

“High 5”

Ecosystem approach

**Development proposal of the
university campus and
surrounding area of
Torņakalns**

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Values and challenges of the territory

Existing values

Rich history, historical value

Location (close to the city centre)

Nature (green and blue) Biodiversity

Future importance

Daugava river

Challenges

Lack of bicycle infrastructure

Problematic access to the other side of the railway

No public spaces for recreation

No connection with Mūkusalā

Not clear historical identity

Physical and social barriers



03

Aim and objectives

Aim

An Ecosystem Campus, fostering linkages and relationships between the living and nonliving to create **a system of continual wellbeing, learning and connection**”

Objectives

A **multi-species centric** model that creates an inclusive **eco-social campus** not only for humans but also considers the needs of other species as well.

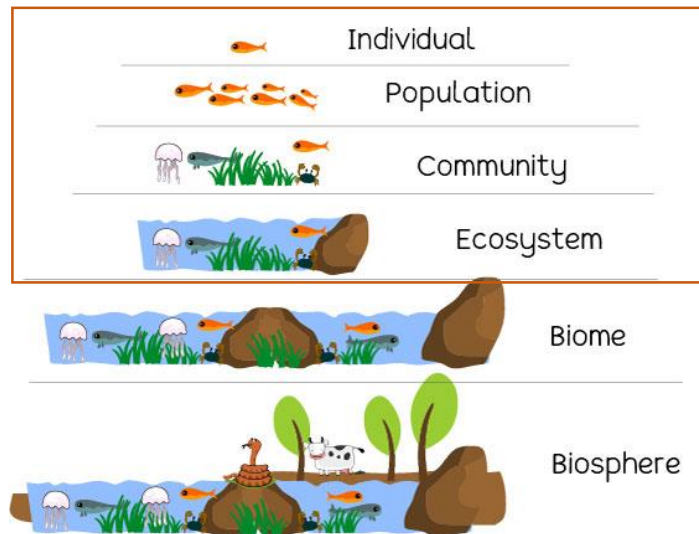
Enhance and **strengthen** existing green and blue attributes and integrate them into the campus

A revolutionary campus, striving for **innovation** while **connecting** with the past and future. leaning on Rigas unique historical and cultural **pillars**

Ecosystem

An ecosystem encompasses both living organisms and non-living components of an environment. It is a dynamic system of interlinkages, interactions and exchanges.

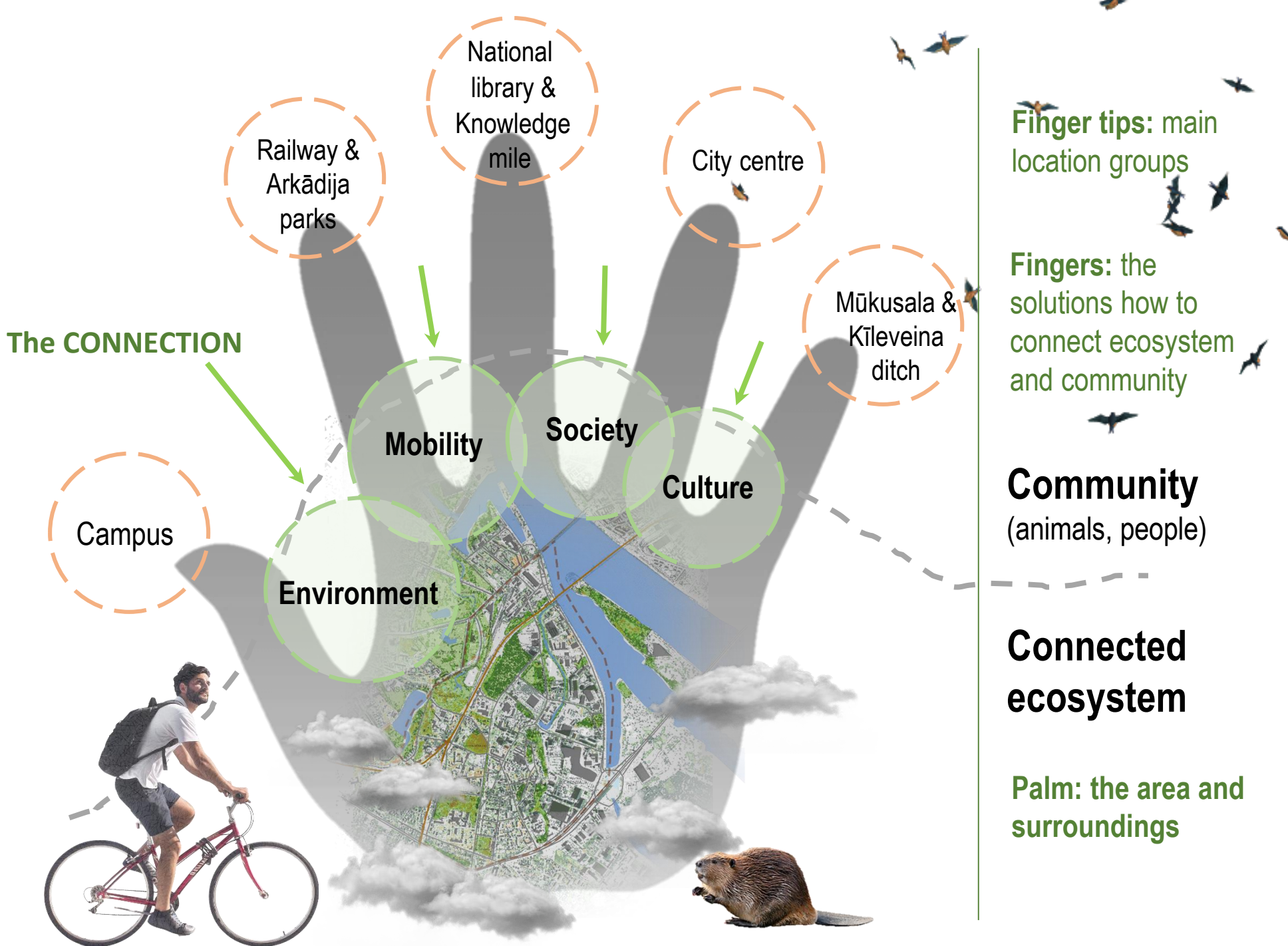
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Ecosystem



Raise your hands!

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High 5
Ecosystem approach



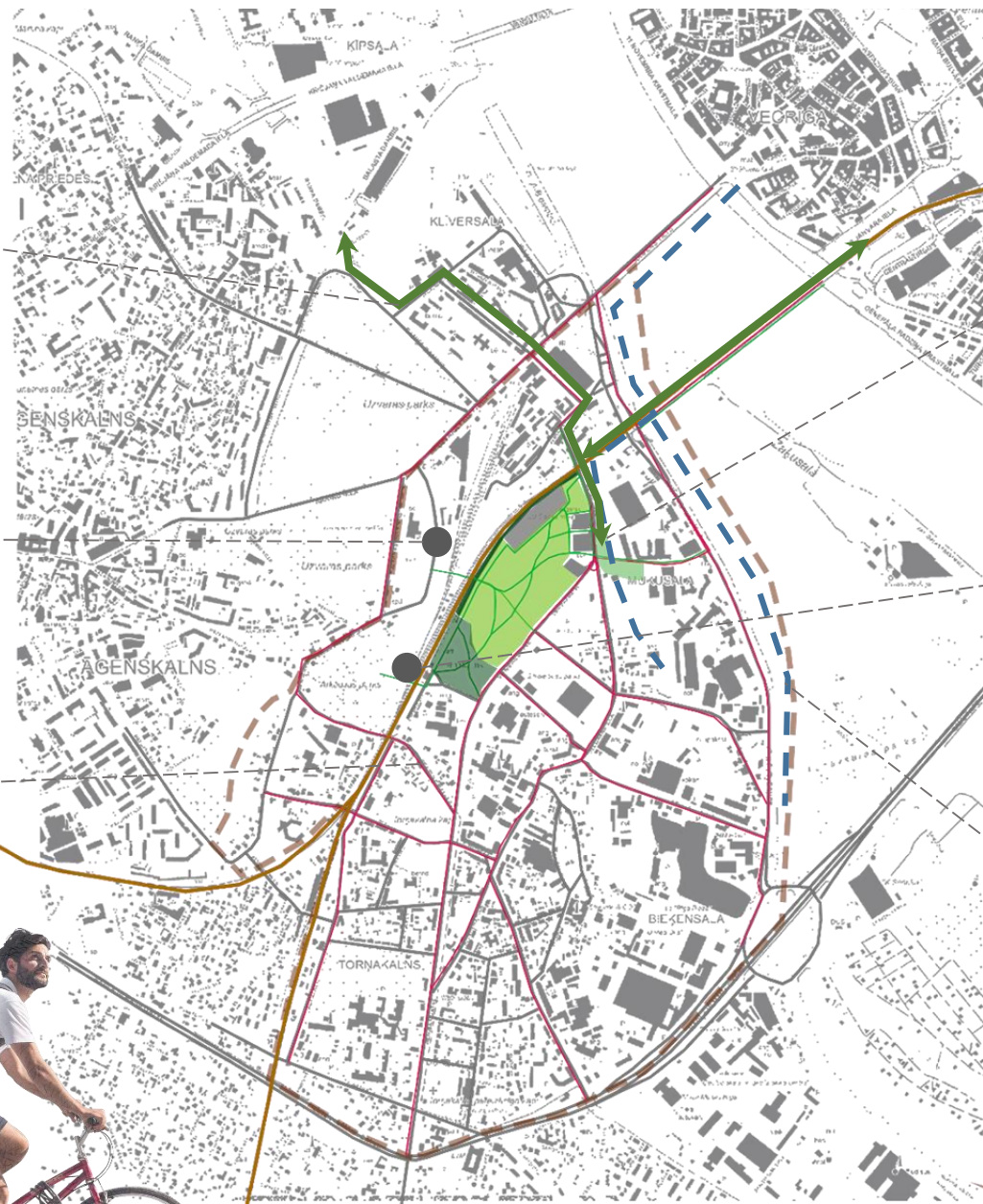


Smart bikes



Moved train station
"Torņakalns"

New bicycle roads



Pedestrian roads

Green tunnels
under the railway

Water road
"water taxi"



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Mobility solutions



Jelgavas iela
Courtesy: google earth

Existing situation:
Narrow side walks,
No dedicated bike lanes

Solutions:
Traffic Calming
Bike sharing system
moving the parking lots to the edges to
discourage the car use.



Human and animal
connection path



Cycling infrastructure
example USA



This wildlife crossing can be
found under a
highway in Finland.

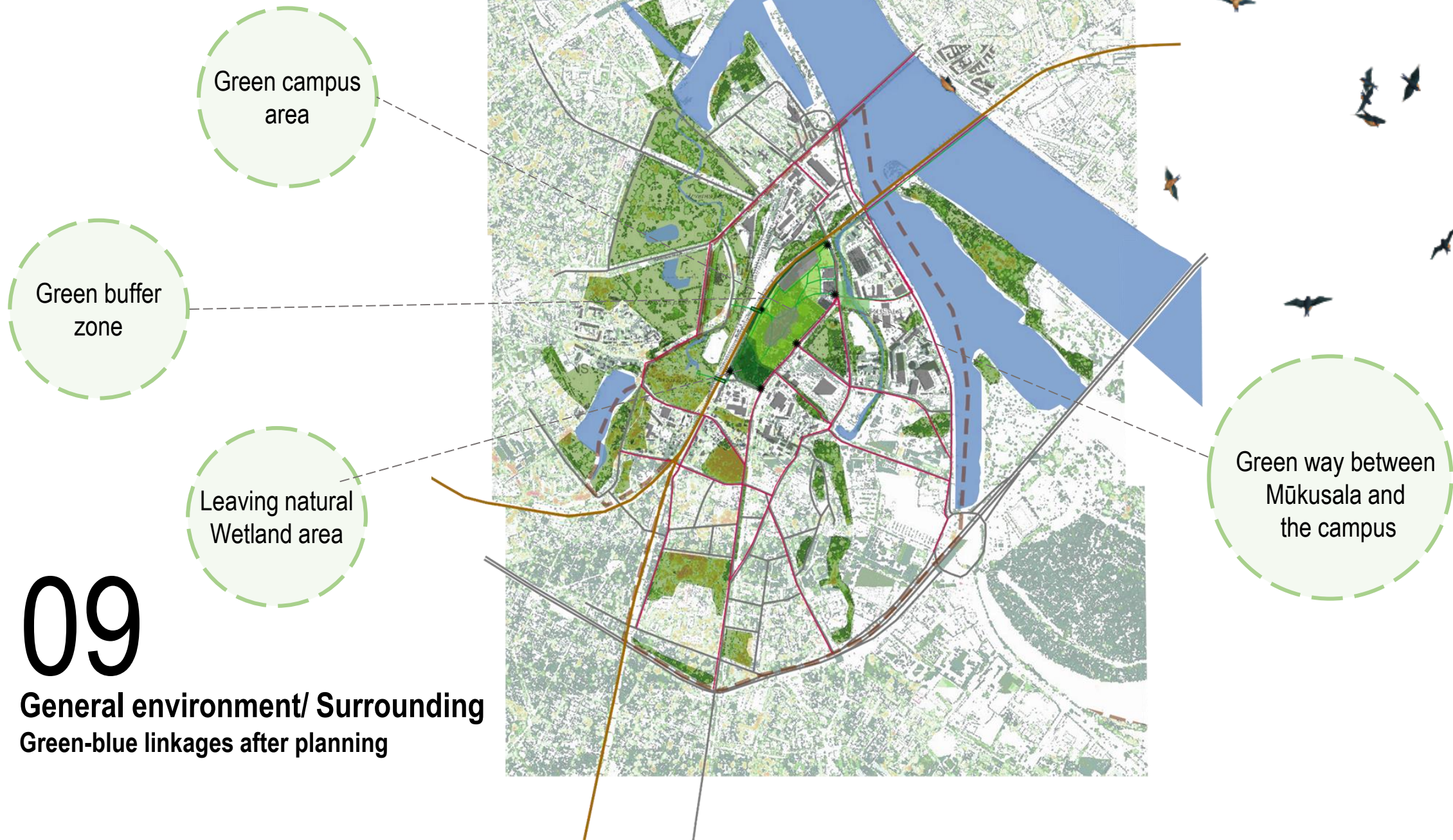
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Mobility solutions



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General environment/ Surrounding
Green-blue linkages after planning



Connection with
Mūkusala

Activity and
Business
zones

Sensory park

Green
bridge

Community
gardens

Green
tunnels

Wetland

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Proposed zoning





Social- Inclusive place to gather with produce cafe, food swaps, educational/research facilities for public lectures & workshops.



Community garden plots open for all. Food swaps, reduce food miles, permaculture groups.

Establish historic land use type. Build on strong Latvian connection with market.



Insect Hotel- habitat, attract pollinators. Foster human/nature connection.



Cafes by day/ bar by night- areas to chill and socialise in a natural setting.

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Community gardens



Children friendly,
open to
community
Recreational
activities- nature
playground, table
tennis.



Space for outdoor
lectures



Integrated with university buildings

Sensory garden is planned to be a lovely place
to spend time. Students and locals can come
together, interact with other people and
nature, do sport activities and live a healthy
life.
Area mainly covered with plants that are
suitable for the climate.



Therapeutic &
healing



Sensory
garden



Multi-functional outdoor space-
community/ university events



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Sensory garden

Nature immersion through
sensory stimulation



Research & field work opportunities



Animal experience path, linking to railway station



Relaxing Space in nature

Ecosystem Services- filtration, storm-water catchment, flood mitigation



Habitat enhancement

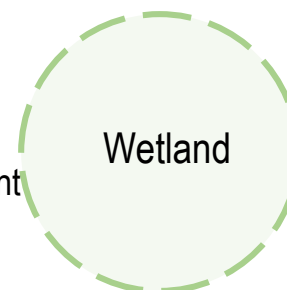
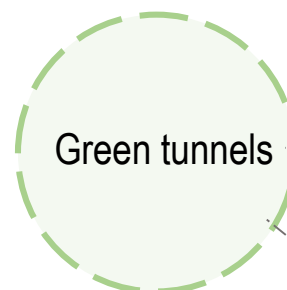


Interpretive Signage

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Wetland and green tunnels

Wetlands kept as natural as possible.





A Café on bridge in London
Courtesy: Google images



A place to meet
your (business-)
partners:
A harbo-bar



Let's get active by
renting a kayak or
paddleboard



Time to socialize:
bathing, sauna and a
chill-out area next to the
ditch



Time for some scenic viewing in
the handy water taxis that
connects the city and Mūkusala



Rooftop gardening
and energy
provision



Connection with
the Mūkusala

Water activities
& Water taxi

Business area

Harbo-bar area



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Connecting bridge with the
Mūkusala

Developed identity
landmarks/symbol

Look at the old
factories

Get inspired



United
architectural
design

Info signs

Benches

Plantings

Pavement

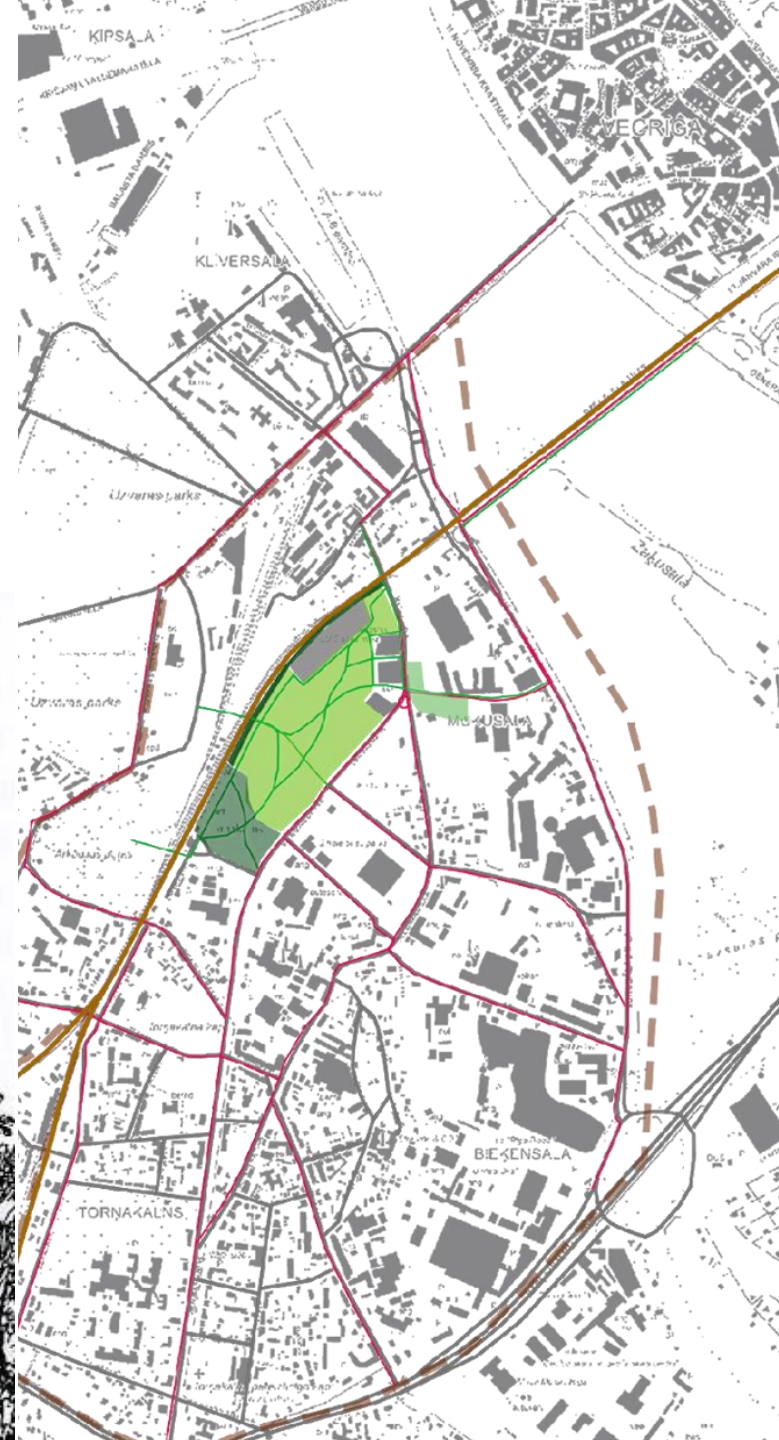
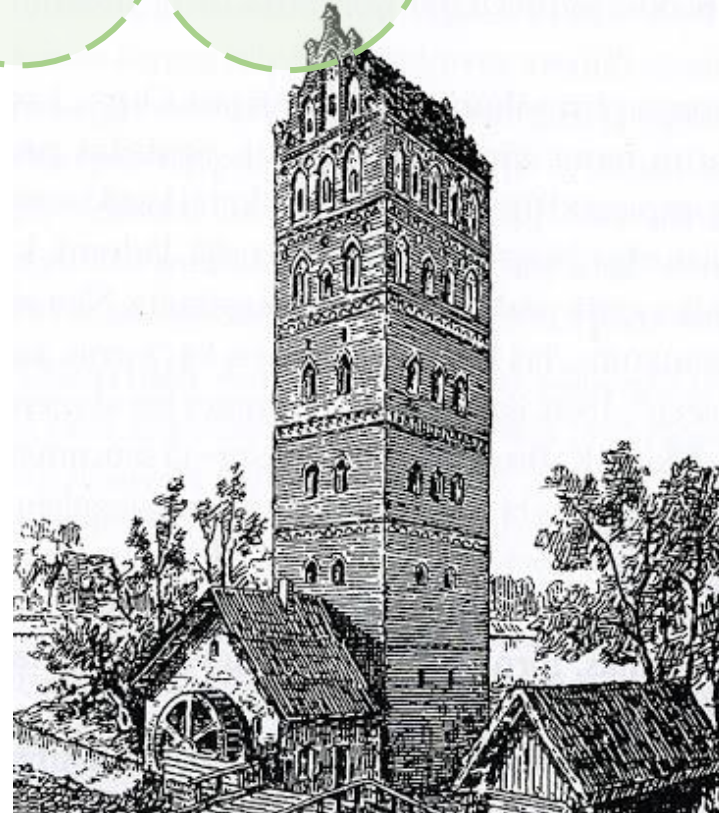
Virtual reality
tours



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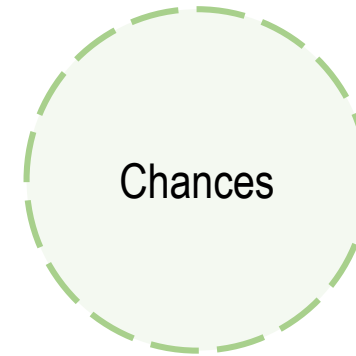
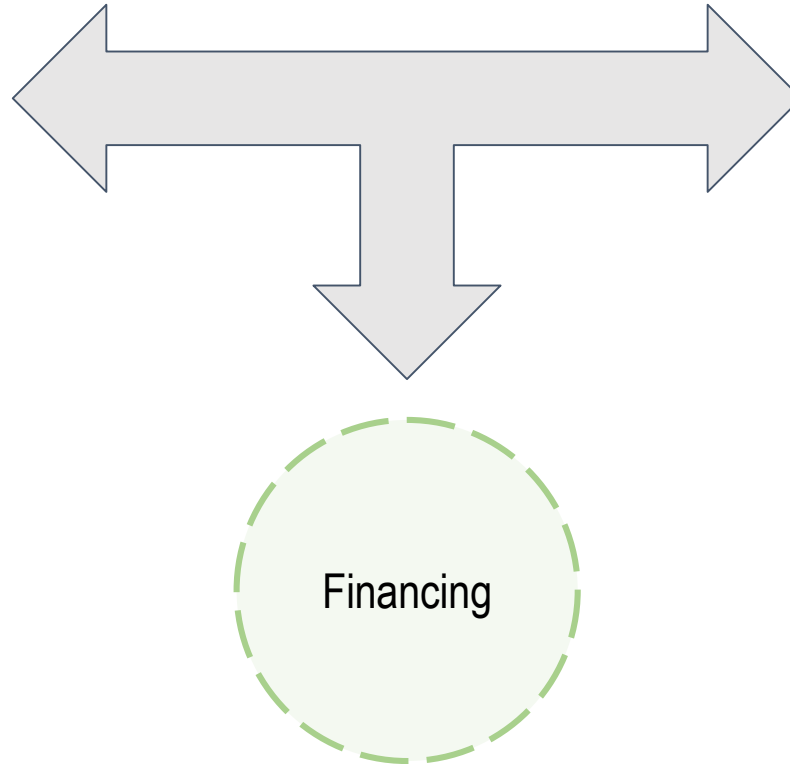
Culture

**Solutions how to connect the past with today
and future**





- budget
- endangered species
- opposition



- Role model
- green city with social/environmental inclusion
- Tackling pollution
- Welfare level
- Connecting city and campus
- income opportunities through
 - increased tourism
 - marketing (documentary)

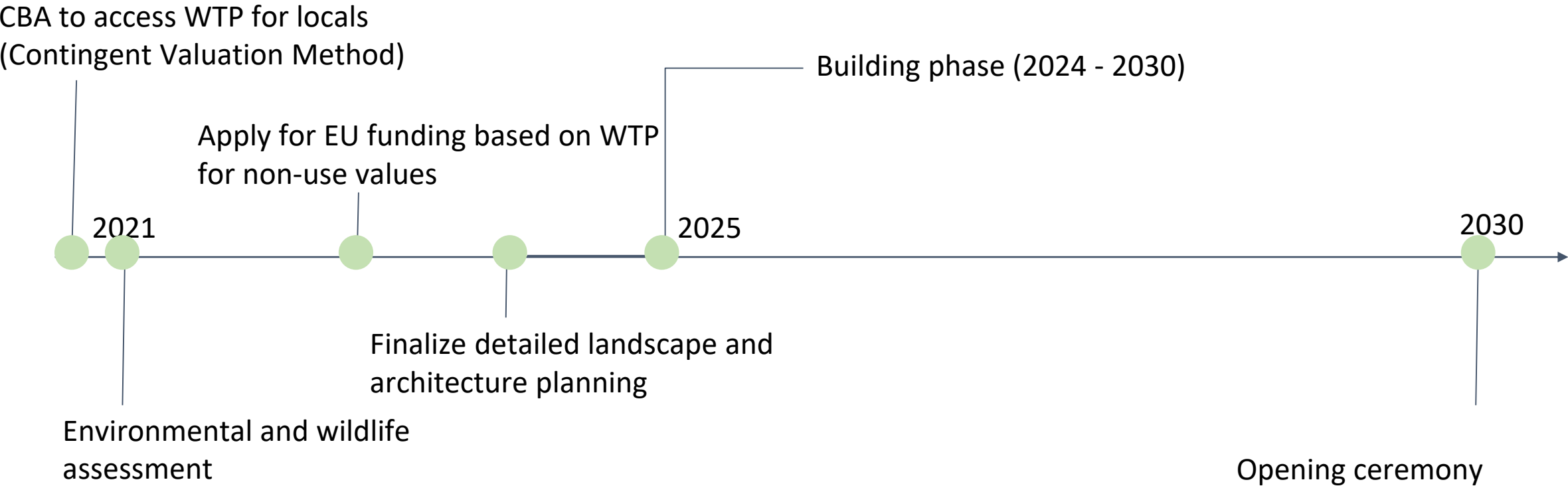


- taxes
- subsidy from EU for green projects (e.g. EU Green City Accord) -
https://ec.europa.eu/environment/topics/urban-environment/green-city-accord_en#ecl-inpage-200

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Opportunities

Development time line



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Implementation plan & priorities

Development priority

1. Campus area
2. Torņakalns identity vision
3. Connection with Arkādiņa park and Railway
4. Connection with Mūkusalā
5. Knowledge mile - National Library
6. Connection with the city centre



Edgars, Student

“The campus feels much **more alive** now. The campus bar and cafes are **great places to meet new friends**, sometimes our professors also join in! I am studying biology. We have **many lectures and hands on experiences outside in the gardens**, it is studying in a living lab! Also, I can now ride to uni in 10 mins!”

Henry, The Beaver



“I used to live in Arkadijas Park but now I have a **new home in Mūkusala Ditch**. I like it here the bank is full of **plants for me to eat**. I can **travel back to Arkadijas Park easily** through the new tunnels made especially for me! “

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Individual future perceptions



Kamilla, Local Resident

“My husband and I were thinking of moving to the countryside so our children **had more open space to play**. The new transformation of Tornakalns means there is **now so much green space around**. My children particularly like playing in the **sensory gardening, smelling, touching and even eating plants and flowers!**”



Vladimir, parliament member

“What a **great investment that was!** Since the recreation of the water area, members of the parliament are having **important governmental meetings** with foreign politicians on the water taxis - the longest trip take roughly 1,5 hours and leaves our visitors with **a stunning face regarding how sustainable Riga became compared to 10 years ago!** Personally, we finally also corporate **way closer with the university these** days. The new bridges make sure that political science students are way more likely to **search internship opportunities at the government**. Further, our financial possibilities have improved, thanks to our new attractiveness for **foreign investors and companies.**”

Tourist

I **didn't** even think there was anything on the other side of the river!



Anna, Local Business Owner

“Together with a friend of mine, we wanted to settle with our start-up at a place that makes a difference in the world. Here, we get a **significantly rent reduction for growing food on our rooftop of our business building**. At the same time we **give something back to the local community by providing it at the local market**. A great concept that attracts many change makers!”

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Thank you!

