

# Transforming Cities, Enhancing Well-Being: Innovating with Nature-Based Solutions



**GEOgraphic**  
GIS & RS CONSULTING CENTER

**Mamuka GVILAVA**



This action has received funding under the European Union Horizon 2020 research and innovation programme under grant agreement No 730222 and No 730333

Co-funded by the Erasmus+ Programme of the European Union



## Our geospatial background



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# **GEOgraphic's** Background GIS & RS CONSULTING CENTER

- Established in **1998** – we are the first geospatial company in Georgia



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# **GEOgraphic's** Background GIS & RS CONSULTING CENTER

- We were established in 1998
- We have up to **50** employees... including **two** directors 😊🌐



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# **GEOgraphic's** Background GIS & RS CONSULTING CENTER

- We were established in 1998
- We have up to 50 employees...
- We are located in **Tbilisi, GEORGIA**



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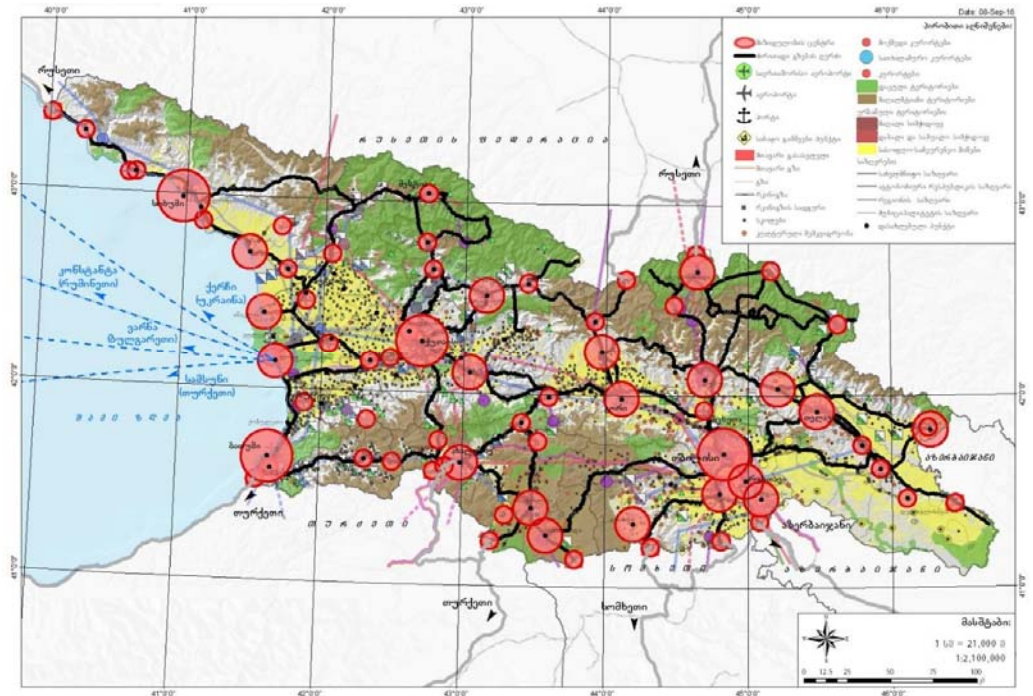


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# **GEOgraphic's** Background

GIS & RS CONSULTING CENTER

- We were established in 1998
- We have up to 50 employees...
- We are located in Tbilisi, GEORGIA
- We provide **geospatial** services to all **GEO** sectors in need of **GEO**



**National level planning – PM's 4 Point Spatial Plan**



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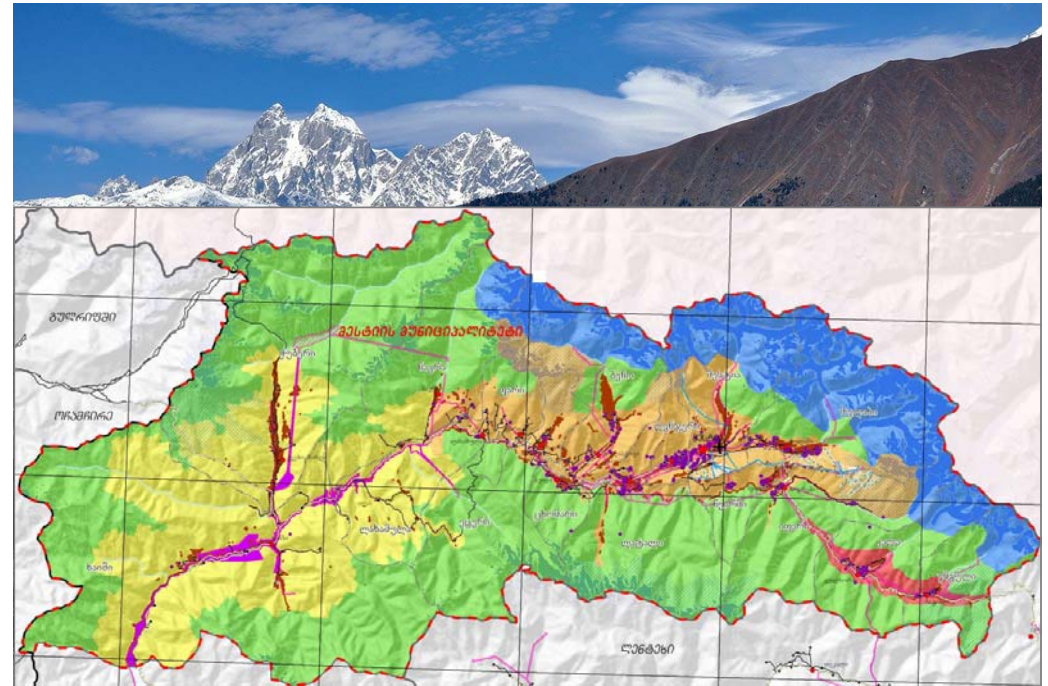


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**Regional planning – e.g. beautiful green Svaneti heritage**

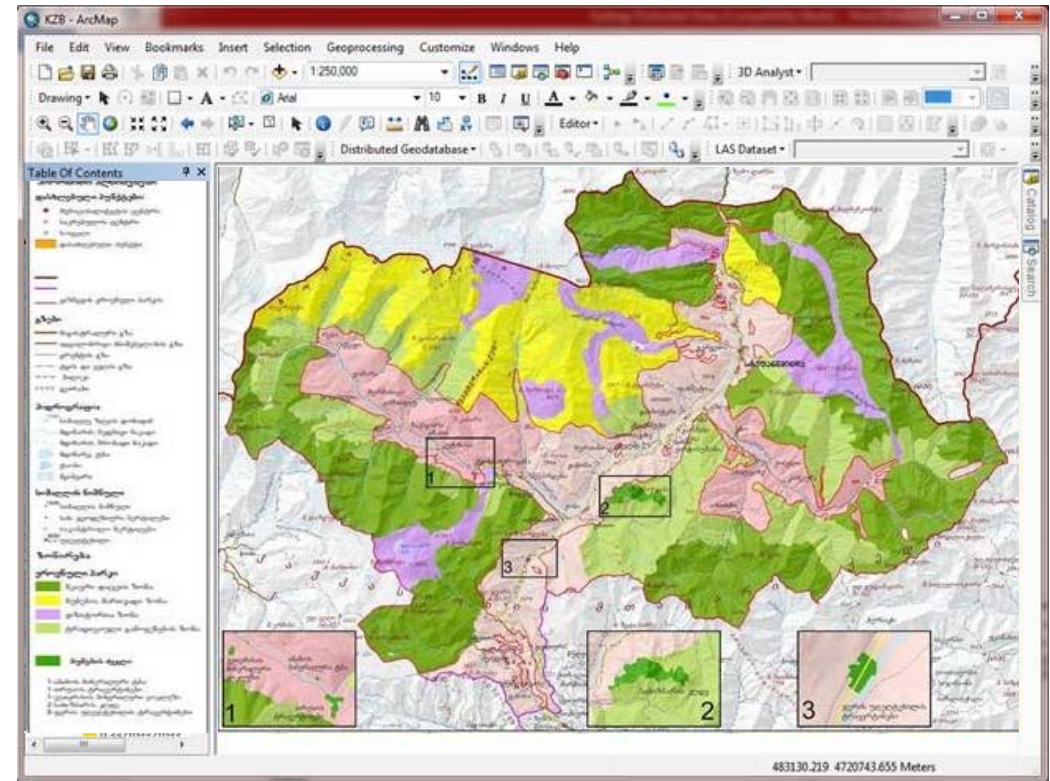


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**Multifactor analysis for protected areas planning (Kazbegi NP)**



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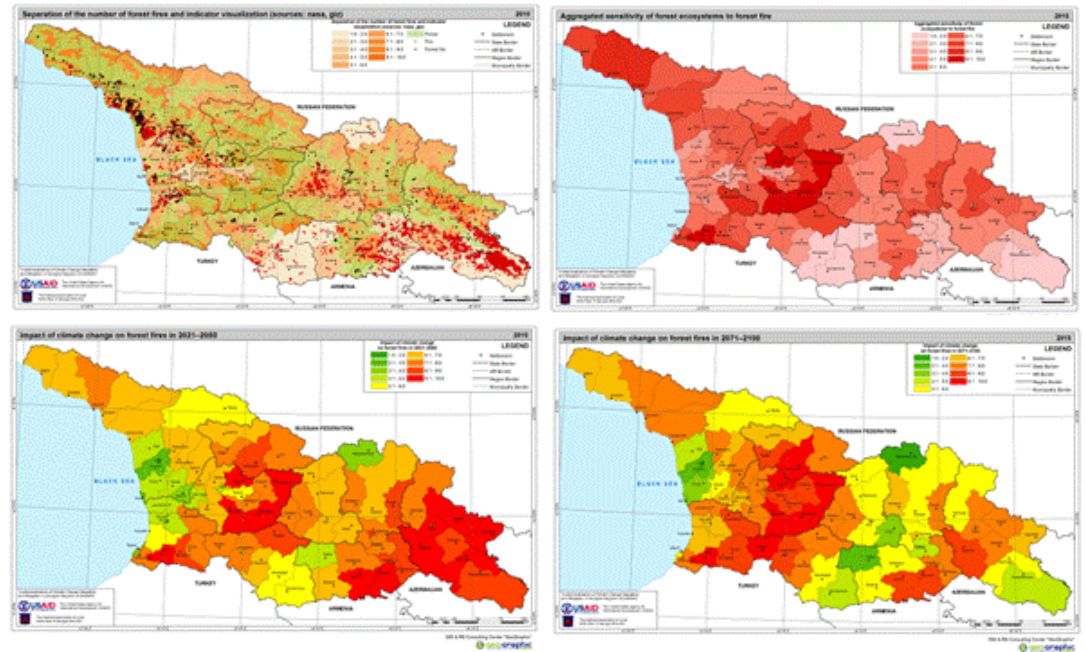
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# **GEOgraphic's** Background

GIS & RS CONSULTING CENTER

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- We are located in Tbilisi, GEORGIA
- We provide geospatial services to all GEO sectors in need of GEO



Climate change assessment – forest fires 2021-50, 2071-2100

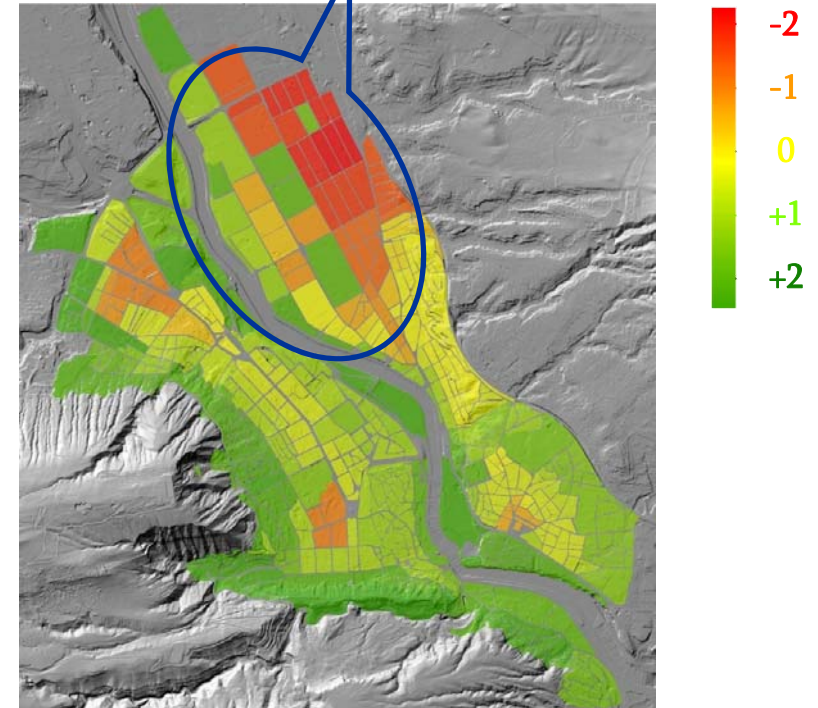


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# **GEOgraphic's** Background GIS & RS CONSULTING CENTER

- We were established in 1998
- We have up to 50 employees...
- We are located in Tbilisi, GEORGIA
- ... and we provide **geospatial services** in support of **Nature Base Solutions**

solution needed



ENVTAB - indicators for historic Tbilisi (more at our poster)



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# Transforming Cities, Enhancing Well-Being: Innovating with Nature-Based Solutions



Our **geospatial** nature based solutions

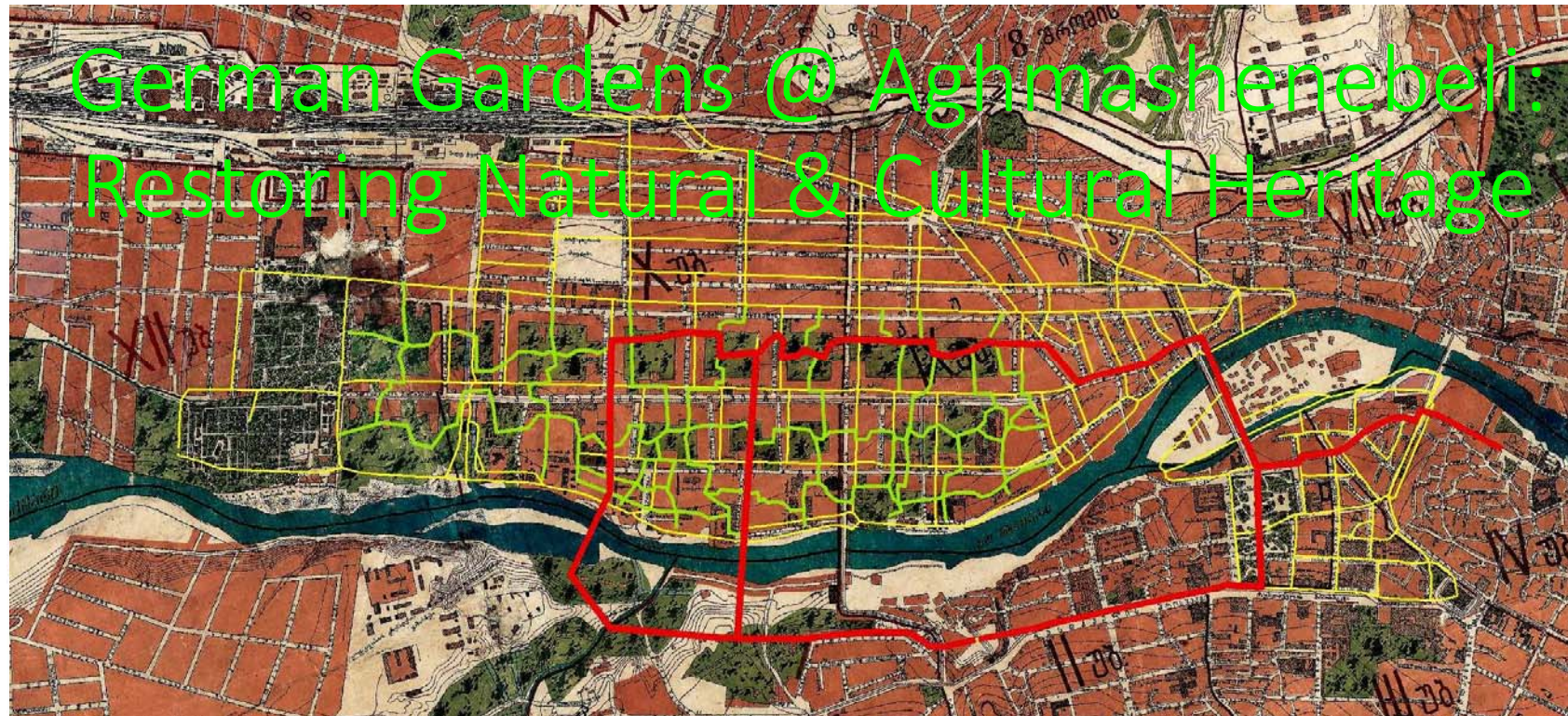


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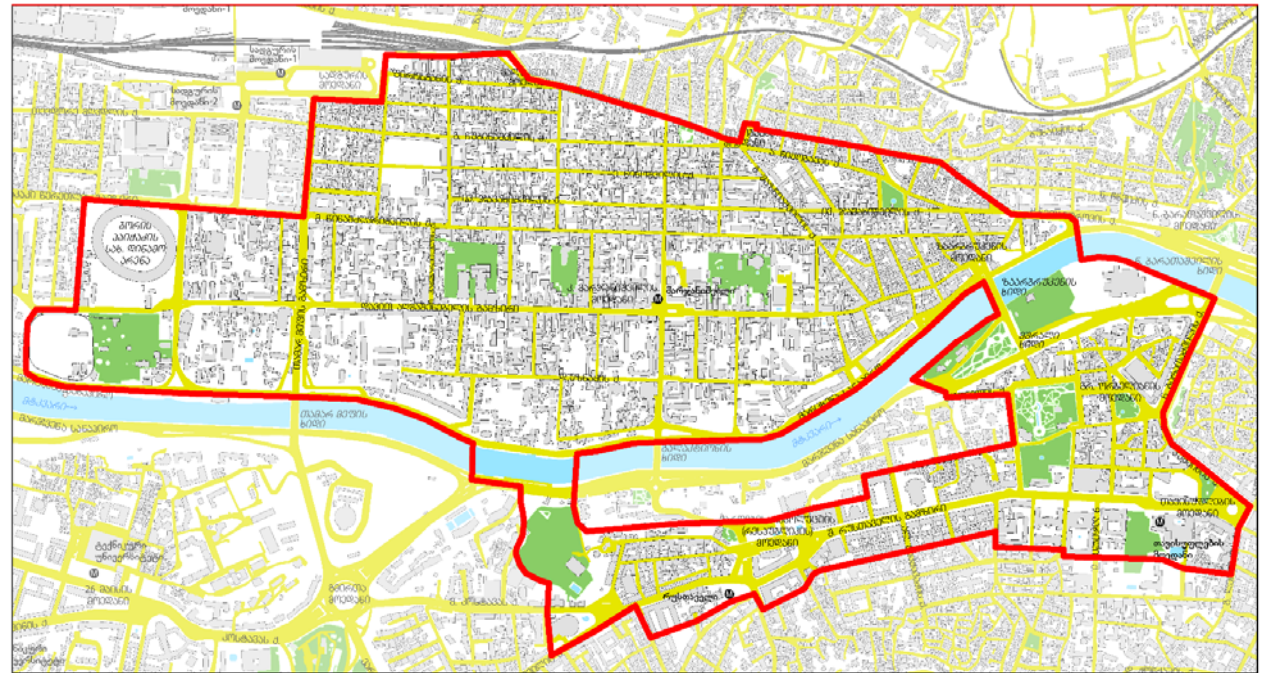


# German Gardens @ Aghmashenebeli: Restoring Natural & Cultural Heritage



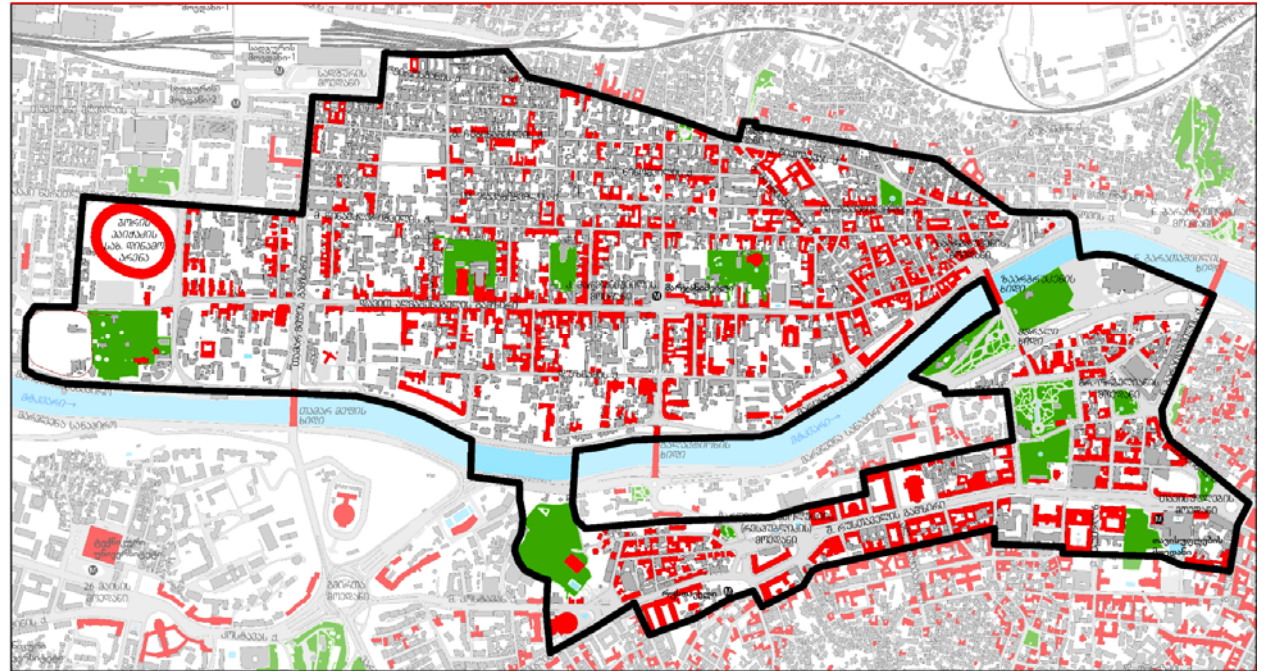
## Historic baseline

- Alexandersdorf: 125 ha
- 1924: 40 ha 17 gardens
- 2015: 9 ha of few gardens and 14 ha of scattered green spots
- 30 ha lost in 80 years!



## Heritage baseline

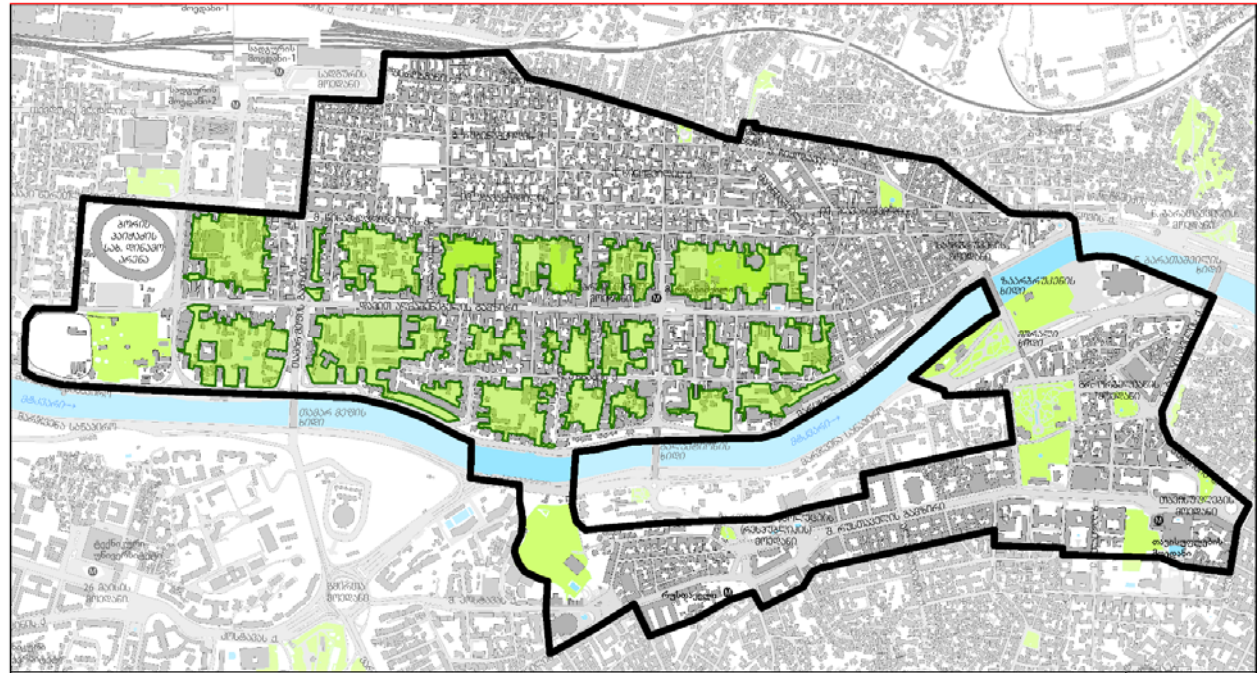
- Under threat (and opportunity to restore and protect) are both natural and cultural heritage





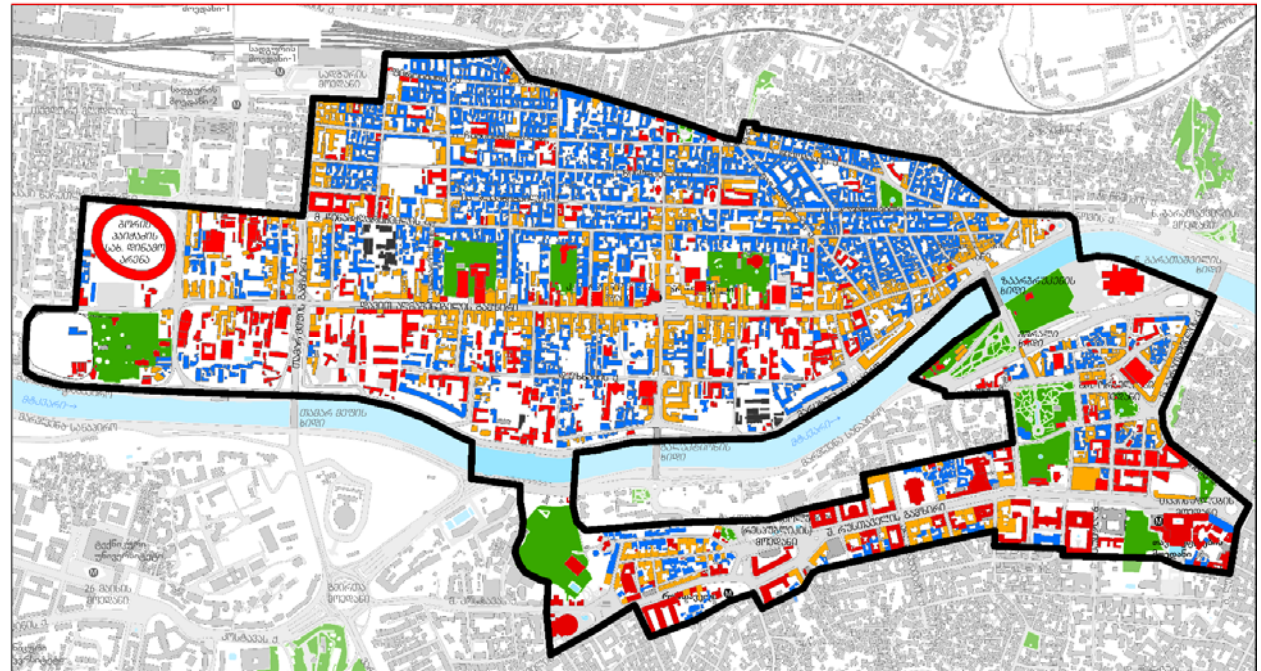
## Nature potential

- It seems possible to revitalize & revegetate 44 ha of abandoned, degraded, vacant and wasted-filled spaces



## Urban potential

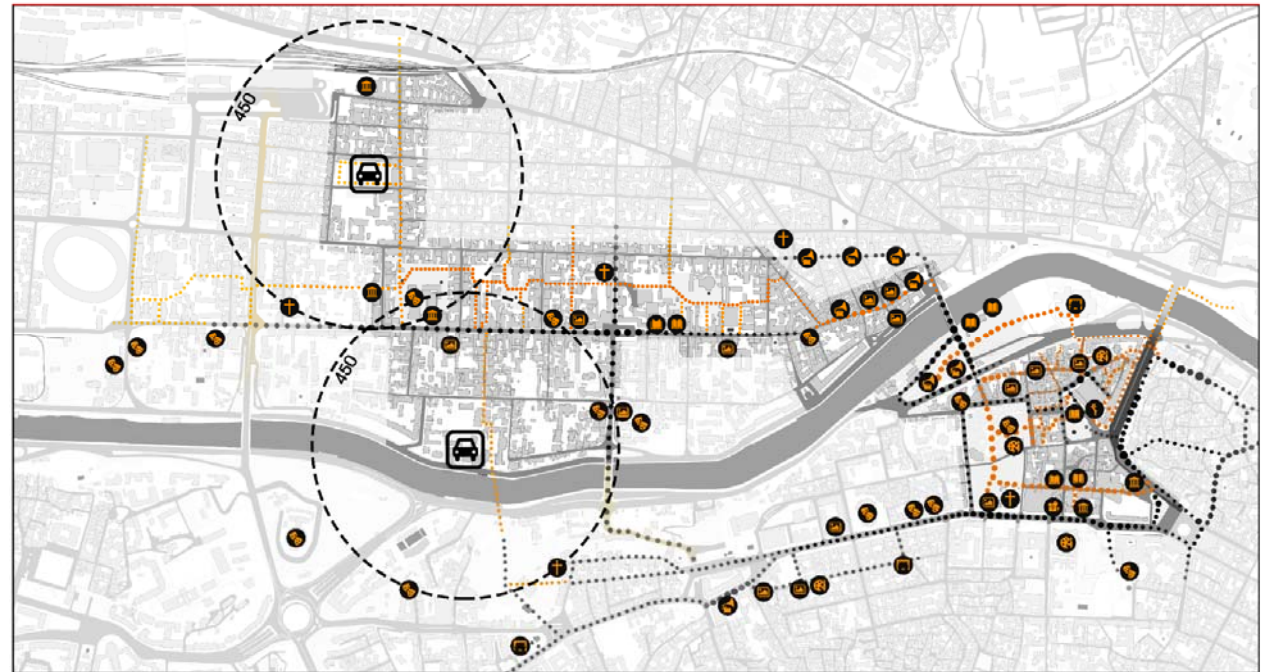
- Improve ecology
- Increase attractiveness
- History and culture
- New tourism attraction
- SME and business
- Improve infrastructure
- Better employment
- Quality of life
- Visibility





## Access potential

- Organise parking nodes & enhance pedestrian accessibility





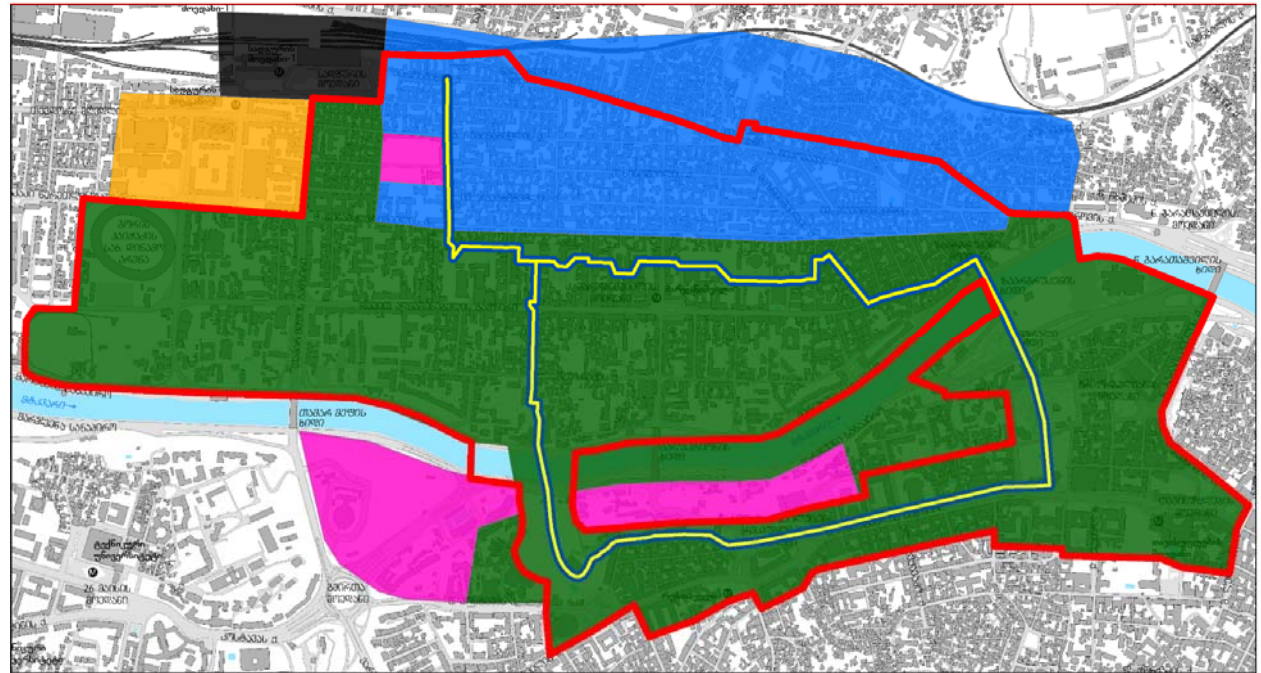
# GEOgraphic's NBS Solutions for Tbilisi



STUDIA 21

## Large picture

- Larger scale zoning picture combined with pilot implementation



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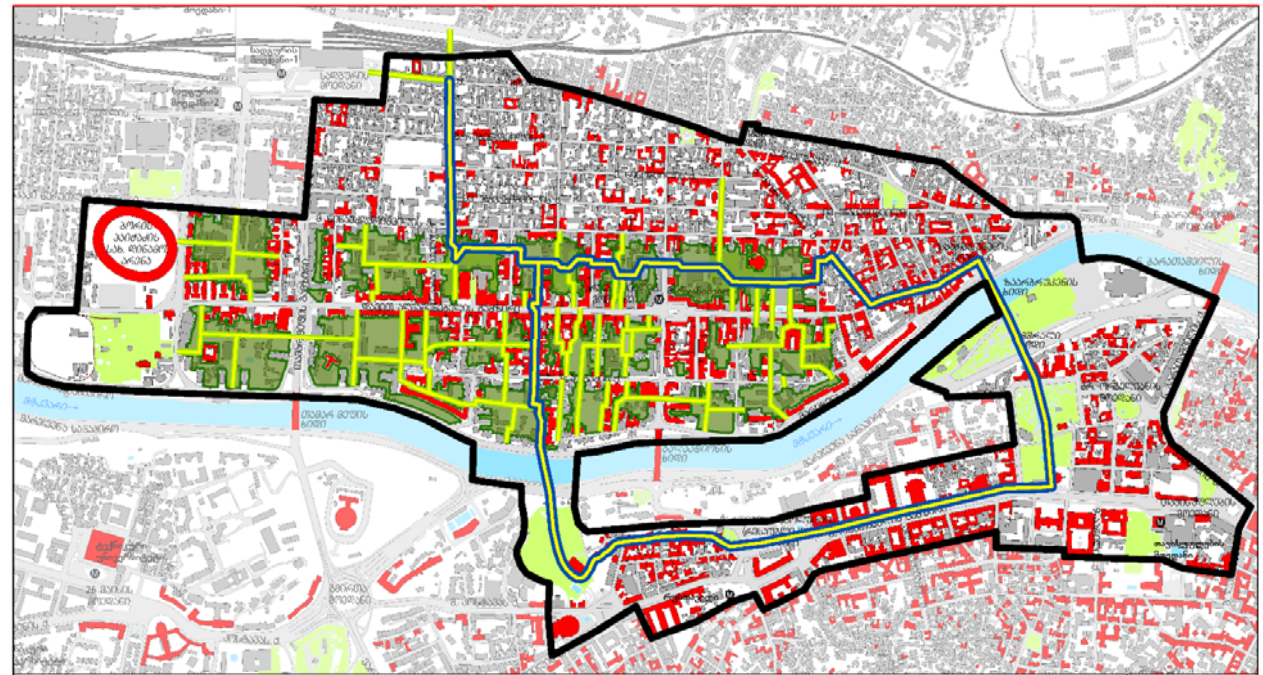


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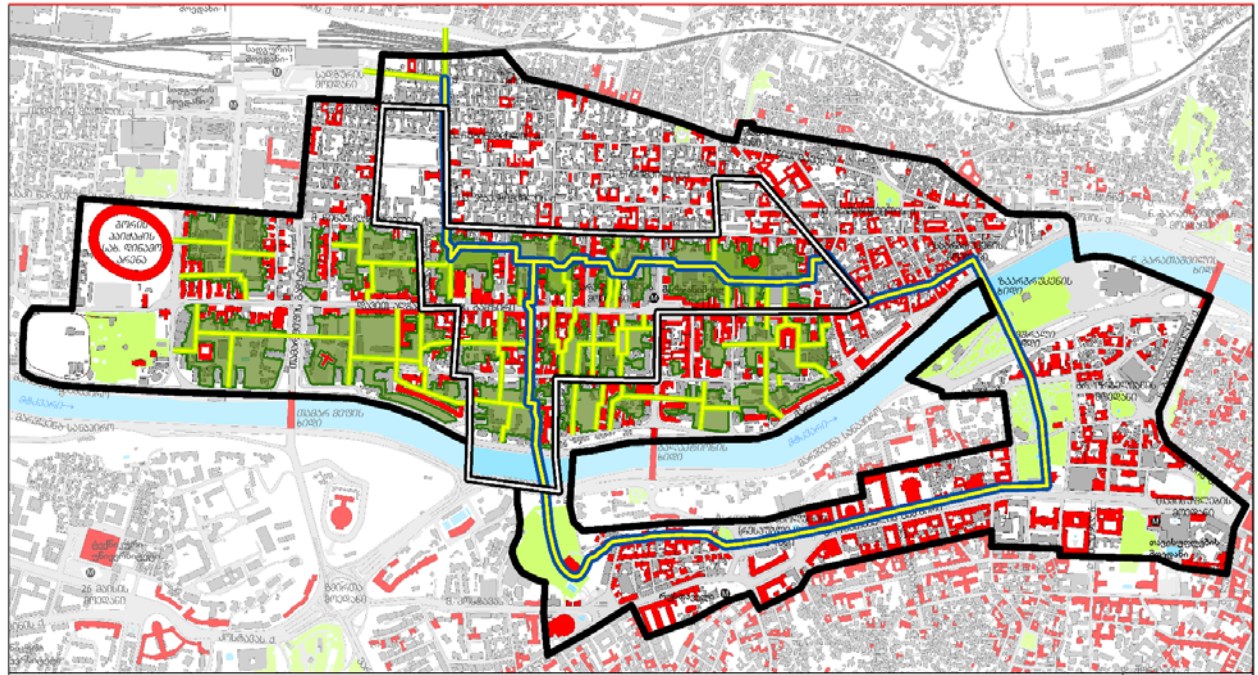


## Integral vision

- Synergy of tourism routes, green spaces regulated through novel **'Green Lines'** – establishing servitude 'right of ways' through green easements (vis-à-vis existing regulatory **'Red'** and **'Blue Lines'**)



Pilot scheme proposed





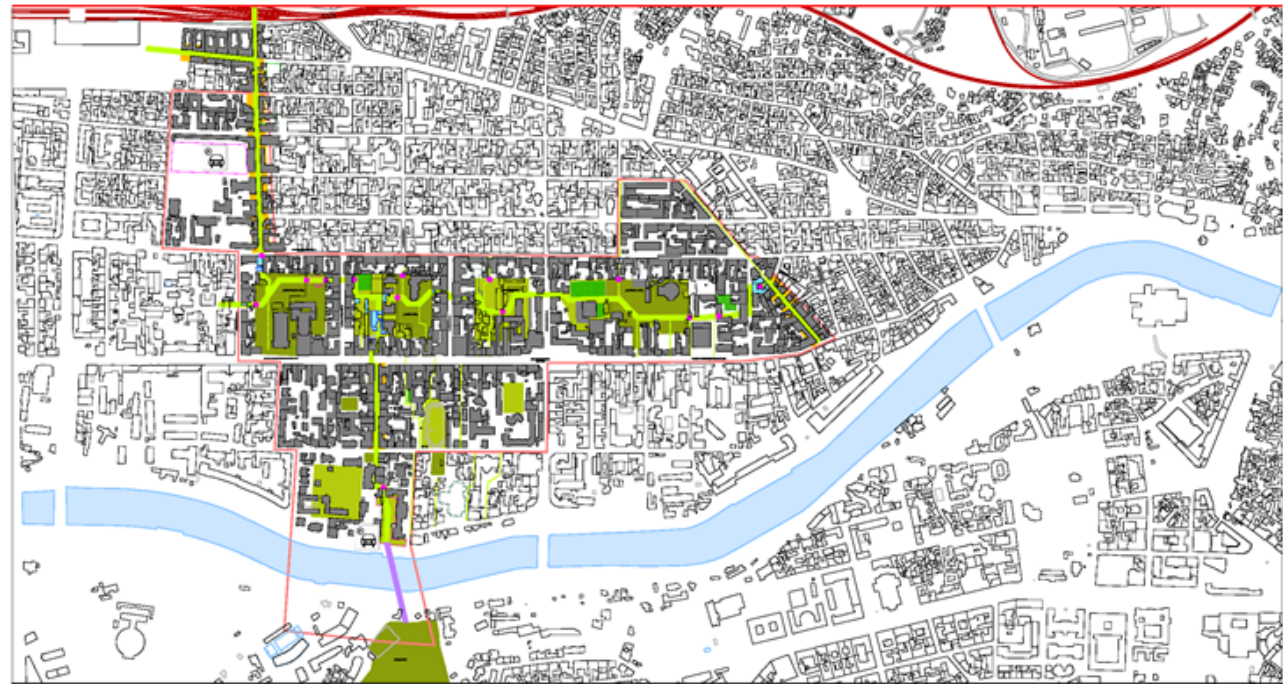
## Pilot actions

- Renew existing gardens



## Pilot actions

- Renew existing gardens
- Renew green fragments



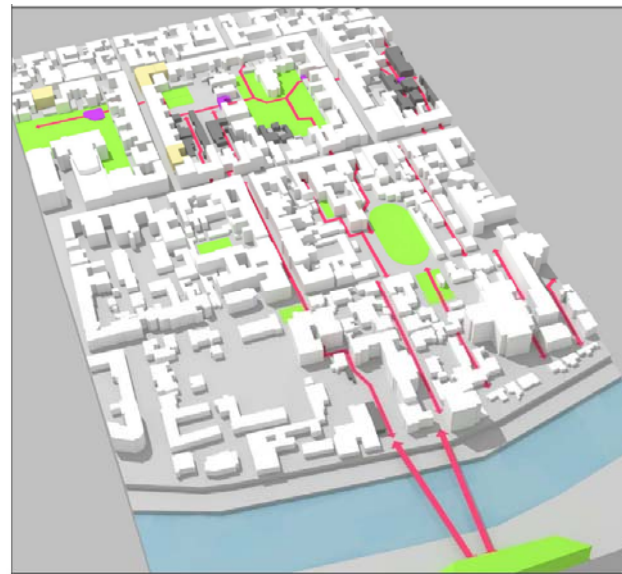




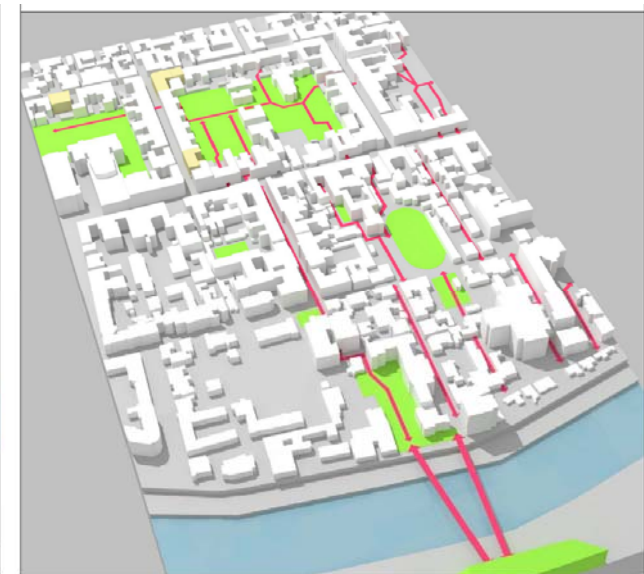
## Pilot actions

- Renew existing gardens
- Renew green fragments
- Opening old passages and providing new ones
- Arranging green eco-paths and bicycle routes

Existing



Proposed

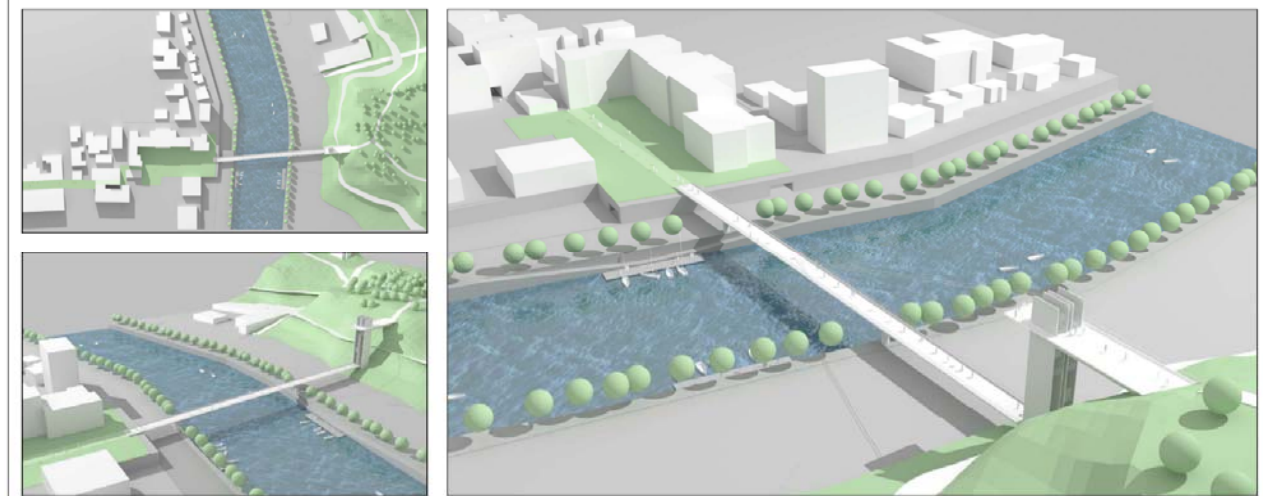




## Pilot actions

- Renew existing gardens
- Renew green fragments
- Opening old passages and providing new ones
- Arranging green eco-paths and bicycle routes
- Pedestrian and bicycle bridge over Mtkvari

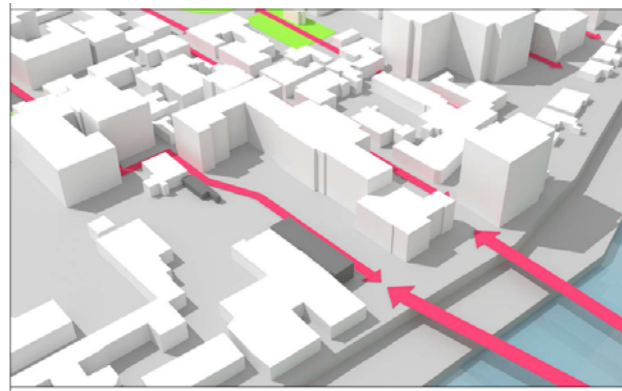
## Reconnecting **GREEN** and **BLUE** urban spaces



## Pilot actions

- Renew existing gardens
- Renew green fragments
- Opening old passages and providing new ones
- Arranging green eco-paths and bicycle routes
- Pedestrian and bicycle bridge over Mtkvari
- Pedestrian streets

Existing



Proposed



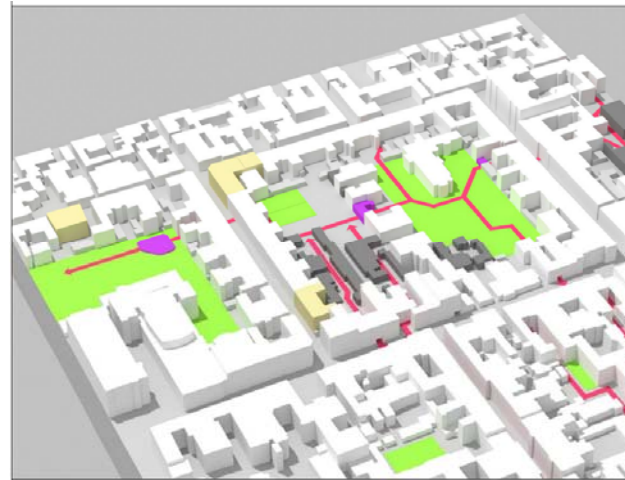




## Pilot actions

- Renew existing gardens
- Renew green fragments
- Opening old passages and providing new ones
- Arranging green eco-paths and bicycle routes
- Pedestrian and bicycle bridge over Mtkvari
- Pedestrian streets
- Restoring heritage

Existing



Proposed



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**Greening only?**

Or **NBS?**

**Multifunctional**  
benefits following  
the best European  
NBS expertise  
tapped by

**CONNECTING**  
(with) **Nature**







# GEOgraphic's NBS Solutions for Tbilisi



CONNECTING  
Nature Based  
Solutions from  
all over Europe  
and the World  
by EUL SRI  
partner



Figure 1. Information board at Derbyshire St Pocket Park detailing the background to, and functioning of, the NBS exemplar.



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Figure 3. Eastern Curve Garden, Dalston, UK, England, before (right) and after (left) development.



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[Video 1](#)

[Video 4](#)

[Video 2](#)

[Video 5](#)

[Video 3](#)

[Video 6](#)

click and see drone videos to see more



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**GEOgraphic**  
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Our geospatial advantage



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# **GEOgraphic** and Tbilisi are the best because

We already did it many times and can deliver again, now with NBS:  
**The Success**



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 **GEOgraphic** GIS & RS CONSULTING CENTER and Tbilisi  are the best because

Proven record of SME working with Tbilisi City Hall and our communities:  
**With Success**



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**GEOgraphic**  
GIS & RS CONSULTING CENTER

# and Tbilisi are the best because

He did it in Milan!  
Can do it again:  
Mayor of Tbilisi is  
committed day  
and night to

City Full of Life

The remaining  
terms: 4 years!

სიცოცხლით  
სავსე ქალაქი



Bringing  
cities to life,  
Bringing life  
into cities

And that's what  
**CONNECTING**  
Nature is all  
about!



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Welcome to Tbilisi! Welcome to **GeoGraphic!**  
Support **Tbilisi Connecting with Nature!**



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