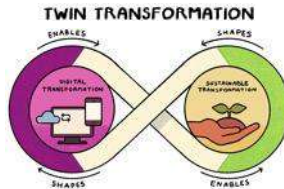
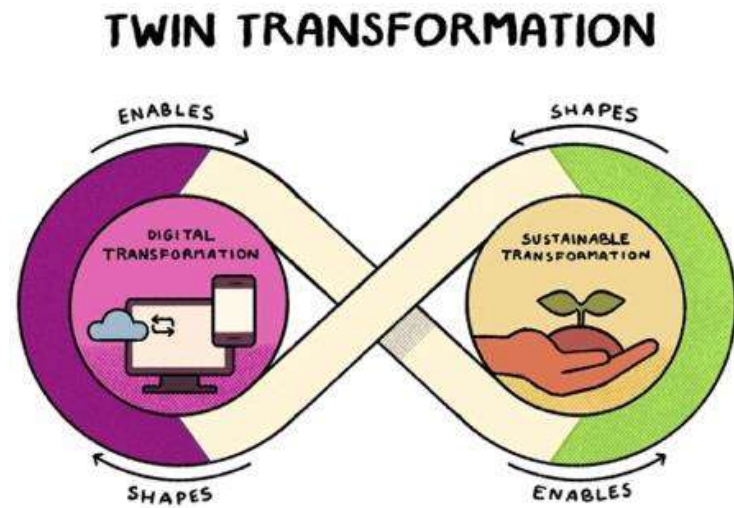
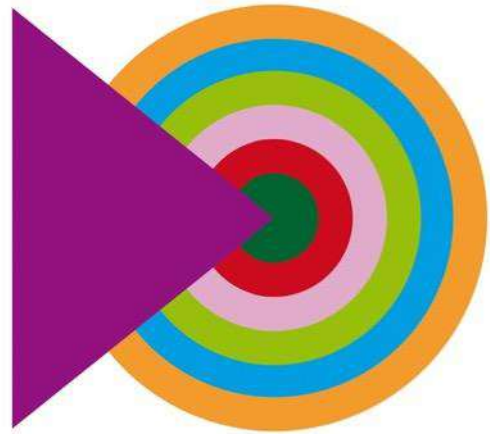


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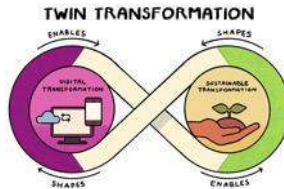
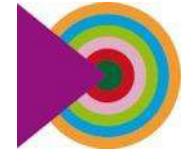
B4P TM PRESENTATION CONFERENCE



Friday, 13 March 2026

Build4People Project

Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia



Warming-Up Session

Moderation: Neele Worthmann & Anke Blöbaum
Build4People WP "Behaviour Change"
Otto-von-Guericke-University Magdeburg



**Neele
Worthmann**



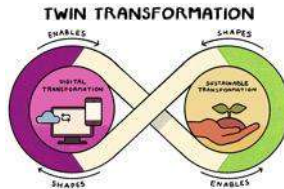
**Anke
Blöbaum**

 **Mentimeter**



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Introduction to Agenda

Prof Dr Tep Makathy

Director of CIUS, Prof of FAUP-PUC and RUA (Urban and Regional Planning Program)

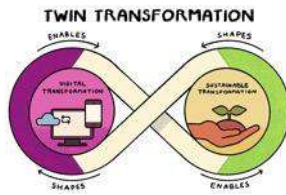


Tep Makathy



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AGENDA

Presentation Conference of B4P Transition Manufactory 2026 #1

08:00-08:30: Technical Set-up and Registration

08:30-08:35: Warming-Up Session

Neele Worthmann & Dr Anke Blöbaum, University of Magdeburg

08:35-08:40: Introduction to Agenda

Prof Dr Tep Makathy, Director of CIUS, Prof of FAUP-PUC and RUA (Urban and Regional Planning Program)

08:40-08:45 Greeting Word

Dr Michael Waibel, Build4People project consortium representative

08:45-09:45: Presentation of Key Results of the B4P Transition Manufactory 2026 #1

Build4People team and student working groups

09:45-10:00: Q&A

Moderation: Prof Dr Tep Makathy, Director of CIUS, Prof of FAUP-PUC and RUA

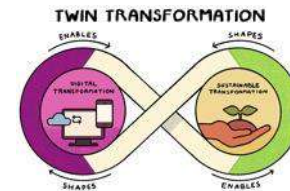
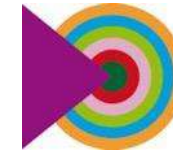
10:00-10:10: Handing-over of Certificates of Appreciation to participating students

10:10-10:30: Coffee / Tee Break - Informal Exchange and Networking



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Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia



AGENDA

Presentation Conference of B4P Transition Manufactory 2026 #1

10:30-10:50: Closing Words

Dr Michael Waibel, Build4People project consortium representative

Mr. Sengpheng Khun, CEO of TP Moral Group

Mr. Christof Weigelmeier, Deputy Head of Mission, Head of Development Cooperation, German Embassy

H.E. Vannak Seng, Vice-Governor of Phnom Penh

10:50-10:55: Exchange of Letter of Intent between TP Moral Group and Build4People

Dr Michael Waibel, Build4People project representative & Mr. Sengpheng Khun, CEO of TP Moral Group

10:55-11:00: Group Photo

11:00-11:15: Coffee / Tee Break

11:15-11:45: (Internal) Wrap-Up Session and Discussion about the next steps till B4P Transition Manufactory 2026 #2

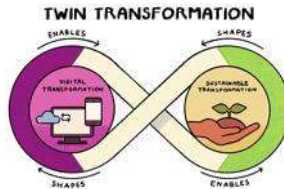
Moderation: Build4People team

Participation: PPCH, TPMG, Den Nokor, Build4People team, CityLAB Berlin, and other stakeholders



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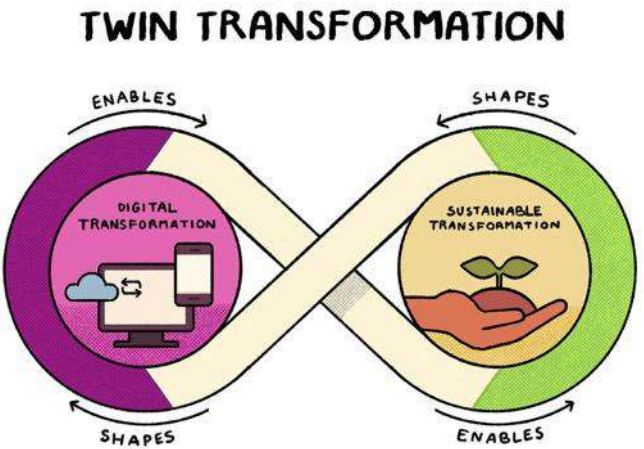
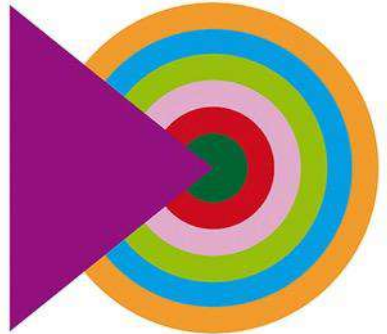
Greeting Words

Michael Waibel

Build4People project consortium representative, Senior Researcher at the University of Hildesheim

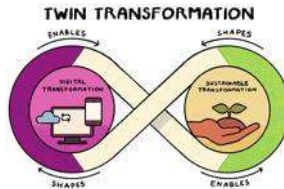


Michael Waibel



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The Twin Transformation & The Role of Digitalisation and AI in Urban Development



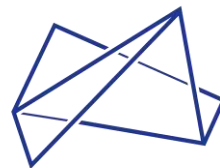
Niklas Kossow

Head of Division, Smart City & Government Innovation, CityLAB Berlin / Technologiestiftung Berlin

niklas.kossow@ts.berlin



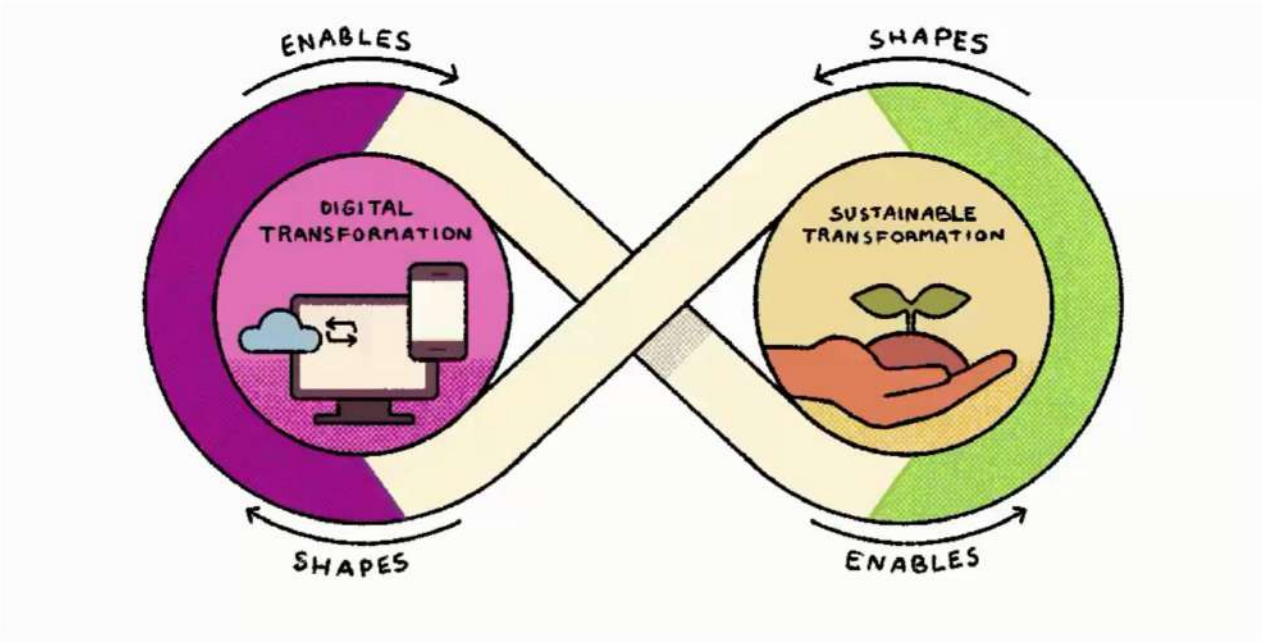
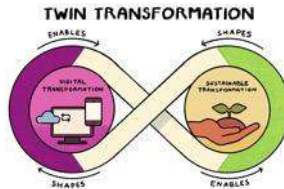
CityLAB Berlin



TECHNOLOGIE STIFTUNG BERLIN

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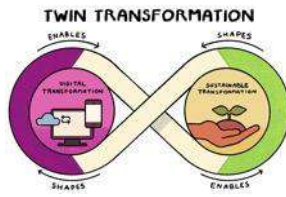
Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia



Digital tools support sustainable city transformation — while sustainability goals define what digital innovation is needed.

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How digitalisation is used @Build4People



Understand

Context and environmental data analysis
Simulation of future urban development



Involve

Citizen Science App
Resident survey data



Imagine

Digital planning tools
AI visualisation of future scenarios

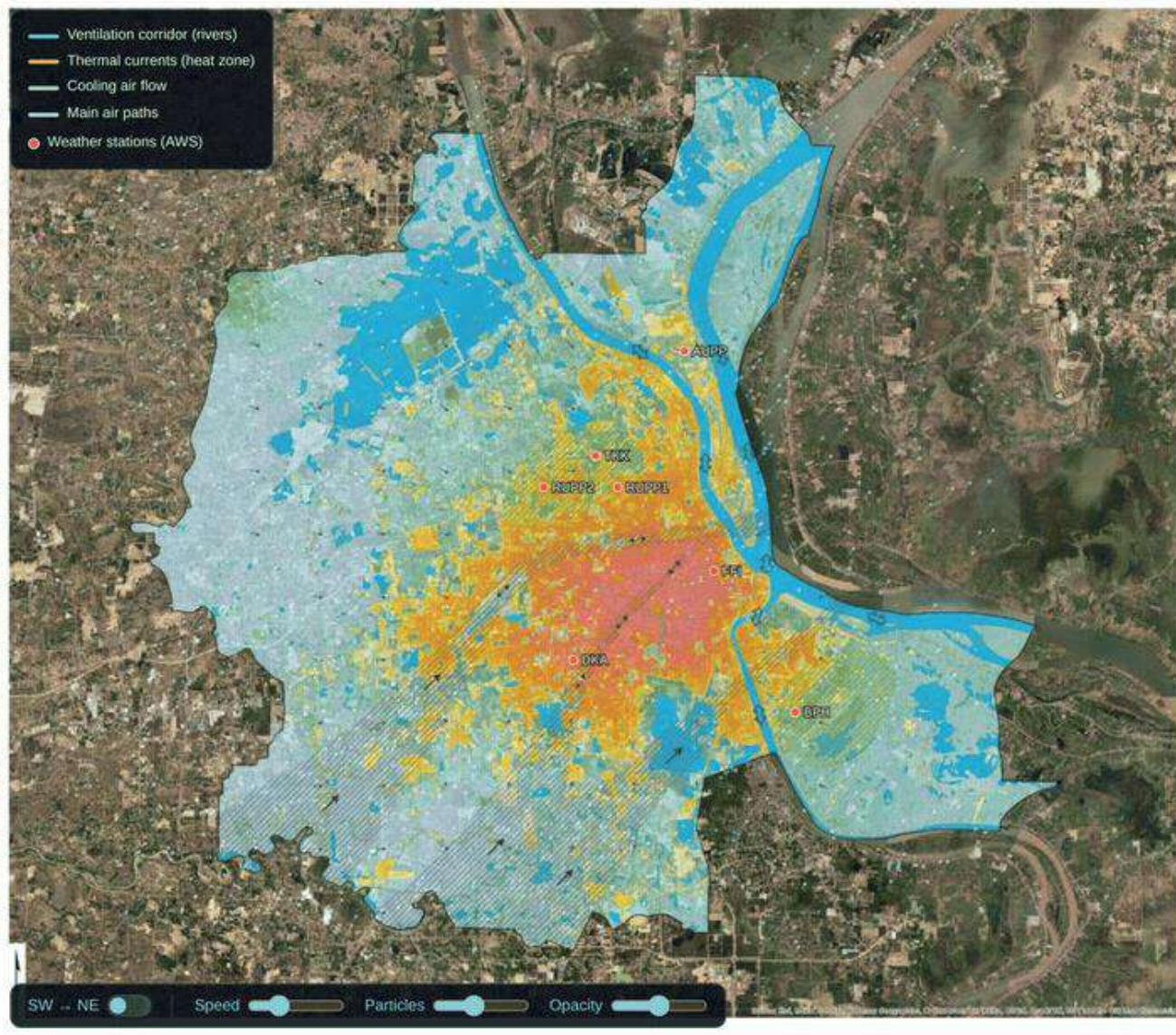
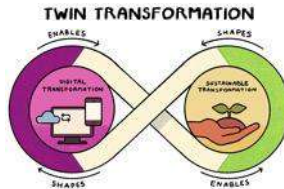


Develop

Ideas for inclusive digital tools

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URBAN CLIMATE MAP PHNOM PENH 2022

Climatope

Category	Name
Light blue	Strong cooling potentials
Green	Moderate cooling potentials
Light green	Slight cooling potentials
White	Reduced heat load
Yellow	Moderate heat load
Red	Strong heat load

Dynamic pattern

Category	Name
Vertical double arrow	Ventilation corridor
Upward arrow	Wind direction air paths
Vertical double arrow	Wind direction air paths for all seasons
Diagonal hatching	Main air paths
Diagonal hatching	Good ventilation



WP5 Urban Climate

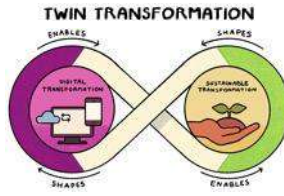
អាកាសធាតុក្រុង

Scale 1:100,000
1 cm = 1000 m

FONA INKEK
Institute for Climate and Energy Transitions
Kampot, Jan 2023

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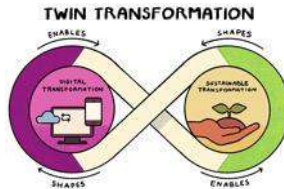


HUMAN LIBRARY BUS: *Connecting Generations Through Public Transport*



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OUR TEAM



Chum Phalla



Vuthy Chanpiseth



Khy Pichsereyvathanak



Song Kimleangchhay



Sam Sotheara



Chren Sophearith



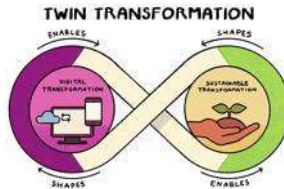
Soeun Sokchetra



Phon Seaklang

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Background

Problem

Opportunity

Stakeholders

Proposed Solution

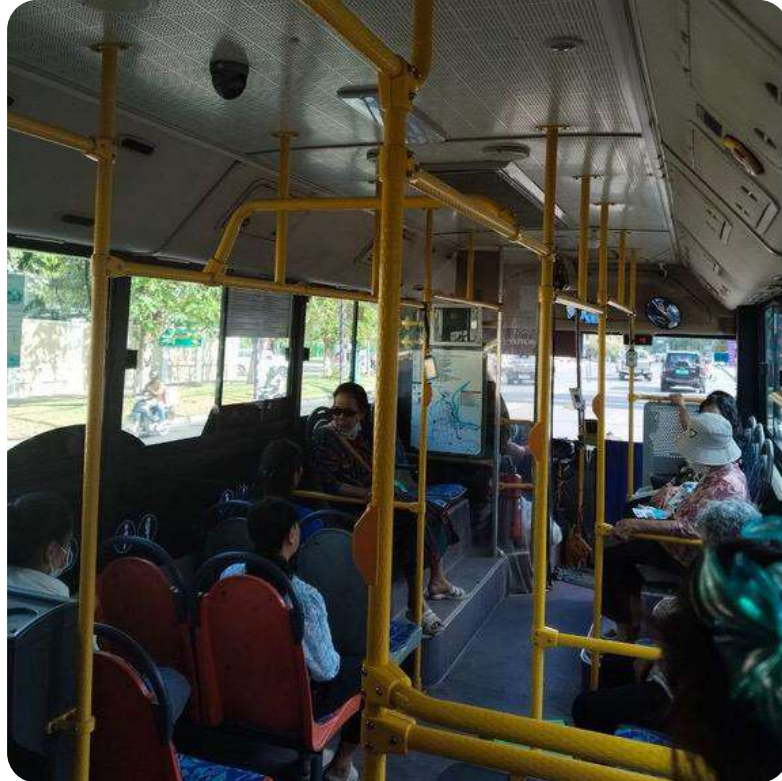
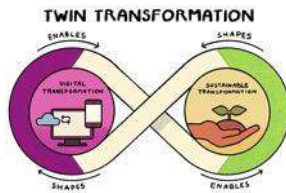
Impact & Vision

Conclusion



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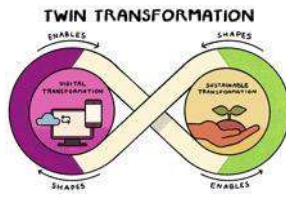
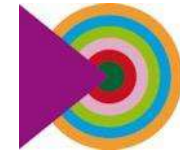
BACKGROUND



- Phnom Penh City Bus is a public transport.
- People take the bus as a leisure.
- Mostly the seniors take the bus because they don't have to rush to anywhere unlike youngsters
- Seniors greet each other and other strangers as if they have known each other for a long time and talk about random things along the way

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PROBLEM

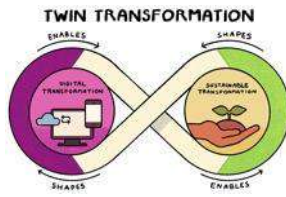
Social Disconnection in Public Transport



- Many passengers spend bus rides isolated on their phone.
- Younger generations are less connected with elders
- Valuable cultural knowledge is gradually being lost
- Seniors often have stories and experiences to share but few listeners

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OPPORTUNITY

Bus Travel Creates a Unique Experience

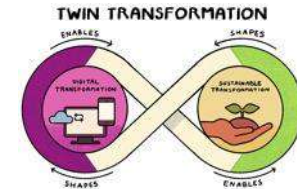


Instead of passive travelling:

- Seniors can share life experiences to young people
- Passengers can learn from seniors
- Public transport becomes a social and cultural learning space
- Seniors - Human Library

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STAKEHOLDERS

Who benefits?



Seniors

- Share knowledge and life experiences
- Stay socially engaged

Bus Passengers

- Learn about topics like history, culture, and food
- Meet new people during travel

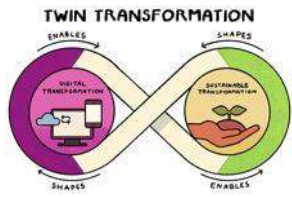
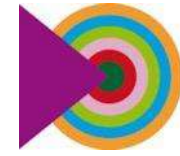
City Community

- Preserves cultural knowledge
- Strengthens intergenerational connections



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PROPOSED SOLUTION

Human Library Bus Platform

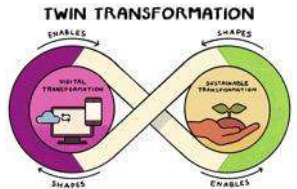


- Create a platform and wearable system where seniors register as **Human Libraries**
- Each senior selects:
 - Category (Veteran, Chef, Farmer, Storyteller...)
 - Age group
- Passengers can then discover these "Human Libraries" during bus travel



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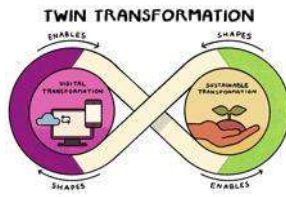


IMPACT & VISION

- Transforming Bus Travel**
- Cultural Preservation**
- Intergenerational Learning**
- More Engaging Public Transport**

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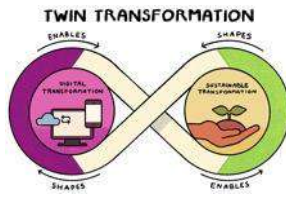
CONCLUSION



- ❖ The Human Library Bus transforms everyday bus rides in Phnom Penh into moving spaces of learning, connection, and cultural preservation
- ❖ Bus stops will no longer become waiting areas but dynamic hubs of human connections, knowledge sharing, and community building to shape a smarter and more culturally vibrant Phnom Penh.

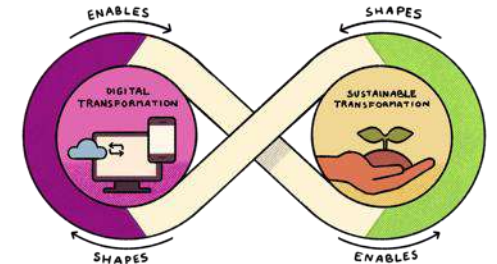
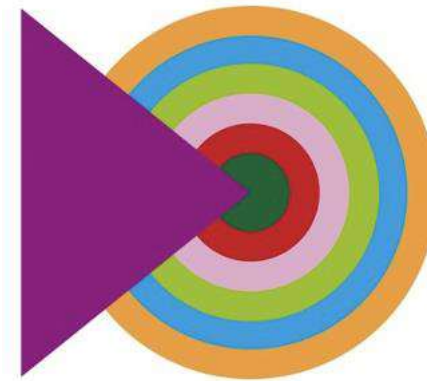
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Way Forward (first ideas)

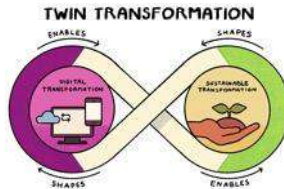
- Exchange and joint learning platforms with students of architecture and urban planning to increase mutual understanding
- Creating Smart City Tools for Phnom Penh
- Hackathon on AI and Urban Sustainability (example of specific joint activity of B4P with CADT)
- Starting an exchange and cooperation with Smart City Hub Phnom Penh



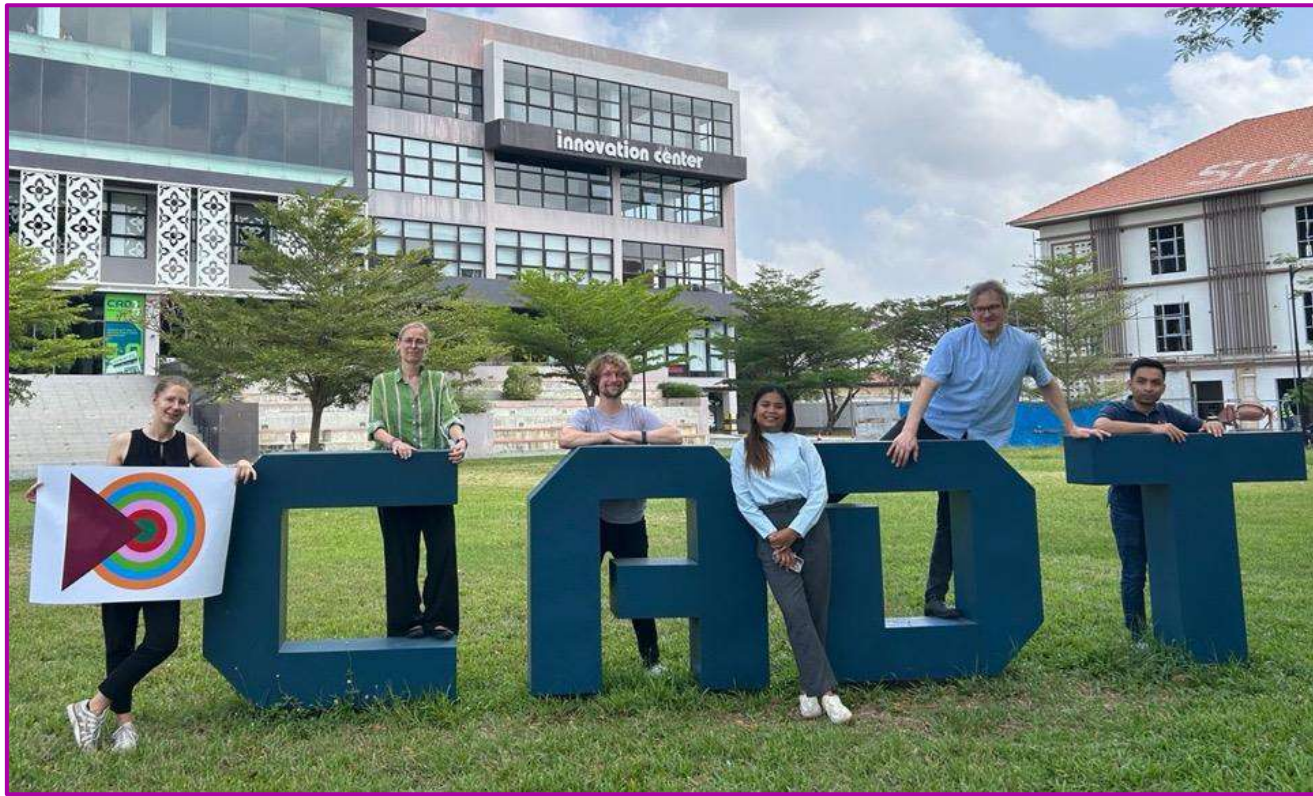
CADT

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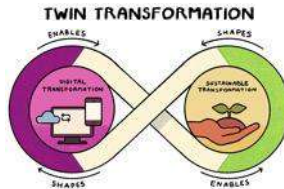


THANK YOU



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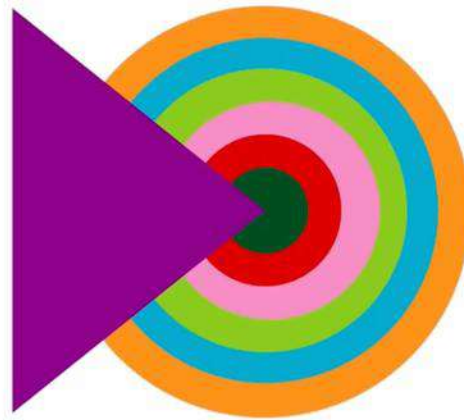
Creating Animated Visual Urban Utopias: Inclusive Urban Development of Phnom Penh



Sokunlanita May

**Co-Founder of Women in
Architecture and Engineering**

lanitamaysokun@gmail.com



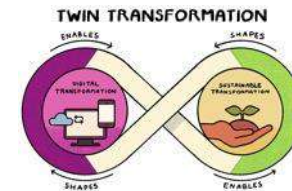
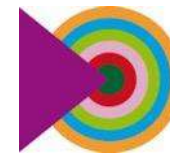
**BUILD4PEOPLE
VISUAL UTOPIAS
INCLUSIVE URBAN
TRANSFORMATION**

<https://build4people.org>



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Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia



Composition of Visual Urban Utopias Working Groups

Mentors



Daro Hor



Vathana Meng

Team #1



Theary Ber



Linda Neal

Team #2



Meng Er Va



Norak Prak

Team #3



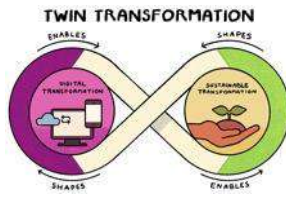
Kimleng Keam



William Cheav

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Creating animated Visual Urban Utopias: Inclusive Urban Development of Phnom Penh

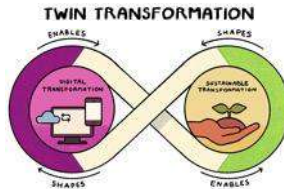


Why is this topic relevant today?

- ❖ Limited public spaces, accessibility barriers, traffic-dominated streets, and urban environments that are not always **inclusive** for women, children, the elderly, or people with disabilities
- ❖ Many urban discussions remain highly technical and are often difficult for the wider public to engage with.

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Software and AI Tools used



Lovart AI



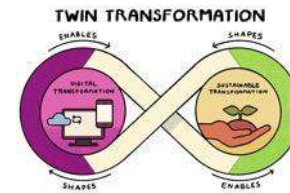
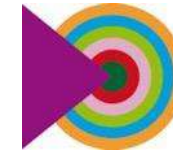
Adobe Photoshop



Adobe Premiere pro

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Visual Urban Utopias

Concept Brief

Central Market for All

(Site next to Phnom Penh Central Market)

Our concept aims to promote walking by prioritizing pedestrians, particularly when crossing the road by the introduction of an elevated crosswalk that functions both as a speed bump and an accessible path for people with physical disabilities.

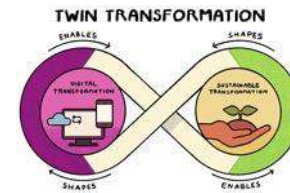
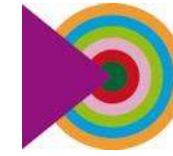
Other measures suggest fixing the market stalls with a material that retains less heat and installing solar panels to improve energy efficiency.

Finally, it is suggested to replace some parking spaces with green space and trees to reduce heat on the street and to orient the space for pedestrians rather than cars.



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Visual Urban Utopias

Concept Brief

Reconnecting Pedestrians to Wat Phnom Park Improving Pedestrian Access to Wat Phnom

Wat Phnom is one of Phnom Penh's most important cultural and public landmarks, attracting both locals and tourists. However, the surrounding roundabout creates difficulties for pedestrians trying to access the park. Narrow sidewalks, tree obstructions, informal parking, and the lack of safe pedestrian crossings make the area uncomfortable and unsafe for visitors.

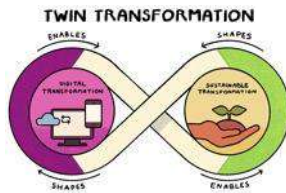
This proposal focuses on improving pedestrian safety, accessibility, and overall public space quality around the roundabout. The design introduces a raised pedestrian crossing, wider sidewalks, accessible tree grates, and small urban amenities such as benches and waste bins.

By reorganizing the pedestrian space and improving accessibility, the proposal aims to reconnect people to Wat Phnom Park and create a safer, more welcoming environment for all users.



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Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia



Visual Urban Utopias

Concept Brief

Revitalizing Heritage through Public Space (Site in front of Phnom Penh Post Office)

This project revitalizes the site by transforming it into an inclusive, culturally vibrant, and sustainable public space that reconnects people with local heritage.

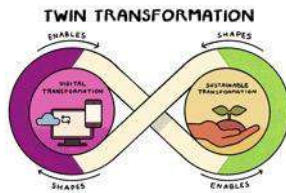
The design introduces barrier-free pedestrian paths, safe crossings, shaded seating areas, and flexible open spaces to support community gatherings, cultural events, and everyday public activities. A designated tuk-tuk and cyclo station helps organize mobility and reduce congestion, while the possibility of weekend pedestrian-only streets encourages a more walkable and livelier environment.

Landscape strategies such as shade trees, permeable paving, At the same time, the design highlights the site's identity through clear views of the historic façade, heritage storytelling panels, and outdoor exhibitions, creating a public space that celebrates Phnom Penh's history and community life.



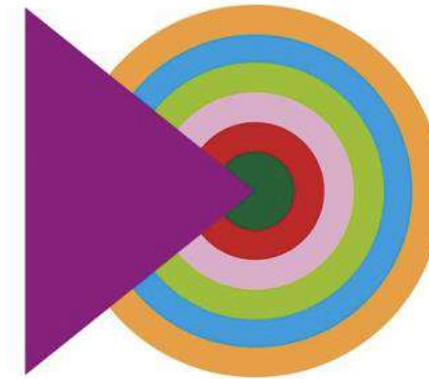
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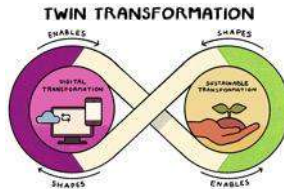
Way Forward (first ideas)

- Visual Utopias as starting point of awareness rising of inclusive design to a wider public
- Future Visual Utopias should focus more on the aspirations of specific target groups (e.g. women, the elderly, children, people with disabilities)
- Further refined Visual Utopias clips might be exhibited at the Phnom Penh Smart City Hub
- Making use of synergies with the RUPP-B4P Citizen Science APP (?)



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Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia



The Role of the RUPP-B4P Citizen Science APP to Grasp Urban Climate Data and to Support Digital Simulations

Dr Bunleng Se

Assistant Professor at the Royal University of Phnom Penh



Bunleng Se



with support from:



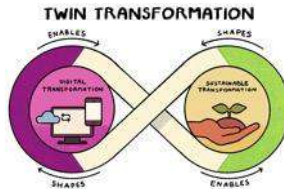
Neele Worthmann



Anke Blöbaum

Build4People Project

Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia



Working group composition



Bunleng
Se



Nyda
Chhinh



SOK
SOVANN



CHHOM KOEMSAN



KHOUN SOKEA



YA CHANKIM



KHUN SOKRAKSA



PHAE NARY



PHOIS SREYNY



KHIEV SOTHEA



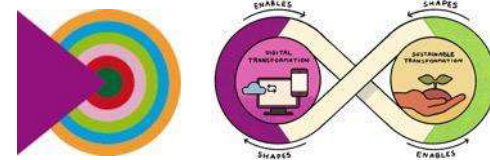
HOM NARIN



THENG SENGOIN

Build4People Project

Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia



Introduction to the use of the RUPP-B4P Citizen Science App linking objective urban climate data with subjective data of thermal comfort

The Build4People (B4P) project advocates for more sustainable people-led urban development in Phnom Penh and is funded by the German Federal Ministry of Education and Research (BMBF)

RUPP-B4P Citizen Science APP

Welcome to the RUPP-B4P Citizen Science APP!

Get Started

The Build4People (B4P) project advocates for more sustainable people-led urban development in Phnom Penh and is funded by the German Federal Ministry of Education and Research (BMBF)

RUPP-B4P Thermal Comfort APP

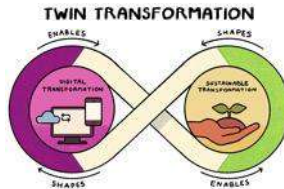
Welcome to the RUPP-B4P Thermal Comfort APP!

Get Started

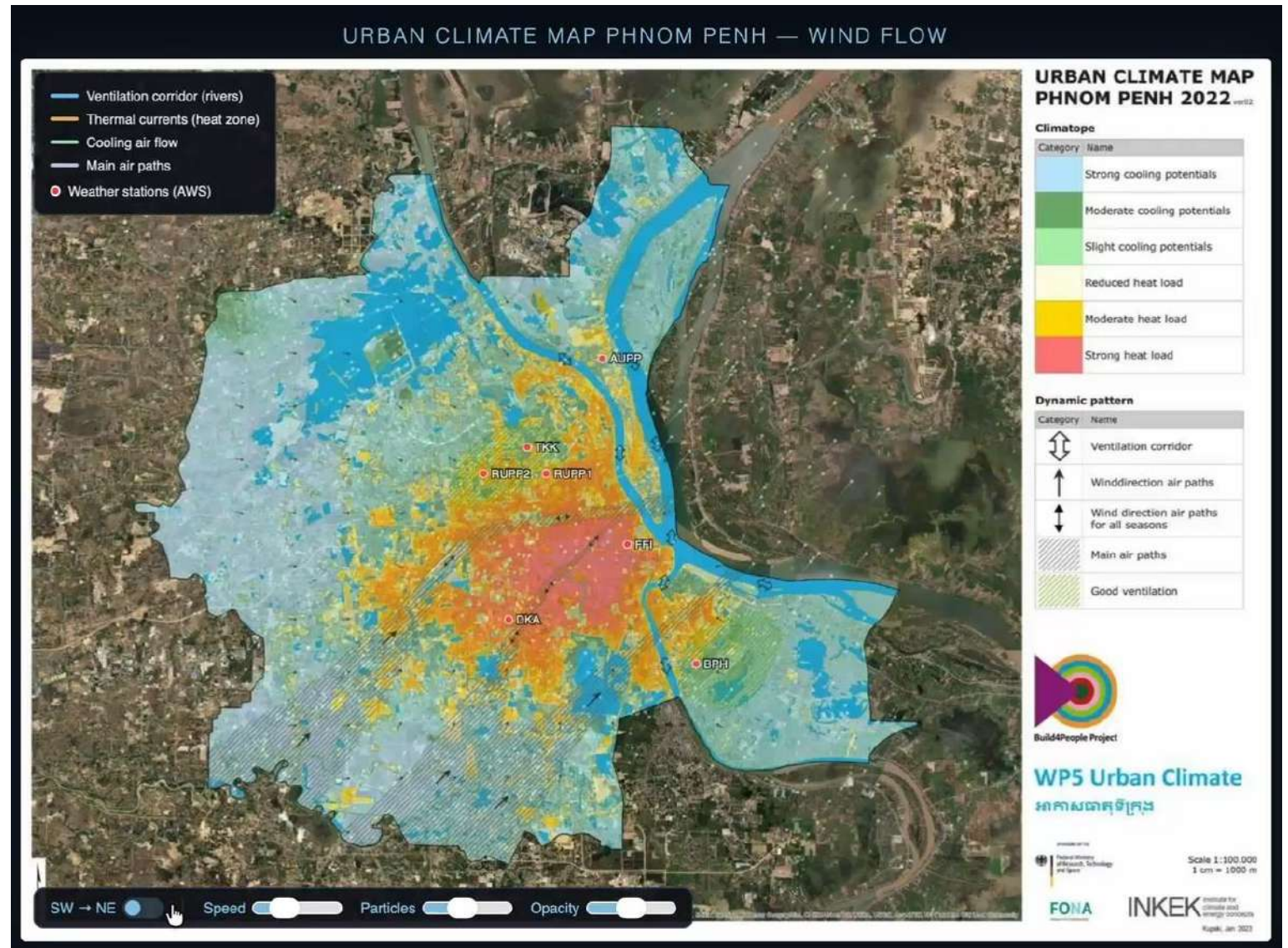


Build4People Project

Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia

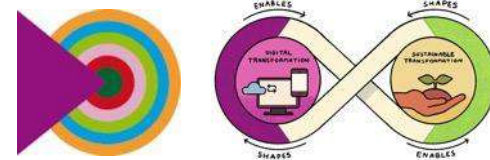


❖ Characteristics of meso-scale of Southwesterly and Northeasterly wind



Build4People Project

Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia



Measurements at Borey Peng Houth (Boeung Snor)

- Measurement of *objective* data
*Testo 810, Thermo-Anemometer
Mini-Temperature-
Humidity Meter*



- Measurement of *subjective* data
via RUPP-B4P
Thermal Comfort
APP



The Build4People (B4P) project advocates for more sustainable people-led urban development in Phnom Penh and is funded by the German Federal Ministry of Education and Research (BMBF)

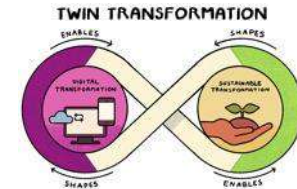
**RUPP-B4P
Thermal Comfort APP**

Welcome to the
RUPP-B4P
Thermal Comfort APP!

Get Started

Build4People Project

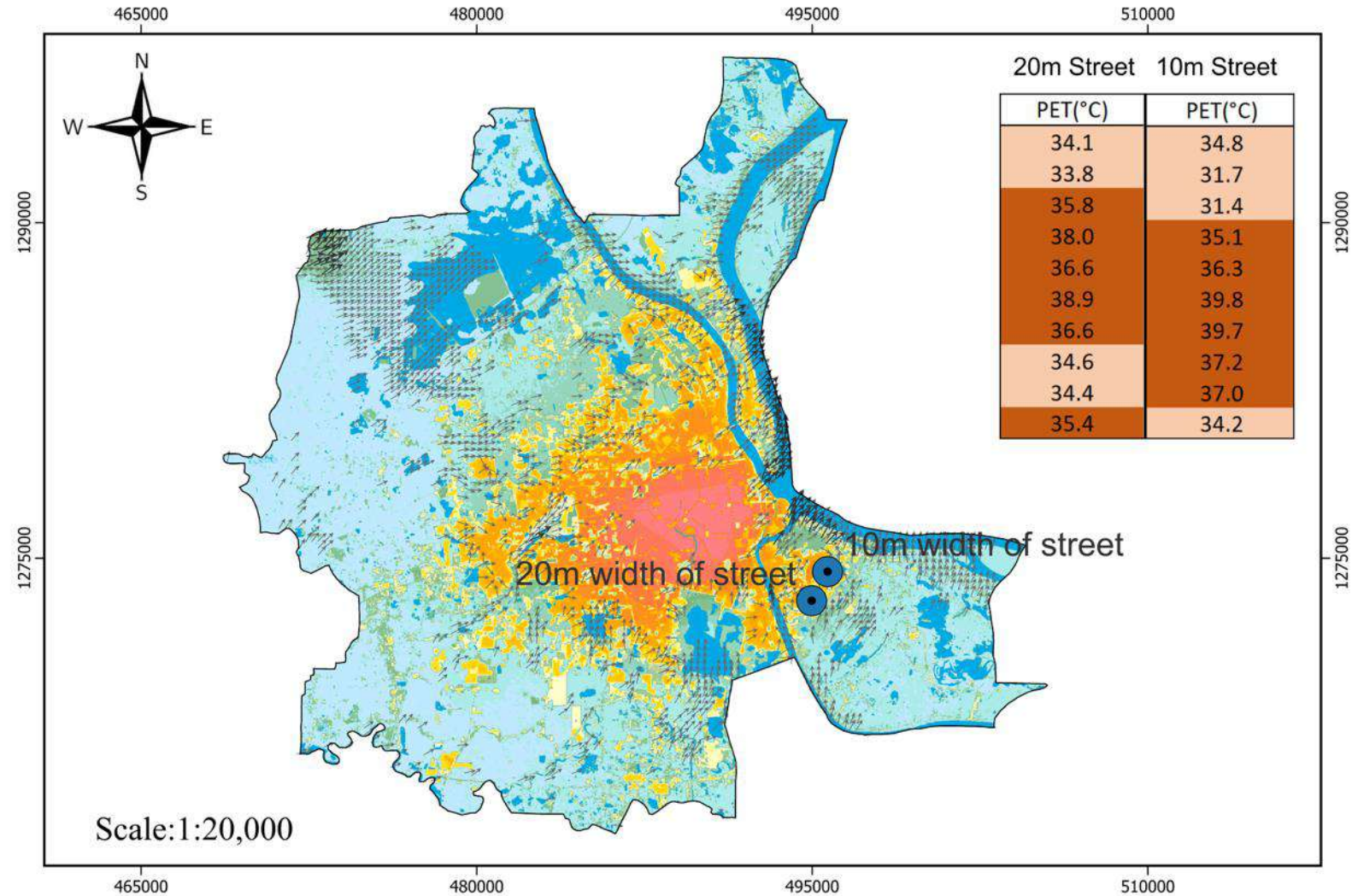
Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia



Urban climate Map of Phnom Penh

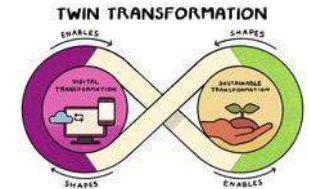
Results:

- ❖ Meso-Climature
- ❖ PET (Physiologically Equivalent Temperature)



Build4People Project

Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia



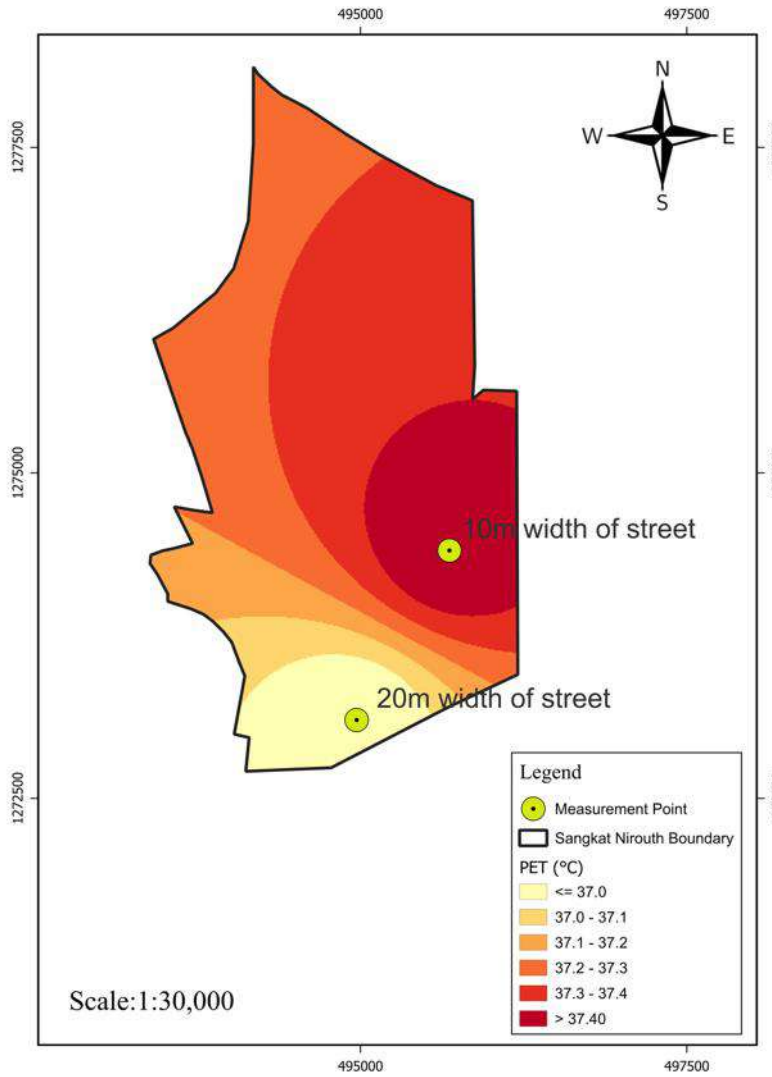
Results:

❖ Micro-climate at Nirouth Commune:

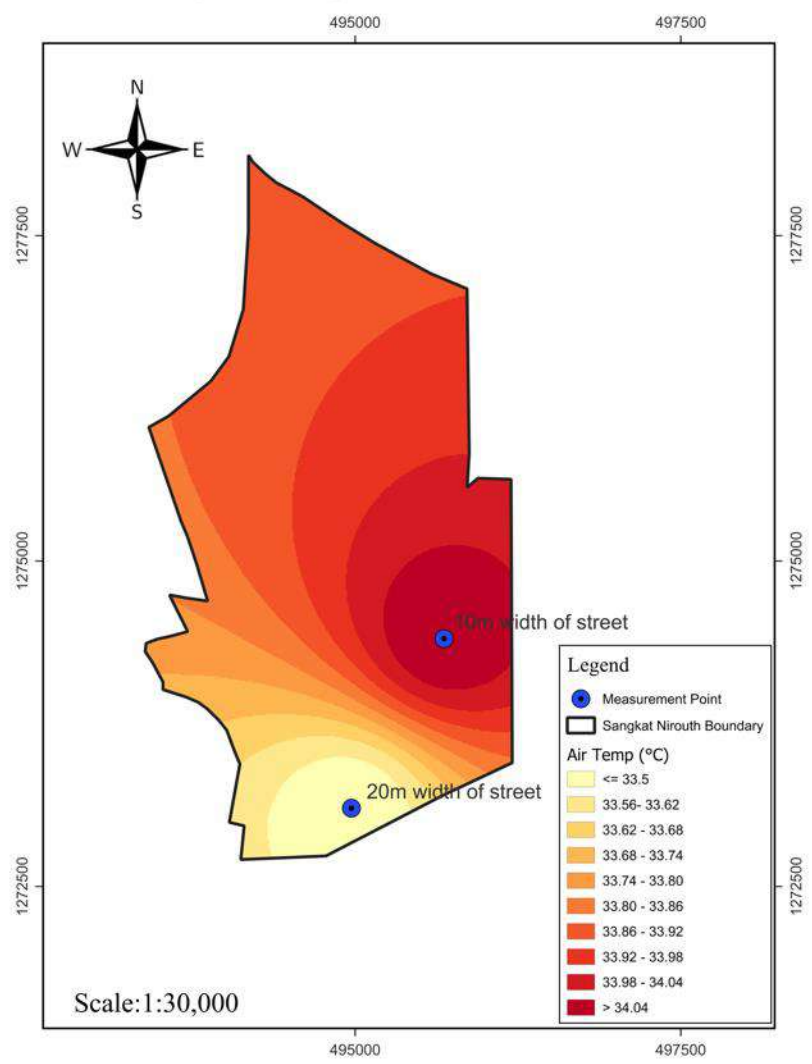
- Air temperature
- PET

No	Parameters	10m Street	20m Street
1	Surface temp.	42.7°C	45.2°C
2	Air temp.	34.1°C	34.3°C
3	Humidity	60.90%	62.90%
4	Wind speed	1.3 m/s	1.1 m/s

Average Physiologically Equivalent Temperature



Average Air Temperature on 01 March 2026



Build4People Project

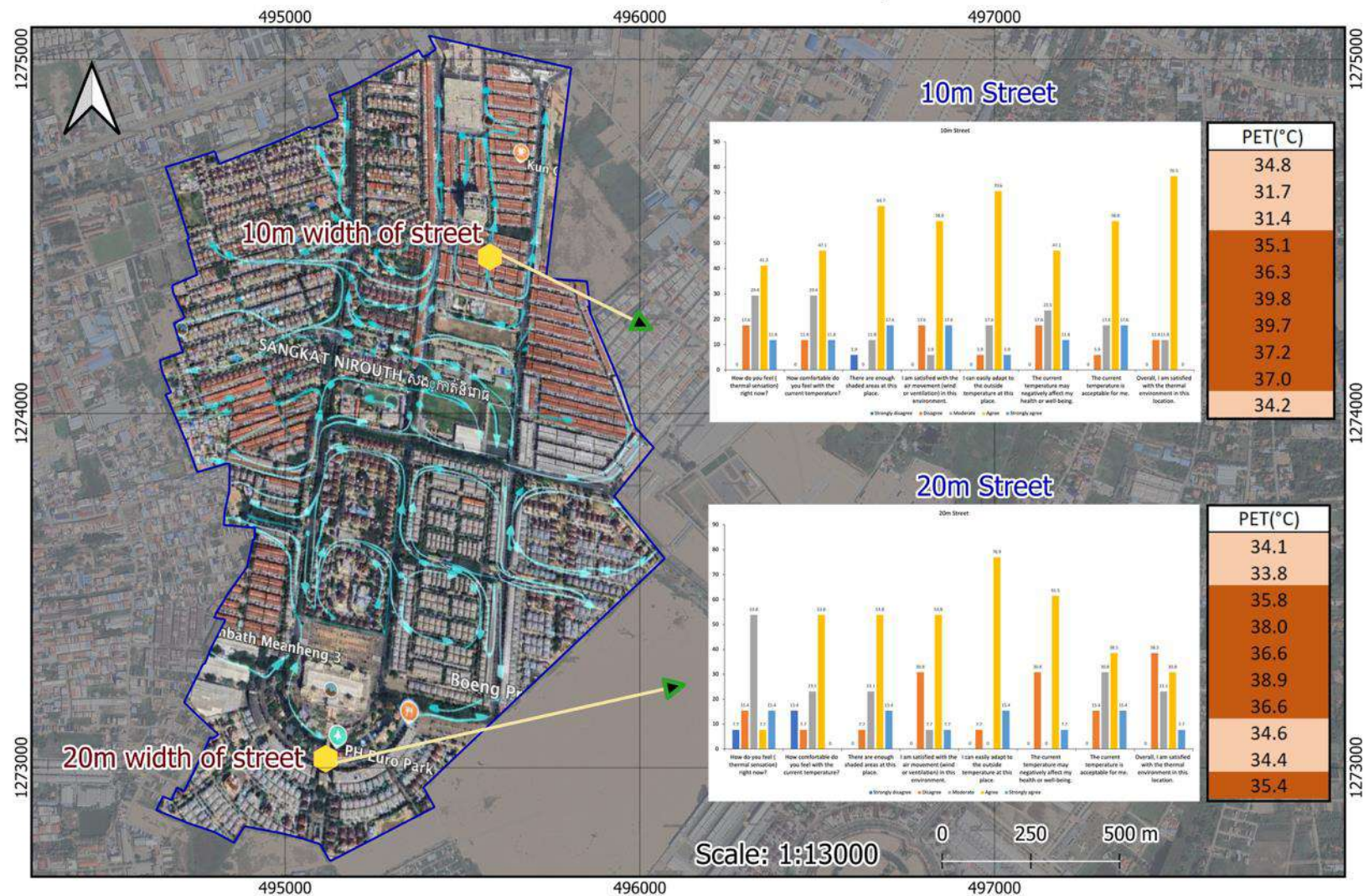
Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia



Micro-Ventilation Map

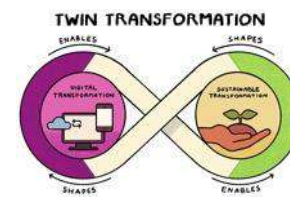
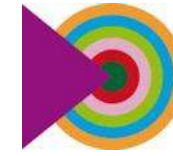
Results:

- ❖ **Micro-ventilation at Borey Peng Huoth (បុរី ប៉េង ហួត)**
- RUPP-B4P Thermal Comfort App was used to collect **subjective data**
- Micro-climate equipment was used to collect **objective data**



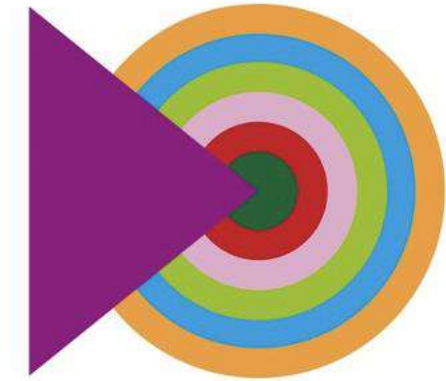
Build4People Project

Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia



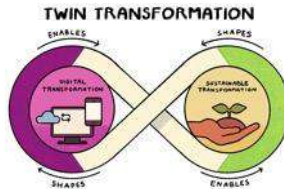
Way Forward (first ideas)

- The RUPP-B4P CS APP can develop into a key tool to grasp urban climate by adding subjective data to objective data
- Empirical analysis at Borey Peng Huoth shows that the character of the built environment directly influences the urban climate
- Future construction activities at Mekong Quay must pay regard to local ventilation corridors to secure fresh air flows
- The time until the 2nd B4P Transition Manufactory will be used to further analyse the climate impact of Mekong Quay

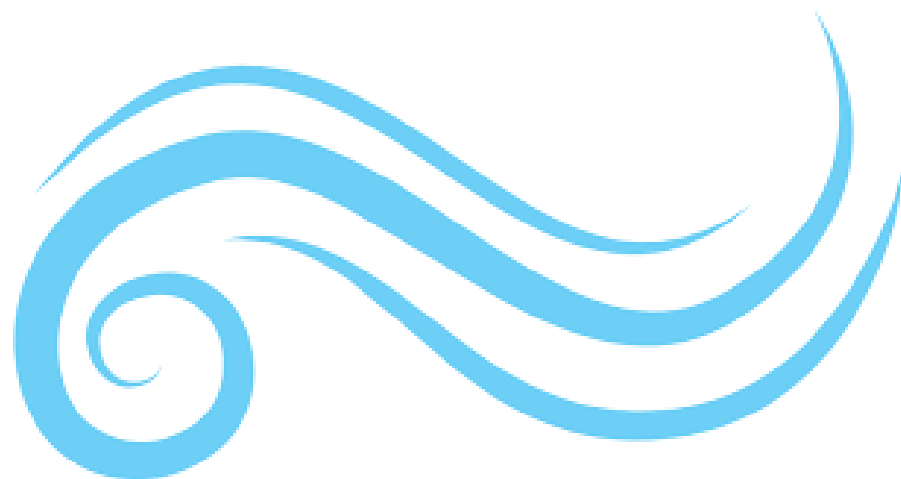


Build4People Project

Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia

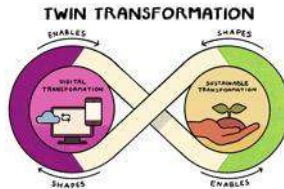


THANK YOU



Build4People Project

Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia



Sustainable Urban Design for Mekong Quay

Eble Messerschmidt Partners - Architects & Urban Designer, Sustainability Consultants

Creative Director, landscape architect and urban designer OMGEVING



Rolf Messerschmidt



Selina Thomas



Marcelo Rivera



Steven Petit

Technical University of Dresden - Laboratory of Knowledge Architecture

with support from our Cambodian University Partners:



Anja Jannack



Sebastian Wiesenhütter



Tep Makathy



Tola Mach



Phanin Cheam



STUDENTS DESIGN WORKSHOP

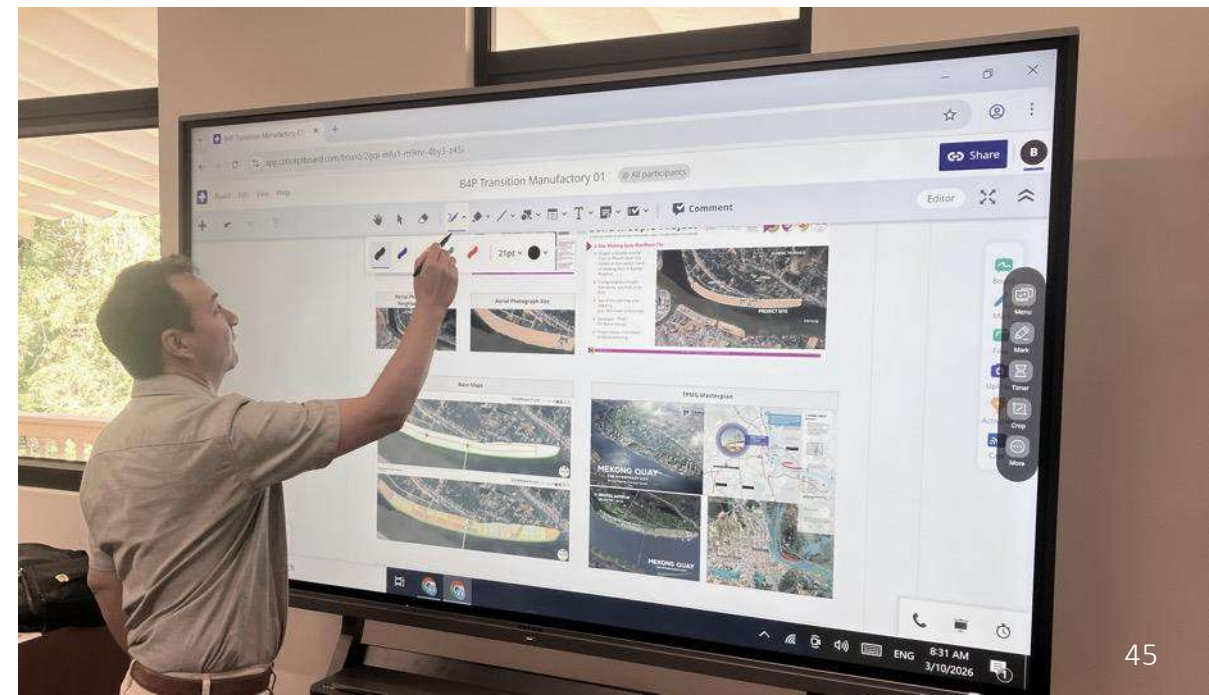
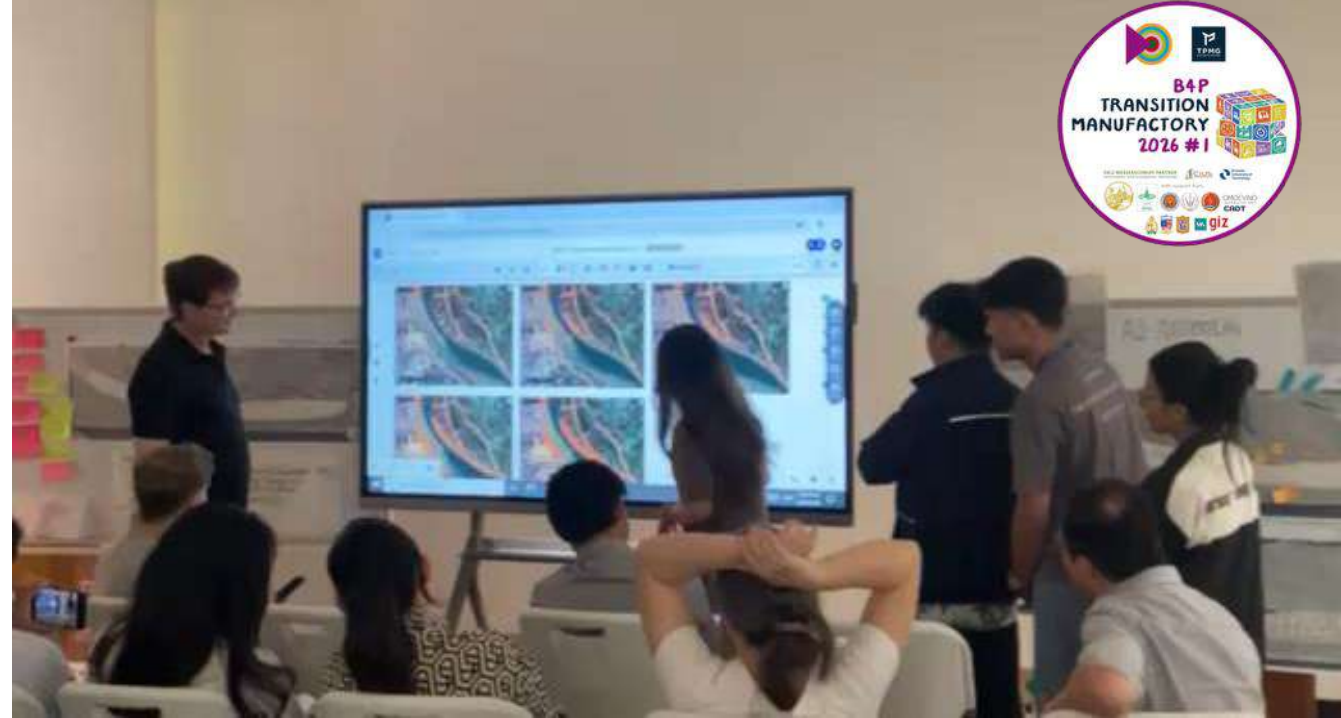
Student Participants

from the following institutions: RUFA, NU, RUPP, Western, Norton

Ber Theary | But Liza | Cheav William | Chheng Chharith | Chhom Koemsan | Chhorn Inchhy | Chhuon Chanmolika | Chren Sophearith | Chum Phalla | Han Panhaleak | Hay Bunhong | Heng Vatnak | Hoeun Rina | Ho Phingkhun | Hom Narin | Hor Daro | Horn Panha | Ing Visotthun | Keam Kimleng | Khiev Panchakpor | Khiev Sothea | Khy Pichsereyvathanak | Khoun Sokea | Khun Sokraksa | Kong Lyhour | Kul Socheata | Lach Sovanna | Leng Sothea | Meng Vathana | Morn Dane | Neal Linda | Nun Bunneit | Pech Dungchansovankeota | Phae Nary | Phai Sophanna | Phan Phantana | Phois Sreyny | Phon Seaklang | Phoir Sreyny | Pich Sokunthak | Poch GhekChay | Prak Norak | Prom Kanika | Sam Sotheara | Savoeun Chanvottey | Seath Piseth | Seth Reaksmey | Sim Manikathamary | Soeun Sokchetra | Sok Chanbormey | Sok Sovann | Song Kimleangchhay | Sophy Savady | Sorn Pheakdey | Sota Lisa | Sun Lyhor | Taing Hayleng | Thach Kim Young | Theng Sengoin | Thoung Kimheang | Tren Rathyrathanak | Va Meng Er | Van Rothanita | Vuthy Chanpiseth | Ya Chankim | Yim Sopheak



STUDENT WORKING GROUPS TEAMWORK



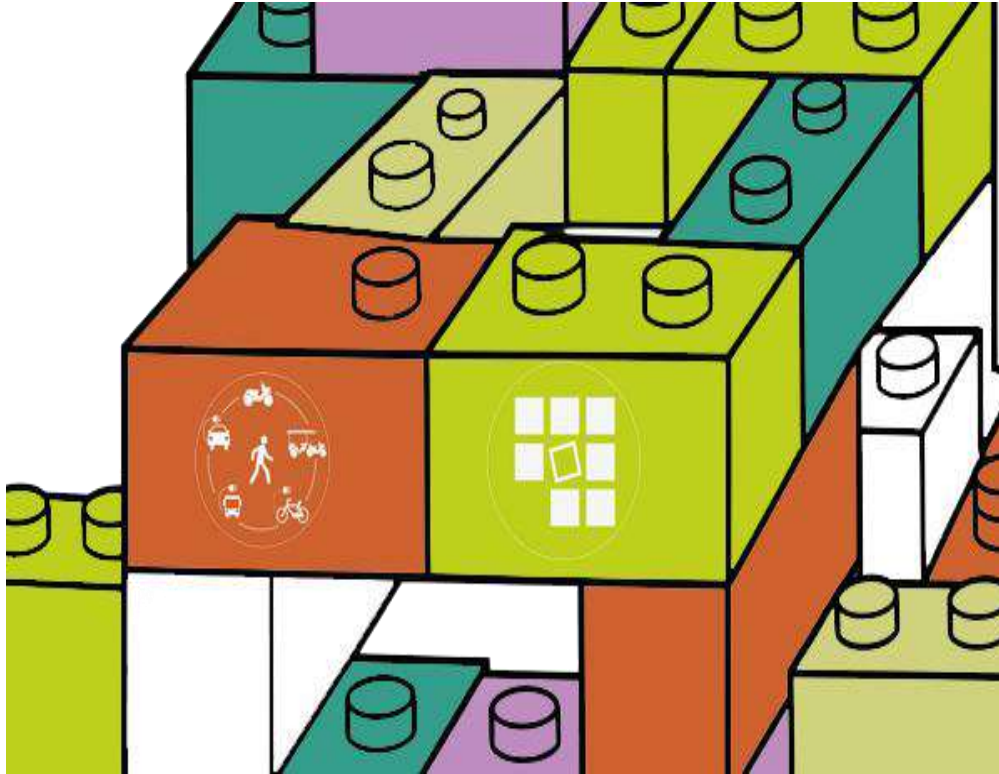




Blocks4US

Blocks Built Based on Human Movement,
Nature, and Community

WORKING GROUP A2
Blocks4US



“Just like building BLOCKS, we start from the foundation. By combining neighborhoods, blue & green systems, and sustainable mobility, we build the city for US piece by piece.”



INTEGRATED
URBAN DESIGN



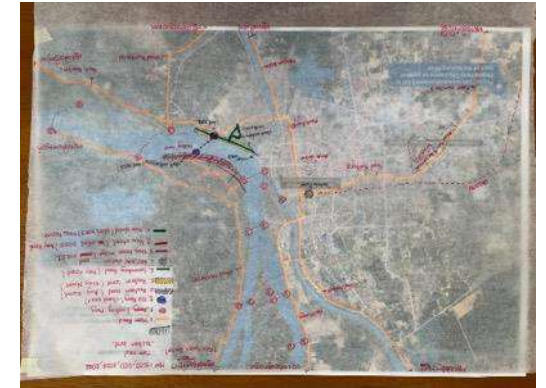
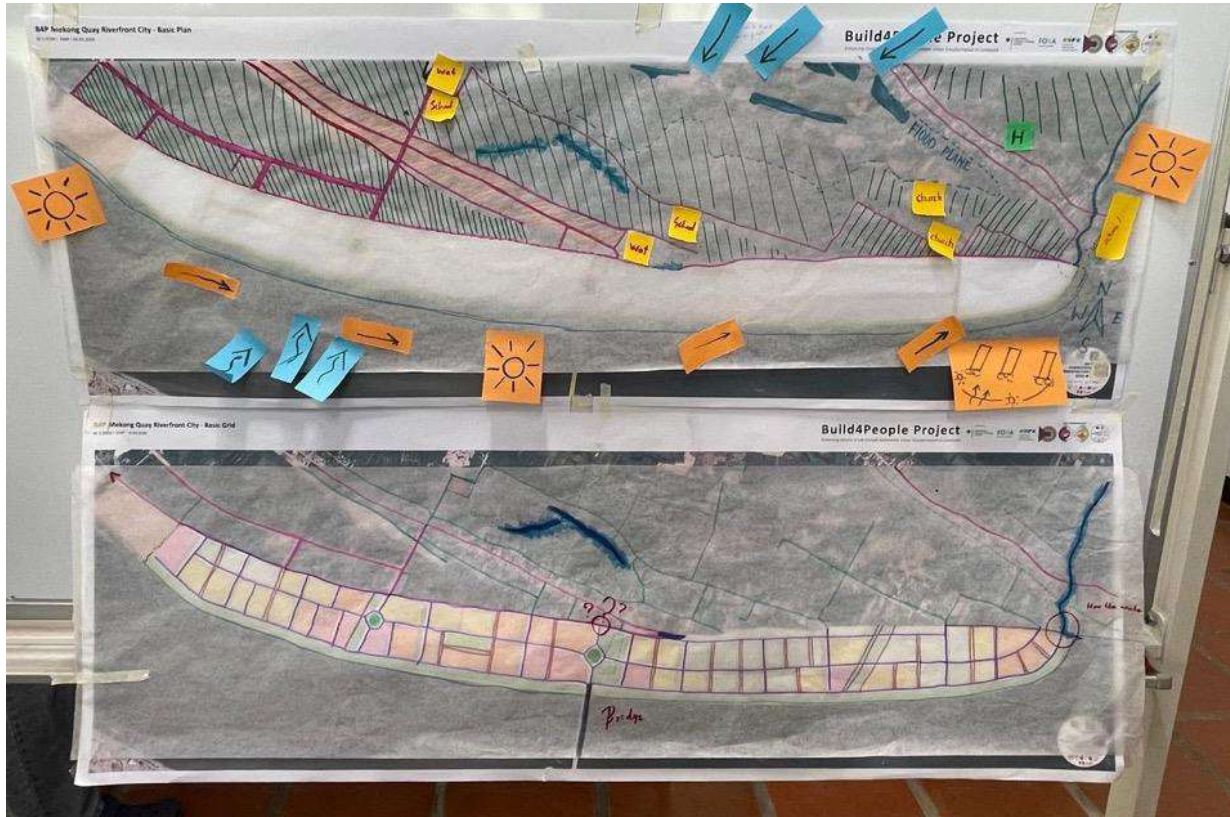
SUSTAINABLE
URBAN MOBILITY



BLUE-GREEN
INFRASTRUCTURE

Blocks Built Based on Human Movement, Nature, and Community

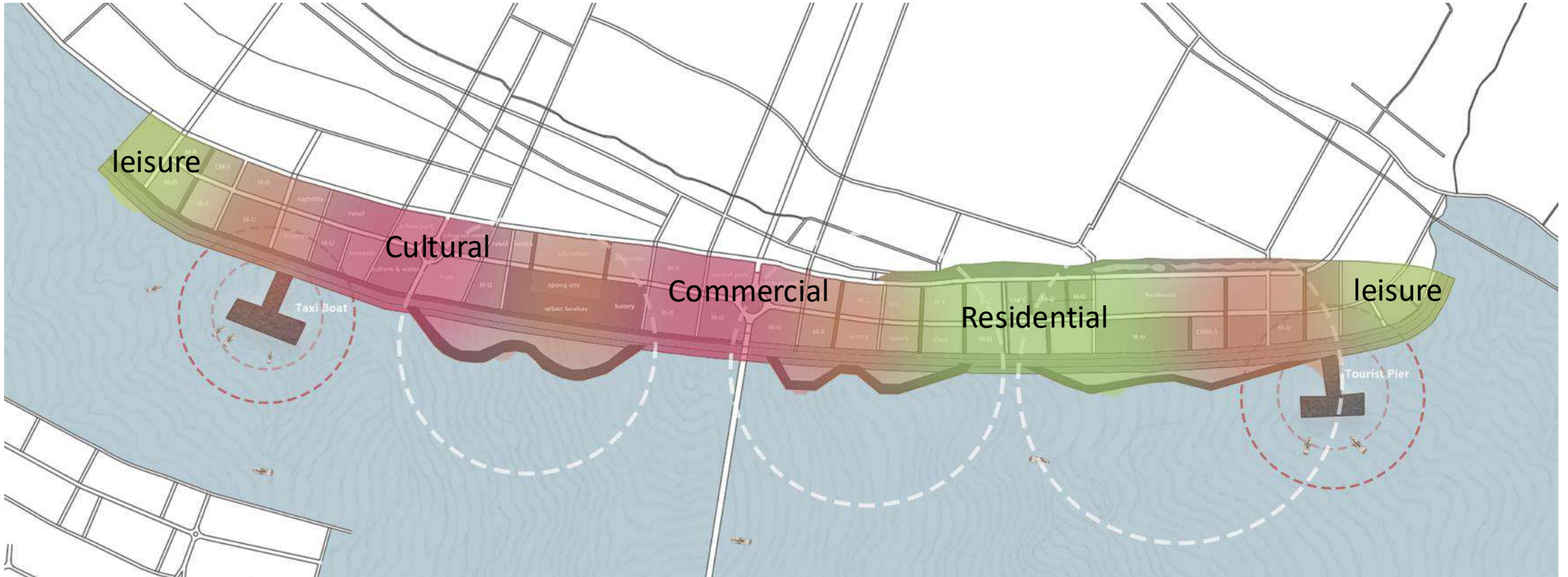
ANALYSIS



Before proceeding to design, we really took our time to understand the site and its context. As it is a crucial part in making sure the masterplan is looked at from different angles.

Blocks Built Based on Human Movement, Nature, and Community

WORKING GROUP A2
Blocks4US



With the warmest color showing the most intensive activity that we plan for the function, we try to seamlessly integrate the shift from one zone to the other.

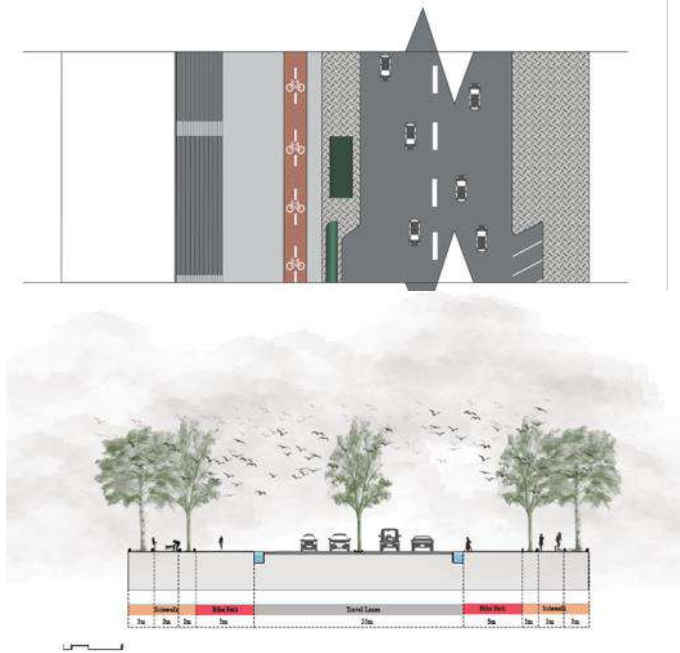
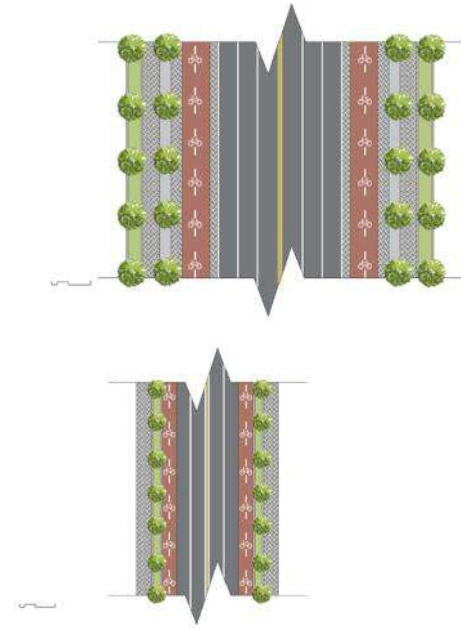
Blocks Built Based on Human Movement, Nature, and Community

ZONING FUNCTION



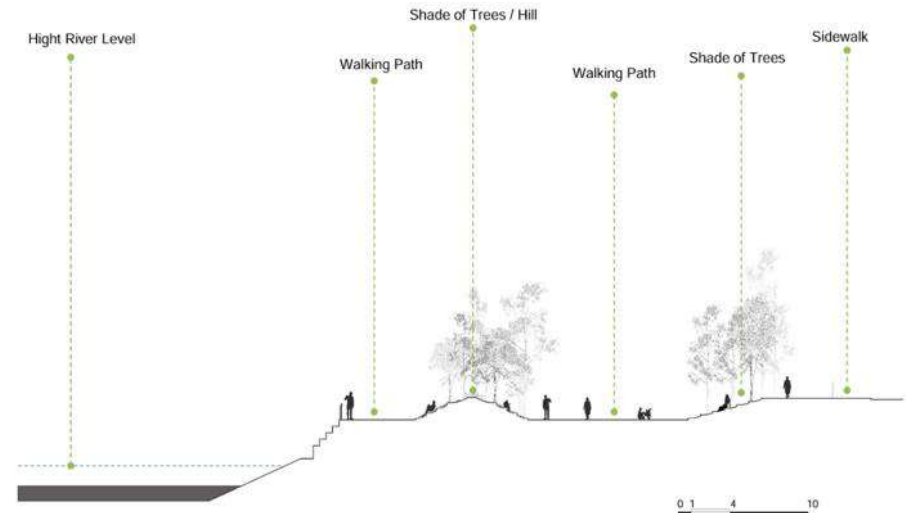
Blocks Built Based on Human Movement, Nature, and Community

ROAD CONNECTION



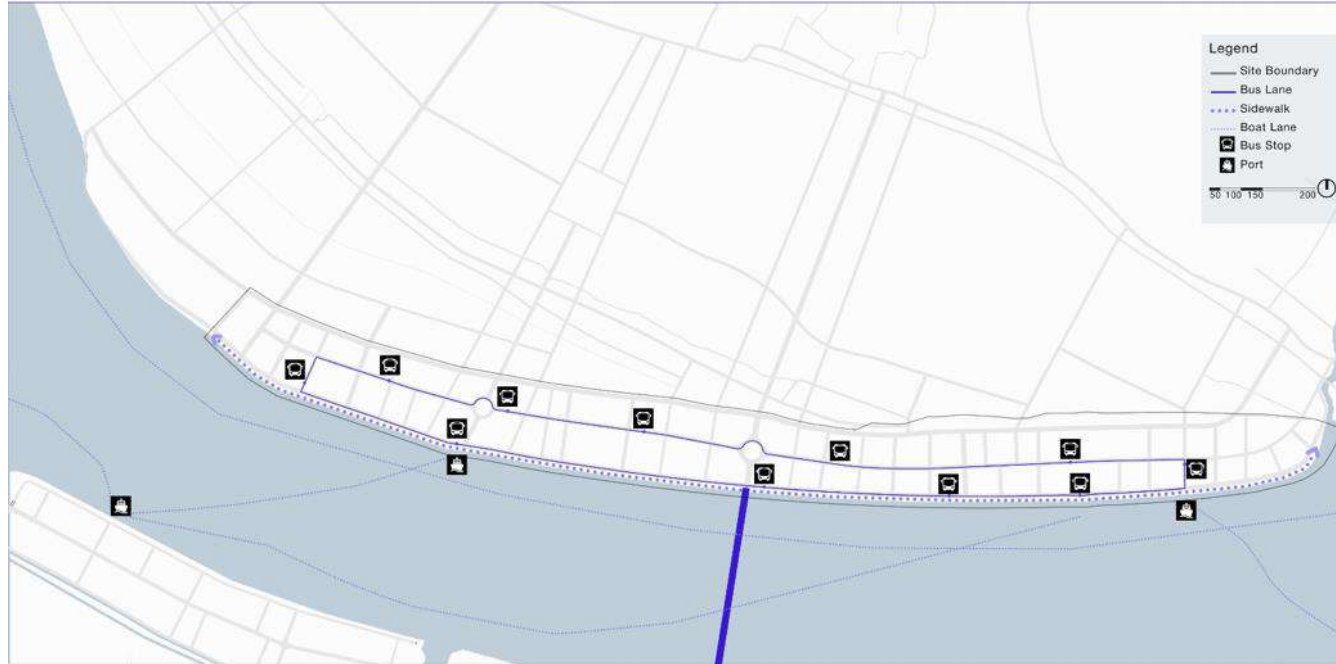
Blocks Built Based on Human Movement, Nature, and Community

BLUE-GREEN INFRASTRUCTURE



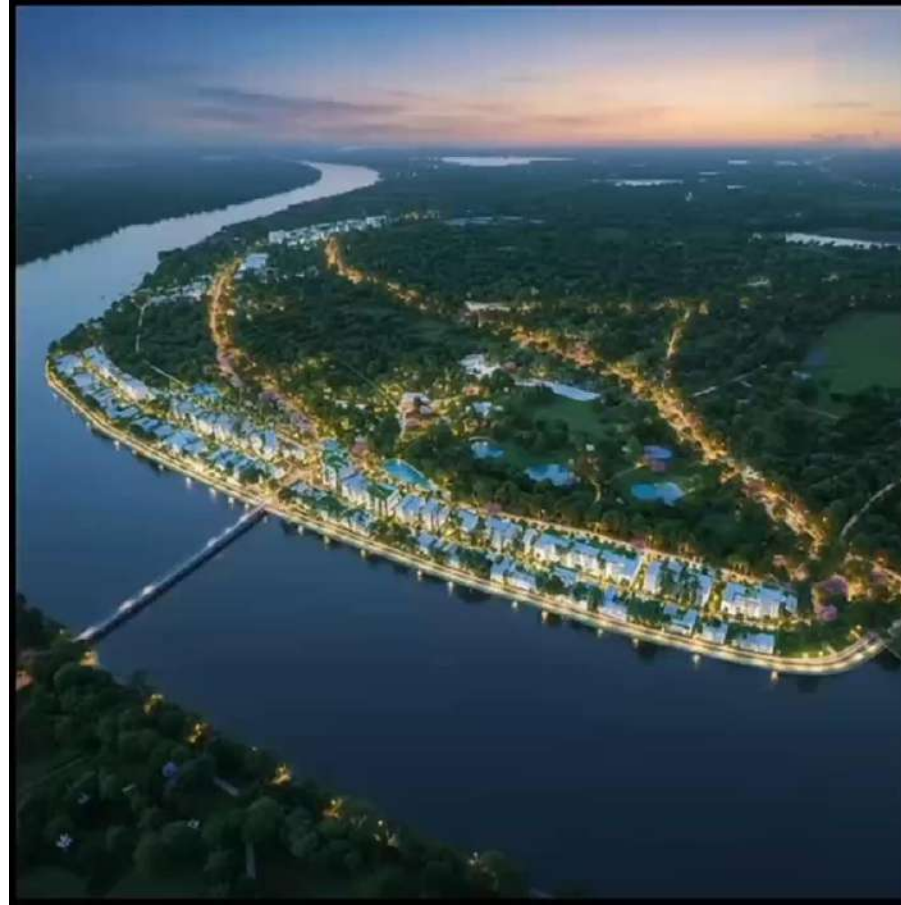
Blocks Built Based on Human Movement, Nature, and Community

MOBILITY CONNECTION



Blocks Built Based on Human Movement, Nature, and Community

ANIMATION



Blocks Built Based on Human Movement, Nature, and Community

HEART OF THE QUAY





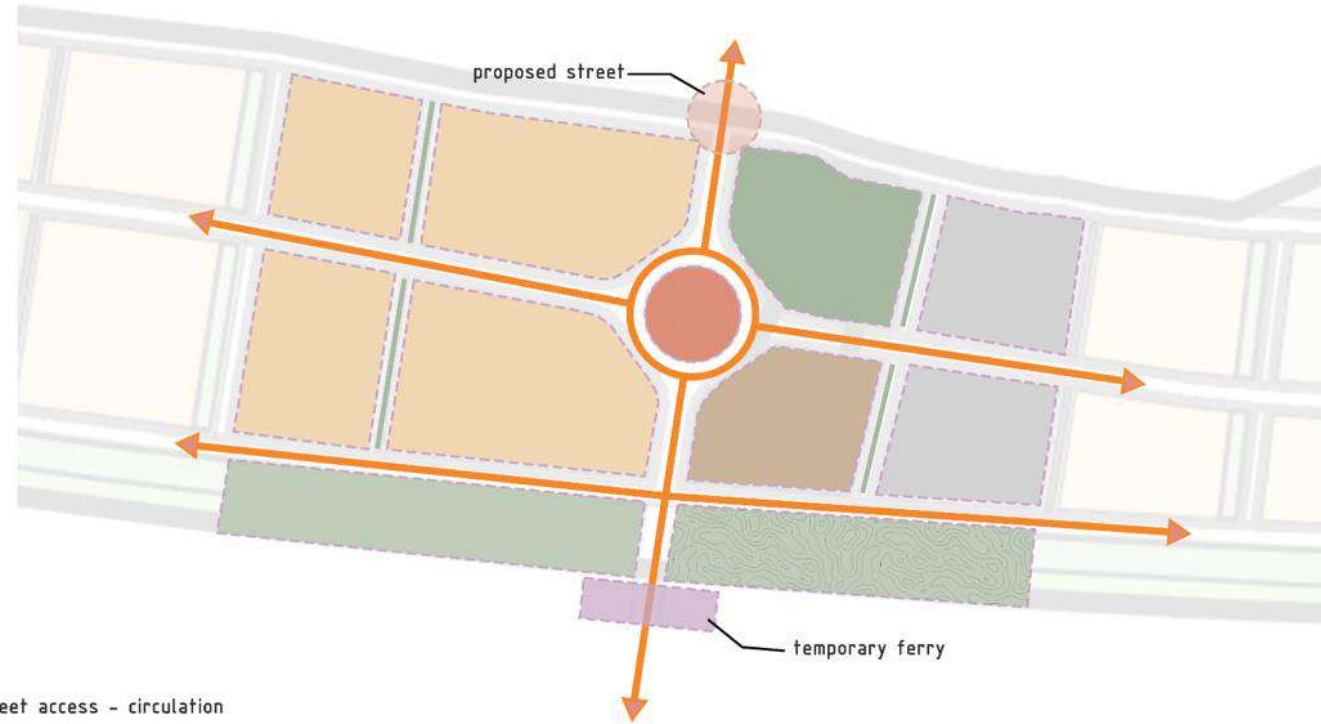
HEART OF THE QUAY

Where Community finds its Flow



HEART OF THE QUAY

AREA SITUATED



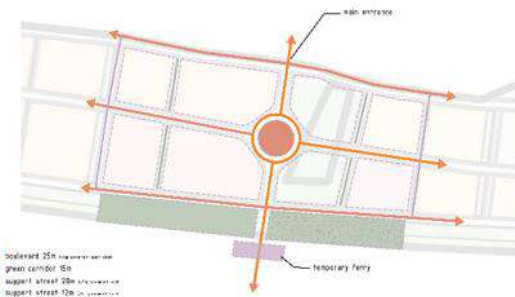
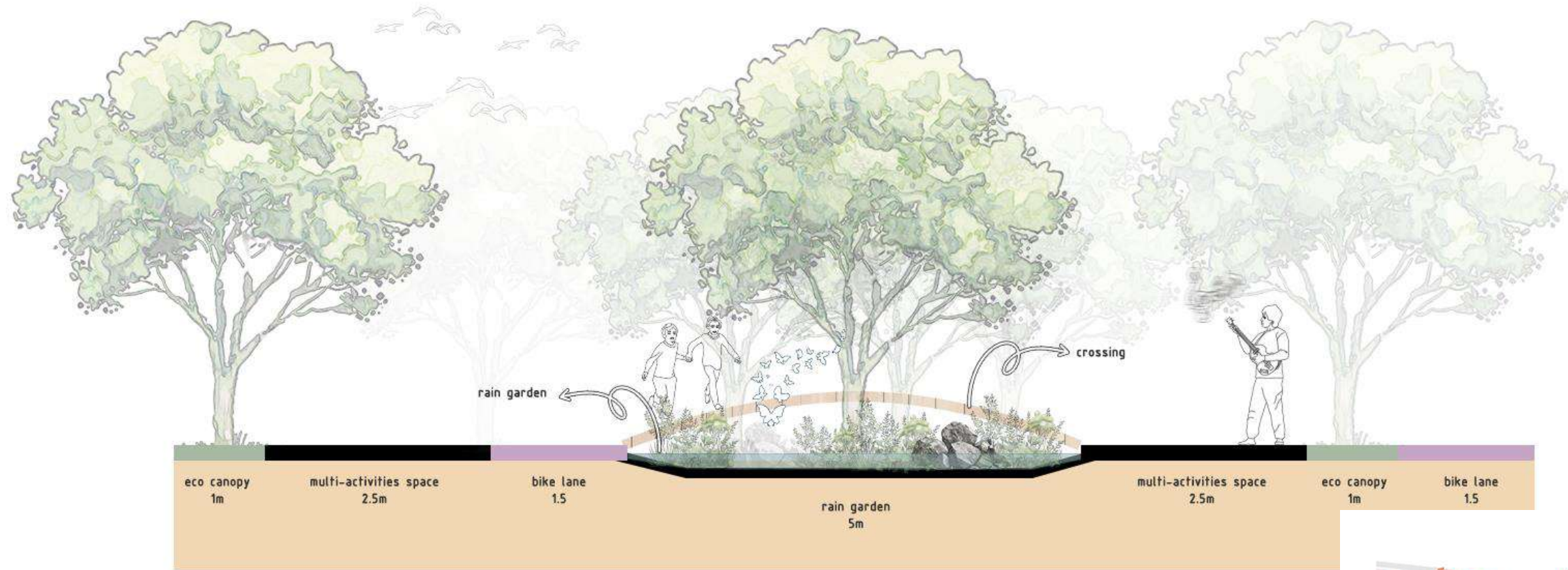
- legend
- street access - circulation
 - central park
 - residential
 - the gallery
 - mix used
 - active space
 - passive space
 - landmark



Where Urban Innovation Meets the River's Edge

HEART OF THE QUAY

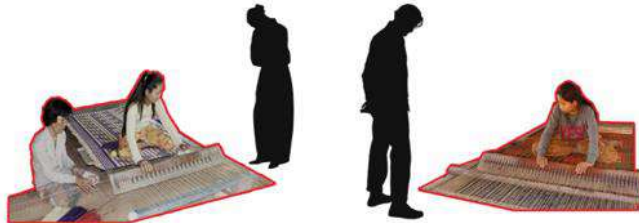
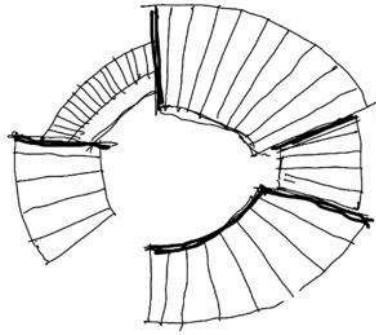
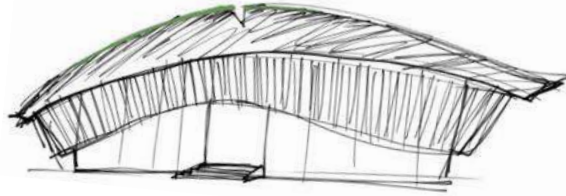
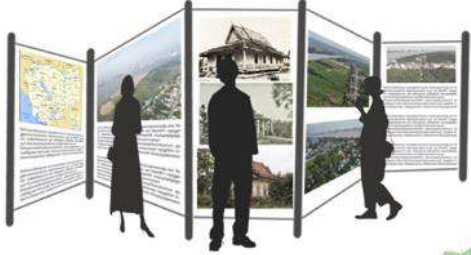
STREET ENVIRONMENT



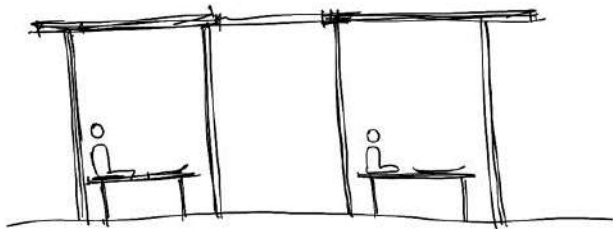
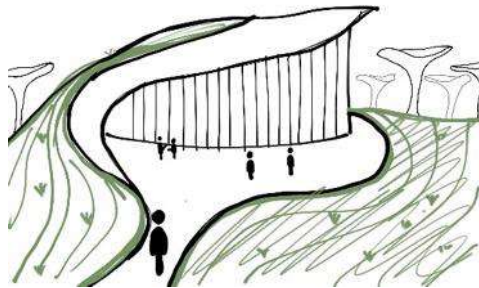
Where Urban Innovation Meets the River's Edge

HEART OF THE QUAY

EXISTING BASED



Galleries



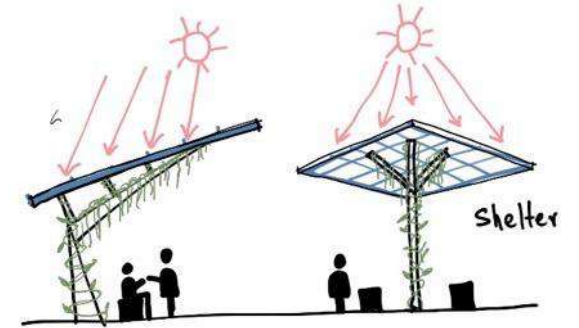
Outdoor Workshop

DESIGN STRATEGY

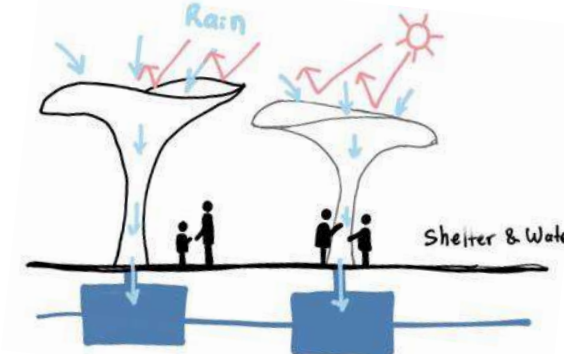


A Trellis

BLUE-GREEN INFRASTRUCTURE



Shelter & Solar Roof



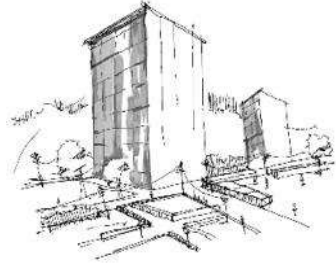
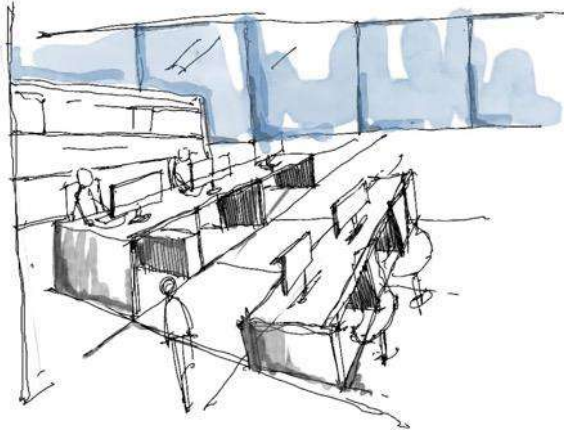
Shelter & Solar Roof



Where Urban Innovation Meets the River's Edge

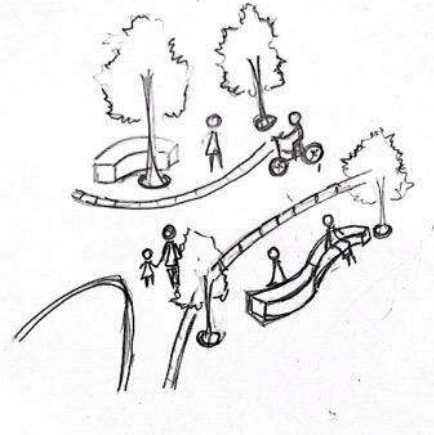
HEART OF THE QUAY

Office Buildings



Mid-rise towers
(6–12 floors)
Ground floor can include
retail or café

Pocket Park

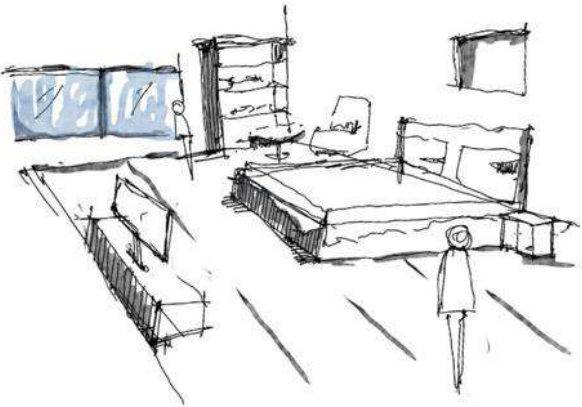


DESIGN STRATEGY

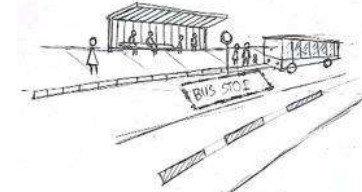
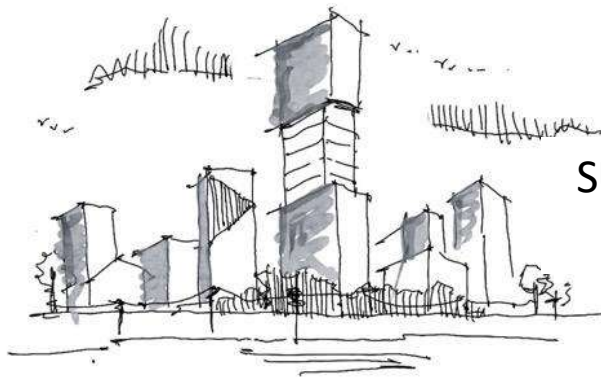
Mall



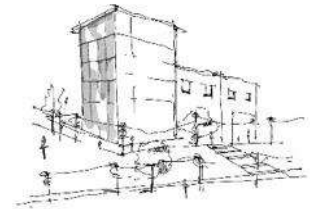
Apartment, Hotel



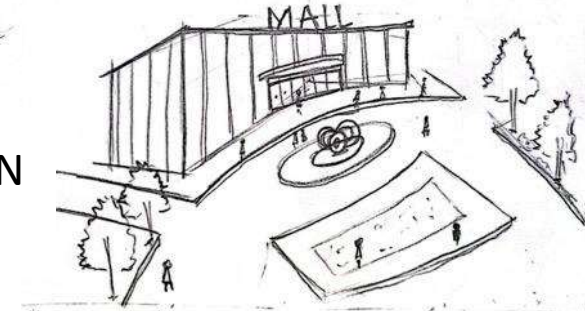
High-rise Building



SUSTAINABLE URBAN MOBILITY



Mid-rise blocks
(5–8 floors)
Small ground-floor shops
optional



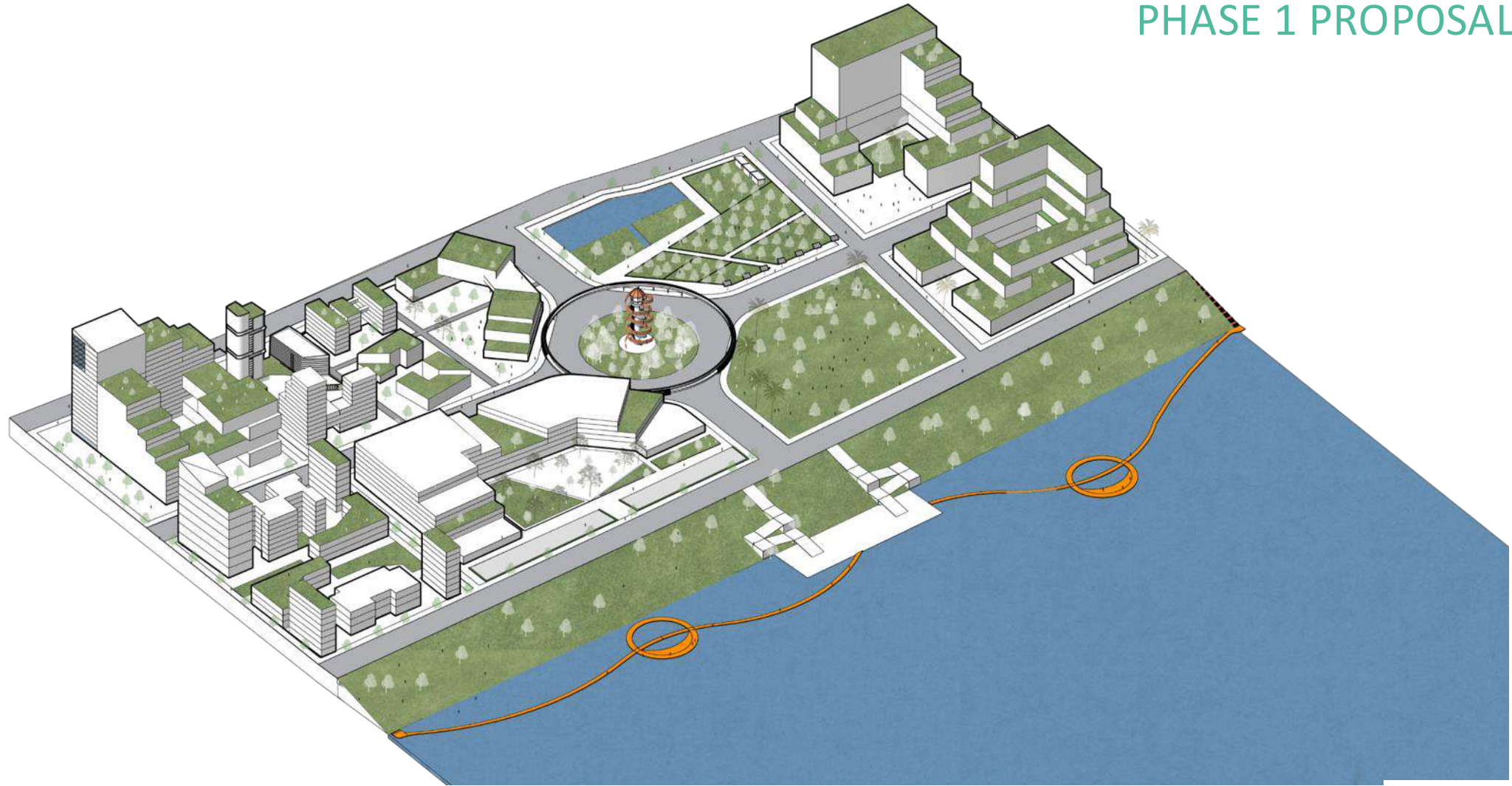
MIXED-USE AREA

Where Urban Innovation Meets the River's Edge



HEART OF THE QUAY

PHASE 1 PROPOSAL

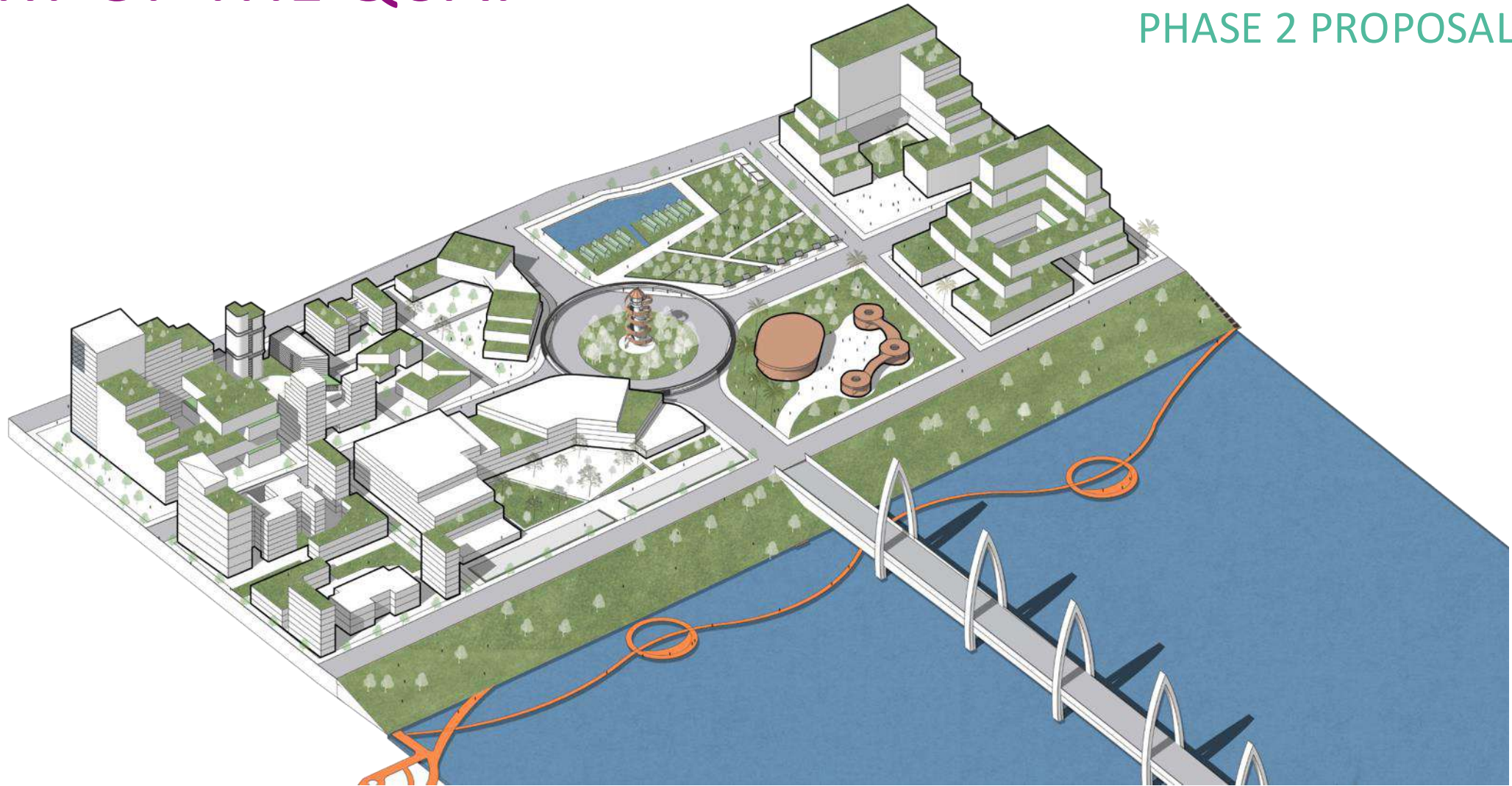


Where Urban Innovation Meets the River's Edge



HEART OF THE QUAY

PHASE 2 PROPOSAL

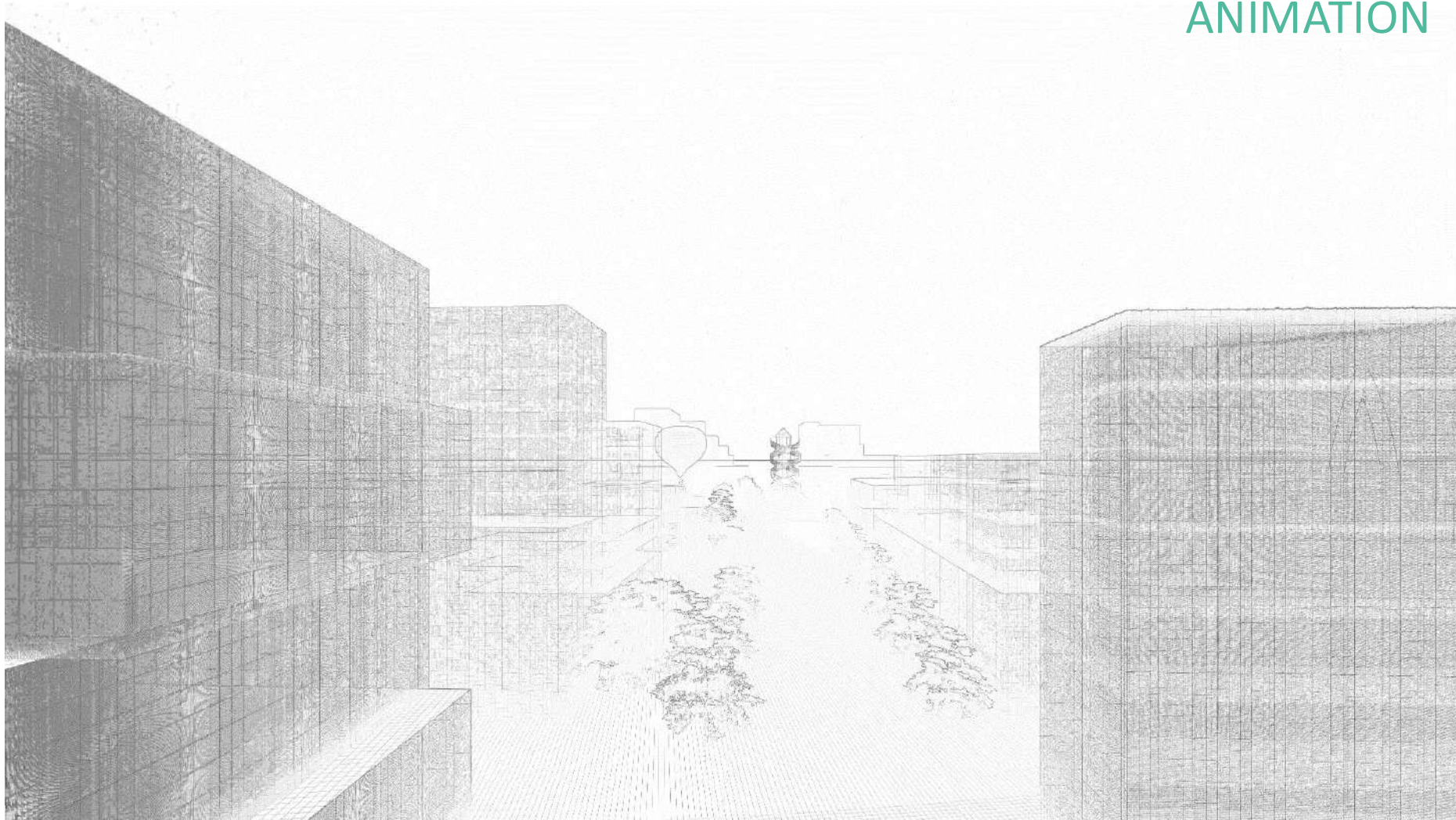


Where Urban Innovation Meets the River's Edge



HEART OF THE QUAY

ANIMATION



Where Urban Innovation Meets the River's Edge





The PULSE OF MEKONG SPIRIT



The Pulse of Mekong Spirit

“Where the river meets spirit and community life.”

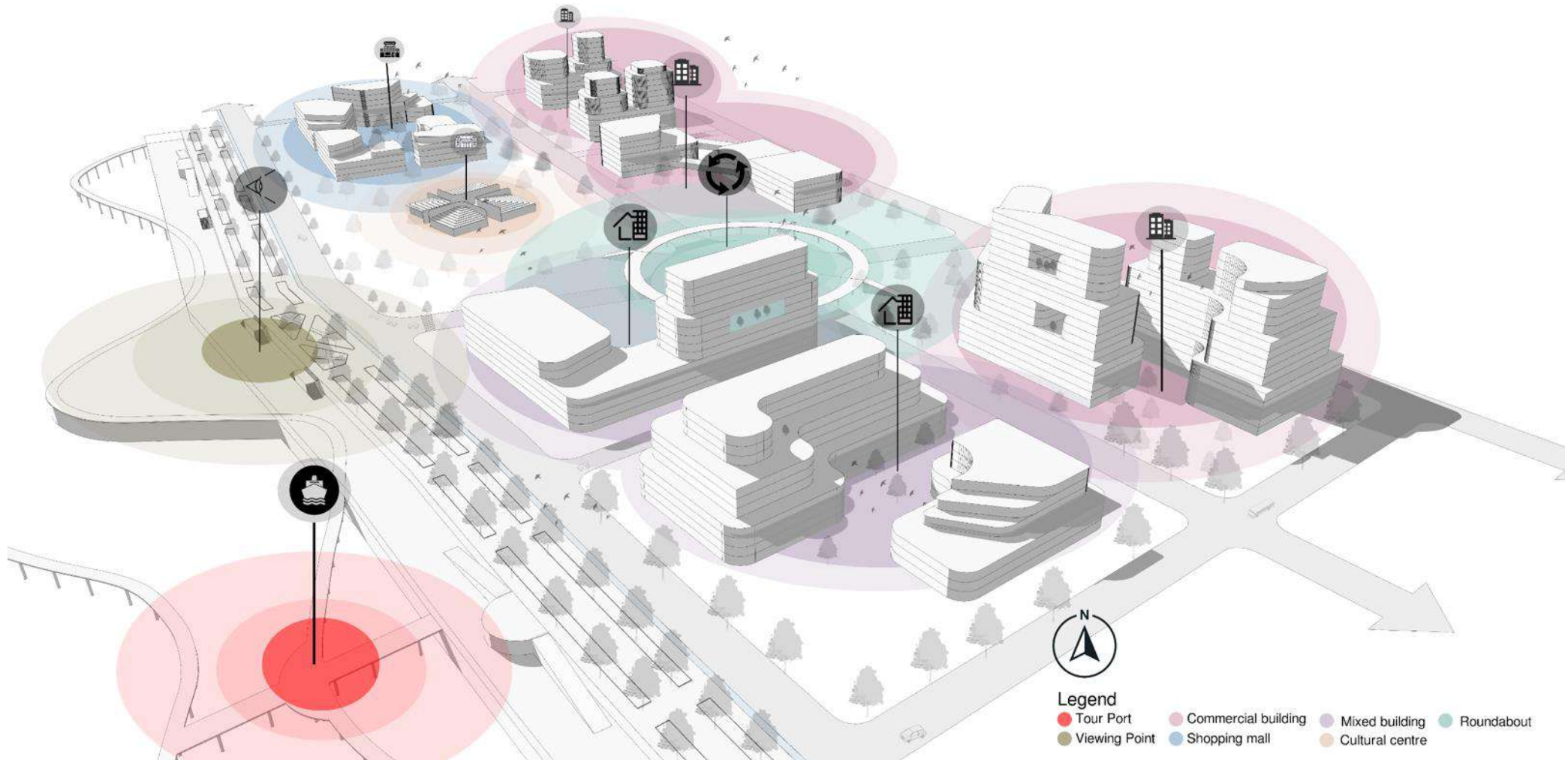
1.) Conserve the Neighborhood

Areysat is a riverside neighborhood located along the Mekong River, just across from Phnom Penh. The area is known for its peaceful environment, local community life, and strong connection to the river. With its natural landscape and cultural atmosphere, Areysat has great potential for spiritual tourism and sustainable riverside development



Pulse of water, pulse of life, pulse of spirit

2.) Zoning Diagram



Pulse of water, pulse of life, pulse of spirit

3.) Conceptual Strategy

Strategy Key

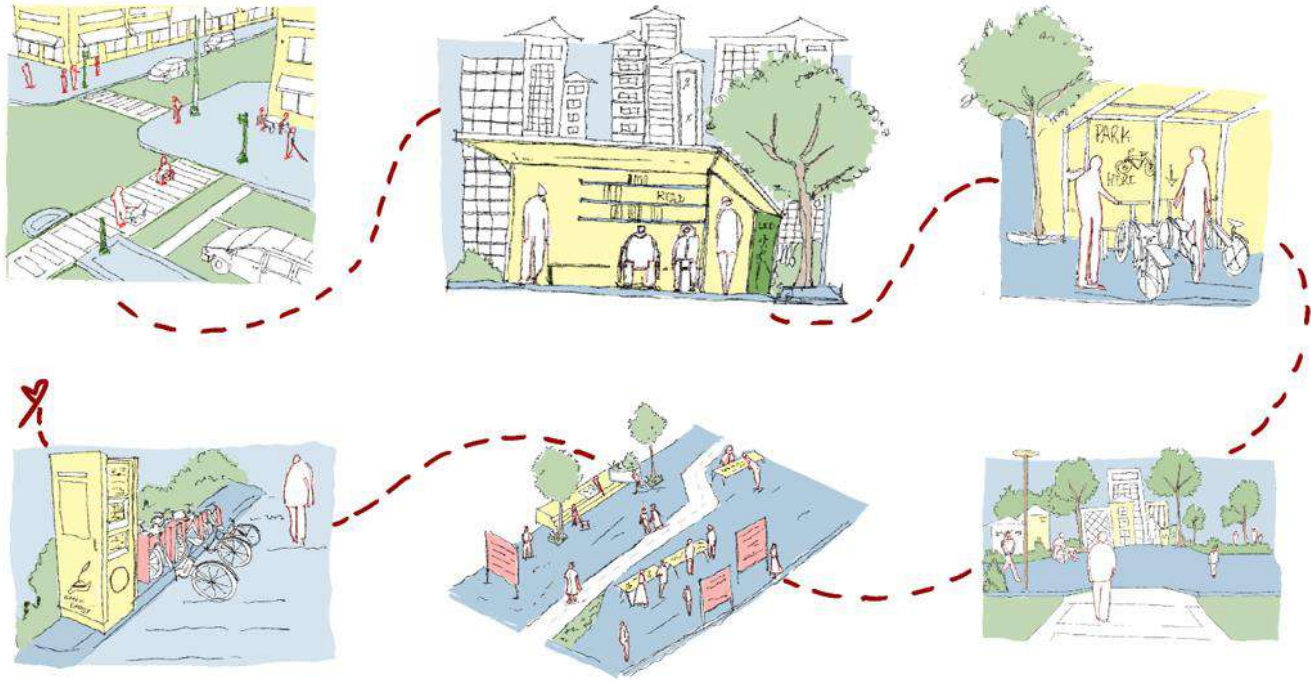


Master plan proposal



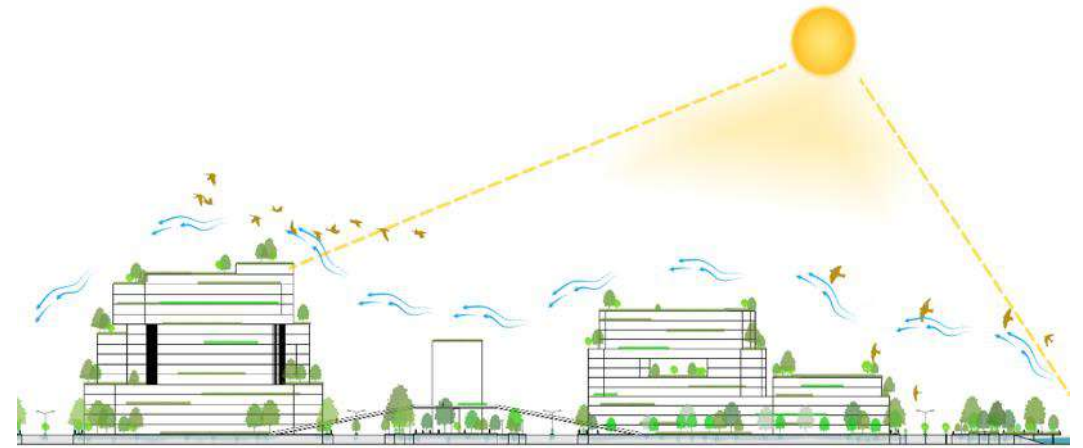
Pulse of water, pulse of life, pulse of spirit

4.) Focus Point-Neighborhood Living



Neighborhood living

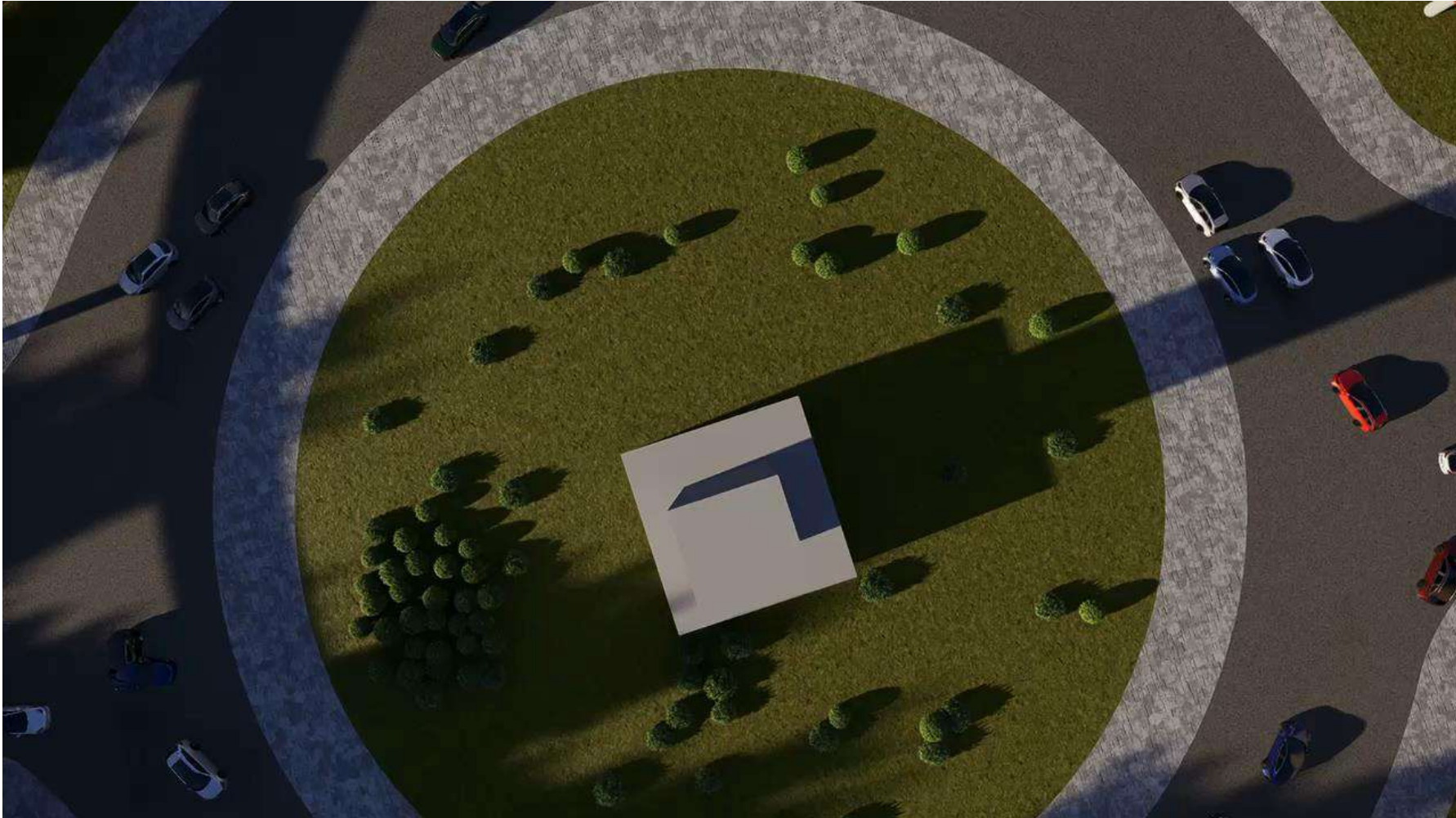
Pulse of water, pulse of life, pulse of spirit



Environmental Analysis



5.) Concept Animation

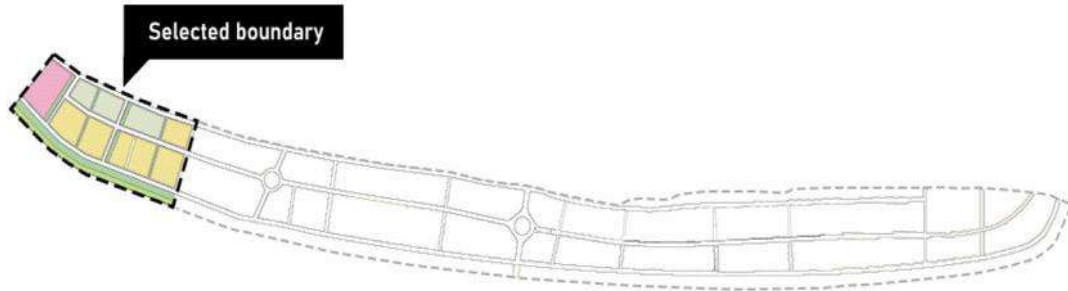


Pulse of water, pulse of life, pulse of spirit

VIBRANT FLOW

Where Vibrant City Life Flows Day and Night





DESIGN MOTIVE AND CONCEPT

We aim to create a vibrant mixed-use waterfront district that connects Phnom Penh's urban life with the Mekong River. The proposal integrates residential areas, commercial spaces, and public facilities with green spaces such as a wetland park and riverfront park to provide engaging public environments. During the day, the area supports everyday urban life, while at night it transforms into a lively destination with nightlife, entertainment, and cultural attractions, including a landmark museum that strengthens the identity of the district.

STRATEGIC PLANNING

1. Sponge City Integration

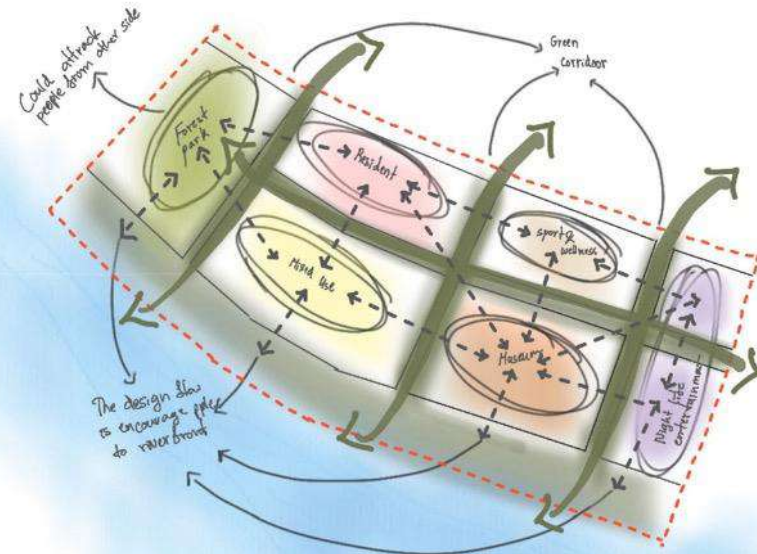
Applying sponge city principles through wetlands, permeable surfaces, green corridors, and rainwater retention systems to manage flooding, and enhance urban ecology.

2. Mixed-Use Urban Development

Combine residential, commercial, hospitality, and public facilities to create a vibrant district that supports daily urban life and economic activity.

3. Green and Public Space Network

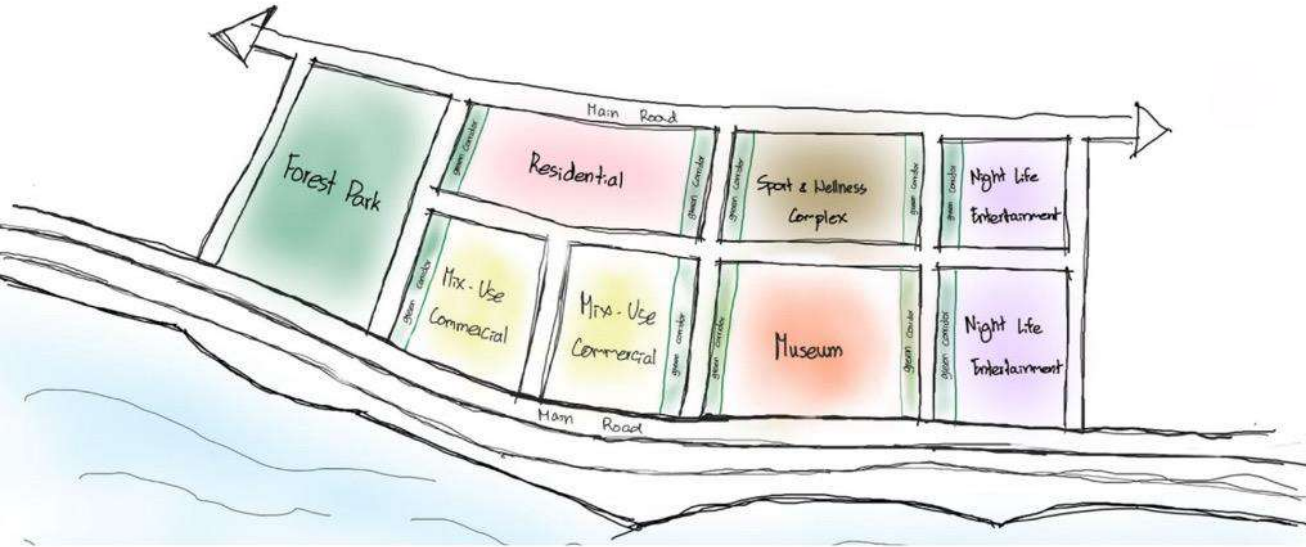
connected system of parks, riverfront spaces, and recreational areas to improve livability and provide accessible public spaces for residents and visitors.



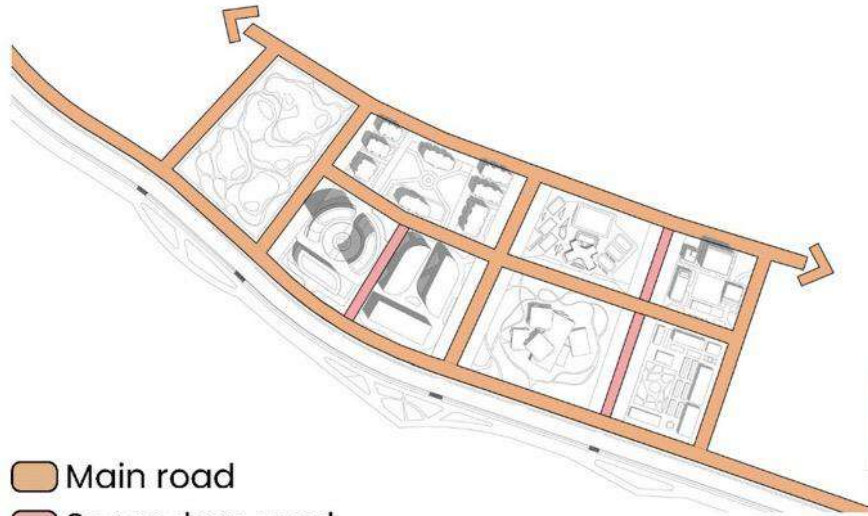
Where Vibrant City Life Flows Day and Night

WORKING GROUP A4 ZONING

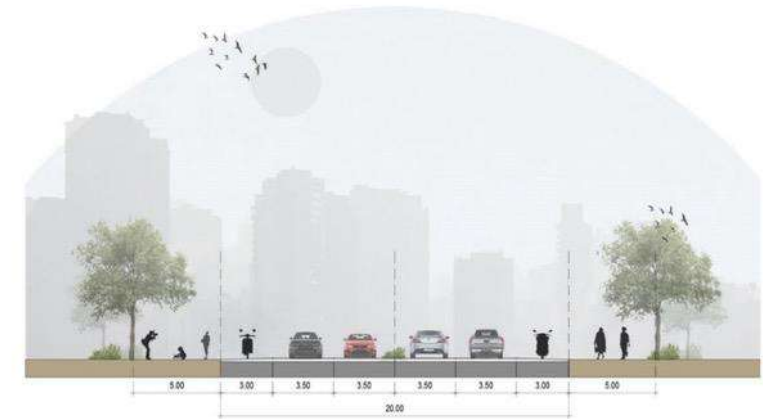
GREEN CONNECTIVITY



ROAD NETWORK



- Main road
- Secondary road



MASTERPLAN PROPOSAL



LEGEND

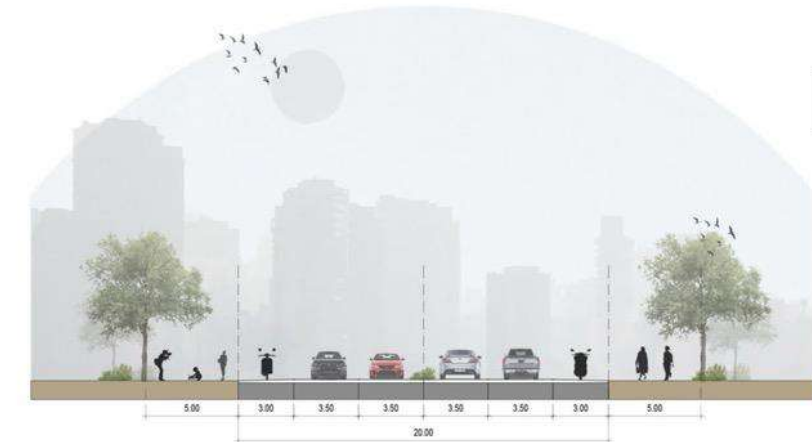
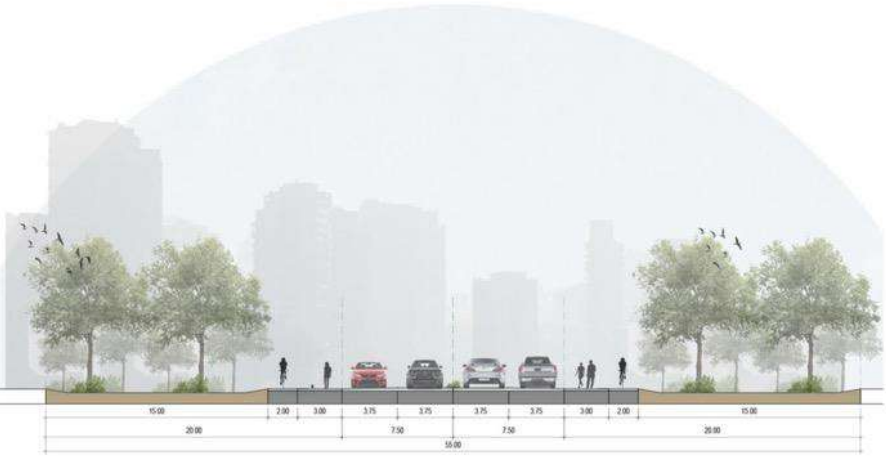
- 1. Commercial Mixed-use
- 2. Museum & Art performing center
- 3. Night-life & Entertainment hub
- 4. Sport Center
- 5. Residential Building
- 6. Forest / Wetland park
- 7. Riverfront park



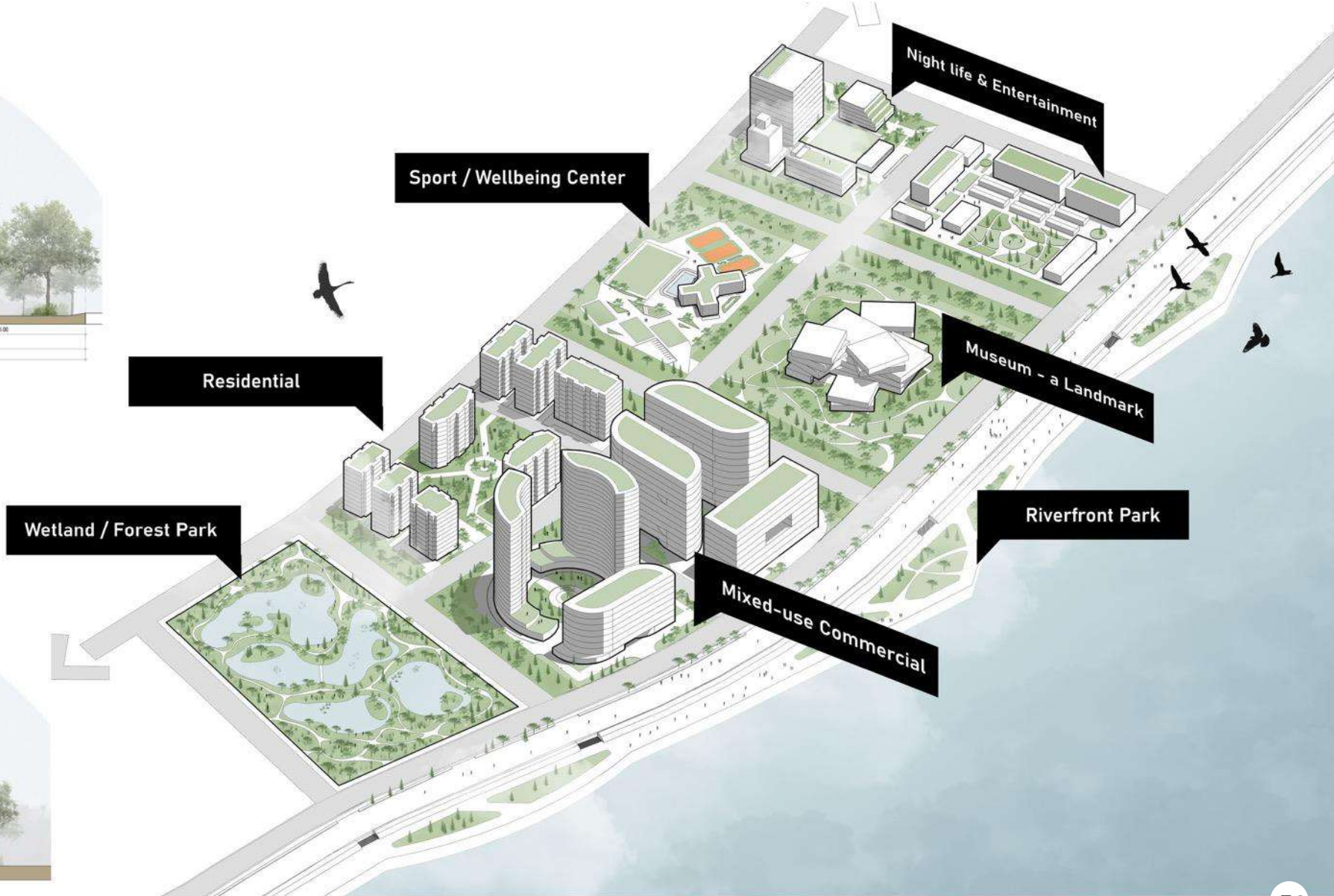
Where Vibrant City Life Flows Day and Night

WORKING GROUP A4

ROAD SECTION



ISOMETRIC VIEW MASTERPLAN



VISUALIZATION



Where Vibrant City Life Flows Day and Night

Animation



Where Vibrant City Life Flows Day and Night



RESILIENT BLUE-GREEN RIVERSIDE NEIGHBOURHOOD

Site Location



Design Vision

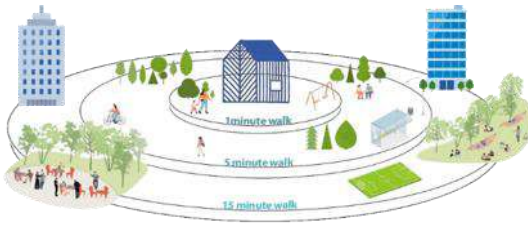
The vision is to create a resilient blue-green riverside district that integrates ecological infrastructure, promotes walkability, and supports vibrant mixed-use urban life.

Key Concept

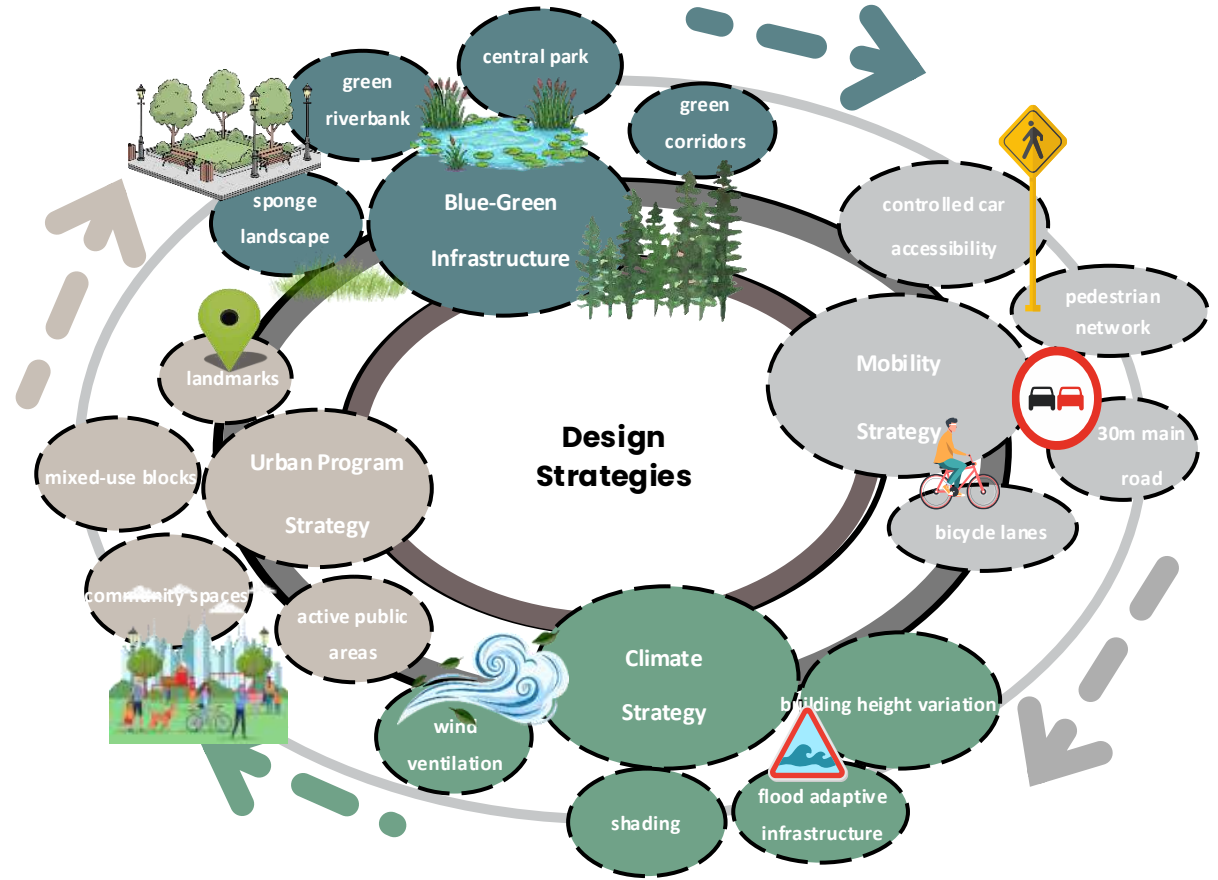
Main Strategies

Sponge City

15-Minute City



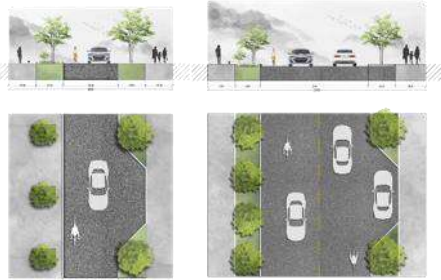
Mixed-Use Development



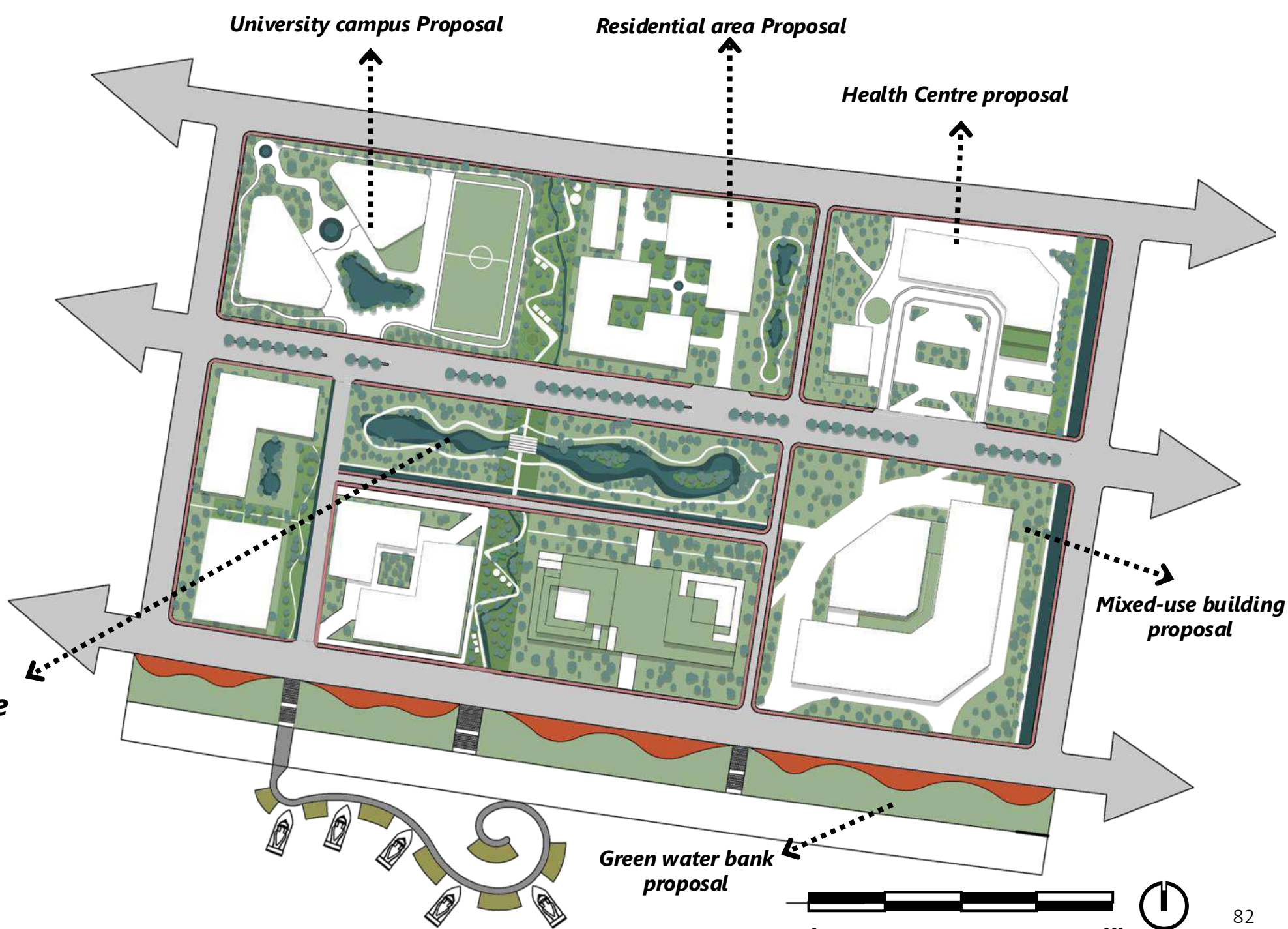
This project presents a proposal for a resilient blue-green riverside Neighborhood. The design aims to create a sustainable and livable urban environment by integrating sponge city water management, walkable mobility networks, and mixed-use development, while responding to environmental challenges such as flooding and climate change.

WORKING GROUP A5
Master plan

Mobility Proposal



Sponge Landscape Proposal

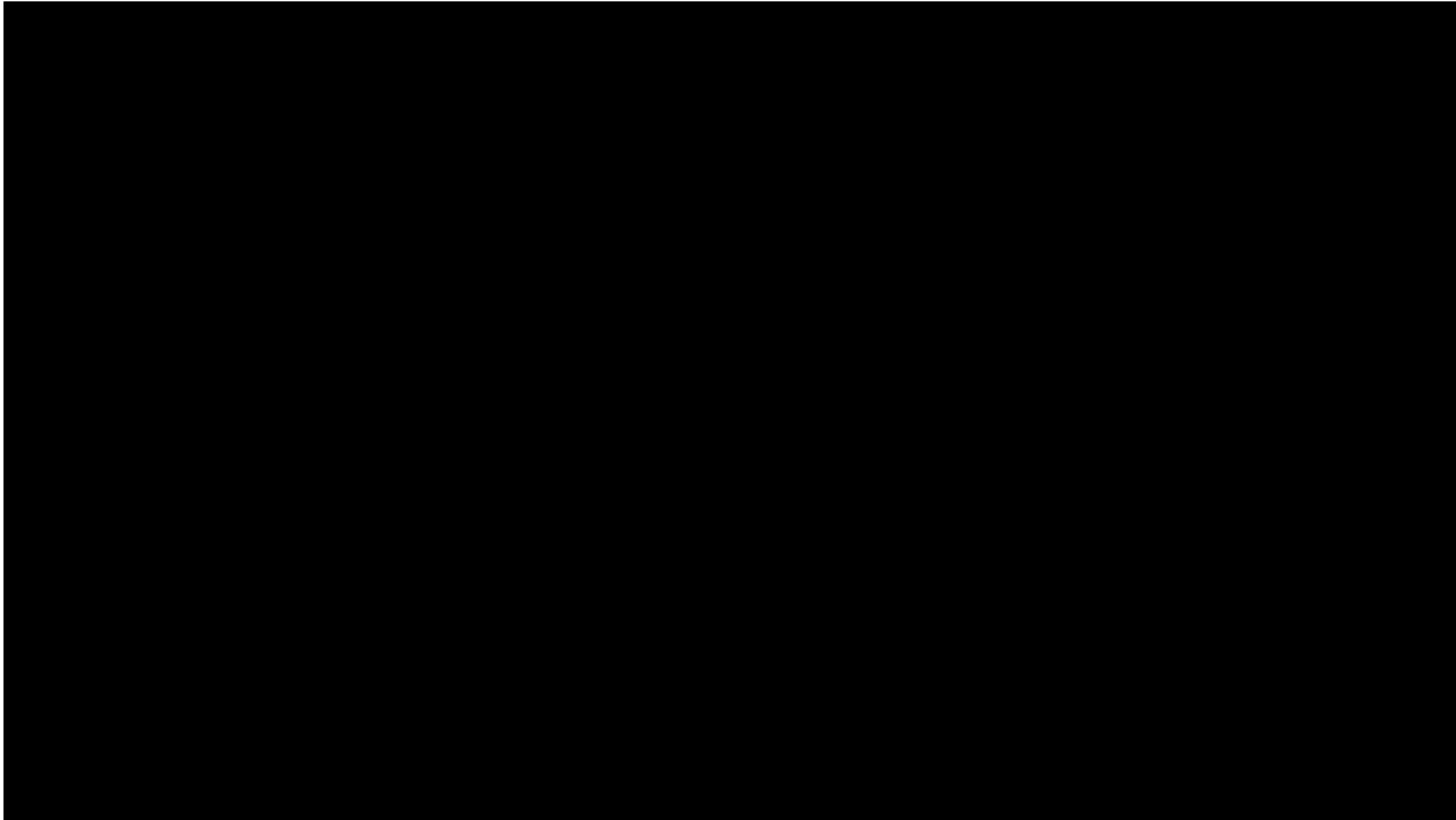


Conclusion



In conclusion, the proposal creates a resilient and livable riverside neighbourhood by integrating blue-green infrastructure, sustainable mobility, and mixed-use development.

WORKING GROUP A5
Animation





BLUE-GREEN Master Plan Framework MEKONG QUAY

INFUSING SUSTAINABILITY INTO MEKONG QUAY



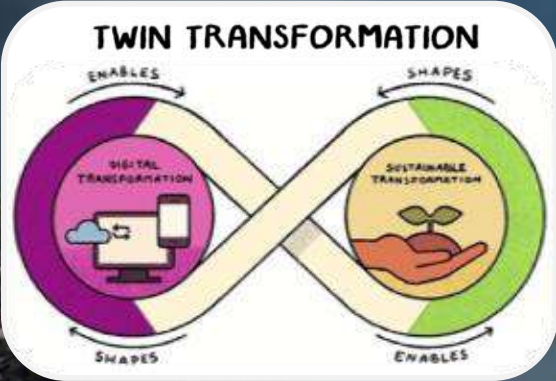
INTEGRATED URBAN DESIGN



BLUE GREEN INFRASTRUCTURE




SUSTAINABLE URBAN MOBILITY



SOCIAL INCLUSION + LOCAL ECONOMY



GOVERNANCE + PARTICIPATION



CLIMATE PROTECTION + ENERGY FLOWS

LOCATION AND CONTEXT – SITE VISIT



Briefing



Pagoda



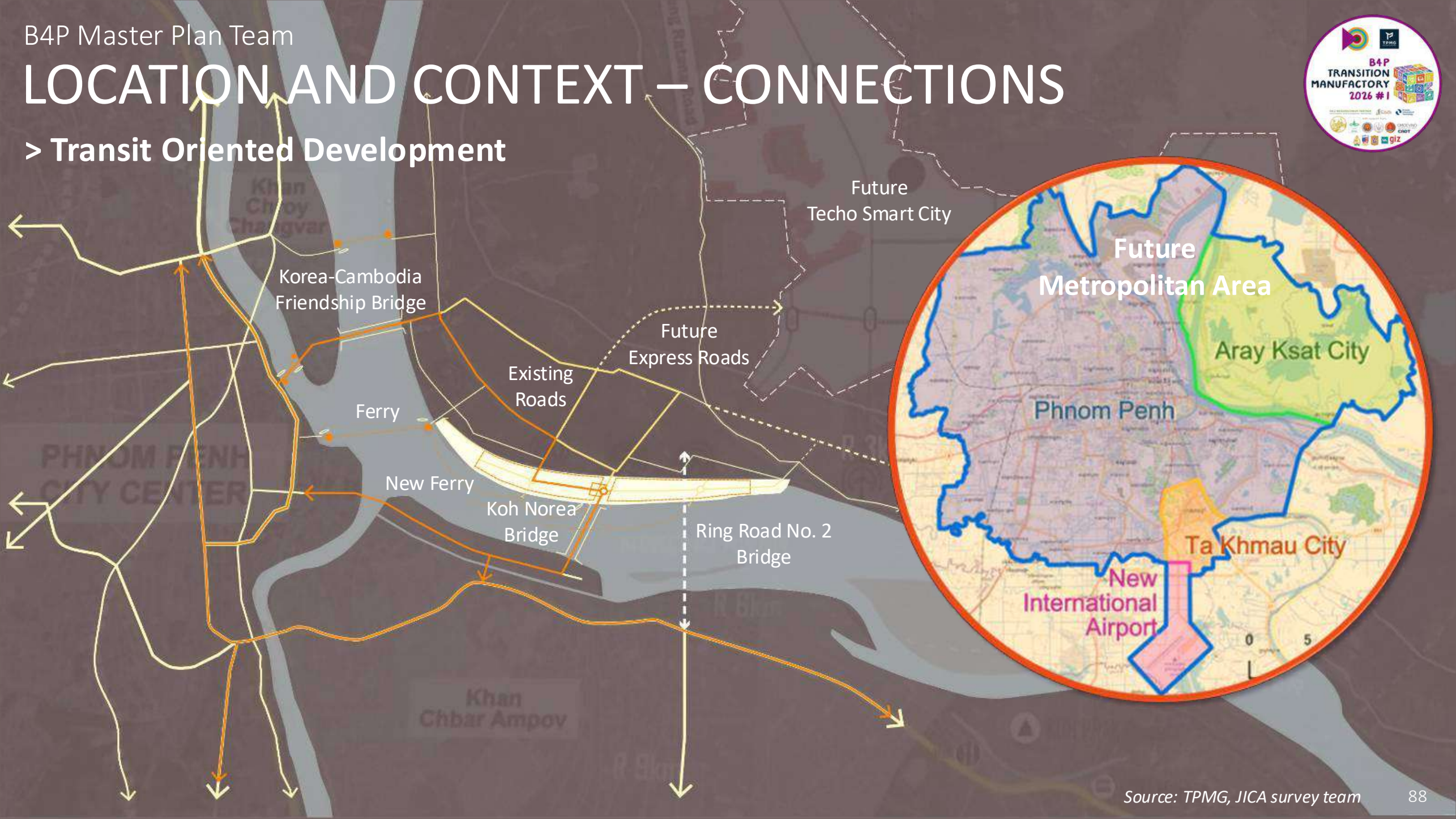
Roads



LOCATION AND CONTEXT – CONNECTIONS



> Transit Oriented Development



LOCATION AND CONTEXT – LANDSCAPE



> Landscape Urbanism

Lakes and Wetlands

Aray Ksat

Structure
Landscape

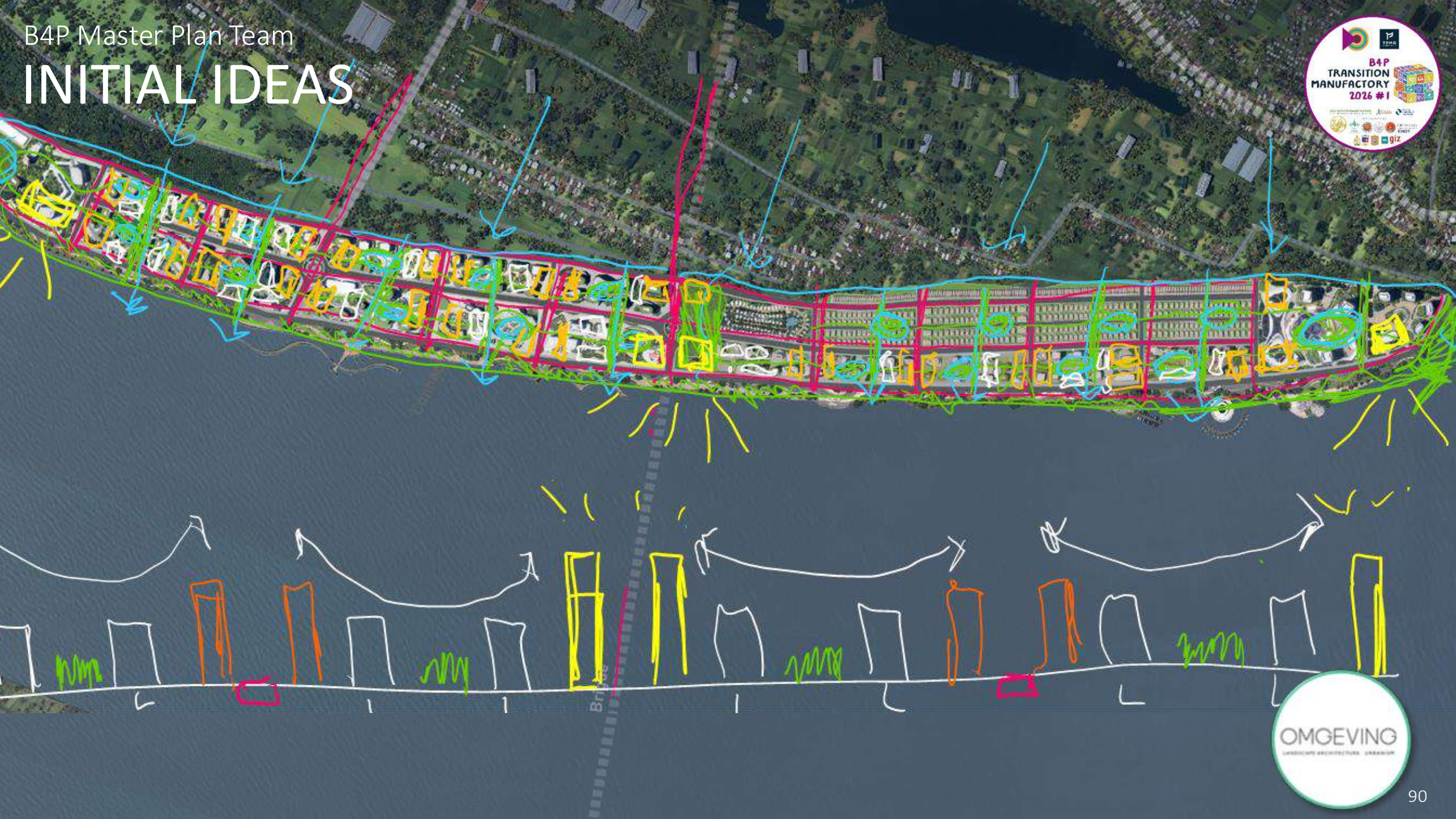
Pagodas
and Schools

Links to site

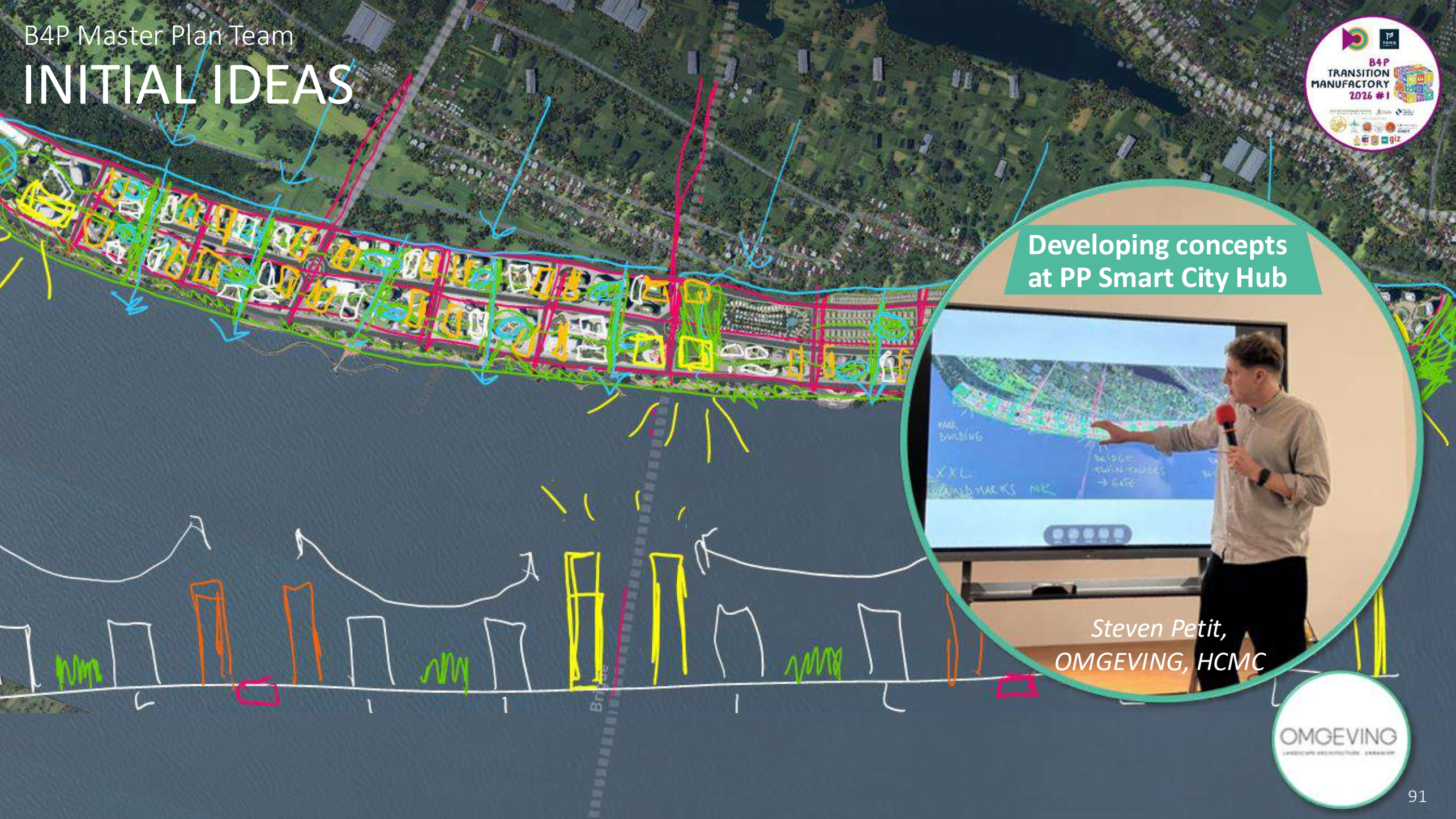
Landscape Urbanism
Concept Bordeaux-FR



INITIAL IDEAS



INITIAL IDEAS



Developing concepts
at PP Smart City Hub



Steven Petit,
OMGEVING, HCMC





BLUE-GREEN INFRASTRUCTURE



GREEN INFRASTRUCTURE - LANDSCAPE STRATEGY



> Green Biodiversity Corridors derived from surrounding Landscape Structure



GREEN INFRASTRUCTURE



> Attractive and Green Riverfront



Copyright Photos (top left to bottom right): 1 Daniel Shvedov; 2+3 Warapon Suriya; 4 Kebony; 5 L&A Design

BLUE INFRASTRUCTURE - WATER STRATEGY



> **Sponge City Development considering surrounding Area**

Stormwater of local Communities

Water Retention

Water Park

Waterscapes

Discharge to Mekong River

Infiltration inside Blocks

Discharge to Mekong River

Wetland Park

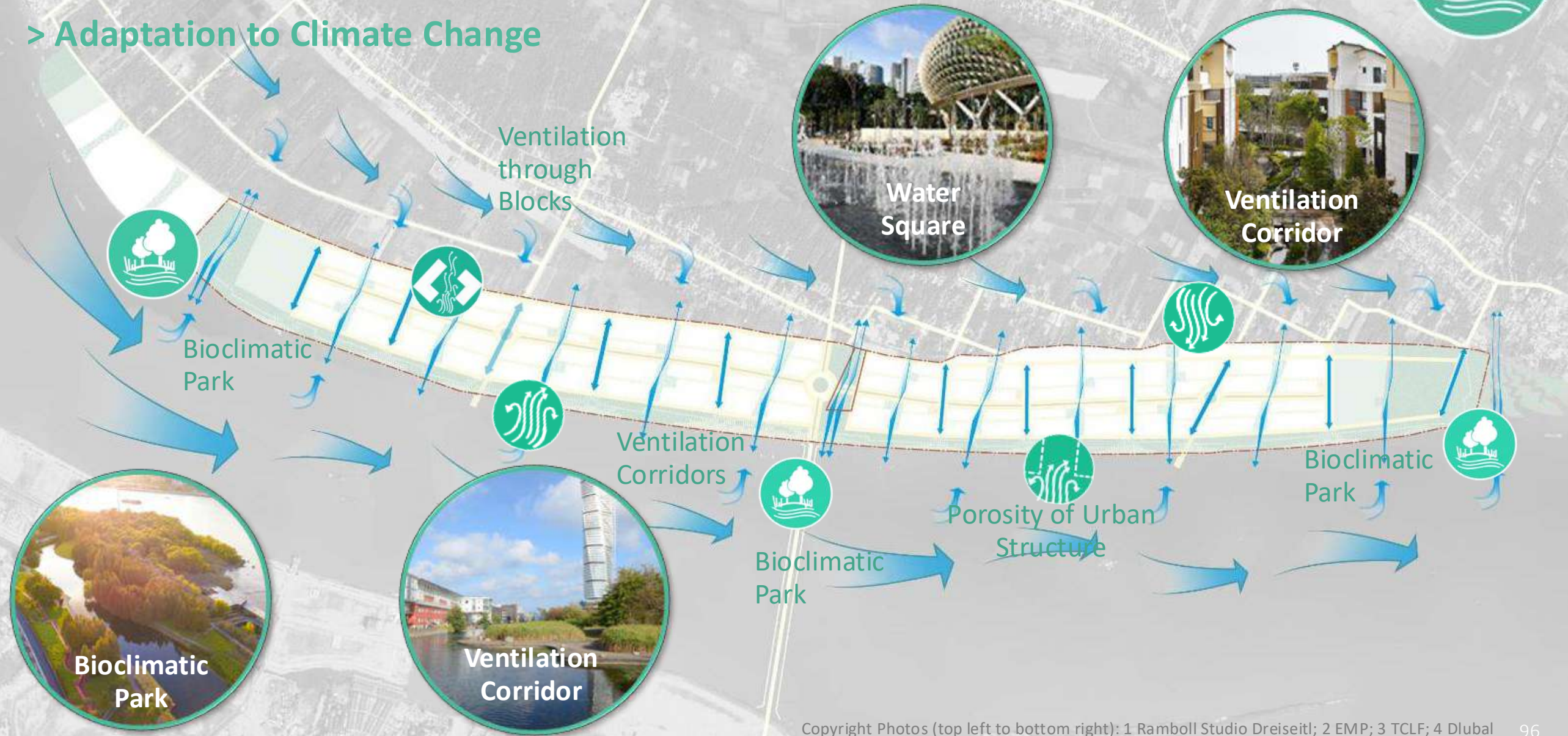
Flooded Landscape

Green Fingers

Wetland Park

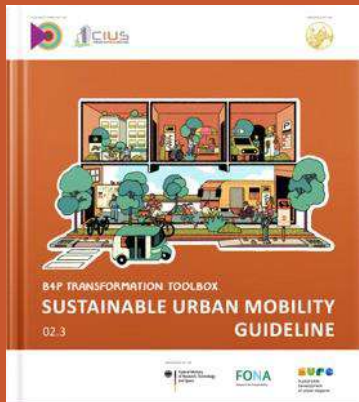
URBAN CLIMATE STRATEGY

> Adaptation to Climate Change





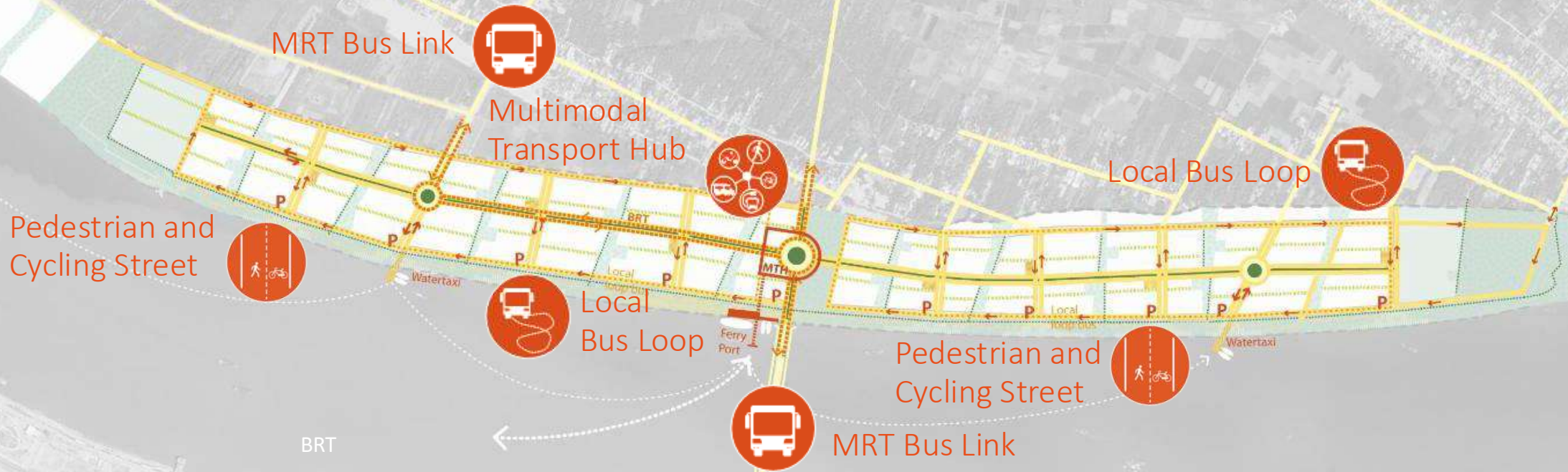
SUSTAINABLE URBAN MOBILITY





TRANSPORT STRATEGY

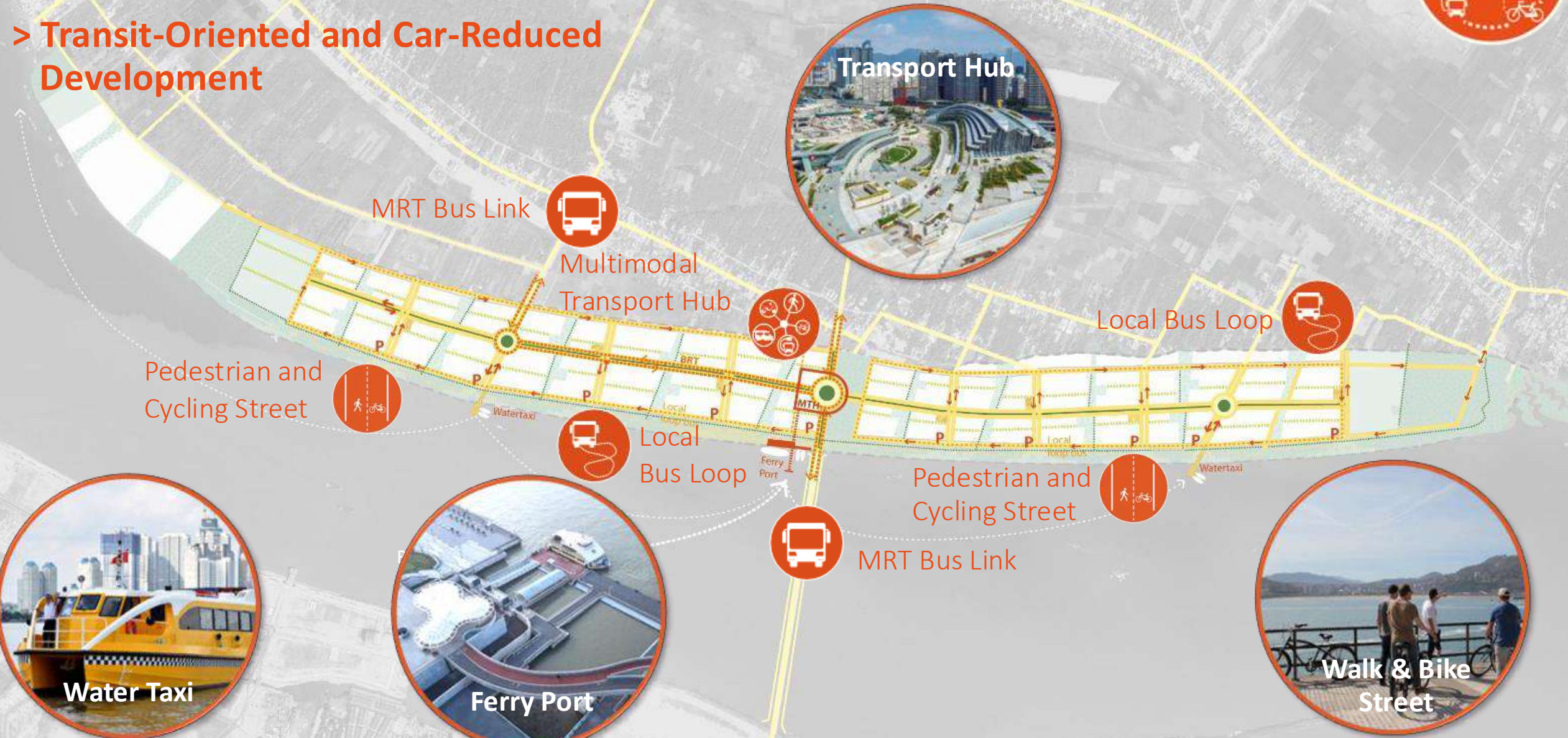
> Transit-Oriented and Car-Reduced Development





TRANSPORT STRATEGY

> Transit-Oriented and Car-Reduced Development



Transport Hub

MRT Bus Link



Multimodal Transport Hub



Local Bus Loop



Pedestrian and Cycling Street



Local Bus Loop



Pedestrian and Cycling Street



MRT Bus Link



Water Taxi



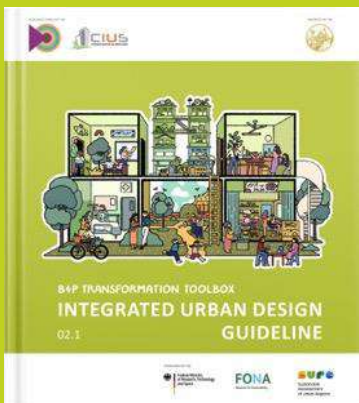
Ferry Port



Walk & Bike Street



INTEGRATED URBAN DESIGN





LAND USE STRATEGY

> Mixed Approach for 15-Min-Living



-  Center / High Density
-  Subcenter / Medium-High Density
-  Mixed Use (more Commercial) / Medium Density
-  Mixed Use (more Residential) / Medium-Low Density
-  Leisure / Cultural / Social Use in Green Environment

URBAN DESIGN STRATEGY



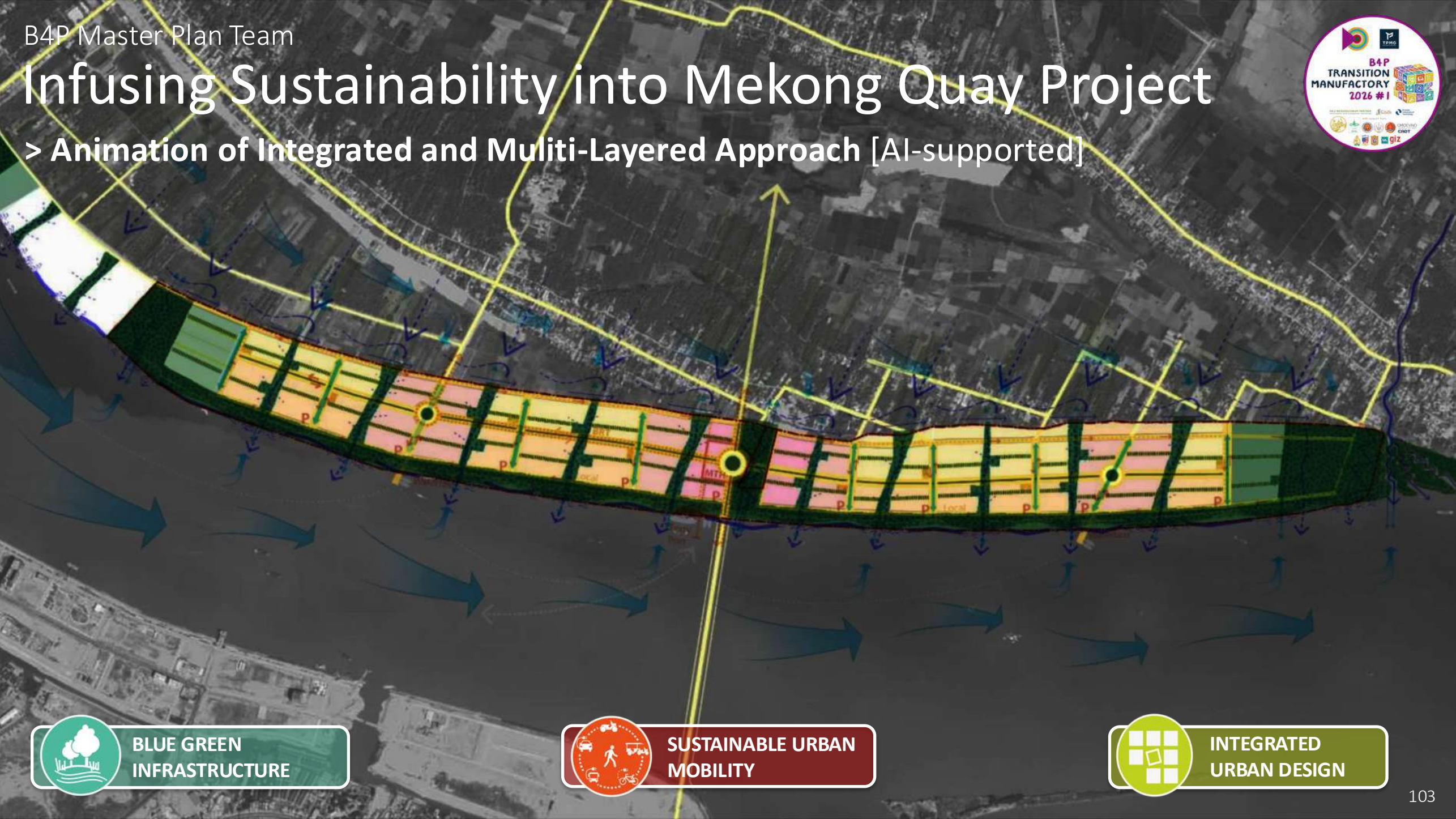
> Spatial Concept for Design Guidelines





Infusing Sustainability into Mekong Quay Project

> Animation of Integrated and Multi-Layered Approach [AI-supported]



**BLUE GREEN
INFRASTRUCTURE**



**SUSTAINABLE URBAN
MOBILITY**

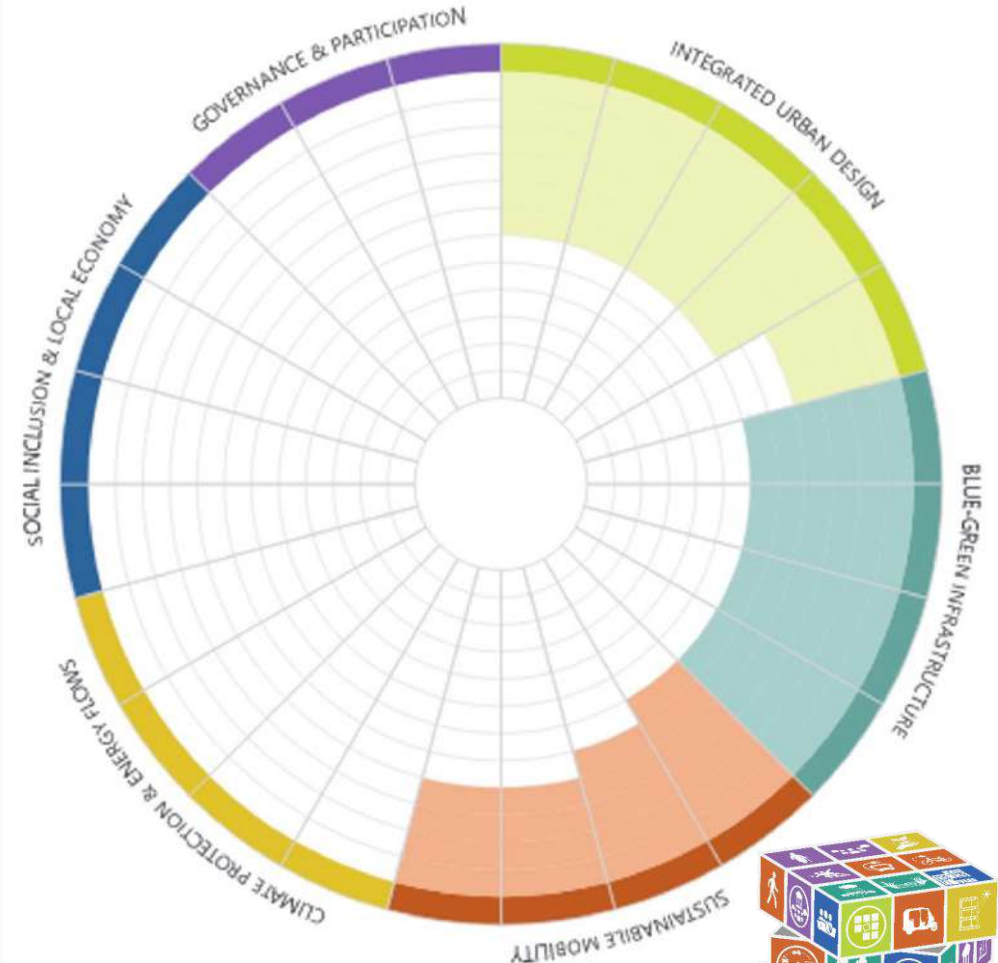


**INTEGRATED
URBAN DESIGN**

Infusing Sustainability in Quay Mekong Project



> Quick Assessment of B4P Evaluation Criteria with Internet Tool - Identified Potential





BLUE-GREEN

Master Plan Framework

MEKONG QUAY



VISUALISATION IN SCEENARY

> 3D-Models of Students and B4P Team

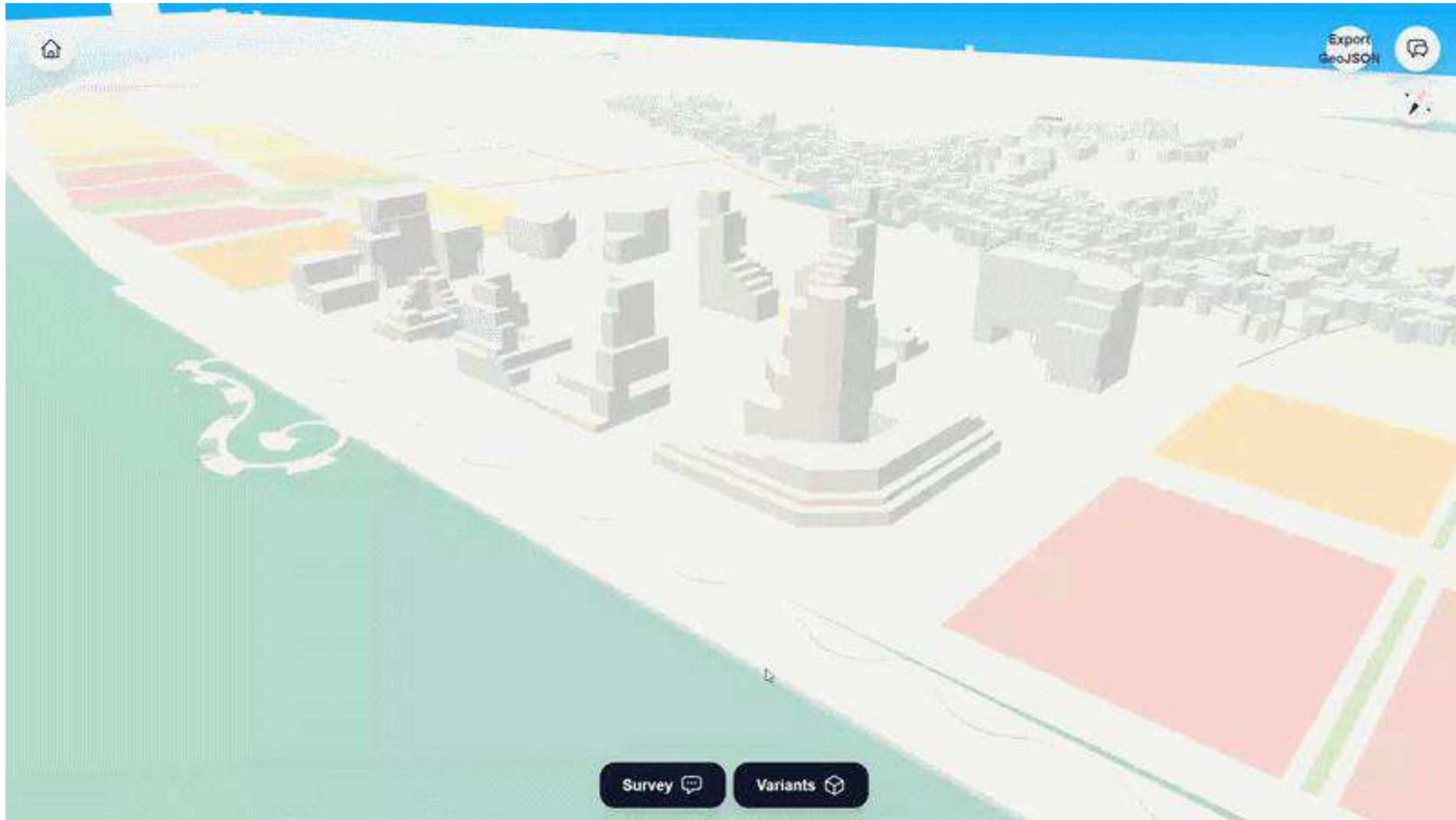


*[https://app.scenerii.build4people.com/
?project=ed76e011-753a-431b-8c7f-
e99815e0f3b7#lang=en](https://app.scenerii.build4people.com/?project=ed76e011-753a-431b-8c7f-e99815e0f3b7#lang=en)*



Collaborative Assessment in 3D Playground

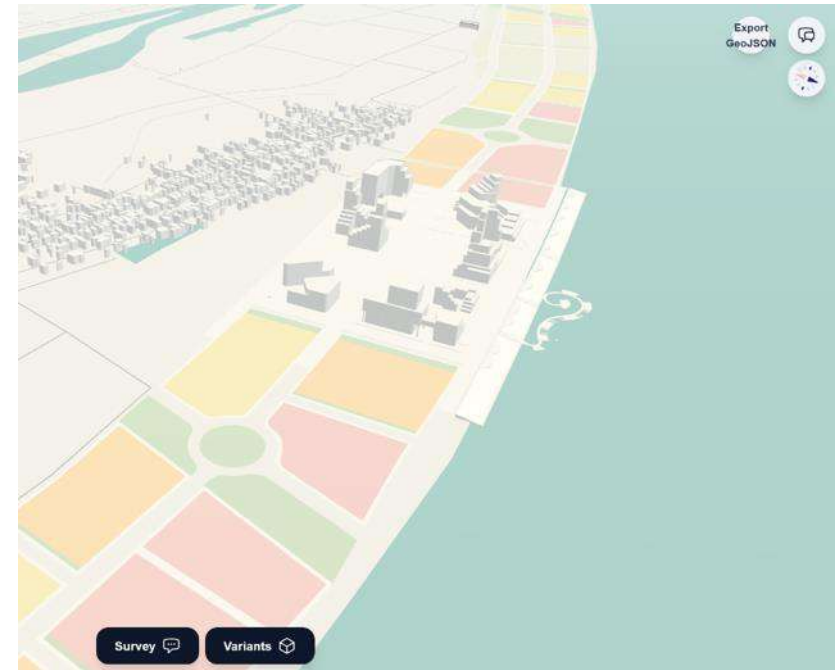
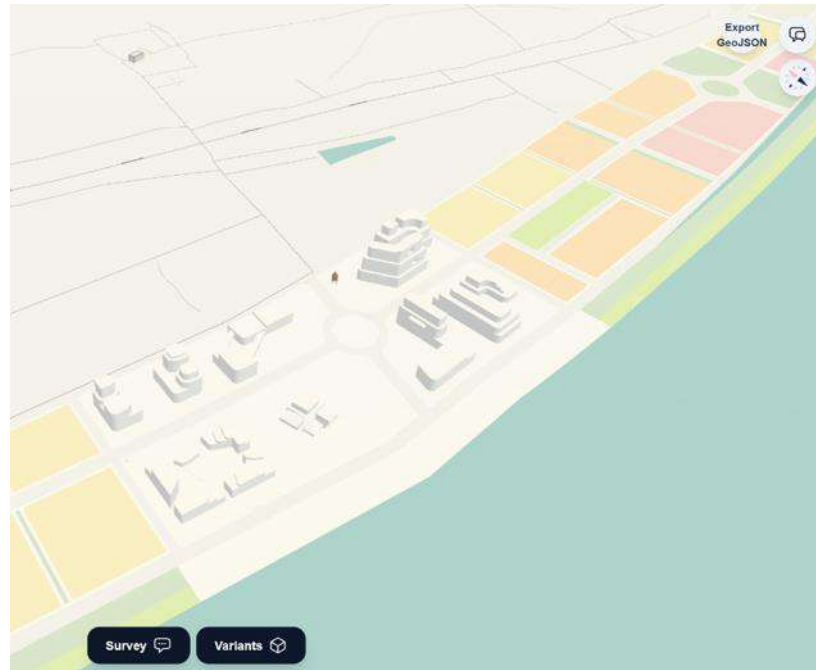
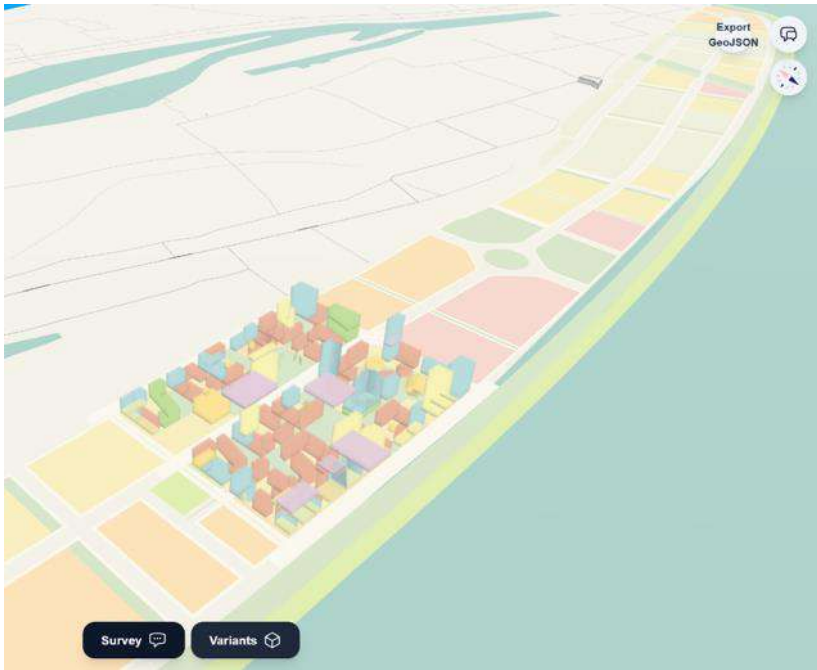
> Qualifying design proposals with B4P Neighbourhood Evaluation Criteria





Collaborative Assessment in 3D Playground

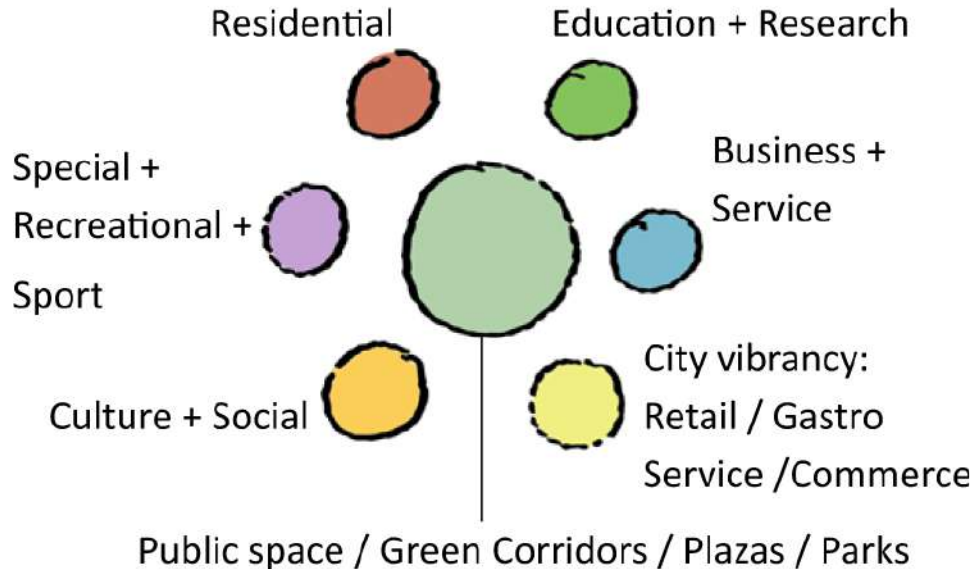
> Qualifying design proposals with B4P Neighbourhood Evaluation Criteria





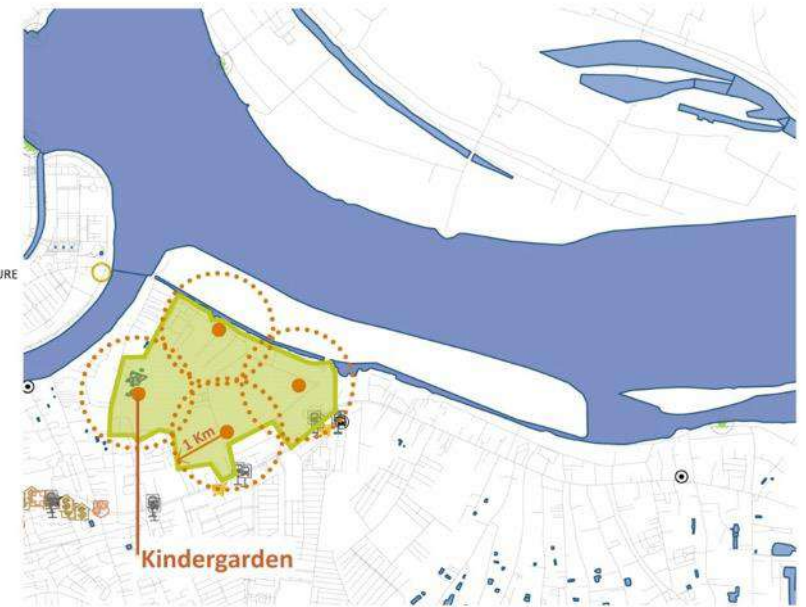
Walkability Analysis of B4P land use catalogue

> Assessing B4P criteria with COUP: 15min – City and balanced mix of uses



LEGEND:

- riverbank
- water
- TRANSPORT
 - bus_station
 - bus_stop
 - ferry_terminal
 - taxi
 - tram_stop
 - roads
- SOCIAL AND COMMERCIAL INFRASTRUCTURE
 - arts_centre
 - bank
 - college
 - community_centre
 - doctors
 - drinking_water
 - garden_centre
 - hospital
 - park
 - playground
 - police
 - post_office
 - school
 - supermarket
 - university



Exemplary new development area in the Chbar Ampov district planned for about 1,500 inhabitants. Following Table 13, this area would require every 750-1000m: 1 kindergarden/primary school, 1 public square / neighbourhood centre, 1 community clinic, 1 public market, 1 neighbourhood park.



Walkability Analysis of B4P land use catalogue

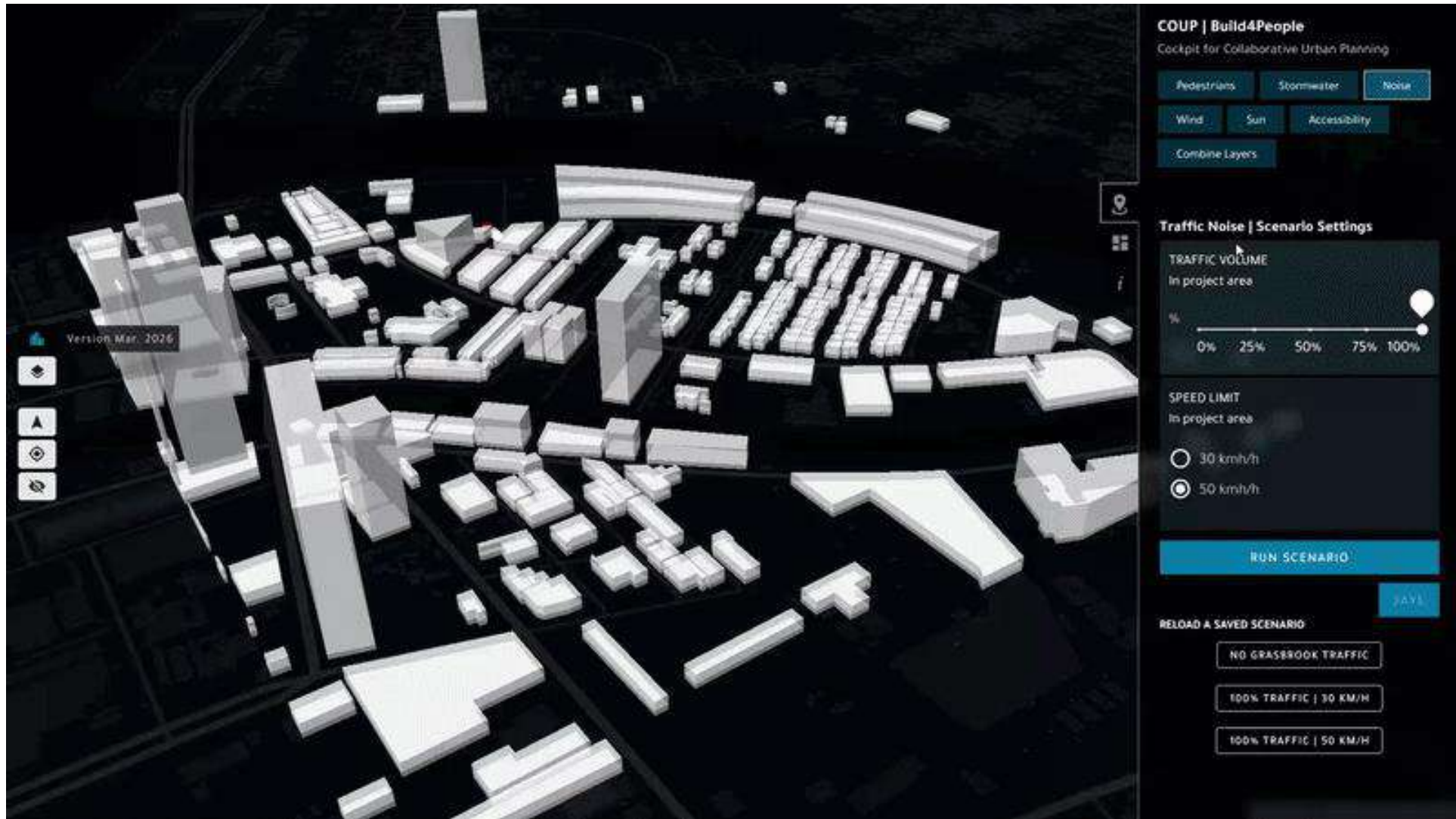
► Assessing B4P criteria with COUP:

15min – City and balanced mix of uses & Urban Climate Map Phnom Penh



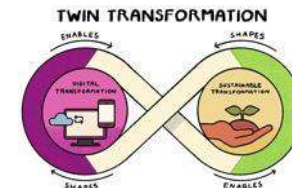
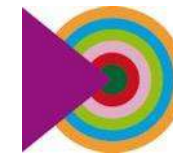
Simulation in COUP

> Agent-based-Modelling for Simulation of Pedestrian Flow & Solar Exposure Analysis



Build4People Project

Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia



Handing-over of Certificates of Appreciation to participating students

B4P
Build4People Project

CERTIFICATE OF APPRECIATION

This certificate is proudly presented to:

In recognition of the active participation in the 1st B4P Transition Manufactory, a transdisciplinary and participatory collaborative design workshop to apply innovative digital urban planning tools, to develop alternative visions of a sustainable urban future and to test the B4P Neighbourhood Evaluation Criteria as part of the B4P Transformation Toolbox.

Your valuable contributions to inclusive urban digital transformation and to sustainable city-making in Cambodia are highly appreciated.

On behalf of:

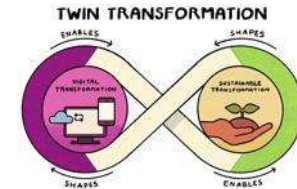
Tep Makathy
Tep Makathy, Director
Cambodian Institute for Urban Studies Organization

Michael Waibel
Michael Waibel, Representative
Build4People Project



Build4People Project

Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia



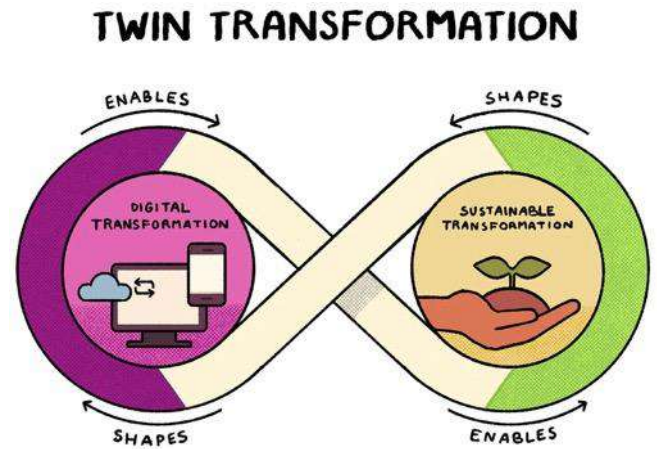
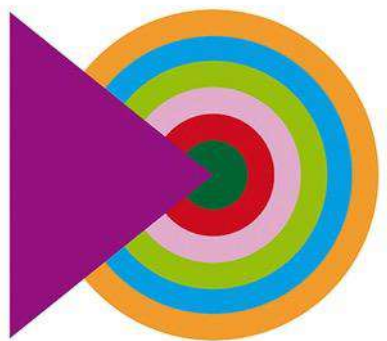
Closing Words

Michael Waibel

Build4People project consortium representative, Senior Researcher at the University of Hildesheim

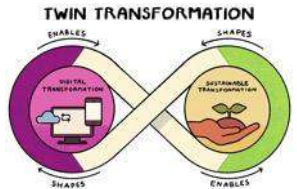


Michael Waibel



Build4People Project

Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia



Closing Words

Christof Weigelmeier,

Deputy Head of Mission, Head of Development Cooperation, Embassy of the Federal Republic of Germany Phnom Penh



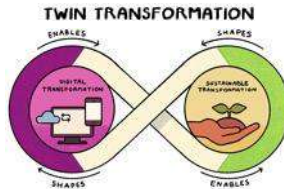
Christof Weigelmeier



Deutsche Botschaft
Phnom Penh

Build4People Project

Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia



Closing Words

H.E. Vannak Seng

Vice-Governor of Phnom Penh Capital Hall

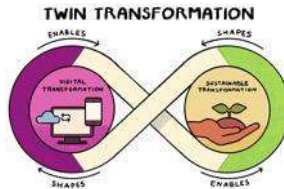


H.E. Vannak Seng

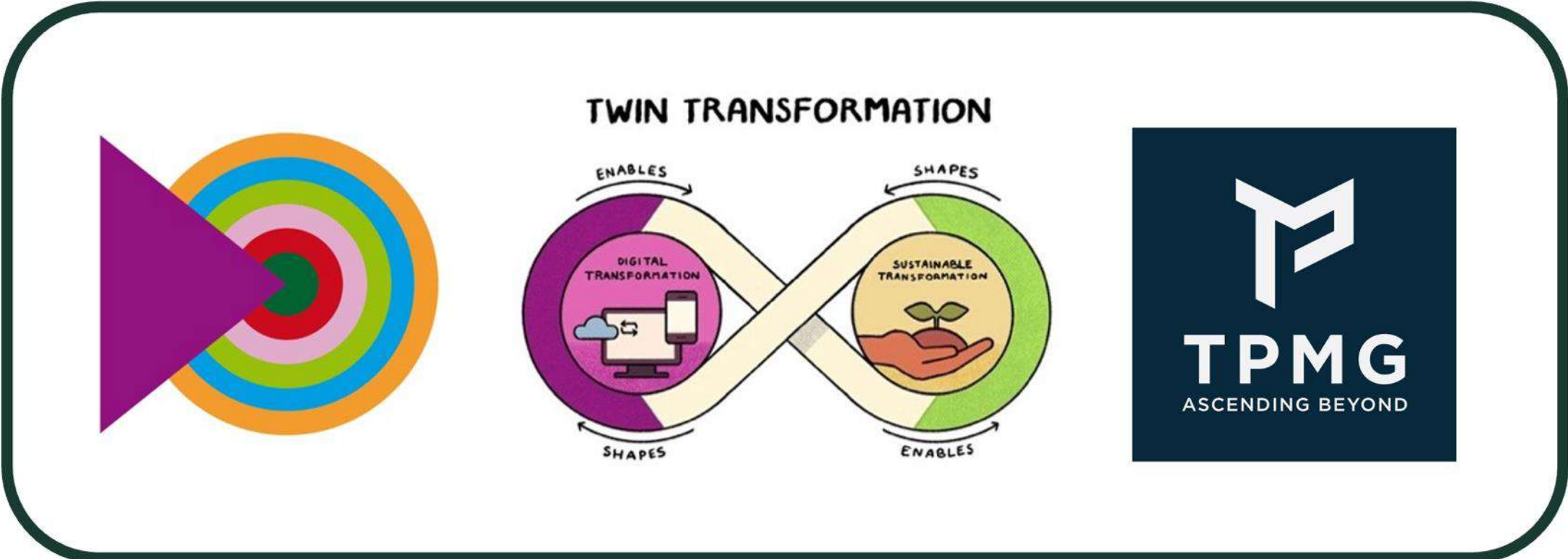


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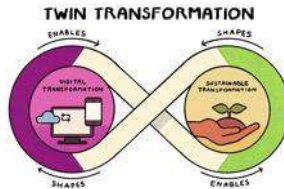


Exchange of Letter of Intent between TP Moral Group and Build4People



Build4People Project

Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia

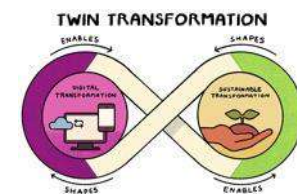
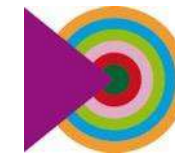


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Group Photo

