



MORGENSTADT: CITY INSIGHTS CITY LAB TBILISI FINAL REPORT

April 2016

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Executive Summary

Between May 2015 and March 2016, a »Morgenstadt City Lab« was carried out in Tbilisi, Georgia. A city team of four members of the »Morgenstadt Innovation Network« supported by a counterpart from Tbilisi City Hall analyzed the status quo of the city (City Profile) using qualitative and quantitative methods and developed a customized roadmap for sustainable urban development. The city profile is based on three analysis components, which are first collected separately and afterwards, checked for interlinkages and interdependencies:

1. Indicators: Current state of the city compared to peer cities.
2. Action Fields: Assessed degree of intervention already made in identified key areas.
3. Impact Factors: Restrictive and supportive drivers and pressures for the current state in Tbilisi.

The sectoral analysis based on the collected indicators and 55 conducted interviews with local experts states the following challenges and opportunities for Tbilisi:

Governance

Cross-sectoral approaches

Breaking up the silo structures within City Hall is needed, e.g. through installing a Sustainability Advisory Board or establishing a Cross-Sectoral unit for sustainability topics within City Hall directly underneath the Mayor (no new department).

Definition of measurable development goals

Defining development goals as measurable factors for projects and processes, collecting and monitoring the needed data and adjusting processes regularly on the basis of the monitored results.

Political continuity and long-term benefit orientation

Developing a shared vision across all parties based on the basic needs of the population and finding an agreement for the continuity and therefore resource efficiency in project management.

Strengthening civil society participation and engagement

Creating structures for a two-way dialogue instead of simply informing the society about decisions using best practices from other cities as well as the cooperation with partner cities such as Prague to develop know-how on civil society participation processes.

Creating a learning organization within City Hall

Monitoring and adjusting processes within City Hall on a regular basis, create education-based incentives for employees of City Hall to enable lifelong learning and reduce dependency on foreign expertise on the long-run.

ICT

Digital transformation

Enabling an environment fit for the digital transformation with the necessary secure infrastructure and skilled workforce to be able to compete with other cities worldwide.

Transparency and easy access to information

Within City Hall the hierarchical information distribution can be overcome by inter-departmental digital information portal.

City Hall – Public information exchange

External communication with the citizens can be improved by creating an attractive information portal, e.g. visualizing information rather than just

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listing it, or even following an Open Data strategy.

Unemployment

The high unemployment rate needs to be confronted with a long-term innovation strategy which is supported by City Hall, private businesses, and science.

Overview on macroeconomic indicators

Lack of data in relation to export and import within city and generally on economic indicators is seen as strong barrier. On the other hand, there has been a revitalization of economy in the last decade with the subsequent improvement in infrastructure and potential of tourism.

Financial decentralization

Administrative and functional decentralization is seen as positive step forward. A second round of decentralization reforms with regards to financial independence of the city would have a strong incentive for Tbilisi to concentrate on business development.

Sustainable Business

Focus on increased growth is understandable for developing countries like Georgia. However, the need for sustainability of the businesses has to be taken into account. Currently, such sustainability is not on the political agenda. The strengthening of cooperation with business sector and city administration for this purpose is presented as an objective to be achieved.

Professionalizing city branding

Tbilisi's branding initiative is mainly focusing on economic aspects. Integrating bottom-up methods to strengthen such an initiative and including success stories in the communication strategy will improve possibilities.

Establishing a service culture in tourism

Tourism is seen as one major branch of Tbilisi's future economy. Demands expressed by tourists need to be answered with good services and quality.

Urban Planning

Regional development

Improve planning quality by creating a joint overall strategy for mobility, critical social infrastructures (like schools etc.), economic development and tourism with Gardabani, Rustavi and Mtskheta. Identify needs, traffic flows and future growth prognosis, and then define goals in cooperation with these municipalities.

Lack of overall strategy

The new general plan should create a reliable planning basis, protect heritage and structure the city development based on Transport-Oriented Development principles. Cross-sectoral collaboration, heavy use of participation, and a new development institution outside of City Hall would enable the long-term planned implementation across electoral periods.

Suspended construction and private-owned brownfield sites

Tbilisi should join forces with the national government to identify owners and develop a scheme to reclaim both suspended construction sites and brownfield plots from their private owners for municipal redevelopment. Properly managed and integrated with newly formulated requirements of the new general plan, ease of construction permits could be used to create »experimental areas« for new kinds of construction or unconventional uses - especially if the growing civil society is integrated in the process.

Lack of quality of public space

An inventory of green spaces and pedestrian infrastructure should be developed, quality criteria defined and priority areas for both types identified and incorporated into the overall city strategy. Cross-sectoral collaboration, particularly with the transport sector (because of its effects on air quality), and public participation is essential for improvement.

Low building stock quality

A large proportion of the building stock is in need of rehabilitation or replacement. Identify priority areas for both to allow targeted investment in the context of an overall masterplan, for worst cases consider demolition with reconstruction elsewhere (according to TOD principles) to create new urban green spaces.

Mobility & Logistics**Inefficient Mobility**

Improve the mobility situation in Tbilisi by installing an intelligent traffic management system across the whole city (including non-technical aspects) and reintroducing mandatory technical car inspection.

Avoiding traffic

Identify possibilities to avoid traffic and therefore congestion and establish measures to reduce traffic, e.g. bind empty taxis to taxi stands or parking lots, create walkable neighborhoods, develop alternatives to car traffic, or provide benefits for cars with more than one passenger in the vehicle on certain streets during rush hour.

Resilient transport system

Create alternatives to cars to reduce congestion and establish a sustainable mobility system in Tbilisi.

Urban freight and logistics knowledge

Acknowledge the role of urban logistics in the transport system, analyze the current situation and develop measures to ease the pressure on the urban transport system.

Buildings**Lack of regulation**

By imposing voluntary standards on all municipal buildings in relation to refurbishment, while monitoring and communicating the measures, City Hall can raise awareness. By actively inviting sustainable higher-end construction, it can boost demand; by pushing for an international knowledge center, it can prepare young Georgian engineers.

Lack of know-how

Address the scarcity of construction know-how in a coordinated manner with international collaboration and a training center in Tbilisi. Start immediately based on Eurocode standards, training Georgian and international students to European standards and enabling them to gain work experience in Europe.

Lack of demand for sustainable construction

Implement comprehensive energy efficiency strategy for all new and existing public buildings and go beyond energy to other sustainability aspects; include communications and public relations to raise awareness in the general population. Promote (international) certification/auditing systems for the local developer market by starting with municipal buildings.

Energy**Lack of national regulation**

Tbilisi should aim for to tie SEAP goals into overall city planning goals of economy and urban planning, and improve cooperation with the energy distributors, to turn the SEAP into a success story for municipal action.

Lack of awareness

The Sustainable Energy Efficiency Information Center needs to be combined with further public education and awareness-raising strategies regarding sustainability in general. Adequate staffing and budgeting are crucial.

Funding

Targeting socially sensitive projects and combining energy measures with social upgrades (e.g. heating) could help to access more funding sources and attract public attention. Tbilisi City Hall also unites the responsibility for the SEAP and for SMEs in the Economic Affairs Office – this could be an opportunity to push for greening of industry and commerce. City Hall should take charge by coordinating export-oriented SMEs with international funding sources and SEAP goals.

Perceived technological inexperience

Replicate existing successful energy-efficiency and decentralized solar power pilot projects and coordinate donor activities to this effect within an overall strategy. Pool existing knowledge from various sources, and host a donor conference on the large-scale rollout of sustainable energy.

Water infrastructure

Biological wastewater treatment

Currently, the wastewater of Tbilisi is only treated mechanically. In 2018, a new biological wastewater treatment plant is supposed to start to operation. Elimination of nutrients and digestion of sewage sludge should be realized as well.

Industrial wastewater

Larger companies will have to treat their wastewater in the future. To attract them to Tbilisi, City Hall should build up competences to be able to advise the companies regarding the best solutions.

Waste management

Utilization of landfill gas

Since 2010, a sanitary landfill is in operation. The landfill gas is collected, but not burnt yet. As the methane is a strong greenhouse gas and at the same time a source of renewable energy, it should be used. Bio-waste should be separated and digested, resulting in more biogas production and a longer life span for the landfill.

Recycling of MSW

The city plans to contract a private company to operate a recycling plant on its landfill. Prior to this, a MSW management concept should be developed, including increased source separation.

Resilience

Flooding and landslides

Several small mountain rivers pose a threat to the city, as has been shown at Vere river in June 2015. Due to climate change, heavy rain events are expected to increase, so the city should take measures to reduce the risk.

Earthquakes

Tbilisi is located in an earthquake region. It needs to improve the quality of its building stock to be better prepared for earthquakes.

Risk management

Since summer 2015, an agency of the Ministry for Internal Affairs is in charge of the development of a comprehensive risk management strategy. City Hall should build up their own expertise in this field and should define their functions in risk management, e.g. in the field of land use planning.

On basis of this analysis, the **roadmap for sustainable development of Tbilisi** includes 18 project ideas to improve the current situation. These are designed to address the key action fields and impact factors. The following list contains the developed project ideas, some of which have already been discussed with local experts during workshops in Tbilisi. The list is clustered by project goals and also gives information about the project essentials, benefits, and potentials.

Leadership System and Governance	Urban development advisory board <i>An urban development advisory board can foster better participation and coordination of city administration activities.</i>
	Participatory budgeting <i>Combining a number of participatory tools to increase citizen engagement in managing the city budget.</i>
	Management system based on mixed-metric performance measurement <i>A management system based on financial and non-financial performance measurement will improve strategic planning and management capacity of Tbilisi.</i>
	Integrated Information Management for City Hall <i>Centralizing the Data Management system will improve operational efficiency within the city administration.</i>
	Open Data Strategy <i>An Open Database for Tbilisi with relevant data from city hall, private actors and universities will create transparency and enable innovation.</i>
Awareness Raising for Sustainability	Tbilisi Game <i>Young children learn quickly and can teach their parents – learning while playing a game increases motivation. Awareness for sustainability issues can be taught by such a game.</i>
	Sustainable Business Awards <i>Creating a local sustainable business award will raise awareness for sustainability in the local business sector and in the wider population. It will also attract relevant funding, strengthen the city brand, and boost the profile of the winning companies.</i>
	Visualization of air quality throughout the city <i>To enable the introduction of technical car checks in Tbilisi which will improve the air quality and therefore the livability, a long-term awareness raising campaign needs to be established in Tbilisi.</i>
Diversification of Mobility	Multimodal transport hub <i>Creating an intermodal transport hub as a “real-life laboratory” to test integrated solutions will promote the use of public transportation in Tbilisi.</i>
	Customer satisfaction in public transport <i>Public transport’s attractiveness has to be increased. Therefore, busses need to be on time even during rush hour and thus, reach their destination faster than private cars. In combination with a real-time customer satisfaction survey, the providers implement an analysis tool which improves flexibility and creates transparency about the mobility system.</i>
	Pilot Bike Lane <i>Tbilisi needs to establish a multimodal transport system with a focus on bicycling and walking as healthy, ecologically-friendly and space-saving alternatives.</i>
	Pedestrian Master Plan <i>Pedestrians have a difficult time in Tbilisi. The city needs a comprehensive approach to improving the pedestrian infrastructure to guide administrators and become more attractive – step by step.</i>
Urban Planning	Redevelopment of Railway Site <i>To systematically redevelop the railway area as a recreational green space, with additional mixed-use neighborhood refurbishment for the surrounding areas – a new green heart for Tbilisi.</i>

Buildings & Energy	Energy Efficiency for Public Buildings Plan <i>A long-term strategy for refurbishing all public buildings in Tbilisi will help to implement the SEAP, raise awareness and control energy consumption cost, and can be used as a capacity building measure.</i>	Executive Summary
	Sustainability showcase residential block <i>Tbilisi needs to collect experiences with innovative technologies before it implements them in large scale. A residential building where sustainable solutions can be demonstrated working in Tbilisi should be constructed.</i>	
	Construction Knowledge Center Tbilisi <i>The urgent need for construction know-how in Georgia and the South Caucasus represents an opportunity to develop a knowledge-based economy of structural engineering and construction in Tbilisi.</i>	
Waste Management	Utilization of biogas <i>Gas derived from organic waste can be utilized to replace fossil fuels. This gas is already collected at the landfill, and can be in addition derived from bio-waste and sewage sludge.</i>	
	Logistics of waste collection <i>Improved logistics of waste collection reduce costs and relieve road traffic.</i>	

It is recommended that inside the city administration, responsibilities for the implementation of these projects are assigned to staff members who can drive them forward and who can involve the other necessary stakeholders. A Morgenstadt follow-up process should be set up to check on the level of implementation of the measures, to identify difficulties early and to overcome them. Especially the strategic long-term planning needs to be pushed in Tbilisi since sustainability has a long-term perspective; constant change is counterproductive for enabling processes to come to rest.