

Olivia Center Urban park

Project proposal

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Site observations

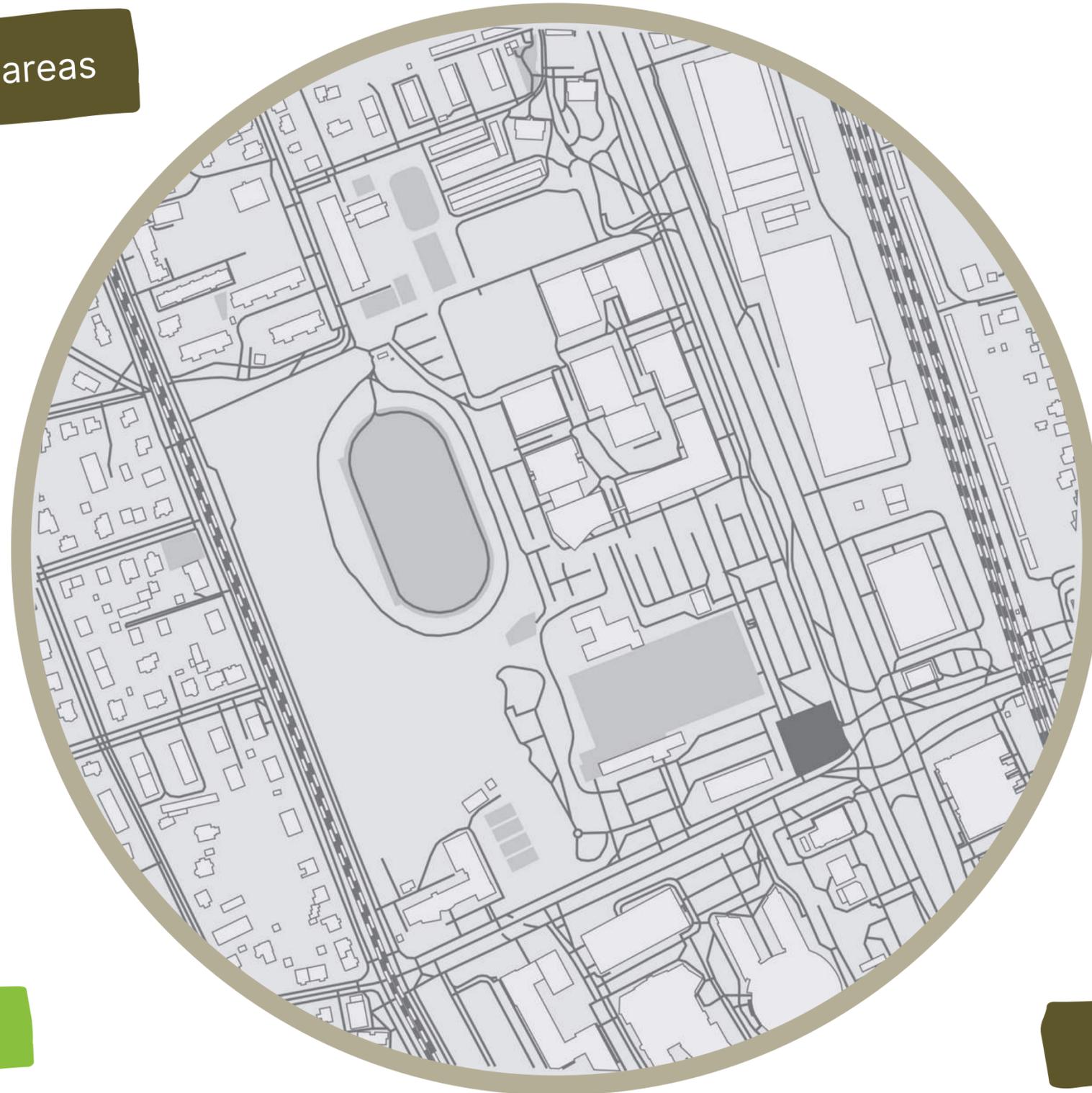


Little shaded areas

Mineral buildings



Artificial soils



Poor accessibility

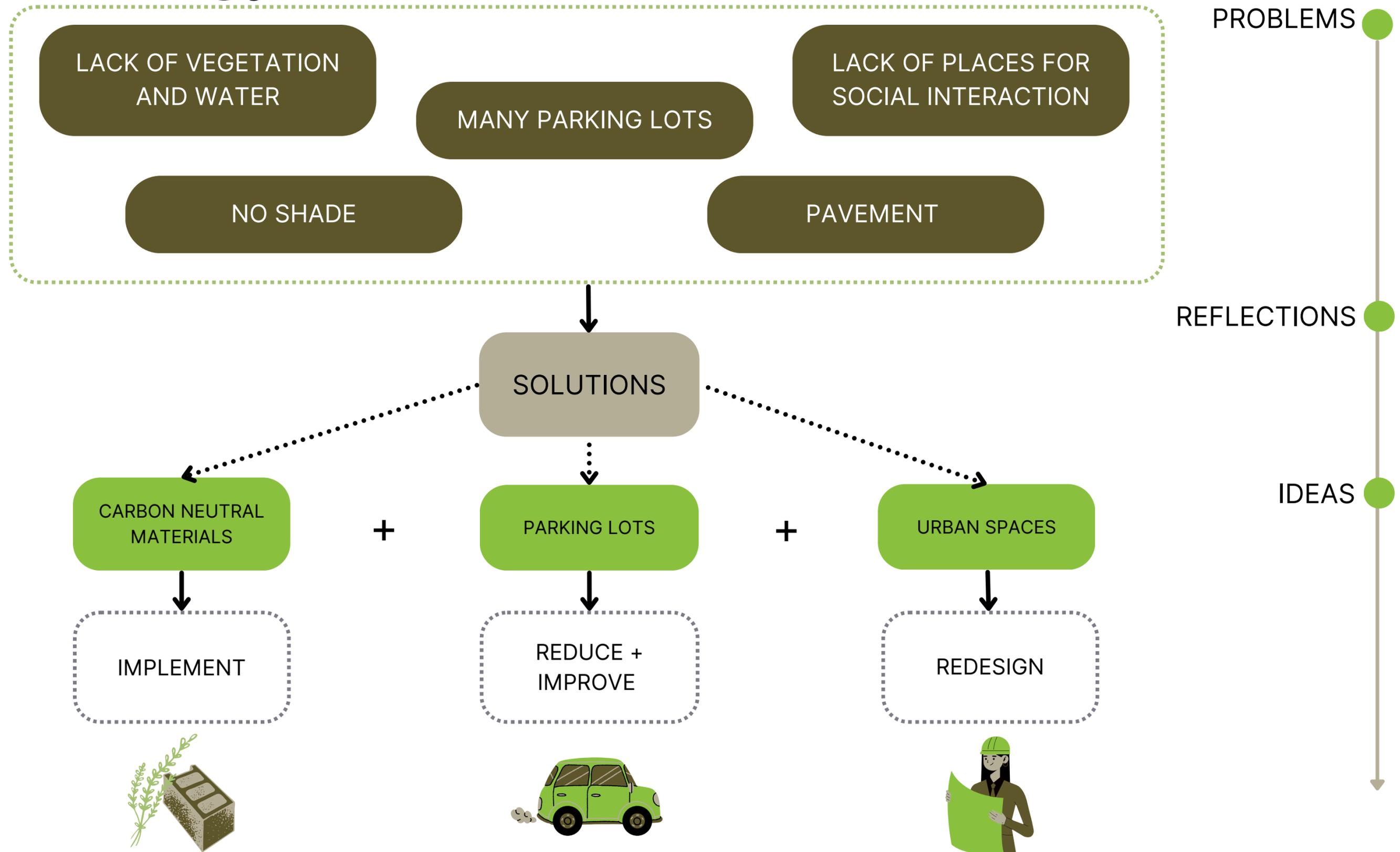


Poor pavement



Many cars

Methodology



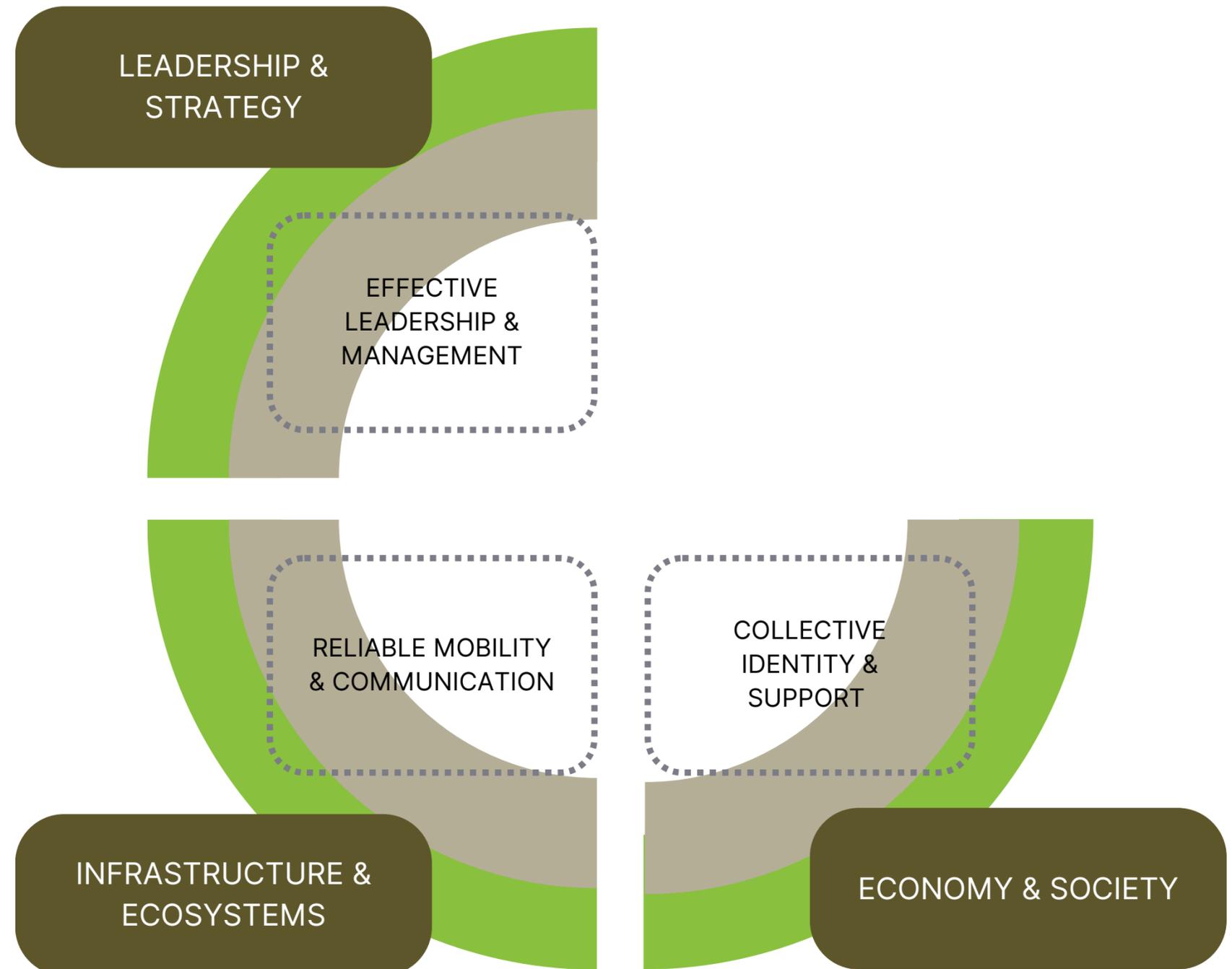
Resilience theory

Our design proposal through the Resilience City Index lenses (ARUP) :



Qualities of our system :

- FLEXIBLE
- INTEGRATED
- INCLUSIVE : engagement of communities



COMMUNITY

URBAN SPACE

+

NEEDS ————— SOLUTIONS

PROBLEMS ————— SOLUTIONS

Eat / Drink> Food trucks

Poor pavement> Permeable soil

Rest / Sit> Chairs
Benches

Lack of urban furniture> Bins
Benches

Shop> Flea market

No cool spaces> Trees
Fountains
Shaded areas

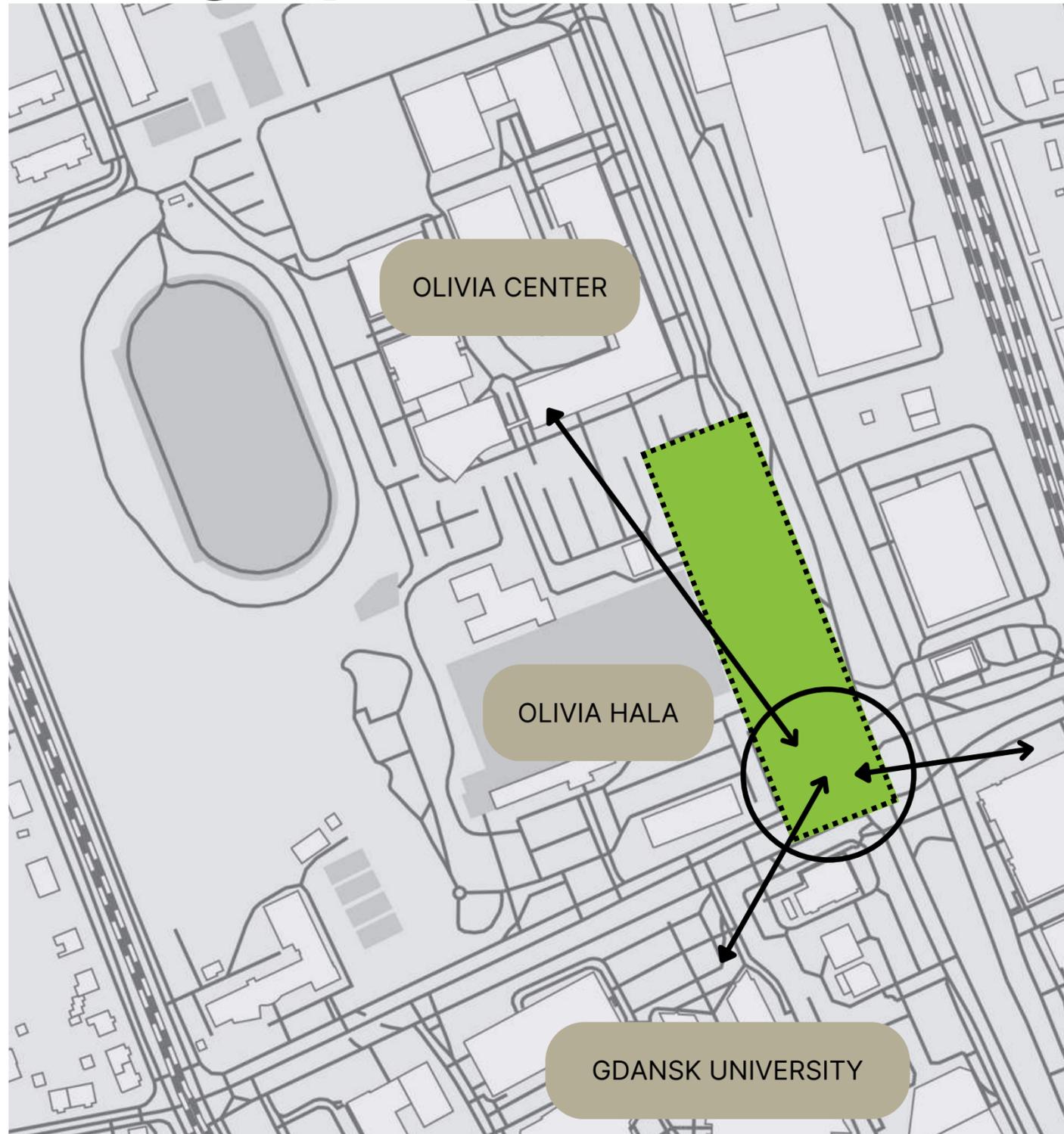


SOCIAL RESILIENCE



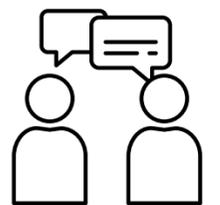
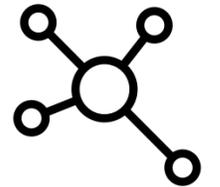
URBAN RESILIENCE

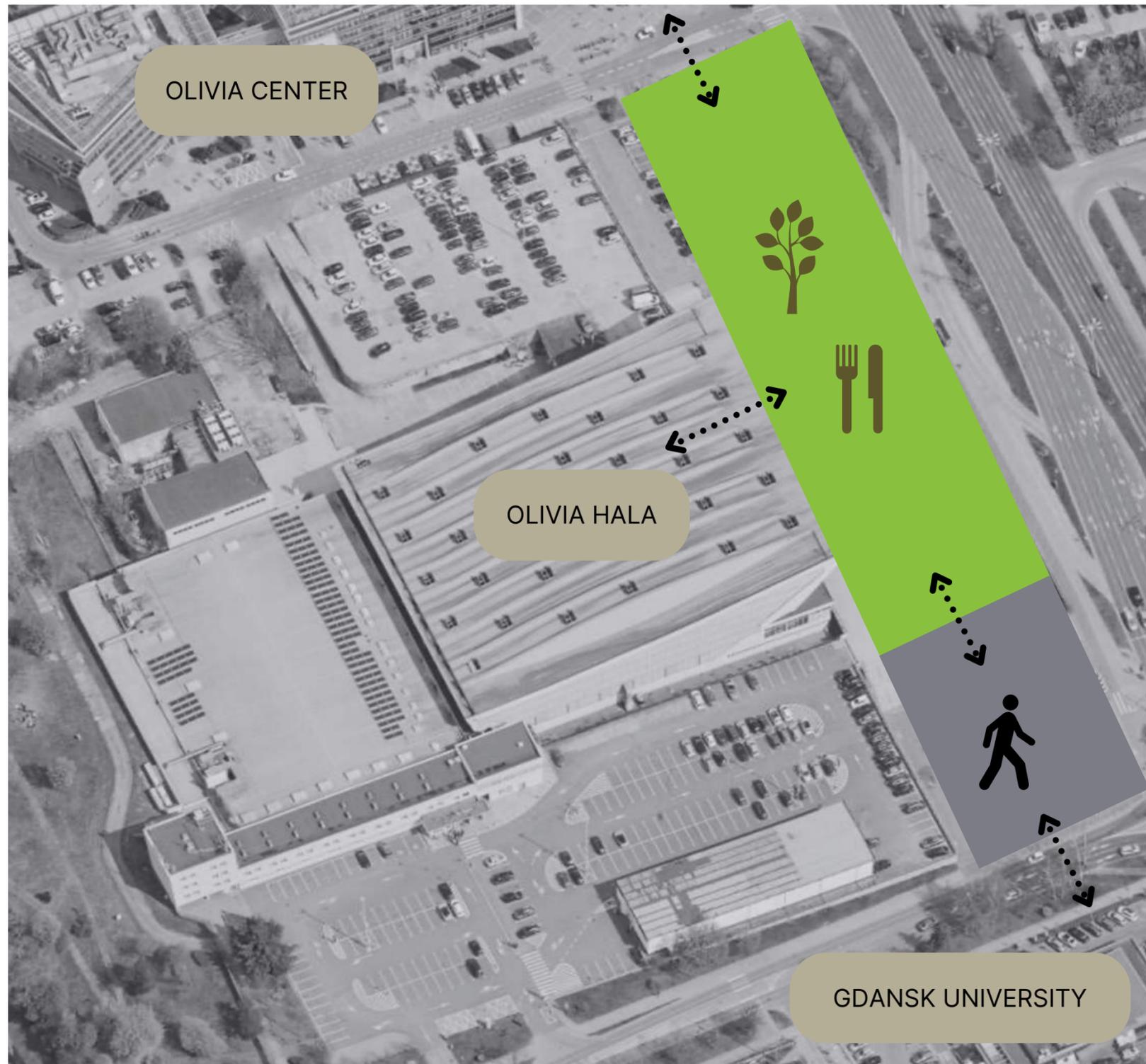
Design proposal



SOLUTIONS

- Linking the different entities in the area
 - Olivia center
 - The sports building - Olivia Hala
 - The car parks
 - The Gdansk University
 - The streets and types of mobility
- Create a large public space combining several activities and sub-spaces
 - Green spaces
 - Footpaths
 - Rest areas
 - Traffic areas
 - Restaurant areas





GREEN AREA

- Create cool spaces
- Provide places of rest and quiet
- Plant trees



EATING AREA

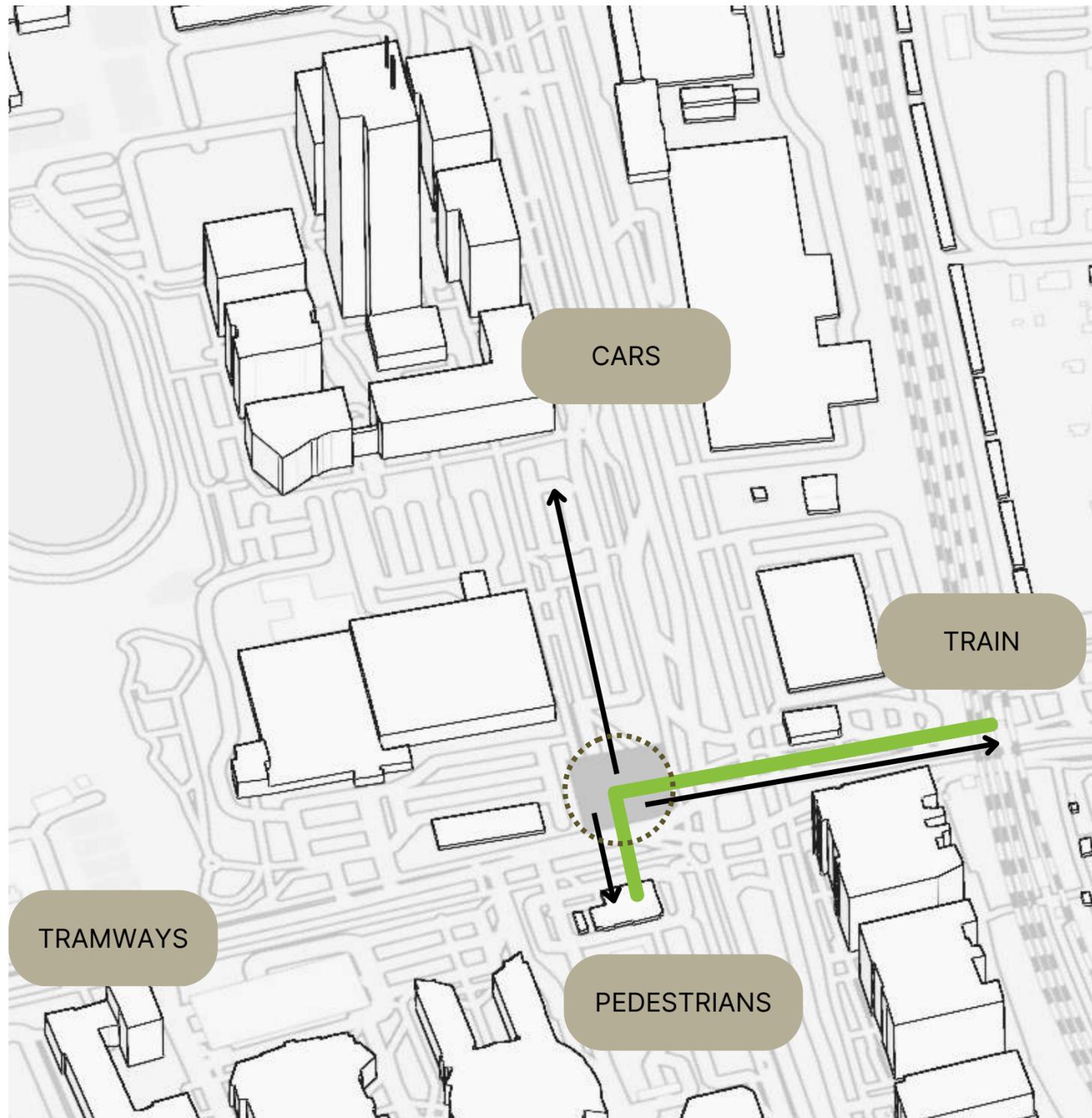
- Provide a catering area
- Provide a range of food shops
- Set up cultural and artistic activities



TRANSITION AREA

- Link different types of mobility
- Link surrounding public places
- Act as a signal

GOAL : CREATING A RESILIENT SPACE BY IMPROVING THE URBAN ENVIRONMENT AND BRINGING THE COMMUNITY TOGETHER

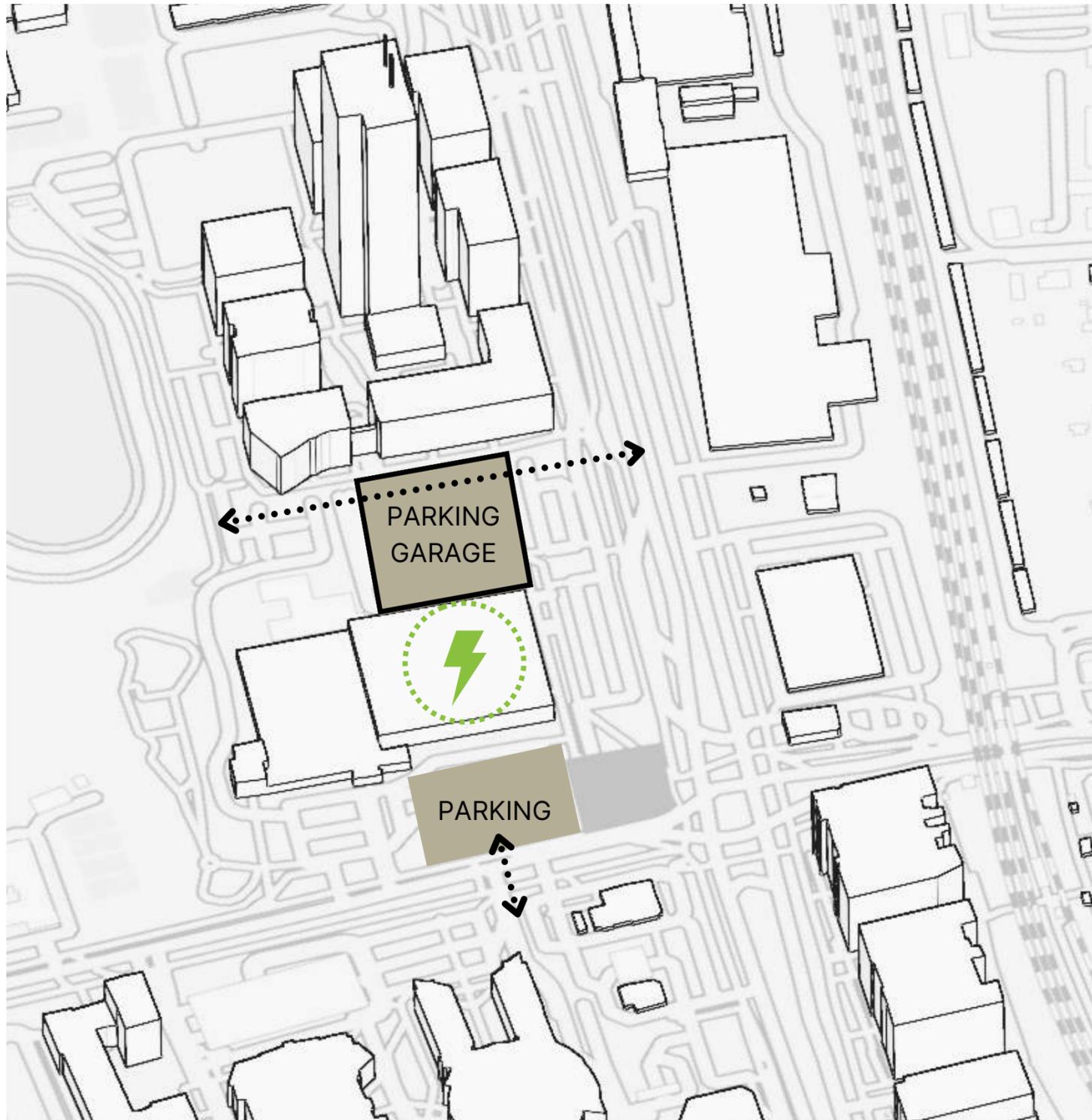


THE WOODEN PEDESTRIAN BRIDGE

- Link between different transport modes and urban spaces
- Footbridge made from wood
- Participative construction workshop

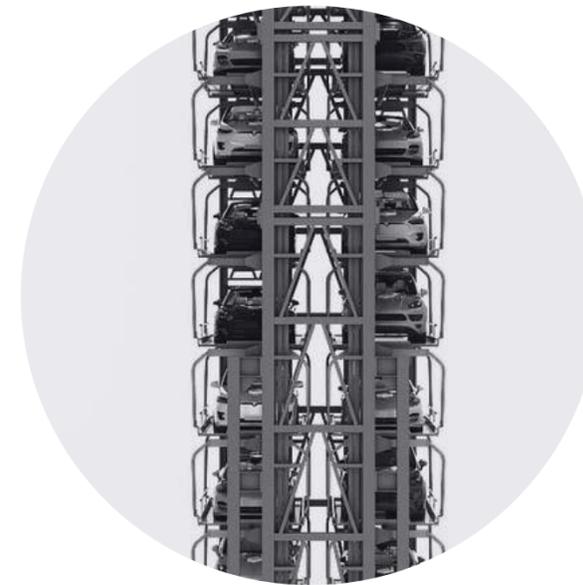


Luchtsingel Bridge in Rotterdam

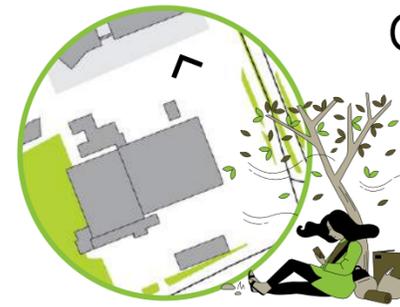


THE PARKING GARAGE

- Integration with surrounding buildings
- Automatic system, space saving
- Renewable energy

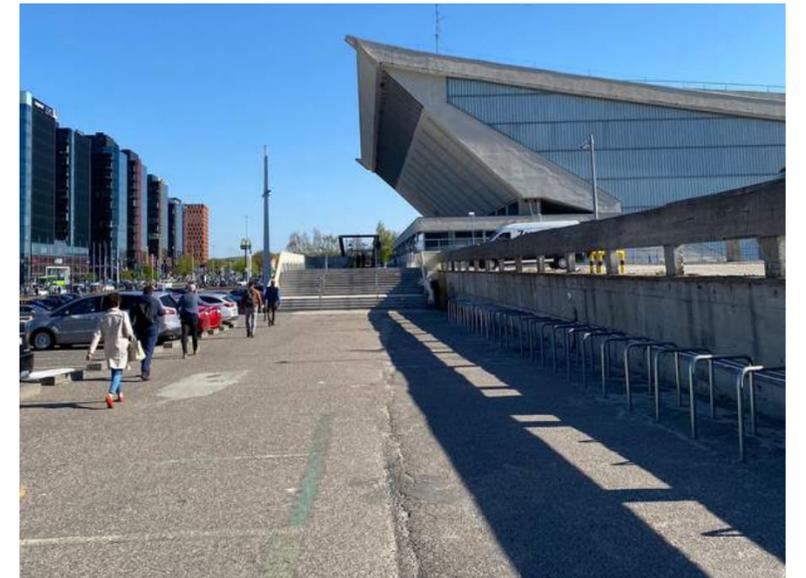


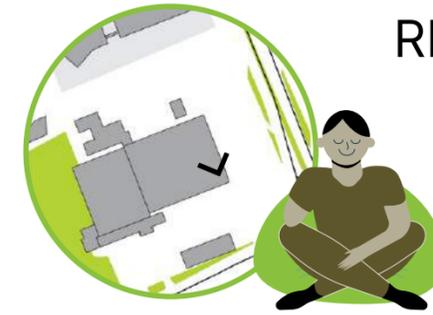
Mutrade automatic car parking lift



GREEN AREA

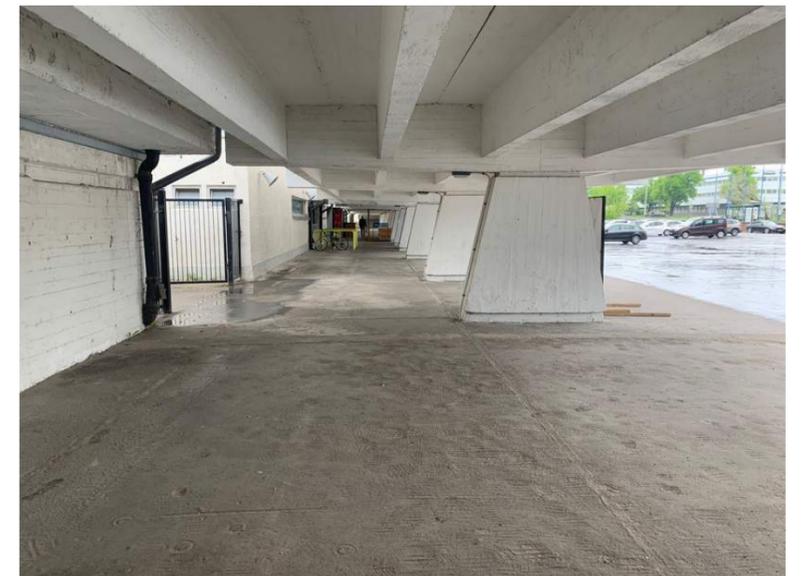
- Create cool spaces
- Provide places of rest and quiet
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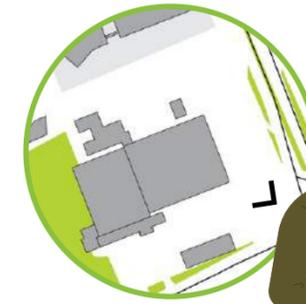




RESTING AREA

- Provide places to rest and sit
- Provide a calm atmosphere
- Provide shade and cool temperatures



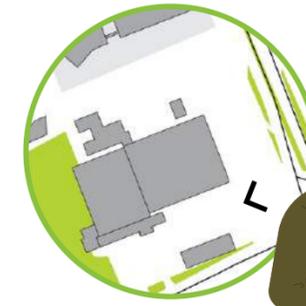


EATING AREA



- Provide a catering area
- Provide a range of food shops
- Set up cultural and artistic activities





EATING AREA



- Bamboo wall : Visual and acoustic separation
- Reduce traffic noise
- Green and artistic wall



Solutions - Carbon neutral materials



HEMP BLOCKS

Carbon Sequestration
Moisture Regulation
Acoustic Insulation



MYCELIUM BASED FURNITURE

Biodegradable
Compostable
Lightweight



SMART GRAVEL

Reduced Weight
Water Resistant
Easy Maintenance



RECYCLED PLASTIC TILES

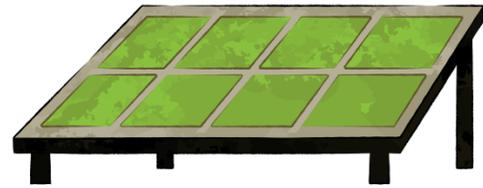
Resource Conservation
Durability and Longevity
Water Resistant



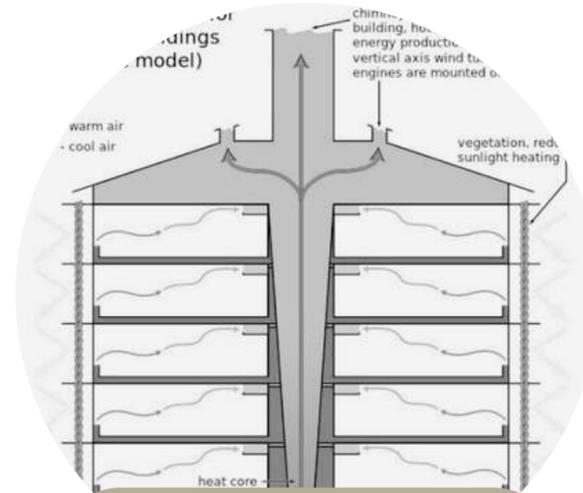
FLY ASH

Waste Utilisation
Cost Savings
Improved Insulation

Solutions - Carbon neutral architecture



SOLAR PANELS



NATURAL VENTILATION



WIND TURBINES



SOLAR ENERGY



GREEN ROOFS

Nanjing Eco Housing project - Designed by BDP
A new high-tech, low carbon, sustainable housing complex is now slated for Nanjing, China.

Sources and literature

● Carbon neutral materials

Arqlite - Recycled plastic <https://smart.arqlite.com/recycled-plastic-building-materials/>

Carbon Cure – Fly Ash <https://www.carboncure.com/concrete-corner/fly-ash-and-innovation-in-concrete/>

Inhabitat – Building example <https://inhabitat.com/nanjing-eco-housing-to-feature-cascading-living-walls-and-high-tech-facade/nanjing-eco-housing-6/>

● Carbon neutral architecture

Nanjing landeshousing <https://www.bdp.com/en/projects/m-o/Eco-Housing-Project-Nanjing>

Arch Daily – natural ventilation <https://www.archdaily.com/963706/back-to-basics-natural-ventilation-and-its-use-in-different-contexts/>

● Resilience theory

The Social Life of Small Urban Spaces <https://rb.gy/vg2eb>

Heat resilience in public space and its applications in healthy and low carbon cities <https://www.sciencedirect.com/science/article/pii/S1877705817317617>

Governance of Climate Responsive Cities <https://link.springer.com/book/10.1007/978-3-030-73399-5>

● Luchtsingel bridge

<https://www.dezeen.com/2015/07/16/luchtsingel-elevated-pathways-bridges-rotterdam-cityscape-zus-architects/>

● Mutrade Automatic car parking lift

<https://mutrade.en.made-in-china.com/product/WNJQLCfVanYZ/China-Intelligent-Stereo-Garage-Automatic-Carousel-Parking-System-Rotary-Vertical-Tower.html>

● Parking lots

How A Giant Mall Parking Lot Turned Into A Park And A Walkable Community <https://www.fastcompany.com/3023360/how-a-giant-mall-parking-lot-turned-into-a-park-and-a-walkable-community>

Parking Lot Parks https://depts.washington.edu/open2100/pdf/2_OpenSpaceTypes/Open_Space_Types/parking_lot_parks.pdf

● Pictures and drawings

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Thank you !

