

ir. Lisanne Adriana Rissik

Management in the Built Environment Housing Graduation Lab

> guided by Dr. Darinka Czischke Ljubetic Ing. Peter de Jong

> > P5 presentation April 8th 2019

Amstel Activity Route Landscape of Movement

Health Stimulating Public Space of Amsterdam 2050



birdseye view

XS>XL

- 1 Introduction
- 2 Research Framework
- 3 Research Part 1
- 4 Analytical Framework
- 5 Research Part 2
- **6** Conclusions



introduction



"Housing shortage reaches highpoint in 2018."

CAPITAL VALUE

13 febuari 2017



"Housing shortages for mid-income housholdes in Amsterdam"

HET PAROOL

17 april 2016



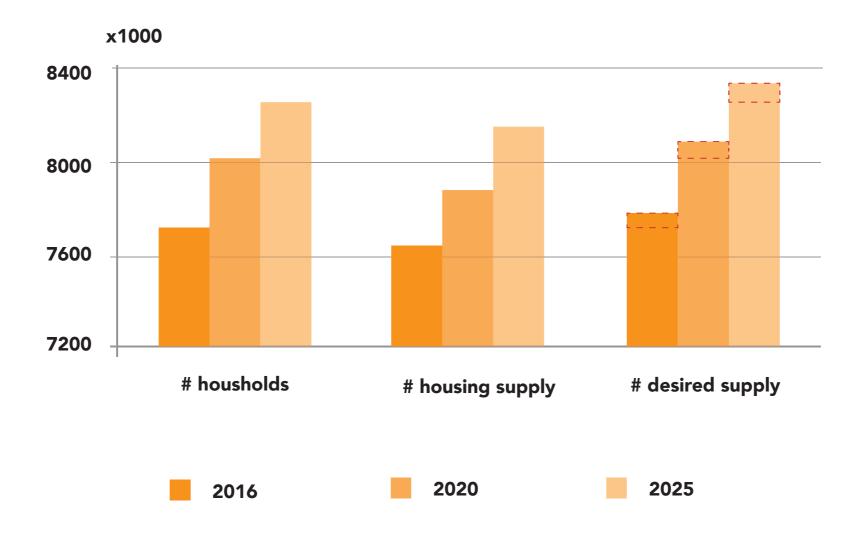
"Many people in their thirties are stuck on the housing market."

NOS

27 december 201

issues on the housing market

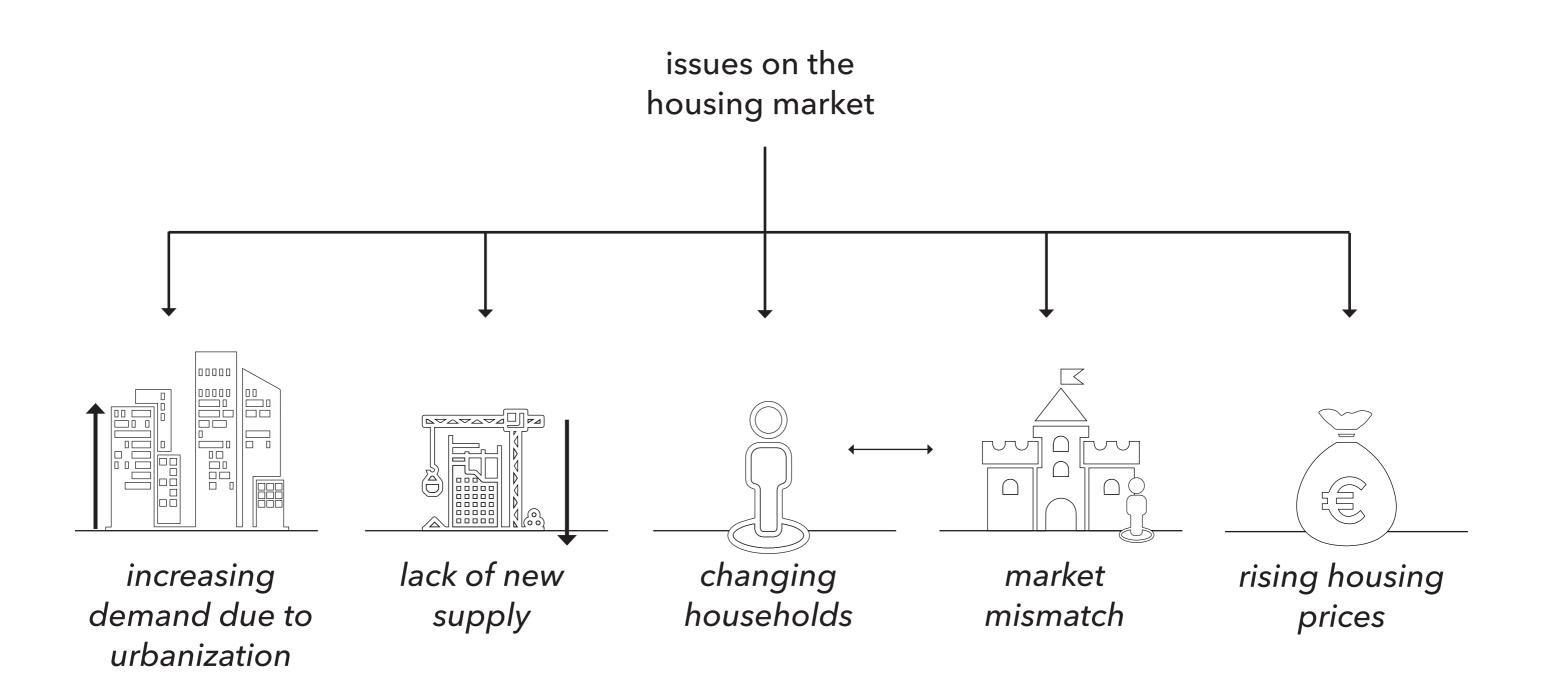




source: Primos, 2016

housing shortages





collection of factors influencing the housing issues



migration



immigration



high birth & low mortality rate

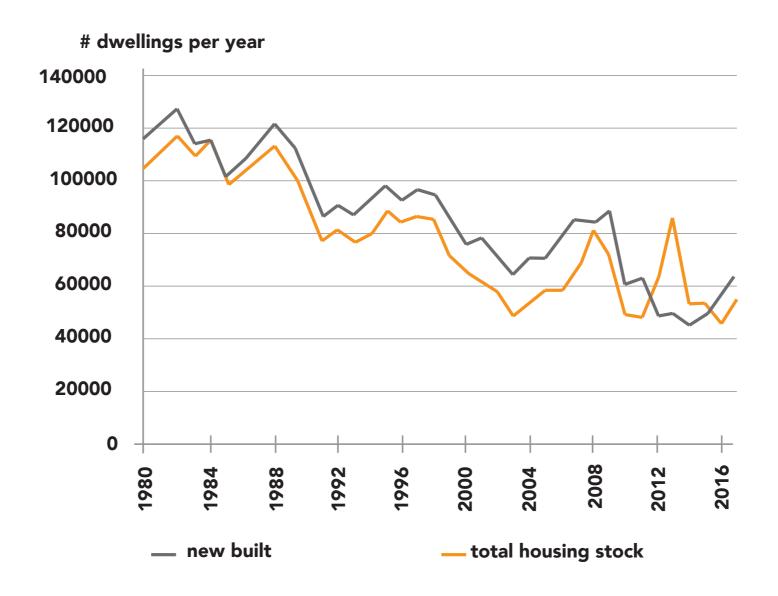


compact city approach

source: CBS, 2016



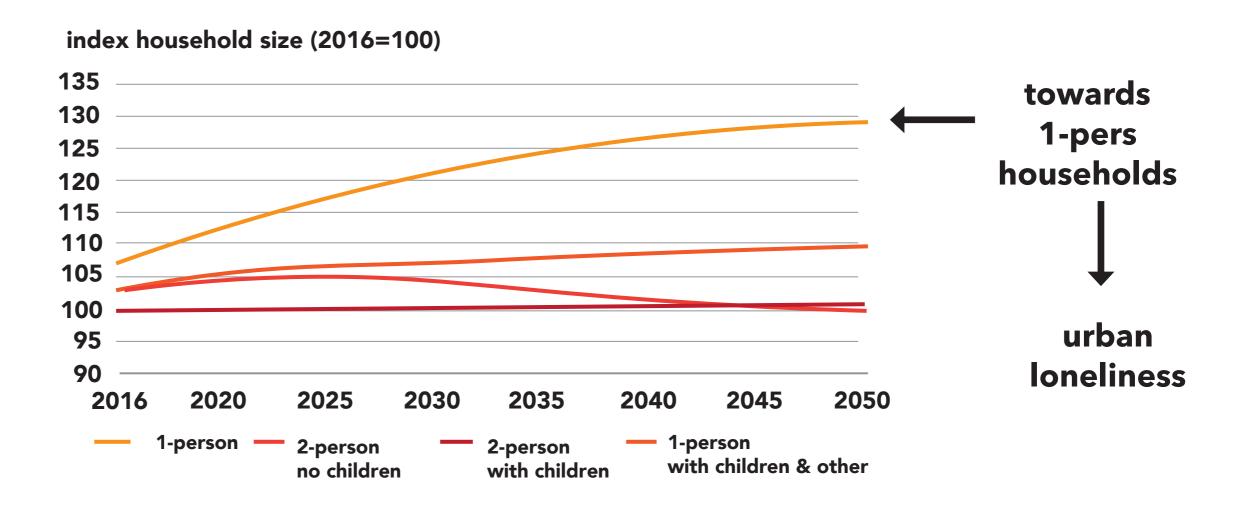
increasing demand due to urbanization



source: Rabobank, 2018







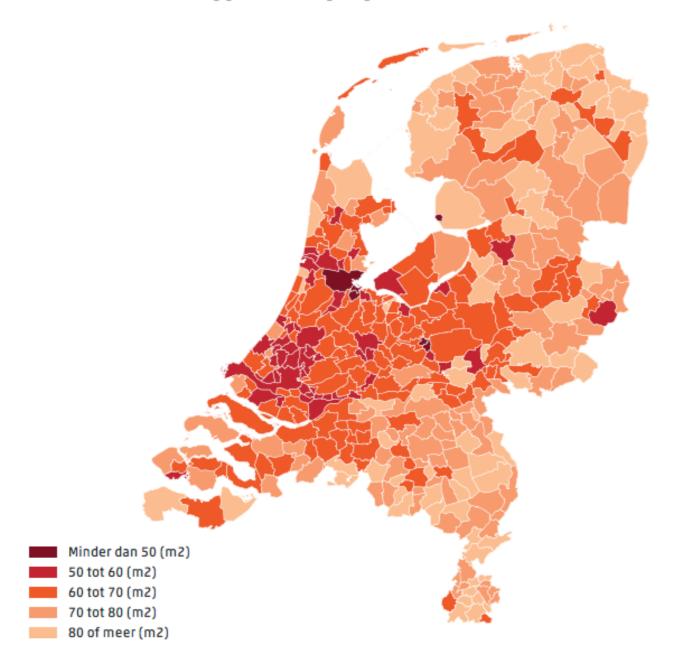
source: JLL, 2016

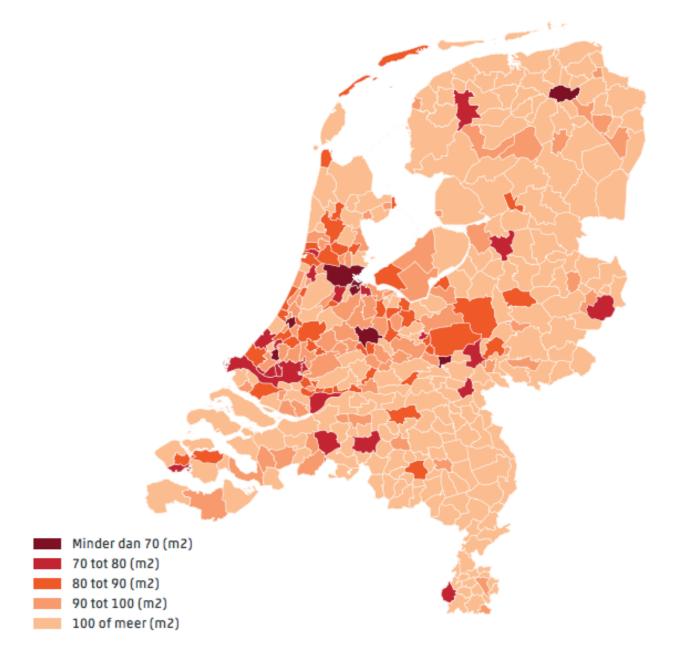




Gemiddelde woonoppervlakte per persoon

Gemiddelde woonoppervlakte voor eenpersoonshuishoudens





traditional housing 1 pers living space +-50m2

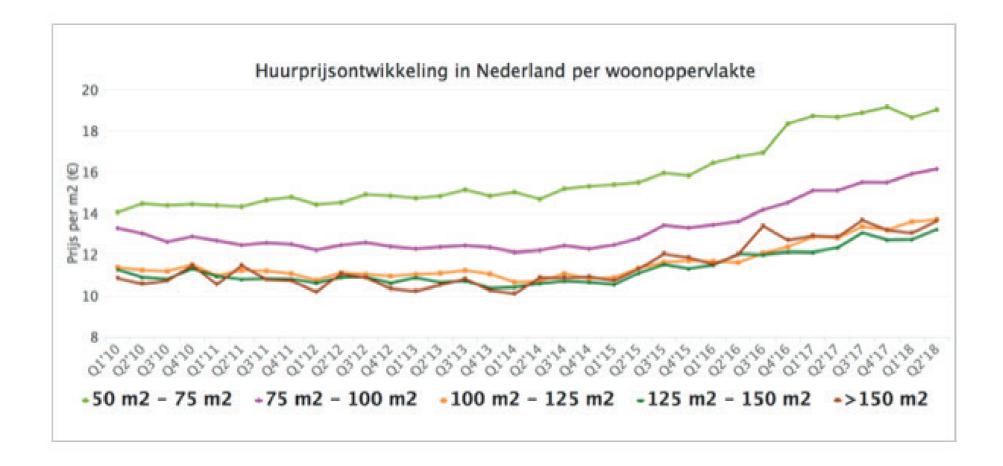
traditional housing 1 pers dwelling >70 m2

source: CBS, 2013



market mismatch



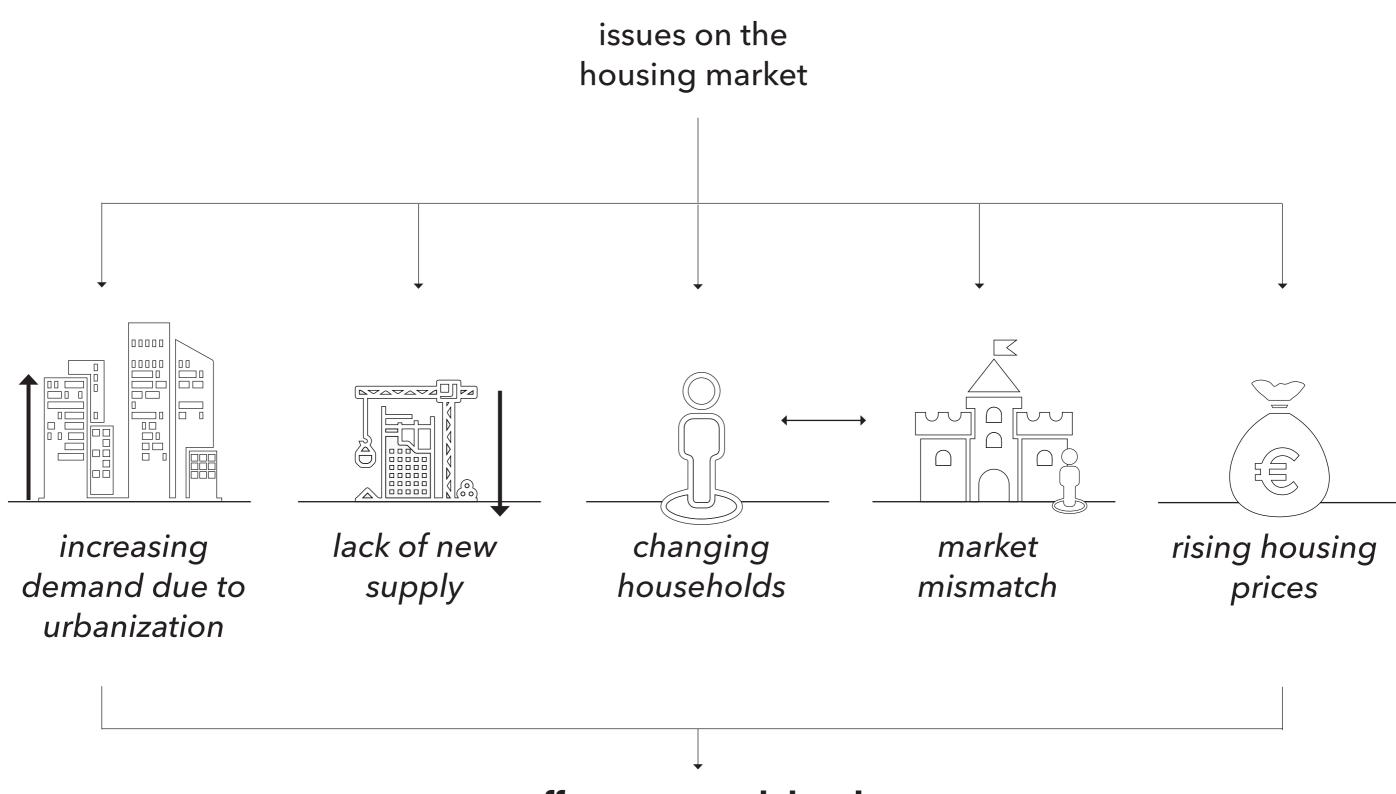


source: Pararius, 2018



rising housing prices, especially 1-pers dwellings

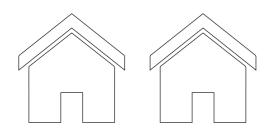




affects user and developer



"Lack of affordable and available housing"



traditional housing

more of the same $>70 \text{ m}^2$



micro housing

smaller housing <27 m²



co-housing

shared housing

sources: French, 2015 Overstreet, 2018

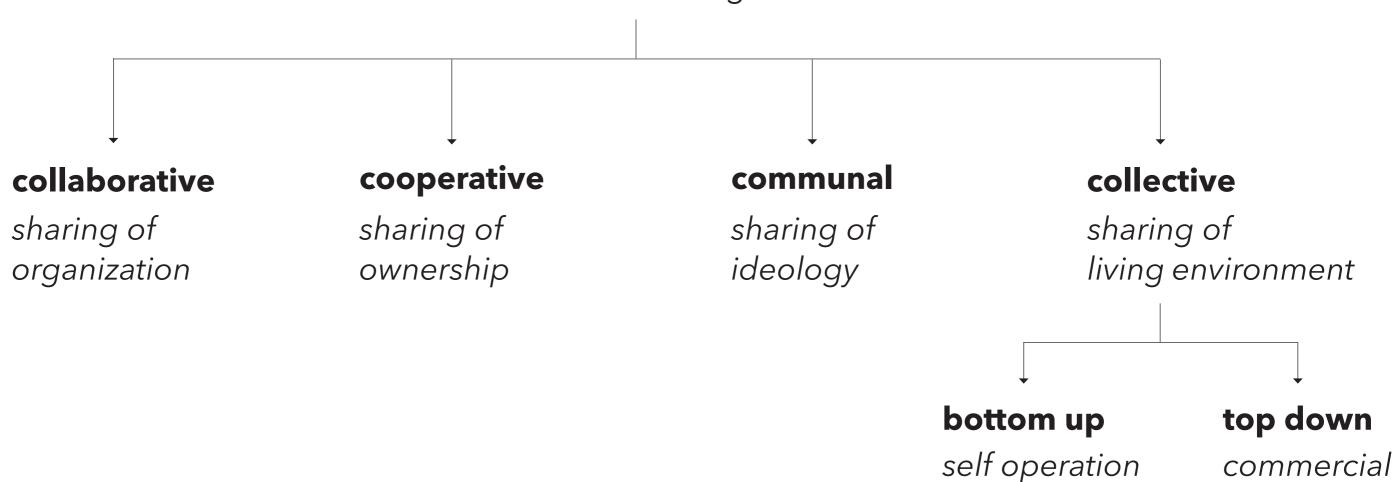
market response





co-housing

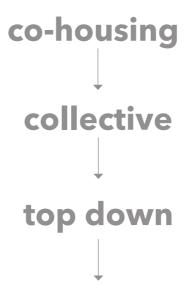
shared housing



sources: Vestbro & Horrelli, 2012 Czischke, 2017 Tummers, 2017 and others



operation



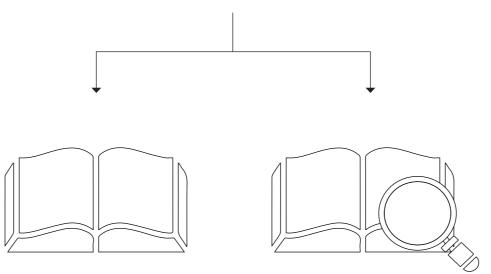
commercial co-living

sharing of living environment commercial operation



commercial co-living

sharing of living environment commercial operation



understanding the concept

analysing its opportunities for user & developer

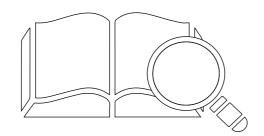
research framework



commercial co-living

sharing of living environment commercial operation





understanding the concept



analysing its opportunities for user & developer

commercial co-living

sharing of living environment commercial operation

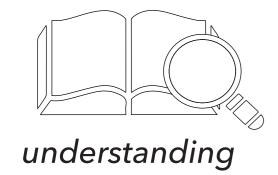






"What is commercial co-living?"

"How do its (physical and operational) characteristics influence the users-affordability and developers-profitability?"





"What is commercial co-living?"

1

What is the concept of commercial co-living?

What are the elements of the concept?

2

What is the co-living concept on user-affordability and developers-profitability?

3

What are the physical and operational characteristics of commercial co-living?







"How do its (physical and operational) characteristics influence the users-affordability and developers-profitability?"

4

5

How can users-affordability be determined?

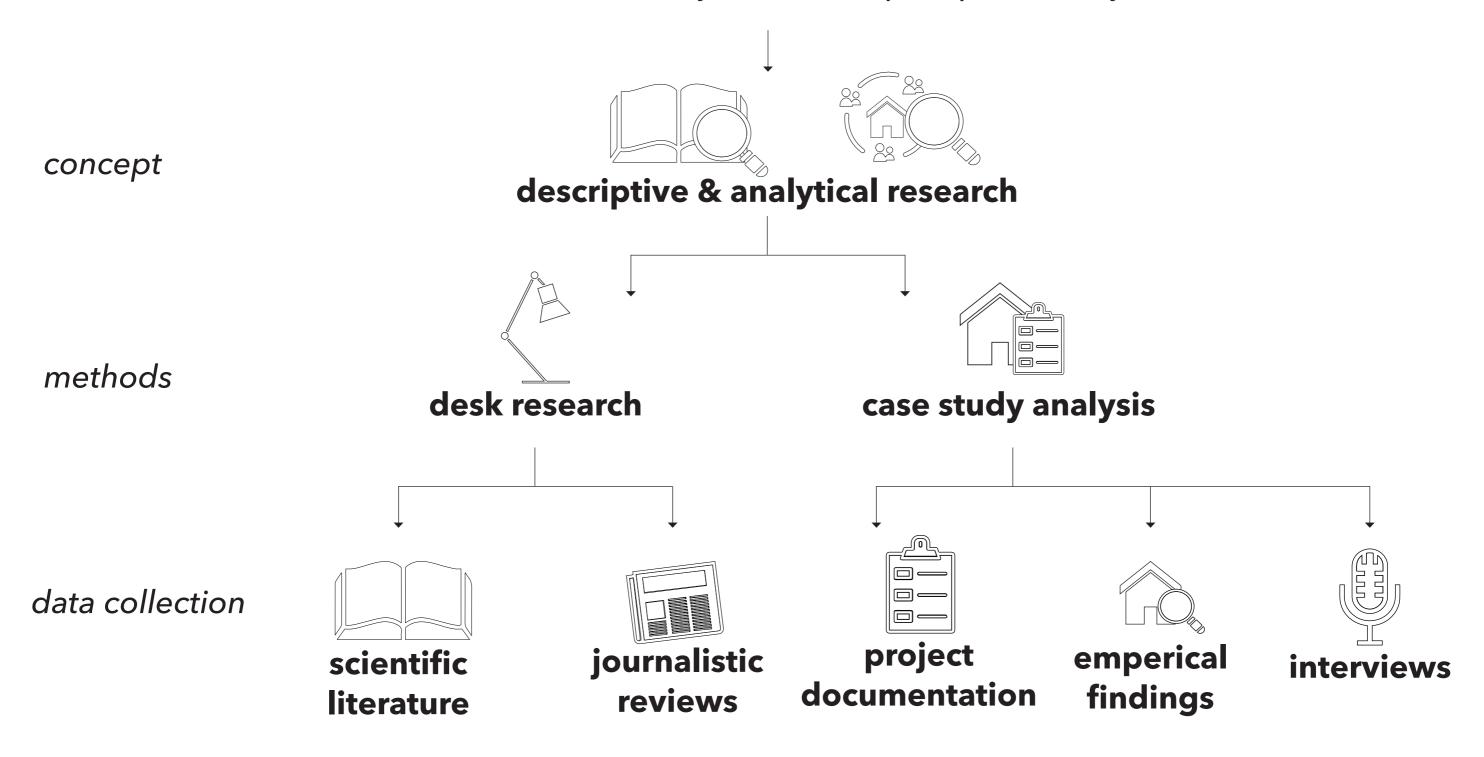
How can developers-profitability be determined?

How do the physical and operational characteristics influence the users-affordability?

How do the physical and operational characteristics influence the developers-profitability?

analytical framework

"What is commercial co-living and how do its (physical and operational) characteristics influence the users-affordability and developers-profitability?"

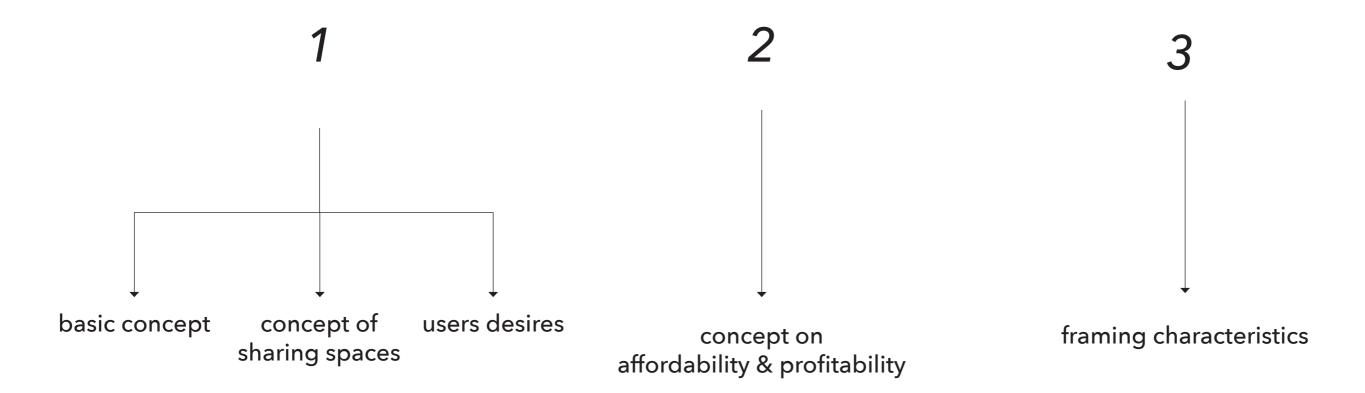


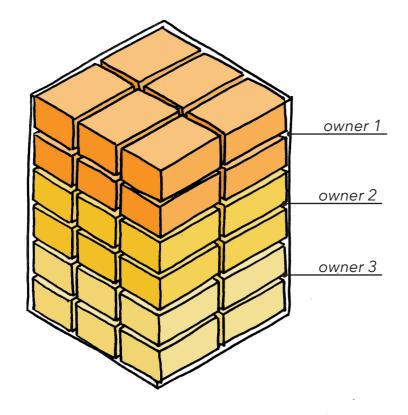


research part 1

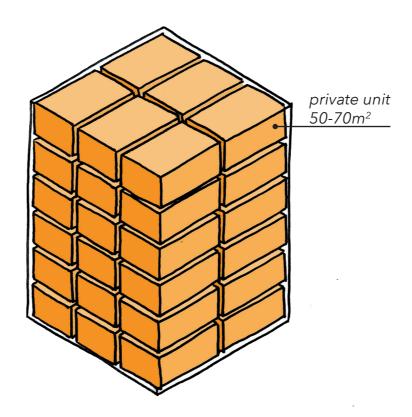


"What is commercial co-living?"



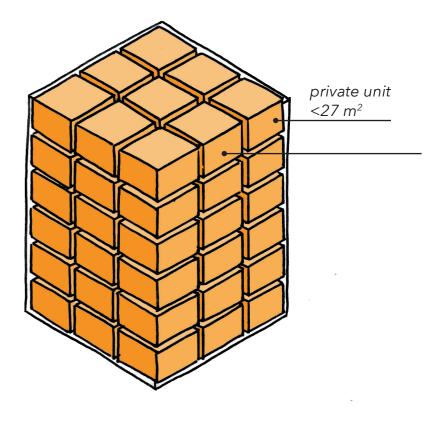


traditional rental housing multiple owners



traditional rental housing

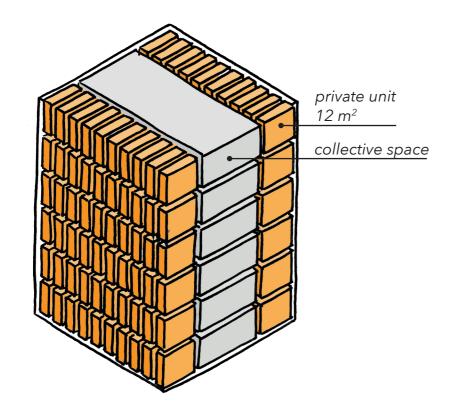
1 owner

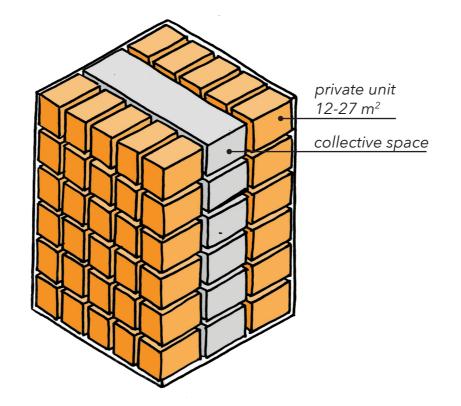


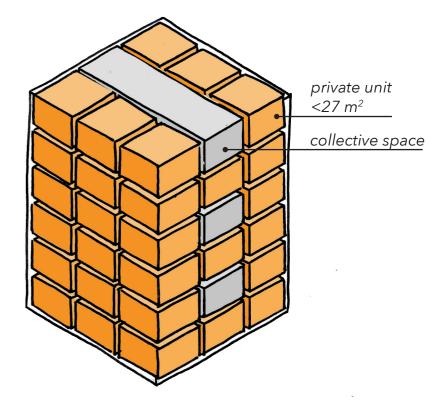
micro-housing
1 owner

basic concept









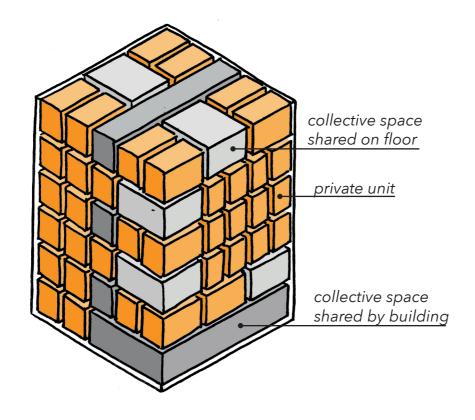
commercial co-living replacing homey functions

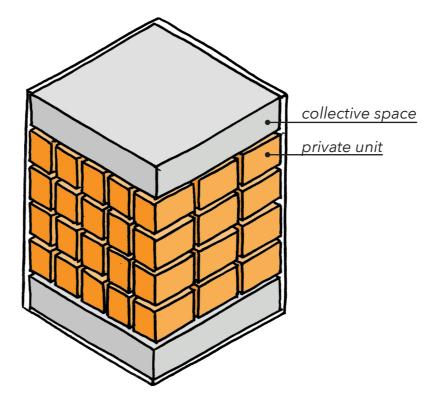
commercial co-living replacing homey functions + aditional living space

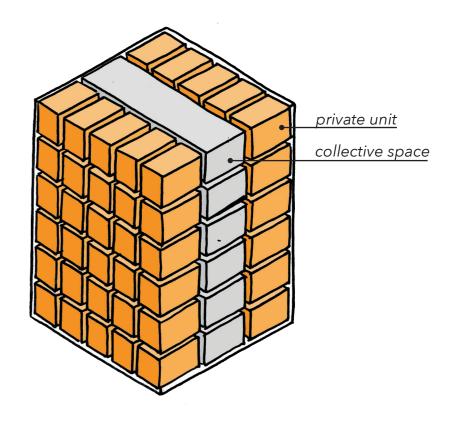
commercial co-living additional living space

basic concept









commercial co-living hierarchy in collective spaces

commercial co-living clustered collective spaces

commercial co-living collective spaces per floor

basic concept





Traditional Housing Block



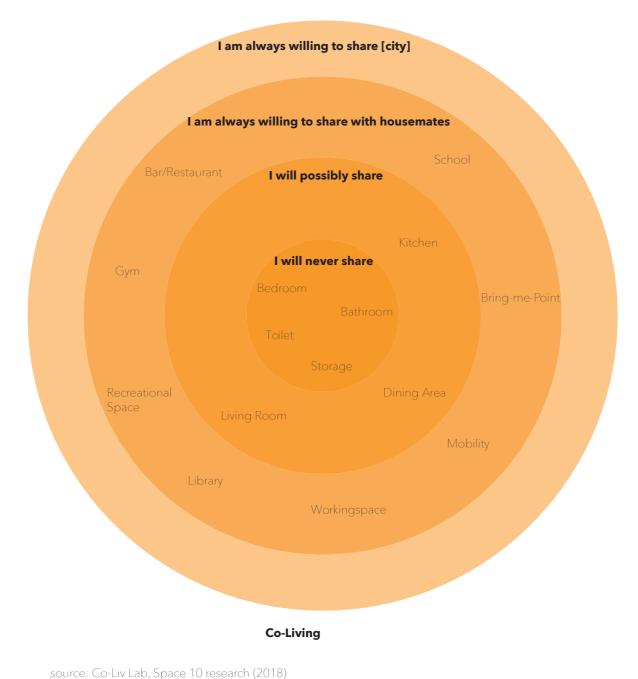
source: Me&We, Millenial Living - AM development (2018)

Millenial Living

source: AM, 2018

concept of sharing spaces







source: Me&We, Millenial Living - AM development (2018)

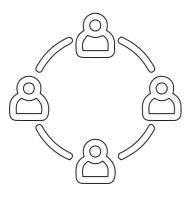
Millenial Living

sources: AM, 2018 Co-Liv Lab, Space 10, 2018

concept of sharing spaces



desires







Saving housing costs



Amenities



Central location



Flexibility

fears



Privacy



Equality in costsM



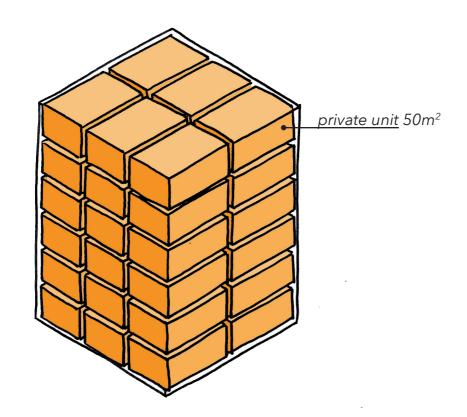
essy environment

sources: Co-Liv Lab, Space 10, 2018

physical and operational desires and fears

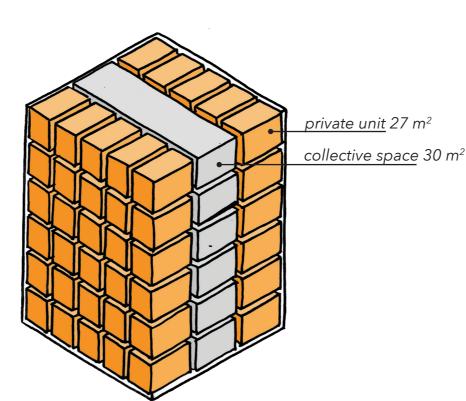
users desires in respect to sharing





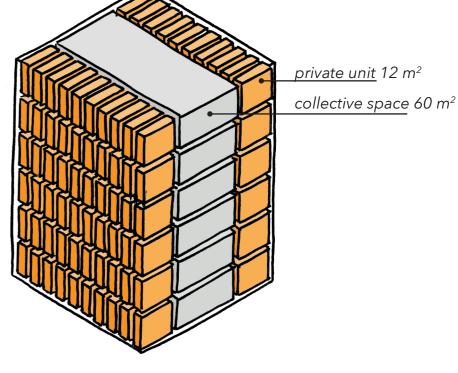
traditional rental housing

rentable space 50m² living space 50 m²



commercial co-living

rentable space 27m² living space 57m²



commercial co-living

rentable space 12m² living space 72m²

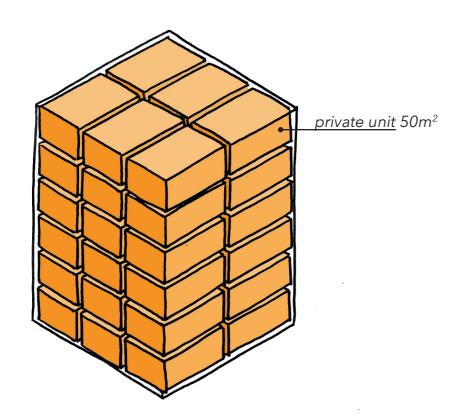
lower rentable space, same/higher living space

concept on affordability



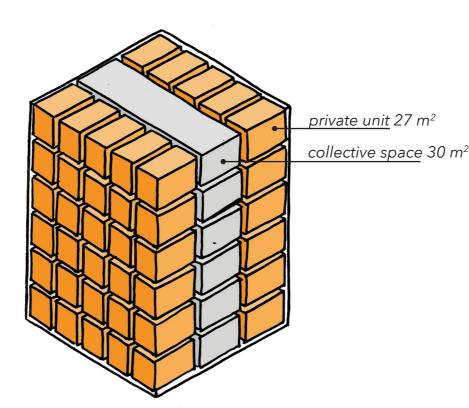
space:rent 1:1 space:rent 0,54:0,6

space:rent 0,12:0,3



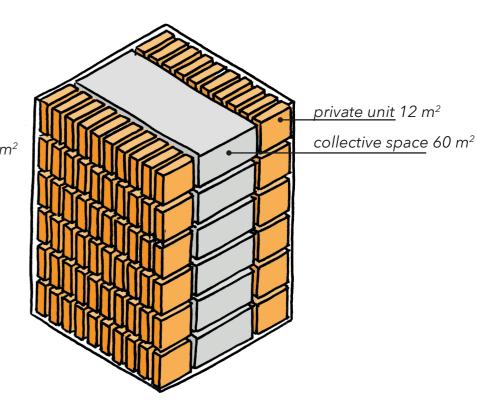
traditional rental housing

36 lettable units rental income €100 per unit LFA 1800 m²



commercial co-living

60 lettable units rental income >€60 per unit LFA 1800 m²



commercial co-living

120 lettable units rental income >€30 per unit LFA 1800 m²

more lettable units, higher €/m²

concept on profitability





state-of-the-art commercial co-living locations









ollie







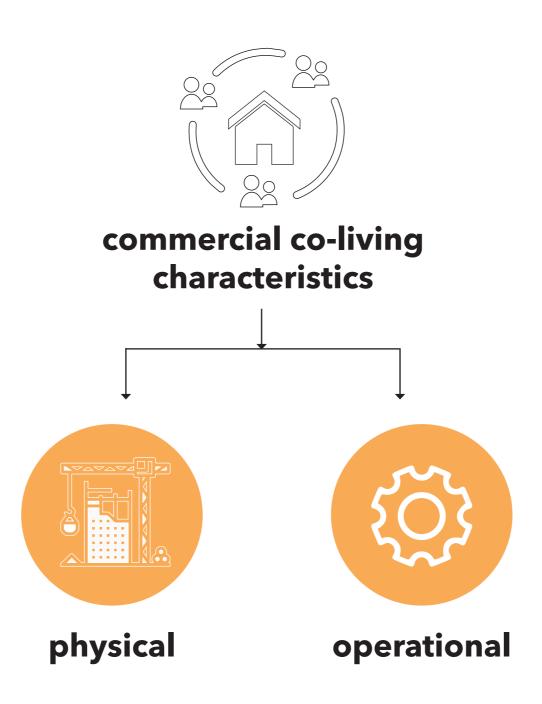


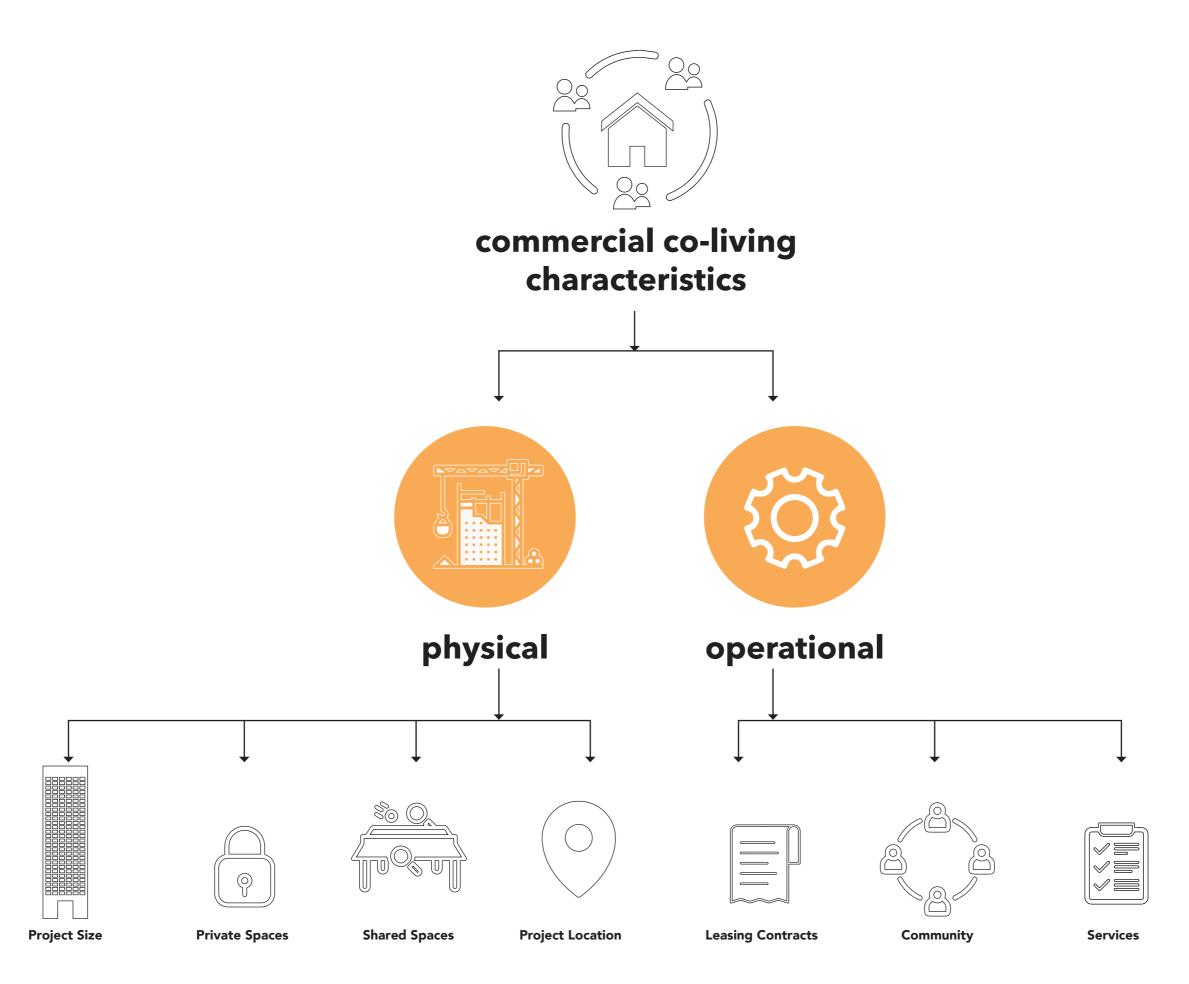




state-of-the-art commercial co-living brands/initiators











traditional block <50 units <20% collective space



commercial co-living >50 units >20% collective space

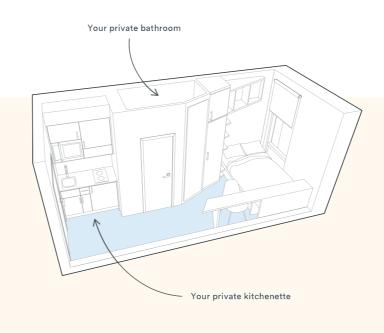
Co-Housing Project	Building Size	Private Units	Communal Space
WeLive New York	20.275 m2	200	27 %
WeLive Washington DC	X	250	X
The Collective Old Oak	16.000 m2	546	59 %
The Fizz Little Manhattan	26.000 m2	278	22 %
The Fizz The Lofts	X	212	X
The Fizz Cobana	X	375	Х
The Fizz Don Bosco	X	429	X
Urby Staten Island	33.800 m2	571	37 %
Urby Jersey City	64.000 m2	762	45 %
Urby Harrison	X	409	X
Ollie Manhattan	X	55	X
Ollie Long Island	X	426	X
Ollie Pittsburgh	X	127	X
Zoku Amsterdam	4.500 m2	133	20%
Average	27.429 m2	341	35%

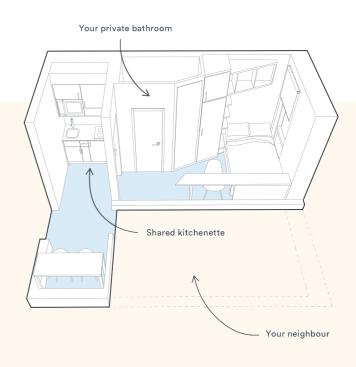
project size









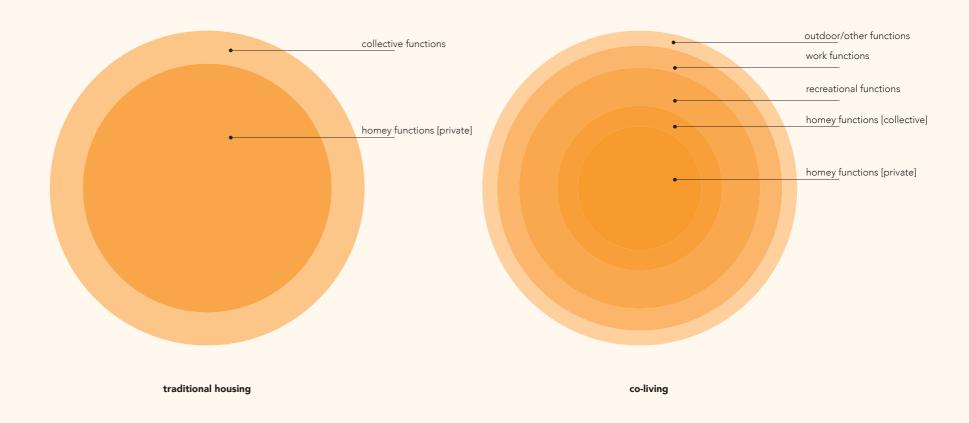


Co-Housing Project	Studio	1-Bedroom	2-Bedroom	3-Bedroom	4-Bedroom
WeLive	41 m2				93 m2
The Collective Old Oak	12 m2	16 m2	21 m2	Χ	X
The Fizz Little Manhattan	30 m2	41 m2	X	X	X
The Fizz The Lofts	X	30 m2	60 m2	X	X
Urby Staten Island	29 m2	47 m2	66 m2	X	X
Urby Jersey City	37 m2	55 m2	74 m2	X	X
Ollie Manhattan	24 m2	X	X	Χ	X
Zoku					
Average	29 m2	38 m2	55 m2		93 m2
Traditional housing	Studio	1-Bedroom	2-Bedroom	3-Bedroom	4-Bedroom
New York Manhattan	51 m2	64 m2	108 m2	154 m2	Χ
London White City	X	50 m2	65 m2	X	Χ
Amsterdam	55 m2	55 m2	83 m2	133 m2	X
Average	53 m2	56 m2	85 m2	144 m2	Х

private spaces



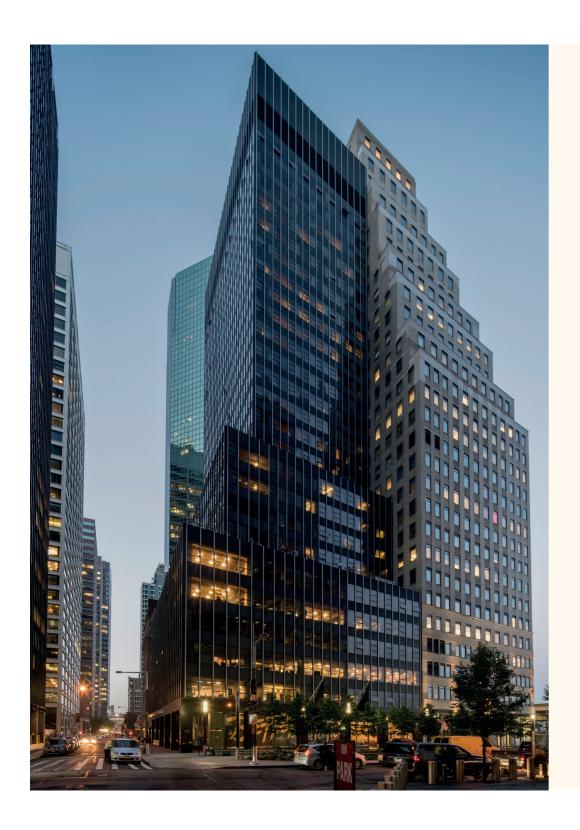


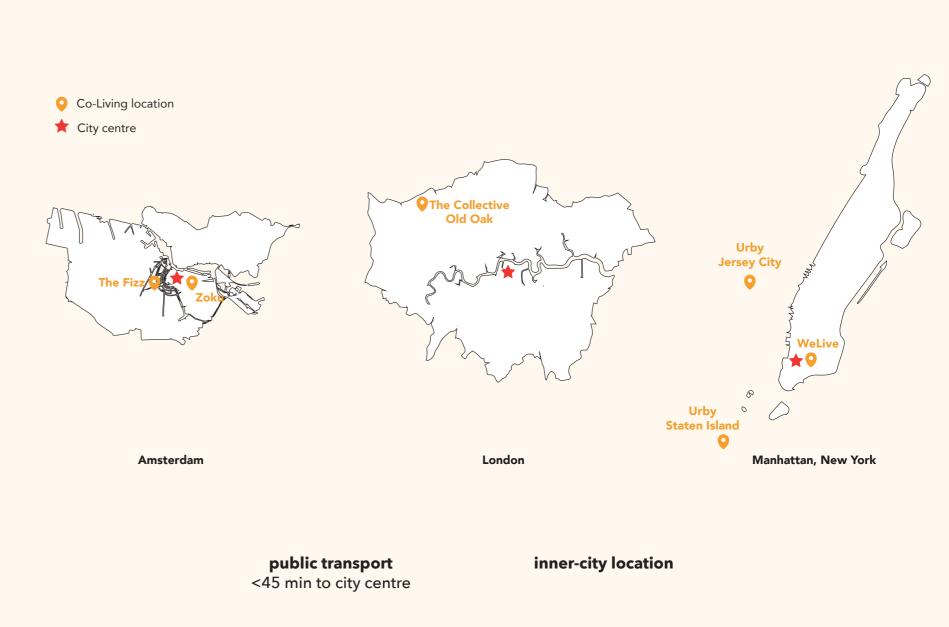


Home	Eating areas	Kitchens	Living Rooms	Laundrette			
Recreation	Gym/Spa	Retail	(Grocery)Store	Restaurant/Bar	Games Room	Library	Event Spaces
Work	Workspaces	Meetingrooms	Makerspaces				
Mobility/ Outdoor	Bike Storage	Car Parking	Outdoor space	Pool			

shared spaces







location





The Collective Old Oak

Short-stay			Long-s	tay Studio *	
Per day	Per week	Per 4 months	Per 6 months	Per 9 months	Per 12 months
Not possible	Not possible	€1608 / month	€1533 / month	€1484 / month	€1434 / month

WeLive

Days	Short-stay studio pricing	Long-stay studio pricing	Difference
1	€291	€90	323%
31	€9021	€2799	

leasing contracts





2211 N Milwaukee Ave, **Chicago, IL**

2017 COMMUNITY EVENTS CALENDAR

Friends are always welcome. Dates subject to change.

POTLUCK HALL CRAWL [WAS DELICIOUS]

Wednesday, March 15th @ 8pm

Share your favorite crowd-pleasing dish with the guys and gals next door. Bring a friend or two. We'll bring the wine!

MIXOLOGY CLASS [BUZZED BY]

Thursday, April 6th @ 7:30pm

Up your cocktail game by learning from expert mixologists how to make all the classics with style. Limit to 15 residents with a guest each.

BIKE TUNE-UP #1

Saturday, May 3rd @ 9:30-11:30am

Get your bike prepped for the good weather Logan Square Art Bike Tour. Visit local art installations & hear from the artists themselves about their motivation and technique.

YOGA ON THE LAWN

Thursday, May 18 @ 7:30pm

Bend and stretch with the neighbors, then hang out for wine and cheese.

STOP NETWORKING! HOW TO BUILD SUSTAINABLE RELATIONSHIPS

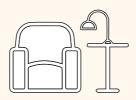
Wednesday, June 4th @ 7 PM

Professional development workshop hosted by the founders of the Second Shift coworking space.



"Just a space does not yet make a community"

Crobach of Zoku, 2018



Collective spaces



Events & Activities



Clubs & Organizations

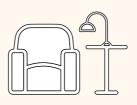


Community Manager

community







Furnishings



Linen & Towels



Laundry & Cleaning



Wi-Fi & TV



Maintenance



Mobility (Rental)



Security

Household service	Task	Monthly costs [approx.]	Source
Laundry	Leasing washing machine & dryer	€35,-	Meolease (2018)
Internet & Television	Subscription	€60,-	KPN (2018)
Maintenance	Replacing of lamps, painting etc.	€15,-	
Cleaning	Cleaning services	€105,- (twice a month)	22 %
	Helpling (2018)	212	X
Water	Use of water	€15,-	Evides (2019)
Electricity & Gas	Use of electricity and gass	€80,-	Nuon (2019)
Taxes	Municipal taxes	€15,-	
Total		€325,-	

services









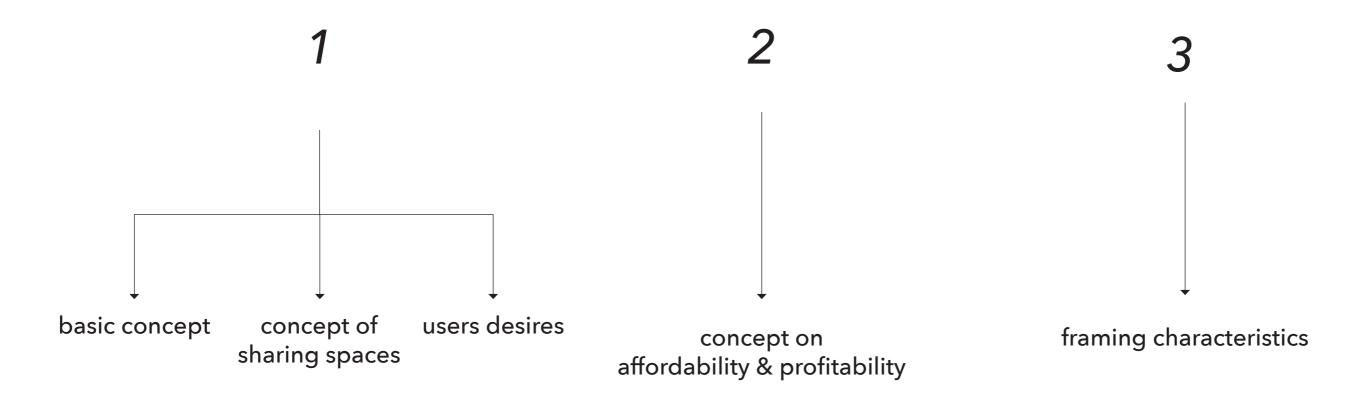
City / Co-Housing project	Traditional S	itudio/1-Bed	Co-Housing Studio/1-Bed		Differ	ence
	Monthly Rent	Size	Monthly Rent	Size	Monthly Rent	Size
Amsterdam / The Fizz	€1430	55 m2	€751	30 m2	-47%	-45%
Amsterdam / Zoku	€1430	55 m2	€5370	30 m2	+275%	-45%
NYC Staten Island / Urby	€1062	59 m2	€1498	29 m2	+29%	-37%
NYC Jersey City / Urby	€2009	41 m2	€2413	29 m2	+20%	-29%
NYC Manhattan/WeLive	€2958	51 m2	€2460	41 m2	-17%	-19%
London / The Collective	€1750	50 m2	€1428	12 m2	-18%	-76%
City / Co-Housing project	Traditional S	itudio/1-Bed	Co-Housing	Studio/1-Bed	Differ	ence
City / Co-Housing project	Traditional S Monthly Rent	Studio/1-Bed Size	Co-Housing S Monthly Rent	Studio/1-Bed Size	Differ Monthly Rent	ence Size
City / Co-Housing project Amsterdam / The Fizz			ū			
, ,,,	Monthly Rent	Size	Monthly Rent	Size	Monthly Rent	Size
Amsterdam / The Fizz	Monthly Rent €26 /m2	Size 55 m2	Monthly Rent €21 /m2	Size 30 m2	Monthly Rent	Size -45%
Amsterdam / The Fizz Amsterdam / Zoku	Monthly Rent €26 /m2 €26 /m2	Size 55 m2 55 m2	Monthly Rent €21 /m2 €179/m2	Size 30 m2	Monthly Rent -19% +575%	Size -45% -45%
Amsterdam / The Fizz Amsterdam / Zoku NYC Staten Island / Urby	Monthly Rent €26 /m2 €26 /m2 €18 /m2	Size 55 m2 55 m2 59 m2	Monthly Rent €21 /m2 €179/m2 €51 /m2	Size 30 m2 30 m2 29 m2	-19% +575% +183%	-45% -45% -37%

rental prices





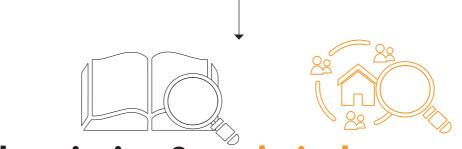
"What is commercial co-living?"



Dart 2

"What is commercial co-living and

how do its (physical and operational) characteristics influence the users-affordability and developers-profitability?"



descriptive & analytical research

part 1 part 2

analytical framework

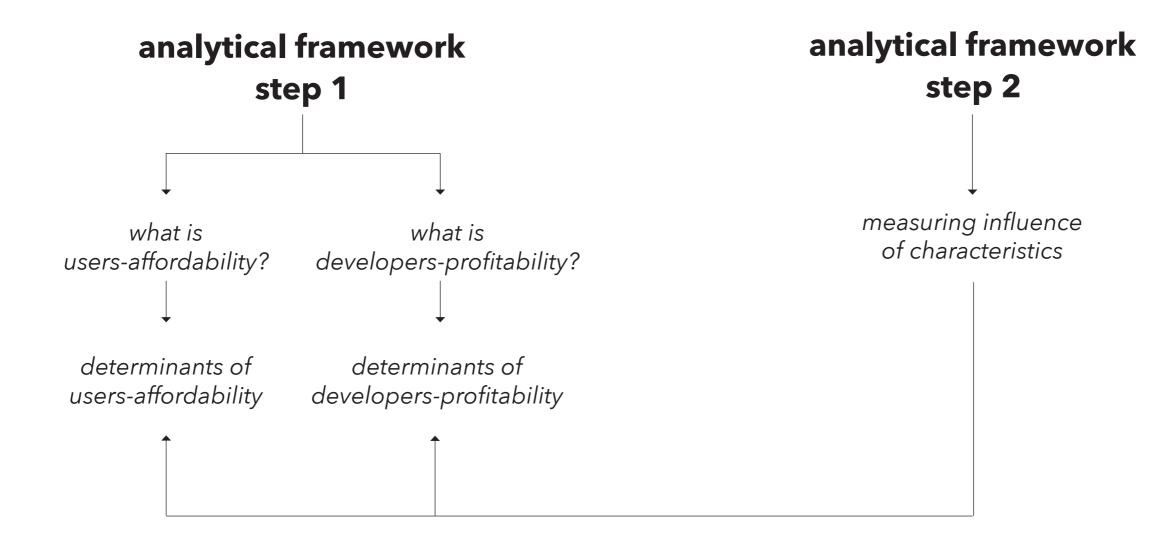


analytical framework



"What is commercial co-living and

how do its (physical and operational) characteristics influence the users-affordability and developers-profitability?"



who is the user?

what is affordability?

what determines affordability?

measuring influence on affordability









who is the user?

what is affordability?

what determines affordability?

measuring influence on affordability

"The state of being cheap enough for people to be able to rent"

Cambridge Dictionary, 2019

Expenditure-to-income ratio

Hulchanski (1995), Czischke & Van Bortel (2018), Stone (2016), Haffner & Heylen (2011)

20-30% affordable >30% unaffordable

Housing Quality / Value

Haffner & Heylen (2011), Fallis (1985)

'given standard'

"Housing affordability means the balance between the required rent as part of the households income and the value of the acquired housing that is provided"

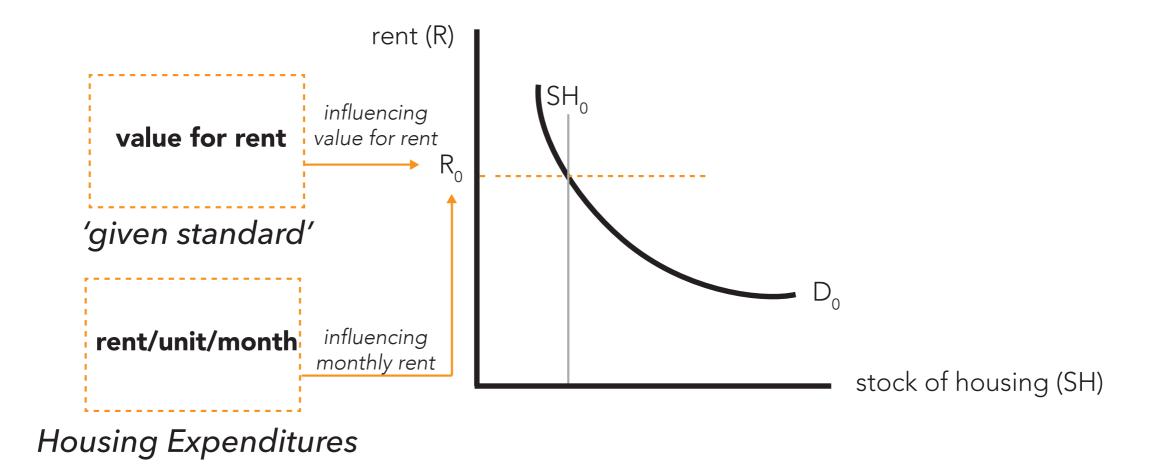


who is the user?

what is affordability?

what determines affordability?

measuring influence on affordability



sources: Fallis, 1985

rent equilibrium = balance between determinants

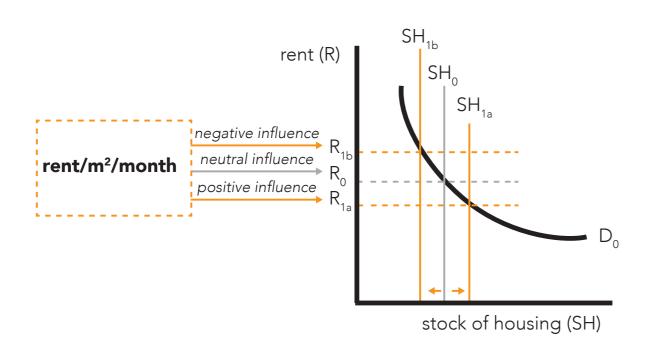


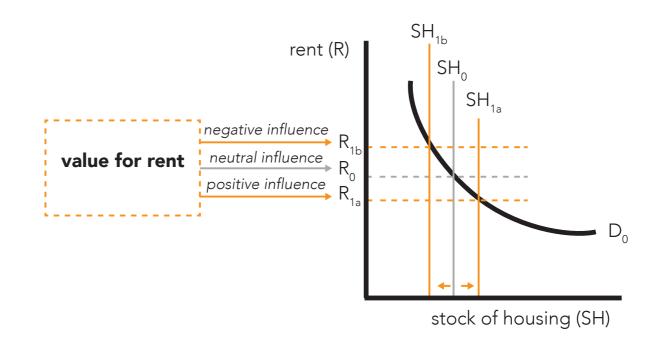
who is the user?

what is affordability?

what determines affordability?

measuring influence on affordability





sources: Fallis, 1985 relative affordability

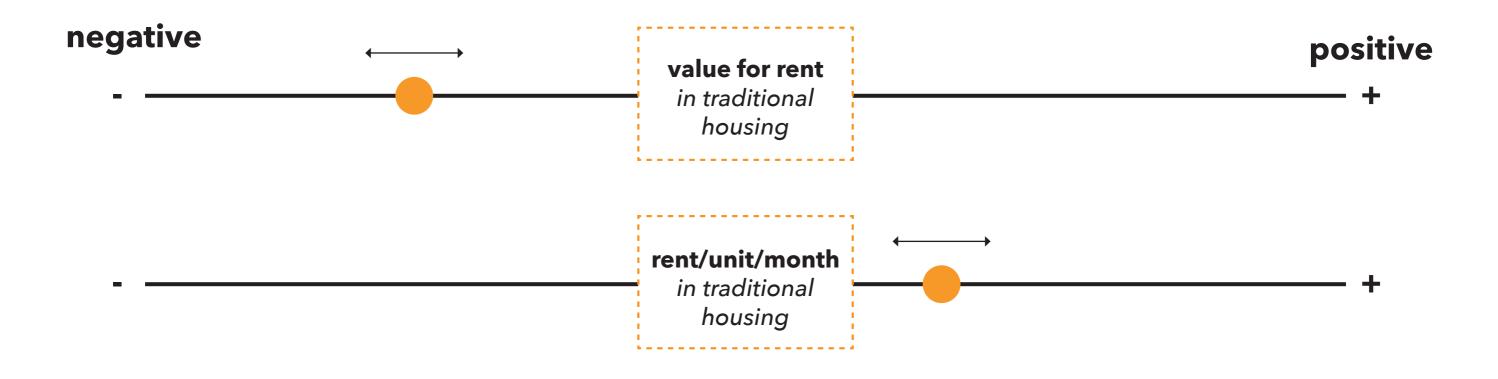


who is the user?

what is affordability?

what determines affordability?

measuring influence on affordability



relative affordability

who is the developer?

what is profitability?

what determines profitability?

measuring influence on profitability





who is the developer?

what is profitability?

what determines profitability?

measuring influence on profitability

profitability:

"The situation in which a company is producing a profit."

Cambridge Dictionary, 2019

profit:

"Money earned in business after paying the costs of producing and selling goods and services."

Cambridge Dictionary, 2019

developer types/drivers

Profitability means ...

Profit-driven	"The profitability of the investment." (54%) "The safety of a long-term asset." (43%) "A steady flow of rental income." (4%)
Social-driven	"Does not need profitability, just cost coverage" (44%) "Applies the criteria of the authorities." (44%)
Revenue-driven	"The return must not lie blow some rate" (63%) "Does not need profitability, just cost coverage" (36%)

sources: Thalman, 2008



who is the developer?

what is profitability?

what determines profitability?

measuring influence on profitability



"Development profitability means a positive balance between the acquired income through rent, the risk on this potential income and the costs of development."

sources: Geltner, 2008

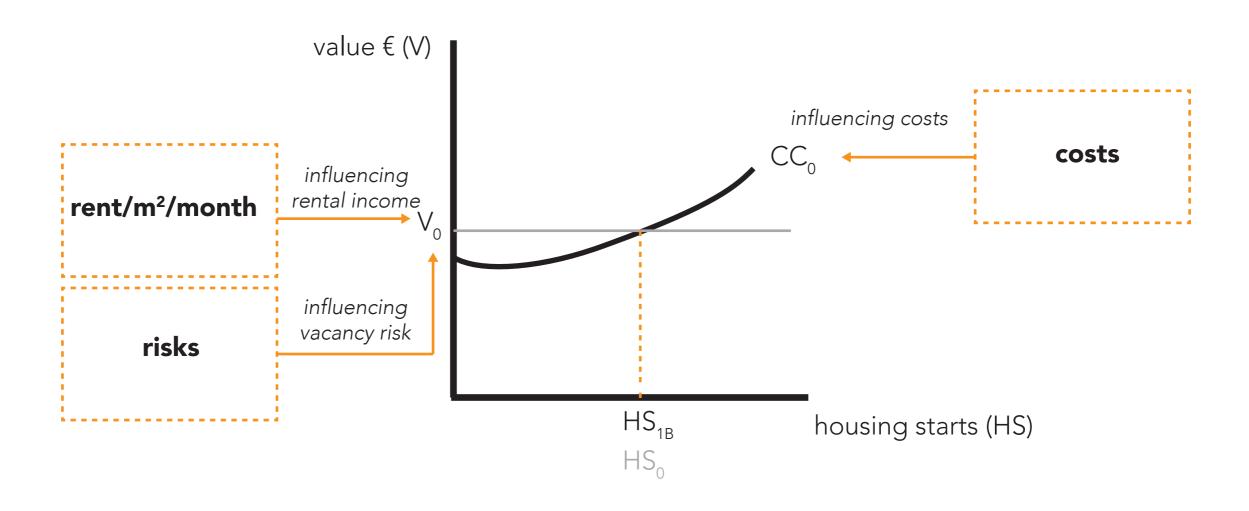


who is the developer?

what is profitability?

what determines profitability?

measuring influence on profitability



sources: Fallis, 1985

value equilibrium = balance between determinants

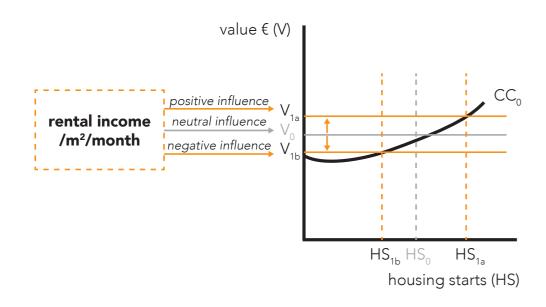


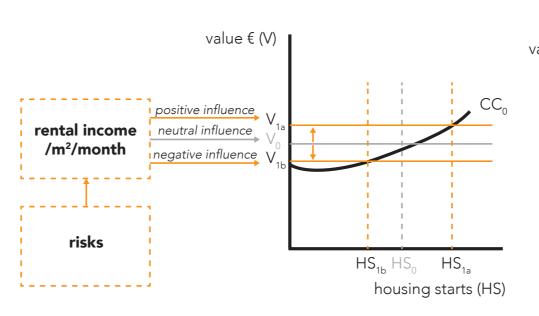
who is the developer?

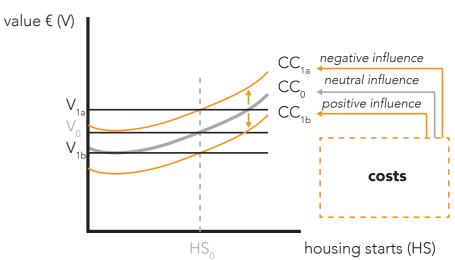
what is profitability?

what determines profitability?

measuring influence on profitability







sources: Fallis, 1985

determinants influencing profitability

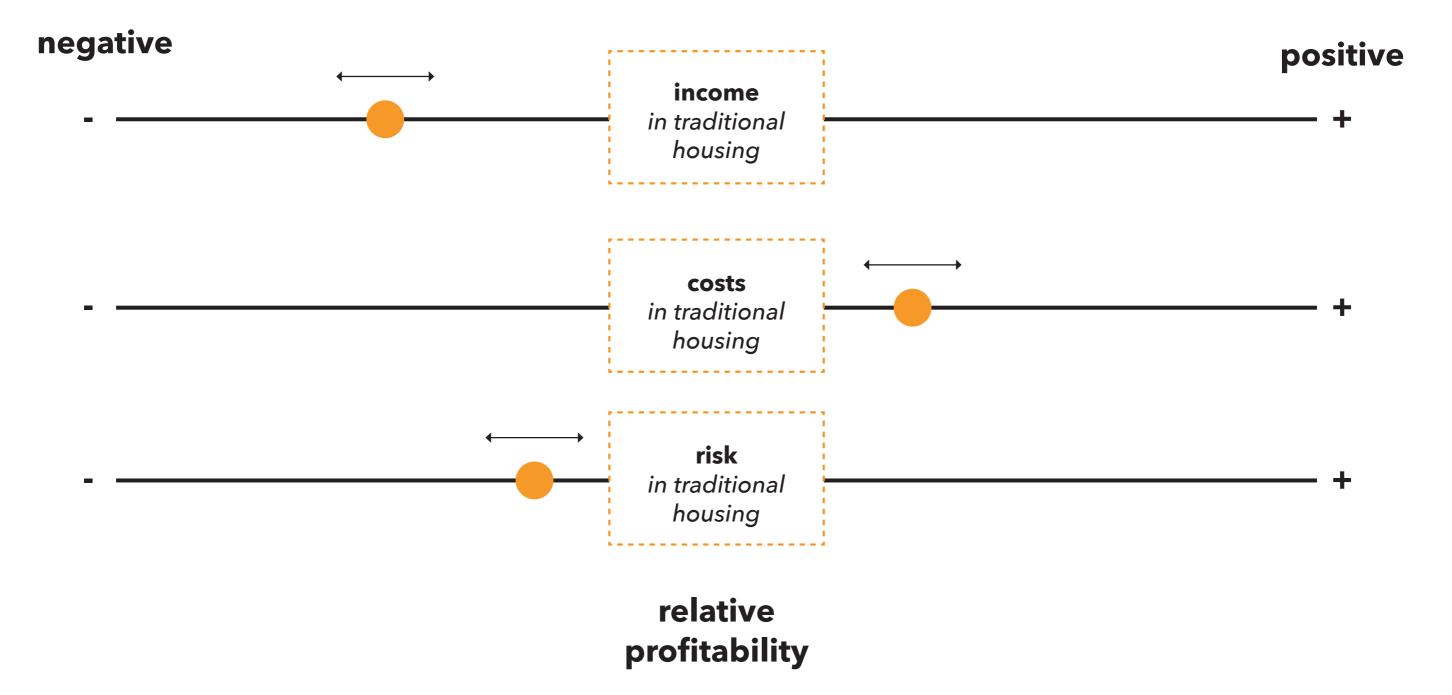


who is the developer?

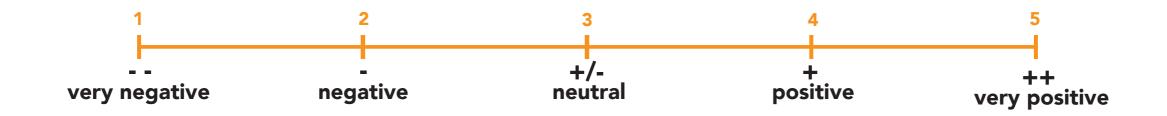
what is profitability?

what determines profitability?

measuring influence on profitability



measuring relative affordability & profitability



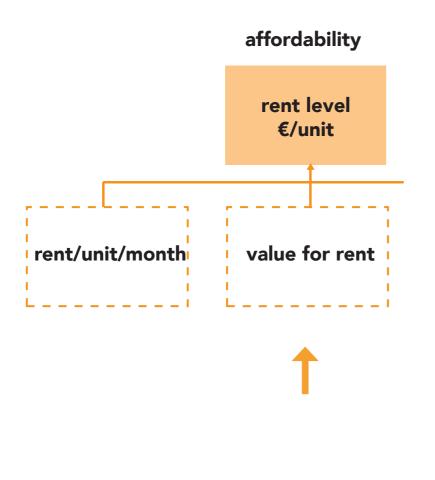
relative influence based on users desires, traditional housing and the basic concept



step 1

determining users-affordability

determinants of developers-profitability





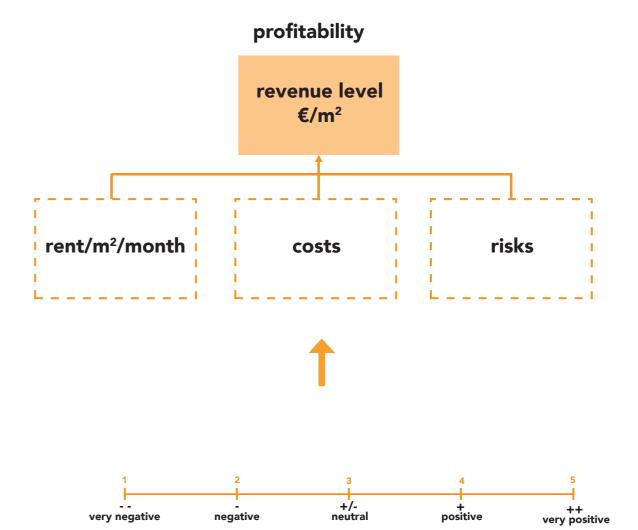
+/neutral

+ positive

step 2 influence of characteristics

negative

very negative



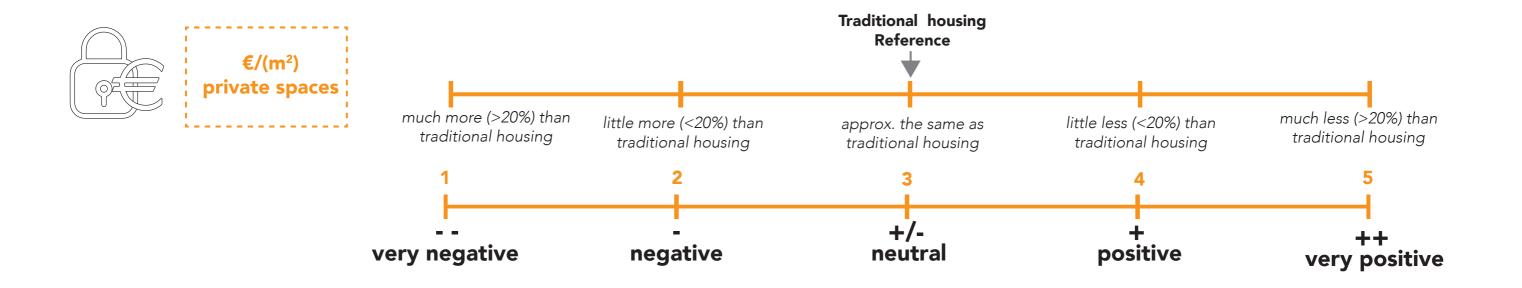


influence of characteristics

determinants for affordability & profitability

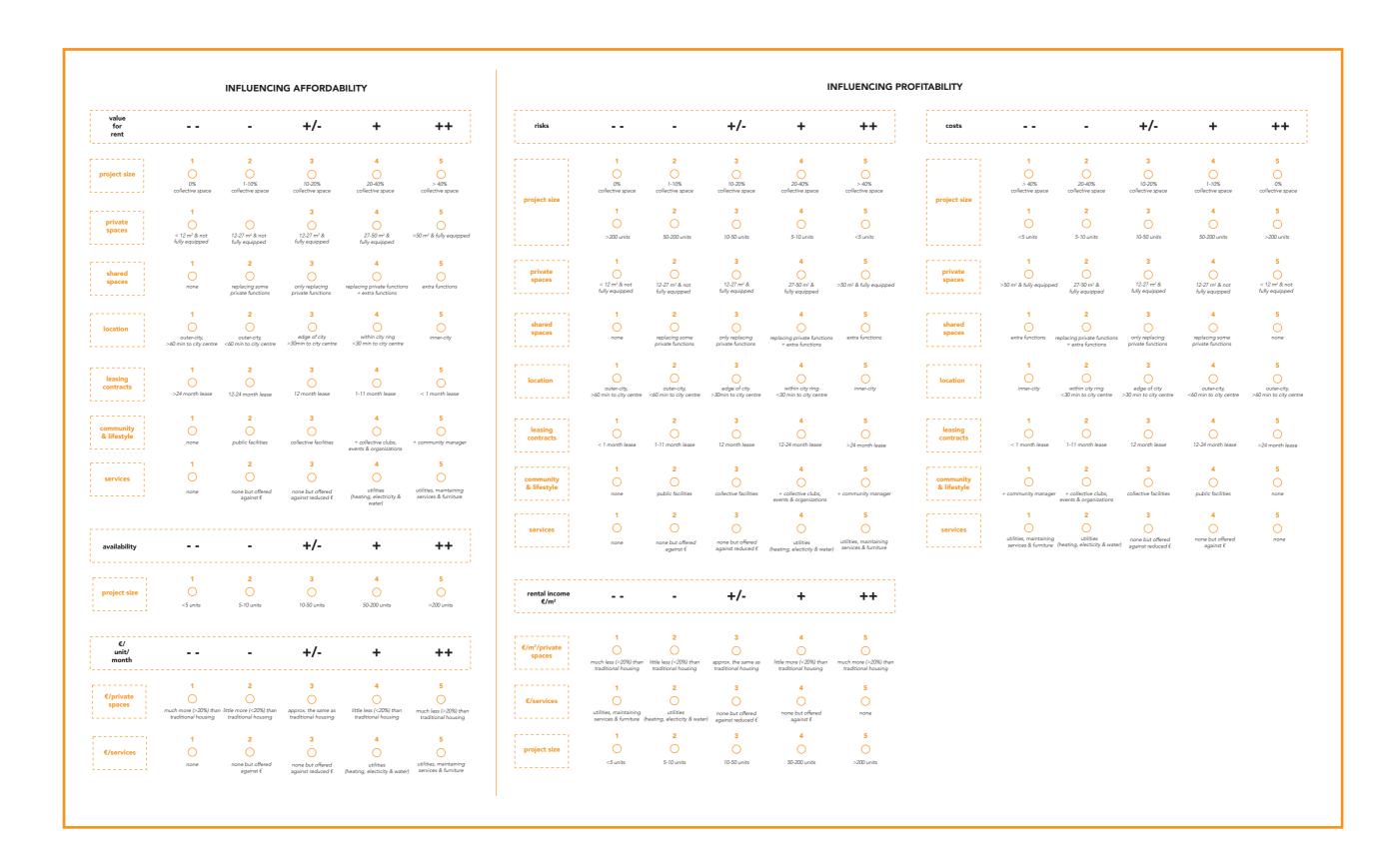


++ very positive



relative influence based on users desires, traditional housing and the basic concept

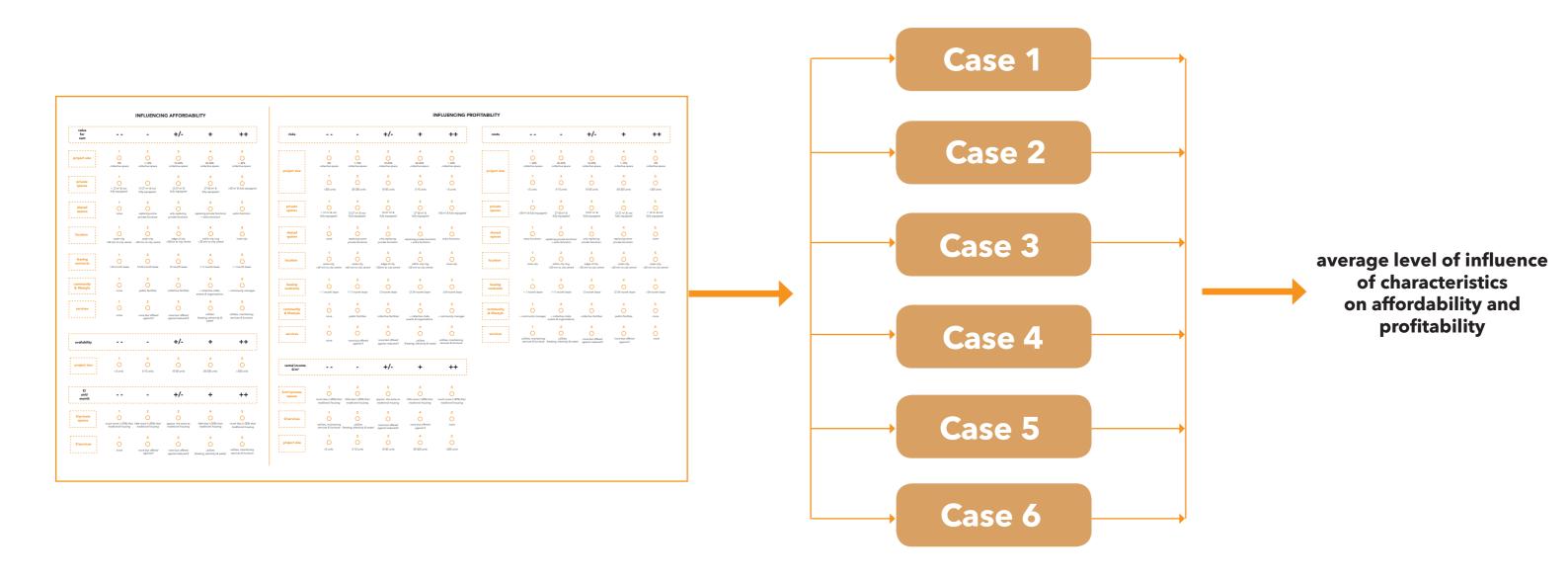




level of influence analytical tool



65/86



analysing the case studies upon their characteristical influence



research part 2

London, UK



Manhattan, New York, USA



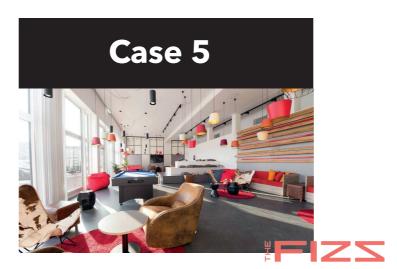
Amsterdam, The Netherlands



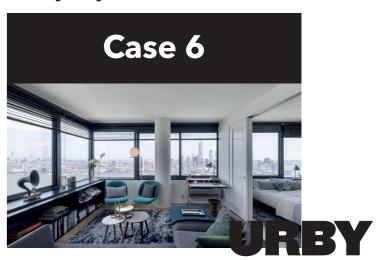
Staten Island, New York USA



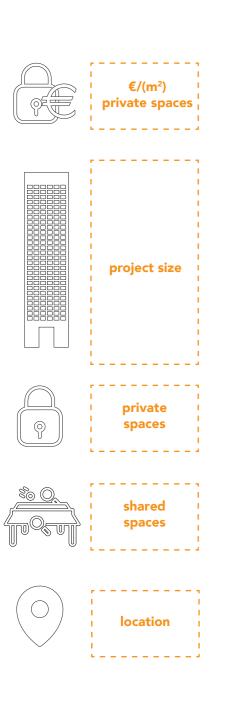
Amsterdam, The Netherlands

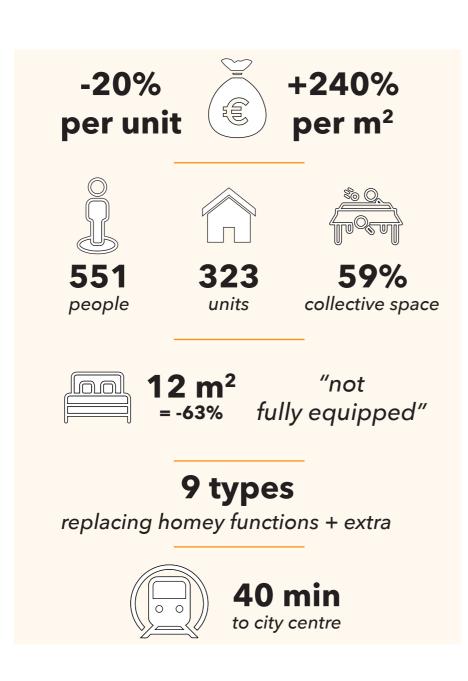


Jersey City, New York, USA





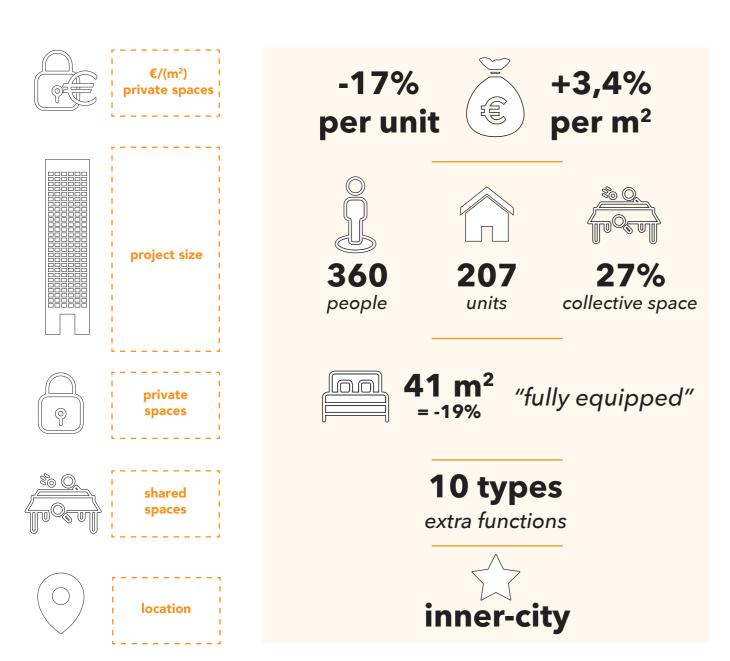








welive

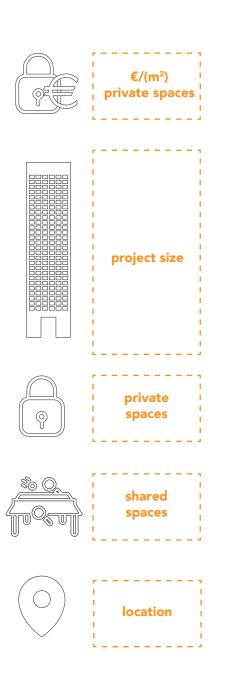


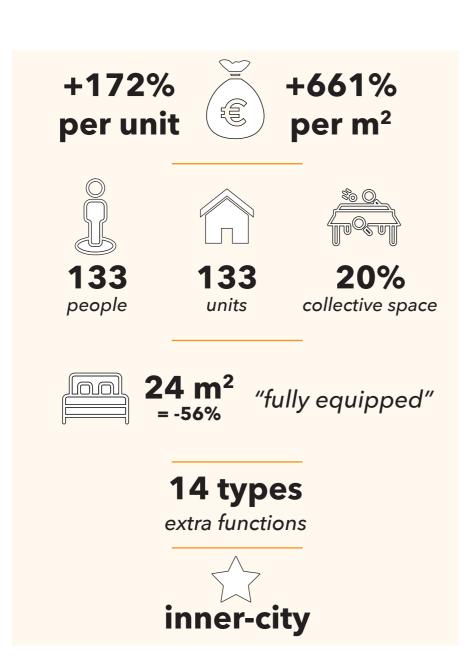




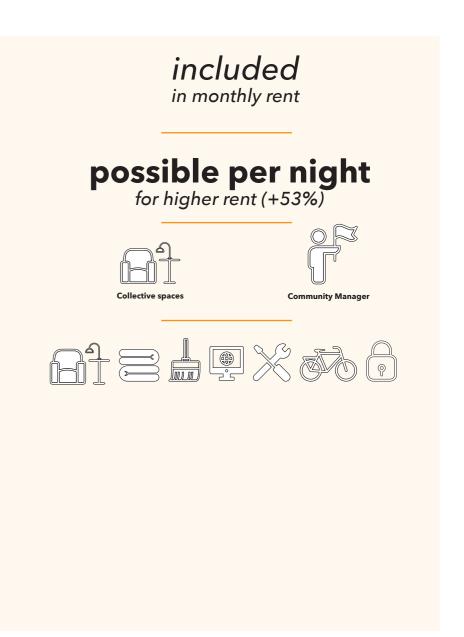




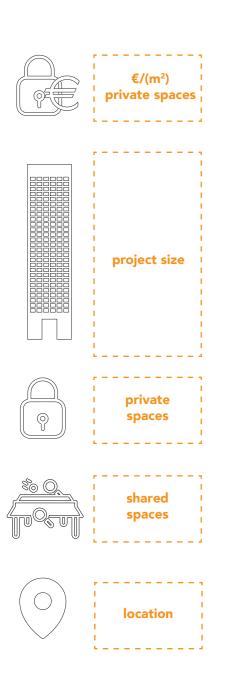


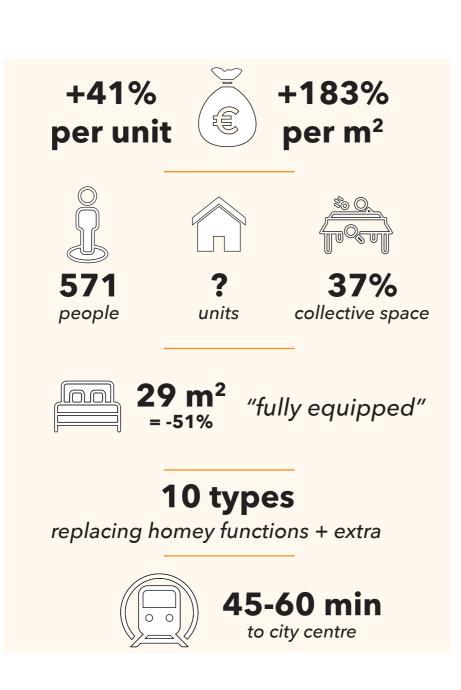






URBY

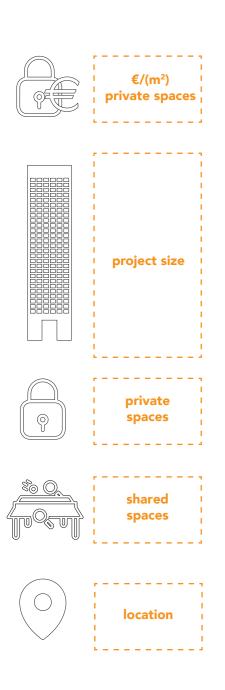


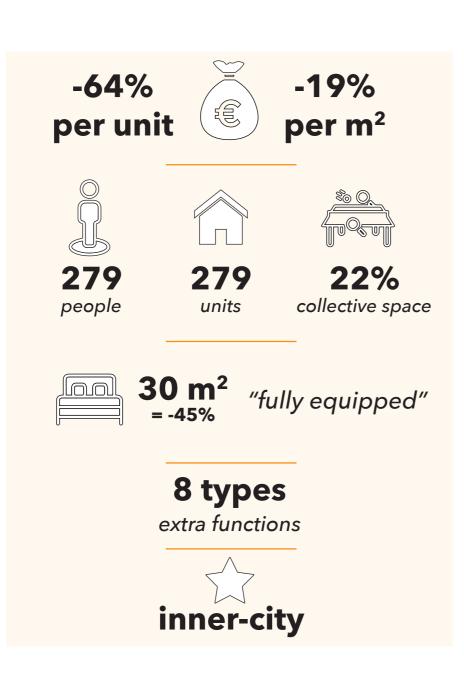






#FIZS





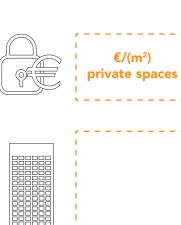




case study analysis factsheet



URBY



project size



private spaces

shared



location

+18% per unit **762** people

"fully equipped"

+69%

per m²

45%

collective space

9 types replacing homey functions + extra

units



30 min to city centre



€/(m²) service



leasing contracts



community & lifestyle



services

amenities fee monthly

starting at 12 months









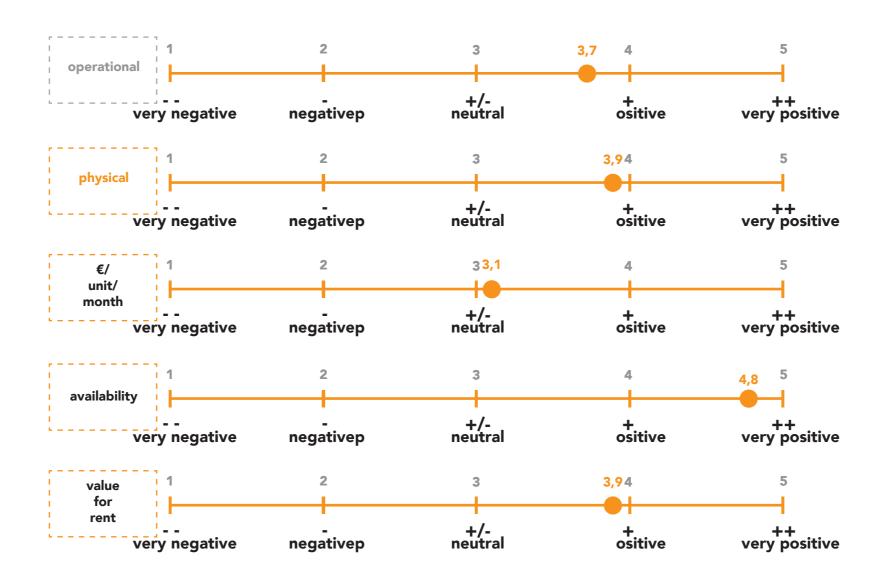


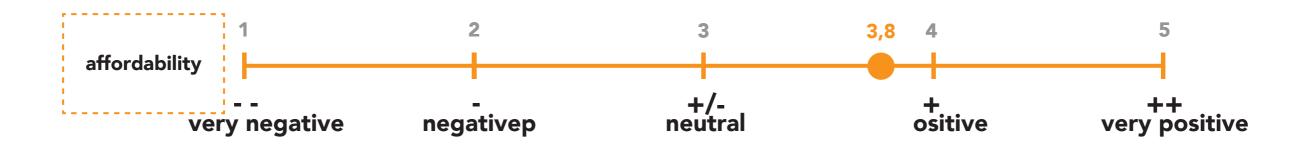
INFLUENCING AFFORDABILITY



characteristical levels of influence on the affordability







characteristical levels of influence on the affordability

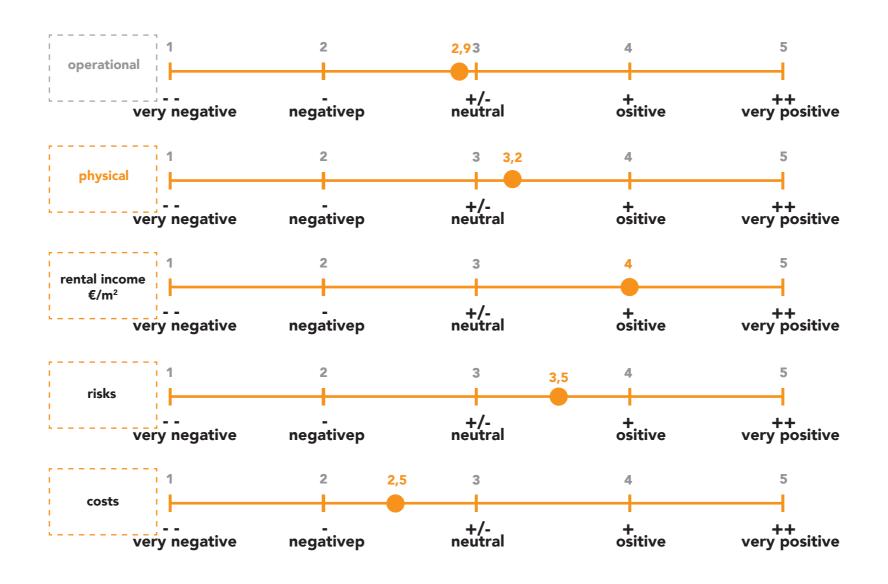


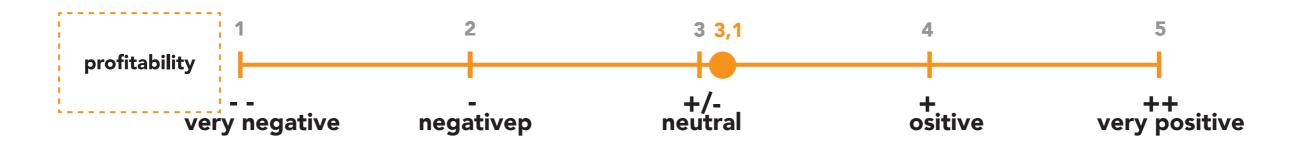
INFLUENCING PROFITABILITY

income €/m²																			
	costs							risks											
Physical Structure Operati		Operational Structure	Physical Structure					Operational Structure				Physical Structure					Operational Structure		
€/m² private spaces	project size	€/m² service	project size private spaces						services	project size		private spaces	shared spaces	i location	contracts	community & lifestyle	services		
			% coll. # units									% coll. # units							
5	5	1	1	5		2	3		1	1	5	1	2	4			5	5	
4	5	4	2	5	2	1	1	2	2	4	4	1	4	5	5	2	4	2	
5	4	1	3	4	4			1	1	1	2	2	2	3	5	1	5	5	
5	5	3	2	5	2			4	1	3	4	1	4	5	2	4	5	3	
5	5	3	1	5	4			4	1	3	5	1	4	5	4	4	5	3	
3	5	4	2	5	2		1 1		2	4	4	1	4	5	5	3	4	2	
4,5	4,8	2,7	1,8	4,8	3	1,5	2	2,7	1,3	2,7	4	1,2	3,3	4,5	4	2,7	4,7	3,3	
	3,2										2,9								
	4			2,5							3,5								
									3,1										
						_													
						<u> </u>			+/-			_ .							
	Physical ### First Physic	€/m² private spaces project size 5 5 4 5 5 4 5 5 5 5 5 5 3 5	Physical Structure Operational Structure €/m² private spaces project size €/m² service 5 5 1 4 5 4 5 4 1 5 5 3 5 5 3 3 5 4	Physical Structure Operational Structure €/m² private spaces project size €/m² service project size % coll. 5 5 1 1 4 5 4 2 5 4 1 3 5 5 3 2 5 5 3 1 3 5 4 2	Physical Structure Operational Structure €/m² private spaces project size €/m² service project size 5 5 1 1 5 4 5 4 2 5 5 4 1 3 4 5 5 3 2 5 5 5 3 1 5 3 5 4 2 5	Physical Structure Operational Structure Physical Structure project size \$\xi(m^2)\$ service \$\project size\$ spaces \$\xi(m^2)\$ private spaces \$\xi(m^2)\$ coll. # units 5 5 1 1 5 4 4 5 4 2 5 2 5 4 1 3 4 4 5 5 3 2 5 2 5 5 3 1 5 4 3 5 4 2 5 2 4,5 4,8 2,7 1,8 4,8 3	Physical Structure Operational Structure Physical Structure €/m² private spaces project size project size service project size spaces private spaces shared spaces 5 5 1 1 5 4 2 4 5 4 2 5 2 1 5 4 1 3 4 4 3 5 5 3 2 5 2 1 5 5 3 1 5 4 1 3 5 4 2 5 2 1 4 2 5 2 1 1	Physical Structure Operational Structure Physical Structure €/m² private spaces project size service project size spaces private spaces shared spaces location 5 5 1 1 5 4 2 3 4 5 4 2 5 2 1 1 5 4 1 3 4 4 3 1 5 5 3 2 5 2 1 4 5 5 3 1 5 4 1 2 3 5 4 2 5 2 1 1 4 5 4 2 5 2 1 4 5 5 3 1 5 4 1 2 3 5 4 2 5 2 1 1 4 4 5 2 1 1 1	Physical Structure	Physical Structures Operational Physical Structures Physic	Project Structure	Control Cont	Physical Southern Constituted Constitu	Proced State Proc					

characteristical levels of influence on the profitability





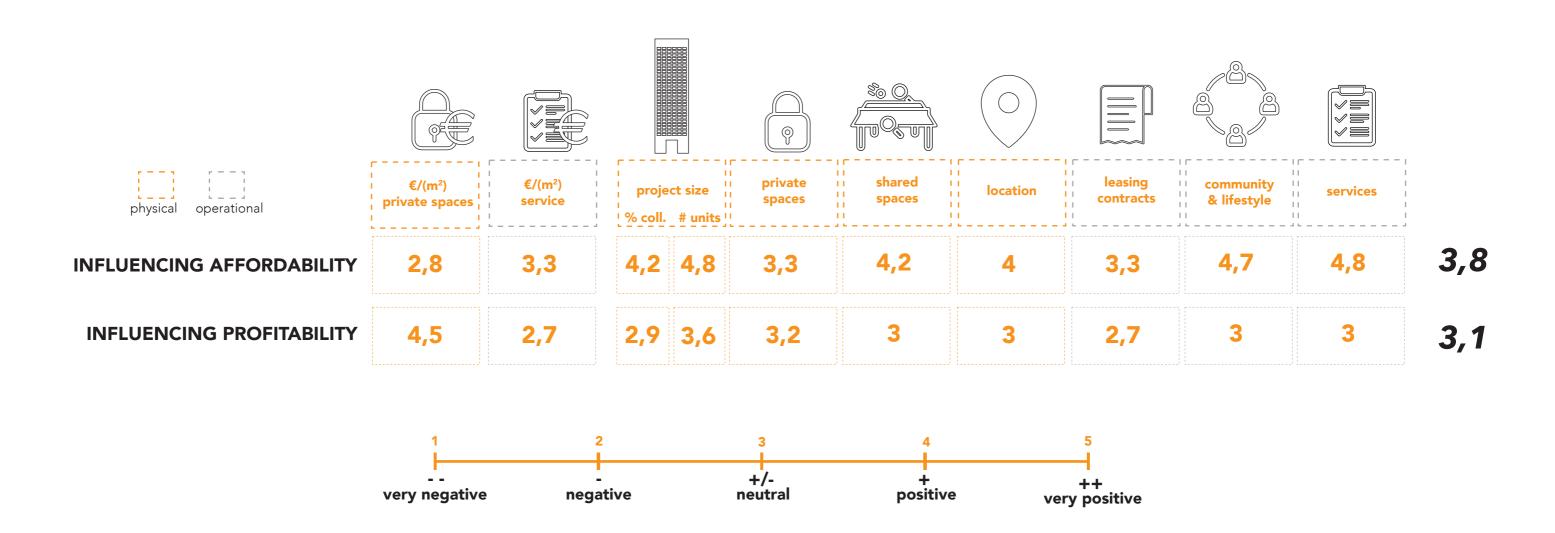


characteristical levels of influence on the profitability





"How do the physical and operational characteristics influence the users-affordability and developers-profitability?"





conclusions & reflection



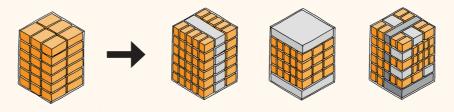
"What is commercial co-living and how do the physical and operational characteristics influence the users-affordability and developers-profitability?"

conclusions



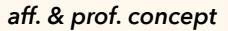


What is commercial co-living?



basic concept smaller private + collective spaces







users desires



concept on sharing

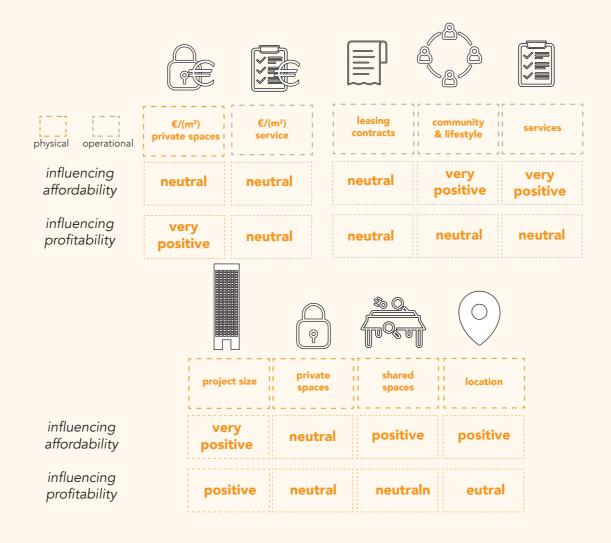


co-living characteristics

conclusions



How do its physical and operational characteristics influence the users-affordability and developers-profitability?



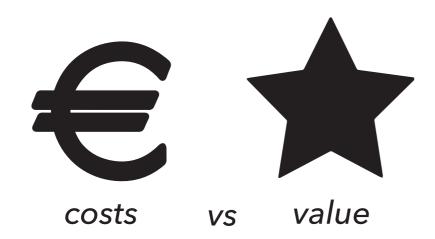
relative affordability positive (3,8)

relative profitability neutral (3,1) expenditure-to-income neutral (2,8)

value positive (3,9)

conclusions









"measuring the importance of housing expenditure versus housing value"



"the levels of influence give insight in opportunity but not in how much influence, thus not on the actual profitability"

reflection & follow-up research



"flexibility in leasing terms"

"much higher m² rental income"

"fully equipped micro-housing"

"services included"

"community creates demand = lower risk"

"approx. same rental price as traditional housing"

commercial co-living <27 m²



"higher operational costs"

"less private space"

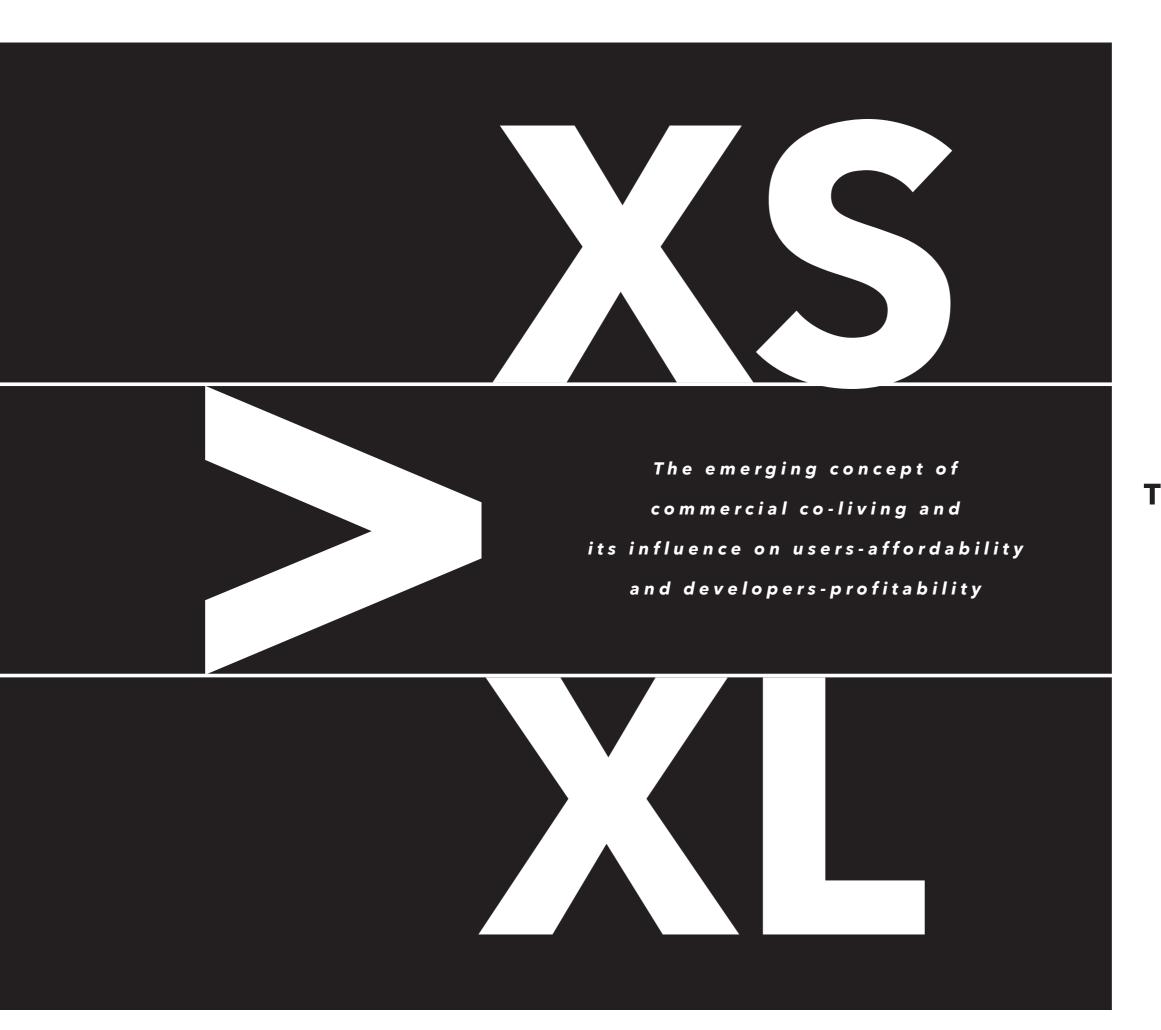
"being part of a community"

"vast range of communal spaces"

"efficient use of m²"

> "inner city or well connected locations"

"maximizing units on footprint"

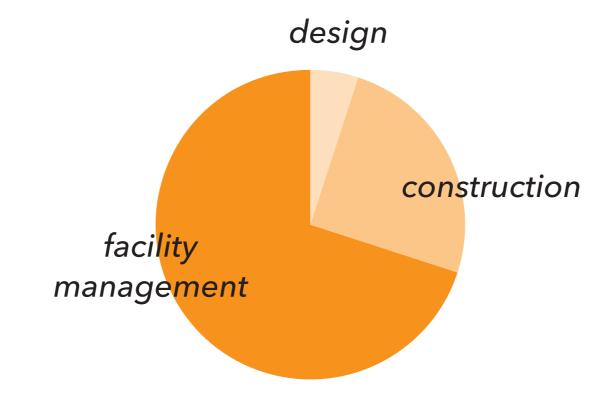


Thank you for your attention.

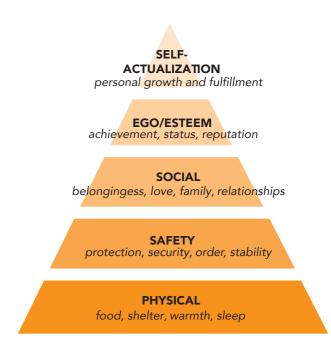
Any questions?



"from how to how much influence..."







Maslow

hierarchy in priority of building elements

Point system

 punten
 bedrag
 punten
 bedrag
 punten
 bedrag
 punten
 bedrag
 punten
 bedrag

 40
 189,00
 82
 388,27
 124
 606,08
 166
 823,84
 208
 1041,63

41 193,72 **83** 393,46 **125** 611,26 **167** 829,02 **209** 1046,81

43 203,16 85 403,84 127 621,61 169 839,42 211 1057,18

 47
 222,05
 89
 424,56
 131
 642,36
 173
 860,15
 215
 1077,92

 48
 226,79
 90
 429,77
 132
 647,53
 174
 865,31
 216
 1083,10

49 231,51 **91** 434,94 **133** 652,74 **175** 870,51 **217** 1088,30

50 236,23 92 440,11 134 657,91 176 875,69 218 1093,47 51 240,92 93 445,32 135 663,12 177 880,87 219 1098,66

53 250,38 95 455,68 137 673,48 179 891,25 **221** 1109,02

 54
 255,12
 96
 460,86
 138
 678,67
 180
 896,41
 222
 1114,22

 55
 259,84
 97
 466,07
 139
 683,83
 181
 901,63
 223
 1119,40

94 450,49 136 668,27 178 886,07 220 1103,87

198 44 84 398 63 126 616 43 168

217,34 88 419,39 130 637,18 172

 44
 207,88
 86
 409,03
 128
 626,84
 170
 844,59
 212
 1062,36

 45
 212,59
 87
 414,20
 129
 631,97
 171
 849,77
 213
 1067,55

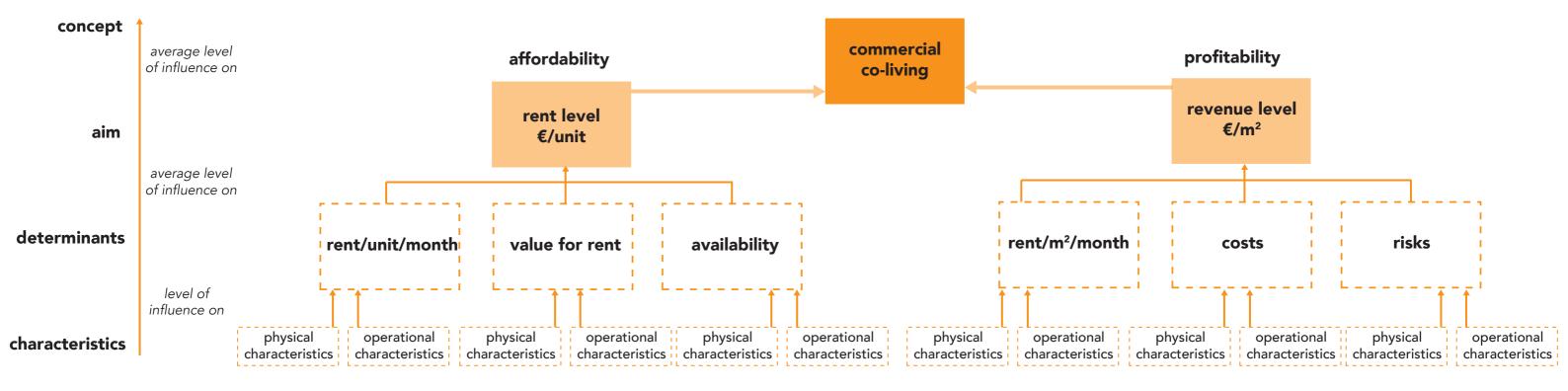
value of building elements

Expenditure-to-income

research follow-up



analytical framework



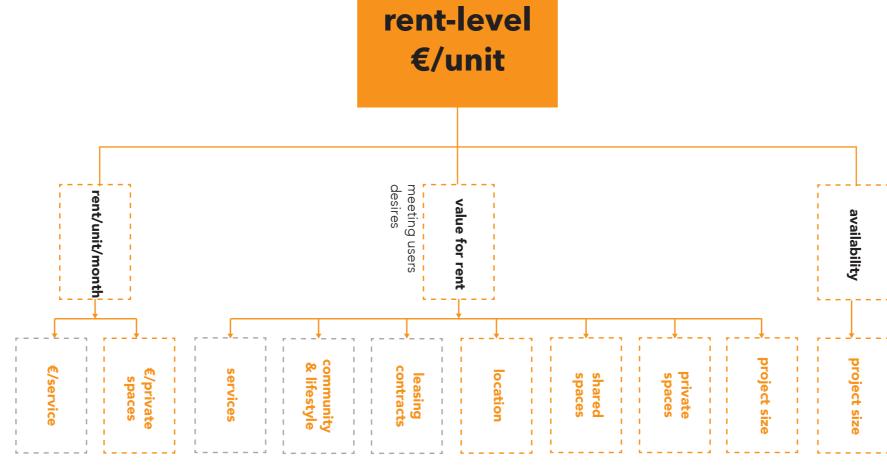


determining users-affordability





step 2 characteristics



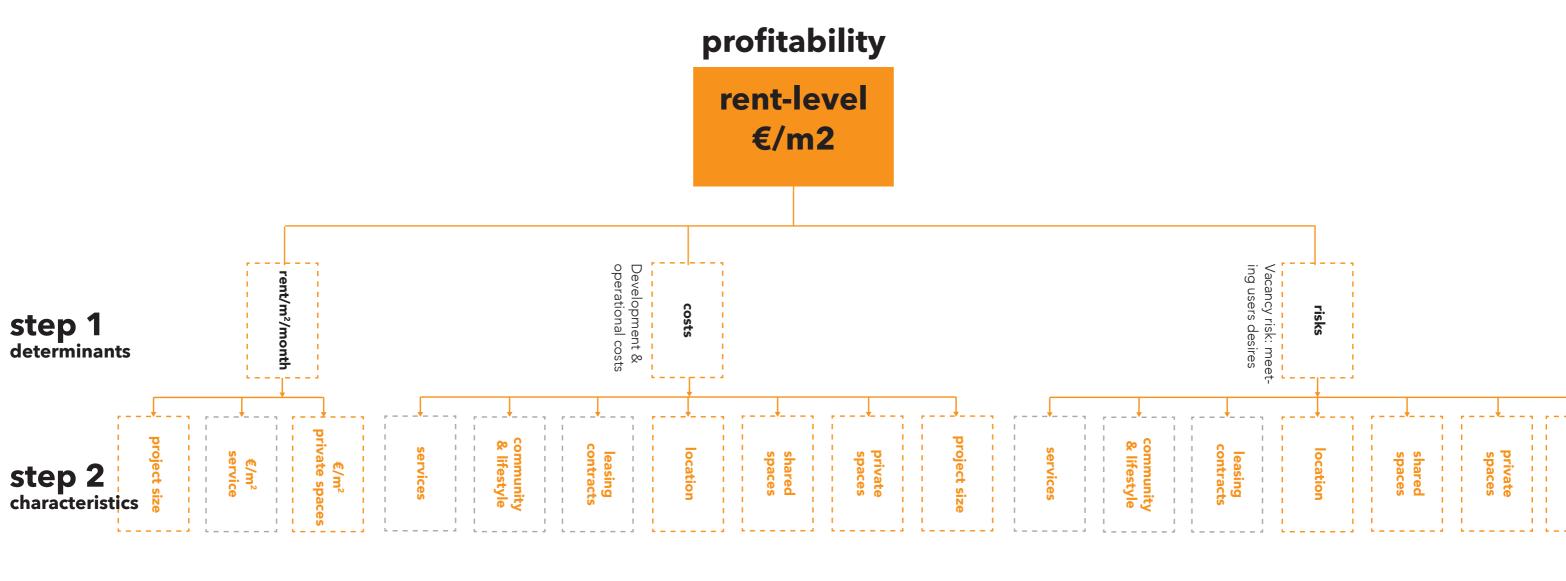


influence of characteristics

determinants for affordability



determining developers-profitability

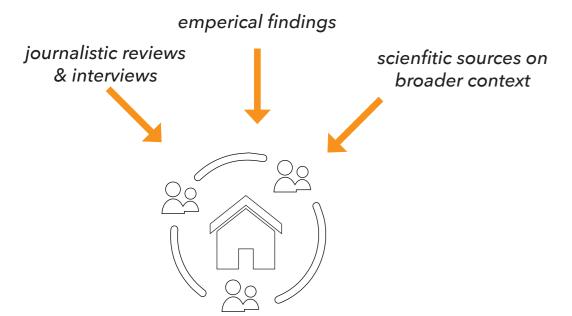




influence of characteristics

determinants for profitability













"understanding of the concept through collection of different sources: risk on biased sources"



"gives a proper average for affordability but not for profitability as risk and costs level out with certain characteristics"



"the levels of influence give insight in opportunity but not in how much influence, thus not on the actual profitability"

reflection on conclusions

