COMPLEX PROJECTS

HYBRID COMMUNICATOR

Presentation P5.0

SitChiMan Simon

01/07/2024

Part 0

PROJECT ABSTRACT

Part 0

ABSTRACT

COMPLEX PROJECTS

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ABSTRACT

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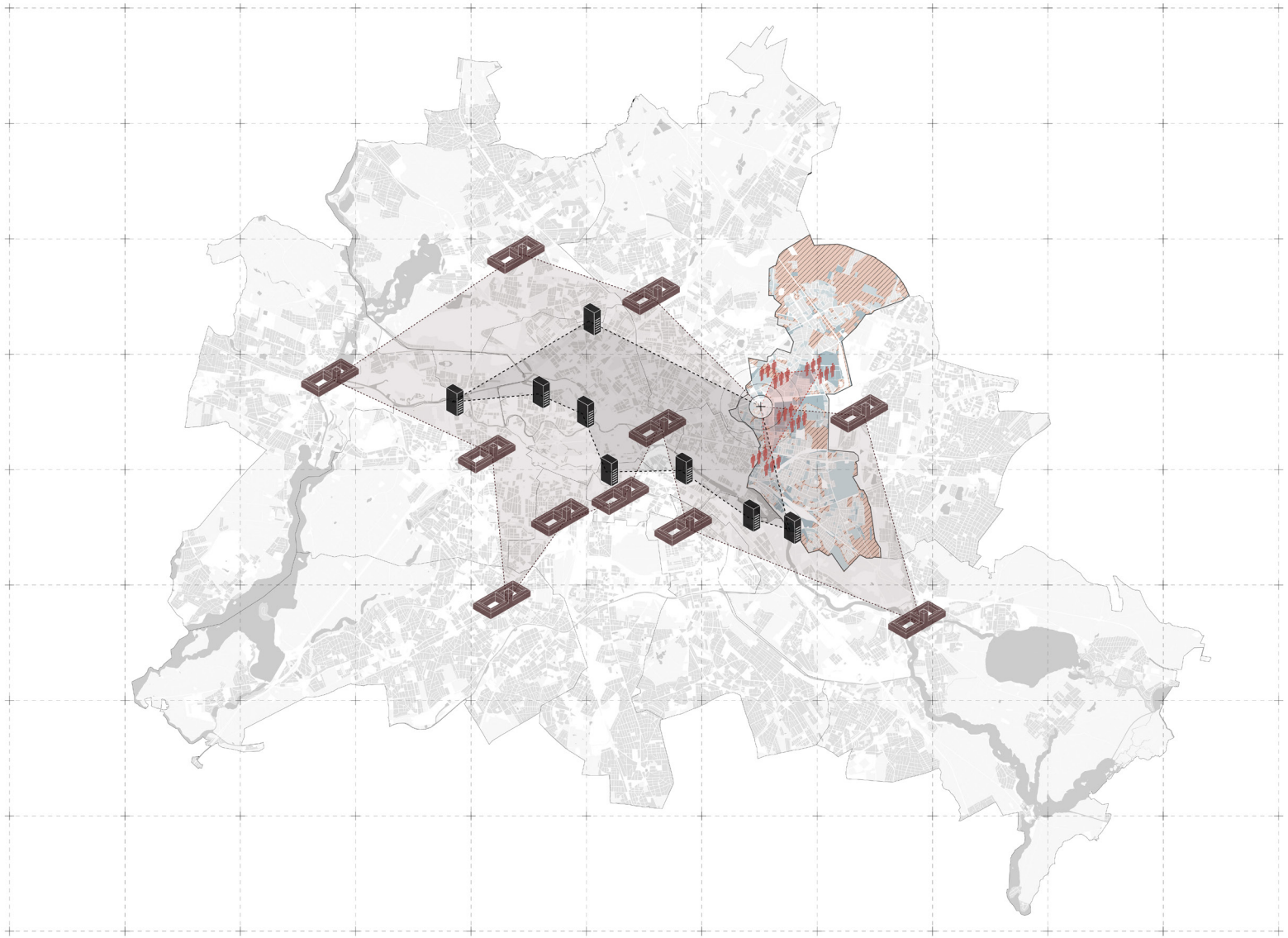
Part 0

ABSTRACT



Part 0

ABSTRACT

Building Type

Parliament

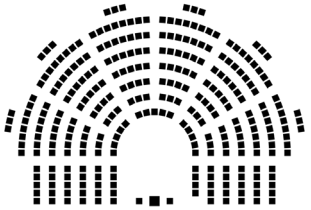
Part 0

ABSTRACT

Building Type

Responses

Parliament



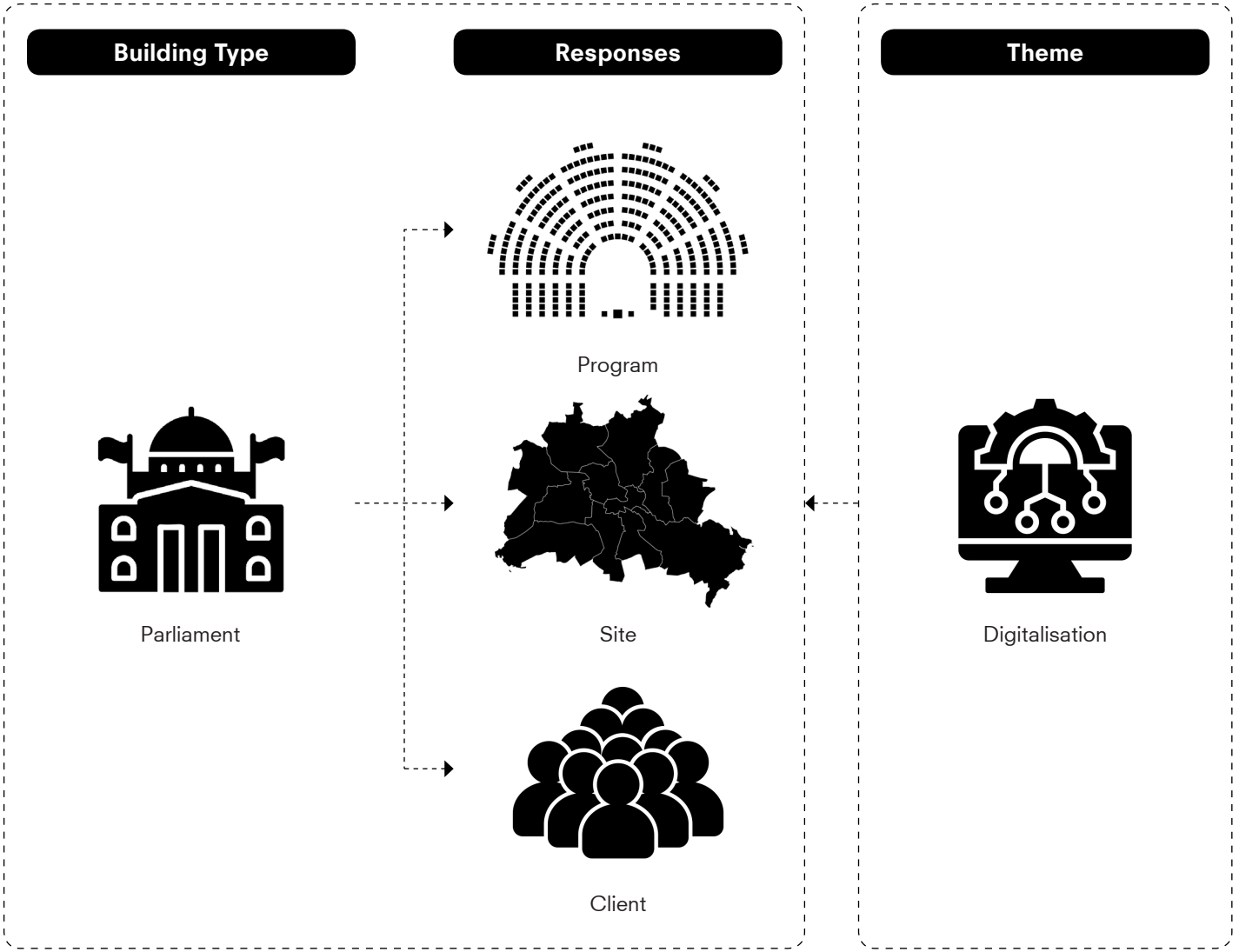
Program

Site

Client

Part 0

ABSTRACT



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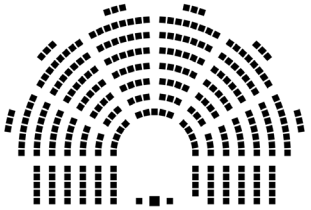
ABSTRACT

Building Type

Parliament

Responses

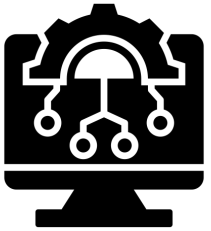


Program

Site

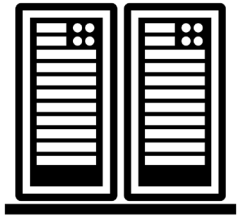
Client

Theme



Digitalisation

Group strategy



Open data strategy

Part 0

ABSTRACT

Research Questions:

How **hybrid communication** can generate a more **inclusive discussion environment** in a **district parliament**?

(Physical & digital communication)

PRESENTATION FLOW

Background	1	Background of Political system in Berlin
	2	Hybrid communication for district parliament
Research	3	Design brief (Client , program, site)
Design	4	Concept
	5	Design implementation
	6	Materialisation
	7	Experience of hybrid communication
	8	Conclusion

Part 1

BACKGROUND OF POLITICAL SYSTEM IN BERLIN

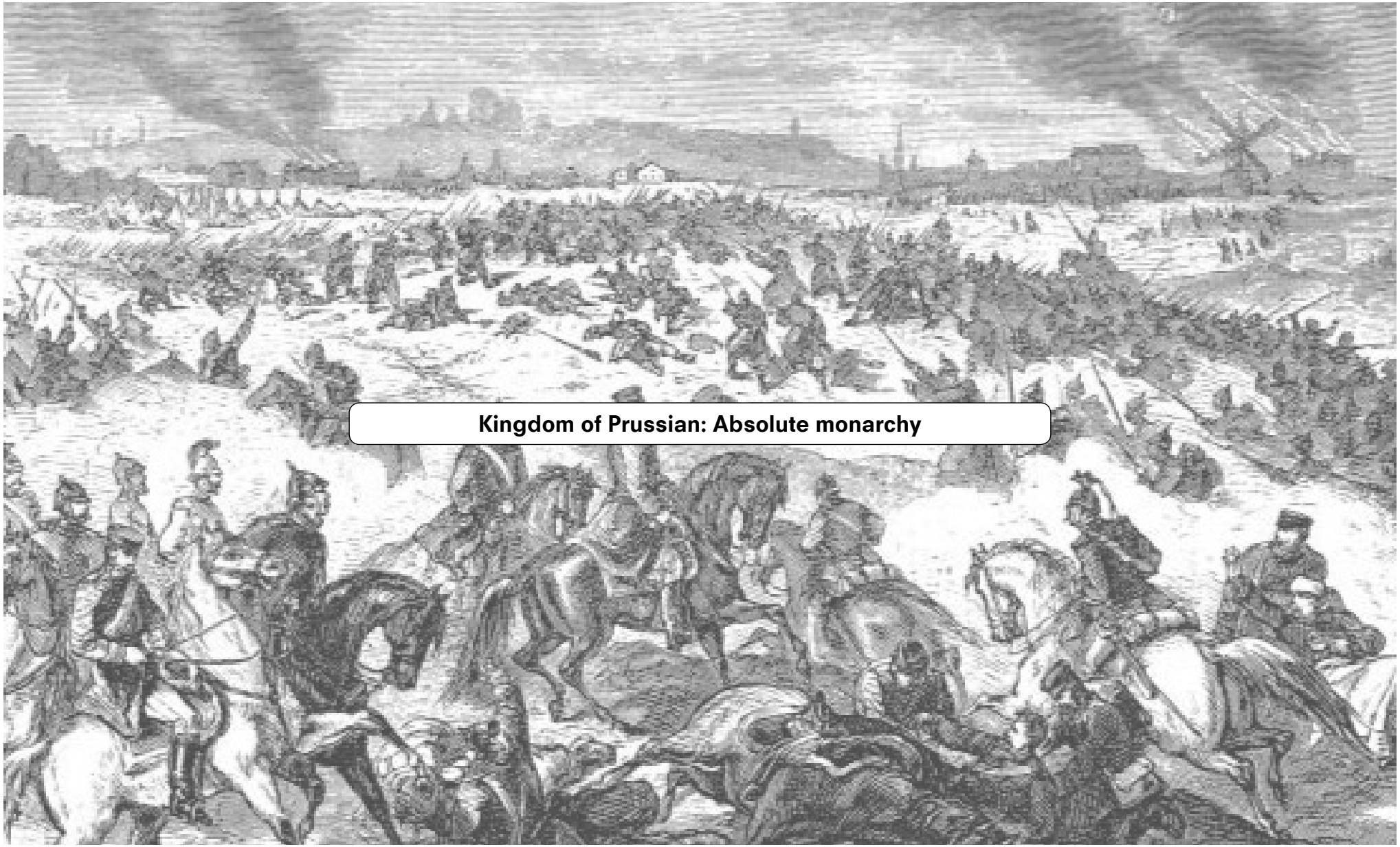
Part 1

BACKGROUND OF POLITICAL SYSTEM IN BERLIN

Democracy of Berlin - A long journey

Part 1

BACKGROUND OF POLITICAL SYSTEM IN BERLIN



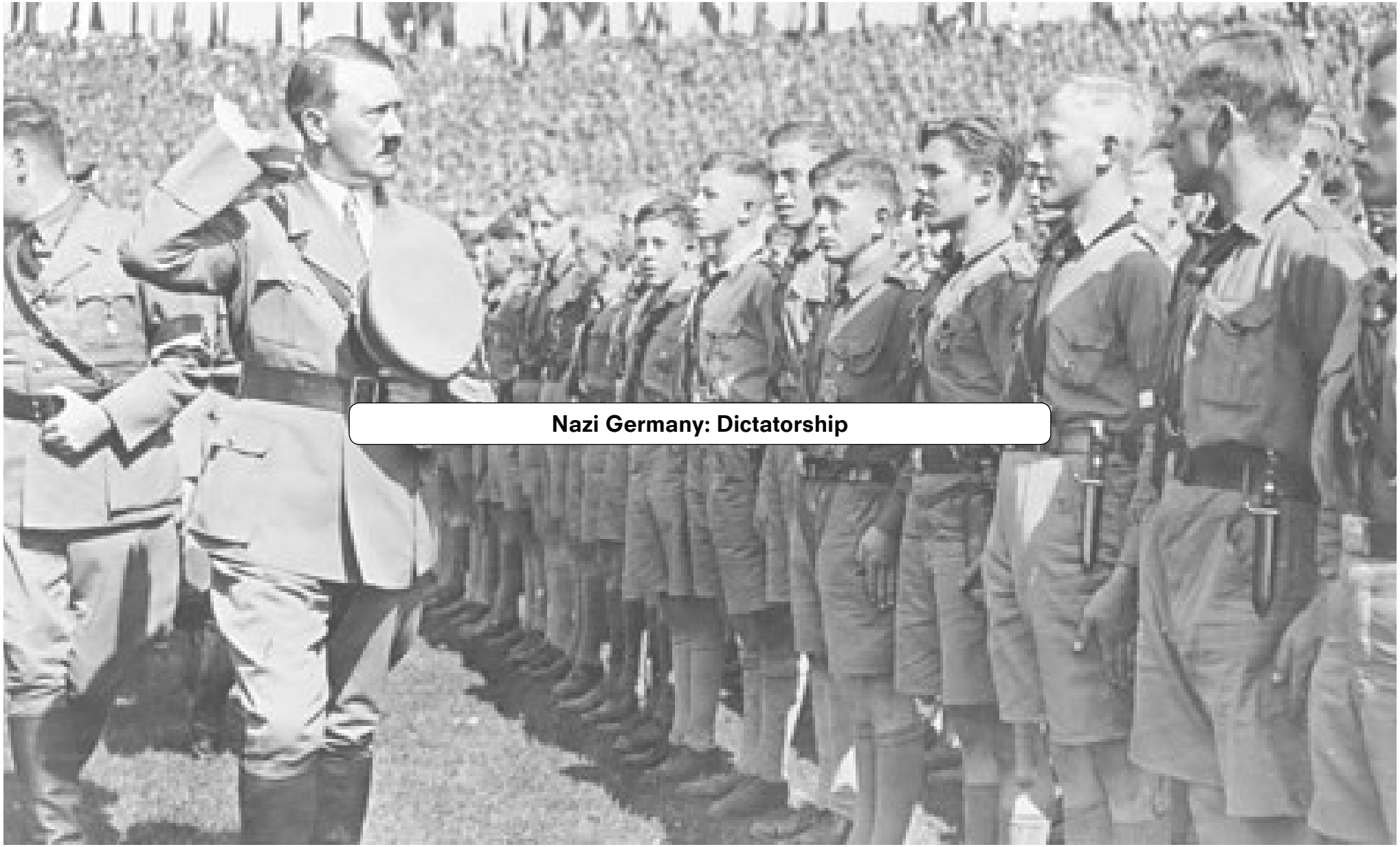
Part 1

BACKGROUND OF POLITICAL SYSTEM IN BERLIN

German Empire: Start of parliamentary democracy

Part 1

BACKGROUND OF POLITICAL SYSTEM IN BERLIN



Nazi Germany: Dictatorship

Part 1

BACKGROUND OF POLITICAL SYSTEM IN BERLIN

Part 1

BACKGROUND OF POLITICAL SYSTEM IN BERLIN

Reunification to now: Representative democracy

Part 1

BACKGROUND OF POLITICAL SYSTEM IN BERLIN

3 levels of parliament in Berlin

District scale

Charlottenburg-Wilmersdorf

Friedrichshain-Kreuzberg

Lichtenberg

Marzahn-Hellersdorf

Mitte

Neukölln

Pankow

Reinickendorf

Spandau

Steglitz-Zehlendorf

Tempelhof-Schöneberg

Treptow-Köpenick

City-state scale

Red town hall

Country scale

Bunderstag (lower house)

Bundersrat (upper house)

Part 1

BACKGROUND OF POLITICAL SYSTEM IN BERLIN

3 levels of parliament in Berlin

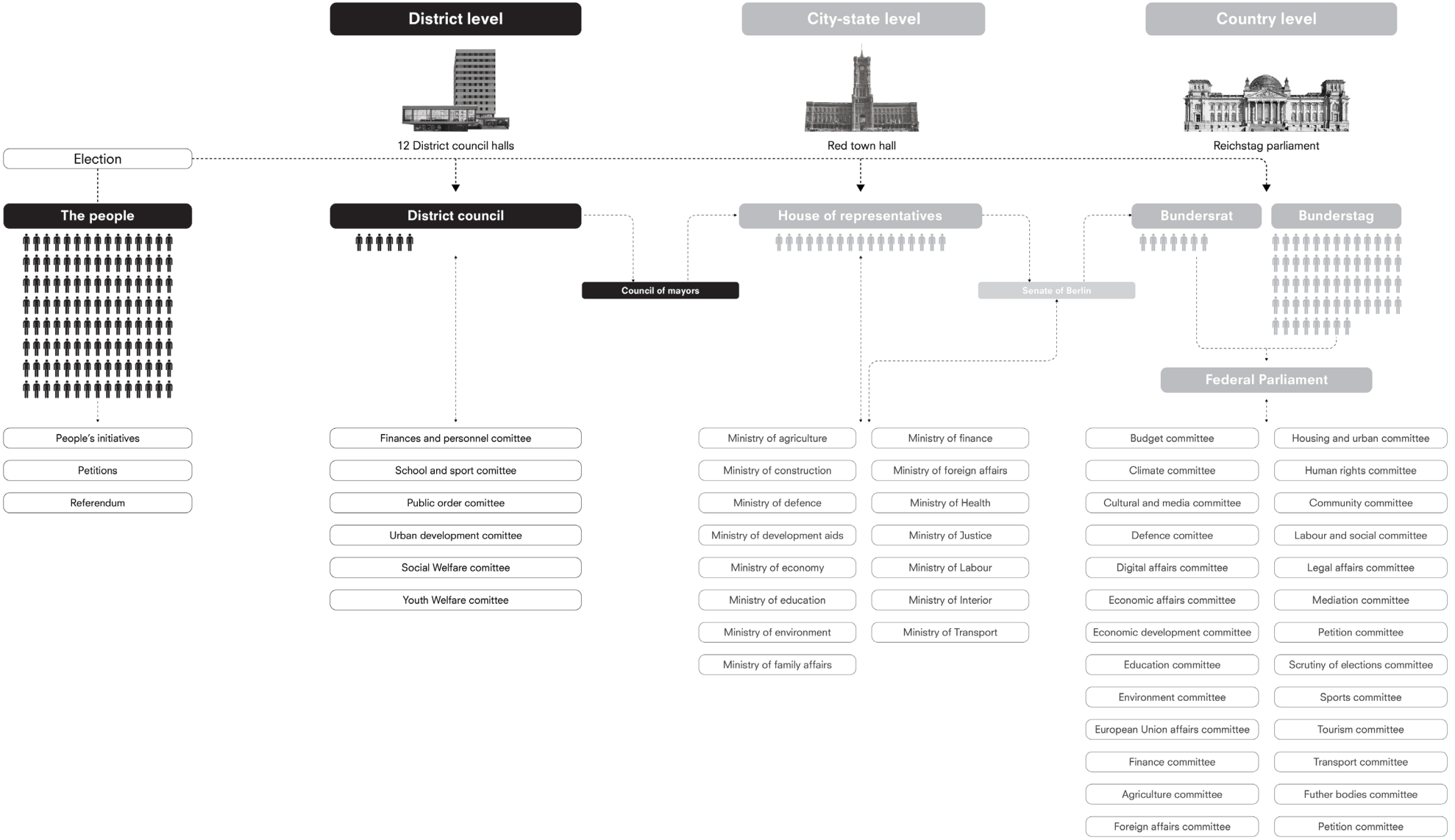
City/country level parliament

District level parliament

Part 1

BACKGROUND OF POLITICAL SYSTEM IN BERLIN

3 levels of parliament in Berlin



Part 1

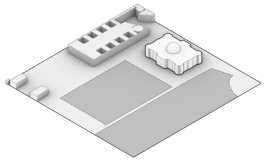
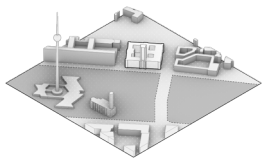
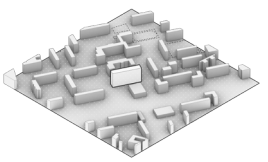
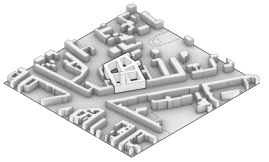
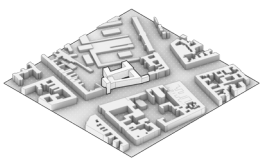
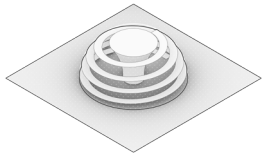
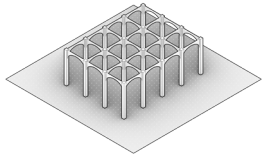
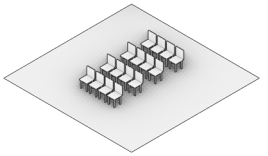
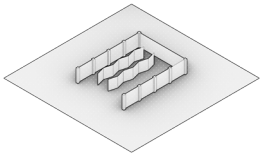
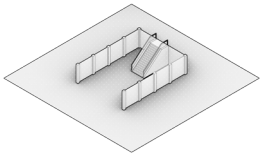
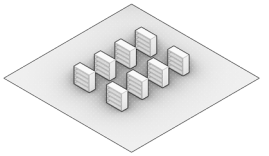
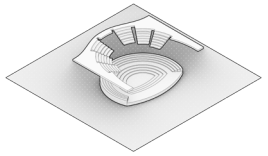
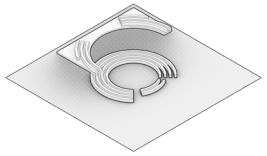
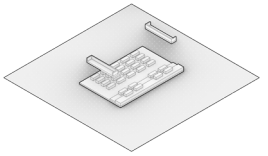
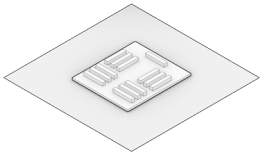
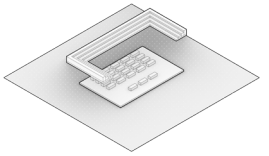
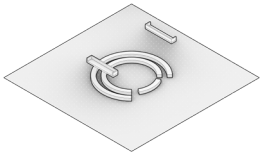
BACKGROUND OF POLITICAL SYSTEM IN BERLIN

What's wrong with district parliament nowadays?

Part 1

BACKGROUND OF POLITICAL SYSTEM IN BERLIN

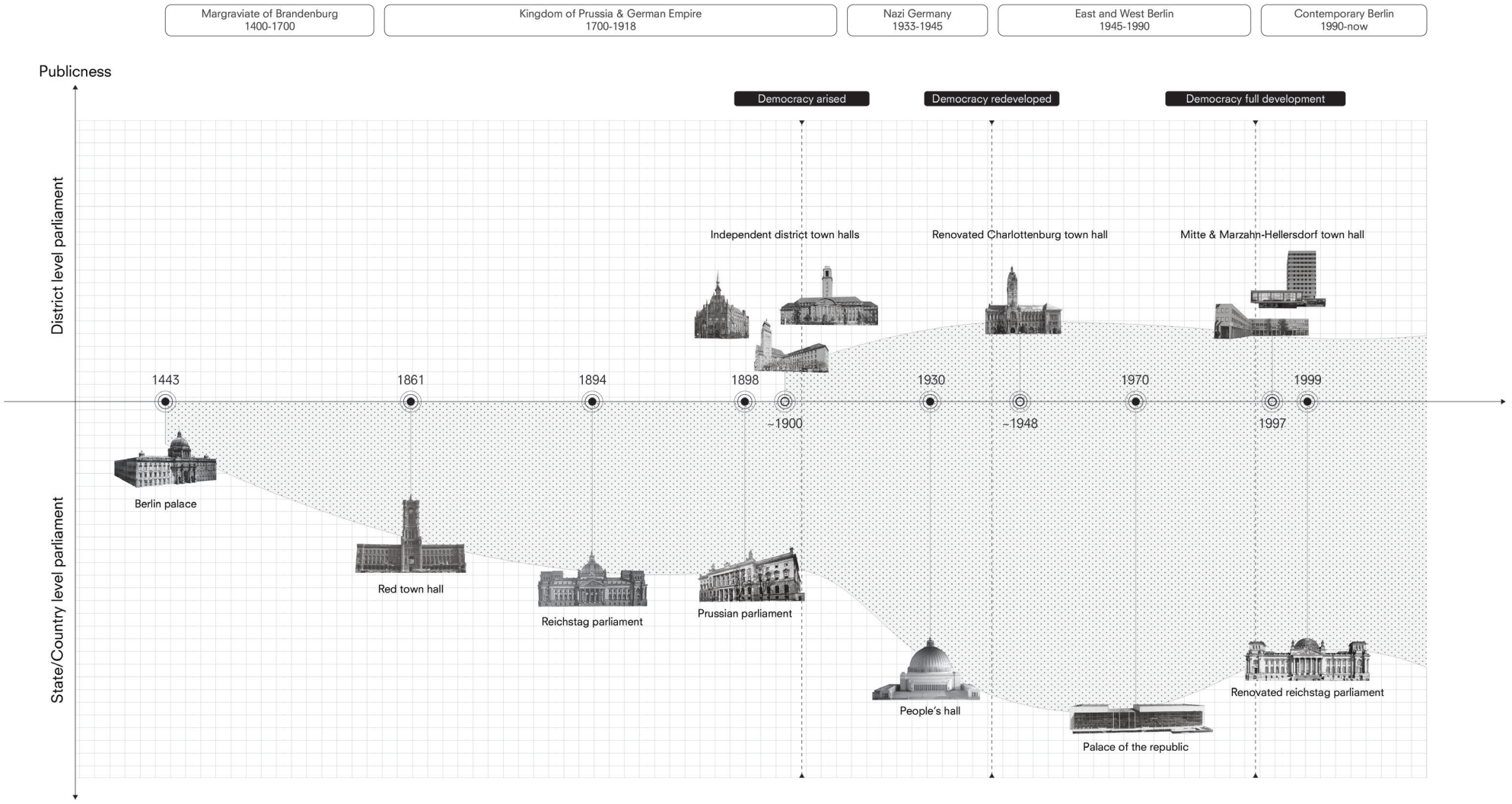
Problem 1: Low publicness in district parliament architecture

	City/country parliament		District parliament			
Location	 Large plaza	 Large plaza	 High dense region	 High dense region	 High dense region	High dense region
Public facilities	 Public roof	 Public hall	 Small seating area	 Small gallery	 Atrium	 Library
Plenary hall	 Large public gallery	 Large public gallery	 Small public gallery	 No public gallery	 Large public gallery	 Small public gallery

Part 1

BACKGROUND OF POLITICAL SYSTEM IN BERLIN

Problem 1: Low publicness in district parliament architecture



BACKGROUND OF POLITICAL SYSTEM IN BERLIN

Problem 2: Distrust of representatives

Democracy and its Discontents: Why Representative Democracy is in Crisis today and how to respond

ABSTRACT

Today the modern representative democracy based on the rule of the people is facing various challenges pointing at a state of crisis. Apart from an ongoing political debate about the theoretical concept, recent empirical data indicate that the traditional relation between the political system and the citizens is problematic as well. The overall research question is the following: Why is representative democracy in crisis and how should it be reconsidered and reformed? The political debate on the democratic model is structured in two forms of criticism to support the claim that the representative democracy needs to be rethought. First, theoretical criticism of Schumpeter, Green, Chomsky, Crouch and Brown is presented. Second, contemporary critics are Brennan and Tormey. Basis for this analysis is the social and political situation in Germany. Key terms are consumerism and the media, social inequality, public disappointment, distrust, disinterest, lack of political knowledge and the rise of populism. Several alternative responses to the crisis are evaluated. The first is an alternative perspective on the role of the citizen whereas the second calls to replace democracy with a form of epistocracy. This chapter develops a set of recommendations on how to respond to the crisis of representative democracy.

Mona Noé[1]

Citizens feel **not represented** by the politicians

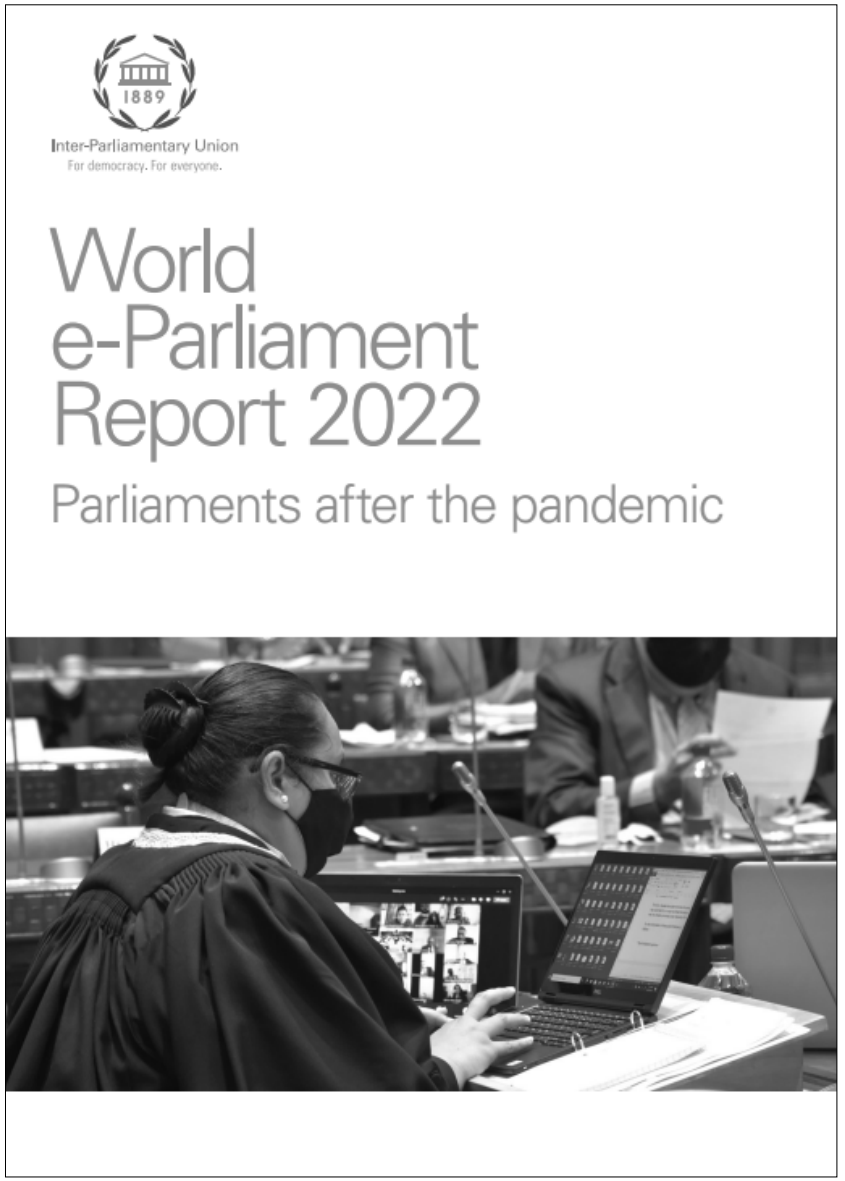
Part 1

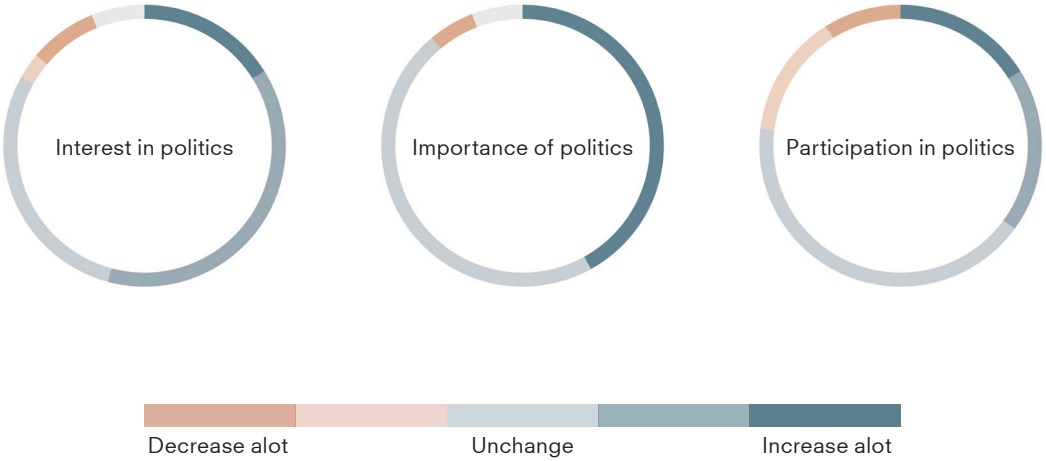
BACKGROUND OF POLITICAL SYSTEM IN BERLIN

Digitalisation as a response

BACKGROUND OF POLITICAL SYSTEM IN BERLIN

Digitalisation aids political participation





Part 1

BACKGROUND OF POLITICAL SYSTEM IN BERLIN

Research Questions:

How **hybrid communication** can generate a more **inclusive discussion environment** in a **district parliament**?

(Physical & digital communication)

Part 1

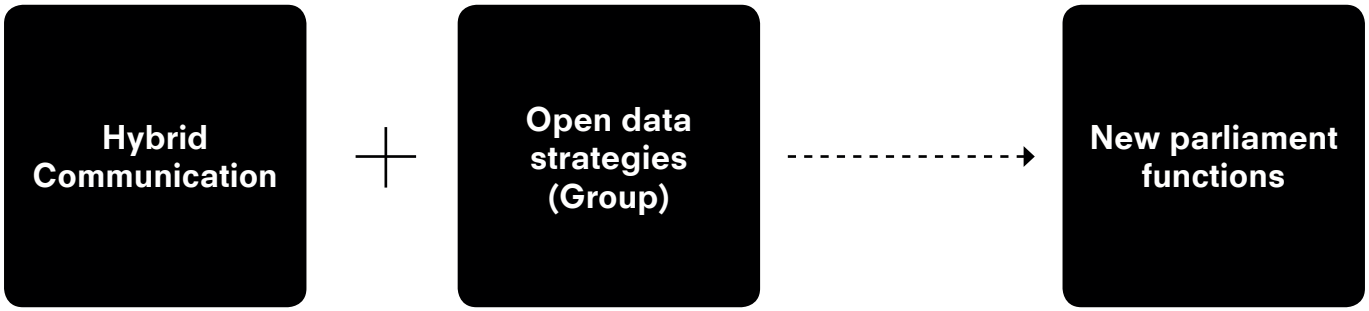
BACKGROUND OF POLITICAL SYSTEM IN BERLIN

Part 2

APPLICATION OF DIGITALISATION IN DISTRICT PARLIAMENT

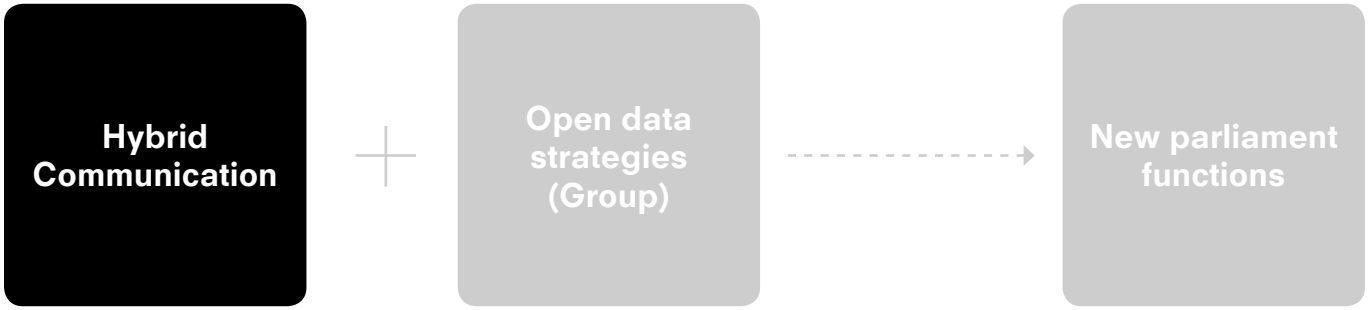
APPLICATION OF DIGITALISATION IN DISTRICT PARLIAMENT

Strategies to redefine parliament functions



APPLICATION OF DIGITALISATION IN DISTRICT PARLIAMENT

Strategies to redefine parliament functions



Part 2

APPLICATION OF DIGITALISATION IN DISTRICT PARLIAMENT

Hybrid Communication

Physical Communciation

Chatting

Formal meeting

Lecture

Broadcasting

Protest

Plenary debate

Digital Communciation

Website

Online newspaper

Social media

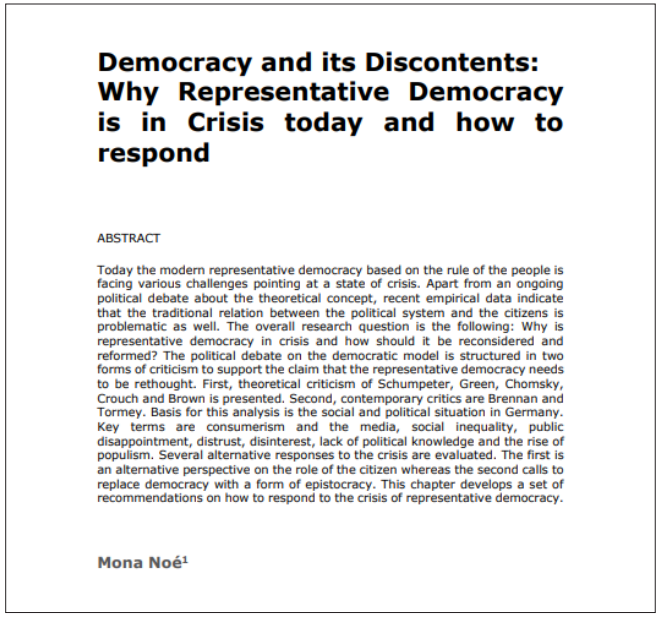
Remote meeting

Digital broadcast

Hologram

APPLICATION OF DIGITALISATION IN DISTRICT PARLIAMENT

Analysis of hybrid communication in parliament

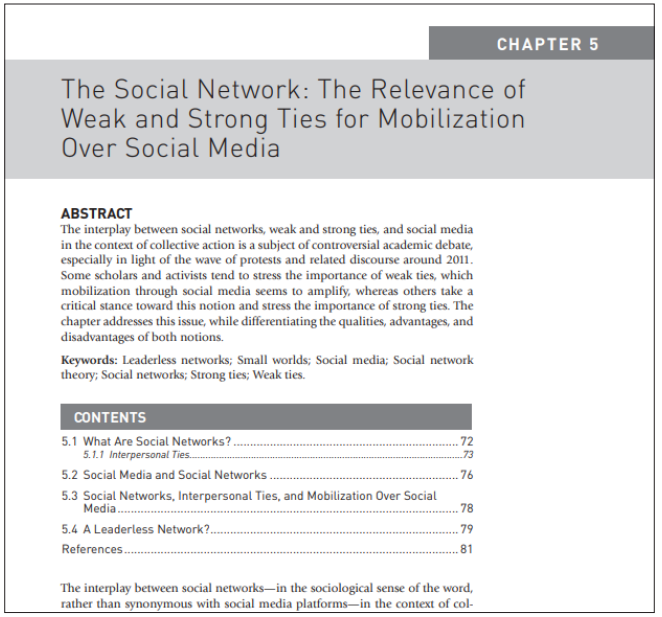


Democracy and its Discontents: Why Representative Democracy is in Crisis today and how to respond

ABSTRACT

Today the modern representative democracy based on the rule of the people is facing various challenges pointing at a state of crisis. Apart from an ongoing political debate about the theoretical concept, recent empirical data indicate that the traditional relation between the political system and the citizens is problematic as well. The overall research question is the following: Why is representative democracy in crisis and how should it be reconsidered and reformed? The political debate on the democratic model is structured in two forms of criticism to support the claim that the representative democracy needs to be rethought. First, theoretical criticism of Schumpeter, Green, Chomsky, Crouch and Brown is presented. Second, contemporary critics are Brennan and Tormey. Basis for this analysis is the social and political situation in Germany. Key terms are consumerism and the media, social inequality, public disappointment, distrust, disinterest, lack of political knowledge and the rise of populism. Several alternative responses to the crisis are evaluated. The first is an alternative perspective on the role of the citizen whereas the second calls to replace democracy with a form of epistocracy. This chapter develops a set of recommendations on how to respond to the crisis of representative democracy.

Mona Noé[1]



CHAPTER 5

The Social Network: The Relevance of Weak and Strong Ties for Mobilization Over Social Media

ABSTRACT

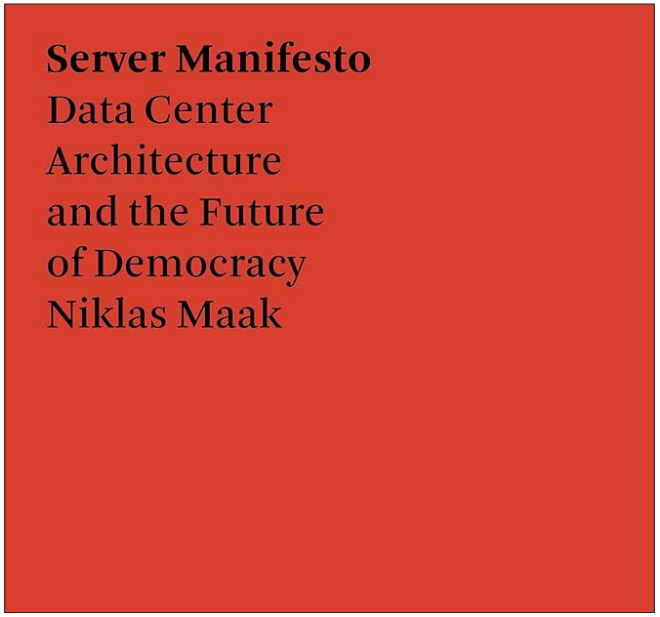
The interplay between social networks, weak and strong ties, and social media in the context of collective action is a subject of controversial academic debate, especially in light of the wave of protests and related discourse around 2011. Some scholars and activists tend to stress the importance of weak ties, which mobilization through social media seems to amplify, whereas others take a critical stance toward this notion and stress the importance of strong ties. The chapter addresses this issue, while differentiating the qualities, advantages, and disadvantages of both notions.

Keywords: Leaderless networks; Small worlds; Social media; Social network theory; Social networks; Strong ties; Weak ties.

CONTENTS

5.1 What Are Social Networks? ... 72
5.1.1 Interpersonal Ties ... 73
5.2 Social Media and Social Networks ... 76
5.3 Social Networks, Interpersonal Ties, and Mobilization Over Social Media ... 78
5.4 A Leaderless Network? ... 79
References ... 81

The interplay between social networks—in the sociological sense of the word, rather than synonymous with social media platforms—in the context of col-



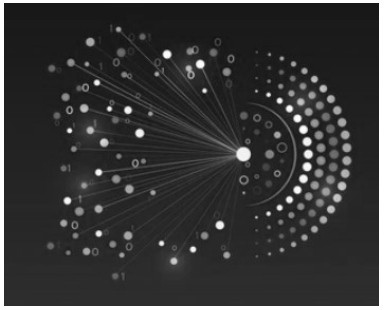
Server Manifesto
Data Center Architecture and the Future of Democracy
Niklas Maak

Social media

Receive information, discussion and express opinions

Political app

Highly accessible tools for political engagement



Algorithm

Organize uncoordinated complexity of opinions

Interactive technology

Experience the influences exerted by expressing opinions

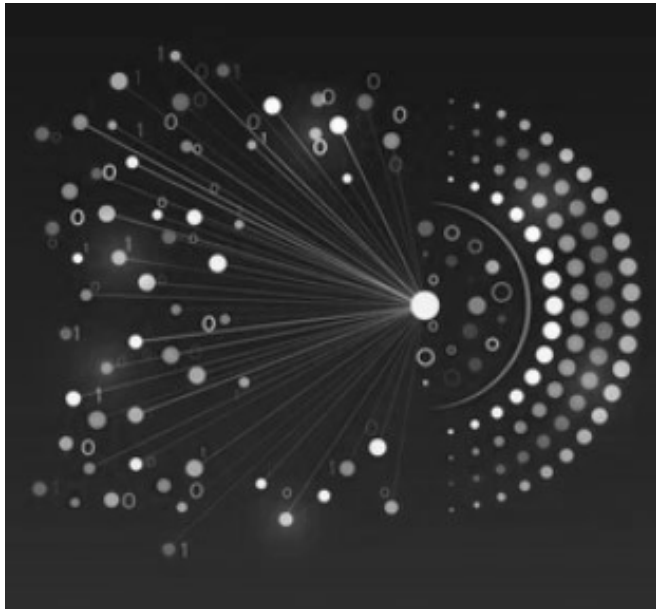
Broadcast technology

Dissemination the traditionally hidden public opinions

Part 2

APPLICATION OF DIGITALISATION IN DISTRICT PARLIAMENT

Analysis of digital communication in parliament



1. **Coordination** and **dissemination** unorganized mass opinions from the public

2. **Mobilize** and increase exposure of opinions of different perspectives

3. **Break boundaries** and stimulate communication

Part 2

APPLICATION OF DIGITALISATION IN DISTRICT PARLIAMENT

Analysis of physical communication in parliament

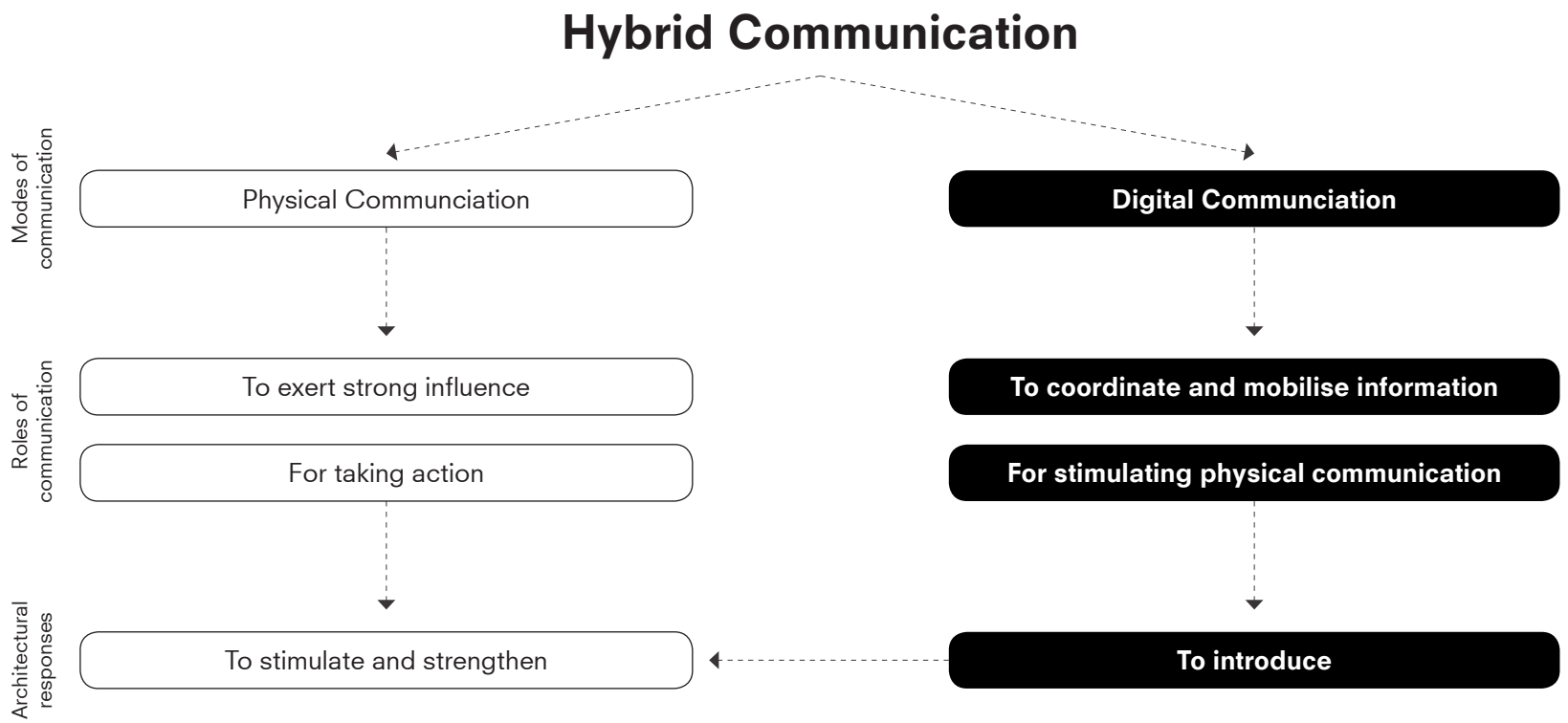
1. Exert **strong influence** on decision

2. **Form strong bond** between people for collective action

3. **Effective** communication

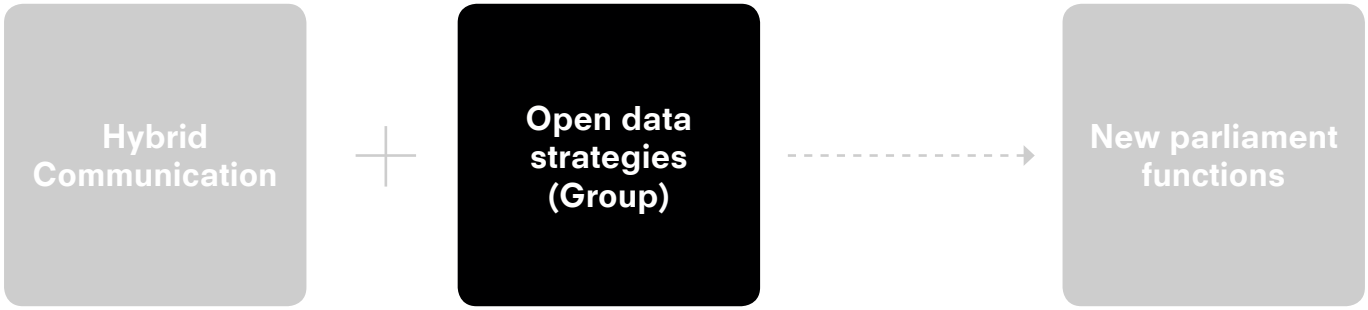
APPLICATION OF DIGITALISATION IN DISTRICT PARLIAMENT

Application of hybrid communication in parliament



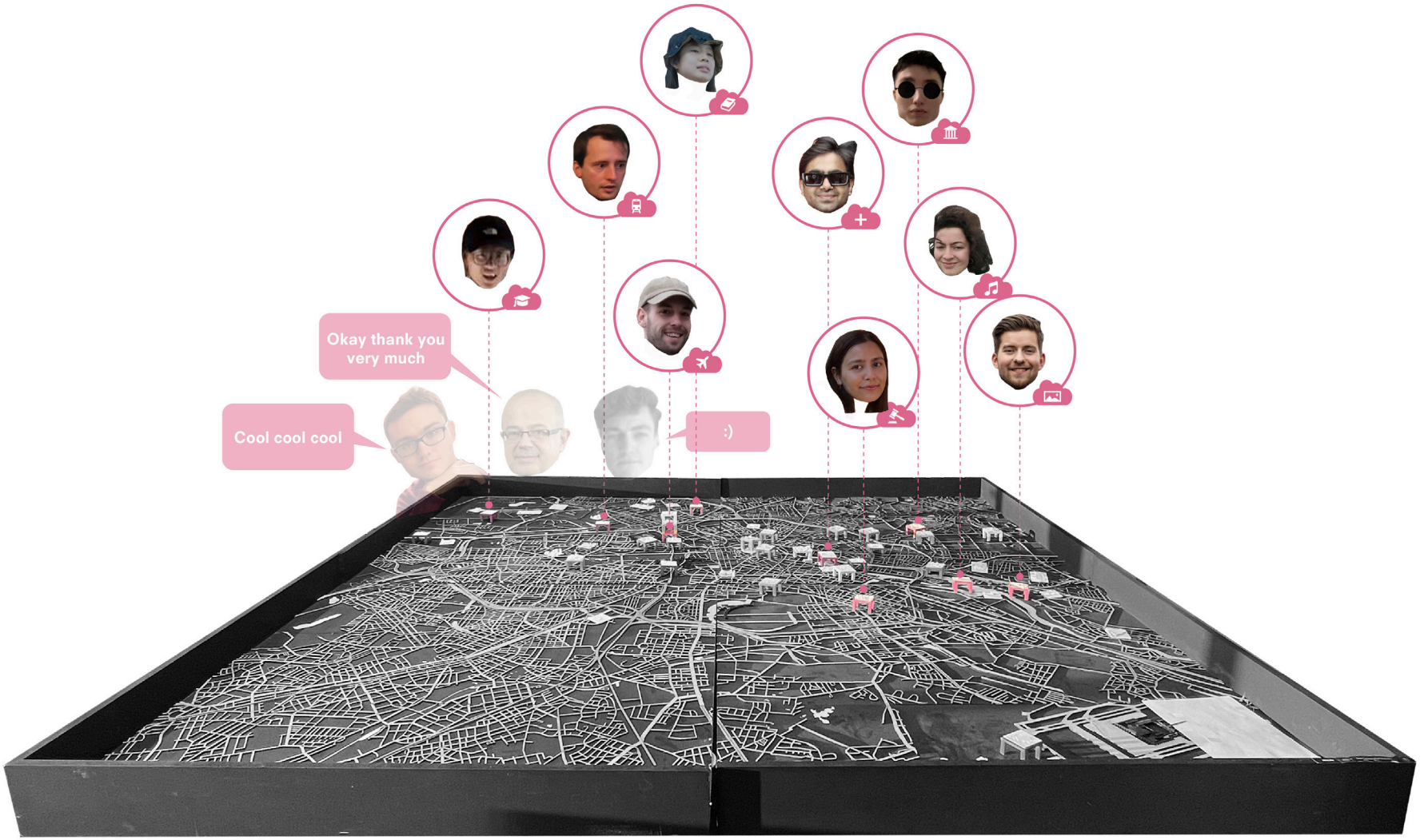
APPLICATION OF DIGITALISATION IN DISTRICT PARLIAMENT

Strategies to redefine parliament functions



APPLICATION OF DIGITALISATION IN DISTRICT PARLIAMENT

Group strategies



APPLICATION OF DIGITALISATION IN DISTRICT PARLIAMENT

Group strategies

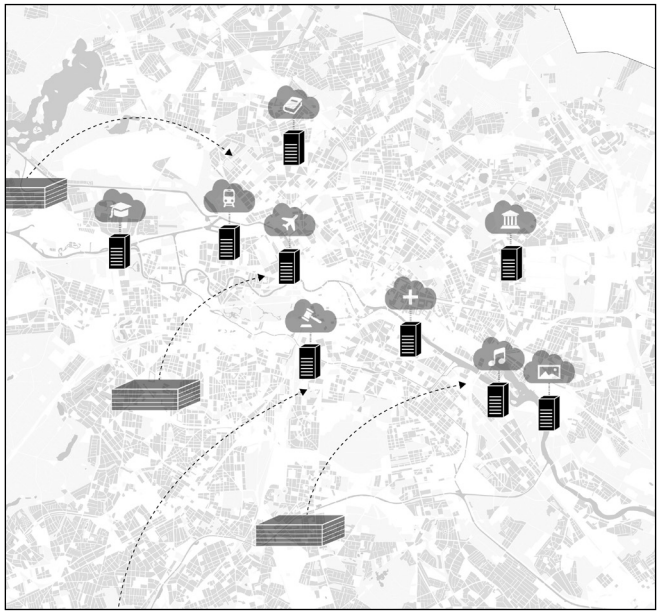
Open data strategy

9 buildings to make invisible data infrastructure visible for data awareness and education

Part 2

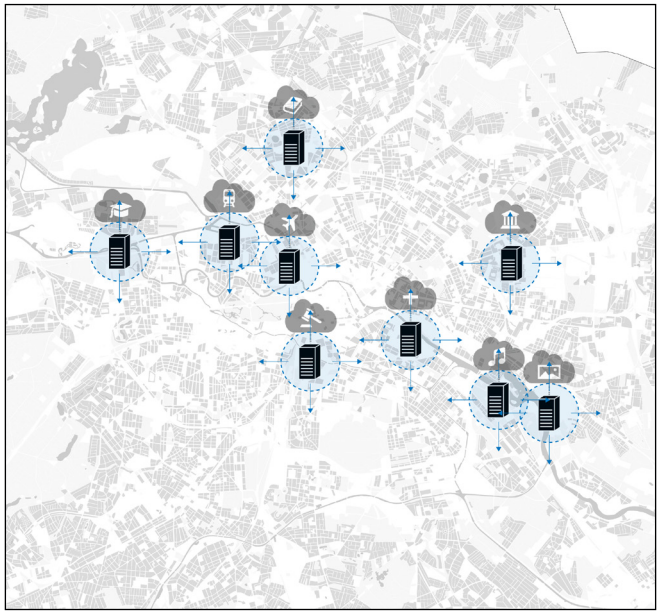
APPLICATION OF DIGITALISATION IN DISTRICT PARLIAMENT

Group strategies



1. Decentralization

Bring back data infrastruture to visible area



2. Display

Showcasing data infrastruture for data education

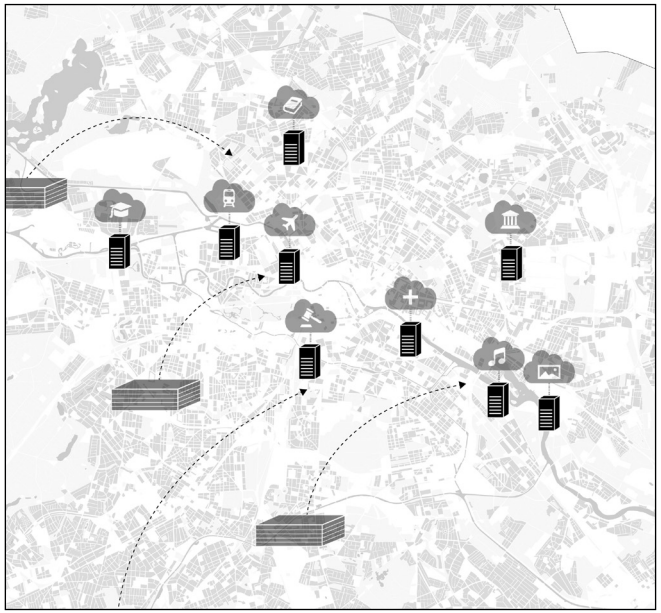
3. Decarbonization

Reusing heat waste from data infrastruture

Part 2

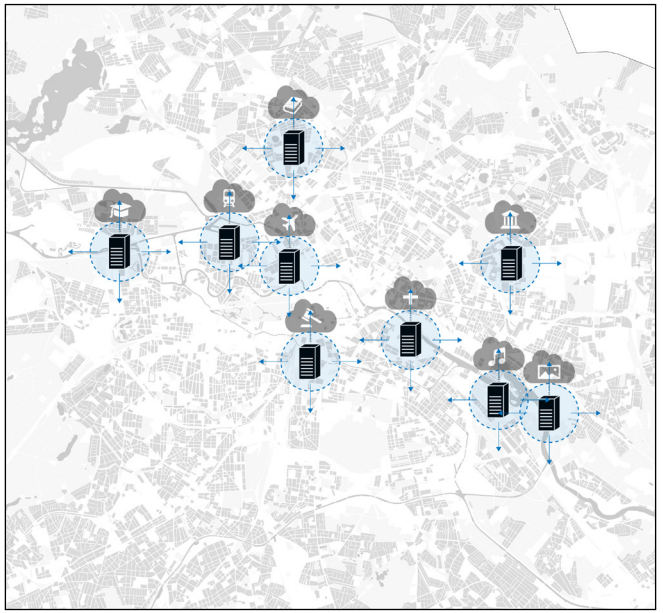
APPLICATION OF DIGITALISATION IN DISTRICT PARLIAMENT

Group strategies



1. Decentralization

Bring back data infrastruture to visible area



2. Display

Showcasing data infrastruture for data education

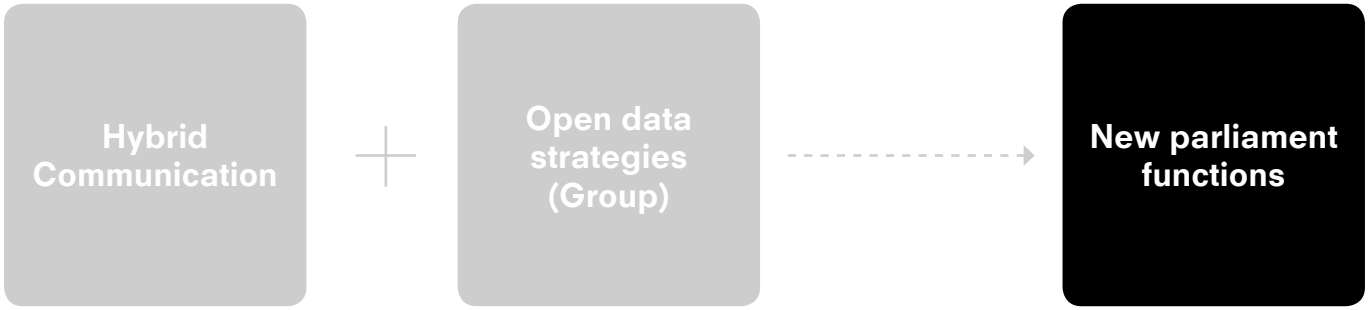
3. Decarbonization

Reusing heat waste from data infrastruture

Each project = Basic program + spatial influences of digitalisation + data storage spaces

APPLICATION OF DIGITALISATION IN DISTRICT PARLIAMENT

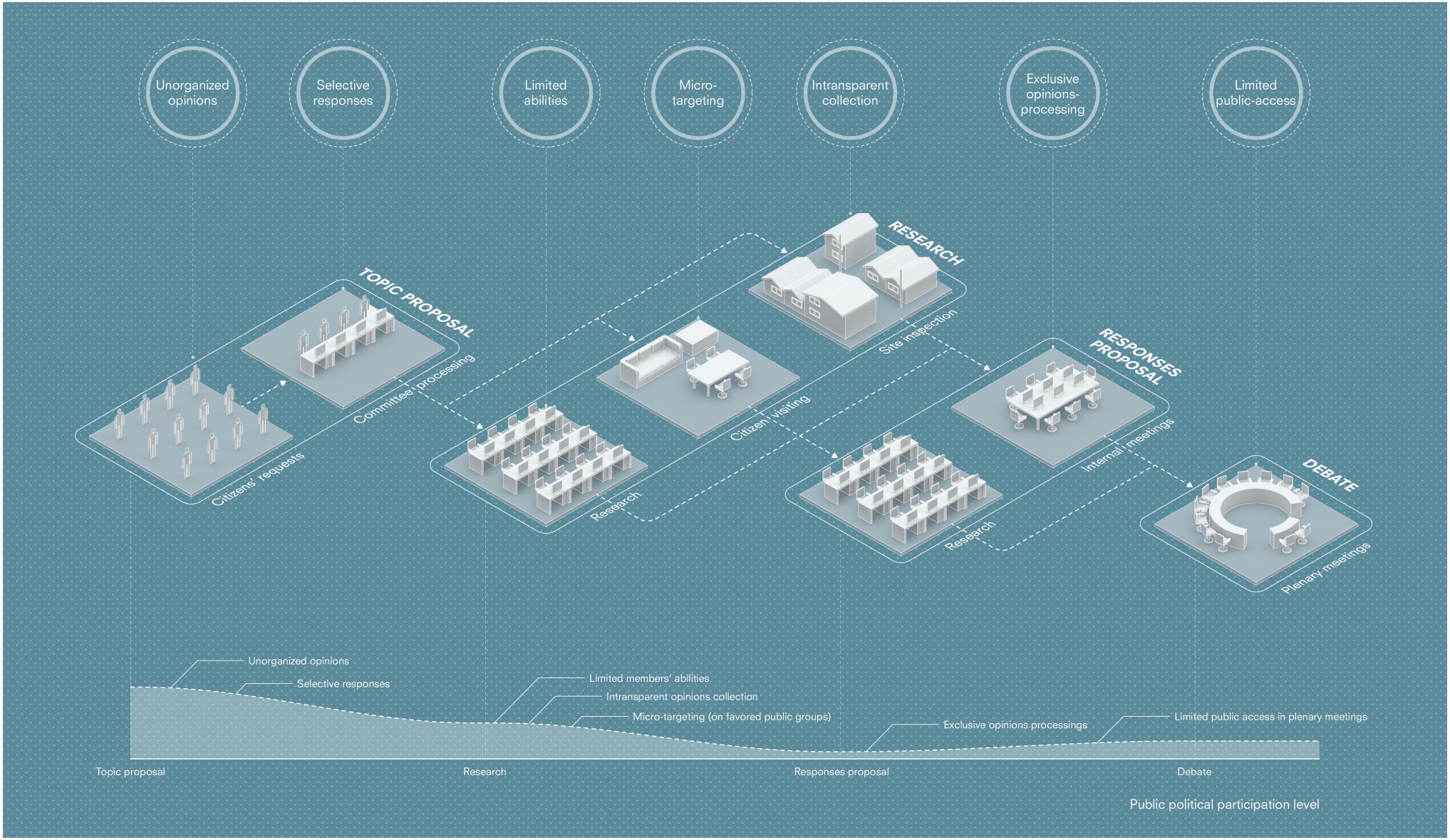
Strategies to redefine parliament functions



Part 2

APPLICATION OF DIGITALISATION IN DISTRICT PARLIAMENT

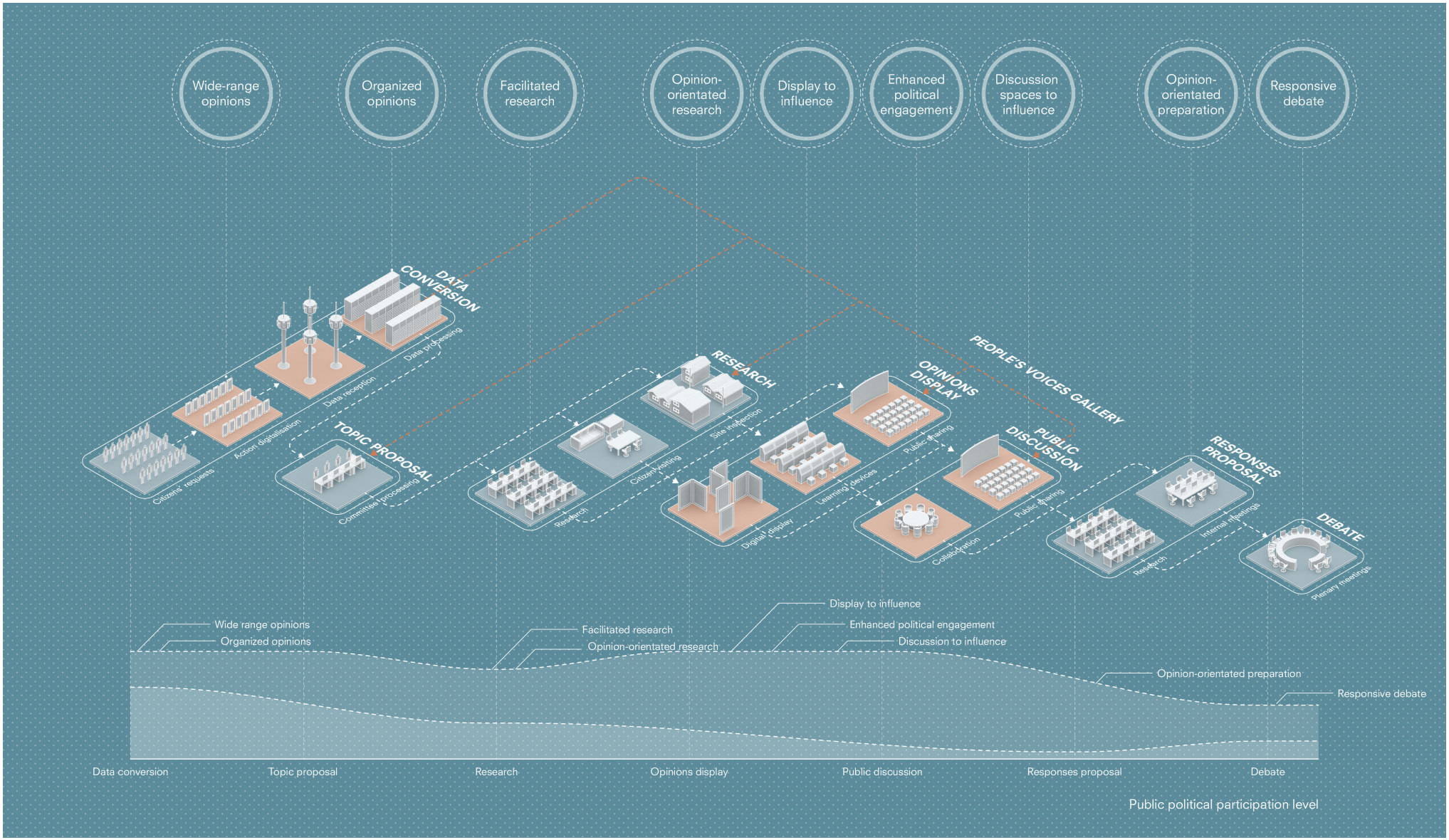
Traditional parliament workflow



Part 2

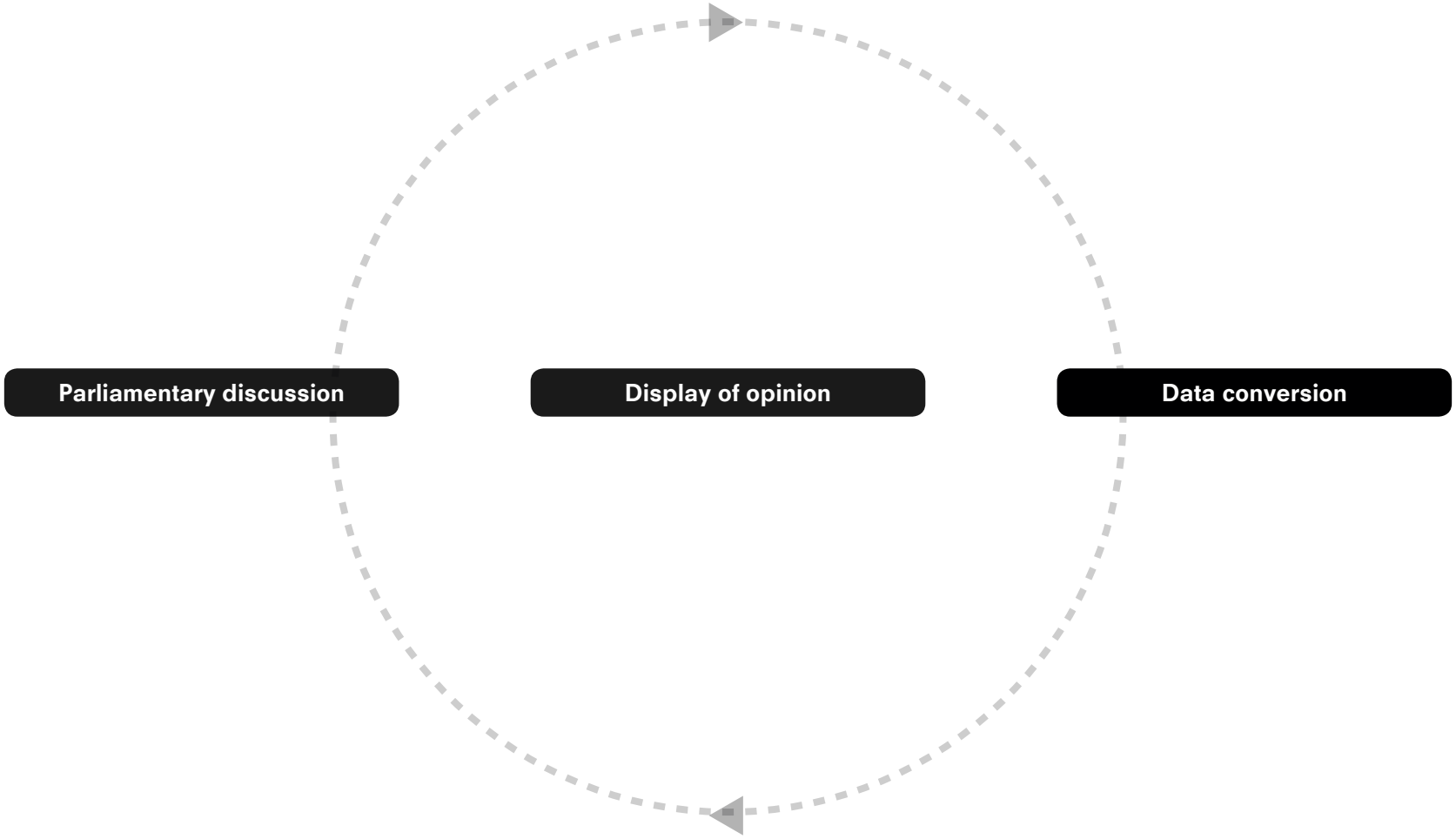
APPLICATION OF DIGITALISATION IN DISTRICT PARLIAMENT

Proposed parliament workflow with hybrid communication



APPLICATION OF DIGITALISATION IN DISTRICT PARLIAMENT

Parliament scheme with hybrid communication



APPLICATION OF DIGITALISATION IN DISTRICT PARLIAMENT

Parliament scheme with hybrid communication

Parliament program

People’s voices gallery

Data hall

APPLICATION OF DIGITALISATION IN DISTRICT PARLIAMENT

Parliament scheme with hybrid communication

Parliament program

People’s voices gallery

Data hall

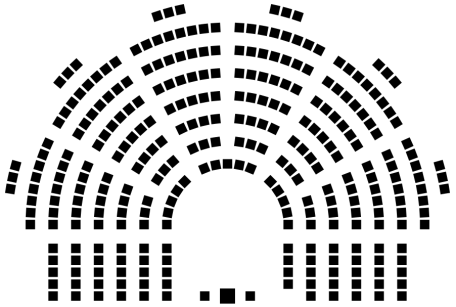
Group strategy

Part 3

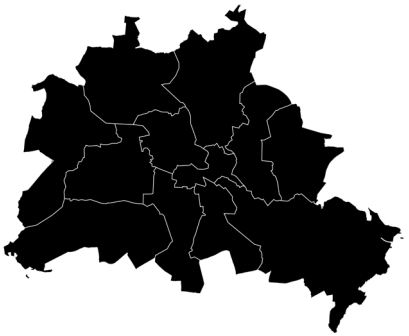
DESIGN BRIEF

Part 3

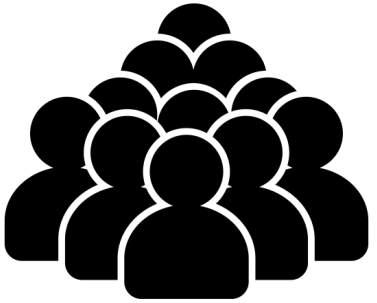
DESIGN BRIEF



Program



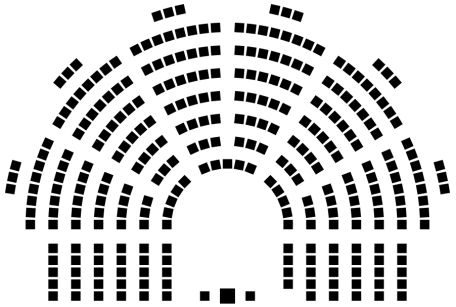
Site



Client

Part 3

DESIGN BRIEF



Program

Parliament

People's voices gallery

Data hall

Site

Client

Part 3

DESIGN BRIEF

Program - parliament research

Country level

Reichstag Parliament (Berlin)

National Assembly Bangladesh

Scottish Parliament

National Assembly Wales

Berlin

District level

Town Hall Mitte (Berlin)

Town Hall Neukolln (Berlin)

Deventer City Council

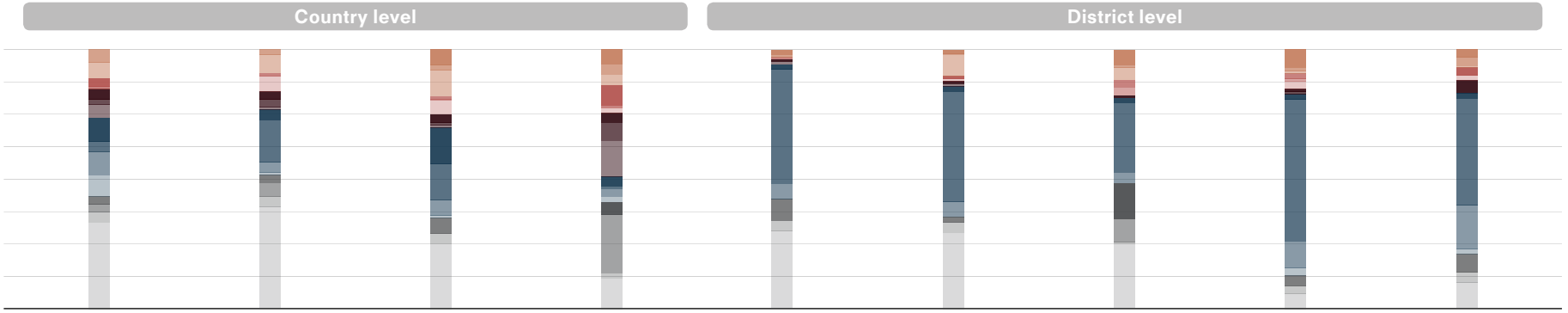
Uppsala Town Hall

Chandler Town Hall

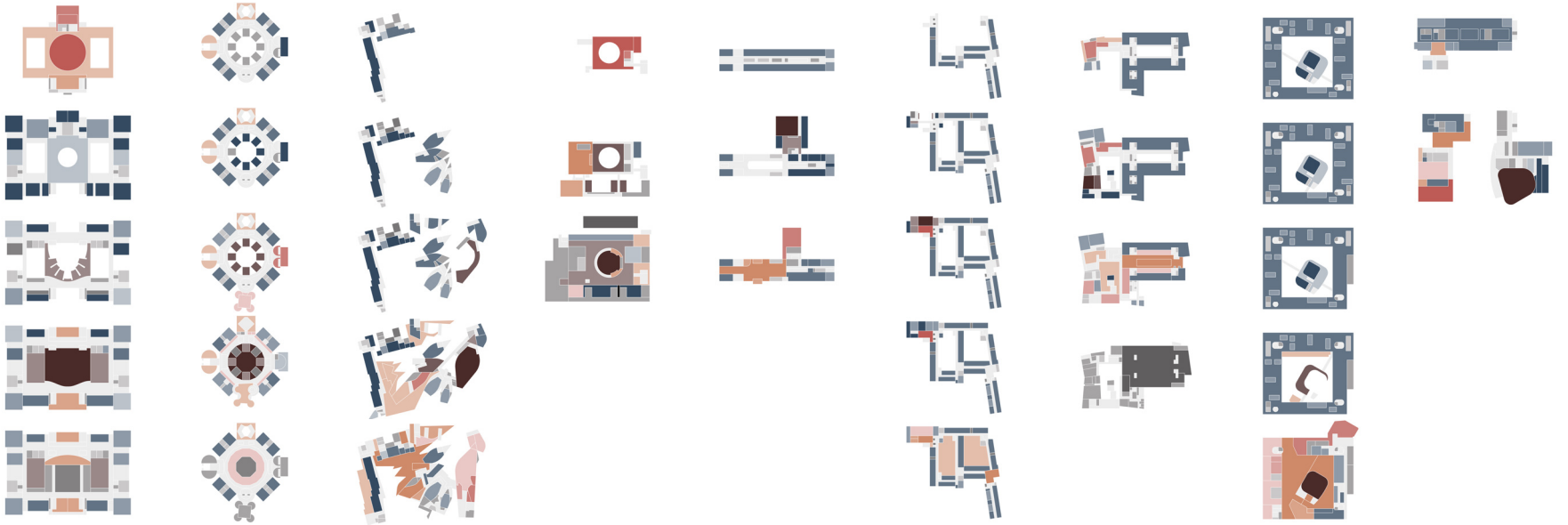
Berlin

DESIGN BRIEF

Program - parliament research



Reichstag Parliament (Berlin) | National Assembly Bangladesh | Scottish Parliament | National Assembly Wales | Town Hall Mitte (Berlin) | Town Hall Neukolln (Berlin) | Deventer City Council | Uppsala Town Hall | Chandler Town Hall



Open area
- Atrium
- Reception
- Courtyard

Public function
- Gallery
- Restaurant
- Citizens' hall
- Others

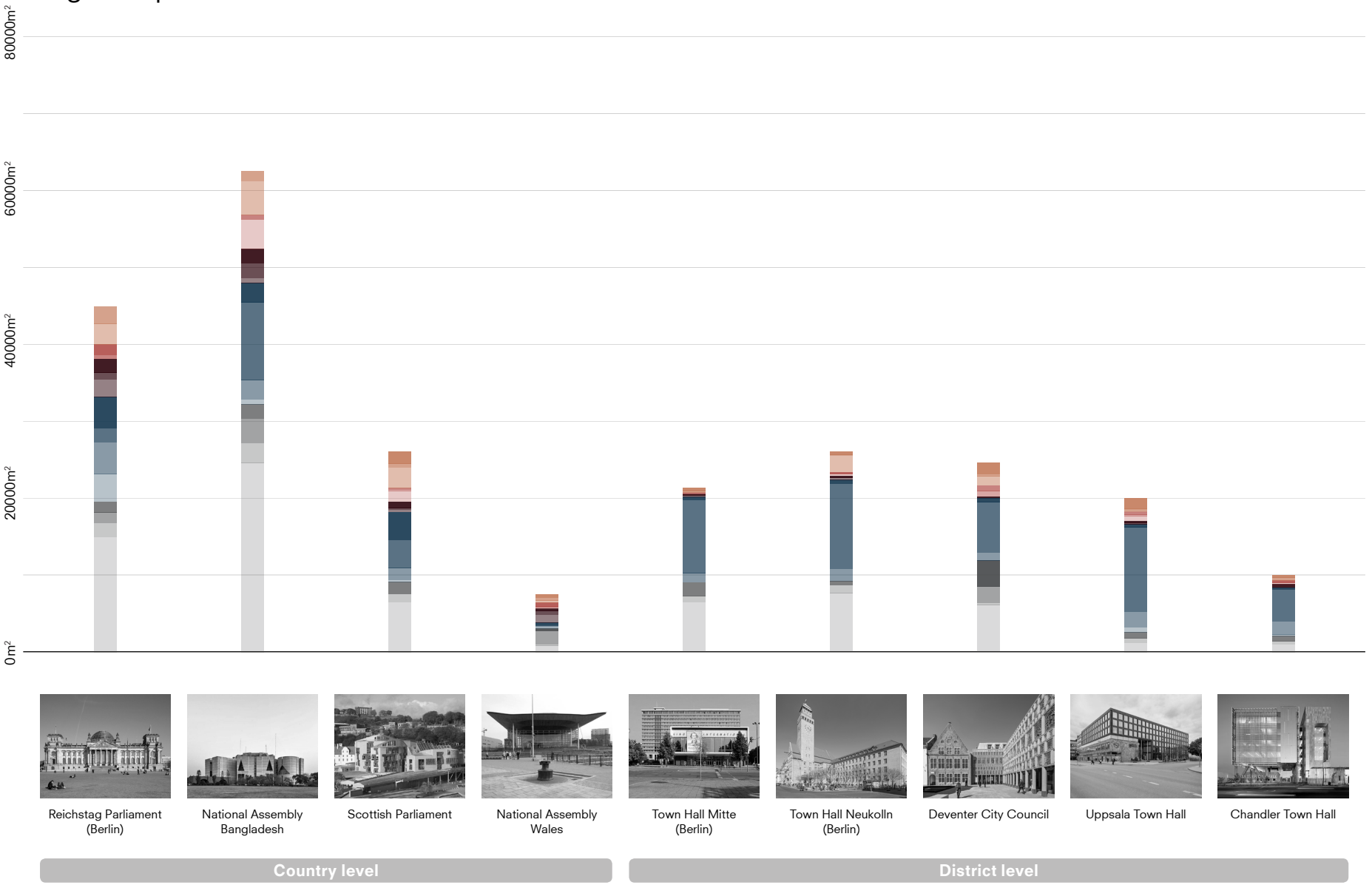
Assembly hall
- Plenary hall
- Public gallery
- Waiting hall

Office
- Mps office
- General office
- Meeting room
- Lounge

Logistics
- Carpark
- Storage
- Mechanical
- Sanitory
- Circulation

DESIGN BRIEF

Program - parliament research



Reichstag Parliament (Berlin)

National Assembly Bangladesh

Scottish Parliament

National Assembly Wales

Town Hall Mitte (Berlin)

Town Hall Neukolln (Berlin)

Deventer City Council

Uppsala Town Hall

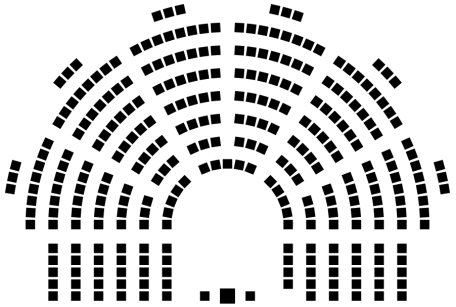
Chandler Town Hall

Country level

District level

Part 3

DESIGN BRIEF



Program

Parliament

People’s voices gallery

Data hall

Site

Client

Part 3

DESIGN BRIEF

Program - Digital gallery research

Media Center Hilversum
Advanced digital museum with several digital devices for interactions and education

Shenzhen Plan Exhibition
Digital exhibition center with different arrangements of digital screens

Archive dream
Installations for users to experience extensiveness of digital archive

In The Air, Tonight
Digital facade interact with visitors activities on twitter

Room of negotiation
Dicussion spaces enhanced with interactive digital technologies

Immersive digital gallery
A small history museum with individual spaces for VR experience

l'Atelier des Lumieres
Immersive digital graphic museum

German film festival
Film museum with small scale movie booth

Agora phobia
Worldwide private booth to communicate with different users

Gallery MA exhibition
Outdoor digital display exhibition

M+ museum
Whole facade as digital art broadcast screen

Klubhaus St.Pauli
Digital facade responding to activities of users inside

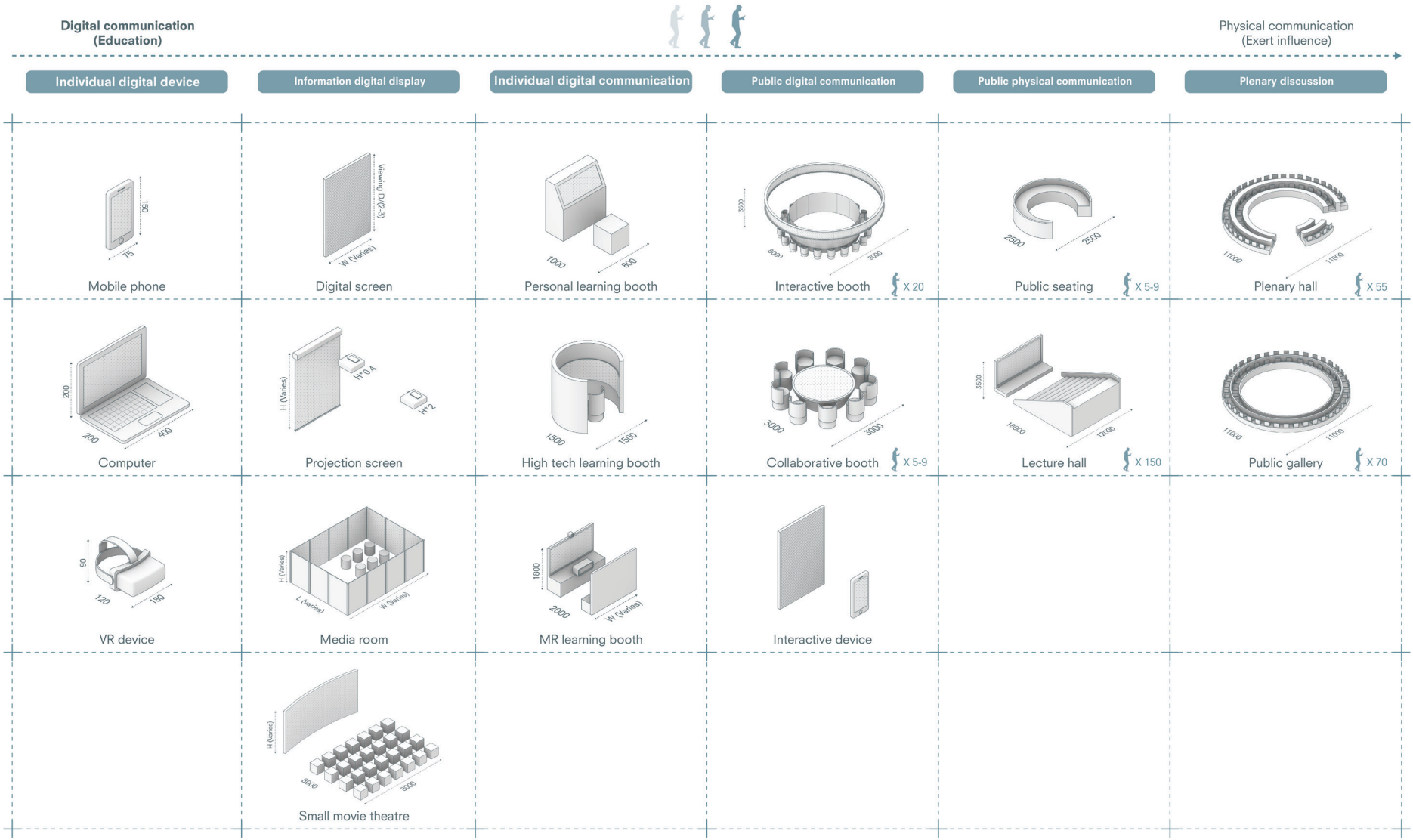
The key to downtown
Projection on plain building facade

Urban arte conecta
Projection on plain building facade

Kipnes Lantern
Translucent digital facade

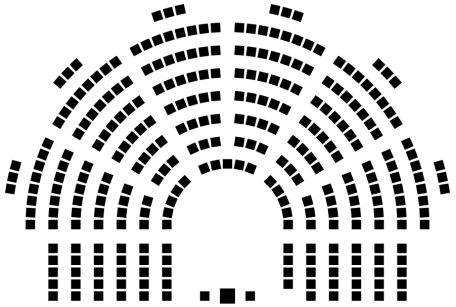
DESIGN BRIEF

Program - Digital gallery research



Part 3

DESIGN BRIEF



Program

Parliament

People's voices gallery

Data hall

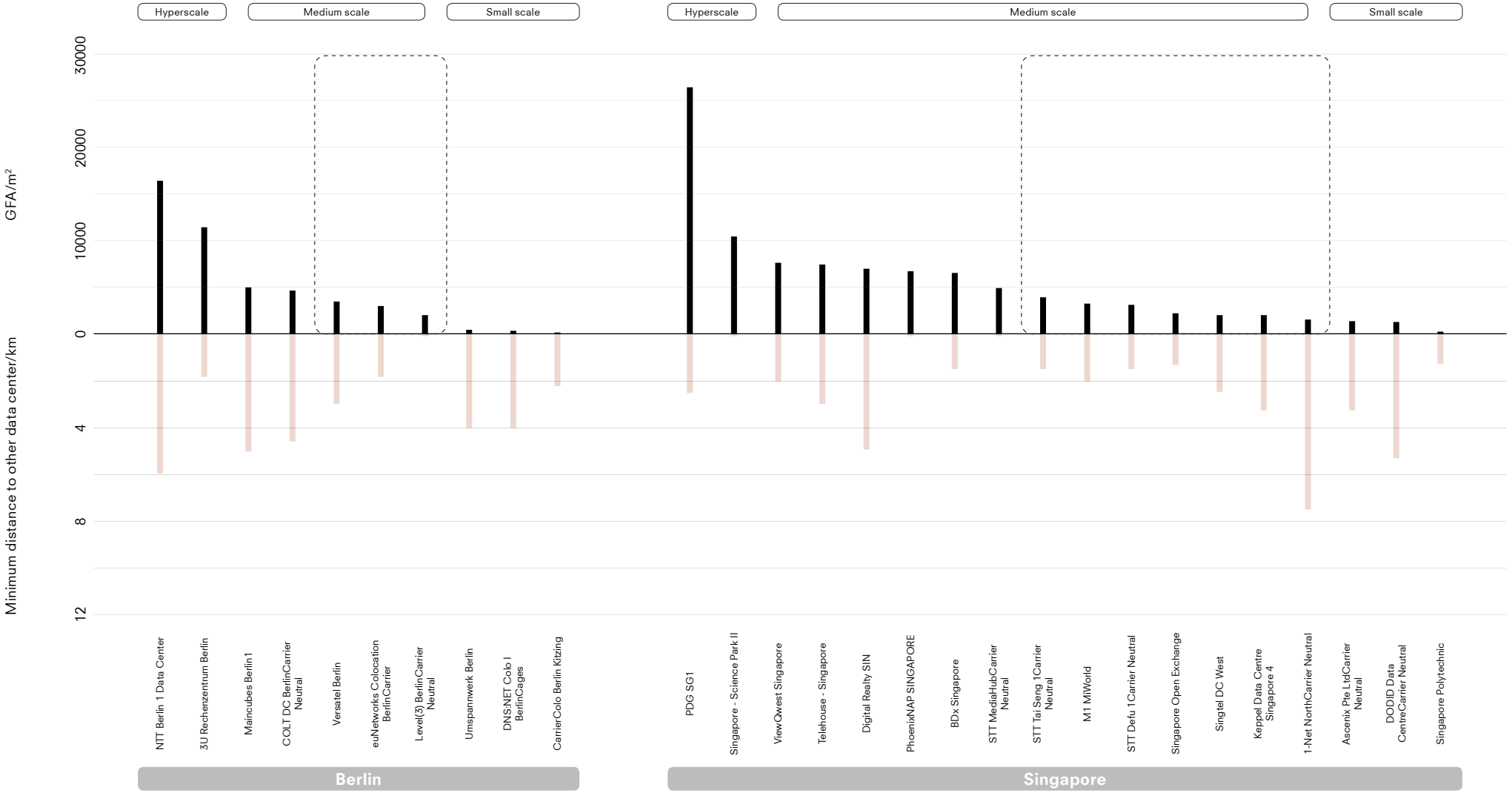
Site

Client

Program - Data center research

GFA/m²

Minimum distance to other data center/km

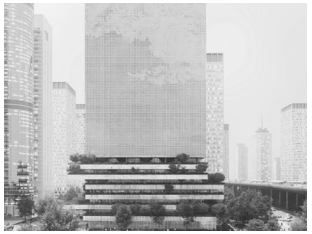
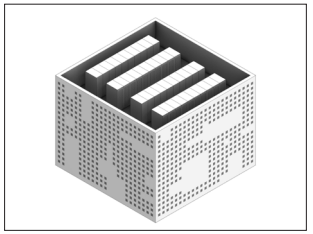


Part 3

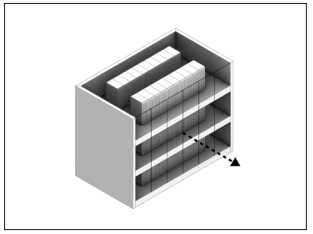
DESIGN BRIEF

Program - Data center research

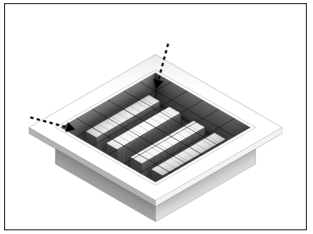
Architecture expressions

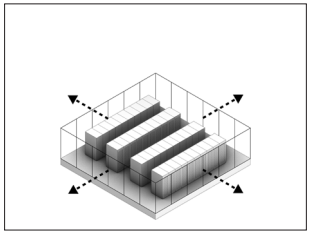
"Data box"



Visual connection (facade)

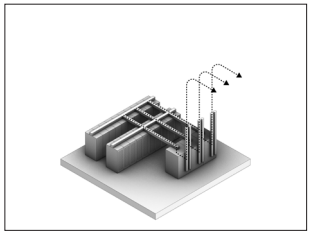


Visual connection (basement)

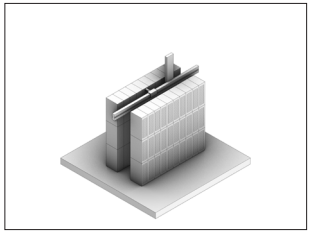


Racks as exhibits

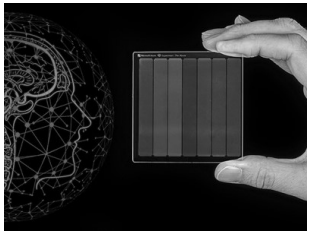
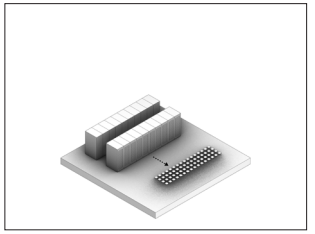
Technologies



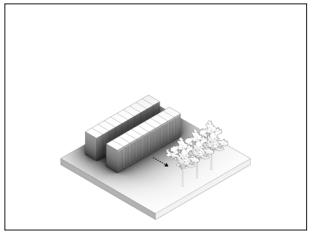
Power-generation



Automated data center

Data in silica glass

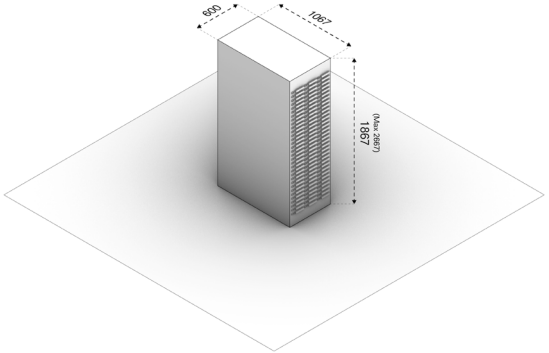


Data in plant DNA

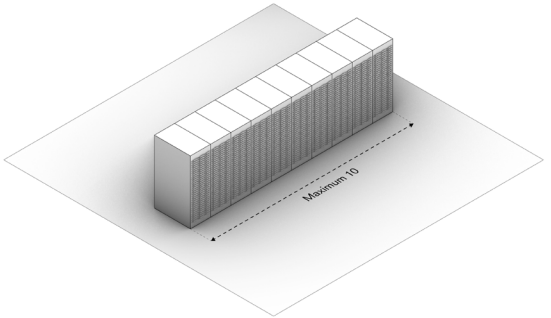
Part 3

DESIGN BRIEF

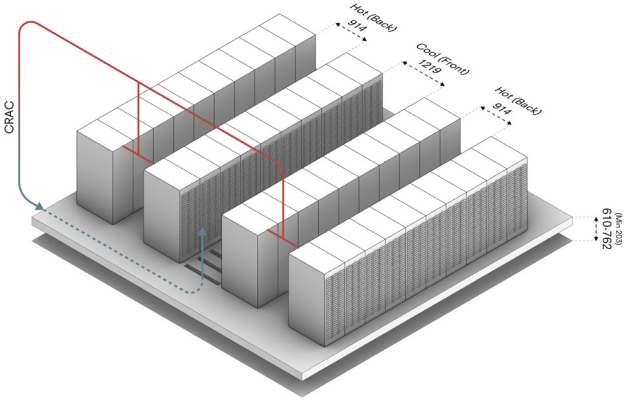
Program - Data center research



Data rack typical size



Maximum 10 racks in a row

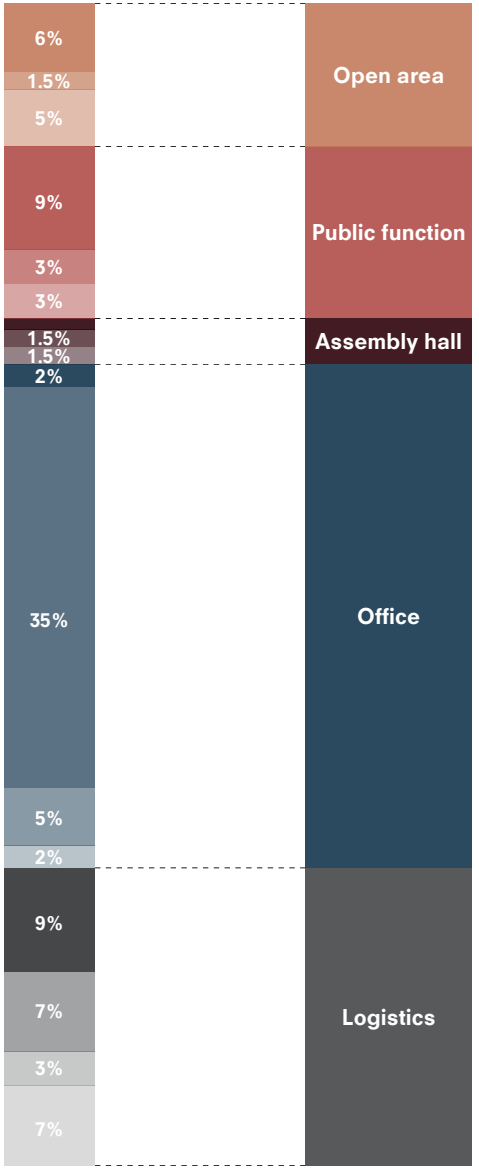


Spacing and raised floor for heat cycling

DESIGN BRIEF

Program - Conclusion

References: Uppsala	584m²	→	1500m²	Atrium	6%
References: Scottish	0m²	→	400m²	Reception	1.5%
References: Neukolln	0m²	→	1200m²	Courtyard	5%
References: Wales	0m²	→	2500m²	Gallery	9%
	231m²	→	800m²	Restaurants	3%
	0m²	→	800m²	Citizens' hall	3%
References: Wales	279m²	→	300m²	Plenary hall	1.5%
	0m²	→	400m²	Public gallery	
	0m²	→	400m²	Waiting hall	1.5%
	491m²	→	500m²	MPS office	2%
References: Uppsala	9749m²	→	9500m²	General office	35%
	1350m²	→	1350m²	Meeting rooms	5%
	0m²	→	600m²	Lounge	2%
References: Metro edge	0m²	→	2500m²	Data hall	9%
	1820m²	→	2000m²	Storage and mechanical	7%
	761m²	→	750m²	Sanitories	3%
References: Uppsala	6613m²	→	2000m²	Circulation	7%



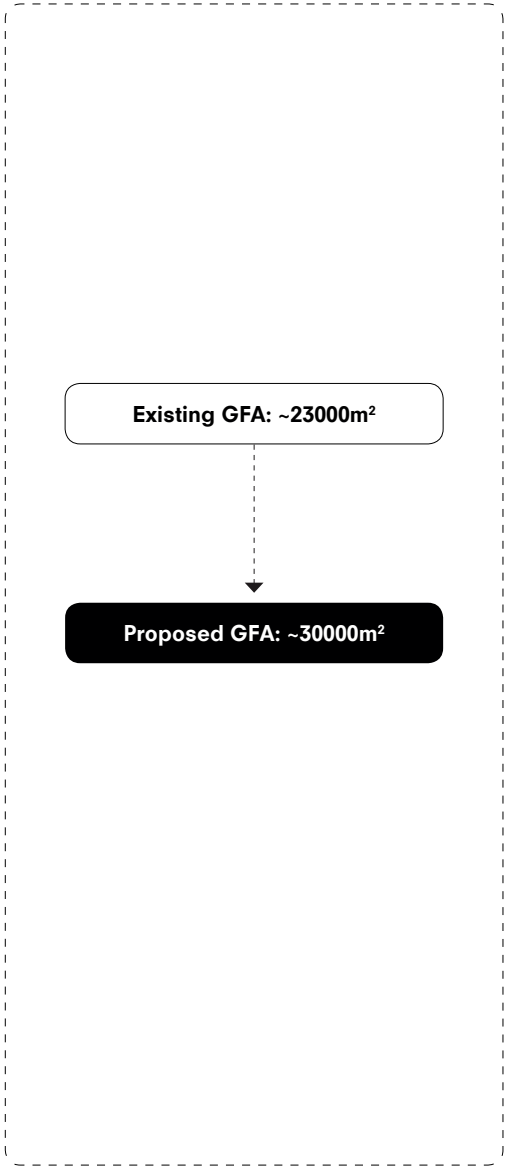
Expand

Expand

Expand

Maintain

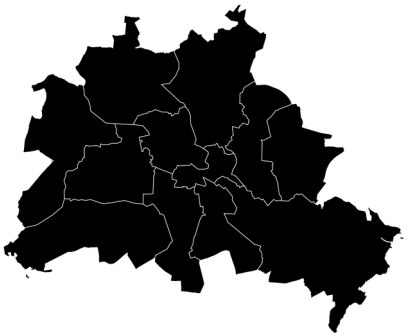
Expand



Part 3

DESIGN BRIEF

Program



Site

Site selection

Site analysis

Client

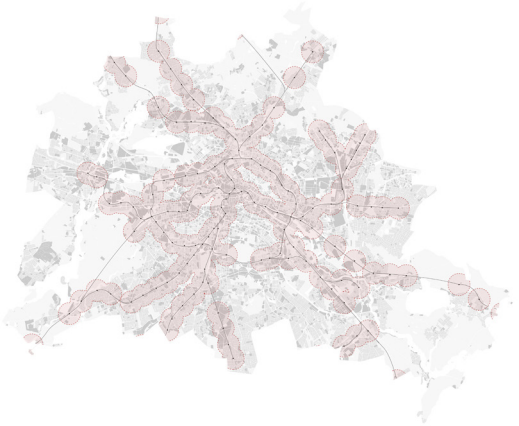
DESIGN BRIEF

Site - Site selection

Digitalisation criteria

1. Decentralisation

1.5km apart from existing and future data storages



2. Display

1km from train station for high visibility and exposure

3. Decarbonization

Within area near water or cold air flow. Passively reduce energy consumption and utilize waste energy

Parliament criteria

1. Prominence

Central district location and next to main traffic axis for accessibility for citizens

2. Mixed-use neighborhood

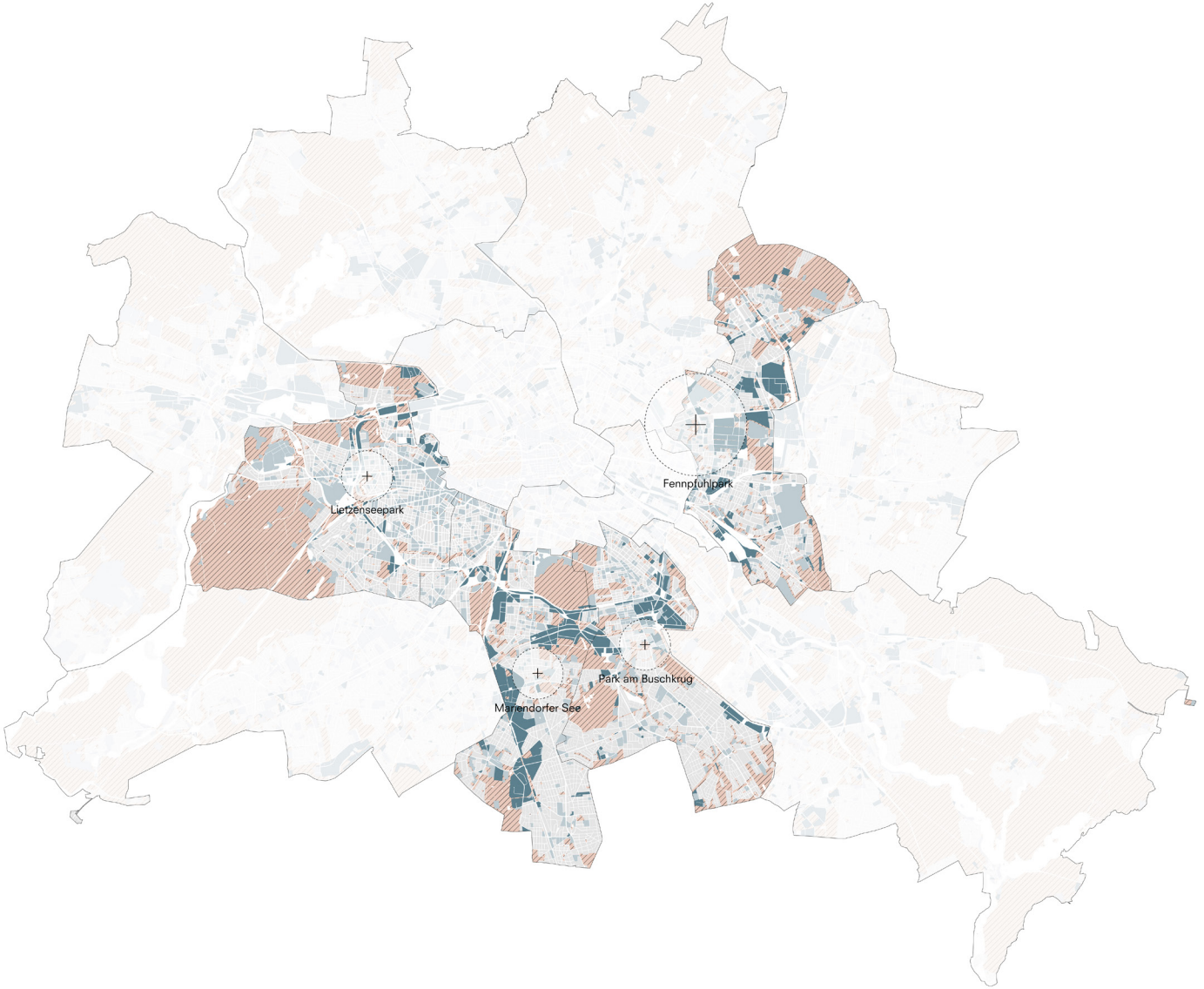
In area of diverse function to encourage citizens of different background for political discussions

3. Adaquate green spaces

Site with at least 15000m² of green for officer's well-being, and as gathering spaces for public activities

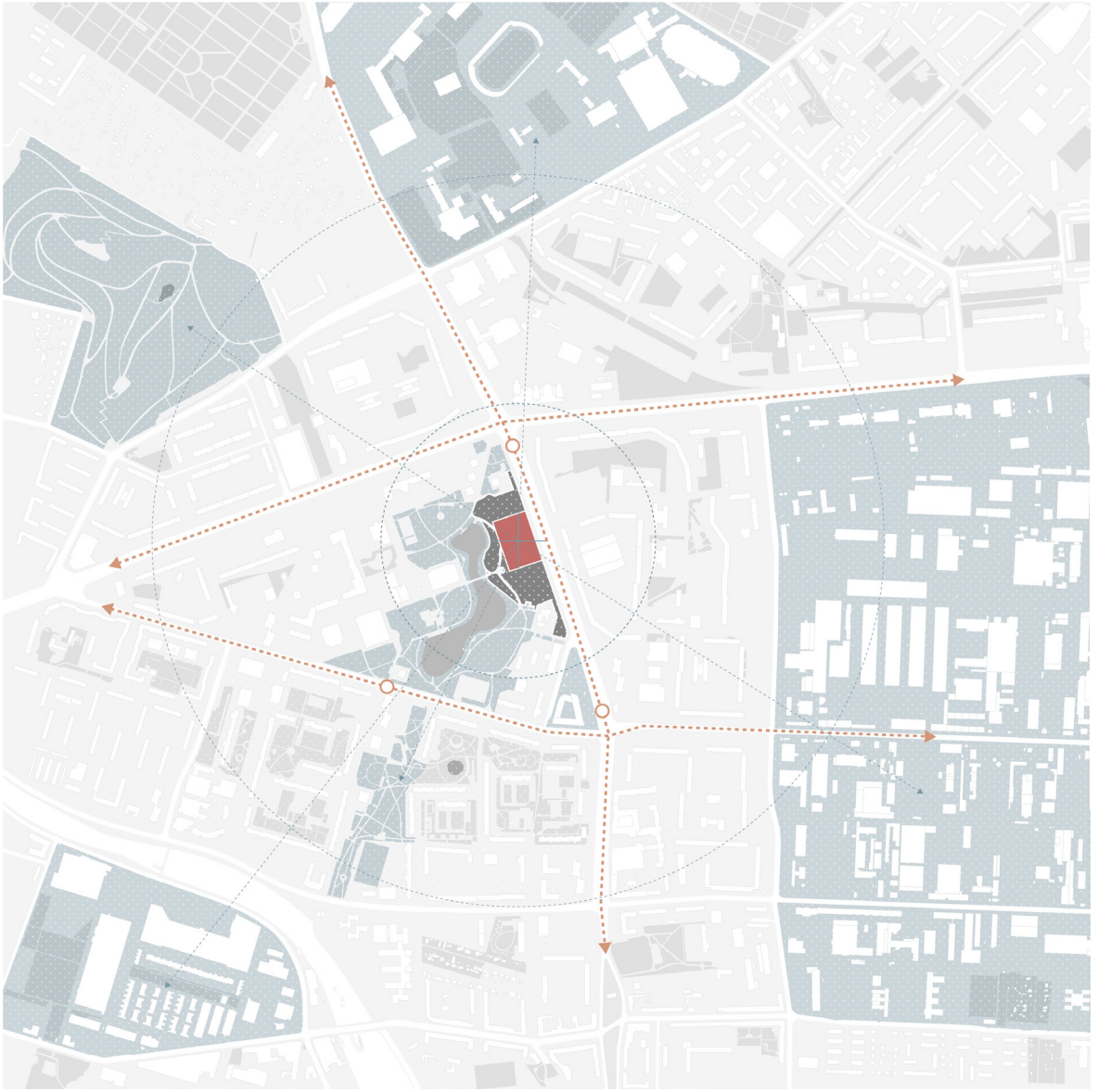
DESIGN BRIEF

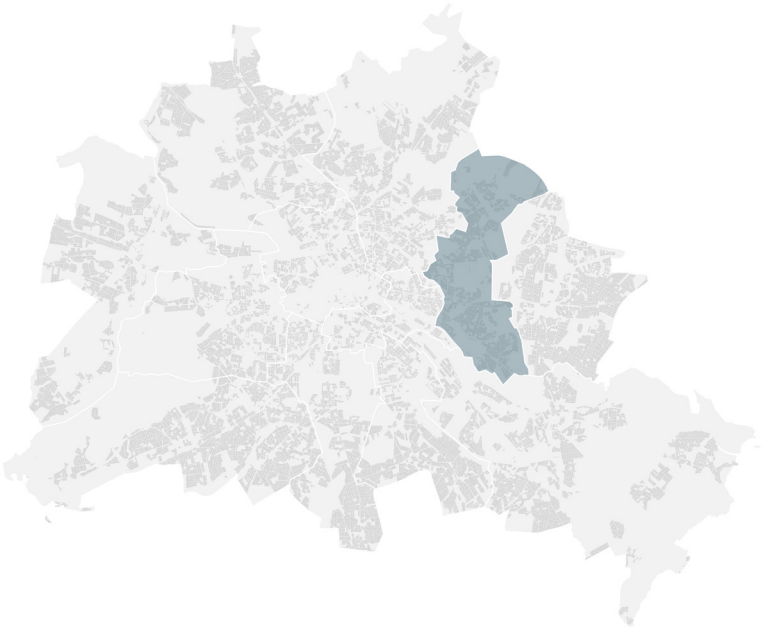
Site - Site selection



DESIGN BRIEF

Site - Site selection





Fennpfuhlpark, Lichtenburg

Part 3

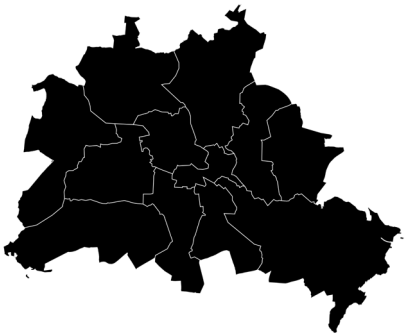
DESIGN BRIEF

Site - Site qualities

Part 3

DESIGN BRIEF

Program



Site

Site selection

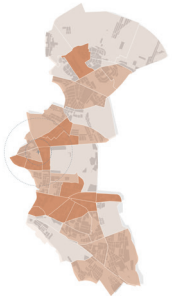
Site analysis

Client

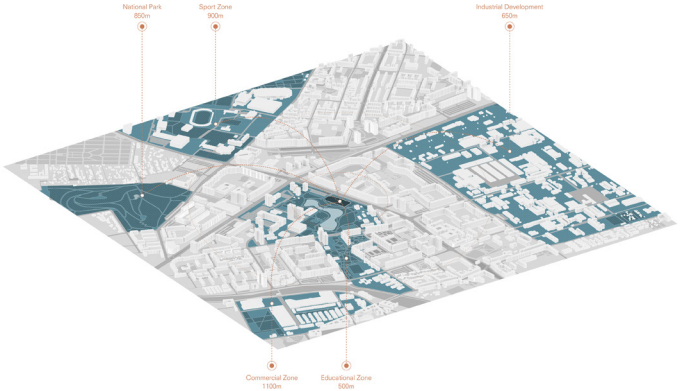
Part 3

DESIGN BRIEF

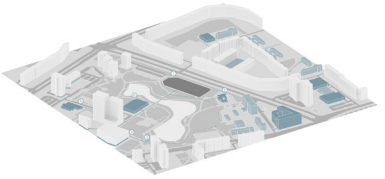
Building age



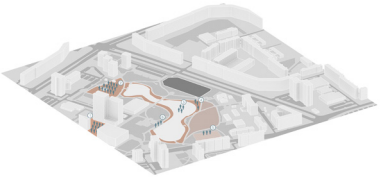
Population density



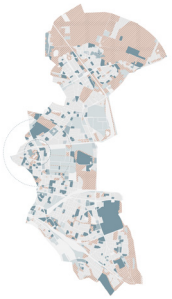
Urban zone



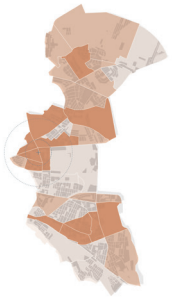
Program



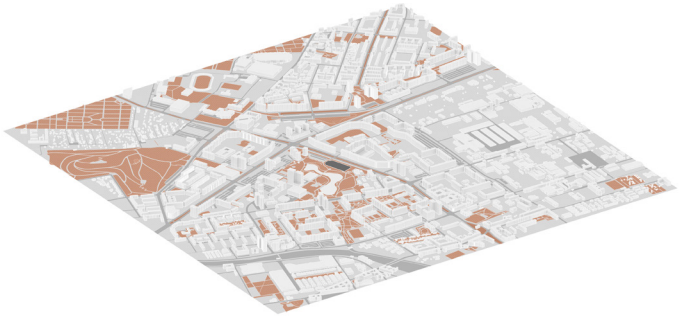
Activities



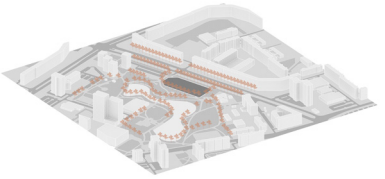
Land use



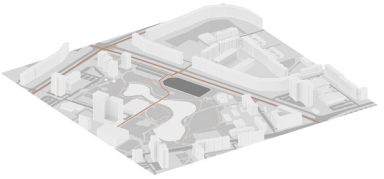
Population age



Green

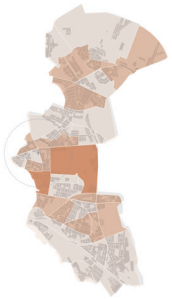


Green



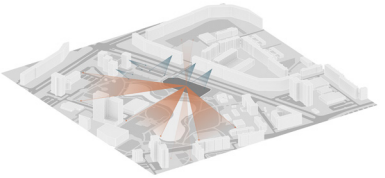
Circulation

Future development

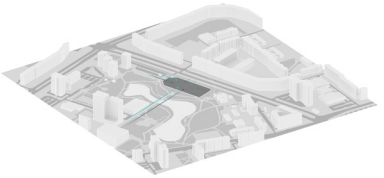


Migration rate

Transport network



Visibility



Climate

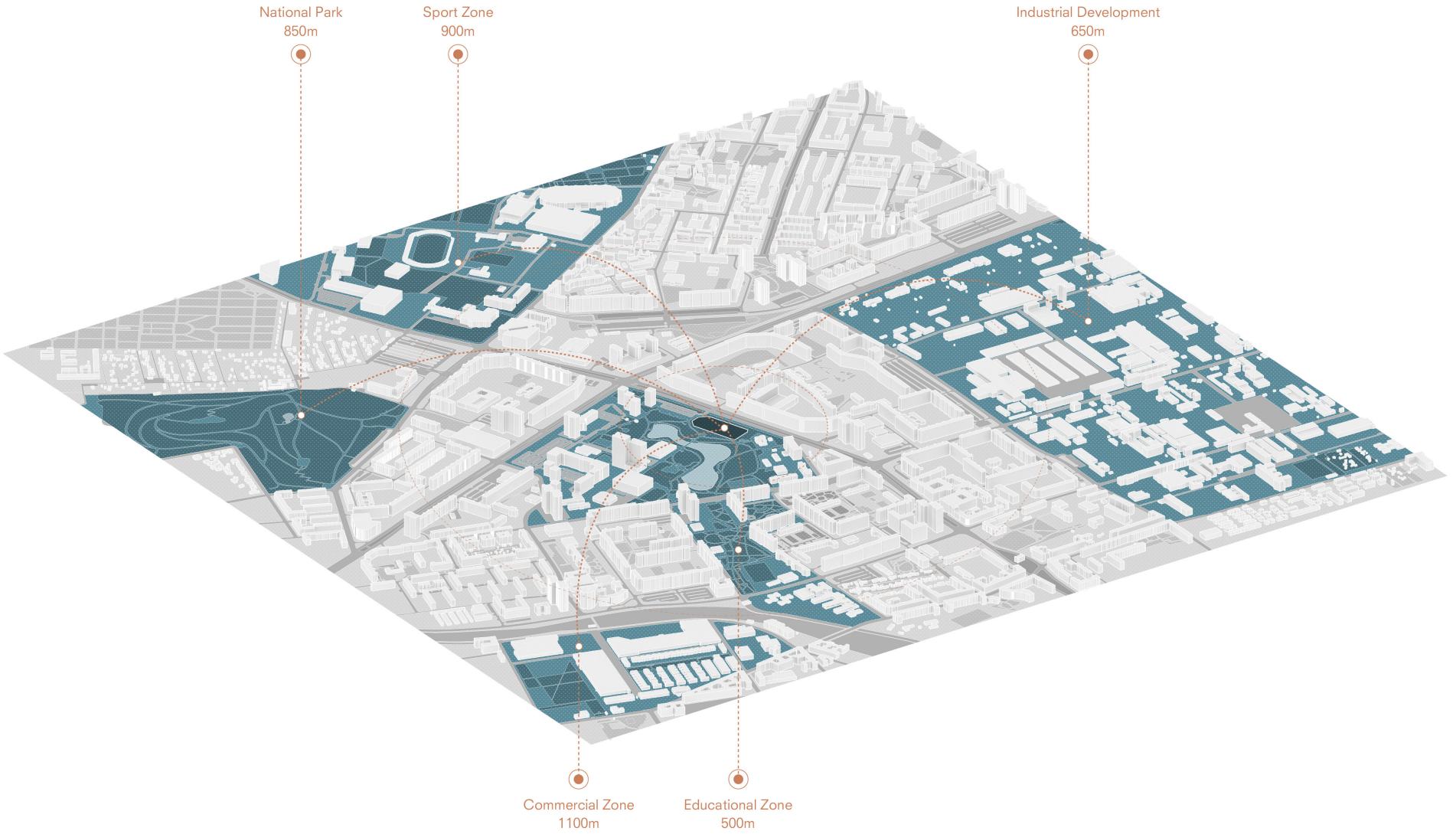
L - District scale

M - Urban scale

S - Park scale

DESIGN BRIEF

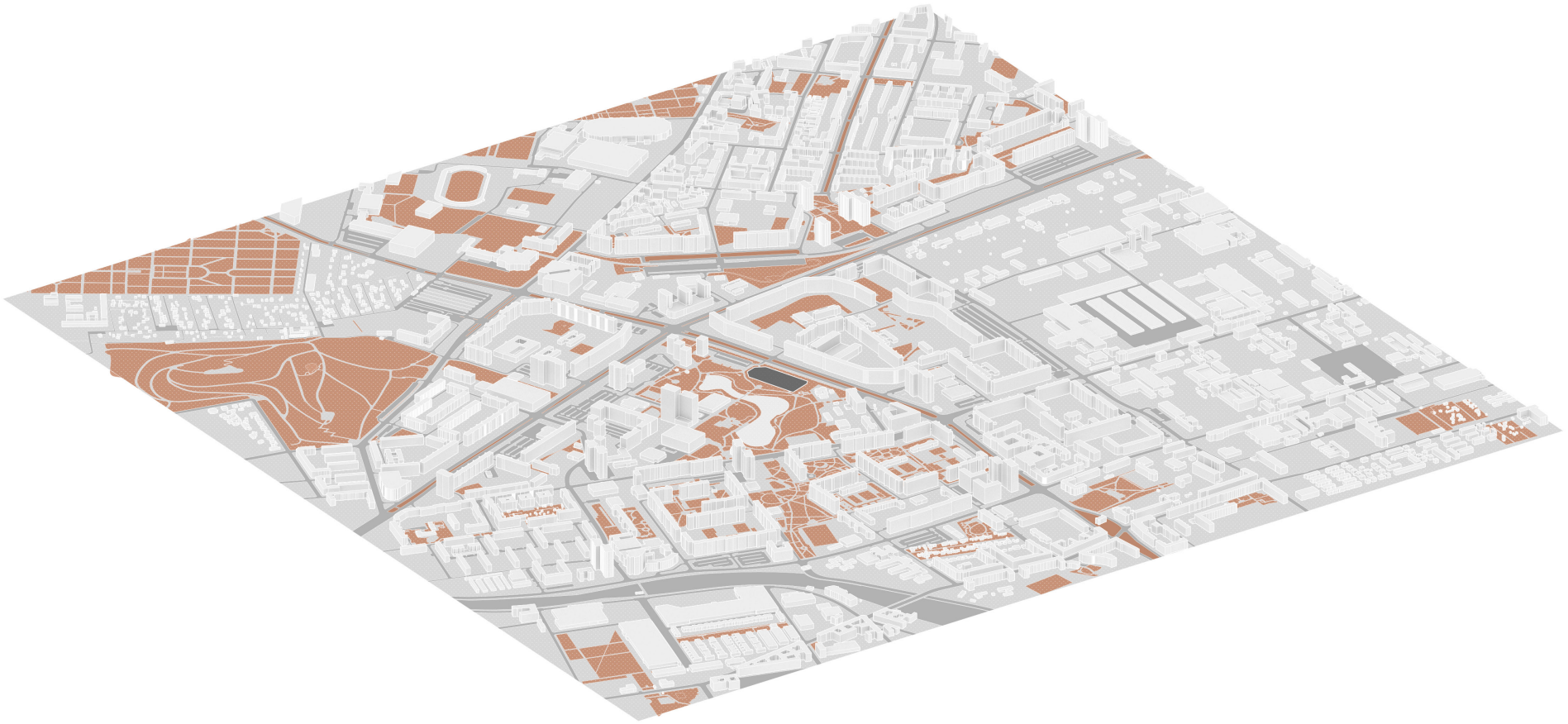
Site - Site qualities



Center point of mixed use neighborhood

DESIGN BRIEF

Site - Site qualities



Transitional gate from cityscape to green park

Part 3

DESIGN BRIEF

Site - Site qualities

DESIGN BRIEF

Site - Site qualities

Primary circulation

Secondary circulation

Connected region

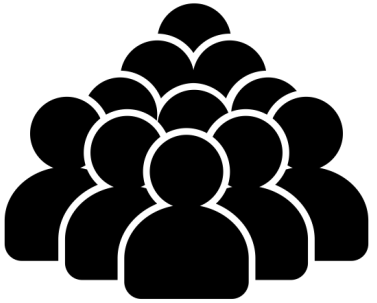
Public transport dropoff

Part 3

DESIGN BRIEF

Program

Site



Client

- Parliament
- People’s voices gallery
- Data hall

Part 3

DESIGN BRIEF

Client - Overview

Clients

Senate of Berlin

District Council of Lichtenberg

Chief Digital Officer of Berlin

Governmental organization

Users

District Councilors

Comittee Office

General Public

District council & public

Partnerships

Technology investigation lab

Technology manufacturer

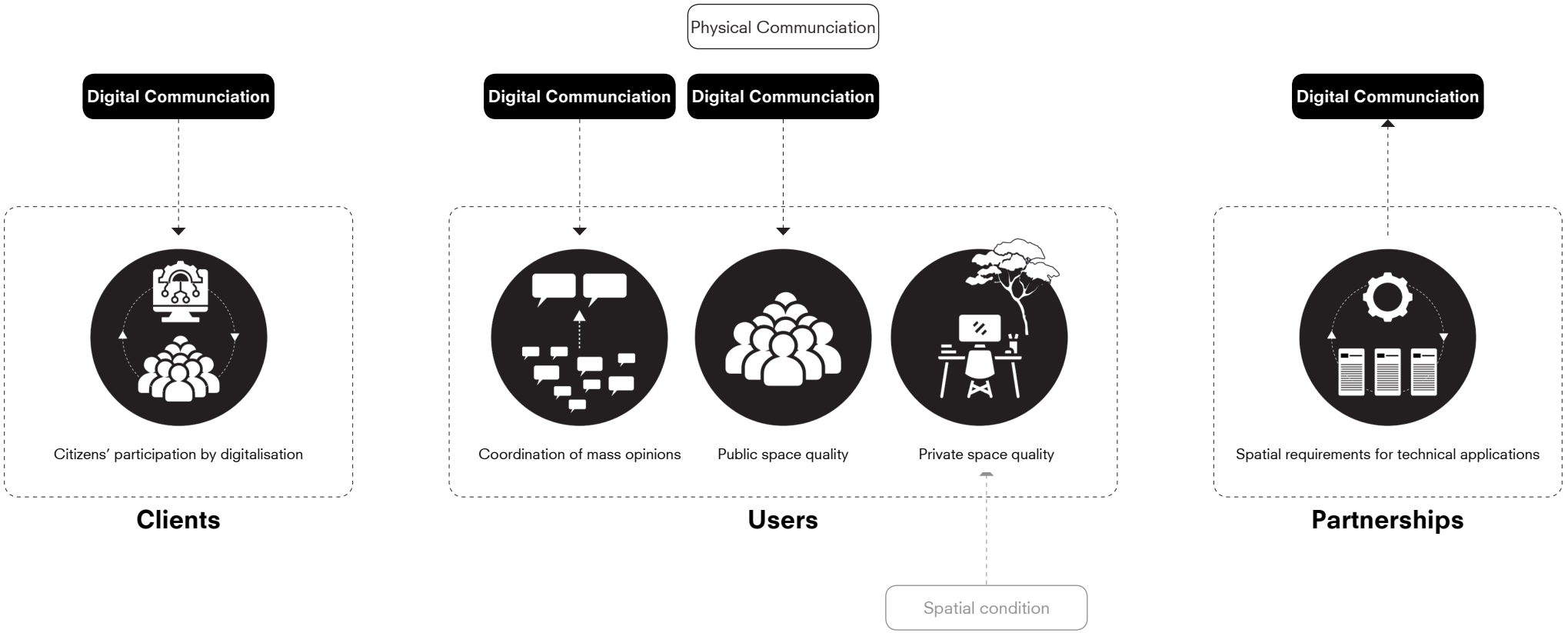
Committee on Digital Agenda

Techincal corporations

Part 3

DESIGN BRIEF

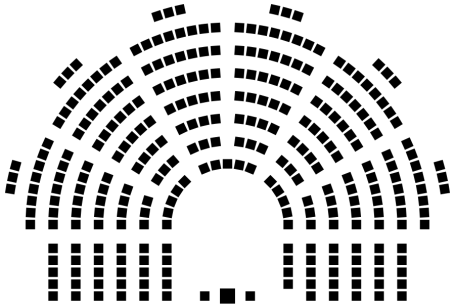
Client - Overview



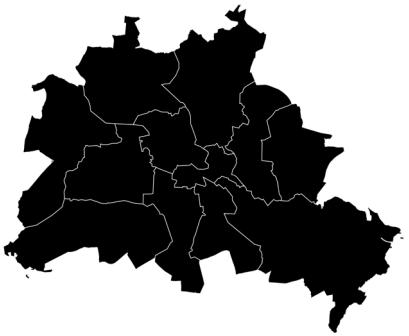
Part 3

DESIGN BRIEF

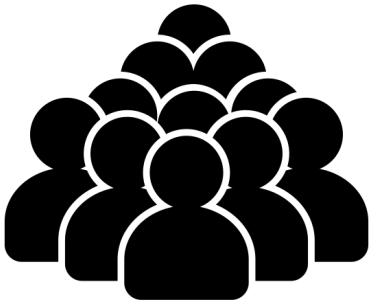
Summary



Program



Site

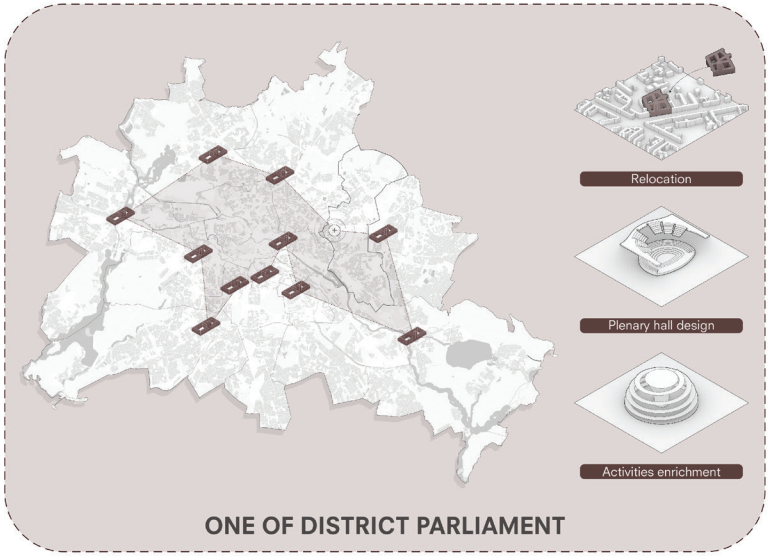


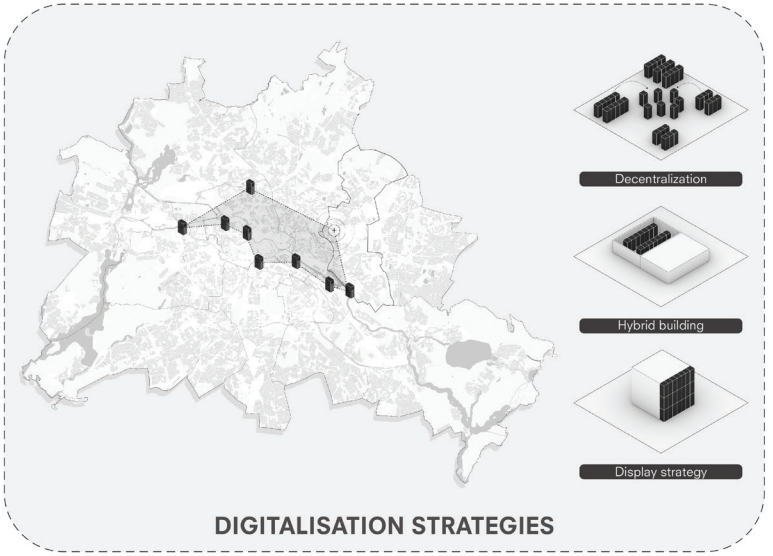
Client

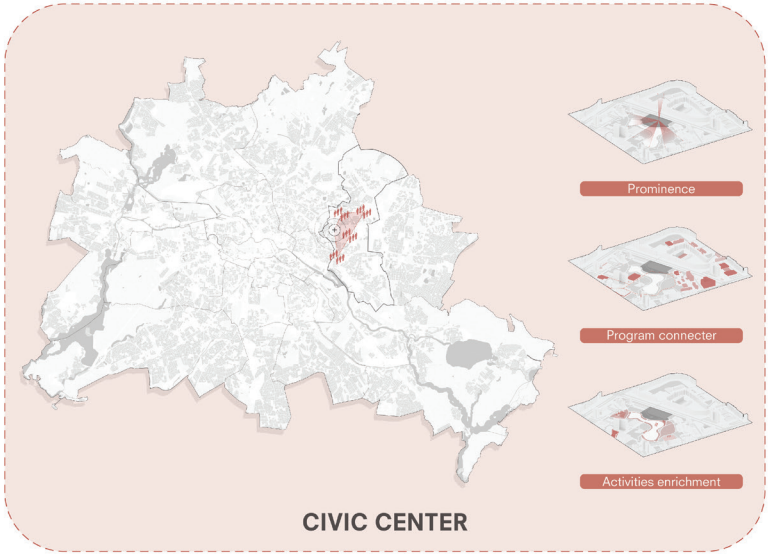
Part 3

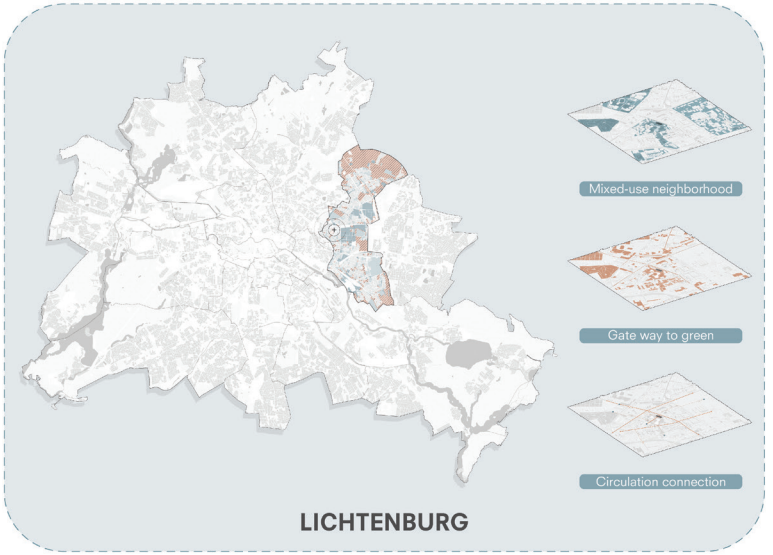
DESIGN BRIEF

Summary









Part 3

DESIGN BRIEF

Summary

Part 4

CONCEPT

Part 4

CONCEPT

What are the challenges in architectural design?

Part 4

CONCEPT

1. Interact, but seperate

Parliament program

People’s voices gallery

Data hall

Part 4

CONCEPT

1. Interact, but seperate

Parliamentarian

Public

Technician

CONCEPT

2. Balance of different langauges

Parliament

People’s voices gallery

Data hall

CONCEPT

Concept and massing exploration

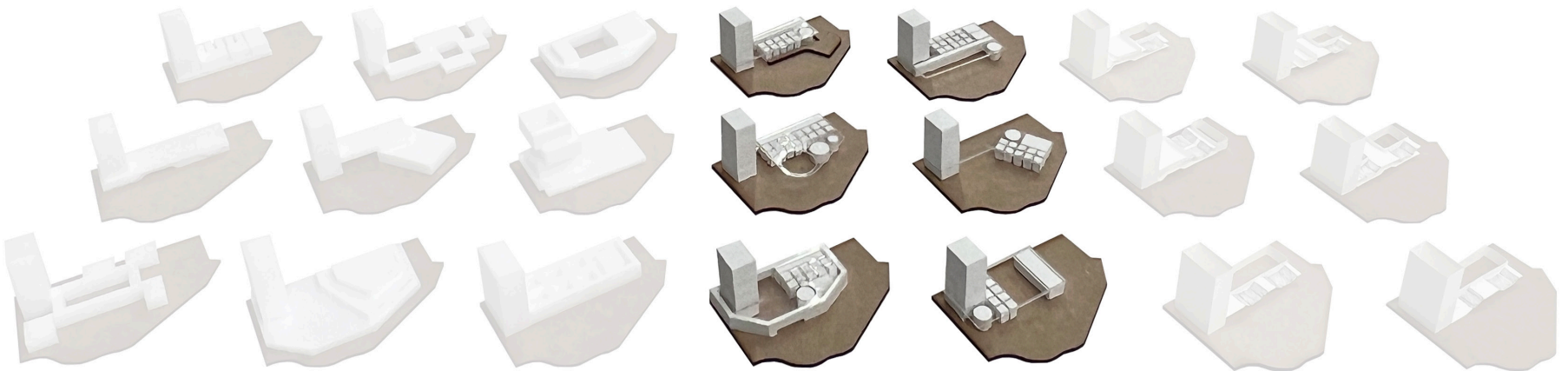
Massing test

“Motherboard”

“Flowscape”

CONCEPT

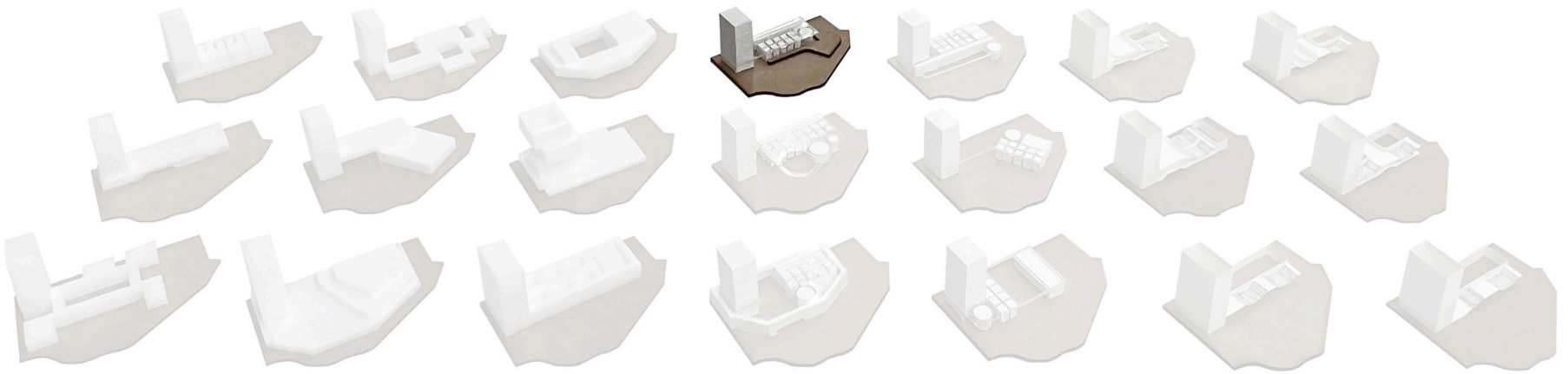
Concept and massing exploration



Massing test | “Motherboard” | “Flowscape”

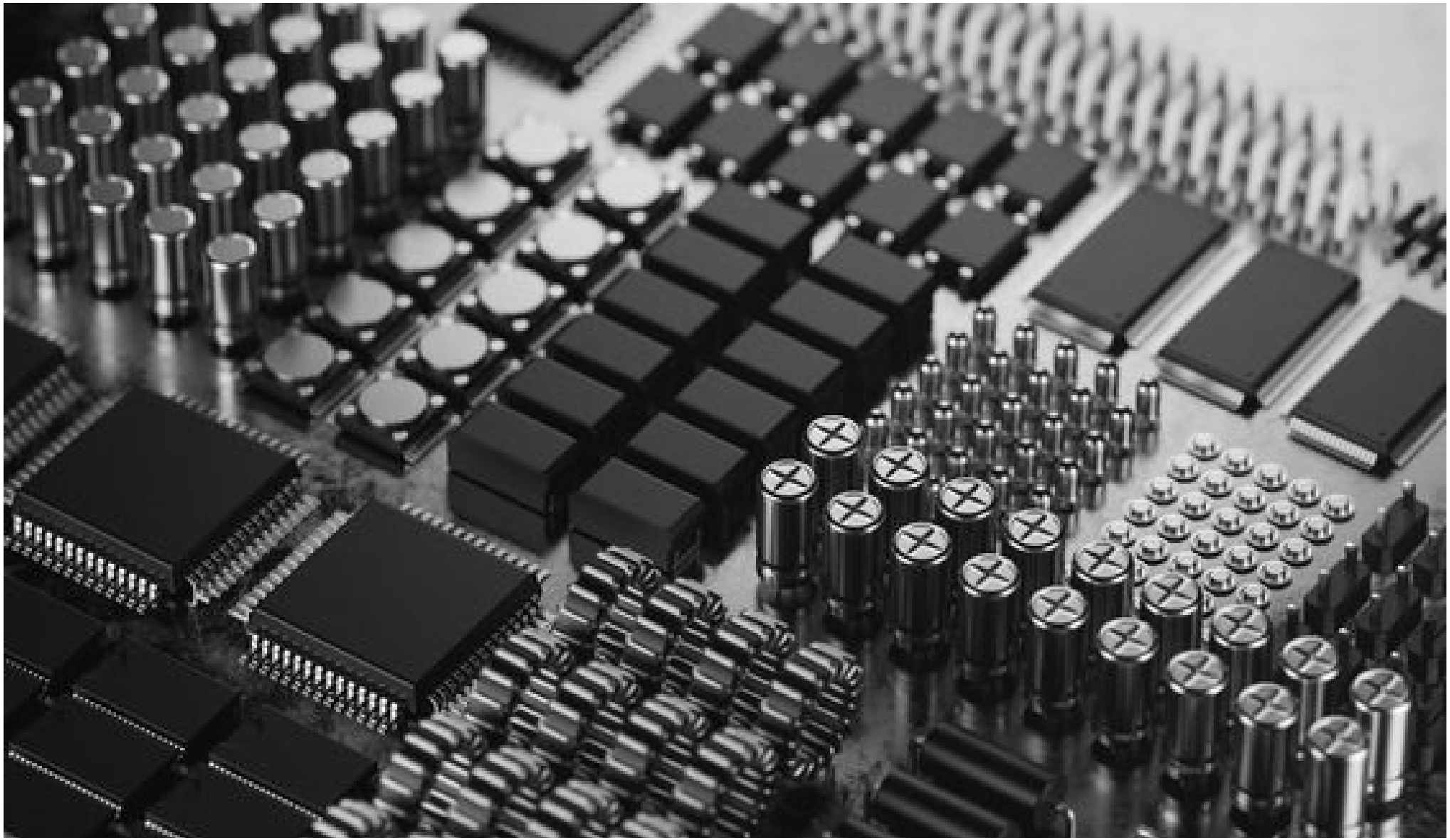
CONCEPT

Concept and massing exploration



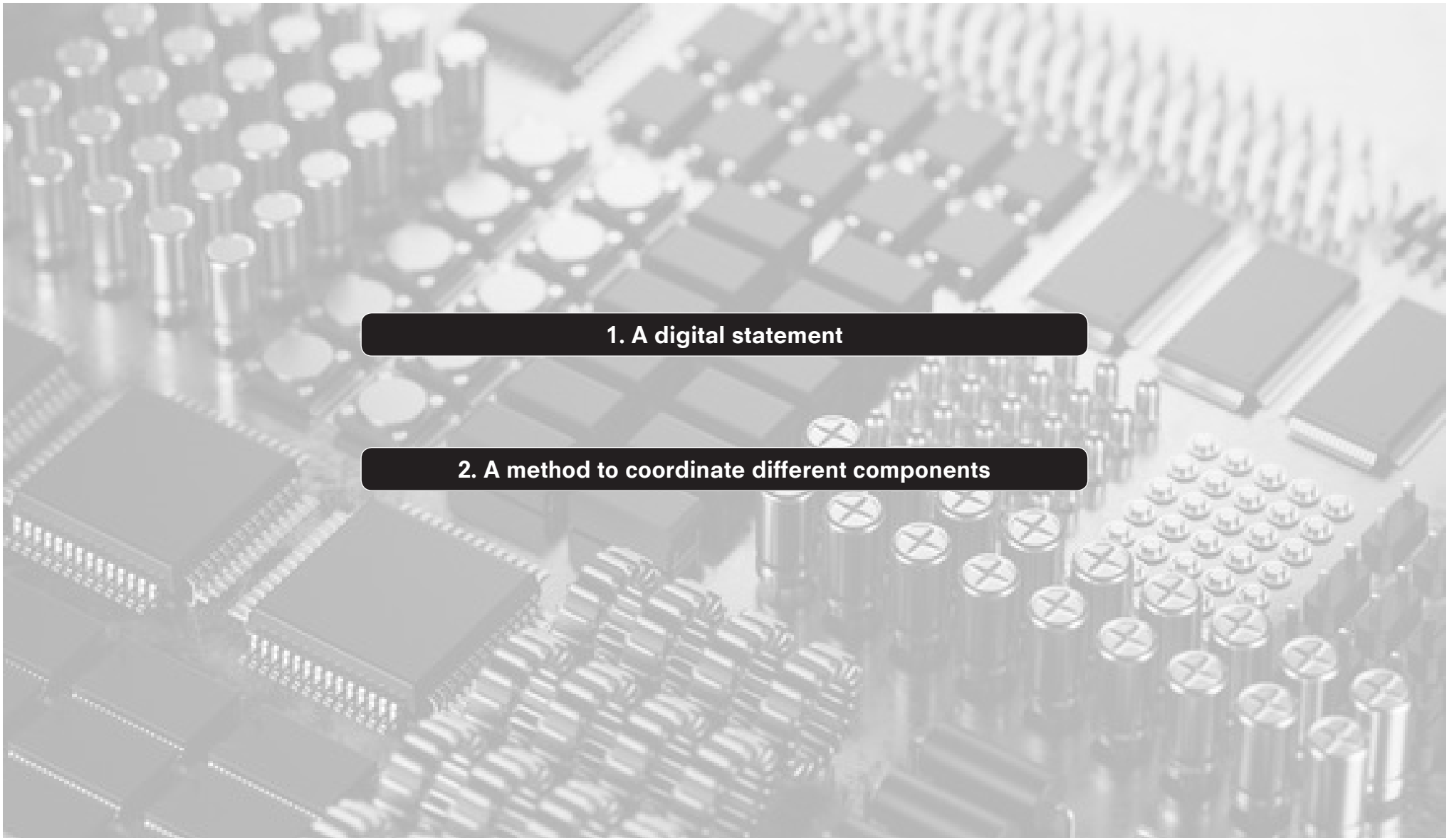
Massing test | “Motherboard” | “Flowscape”

Motherboard concept



CONCEPT

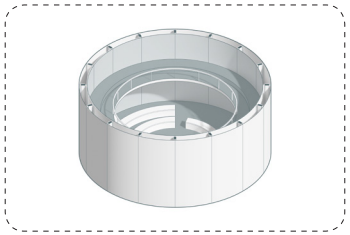
Motherboard concept



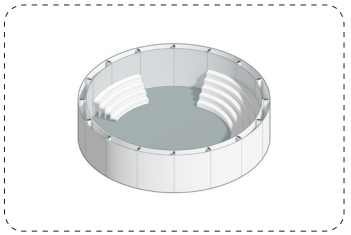
Part 4

CONCEPT

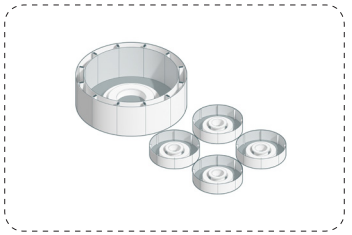
Defining components of the proposed “motherboard”



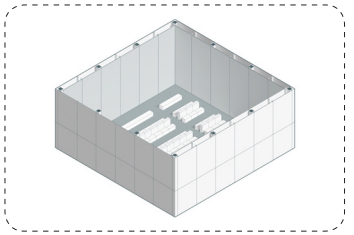
Plenary hall



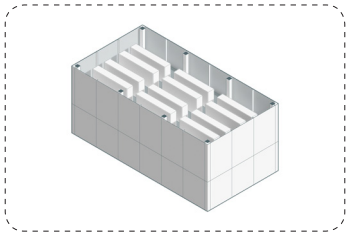
Citizens’ hall



Discussion clusters



Digital broadcast room



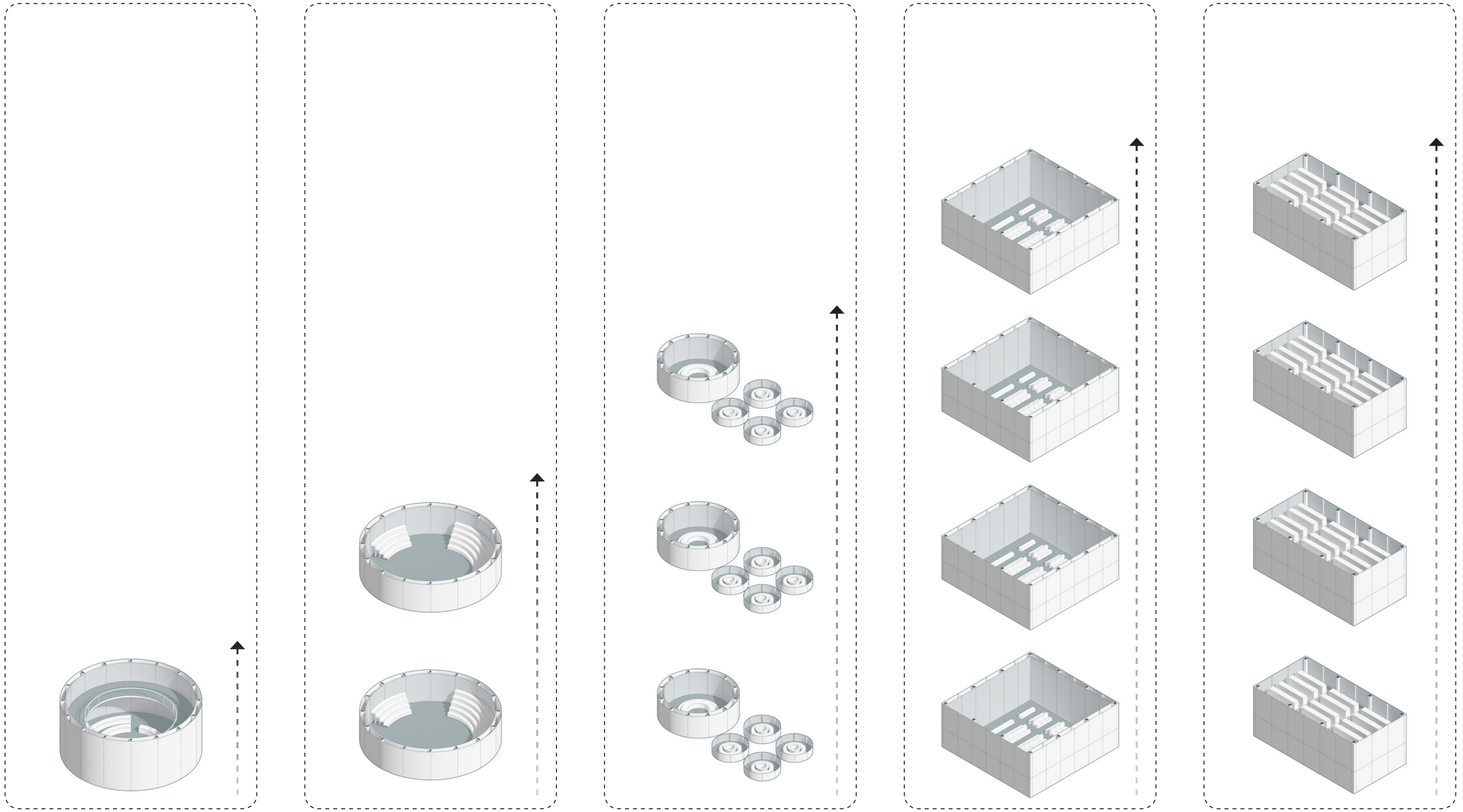
Data storage

Physical Communciation

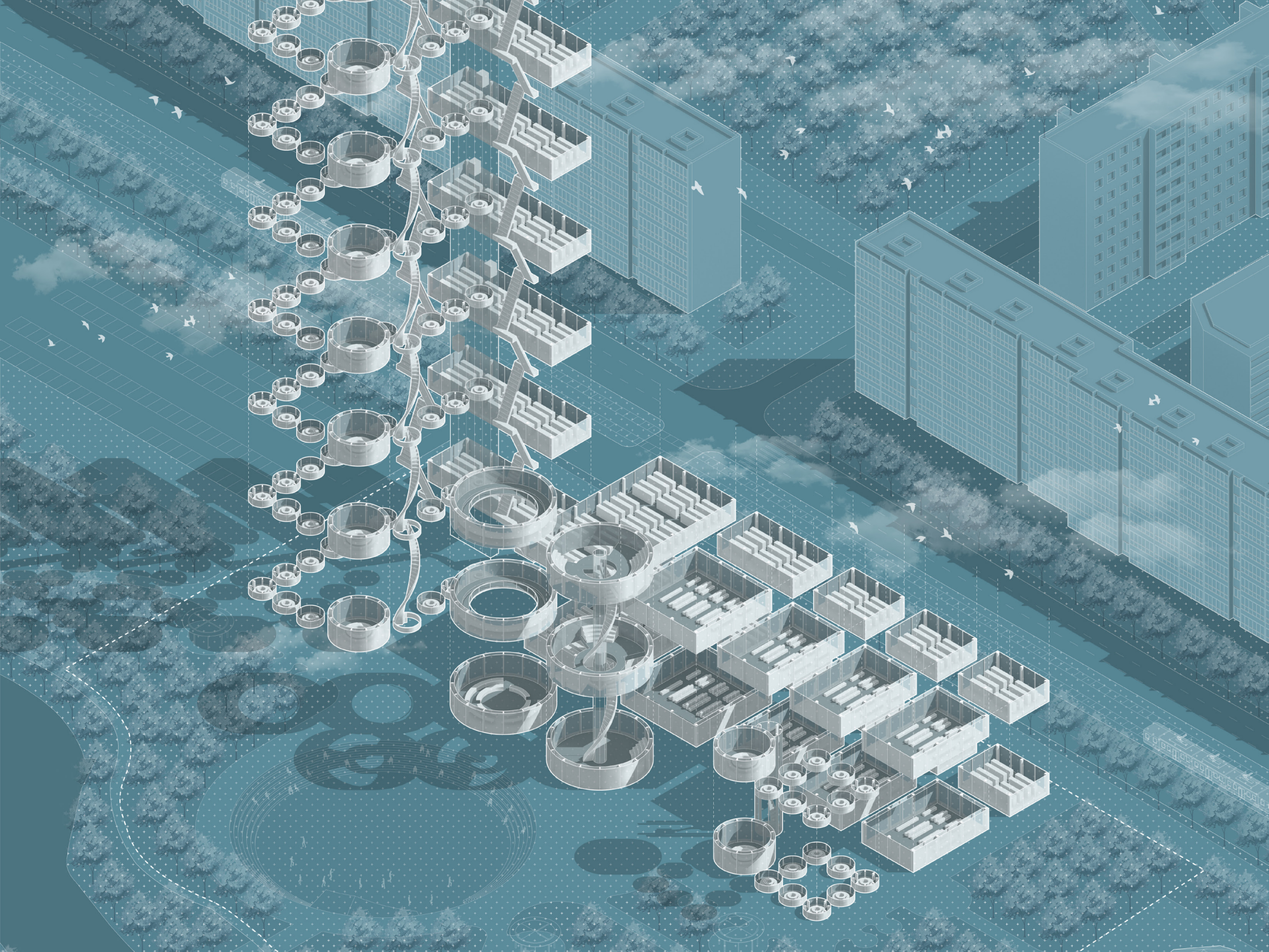
Digital Communciation

CONCEPT

Multiplying components of the proposed “motherboard”

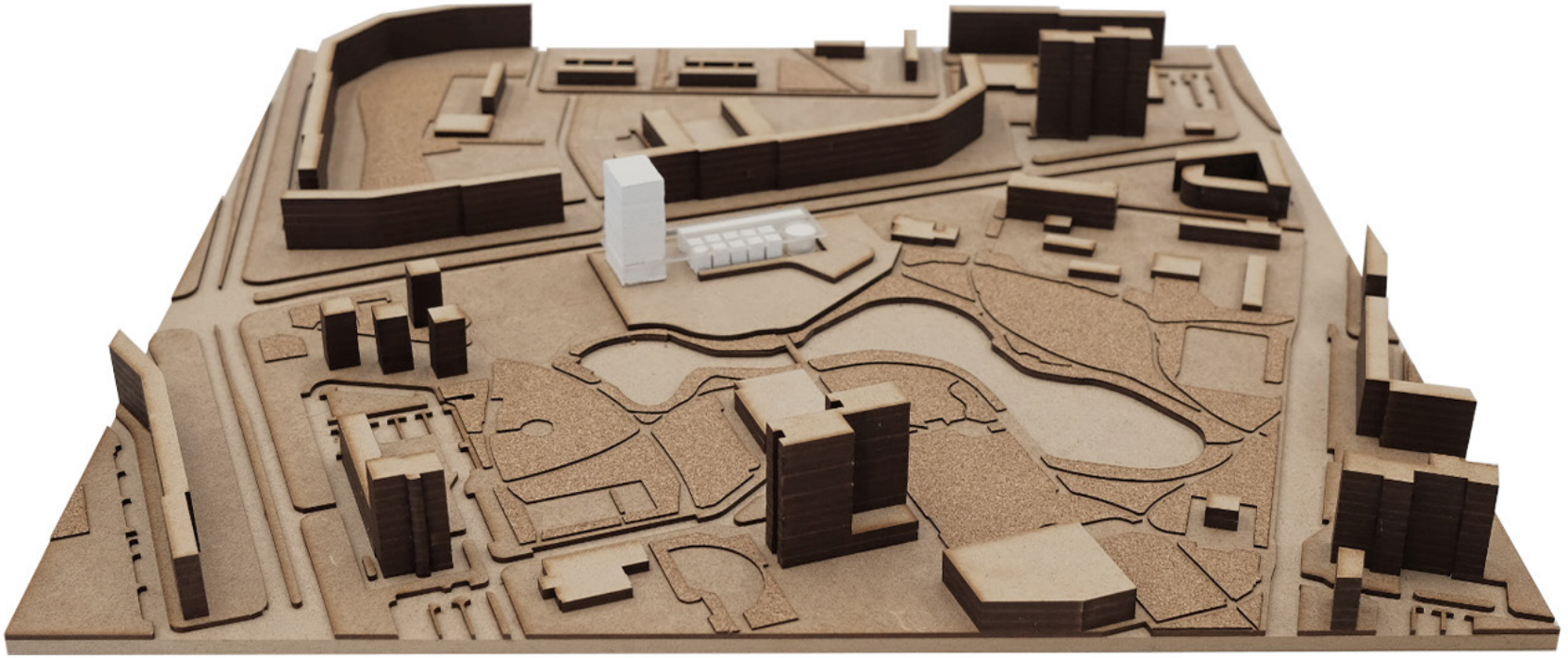


Plenary hall | Citizens’ hall | Discussion clusters | Digital broadcast room | Data storage



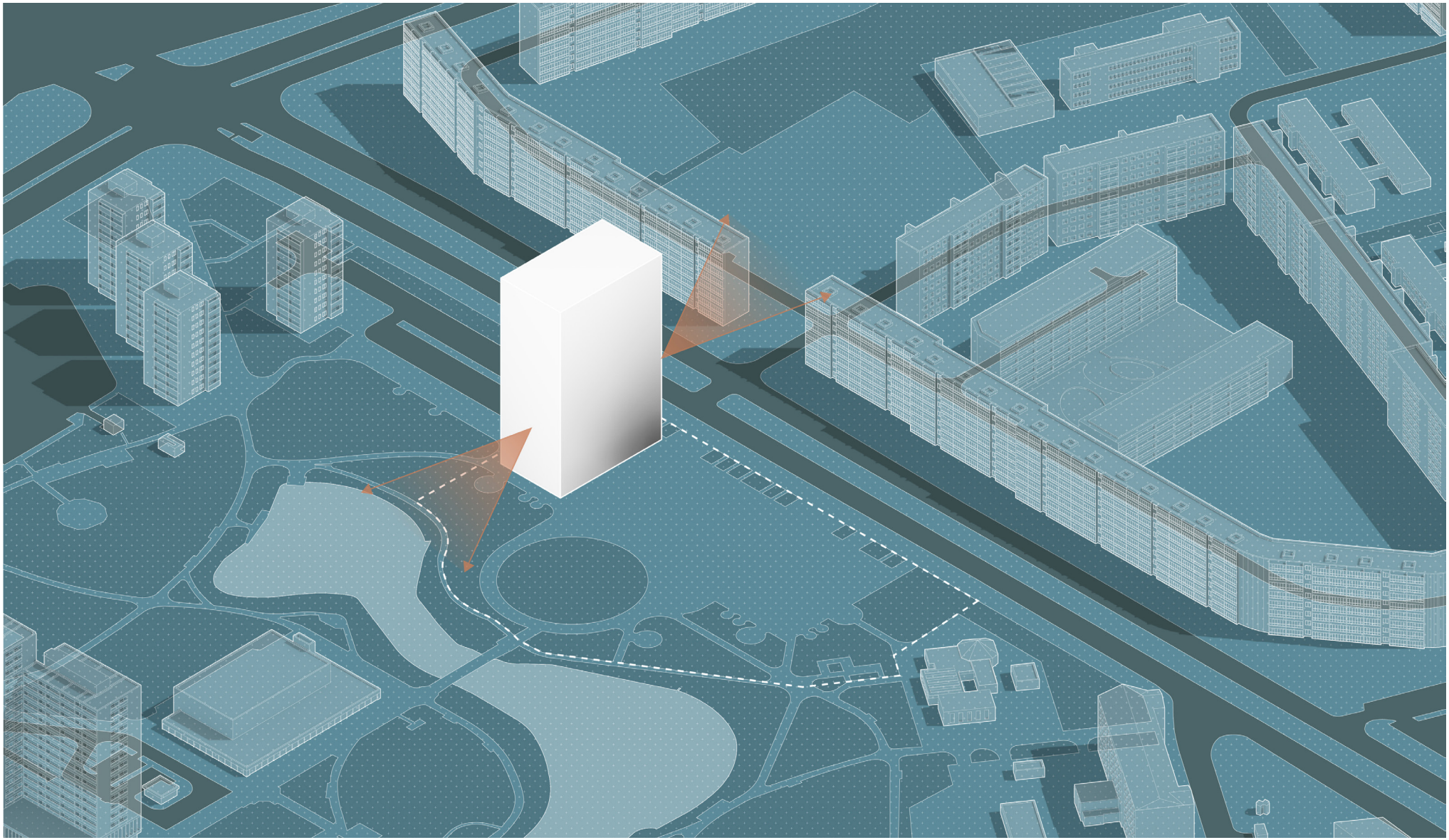
Part 4

CONCEPT

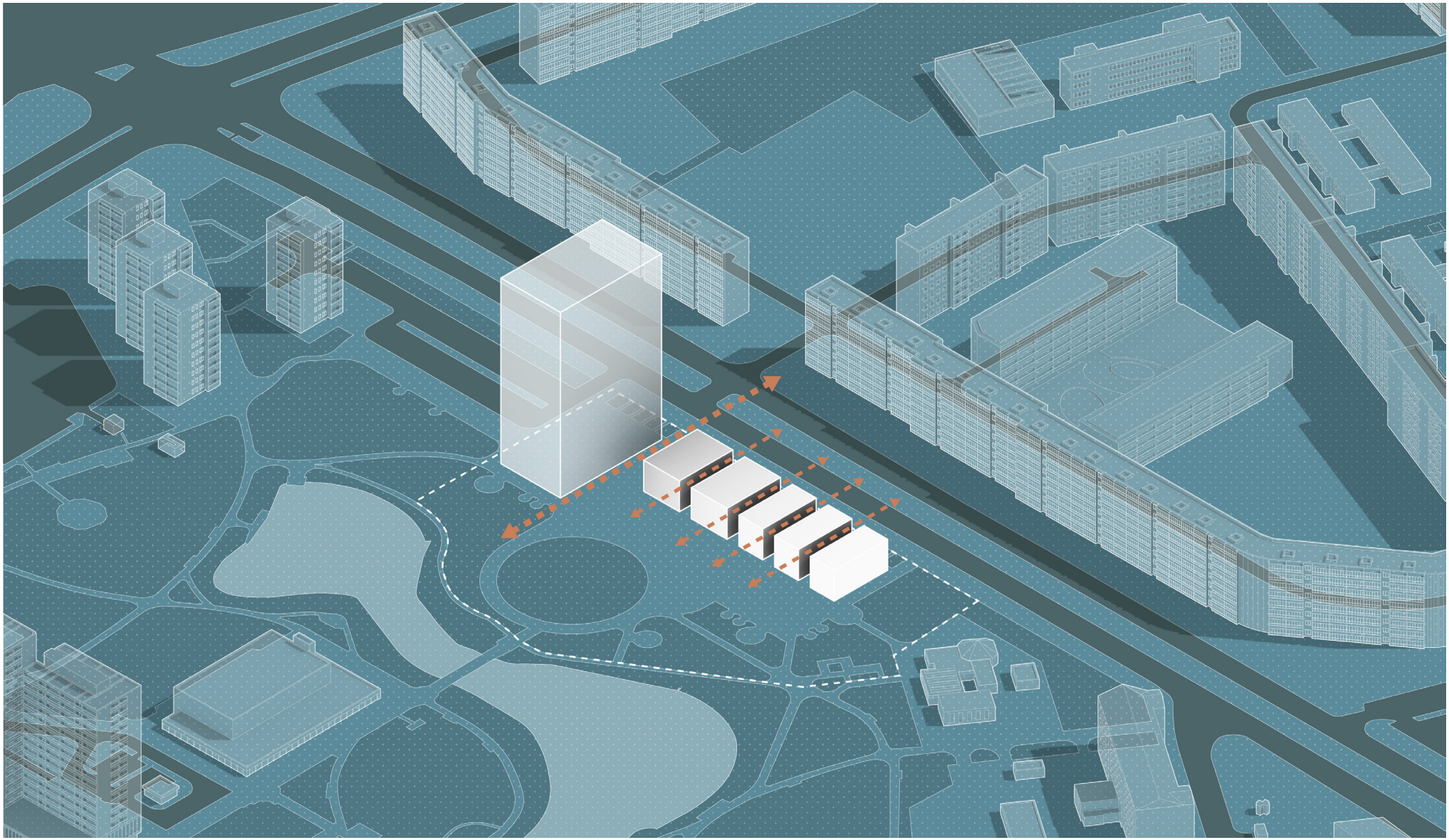


CONCEPT

Massing development

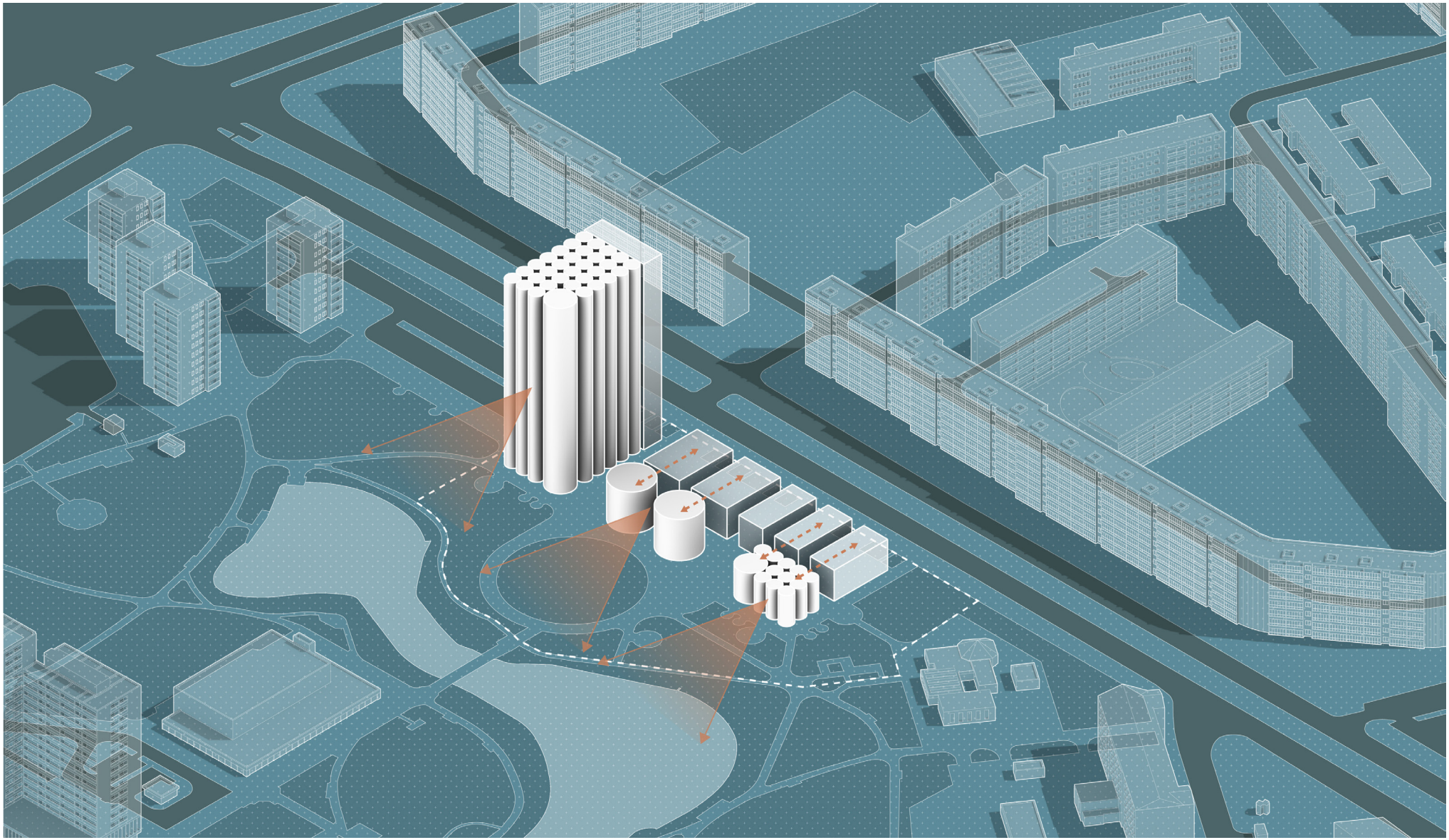


Massing development

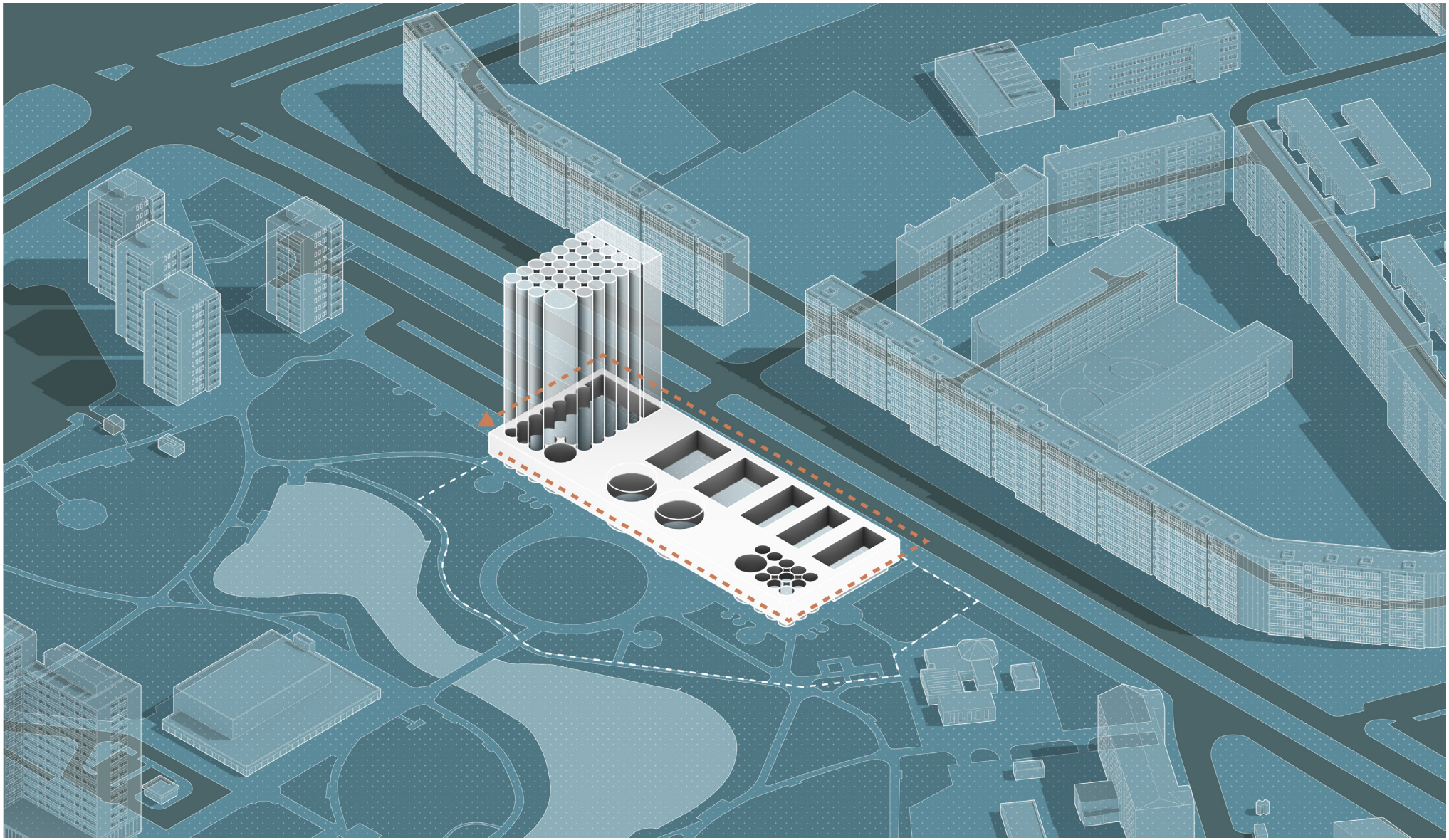


CONCEPT

Massing development

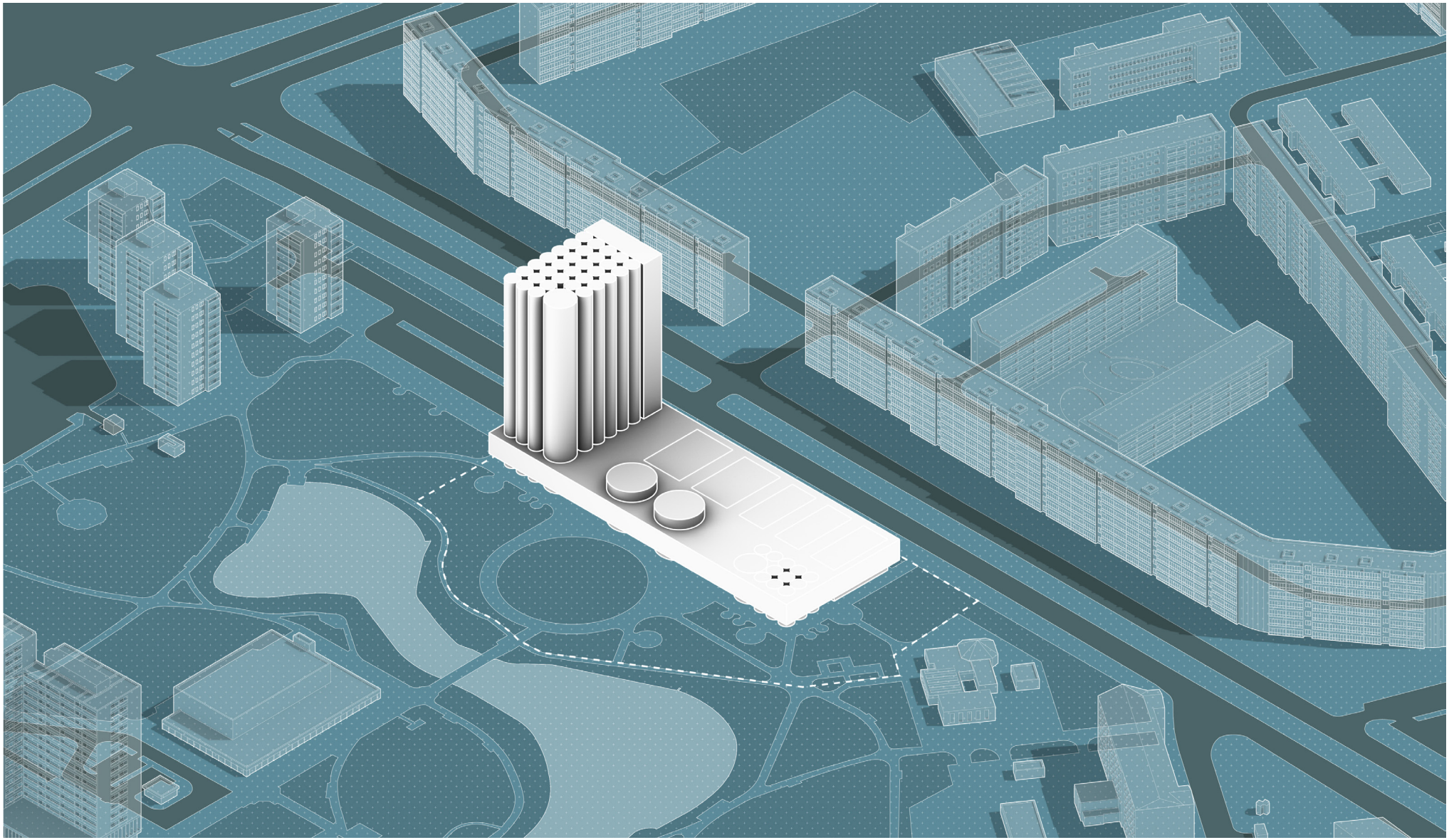


Massing development

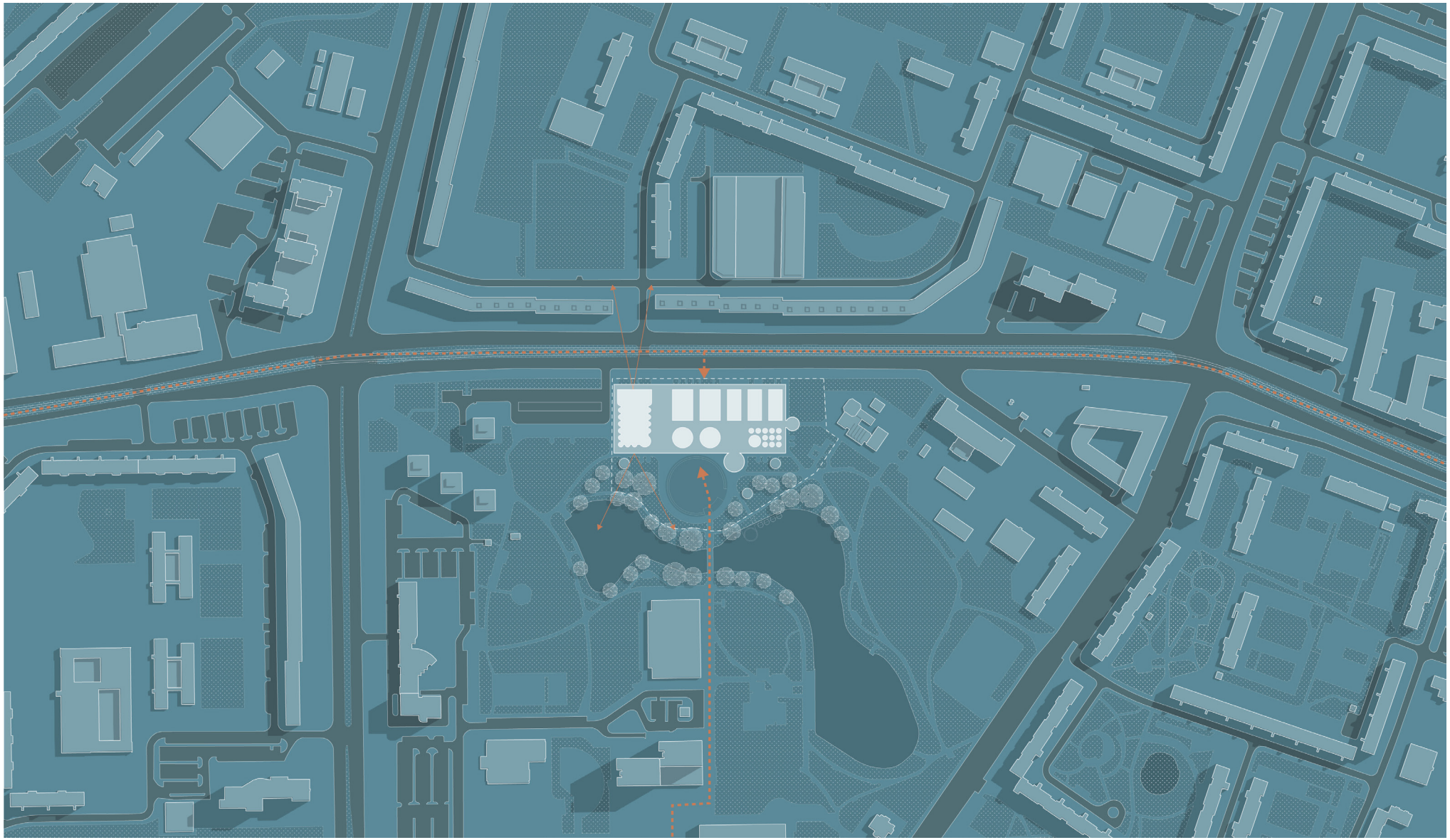


CONCEPT

Massing development

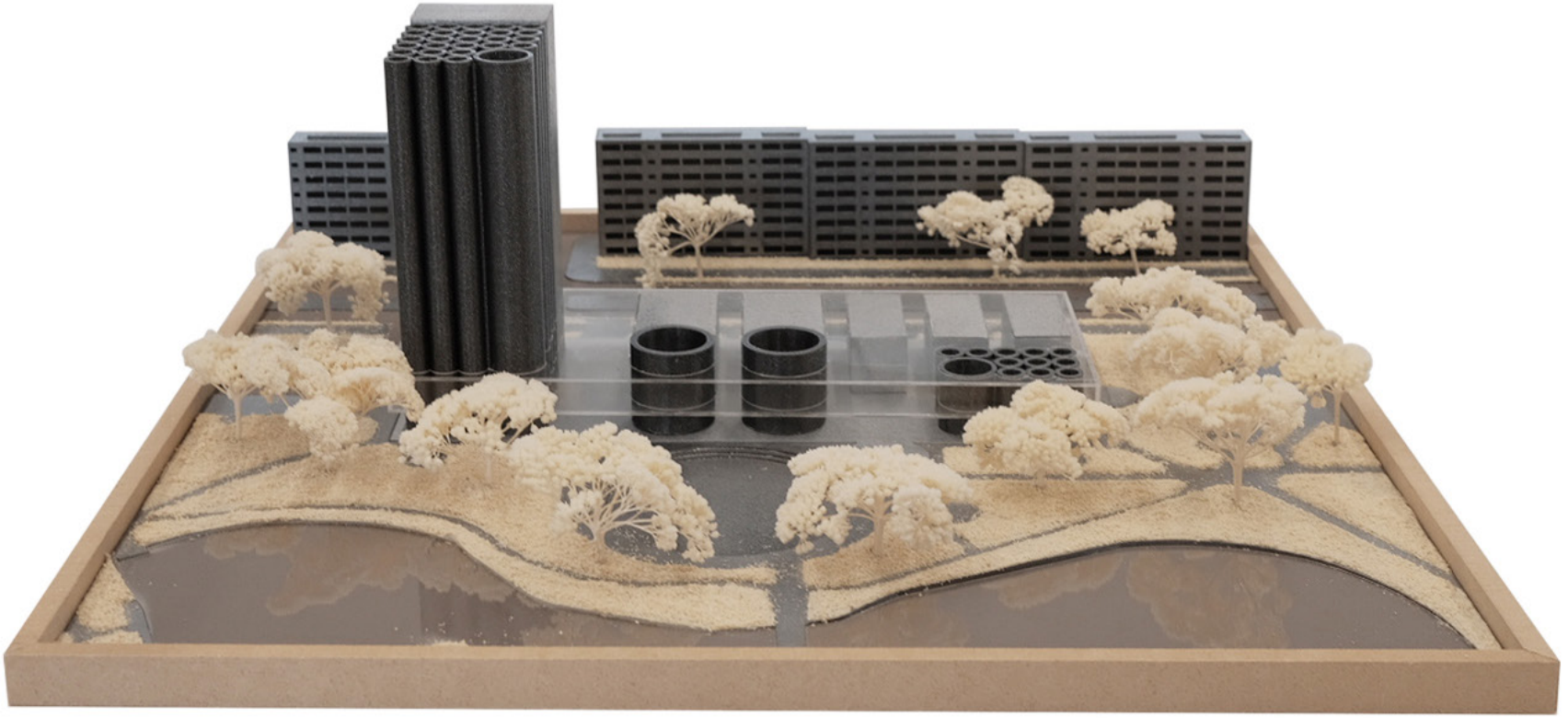


Urban implementation



Part 4

CONCEPT

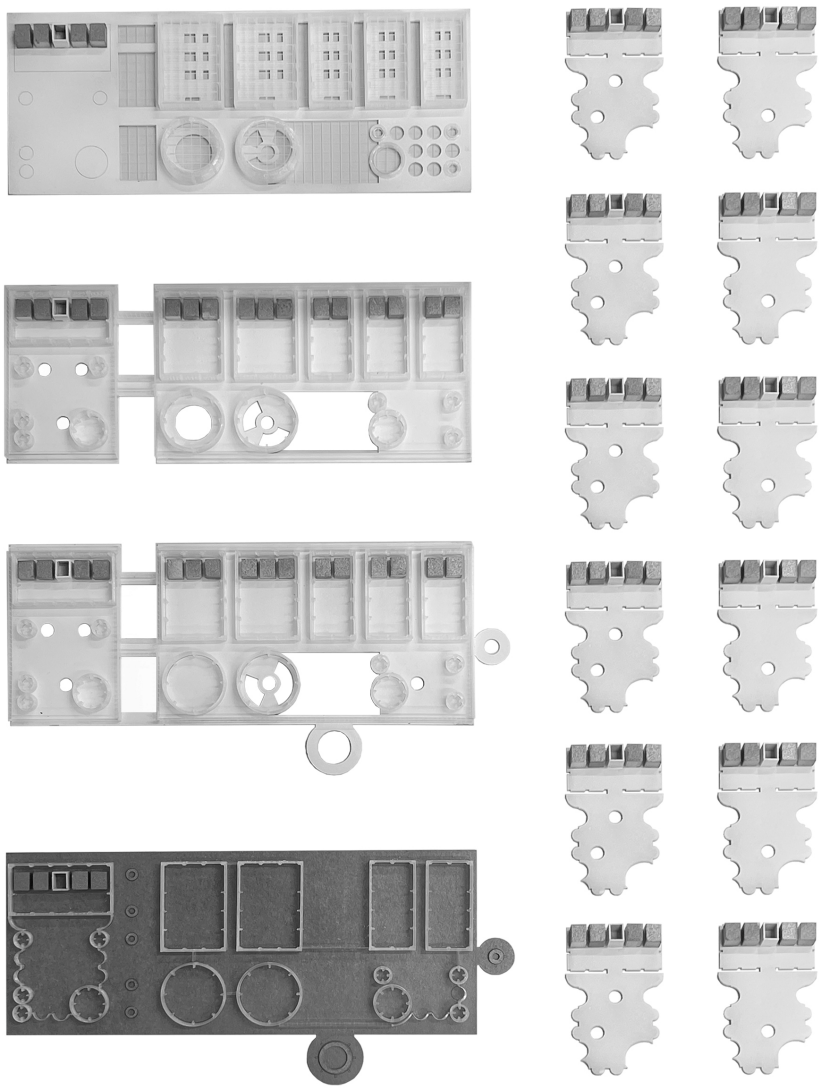


Part 5

DESIGN IMPLEMENTATION

Part 5

DESIGN IMPLEMENTATION



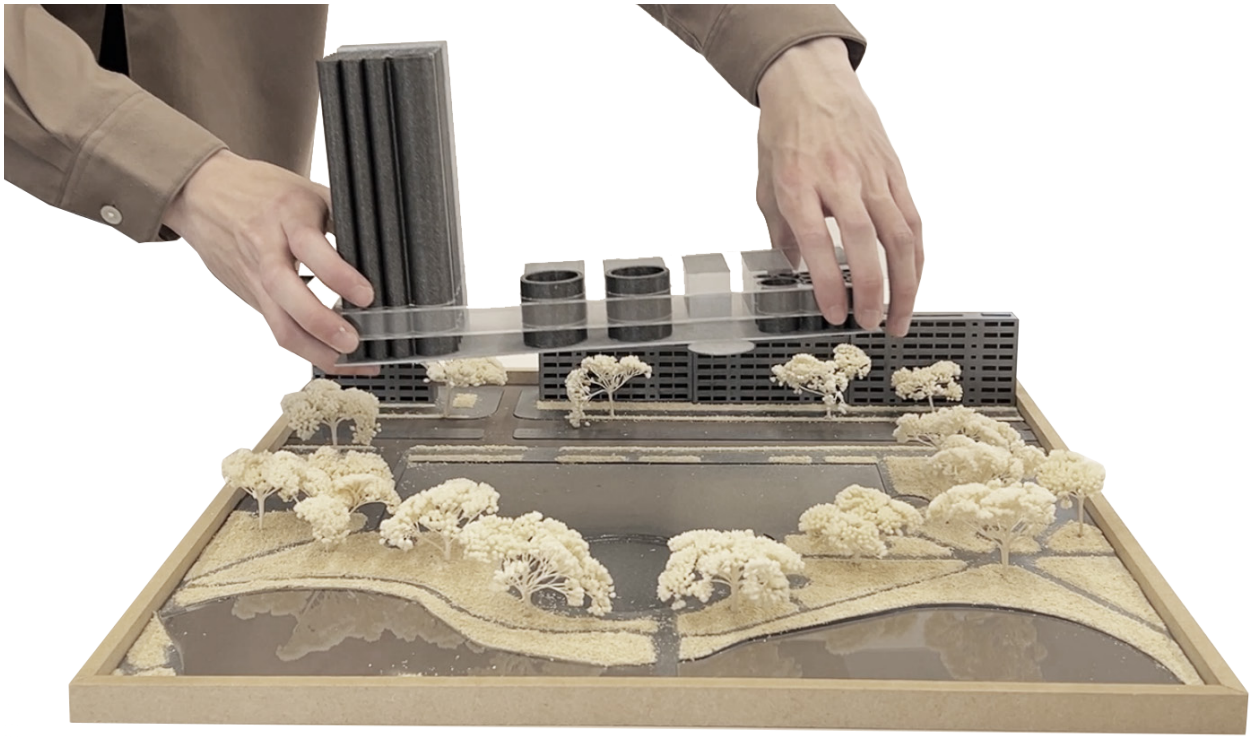
Motherboard development

Part 5

DESIGN IMPLEMENTATION

Part 5

DESIGN IMPLEMENTATION



Part 5

DESIGN IMPLEMENTATION

Part 5

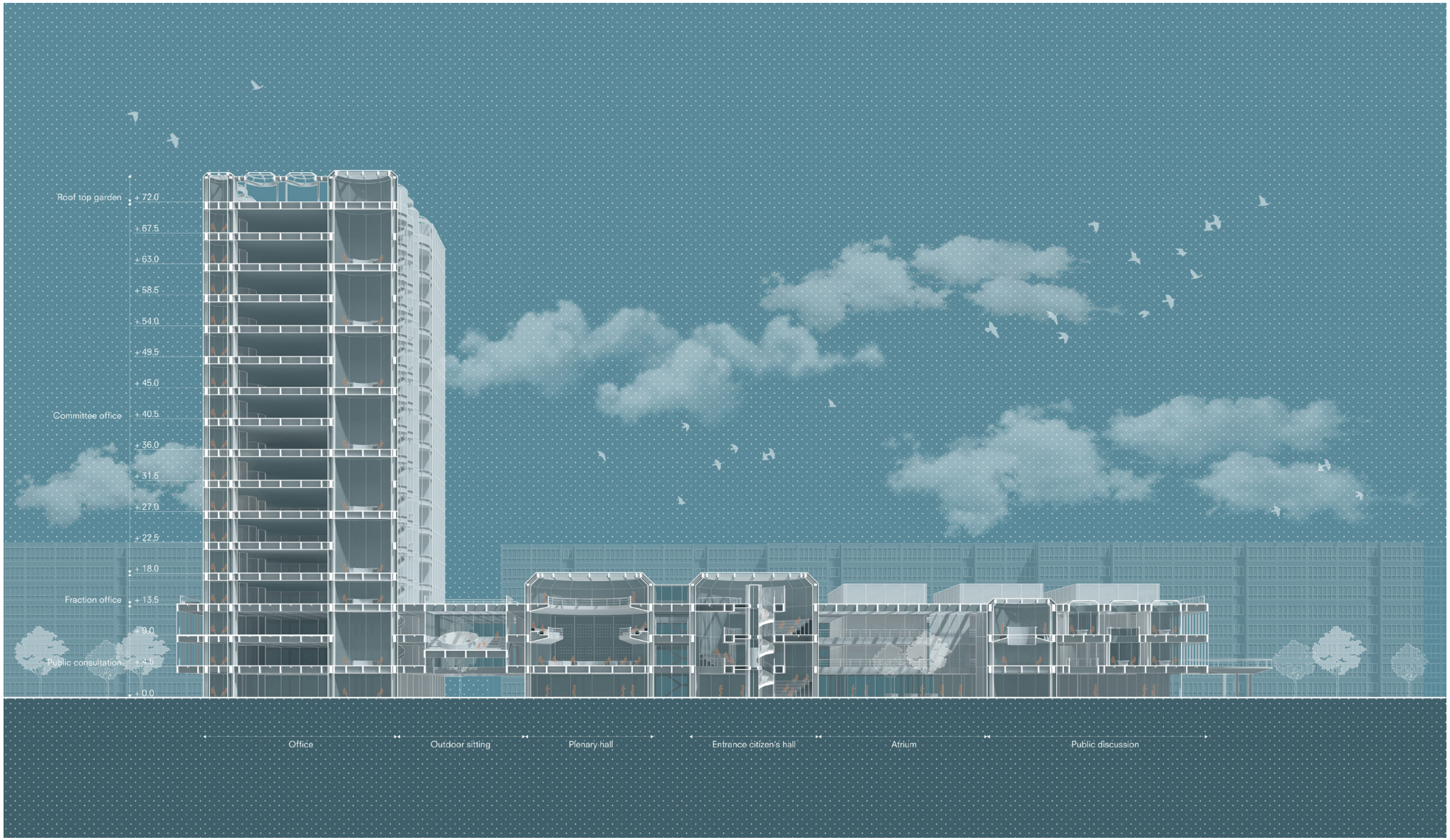
DESIGN IMPLEMENTATION

Part 5

DESIGN IMPLEMENTATION

DESIGN IMPLEMENTATION

Longitudinal section

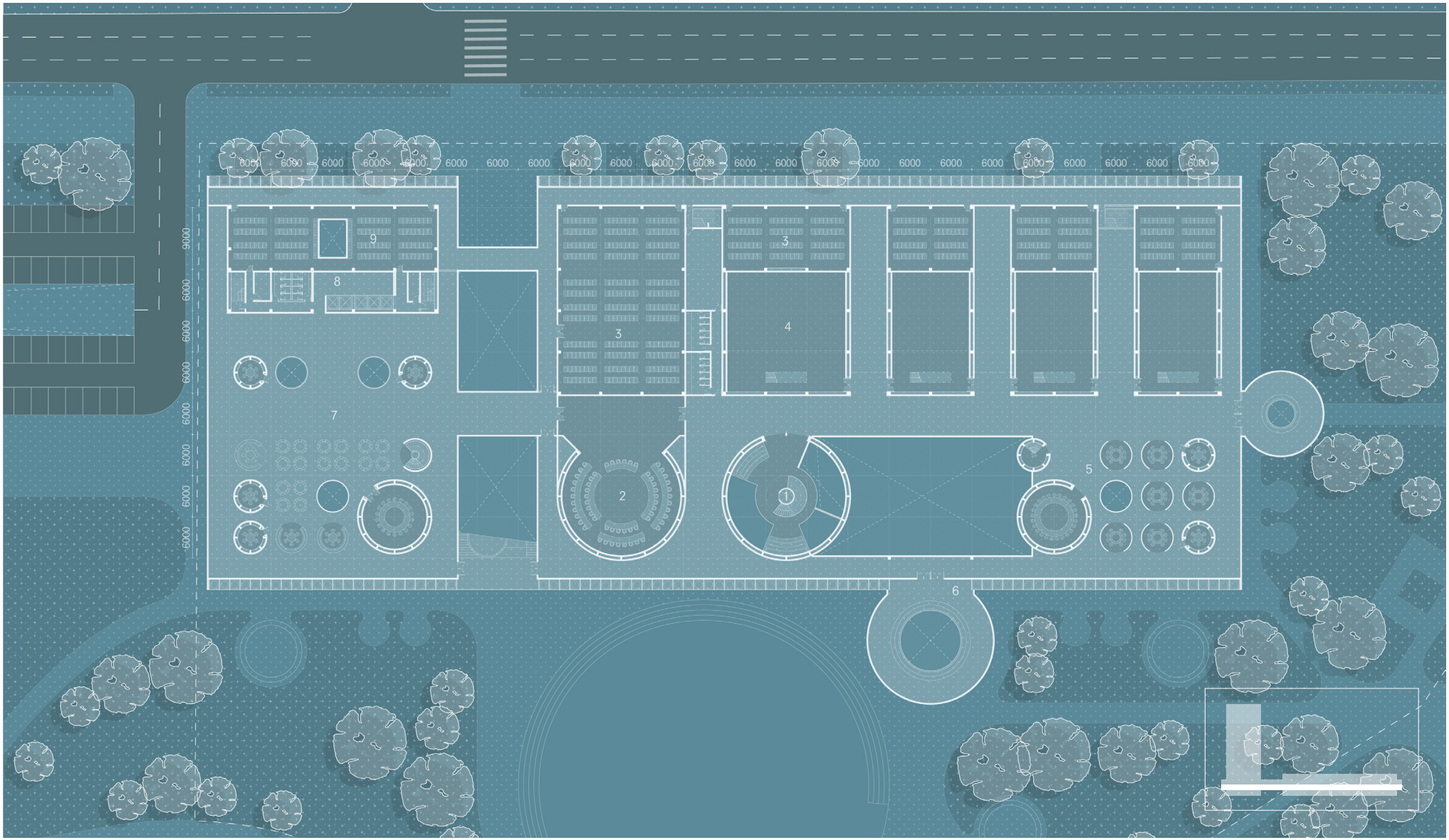


DESIGN IMPLEMENTATION

Longitudinal section

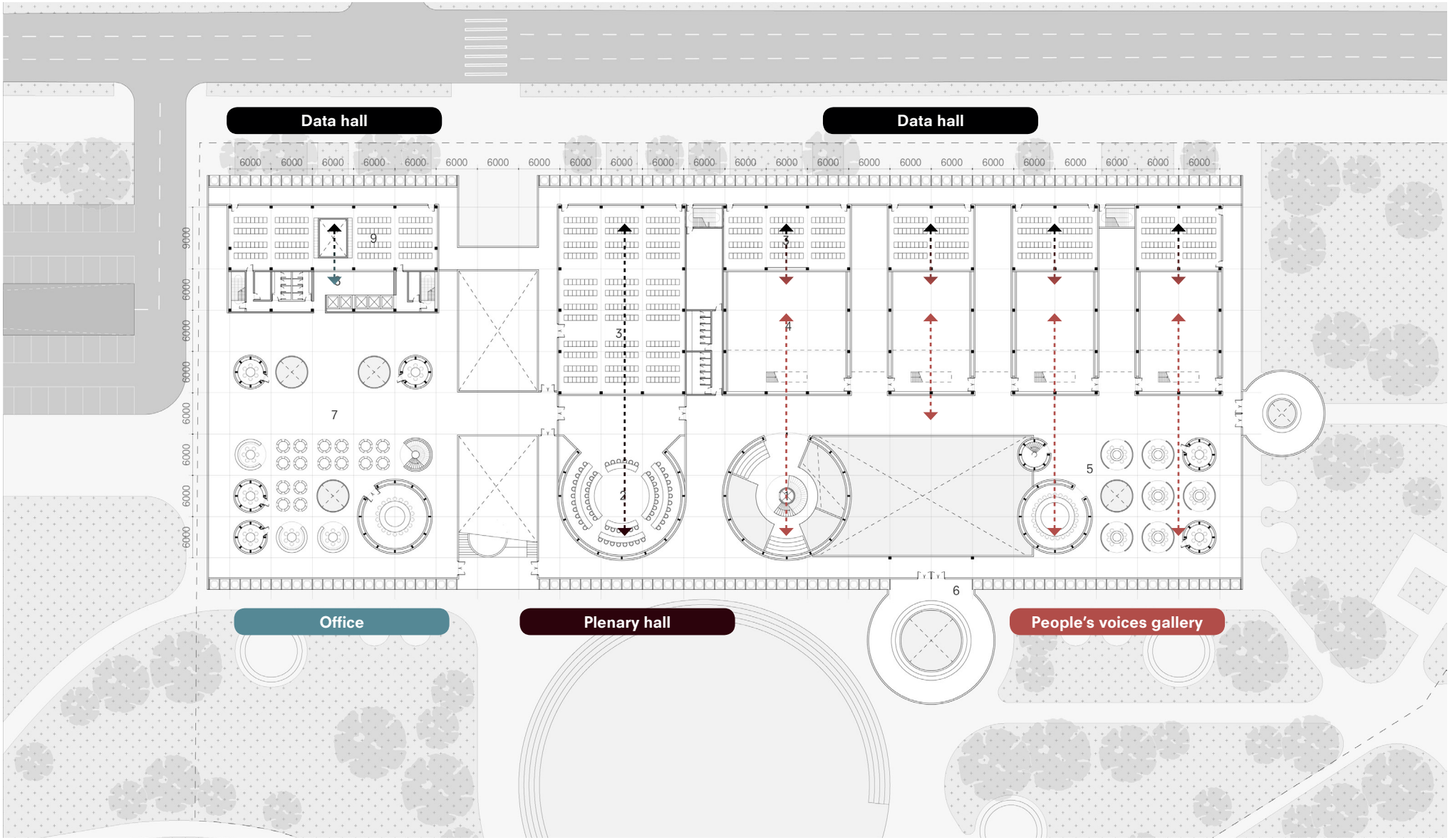
DESIGN IMPLEMENTATION

1/F plan



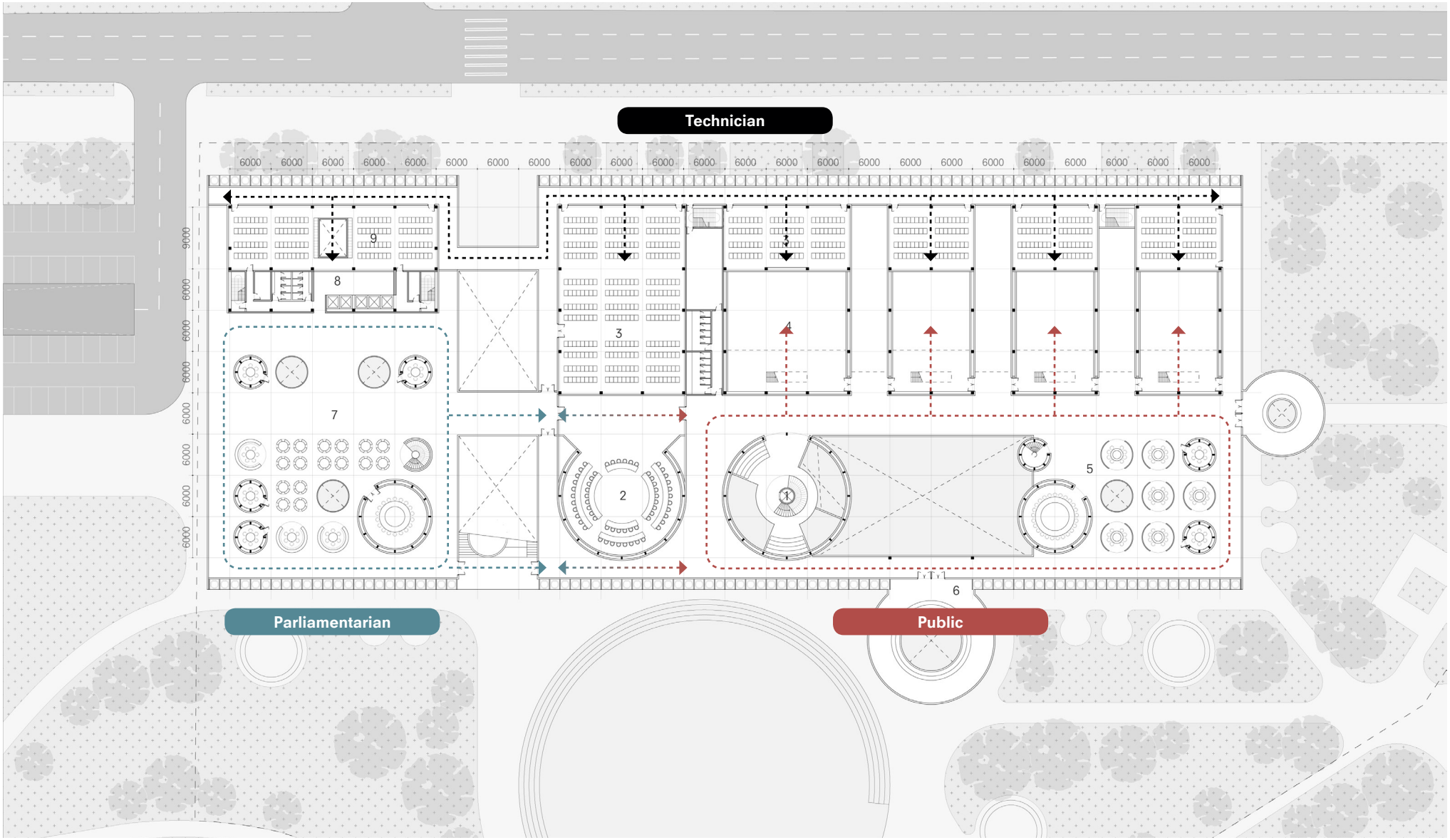
DESIGN IMPLEMENTATION

1/F plan (spatial connection)



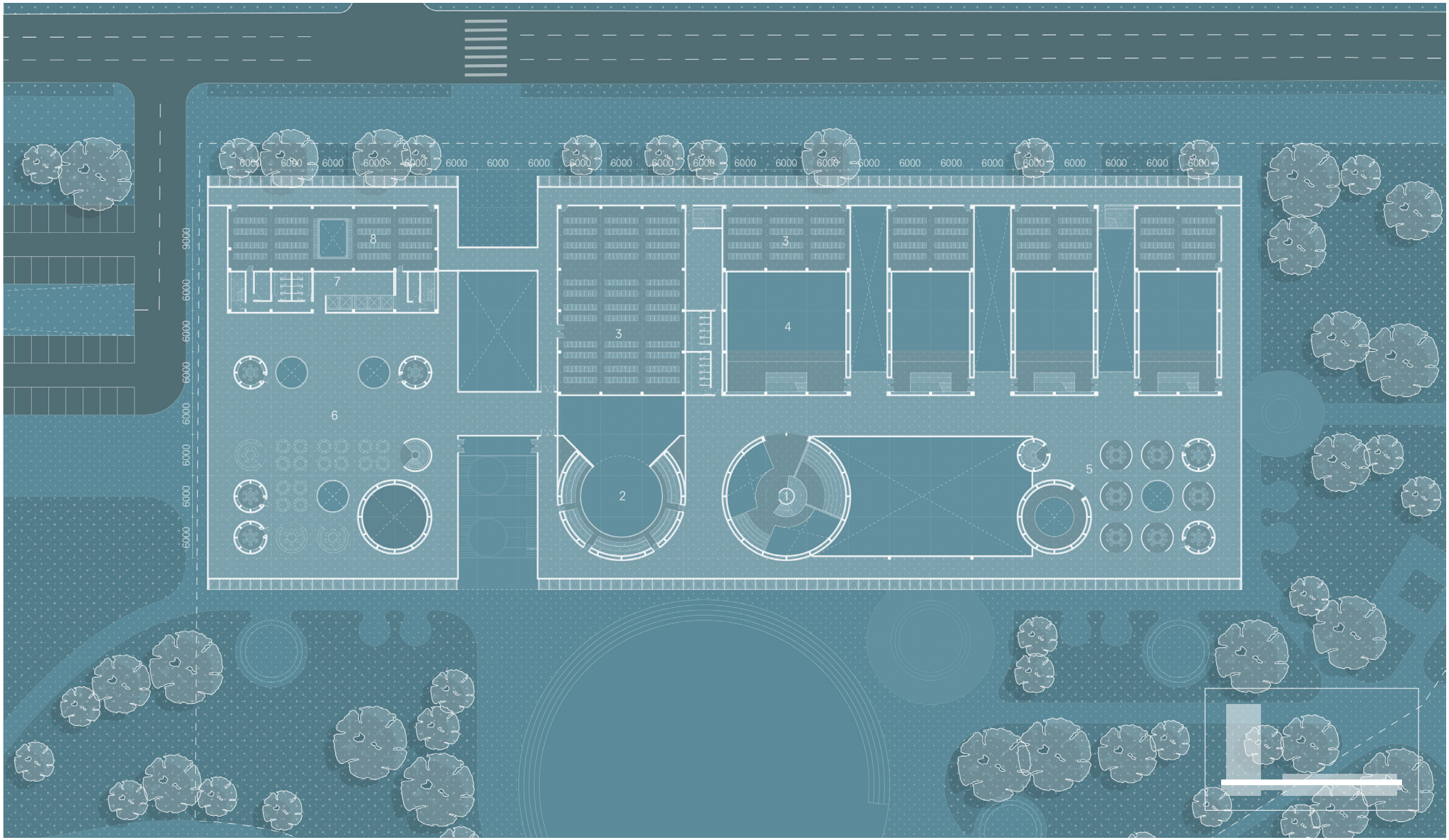
DESIGN IMPLEMENTATION

1/F plan (circulation)



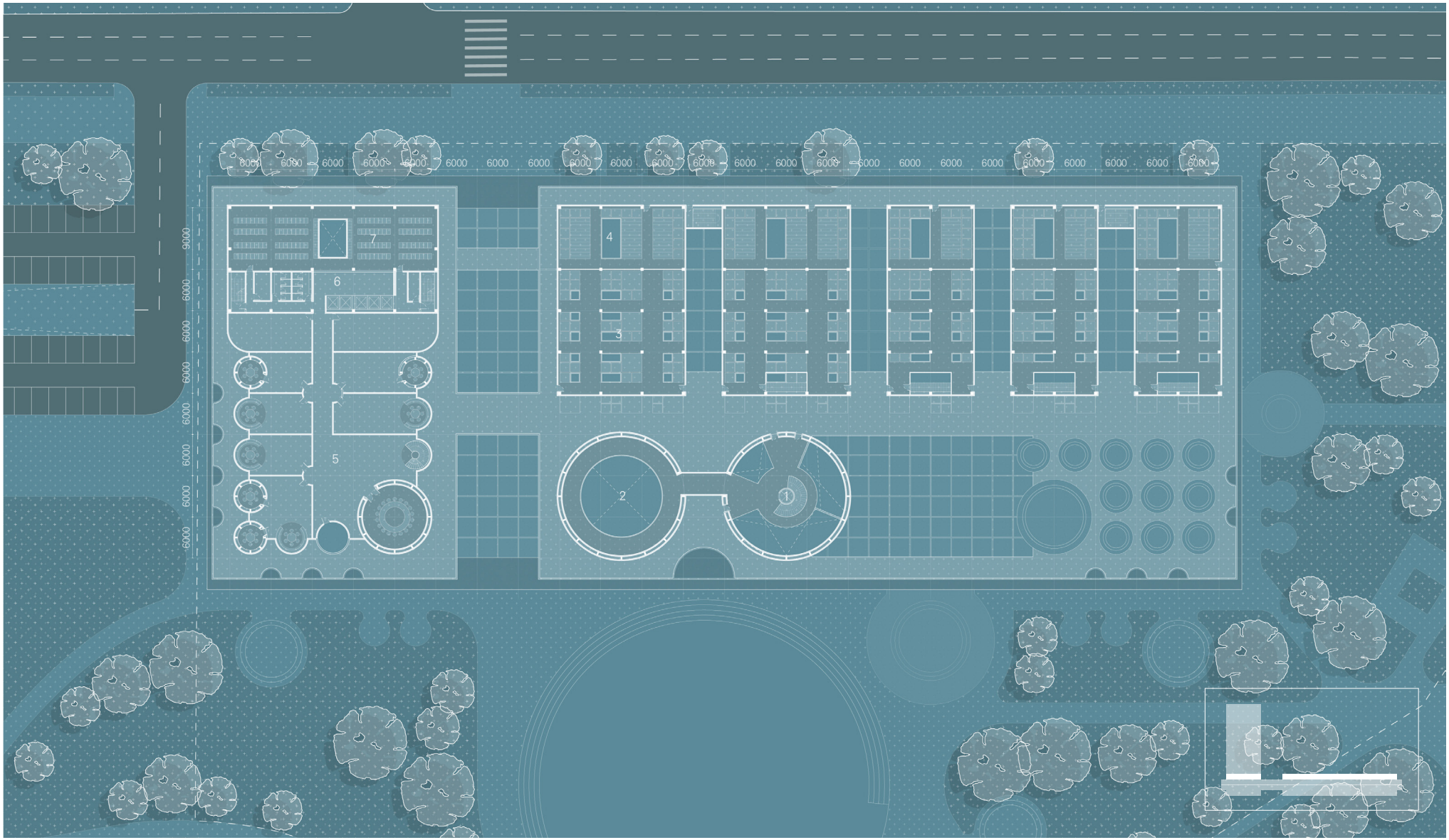
DESIGN IMPLEMENTATION

2/F plan



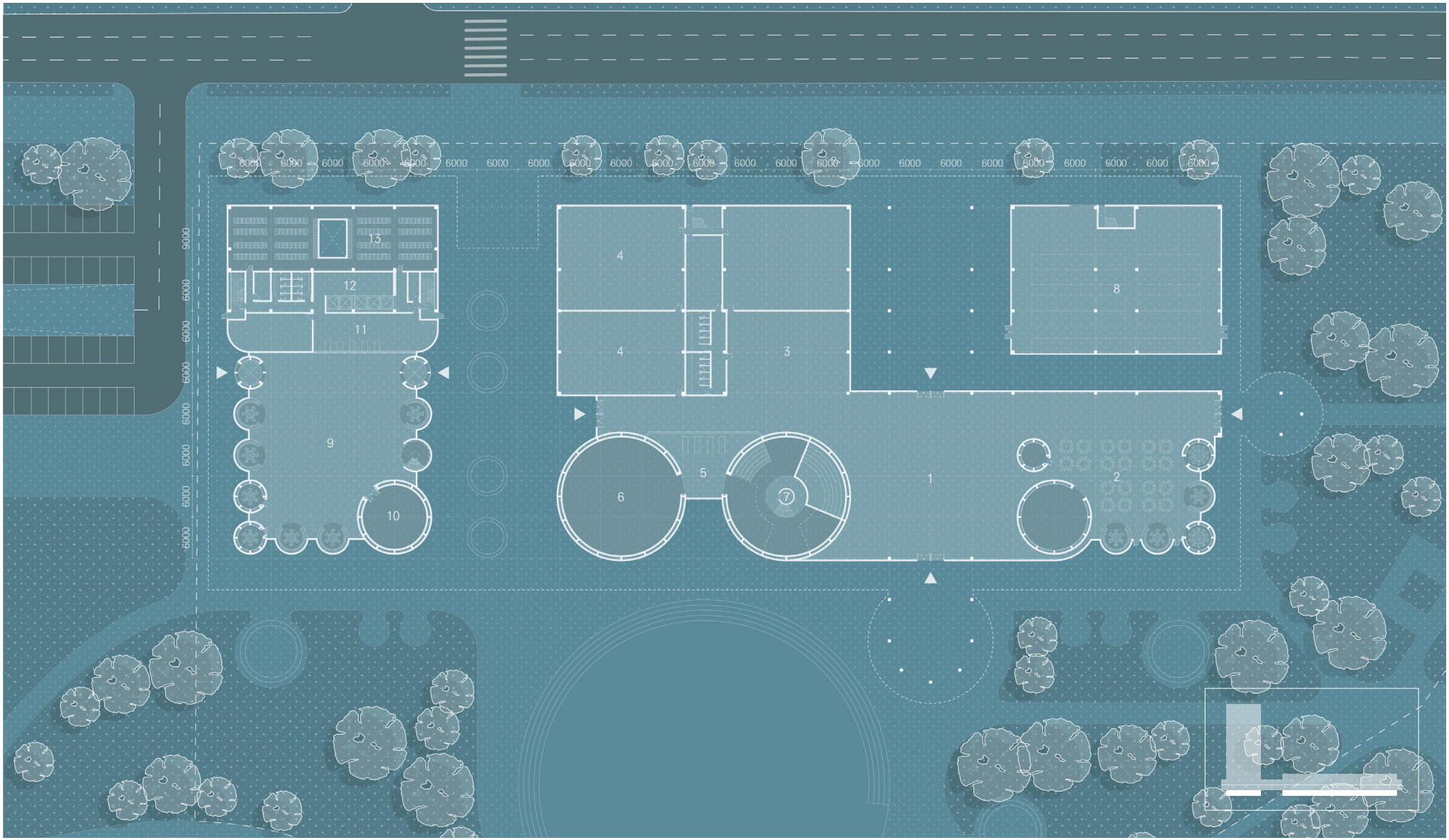
DESIGN IMPLEMENTATION

3/F plan



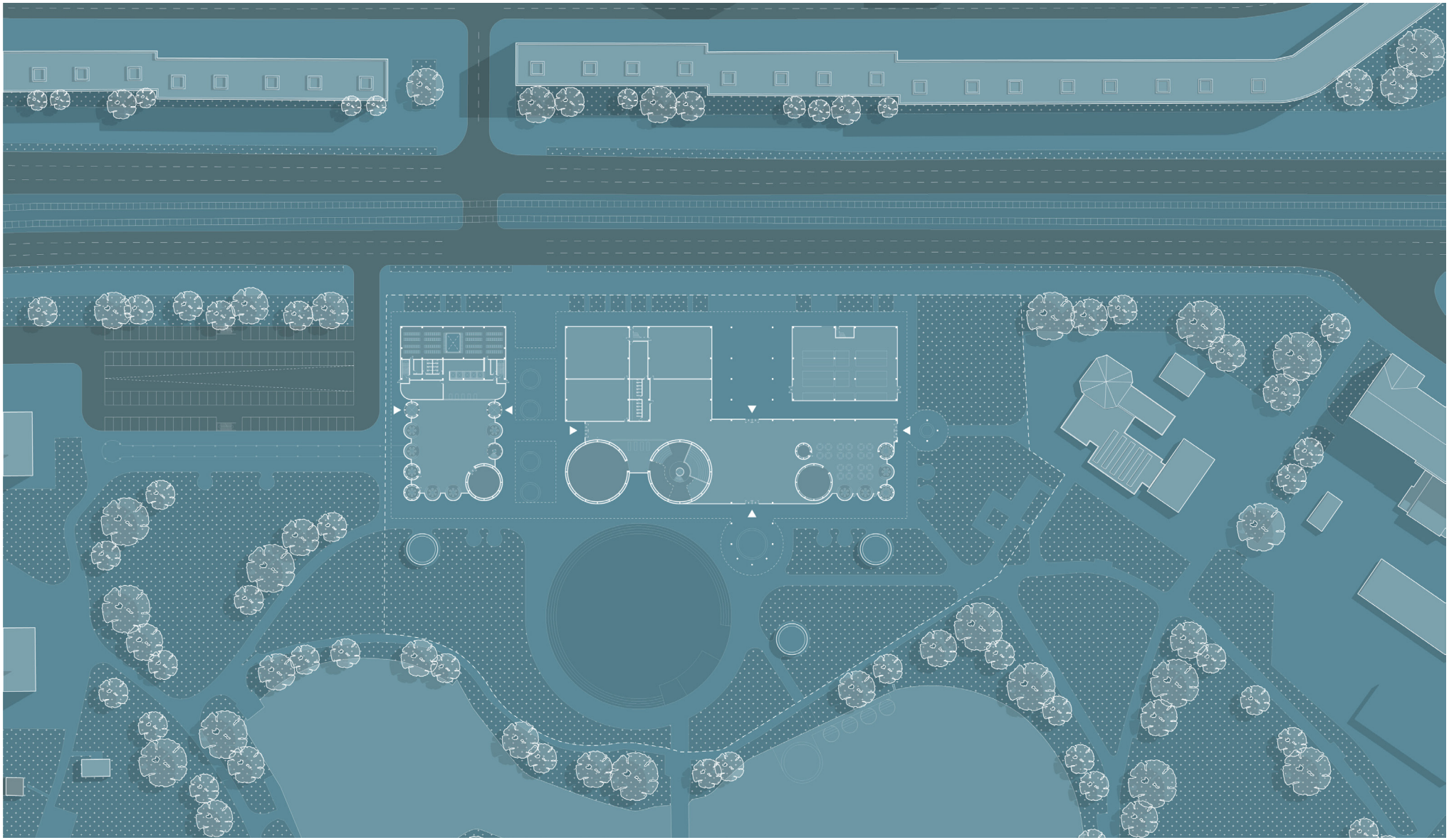
DESIGN IMPLEMENTATION

G/F plan



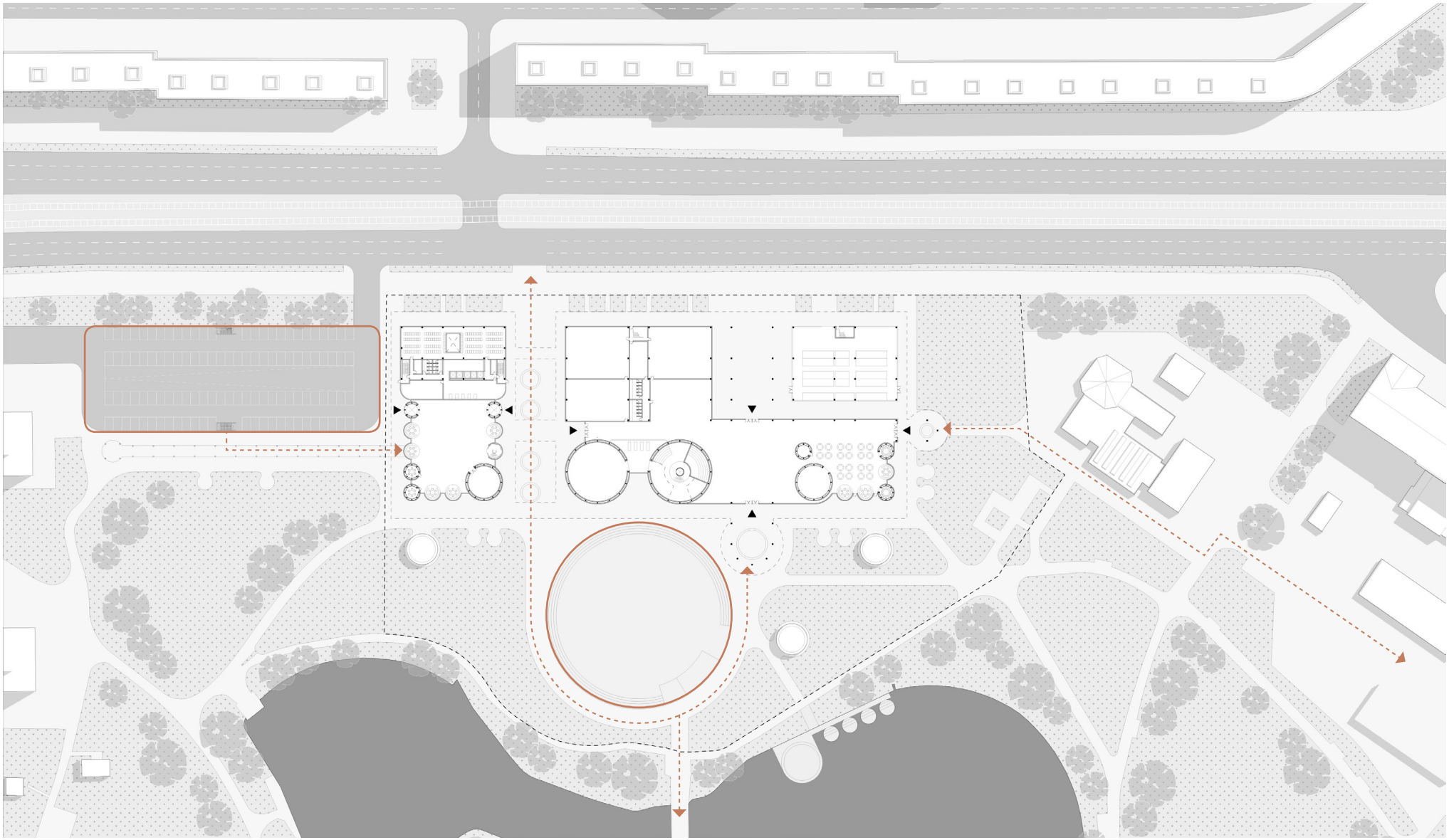
DESIGN IMPLEMENTATION

Site plan



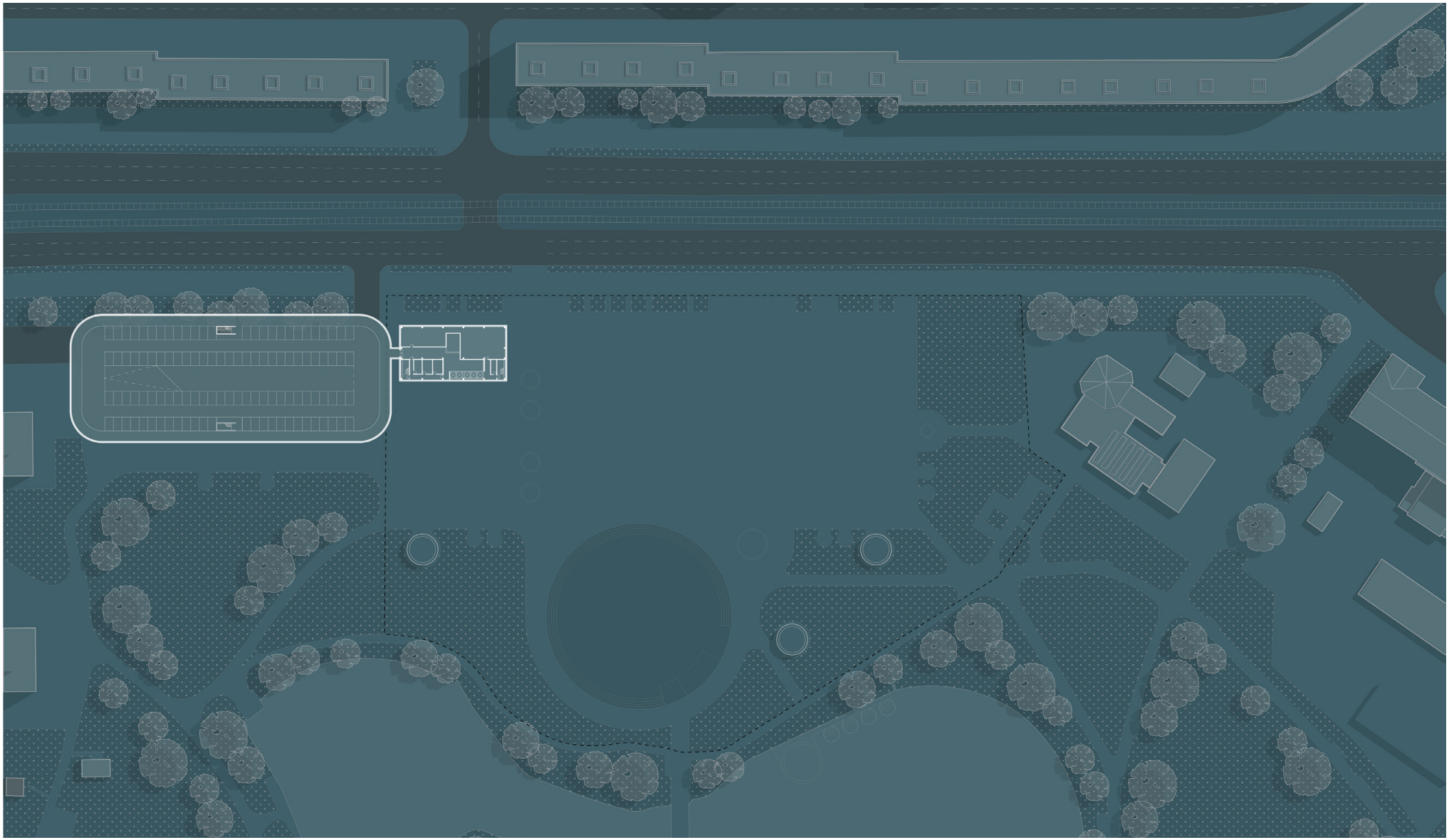
DESIGN IMPLEMENTATION

Site plan



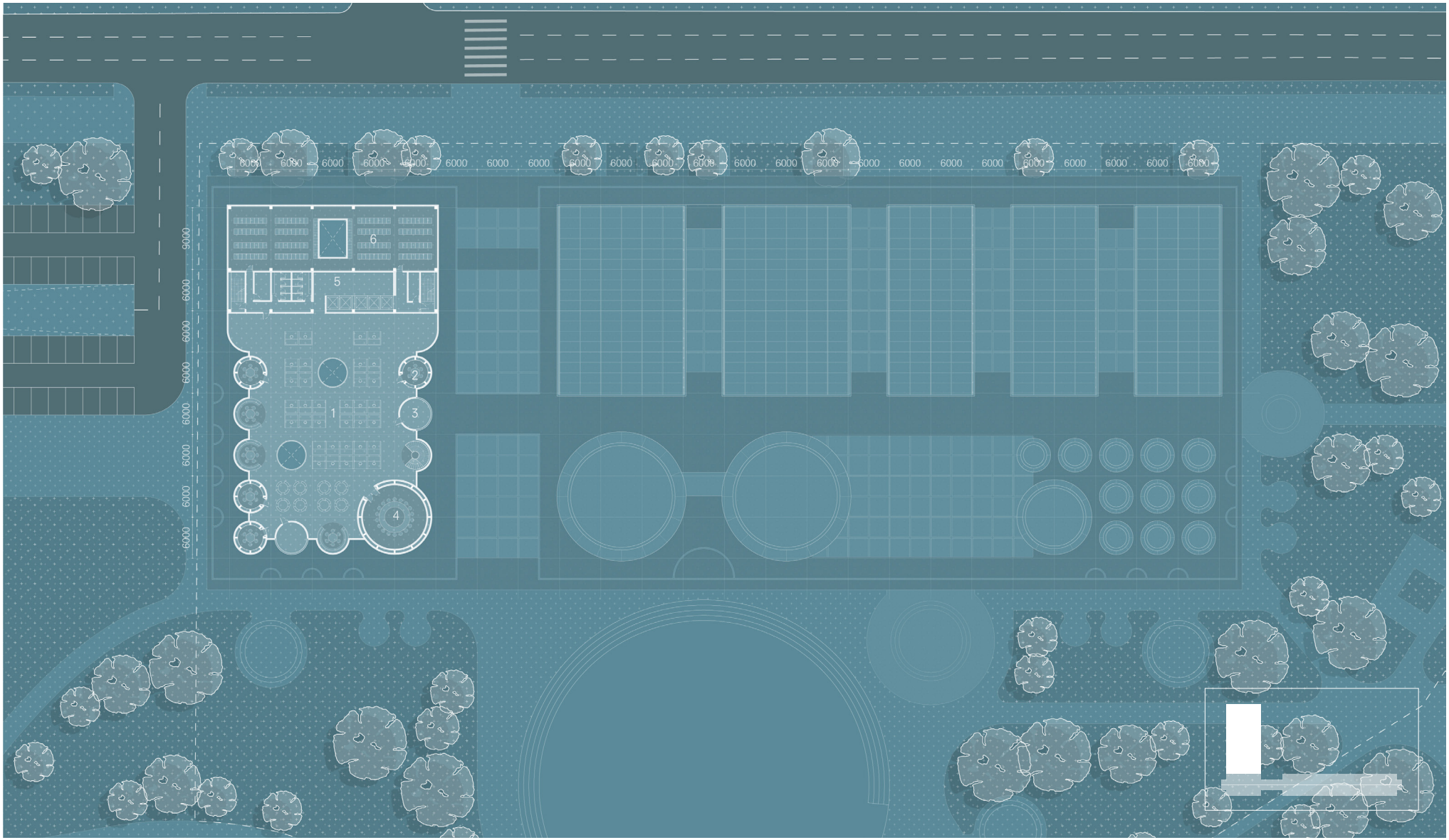
DESIGN IMPLEMENTATION

Site plan



DESIGN IMPLEMENTATION

Office plan

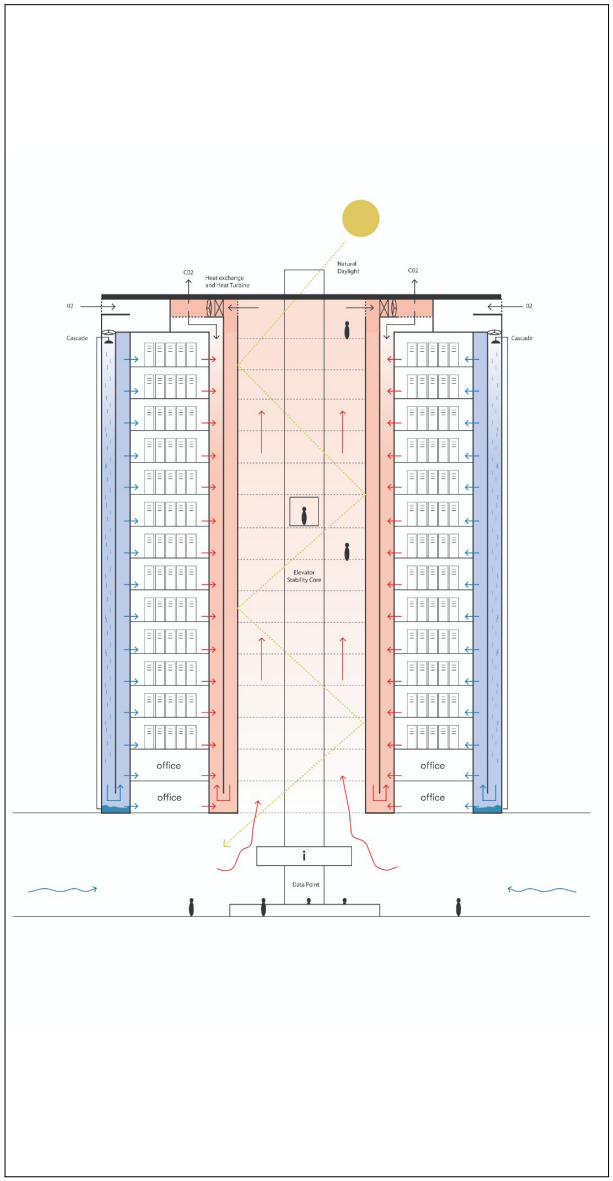


DESIGN IMPLEMENTATION

Office section

DESIGN IMPLEMENTATION

Office section



Part 4

DESIGN IMPLEMENTATION

Part 6

MATERIALIZATION

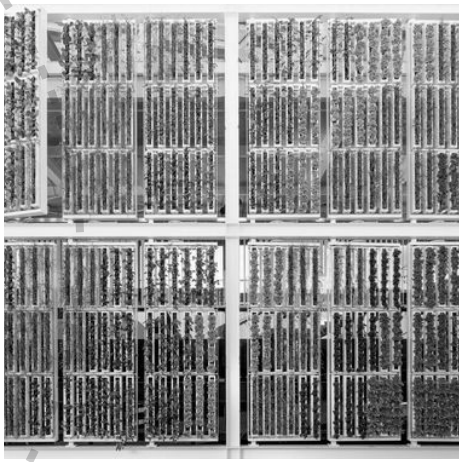
Part 6

MATERIALIZATION

Overall strategy

“Digital machine”

Transparency

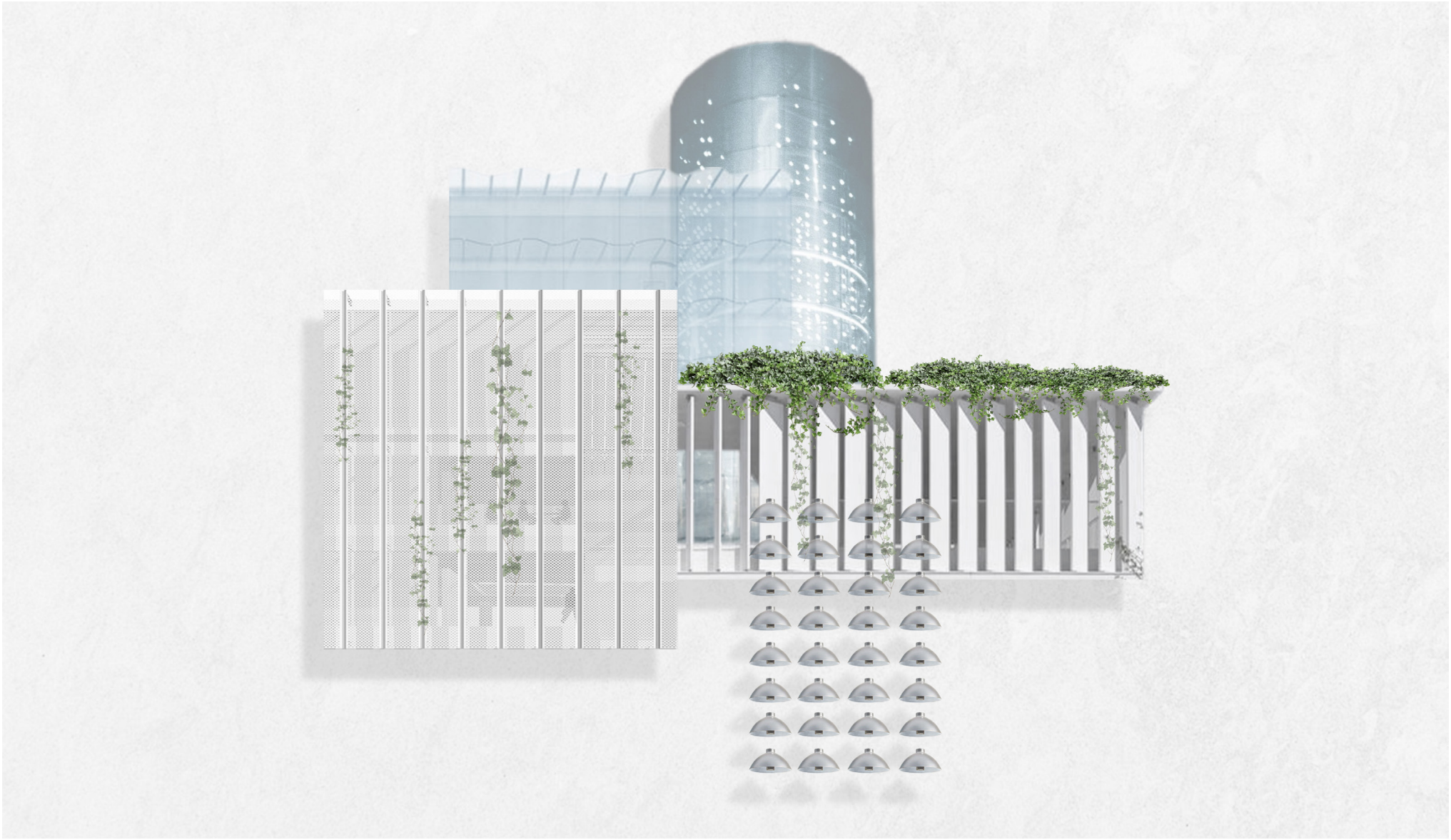


Greenery

Part 6

MATERIALIZATION

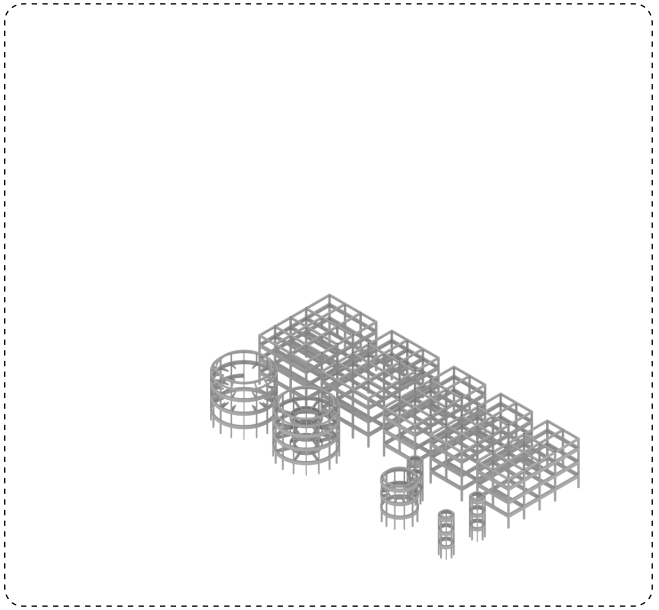
Overall strategy



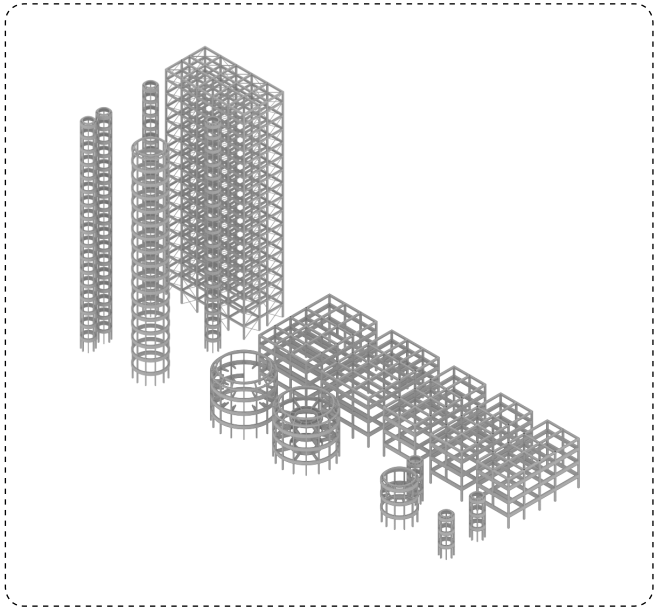
Part 6

MATERIALIZATION

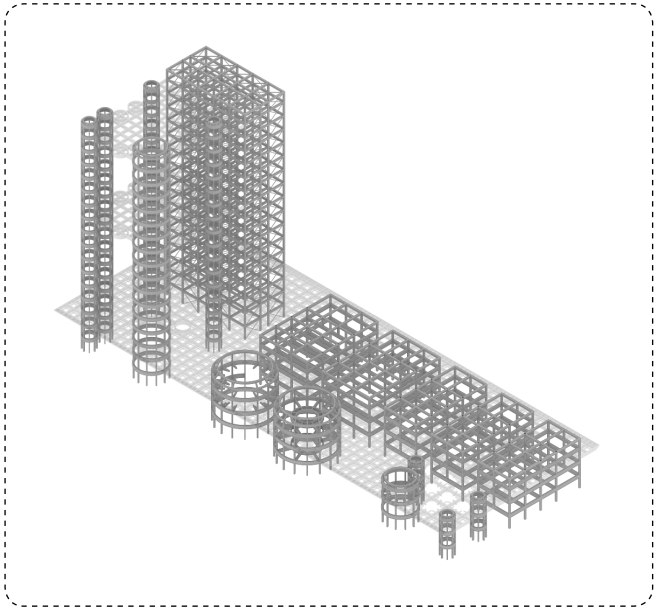
Structure strategy



Self-standing skeleton structure for components



Elongated components for tower

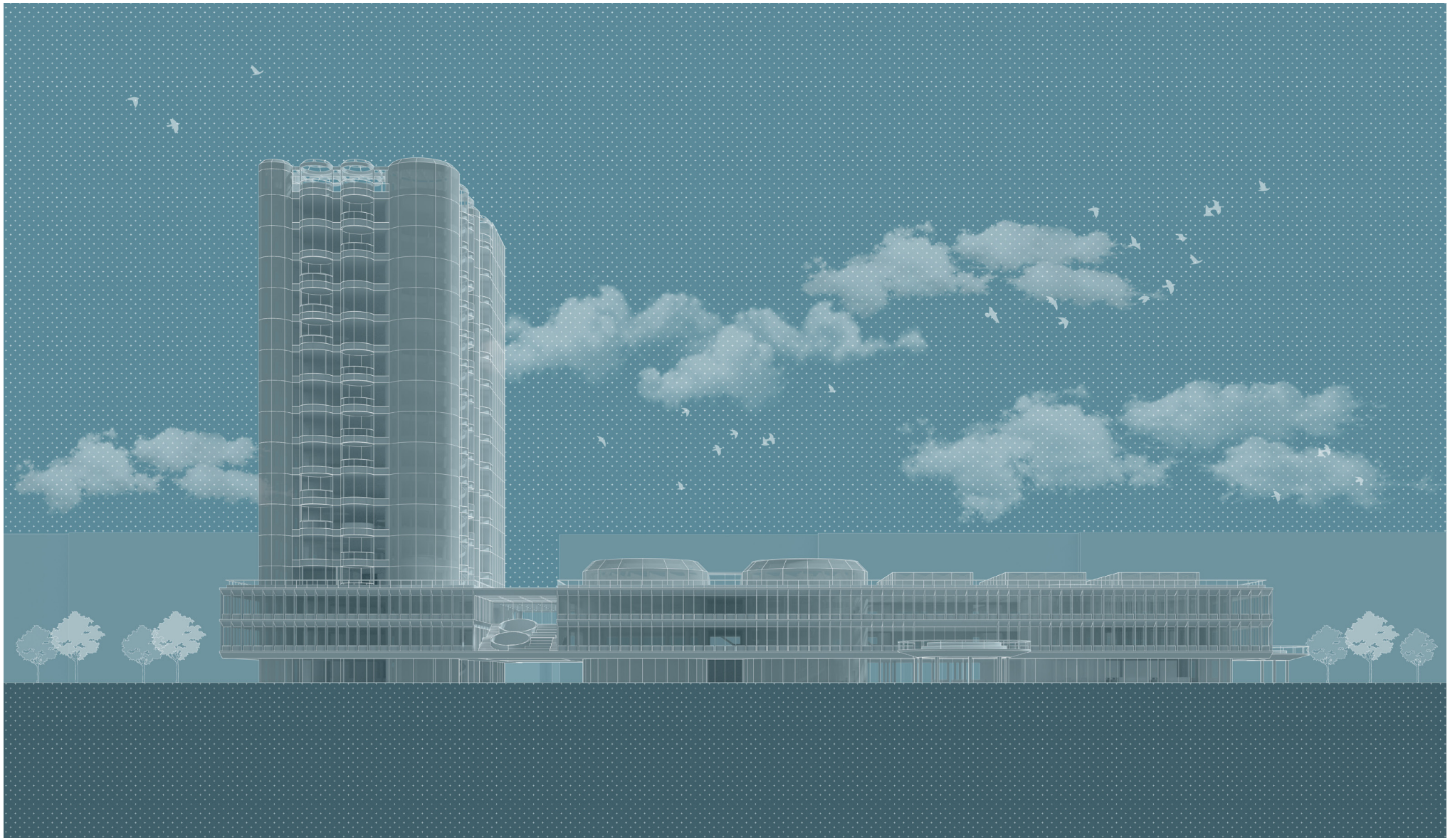


Waffle slab to connect the components

Part 6

MATERIALIZATION

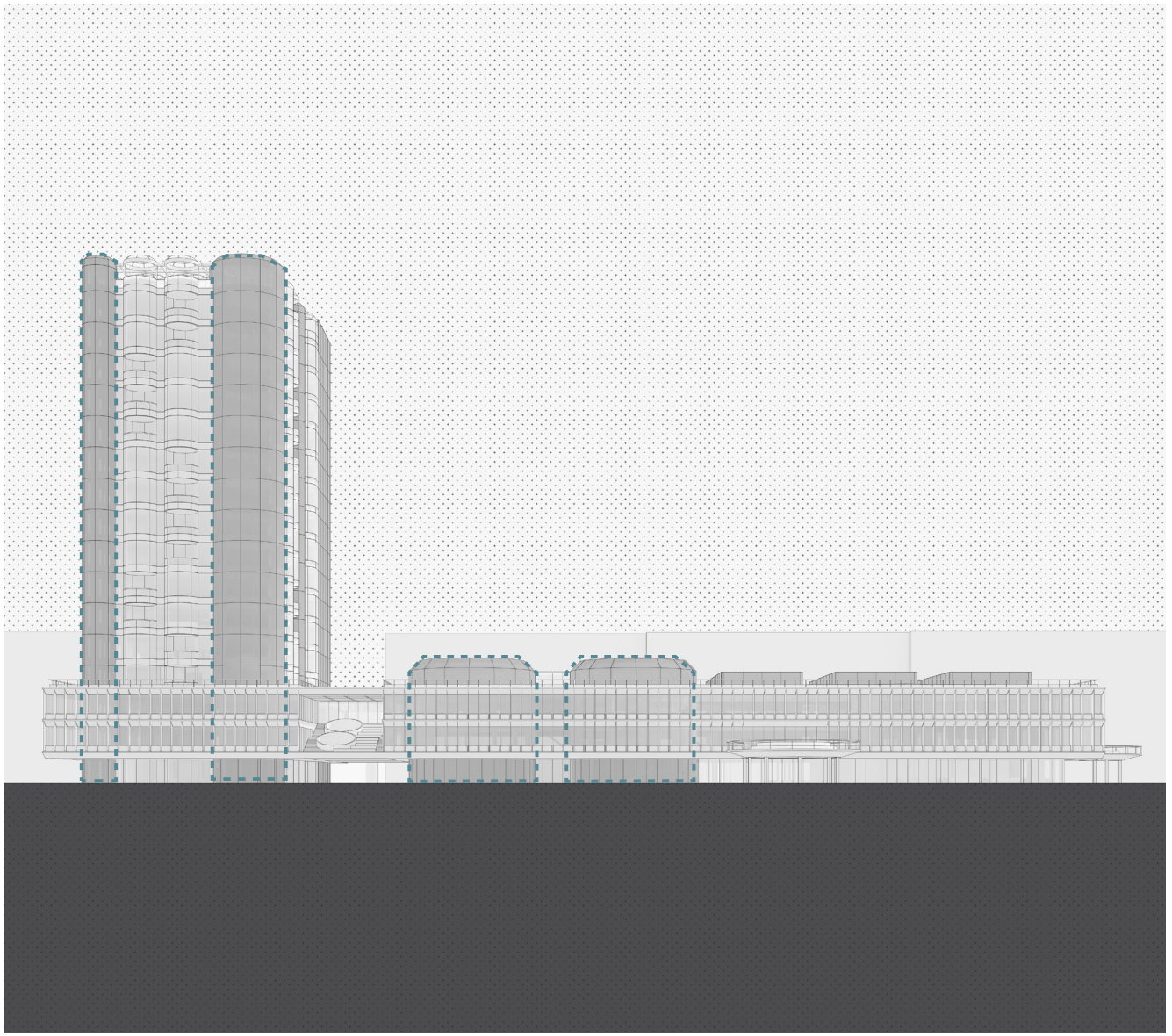
Material strategy



Part 6

MATERIALIZATION

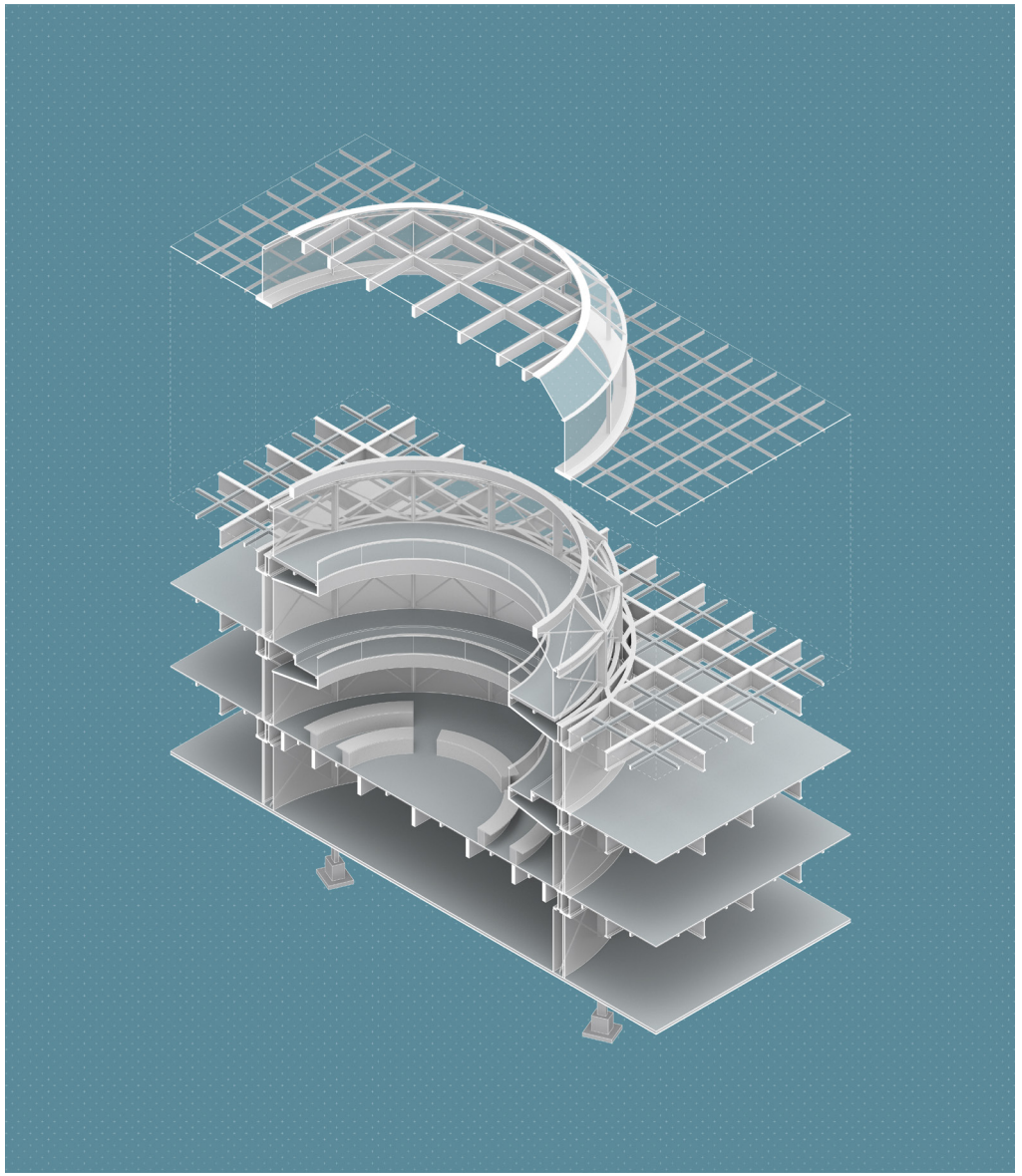
Material strategy

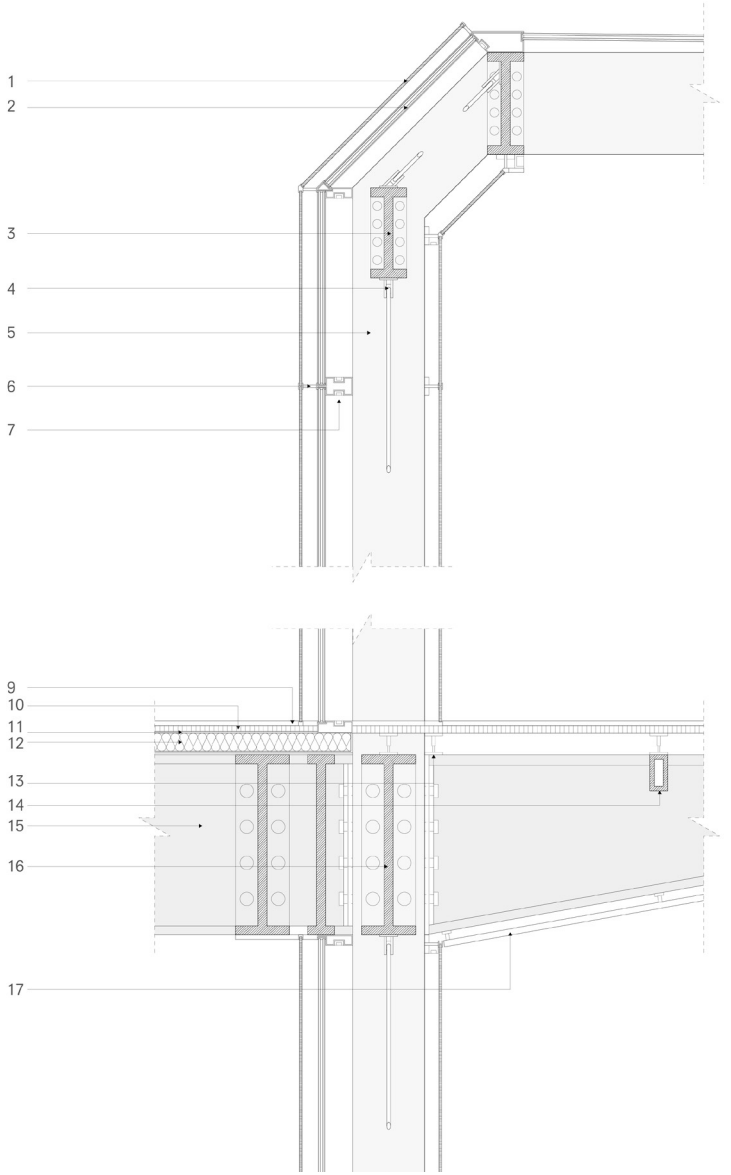


Perforated aluminum panel

MATERIALIZATION

Discussion tube

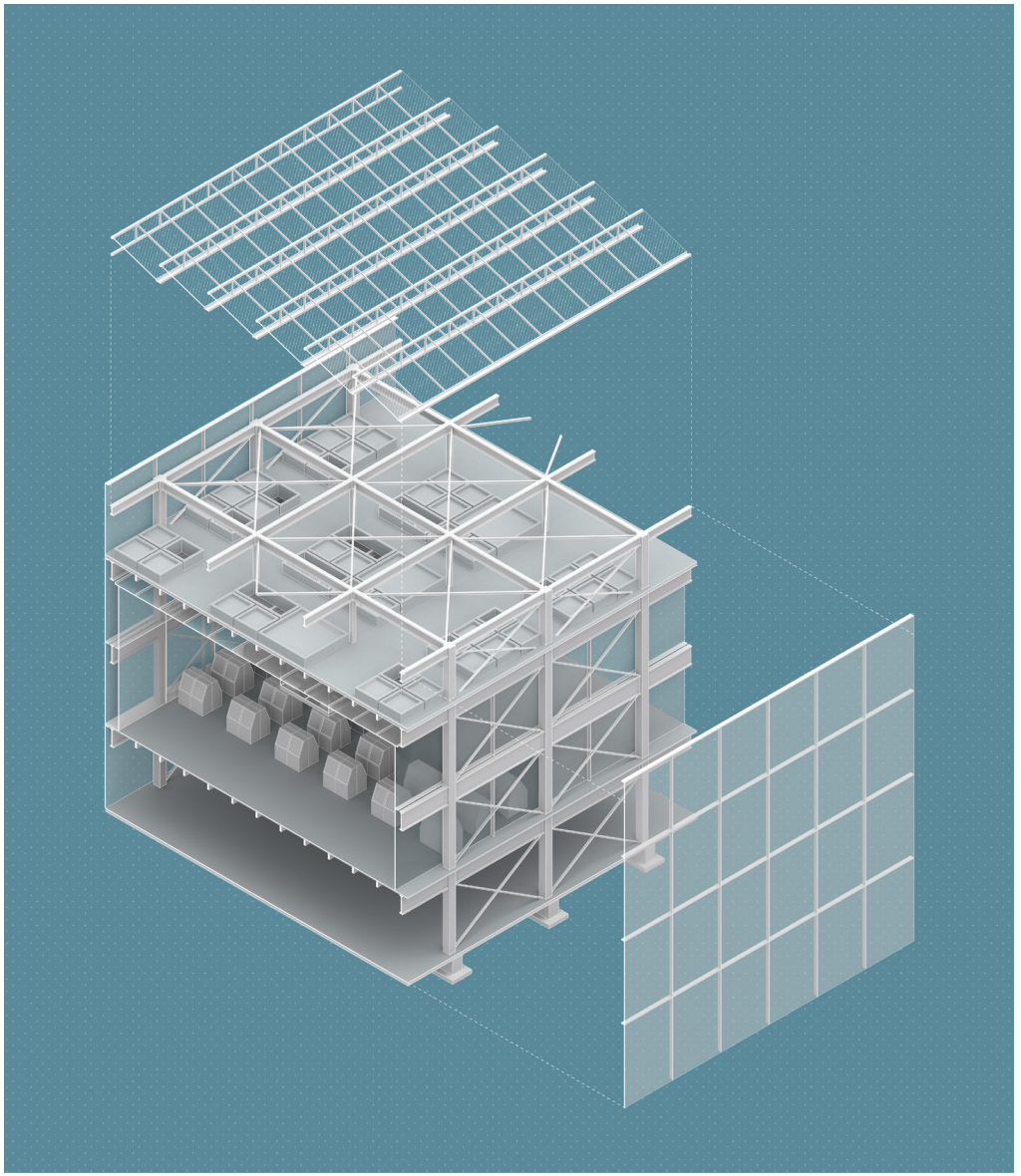


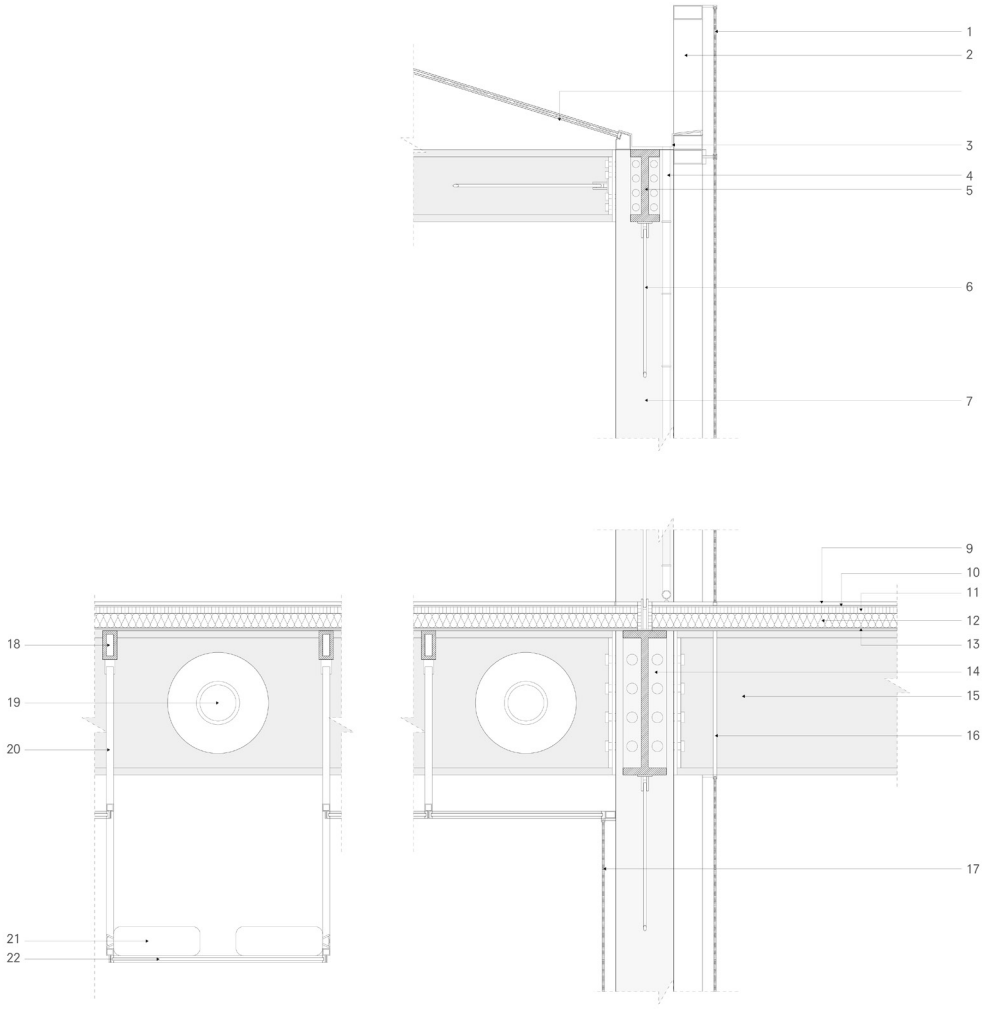


Part 6

MATERIALIZATION

Digital gallery

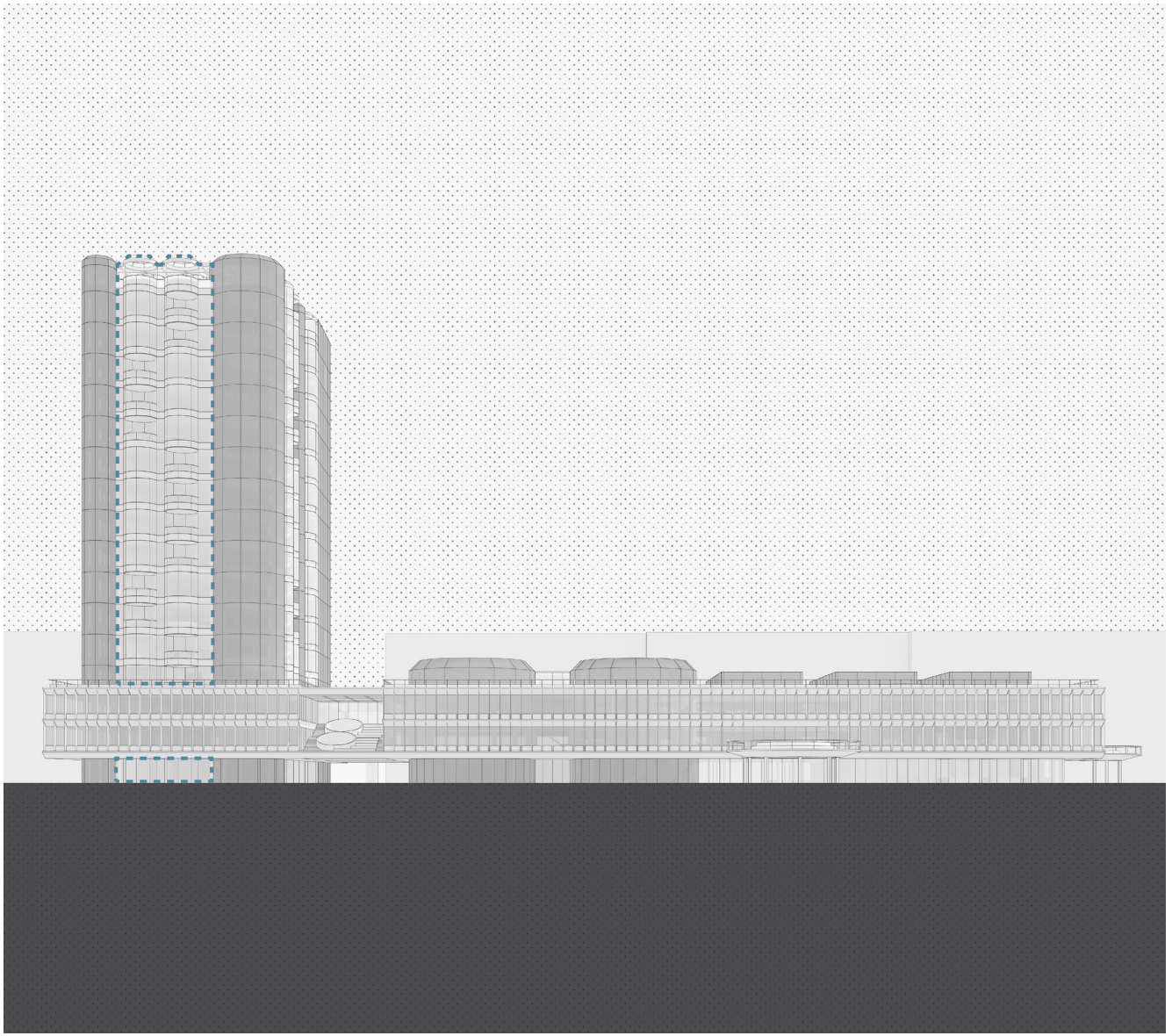




Part 6

MATERIALIZATION

Material strategy

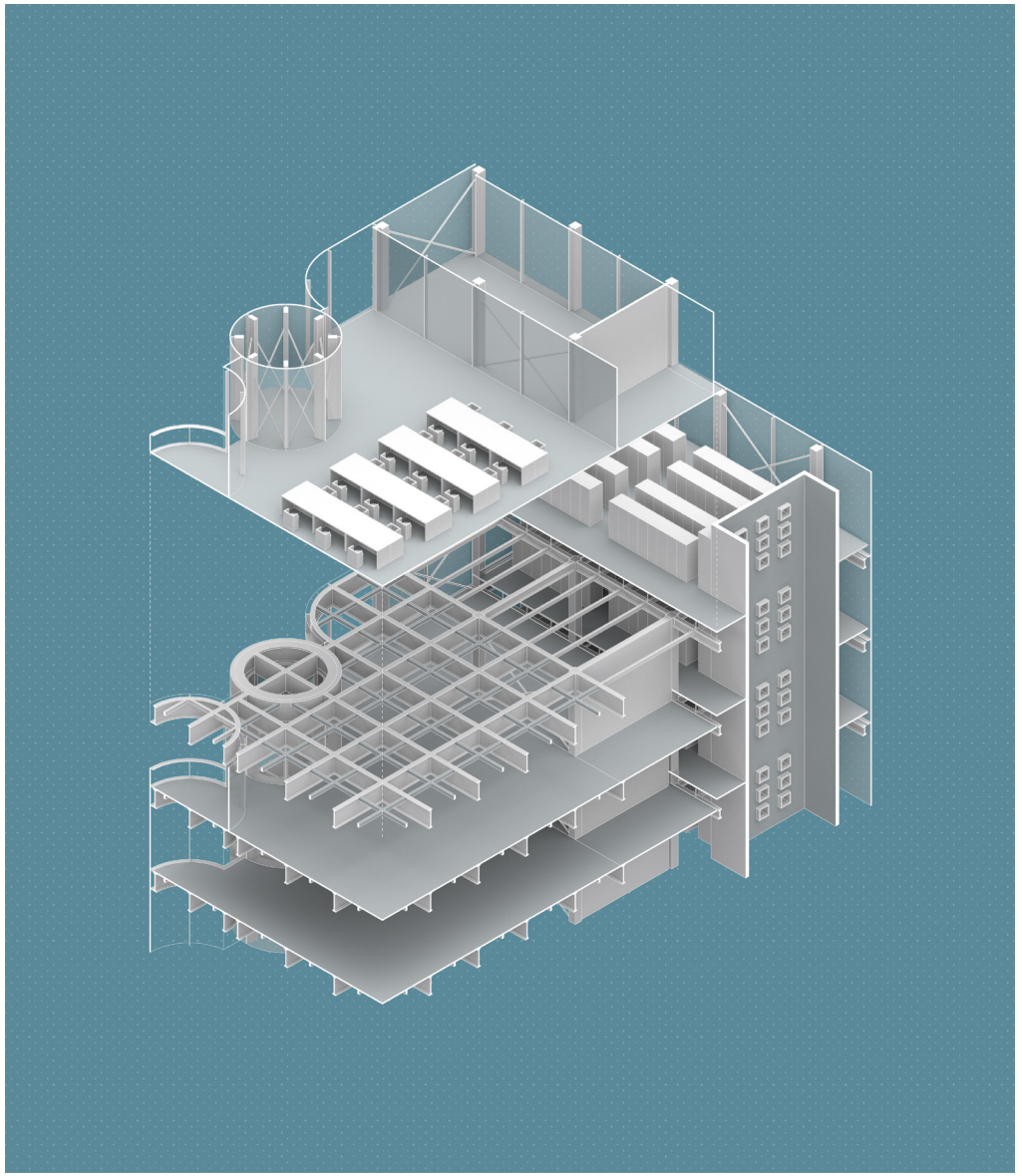


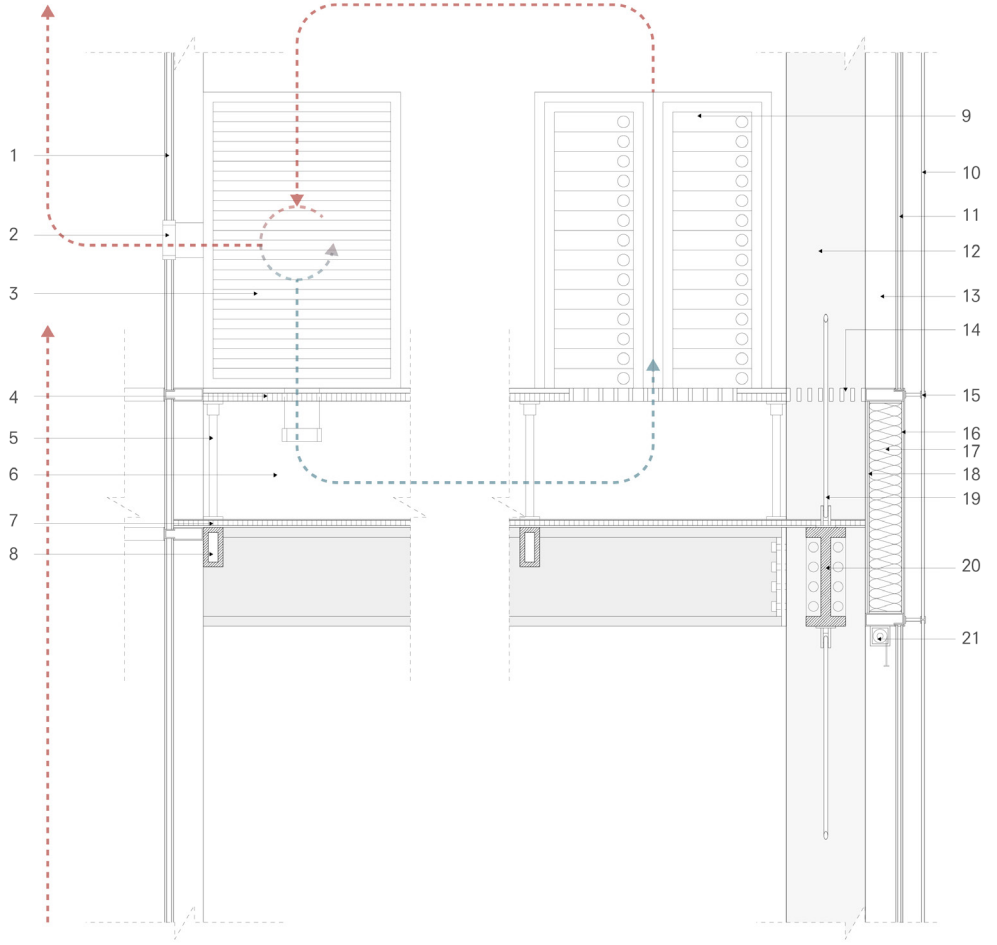
Curtain wall

Green balcony

MATERIALIZATION

Office and tower core

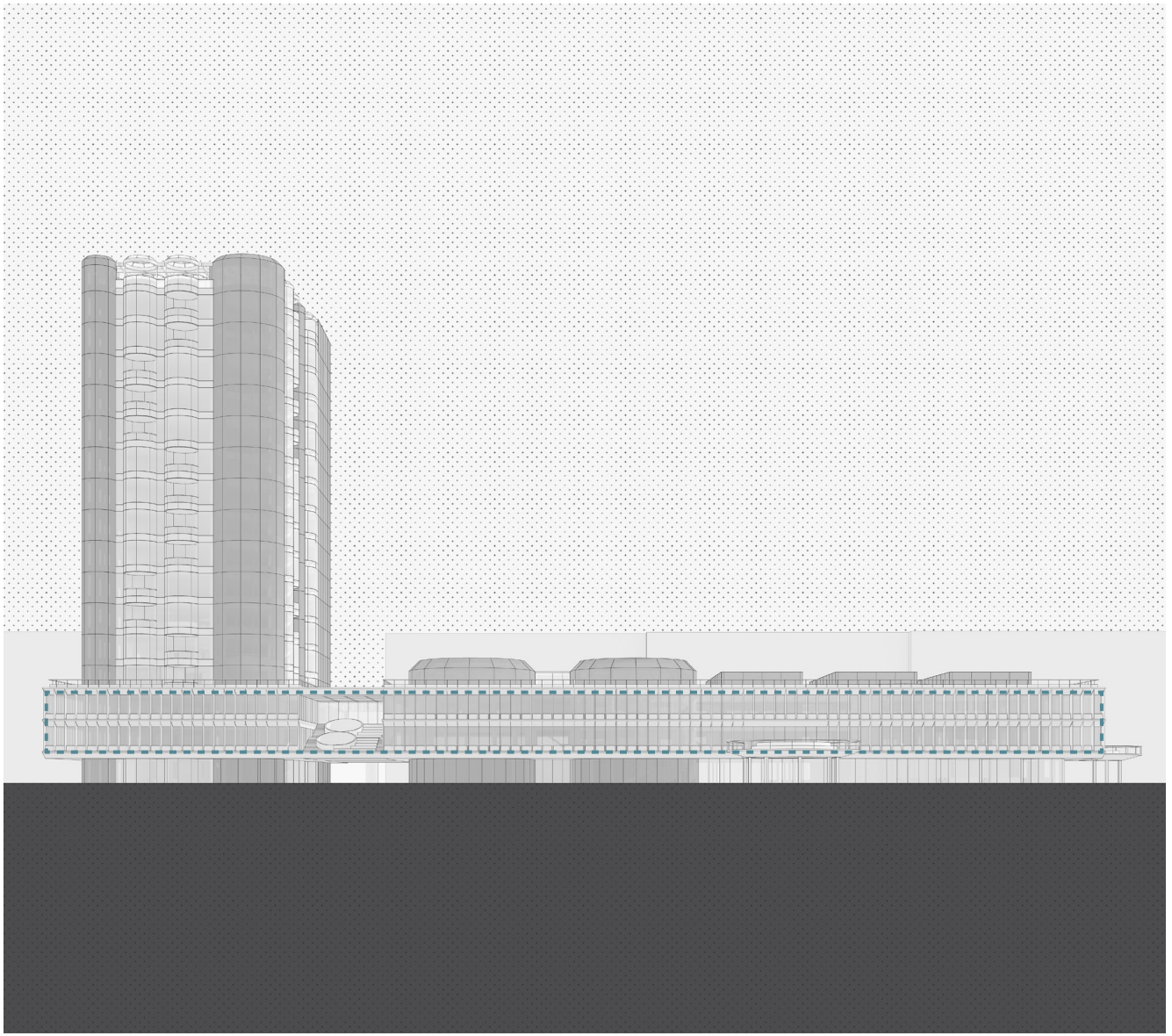


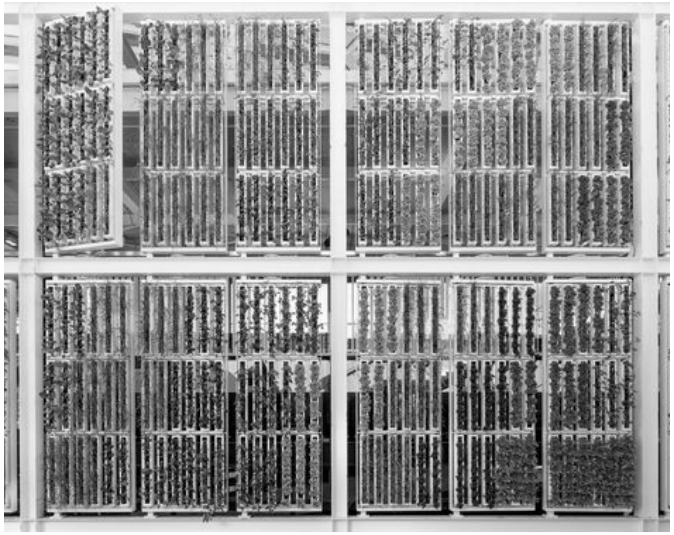


Part 6

MATERIALIZATION

Material strategy

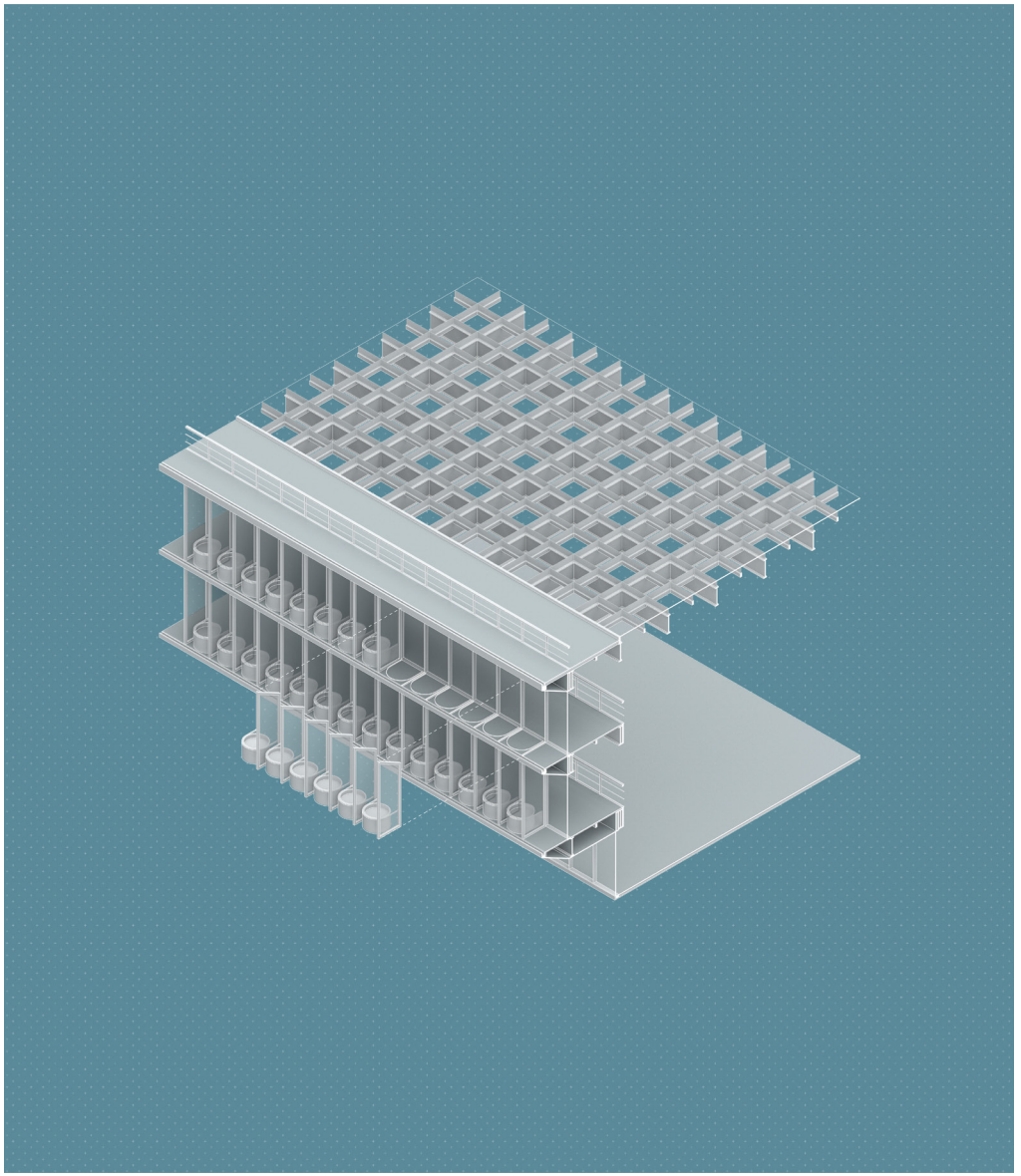


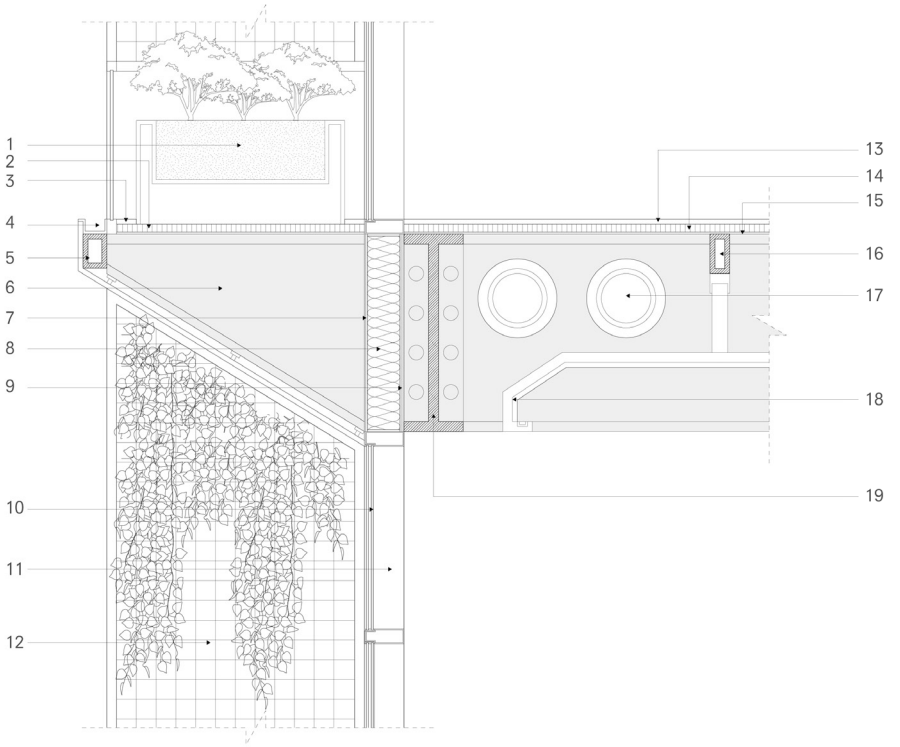


Green vertical louvers

MATERIALIZATION

Facade





Lichtenburg Parliament

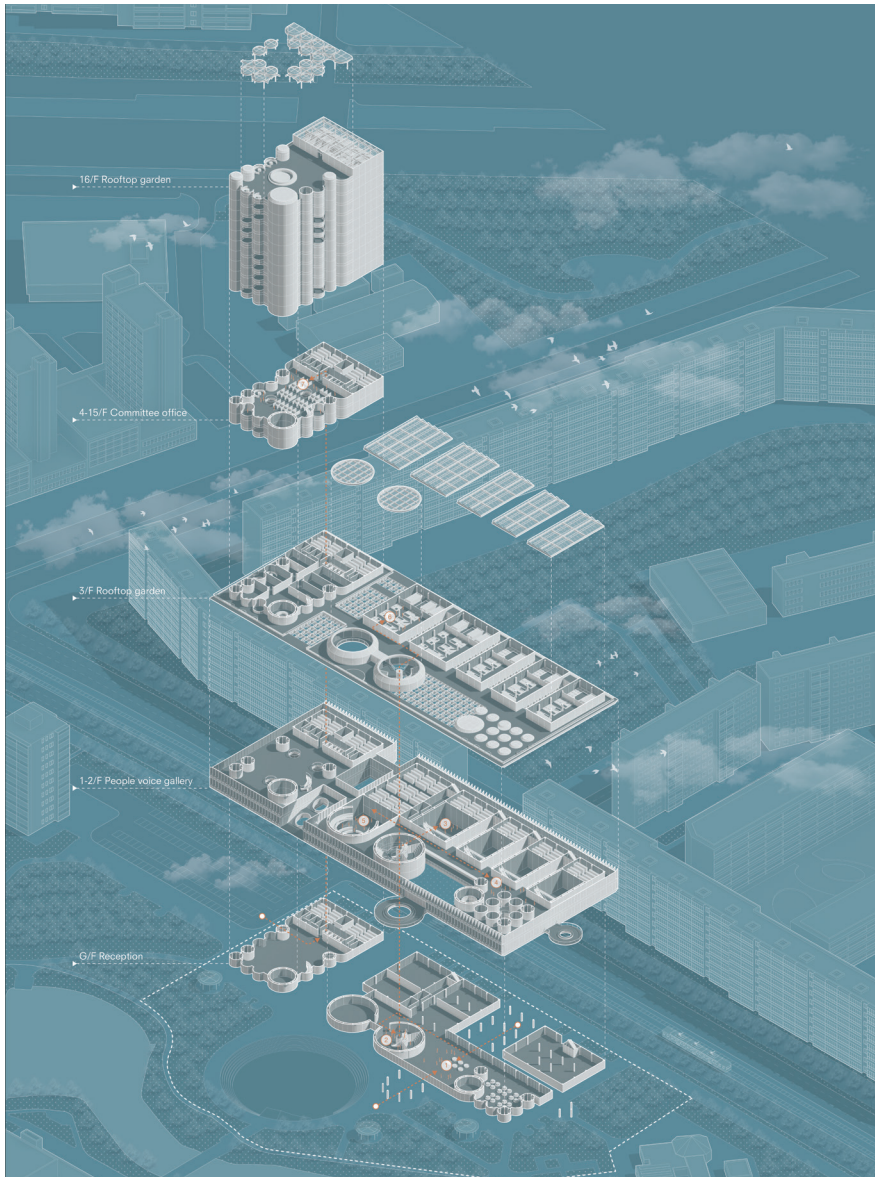
Part 7

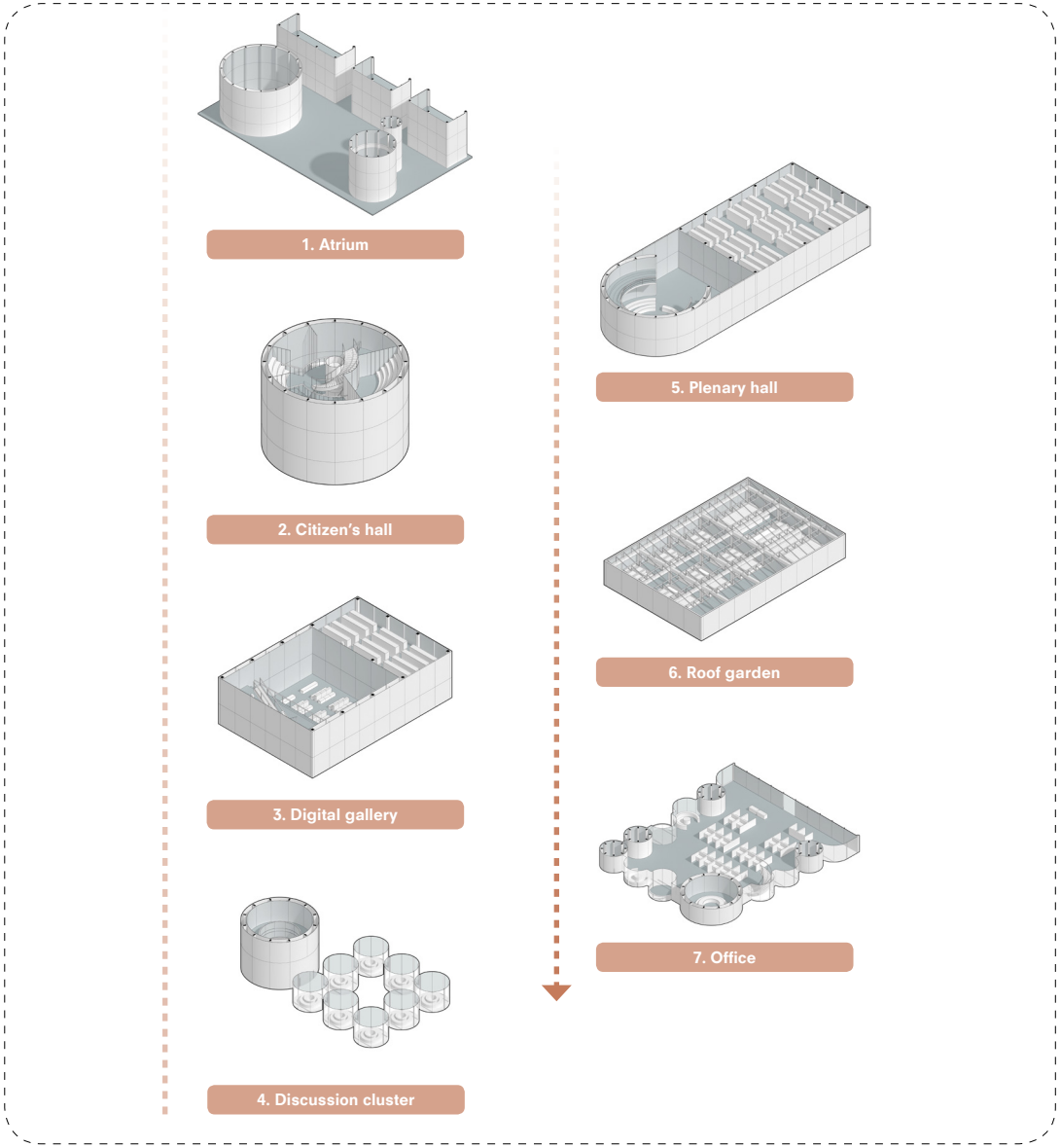
EXPERIENCE OF HYBRID COMMUNICATION

Part 7

EXPERIENCE OF HYBRID COMMUNICATION

Overview





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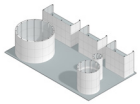

1. Atrium

2. Citizen's hall

3. Digital gallery

4. Discussion cluster

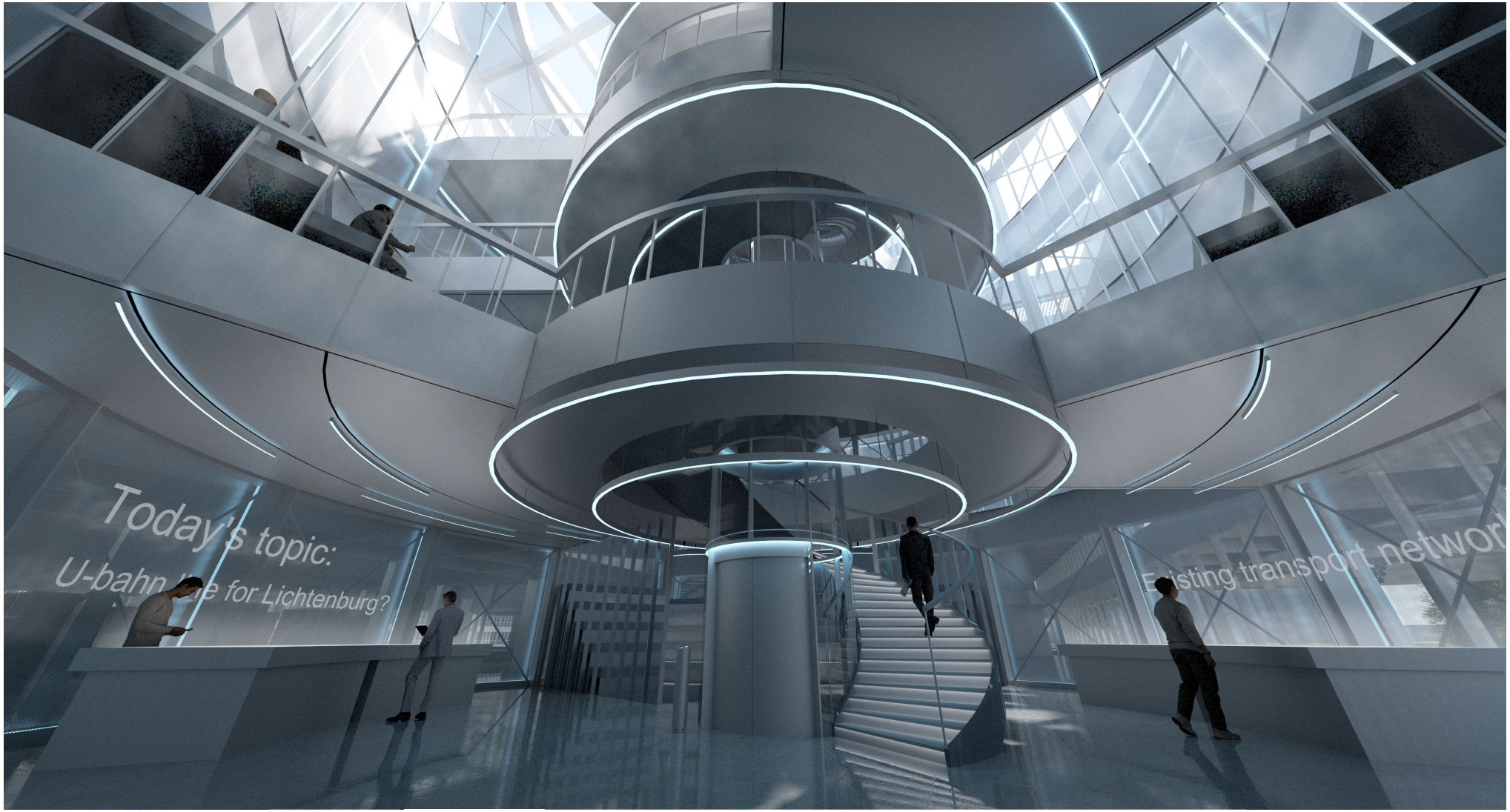
5. Plenary hall

6. Roof garden

7. Office

Part 7

EXPERIENCE OF HYBRID COMMUNICATION



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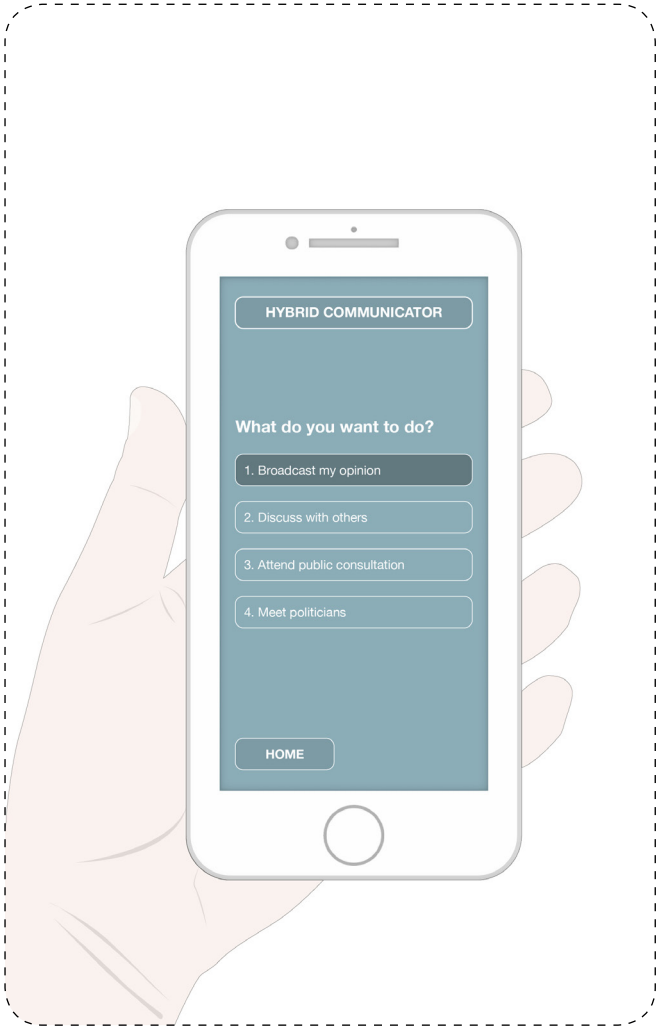

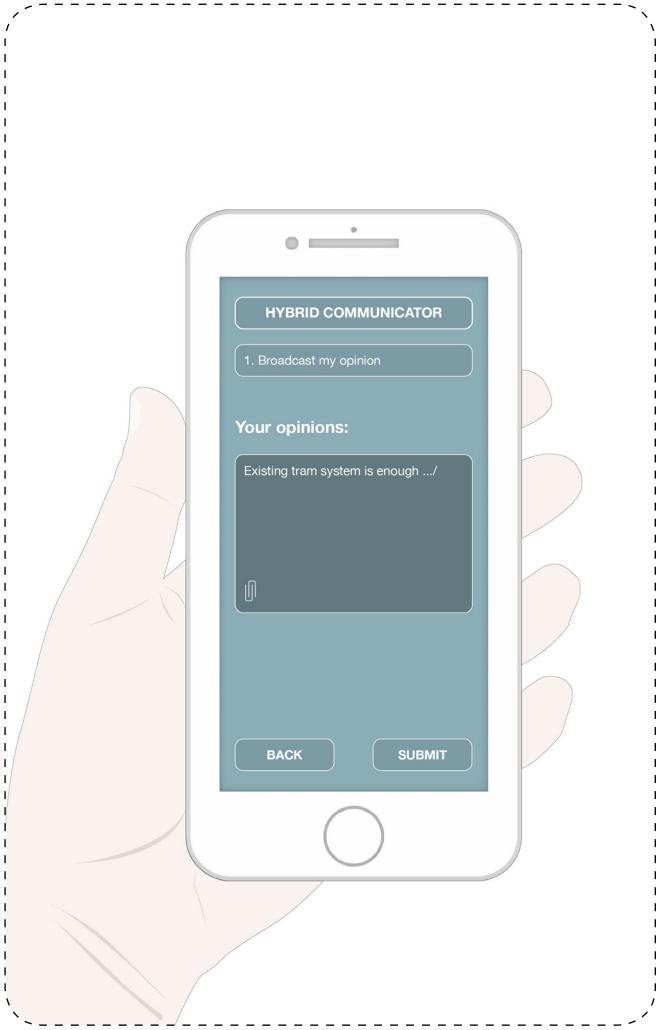

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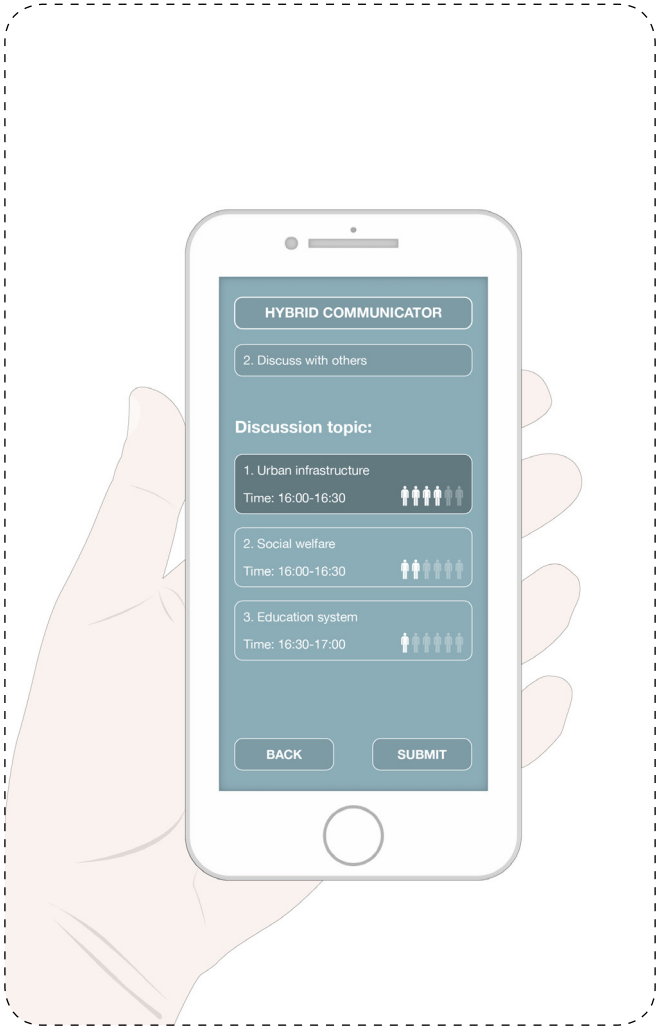

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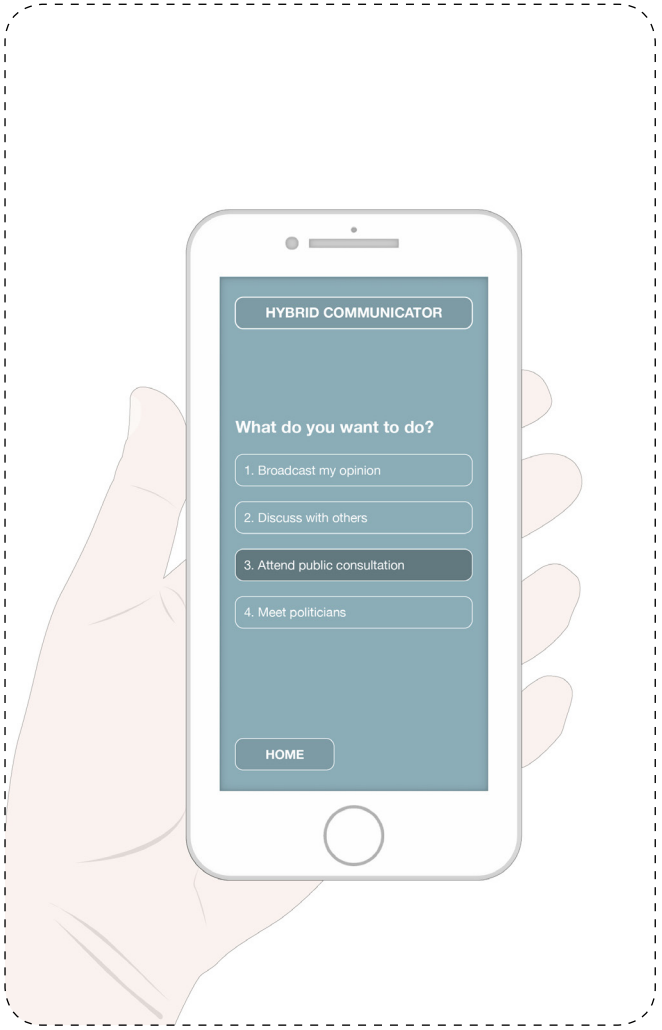

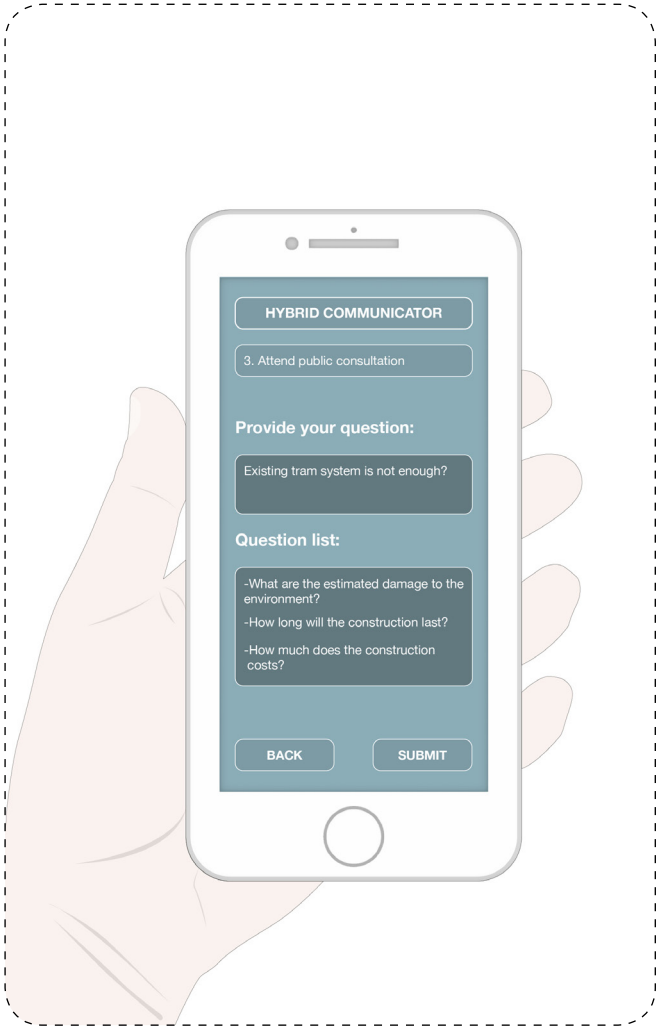

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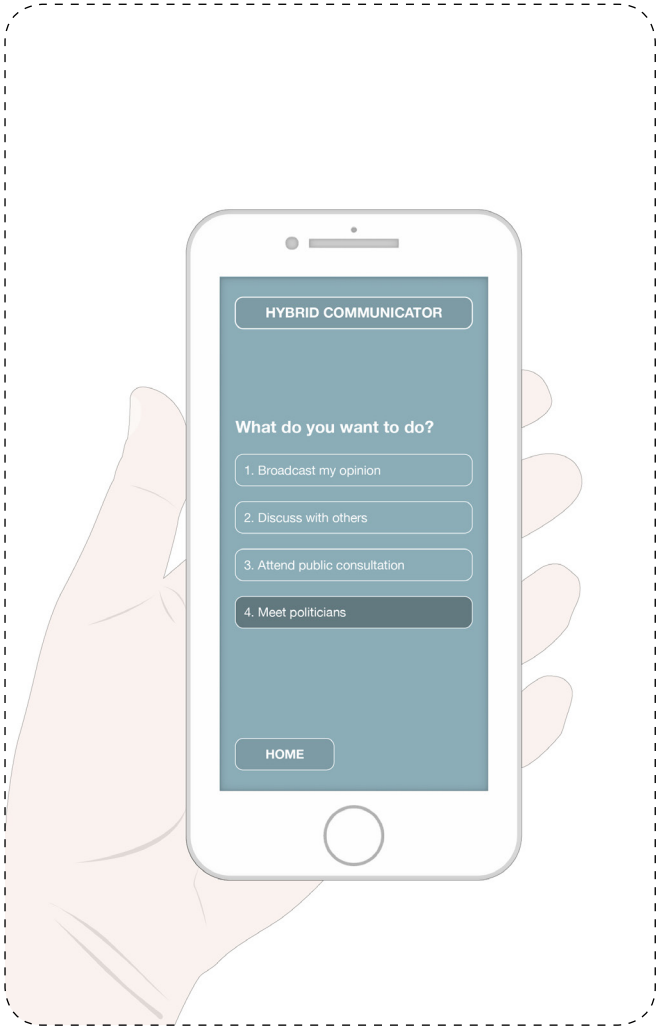

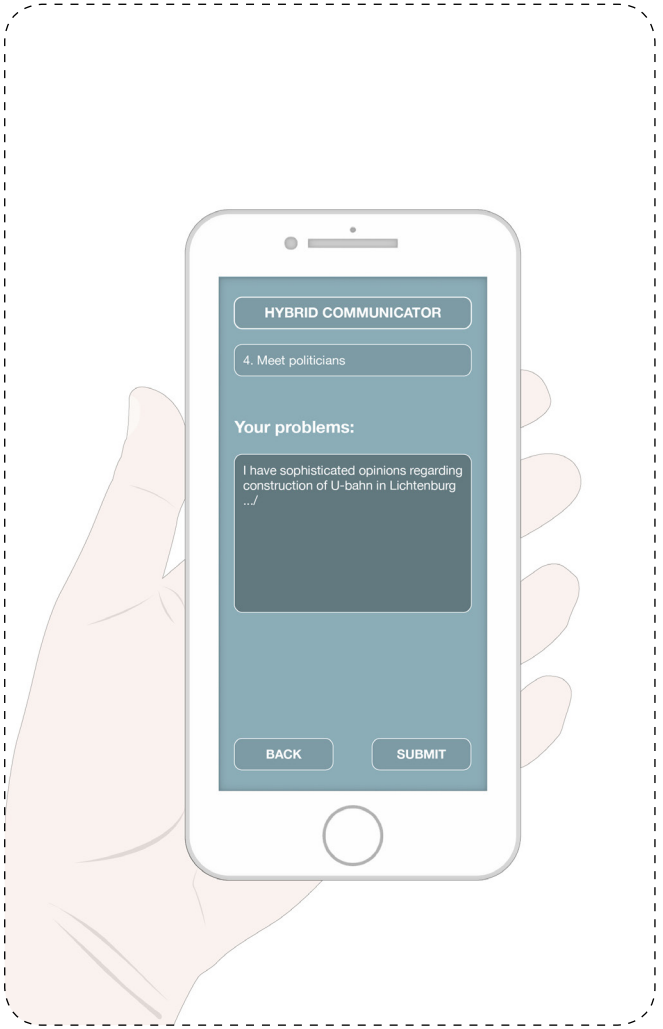

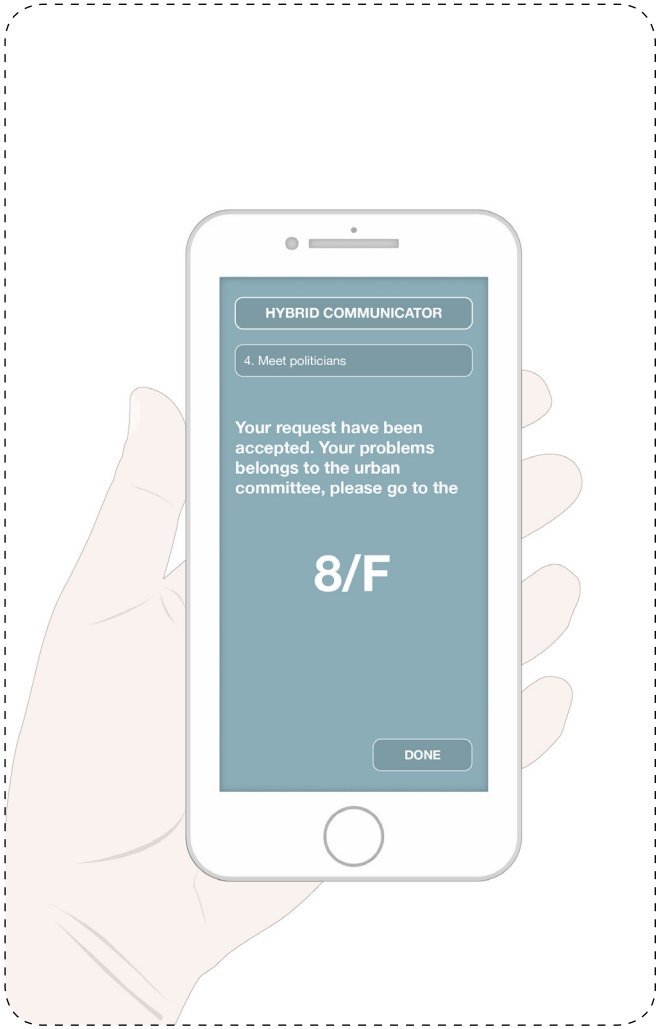

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Part 8

CONCLUSION

Done!

Part 8

CONCLUSION

Research Questions:

How **hybrid communication** can generate a more **inclusive discussion environment** in a **district parliament**?

(Physical & digital communication)

Part 8

CONCLUSION

It is by...

Refining public program of district parliament

Choosing an achitectural concept that intergrates the program

Spatial connection for hybrid communication zones

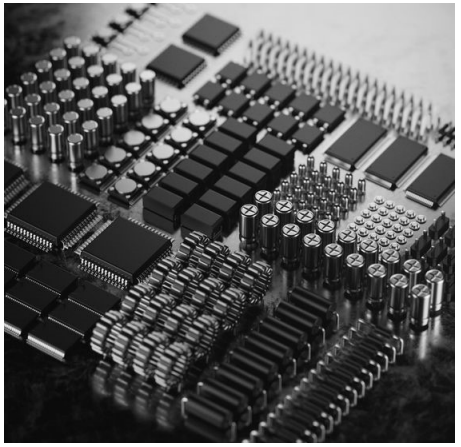
Materialization for a discussion environment

Part 8

CONCLUSION

It is by...

Refining public program of district parliament



Choosing an achitectural concept suitable for hybrid communication

Spatial connection for hybrid communication zones

Materialization for a discussion environment

Part 8

CONCLUSION

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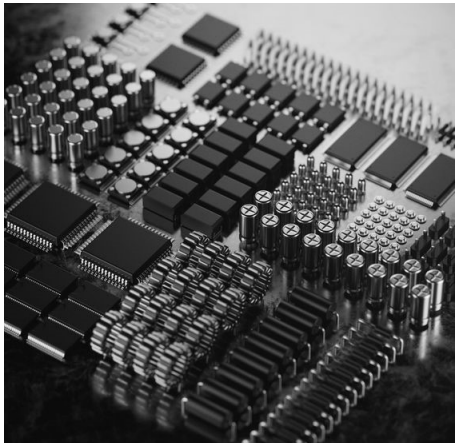

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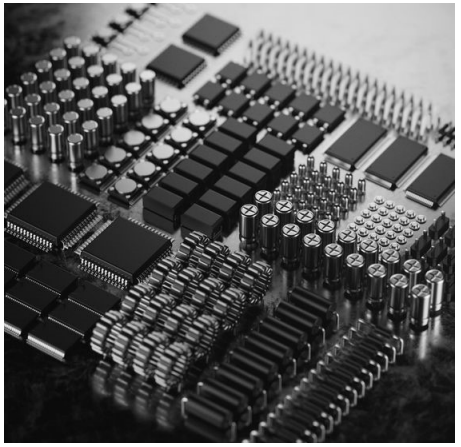

Choosing an achitectural concept suitable for hybrid communication

Spatial connection for hybrid communication zones

Materialization for a discussion environment

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JETZT STABILE RENTEN WÄHLEN.
UNITE FOR JUSTICE
UPLOADING
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THX!