

P5 Presentation

Management in the Built Environment Master's Track
Delft University of Technology

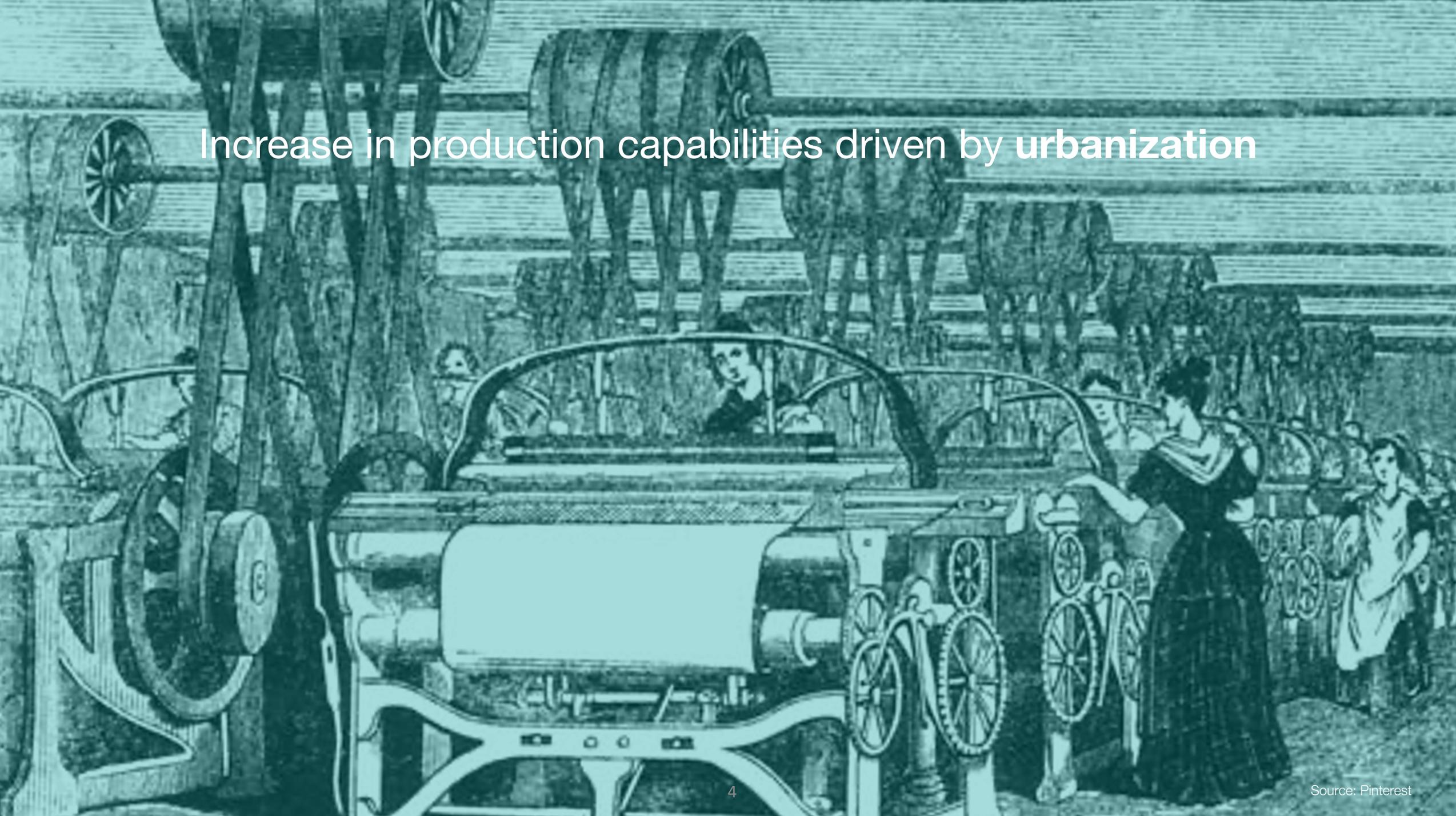
Jamila Karunia Jones

The Situation

Small-scaled production of artisan goods



Increase in production capabilities driven by **urbanization**



Health & liveability concerns linked to industry in cities



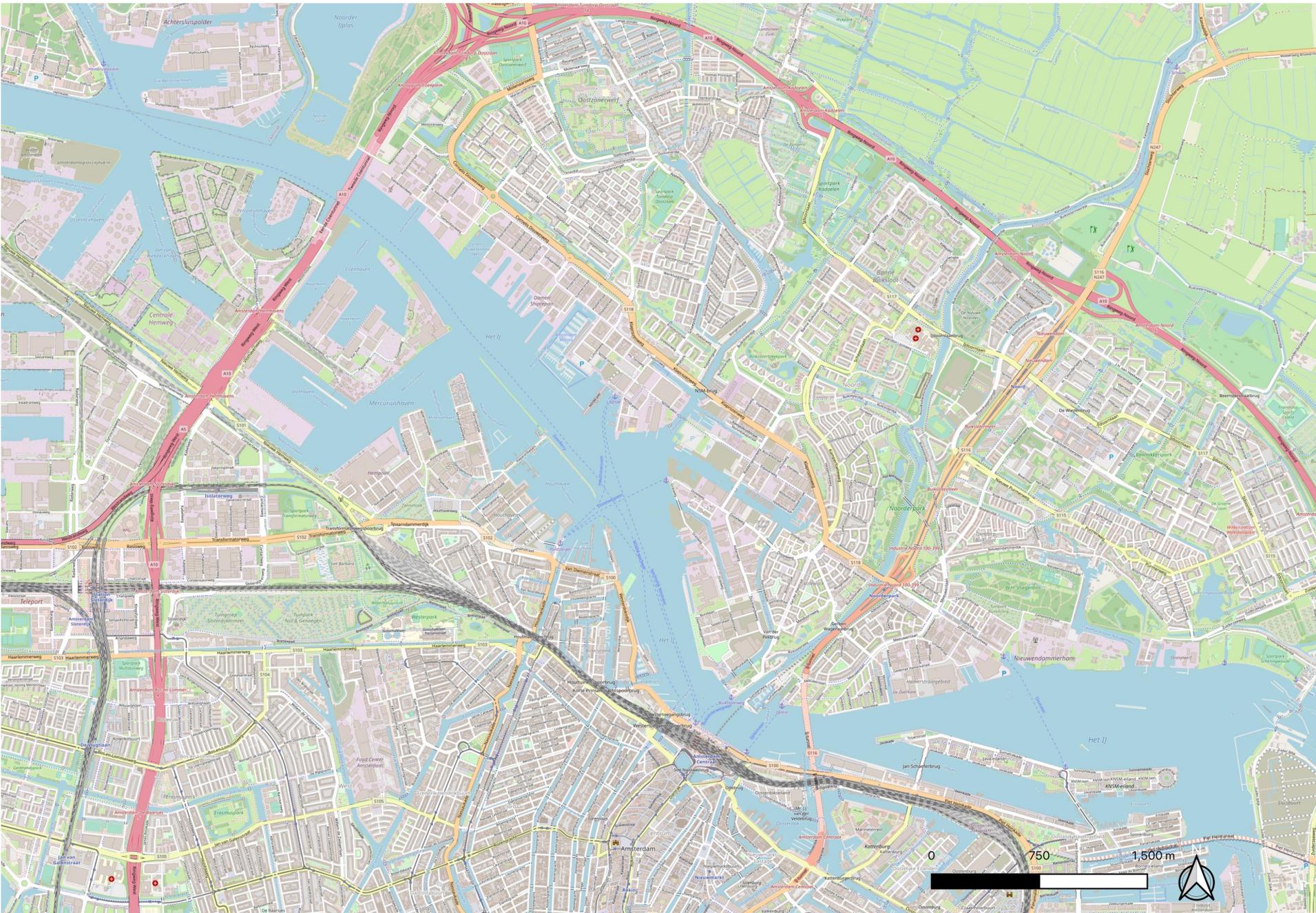
De-industrialization of cities

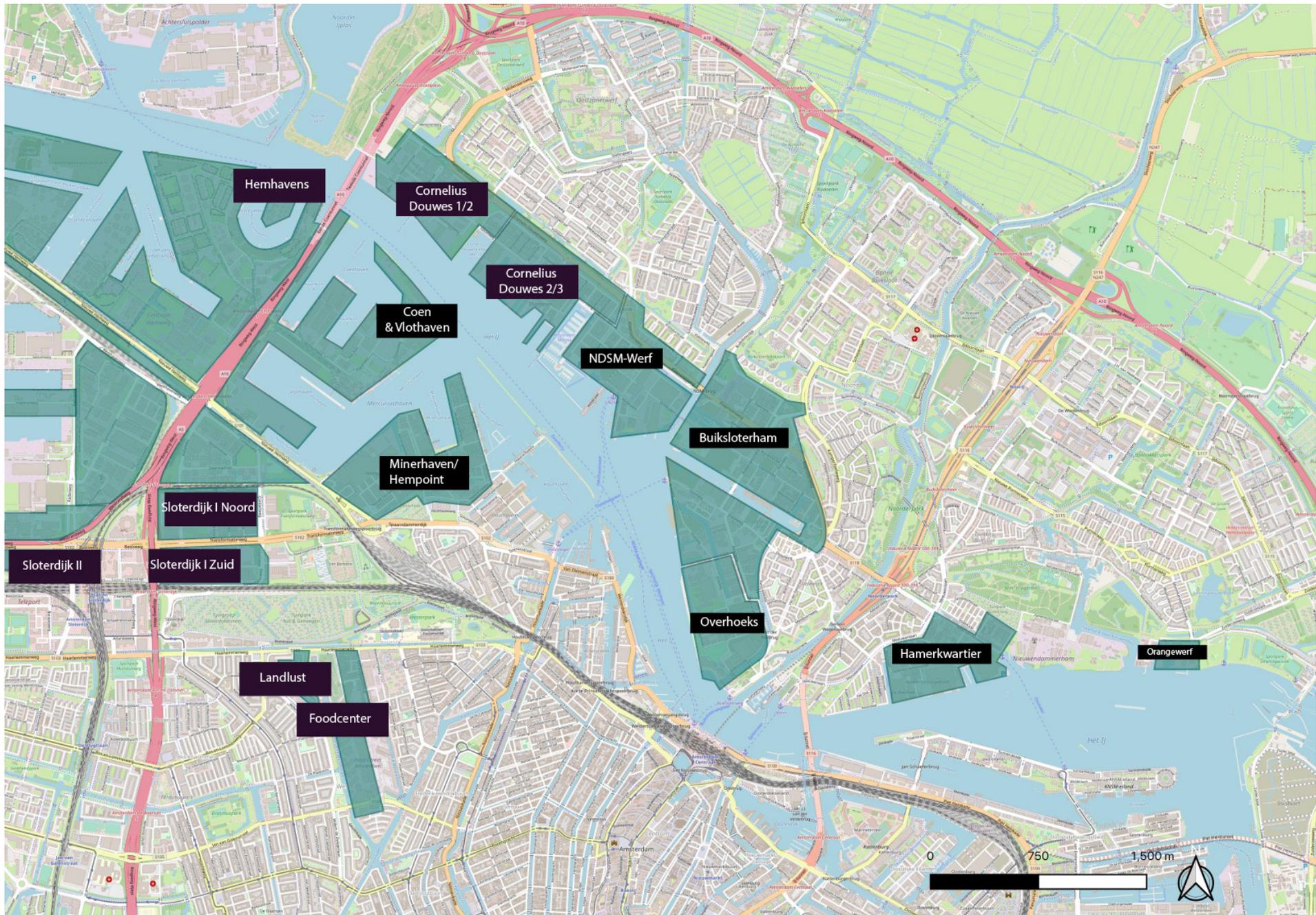


Redevelopment pressures & competing land uses

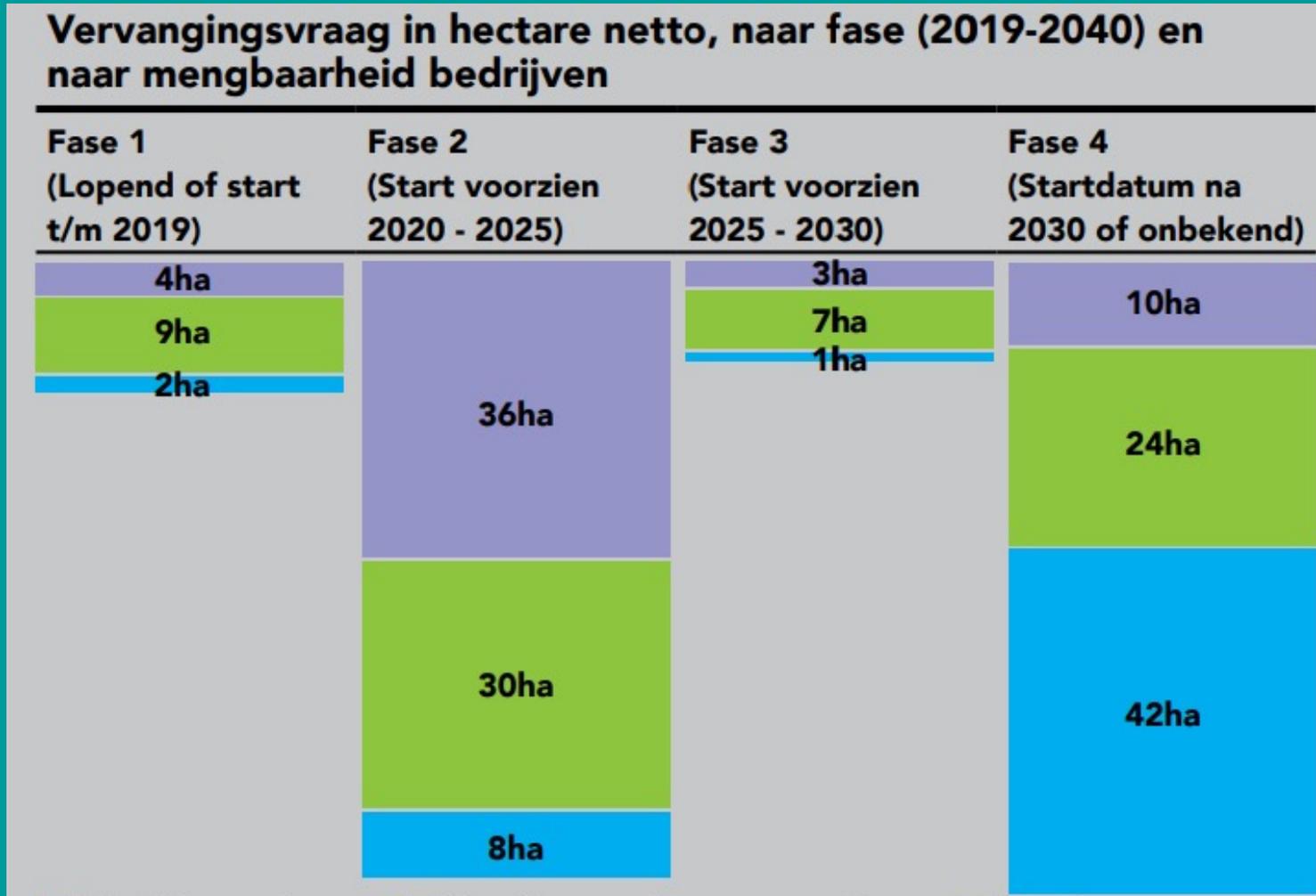


Loss of industry: Amsterdam Situation





Influences & Motivations to re-integrate Industry



- Difficult to mix
- Mixable under certain conditions
- Mixable

Source: Bedrijfstrategie 2020-2030

Competing interests & pressures for available space



MAKING SPACE FOR LIGHT INDUSTRY

AN EXAMINATION OF LIGHT INDUSTRY INTEGRATION
THROUGH MIXED-USE IN AMSTERDAM'S
TRANSFORMATION AREAS



Contents

- Research Aims & Objectives
- Research Questions
- Key Definitions
- Methodology
- Case Study
- Findings
- Main Conclusions
- Key Recommendations

Research Aims & Objectives

Aim 1: To gain greater insight on Amsterdam's **planning system & policy framework**

Aim 2: To examine **feasibility** of light industry integration in urban mixed-use developments of transformations

Aim 3: To inform & help guide **key stakeholders** in developing proper interventions & strategies

Research Aims & Objectives

Aim 1: To gain greater insight on Amsterdam's **planning system & policy framework**



Aim 2: To examine **feasibility** of light industry integration in urban mixed-use developments of transformations



Aim 3: To inform & help guide **key stakeholders** in developing proper interventions & strategies



Research Aims & Objectives

Aim 1: To gain greater insight on Amsterdam's **planning system & policy framework**



Objective 1: By understanding **influence** and **approach** by (local) public bodies

Aim 2: To examine **feasibility** of light industry integration in urban mixed-use developments of transformations



Objective 2: By capturing key stakeholders' **interests, priorities & means**

Aim 3: To inform & help guide **key stakeholders** in developing proper interventions & strategies



Objective 3: By identifying **constraints & opportunities spatially** and in **roles/capacities** of key stakeholders in transformations

Main Research Question

What are the key **conditions** that need to be considered in the integration of **light industry** in urban **mixed-use developments** of **transformation areas** in Amsterdam?

Key Definitions

Key Definitions

LIGHT INDUSTRY

Within Scope of Research Study

- Broad reaching in scope
- Covers: range of industrial functions and activities that can be integrated in an urban mixed-use environment (in theory)
- Main point of reference:
 - Product Distribution Repair Classification used in SF, USA
- Max 3.1 Environmental category from VNG Guide

PDR Classifications	
	INDUSTRY TYPE
PRODUCTION	Printing & Publishing Other Printing & Binding Photography Services Graphic Design, Int.Design & Signs Radio, T.V. Stations & Comm Svcs Garment Manufacturing Other Apparel Utilities Sound Recording/Film Prod Catering & Food Processing Building Construction & Maintenance Concrete Works Furniture Mfg & Repair Woodwork Landscaping/Horticulture & Animal Svcs Chemicals/Plastics/Leather Goods Mfg
DISTRIBUTION	Wholesale Printing & Publishing Wholesale Apparel Transportation & Delivery Svcs Taxi/Limo/Shuttle Trucking, Freight, & Packing Parcel Shipping & Courier Svcs Public Warehousing & Storage Wholesale Flowers Food & Beverage Wholesale & Distribution Wholesale Construction & Distribution Furniture Wholesale & Showrooms Interior, Household & Appliance Wholesale Large & Heavy Equipment Wholesale Wholesale Auto Parts Export/Import Trading Companies Jewelry Wholesale Mfg Waste Management
REPAIR	Auto Wrecking & Scrap Storage Yards Furniture Mfg & Wood Work Repair Appliance Repair Auto & Boat Repair, Parking& Renting

Makers specializing in creative production/crafts, repairs & refurbishment



Urban Manufacturing: Traditional



Urban Manufacturing: Advanced & high tech



Supporting Activities



Source: Own photo



Source: Camelot Consulting Group Blog



Source: trans.info

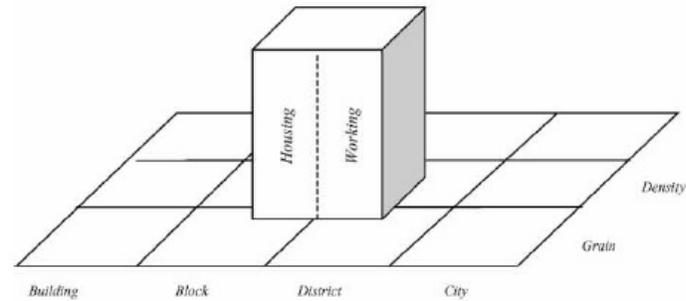
Key Definitions

MIXED-USE (DEVELOPMENT)

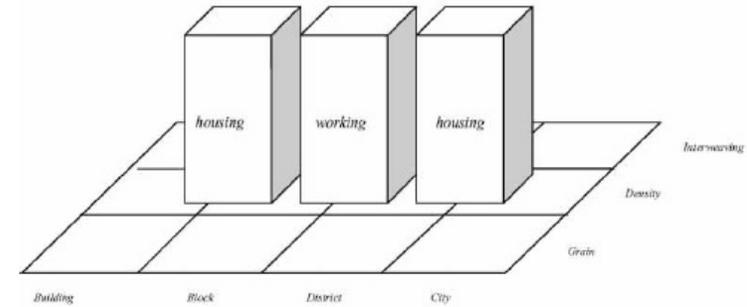
Key Definitions

MIXED-USE (DEVELOPMENT)

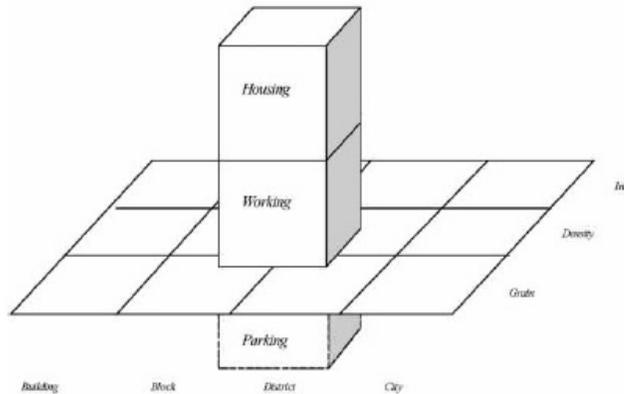
I. Shared premises dimension (point)



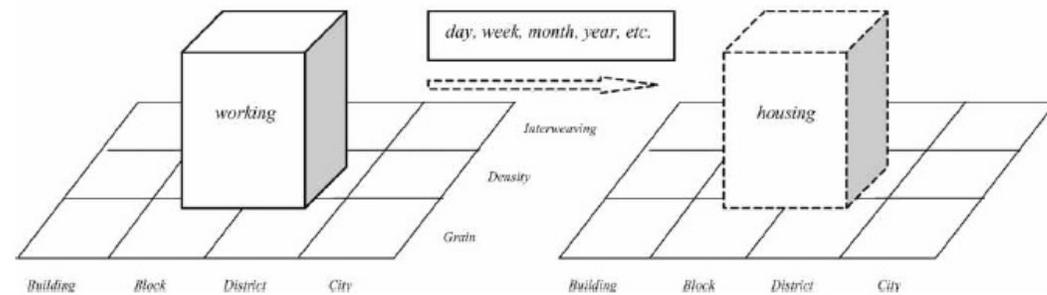
II. Horizontal dimension



III. Vertical dimension



IV. Time dimension



Key Definitions

MIXED-USE (DEVELOPMENT)

Within Scope of Research Study

- Two or more land uses or functions in same vicinity
- Light industry functions & activities would ideally be accommodated for through the provision of suitable workspaces
- Applicable scales: District, neighbourhood, block & building
- Applicable dimensions: Horizontal & Vertical mixing



Key Definitions

TRANSFORMATION AREAS

Within Scope of Research Study

- An industrial estate located within city boundaries
- Designated for transformation into a new urban mixed-use district/neighbourhood

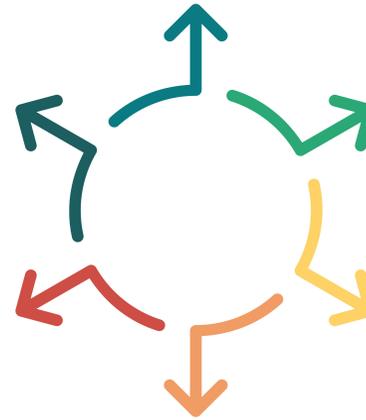


Key Definitions

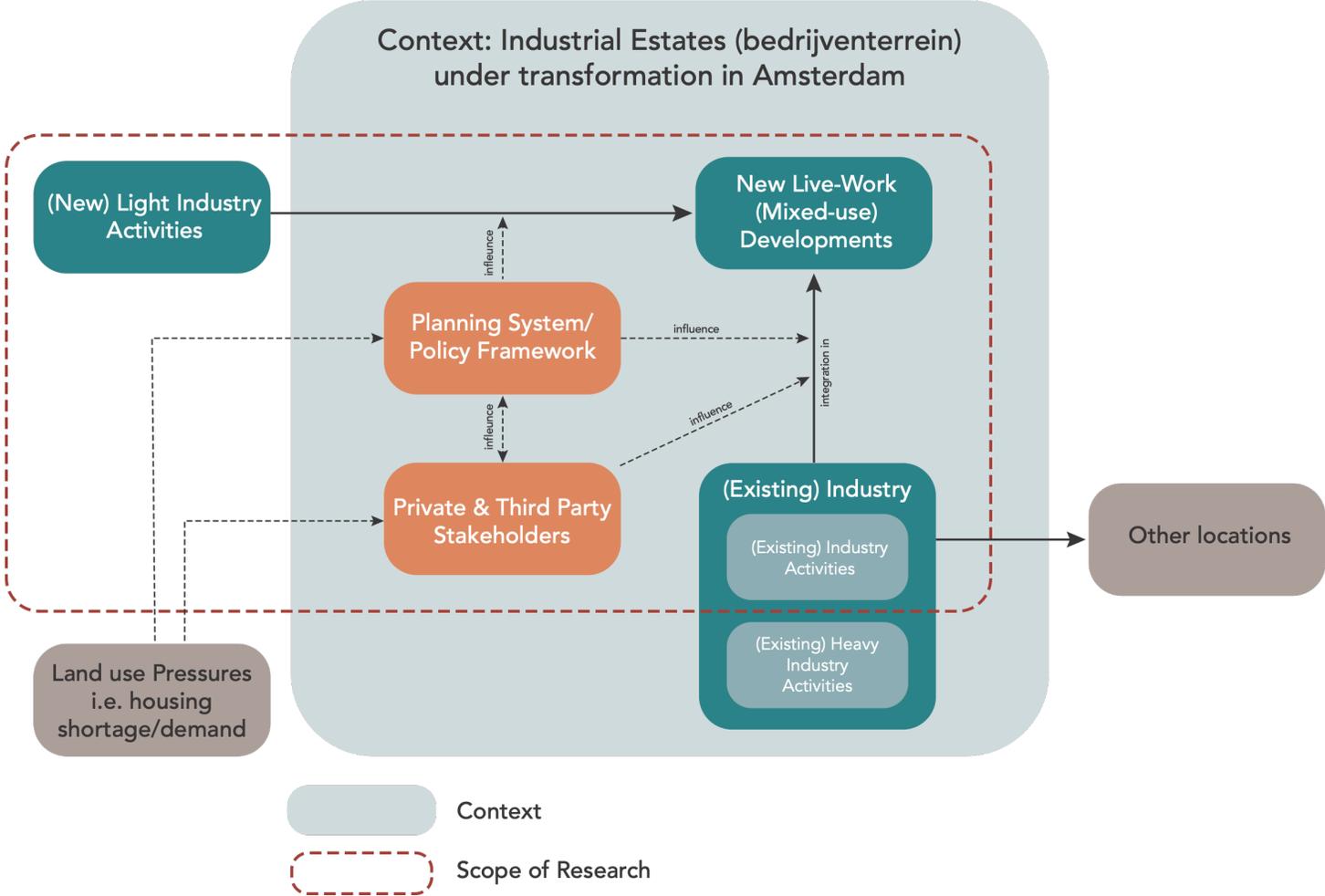
CONDITIONS

Within Scope of Research Study

- A circumstance or factor that can determine or have influence on a certain situation or outcome



Conceptual Model



Research Methodology

THEORETICAL SECTION



Source: Adobe Stock

Literature Review

- *3 main topics:*
Industry | Mixed-use | Integration of Industry in Mixed-use Developments

EMPIRICAL SECTION



Source: flaticon.com

Documentation Analysis

- *Multiple scales:*
General | Regional | City | Site | Block | External Docs



Source: flaticon.com (by Freepik)

Semi-structured Interviews

- *4 interview groupings:*
Public | Private | Third Party | Users | Experts



Source: flaticon.com (by Good ware)

Desktop Research



Source: flaticon.com (by Flat Icons)

Spatial Analysis

- Application of CoM Patterns

Case Study Design

- Examination of **one** case in Amsterdam, NL
- To deeper explore the planning process, stakeholder interests & intentions surrounding **light industry integration** in an ongoing transformation site
- Justification for site selection:
 - An urban industrial area designated for (mixed-use) redevelopment
 - Comprised of existing (light) industry under threat of being pushed out
 - Stakeholders making efforts to support and safeguard light industry businesses



Case Study: NDSM-Werf

Location: Northern banks of the IJ, Amsterdam

Description: Former shipyard; bedrijventerrein (industrial estate) designated for transformation

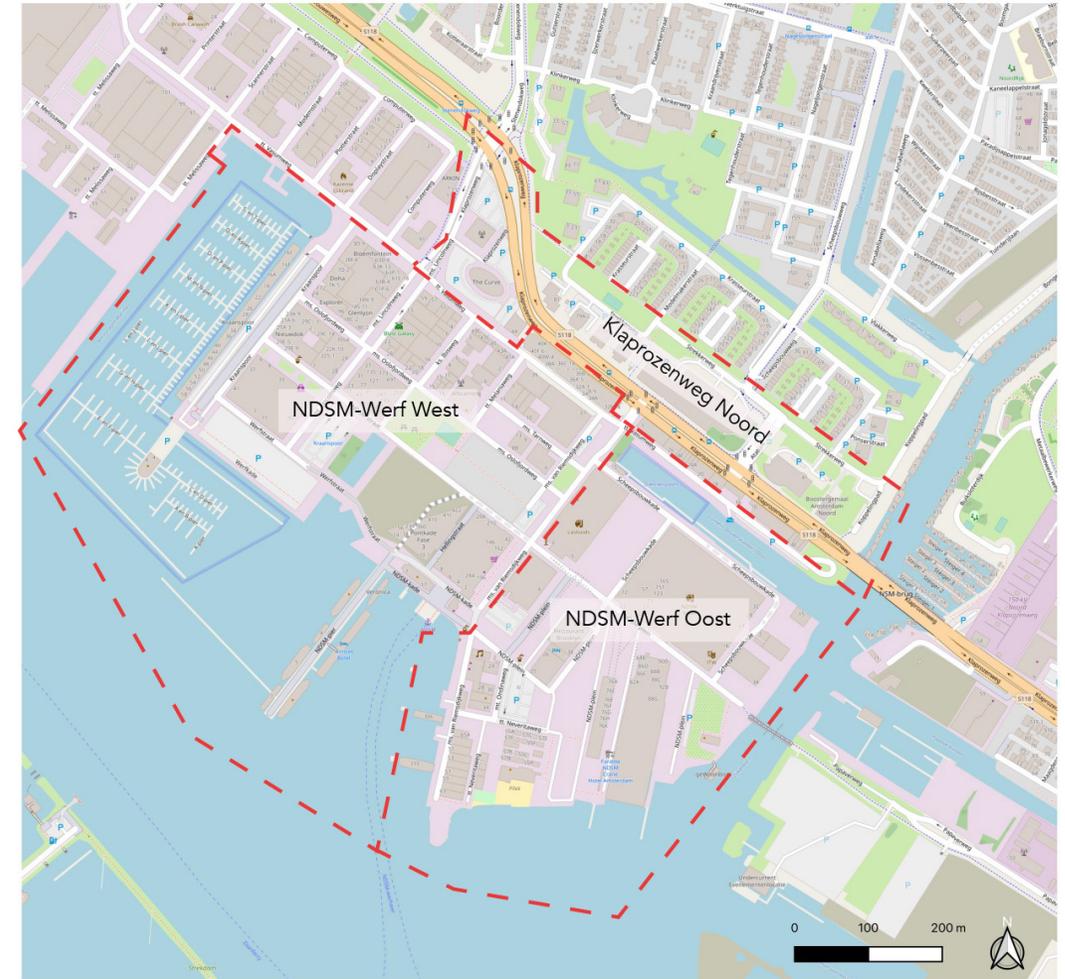
Sub-areas:

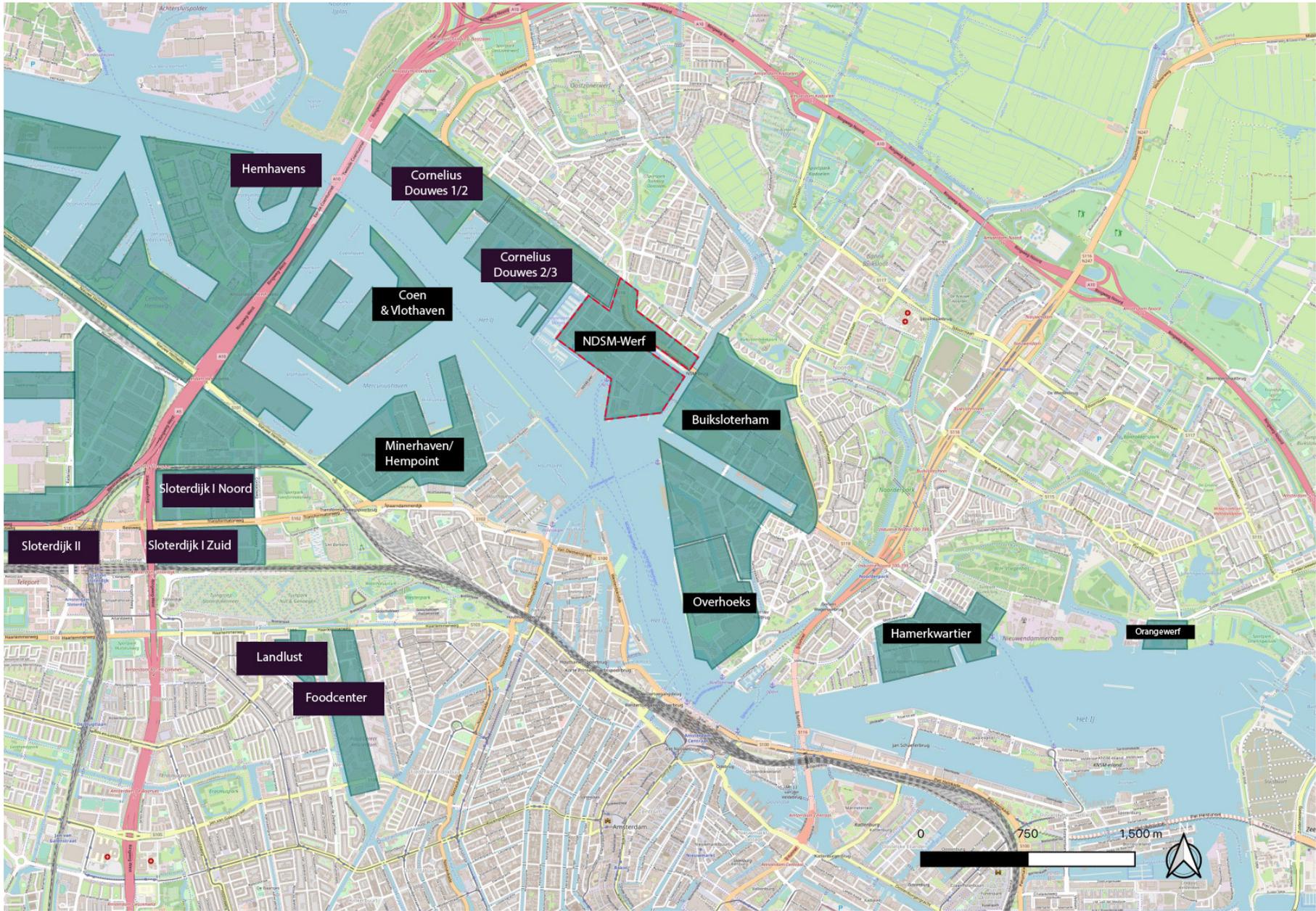
- NDSM-Werf West (A- & B- blocks)
- NDSM-Werf Oost
- Klaprozenweg Noord

Land Ownership: Erfpacht (ground lease) system

Development Status: Ongoing transformation; depends on sub-area

Live-work designation: Creative Neighbourhood



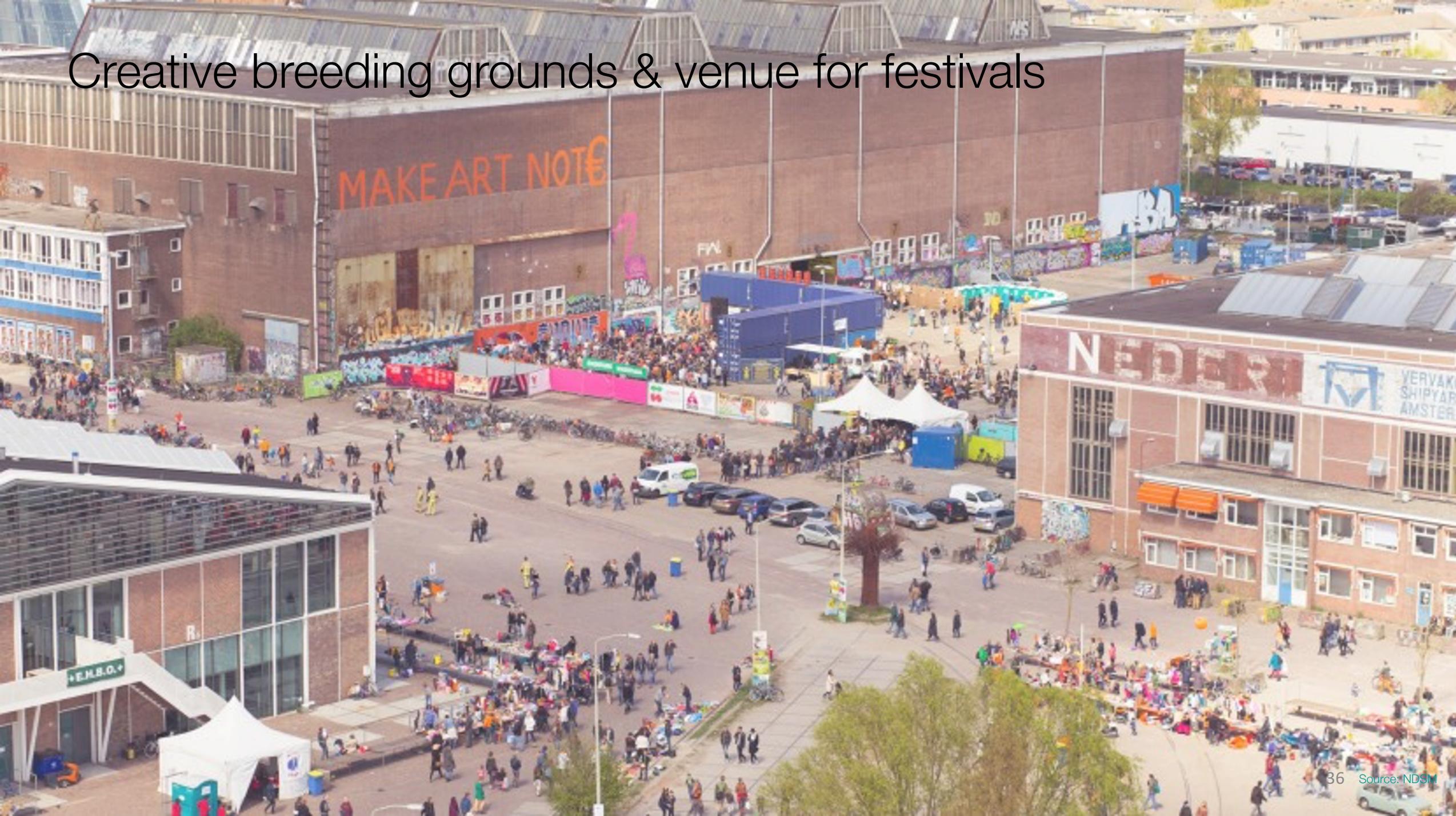


--- Case study site

Former shipyard



Creative breeding grounds & venue for festivals



Early stages of transformation

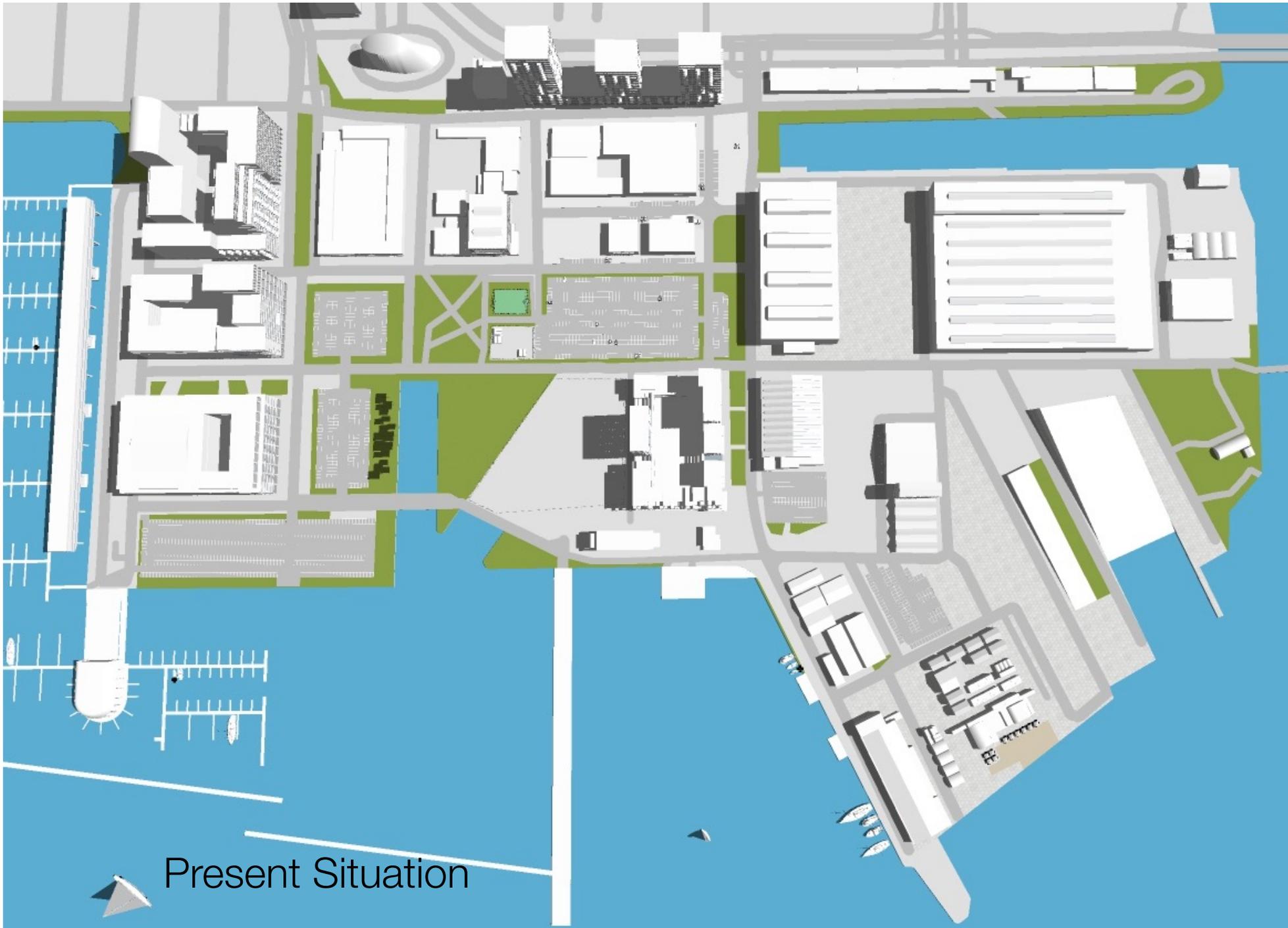


Present: Ongoing transformation





Present Situation

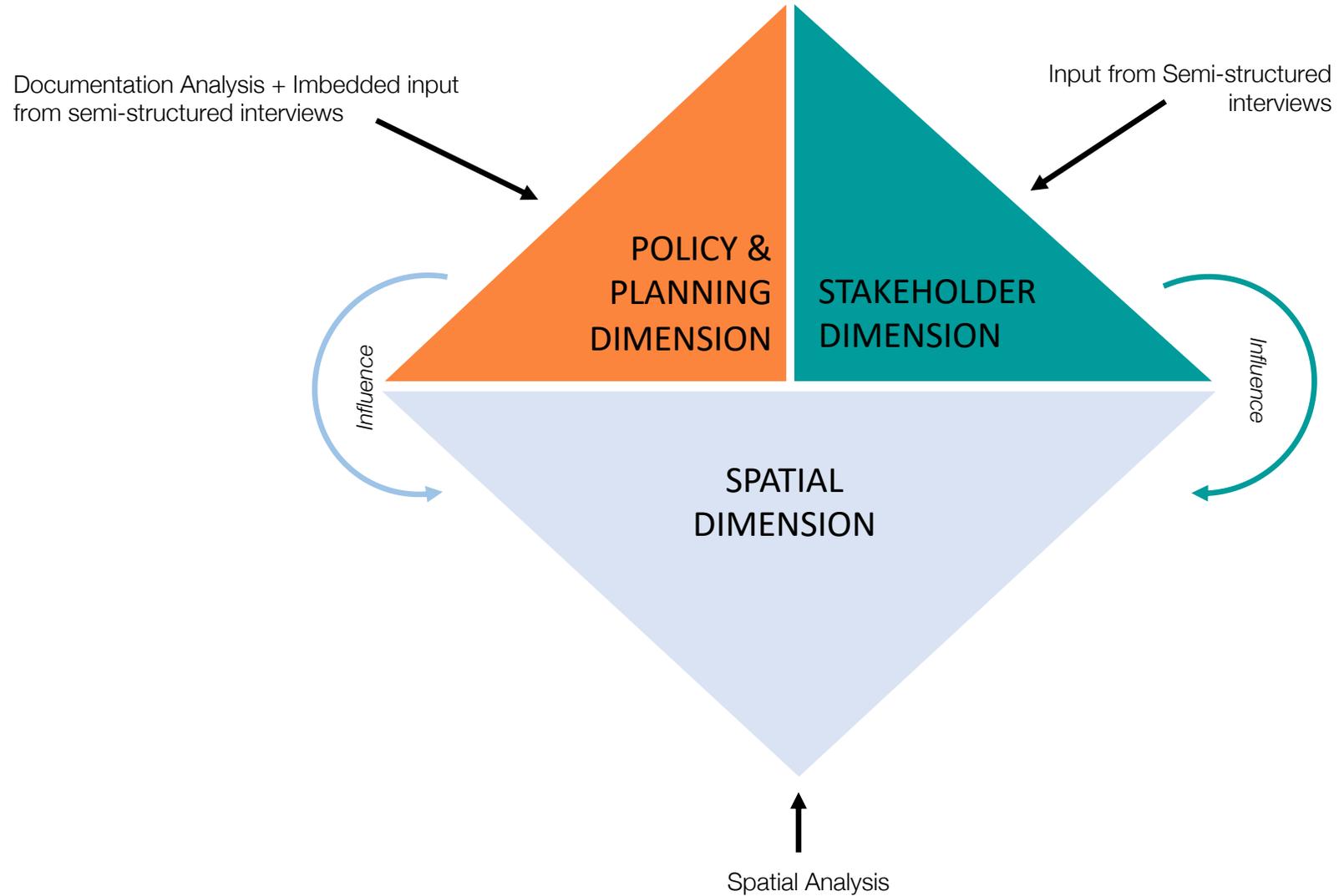


Present Situation



Present Situation | Light Industry

Empirical Research



Findings



Findings

DOCUMENTATION ANALYSIS

Transformation Process Lens

Light Industry Lens

Mixed-use Lens

CITY

- Transformation projects: redeveloping **bedrijventerreinen into new live-work** (mixed-use) districts
- Mixed-use classifications of transformation sites

SITE

- Initial intention for NDSM: accommodate interests of **existing industrial businesses**
- Priority of **realizing housing** increased significantly; transformation plans adjusted
- Limited insight on processes involved in steering/guiding development in transformations

BLOCK

- Municipality follows a **standardized roadmap** for transformation sites with steps involved in transforming per block/plot
- **Kavelpaspoort** - key tool in the transformation process
- The **erfpacht ground lease system** – critical milestone

Findings

DOCUMENTATION ANALYSIS

CITY

SITE

BLOCK

Transformation
Process Lens

Light Industry
Lens

Mixed-use
Lens

- Early municipal research focused on **explicitly** safeguarding light industry
- *Ruimte van de Economie van Morgen* – first key document that explicitly addresses the **business/economic aspect** at a broader scale; followed by spatial action plan more recently

- Initial plans for NDSM-Werf (West): To realize building blocks designed to **accommodate existing industrial functions**
- **Narrative** about preserving existing industrial operations was original captured, but changed in later documents
- **Focus shifted** to realize more housing than planned in additional blocks (A4-A7')

- **No explicit emphasis** on accommodating light industry activities at this scale
- **Ground rent** calculations: **limitations** for the business category (no distinction between different types)

Findings

DOCUMENTATION ANALYSIS

CITY

SITE

BLOCK

Transformation
Process Lens

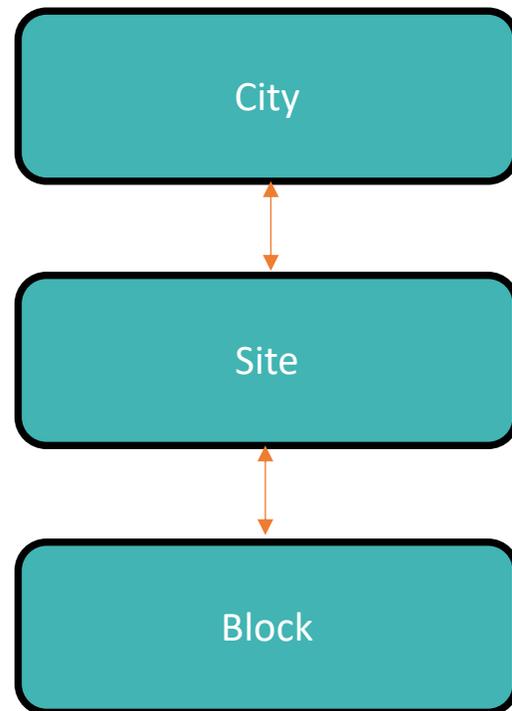
Light Industry
Lens

Mixed-use
Lens

- **Initial intention:** to safeguard existing business types that can be mixed with living functions when transforming bedrijventerreinen
- Over time, **housing became priority** that overshadowed work functions (space and presence wise) in transformation sites
- **Intention & approach** to realizing mixed-use in NDSM-Werf has **fluctuated**
- **Definition/scope of mixed-use** in NDSM has **change** over time (live-work ratio)
- Mixed-use not **explicitly captured**
- Ground rent calculations: mixed-use developments are taken into account, but **not explicitly involving light industry**

Findings

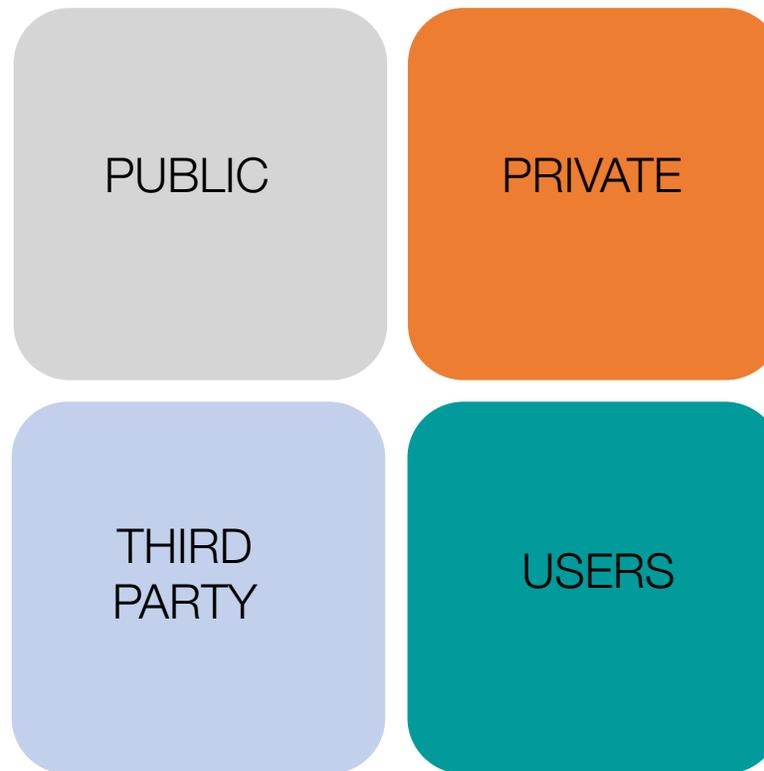
DOCUMENTATION ANALYSIS CROSS-EXAMINATION



- Scale plays significant role in:
 - Addressing & accommodating light industry in industrial estates in Amsterdam under transformation
- More explicit emphasis on prioritizing existing industry through transformation efforts using **mixed use** by the municipality at *city scale*
- Not yet been **fully developed** at site or block scales within the case study site of NDSM-Werf

Findings

STAKEHOLDER ANALYSIS: IDENTIFICATION



Findings

STAKEHOLDER ANALYSIS: IDENTIFICATION



Findings

STAKEHOLDER ANALYSIS: INTERVIEWED



Findings

STAKEHOLDER ANALYSIS: INTERVIEWED



Findings

STAKEHOLDER ANALYSIS: POSITIONS

- Most were open to idea of mixing; had concerns related to long-term feasibility – conflicts with residential and business case
- Representative of the municipality: open to mixing light industry, but had environmental and development-related arguments

A. Mixing (light) industry in new live-work developments

B. Municipality's priorities & efforts in retaining/supporting light industry businesses in NDSM-Werf

C. Safeguarding industrial space & maintaining affordability

“Yes, I think it can be feasible. The developers do have to change their mindset and understand that they are making a different kind of neighborhood than maybe then there used to. It's not going to be Overhoeks. So they have to accept lower revenues in some of the spaces. In the end, I think it will make [a] much better neighborhood with a mixed-use of working and living” – The Land Development Project Leader of NDSM (Personal communication, 2021)

“Mixing is because there's no other alternative, you know? You have to mix because there's too many houses in this area, so now we must find out what kind of work can we do in these densely populated and built environments. [...] In my opinion, that's [...] the wrong way around, because yeah, you should start with combining all these things and that's a big worry.” – Director of ORAM, personal communication, 2021

Findings

STAKEHOLDER ANALYSIS: POSITIONS

- Mixed response from non-municipal stakeholders
- Critical remarks
 - zoning designations
 - planning tools
- Municipality plays limited role in retaining existing light industry businesses as part of transformation plans

A. Mixing (light) industry in new live-work developments

B. Municipality's priorities & efforts in retaining/supporting light industry businesses in NDSM-Werf

C. Safeguarding industrial space & maintaining affordability

"The needs for houses is so big so that [the realization of industrial/manufacturing spaces is] a secondary request I think." – Owner of CHASE/Leaseholder, personal communication, 2021

"Well, it is a priority to maintain these companies, also for the employment in these kinds of businesses. We don't want to chase all these companies out of the city, because that's what usually happens, and that's what we've seen happening, they go to Zaandam or to other parts in the area of Amsterdam, and they all leave the city because they can't afford to pay the rent anymore. And that's, that's quite difficult for the city to have influence on because, well, in this case of NDSM, you see that first thing before the new buildings out there, you have to tear down the old buildings. So where do users go? And will they come back after the new development is realized? And that's a bit hard for the city to control. So, we try to make the conditions for them to return, but we cannot really make them do that." – Land Development Project Leader of NDSM (Personal communication, 2021)

Findings

STAKEHOLDER ANALYSIS: POSITIONS

- Affordability very important for certain stakeholders
- Municipality has existing tools (planning & financial) that are considered as appropriate to accommodate light industry

A. Mixing (light) industry in new live-work developments

B. Municipality's priorities & efforts in retaining/supporting light industry businesses in NDSM-Werf

C. Safeguarding industrial space & maintaining affordability

“Well, it’s good [that] you mentioned [cross subsidies] because we suggested that actually. We said, what if we say [...] we use other turnover in the building to lower the rents for the makers [to put it] very simply. Or that we say these workspaces are not being used, after six o’clock in the evening so we can sort of double use [and] we rent out certain spaces so that we maximize the value per square meter so we minimize the rent. [...] now in the legislation, in the Erfpacht, it’s not possible they told me, because then they would have to make it mixed-use, and then you get the highest erfpacht [...]” – Co-founder of Made up North, personal communication, 2021

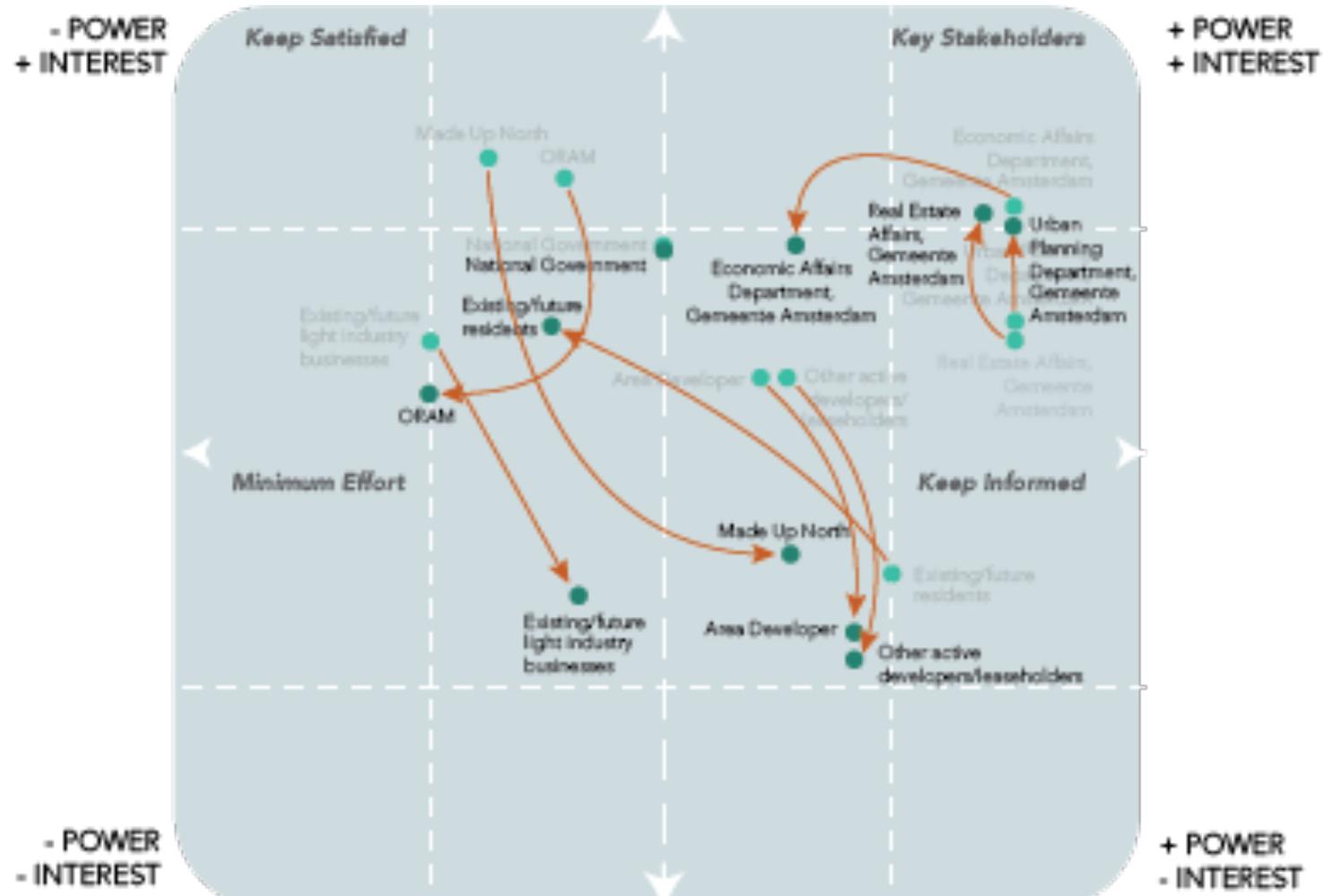
Power-Interest Positions: Expected Situation



Power-Interest Positions: Actual Situation

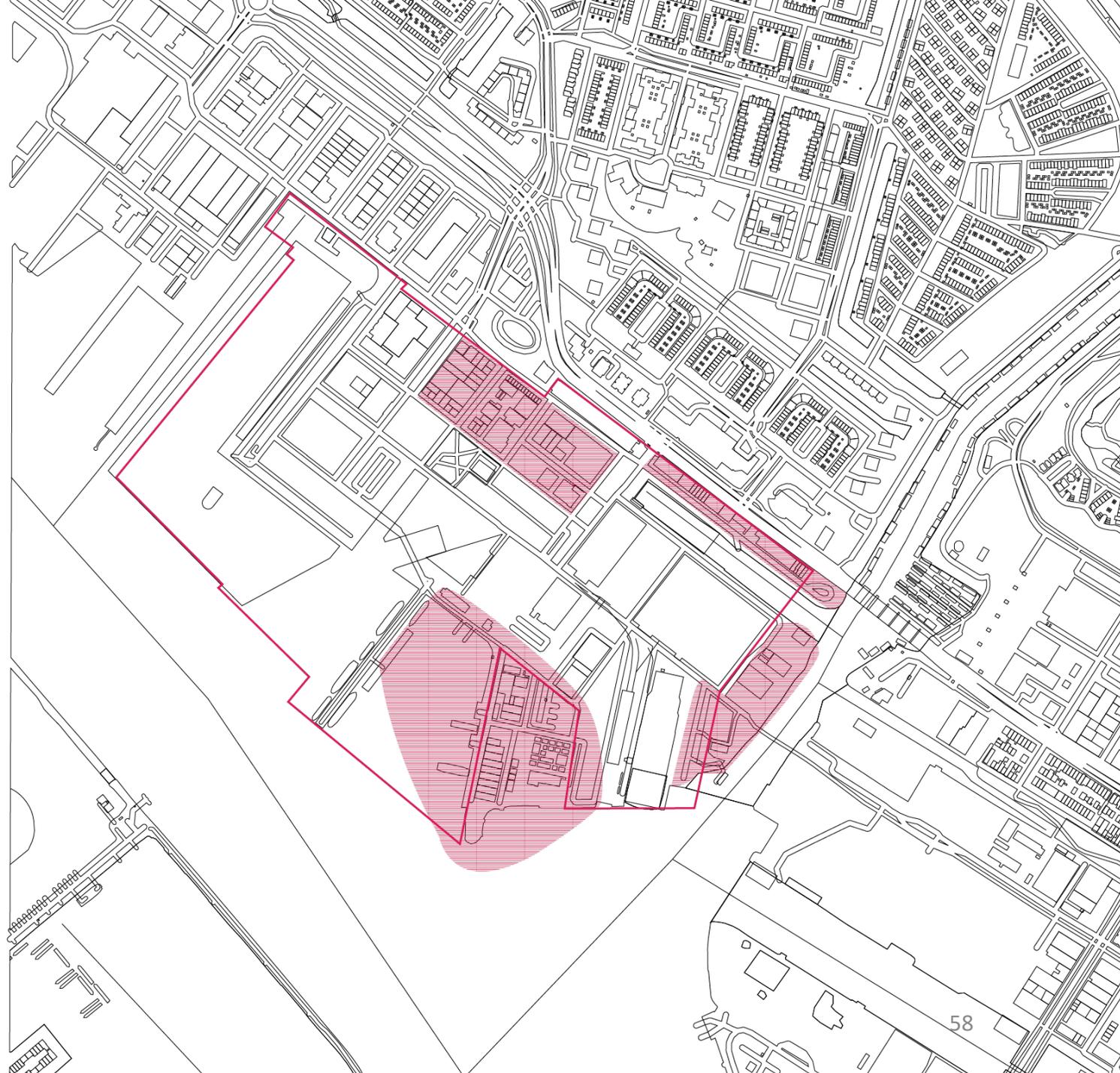


Power-Interest Positions: Expected vs Actual



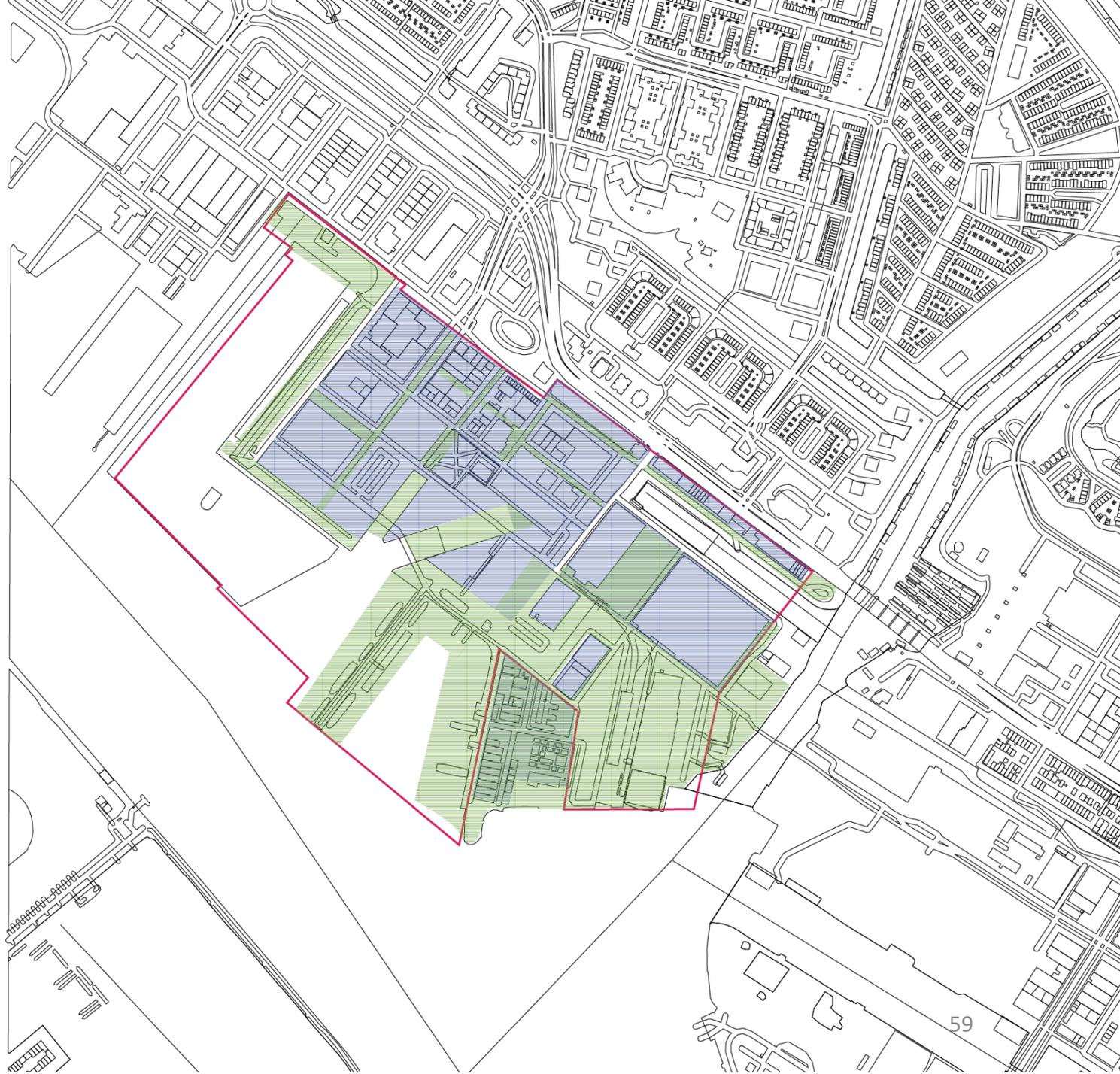
Spatial Claims

Light industry businesses



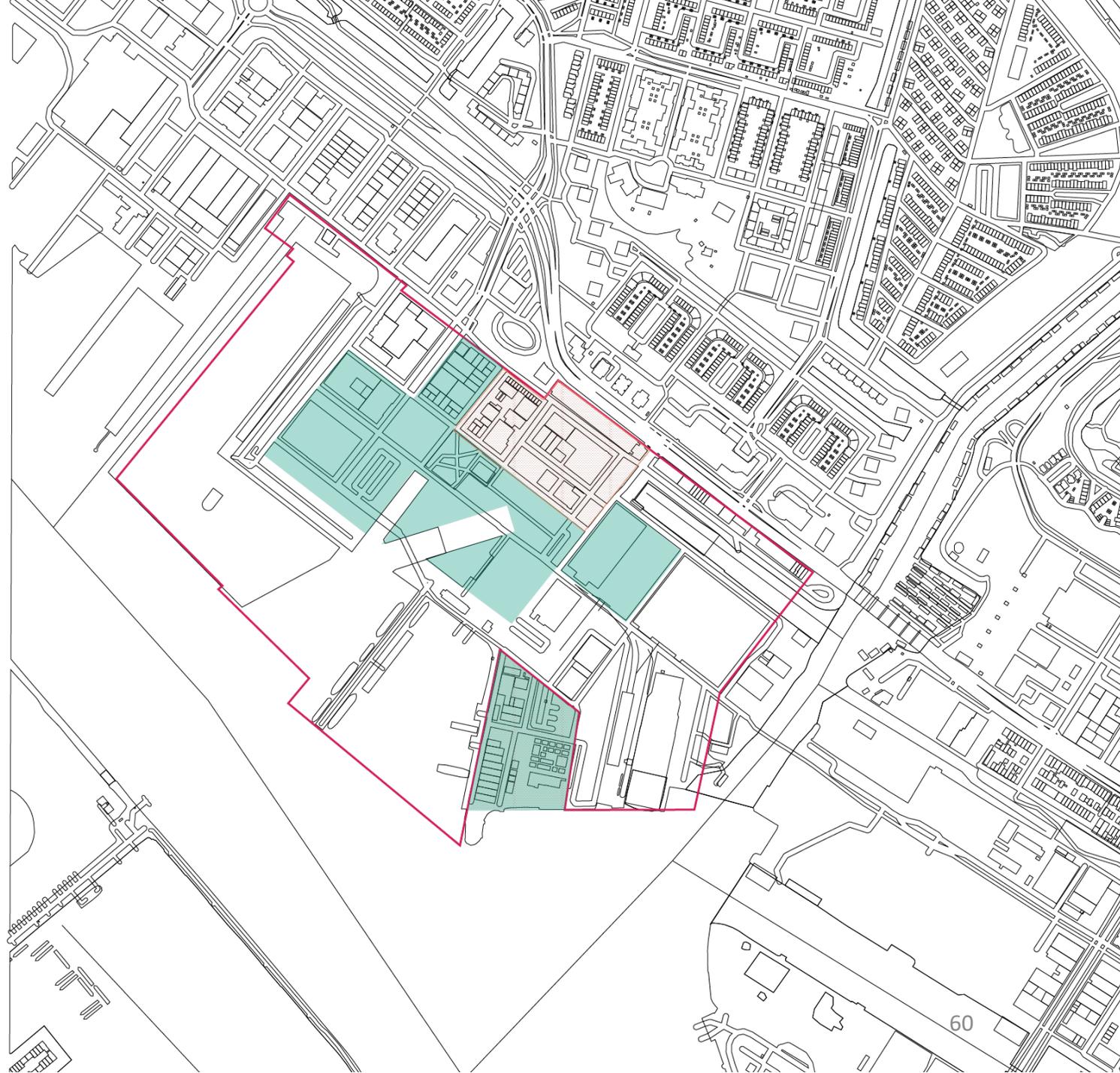
Spatial Claims

Gemeente Amsterdam



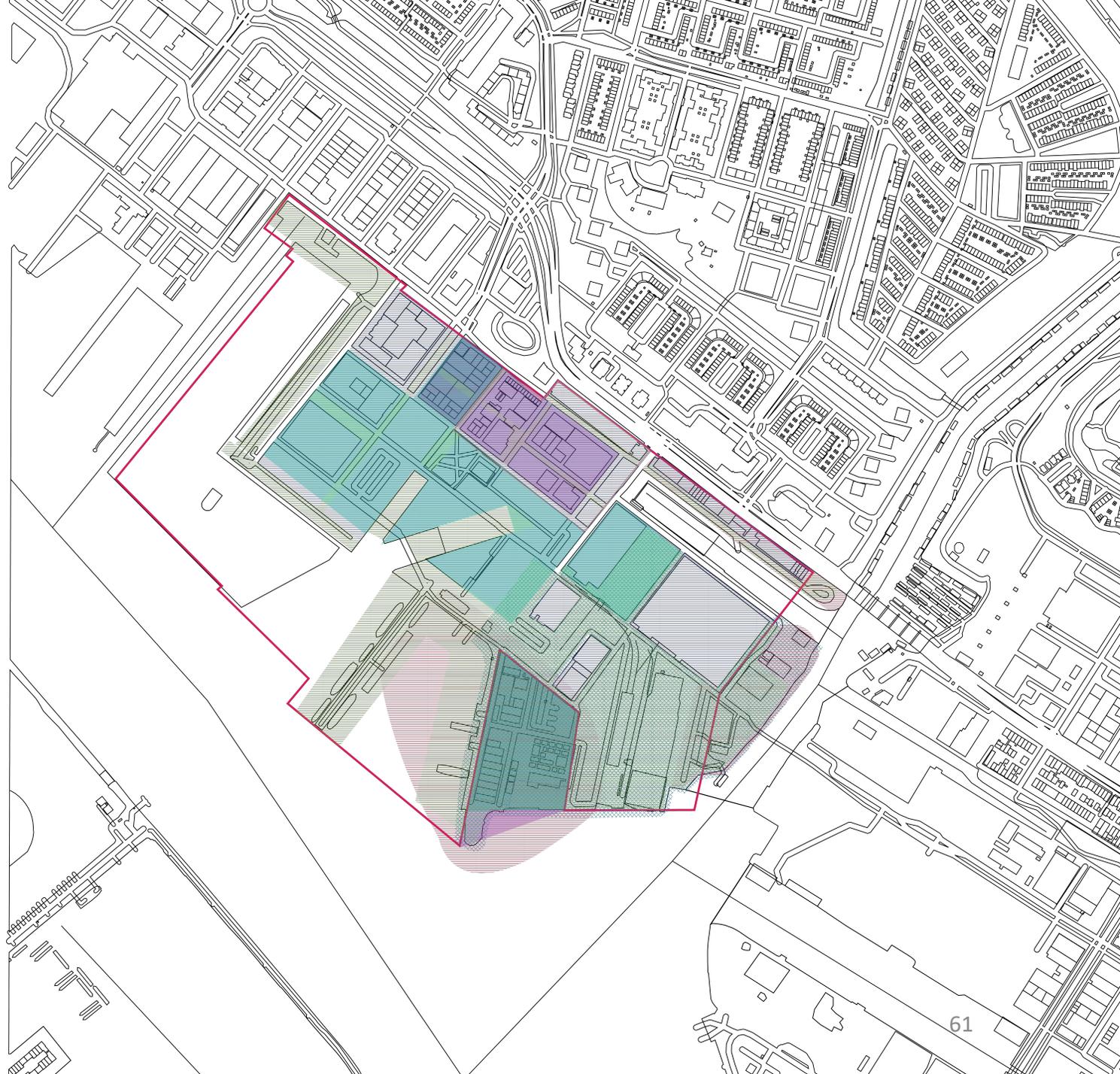
Spatial Claims

Developers



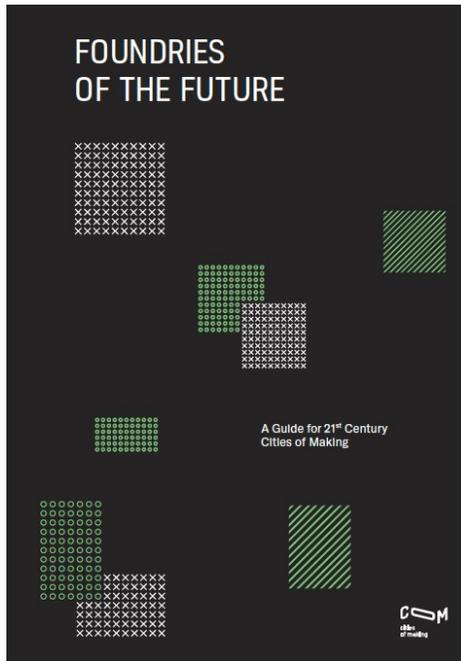
Spatial Claims

OVERLAID



City of Making (CoM) Pattern Language

COM



R = Transcalar

C = City/Neighbourhood

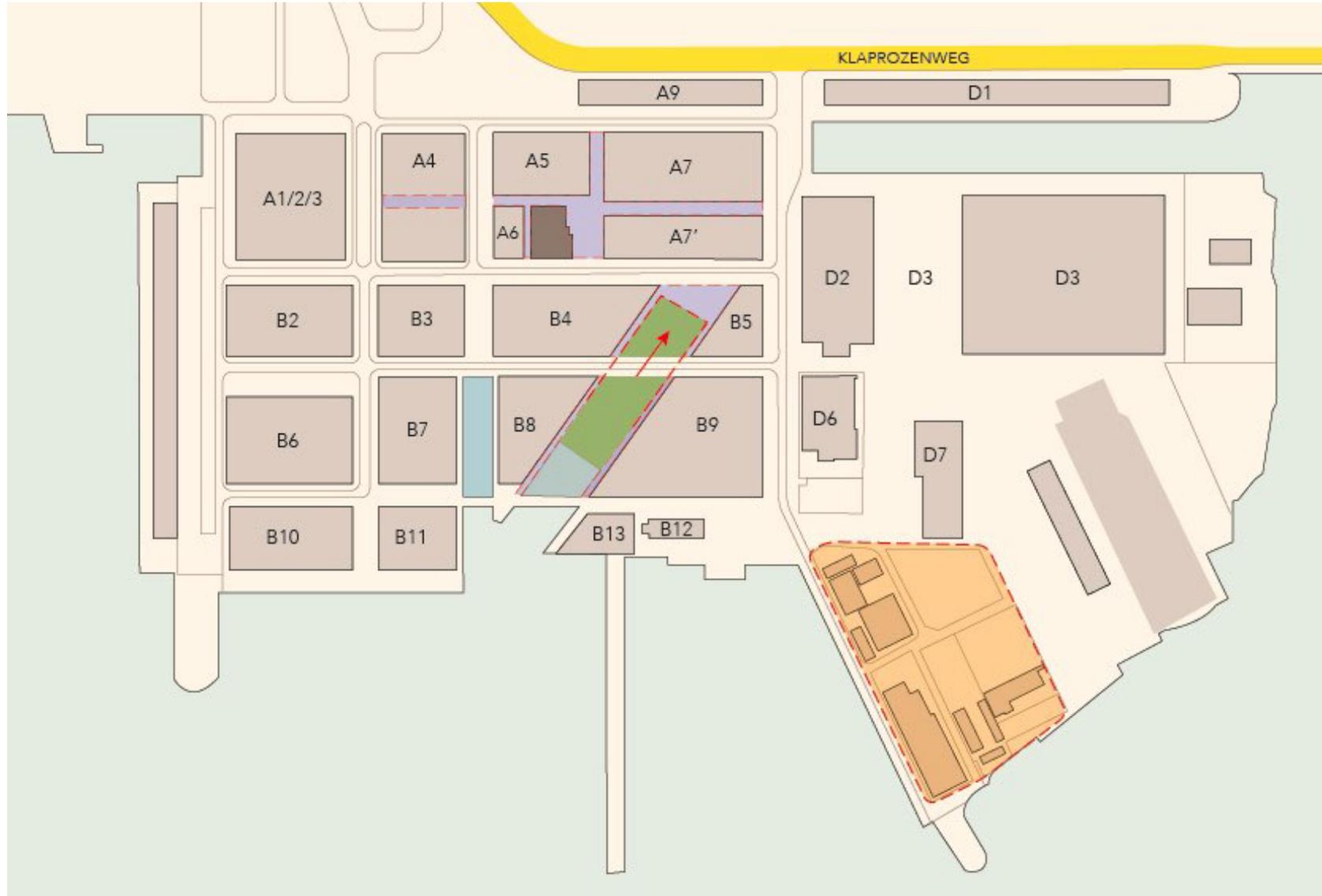
N = Neighbourhood/Block

B = Block/Building

P = Programme



Examined Plans



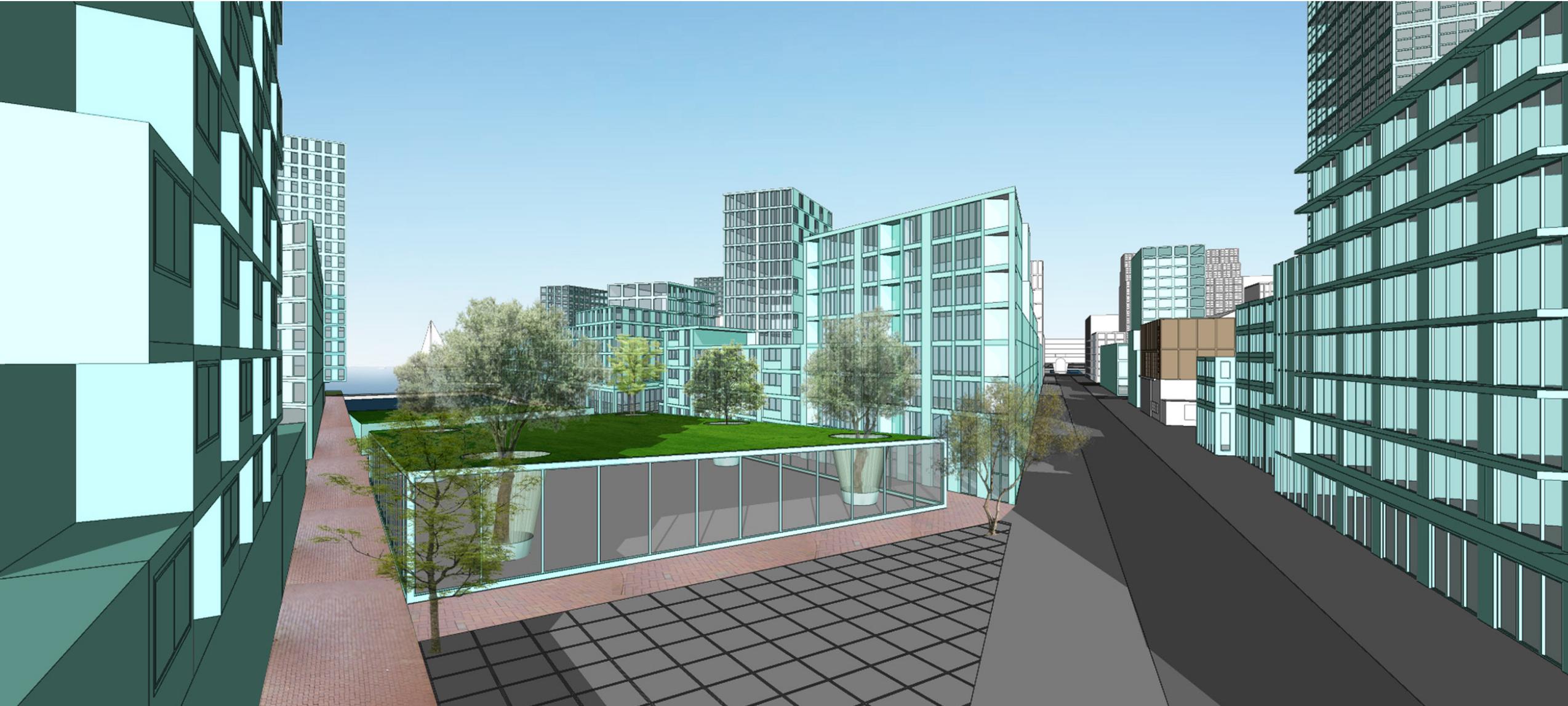
Helling 5 Extension



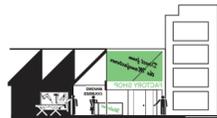
Present Situation



Municipality's Plans



**Taking advantage of
Place Conditions**



**Public
Face**

Identified Opportunities



**Quality Urban Environment
in Making Areas**



Flexible spaces for
making



Spaces for development &
education

Identified Opportunities



**Quality Urban Environment
in Making Areas**

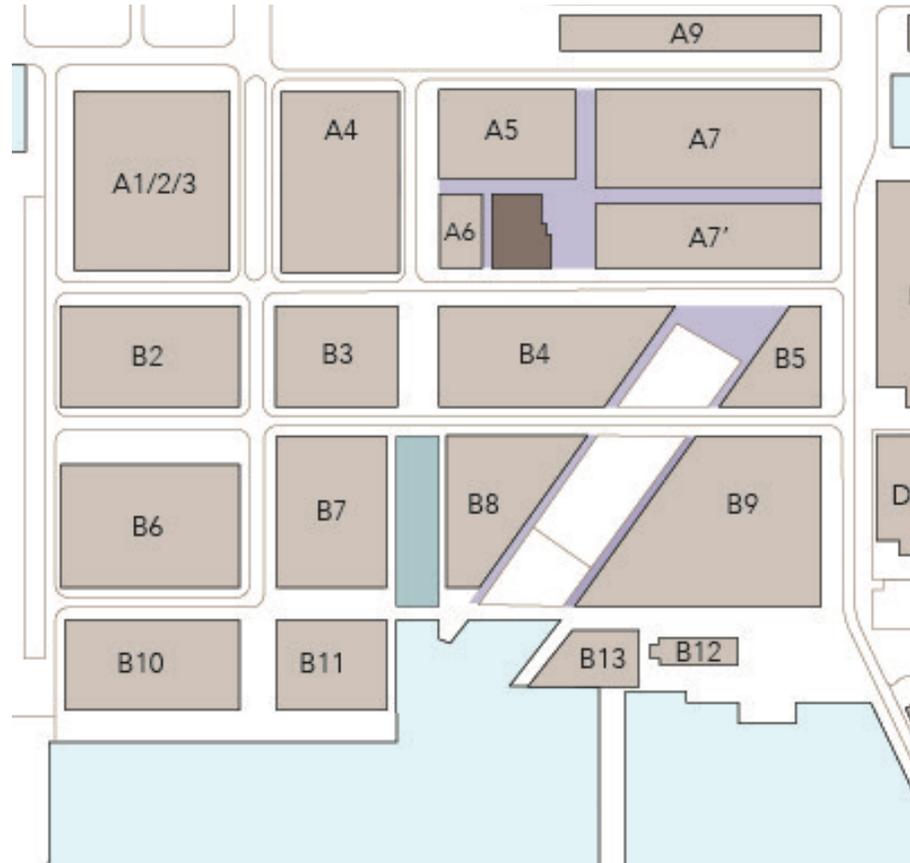


**Flexible spaces for
making**



**Spaces for development &
education**

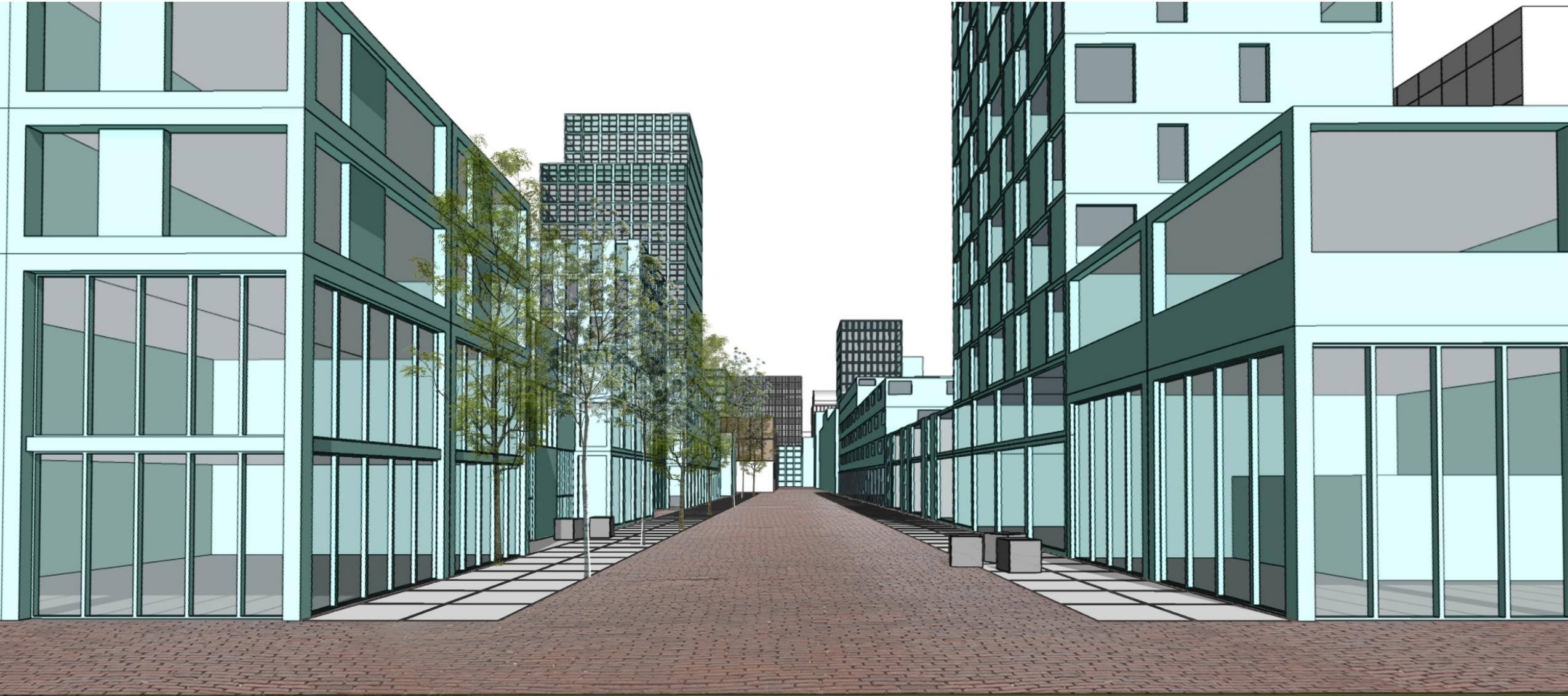
Blocks A4-A7'



Present Situation

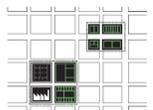


Municipality's Plans



Balance between Public &
Private Lands

Identified Opportunities



**Varying
Unit Sizes**



**Local Design
& Prototyping**



**Making touches
Making**



**Public
Face**

Identified Opportunities



Varying
Unit Sizes



Local Design
& Prototyping



Making touches
Making



Public
Face

Identified Opportunities



Varying
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Making touches
Making

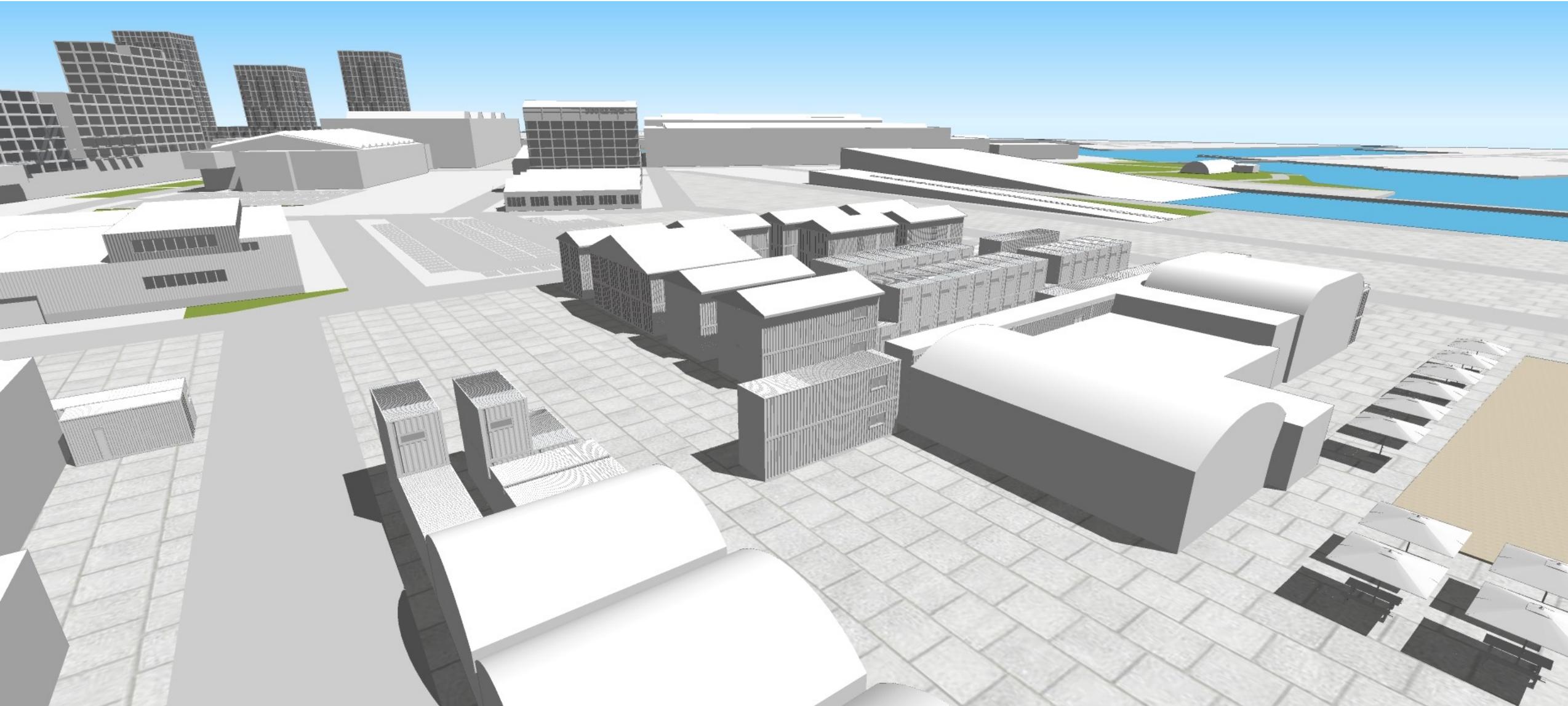


Public
Face

Creative-Maker District in NDSM-Werf Oost



Present Situation



Made up North's proposed plans



Taking advantage of place conditions



Mixing complementary making & related services

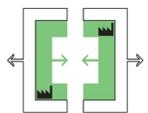


Quality Urban Environment in Making Areas



Public Face

Identified Opportunities



Making around courtyards



Shared making space & technology

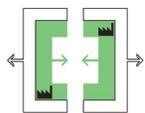


Meanwhile spaces for Transitional Uses

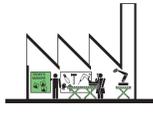


The Work Home

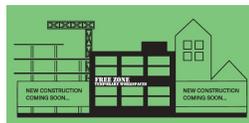
Identified Opportunities



Making around courtyards



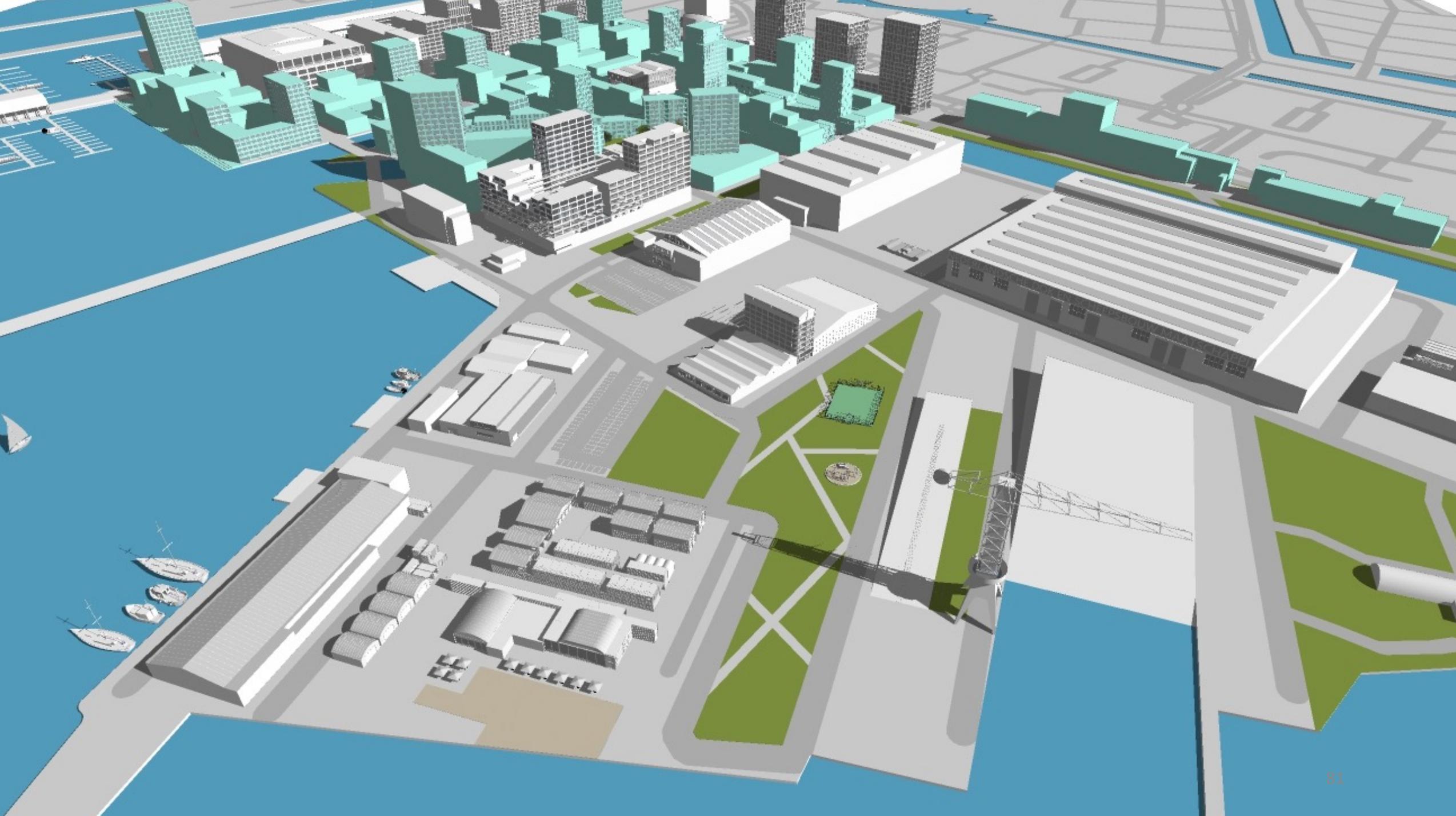
Shared making space & technology



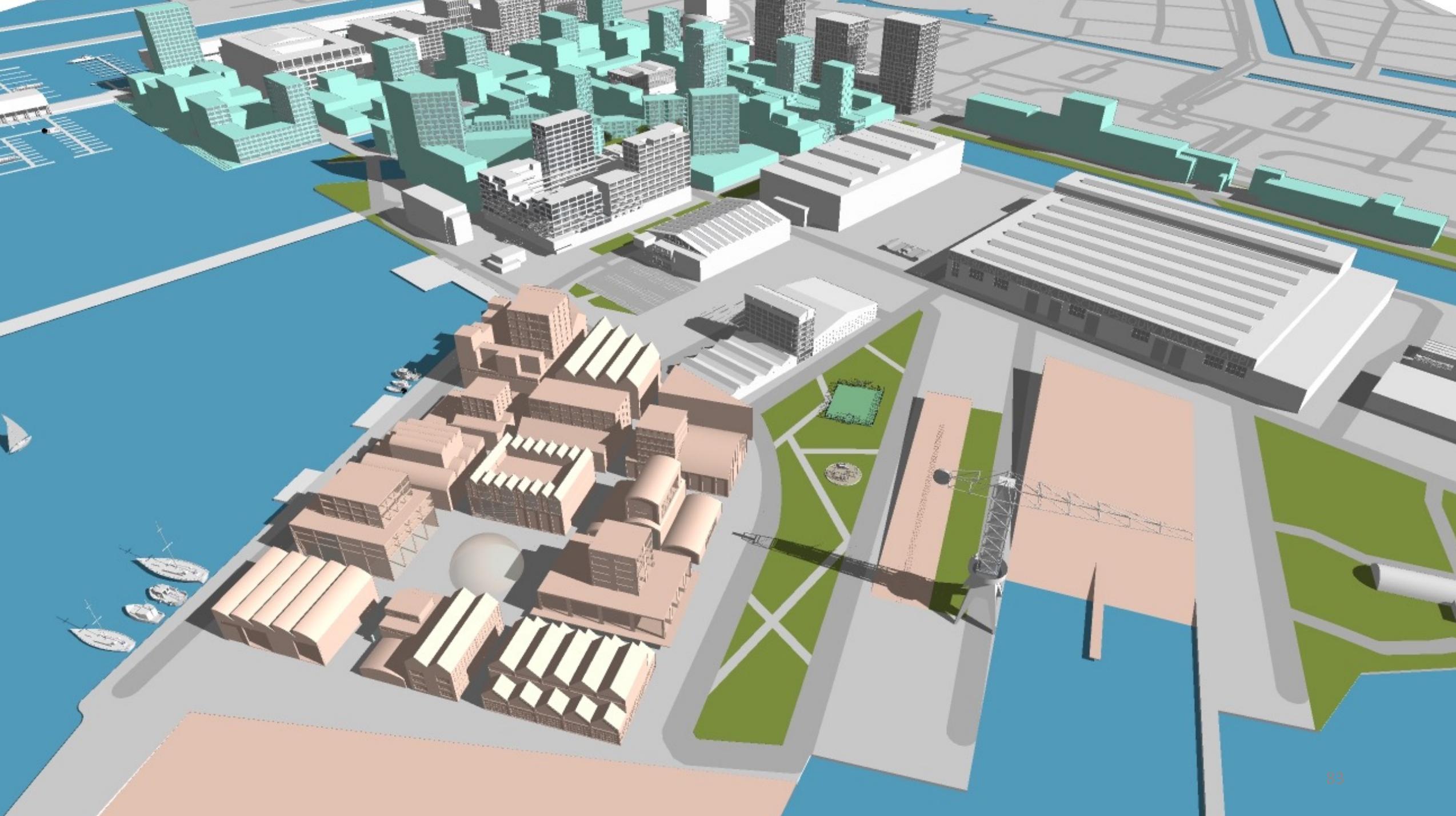
Meanwhile spaces for Transitional Uses



The Work Home







Conclusions

Main RQ:

What are the key conditions that need to be considered in the integration of light industry in urban mixed-use developments of transformation areas in Amsterdam?

6 Conditions were captured:

The Planning
& Policy Process



Source: flaticon.com (by Freepik)

Support



Source: flaticon.com (by Freepik)

Scale & Composition of
Mixed-use



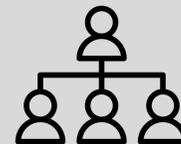
Source: flaticon.com (by Eucalyp)

Land Ownership



Source: flaticon.com (by ultimatearm)

Stakeholder
Relations &
Collaboration



Source: flaticon.com (by surang)

Spatial (Design)
Considerations of
Light Industry



Source: flaticon.com (by Eucalyp)

Recommendations

CITY SCALE

- Implement a structured, city-wide planning procedure directed at retaining & supporting light industry (existing and new) in industrial estates under transformation
- Find solutions to retain and maintain existing buildings in which light industry activities currently operate in to safeguard affordability
- Debunk the perception of nuisance surrounding (light) industry by increasing transparency

SITE SCALE

- Apply spatial-related opportunities identified where still possible