

INTRODUCTION

METHODOLOGY

THEORETICAL FRAMEWORK

CASES: STRIJP-S & M4H

ADVICE INPUT

ADVICE

CONCLUSIONS



INTRODUCTION

URBAN INNOVATION DISTRICTS:

“Geographic areas where leading-edge anchor institutions and companies cluster and connect with start-ups, business incubators, and accelerators”.

PROBLEM STATEMENT:

Lack of understanding of the **mechanisms behind UIDs**

Limited research about the **people side of UIDs**

To area managers it is often not clear **who the people are, what they need and how to position them**

(KATZ & WAGNER, 2014; VAN WINDEN ET.AL., 2013)

RESEARCH GOAL:

To define possible **improvements in the attraction and retention of users to UIDs** in order to contribute to innovation ecosystems, cities' competitiveness and fill part of the gap in literature.

RESEARCH QUESTION:

What are the critical factors to successfully attract and retain people to Dutch Urban Innovation Districts, and how can area managers steer on the attraction and retention of these people?

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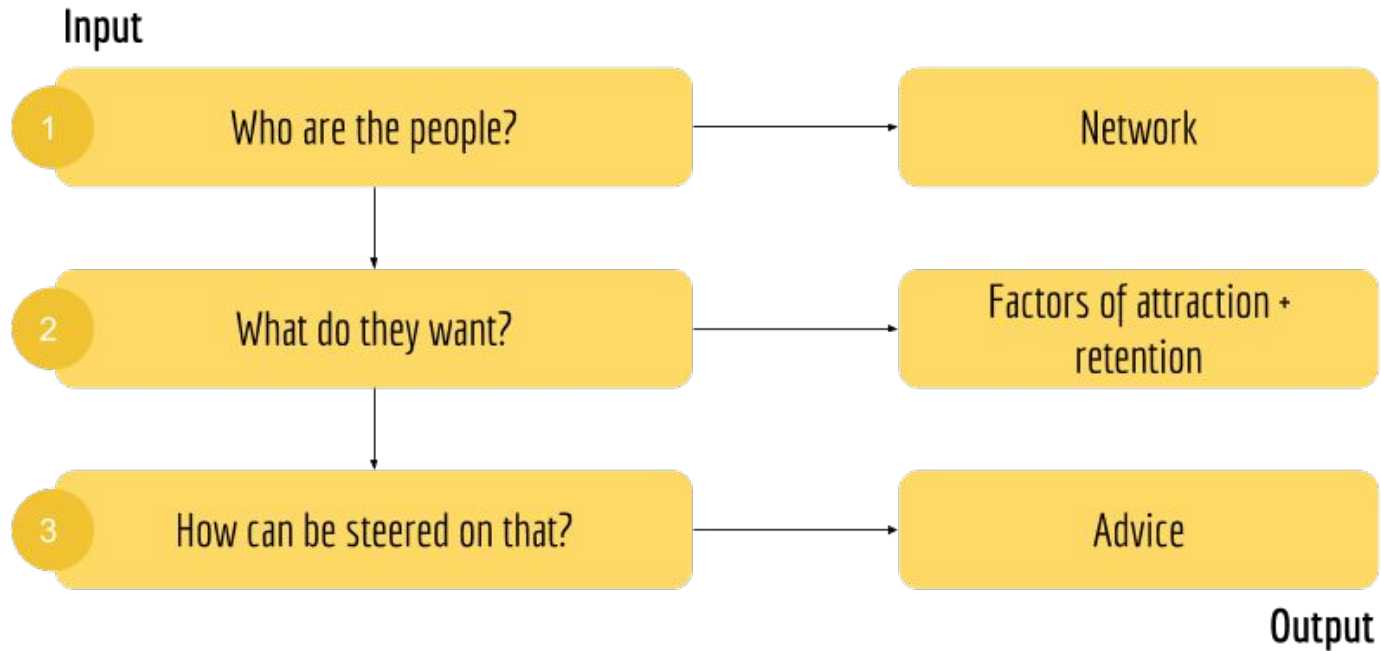
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METHODOLOGY

CONCEPTUAL MODEL



RESEARCH SUB QUESTIONS

Who are the people meant to use UIDs?

Who are the people using UIDs?

What are the physical, economical and networking factors of attraction and retention for different types of users in UIDs?

How do area managers steer on the attraction and retention of users to UIDs?

How can area managers better steer on the attraction and retention of users to UIDs?

RESEARCH METHODS



LITERATURE
REVIEW



INTERVIEWS

STRIJP-S
M4H



MICRO CASES

STRIJP-S



SURVEY

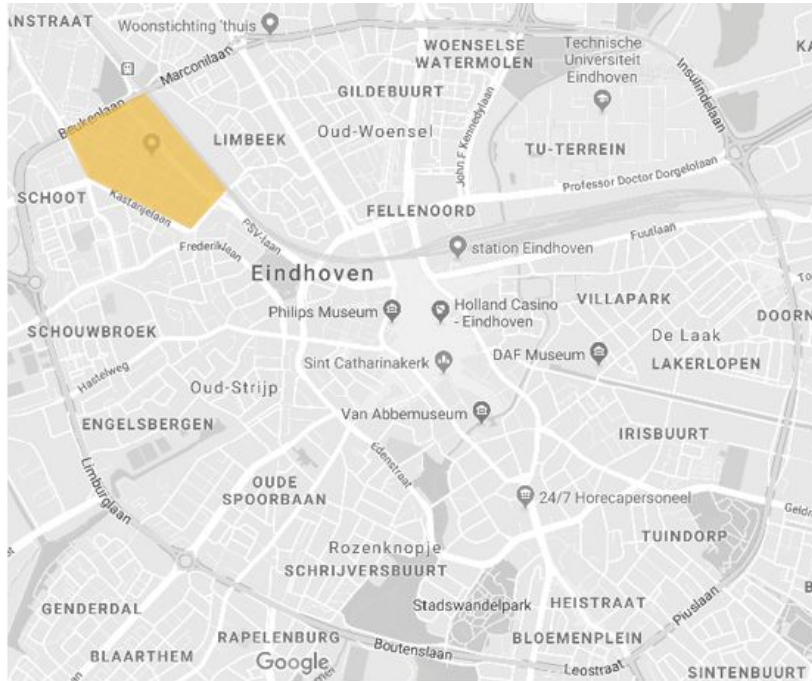
STRIJP-S



FOCUS GROUP

STRIJP-S

CASES

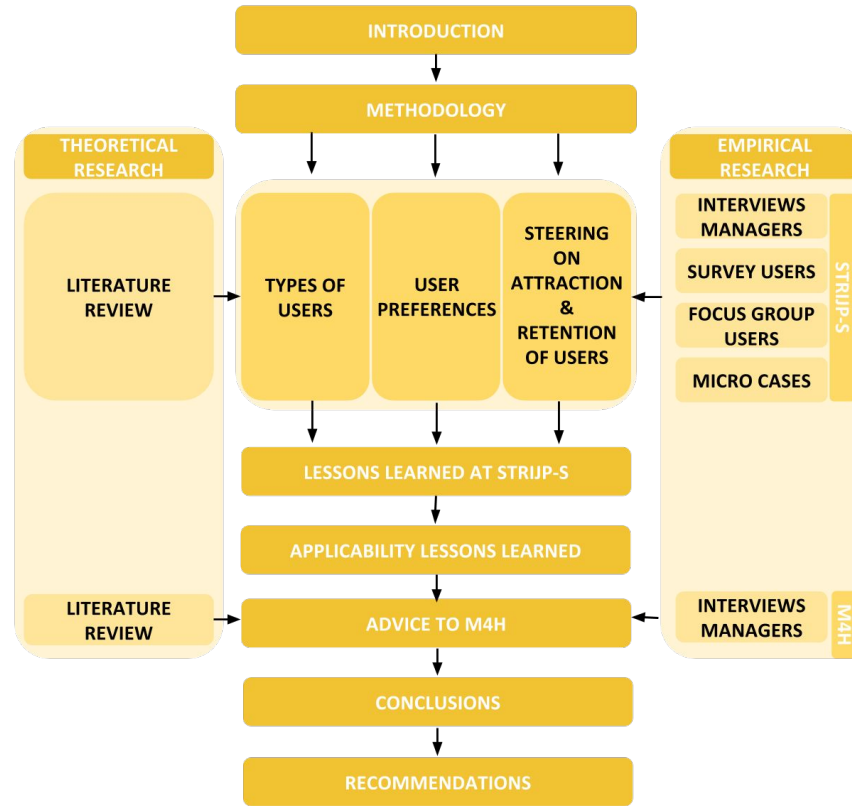


STRIJP-S, EINDHOVEN



MERWE-VIERHAVENS, ROTTERDAM

RESEARCH DESIGN





THEORETICAL FRAMEWORK

URBAN INNOVATION DISTRICT MODELS



ANCHOR PLUS
MODEL



RE-IMAGINED URBAN
AREAS



URBANIZED SCIENCE
PARKS

(KATZ & WAGNER, 2014)

URBAN INNOVATION DISTRICT MODELS



ANCHOR PLUS
MODEL



RE-IMAGINED URBAN
AREAS



URBANIZED SCIENCE
PARKS

(KATZ & WAGNER, 2014)

USER TYPES



COMPANIES



EMPLOYEES



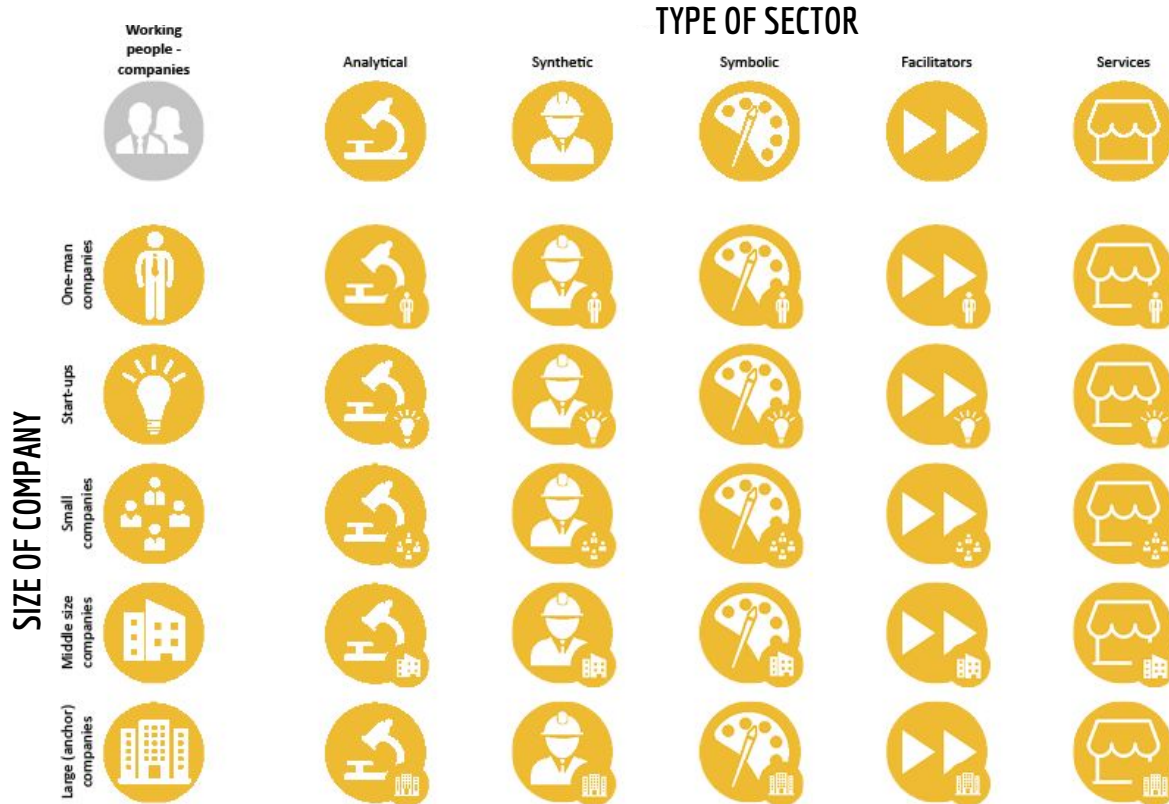
RESIDENTS



VISITORS

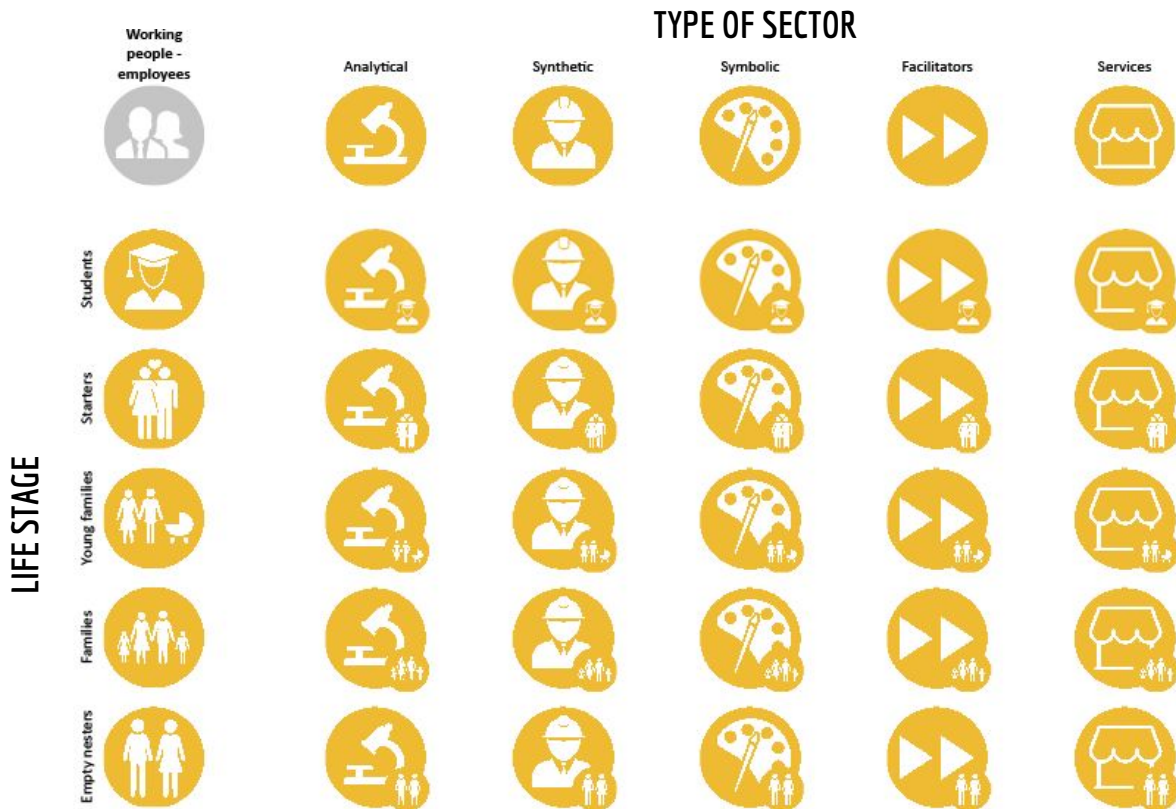
(BASED ON FLORIDA, 2002; FRENKEL, BENDIT & KAPLAN, 2013; KELLY & KELLY, 1994)

COMPANIES



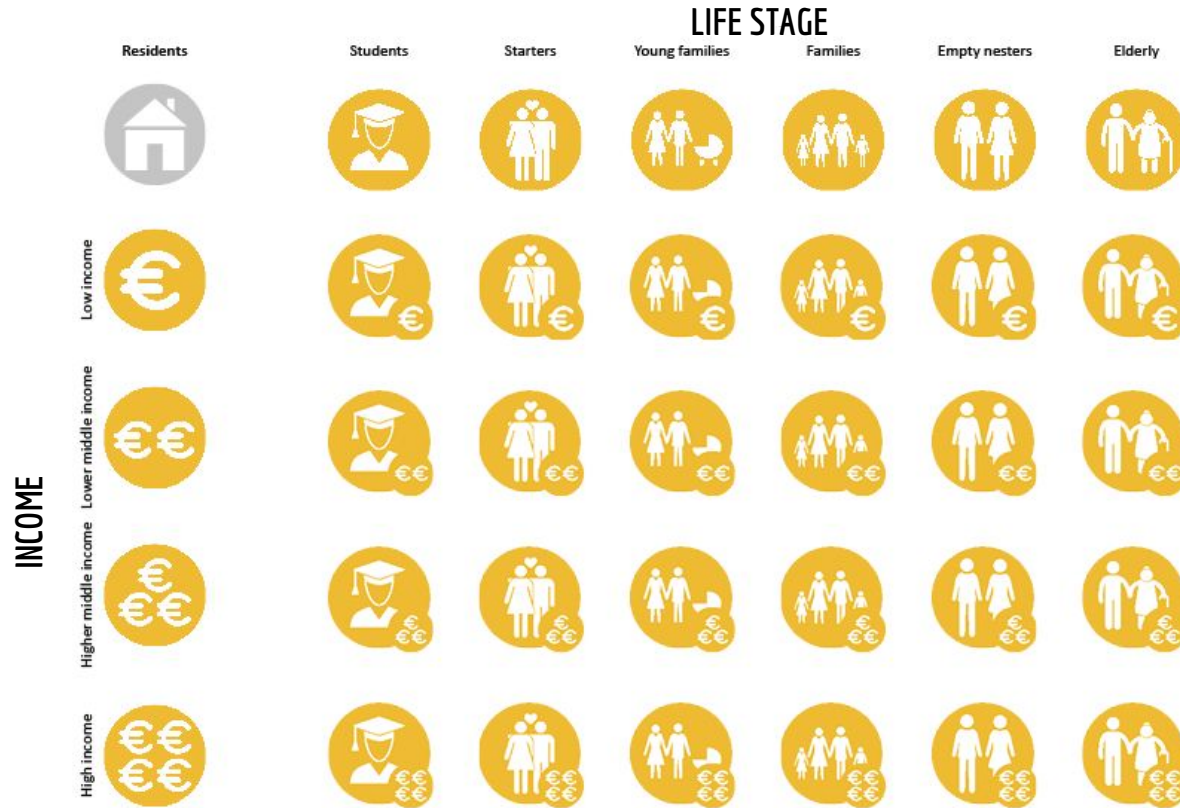
(BASED ON ASHEIM, 2007; EUROPEAN COMMISSION, 2009)

EMPLOYEES



(BASED ON ASHEIM, 2007; HILL, 1986)

RESIDENTS



(CBS, 2016; HILL, 1986)

VISITORS



(LLOYD & AULD, 2002; HILL, 1986)

VARIABLES USERS



PHYSICAL



ECONOMIC



SOCIAL

(BASED ON KATZ & WAGNER, 2014)

VARIABLES AREA MANAGERS



VISION



USER GROUPS



STRATEGIES
& MEANS



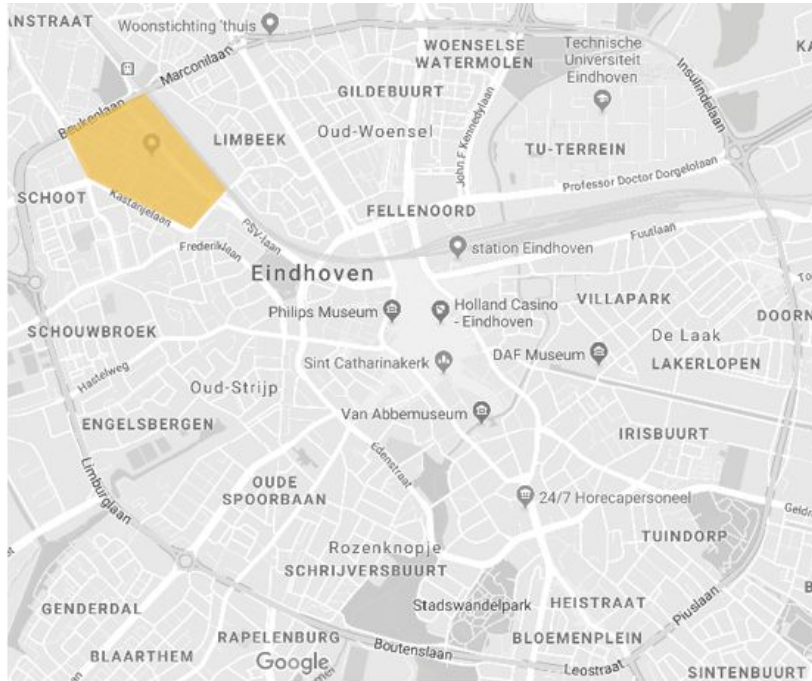
USER
RELATIONS



EVALUATION

A black and white photograph showing a perspective view of several large industrial pipes running parallel to each other. The pipes are viewed through a chain-link fence that occupies the foreground, creating a grid-like pattern over the scene. The pipes have a dark, possibly insulated or weathered surface. In the background, there are industrial buildings and structures under a bright sky. The word "CASES" is overlaid in the center of the image in a bold, yellow, sans-serif font.

CASES



STRIJP-S, EINDHOVEN



MERWE-VIERHAVENS, ROTTERDAM



STRIJP-S

HISTORY

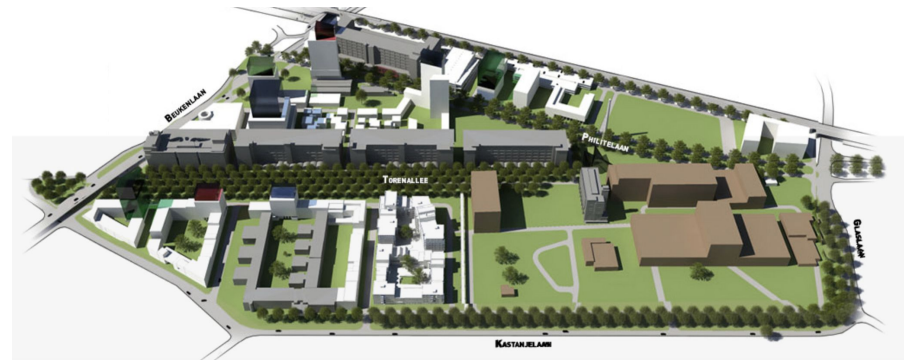
OLD PHILIPS FACTORIES
'FORBIDDEN CITY'
REDEVELOPED SINCE 2006

GOALS

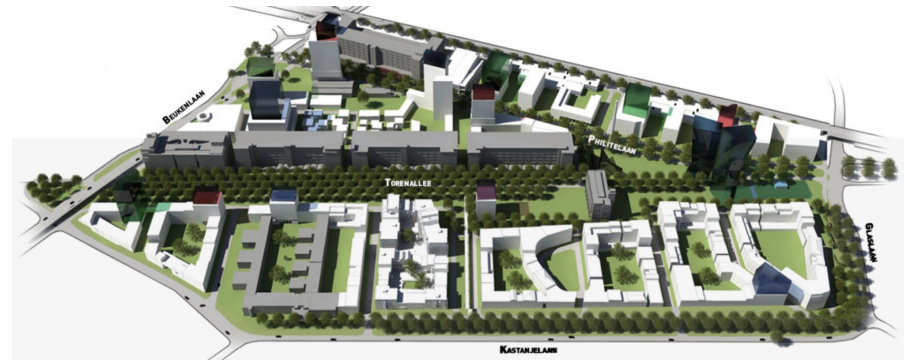
ADD MISSING METROPOLITAN LIFESTYLE TO
RETAIN KNOWLEDGE WORKERS
EXPAND CITY CENTRE OF EINDHOVEN
HEART OF BRAINPORT

DEVELOPMENT STAGE

700 COMPANIES, 2000 EMPLOYEES
> 1000 RESIDENTS
1.3. MLN VISITORS



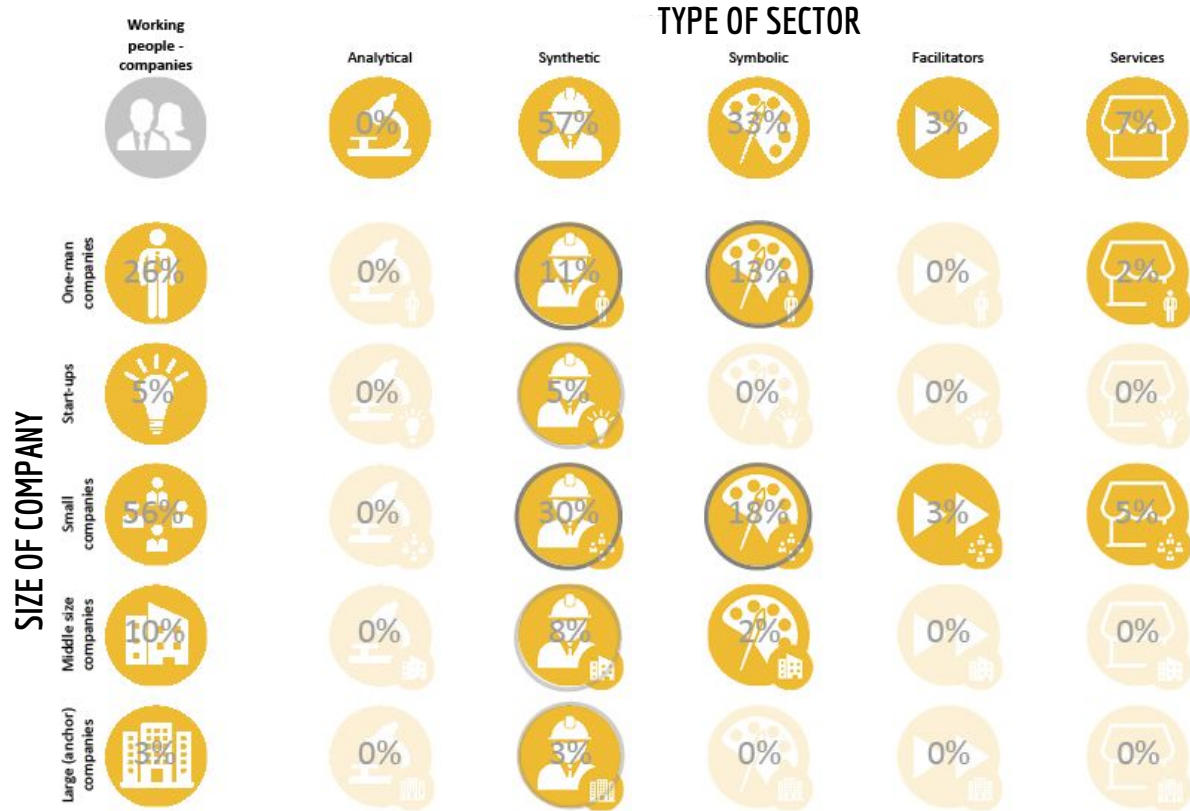
2017



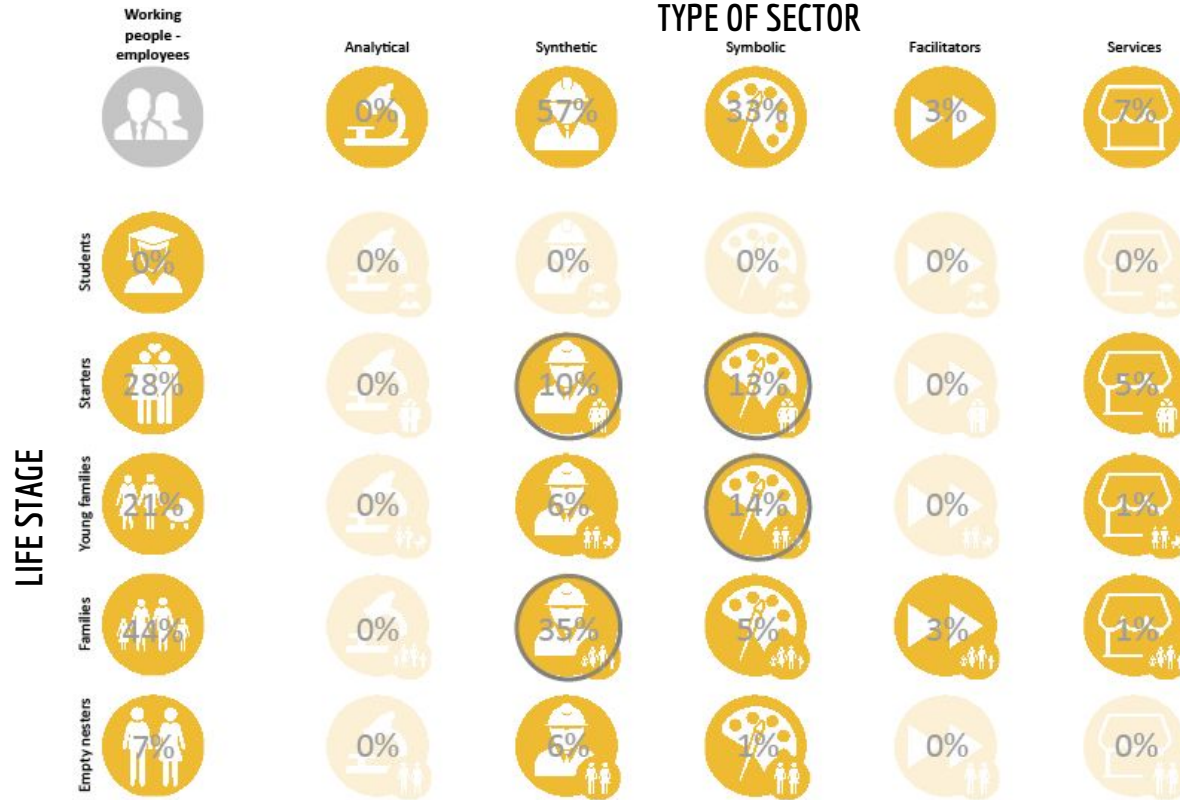
2030

(INTERVIEWEE 1, 2017; PARK STRIJP BEHEER, 2017; SINT TRUDO, 2017; VAN WINDEN ET. AL., 2013)

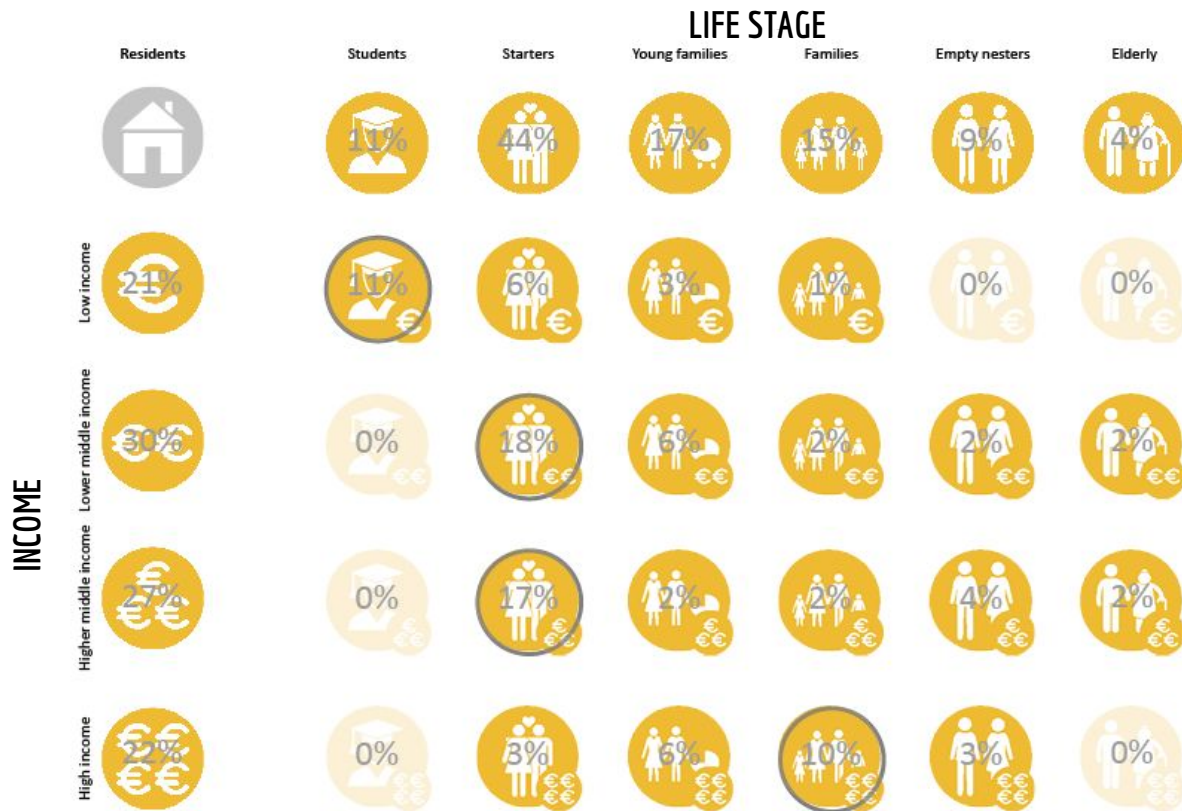
COMPANIES @ STRIIP-S



EMPLOYEES @ STRIJP-S



RESIDENTS @ STRIJP-S



VISITORS @ STRIJP-S



FACTORS OF ATTRACTION & RETENTION

Factors of attraction + retention	Long-term		Short-term	
	Crucial for innovation		Supporting for innovation	
	Companies	Employees	Residents	Visitors
Accessibility public transport	X	X	X	X
Openness and tolerance	X	X	X	X
Location	X	X	X	X
Liveliness	X	X	X	
Cultural amenities	X	X		X
Aesthetic amenities	X	X		X
Spontaneous interaction	X	X		X
Presence other companies	X	X		
Affordability	X	X		
Image	X	X		
Innovativeness	X	X		
Internal accessibility			X	X
Accessibility private transport			X	X
Atmosphere			X	X
Housing type			X	
Social diversity				X
Planned interaction				X
Events				X
Friends/family				X

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Accessibility private transport			X	X
Atmosphere			X	X
Housing type			X	
Social diversity				X
Planned interaction				X
Events				X
Friends/family				X

FACTORS OF IMPROVEMENT

Factors of improvement	Long-term			Short-term
	Crucial for innovation		Supporting for innovation	
	Companies	Employees	Residents	Visitors
Functional amenities	X	X	X	x
Natural amenities	X	x	X	X
Recreational amenities	X	X	x	x
Costs for services and goods	X	x	x	
Costs for space	X	X	x	
Accessibility by private transport	X	X	X	
Internal accessibility	x	x	x	
Spontaneous interaction	x	X	X	
Meeting places in the public space	X	x		x
Social diversity	x	x		
Openness and tolerance	x	x		
Interaction between companies	x	X		
Tenure		X	x	
Flexibility of space	X			
Presence of a suitable labour pool	x			
Shared spaces in buildings			x	
Aesthetic amenities			x	

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Spontaneous interaction	x	X	X	
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Shared spaces in buildings			x	
Aesthetic amenities			x	

STRATEGIES & MEANS TO ATTRACT & RETAIN USERS

➤ Applicable to Υ Strategies and means	Attraction (A) Retention (R)	Workers	Residents	Visitors
Steering on strong concepts	A + R	X	X	X
Activities & events	A + R	X	X	X
Provide room for initiatives	A + R	X	X	X
A-cyclical investments	A	X	X	X
Steering on magnets	A	X	X	X
Cultural fund	A	X	X	X
Marketing and branding	A	X	X	X
Involve users in development	R	X	X	X
Steer on the preservation of the identity of Strijp-S	R	X	X	X
Offering flexibility	A + R	X	X	
Community management	A + R	X	X	
Elevator model	A + R	X	X	
Offering cheap space	A	X	X	
New concepts	A	X	X	
Community management	R	X	X	
Accommodate growth of existing community	R	X	X	
Facilitating entrepreneurship	A + R	X		
Mats points for assigning dwellings	A + R		X	
Programming the connection with the city	A + R			X

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Facilitating entrepreneurship	A + R	X		
Mats points for assigning dwellings	A + R		X	
Programming the connection with the city	A + R			X



MERWE-VIERHAVENS (M4H)

HISTORY

FRUIT PORT OF EUROPE

REORIENTATION OF PORT ACTIVITIES

REDEVELOPED SINCE 2011

BRANDED AS INNOVATION DISTRICT IN 2015

GOALS

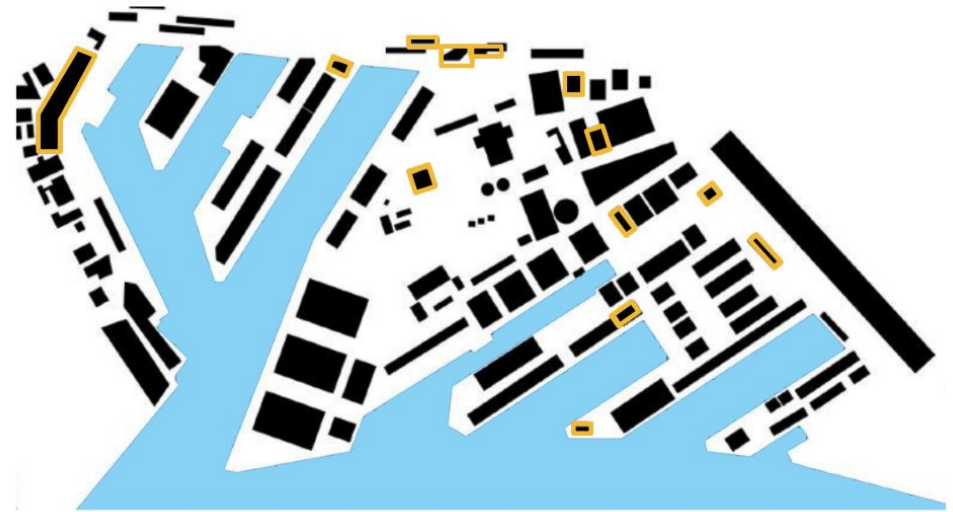
STRENGTHEN THE **ECONOMY** OF ROTTERDAM

AND ITS PORT

REALISE AN **ATTRACTIVE CITY** BY DEVELOPING

RIVER BANKS

INNOVATION **BREEDING GROUND** OF EUROPE



DEVELOPMENT STAGE

(BASED ON STAM, 2016; STADSHAVENS ROTTERDAM, 2017; MUNICIPALITY OF ROTTERDAM, 2011)

POTENTIAL



INCUBATORS



SOCIAL
INNOVATION



SPACE FOR
DEVELOPMENTS



EXPERIMENTING
SPACE

(BASED ON STAM. 2016; INTERVIEWEE 7, 2017; INTERVIEWEE 8, 2017)

CHALLENGES



EXISTING
INFRASTRUCTURE



PLAN OF
APPROACH



CRITICAL
MASS



LIVELINESS &
INTERACTION

(BASED ON STAM. 2016; INTERVIEWEE 7, 2017; INTERVIEWEE 8, 2017)

USER TYPES



COMPANIES



EMPLOYEES



RESIDENTS



VISITORS

(BASED ON FLORIDA, 2002; FRENKEL, BENDIT & KAPLAN, 2013; KELLY & KELLY, 1994)

ADVICE INPUT



COMPARABILITY STRIJP-S & M4H



HISTORY



LOCATION



DEMOGRAPHICS

COMPARABILITY STRIJP-S & M4H: HISTORY



TYPE OF AREA

STRIJP-S: PHILIPS FACTORIES

M4H: HARBOUR AREA



AMOUNT OF (PREVIOUS) OWNERS

STRIJP-S: SINGLE OWNER (PHILIPS)

M4H: MULTIPLE OWNERS



TIMESPAN IN WHICH AVAILABLE FOR REDEVELOPMENT

STRIJP-S: AT ONCE

M4H: WITHIN A PERIOD OF 25 YEARS

COMPARABILITY STRIJP-S & M4H: LOCATION



POSITION IN CITY

STRIJP-S: BORDER OF CITY CENTRE

M4H: BORDER OF CITY CENTRE



CITY SIZE

STRIJP-S: EINDHOVEN: 89 KM² & 226.868 INHABITANTS

M4H: ROTTERDAM: 320 KM² & 634.660 INHABITANTS



DISTANCE TO CITY CENTRE

STRIJP-S: 1.6 KM = WALKING DISTANCE

M4H: 3.5 KM = CYCLING DISTANCE

COMPARABILITY STRIJP-S & M4H: DEMOGRAPHICS



TARGET GROUPS

STRIJP-S: STARTERS & EMPTY NESTERS WITH MIDDLE INCOMES

M4H: STARTERS, FAMILIES & EMPTY NESTERS WITH DIFFERENT INCOMES



RESIDENTS SURROUNDING NEIGHBOURHOODS

STRIJP-S: MIDDLE INCOMES

M4H: VULNERABLE GROUP (LOWER INCOMES)



SOCIAL INCLUSION

STRIJP-S: TO A LIMITED AMOUNT

M4H: MANAGED VERY WELL



CROWN NL

SCSU 760096 7

SOUND
LAB
HOMEN

ADVICE

PSCU
512501
2261

PSCU 512502 U

HULSKAMP

EXISTING INFRASTRUCTURE

Sub-challenge	Focus points	Potential strategies and means
Actual infrastructure	Slow traffic	Construct slow traffic lanes in and to the area, to improve walkability and bikeability. Create interesting routes for cyclists and pedestrians. Herein the location of the area along the water could be used.
Physical relation with surrounding areas	Development of the boundaries of the area	Create amenities or functions at the boundaries of M4H where activities interesting for residents of surrounding neighbourhoods as well take place.
	Accessibility/ connection city centre	Create connections with bus, metro or tram between the city centre, surrounding areas and M4H, in order to improve accessibility with public transport. Create connection by car with the city centre, surrounding areas and M4H, in order to improve accessibility with private transport. Besides, make sure the area provides enough and affordable parking spots. Create interesting cycling routes between the area and the city centre.
Realise housing next to harbour companies	Experimental housing	While housing still cannot be realised on a large scale, where possible experiment with (temporary) housing to improve the liveliness of the area at any time of the day.

PLAN OF APPROACH

Sub-challenge	Focus points	Potential strategies and means
Clear plan of approach	Determine directions and actions	Define directions for the long-term development, and actions for the short-term development. Hence, the plan will remain flexible and can be adjusted to the current situation.
	Involve users in the development of the plan	Reflect on the plan on a frequent basis, and adjust the next actions to the current priorities and needs. Organise brainstorm sessions with users, and ask them what they need, want, and what is next according to them. Outsource parts of the plan to companies present in the area.
Clear investing party	Divide tasks, risks, investments and responsibilities	Establish a 'Board of Inspiration', including the main investing parties. Preferably involve both private and public parties. Divide tasks, risks, investments and responsibilities among the members of the 'Board of Inspiration'.

ATTRACTING A CRITICAL MASS (1)

Sub-challenge	Focus points	Potential strategies and means
Attract workers, residents and visitors	Accessibility/ connection city centre	<p>Create connections with bus, metro or tram between the city centre, surrounding areas and M4H, in order to improve accessibility with public transport.</p> <p>Create connection by car with the city centre, surrounding areas and M4H, in order to improve accessibility with private transport. Besides, make sure the area provides enough and affordable parking spots.</p> <p>Create interesting cycling routes between the area and the city centre.</p>
	Recreational-, functional- & cultural amenities	<p>Make a-cyclical investments, by investing in amenities already before residents are present in the area.</p> <p>Provide space for user initiatives.</p> <p>Establish a cultural fund in which the managing parties invest, to support cultural initiatives.</p>
	Openness and tolerance	<p>Offer a variety of working places, dwellings, price ranges, events, activities, and amenities to attract a diversity of workers, residents and visitors.</p>

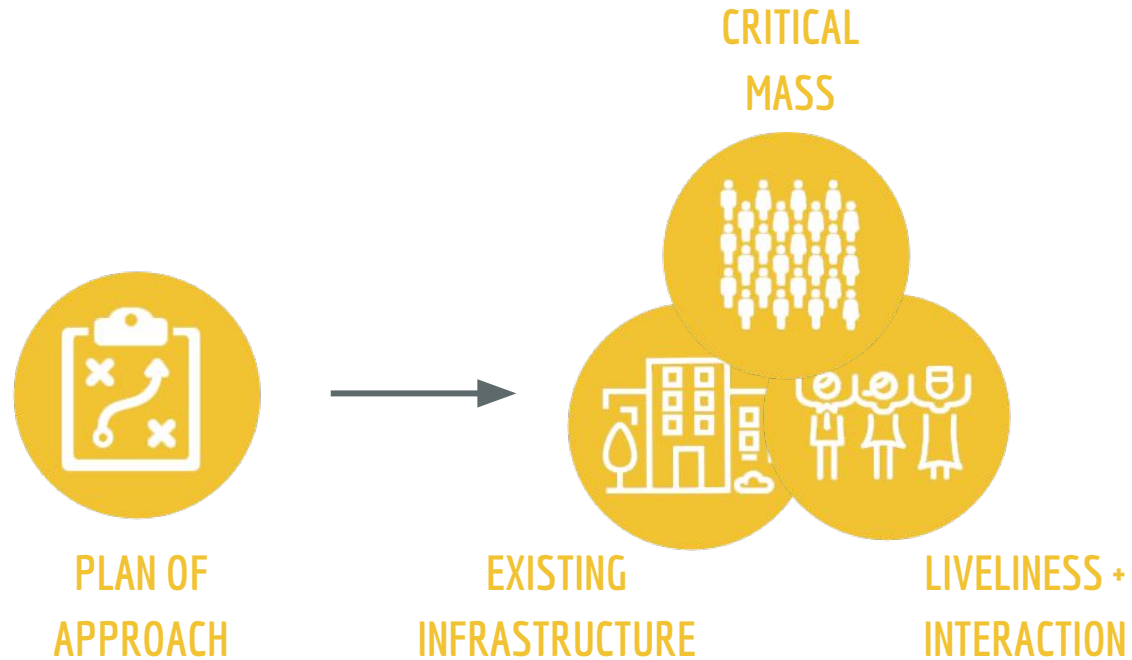
ATTRACTING A CRITICAL MASS (2)

Attract workers	Diversity of companies	Steer on concepts or sectors in the attraction of companies and employees (community management). Offer a variety of workspaces to attract a diversity of workers.
	Interaction between companies	Steer on concepts or sectors in the attraction of companies and employees (community management). Initiate business events for several types of companies and employees. Create shared facilities and spaces where people can meet.
Attract residents	Interaction on building level	Establish a residents association. Organise activities and events for residents. Create shared facilities and spaces where people can meet.
Attract residents and visitors	Interaction on area level	Organise area-wide activities and events for different types of users. Create transparency of activities going on in other buildings. Create meeting places in the public space where people can meet. Create recreational amenities that stimulate interaction.

LIVELINESS & INTERACTION

Sub-challenge	Focus points	Potential strategies and means
Interaction on area level	Shared spaces	Create shared spaces in the public space where people can meet. Make all building plinths publicly accessible, so people can see by themselves what is going on in the buildings.
	Activities and events	Organise area-wide activities and events for different types of users. Provide space for user initiatives. Establish a cultural fund in which the managing parties invest, to support cultural initiatives.
Transparency of present people, activities and places	Transparency within the area	Create an app or website that gives a complete overview of the people (i.e. companies, entrepreneurs), activities (i.e. festivals, exhibitions) and places (i.e. amenities, meeting places) in the area. Organise area-wide activities and events for different types of users.
	Transparency outside the area	Use social media to update people about the people (i.e. companies, entrepreneurs), activities (i.e. festivals, exhibitions) and places (i.e. amenities, meeting places) in the area. Organise activities for residents of surrounding areas and other people interested in the development to update them about what is going on in the area.

SEQUENCE OF ACTIONS



CONCLUSIONS



RESEARCH QUESTION

What are the critical factors to successfully attract and retain people to Dutch Urban Innovation Districts, and how can area managers steer on the attraction and retention of these people?

FACTORS OF ATTRACTION & RETENTION

Factors of attraction + retention	Long-term			Short-term
	Crucial for innovation		Supporting for innovation	
	Companies	Employees	Residents	Visitors
Variety of amenities	X	X	X	X
Location	X	X	X	X
Accessibility	X	X	X	X
Openness & tolerance	X	X	X	X
Presence of other companies & employees	X	X		
Business events	X	X		
Costs for space	X	X		
Interaction between companies & employees	X	X		
Size of housing			X	
Diversity of people			X	
Interaction with neighbours			X	
Liveliness			X	
Activities & events				X

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Interaction with neighbours			X	
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Activities & events				X

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Diversity of people			X	
Interaction with neighbours			X	
Liveliness			X	
Activities & events				X

FACTORS OF ATTRACTION & RETENTION

Factors of attraction + retention	Long-term			Short-term
	Crucial for innovation		Supporting for innovation	
	Companies	Employees	Residents	Visitors
Variety of amenities	X	X	X	X
Location	X	X	X	X
Accessibility	X	X	X	X
Openness & tolerance	X	X	X	X
Presence of other companies & employees	X	X		
Business events	X	X		
Costs for space	X	X		
Interaction between companies & employees	X	X		
Size of housing			X	
Diversity of people			X	
Interaction with neighbours			X	
Liveliness			X	
Activities & events				X

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Interaction with neighbours			X	
Liveliness			X	
Activities & events				X

STRATEGIES & MEANS TO STEER ON ATTRACTION & RETENTION

<p>➤ Applicable to</p> <p>Υ Strategies and means</p>	Attraction (A) Retention (R)	Workers	Residents	Visitors
Organise events & activities	A + R	X	X	X
Provide room for user initiatives	A + R	X	X	X
Branding & marketing	A	X	X	X
Steer on magnets	A	X	X	X
Make a-cyclical investments	A	X	X	X
Establish a cultural fund	A	X	X	X
Steer on the preservation of the identity	R	X	X	X
Involve users in development process	R	X	X	X
Community management	A + R	X	X	
Offer affordable space	A	X	X	
Offer new rental concepts	A	X	X	
Accomodate growth	R	X	X	
Facilitate entrepreneurship	A + R	X		
Program connection with the city centre	A + R			X

STRATEGIES & MEANS TO STEER ON ATTRACTION & RETENTION

▶ Applicable to ⚓ Strategies and means	Attraction (A) Retention (R)	Workers	Residents	Visitors
Organise events & activities	A + R	X	X	X
Provide room for user initiatives	A + R	X	X	X
Branding & marketing	A	X	X	X
Steer on magnets	A	X	X	X
Make a-cyclical investments	A	X	X	X
Establish a cultural fund	A	X	X	X
Steer on the preservation of the identity	R	X	X	X
Involve users in development process	R	X	X	X
Community management	A + R	X	X	
Offer affordable space	A	X	X	
Offer new rental concepts	A	X	X	
Accomodate growth	R	X	X	
Facilitate entrepreneurship	A + R	X		
Program connection with the city centre	A + R			X

STRATEGIES & MEANS TO STEER ON ATTRACTION & RETENTION

► Applicable to Y Strategies and means	Attraction (A) Retention (R)	Workers	Residents	Visitors
Organise events & activities	A + R	X	X	X
Provide room for user initiatives	A + R	X	X	X
Branding & marketing	A	X	X	X
Steer on magnets	A	X	X	X
Make a-cyclical investments	A	X	X	X
Establish a cultural fund	A	X	X	X
Steer on the preservation of the identity	R	X	X	X
Involve users in development process	R	X	X	X
Community management	A + R	X	X	
Offer affordable space	A	X	X	
Offer new rental concepts	A	X	X	
Accomodate growth	R	X	X	
Facilitate entrepreneurship	A + R	X		
Program connection with the city centre	A + R			X

STRATEGIES & MEANS TO STEER ON ATTRACTION & RETENTION

► Applicable to Y Strategies and means	Attraction (A) Retention (R)	Workers	Residents	Visitors
Organise events & activities	A + R	X	X	X
Provide room for user initiatives	A + R	X	X	X
Branding & marketing	A	X	X	X
Steer on magnets	A	X	X	X
Make a-cyclical investments	A	X	X	X
Establish a cultural fund	A	X	X	X
Steer on the preservation of the identity	R	X	X	X
Involve users in development process	R	X	X	X
Community management	A + R	X	X	
Offer affordable space	A	X	X	
Offer new rental concepts	A	X	X	
Accomodate growth	R	X	X	
Facilitate entrepreneurship	A + R	X		
Program connection with the city centre	A + R			X

STRATEGIES & MEANS TO STEER ON ATTRACTION & RETENTION

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Accomodate growth	R	X	X	
Facilitate entrepreneurship	A + R	X		
Program connection with the city centre	A + R			X

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RECOMMENDATIONS

PRACTICE

The situation at **M4H is more representative** for the reality of urban development.

The **4 main challenges** at M4H are not the only things that should be improved to turn M4H into a successful UID.

The advice should be seen as a **guideline**, not as a strategy that is ready for use.

The best way of developing depends on an area's history, location and demographics, and is always **case-specific**.

Area managers should especially focus on the attraction and retention of **workers**, as they are most important for innovation.

In the development of UIDs, **user involvement** is essential.

FURTHER RESEARCH

To provide a more complete and detailed advice, the same **empirical research** should be conducted at **M4H**.

To increase the **validity** of the research, more interviews, focus groups and surveys could be conducted.

It would be interesting to conduct the same research at Strijp-S in **5 or 10 years** from now.

It would be valuable to conduct the same research for the **anchor plus model** and **urbanized science parks**.

It will be interesting to further research how area managers can stimulate **social inclusion** and deal with **gentrification**.

THEORETICAL REFLECTION

3 MODELS KATZ & WAGNER (2014)



ANCHOR PLUS MODEL



RE-IMAGINED URBAN AREAS



URBANIZED SCIENCE PARKS

PROPOSED SUBDIVISION OF MODELS

1	2	3
Time-span in which the complete area becomes available for development	Distance to city centre	Demographics surrounding areas
Short (less than 5 years) Medium (5 to 10 years) Long (more than 10 years)	Walking distance (under 1,5 km) Cycling distance (1,5-5 km) Riding distance (over 5 km)	Vulnerable groups Middle- or higher income groups

REMARKABLE FINDINGS STRIJP-S

Symbolic companies are much more **satisfied** at Strijp-S than **synthetic companies**, while both types of companies are well represented in the area.

Smaller companies value **interaction** more than **larger companies**.

Companies in the **symbolic sector** find **interaction** more important than companies in the **synthetic sector**.

Younger people find accessibility by **public transport** more important, while **older people** find accessibility with **private transport** more important.

Companies and employees active in the **symbolic sector** prefer **public transport**, while companies and employees active in the **synthetic sector** prefer **private transport**.

Companies and employees active in the **symbolic sector** value certain **amenities** more than companies and employees active in the **synthetic sector**.