



THE (EN)GENDERED CITY

Towards an evolutionary framework for gender-equal urban planning and design
The case of The Hague, Cairo and Seoul

Minalies Rezikalla || 4957733
Planning Complex Cities Studio
First Mentor | Luisa Calabrese
Second Mentor | Diego Sepulveda & Akkelies van Nes

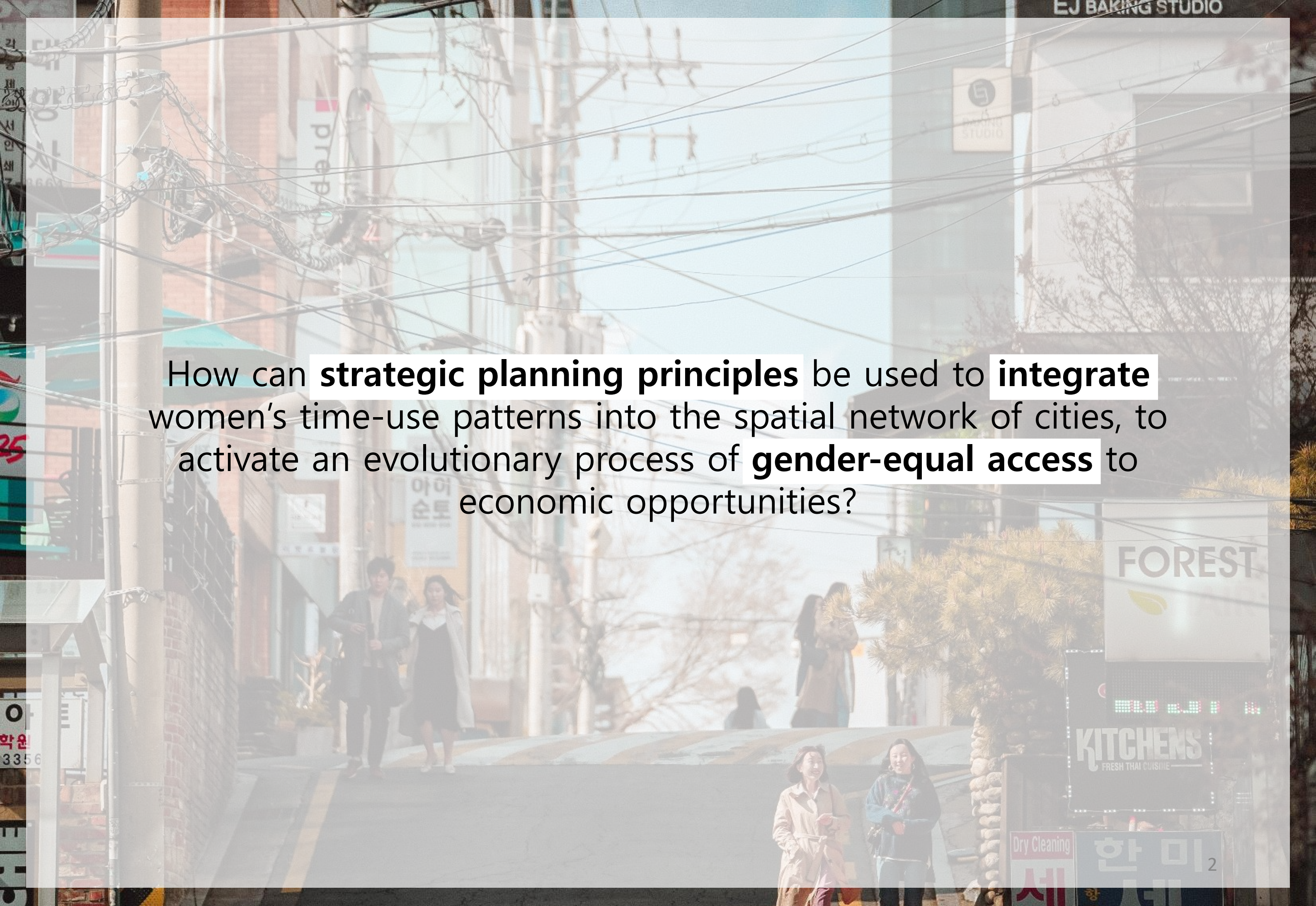
FOREST

KITCHENS
FRESH THAI CUISINE

Dry Cleaning

세

한미
1



How can **strategic planning principles** be used to **integrate** women's time-use patterns into the spatial network of cities, to activate an evolutionary process of **gender-equal access** to economic opportunities?

Dry Cleaning

세

한미 2

세

CONTENTS

Problem Field

Globalisation and Social Change
Gender Inequality
Performativity
Scope
Conceptual Framework

Strategic Framework

A. Methodology
Problem Statement
Dimensions of Impact
Research Questions

B. Proposed Framework
Analytical Framework
Example: Seoul
Needs Assessment
Strategic Framework

C. Implementation
Spatial Framework
Goals and Actions
Operability
Conclusions

Recommendations for Future Research

Globalisation and Social Change



Globalisation, Metropolisation and Capitalism

Changing socio-economic structures globally

Sources

Left: Eric Sanderson on humansandnature.org

Right: Garcia, The Korea Times, 2010

Problem Field

Globalisation and Social Change



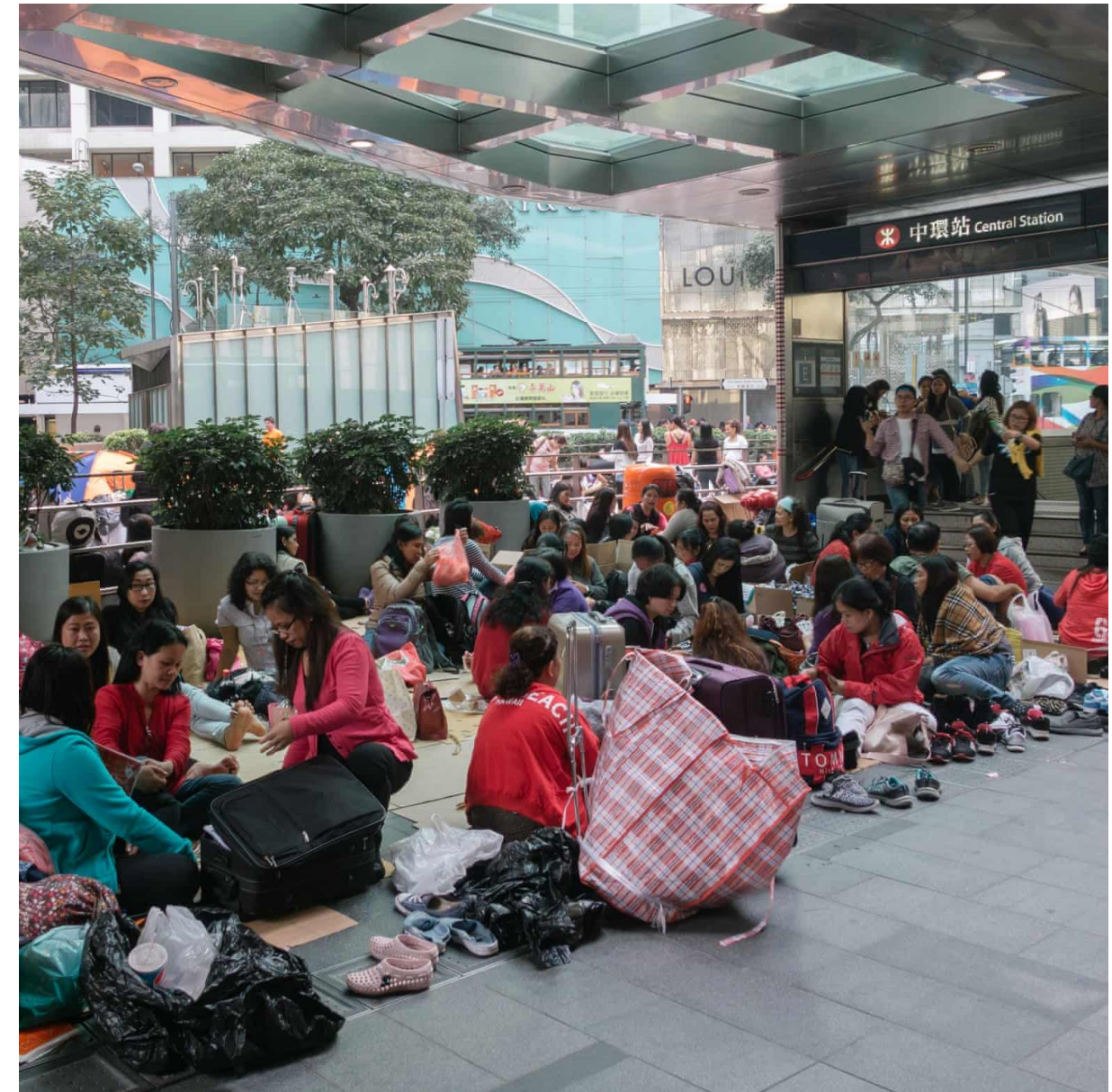
Feminisation of the workforce

Propagated by progressing levels of globalisation and capitalism

Left: HRW

Sources
Right: Filipino Times

Gender Inequality



Women's spaces (or lack thereof) in cities

Problem Field

Sources
Left: Baraka Bits Right: The Guardian

Gender Inequality



Spatial marginalisation

Performativity

12-07-16 | HOW TO BUILD THE PERFECT CITY

Women And Men Use Cities Very Differently

Ask women and men how they, say, use transportation and you'll get very divergent answers. The women, unsurprisingly, have a much more complex relationship.

Why aren't we designing cities that work for women, not just men?

Andrew Fleming and Anja Tranovich

Bad town planning can impact women's safety, movement and even income. Research led by the people most affected should inform a new approach

Gender perspectives often ignored in urban planning

Submitted by [Sara Eliasson](#) on 09/01/2017 - 10:58.

Cities Were Built for Men. Here's How To Fix That

'Feminist City: A Field Guide' examines how urban design has turned more than half the population into second-class citizens.



Christopher Cheung, 1 Nov 2019 | TheTyee.ca

CULTURE | SOCIOLOGY

Your City Has a Gender and It's Male

Why city designers are increasingly thinking about the female perspective.

BY FOUAD KHAN
JANUARY 11, 2018

Cities Are Even Worse For Women Than You Might Imagine

The overlapping care crises of COVID-19 make the case for feminist cities clear — and more urgent.

By [Diana Budds](#) | Jul 7, 2020, 11:41am EDT

Spatial consequences

Inefficient spatial forms and networks that do not serve majority users

Sources [L-R, T-B]

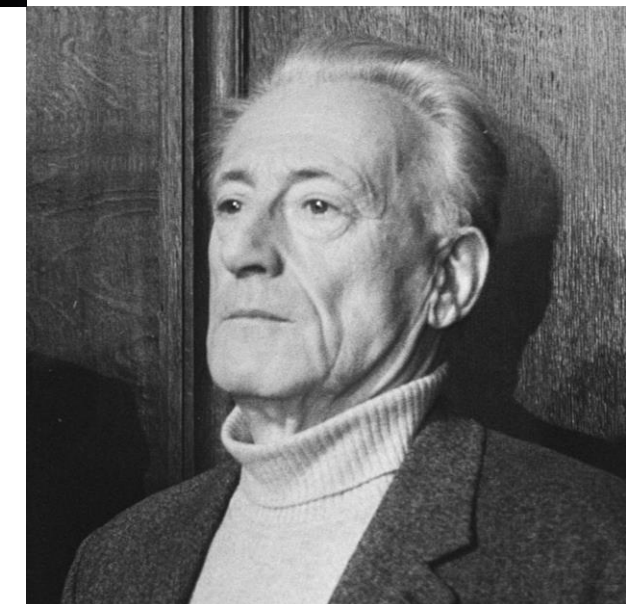
Fast Company; The Guardian; Mistra Urban Futures; The Tyee; Nautilus; Curbed

Performativity



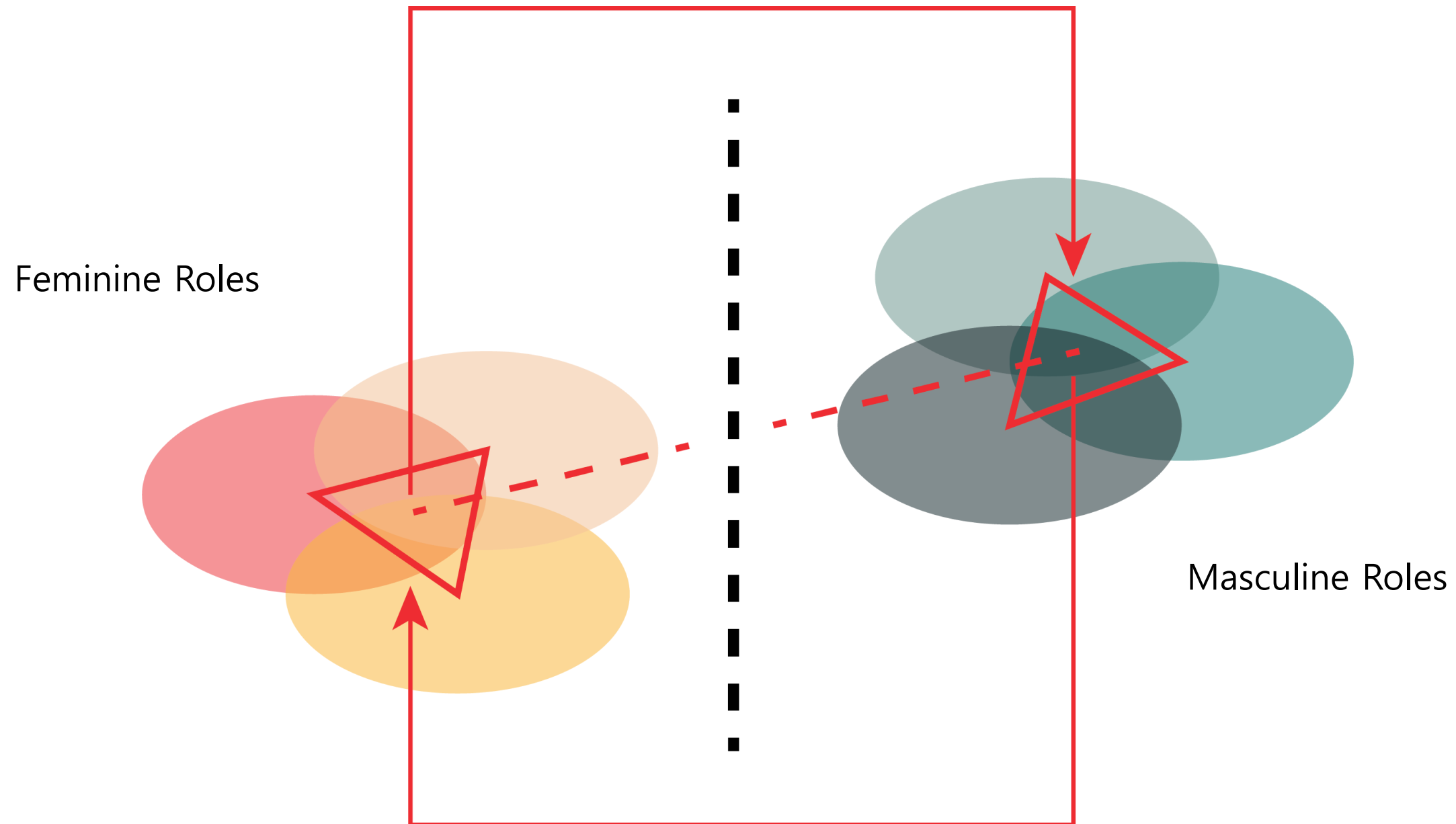
Butler
Gender Performativity

Lefebvre
Production of Space



Mobility, access, and spatial experience

Performativity



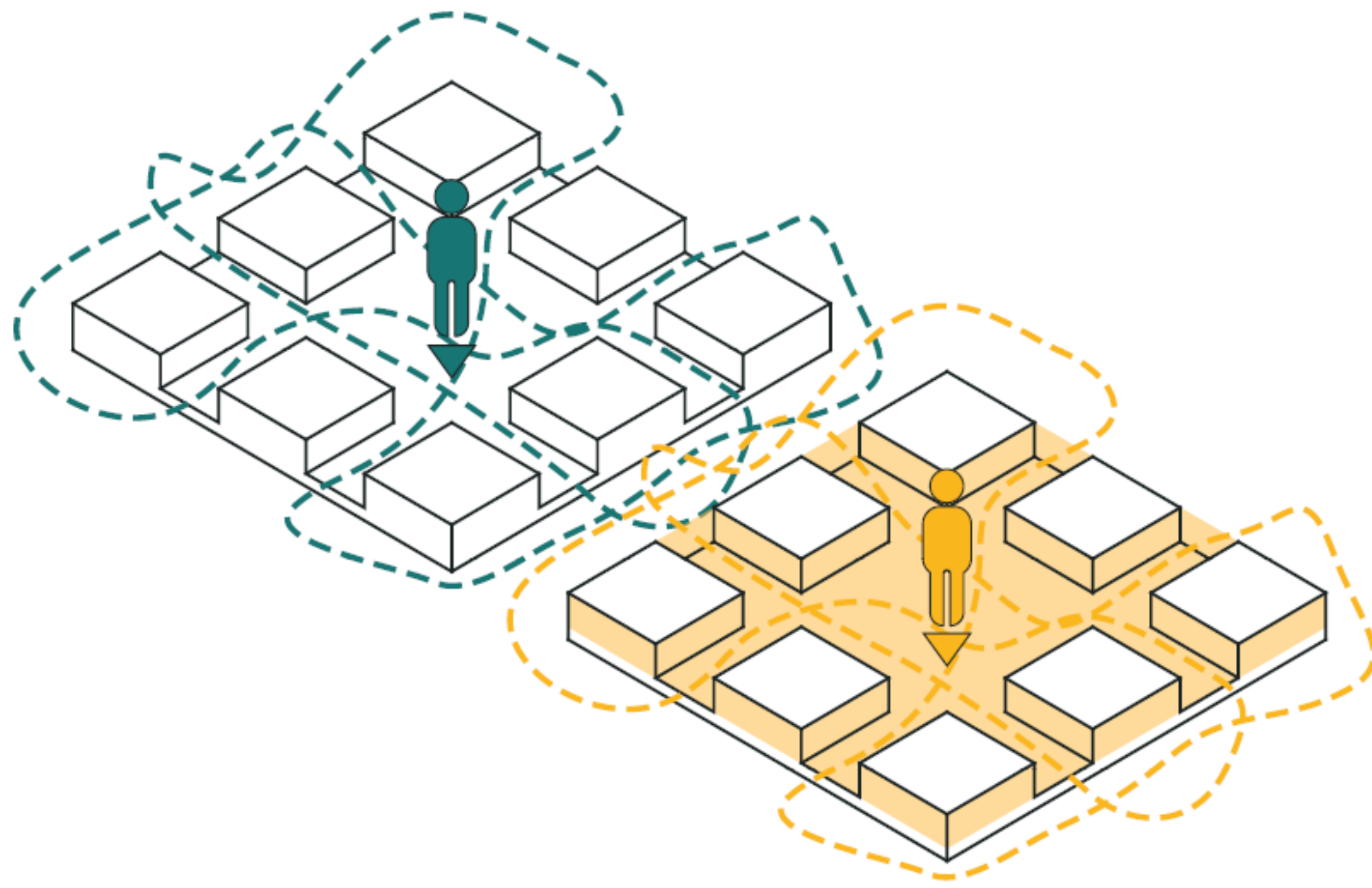
Functional Associations and Spatial Separation

Difficulty in access between divided spaces associated with gendered roles

Source

By Author, from Butler (1990)

Performativity



Complex spatial patterns

Caused by different relationships to space

Sources
By author, from Nguyen, van Nes (2013)

Performativity

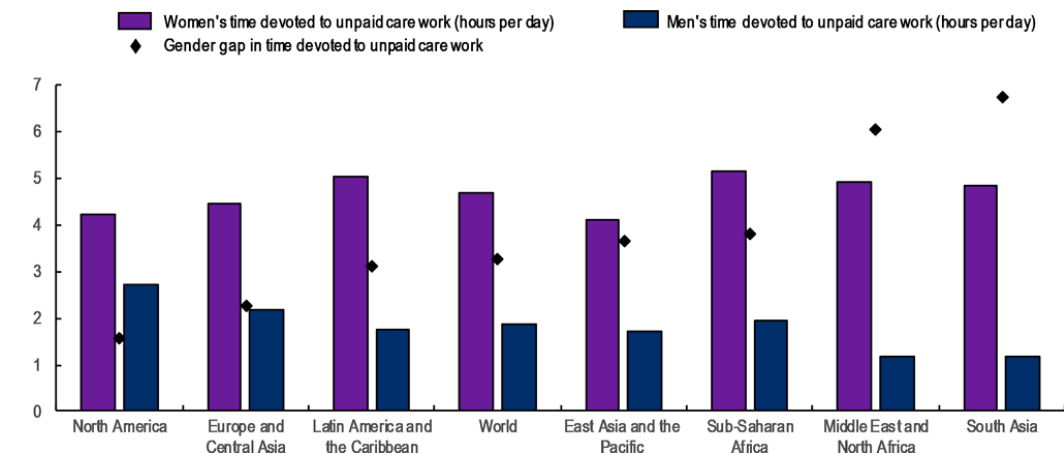
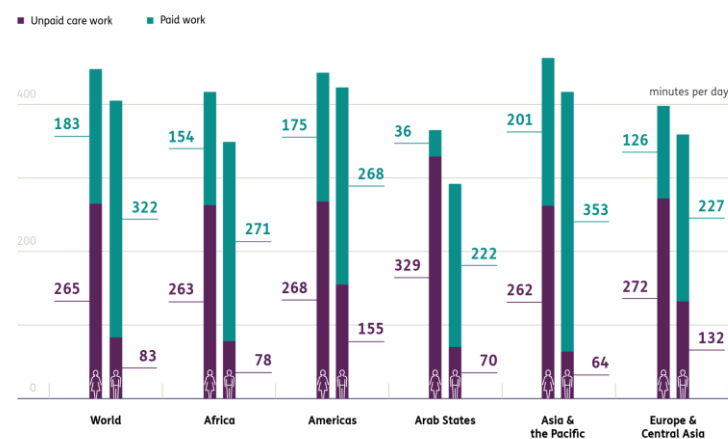
Paid work



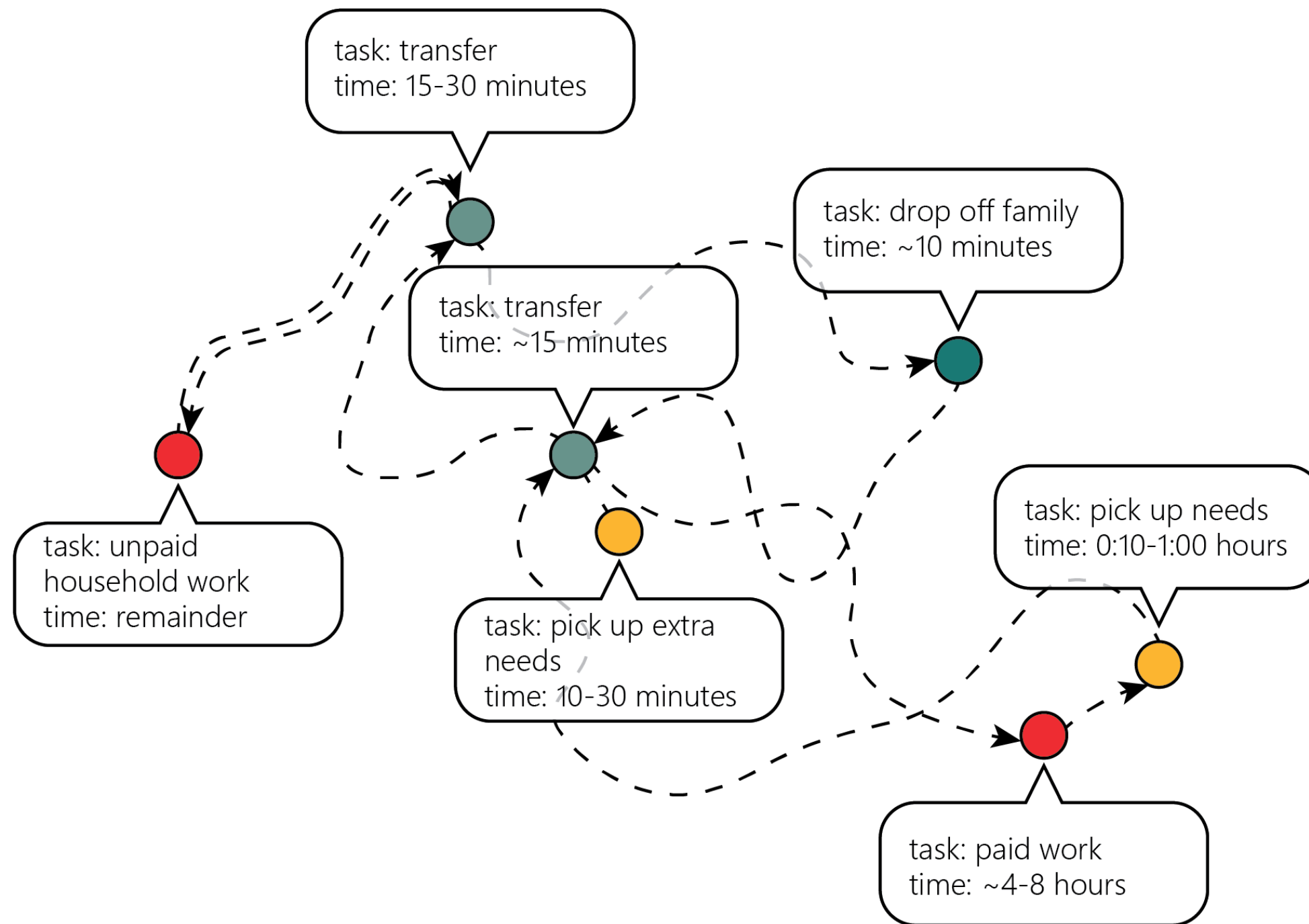
Left: Egypt Independent

Sources
Right: World Bank
Data: OECD

Unpaid work



Performativity



Time-use and spatial patterns

Performativity

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

Transportation

Production

Reproduction

Leisure

Performativity



Women's roles

Example Cases

Aspern, Vienna



Municipality of Vienna

Eva Kail

Barcelona



Collectiu Punt 6

Sara Ortiz Escalante

Buenos Aires



Buenos Aires Secretariat of Transport

Ana Falu

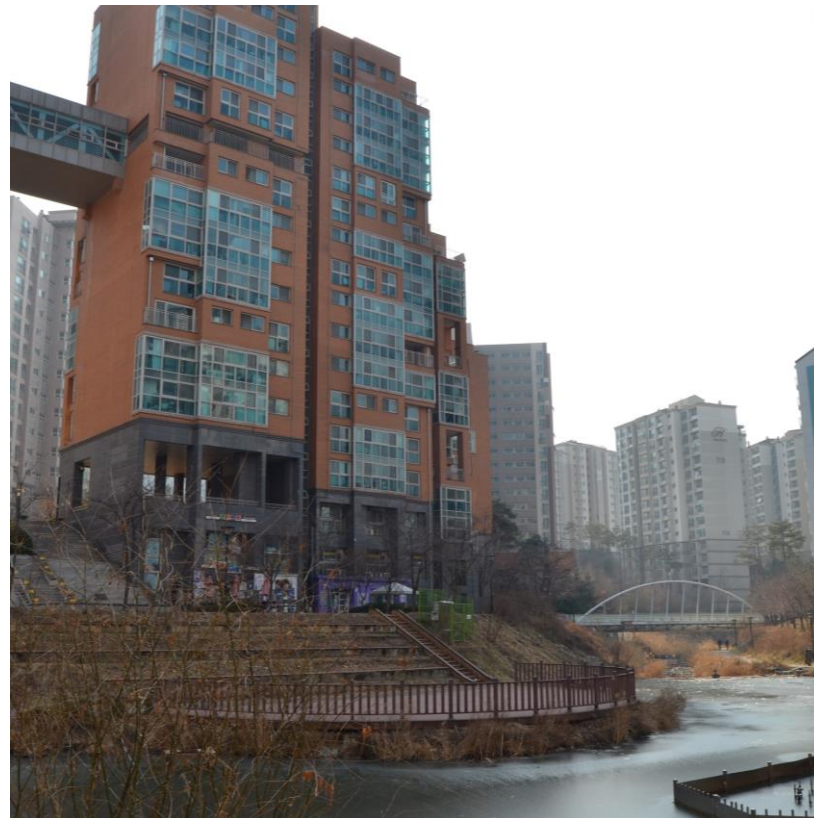
Gender Mainstreaming

Applied across multiple scales by experts worldwide

Sources
Left: Urbanize Hub; Centre: Punt6; Right: Metropolis

Objective

Aspern, Vienna
↓
Seoul?



Barcelona
↓
Cairo?



Buenos Aires
↓
The Hague?



Cross-Cultural Application

The role of culture in planning for women's needs

Sources

Left: Urbanize Hub; Centre: Punt6; Right: Metropolis

Scope

Framework for facilitating gender-equal development

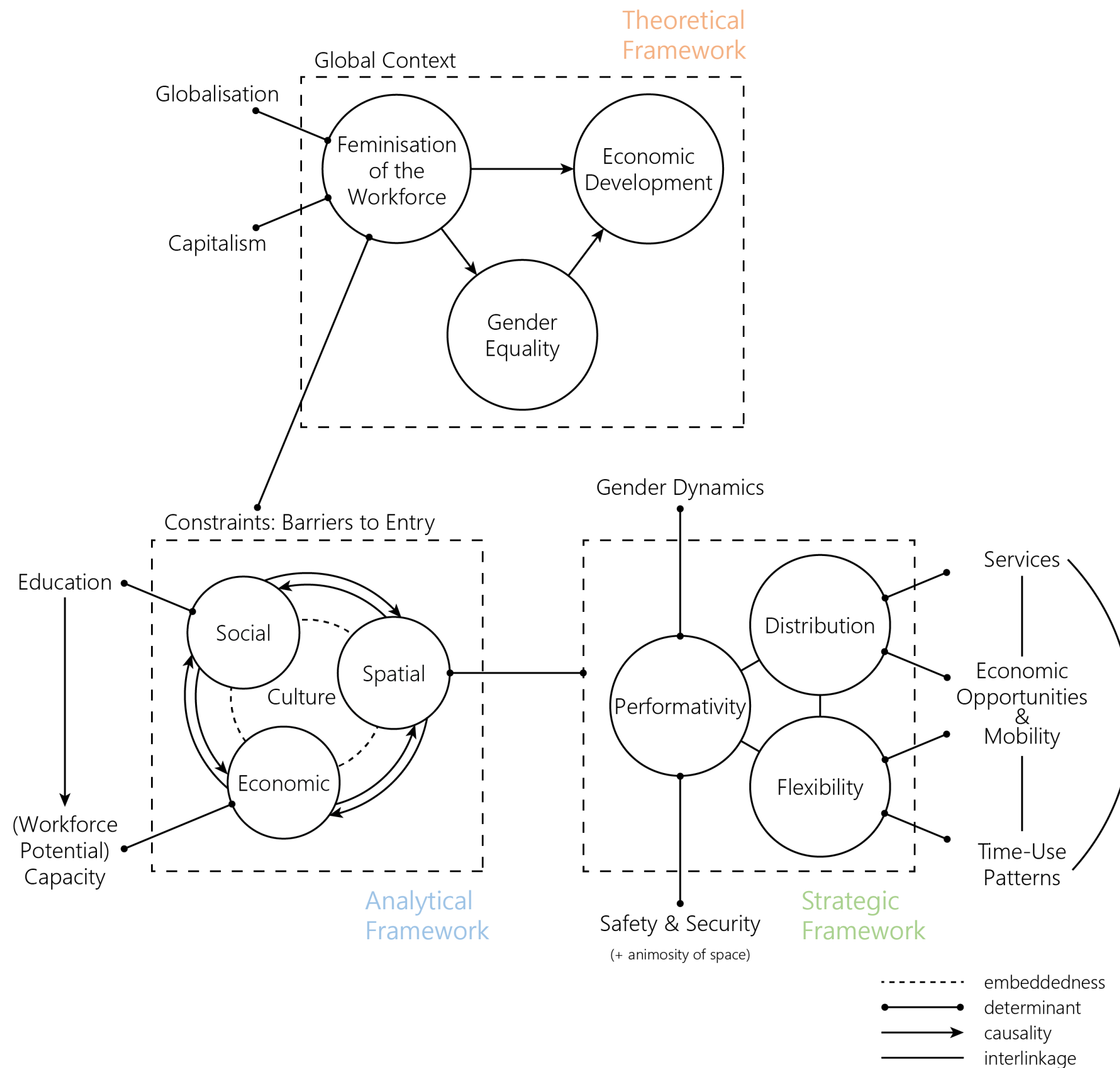
To achieve social resilience



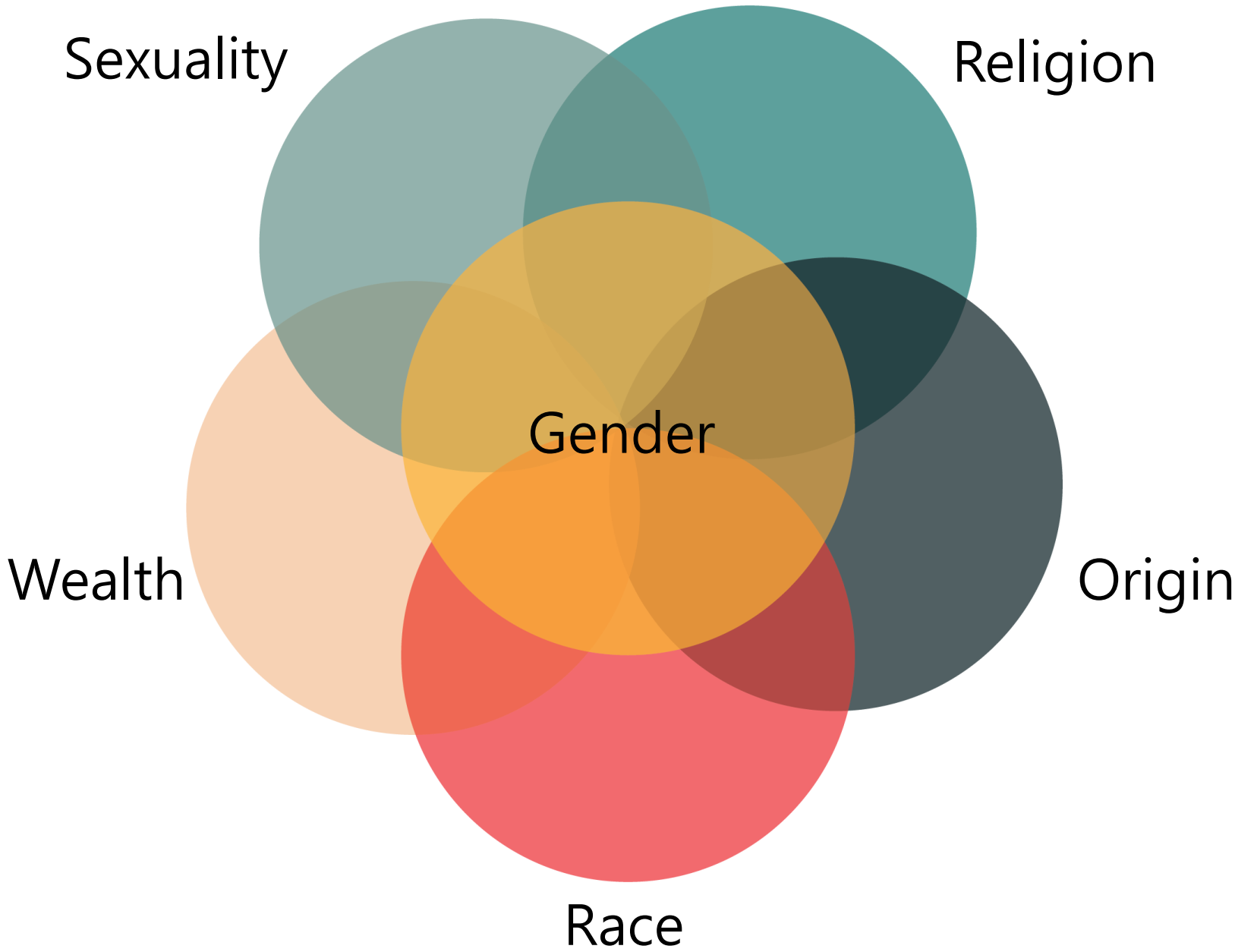
Problem Field

Source
Author

Conceptual Framework



Problem Statement

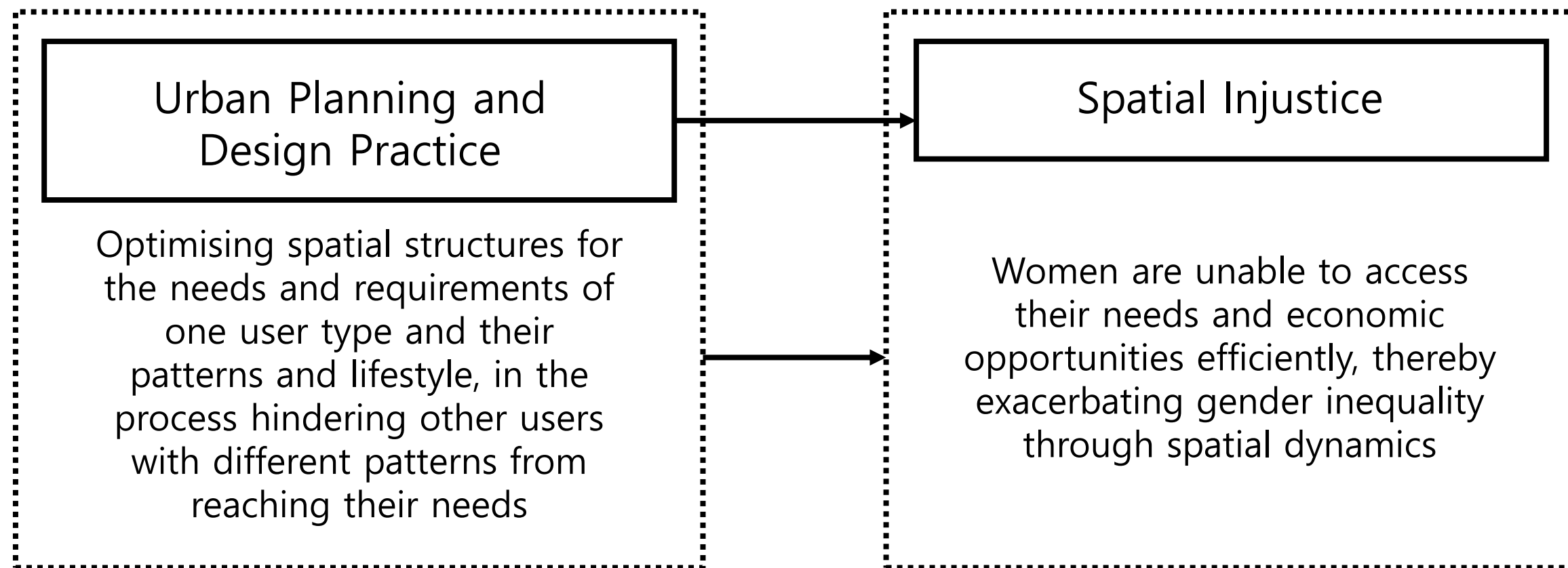


Multiplicities of Identity and Lifestyles

Inform the planned daily systems, especially with respect to mobility

Source
Author

Problem Statement



Dimensions of Impact

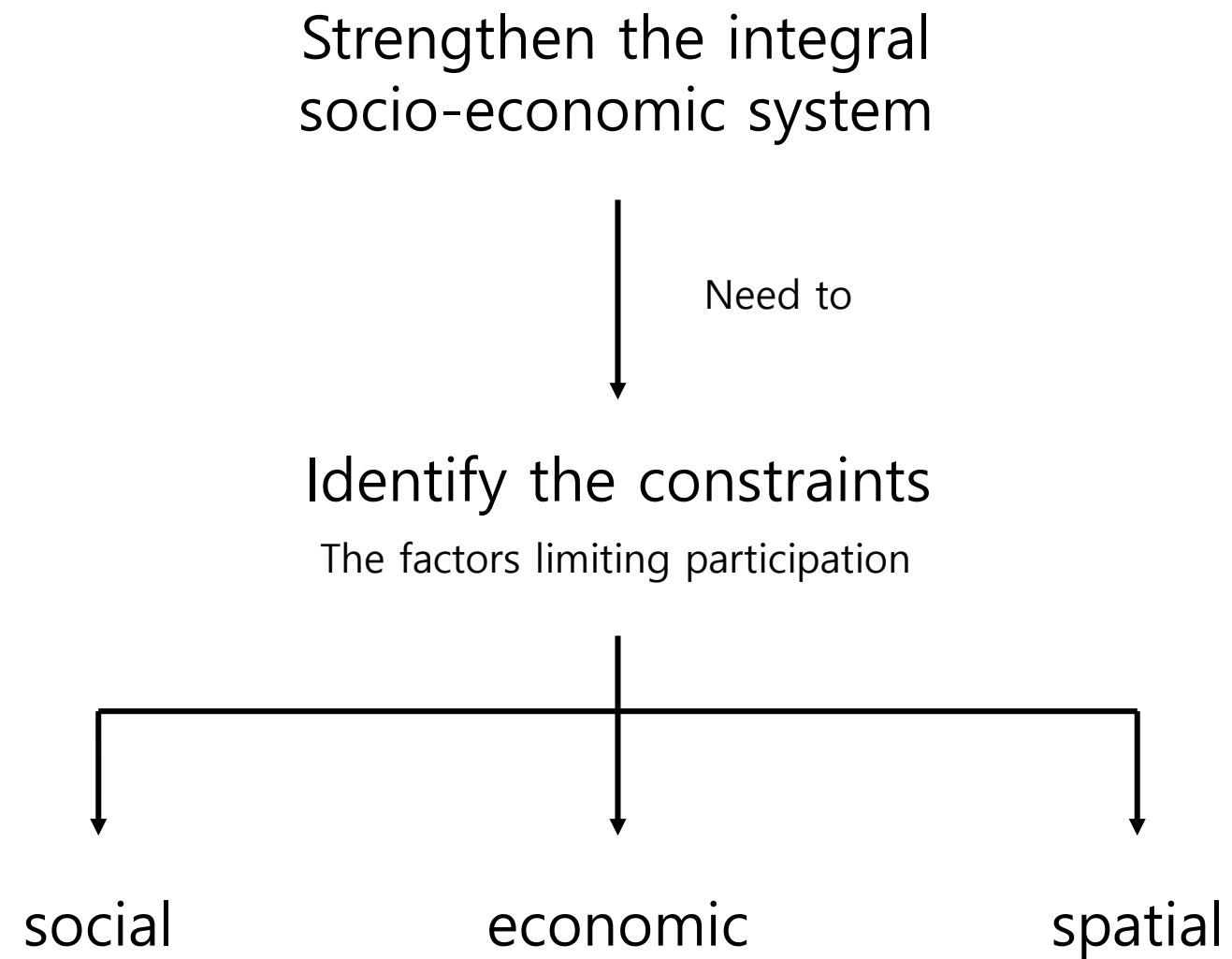
Strengthen the integral
socio-economic system



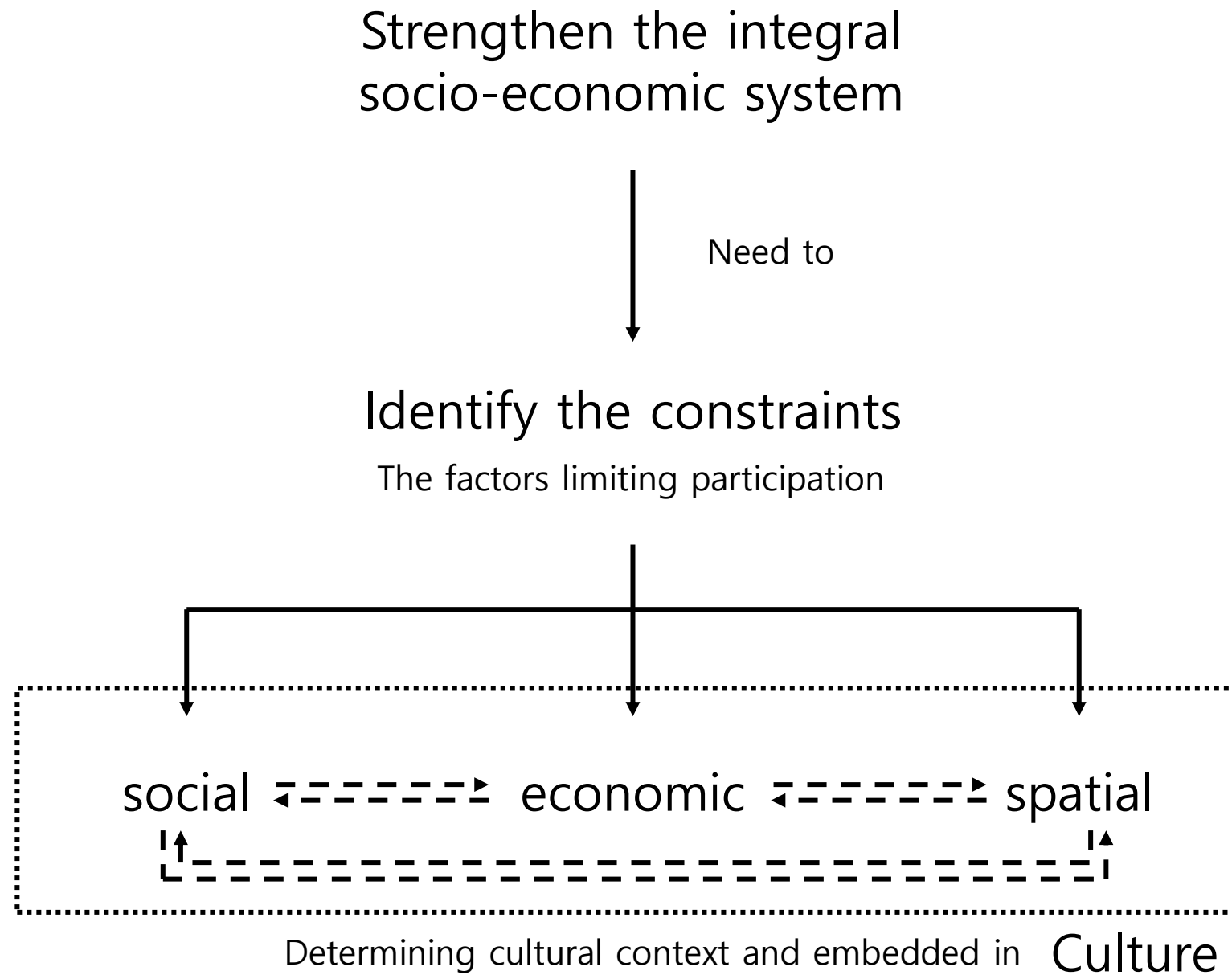
Need to

Identify the constraints
The factors limiting participation

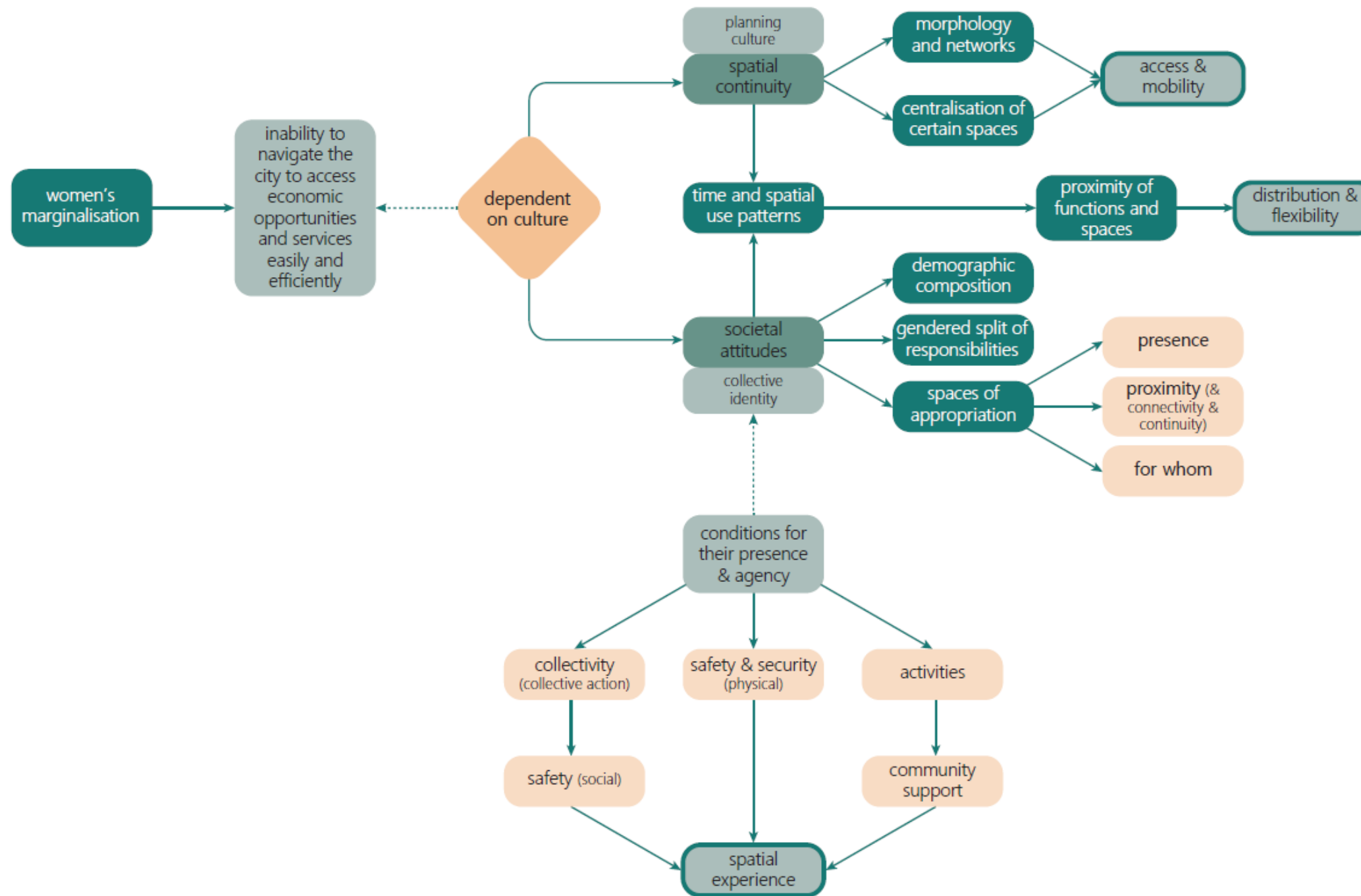
Dimensions of Impact



Dimensions of Impact



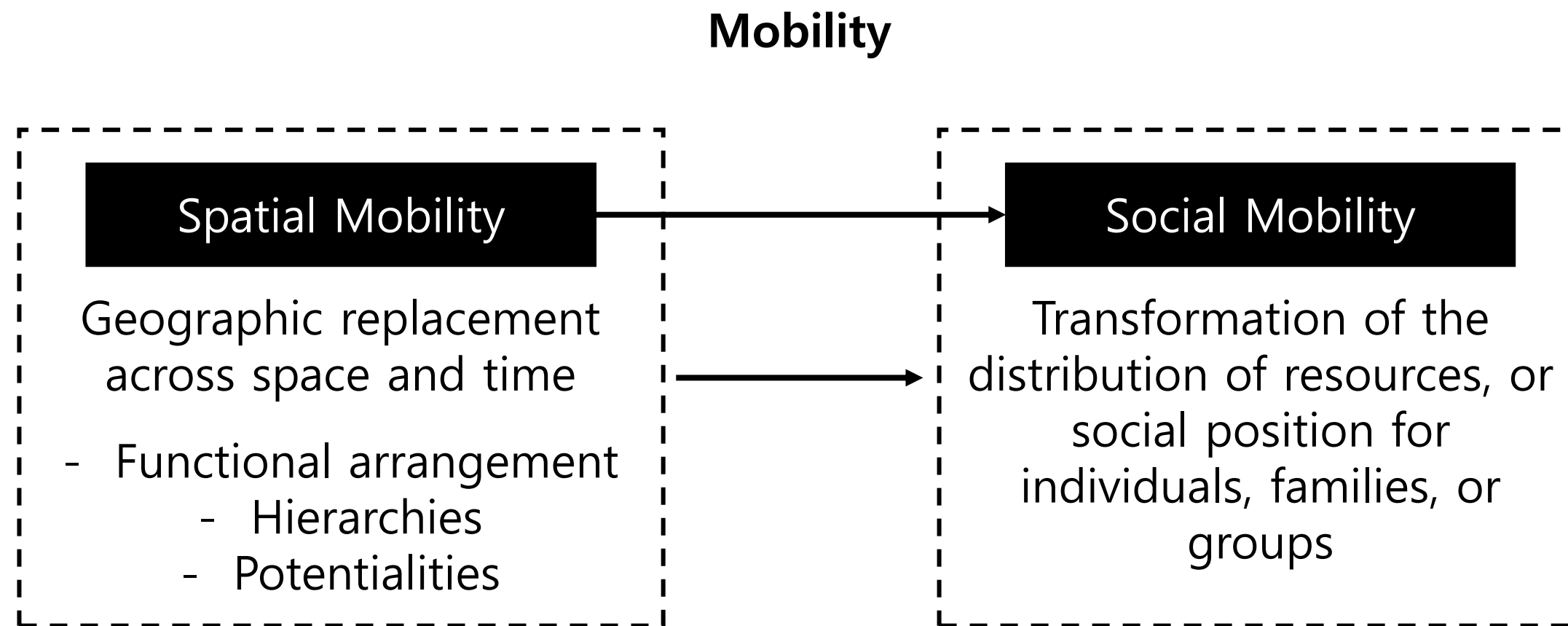
Dimensions of Impact



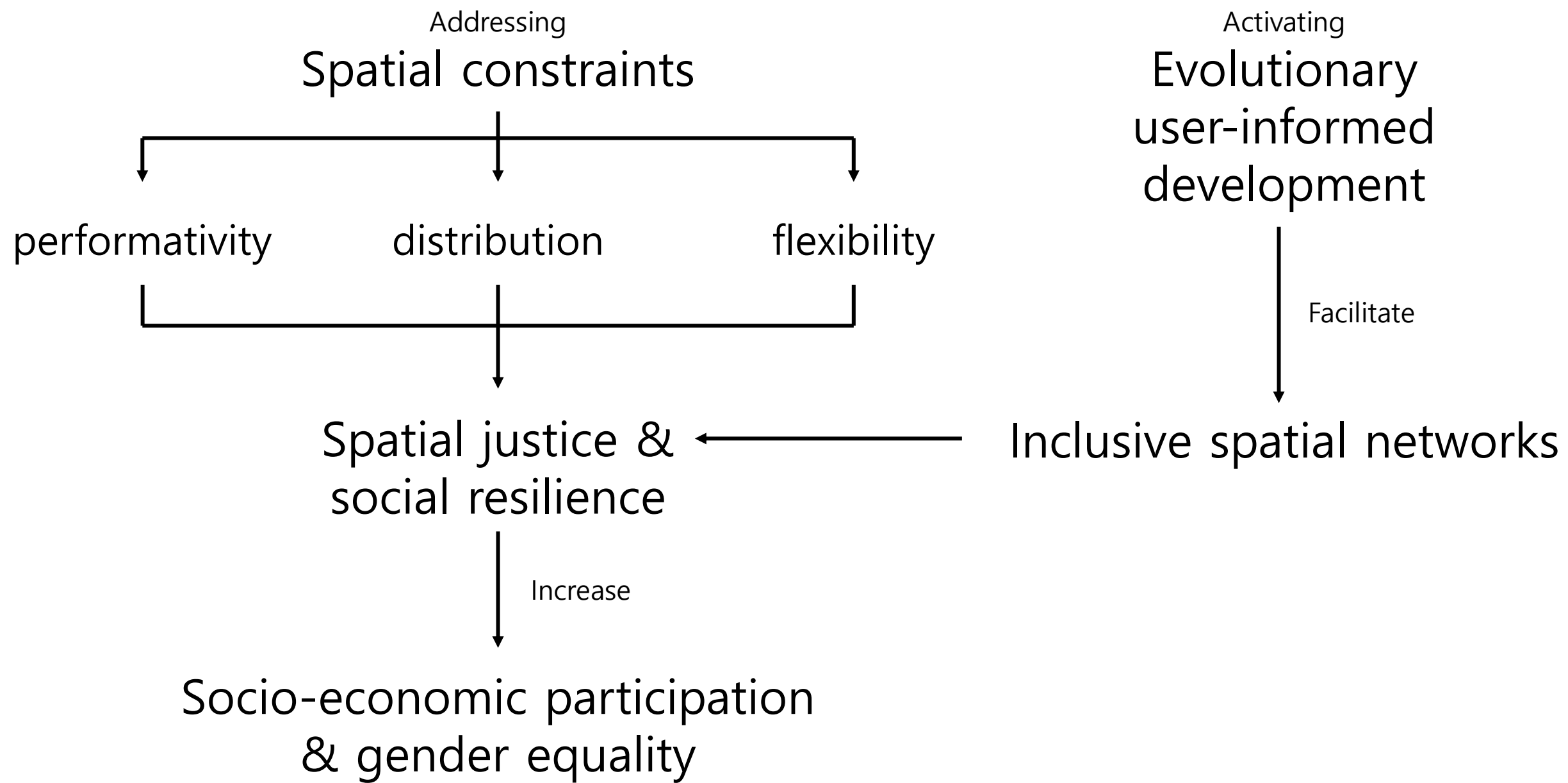
Local cultural embeddedness

Cultural differences require implementational differences

Dimensions of Impact: Mobility & Access



Aims



Research Questions

How can strategic planning principles be used to integrate women's time-use patterns into the spatial network of cities, to activate an evolutionary process of gender-equal access to economic opportunities?

Research Questions

How can strategic planning principles be used to integrate women's time-use patterns into the spatial network of cities, to activate an evolutionary process of gender-equal access to economic opportunities?

Theoretical Framework

SRQ1 What are women's roles in cities and how did urban spatial and economic changes impact them?

SRQ2 How do women's time-use patterns differ to that of men across cultures?

Analytical Framework

SRQ3 How do the urban socio-cultural conditions in the three sites constrain women's access to economic opportunities?

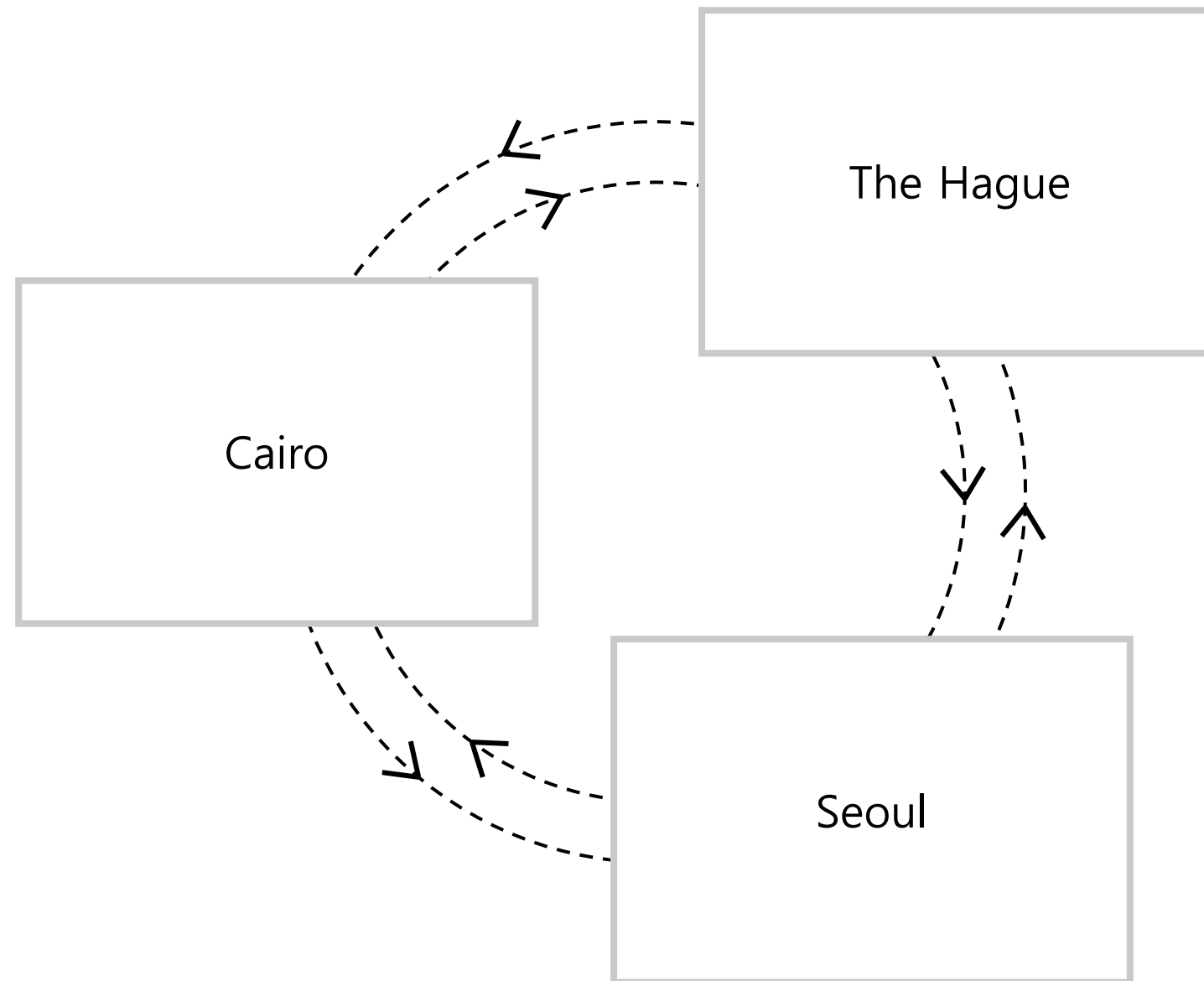
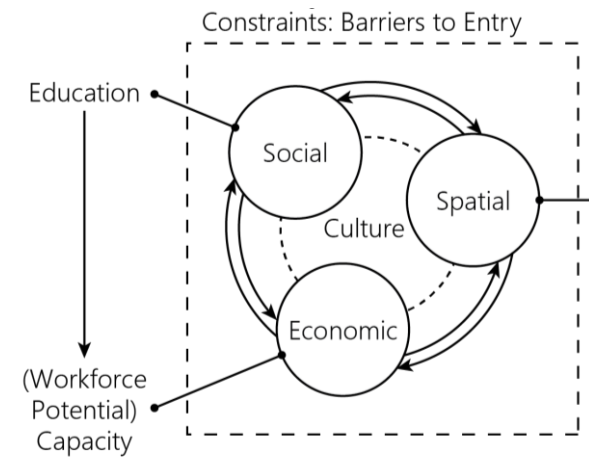
SRQ4 What spatial demands should be considered in the organisation and design of neighbourhoods and at modal transfer points?

Strategic Framework

SRQ5 What spatial principles can be applied to respond to women's demands, allowing more efficient access to opportunities?

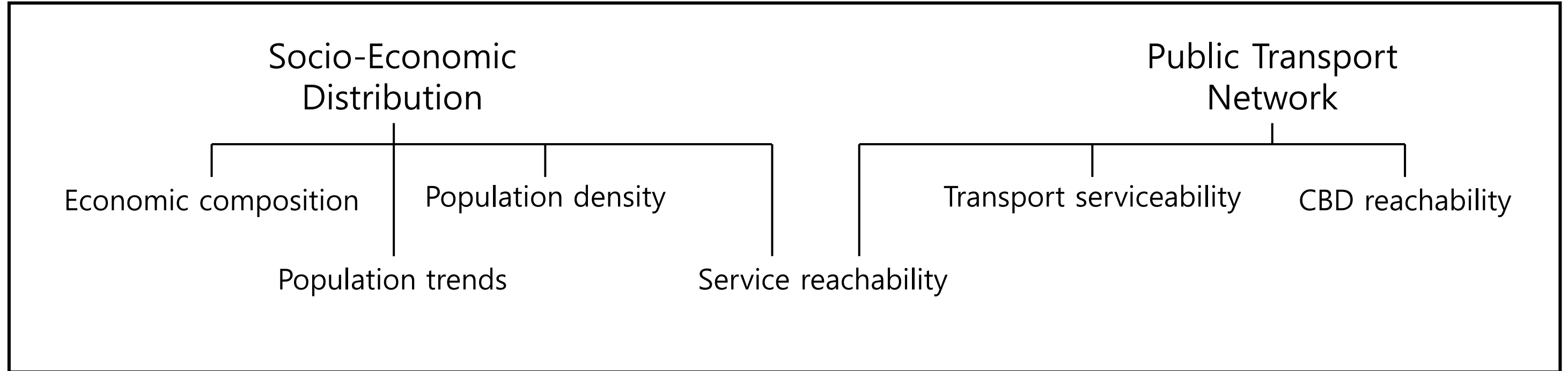
SRQ6 Which of the principles can be used across contexts and which need cultural adaptation to be transferred?

Analytical Framework

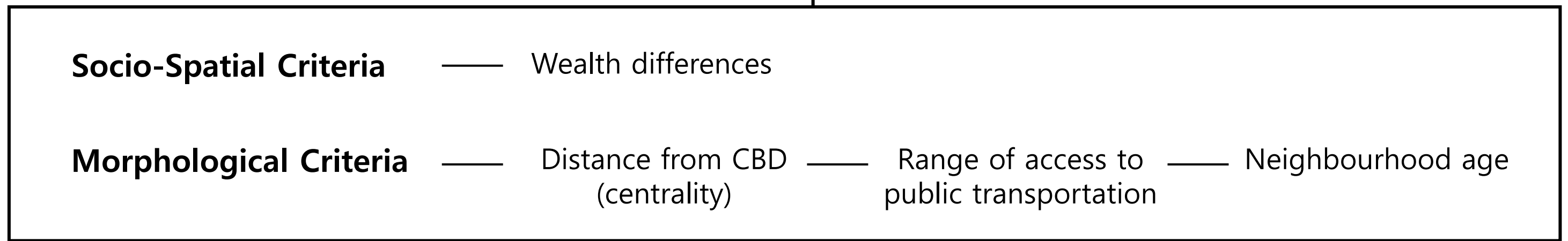


Cross-cultural principle assessment and development

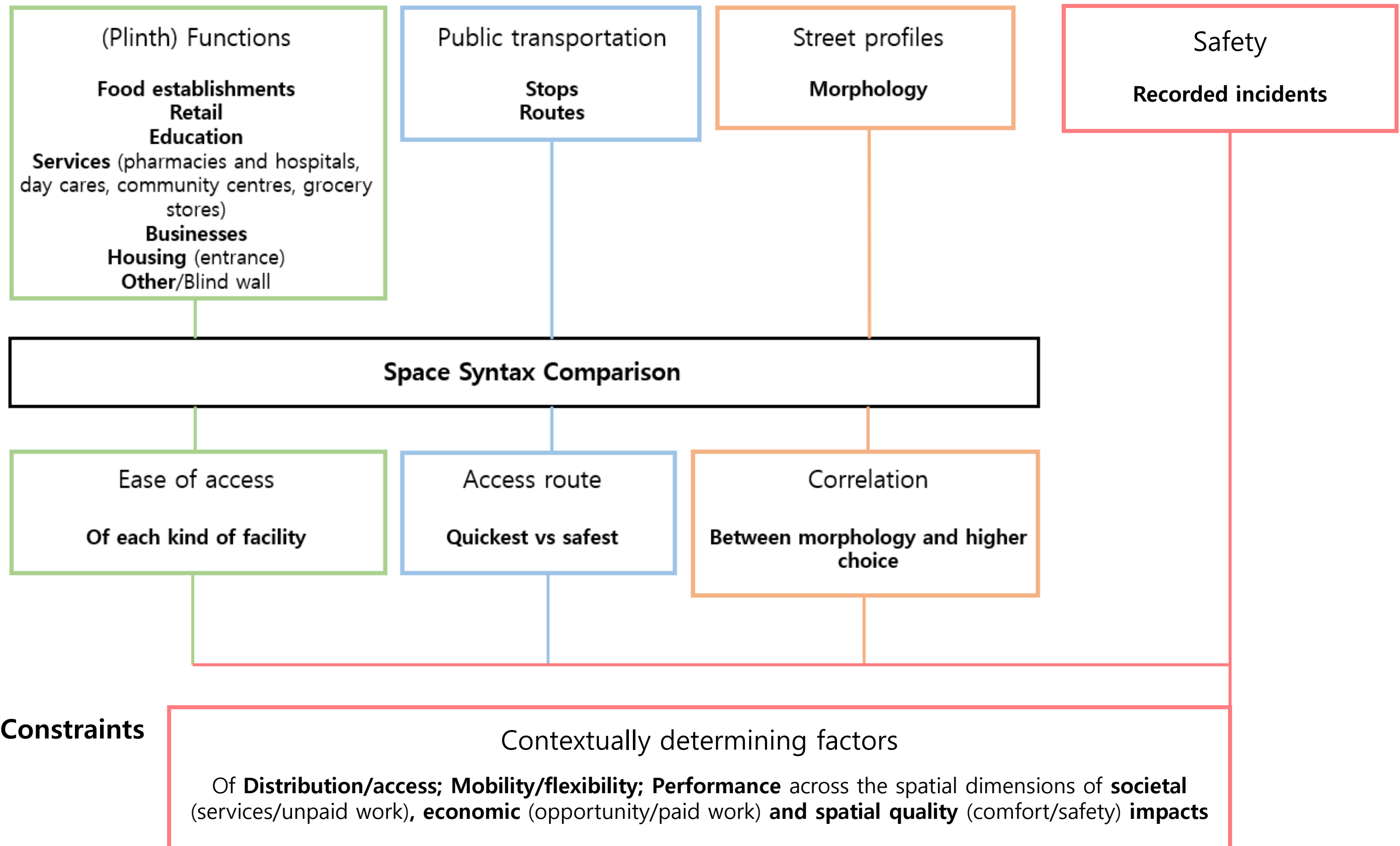
Analytical Framework – City Scale



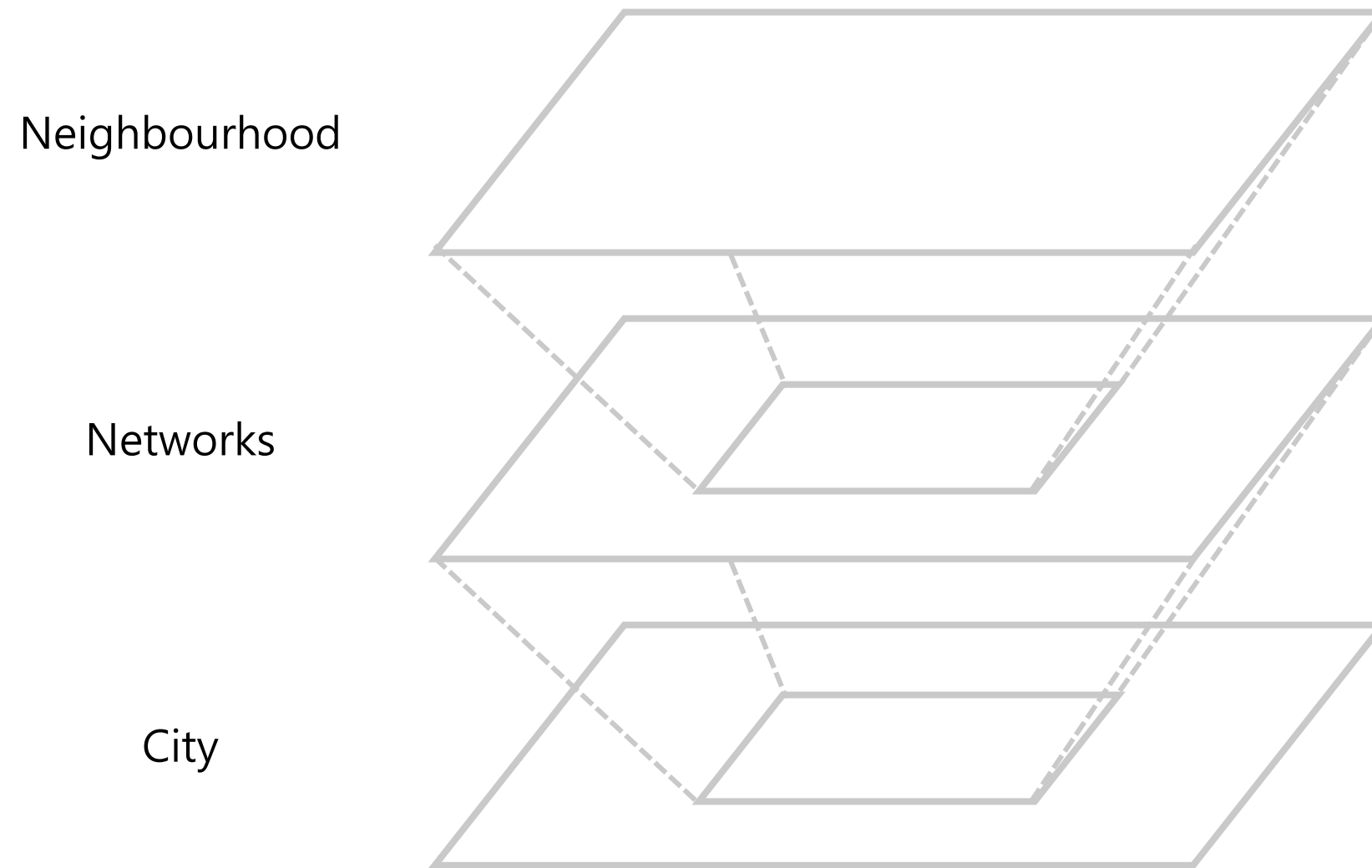
Neighbourhood Selection



Analytical Framework – Neighbourhood Scale



Analytical Framework



Cross-scalar analysis and relationship dynamics

Analytical Framework

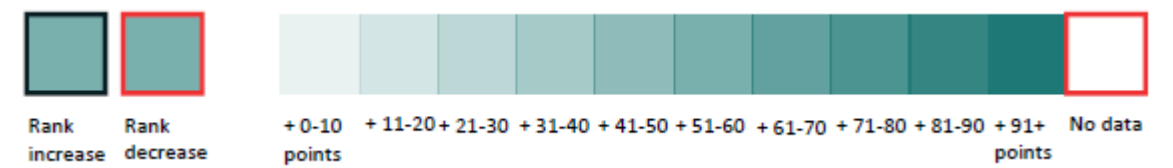
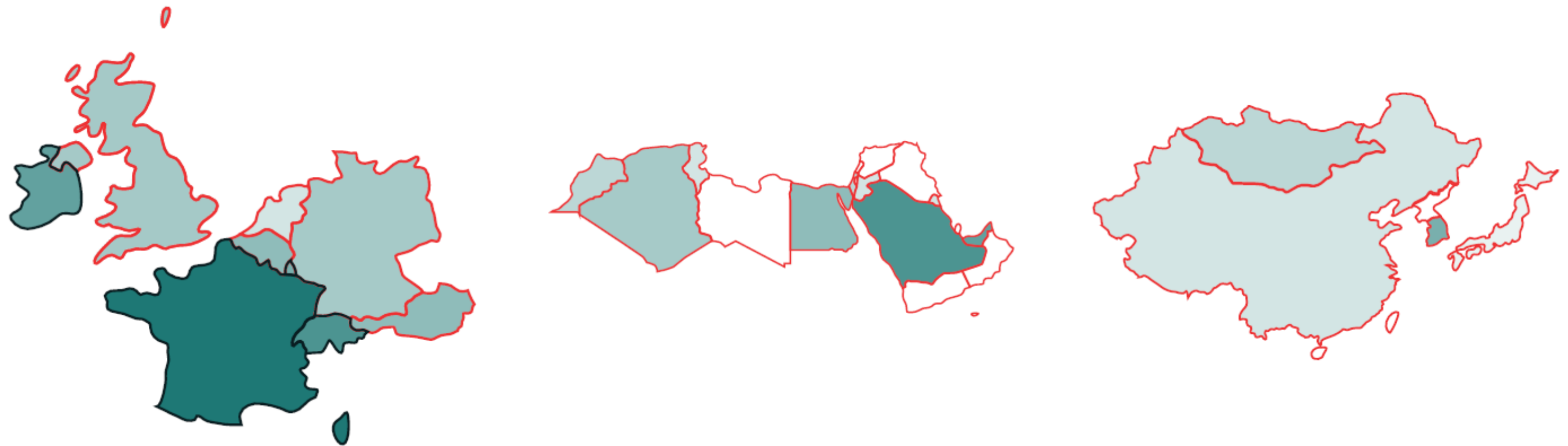
Cultural Determinants	Spatial Constraints and Needs		
	Distribution	Access	Performance
Society			
Economy			
Spatial Experience			

Example: Seoul



Example: Seoul

Three Cases: WEF Global Gender Gap Index



Sources
World Economic Fund

Example: Seoul

Three Cases: Workforce

The Netherlands

Women in the Labour Force (4.18M)



■ unemployed ■ part time ■ full time

Men in the Labour Force (4.70M)



■ unemployed ■ part time ■ full time

Egypt

Women in the Labour Force (6.97M)



■ unemployed ■ part time ■ full time

Men in the Labour Force (22.08M)



■ unemployed ■ part time ■ full time

South Korea

Women in the Labour Force (10.83M)

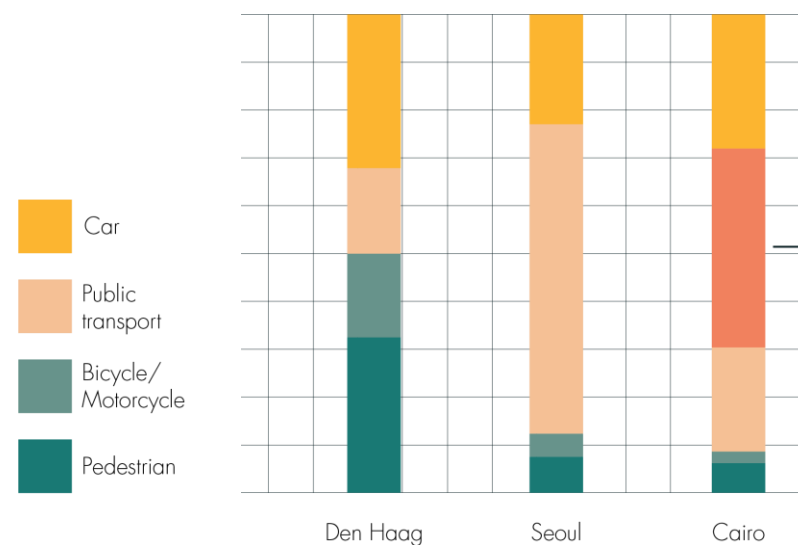


■ unemployed ■ part time ■ full time

Men in the Labour Force (14.59M)



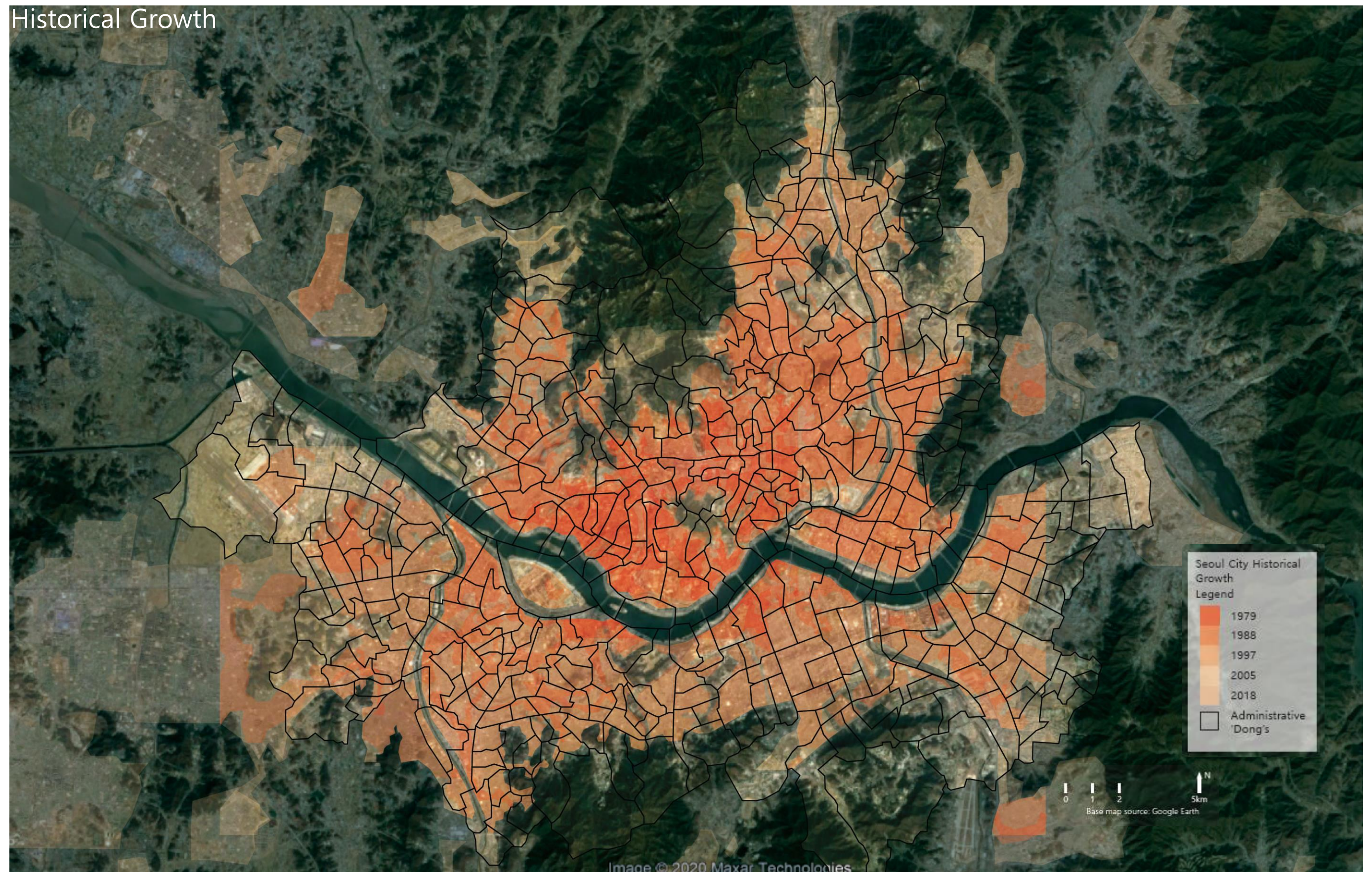
■ unemployed ■ part time ■ full time



63% of "public transport" use in Cairo are minibuses, which are privately and individually owned

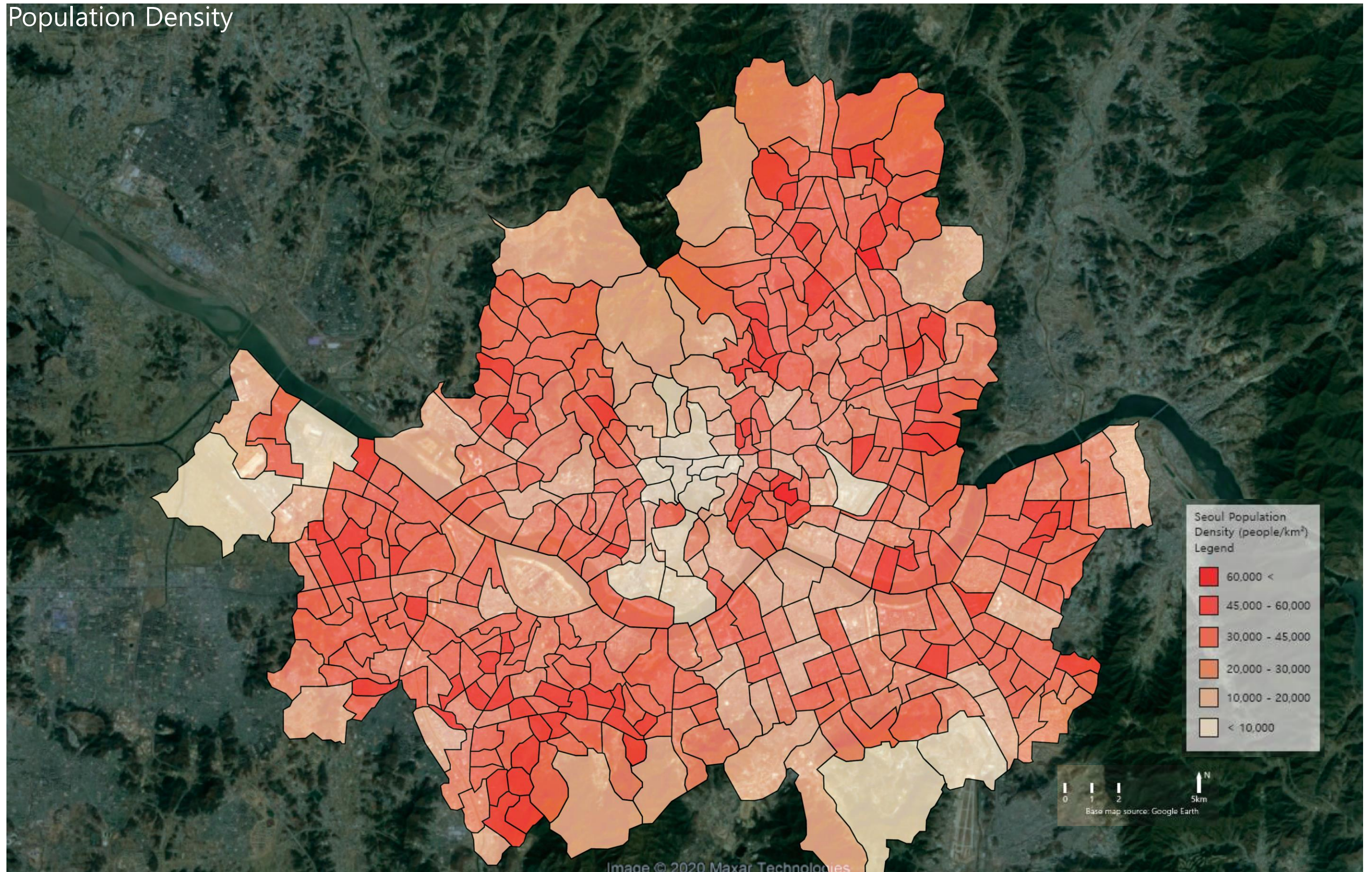
Example: Seoul

Historical Growth



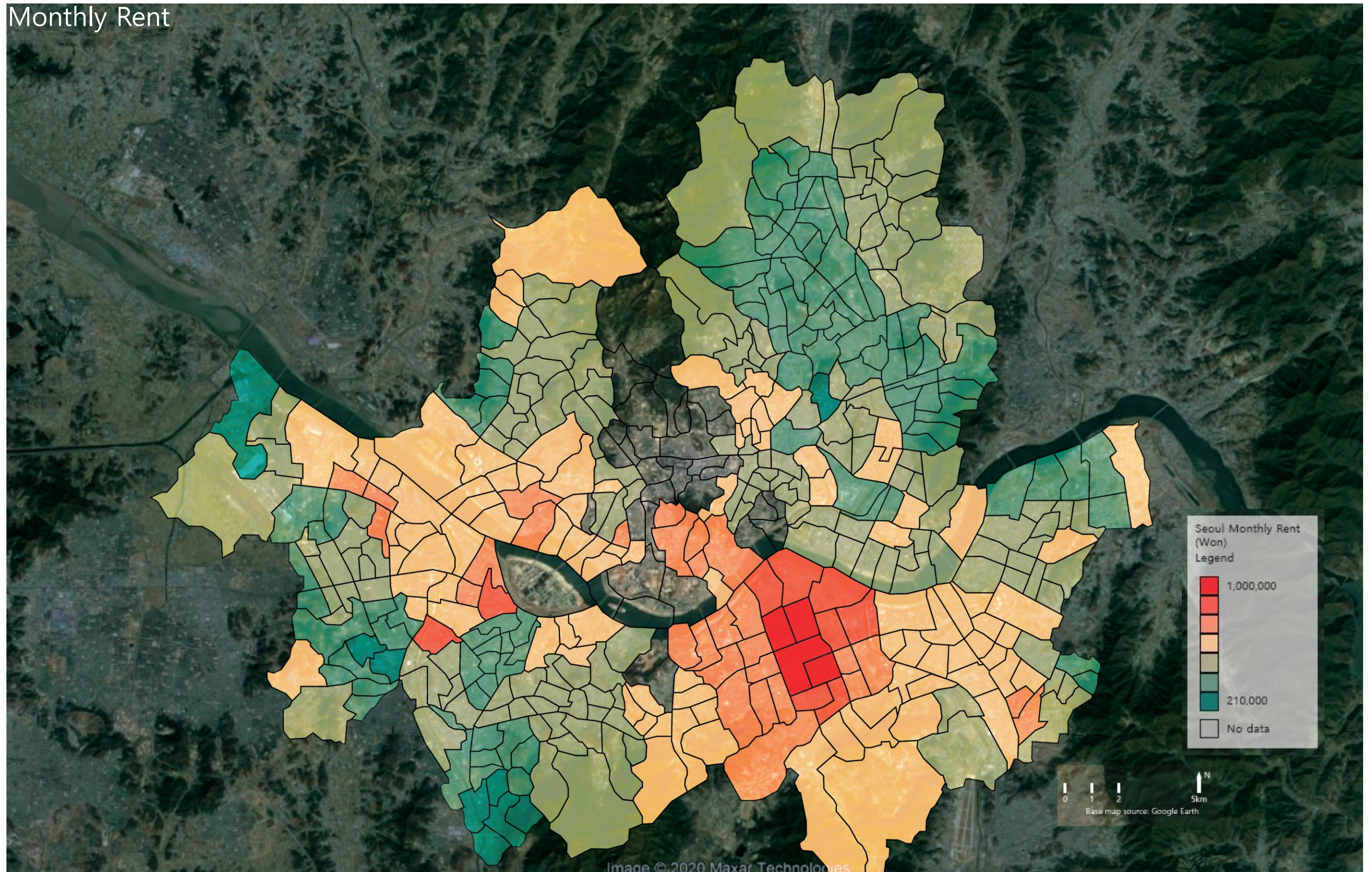
Example: Seoul

Population Density



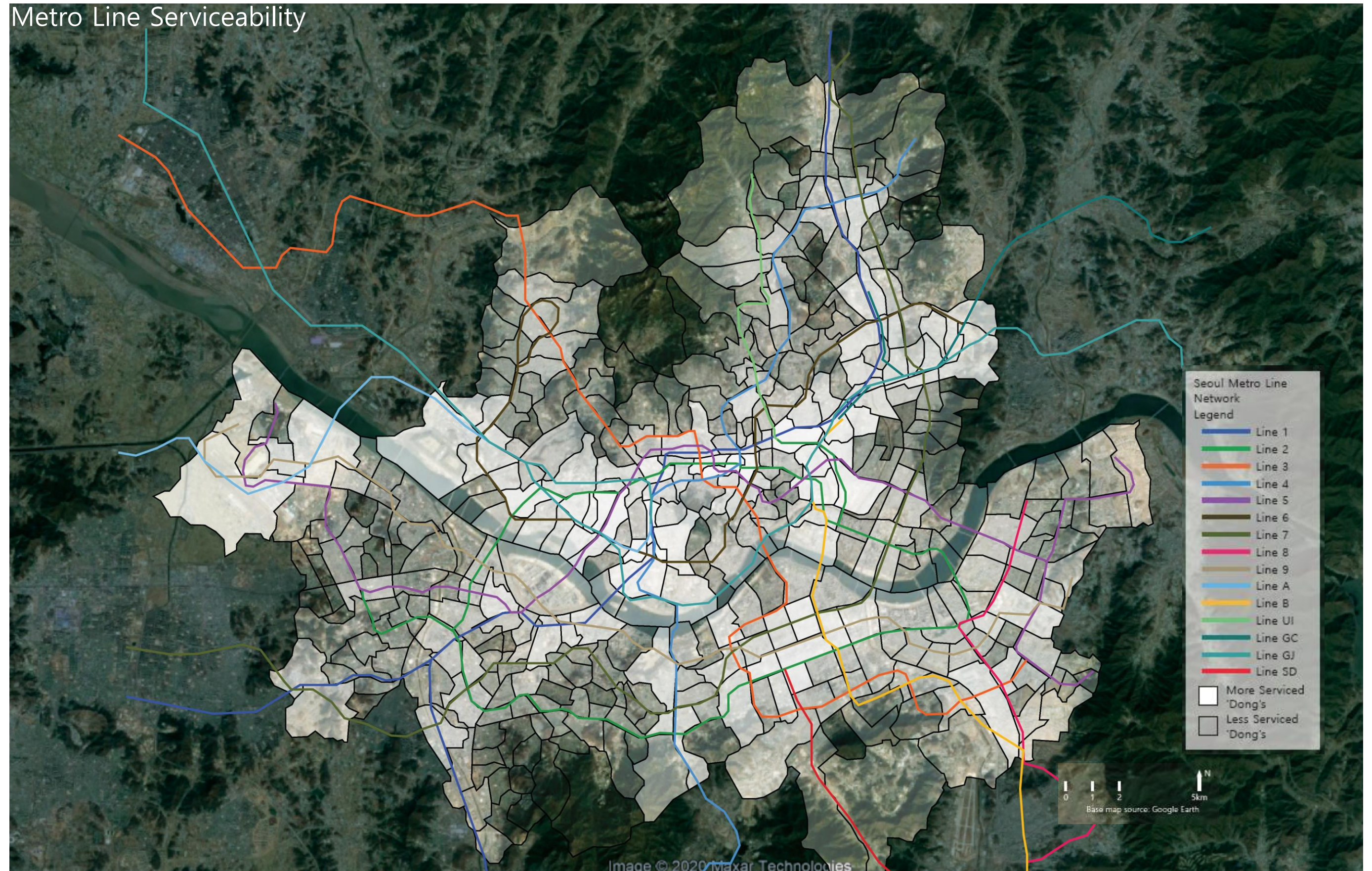
Example: Seoul

Monthly Rent



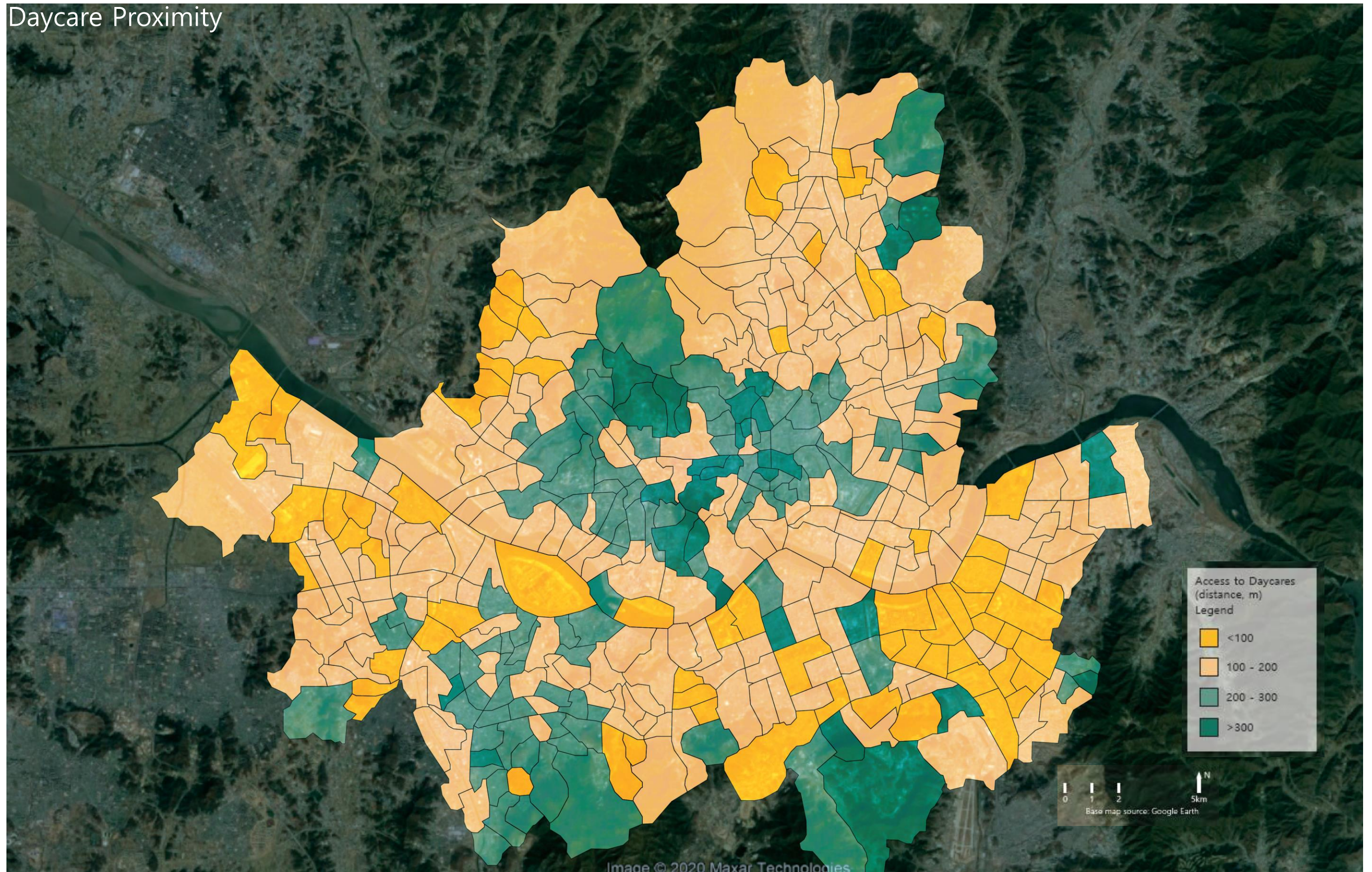
Example: Seoul

Metro Line Serviceability



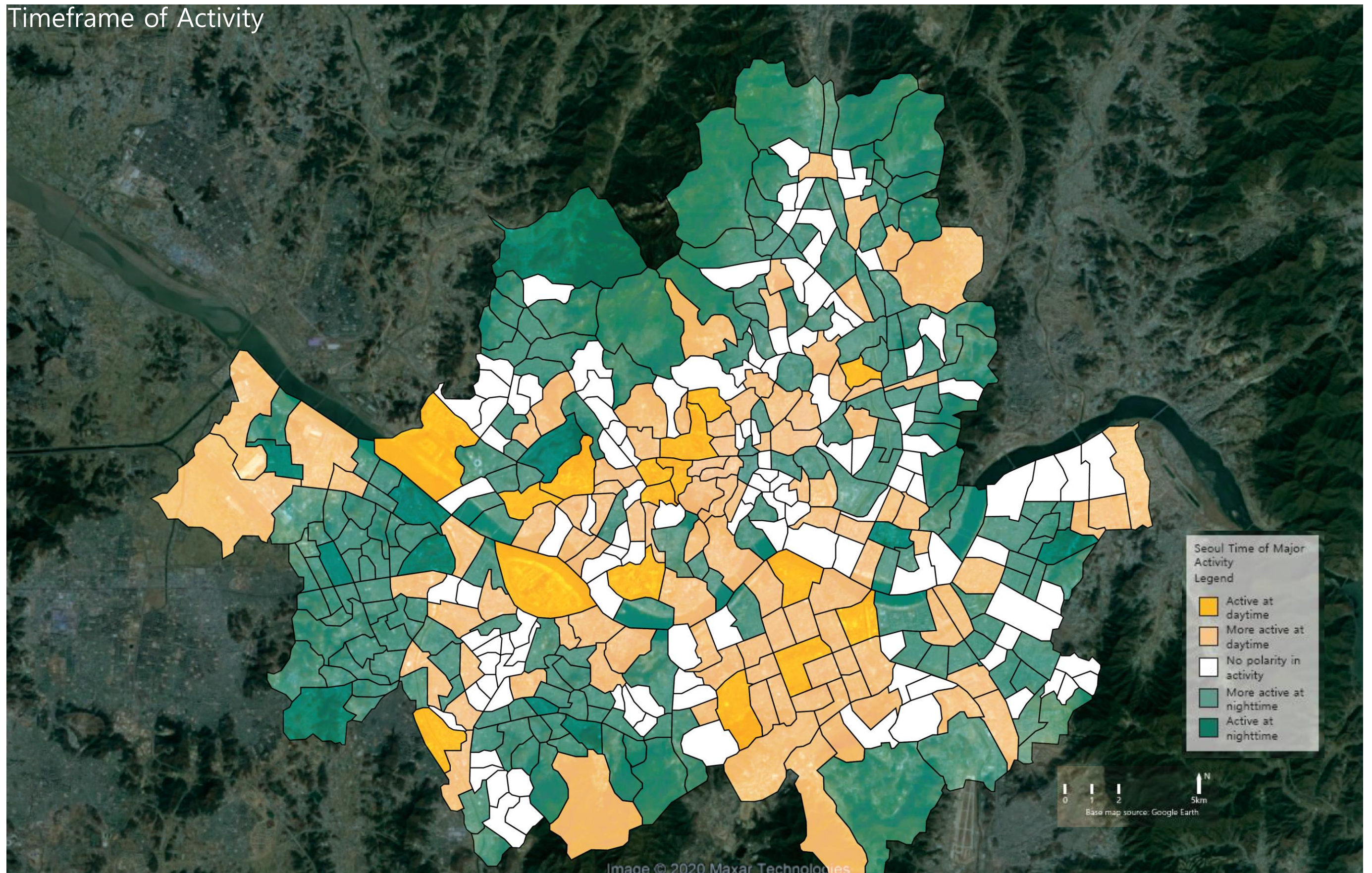
Example: Seoul

Daycare Proximity



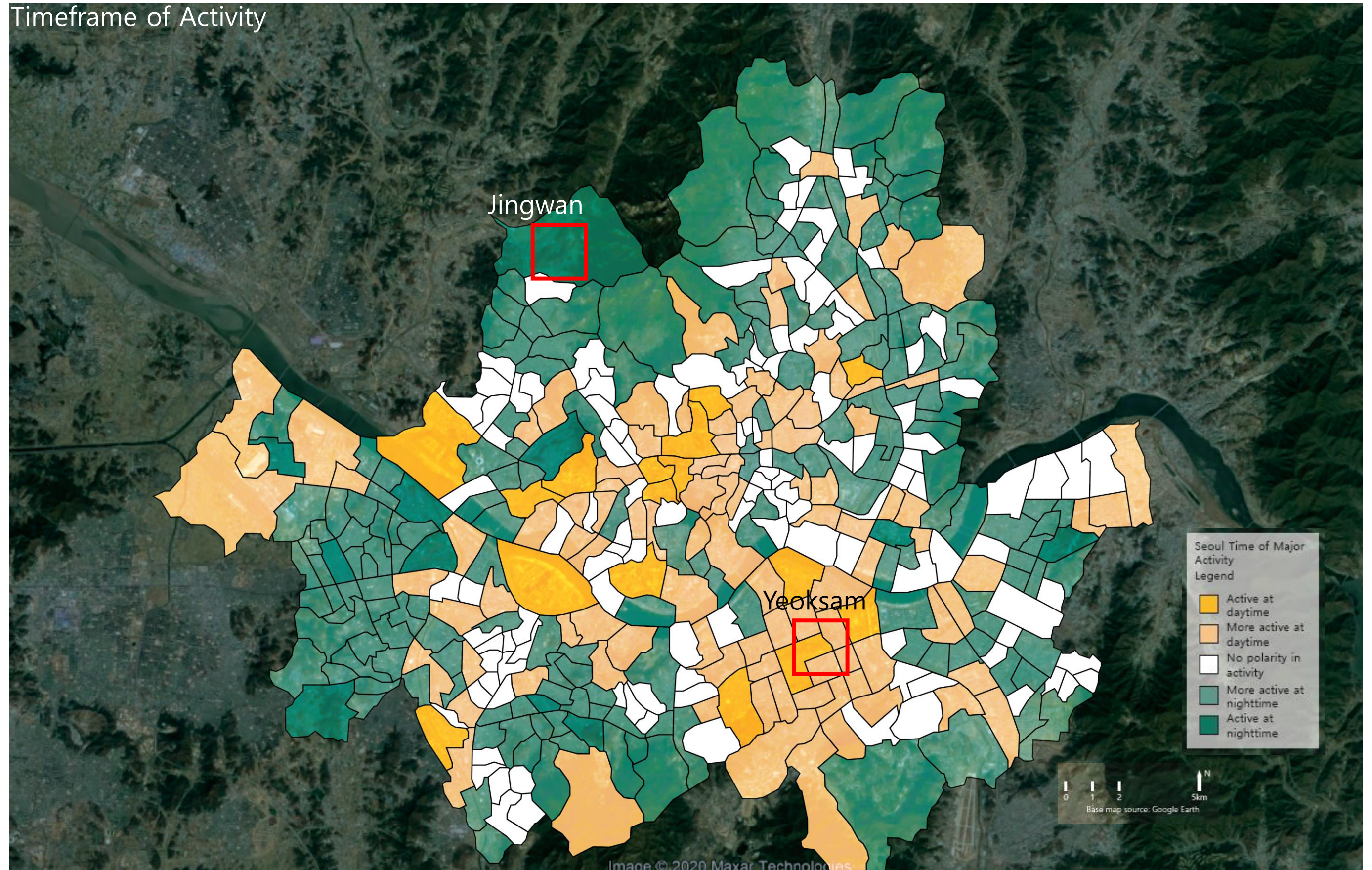
Example: Seoul

Timeframe of Activity



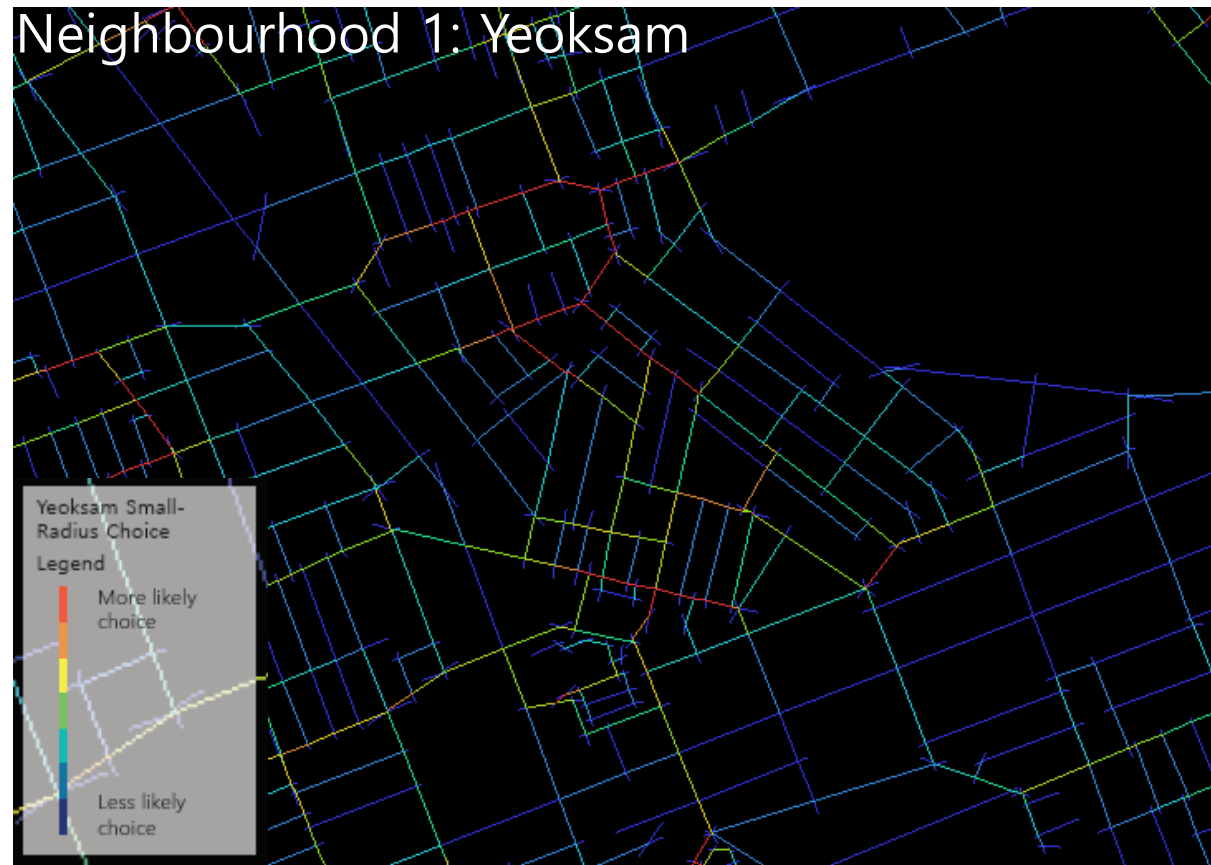
Example: Seoul

Timeframe of Activity



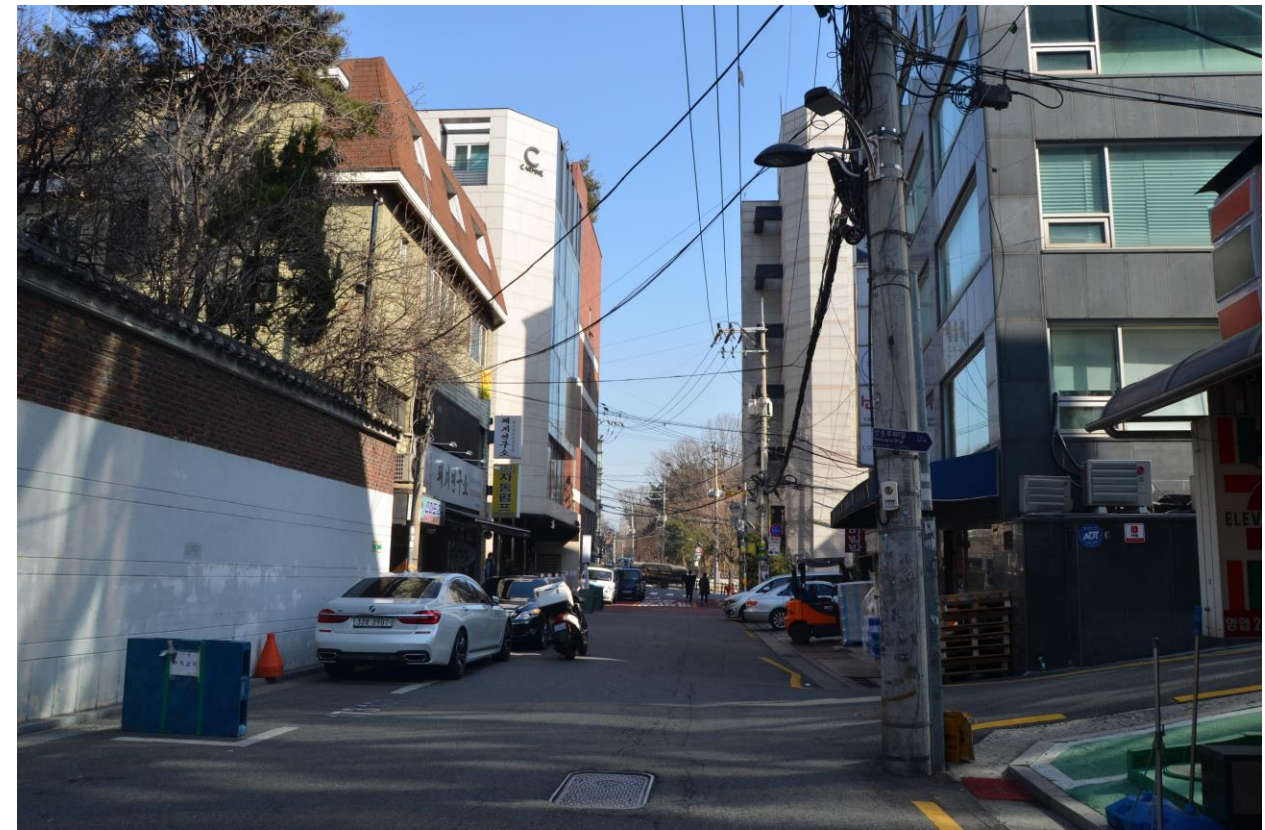
Example: Seoul

Neighbourhood 1: Yeoksam



Example: Seoul

Neighbourhood 1: Yeoksam

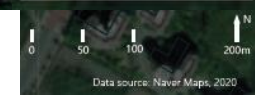


Example: Seoul

Neighbourhood 2: Jingwan



B Proposed Framework



Example: Seoul

Neighbourhood 2: Jingwan



Example: Seoul

Main Observations

Cultural axes	Spatial Constraints & Needs		
	Distribution (flexibility)	Access (mobility)	Performance (comfort)
Society (services)	<ul style="list-style-type: none"> - Comfortable access to services in non-central residential nhds - Often disconnected from economic opportunity areas <p style="text-align: right;">1 4</p>	<ul style="list-style-type: none"> - In new nhds, services are clustered among smaller residential clusters <p style="text-align: right;">1</p>	<ul style="list-style-type: none"> - Many service facilities nearby one another in new (peripheral) nhds but not in old (central) ones <p style="text-align: right;">1 4</p>
Economy (opportunity)	<ul style="list-style-type: none"> - More decentralised than the other cities, and progress is being made for increased decentralisation <p style="text-align: right;">4</p>	<ul style="list-style-type: none"> - Transport network dense and easily connect nhds with spaces of higher opportunity - Economic opportunities centralised around metro stations, especially along main road exits <p style="text-align: right;">1</p>	<ul style="list-style-type: none"> - Often, high-skilled jobs along main streets, so they have easy access from metro and bus stops - Ground floor spaces in residential nhds rentable for facilitating local businesses <p style="text-align: right;">6</p>
Spatial experience (appropriation)	<ul style="list-style-type: none"> - Leisure spaces abundant in new nhds (not in old ones) but not particularly appropriable; either anonymous or taken over by adjacent businesses <p style="text-align: right;">5 6</p>	<ul style="list-style-type: none"> - Dense network but unsafe (much anxiety surrounding spycams) - Long-winded access for those needing elevators (not enough present and too far from the platforms) <p style="text-align: right;">3 5 6</p>	<ul style="list-style-type: none"> - Parking and entrance spaces on the plinth level abundant; while blackbox cameras provide some security, they're still not pleasant areas to walk through <p style="text-align: right;">6</p>

Example: Seoul

Main Constraints



Distribution

Spatial efficiency of time-use connectivity

Sources

Left: Kidsfuninseoul on Wordpress Right: Pearson Korea

Example: Seoul

Three Cases Comparison

The Hague



Cairo



Seoul



Access (mobility)

2 3

Performance (comfort)

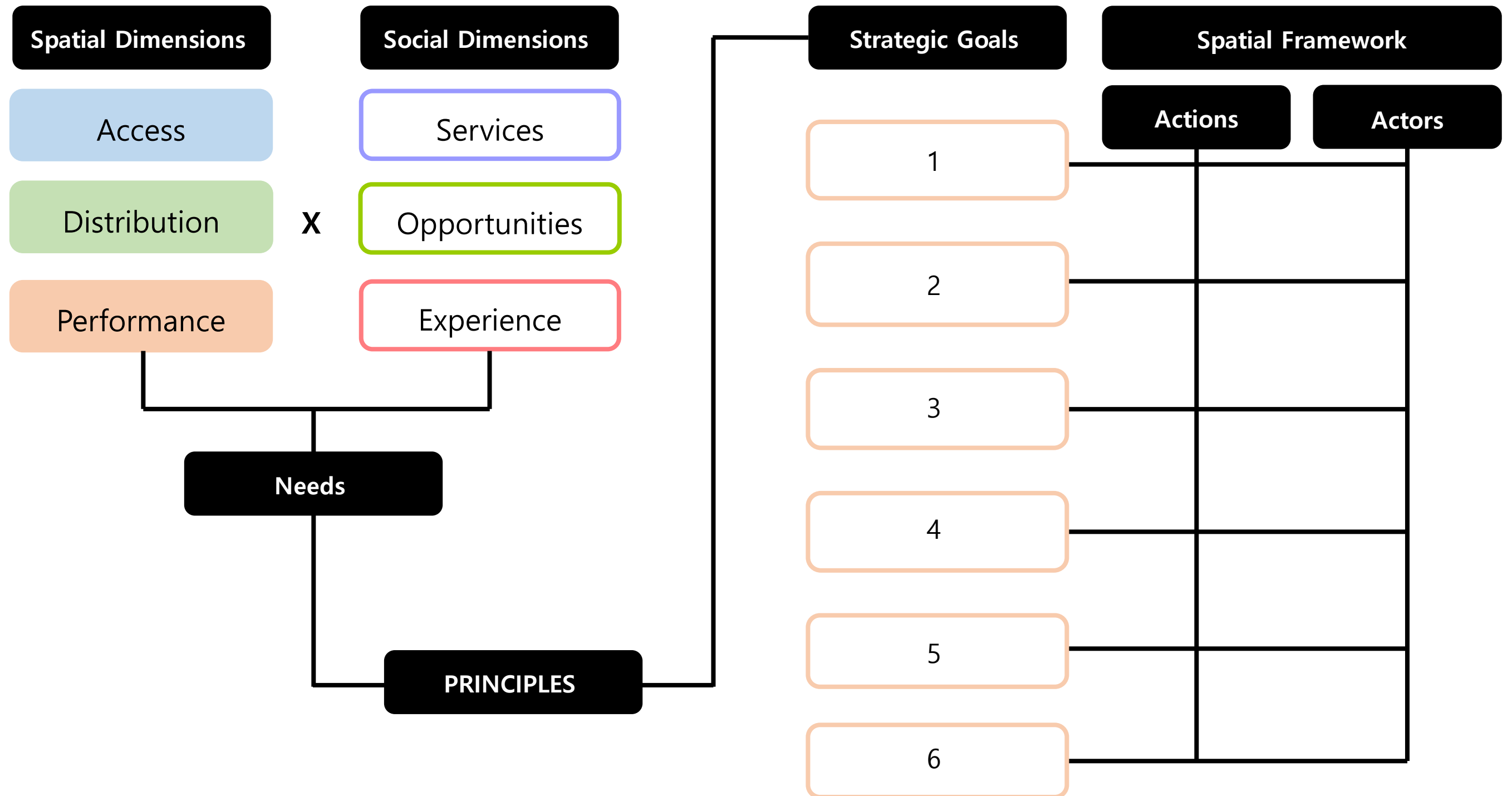
5 6

Distribution (flexibility)

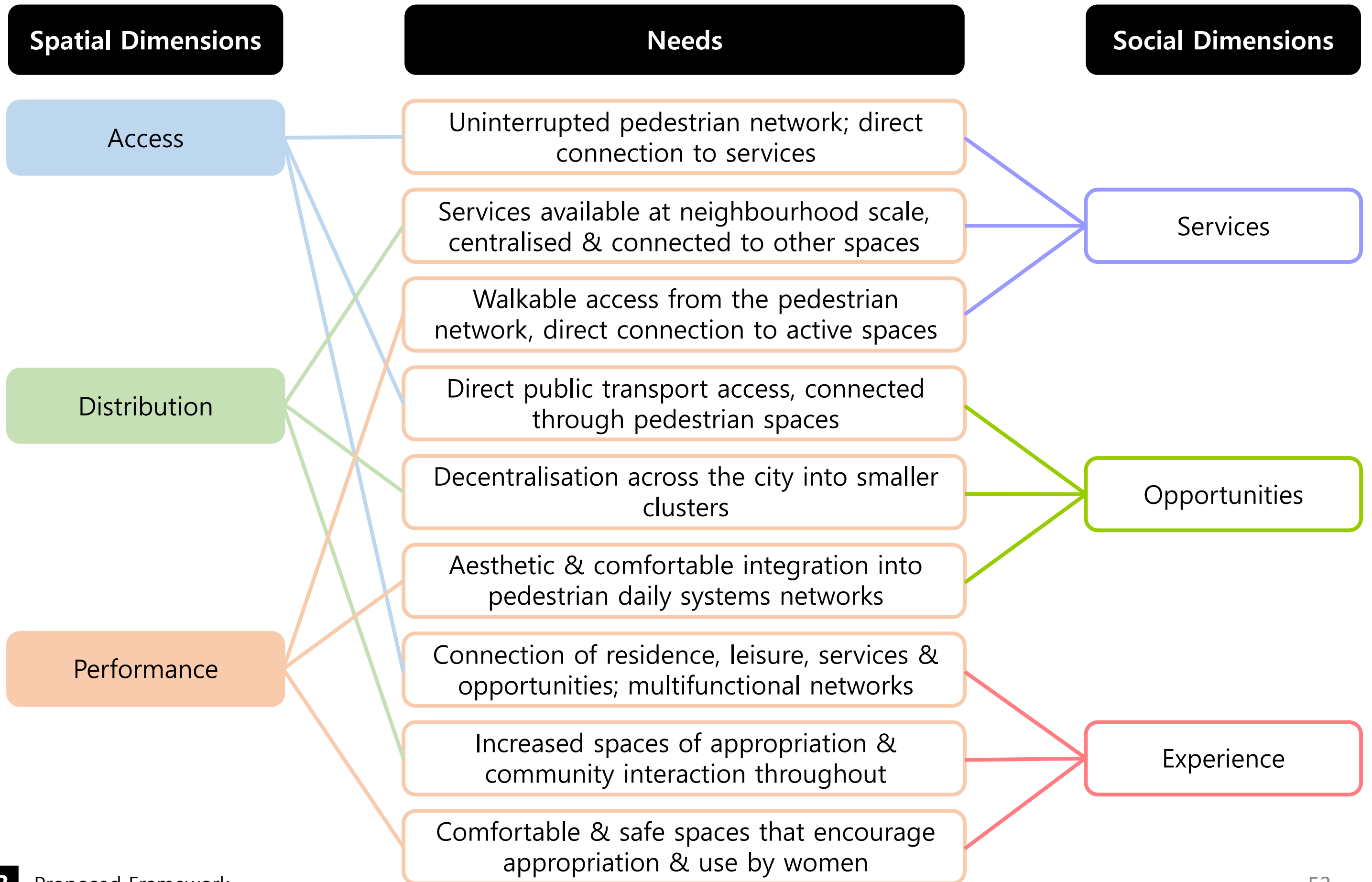
1 4

Sources
Left: The Hague Online Centre: SAT7 UK Right: Pearson Korea

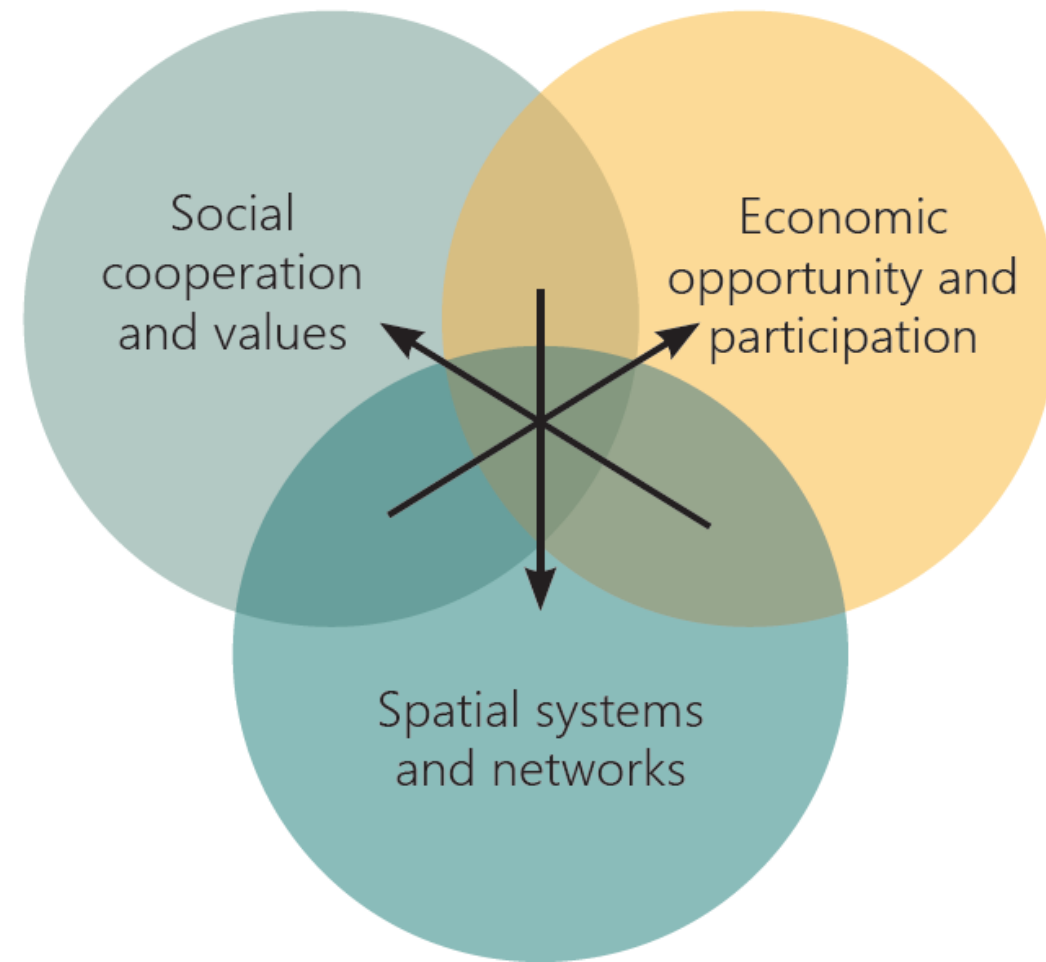
Strategic Framework



Needs Assessment



Strategic Framework



Proposed understanding of the systems:

1. Social - spatio-economic:
Social positioning in the spatial configuration of economic systems.

2. Economic - socio-spatial:
Economic positioning in the spatial manifestation of social dynamics.

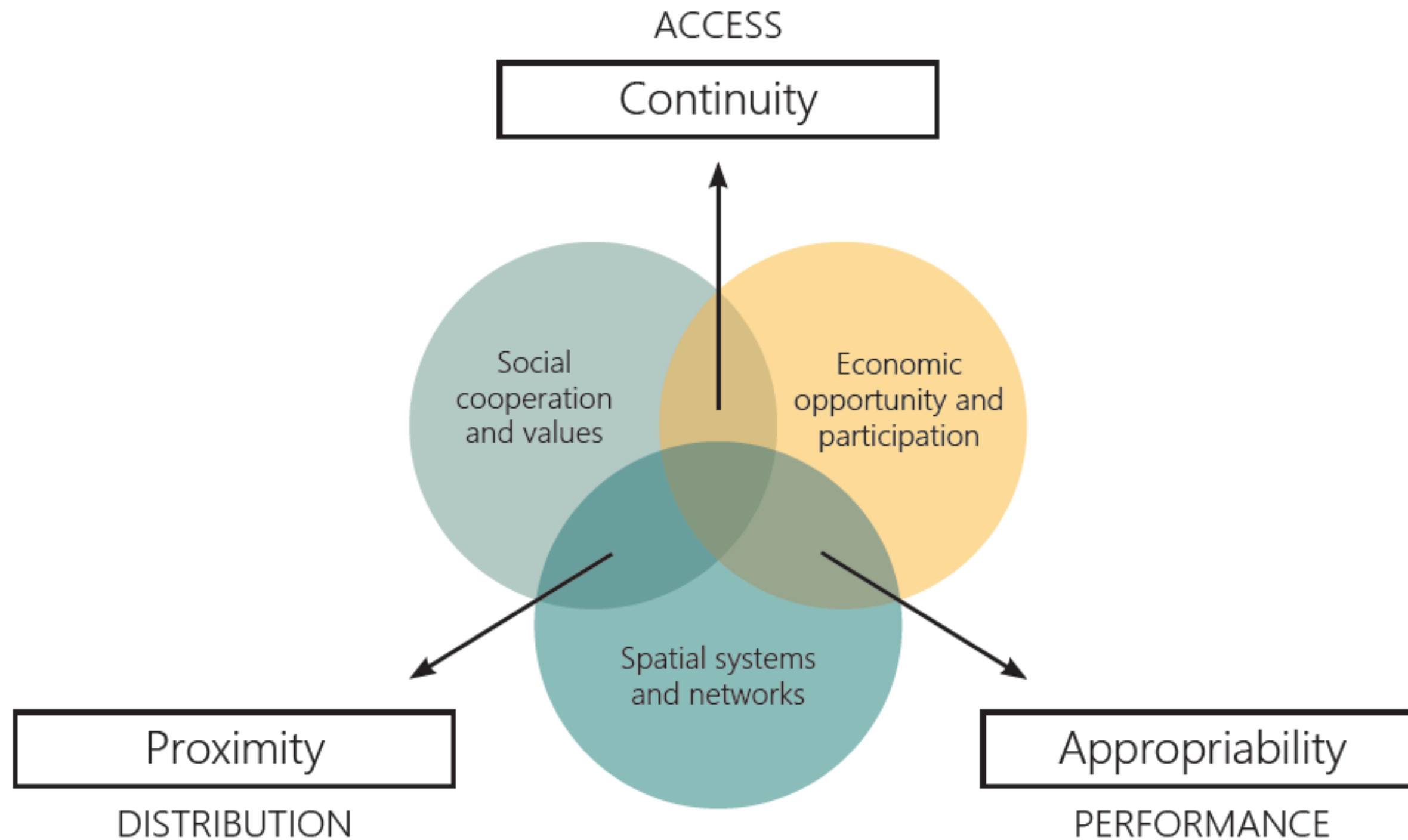
3. Spatial - socio-economic:
Spatial positioning in the economic accessibility of social entities.

Systems of Evolutionary Processes

Understanding the interrelation of the systems

Source
Author, adapted from Isaza (2020)

Strategic Framework

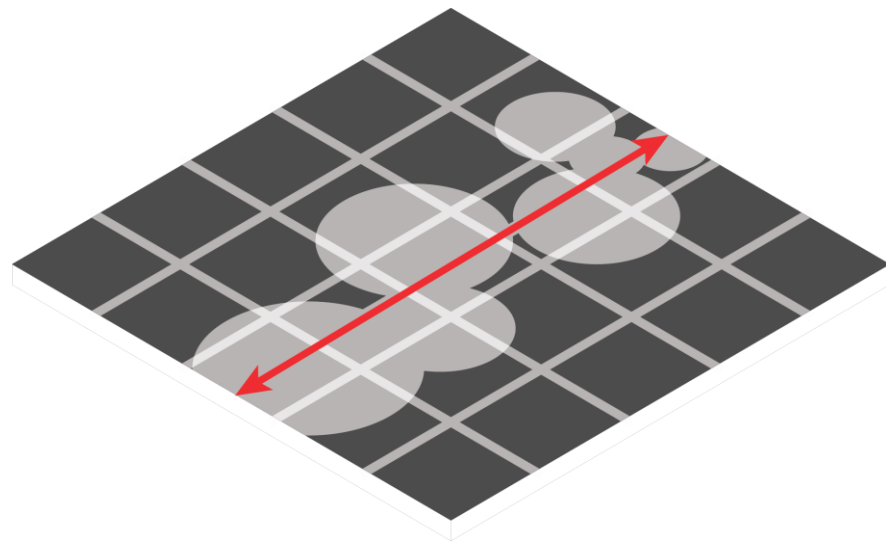


Systems of Evolutionary Processes

Resulting Principles

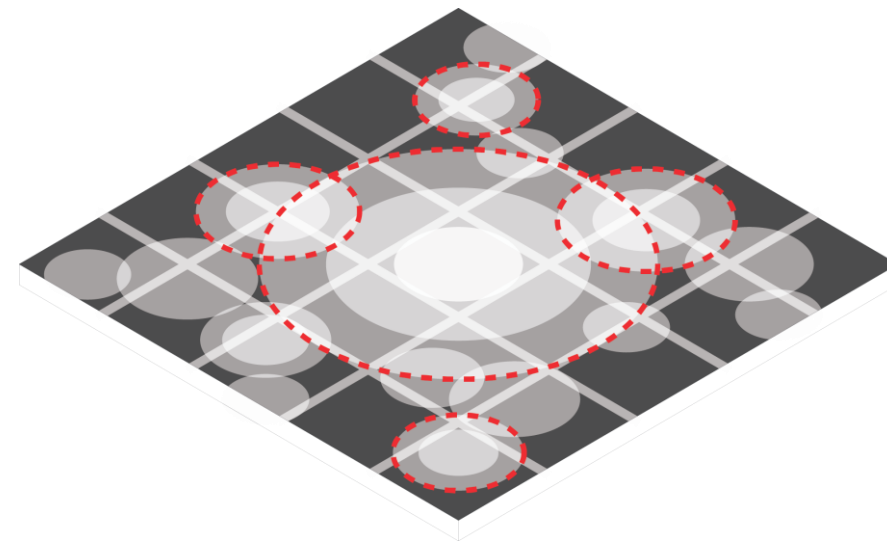
Source
Author, adapted from Isaza (2020)

Strategic Framework



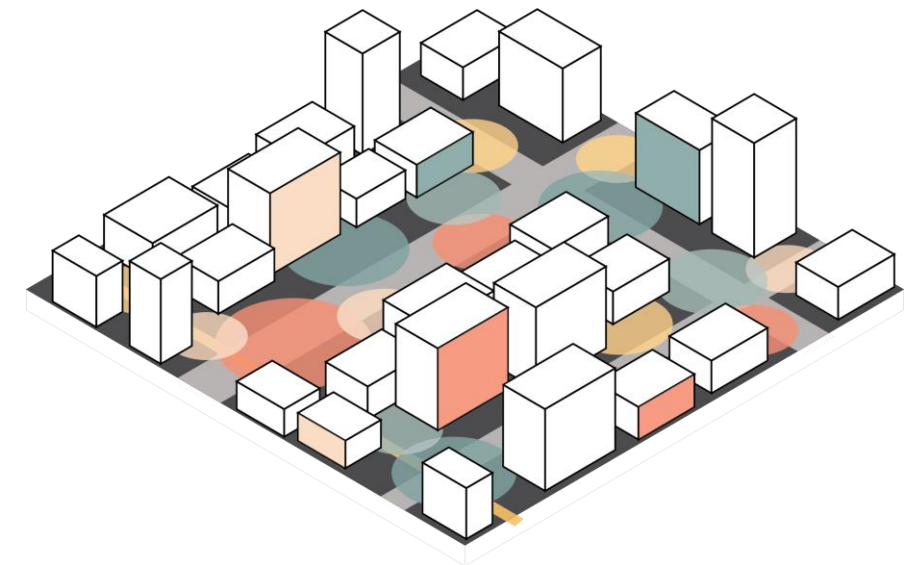
Continuity

Counteract spatial fragmentation and barriers to access through ensuring both the spatial and visual continuity of pedestrian networks, thereby reducing safety risks in space and providing a streamlined network for access to social and economic opportunities.



Proximity

Enhance economic networks in the city through poly-centrality and functional distribution, in order to optimise spatial time-use patterns, defining a physical environment in which societal patterns can be condensed and more efficient, enhancing their economic value.



Appropriability

Counteract social isolation and social barriers to the use of public space networks through enabling the individual and collective appropriation of public space, to create conditions for aligning social needs for safety and co-creation to the spatial and economic networks.

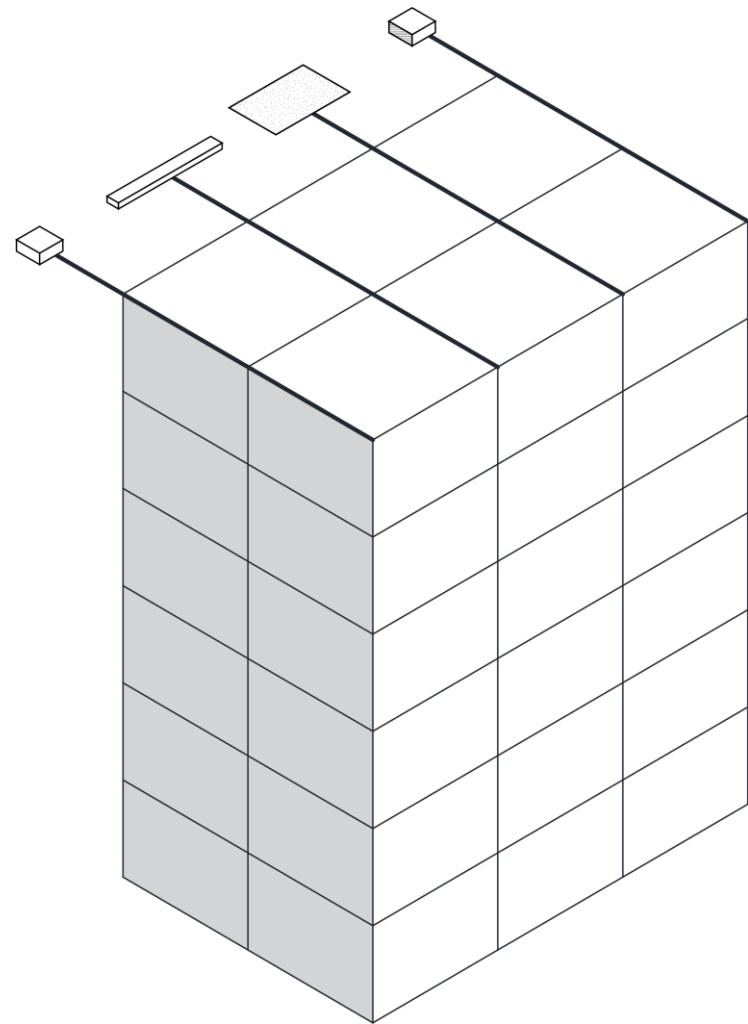
Principles

Guiding principles for evolutionary process for gender-equal development

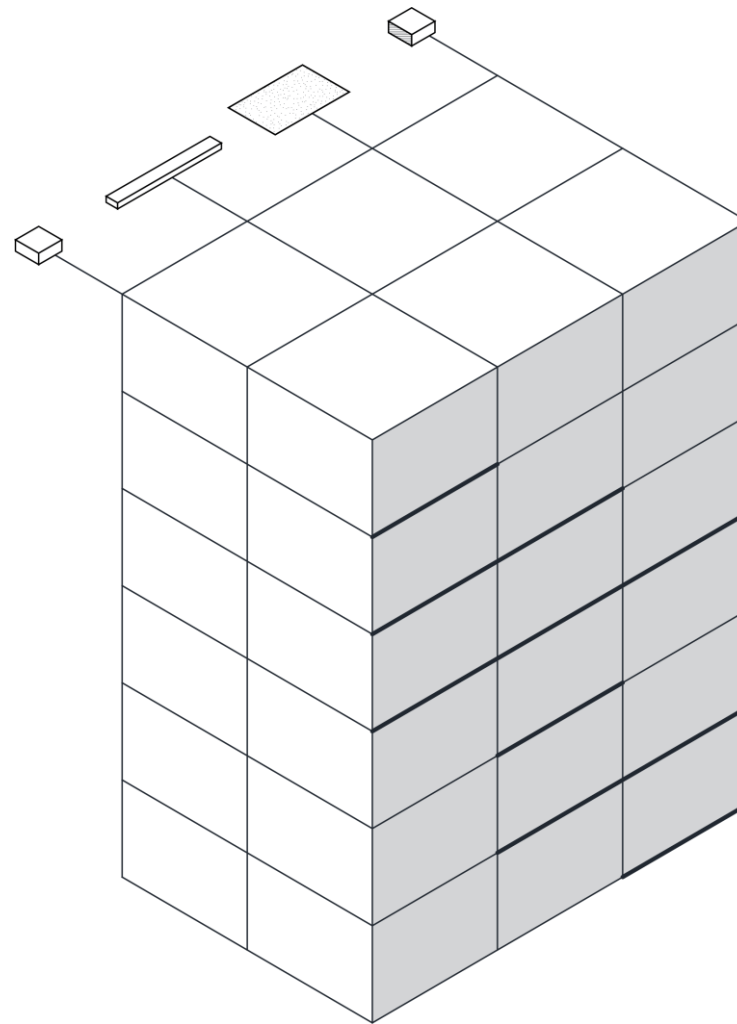
Source
Author

Spatial Framework

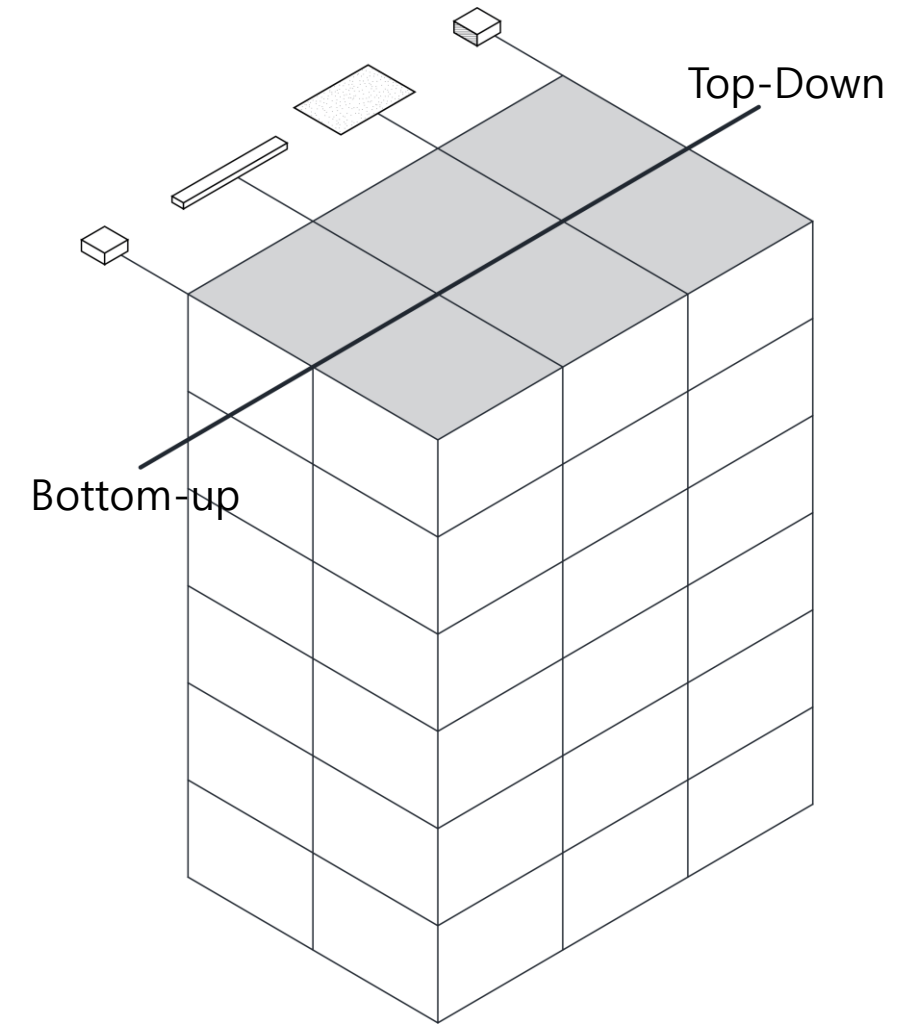
1 Anchoring



2 Interrelating

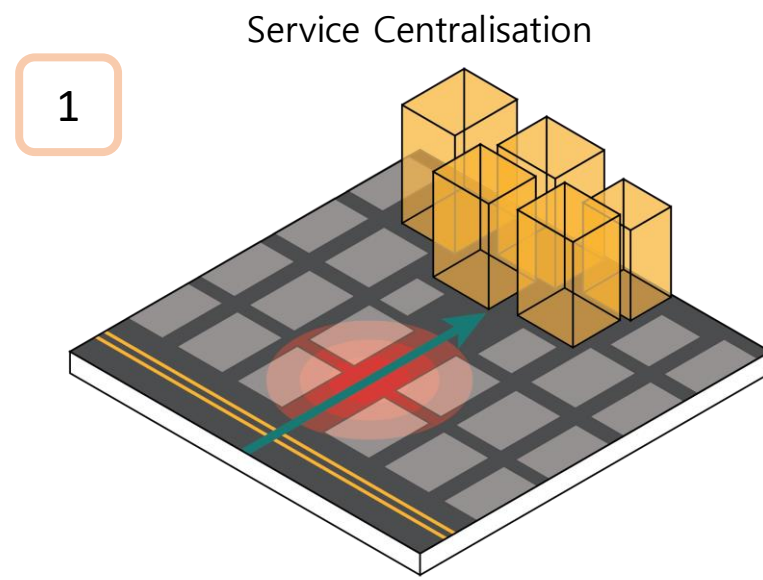


3 Synchronising

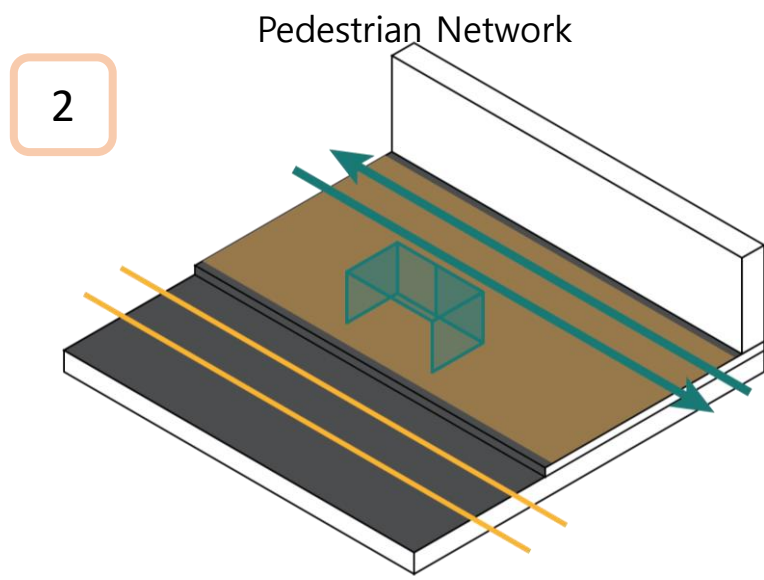


Strategic planning framework Revised from Isaza, E., 2020 TU/Delft Master Thesis (<http://resolver.tudelft.nl/uuid:a9c3737a-7d1a-4e7f-95b6-c65b4ced5eea>)

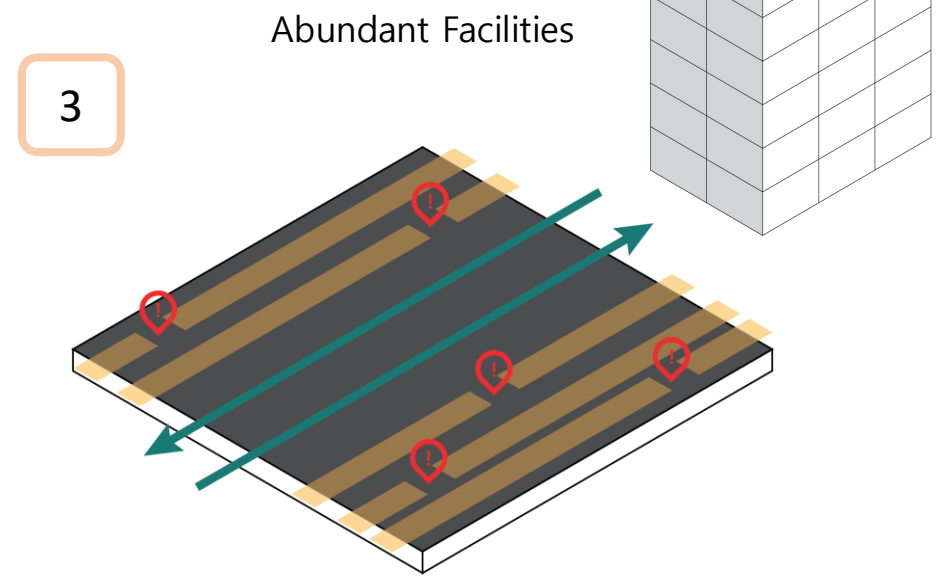
Goals and Actions (1 Anchoring)



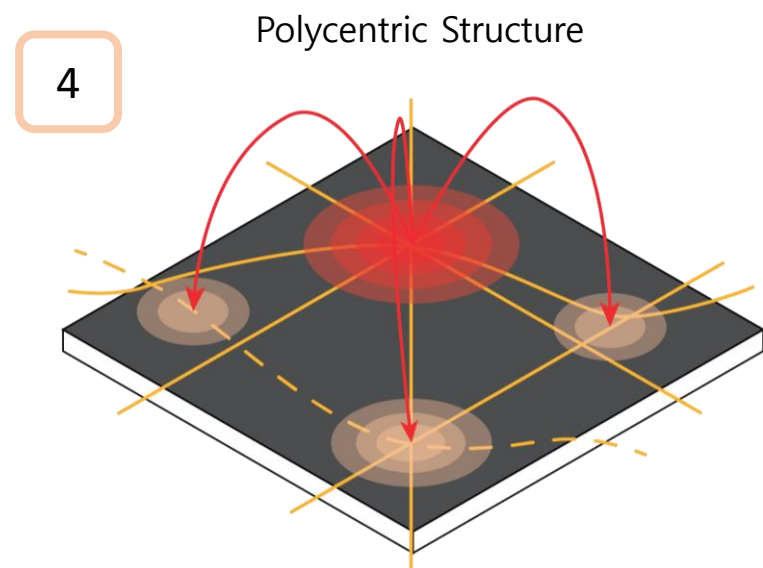
Centralise services along a continuous axis between public transport stops and employment opportunities, located within one step depth away from this axis.



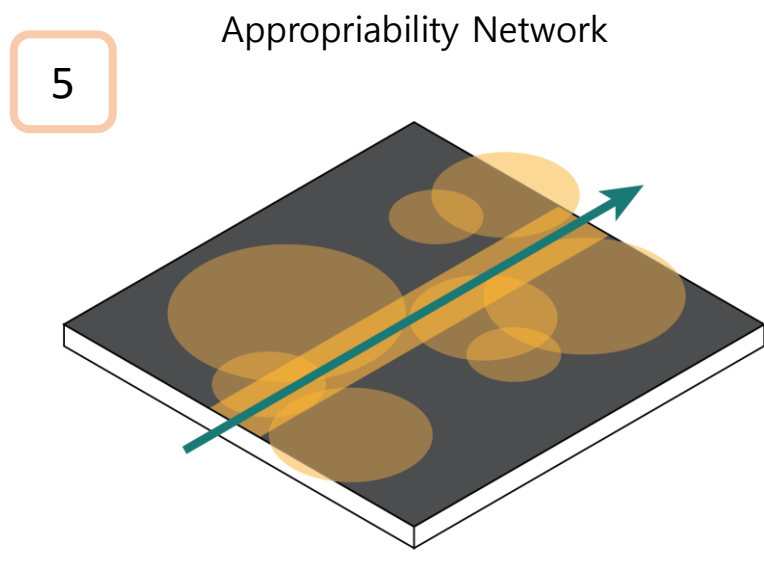
Create a continuous pedestrian public space network, ensuring that public transport stops are directly on the pavement.



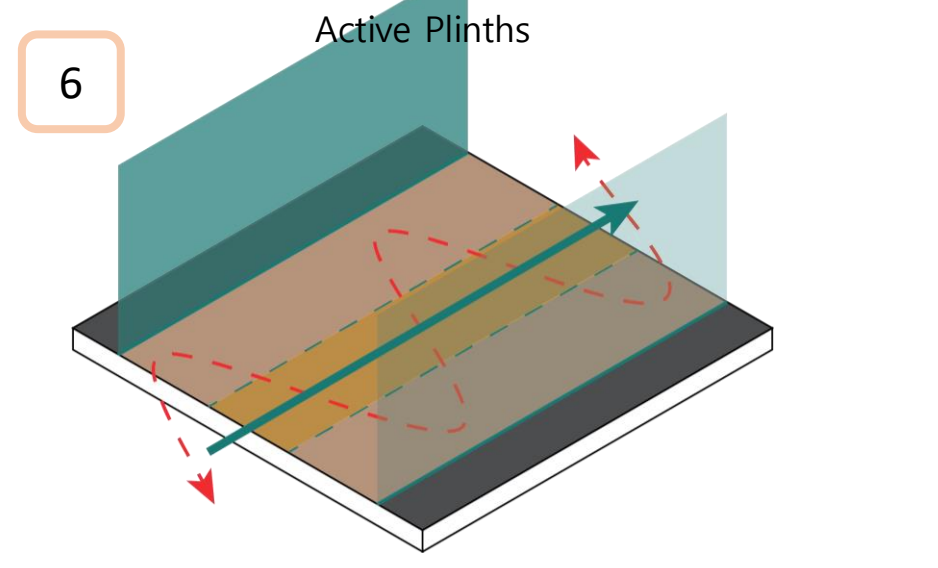
Facilities made for ease of access for dependents (e.g. elevators and ramps) must be abundant and on a continuous network, with visual and tangible cues indicating their locations.



Decentralise specialised functional clusters to form a polycentric structure around (potential) public transportation hubs, within the network of daily systems.



Integrate appropriable spaces into the continuous public space network to create fast and safe axes.



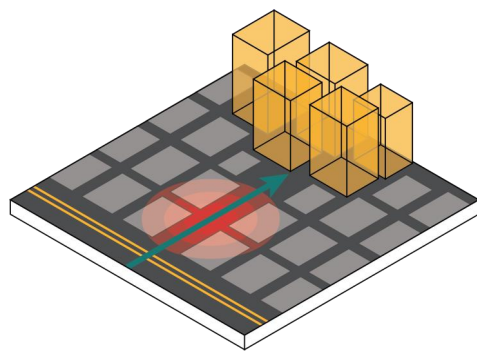
Create active plinths through the street-building relationships to increase direct access between them.

Strategic Planning Goals

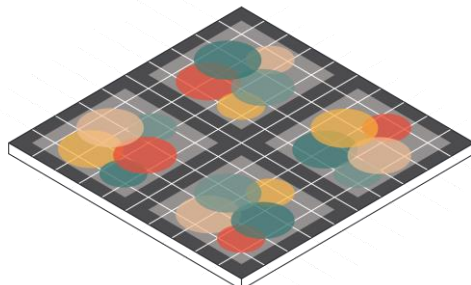
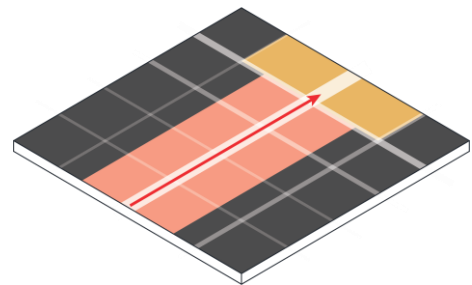
Main objectives for increasing gender-equal access, stemming from the principles

Goals and Actions (1 Anchoring)

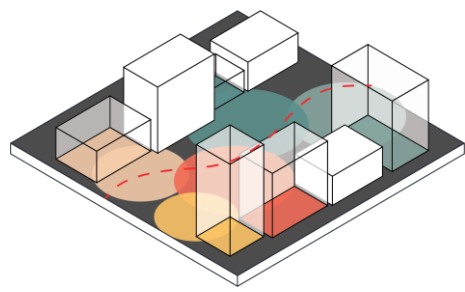
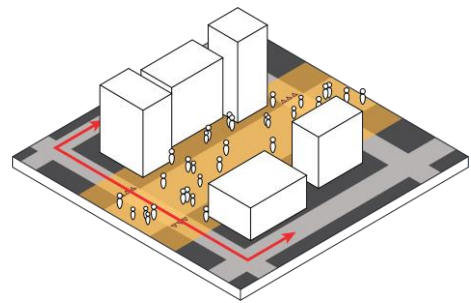
1



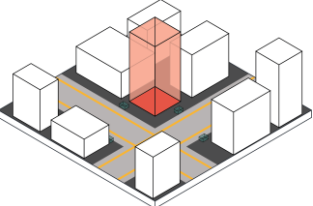
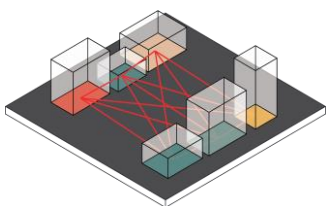
Macro Scale



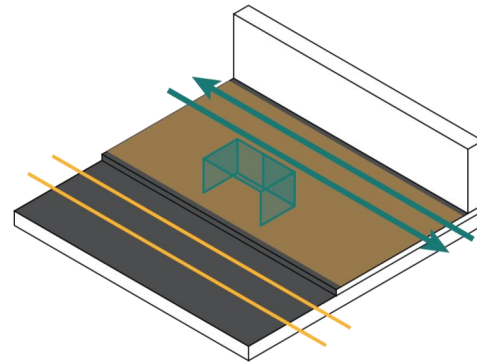
Meso Scale



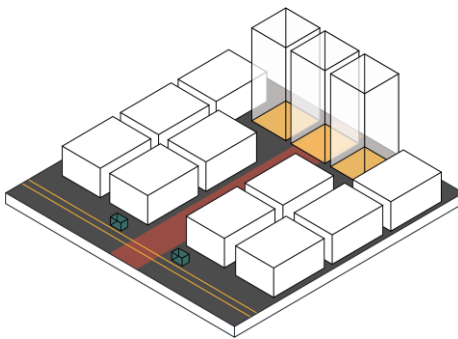
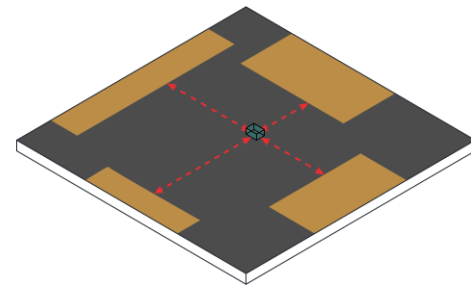
Nano Scale



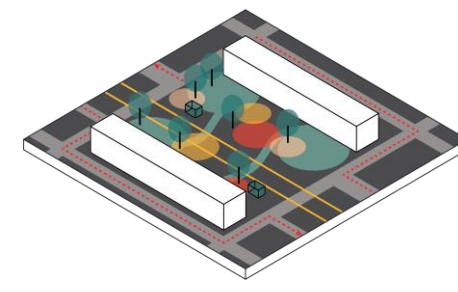
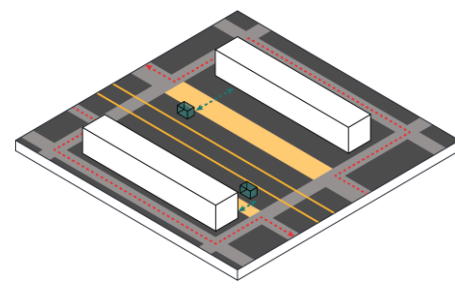
2



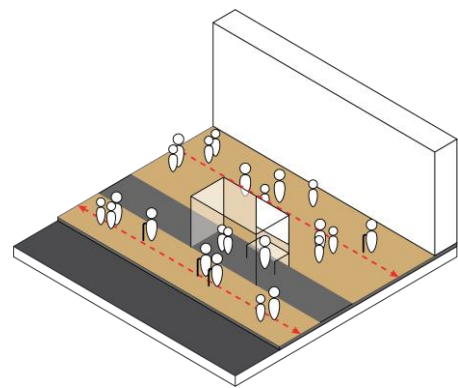
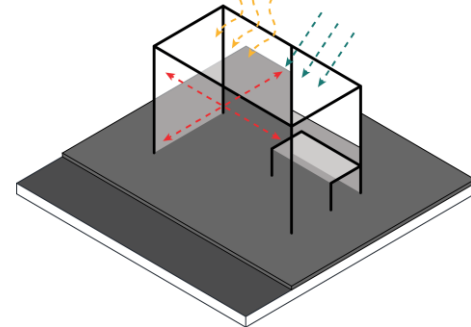
Macro Scale



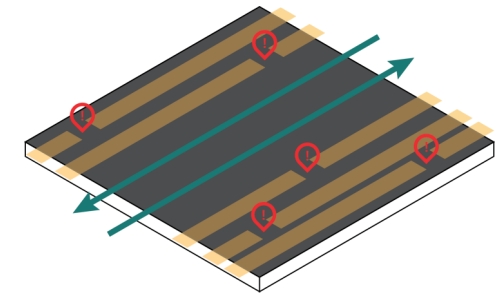
Meso Scale



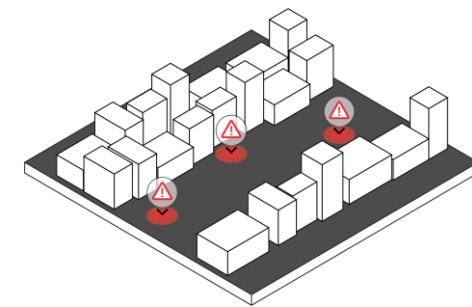
Nano Scale



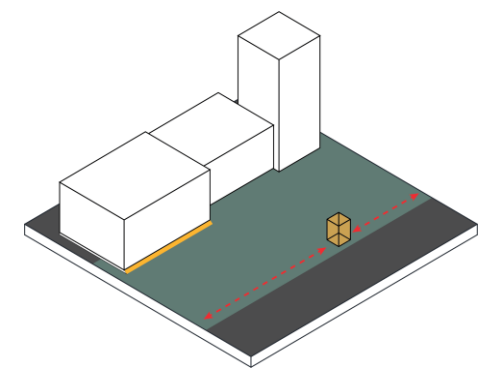
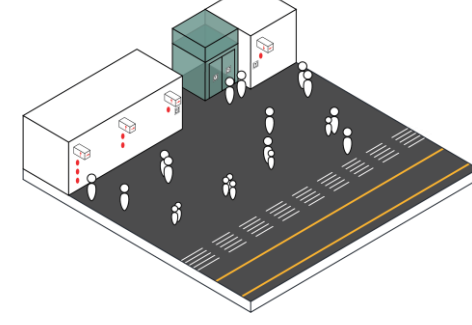
3



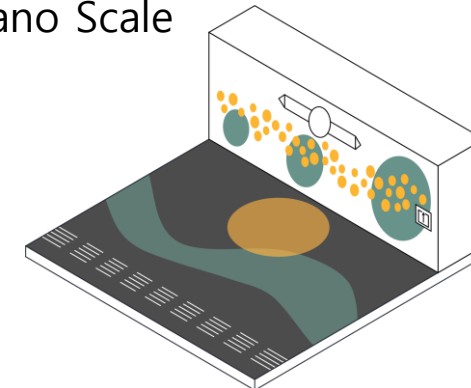
Macro Scale



Meso Scale

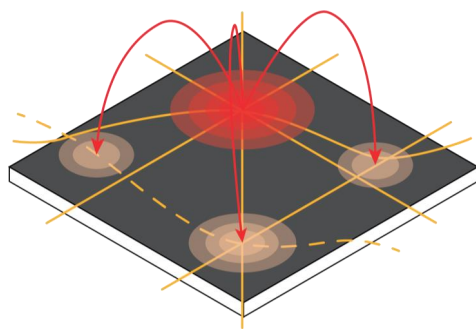


Nano Scale

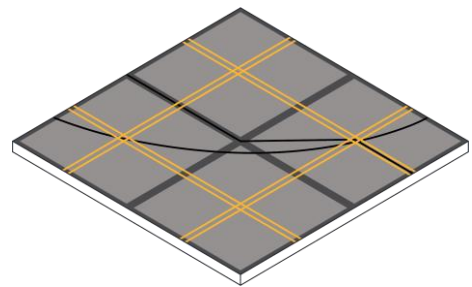


Goals and Actions (1 Anchoring)

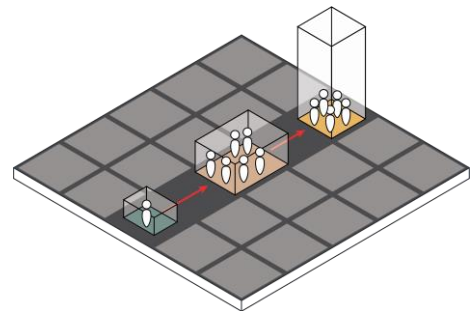
4



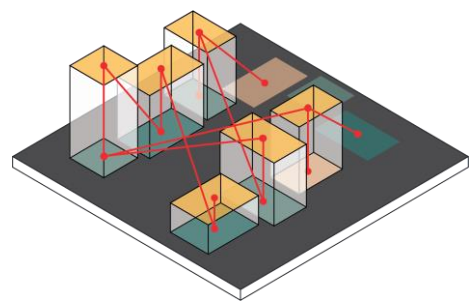
Macro Scale



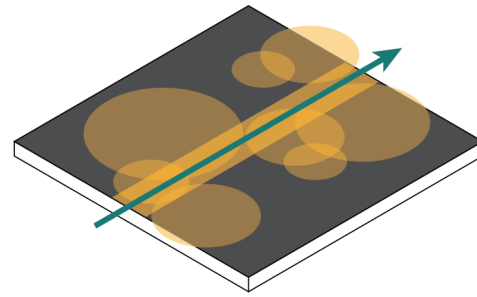
Meso Scale



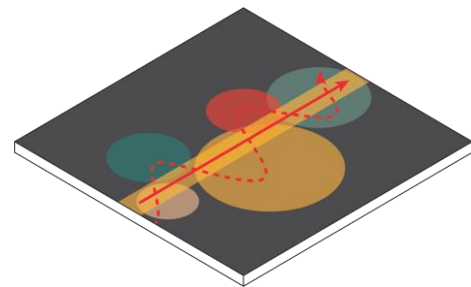
Nano Scale



5



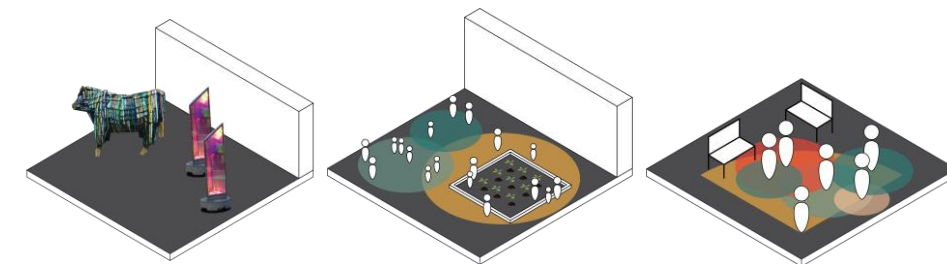
Macro Scale



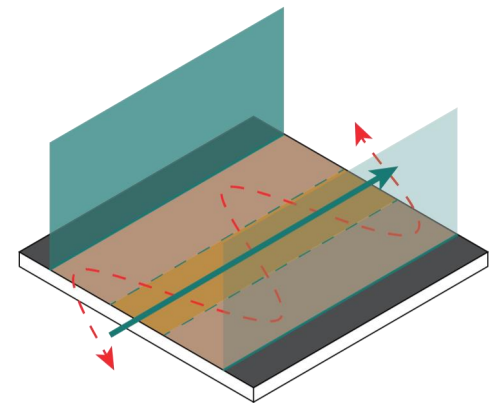
Meso Scale



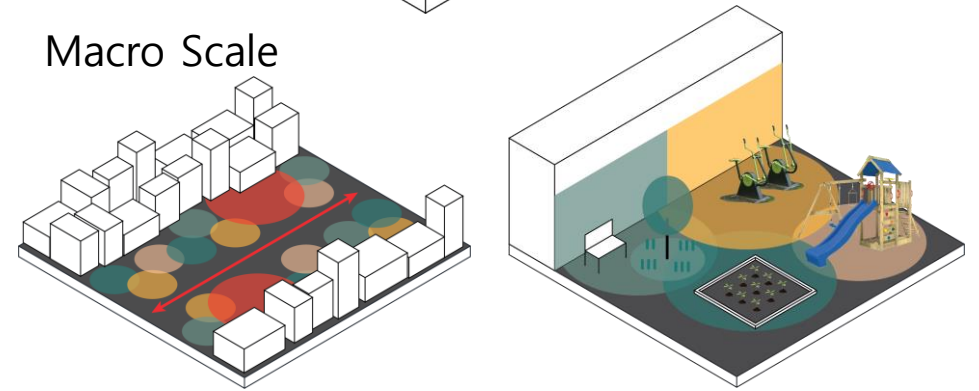
Nano Scale



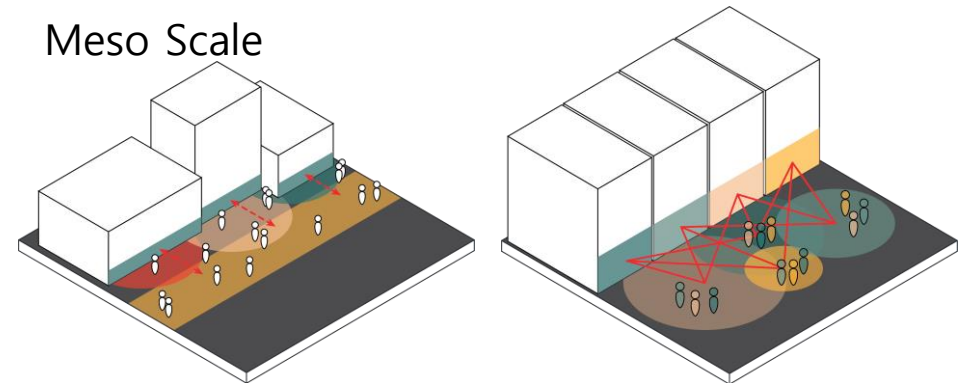
6



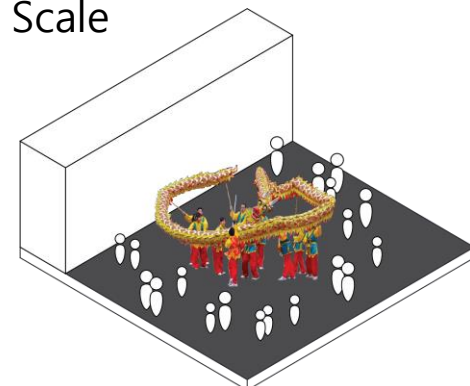
Macro Scale



Meso Scale

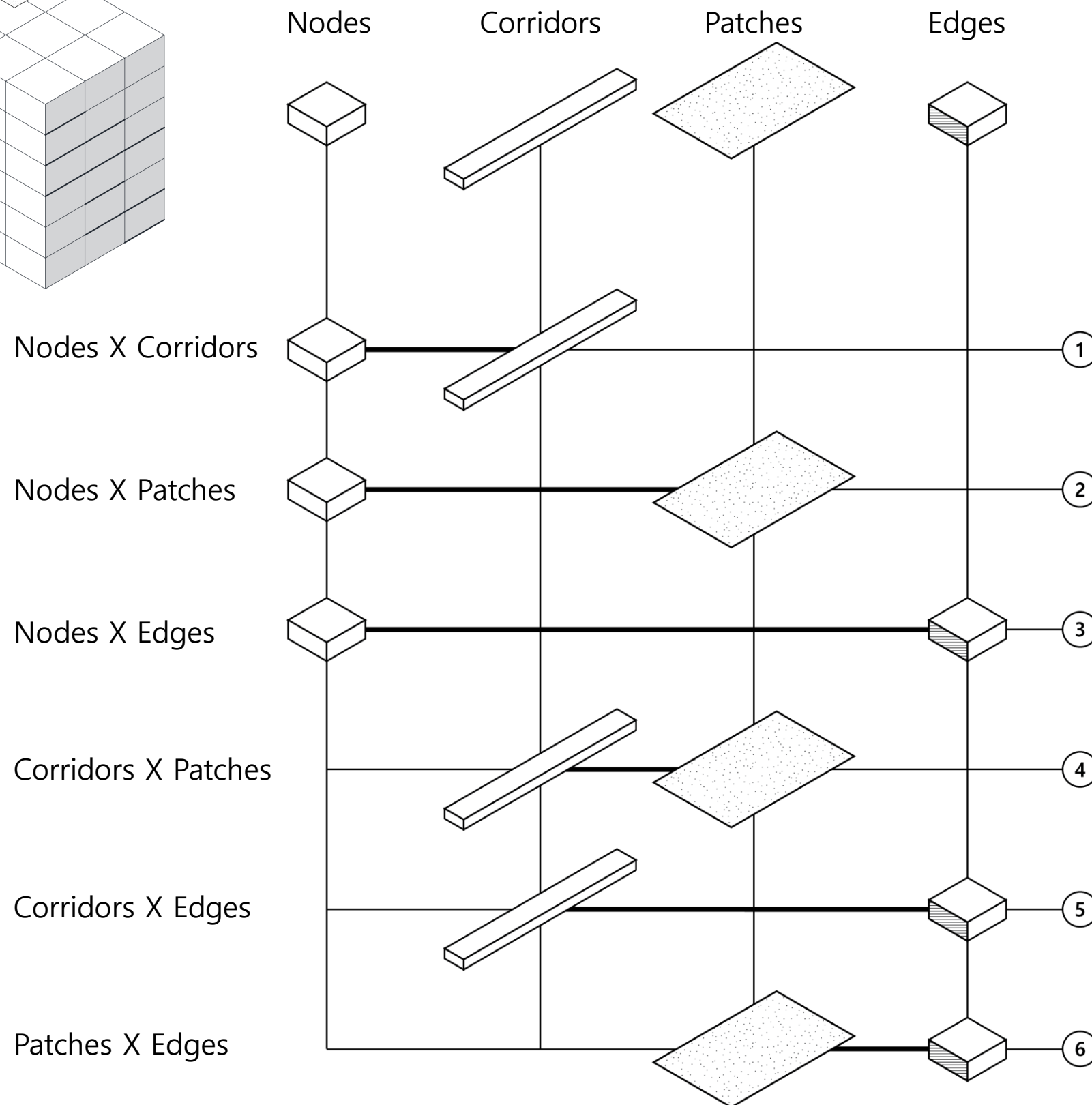
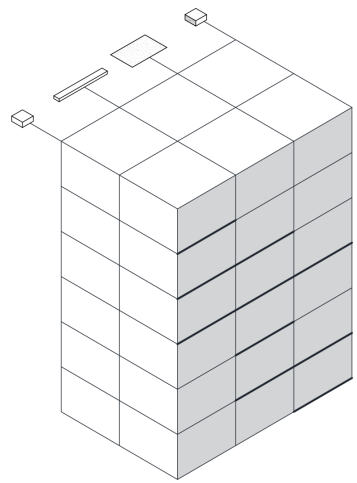


Nano Scale



Operability

(2 Interrelating)



- Nodes**
- Local-scale appropriable spaces
 - Service provision
 - Community centre
 - Public transport stops
 - Facilities for dependents
 - Reorientation programmes

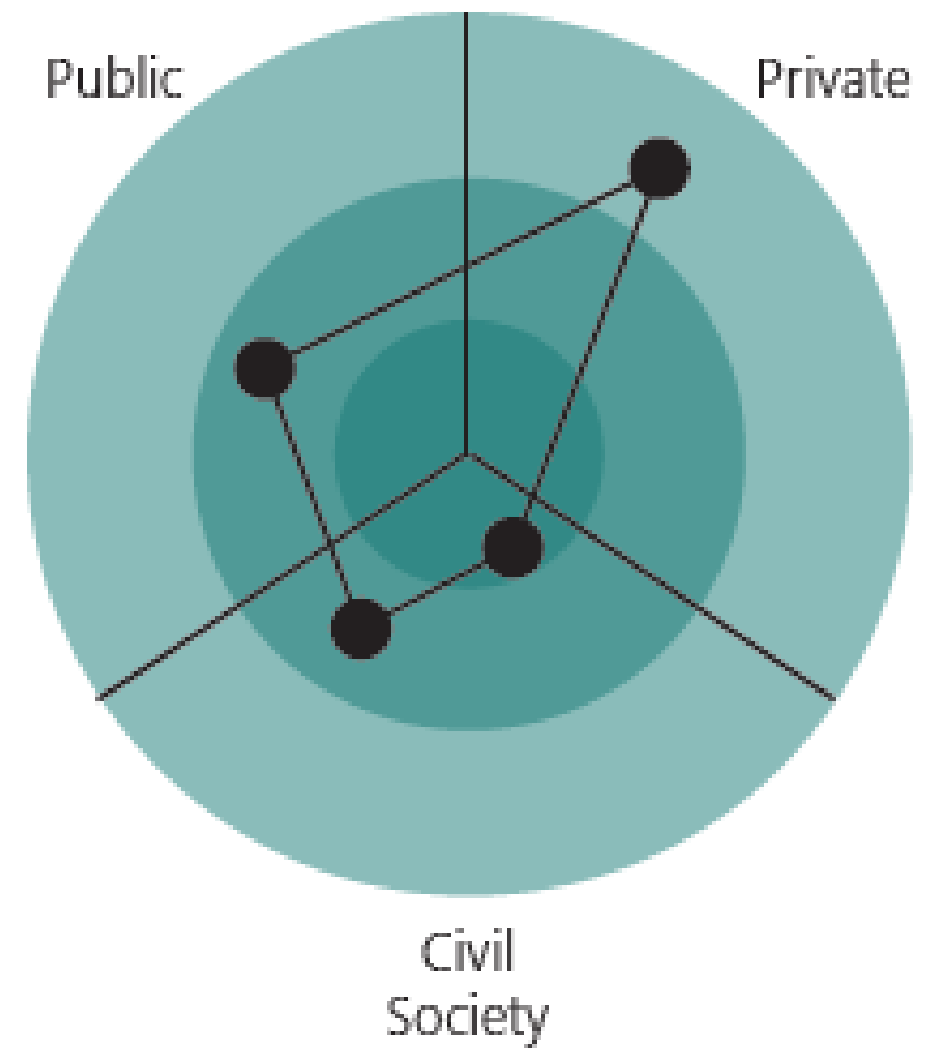
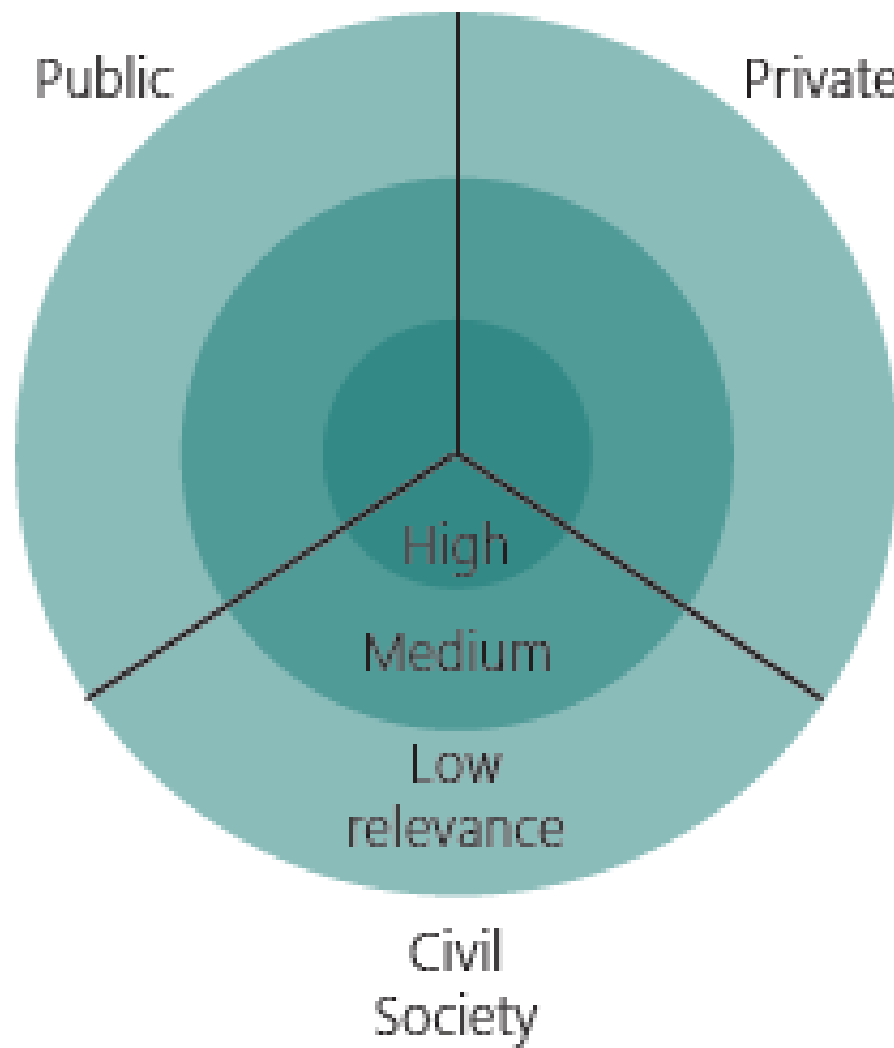
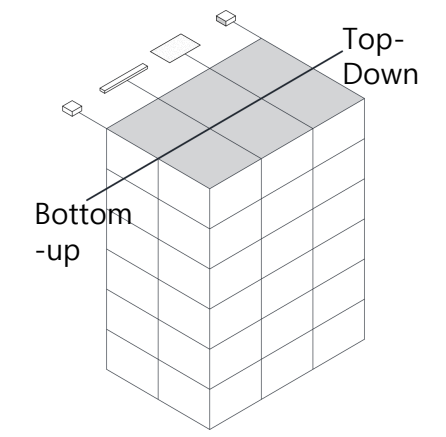
- Corridors**
- Pedestrian network
 - Visual network
 - Network of appropriable spaces
 - Road network
 - Public transport network

- Patches**
- Service clusters
 - Employment hubs
 - Public transportation hubs
 - Community-scale appropriable spaces
 - Collaboration networks

- Edges**
- Continuous pavements
 - Interaction between streets and plinths

Operability

(3 Synchronising)



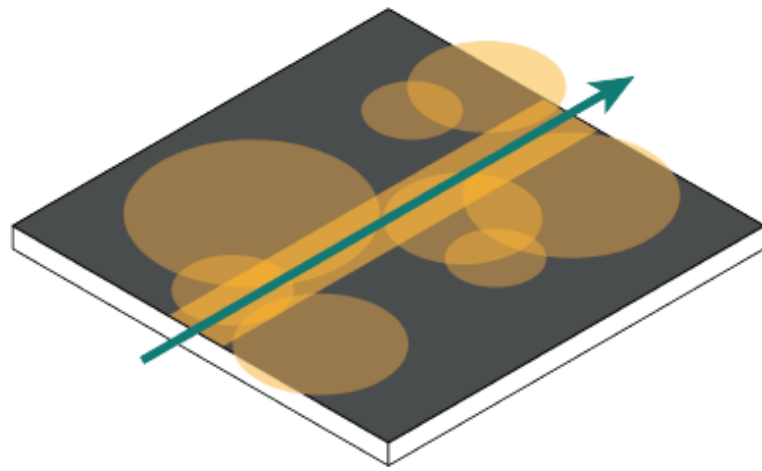
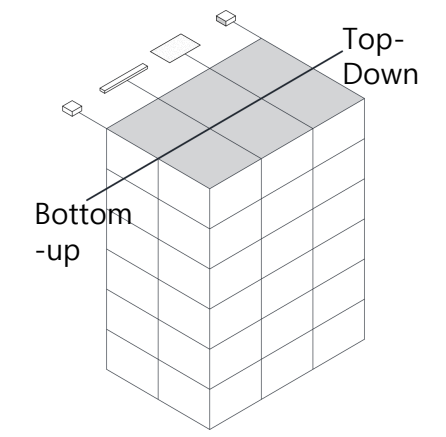
Stakeholder Onion Scheme

Organising the stakeholders across sectors from most to least pivotal

Source
Czischke (2018)

Operability

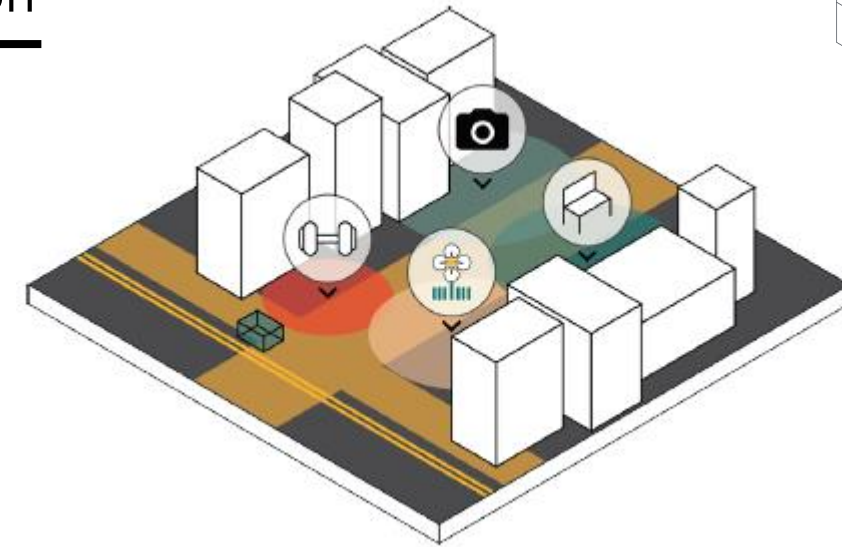
(3 Synchronising)



Integrate appropriable spaces into the continuous public space network to create fast and safe axes.

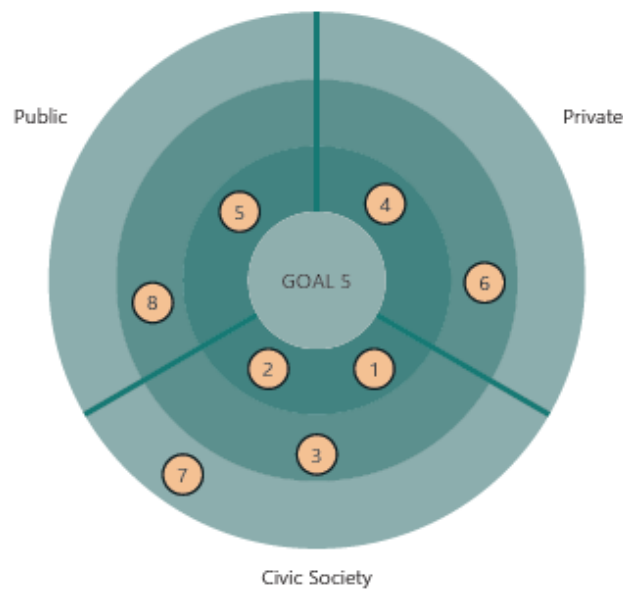
Goal

Action

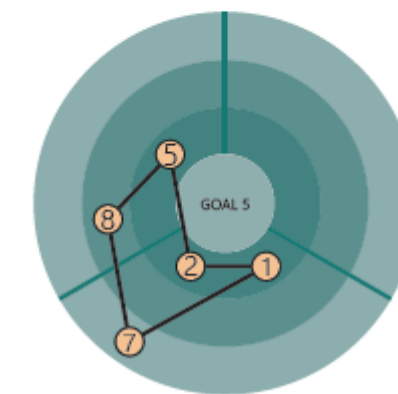


Macro Scale

Connect the public space network to public transport through various functional spaces to ensure activity within throughout the day



- 1. Pedestrians
- 2. Women
- 3. Dependents
 - Children
 - Elderly
 - Individuals with disabilities
- 4. Urban designers
- 5. Urban planners
- 6. Artists
- 7. Residents
- 8. Urban planning board



Conclusions

(3 Synchronising)

Goal 1: Centralise services along a continuous axis between public transport stops and employment opportunities, located within one step depth away from this axis.

Goal 2: Create a continuous pedestrian public space network, ensuring that public transport stops are directly on the pavement.

Goal 3: Facilities made for ease of access for dependents (e.g. elevators and ramps) must be abundant and on a continuous network, with visual and tangible cues indicating their locations.

Actions	Social	Economic	Spatial	Socio-Economic	Socio-Spatial	Spatio-Economic
Plan services along streets with most pedestrian traffic, making sure they are in proximal areas to local economic hubs	-	--	-	---	-	--
Ensure there is an even distribution of services across clusters, so there is no lack or overabundance in one area (through policies and cooperation)	++	+	++	+	+	+
Gradually remove motor vehicle access to create a fully pedestrian network; reroute cars if necessary	--	---	-	---	---	--
Create appropriable spaces directly tied to the services, tied to one another through a visual network	++	++	++	+	+	++
Facilitate community relationship between the service clusters and their users	++	+++	+++	++	++	+++
Create collaboration framework between service providers	++	++	+++	++	++	++

Plan a pedestrian network that connects services and appropriable spaces between transport stops and employment areas	+++	++	+	++	+	++
Plan the pedestrian networks at variable distances between public transport and employment areas, given they are walkable distances of no more than 800m long	+	-	+	+	--	-
Redirect motorised vehicles around pedestrian connections to public transport stops	-	++	--	---	---	-
Gradually remove motor vehicle access to this connection to create a fully pedestrian space; reroute cars if necessary	-	++	+	---	---	+
Design public transportation stops that both protect from the climate, and are safely visible for others, making sure the surroundings are visible as well	+	++	+	+	-	++

Ensure the entire network is safe for dependents through constant maintenance of the space to avoid dangerous obstacles (e.g. broken pavement, banners)	++	++	+++	++	+++	+++
Develop policies for locating facilities directly within the pedestrian networks	++	++	+	+	+	++
Develop inclusivity policies highlighting the need for visual and tangible cues at regular intervals for disabled dependents	++	+	+++	++	++	+++
Facilitate collaboration between dependents and artists for the appropriation of the visual and tangible space leading to the facilities they need	++	+	+++	-	--	+

Feasibility framework for possible operability given dimensional constraints

Conclusions

- Integrate women's voices
- Cross-cultural frame of reference
 - Assess progress

Recommendations

- Research with local participation
- Management methods in informality
- Different stakeholder dynamics across cultural contexts
- Redefining (not retrofitting) the framework to mitigate specific local constraints



THE (EN)GENDERED CITY

Thank you for listening!