

MAIDAR EcoCity<sup>+</sup>



# MAIDAR EcoCity<sup>+</sup>

24. June 2018

Bayartuul Lundeg



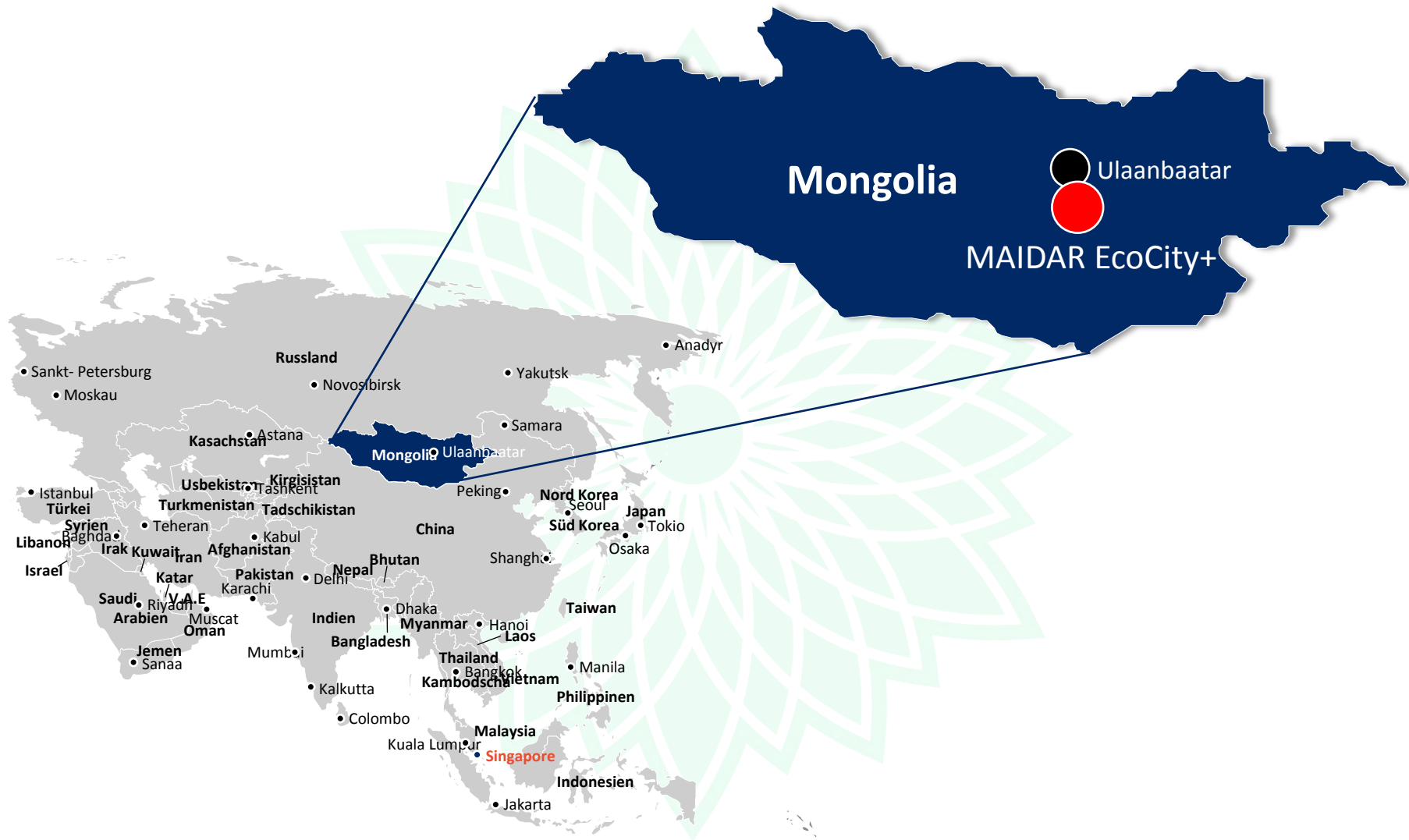
# MAIDAR EcoCity+

## Maitreya Statue



# MAIDAR EcoCity+

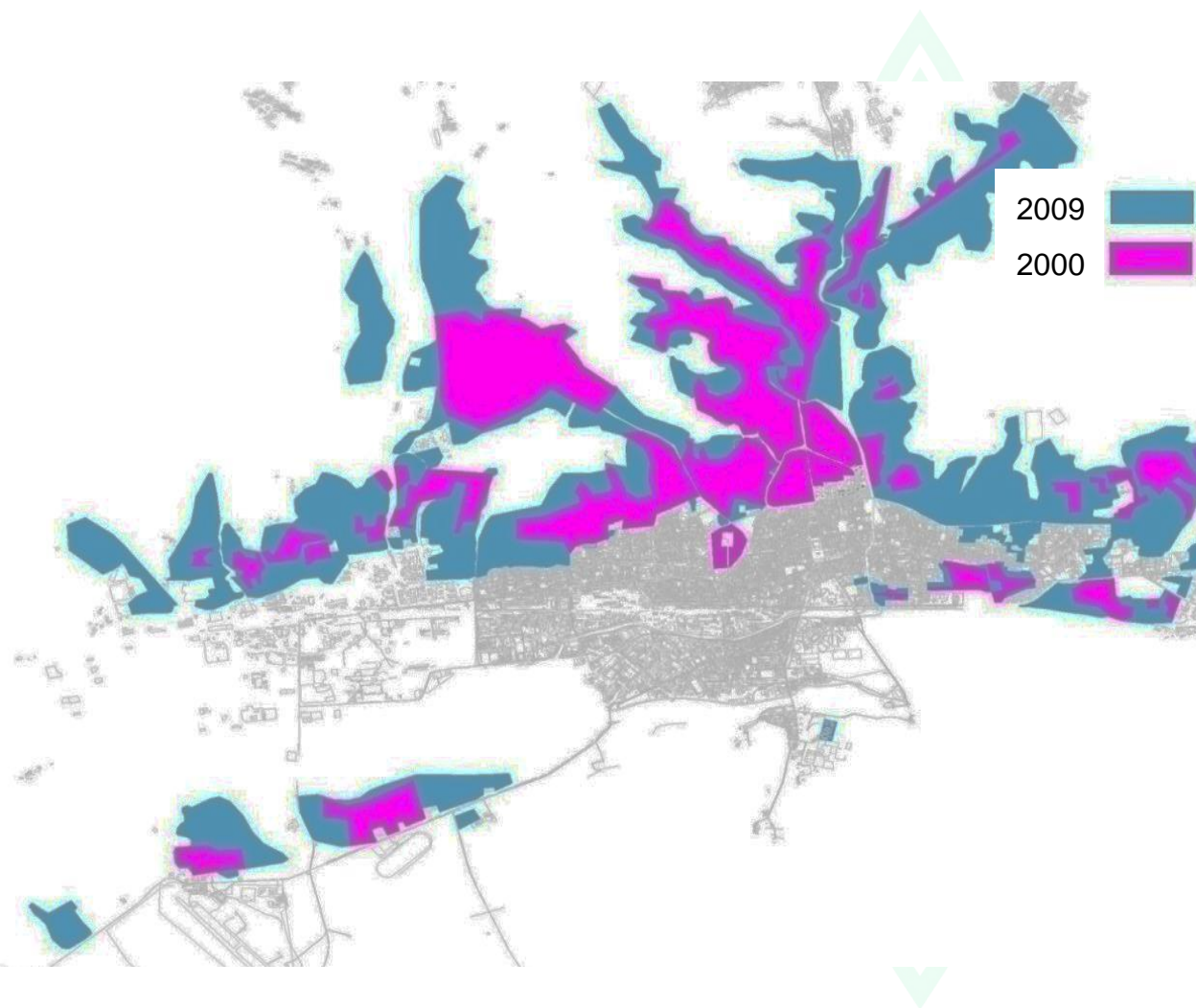
## Location





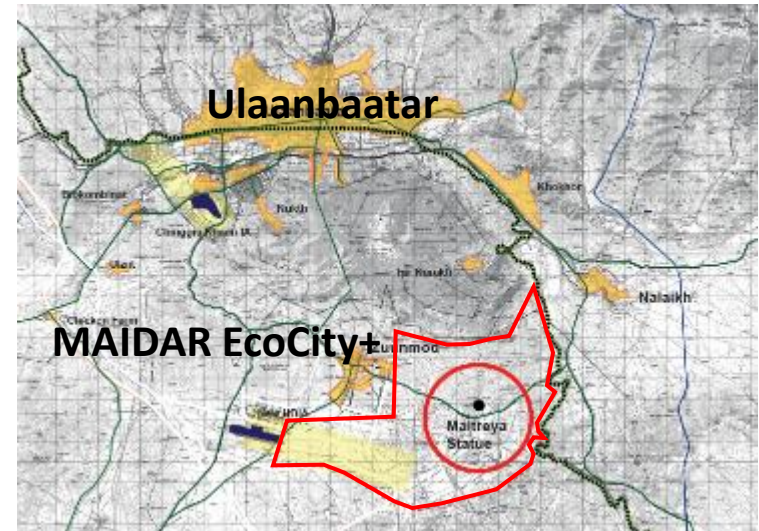
# MAIDAR EcoCity+

## Current situation





## Justification and Demand of a satellite city

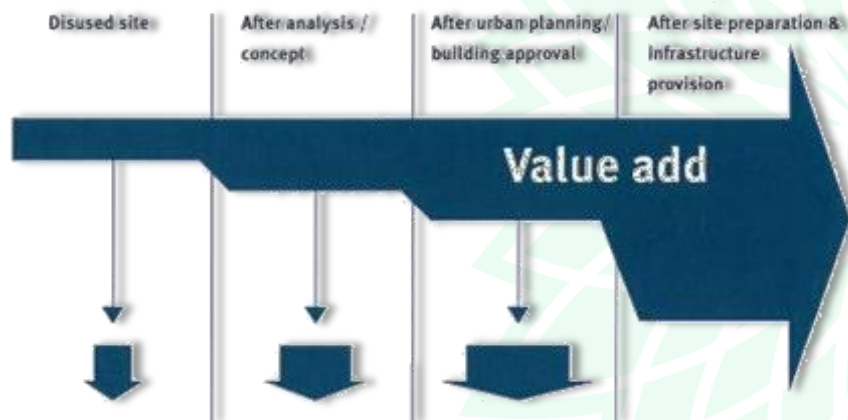


# MAIDAR EcoCity+

## Benefits to Mongolia and it's partners

**The opportunities for partners are obvious.**

- Mongolia provides a vast potential of economic development
- Large opportunities for investments in large scale



**Development of MAIDAR EcoCity+ will set a positive socio-economic consequences:**

- Investment in infrastructure construction .
- Maidar Eco-city will reduce to decentralize Ulaanbaatar city population,
- Better living environment
- 14,000 jobs will be created.
- State tax will increase
- Tourism sector will develop
- Maidar Eco-city is fully consistent with the objectives of Ulaanbaatar city's regional development program.
- Reducing Ger District's





# Agenda

- 1 EcoCity+ Design
- 2 Maidar EcoCity
- 3 First Stage
- 4 References
- 5 Further Process

Sustainable city development meets the needs of the present without compromising the ability of future generations to meet their own needs

United Nations 1987“Report of the World Commission on Environment and Development.”



# MAIDAR EcoCity+

The project team – the partner on your side



**Initiator:**

Maidar City  
[www.maidarcity.com](http://www.maidarcity.com)



МАЙДАР  
СИТИ  
XXX

**Management  
Consultant:**

Drees & Sommer  
[www.dreso.com](http://www.dreso.com)

**DREES &  
SOMMER**

**Urban Design:**

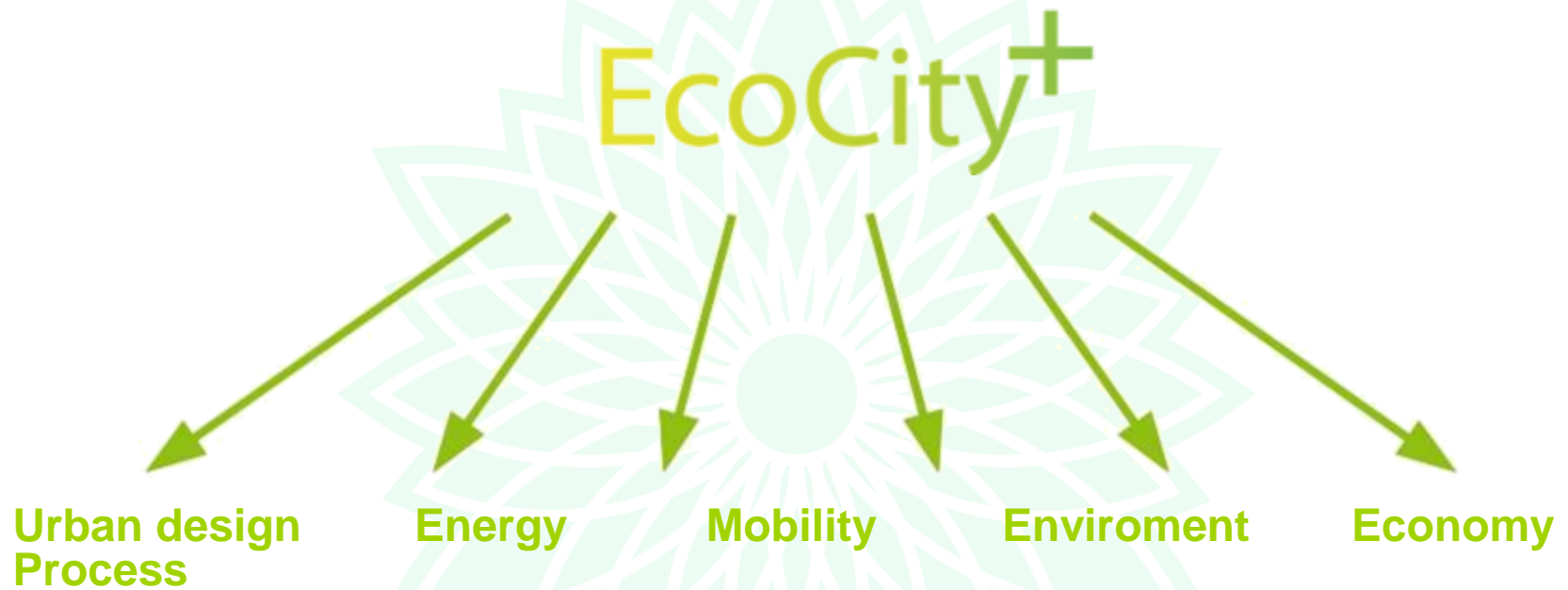
RSAA  
[www.rs-aa.com](http://www.rs-aa.com)

**RSAA**

**Engineering  
Consultants:**

**RAMBOLL**





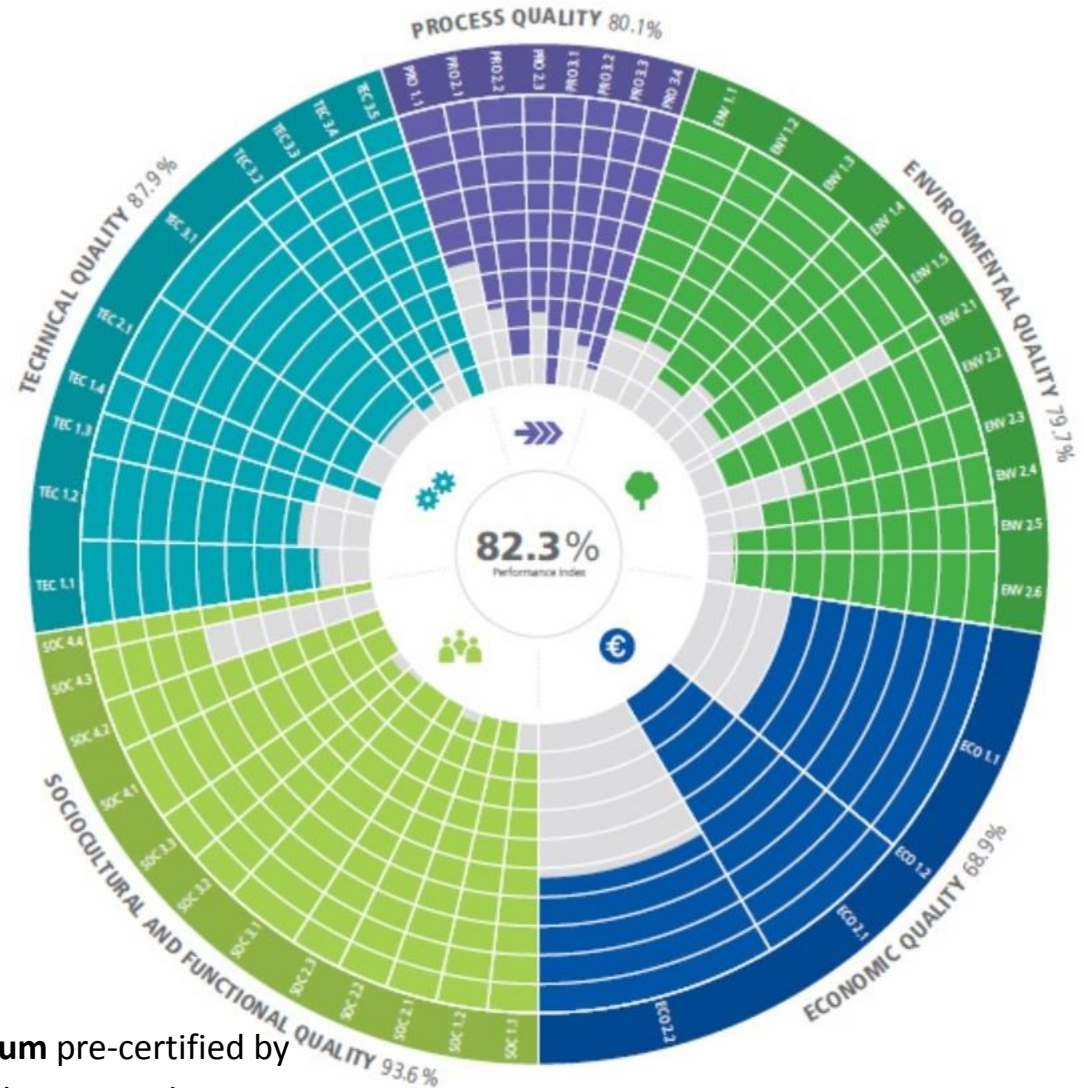


# MAIDAR EcoCity+

## Sustainability certification

The role of certification:

- **quality assurance instrument**  
monitoring ensures that built quality matches planning
- **independent validation**  
credibility for sustainability claims
- **unique selling point**  
“first fully-certified, holistic urban plan”



MAIDAR EcoCity+ is **Platinum** pre-certified by German Sustainable Building Council.



# MAIDAR EcoCity+

Sustainability certification – Benefits of a DGNB pre-certification

**Proved quality by highest German Sustainability standards instead of greenwashing!**

- **quality assurance** (goals are achieved)
- **risk minimization** (no unexpected surprises)
- **image improvement** (yield enhancement)



Maidar EcoCity+ is **Platinum** pre-certified by German Sustainable Building Council.

MAIDAR EcoCity+





# Agenda

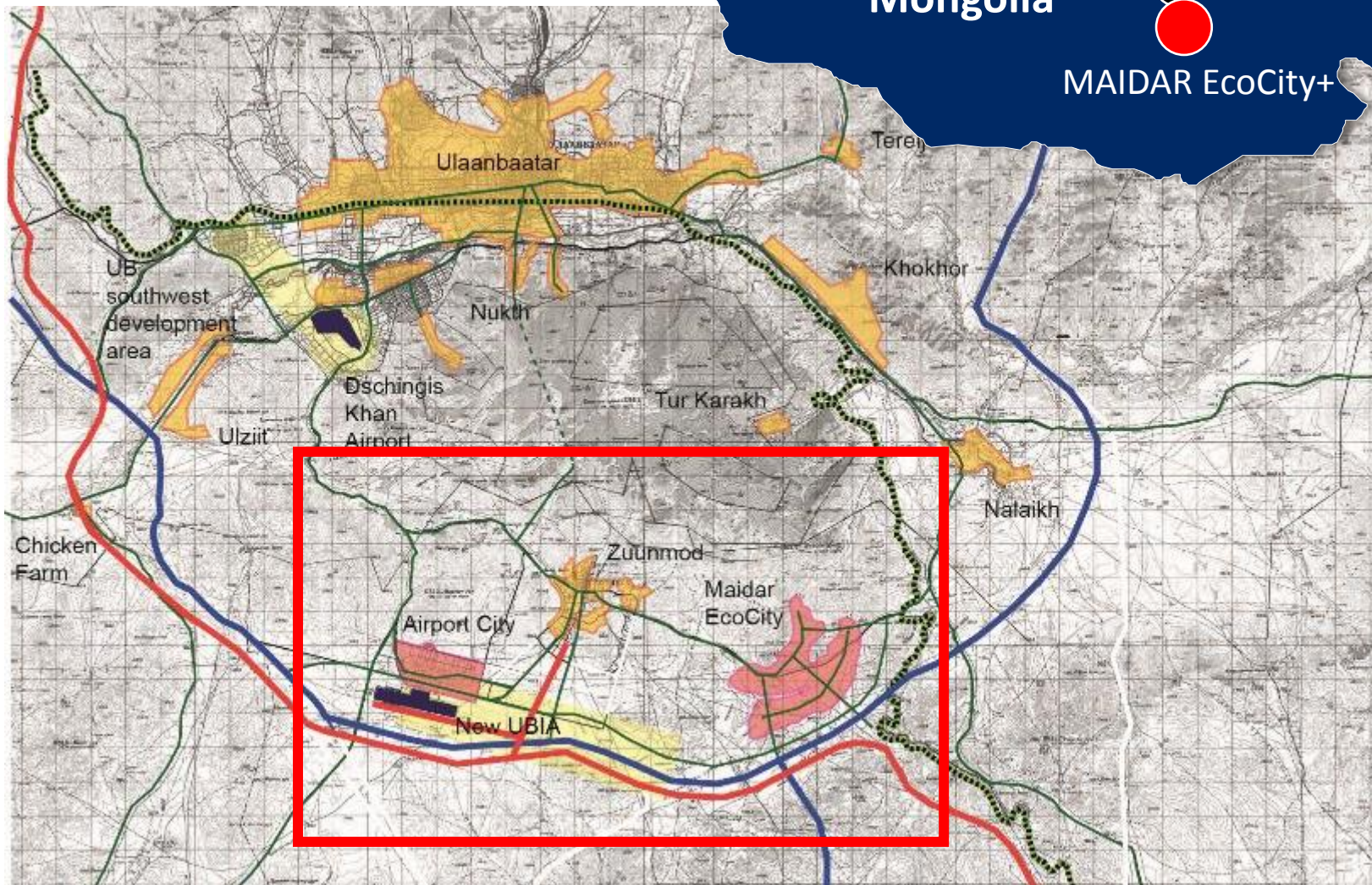
- 1 EcoCity+ Design
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„The circumstances about tradition, economy and people are perfect, to develop an EcoCity in Mongolia“



# MAIDAR EcoCity+

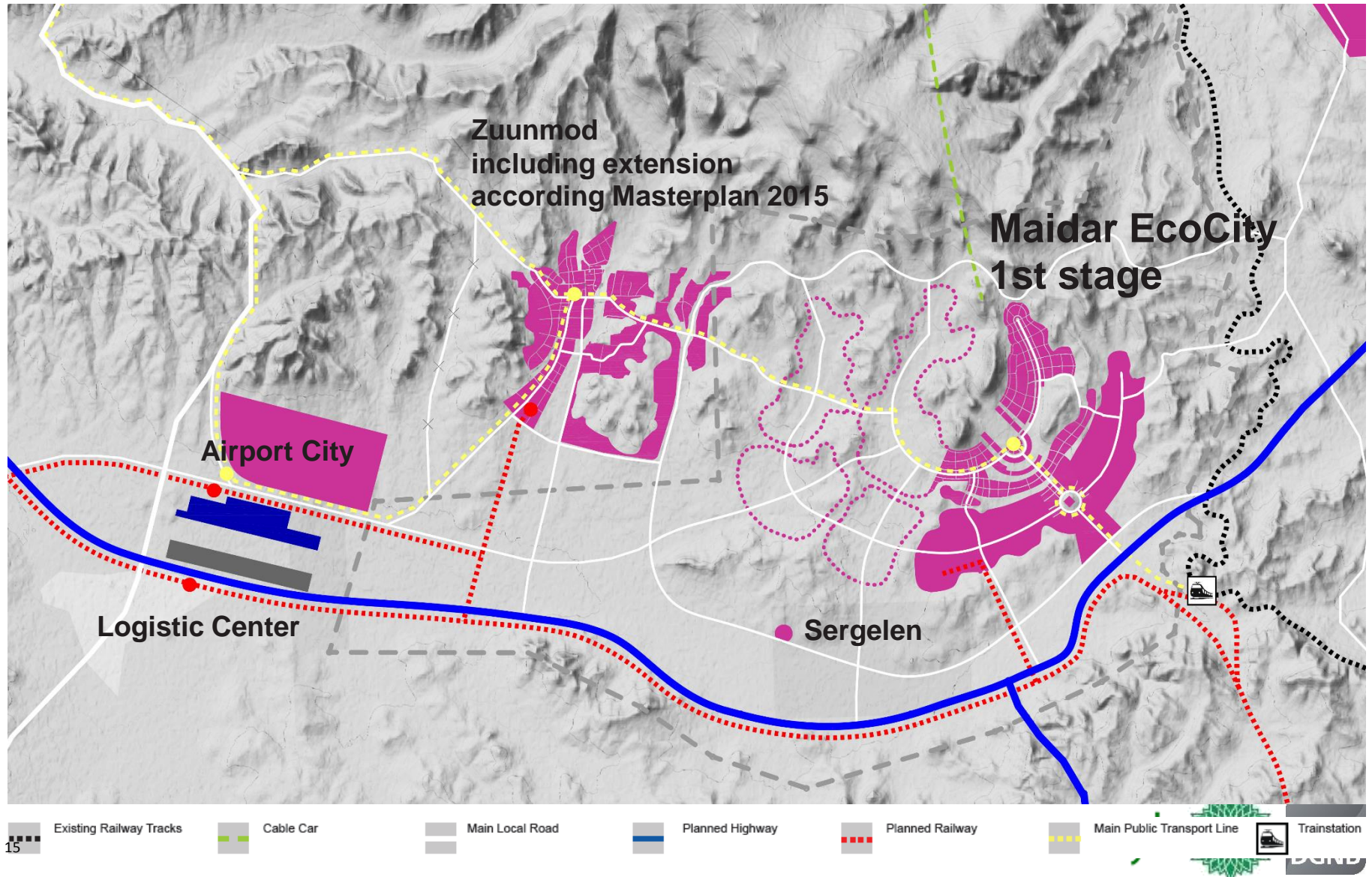
## Traffic connection





# MAIDAR EcoCity+

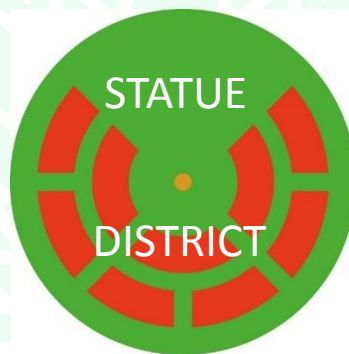
## Traffic connection





### The mountain

Ridges from the Bogd  
Khan mountain



### The idea

City rings around  
Maitreya statue



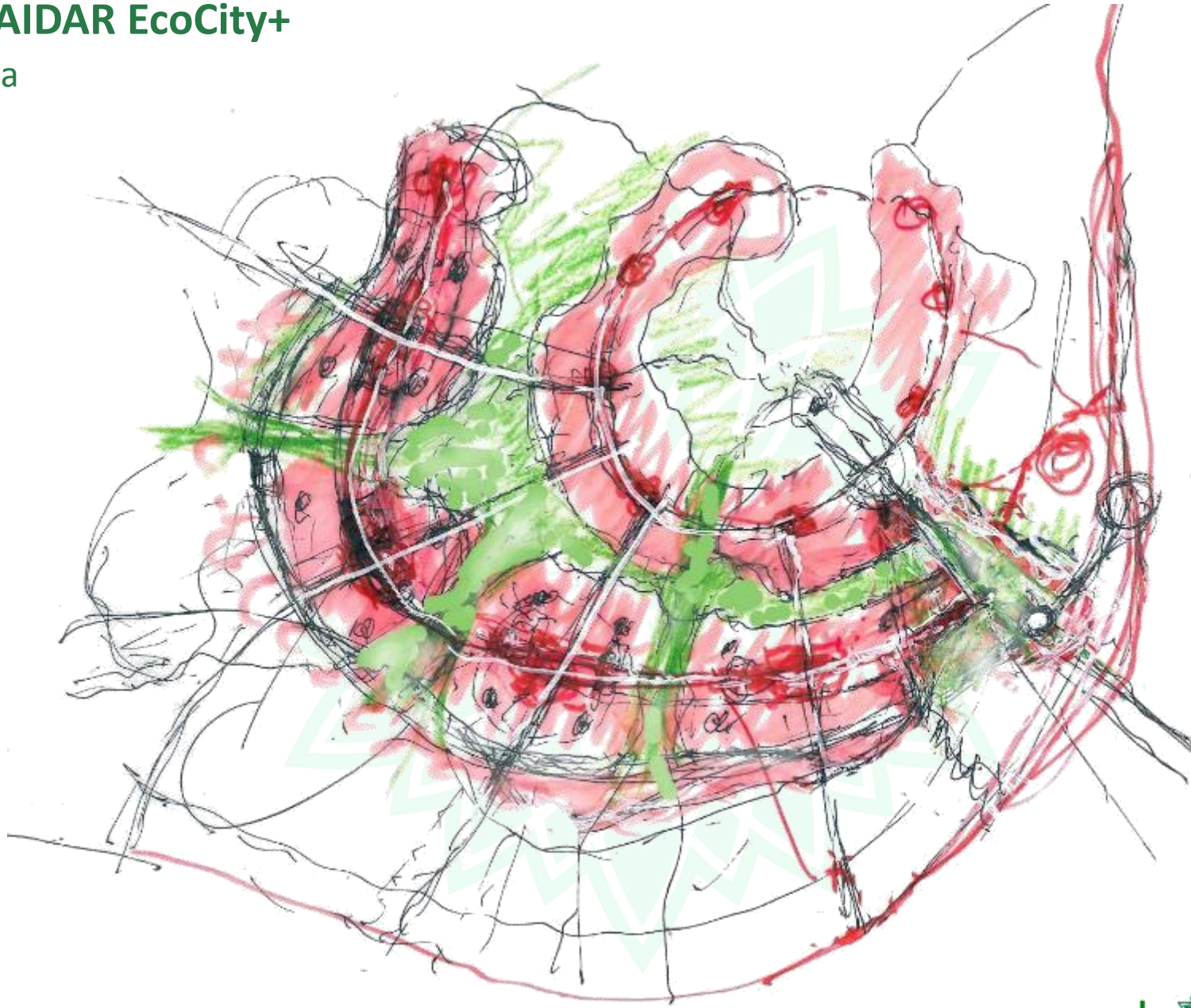
### Mountain and idea together

No buildings on mountain  
ridges



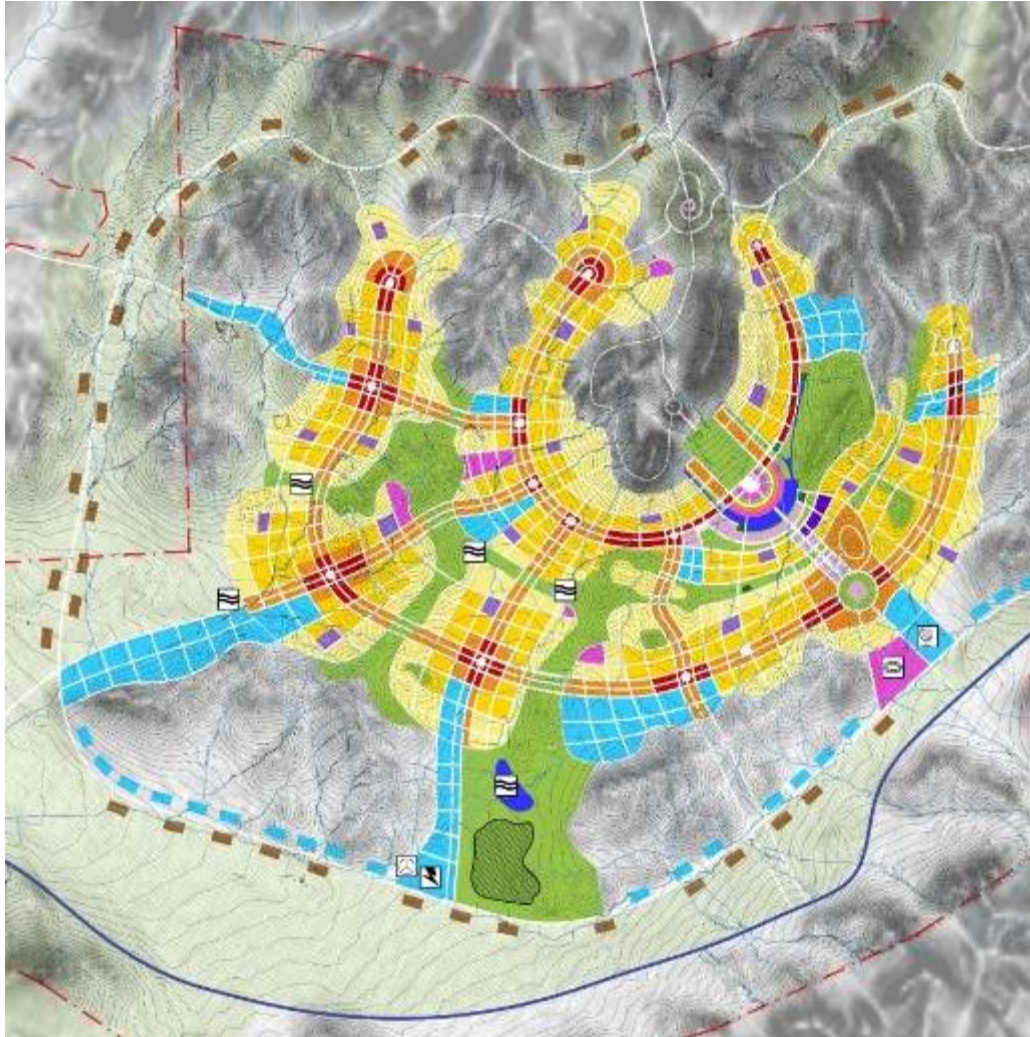
# MAIDAR EcoCity+

Idea



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## Lande use plan



- Commercial, Office, Center Uses
- Culture, Leisure
- Finance, Government
- University
- School, Education
- Mixed Use – with small quota of residential use
- Mixed Use – with higher quota of central use
- Residential lower density
- Industry
- Agriculture





# MAIDAR EcoCity+

## Stages



### 1. Stage 825 ha Building Plots

ConstructionArea:  
**10,88 km<sup>2</sup>**

Inhabitants:  
7.247 inh/km<sup>2</sup>  
**78.847**

5.000 inh/km<sup>2</sup>  
54.400

3.000 inh/km<sup>2</sup>  
32.640

2.000 inh/km<sup>2</sup>  
21.760





# MAIDAR EcoCity+

## Stages



### 2. Stage

+ 1.165 ha = **1.990 ha Building Plots**

ConstructionArea:

+13,62 km<sup>2</sup> = **24,5 km<sup>2</sup>**

Inhabitants:

+ 7.000 inh/km<sup>2</sup>  
95.340

+ 5.000 inh/km<sup>2</sup>  
68.100 = **146.947**

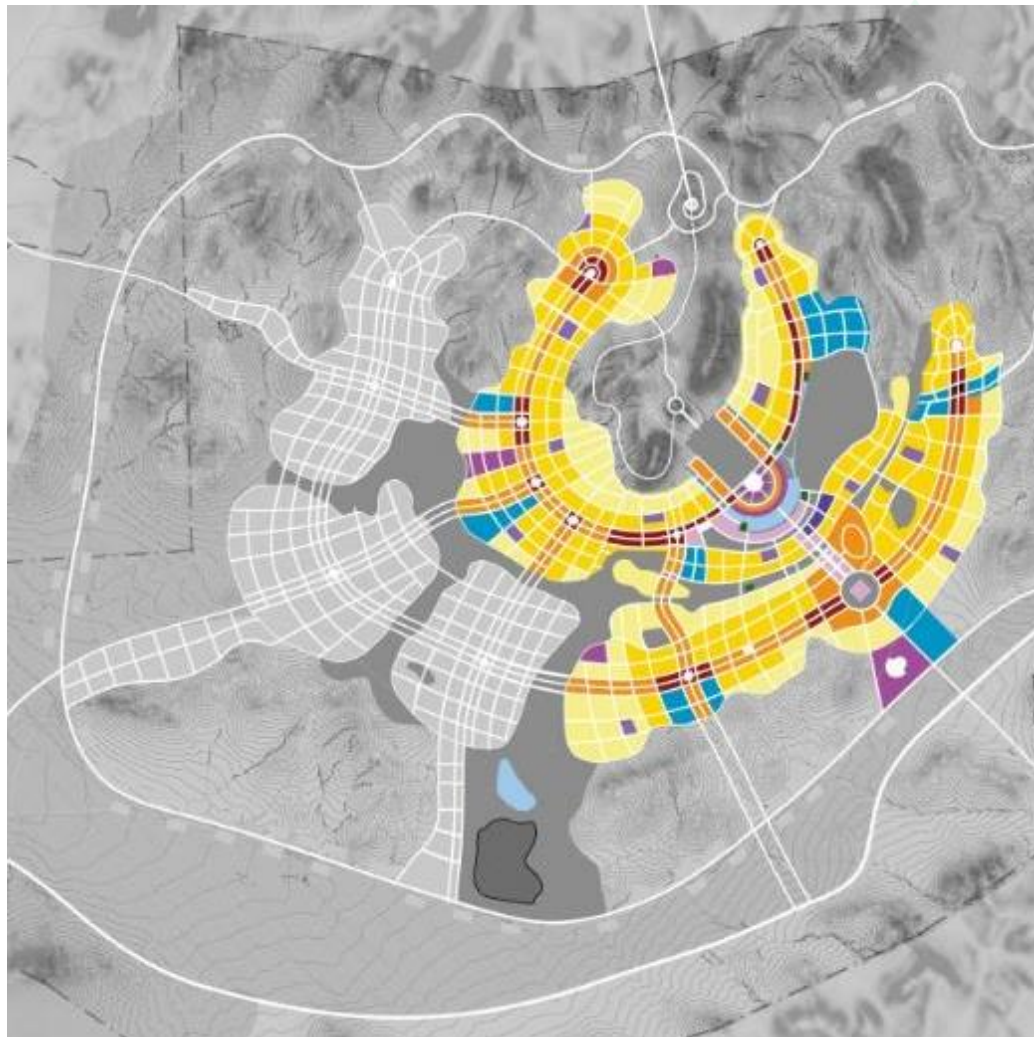
+ 3.000 inh/km<sup>2</sup>  
40.860

+ 2.000 inh/km<sup>2</sup>  
27.240



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## Stages



### 3. Stage

+ 810 ha = **2.800 ha Building Plots**

Construction Area:

+ 9,55 km<sup>2</sup> = **34,05 km<sup>2</sup>**

Inhabitants:

+ 7.000 inh/km<sup>2</sup>

66.850

+ 5.000 inh/km<sup>2</sup>

47.750 = **194.697**

+ 3.000 inh/km<sup>2</sup>

28.650

+ 2.000 inh/km<sup>2</sup>

19.100



# MAIDAR EcoCity+

## Stages



### 4. Stage

+ 2.110 ha = **4.910 ha Building Plots**

Construction Area:

+ 17.77 km<sup>2</sup> = **51,82 km<sup>2</sup>**

Inhabitants:

+ 7.000 inh/km<sup>2</sup>  
124.390

+ 5.000 inh/km<sup>2</sup>  
88.850 = **283.547**

+ 3.000 inh/km<sup>2</sup>  
53.310

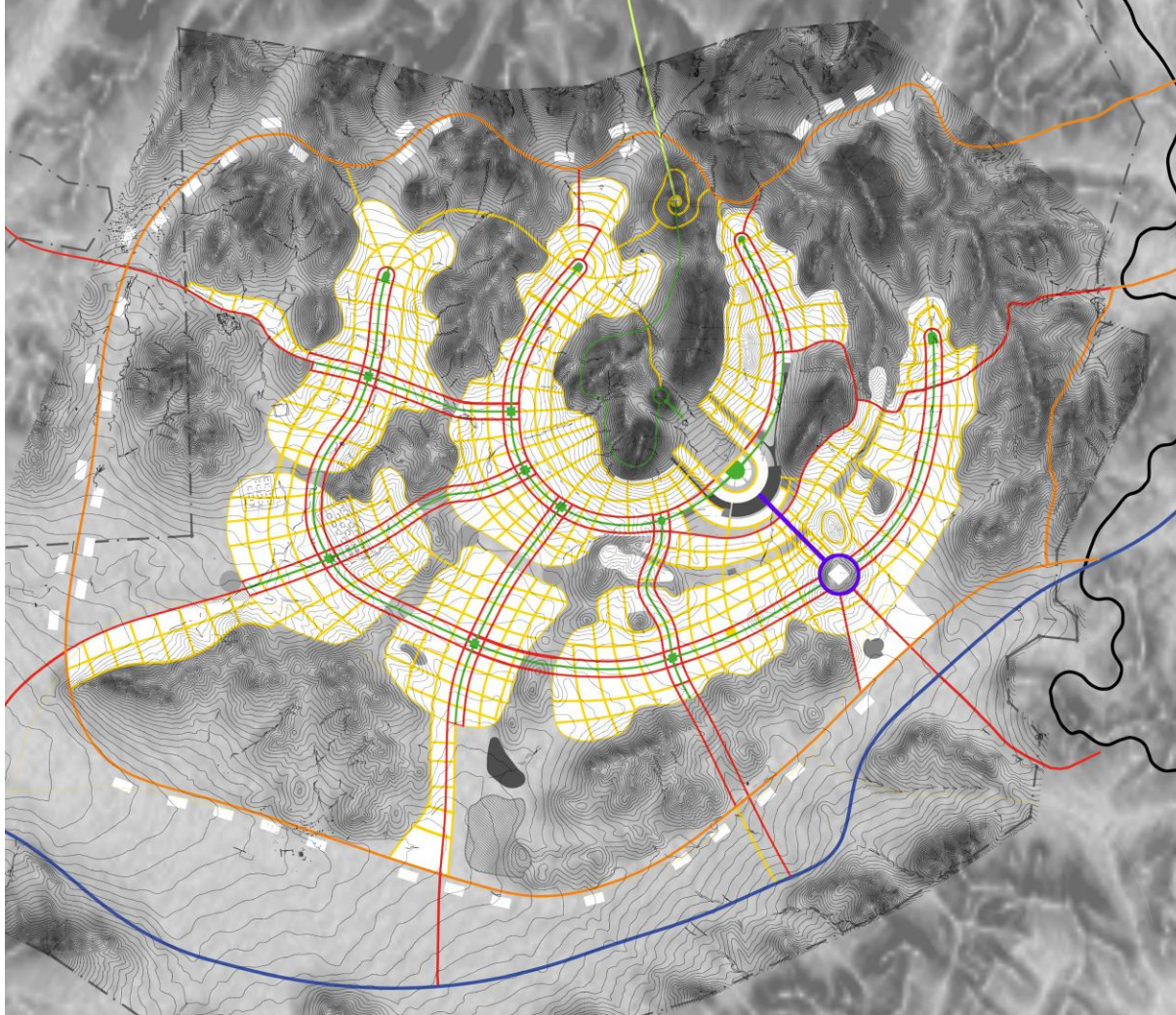
+ 2.000 inh/km<sup>2</sup>  
35.540





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## Traffic - Hierarchy of Streets



pedestrian footpaths



public transport

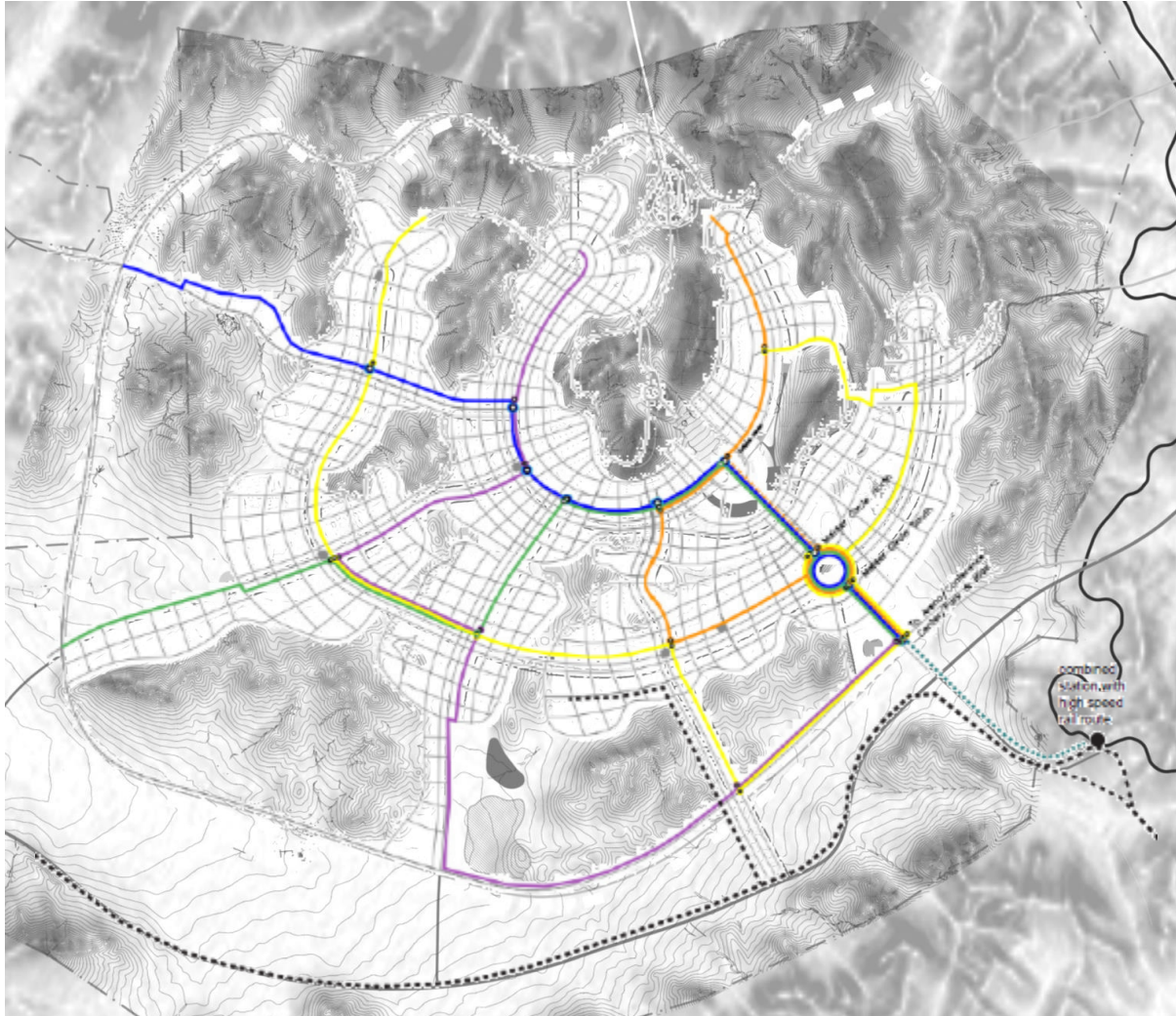


cycle lanes



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## Traffic - Public transportation



Green Street



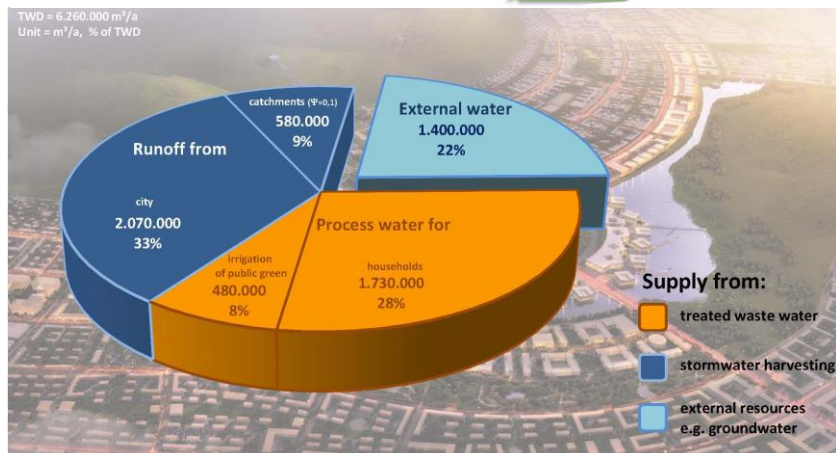
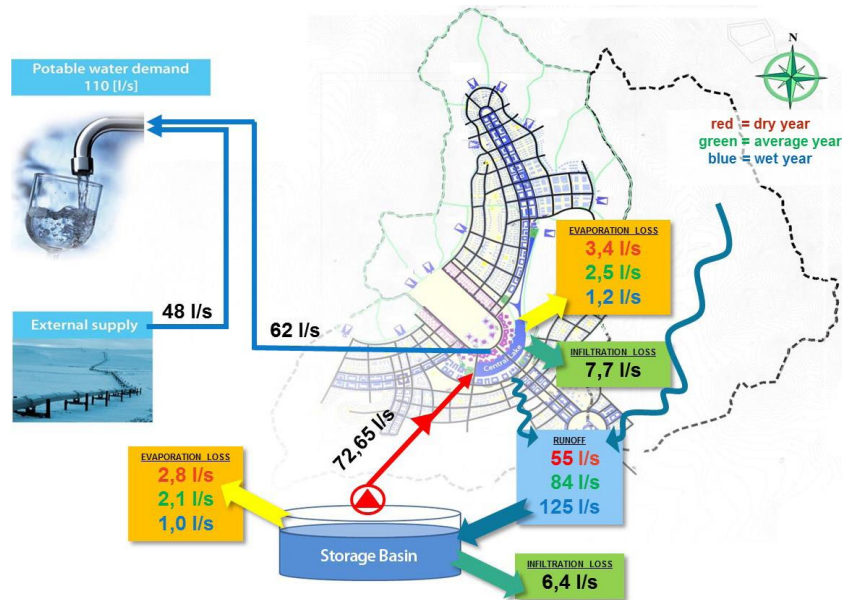
PRT vehicle

source: [www.2getthere.eu](http://www.2getthere.eu)



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## Water concept – Use of storm water runoff for water supply



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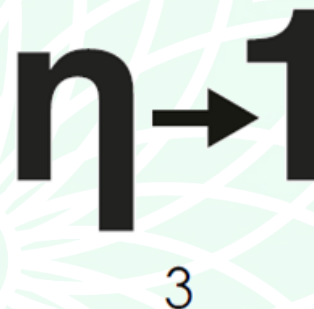
## Energy Master Plan – General strategy



Optimize city  
layout  
for solar potential



Optimize buildings  
for maximized energy  
savings



Use high efficient  
non-renewable  
energy systems



Use renewable  
energy to  
cover remaining  
demand









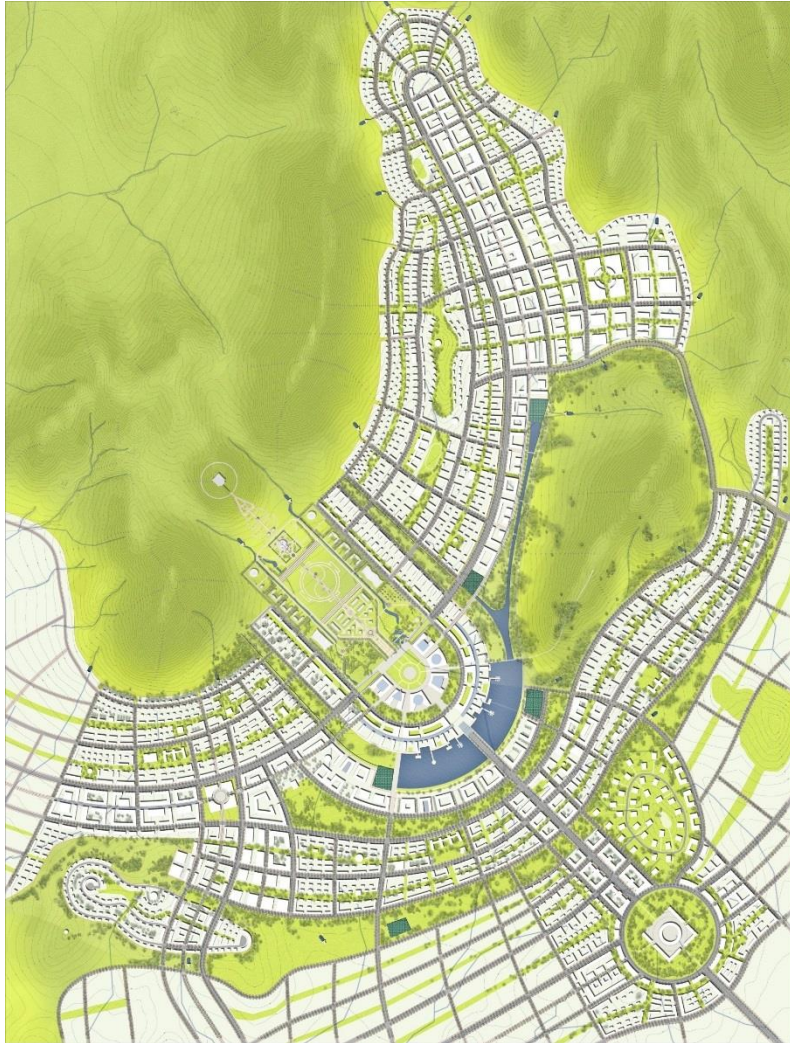
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# MAIDAR EcoCity+

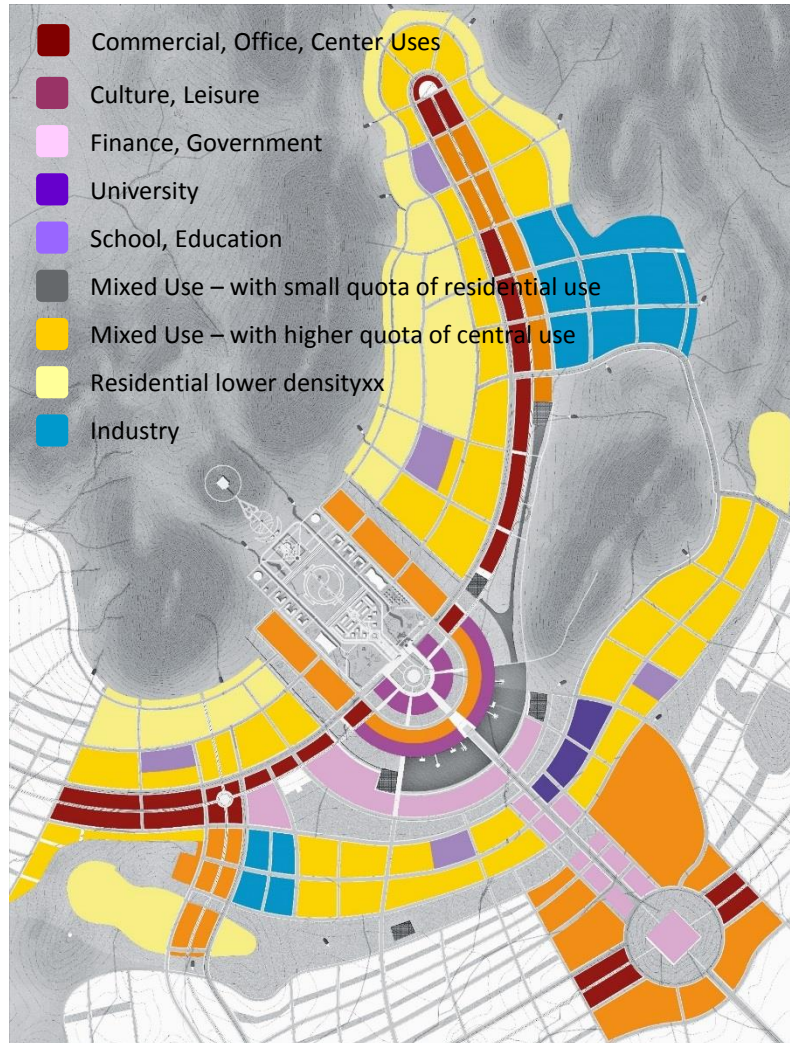
1<sup>st</sup> Construction Stage





# MAIDAR EcoCity+

## 1<sup>st</sup> Construction Stage – Land Use and marketable net building land



### Marketable net building land

#### Building plots

No of  
Plots

Size

#### Building plots 1st stage

**185 Plots**

**825 ha**

Commercial

23 Plots

54 ha

Culture, Leisure

8 Plots

20 ha

Finance, Government

18 Plots

61 ha

University

3 Plots

11 ha

School, Education

5 Plots

24 ha

Mixed Use – with small quota  
of residential use

32 Plots

164 ha

Mixed Use – with higher  
quota of central use

52 Plots

239 ha

Residential lower density

30 Plots

172 ha

Industry

14 Plots

82 ha

#### Building plots 2nd stage

**188 Plots**

**1.164 ha**

#### Building plots 3rd stage

**194 Plots**

**811 ha**

#### Building plots 4th stage

**348 Plots**

**2.108 ha**

#### Building plots 1-4

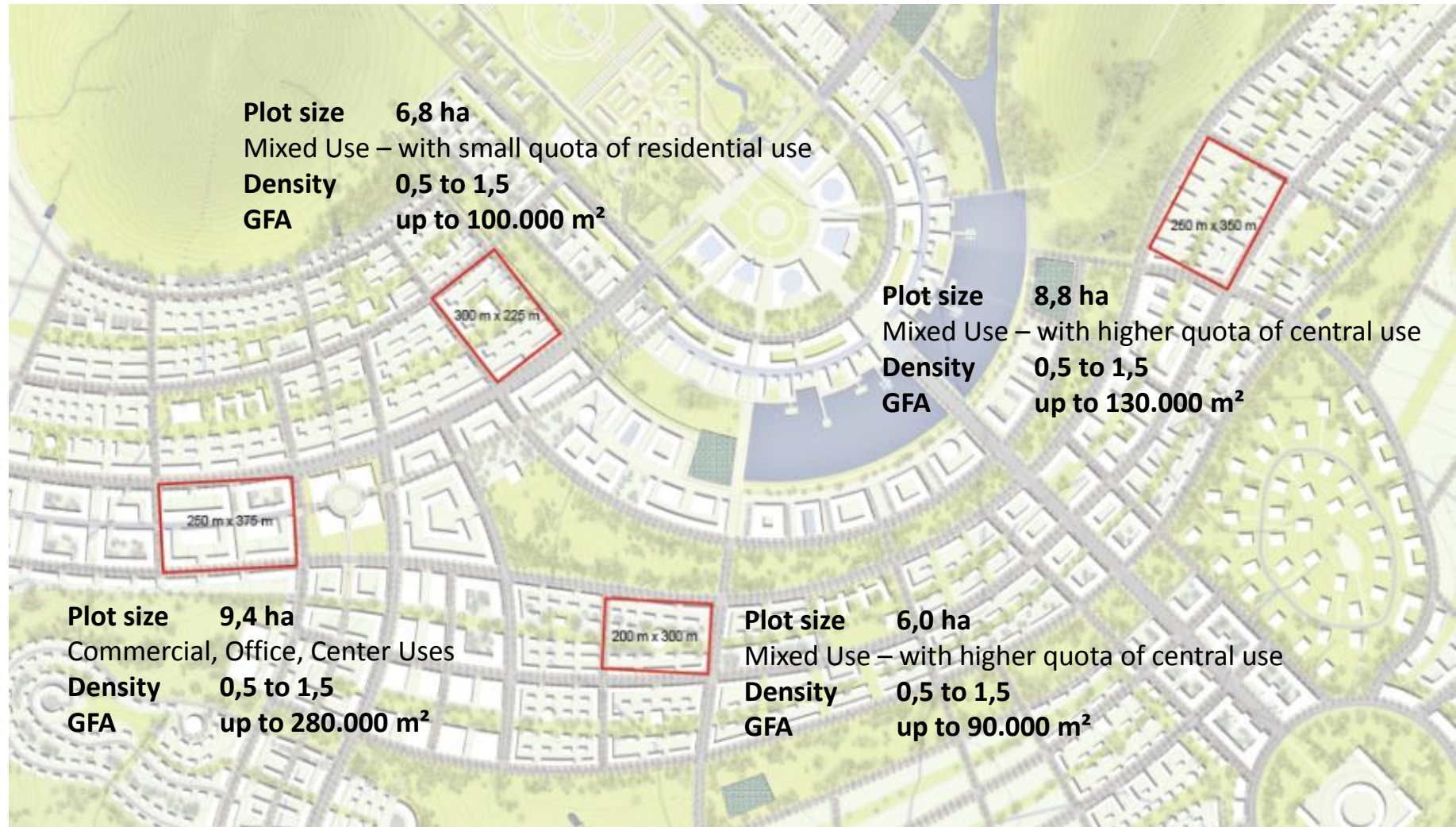
**915 Plots**

**4.908 ha**



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## 1<sup>st</sup> Construction Stage – Plots and Sizes





# MAIDAR EcoCity+

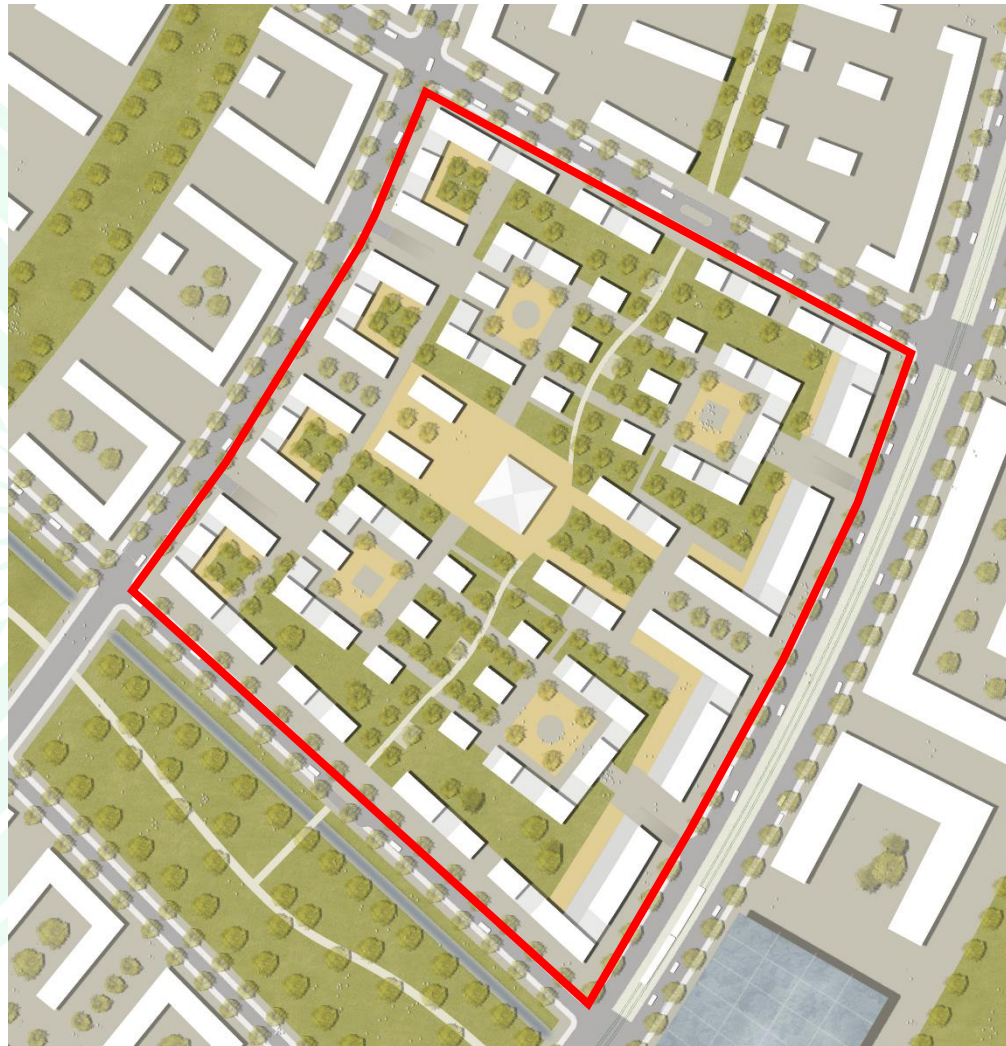
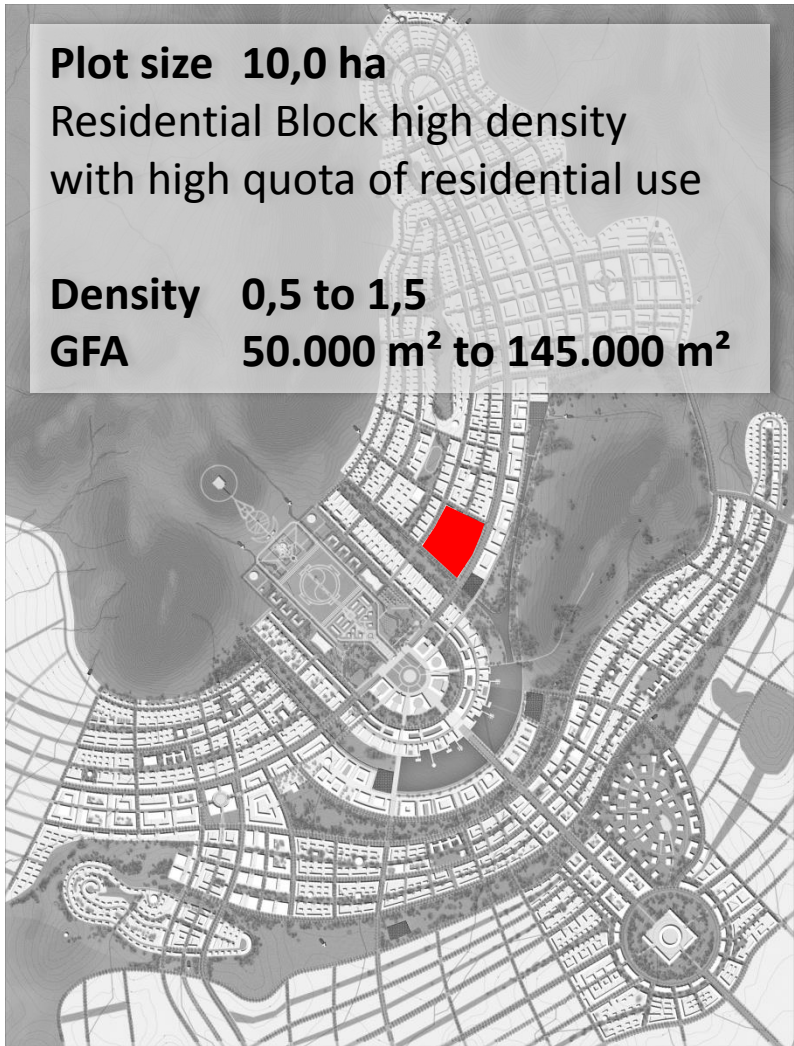
## 1<sup>st</sup> Construction Stage – Plots - Example

**Plot size 10,0 ha**

Residential Block high density  
with high quota of residential use

**Density 0,5 to 1,5**

**GFA 50.000 m<sup>2</sup> to 145.000 m<sup>2</sup>**





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## 1<sup>st</sup> Construction Stage – Plots - Example

**Plot size** 10,0 ha

Residential Block high density  
with high quota of residential use

**Density** 0,5 to 1,5

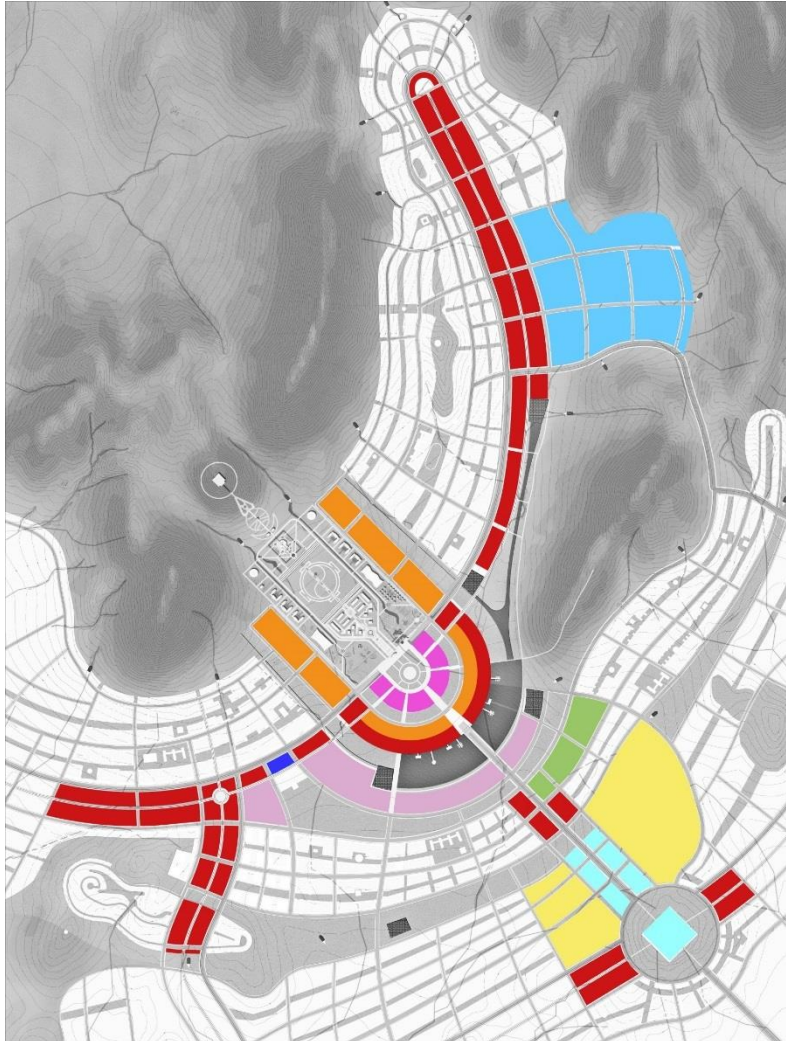
**GFA** 50.000 m<sup>2</sup> to 145.000 m<sup>2</sup>





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## 1<sup>st</sup> Construction Stage – Requests



- Government
- City Government
- Diplomatic District
- Financial District
- Museum
- Hotel, Serviced Apartments, Tourism Facilities
- Commercial
- University
- Film Industry









# Agenda

1  
2  
3  
4  
5

EcoCity+ Design

Maidar EcoCity

First Stage

References

Further Process



# MAIDAR EcoCity+

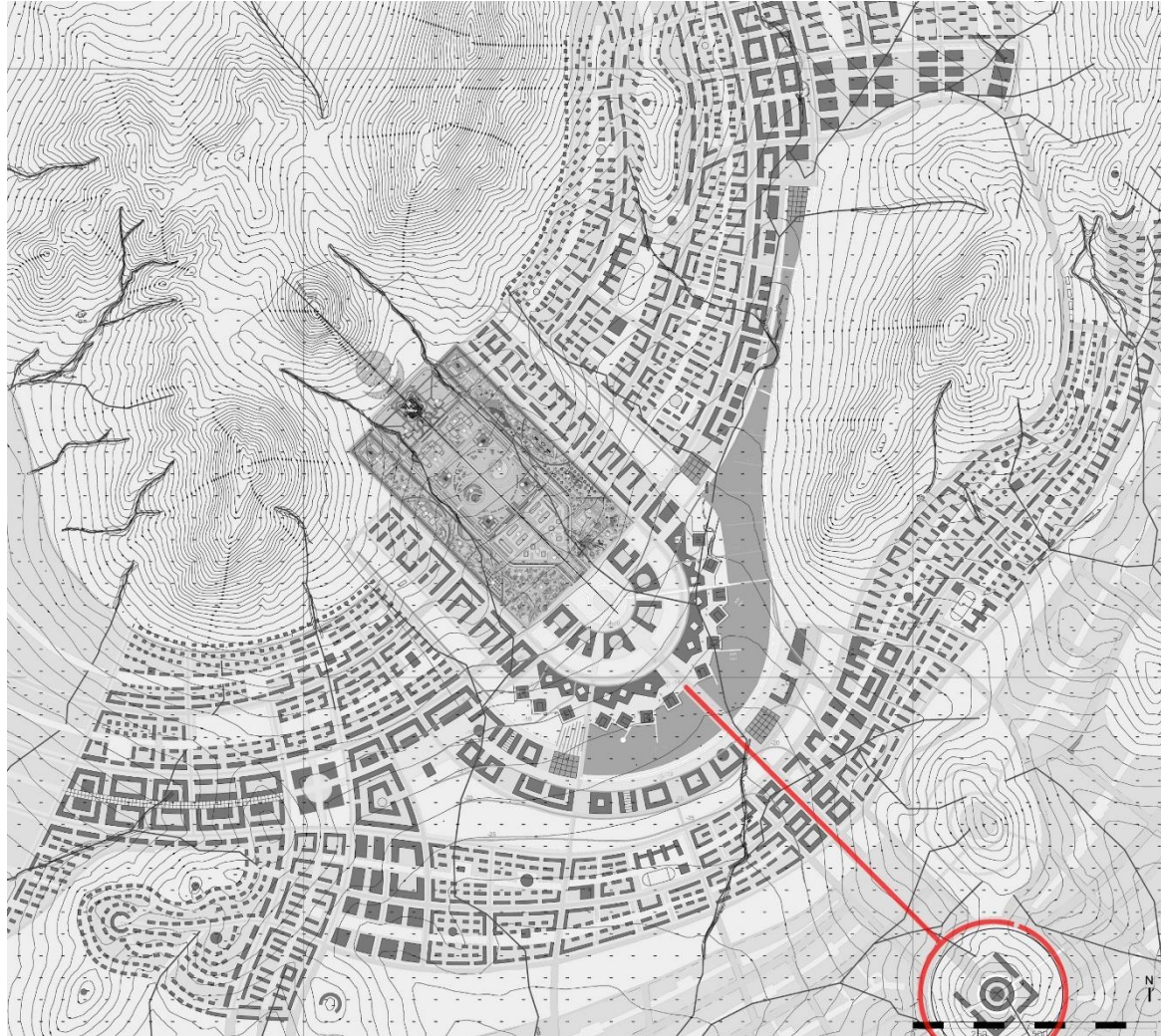
## 1<sup>st</sup> Construction Stage – References – Concentric Structure





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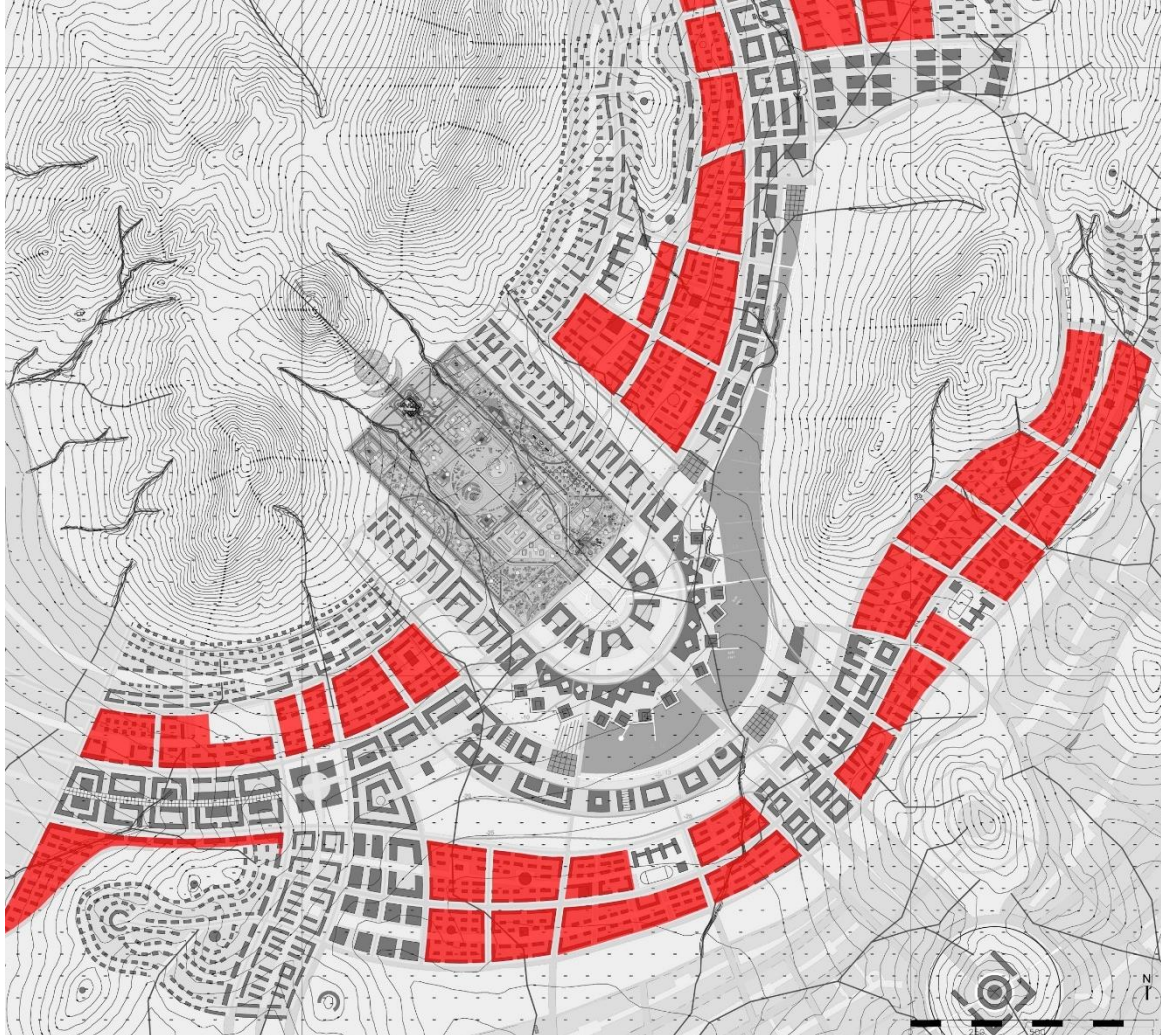
## 1<sup>st</sup> Construction Stage – References – Boulevard





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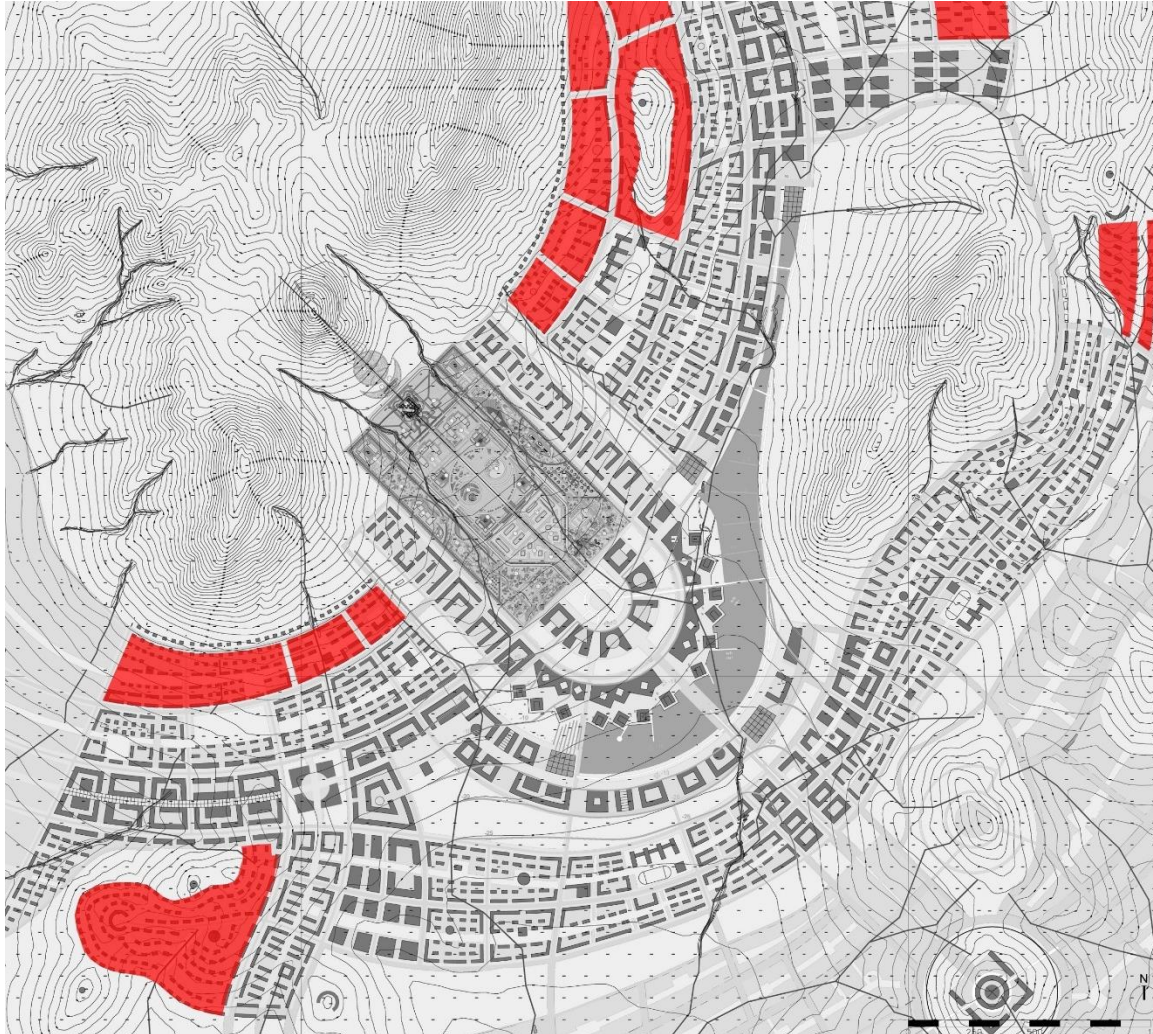
## 1<sup>st</sup> Construction Stage – References – Residential (high density)





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## 1<sup>st</sup> Construction Stage – References – Residential (low density)





# MAIDAR EcoCity+

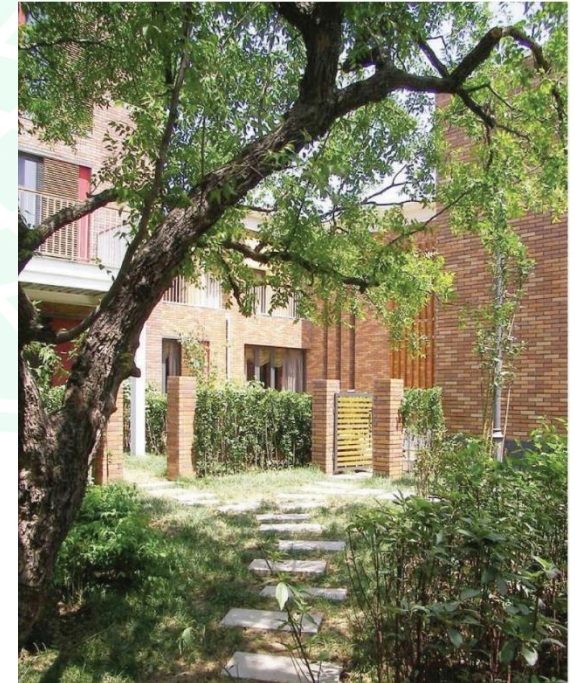
## 1<sup>st</sup> Construction Stage – References – Public green





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## 1<sup>st</sup> Construction Stage – References – Semi public green









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# MAIDAR EcoCity+

## Further process

### Micro Level

#### Object



- Site and Utilities
- Individual Development
- Financial Plan
- Financing
- Design
- Implementation
- Commissioning/ Operation

#### City



- Urban Design
- Urban Development
- Utilities
- Transport
- Social Infrastructure
- Tourism Development

#### Country

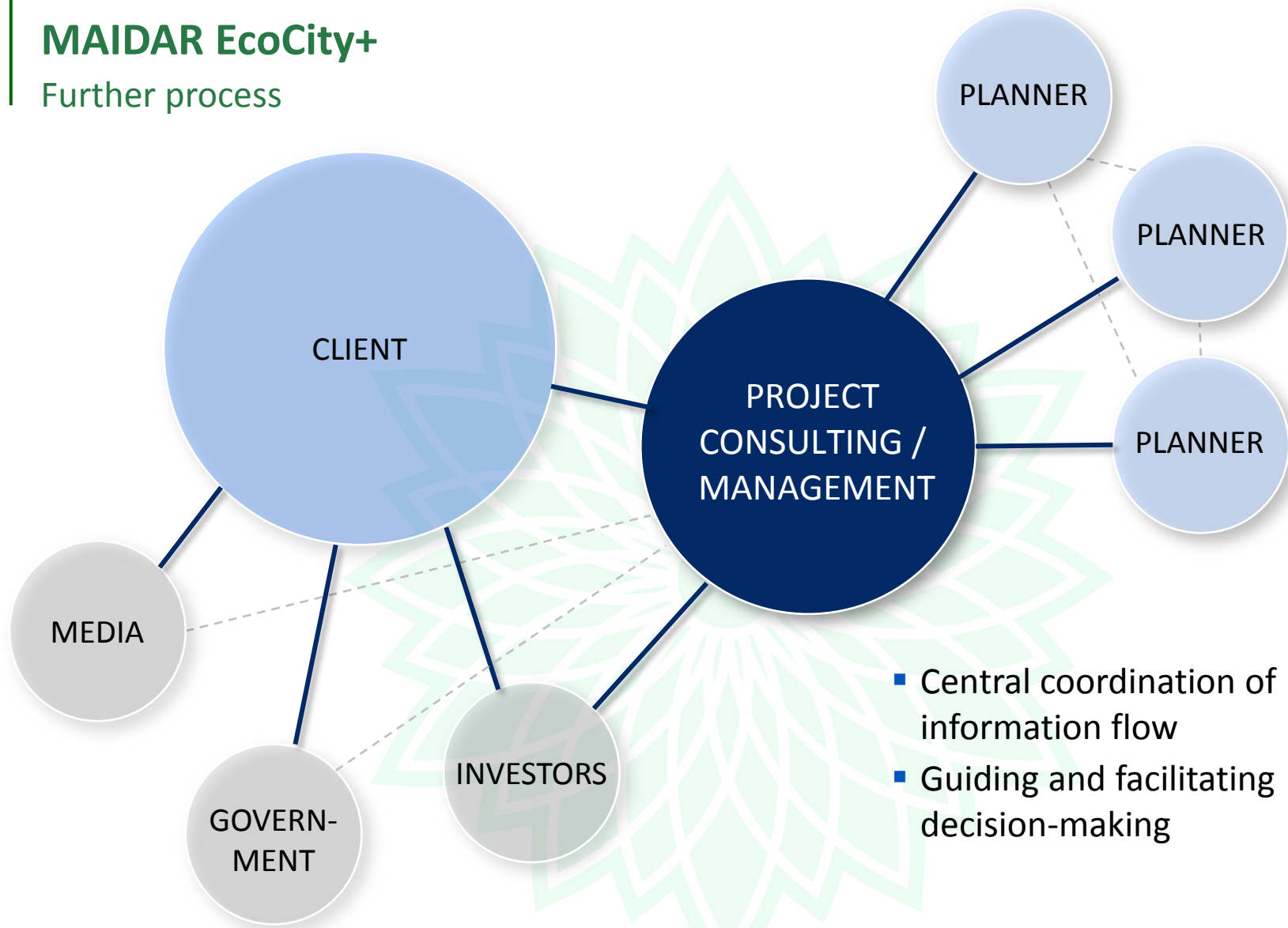


- Regional Planing
- Transport Infrastructure
- Utilities
- Tourism Development
- Education
- Security

### Macro Level



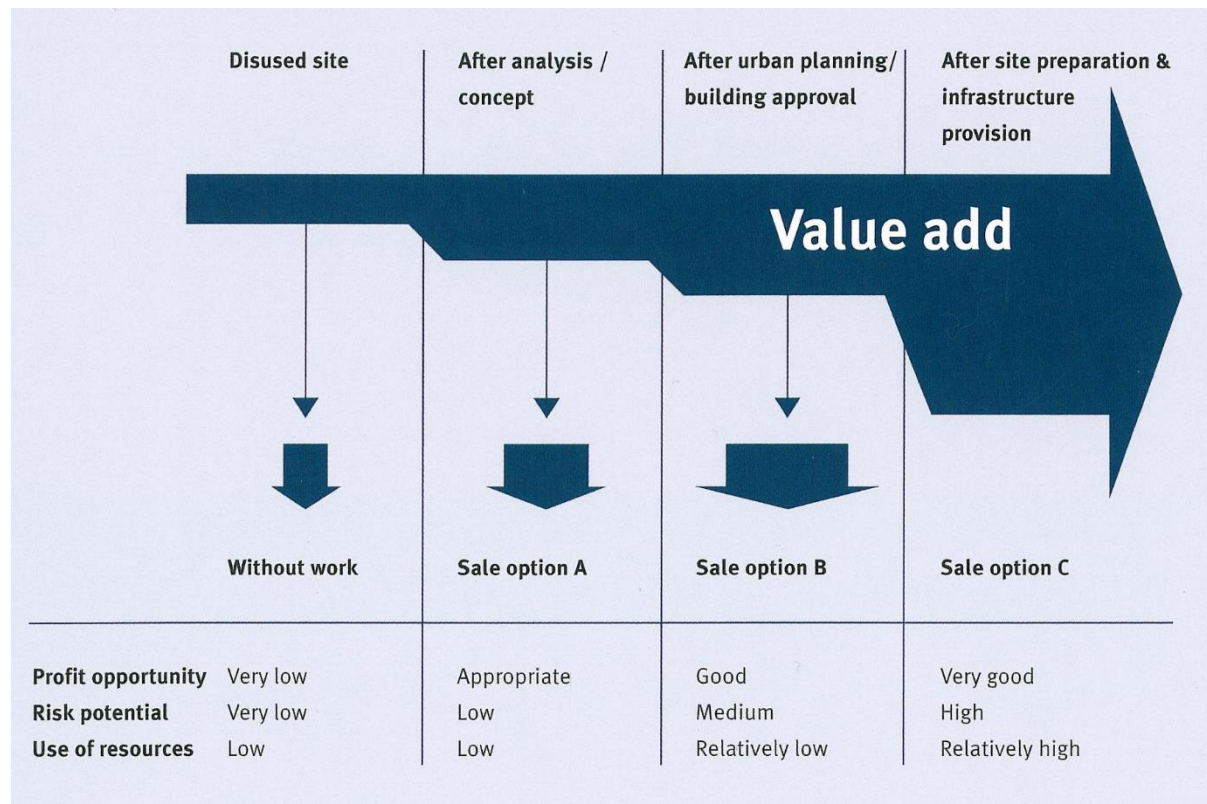




**Clear responsibilities – one point of contact**

# Maidar EcoCity+

Be Part Of Maidar EcoCity+



## Structured investment- and participation opportunities for

- Investors
- Financing Institutions
- Operators/ Service Providers
- Users

## For the areas

- Urban Infrastructure
- Energy
- Utilities
- Sites
- Transport
- Services
- Commercial

## With the Support of the

- Government of Mongolia
- City of Ulaanbaatar
- Central Region of Mongolia
- International Partners

**Build to Suite Solutions for Local and International Participants**





# Maidar EcoCity+

The Project Team – Your Partners On Site



## Ongoing Activities in Co-Operation with Governmental and Commercial Partners

DEG Financing Request Ongoing

EBRD, World Bank, Asian Development Bank Financing (Preparation of Basics)

CO2 Footprint Based Financing Under Preparation

Structured Financing on Base of Resources (Raw Materials) Under Negotiation

International Positioning (Asia Expo, MIPIM, etc.)

Integration in Mongolian-Singaporean Partnership





# global subjects...

## The Project Team – Your Partners On Site

**Initiator:** Maidar City  
[www.maidarcity.com](http://www.maidarcity.com)



МАЙДАР  
СИТИ  
XXK

**Management Consultant:** Drees & Sommer  
[www.dreso.com](http://www.dreso.com)

**DREES &  
SOMMER**

**Urban Design:** RSAA  
[www.rs-aa.com](http://www.rs-aa.com)

**RSAA**

**Engineering Consultants:**

**RAMBOLL**

INGENIEURBÜRO  
**KRAFT**

**TRANS  
SOLAR**

...are local subjects

Contact: [b.lundeg@rs-aa.com](mailto:b.lundeg@rs-aa.com)