



საქართველოს გარემოსა
და ბუნებრივი რესურსების
დაცვის სამინისტრო



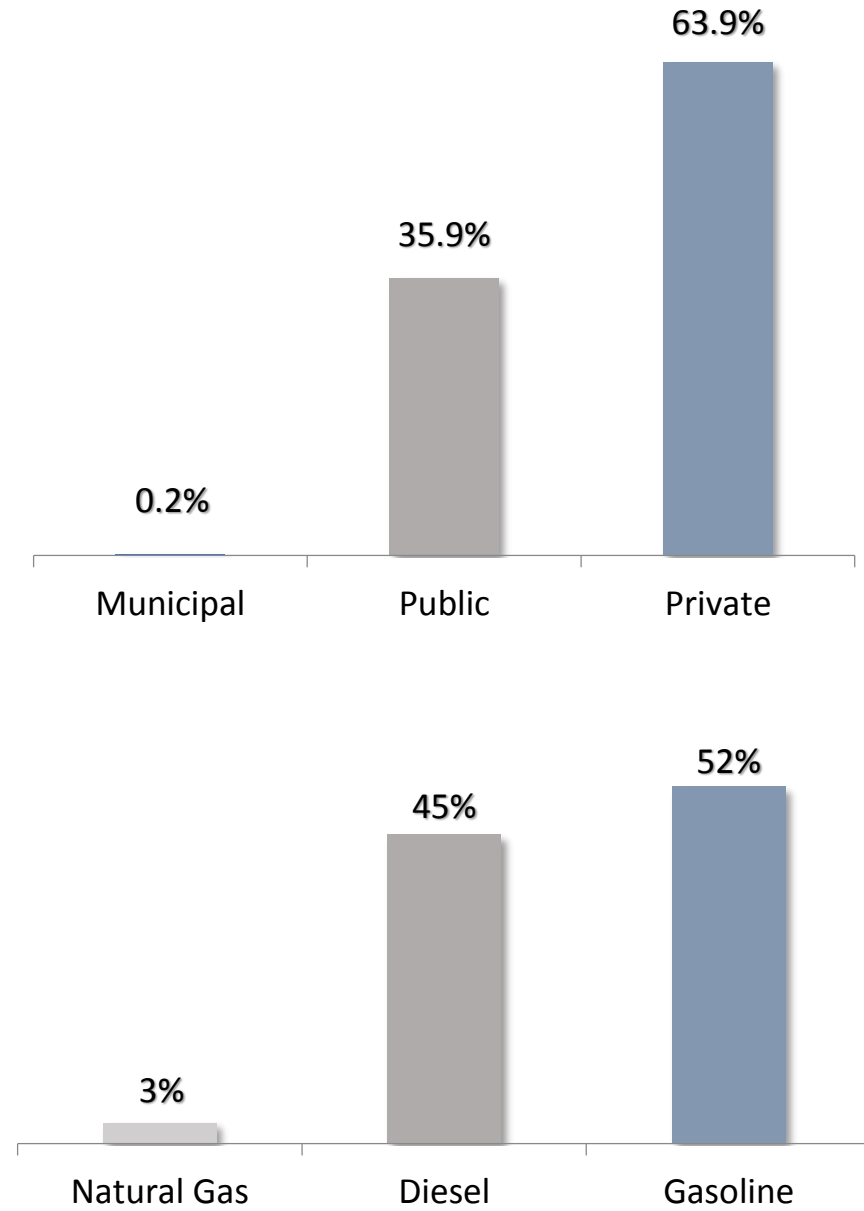
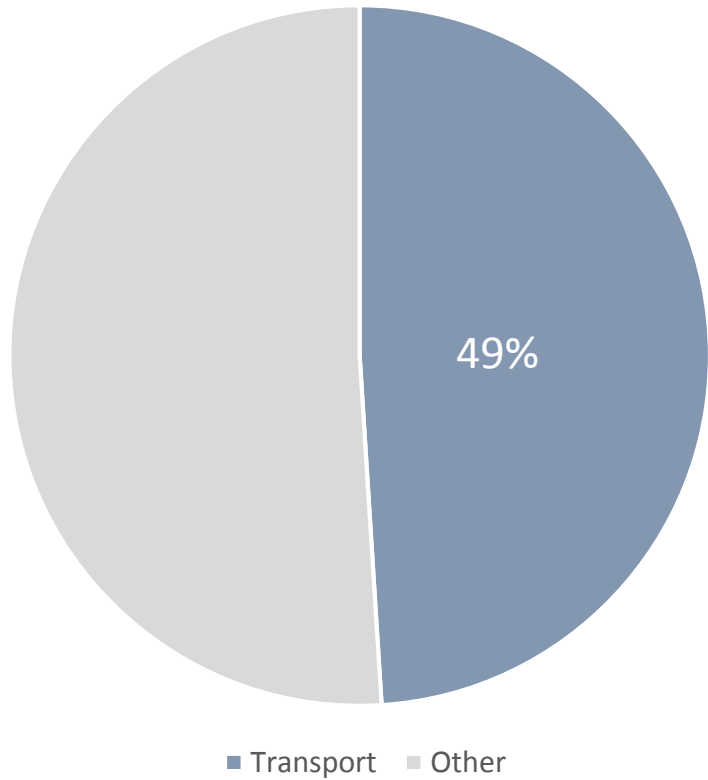
*Empowered lives.
Resilient nations.*

Green Cities: Integrated Sustainable Urban Transport for the City of Batumi and the Adjara Region

Project is implemented by the United Nations
Development Programme (**UNDP**) with financial
support of the Global Environmental Facility (**GEF**)

Lasha NAKASHIDZE
Project Manager

GHG Emission Inventory in Batumi / 2012



Obstacles to Sustainable Urban Mobility in Batumi

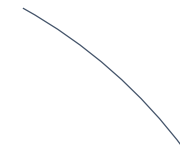
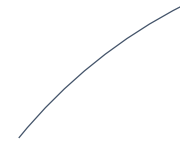
Lack of Holistic Approach to Urban Mobility

Absence of National Vision and Policy on Sustainable Urban Mobility

Lack of Knowledge on Best International Practices on Sustainable Urban Transport

Low Public Awareness on Sustainable Mobility and Green Development

Lack of Financing for Sustainable Measures



ISTBAR and Sustainable Development Goals

9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE



10 REDUCED
INEQUALITIES



11 SUSTAINABLE CITIES
AND COMMUNITIES



13 CLIMATE
ACTION



Batumi Transport Demand Model

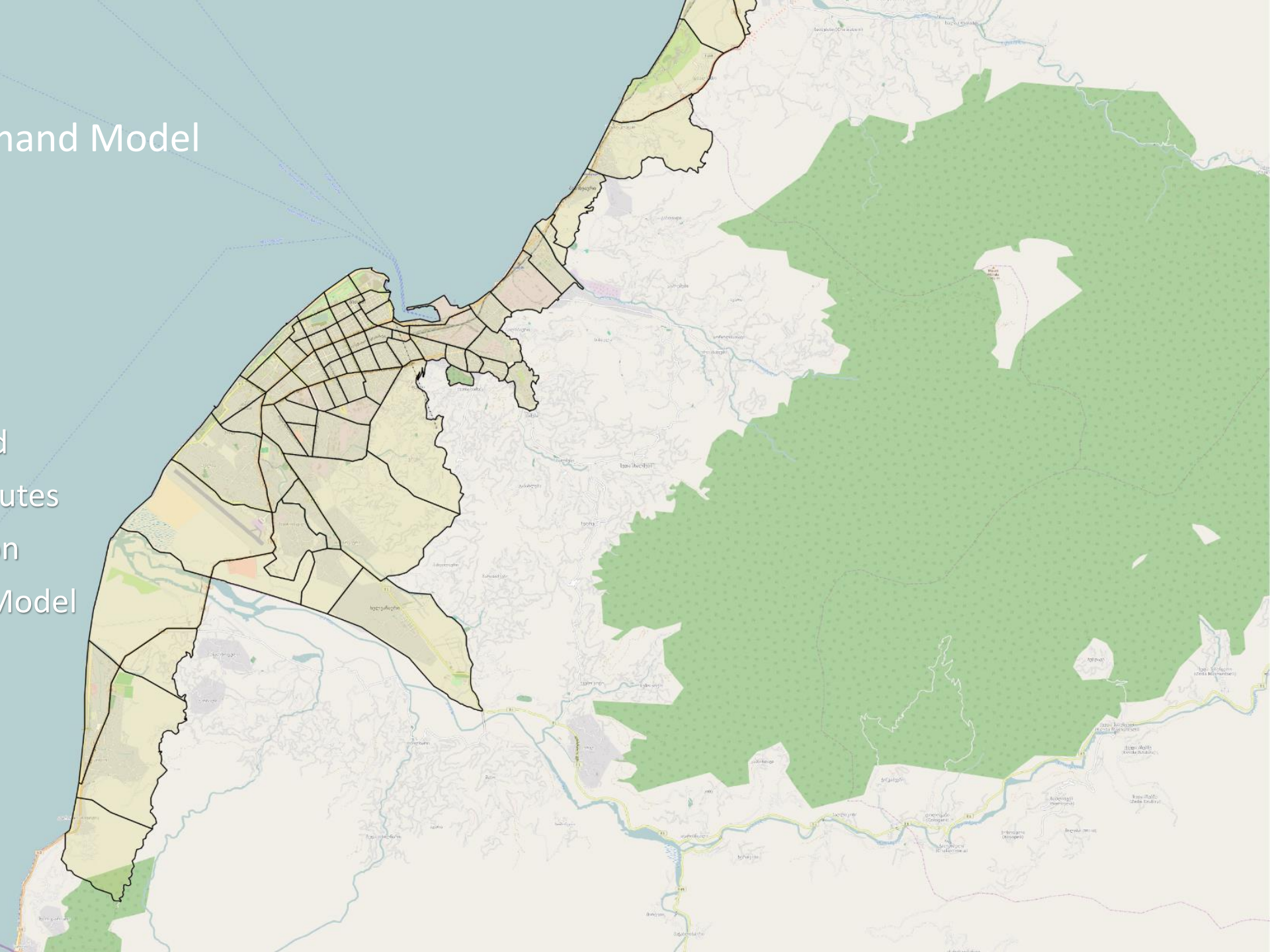
78 Transport Zones

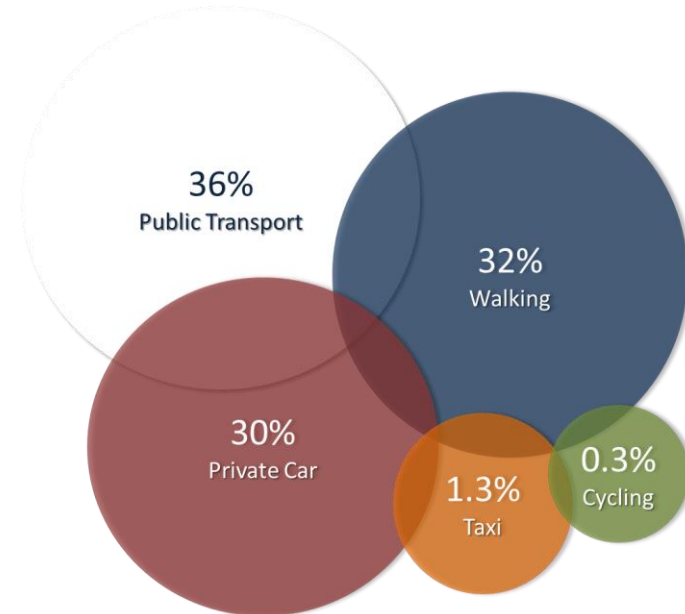
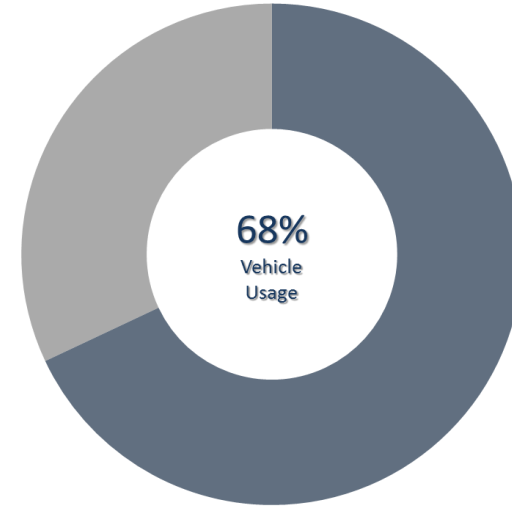
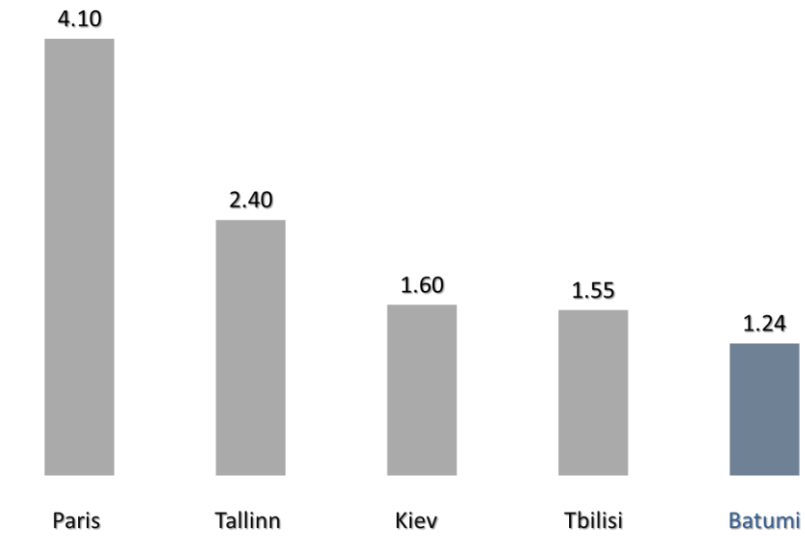
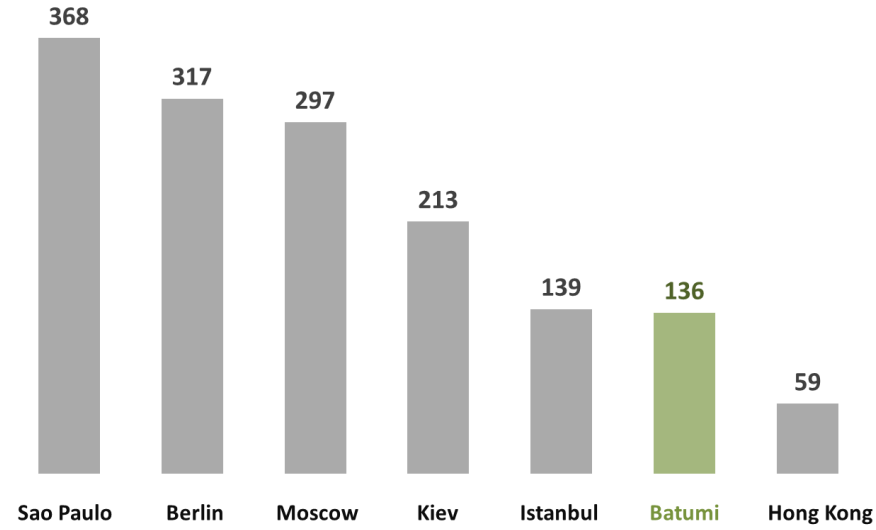
1.500 Households Surveyed

Passenger Counts on 45 Routes

Traffic Counts for Calibration

4 Step Transport Demand Model



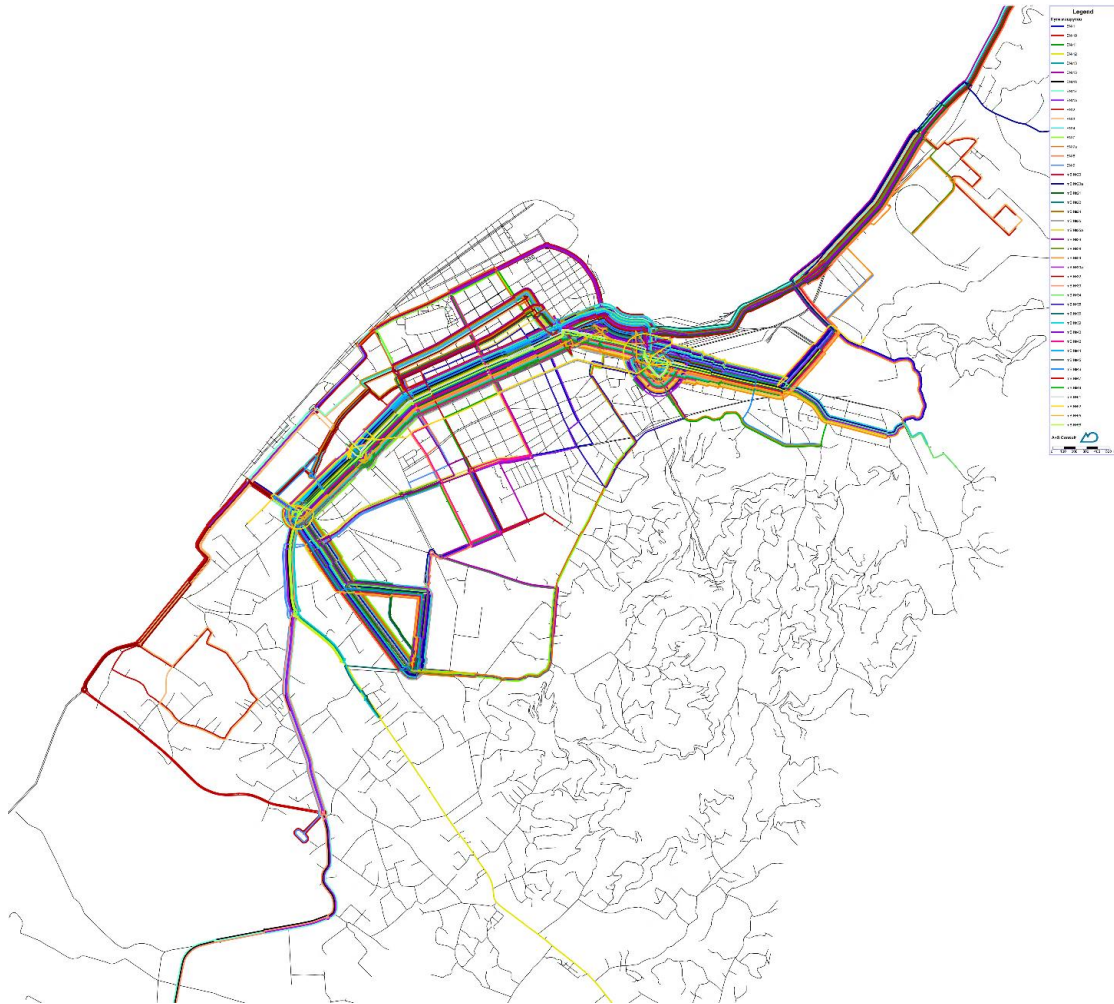


Batumi New Parking Strategy

- Parking Zoning Approach
- New Parking Fee System
- Residential Park-and-Ride
- Touristic Park-and-Ride



Public Transport Optimization Scenarios

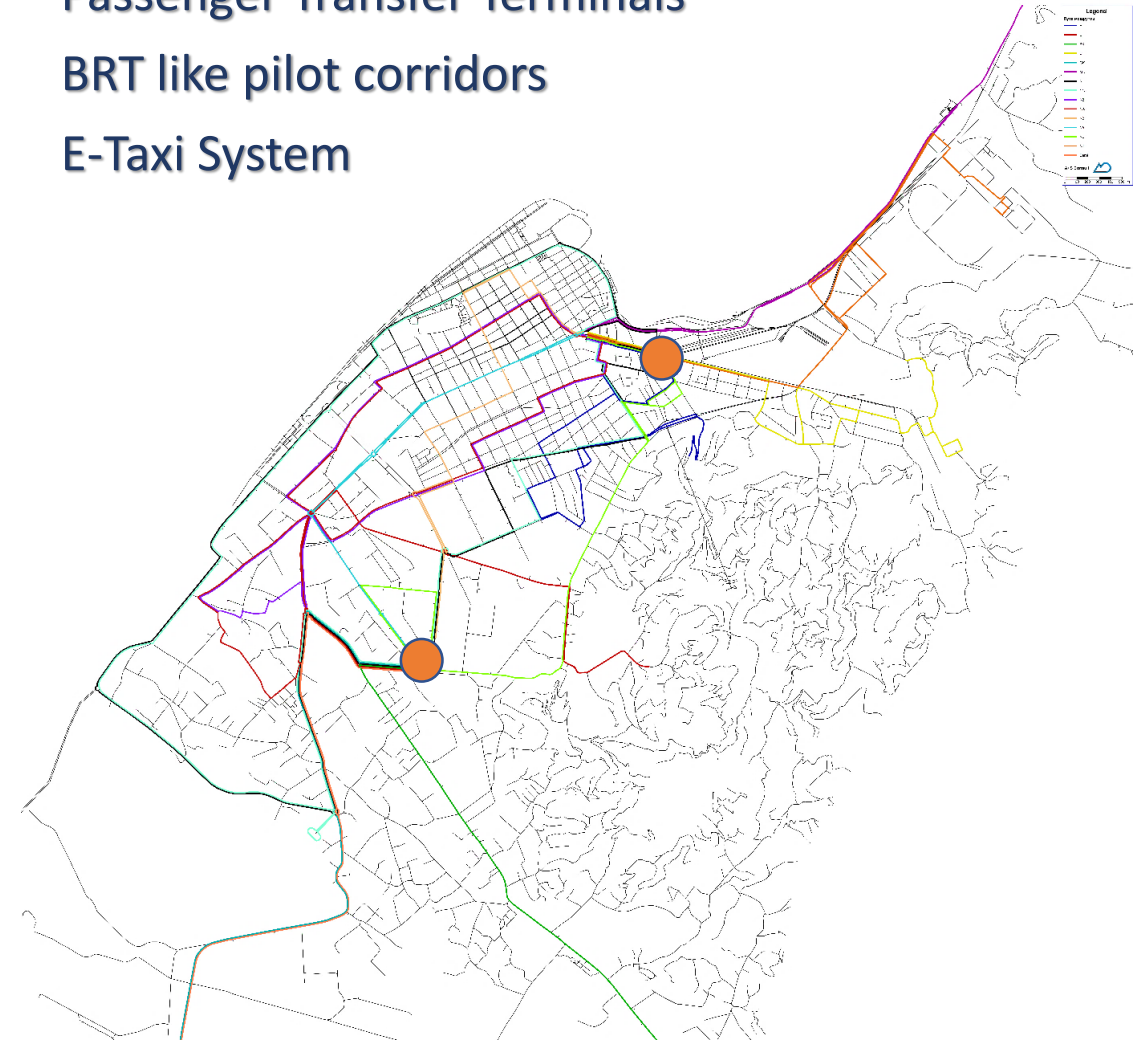


Public Transport Network Optimization

Passenger Transfer Terminals

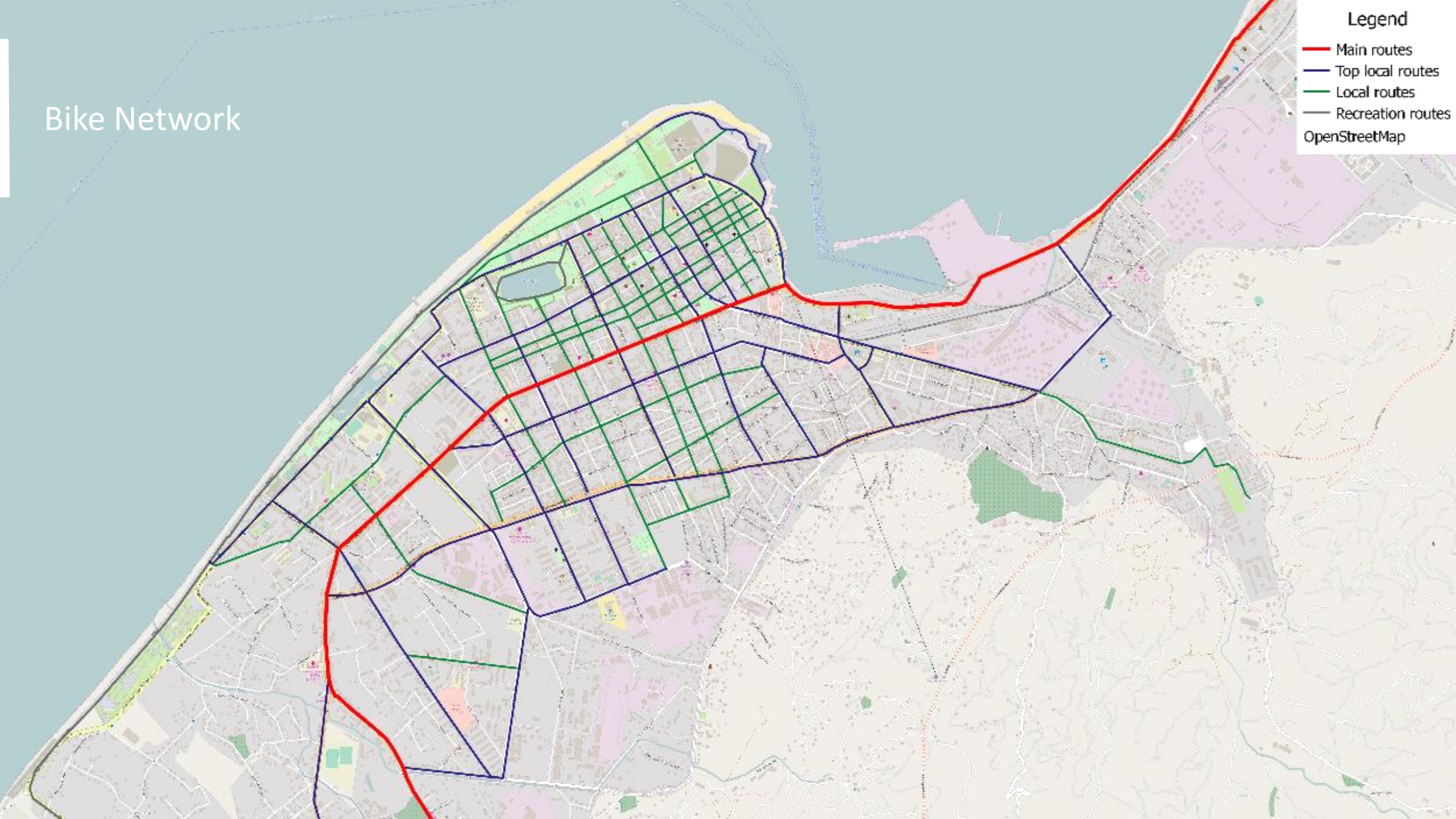
BRT like pilot corridors

E-Taxi System



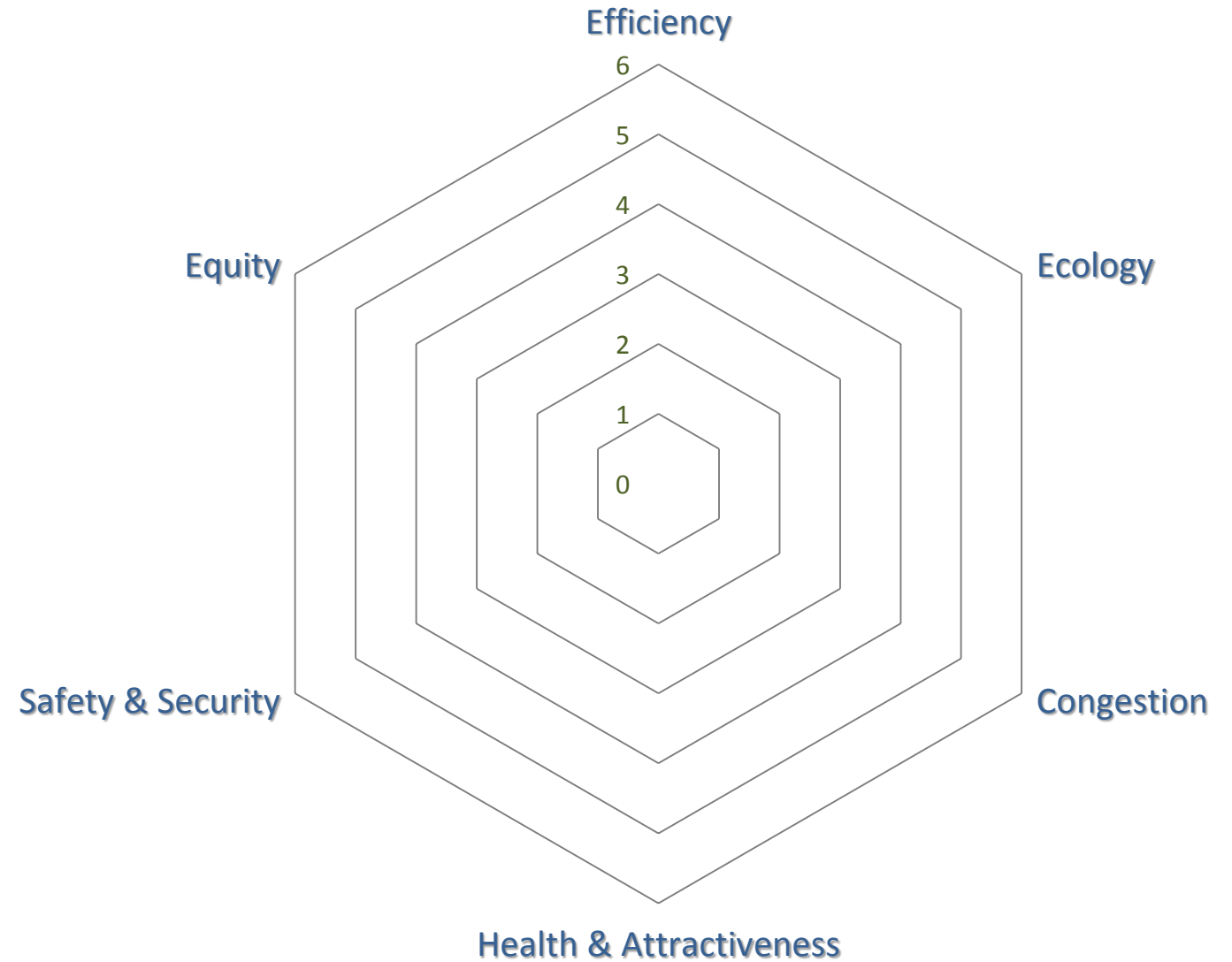
Bike Network

- Legend**
- Main routes
 - Top local routes
 - Local routes
 - Recreation routes
 - OpenStreetMap



Batumi iSUMP

34 specific measures clustered into **7** package and evaluated against **6** criteria



Three Scenarios and GHG Emission Reduction

| | Measure Selection | | Off Season | | | | | On Season | | | | |
|---|-------------------|------|-----------------|------------------------|--------|------------------------|--------|-----------------|------------------------|--------|------------------------|--------|
| | Moderate | Full | Base | Moderate | Full | delta | Base | Moderate | Full | delta | | |
| Modal Split | | | | | | | | | | | | |
| Bicycle | | | 0.40% | 0.80% | 0.40% | 1.20% | 0.80% | 0.40% | 1.10% | 0.70% | 1.60% | 1.20% |
| Private transport | | | 34.70% | 32.60% | -2.10% | 32.40% | -2.30% | 35.80% | 33.30% | -2.50% | 32.70% | -3.10% |
| Pedestrian | | | 31.10% | 28.90% | -2.20% | 28.90% | -2.20% | 30.10% | 28.10% | -2.00% | 28.00% | -2.10% |
| Public transport | | | 33.90% | 37.70% | 3.80% | 37.50% | 3.60% | 33.70% | 37.60% | 3.90% | 37.80% | 4.10% |
| Private Transport | | | | | | | | | | | | |
| Veh-km traveled | | | 749956.20 | 710841.60 | | 707502.80 | | 788690.90 | 739892.60 | | 728643.70 | |
| CO2 Emissions | | | 172.49 tons/day | 163.49 tons/day | | 162.73 tons/day | | 181.40 tons/day | 170.18 tons/day | | 167.59 tons/day | |
| CO2 Reductions - overall private transport from modal shift | | | | -9.00 tons/day | | -9.76 tons/day | | | -11.22 tons/day | | -13.81 tons/day | |
| Measure CO2 Reductions tons/day | | | | | | | | | | | | |
| Bus Route Network Optimization - Including Replacement of Minibus Network and Bus Fleet renewal - intrinsic reduction effects | x | x | | -24.57 tons/day | | -24.57 tons/day | | | -24.57 tons/day | | -24.57 tons/day | |
| Public Transport Reductions from private transport modal shift effects | x | x | | -8.14 tons/day | | -7.99 tons/day | | | -9.52 tons/day | | -10.68 tons/day | |
| P&R Tourist - potential reduction | x | x | | | | | | | -4.33 tons/day | | -4.33 tons/day | |
| P&R Commuters - potential reduction | | x | | | | -4.45 tons/day | | | | | -4.45 tons/day | |
| Bike Infrastructure Improvements - modal shift effects from private transport | x | x | | -0.86 tons/day | | -1.78 tons/day | | | -1.71 tons/day | | -3.13 tons/day | |
| CO2 Reduction TOTAL | | | | -33.57 tons/day | | -38.78 tons/day | | | -40.12 tons/day | | -47.16 tons/day | |

Steps Ahead

- 1 Implementing BRT-like system
- 2 Piloting new Parking Policy near Old City
- 3 Extending bicycle network at least by 6-km
- 4 Low-emission buses



Video Simulation of Demo-Corridor



The image is a promotional graphic for a video simulation. It features a central photograph of the Batumi skyline at sunset, with the sea in the foreground. The sky is filled with golden clouds. The city skyline includes a Ferris wheel, a tall tower, and a building with a spherical structure. The text is overlaid on the bottom half of the image.

gef

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საქართველოს მთავრობის ემბლემა

UNDP
Empowered lives.
Resilient nations.

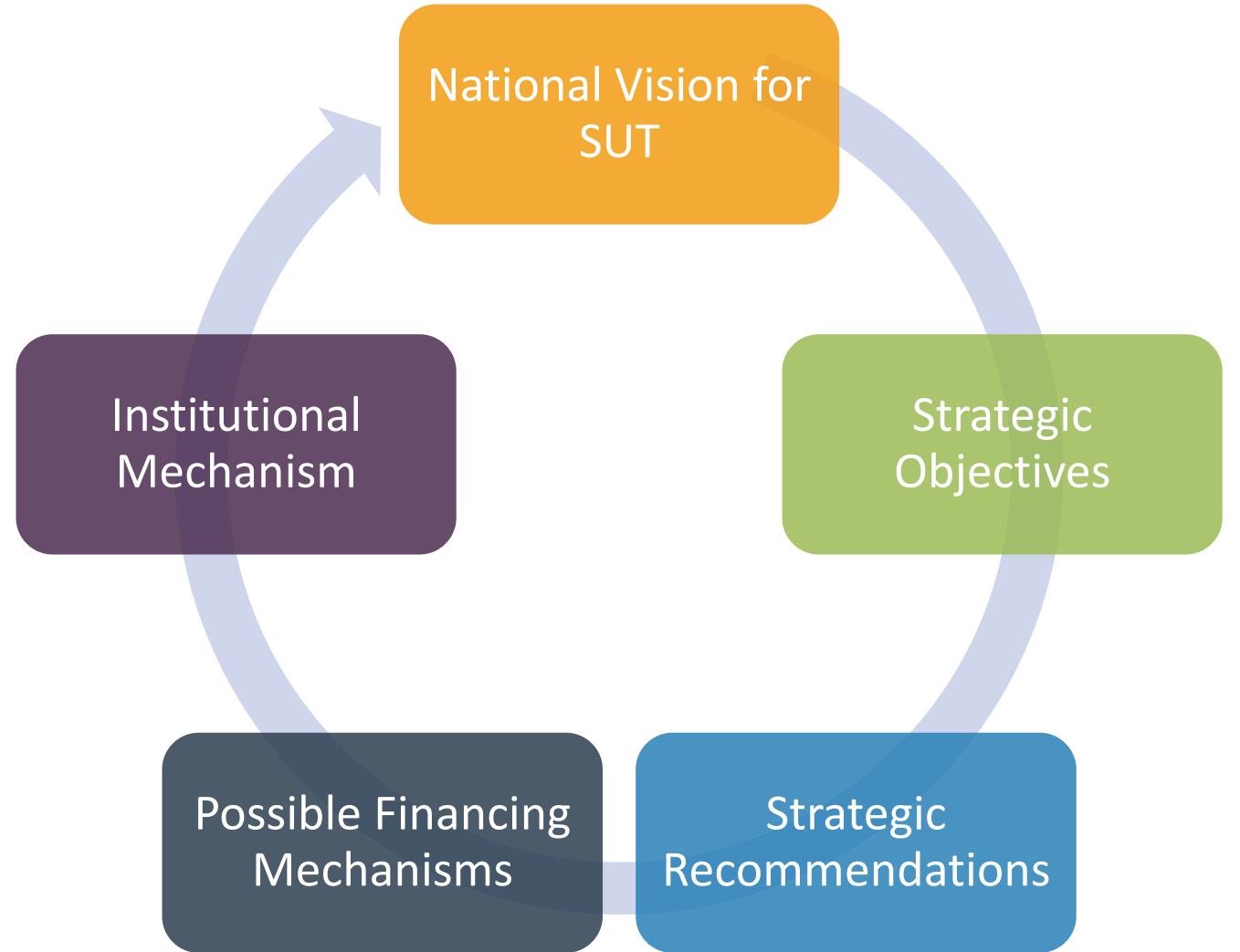
ISUMP Batumi

Video-simulation has been prepared by the company A+S Consult GmbH in the scope of the project – “Green Cities: Integrated Sustainable Transport for the City of Batumi and the Achara Region”, funded by the Global Environmental Facility (GEF) and implemented by the United Nations Development Programme (UNDP), with support from Batumi City Hall and the Ministry of Environment and Natural Resources Protection of Georgia.

Photo Credit – Sul Khan Saladze

A+S

National Framework for SUT





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