

# Juxtaposition of realities in transformation areas

Case NDSM Amsterdam

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## Motivation

-strong identity

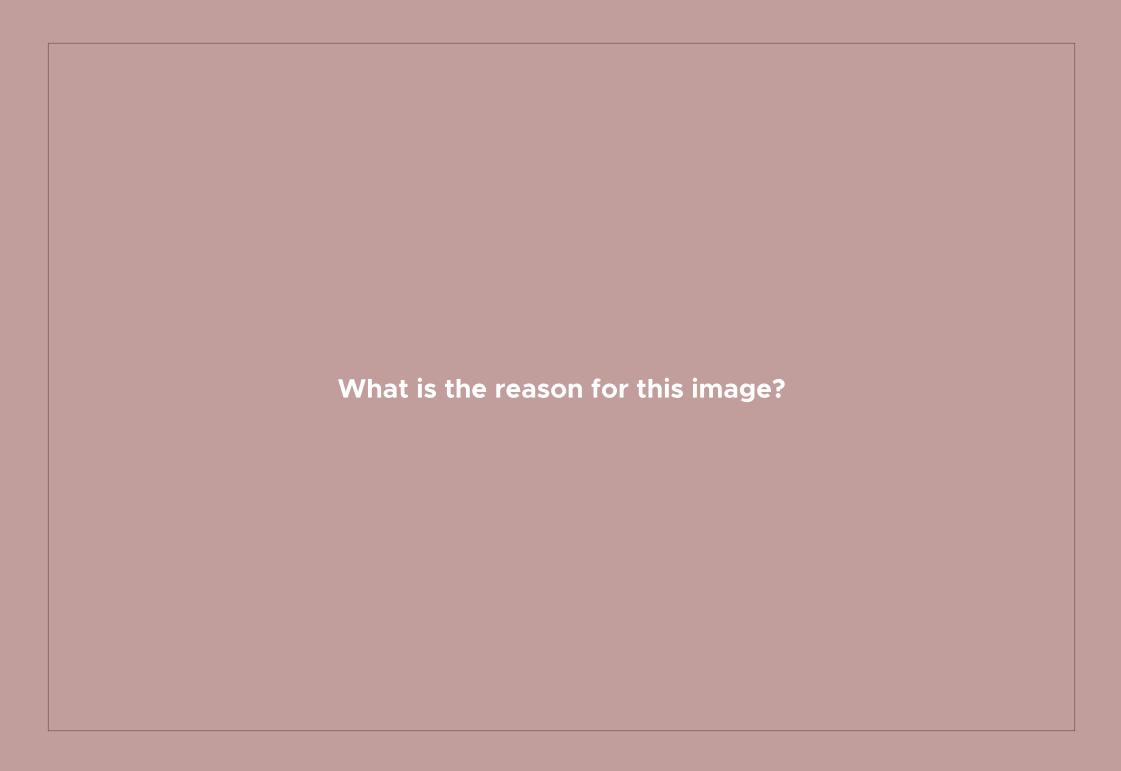
-context specific

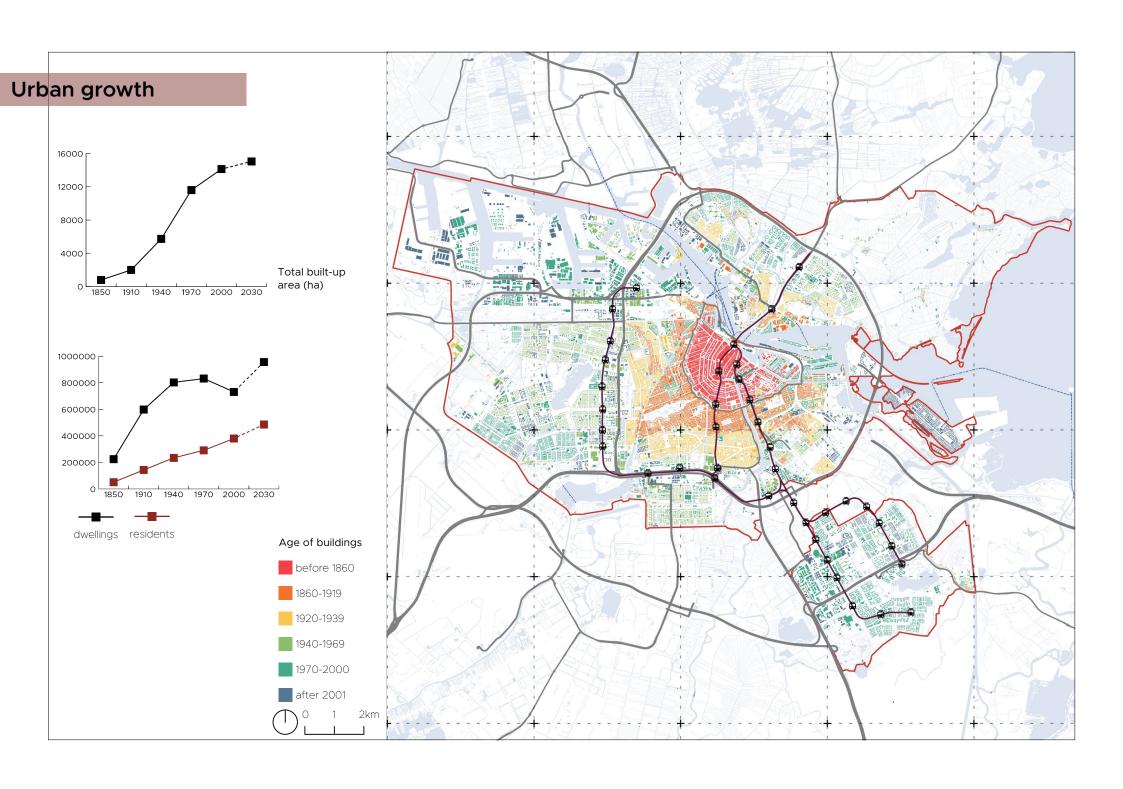


What is the new Amsterdam we want?

-loss of identity

-anywhere/homogeneity





# **Housing Crisis**

Thousands march in Amsterdam for an end to the housing crisis

Housing f v in September 13, 2021 - By Wouter van de Klippe





Urgent call from big cities for government to tackle Dutch housing crisis



#### Property value

>8122 €/m²

6769-8122

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6092-6769

5414-6092

4738-5414

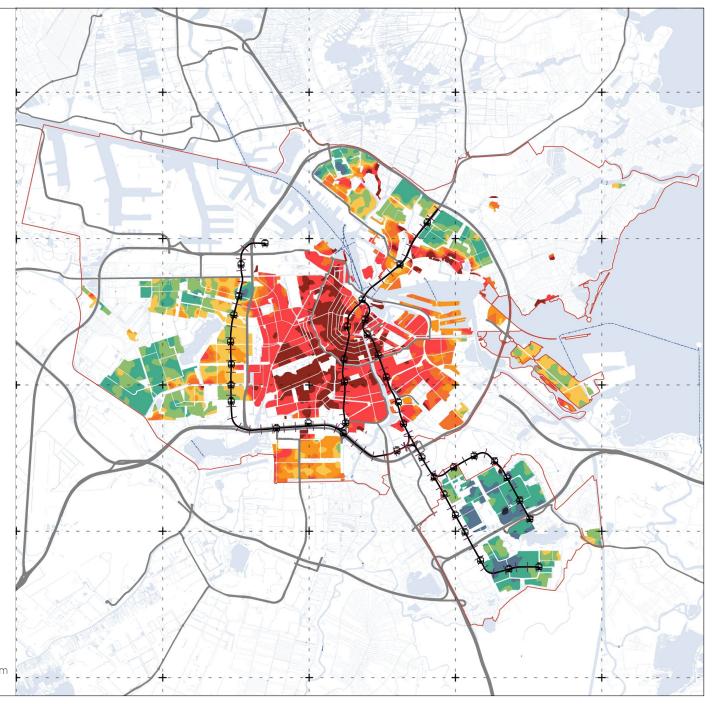
4061-4738

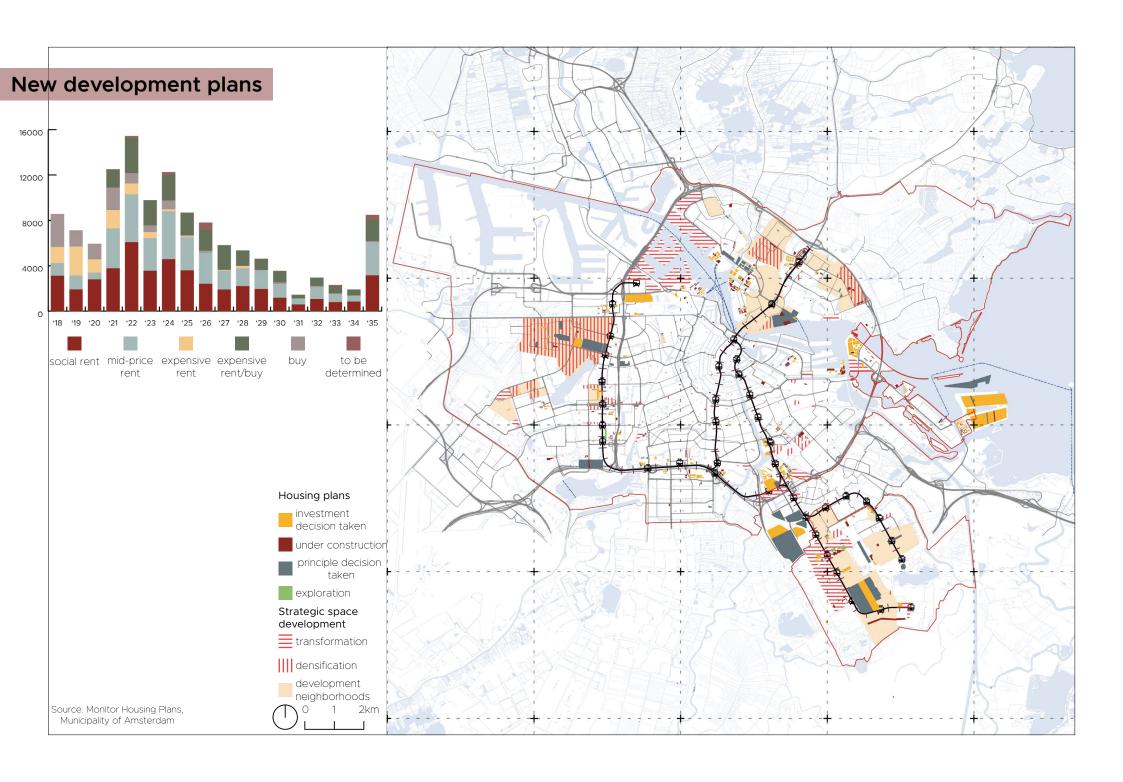
3384-4061

2707-3384

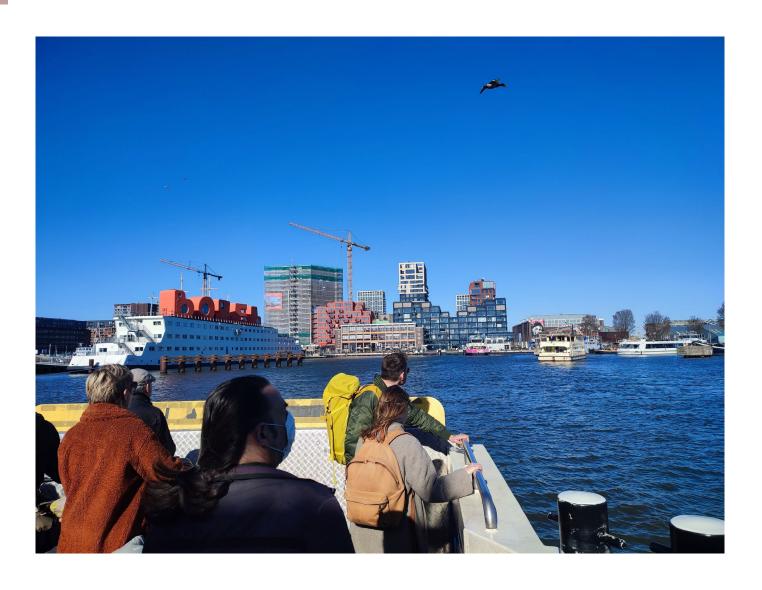
2031-2707







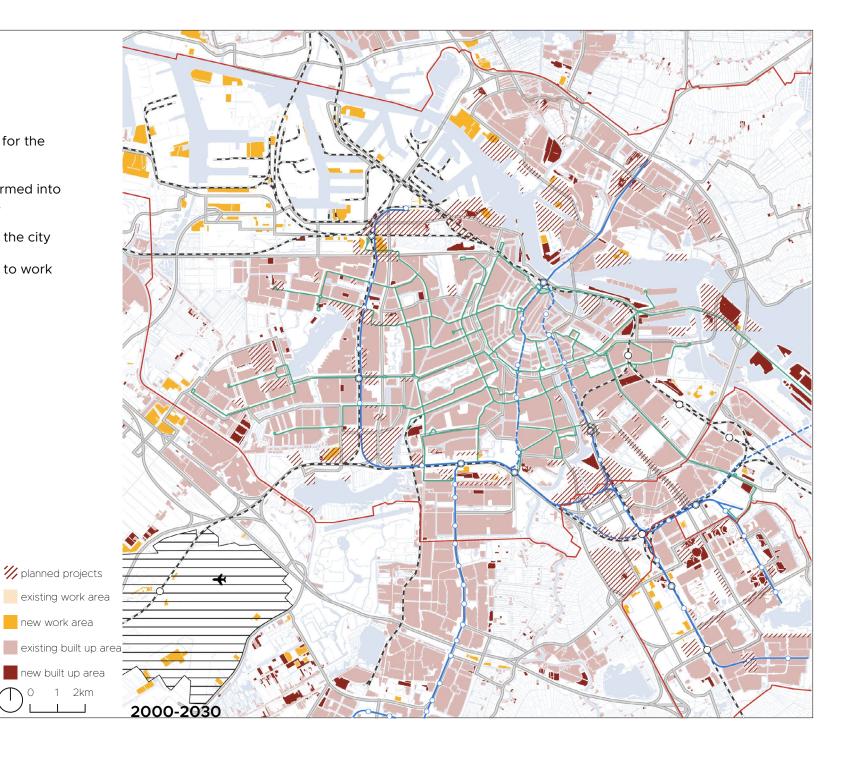
# New image



What is the role of IJ riverbanks in future developments?

## **Urbanization Patterns**

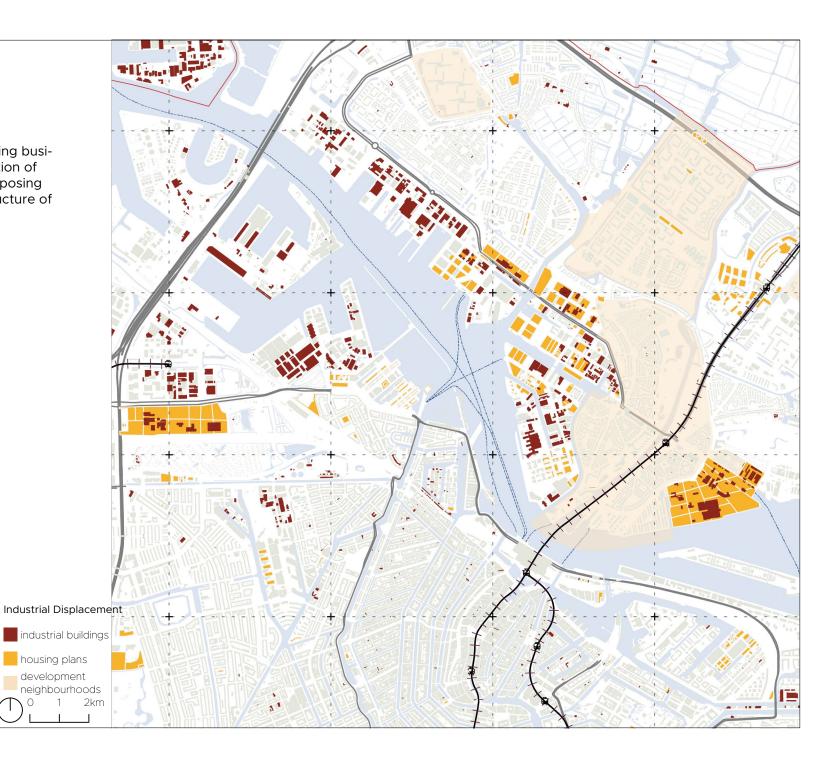
- -IJ riverbanks mainly responsible for the future image of the city
- -former work areas to be transformed into high-density urban environments
- -working pushed to the edges of the city
- -proximity of living environments to work areas has increased

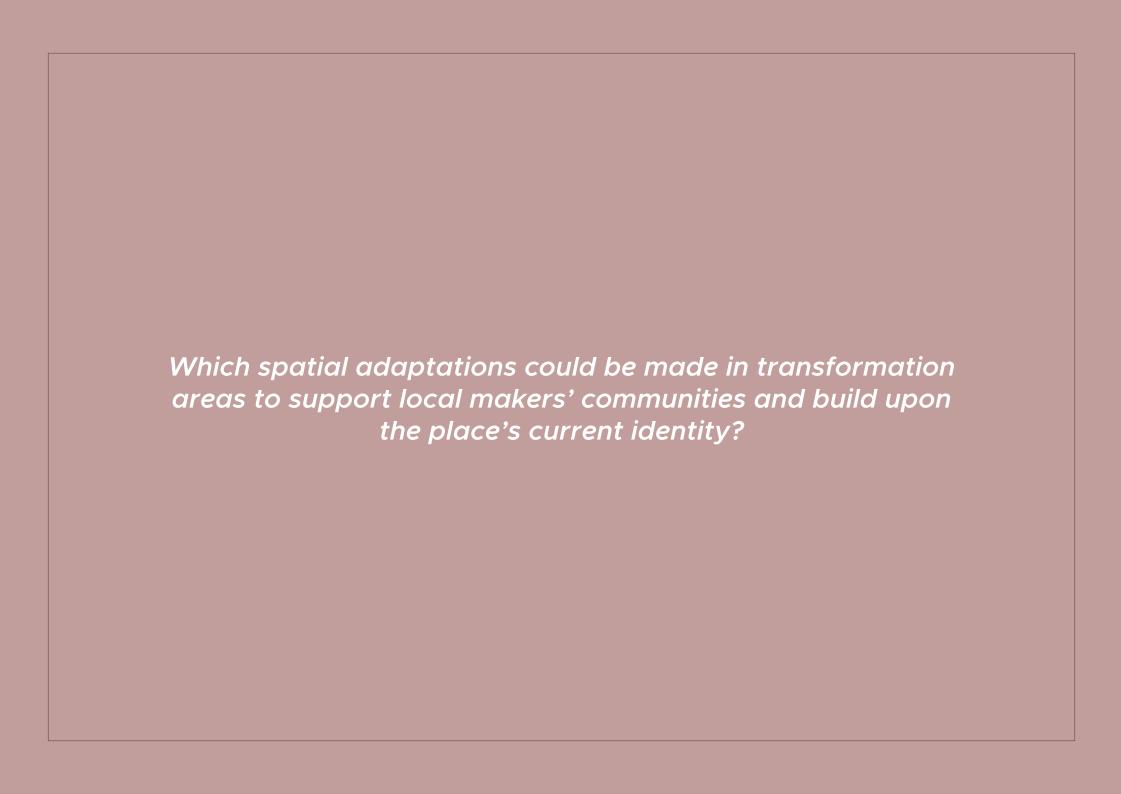


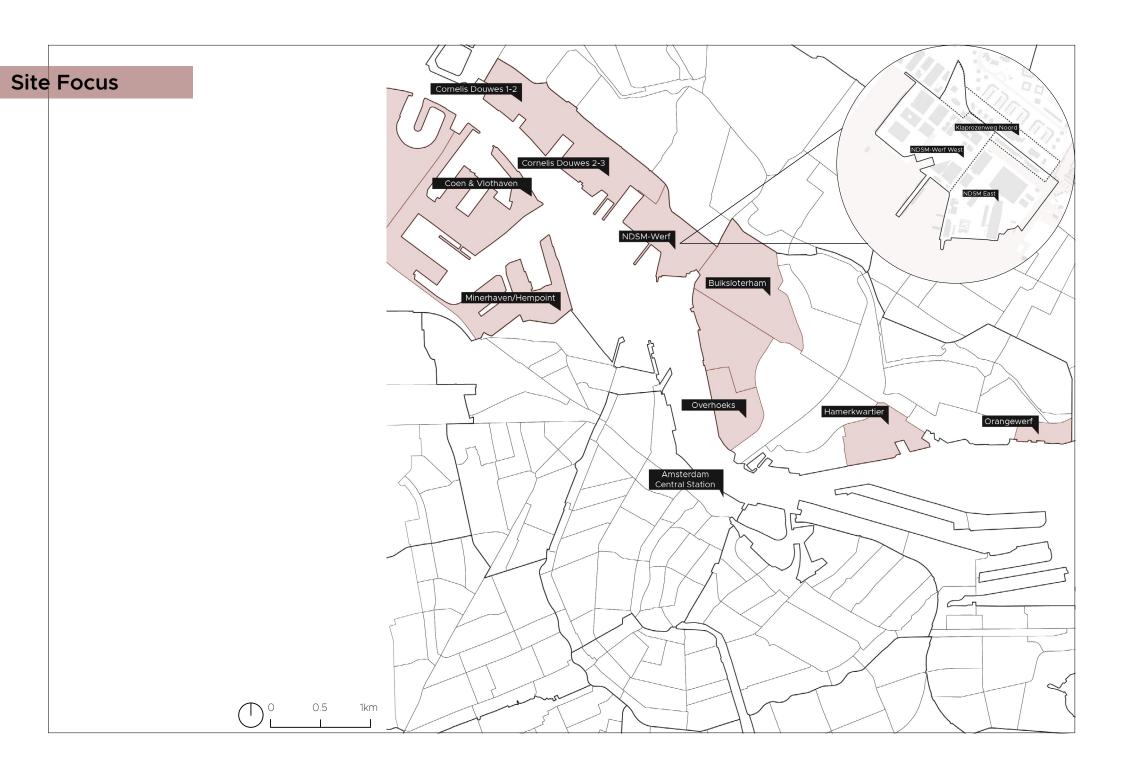
## Displacement

-the situation not only affects existing businesses, but also hinders the attraction of new entrepreneurs in city centers, posing at risk the economic and social structure of the whole city

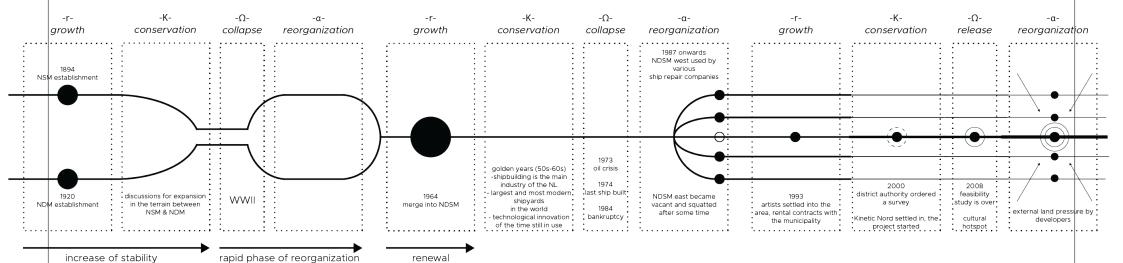








## Historical analysis

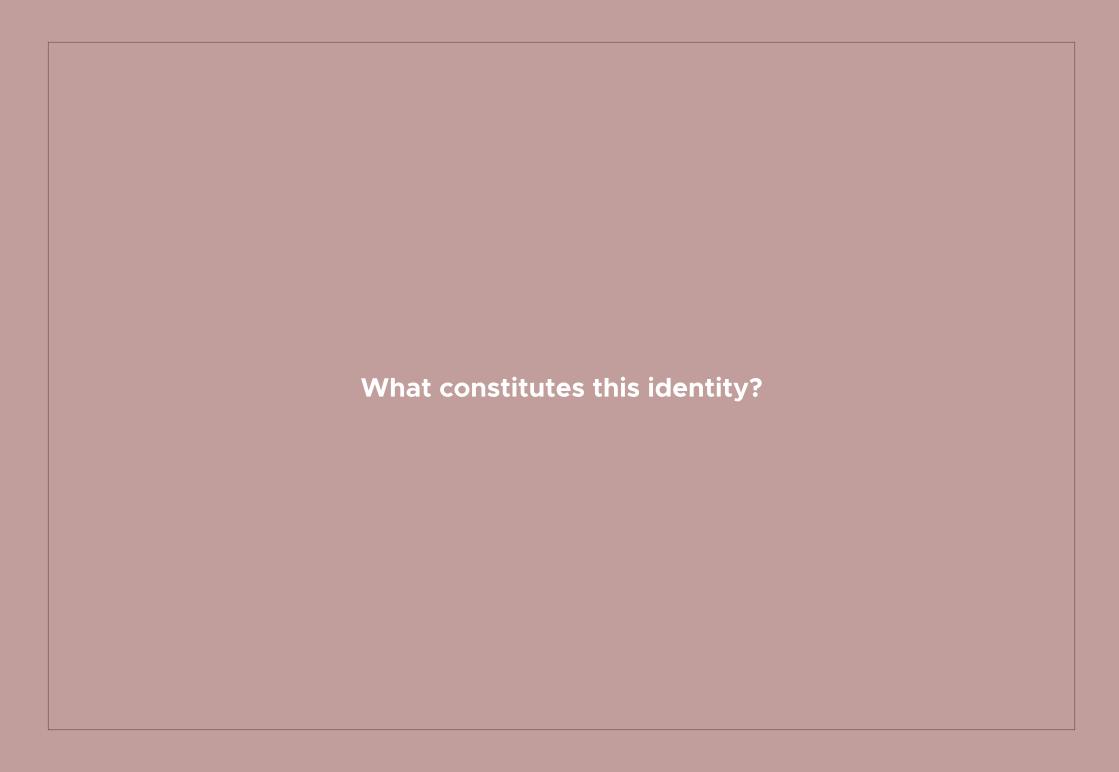




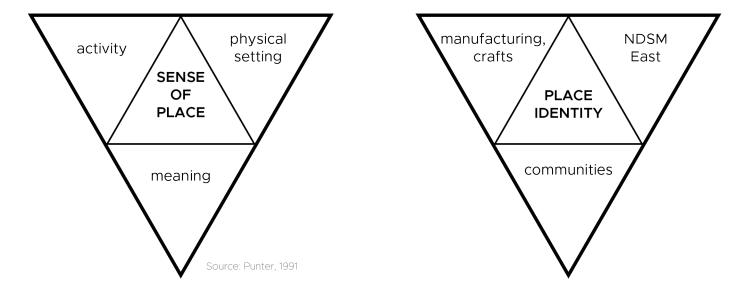
Aerial view 1967 (Source: NDSM-werf Museum)



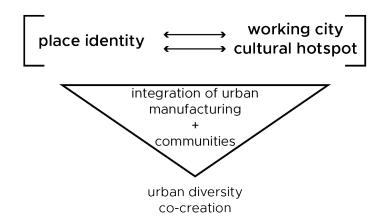
Illustration of NDSM East (Source: https://www.ndsm.nl)



## Theory



Since this interdependence among people and places is a **dynamic and continuous procedure**, the establishment and nurture of place identity is also a **circular**, **reciprocal and dynamic process** (Ramos et al., 2016).



place identity can constitute the basis for collaborative actions and community synergies

# Place identity



Source: www.archello.com

# Embedded work













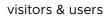
but also this

# **Embedded Communities**

businesses





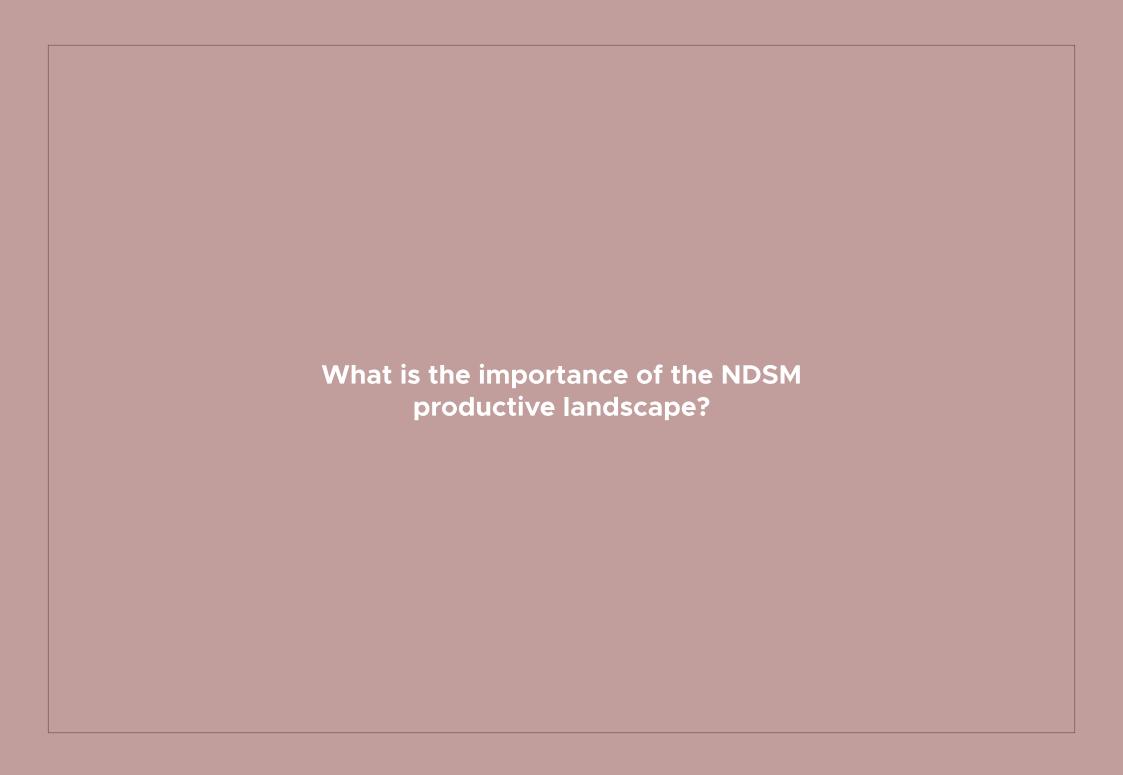












## **Productive Landscapes**



### **Creative sector**

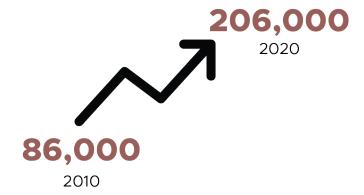
2.4% annual growth

**x3** higher than the average

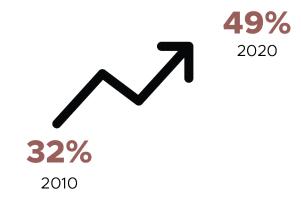
**1.8** average company size in creative industry

5 general average

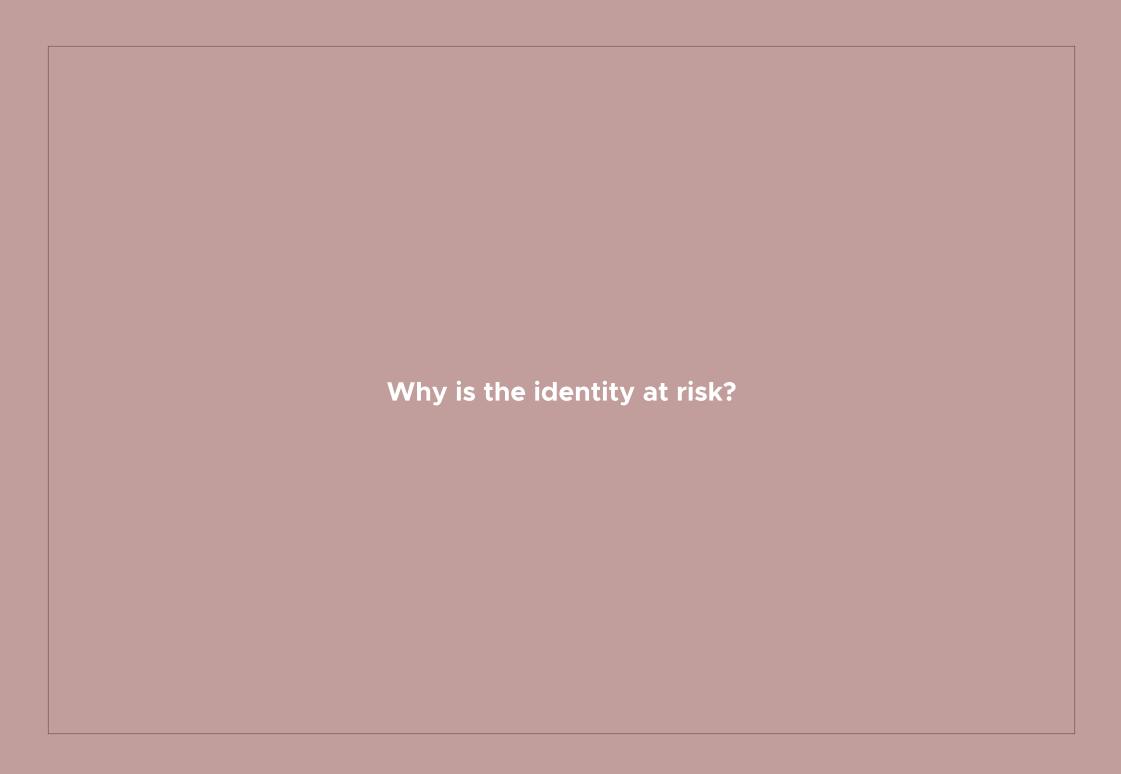
## number of jobs



## self-employed



the sector remains a strong job engine with a 3 times higher than the average annual job growth



## **Policy Review**

### Goals

1.status-quo regarding mixing manufacturing in live-work environments

- 2. municipality's priorities & efforts in retaining/supporting existing industries
- 3. intentions towards safeguarding industrial space and maintaining affordability

### **Findings**

#### live/work ratio

|         | past   | now    |
|---------|--------|--------|
| minimum | 41/59% | 75/25% |
| maximum | 55/45% | 85/15% |

### City scale

| document  | year |
|---|------|
| Kleinschalige Bedrijfshuivesting<br>(Accommodation of Small-scale businesses),<br>Municipality of Amsterdam |      |
| Wonen tussen de bedrijven door<br>(Living between Businesses),<br>Municipality of Amsterdam                 | 2003 |
| Handboek Kleinschalige bedrijfsruimte Amsterdam<br>(The Small Business Space,<br>Municipality of Amsterdam  | 2008 |
| Structuurvisie Amsterdam 2040: Economisch Sterk en<br>Duurzaam,<br>Municipality of Amsterdam                | 2011 |
| Koers 2025,<br>Municipality of Amsterdam  | 2015 |
| Ruimte voor de economie van Morgen<br>(Space for the Economy of Tomorrow),<br>Municipality of Amsterdam     |      |
| Bedrijvenstrategie (Business Strategy 2020-2030),<br>Municipality of Amsterdam                              |      |
| Omgevingsvisie Amsterdam 2050,<br>Municipality of Amsterdam   |      |

### Site scale

| document  | year |
|---|------|
| XXL Urban Plan,<br>developed by Rapp+Rapp;<br>commissioned by Municipality of Amsterdam | 2002 |
| Investeringsbesluit NDSM-Werf (IB 2013),<br>Municipality of Amsterdam                   | 2013 |
| Bestemmingsplan NDSM-Werf Oost,<br>Municipality of Amsterdam                            | 2013 |
| Bestemmingsplan<br>NDSM-Werf West (original),<br>Municipality of Amsterdam              | 2014 |
| Bestemmingsplan<br>NDSM-Werf West (uitwerkingsplan),<br>Municipality of Amsterdam       | 2018 |
| Bestemmingsplan<br>NDSM-Werf West (revision),<br>Municipality of Amsterdam              | 2020 |
| Actualisatie Investeringsbesluit NDSM-Werf 2020,<br>Municipality of Amsterdam           |      |
| NDSM Maakstad,<br>Made Up North   | 2020 |

this currently refers to residential/non residential, meaning competition for space likely to become even more unbearable for weaker land uses, such as manufacturing

# Current development model





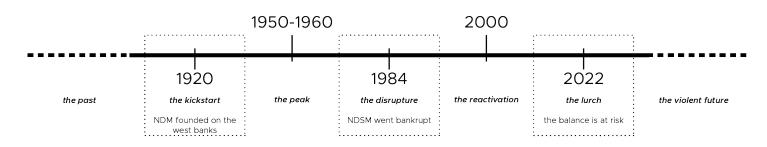








## **Problem Statement**

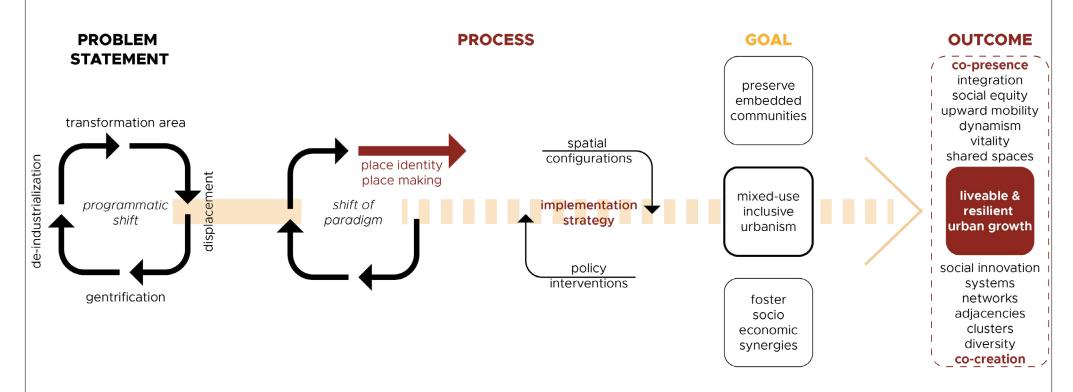


### from antithesis to symbiosis



Is there a way to diversify our cities while permitting new forms of co-existence What is it needed?

## **Conceptual Framework**



### **Key Concepts**

-place identity as an **opportunity** to achieve mixed-use inclusive urbanism

-mixed-use inclusive urbanism as a **means** for a liveable and resilient urban growth

-NDSM, as a former industrial site, as the **spatial backbone** to support such initiatives

### **Interviews**

end users-— third party ——— private

#### profile/ bike maker

- -assembly, research, drawing, prototyping on his own
- -laser-cutting and CNC bending outsourced
- -formerly located in NDSM East (13m2), now moved to a more bottom-up initia-
- tive that is more affordable (60m<sup>2</sup> for the same price) -working in design

-visibility

-flexibility

-shared facilities

-affordability

enough space

- for 30 years but recently started a ing on the area new company to do innovative things
  - transformation of the whole area from industrial to leisure-oriented



#### profile/ visual artist/welder

- -present in X Helling, NDSM for 21 years
- -one of the first to benefit from broedplaats
- -mixed practice, commercial welding and art installations
- -not dependent on local population as his business is quite specific
- -hobby: part-time researcher focus-
- -has witnessed the



-municipality as regulator

-lack of vision and strategy

#### profile/ **Fiction Factory** representative

- -established in 1989 and has since almost always been located in the north river-
- -started small but now it employs 70 people
- -longterm ground lease (erfpacht)
- -participating in Made Up North initiative



-urban dense environment can be beneficial

-mix of rhythms and dynamics-need of curating

#### profile/ Made Up North representative

- -a big plan of the area in NDSM East has been developed
- -cluster of makers
- -happy even with half of the plan they proposed



#### profile/ ORAM

- -largest business network in the Amsterdam Metropolitan Area
- -connecting local entrepreneurs in the business to business industry
- -main focus to create enough space for production companies and services
- -exerting influence on policy issue
- -fully private; neither public funding nor public interests
- largest part of income comes from industry and port companies



#### profile/ **BMP** developers

- -big area develop-
- -in charge of the redevelopment of the B-blocks in NDSM West
- -responsible for the commercial selling of houses
- -part of Volker-Wessels building company



#### profile/ **CHASE** brand activation company

- -established in 2012. moved in NDSM in 2014 but currently relocated 800m away to have bigger facilities
- -current area also to face the same challenges as NDSM in the next decades
- -also involved in a small project group (3 parties) for the development of a small plot in NDSM West
- -one of the first to receive permit with very small ownerships (compared to the big players of the area)



#### profile/ **COD Development Pioneers**

- -founded 10 years ago, very productive the last 3
- -one of the first developers who started housing in NDSM (De Werf, 1000 apartments in one block)
- -voung team. based in RAI hotel (own development), focusing in housing but also involved in a range of projects, from hotels to offices
- -planning to turn existing light industry facilities into housing or mixed-use with commercial functions in NDSM West





profile/

opers

**NDSM** 

Lingotto

Development

Hamerkwartier

-recently also

involved in a

smaller project in

-inner city devel-

-mainly involved in





- -traffic, price, size, logistics, pollution, safety, smell and noise nuisance -generate profit is needed
- -ground lease price
- -plethora of owners

common ground

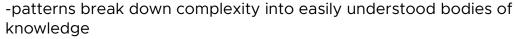
#### Stakeholders' Analysis -POWER Keep National +INTEREST government Key Players satisfied Province Municipality Area of Amsterdam developers Kinetisch Noord\_. ---->--Existing/new businesses Made Up North Existing/new residents Interest Stichting NDSM Other leaseholders Power Minimum Effort +POWER -POWER Monitor Inform -INTEREST -INTEREST existingdesired Public **Profit** Business Community Existing/new businesses Made Up North National Government Area developers MRA (Metropolitan Region of Amsterdam) Other leaseholders Existing/new residents Province of North Holland Kinetisch Noord Municipality of Amsterdam

Stichting NDSM

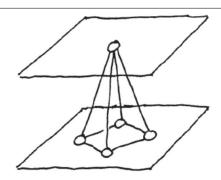
## Pattern Language

"A set of connected patterns provides a framework upon which any design can be anchored. The patterns do not determine the design. By imposing constraints, they eliminate a large number of possibilities while still allowing an infinite number of possible designs."

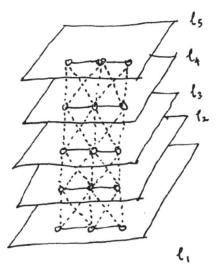
Salingaros, 2000



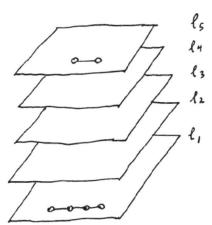
- -patterns are not stand-alone products but are linked instead to other patterns either in terms of complementarities (solutions) or possible tensions (forces)
- -they form a pattern language



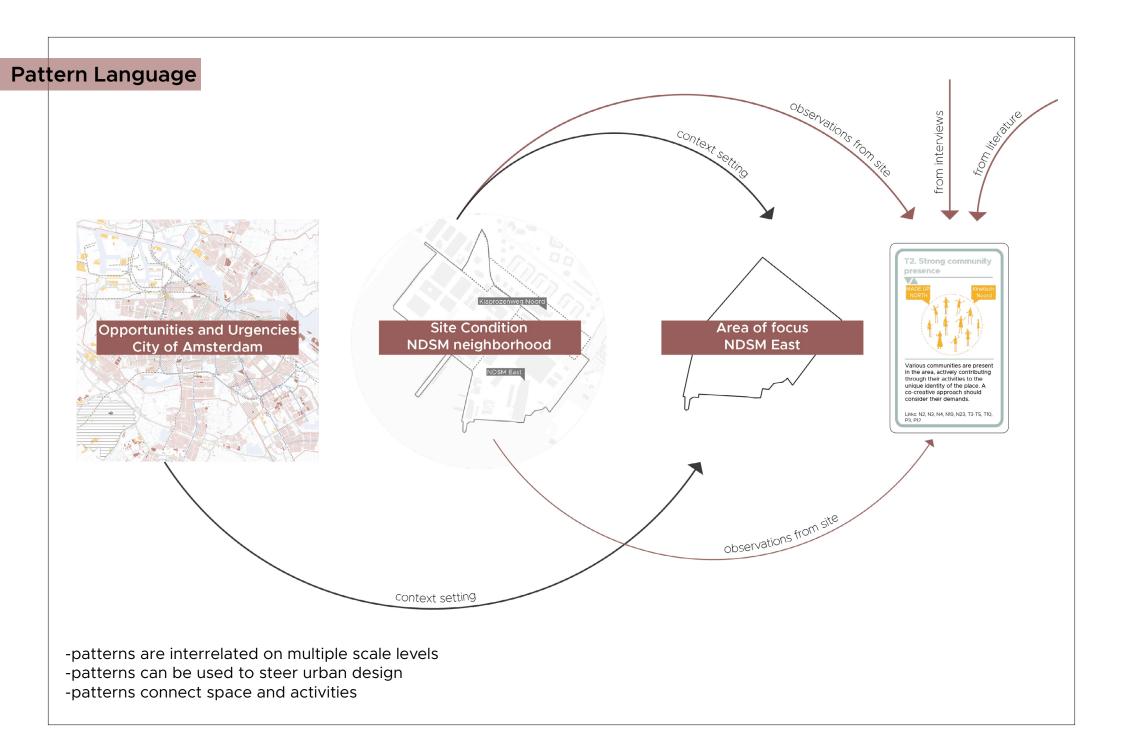
Patterns on one level combine to help define a new pattern on a higher level



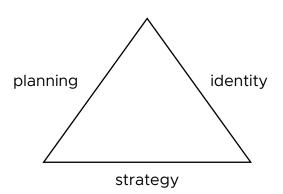
Hierarchical connections show how patterns on higher levels depend on those on lower levels



Two groups of patterns are too far apart in scale to connect effectively



## Pattern Language



#### 1.scale of action

- (P) program
- (B) building
- (S) block/street
- (N) neighborhood
- (T) transcalar

#### 2.title

#### 3.appears in

- literature
- ▼empirical findings/
  fieldwork observations
- ▲ interviews

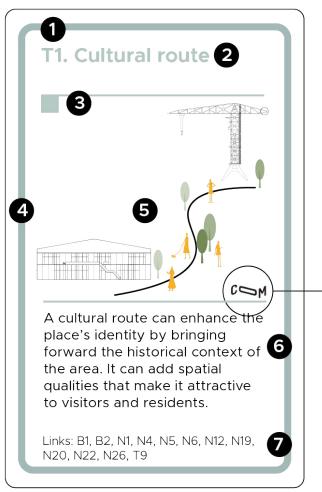
### 4.category

- identity/ local conditions
- spatial configurations
- policy interventions

#### 5.illustration

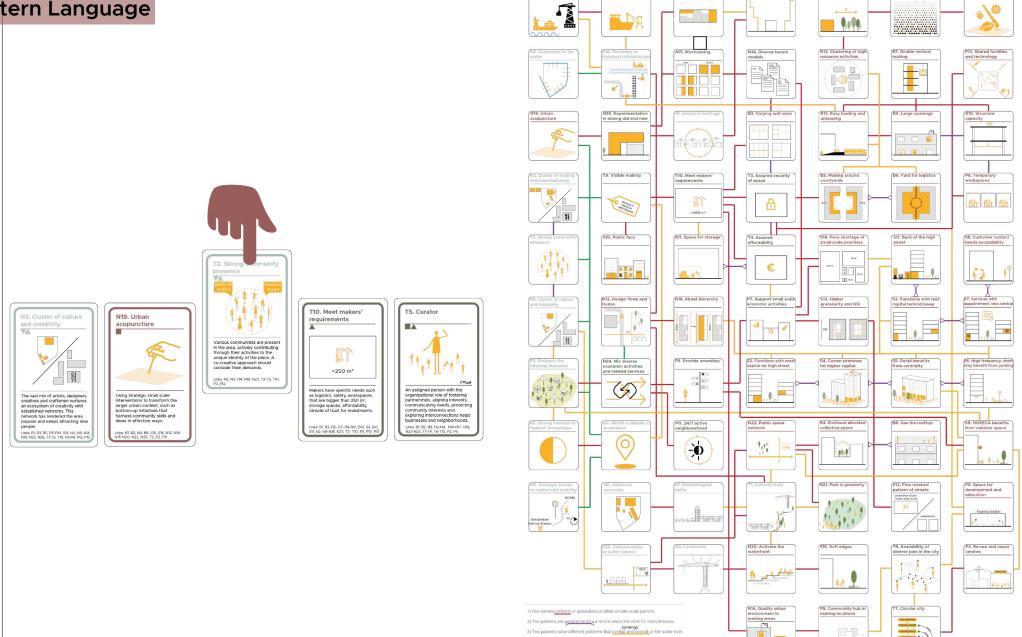
### 6.hypothesis

7.links to related patterns



if this symbol appears, the pattern is adapted from Foundries of the Future (2020)

## Pattern Language



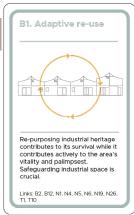
4) Two patterns solve the same problem in alternative, equally valid way

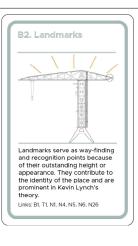
Distinct patterns share a similar structure, thus implying a higher level

prerequisite

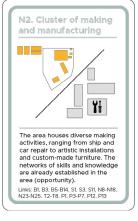
CONT.

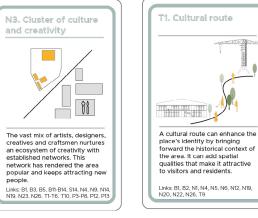
### Identity

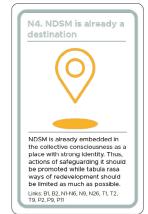


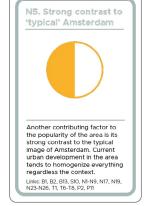


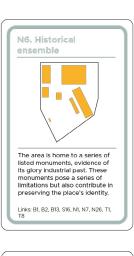


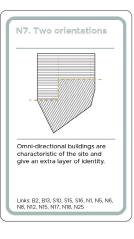


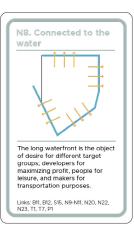


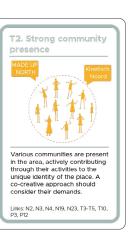


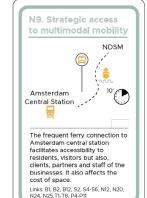


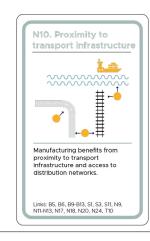


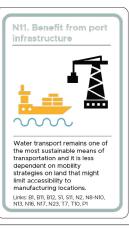


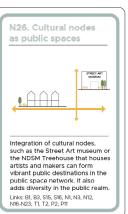




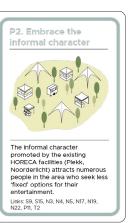


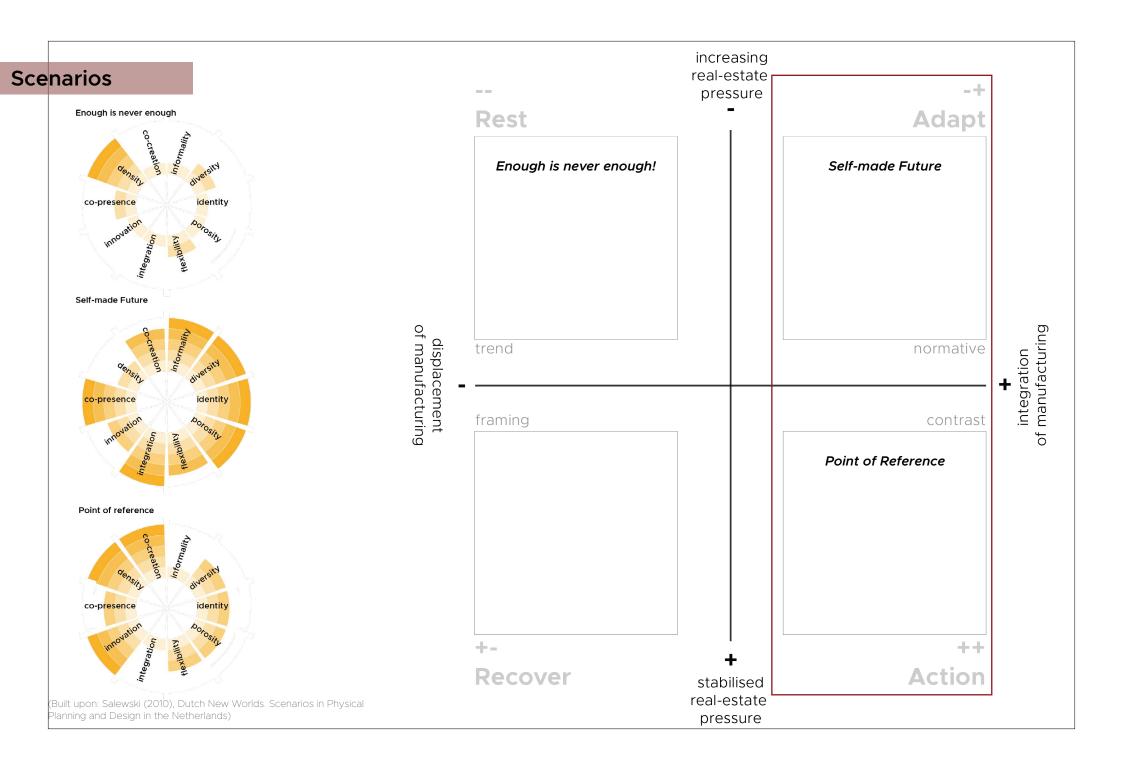


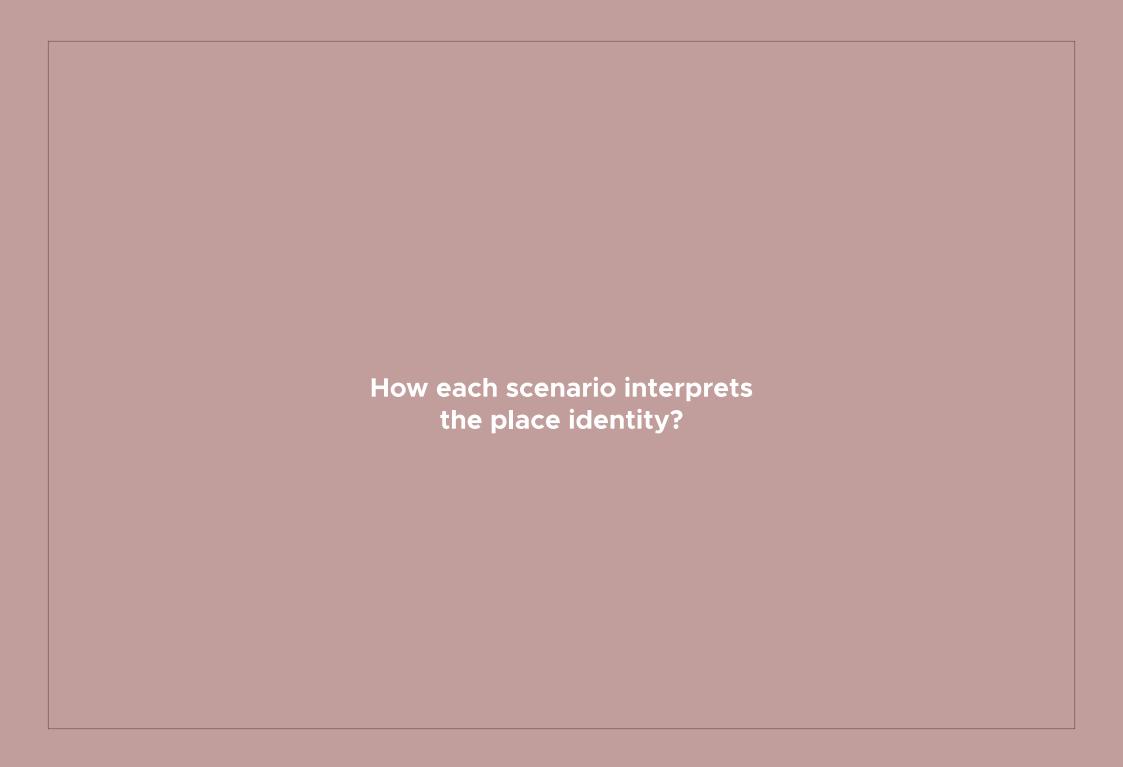


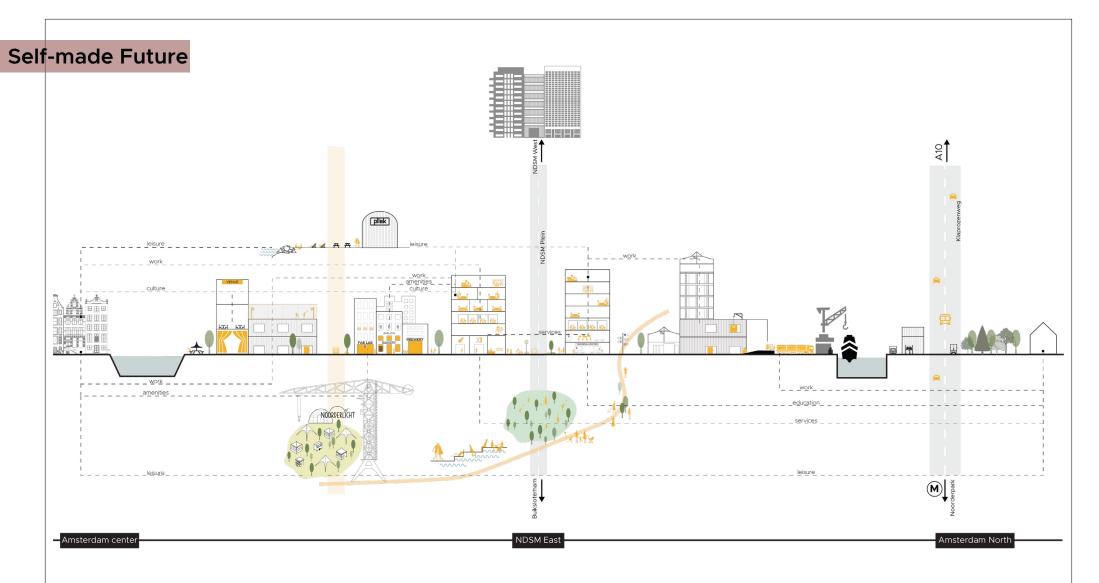




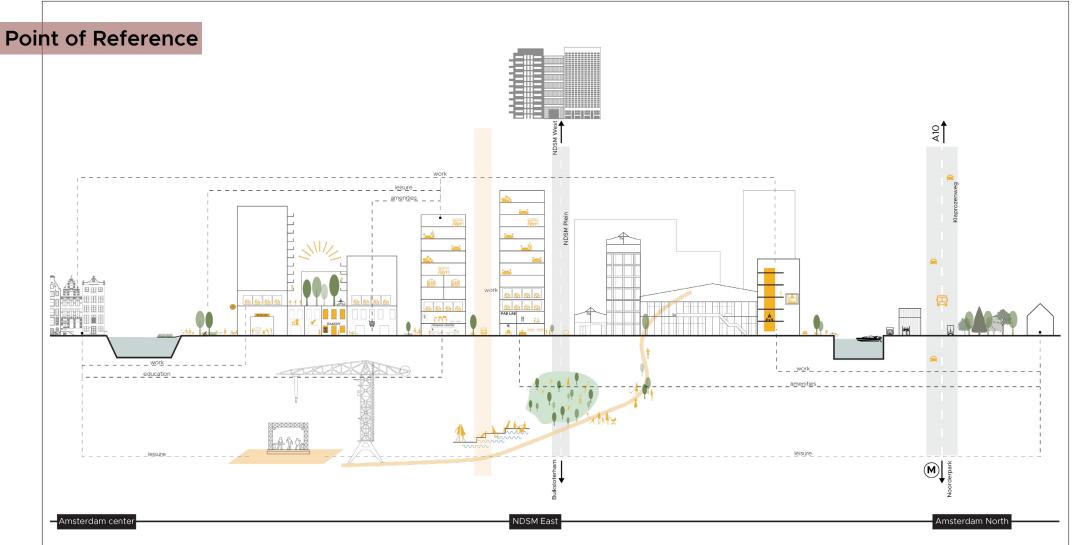








- -the place-making strategy of the redevelopment is based on the current image of the area and the strong pluralism arising from the different communities and businesses operating within
- -the creative and making industry remains and gets enhanced as a major component of economic growth for the city
- -safeguarding and maintaining the existing modus operandi of people and businesses becomes a crucial priority

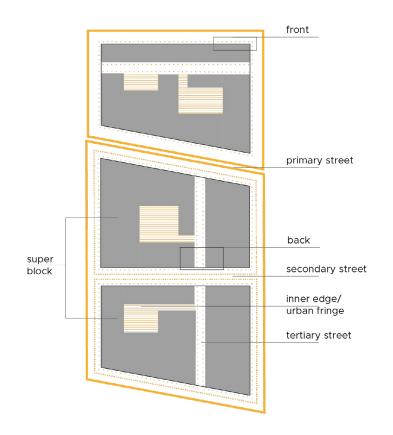


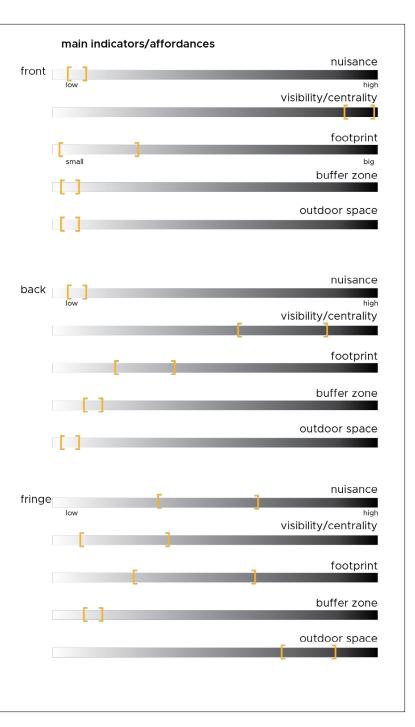
- -housing is the main focus
- -the place-making strategy centers upon the innovation tradition of the area
- -focus is on high-tech activities with higher capital and high-value product
- -technological improvements make businesses nuisance-free and thus, more easily compatible with housing



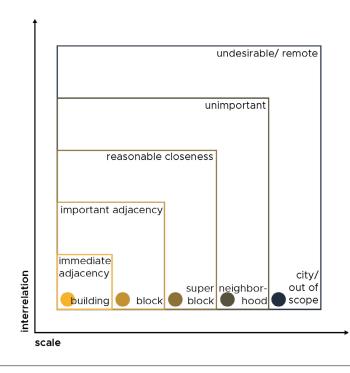
# Mixability

| nuisance  | spatial conditions | added value      |
|-----------|--------------------|------------------|
| sound     | accessibility      | jobs             |
| odour     | location           | services         |
| light     | footprint          | education        |
| logistics | buffer zone        | social           |
| safety    | stackable          | loops/resilience |
| soil      | visibility         |                  |
| water     | outdoor space      |                  |
|           | shared facilities  |                  |



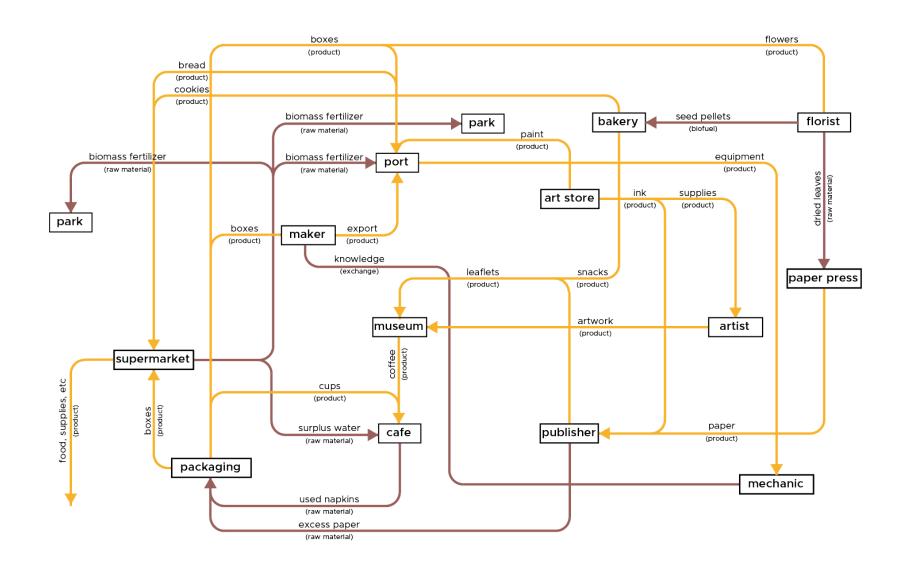


# Mixability

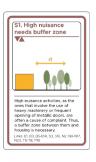


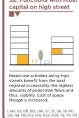


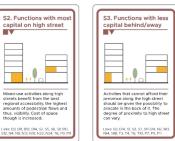
# **Synergies**



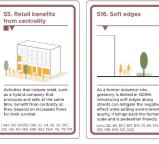
#### **Patterns**





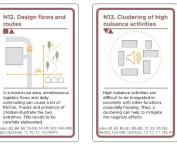








routes



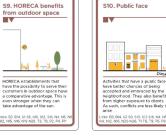


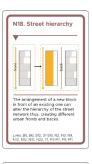






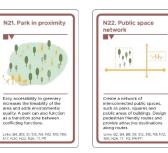




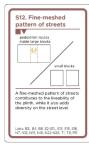








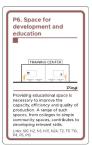






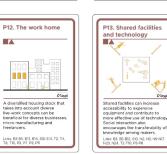














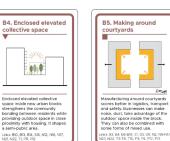




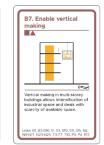


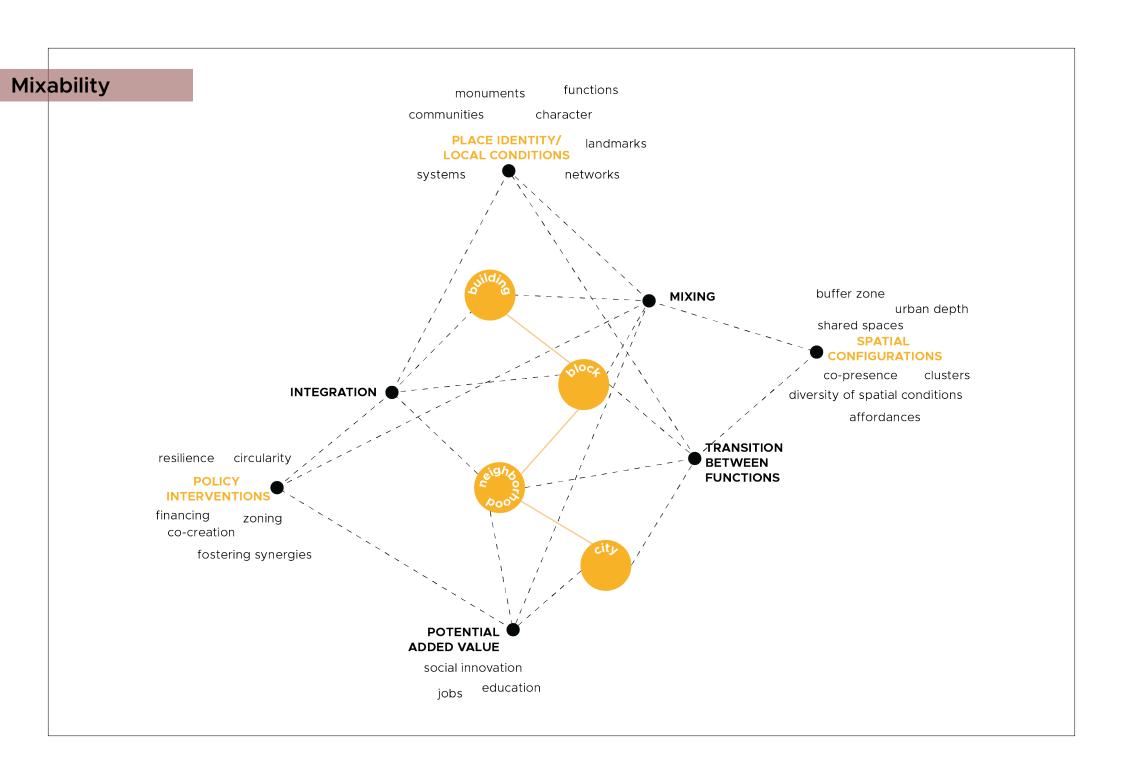






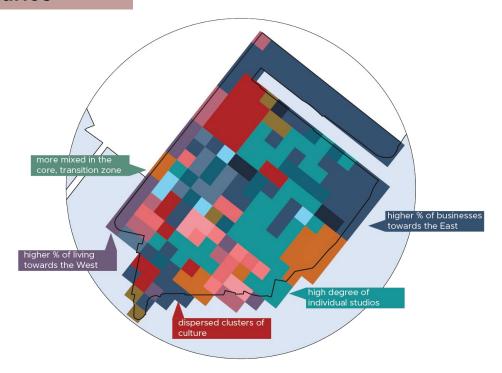


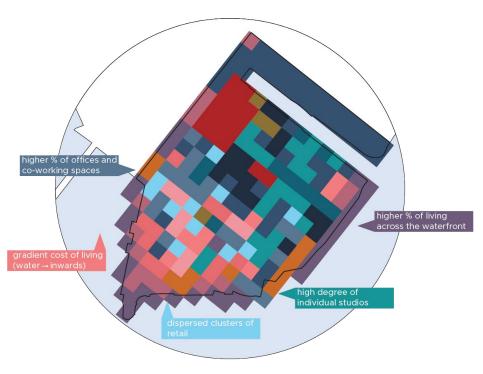






#### Scenarios





#### **Self-made Future**

- -the work component is dominant and diffused throughout the area
- -higher categories of housing are mostly found in the west edge
- -other housing categories, such as live-work typologies and shared housing can be found more easily in combinations with work environments
- -clusters of culture throughout the area

#### **Point of Reference**

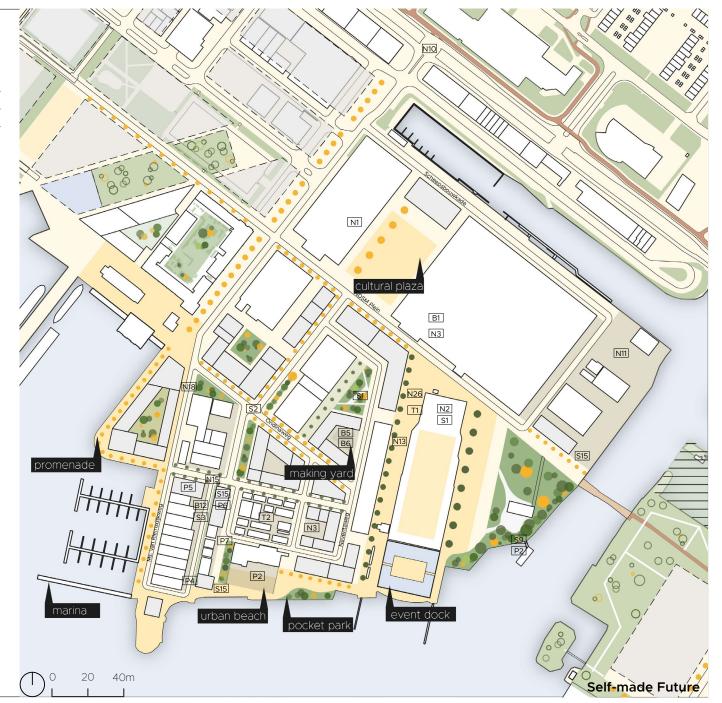
- -housing is much more present in the waterfront
- -higher presence of medium and high-end housing
- -work environments are mostly limited in the northern part
- -higher presence of retail



## **Scenario Development**

this scenario strives for an inclusive approach, where focus is given on the integration of existing communities and their ecosystems

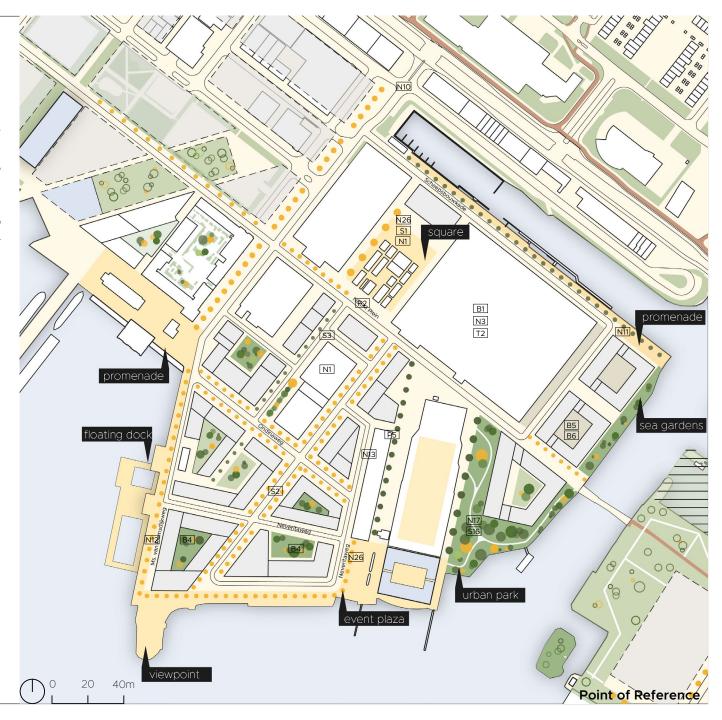
- B1. Adaptive re-use
- B5. Making around courtyards
- B6. Yard for logistics
- B12. Easy loading and unloading
- S1. High-nuisance needs buffer zone
- S2. Functions with most capital on high street
- S3. Functions with less capital behind/away
- S9. Horeca benefits from outdoor space
- S15. Refine the edge
- N1. Morphological entity
- N2. Cluster of making and manufacturing
- N3. Cluster of culture and creativity
- N10. Proximity to transport infrastructure
- N11. Benefit from port infrastructure
- N13. Clustering of high-nuisance activities
- N15. Microzoning
- N18. Street hierarchy
- N26. Cultural nodes as public spaces
- T1. Cultural route
- T2. Strong community presence
- P1. Restore original function
- P2. Embrace the informal character
- P4. Re-use and repair centers
- P5. Community hub in making locations
- P6. Space for development and education
- P7. Support small scale economic activities



## **Scenario Development**

- -real estate pressure remains unceasing and competition for land grows stronger
- -all the existing buildings get replaced by higher density blocks
- -the only activities that are kept are the ones that have the potential to bring added value to the area
- -aspects of manufacturing that relate to high-value urban activities, such as R&D, design and culture lie central in this approach

- B1. Adaptive re-use
- B4. Enclosed elevated collective space
- B5. Making around courtyards
- B6. Yard for logistics
- S1. High-nuisance needs buffer zone
- S2. Functions with most capital on high street
- S3. Functions with less capital behind/away
- S16. Soft edges
- N1. Morphological entity
- N2. Cluster of making and manufacturing
- N3. Cluster of culture and creativity
- N10. Proximity to transport infrastructure
- N12. Design flows and routes
- N13. Clustering of high-nuisance activities
- N17. Transition zone
- N26. Cultural nodes as public spaces
- T1. Cultural route
- T2. Strong community presence
- P2. Embrace the informal character
- P5. Community hub in making locations
- P6. Space for development and education



## **Spatial Profiles**

#### **Back Street**

B3. Varying unit size

B8. Use the rooftop

B9. Large openings

B10. Structure capacity

B11. Space for storage

B12. Easy loading and unloading

B14. High ground floor

S7. Services with appointment, less central

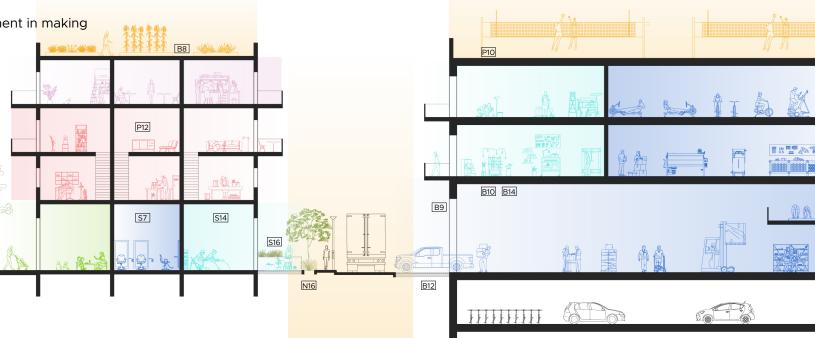
S14. Face shortage of small-scale premises

S16. Soft edges

N16. Quality urban environment in making areas

P10. Sports facilities

P12. The work-home



-priority is given to businesses with lower capital and creative individuals

-ability to work outside

-semi-private space to facilitate transportation and (un)loading

-live-work typology

-student/ co-living units

-a rotation of activities in the course of the day ensures liveability



education

collective

individual studios

S/M businesses

co-working spaces

co-living/student

medium range

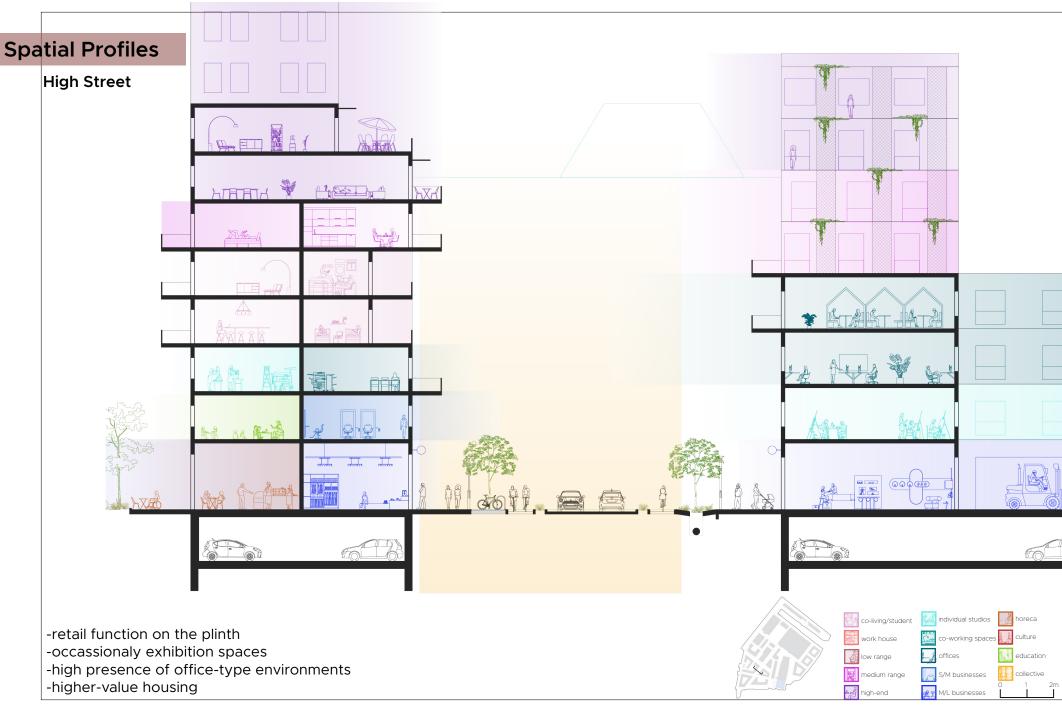
B11

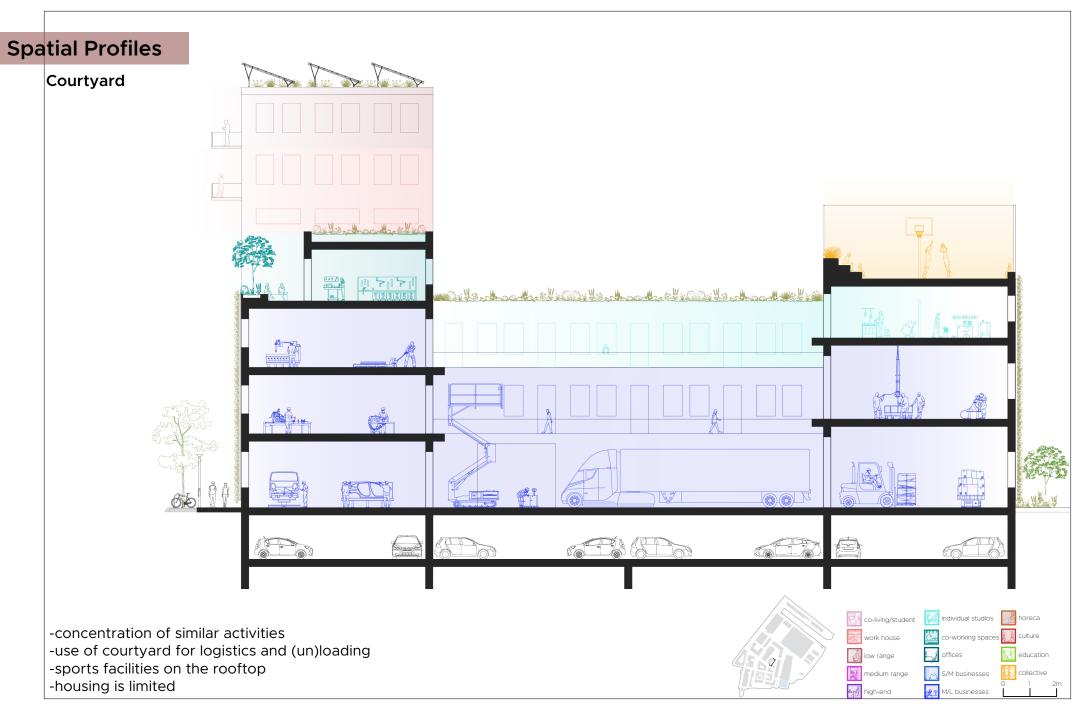
# **Spatial Profiles Back Street** co-living/student individual studios horeca -high-tech manufacturing co-working spaces culture -hybrid businesses that combine production and retail education -lack of high-end housing medium range S/M businesses

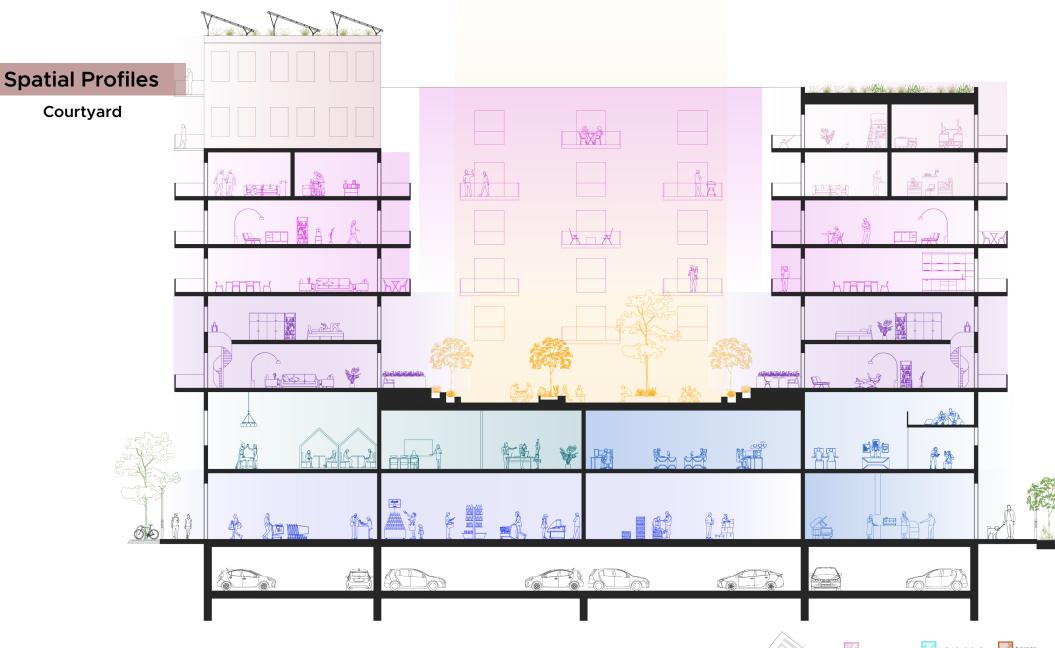
# **Spatial Profiles**

### **High Street**



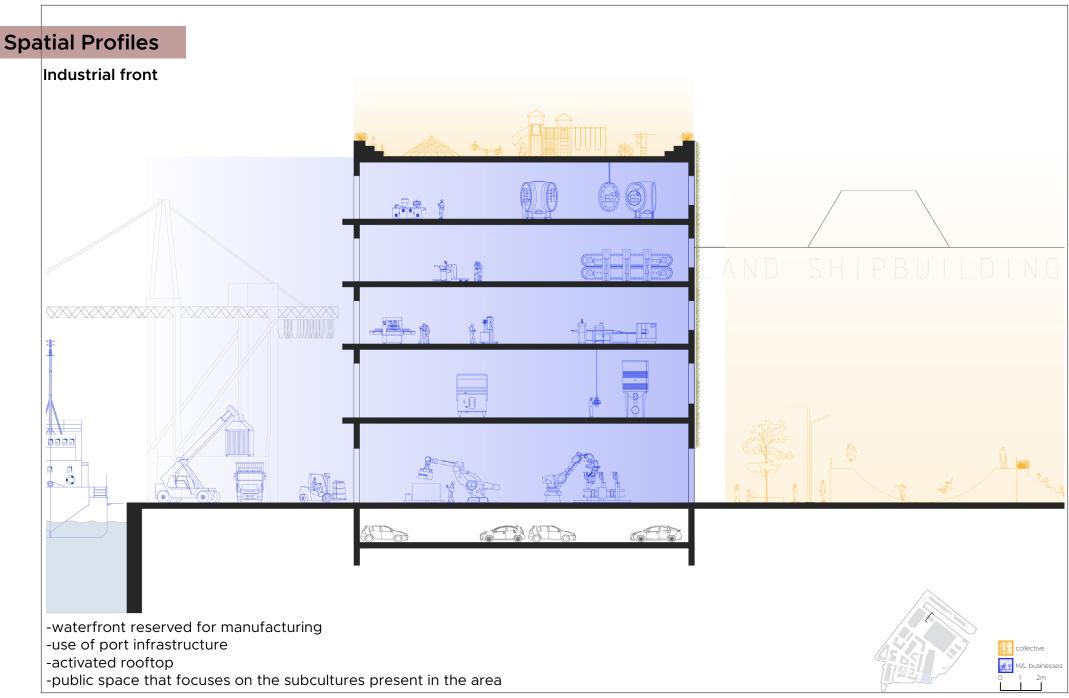






- -enclosed elevated collective space
- -focus on housing
- -double-level mixed-use plinth
- -limited productive activities

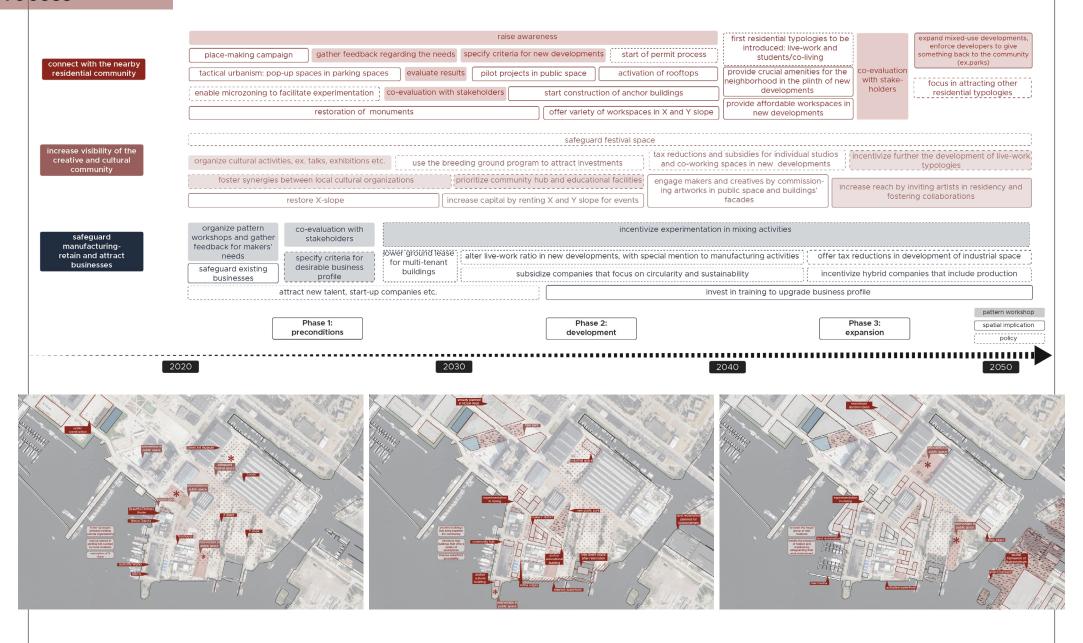








#### Process



#### Process

appoint a curator to align interests, protect community needs, build synergies and communicate news expand mixed-use developstart of place-making campaign achieve inclusive gather feedback regarding the needs prioritize the engage different departments ments, enforce developers to high-density mixed use align stakeholders and develop of the municipality to develop development give something back to the pilot projects in public space, limit developers' power, enforce workshops with all a common strategy environment evaluate results of affordable a common strategy community (ex.parks) restoration of monuments break-down of ownership stakeholders residential focus in attracting other start redevelopment in unused/parking plots units residential typologies Treehouse residents are given priority for tax reductions to existing businesses that want explore relocation options affordable space in new buildings to return in the area nitigate gentrification-inexpand mixed-use developments start dialogue, engage community members and non enable relocation of cultural organizations under start of pilot projects in unused/parking plots duced displacement profit-organizations results with eedback and favorable terms upon completion of pilot temporary relocation of NDSM Treehouse stakehholders evaluate projects results gain interest of developers and housing corporations explore future possibilities for start of demolition of | compensate businesses restore X-slope, rent both slopes for events and creative studios Loods, ex. museum waterfront blocks engage knowledge institutions and private companies specializing in high-tech manufacturing, promote synergies upgrade business <u>profile</u> and attract new talent lower ground specify criteria for alter live-work ratio in new developments, with special mention to manufacturing activities offer tax reductions to attract lease for promote hybrid companies (ex. production/office, desirable business start-up companies and new multi-tenant production/retail) profile subsidize companies that focus on innovation, circularity and sustainability entrepreneurs buildings with educational incentivize research and training of existing businesses character invest in training to upgrade business profile pattern workshop Phase 1: Phase 2: Phase 3: spatial implication preconditions expansion development ------2020 2030 2040



## Visualization

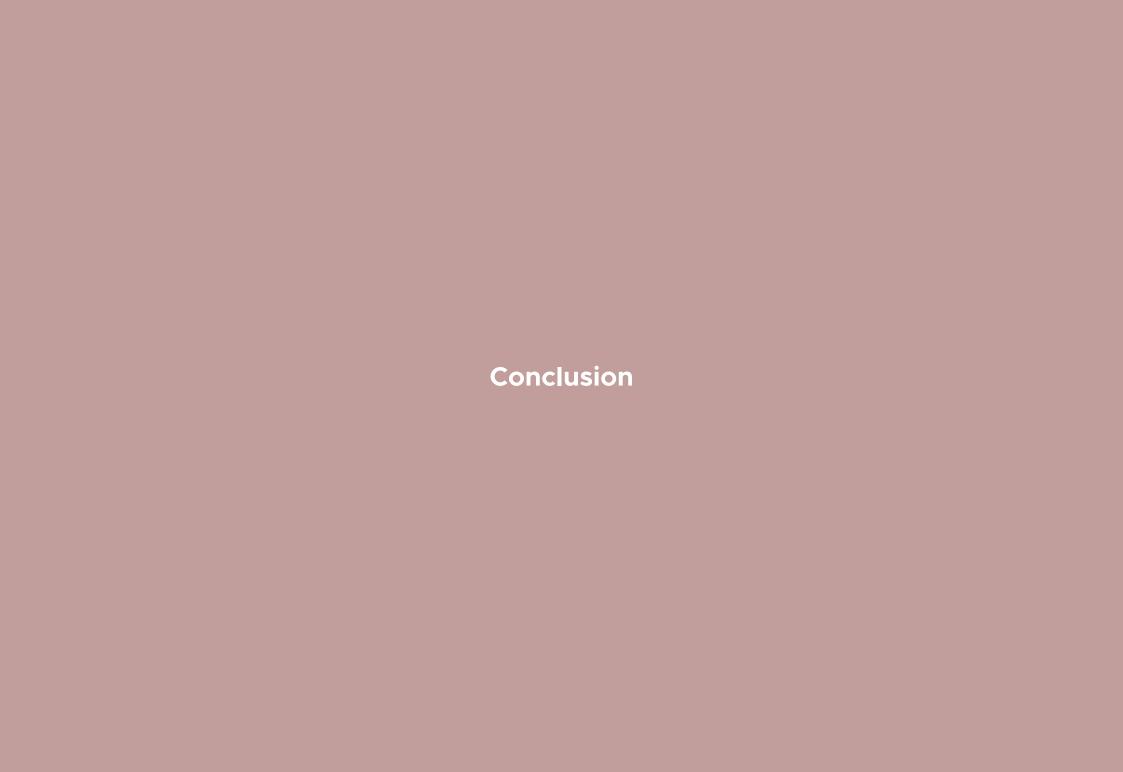


- -existing and new functions harmoniously co-exist
- -plinths of new developments offer premises of various sizes to support small-scale economic activity
- -cultural organizations remain in the waterfront, a series of building that bring together the community are added
- -a network of makers and manufacturing activities is found throughout the area
- -part of the waterfront serves the manufacturing community

## Visualization



- -the plinths house a variety of work environments, including retail spaces and horeca facilities
- -innovative ideas are nurtured in start-up companies and shared working spaces
- -low-nuisance manufacturing activities are mixed with housing in fresh, unconventional ways
- -the inside of the blocks offer collective public spaces that serve as meeting point for the residents and visitors
- -the waterfront is used exclusively for recreational purposes



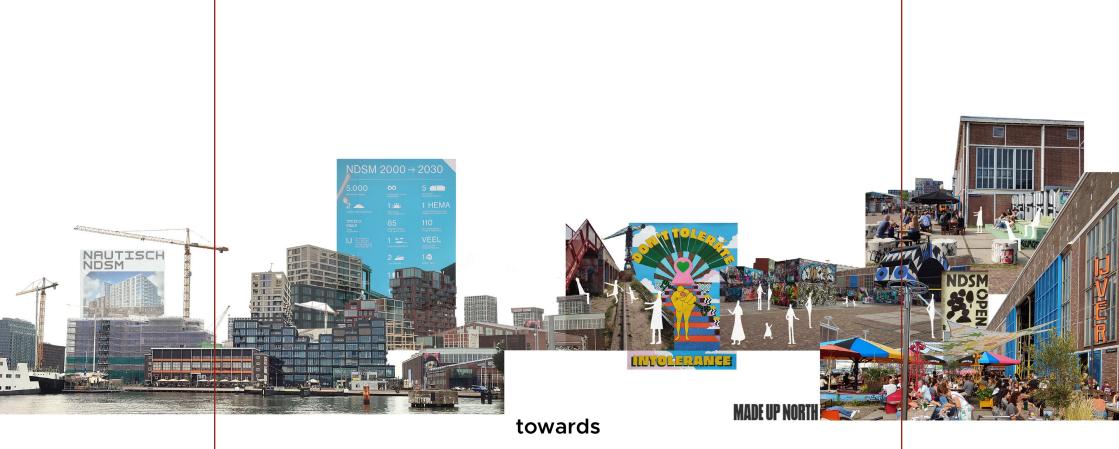
# Conclusion











# Juxtaposition of realities in transformation areas

Case NDSM Amsterdam

Thank you!

