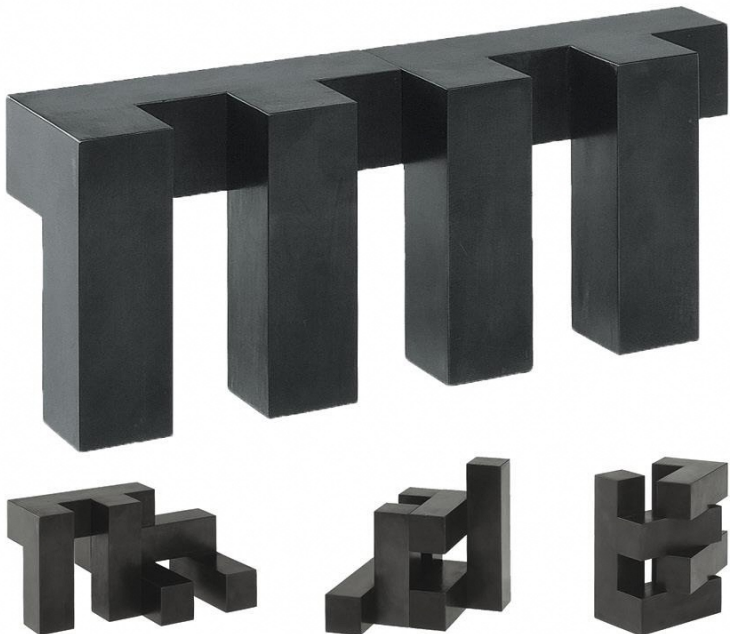
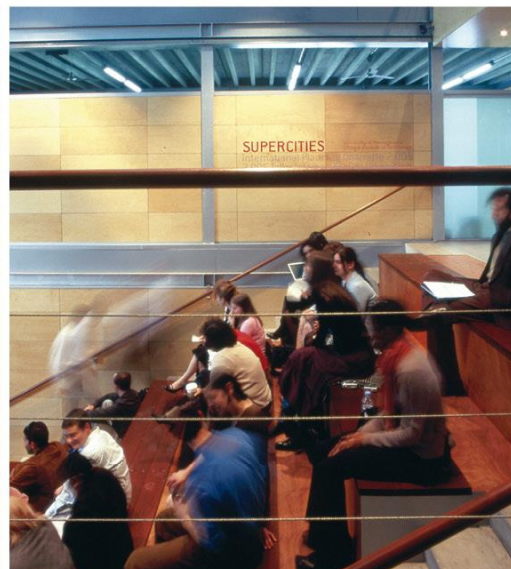
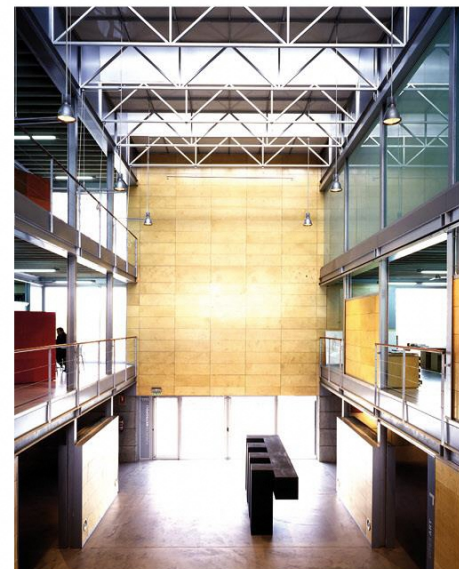


ECOPARK DIAMOND CITY





Fundación Metròpoli is an international center of innovation in cities and regions...



PROYECTO CITIES

PROYECTO CITIES

Knowledge Creation and Sharing

PROYECTO CITIES

Contents

- 01 Findings of the Investigations of Curitiba
- 02 Findings of the Investigations of Shanghai
- 03 Findings of the Investigations of Basque Country
- 04 Euskal Hiria (Power Point Presentation)
- 05 Curitiba (Power Point Presentation)

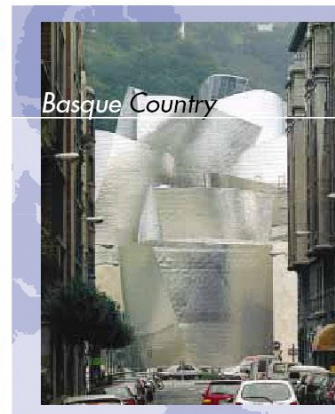
PROYECTO CITIES

FUNDACION METROPOLI



PROYECTO CITIES

Hong Kong GATEWAY TO CHINA



DUBLIN
Learning From Cities

5

LEARNING from CITIES

2001EKO MALATZAREN 7A
7 MAYO 2001

Publication of Research
Basque Country
Euskadi



ECO BOX

An International Center of Excellence
for "Building a Sustainable Future"

TTT
METROPOLI
BUILDING A SUSTAINABLE FUTURE

ECOPARK DIAMOND CITY



SUSTAINABLE DEVELOPMENT GOALS





Ecopark

Ha Noi - Vietnam

Vietnam Per Capita GDP (PPP): **2,566.6 US\$**

Population of metropolitan area: **8,350,000**

Site Surface: **580 Ha**

Innovation District Surface: **110 Ha**

Uses: **Central business district, offices, leisure spaces, educational areas, residential**

Source: World Bank; Demographia 2019





ECOPARK

3.25 km

3.25 km





MYANMAR

CHINA

HÀ NỘI

**RED RIVER DELTA
DIAMOND**

LAOS

THAYLAND

CAMBODIA

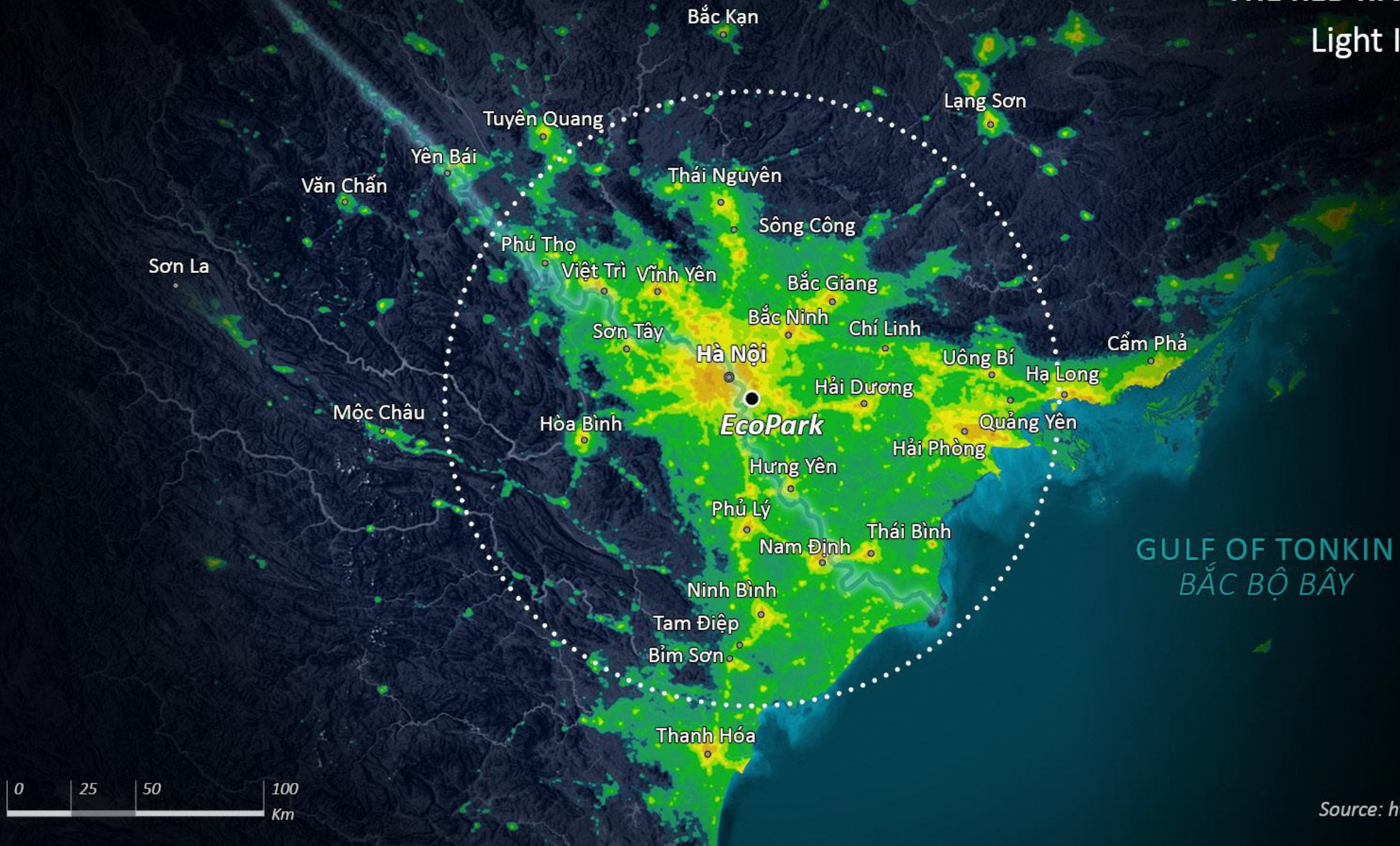
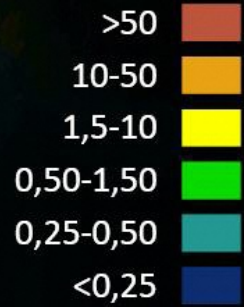
GULF OF TONKIN
BẮC BỘ BÂY

ECOPARK INNOVATION HUB TERRITORIAL CONTEXT

THE RED RIVER DELTA DIAMOND

Light Intensity, 2019

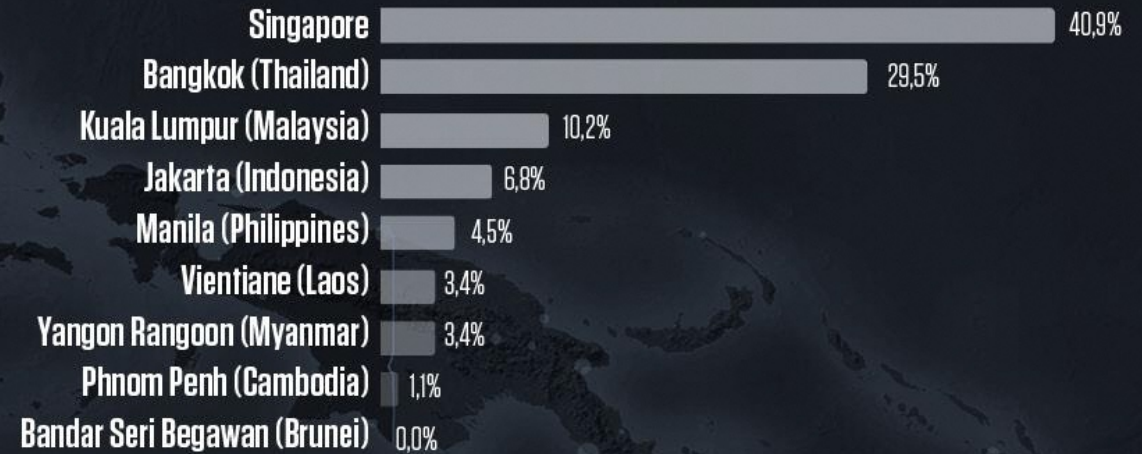
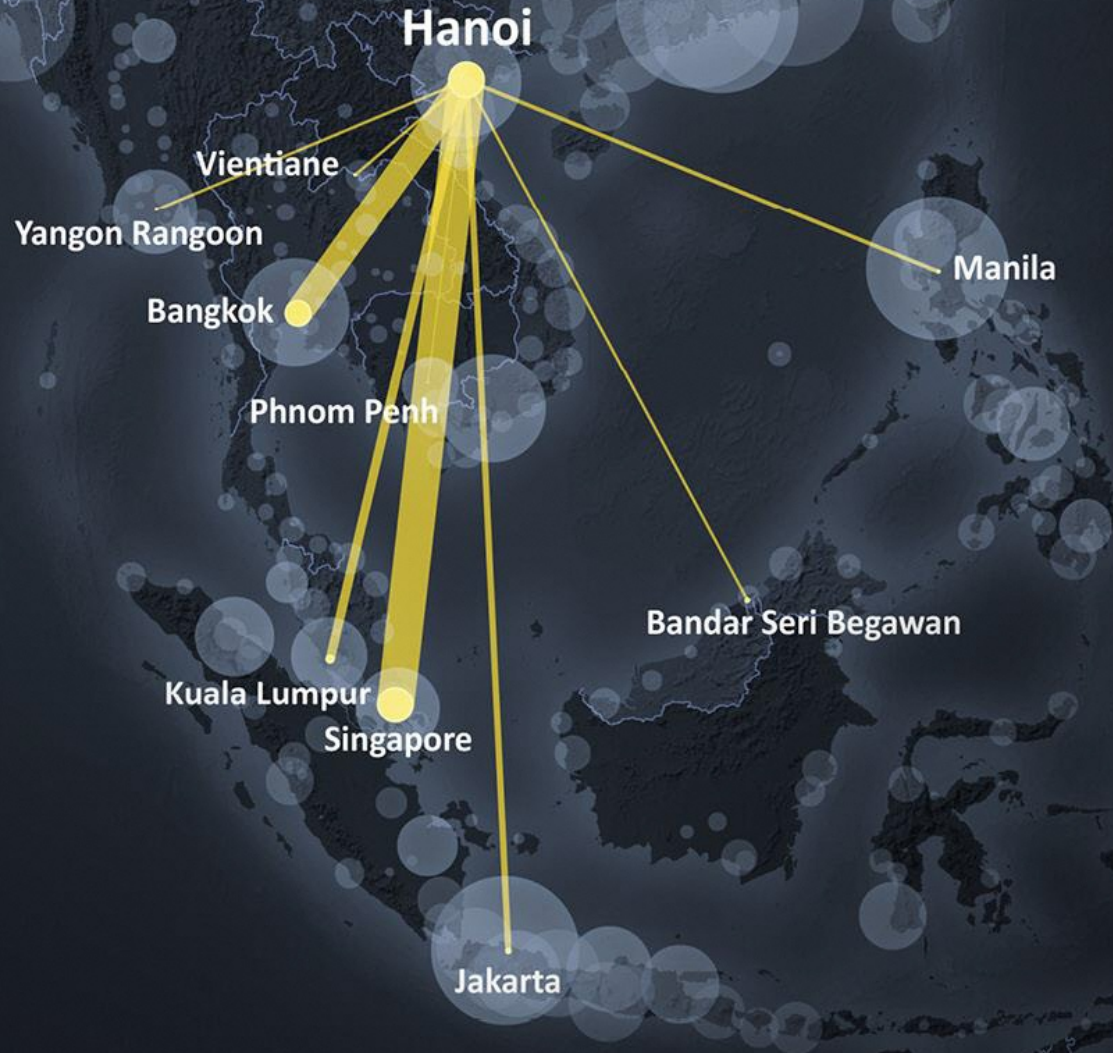
Radiance $10^{-9}W / cm^2*sr$



Connection with cities of the ASEAN community

STRATEGIC IMPORTANCE

01 GRAPHIC RESULTS



Connection with other Asian cities

STRATEGIC IMPORTANCE


01 GRAPHIC RESULTS

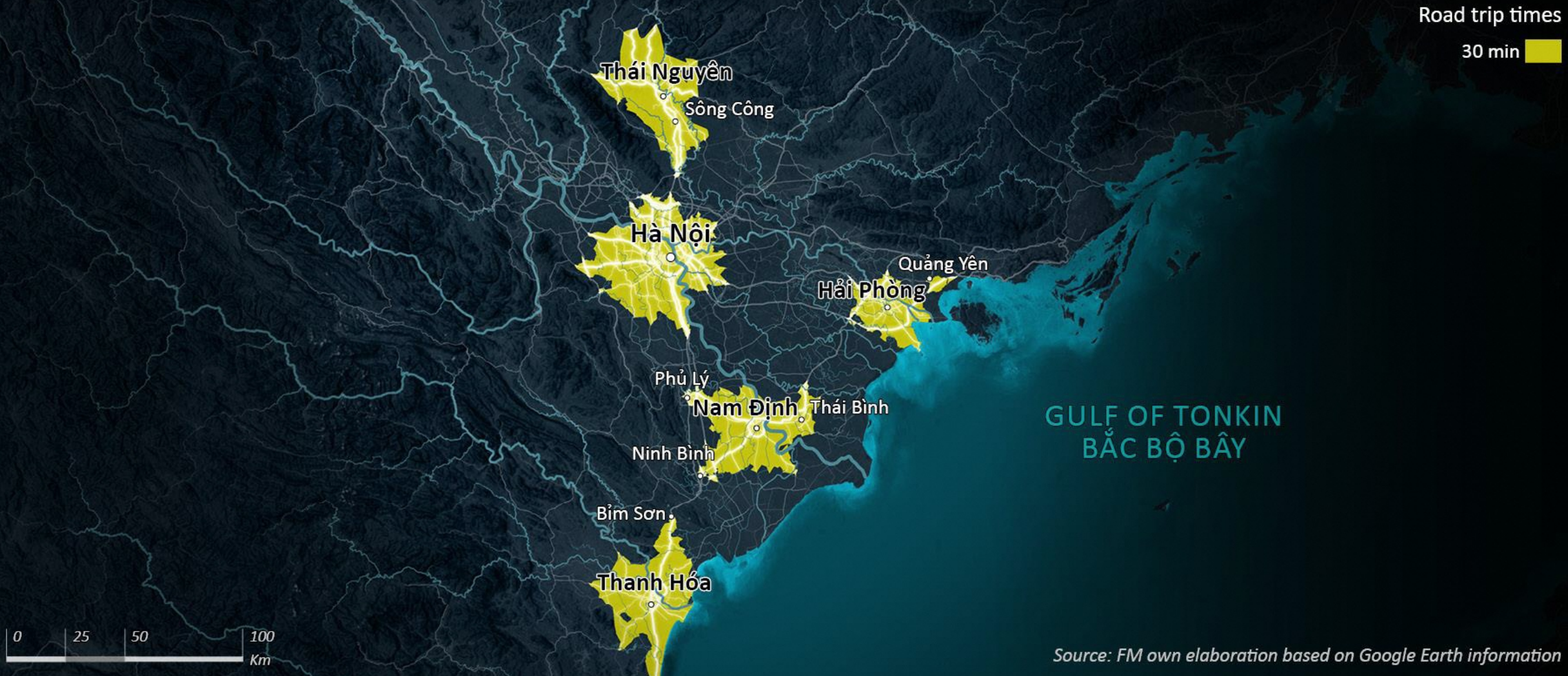


ECOPARK INNOVATION HUB
TERRITORIAL CONTEXT

THE RED RIVER DELTA DIAMOND
Isochronous Study

Road trip times

30 min 



GULF OF TONKIN
BẮC BỘ BÂY



Source: FM own elaboration based on Google Earth information

ECOPARK INNOVATION HUB TERRITORIAL CONTEXT

THE RED RIVER DELTA DIAMOND Isochronous Study

Road trip times



GULF OF TONKIN
BẮC BỘ BÃY

Source: FM own elaboration based on Google Earth information

ECOPARK INNOVATION HUB TERRITORIAL CONTEXT

THE RED RIVER DELTA DIAMOND

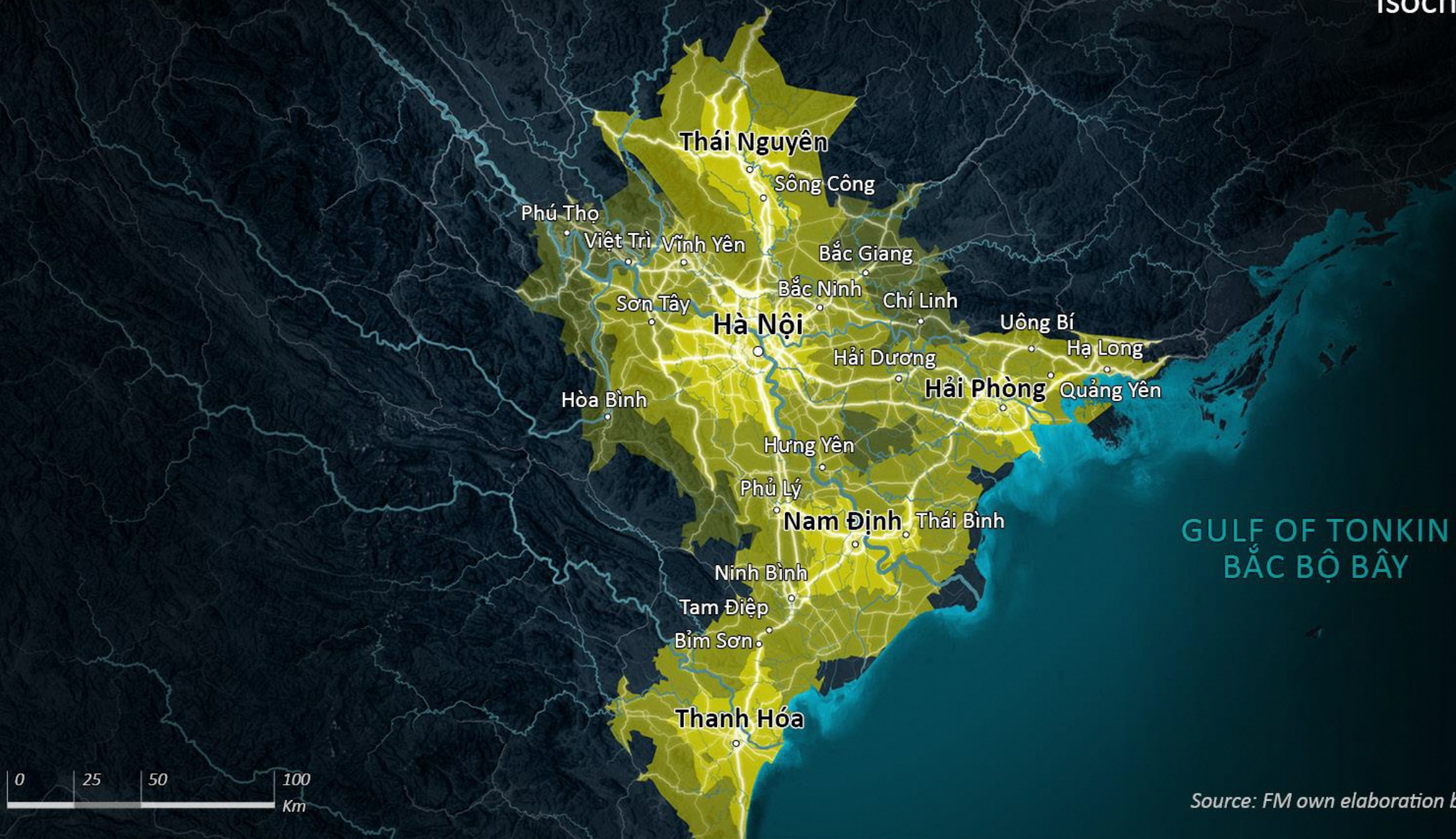
Isochronous Study

Road trip times

30 min

1 Hour

1 Hour and 30 min



GULF OF TONKIN
BẮC BỘ BẤY

Source: FM own elaboration based on Google Earth information

ECOPARK INNOVATION HUB TERRITORIAL CONTEXT

THE RED RIVER DELTA DIAMOND

Isochronous Study

Road trip times

30 min

1 Hour

1 Hour and 30 min

Population by City

500,000

200,000

50,000



GULF OF TONKIN
BẮC BỘ BÂY



Source: FM own elaboration based on Google Earth information

RED DIAMOND

Isochronous Study

Road trip times

30 min

1 Hour

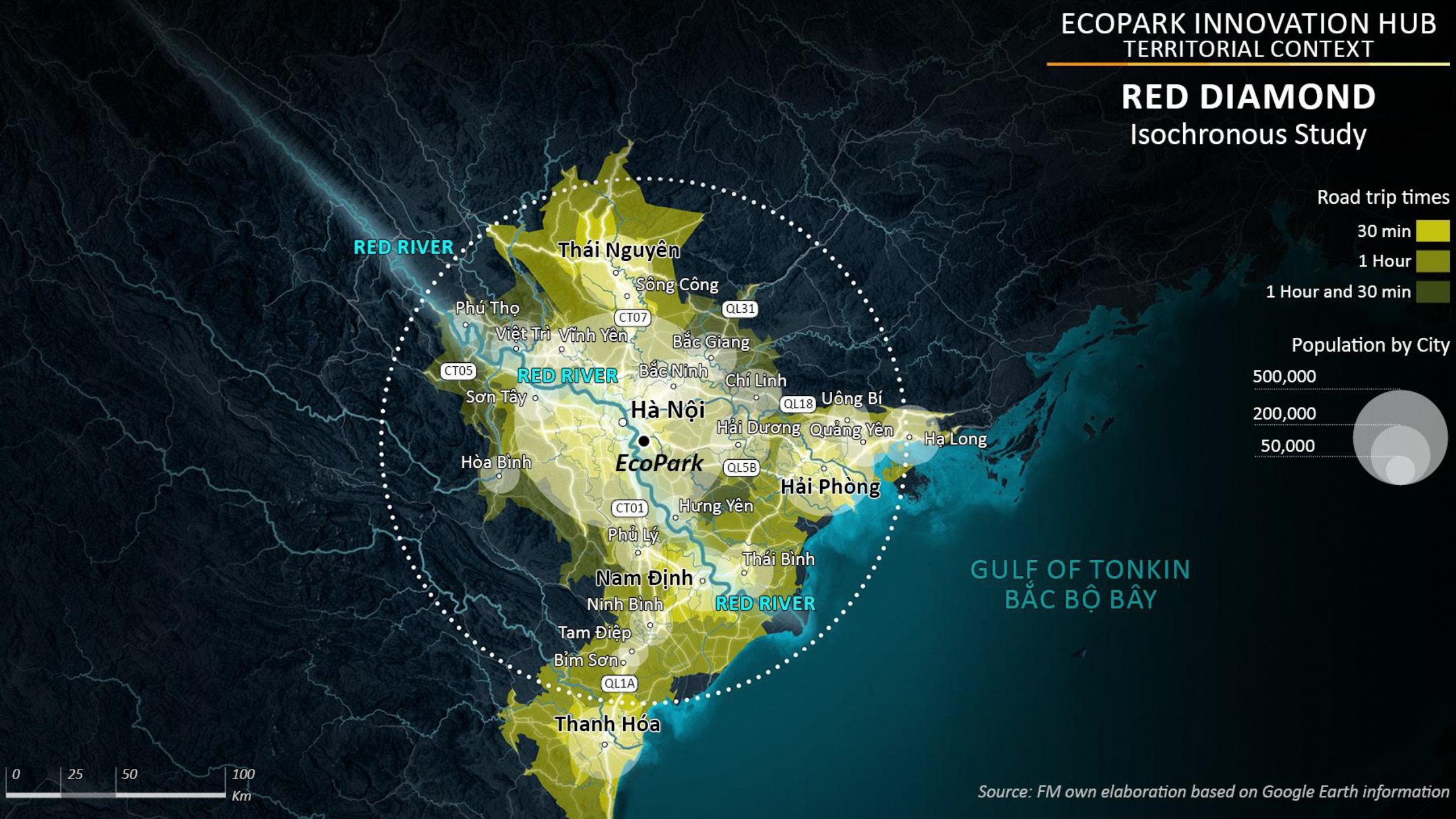
1 Hour and 30 min

Population by City

500,000

200,000

50,000



GULF OF TONKIN
BẮC BỘ BÂY

ECOPARK INNOVATION HUB TERRITORIAL CONTEXT

THE RED RIVER DELTA DIAMOND

Relief study

2.800 m

0 m




Elevation point

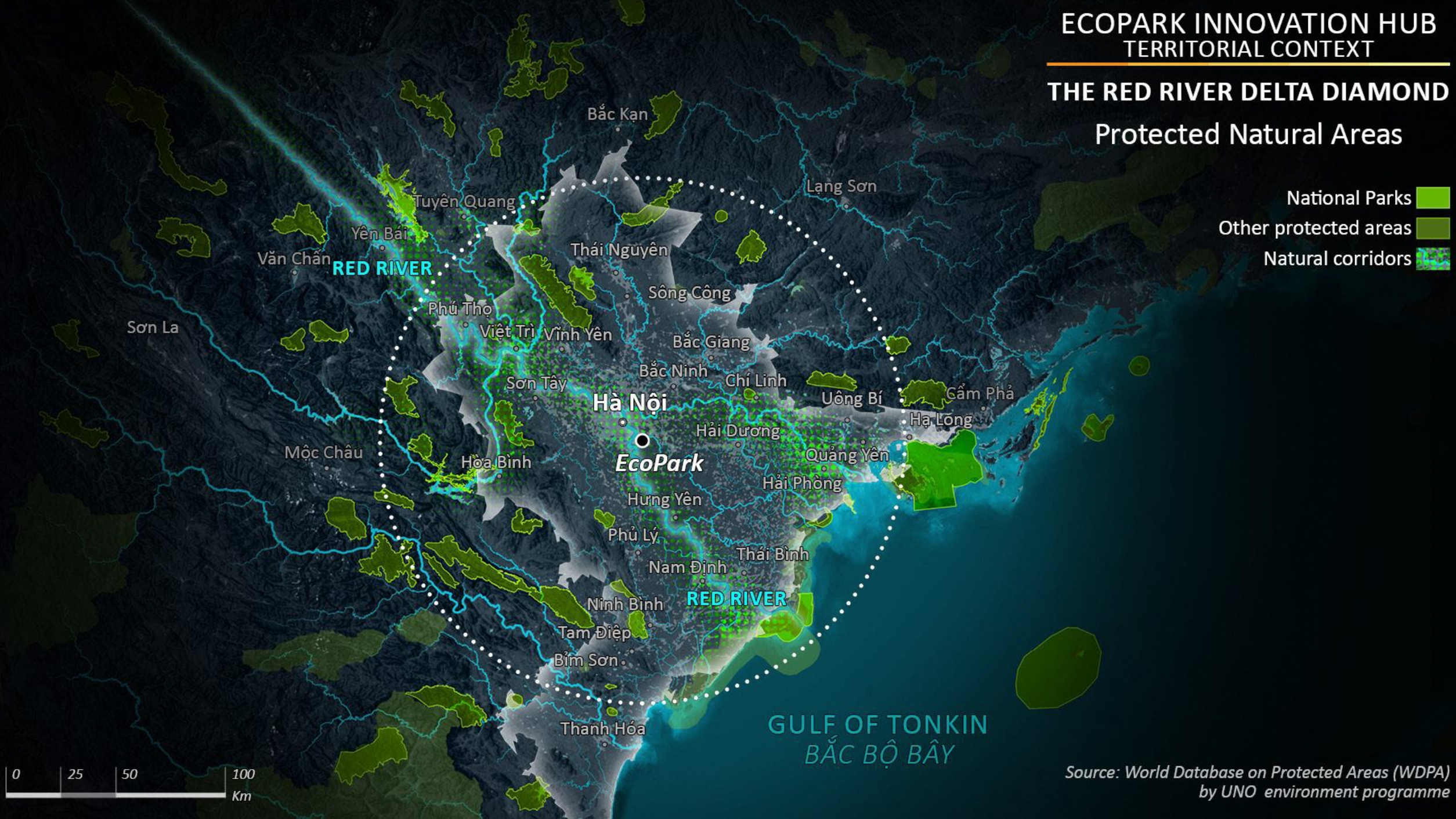


ECOPARK INNOVATION HUB TERRITORIAL CONTEXT

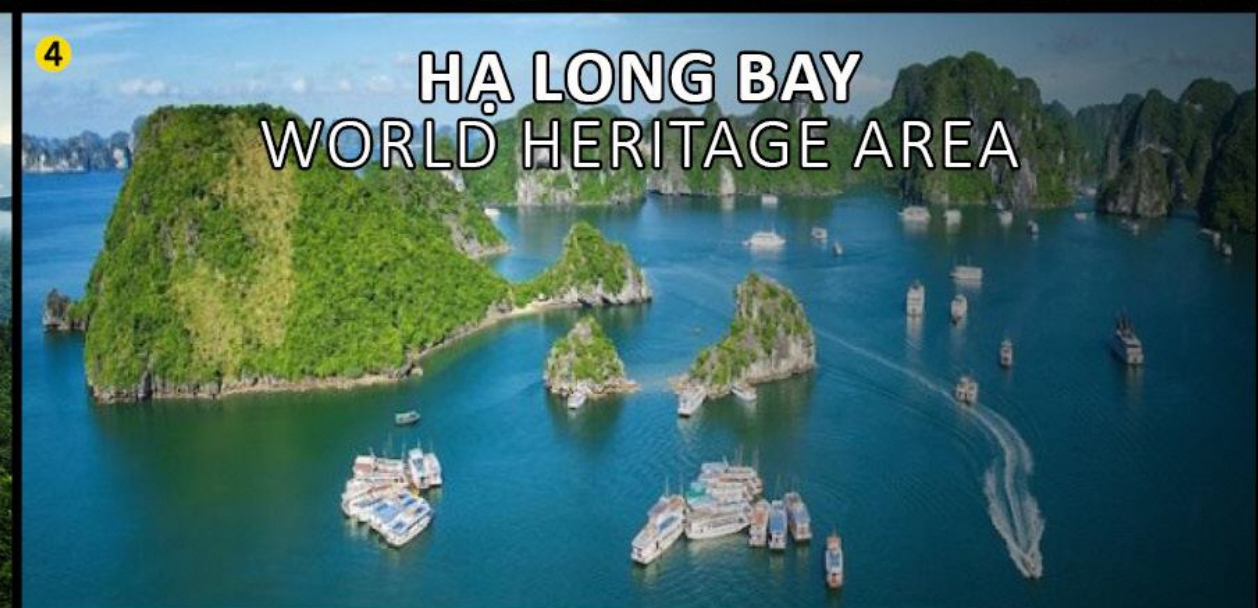
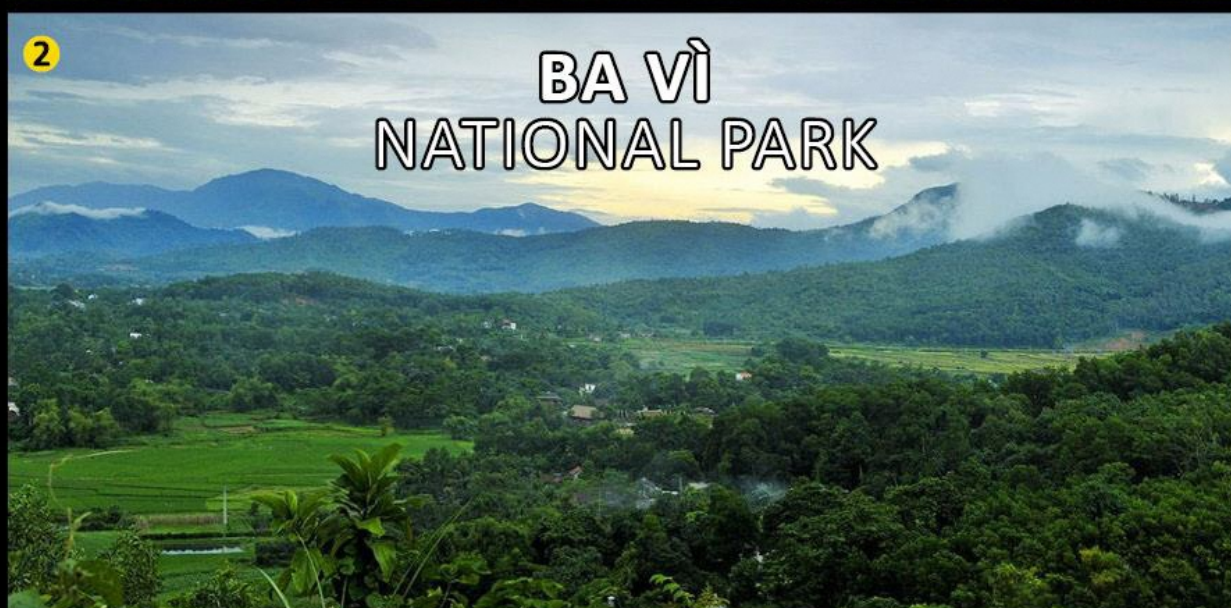
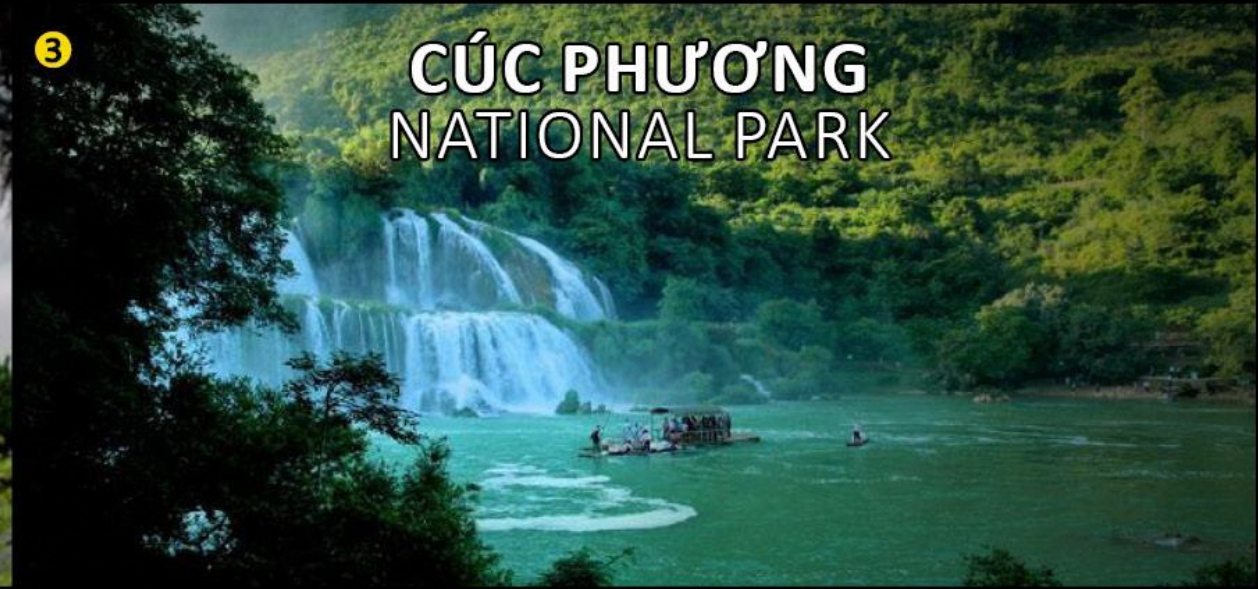
THE RED RIVER DELTA DIAMOND

Protected Natural Areas

- National Parks 
- Other protected areas 
- Natural corridors 





Source: World Database on Protected Areas (WDPA)
by UNO environment programme



ECOPARK INNOVATION HUB TERRITORIAL CONTEXT

THE RED RIVER DELTA DIAMOND

Road Network

Primary Roads 
Secondary Roads 







GULF OF TONKIN
BẮC BỘ BÂY



Source: FM own elaboration based on Google Earth information

ECOPARK INNOVATION HUB TERRITORIAL CONTEXT

THE RED RIVER DELTA DIAMOND Railway, Airports and Ports

- Railway Network - - - -
- Airport 
- Main Seaport 
- Other seaports 
- River port 





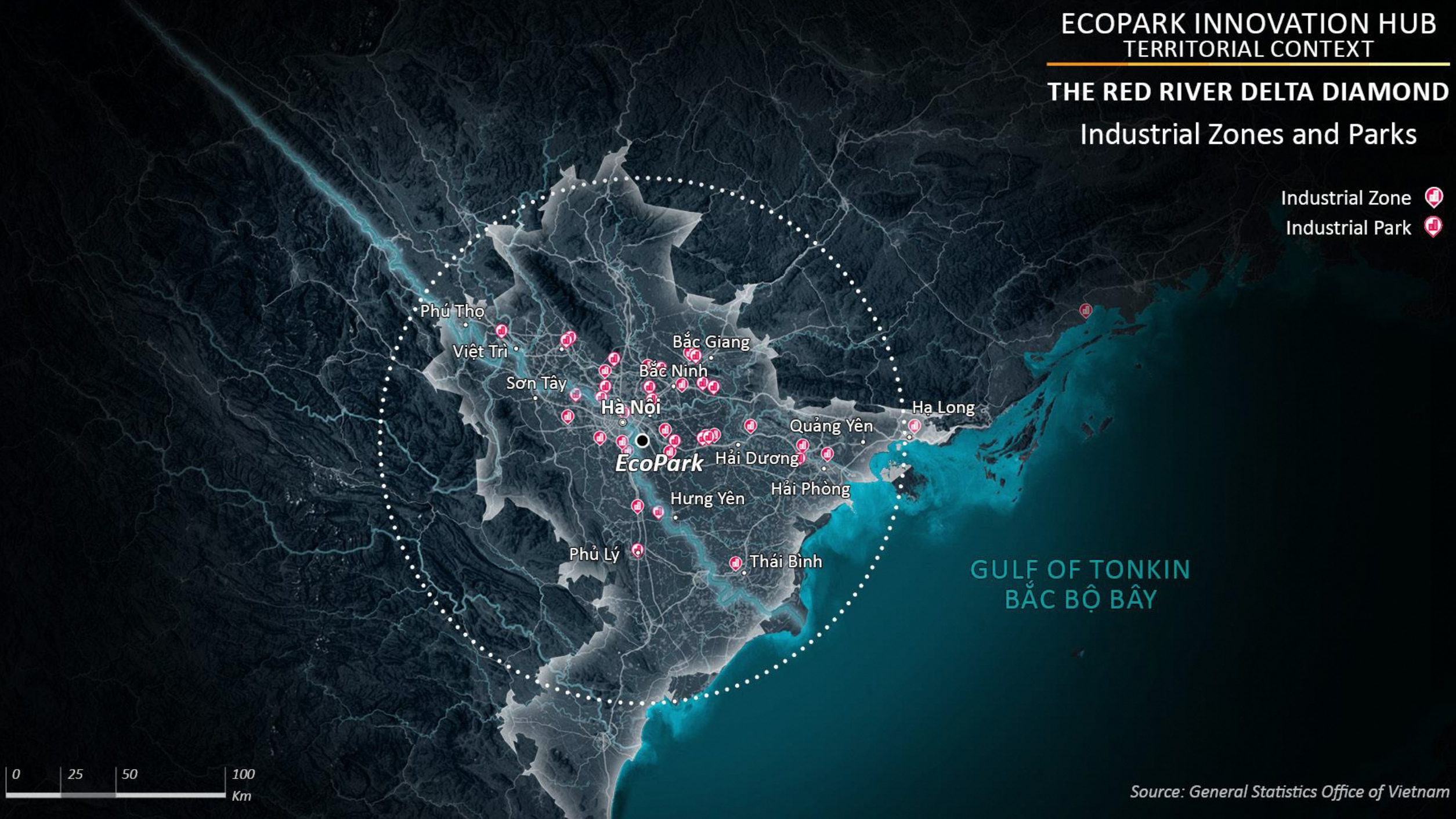
GULF OF TONKIN
BẮC BỘ BẤY

Source: FM own elaboration with searates.com information

ECOPARK INNOVATION HUB TERRITORIAL CONTEXT

THE RED RIVER DELTA DIAMOND Industrial Zones and Parks

- Industrial Zone 
- Industrial Park 



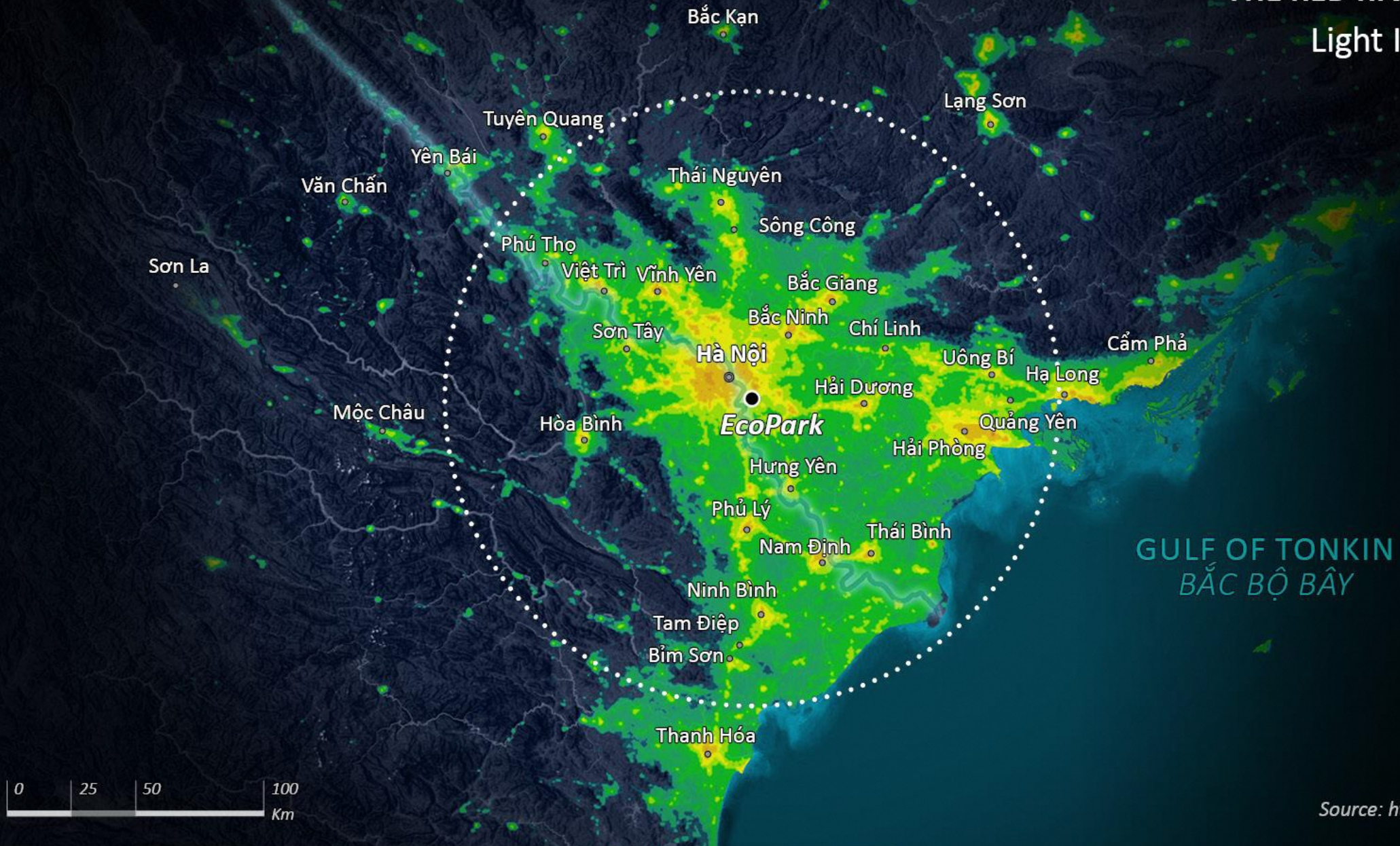
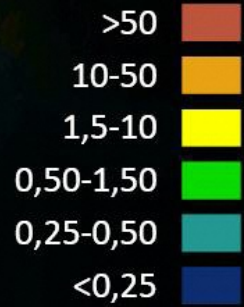
Source: General Statistics Office of Vietnam

ECOPARK INNOVATION HUB TERRITORIAL CONTEXT

THE RED RIVER DELTA DIAMOND

Light Intensity, 2019

Radiance $10^{-9}W / cm^2*sr$



Source: <https://www.lightpollutionmap.info>

ECOPARK IN METROPOLITAN HANOI



ECOPARK INNOVATION HUB

TERRITORIAL CONTEXT

GREATER HANOI

FLOOD RISK

Normal water extent



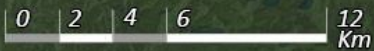
All previously-mapped flooding



Flooding mapped 2017*



* mapped from NASA MODIS and Copernicus Sentinel 1 data provided by the European Space Agency



Source: Flood Observatory GFP (NASA)

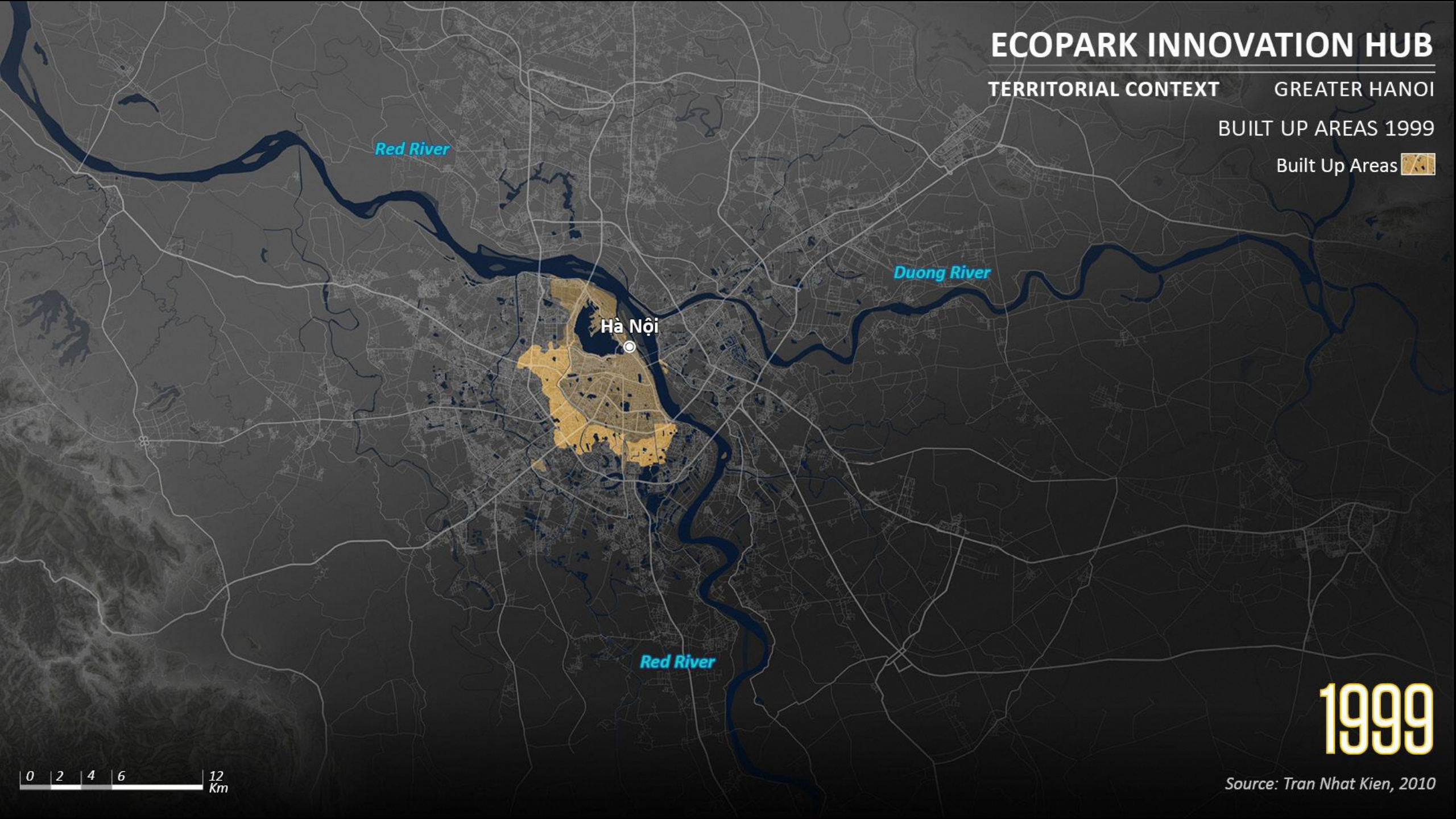
ECOPARK INNOVATION HUB

TERRITORIAL CONTEXT

GREATER HANOI

BUILT UP AREAS 1999

Built Up Areas 



1999


Source: Tran Nhat Kien, 2010

ECOPARK INNOVATION HUB

TERRITORIAL CONTEXT

GREATER HANOI

BUILT UP AREAS 2019

Built Up Areas 

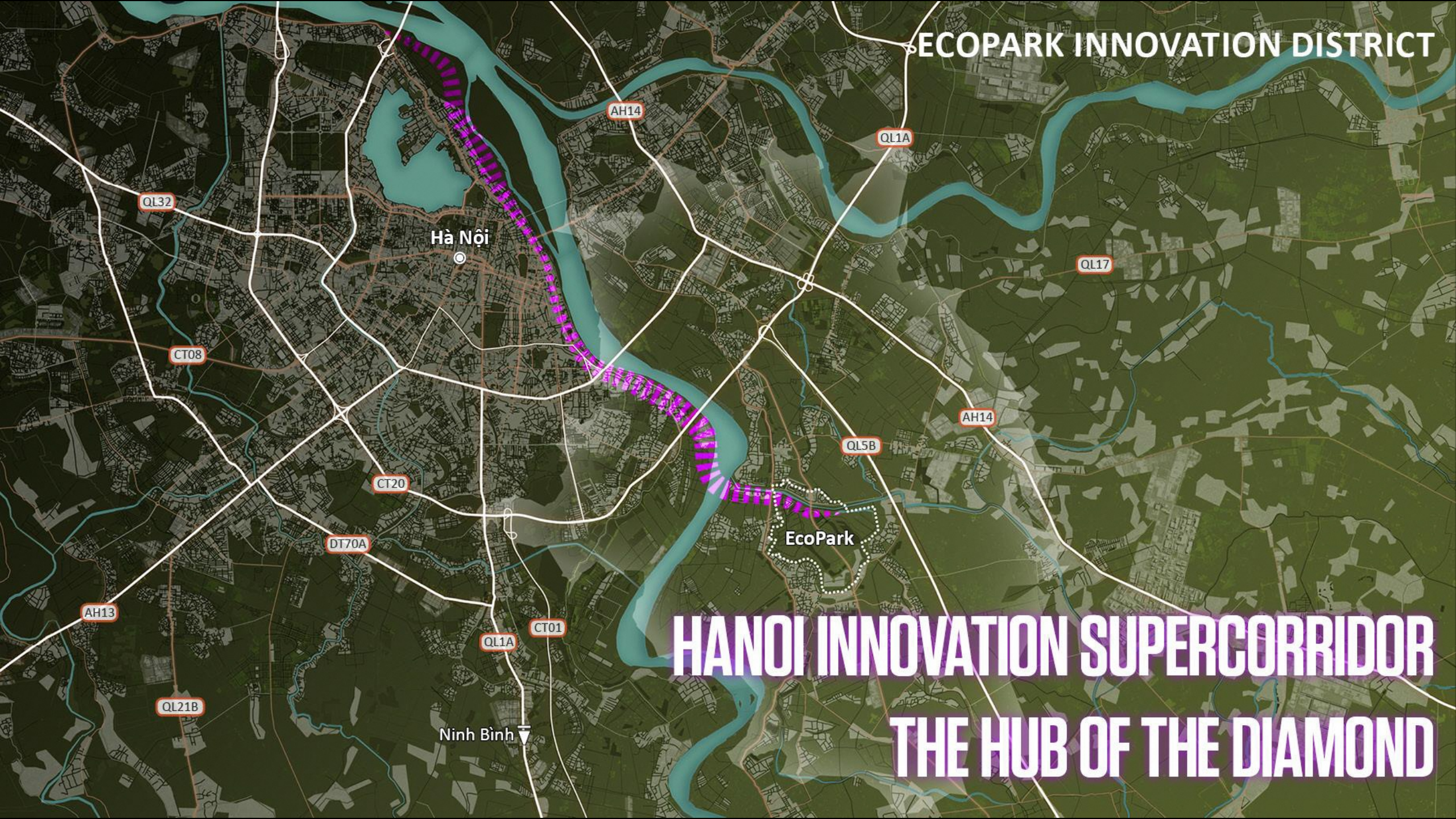


0 2 4 6 12 Km

2019

Source: General Statistics Office of Vietnam

ECOPARK INNOVATION DISTRICT



HANOI INNOVATION SUPERCORRIDOR THE HUB OF THE DIAMOND

ECOPARK DIAMOND CITY



Key Concepts from the Participatory Process

Hybrid
Urbanism

8,8

CD 22,4

Design with
Nature

8,7

CD 21,3

24/7 Livable
Place

8,7

CD 16,0

Integrated
Community

8,7

CD 20,5

Place for
Innovation

8,5

CD 19,5

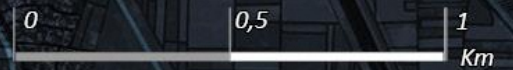
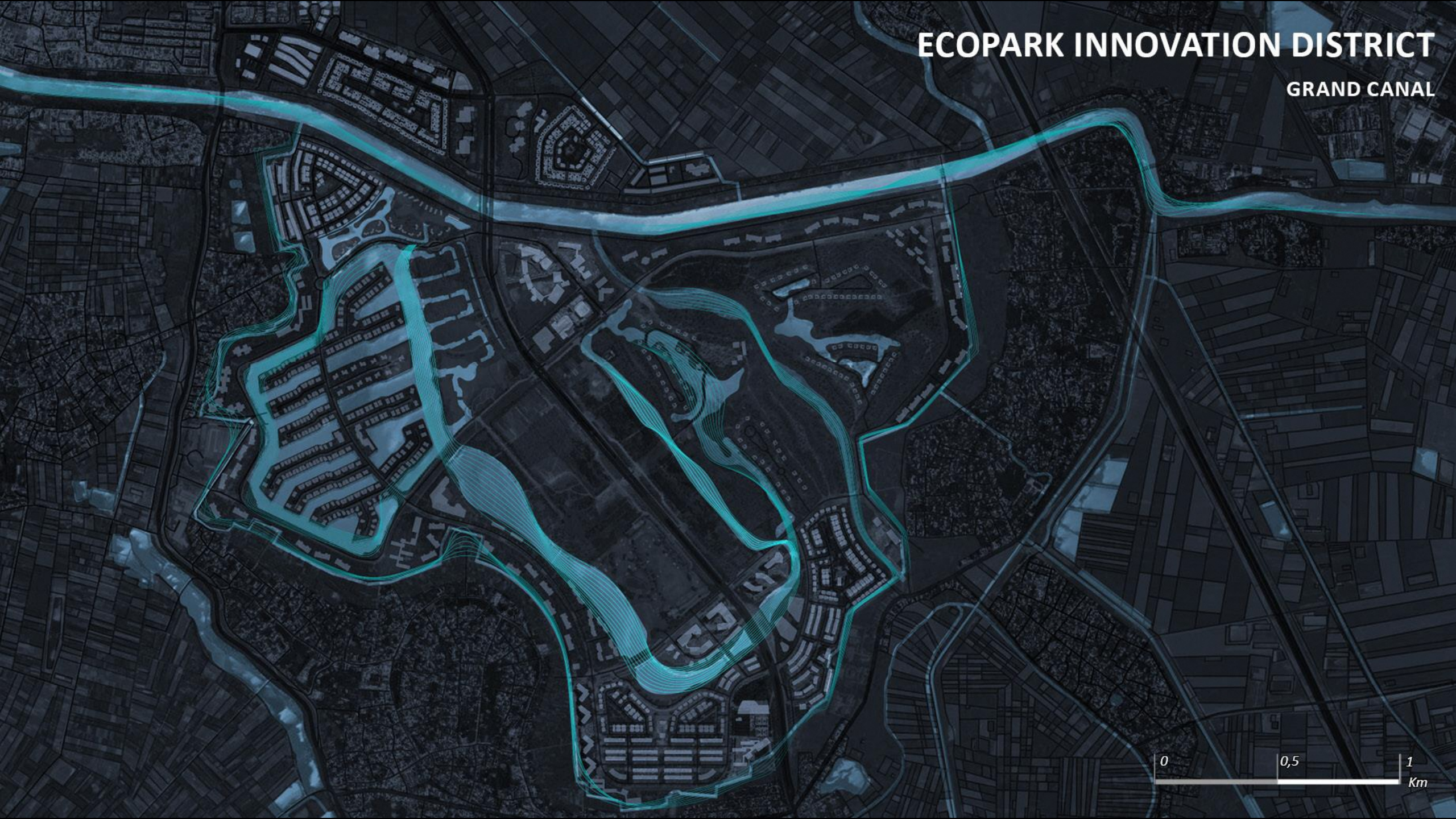
Attraction of
Talent

8,5

CD 19,5

ECOPARK INNOVATION DISTRICT

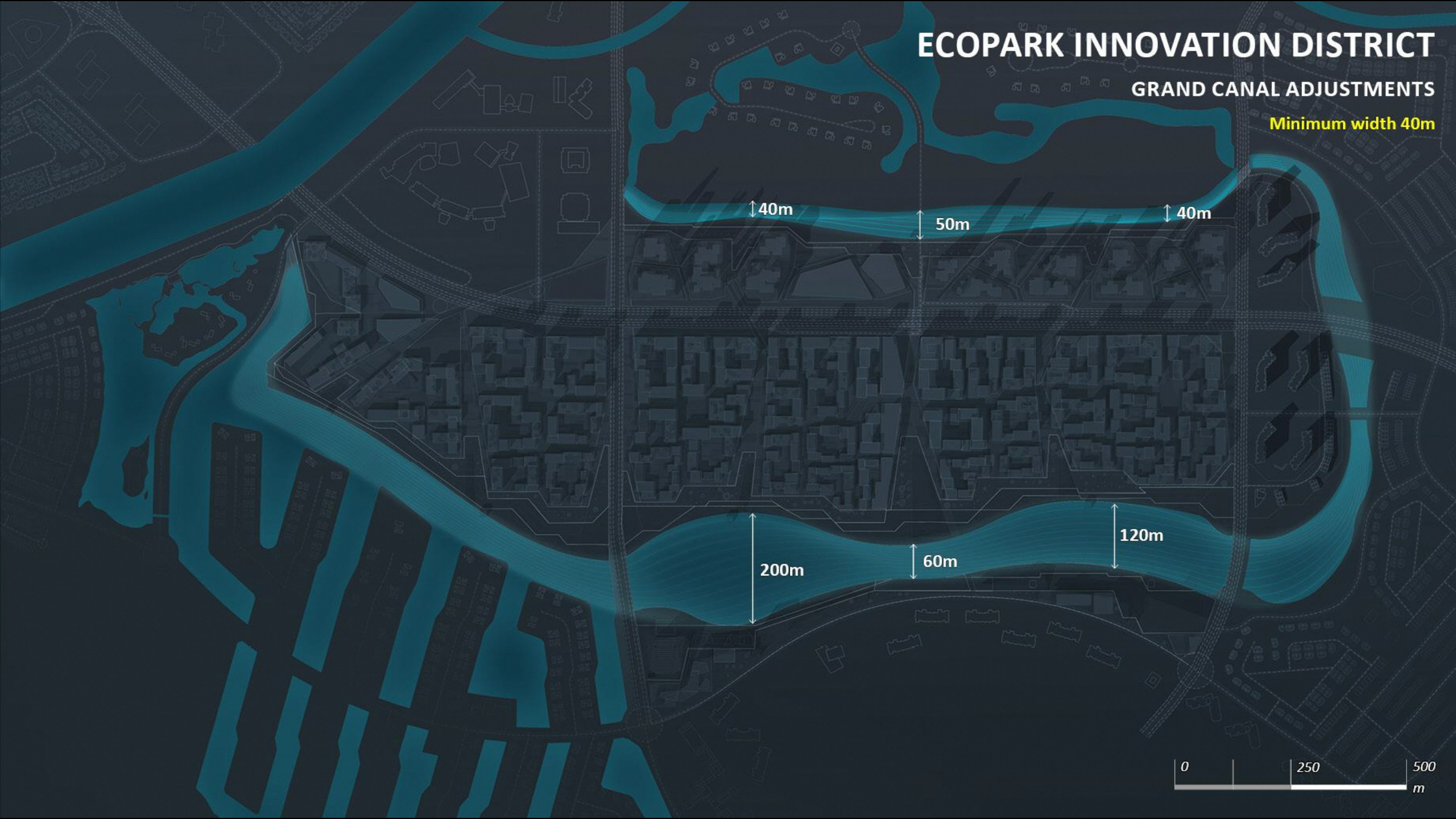
GRAND CANAL



ECOPARK INNOVATION DISTRICT

GRAND CANAL ADJUSTMENTS

Minimum width 40m



ECOPARK INNOVATION DISTRICT

NATURAL DRAINAGE



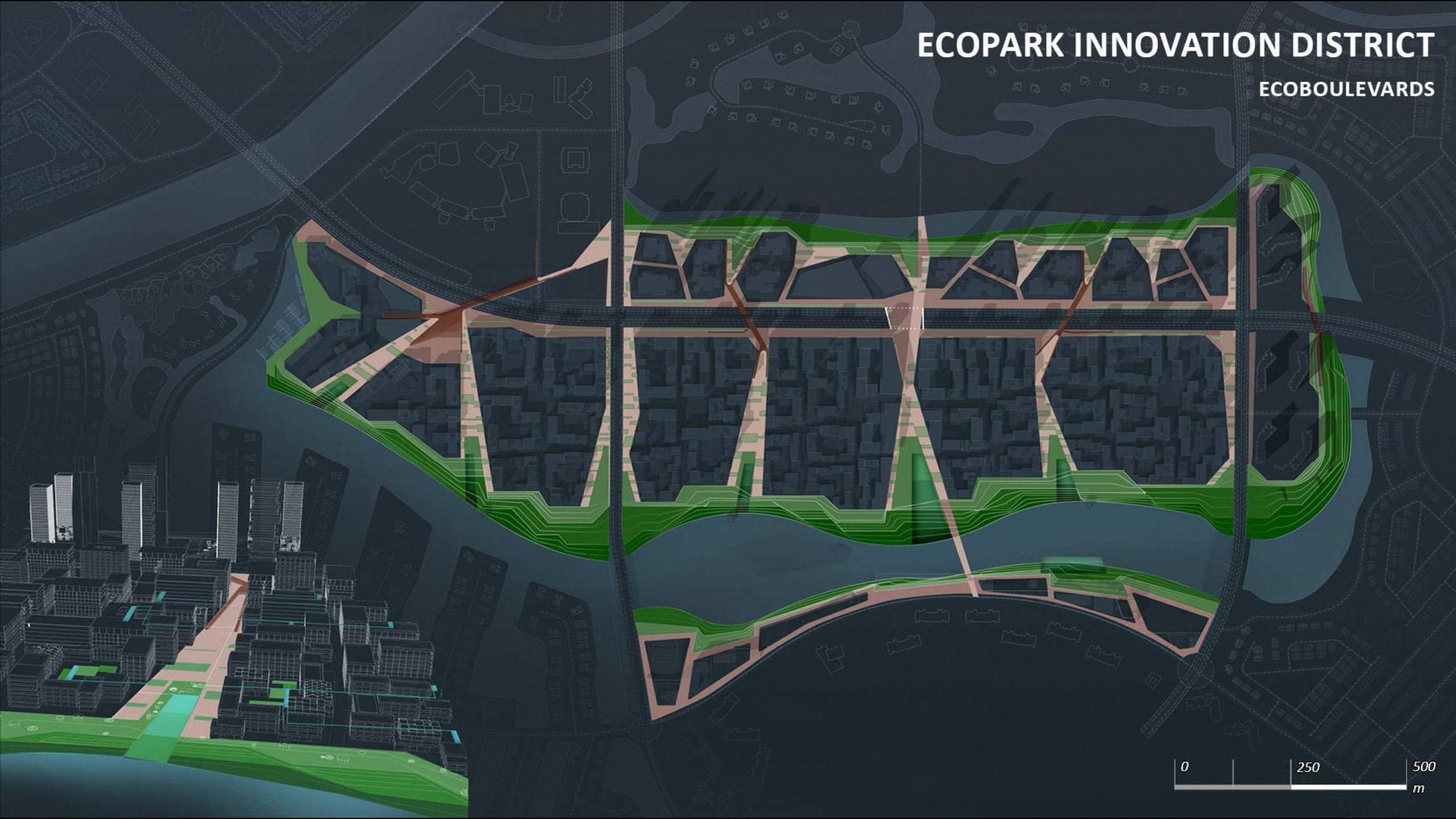
ECOPARK INNOVATION DISTRICT

WATERFRONTS



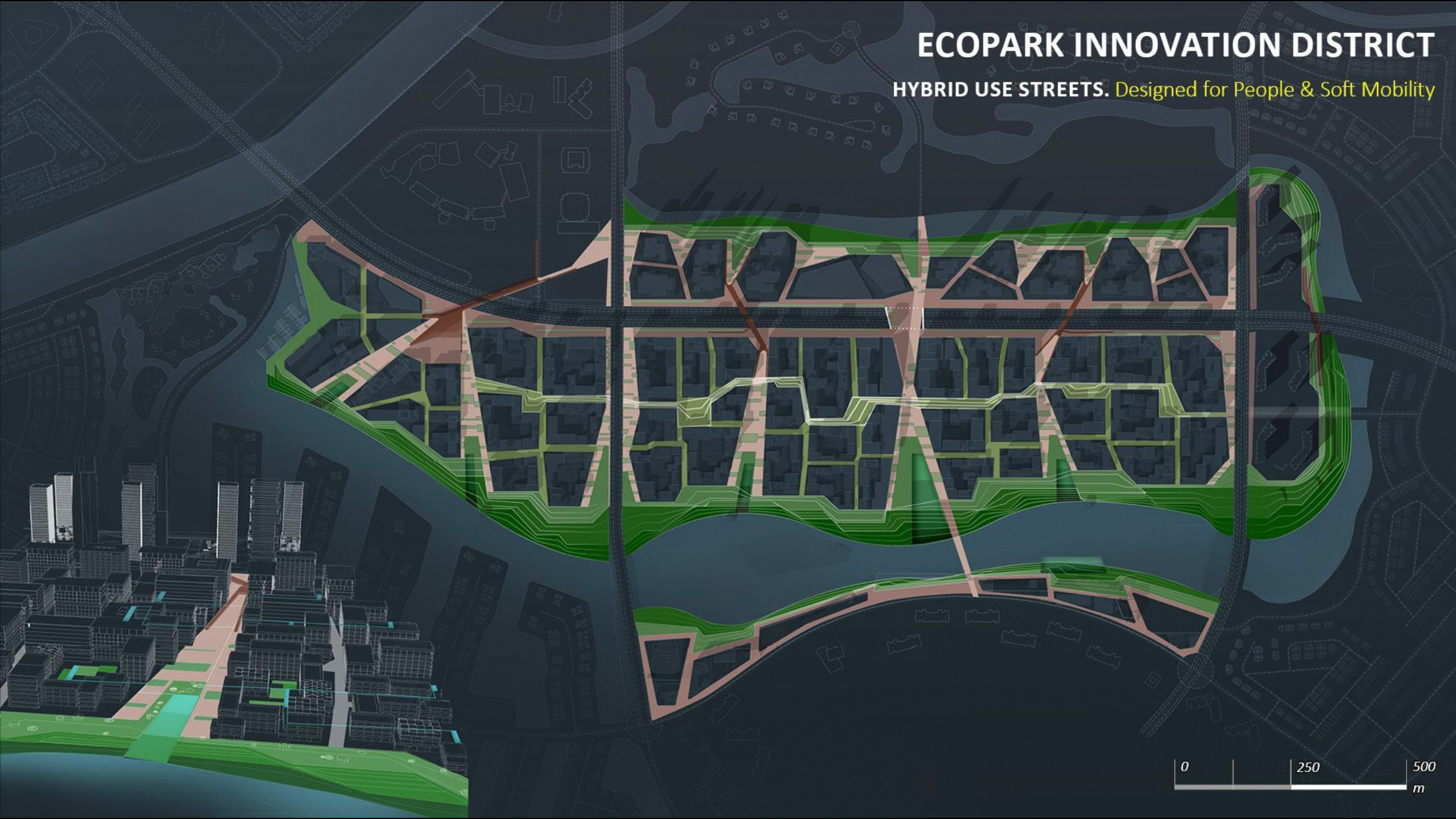
ECOPARK INNOVATION DISTRICT

ECOBOULEVARDS



ECOPARK INNOVATION DISTRICT

HYBRID USE STREETS. *Designed for People & Soft Mobility*



ECOPARK INNOVATION DISTRICT

LANDSCAPE INTELLIGENCE

MONSOON SEASON



Rainfall Diagram



ECOPARK INNOVATION DISTRICT

LANDSCAPE INTELLIGENCE

DRY SEASON



Rainfall Diagram



URBAN COMPONENTS



ECOPARK INNOVATION DISTRICT



Phase Zero

Marina Gate

Cubes of Innovation

Life Science Park

Digital Village

Life Science Park

Ecobox

The HUB

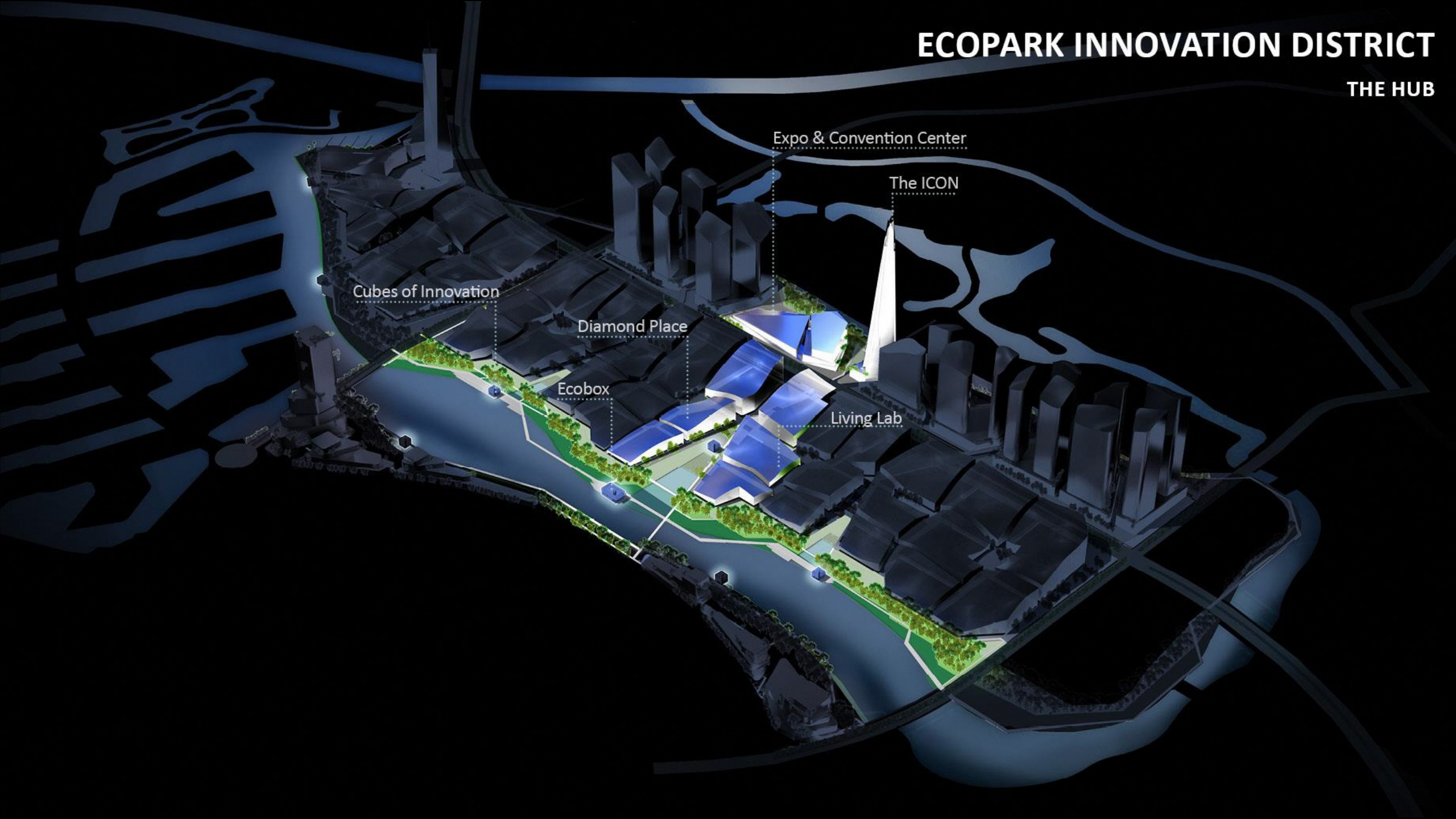
Global Corporation Campus (GCC)

Global Corporation Campus (GCC)

Digital Village

ECOPARK INNOVATION DISTRICT

THE HUB



Expo & Convention Center

The ICON

Cubes of Innovation

Diamond Place

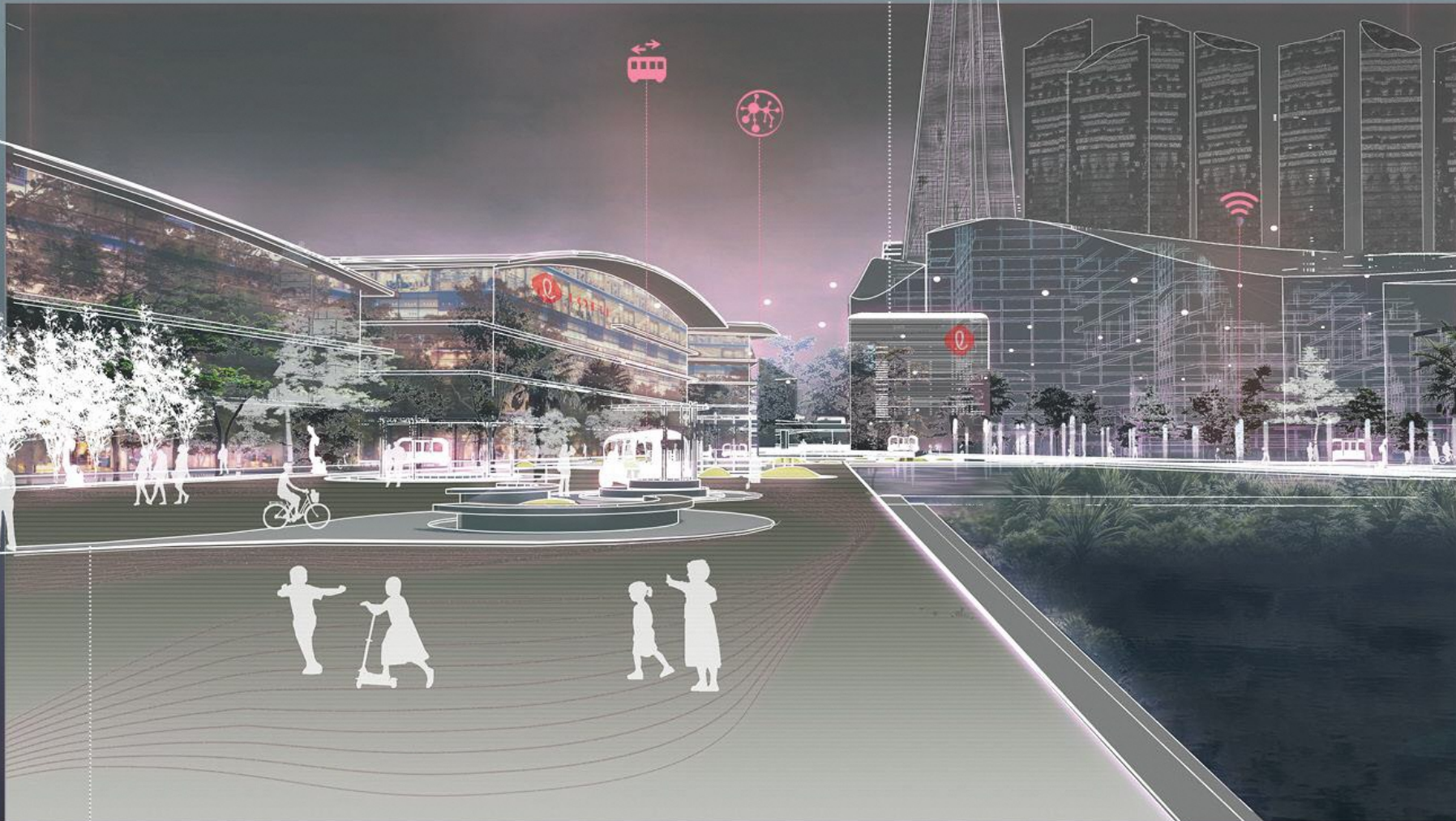
Ecobox

Living Lab

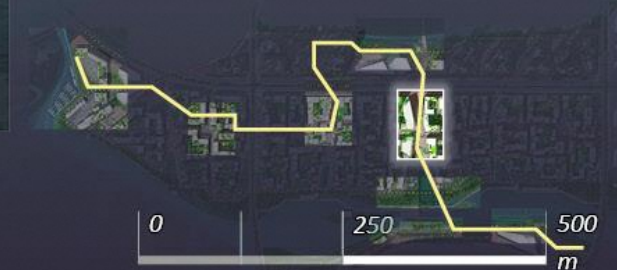
Cubes of Innovation

ECOPARK INNOVATION DISTRICT

THE HUB

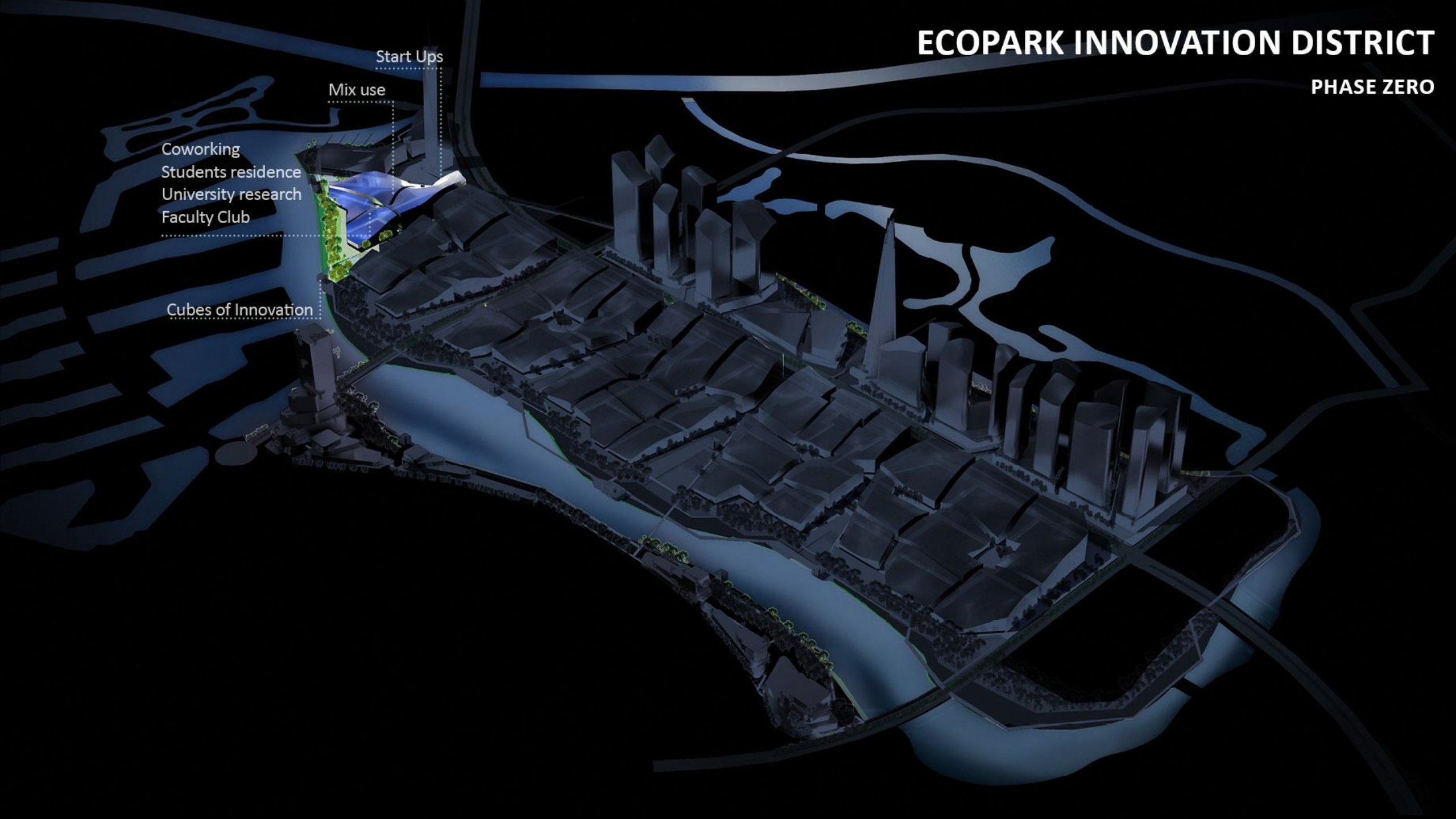


ITC Integration



ECOPARK INNOVATION DISTRICT

PHASE ZERO



Start Ups

Mix use

Coworking
Students residence
University research
Faculty Club

Cubes of Innovation

ECOPARK INNOVATION DISTRICT

GLOBAL CORPORATION CAMPUS (GCC)

Offices

Institutional Buildings

Hybrid Working / living

Coworking

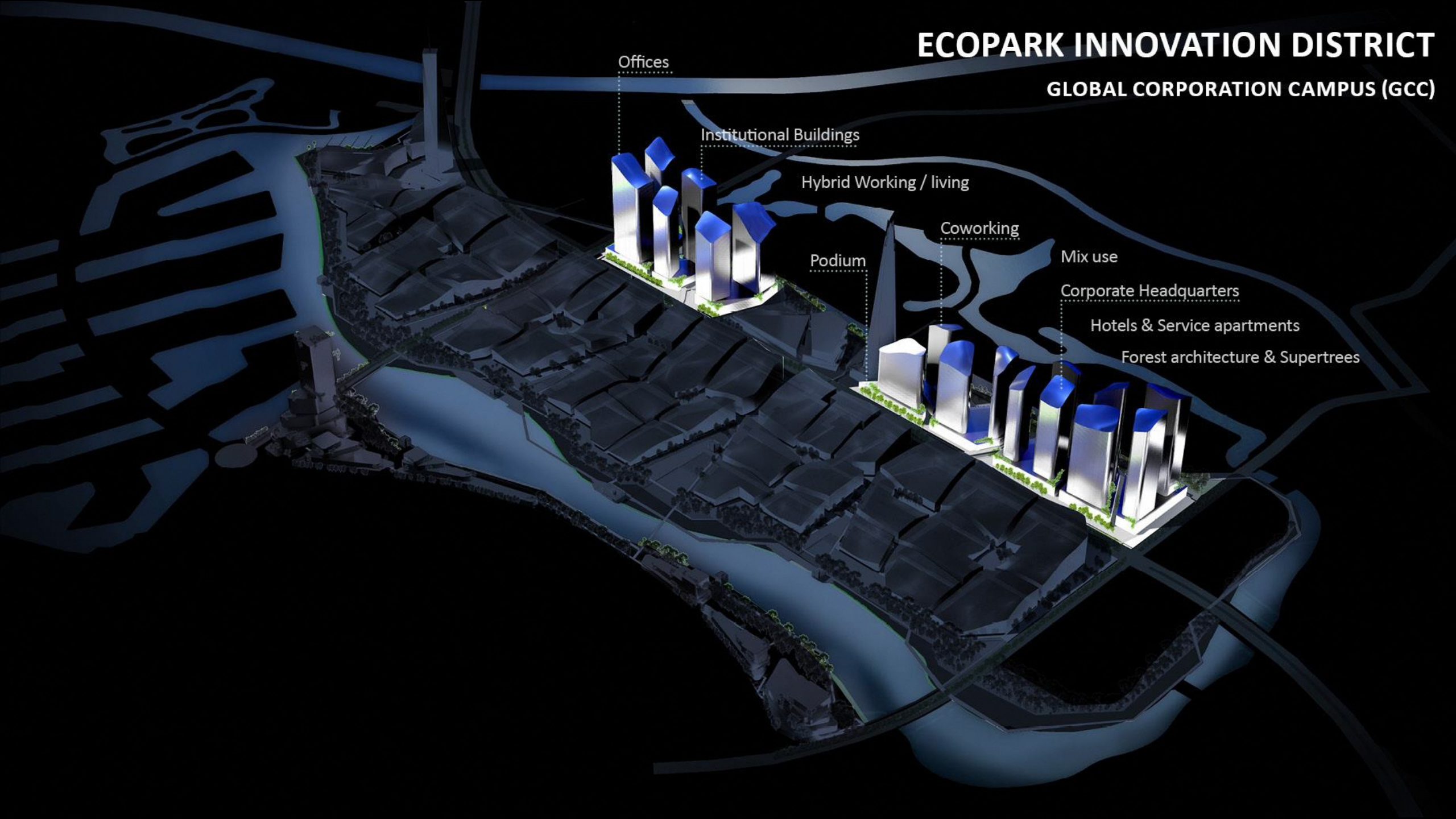
Podium

Mix use

Corporate Headquarters

Hotels & Service apartments

Forest architecture & Supertrees



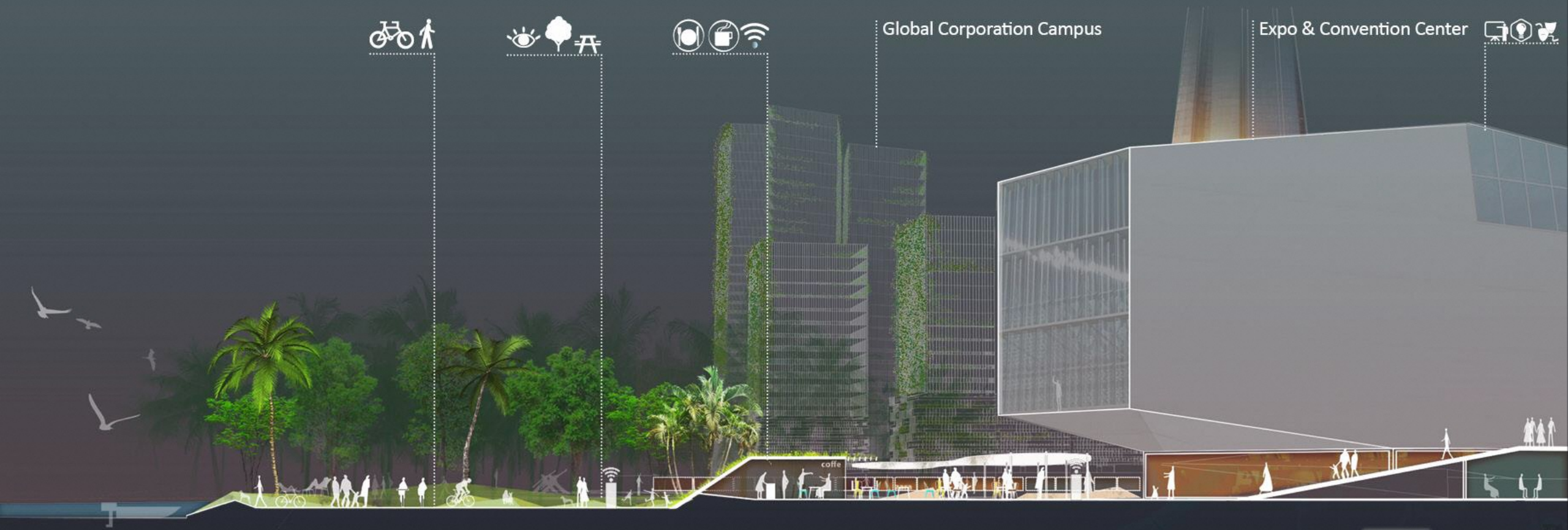
ECOPARK INNOVATION DISTRICT

NORTH WATERFRONT



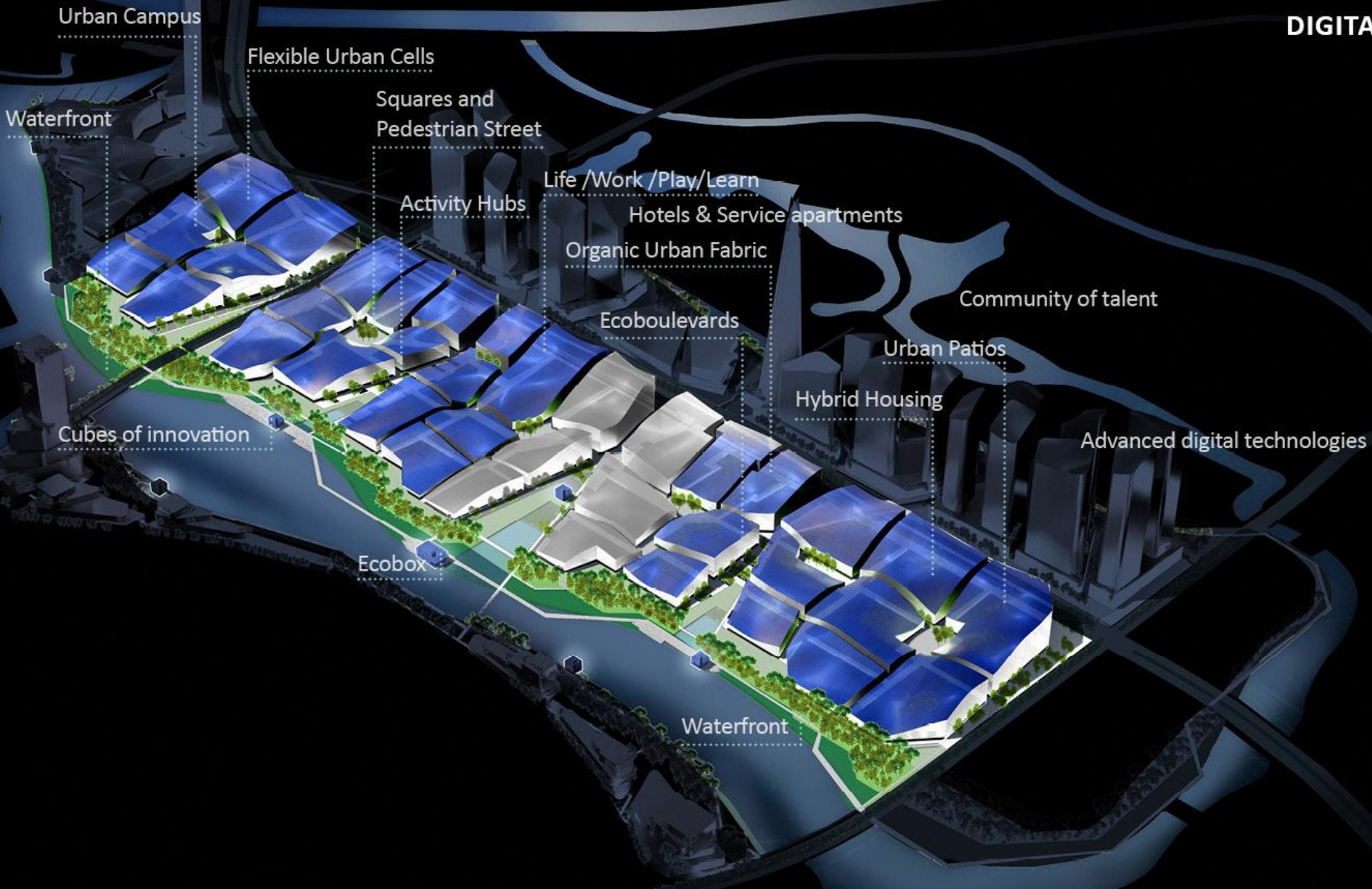
Global Corporation Campus

Expo & Convention Center



ECOPARK INNOVATION DISTRICT

DIGITAL VILLAGE



THE DIAMOND METAPHOR



Digital Village
Urban Life Cells

ECOPARK

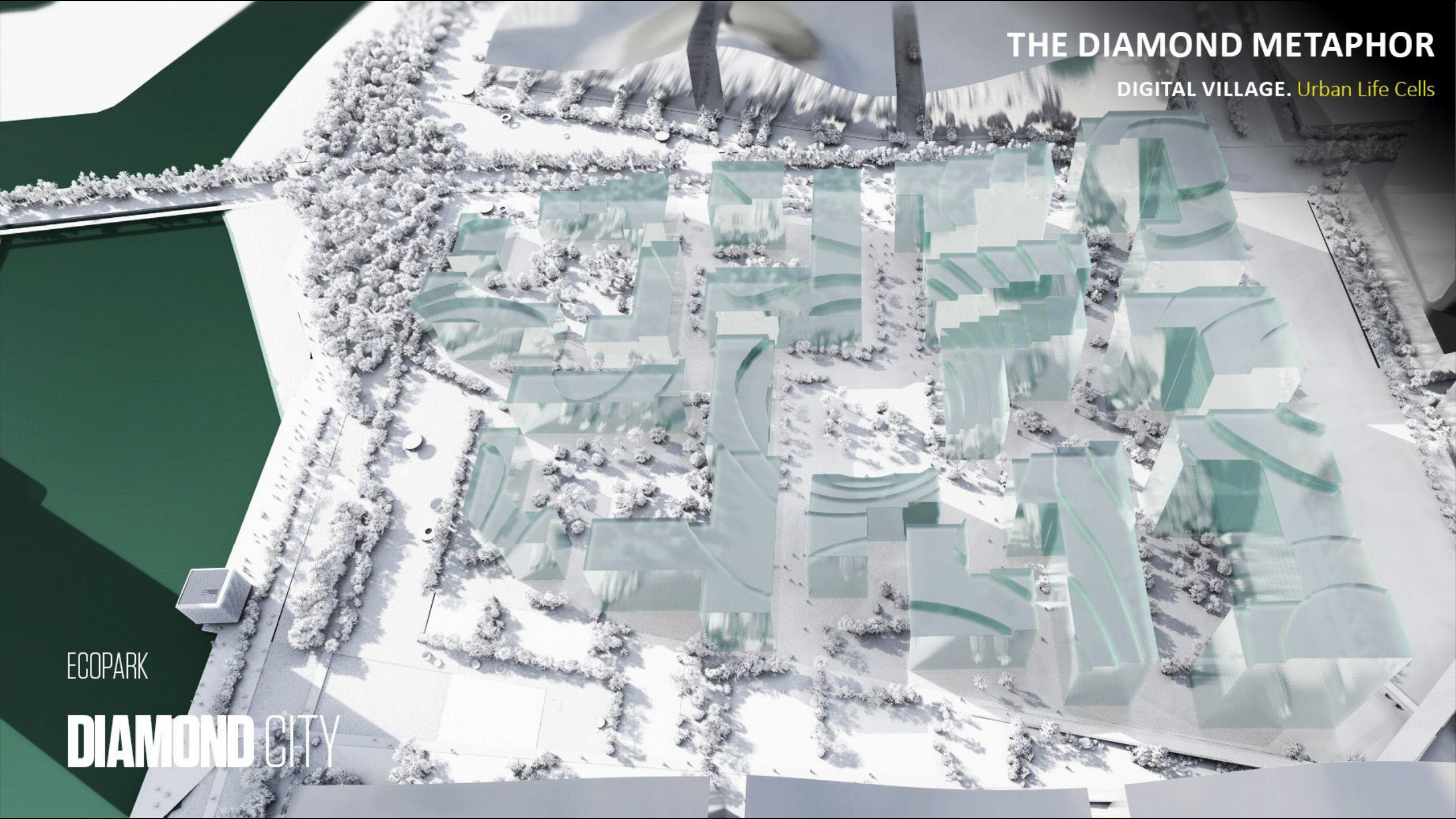
DIAMOND CITY

THE DIAMOND METAPHOR

DIGITAL VILLAGE. *Urban Life Cells*

ECOPARK

DIAMOND CITY



ECOPARK INNOVATION DISTRICT

LIVING STREETS

Advanced Power Grid

ITC Integration

Building Energy optimizers



Public devices

- Cleaning
- Garden

Autonomous bus trail

Smart Stops



ECOPARK INNOVATION DISTRICT

SOUTH WATERFRONT

Hybrid Architectures

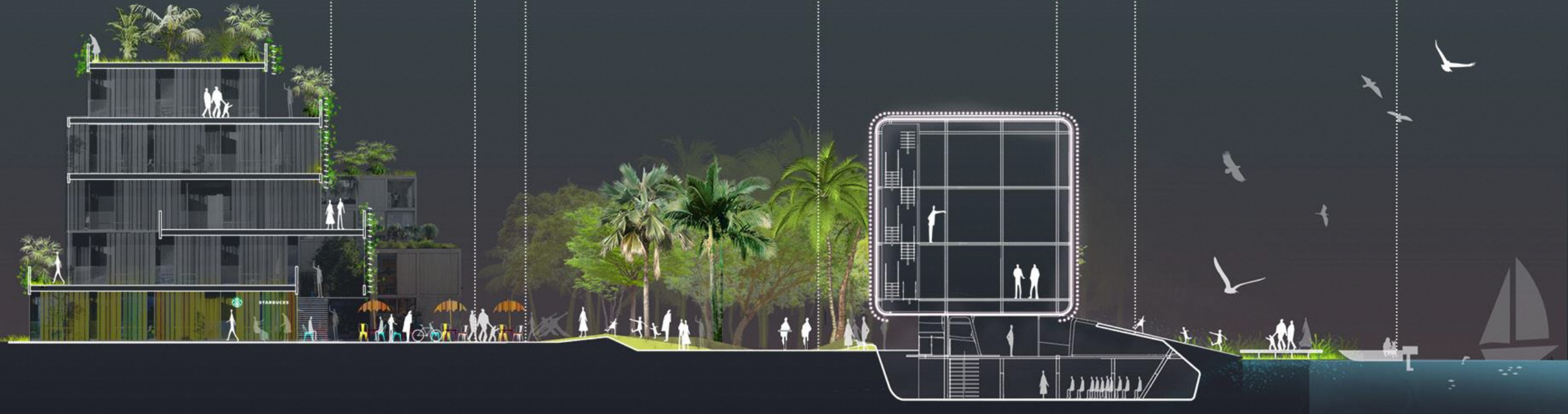


Urban Activities



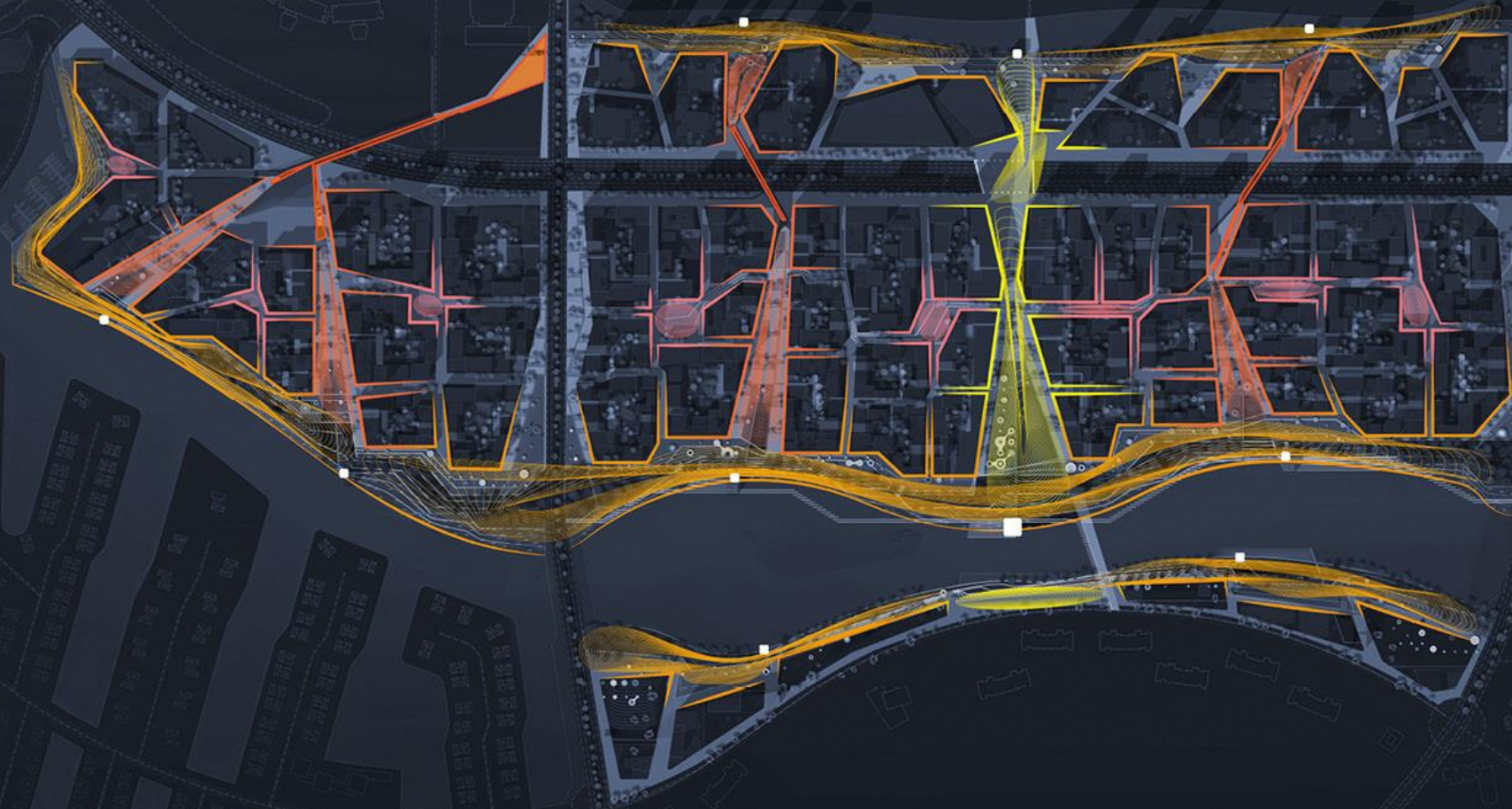
Cubes of Innovation

Interaction and recreation



ECOPARK INNOVATION DISTRICT

STREET & SQUARES



01 GRAPHIC RESULTS

Mixed-use strategy inside the Innovation District



ECOPARK INNOVATION DISTRICT

ARCHITECTURE LANDMARKS



Marina Tower

Expo & Convention Center

The ICON

Diamond Place

Cubes of Innovation

Living Lab

Hybrid Tower

Ecobox

Cubes of Innovation

ECOPARK INNOVATION DISTRICT

PEDESTRIAN INTENSITY

Minimum

Maximum



Buildings as Acoustic Barriers
Pedestrian Intensity & Environmental Comfort

ECOPARK INNOVATION DISTRICT

CROSSING ROAD MOBILITY

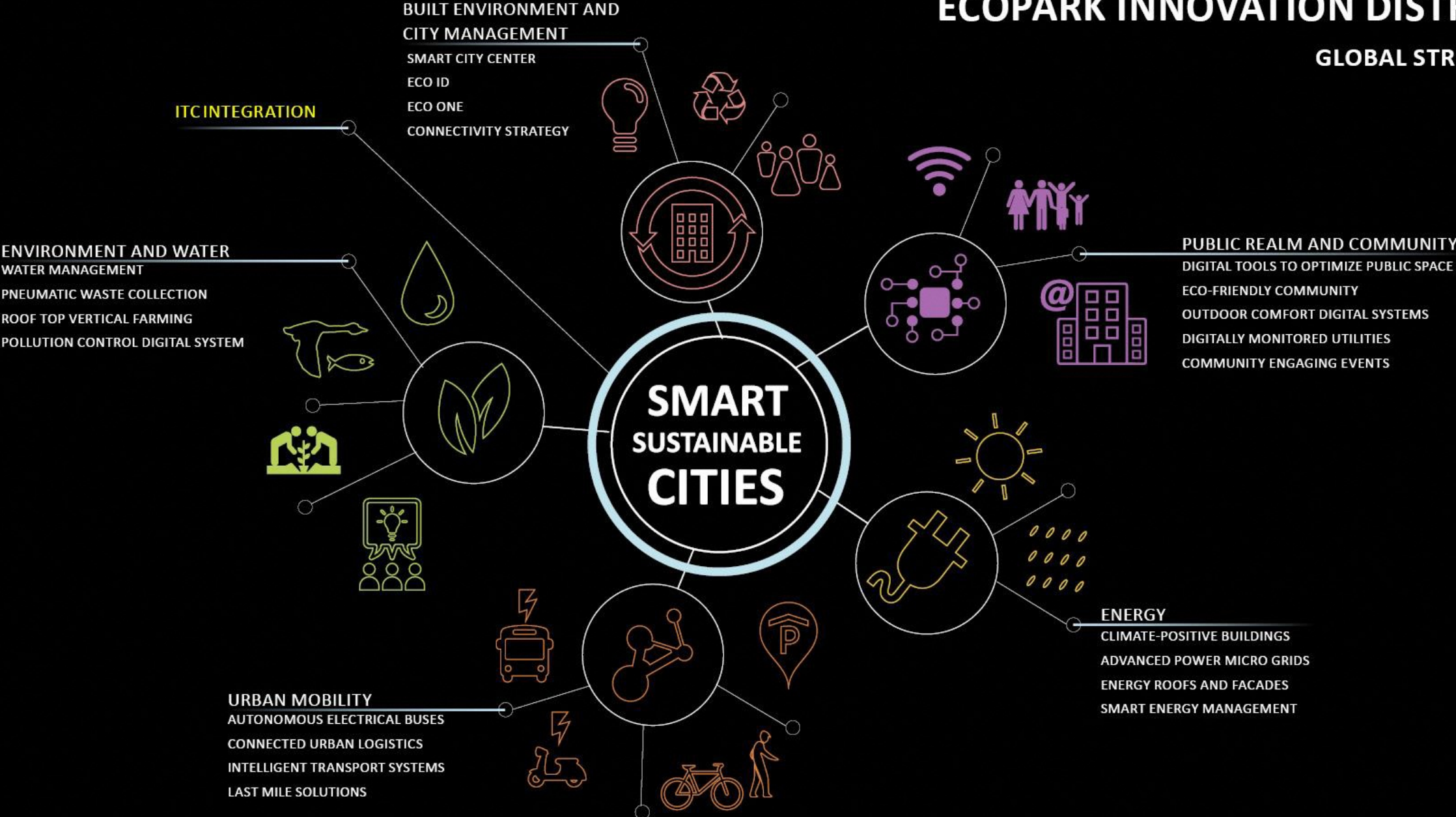


SMART DIGITAL SOLUTIONS



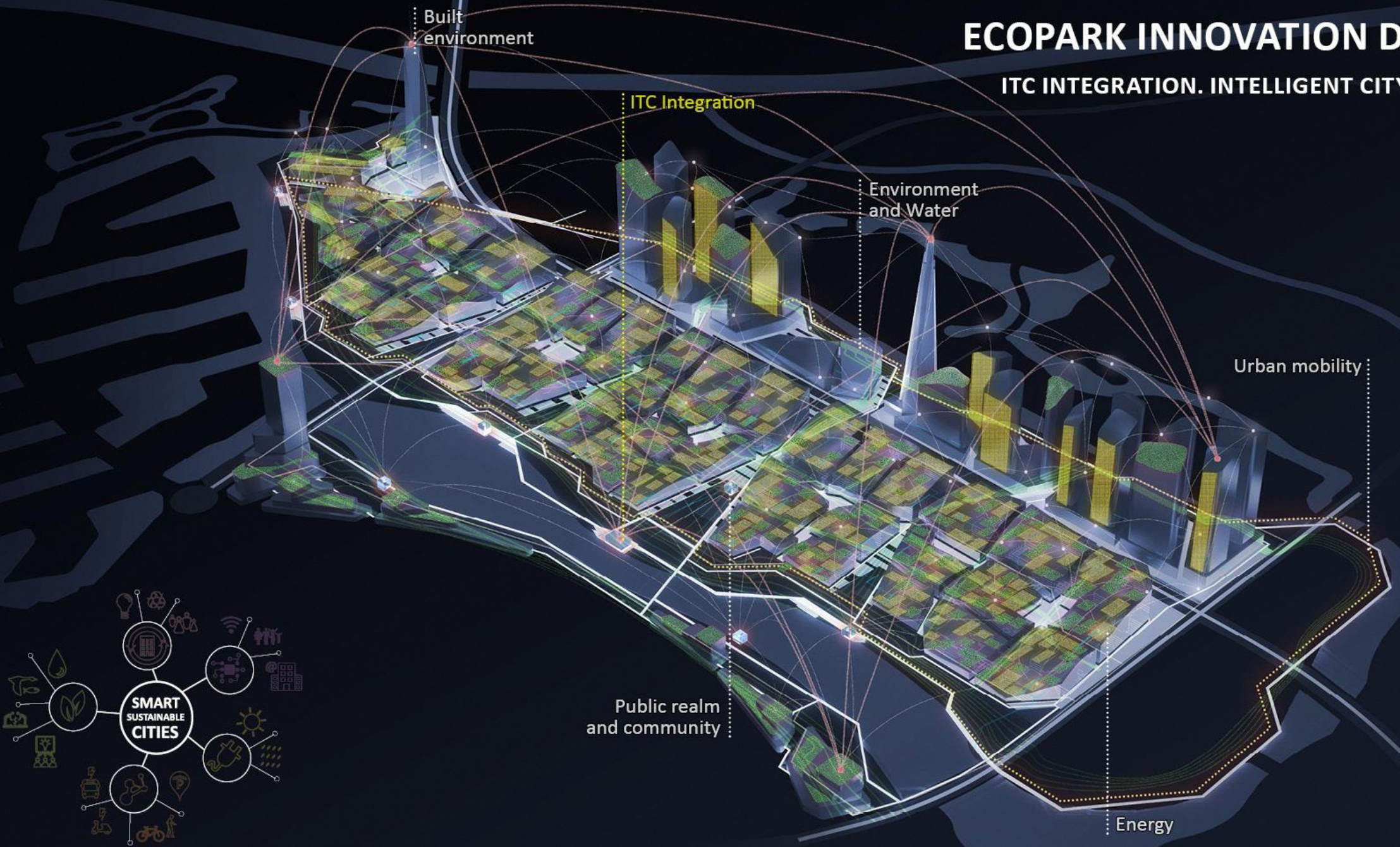
ECOPARK INNOVATION DISTRICT

GLOBAL STRATEGY



ECOPARK INNOVATION DISTRICT

ITC INTEGRATION. INTELLIGENT CITY PLATFORM



ECOPARK INNOVATION DISTRICT

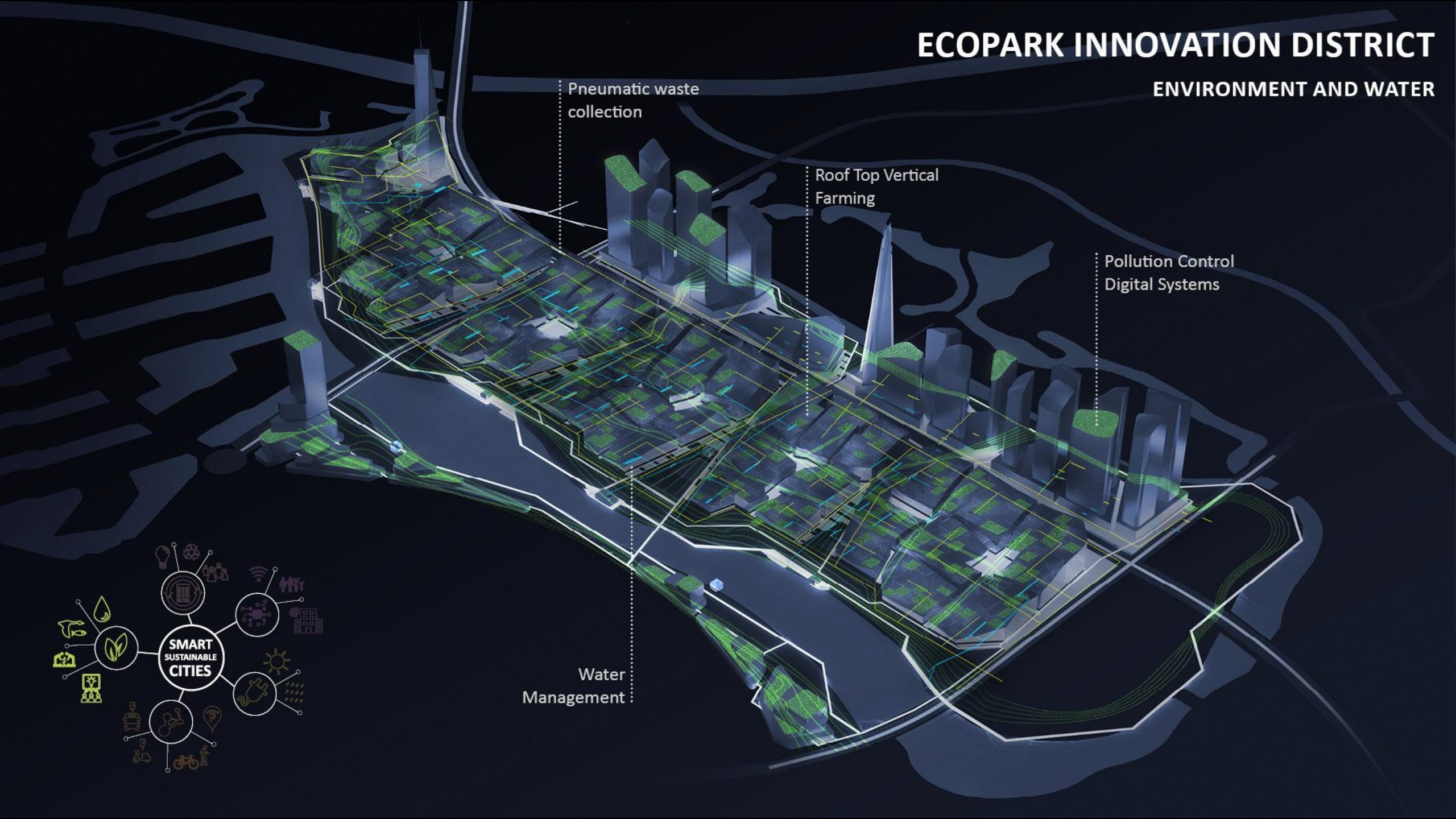
ENVIRONMENT AND WATER

Pneumatic waste collection

Roof Top Vertical Farming

Pollution Control Digital Systems

Water Management



ECOPARK INNOVATION DISTRICT

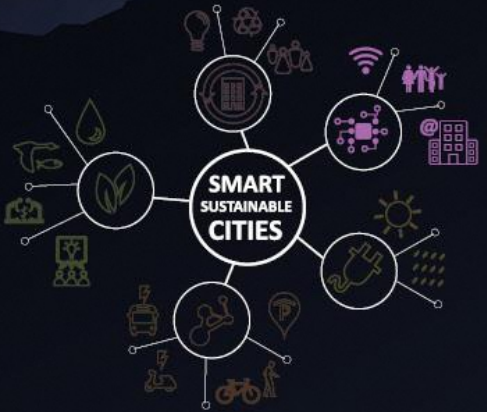
PUBLIC REALM AND COMMUNITY

Community
Engaging Events

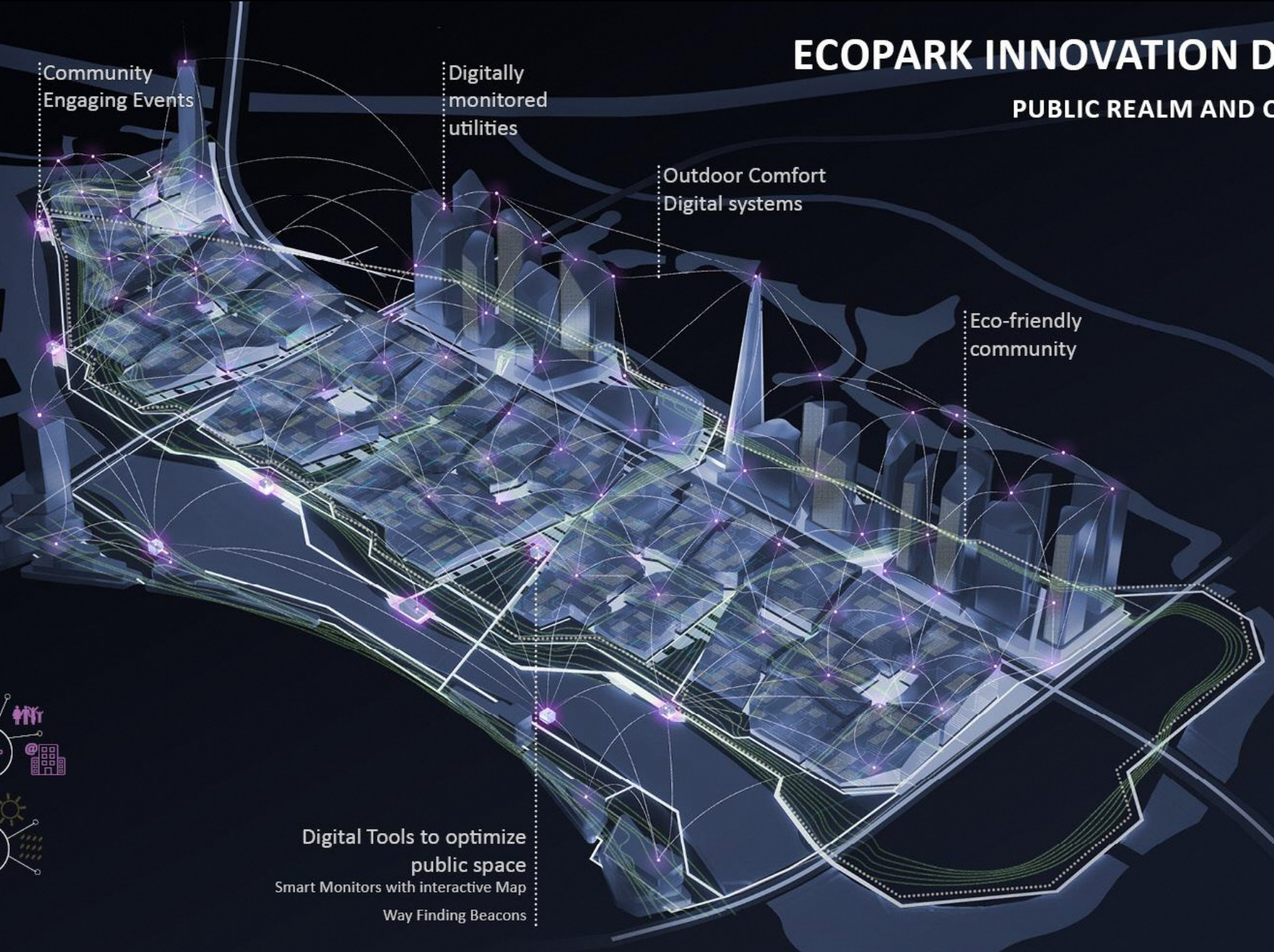
Digitally
monitored
utilities

Outdoor Comfort
Digital systems

Eco-friendly
community

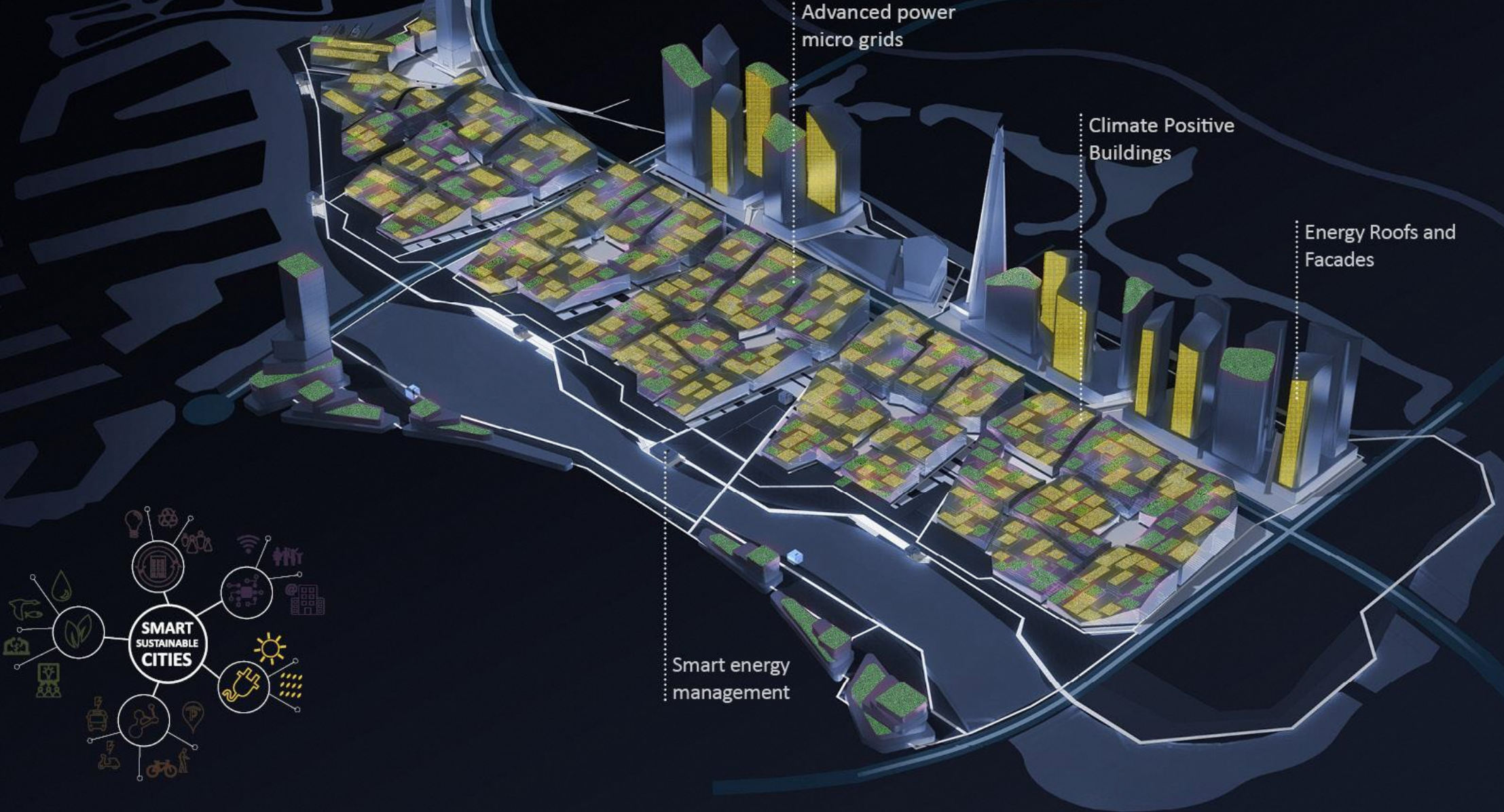


Digital Tools to optimize
public space
Smart Monitors with interactive Map
Way Finding Beacons



ECOPARK INNOVATION DISTRICT

ENERGY



ECOPARK INNOVATION DISTRICT

BUILT ENVIRONMENT AND CITY MANAGEMENT

Eco ID
Eco ONE

Conectivity Strategy

- GPow Ring
- Wifi Access Points
- Fiber to the home (FTTP)
- Low Power Wide Areas (Network)
- 5G Infrastructure

Smart City Center
Urban Analytics
Sensing and Communications



ECOPARK DIAMOND CITY



ECOPARK INNOVATION DISTRICT



ECOPARK INNOVATION DISTRICT



THE DIAMOND METAPHOR

ECOPARK

DIAMOND CITY



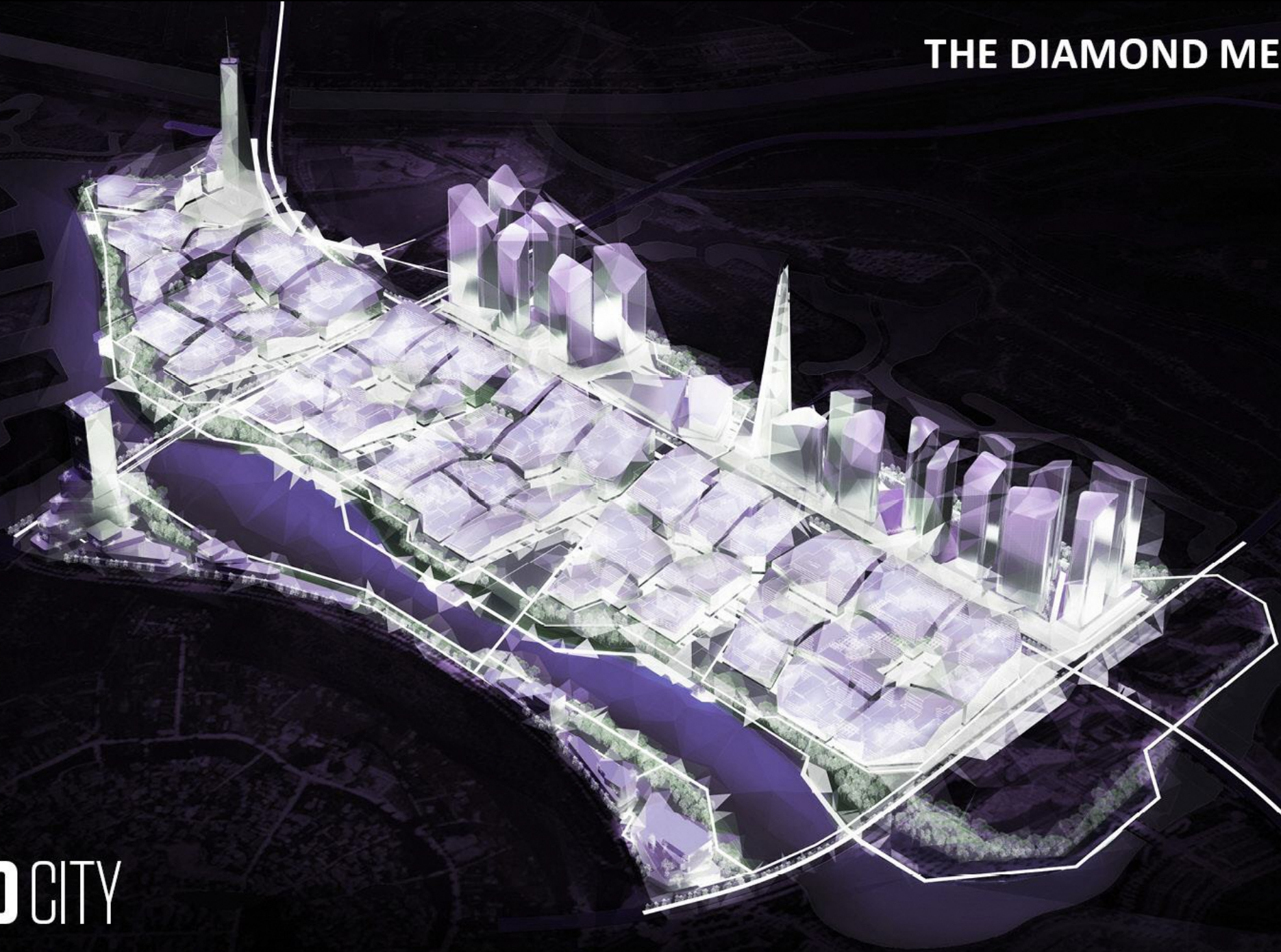
THE DIAMOND METAPHOR



ECOPARK

DIAMOND CITY

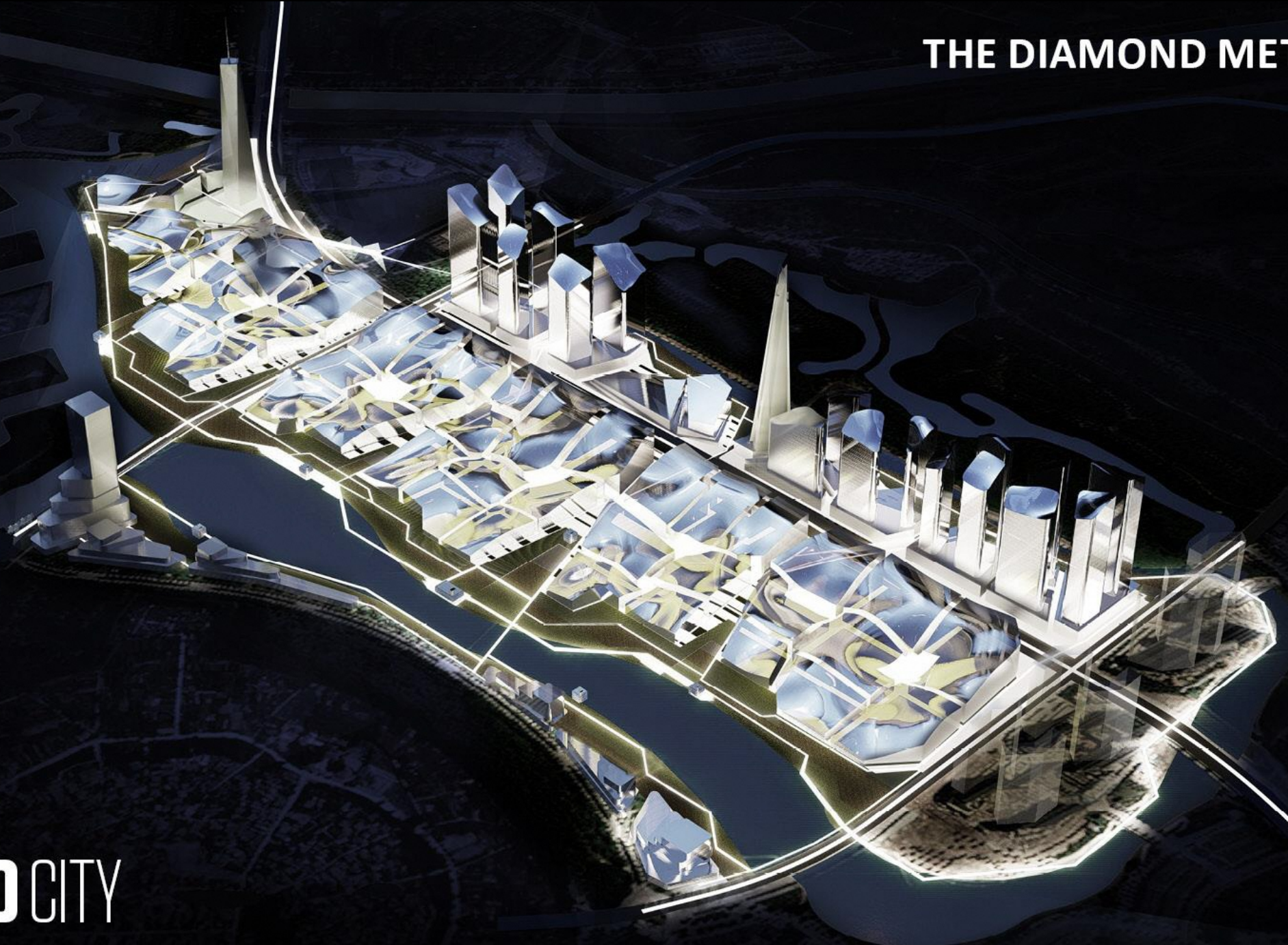
THE DIAMOND METAPHOR



ECOPARK

DIAMOND CITY

THE DIAMOND METAPHOR



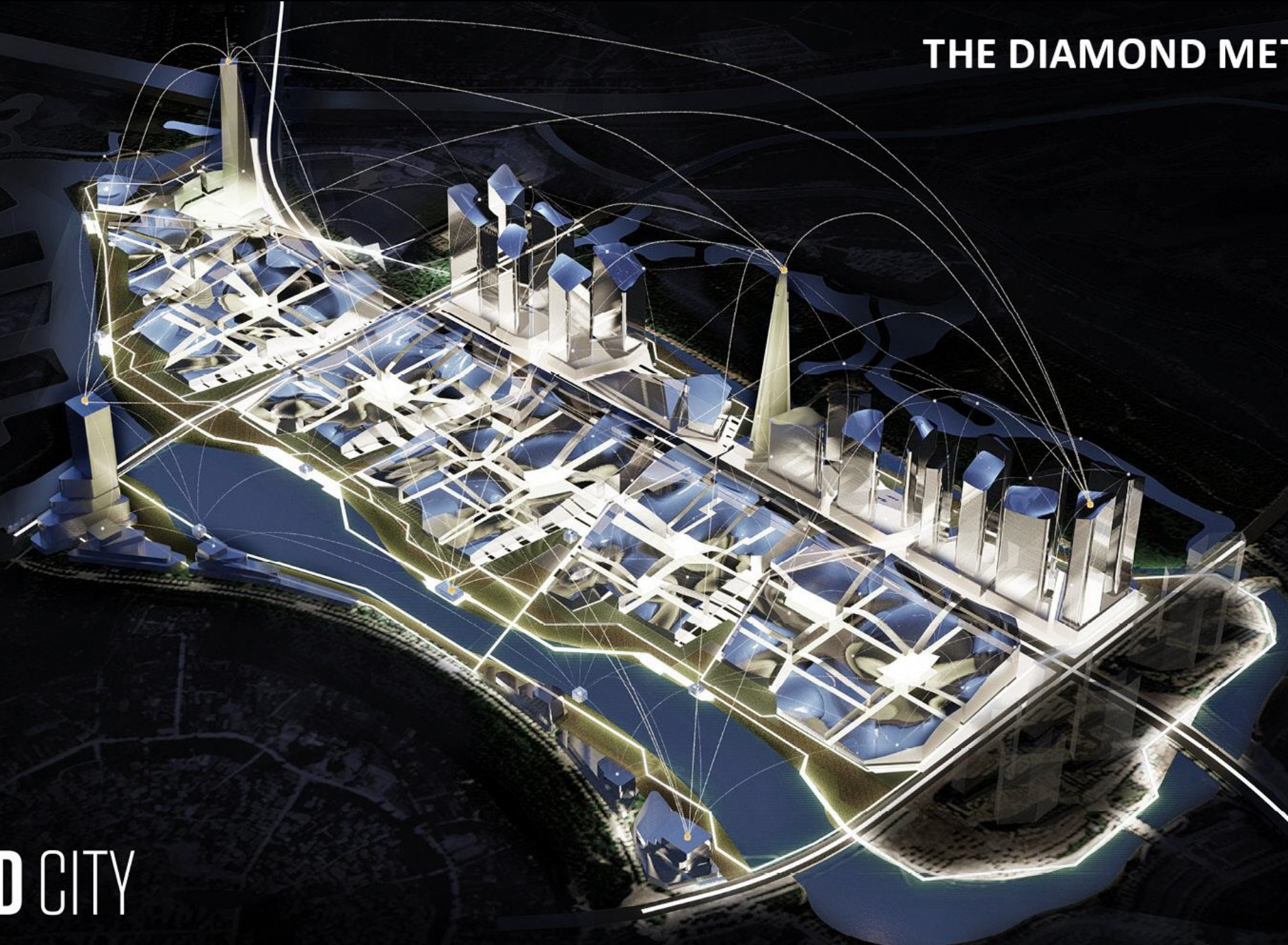
ECOPARK

DIAMOND CITY

THE DIAMOND METAPHOR

ECOPARK

DIAMOND CITY



ECOPARK INNOVATION DISTRICT

