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REPUBLIC OF ESTONIA
MINISTRY OF THE ENVIRONMENT



State Regional
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Ministry of Culture
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Foundation
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Green infrastructure mapping approach in LIFE LATESTadapt project

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University of Latvia/Baltic Environmental Forum-Latvia

LIFE LATESTadapt international workshop

13.06.2023., Riga, Latvia



Context

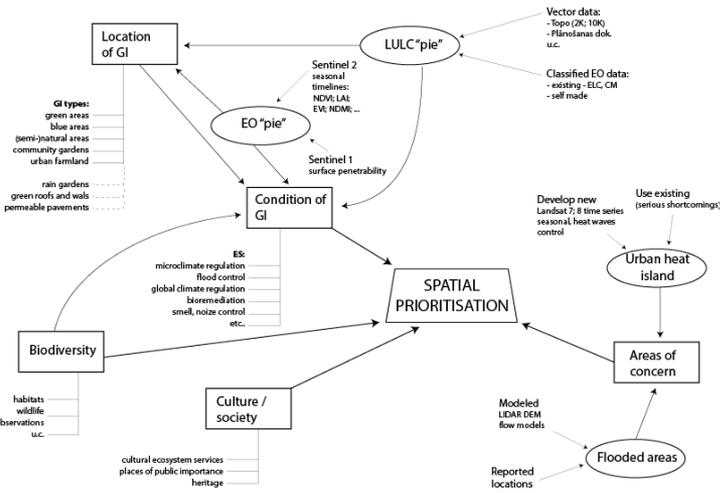
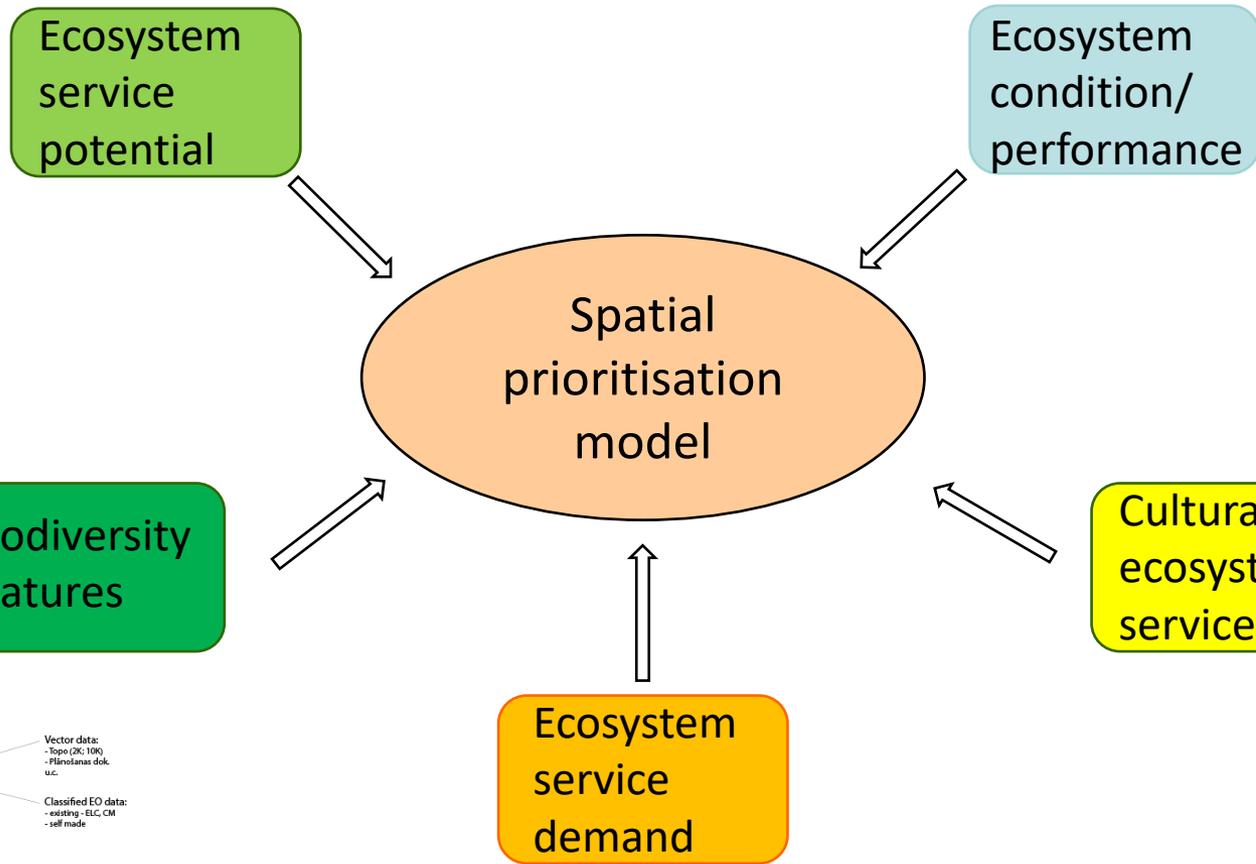
Green infrastructure

..strategically planned network of natural and semi-natural areas, which include other environmental features designed and managed to deliver a wide range of ecosystem services



<https://biodiversity.europa.eu/green-infrastructure>

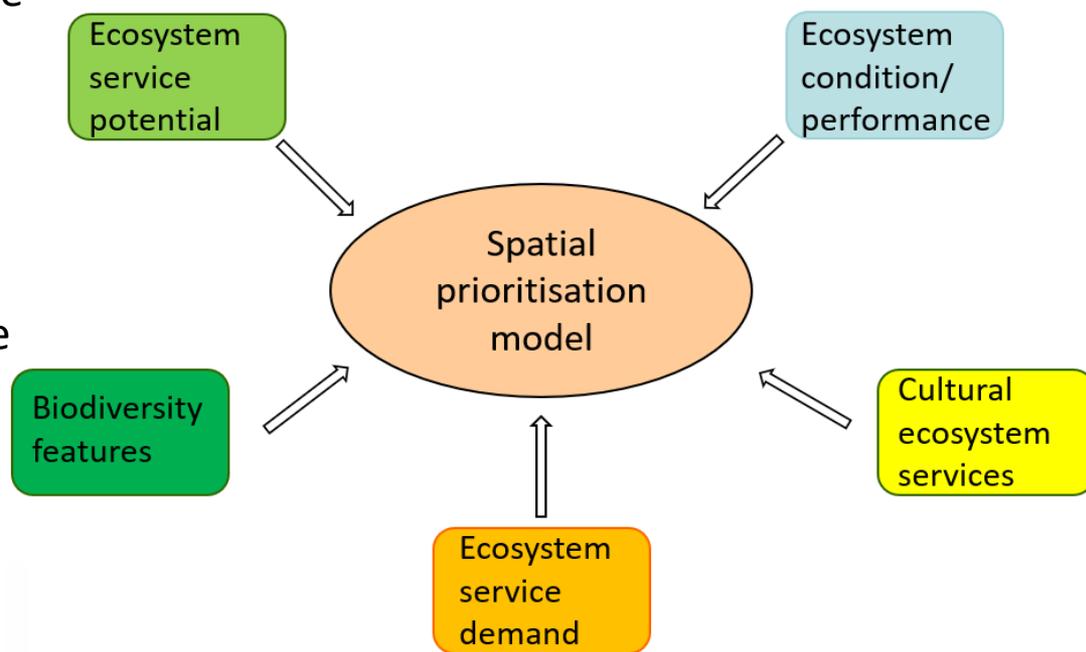
WORKFLOW



Spatial (conservation) prioritisation

Spatial (conservation) prioritization is a process of identifying areas that are most valuable for conservation and determining where conservation efforts should be focused to maximize the protection of biodiversity and ecosystem services.

The aim of spatial (conservation) prioritization is to help authorities make data-driven decisions on where to invest scarce resources.

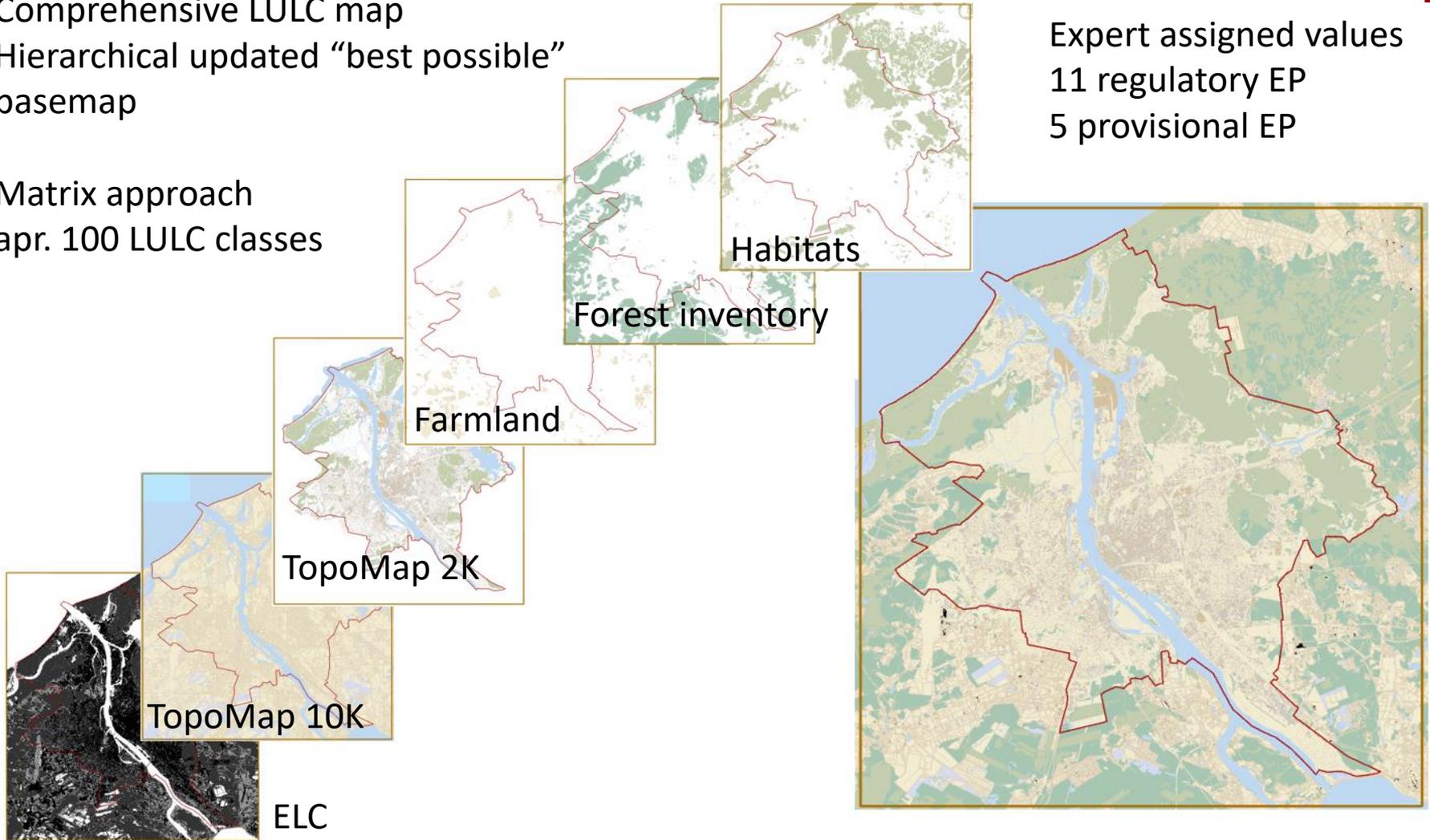


Assessment of ecosystem service potential

Comprehensive LULC map
Hierarchical updated “best possible”
basemap

Matrix approach
apr. 100 LULC classes

Expert assigned values
11 regulatory EP
5 provisional EP



ELC

TopoMap 2K

TopoMap 10K

Farmland

Forest inventory

Habitats

Assessment of cultural ecosystem services

Heritage objects

Recreational infrastructure

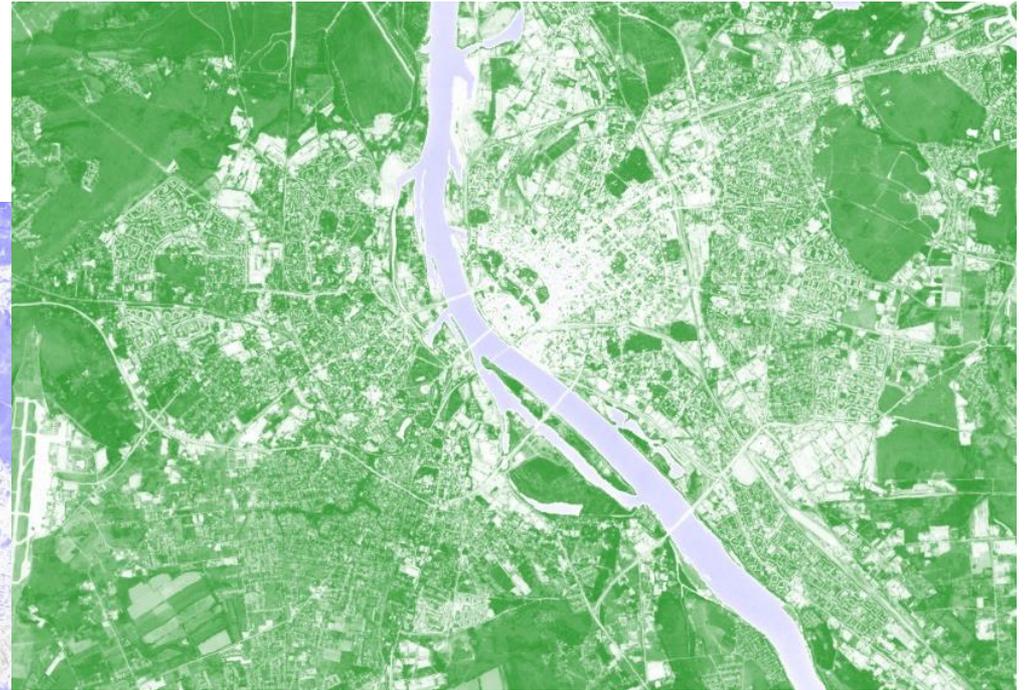
Survey on distribution and values of urban green infrastructure



Foto: Antra Oša/Artūrs Daukulis

Assessment of ecosystem condition/performance

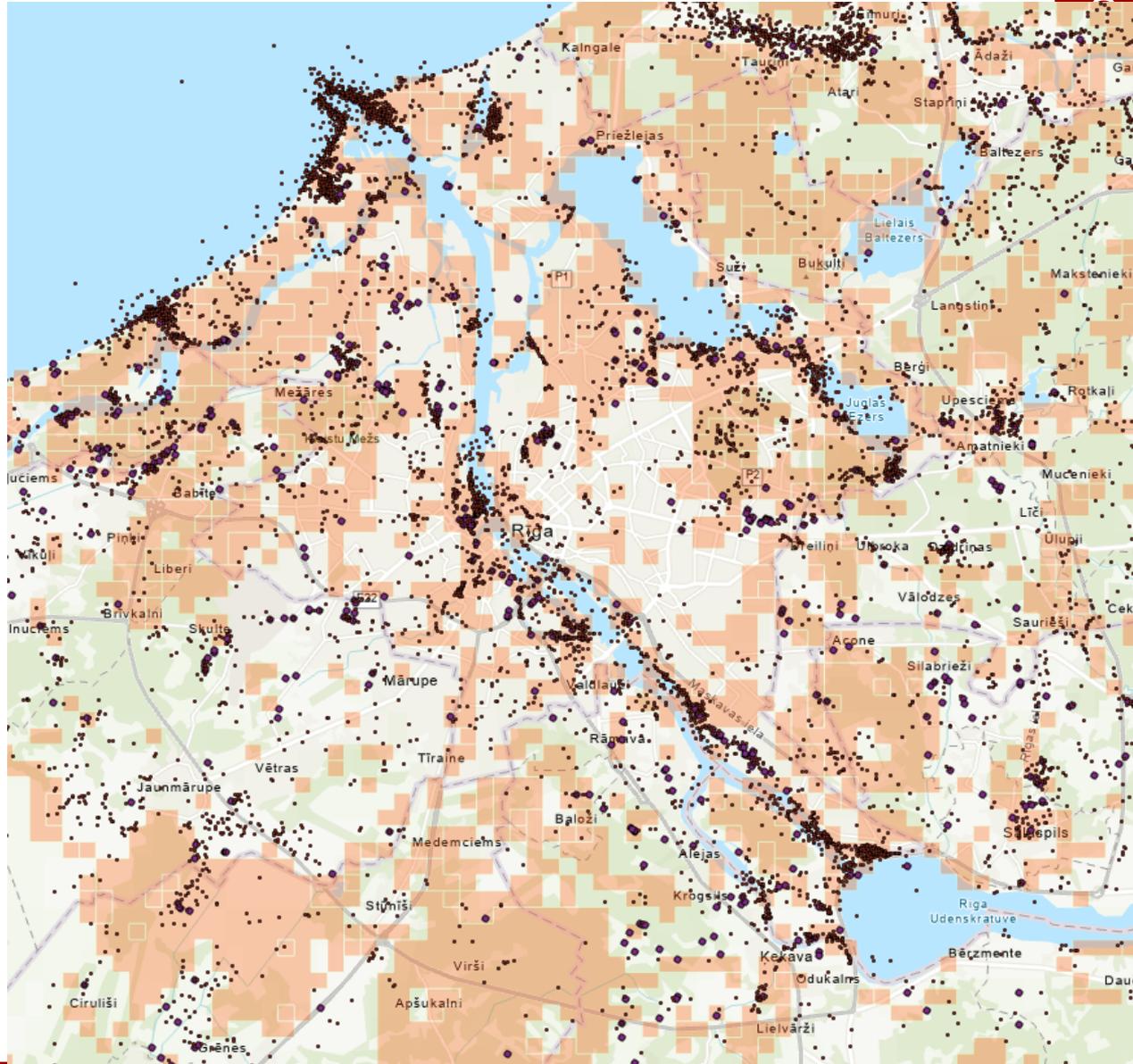
Analysis of NDVI and NDWI indices
Sentinel-2 EO data 2012-2023



Assessment of biodiversity features

Species distribution models
- owls, woodpeckers,
goshawk, capercaillie

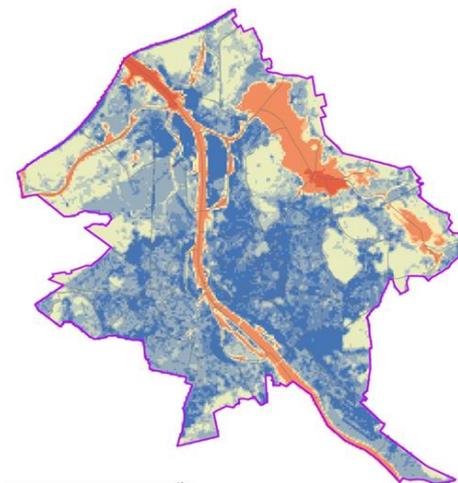
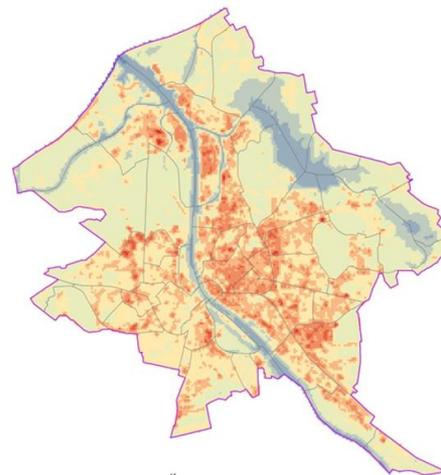
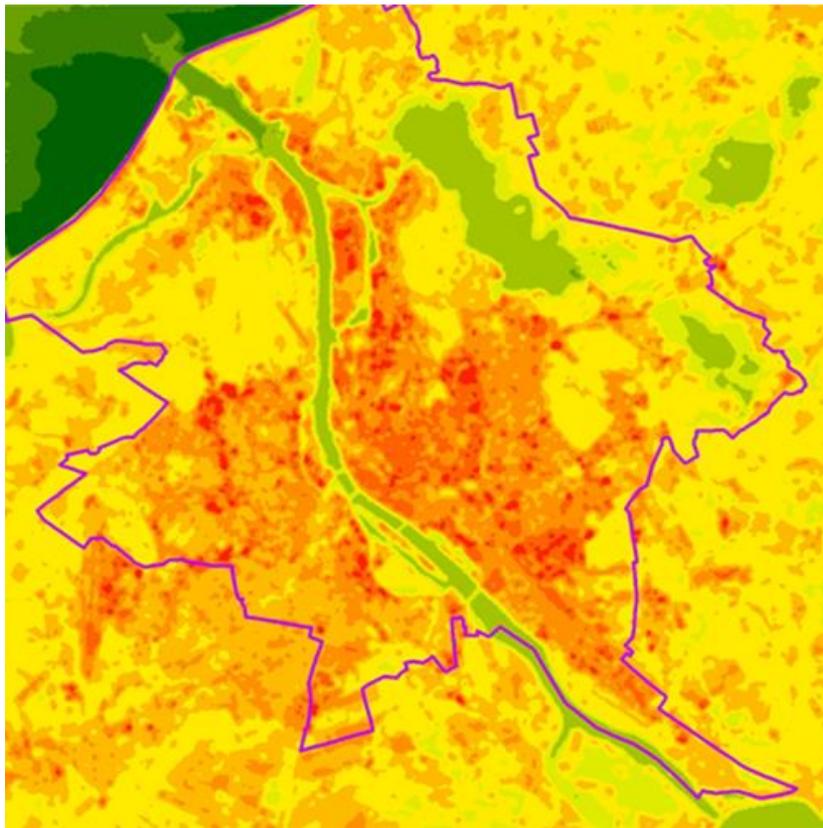
Observations of protected
species (birds/other)



Assessment of ecosystem service demand

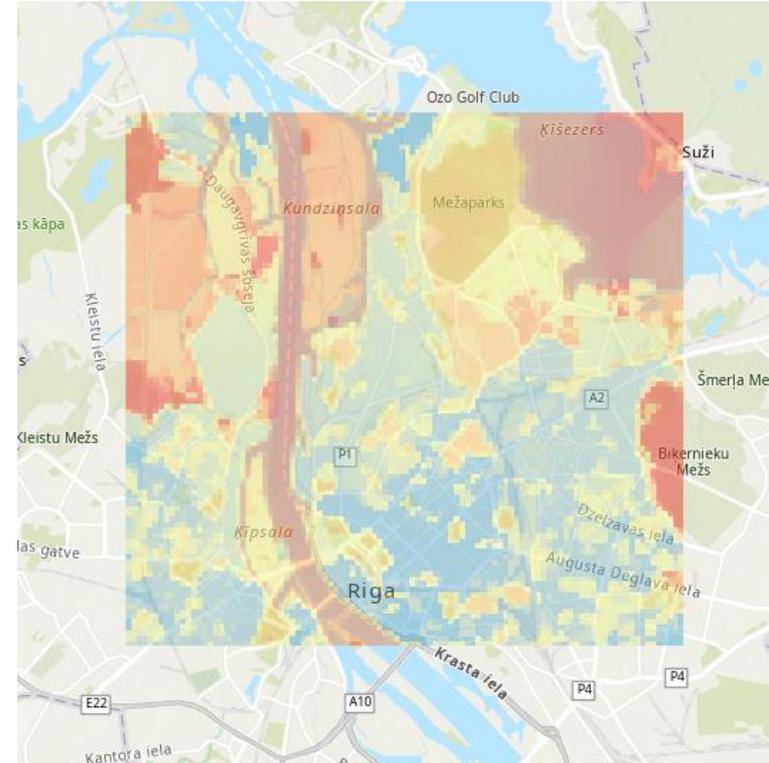
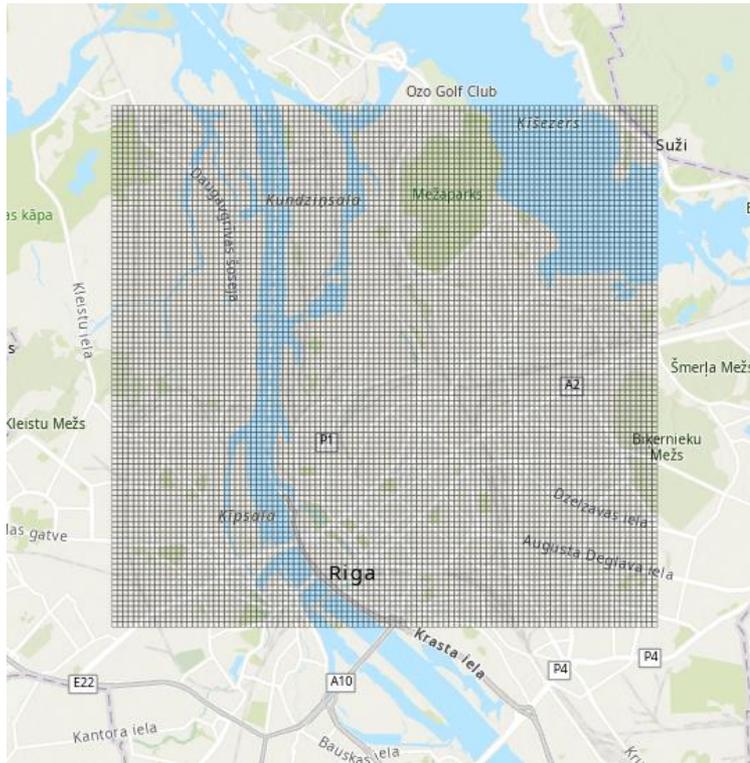
Urban heat island

Flooded places



Rīgas siltuma salas cēloņu attāla izpēte, Silava, 2016

Spatial prioritisation





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Thank you!

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