mobility plan and an action plan to ensure that projects are developed on time.

Description of Services provided:

ROM provided technical assistance to the Municipality of Botosani in the following areas:

- Strategic Transportation Planning
- Demand Forecasting
- Assessment of Tram
- Data analysis
- Stakeholder Consultation
- Outline of future measures to be implemented

Bratislava Urban Parking Study**Assignment Name:**

Bratislava Urban Parking Study

Country: Slovakia**Location within Country:** Bratislava**Name of Client:**

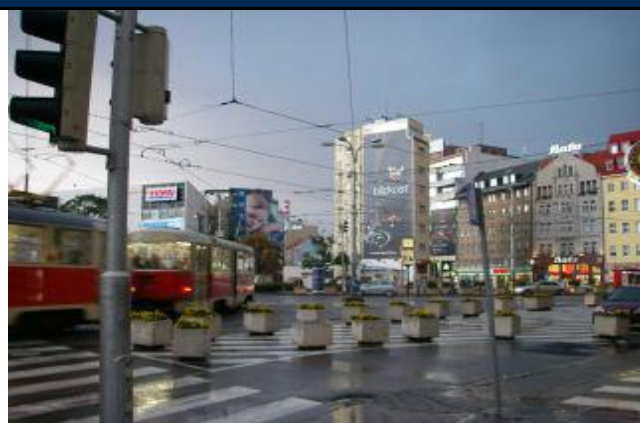
UNDP/General Environmental Fund (GEF)

Financing Agency: Ministry of Transport**Start Date:**

June 2011

Completion Date:

December 2011


**Detailed Narrative Description of the Project:**

As part of the UNDP/GEF project to reduce GHG emission in Bratislava, it was decided to develop a new parking policy and strategy that will reduce long term parking, eliminate parking violations and promote short term parking, increase parking availability in the city center and increase income from parking management to reinvest in transport improvements. The project intends to develop the new parking policy and strategy as well as obtain consensus, propose the necessary legal reforms and to prepare an action plan.

Description of Services provided by ROM:

- Preparation of a situational analysis
- International review of benchmarks
- Proposal of a new parking policy
- Conducting extensive stakeholders' meetings
- Proposing legal reforms
- Preparing a detailed action plan for implementation.

As part of the project, ROM prepared a financial model to evaluate and select the best parking management alternative.

Varna Urban Transport		
Assignment Name: Varna Urban Transport Study		
Country: Bulgaria		
Location within Country: Varna		
Name of Client: Bulgarian Ministry of Regional Development and DG-Regio		
Financing Agency: EU Commission		
Start Date: Nov. 2010	Completion Date: April 2012	
Name of Associated Firm(s): ITC Bulgaria, BG Consult		
Detailed Narrative Description of the Project: <p>In 2012, ROM completed a study for the city of Varna, Bulgaria, and recommended a sustainable, economic and financially viable urban public transport system for European (ERDF) Funding. The Consultant considered 11 components of sustainable transport development to be implemented in an integrated manner. The project set a course for an effective, sustainable improvement to public transport service provision and traffic management in the City.</p> <p>The Consultant developed multiple sustainable transport alternatives and selected corridors for improvement with regards to all possible implementations. This included an analysis of the best possible technology to select for a pilot corridor, including trolleybus, BRT and LRT scenarios. The project also included a plan for a hierarchical sustainable transport system.</p> <p>The Consultant forecasted mode choice and transit ridership for each scenario, and optimized the number of rolling stock per option within eligible funding and available budget from the municipality.</p> <p>ROM also assisted the municipality in the development of the application for funding and prepared a proposed cost estimation for the implementation of the recommended scenario, an economic evaluation and a calculation of GhG emissions reductions from the implementation of the sustainable transport scheme.</p> <p>The final set of investment components, as well as the Grant application form, was approved by JASPERS and the City of Varna was granted EUR 58 million from ERDF.</p> <p>The following project components were included in the assignment:</p> <ul style="list-style-type: none">• Development of BRT line that connects residential areas to the city center. The BRT line will include both an engineering solution, operational plan, feeder line, technology, BRT stops, new special rolling stocks and more.• Traffic management and ad hoc parking policy• Passenger Information Systems• Integrated ticketing system• Network reorganization		
Description of Services provided: <p>ROM provided technical assistance to the Municipality of Varna in the following areas:</p> <ul style="list-style-type: none">• Transport Engineering and Planning• Demand Forecasting• Civil Engineering Review• ERDF Application formulation• Data Collection• Stakeholder Consultation		

Sofia Urban Transport Feasibility Study

Assignment Name: Urban Transport Feasibility Study, Environmental Impact Assessment and ERDF Major Project Application

Country: Bulgaria

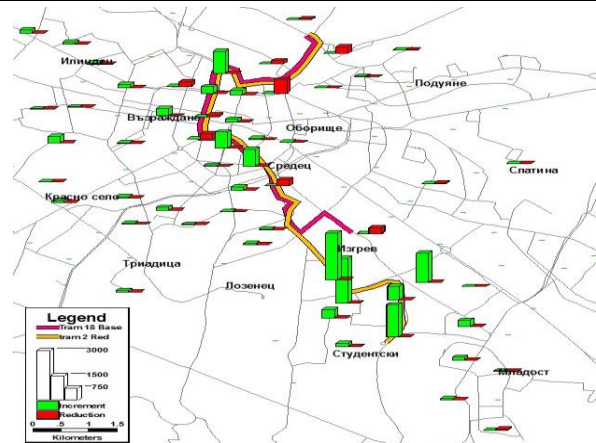
Location within Country: Sofia

Name of Client: EU Commission, City of Sofia

Financing Agency: EU Commission

Start Date: April 2010

Completion Date: July 2010



Detailed Narrative Description of the Project:

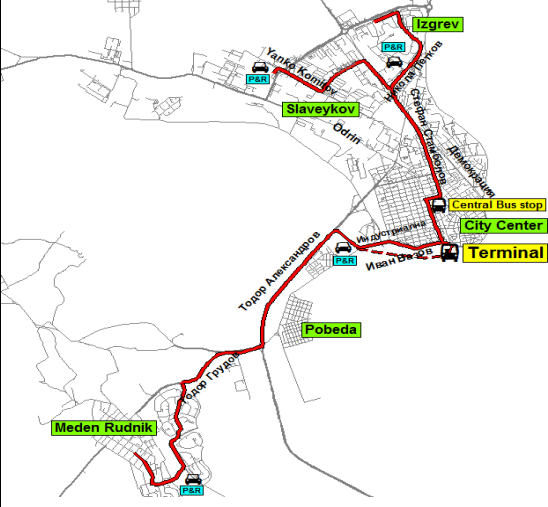
The consultant was commissioned to undertake this feasibility study, Environmental Impact Assessment and preparation of ERDF Major Project Application on behalf of Sofia Municipality. This commission includes consolidating and reviewing the project components that comprise:

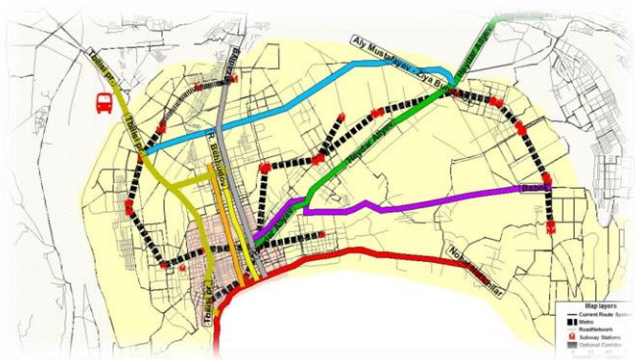
- New bus shelters and public transport information Boards
- Tram Line extension
- Maintenance of existing tram line
- Purchase of Trolley buses
- ITS – Intelligent Traffic Management Systems.

Description of Services provided:

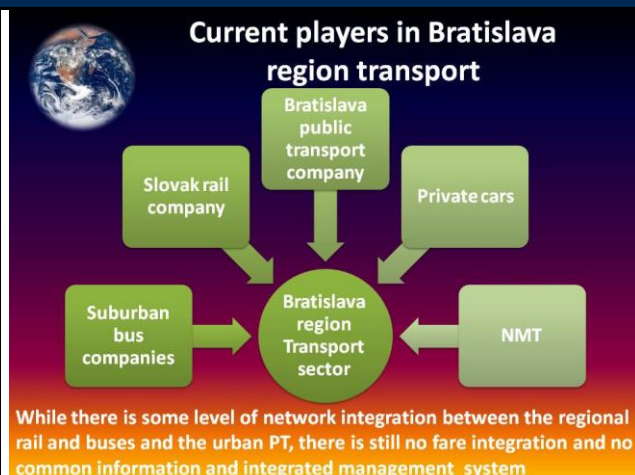
ROM provided technical assistance to the Municipality of Sofia in the following areas:

- Transportation planning
- Transportation modeling and demand forecasting
- Feeder line network analysis
- ITS support
- GIS and data analysis

Burgas Integrated Urban Transport Project		
Assignment Name: Burgas Integrated Urban Transport Project		
Country: Bulgaria		
Location within Country: City of Burgas		
Name of Client: Municipality of Burgas		
Financing Agency: JASPERS, European Investment Bank (EIB)		
Start Date: Feb. 2009	Completion Date: June 2009	
Name of Associated Firm(s): ARUP, Guido Bruggeman, Hans Houtsma		
Detailed Narrative Description of the Project: <p>The objective of the project was to upgrade the transit system in Burgas:</p> <ul style="list-style-type: none">Develop a faster transit network with the establishment of a new BRT route.Increase attractiveness through improved accessibilityGreater mobility for the community and visitors of BurgasProvide priority to environmentally friendly modes of passenger transport: BRT line, upgrade the transit system, bicycle and walk modesEnvironmental improvement through reduced emissions, developing alternatives for the old trolleybus systems and/or buses emitting low levels of pollution		
Description of Services provided by ROM: <p>ROM’s role in this task was to develop a transportation model for Burgas and to review various engineering issues. To meet the tight schedule ROM assigned more than 5 experts at a time and delivered a multi-modal TDM within 3 months from the beginning of the project. During this short time ROM collected all data, conducted numerous extensive surveys (a robust on-board survey with more than 4,200 interviewees, passenger counts, traffic counts, GPS survey, THS, and more), calibrated and validated the model, applied it to several scenarios and developed a post processor tool to analysis the output of the model. The experience that ROM gained in Burgas was beneficial for performing similar projects within a short period of time using the highest professional standards.</p>		

Baku Passenger Transport	
Assignment Name: Baku Passenger Transport Study	
Country: Azerbaijan	
Location within Country: City of Baku	
Name of Client: Ministry of Transportation	
Financing Agency: World Bank	
Start Date: 2008	Completion Date: 2009
	
Name of Associated Firm(s): ARTIM group of companies, Guido Bruggeman	
Detailed Narrative Description of the Project: <p>The project includes all aspect of transit re-structuring:</p> <ul style="list-style-type: none"> • Setting public transport policy and strategy for the city • Propose institutional and regulatory reforms • Build a transit modelling tool and use it to restructure the bus system, integrate bus system with metro, analyze the transit performance and propose several transit corridors that might use a BRT concept • Review and reform the taxi system • Suggest a new functional and organizational chart for the urban transport department • Propose a new integrated ticketing system • Recommend a Normative Standard and suggest legal amendments to support it • Reviewed and suggested improved concession contracts for transit operators 	
Description of Services provided by ROM: <p>ROM provided transport modelers, survey managers, GIS experts, TransCAD experts, public transport and planning experts</p>	

Bratislava Urban Transport Project	
Assignment Name: Bratislava Urban Transport Project - GHG Emissions Reduction	
Country: Slovakia	
Location within Country: Bratislava	
Name of Client: UNDP - GEF	
Financing Agency: UNDP- GEF	
Start Date: 2008	Completion Date: 2009
Detailed Narrative Description of the Project: The Global Environmental Facility (GEF) is promoting a project to reduce Green House Gas emission from road transport in the city of Bratislava, Slovakia. ROM assisted the UNDP to identify the project components which included: <ul style="list-style-type: none"> • Giving priorities to trams at traffic lights • Organizing on-street parking management • Promoting cycling as regular mode of travel • Introducing mandatory traffic impact assessment procedures in land use planning • Better planning data for public transport The project will be implemented from 2009 to 2014.	
Description of Services provided by ROM: All the project services were carried and implemented by ROM Transportation Engineering.	



Pristine Traffic and Transport Assistance

Assignment Name: Traffic and Transport Assistance to the Municipality of Pristine

Country: Kosovo

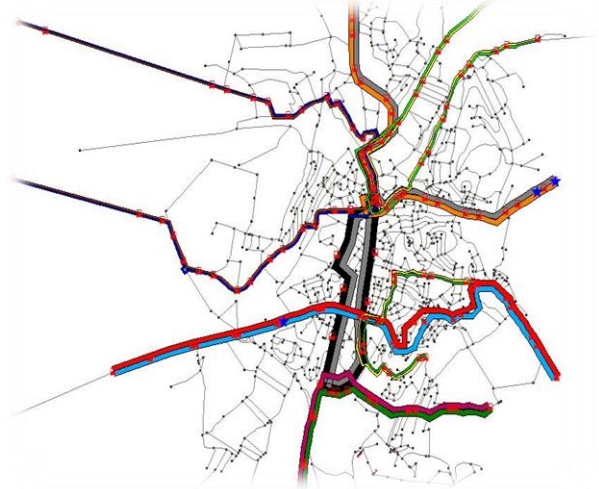
Location within Country: City of Pristine

Name of Client: Ministry of Transport

Financing Agency: World Bank

Start Date: February 2008

Completion Date: October 2008

**Detailed Narrative Description of the Project:**

Provided transport assistance to the Municipality of Pristine. Assignment included: Setting urban transport strategy for the city, reorganization of the transport department, reforming parking management, designing new traffic circulation, preparing a detailed 5-years and 10-year investment action plans. As part of the project we identified potential routes for a BRT system.

Description of Services provided by ROM:

All the project services were carried and implemented by ROM Transportation Engineering.

Georgia Design Standards

Assignment Name: Preparing New Geometric and Structural Design Standards for Georgia

Country: Georgia

Location within Country: Entire Country

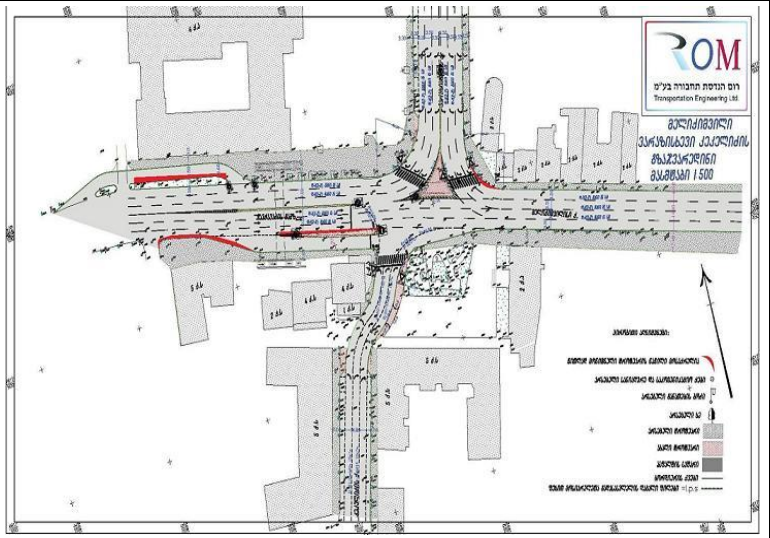
Name of Client: The Roads Department of the Ministry of Economic Development of Georgia

Financing Agency: World Bank

Start Date: 2006

Completion Date: 2007

Name of Associated Firm(s): LCI Ltd



Detailed Narrative Description of the Project:

The Road Department wants to update the old Soviet design standards and to prepare new design standards which are compatible with current European norms.

Description of Services provided by ROM:

- Analysis of the problems associated with the current standards,
- Proposing a new functional classification system
- Proposing new road dimension standards

Istanbul Parking and Traffic Plans**Assignment Name:** Parking and Traffic Plans for the City of Istanbul**Country:** Turkey**Location within Country:** Istanbul**Name of Client:** Ispark**Financing Agency:** ISPARK**Start Date:** October 2005**Completion Date:** October 2007**Name of associated firm(s):** YAPI Model**Detailed Narrative Description of the Project:**

Istanbul is the largest city in Turkey. During the day, there are 16 million people within the city's limits. In early 2006, the Istanbul Municipality established the municipal company, Ispark, in order to plan implement and manage all parking within the city. Ispark contacted a group of investors which intends to invest large sums in developing parking arrangements and constructing underground parking lots around the city.

Description of Services provided by ROM:

ROM serves as chief consultant to Ispark and to the investors, in all aspects of preparing plans for traffic and parking management. During the first stage, a large scale parking inventory and utilization scheme was created. As part of the survey, some illegal parking spaces were converted into legal and regulated spaces. ROM prepared a preliminary plan to be implemented in the area of the old city (Eminuno) which affected 15,000 spaces on streets and parking lots. To implement a city-wide parking policy, ROM accompanied the plan's implementation through all its phases which included a mix of state-of-the-art technology for payment.

Poland Road Safety

Assignment Name: Road Safety Survey and Campaign, Poland

Country: Poland

Location within Country: Nationwide

Name of Client: Ministry of Infrastructure (currently Ministry of Transport).

Financing Agency: World Bank

Start Date: January 2005

Completion Date: December 2005

Associated consultants: LAPAM, TNS Poland, EURO RSCG Poland



Detailed Narrative Description of the Project:

The project was financed by the World Bank. Its purposes were to:

- Study the Polish road safety perceptions using extensive qualitative and quantitative studies
- Increase public awareness to the importance of seat belt use
- Increase the use of seat belt by developing a full scale public awareness campaign
- Implement the campaign, including media planning, negotiating and purchase and monitoring the campaign effects

The project was completed with a high rate of success in estimated lives saved.

Description of Services provided by ROM:

Project management, specification focus groups, in-depth interviews and national surveys. Analysis of survey results, preparation of road safety strategy, designing campaign strategy, designing effectiveness survey and analysis of the results.

Transport Assistance to Tbilisi Municipality

Assignment Name:

Transport Assistance to Tbilisi Municipality

Country:

Georgia

Location within Country:

City of Tbilisi

Name of Client:

The Municipal Development Fund of Georgia (World Bank Implementation Unit)

Financing Agency:

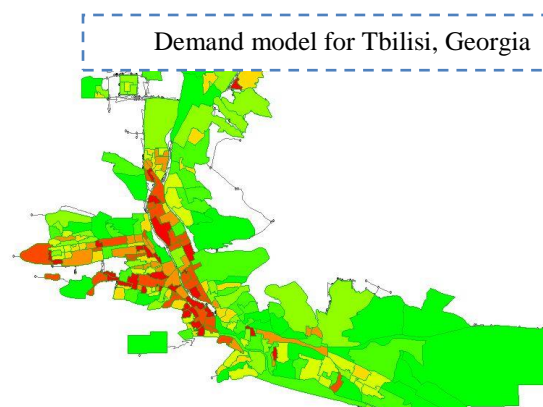
World Bank

Start Date:

2006

Completion Date:

2007


Detailed Narrative Description of the Project:

In 2007, ROM was selected by the World Bank to assist the Municipality of Tbilisi to manage traffic in the city as well as increase road safety, establish a new and modern parking policy and reorganize the Transport Department of the municipality. The main tasks in this assignment were to:

- Restructure the Tbilisi Municipal Transport Department responsible for public transport issues
- Calibrate a travel demand model for Tbilisi that can assist in evaluating a large scale transport infrastructure model
- Propose changes and measures to enhance the traffic flow and road safety in Tbilisi.
- Identify projects to be implemented during the coming 5 years and set priorities for their implementation based on financing possibilities.
- Propose a new parking policy for both on-street and off-street parking lots, including the use of modern and cash-less technology

Description of Services provided by ROM:

ROM assisted the municipality of Tbilisi to update its urban transport strategy and policy. The first phase was to identify the current problems in all areas: traffic management, road safety, public transport operation, parking management and organization.

ROM proposed vision, goals and objectives, and based on these proposed specific action plan and investment plan in each area: traffic management, road capacity, road safety, institutional, regulatory and city organization. The plans cover short term (3 years), mid-term (6 years) and long term (more than 6 years) action plan.

In addition, ROM designed 11 intersections, including traffic lights, prepared the tenders for contractors and supervised the construction of these intersections.

Moscow Parking and Traffic Plans

Assignment Name: Parking and Traffic Plans for the City of Moscow

Country: Russia

Location within Country: Moscow

Name of Client: Parksym and AMERIWSISS Inc.

Financing Agency: Parksym and AMERIWSISS Inc.

Start Date: August 2004

Completion Date: December 2005



Detailed Narrative Description of the Project:

Since 2004, ROM served as chief transportation consultant to Parksym, an urban parking company created that year by the Moscow local government and a group of foreign investors (AMERISWISS Inc.), in order to address the traffic and parking problems in the city. Moscow suffers from severe parking problems, especially wide-range illegal parking at intersections, in parallel to parked vehicles and in other obstructive locations. In addition, most of the street parking in Moscow is free of charge, with only a small number of streets where private concessionaires collect manual payment for parking.

Description of Services provided by ROM:

ROM prepared a program for implementing legalized paid parking in all the city's streets, using state-of-the-art payment and collection technologies. ROM has also prepared a proposal for reforms in the legal framework, in order to enable the enforcement of the new traffic arrangements. The technological infrastructure proposed by ROM will also make it possible to implement a policy of congestion pricing in Moscow. In addition, ROM prepared a plan for 8 parking garages that will serve as off-street parking.

ROM also prepared a detailed business plan for the project. Based on this plan, the investor negotiated with SIEMENS Russia to serve as a supplier and as a partner in the consortium. The plan is currently under implementation. The total number of street-parking spaces included in ROM's plan is around 250,000. During the first phase, 50,000 spaces within Moscow's inner ring will be authorized.