

# Choices in scale, guided by quality or legislation?

The influence of institutional factors on Assisted Living Facilities

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**copromotoren:**

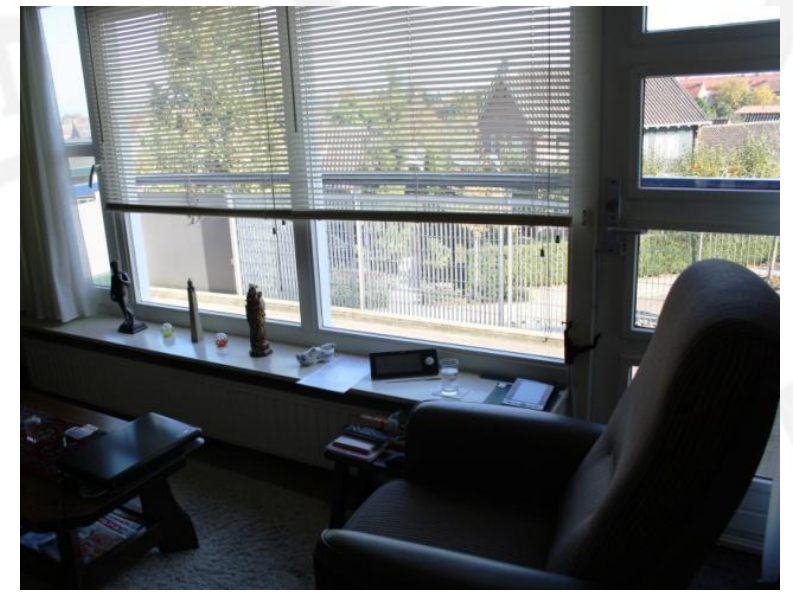
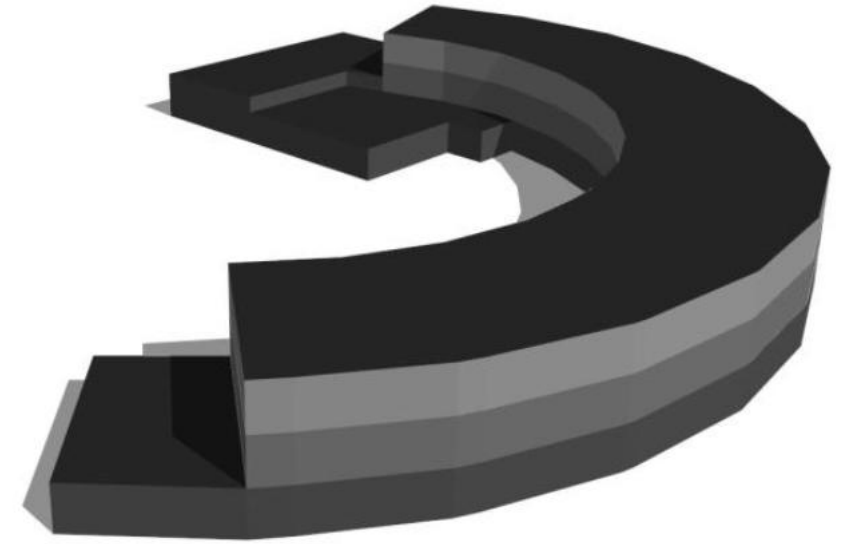
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Faculty of Architecture, Delft University of Technology, Delft

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HAN University of Applied Sciences, Nijmegen

***ENHR, June 25<sup>th</sup>, Lillehammer***

# Very small scale ALF

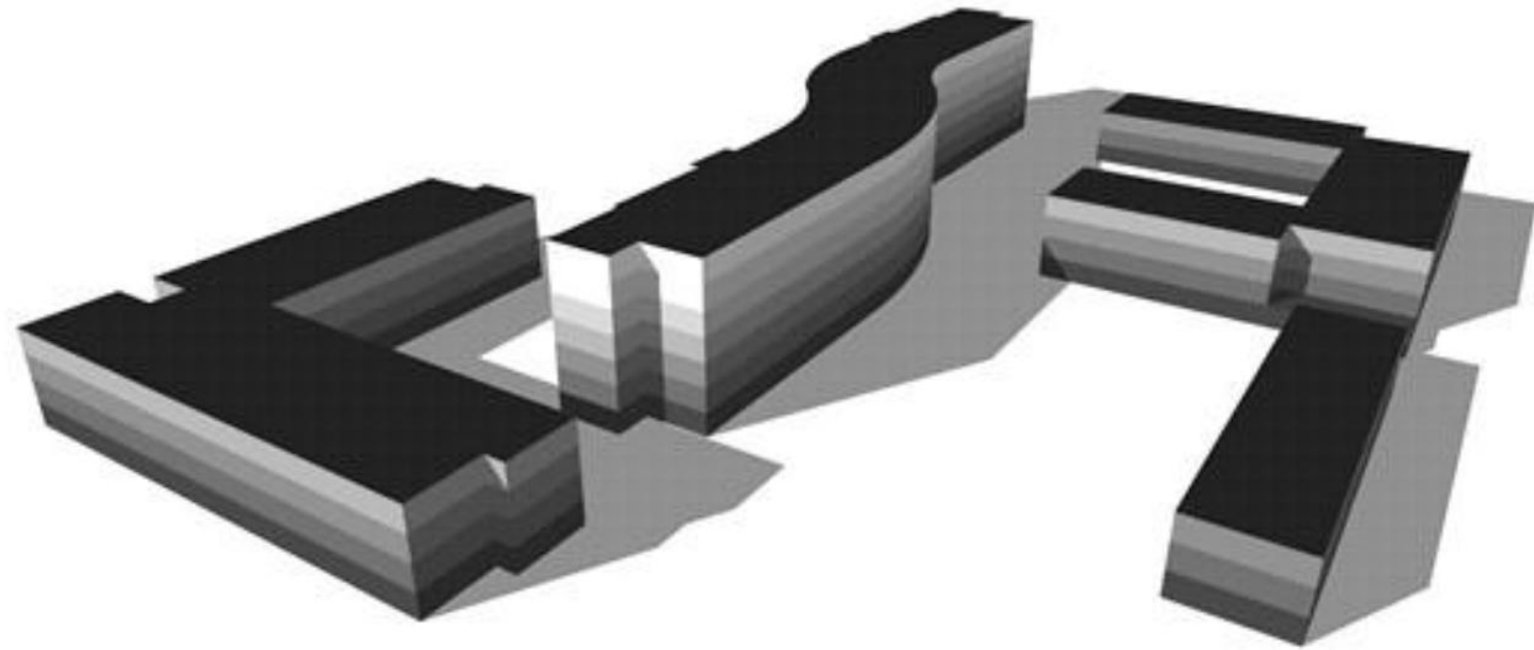
28 dwellings  
De Wemel  
Wemeldinge  
Zeeland





# Very Large scale ALF

314 dwellings  
Menno Simons  
Amsterdam  
Noord-Holland





# Are choices driven by quality drivers?

## Can we make them evidence based?

Exploitable  
Facilities?



Social  
interaction  
group mix?



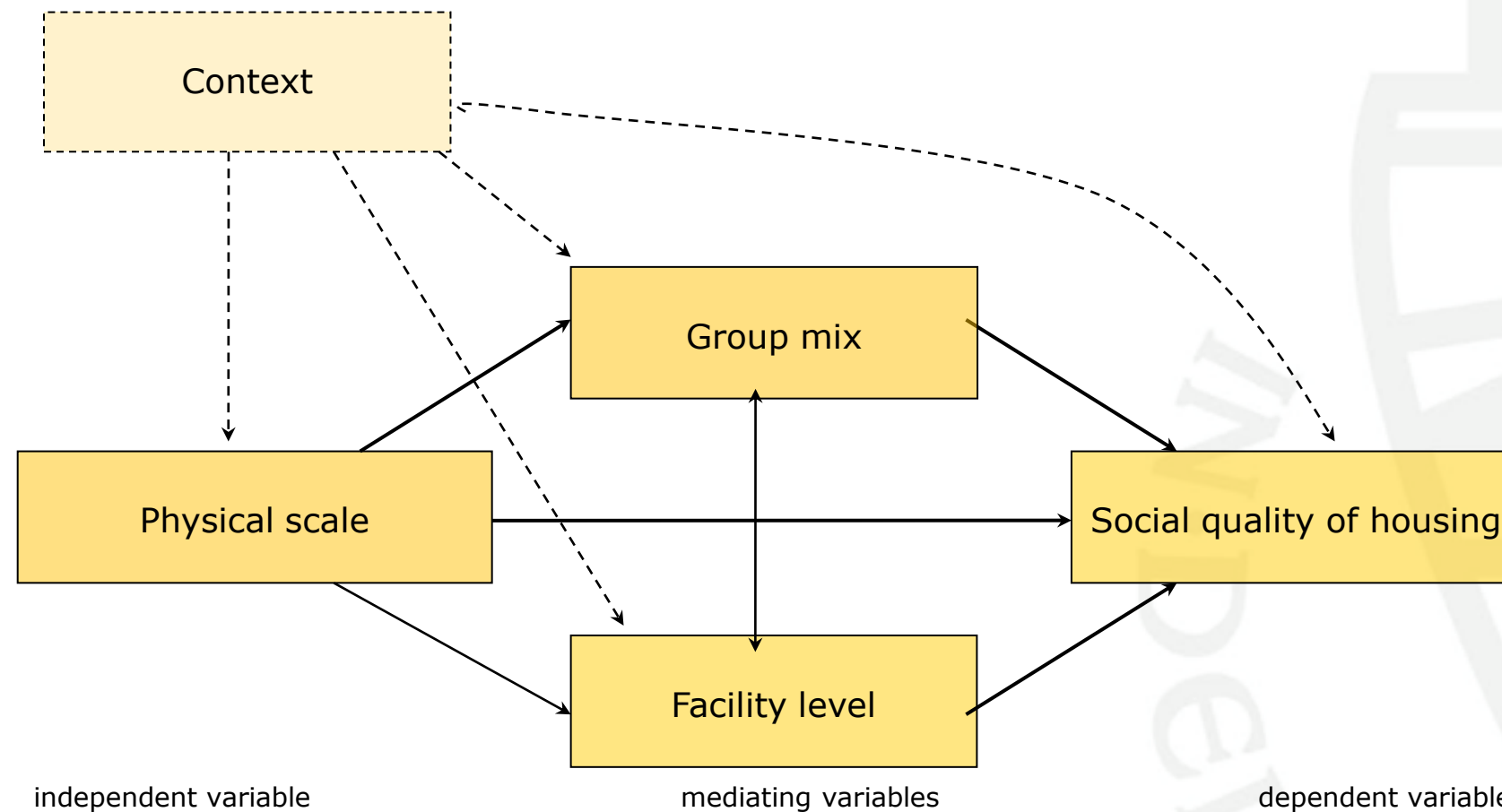
Optimal  
Scale?



Safety  
experience?



# Coarse conceptual model & main question



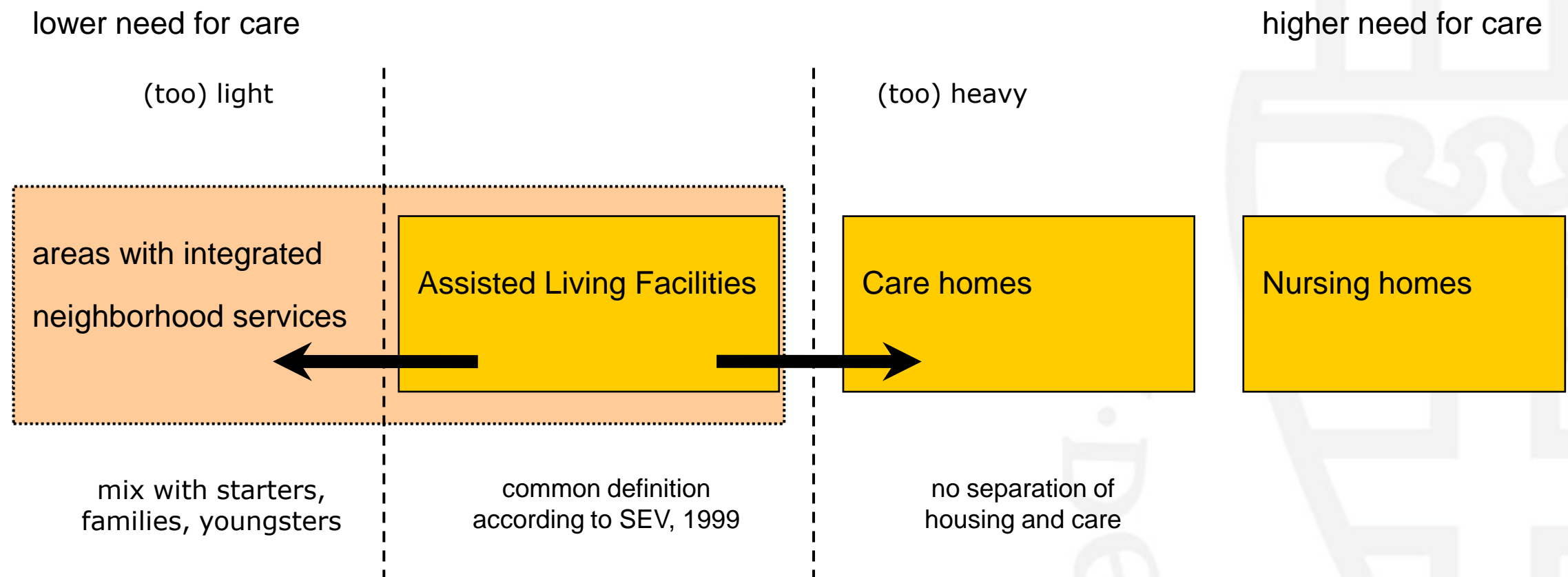
What is the impact of physical scale on social quality of housing direct and indirect via group mix and level of facilities in assisted living?

# Definitions

sub question:

1. What do we define as scale, group mix, level of facilities, and social quality of housing in relation to assisted living facilities?

# Definition Assisted Living Facility



*"a project with a majority of housing for independent living elderly with a way of building focused on sheltered living, with components of care and service."*

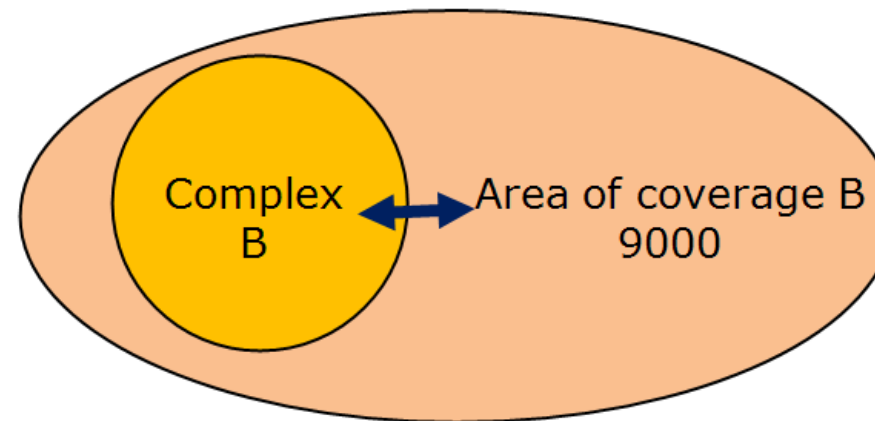
Research design The Desirable Scale (Spierings, 2010)



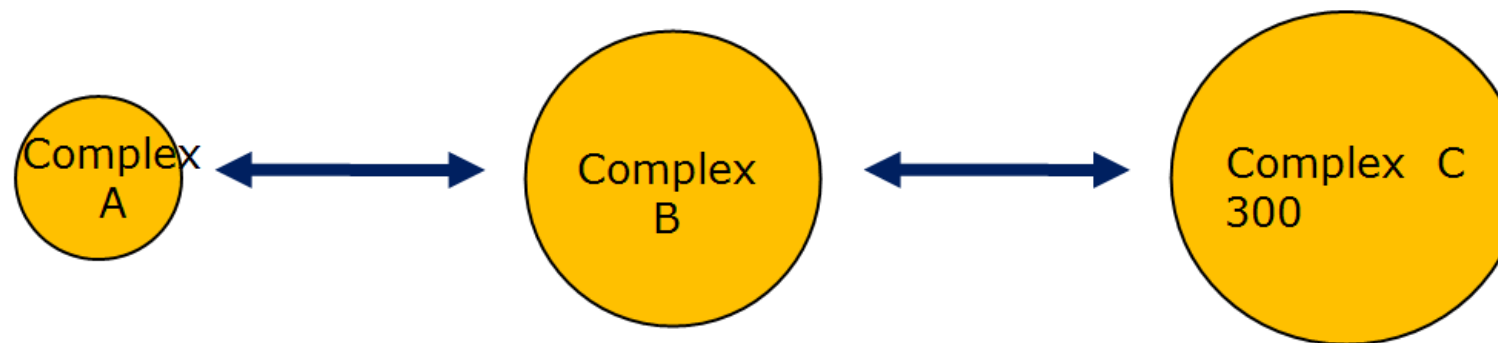
# Architectural Scale

Boudon (1978), Ching(1979)

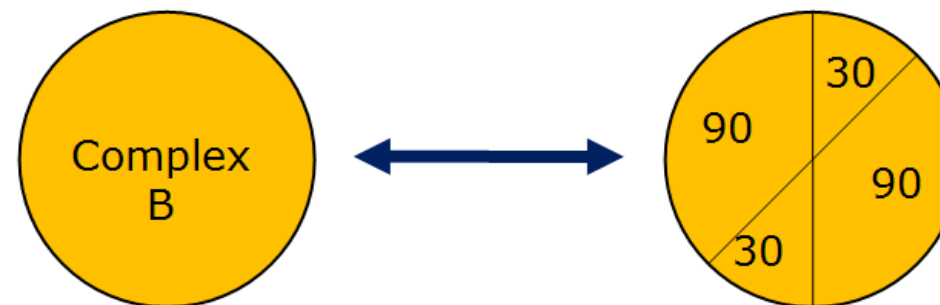
External or generic scale



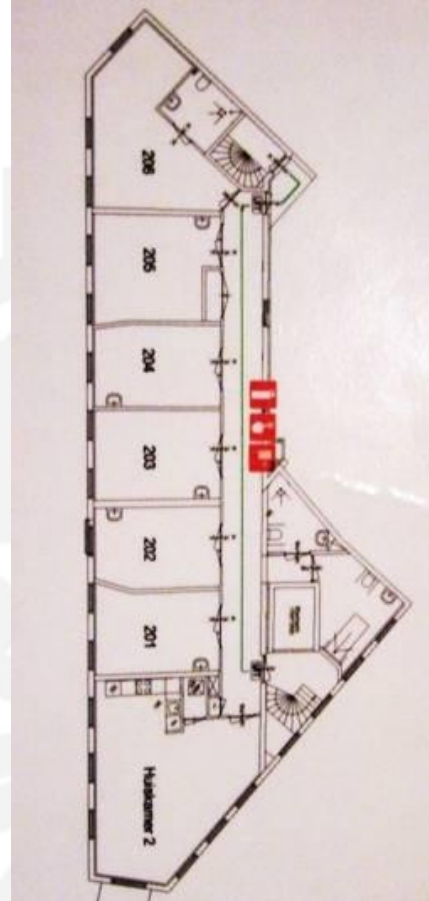
Relative scale



Internal scale or proportion

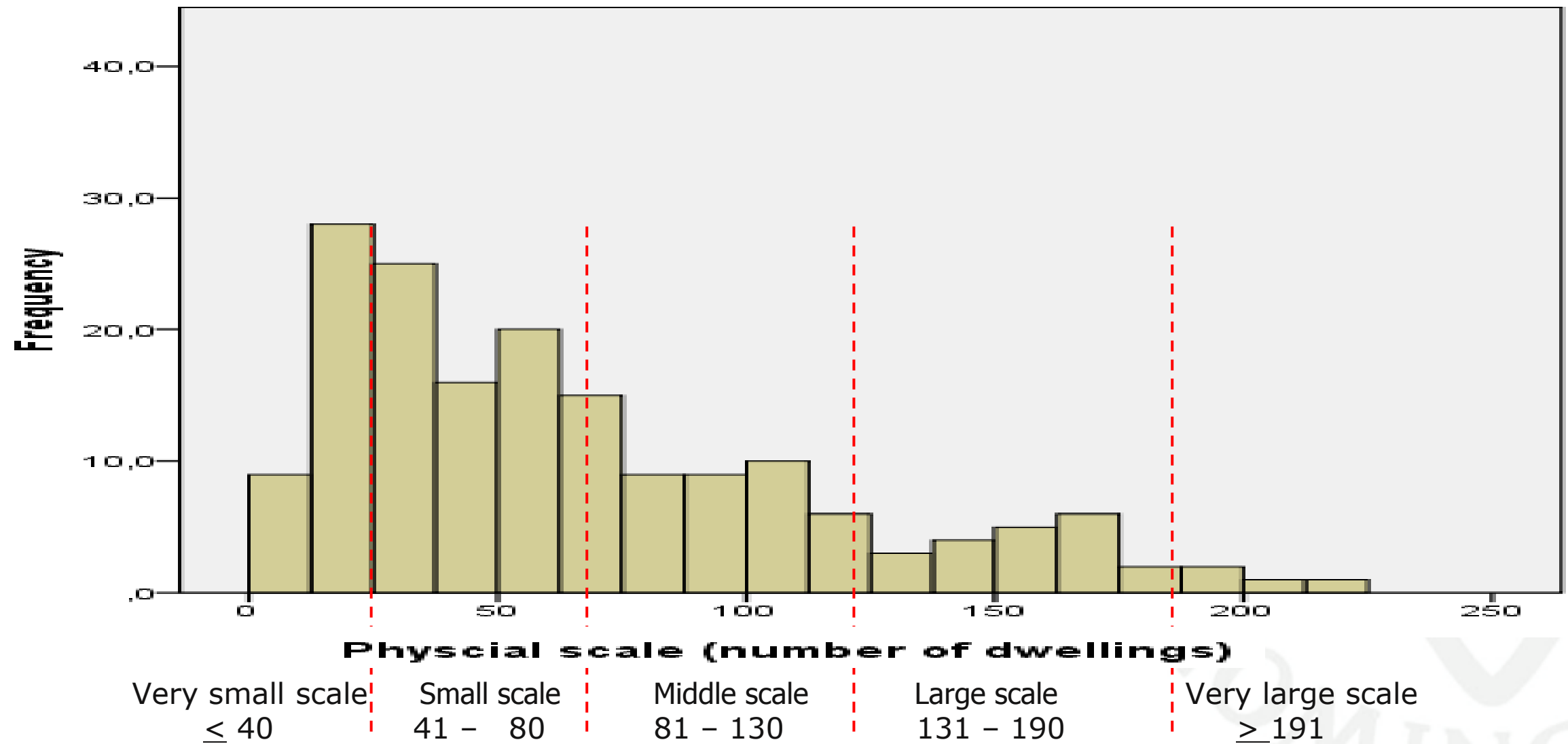


Visits Reinaldahuys, Haarlem; Czaar peterpunt, Amsterdam, 2007 + Work visit 2008





## Defined physical scale (database KCWZ)



# Different levels of care need

	Categories AWBZ legislation	Profiles TNO	Groups databank KWCZ	Groups in this research
Care	psycho geriatric patients	profile dementia	people with dementia	people with dementia
	mentally handicapped		people with a mental handicap	people with a mental limitation
	psychically handicapped ----- sensory handicapped ----- somatic patients	elderly with large physical limitations ----- elderly with mobility and personal care limitations ----- elderly with mobility limitations	people with a physical handicap	people with a physical limitation
	psychiatric patients		people with psychiatric problems	people with psychiatric problems
Non-care		elderly with few or no limitations	elderly	55+ with no or modest care need
			all (other) district inhabitants	families
				starters
				juniors

Visits Eldenstaete, Malburgstaete Arnhem, 2008 + 2009



# Defined Group Mix

Category 1:  
55+ with no or modest care need

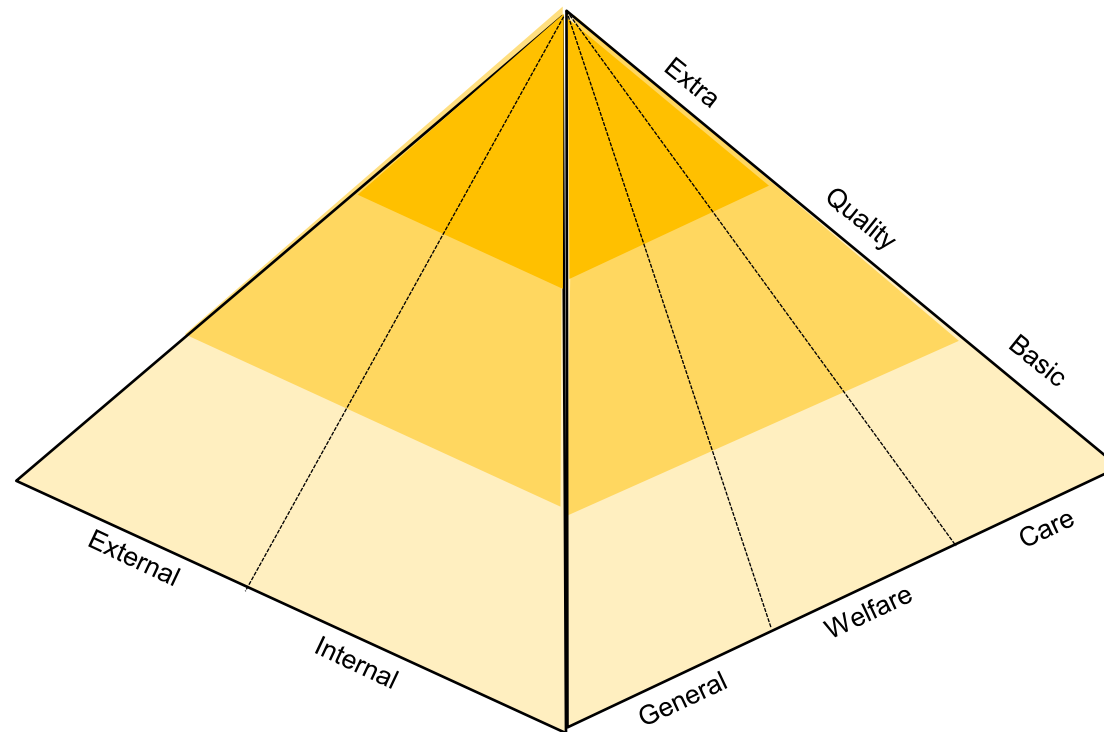
Category 2:  
mixed with higher care need

Category 3:  
mixed with higher and/or no care need



# Level of facilities

focus on independent living senior  
location: internal and external (<500m)  
categories: care, welfare and general  
levels: basic, quality, and extra



Tazelaar (1985), Maslow (1943), Spierings (2010)

Visits Eldenstaete, Arnhem; Meulenvelden, Didam: Reinaldahuis, Haarlem, 2008 + 2009



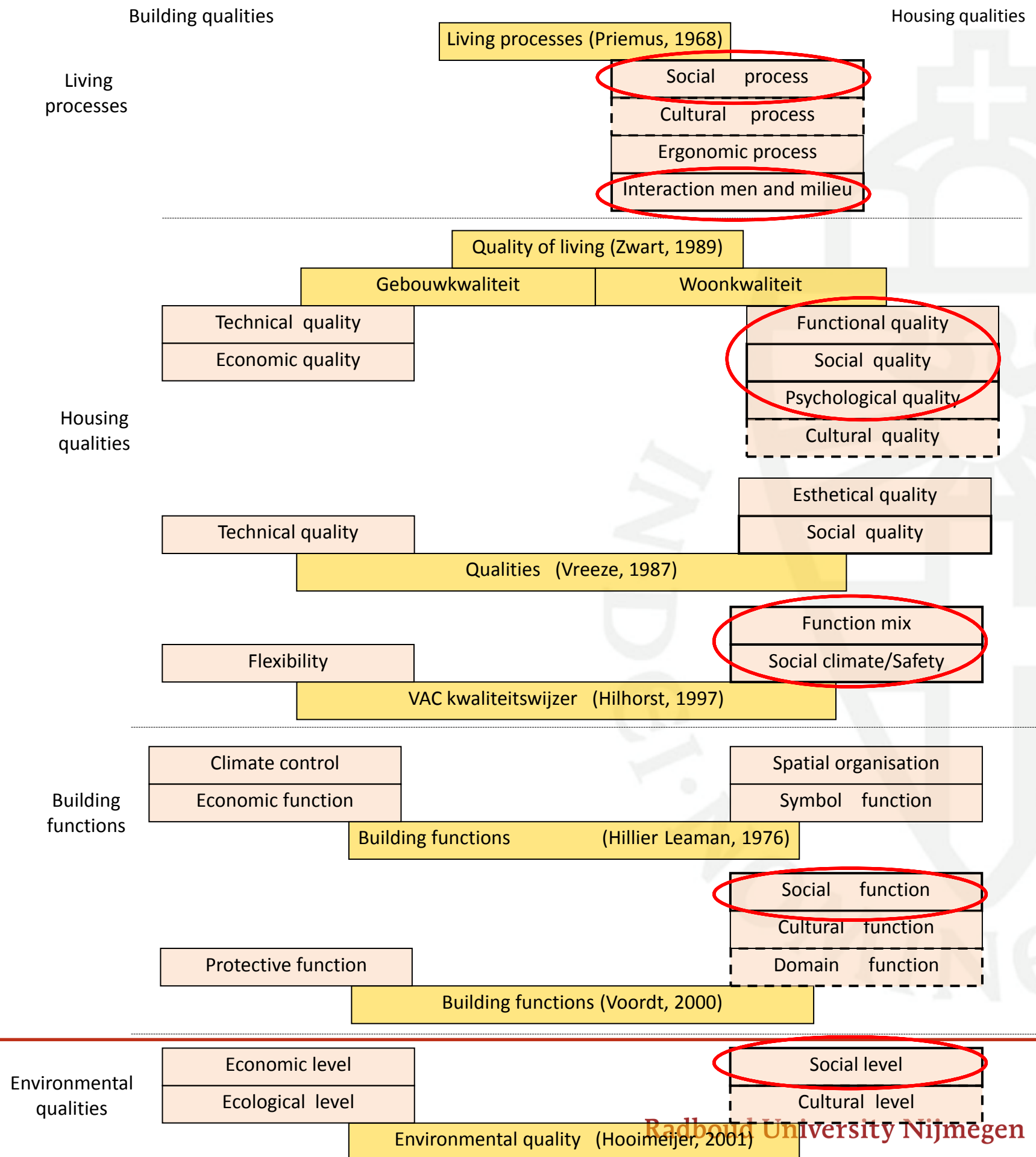
# Defined level of internal facilities

Facilities sorted by category and ranked by level			
	Care	Welfare	General
Extra	Home care office (KCWZ, ZGN, KB) Dietician (KB) Ergo therapist (KB) Speech therapist (KB)	Pedicure (ZGN, KB) Library (ZGN, KB) Fitness (ZGN, KB) Beauty salon (KB) Swimming pool (ZGN, KB) A la carte restaurant(ZGN)	Bank facilities/money machine (ZGN, KB) Reception 24 hour (ZGN)
Quality	Guard sleep (KCWZ) Domestic help(KCWZ) Meal service (KCWZ) General practitioner (KCWZ) Physiotherapy (KCWZ, KB) Temporary help (KCWZ, KB) 24 hour care personal (KCWZ) Group care/day care (KCWZ, KB) Care (KCWZ) Nursing (KCWZ) Guidance (KCWZ)	Hairdresser (ZGN, KB) Internet room (ZGN) Silence- and prior centre /church service (ZGN, KB) Spiritual care (KB) Café (ZGN, KB) Restaurant (KCWZ, ZGN, KB) Smokers room (ZGN)	Reception (KCWZ, ZGN) Housemaster(ZGN) Wash- en linen service/laundry (ZGN, KB) Atrium/winter garden (KCWZ)
Basic	Direct help emergencies (KCWZ) Indoor care support centre (KCWZ) Alarm succession KCWZ)	Living room (KCWZ) Recreation activity/rooms (KCWZ,KB) Welfare elderly (KCWZ)	Shop (ZGN, KB) (public) Transport (KB)

Sources: Database ALFs (KCWZ); Care guide NL (ZGN) ; RIVM (KB)

Internal level of facilities allocated when  $\geq 50\%$  facilities present

# Social quality of housing

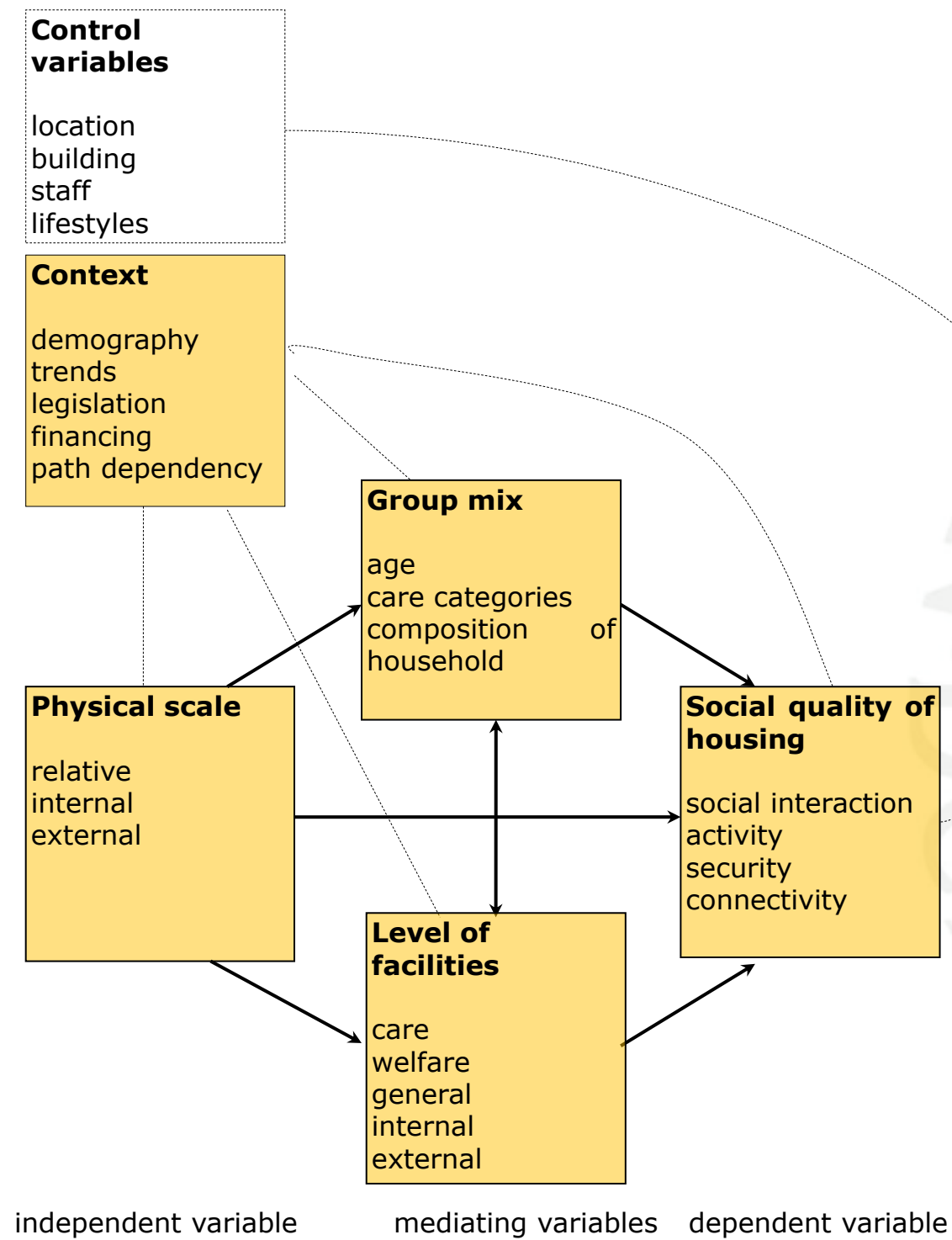




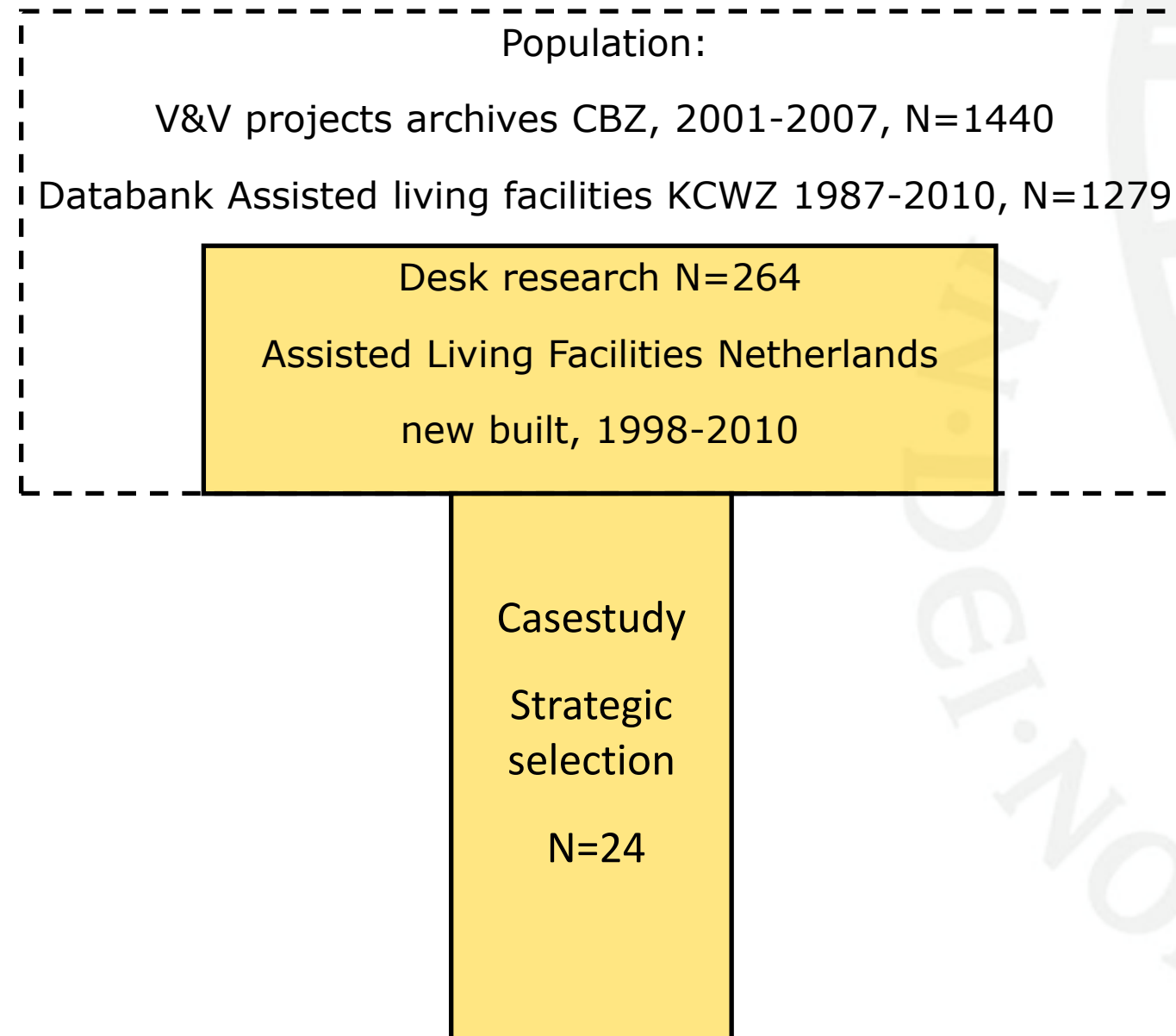
## Defined indicators social quality of housing

- the degree of social interaction between inhabitants/groups
- the variation in entertainment and activities
- the degree to which safety and bonding are experienced

# Conceptual model

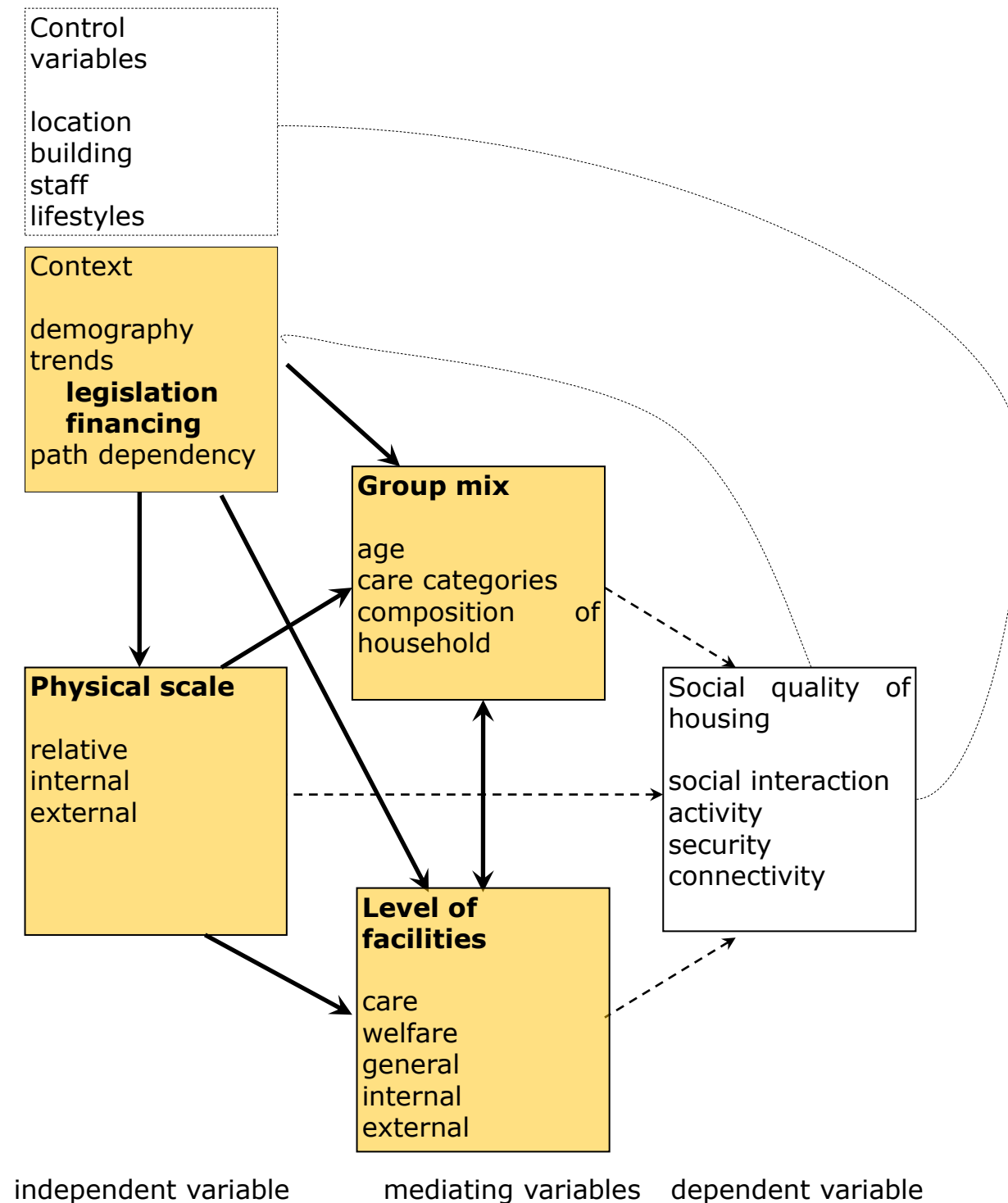


# Mix methods research



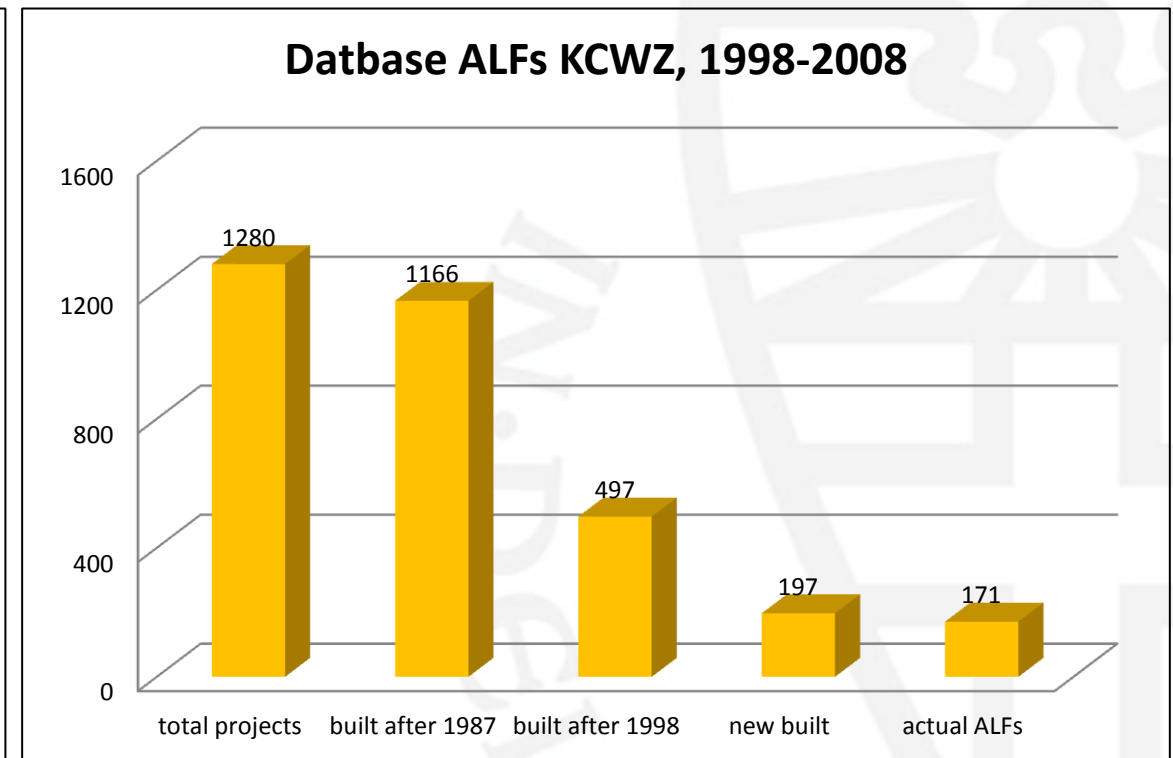
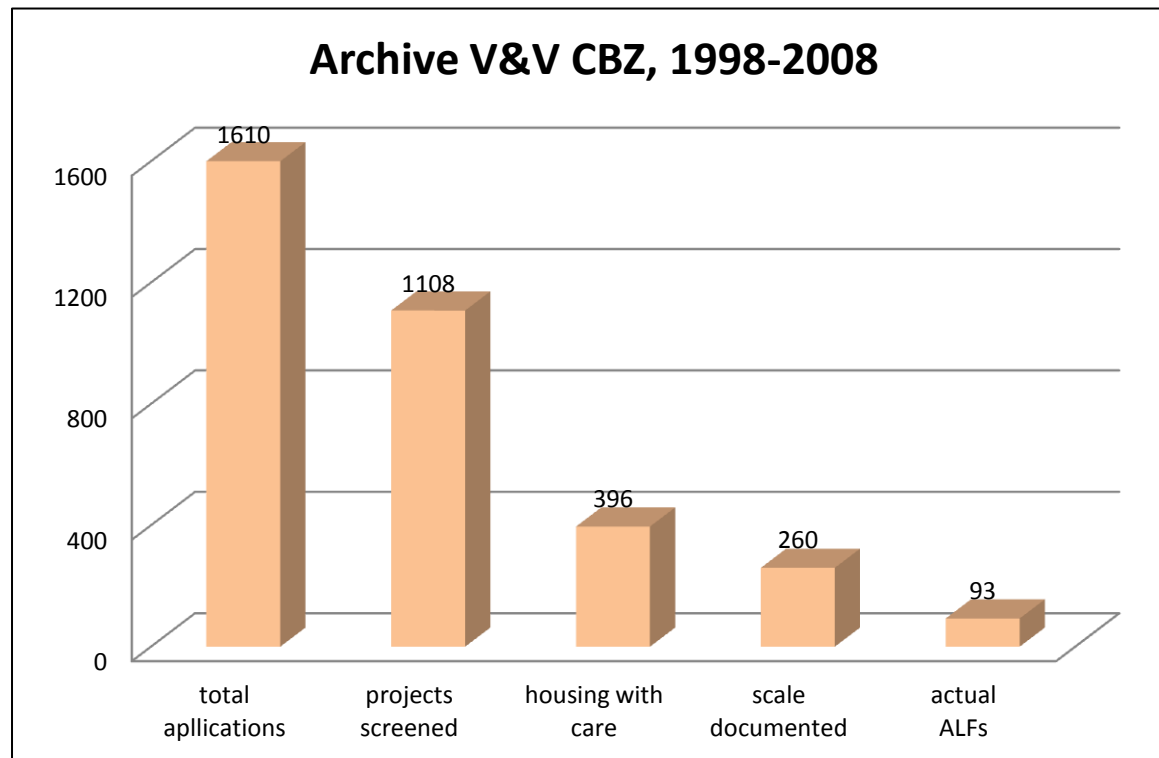


# Desk Research



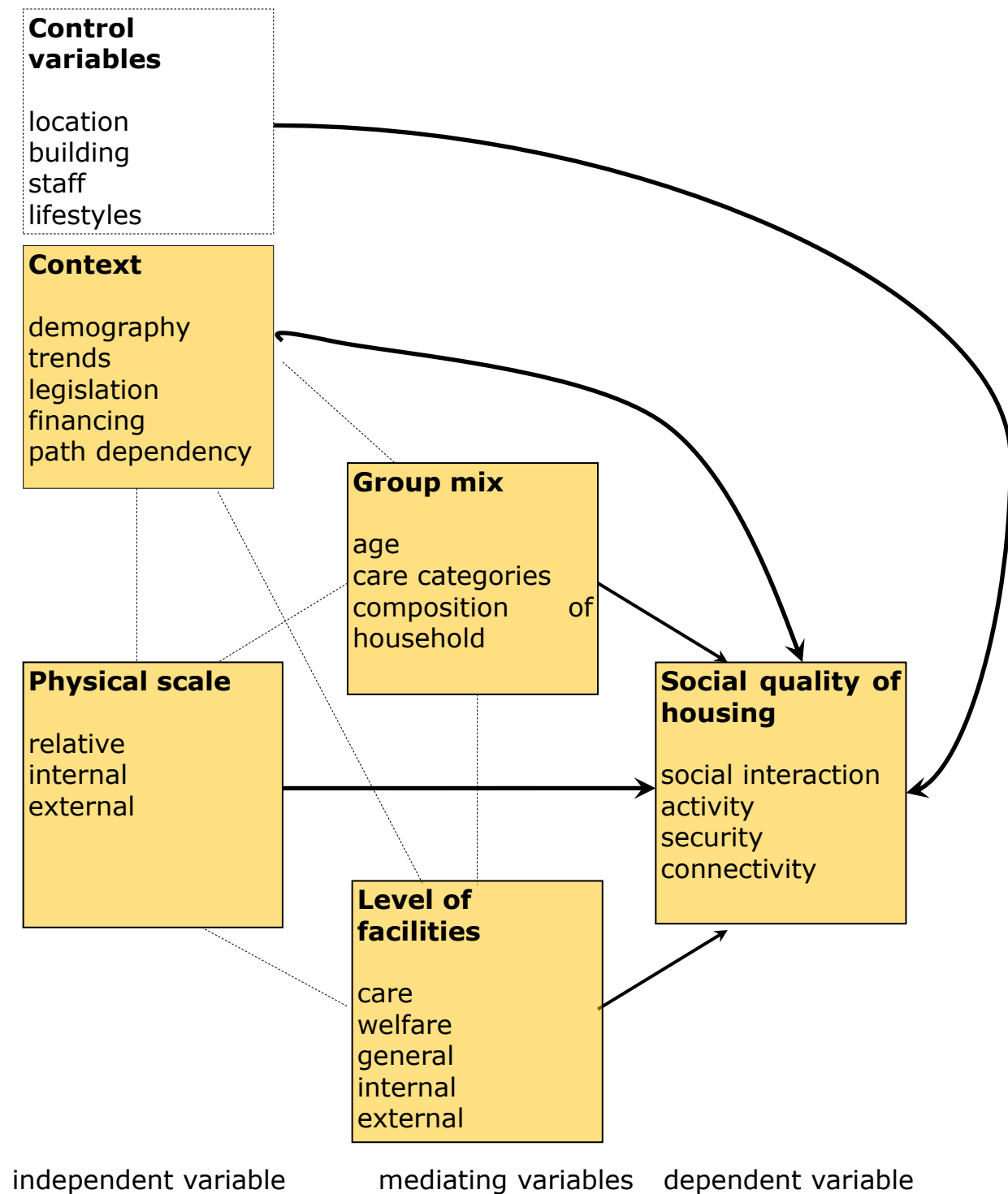
2. What is the range in scale, group mix and level of facilities in assisted living facilities in the Netherlands in the period 1998-2010?
3. What are the relations between scale, group mix and level of facilities of these projects?
4. What are the relations between scale, group mix and level of facilities with legislation and financing?

# Databases & SPSS



- 2 databases screened, ordered and complemented
- Analyse in SPSS frequency tables
- Mutually correlated and with time period

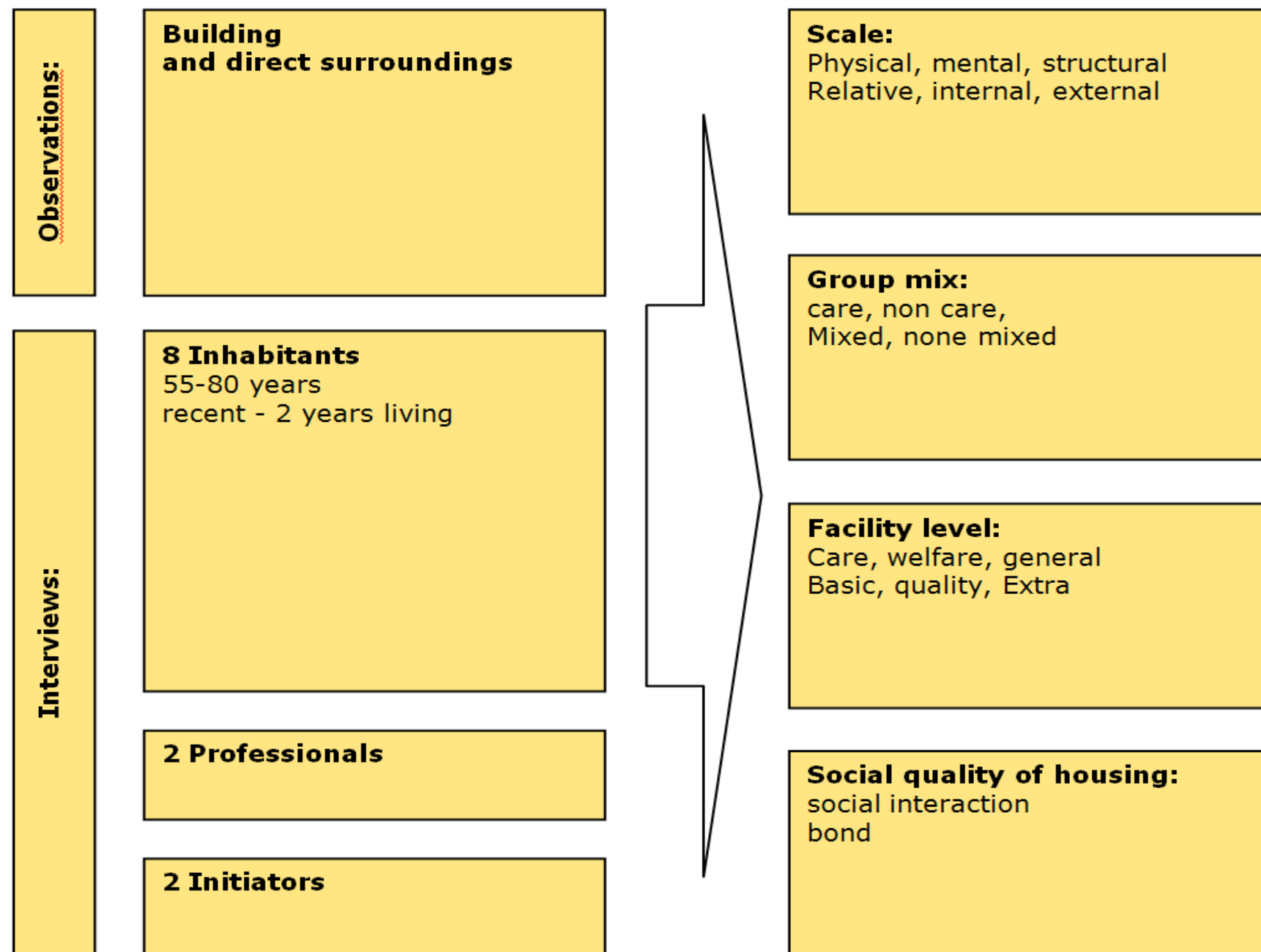
# Case Study



5. What is the impact of physical scale on social quality of housing of vital elderly?
6. What is the impact of group mix on social quality of housing of vital elderly?
7. What is the impact of level of facilities on social quality of housing of vital elderly?
8. To which degree do initiators weigh these variables?
9. To which degree do initiators weigh care focused, economical, and organisational aspects?
10. How can initiators apply the findings from this research in their practice?



# Observations & narrative interviews



explicit indirect approach by story telling  
theoretical saturation at 30 interviews (Robson, 2002; van Biene, 2008)

# Code types and indicators

Code type	Number	(example of the) Indicators
Biographic information	9	Civil status, age, children, vitality,...
Research variables	6	Scale, group mix, level of facilities, social quality of housing, context.
Indicators	25	Physical scale, ...;mix with..., legislation, ...; social interaction,....
Control variables	5	Functional, economic, technical and esthetical quality.
Quality	4	(Non) satisfied, problem, solution.
Personal radius	3	Own, next, far.
Environmental radius	4	Dwelling, project, street, village/city.

## 13 Die vriend die woonde al hier?

14 Nee. Ik ben hier samen komen wonen met mijn man. Die vriend kwam hier eten in het huis. Mensen komen ook van buitenaf hier eten. Het middag eten. Van die vriend heb ik geen fotootje, misschien sturen ze me die nog op. En ik heb hier een hele lieve vriendin wonen. Daar ga ik af en toe mee op vakantie.

## 15 Heeft u veel contact met de mensen hier?

16 Heel veel, jah, jah ik maak bewust altijd een praatje. Want ik zit in de menucommissie en de klantenraad. En ik doe een attestaties, een kaart sturen de mensen die naar het ziekenhuis gaan. Ik heb nog een hoop te doen hoor, ik verveel me nooit ik heb altijd tijd te kort. Weet je waarom ik me hier zo direct zo prettig

-  complex~
-  Verbondenheid~
-  sociale interactie bewoners~
-  Commissie werk

# Preliminary results

## **desk research**

264 projects in SPSS

archive V&V CBZ care focused, N=93  
archive KCWZ as starting point, N=171

indicators controlled and complemented  
preliminary analyzed

## **multiple casestudy**

24/24 cases visited  
24/24 cases transcribed  
24/24 cases coded

preliminary analyzed

# Range in physical scale

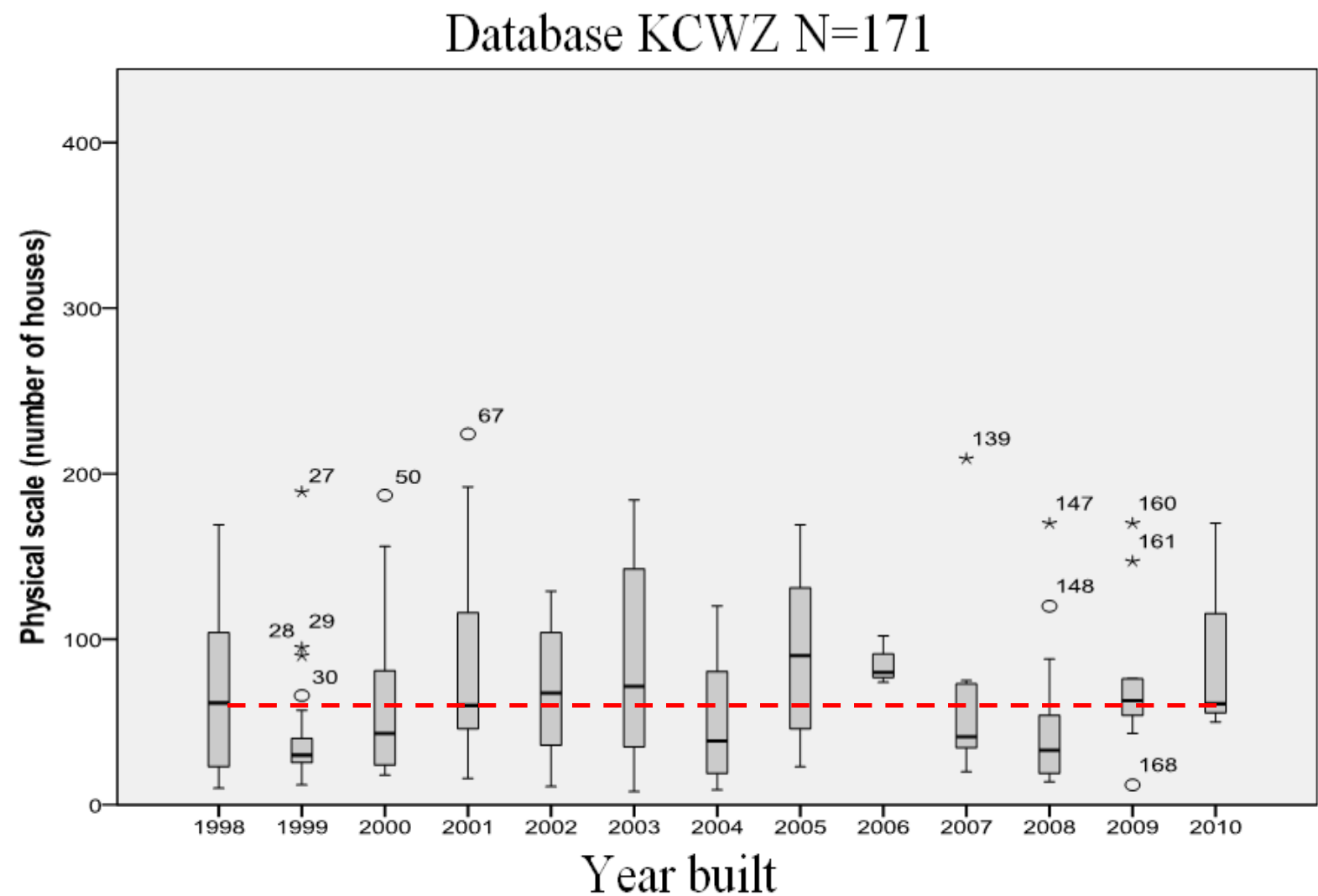
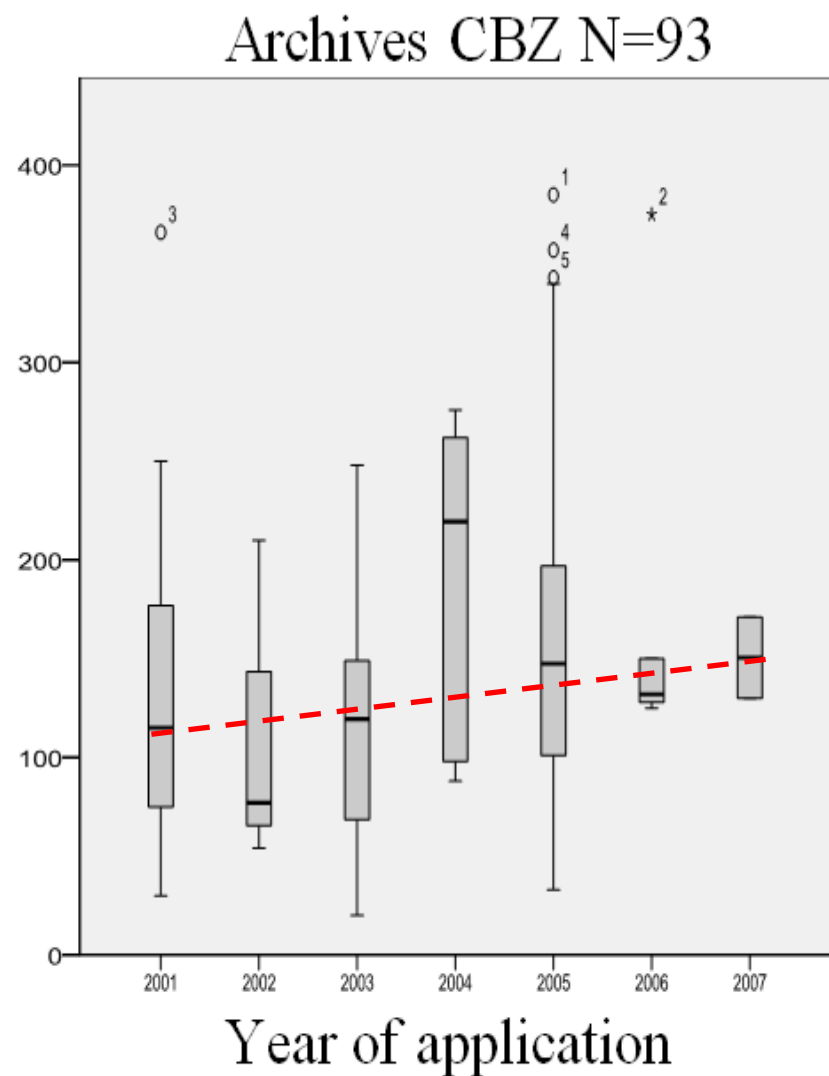
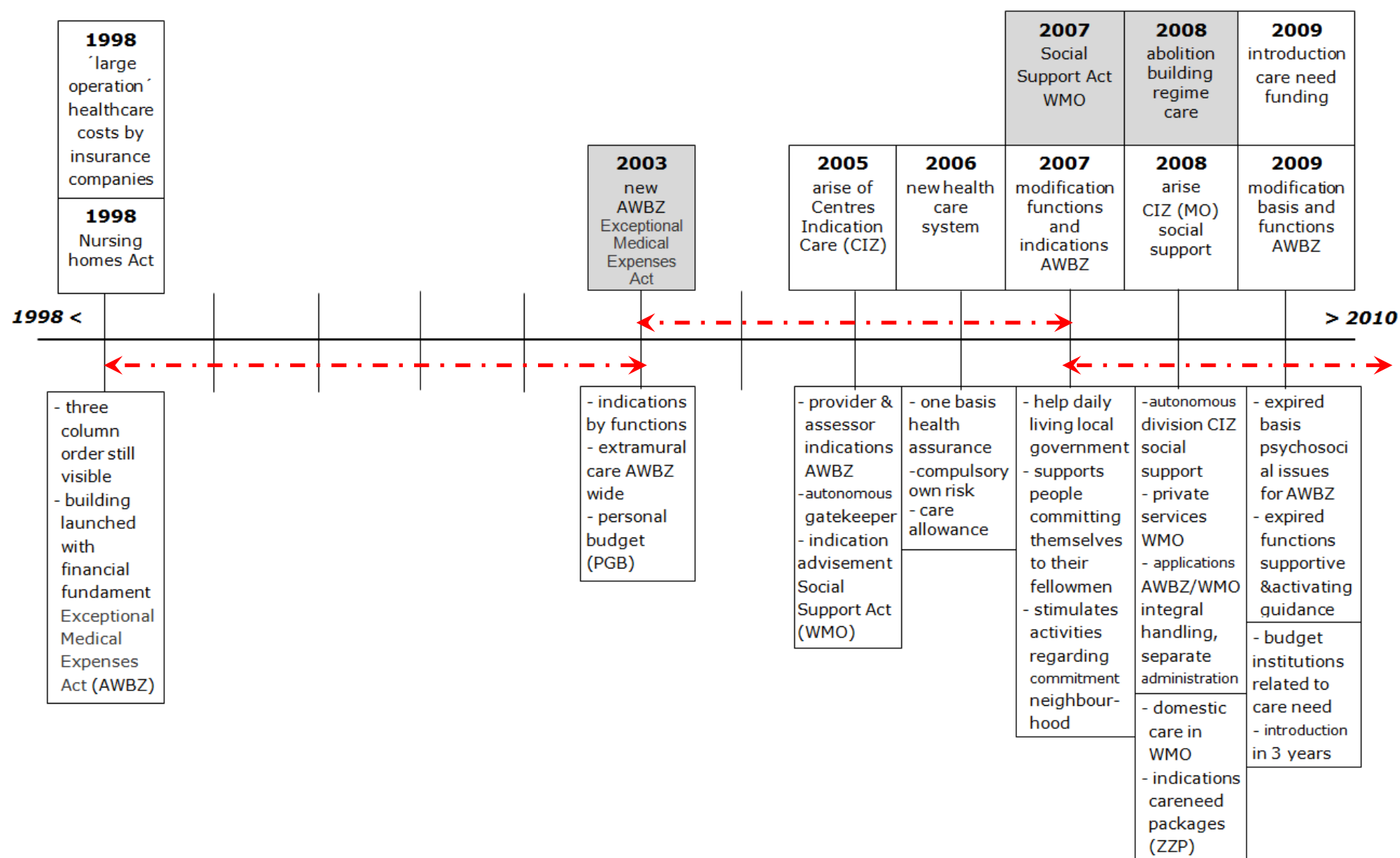


Figure 7 Physical scale by year



# Changes in legislation



# Correlations research variables

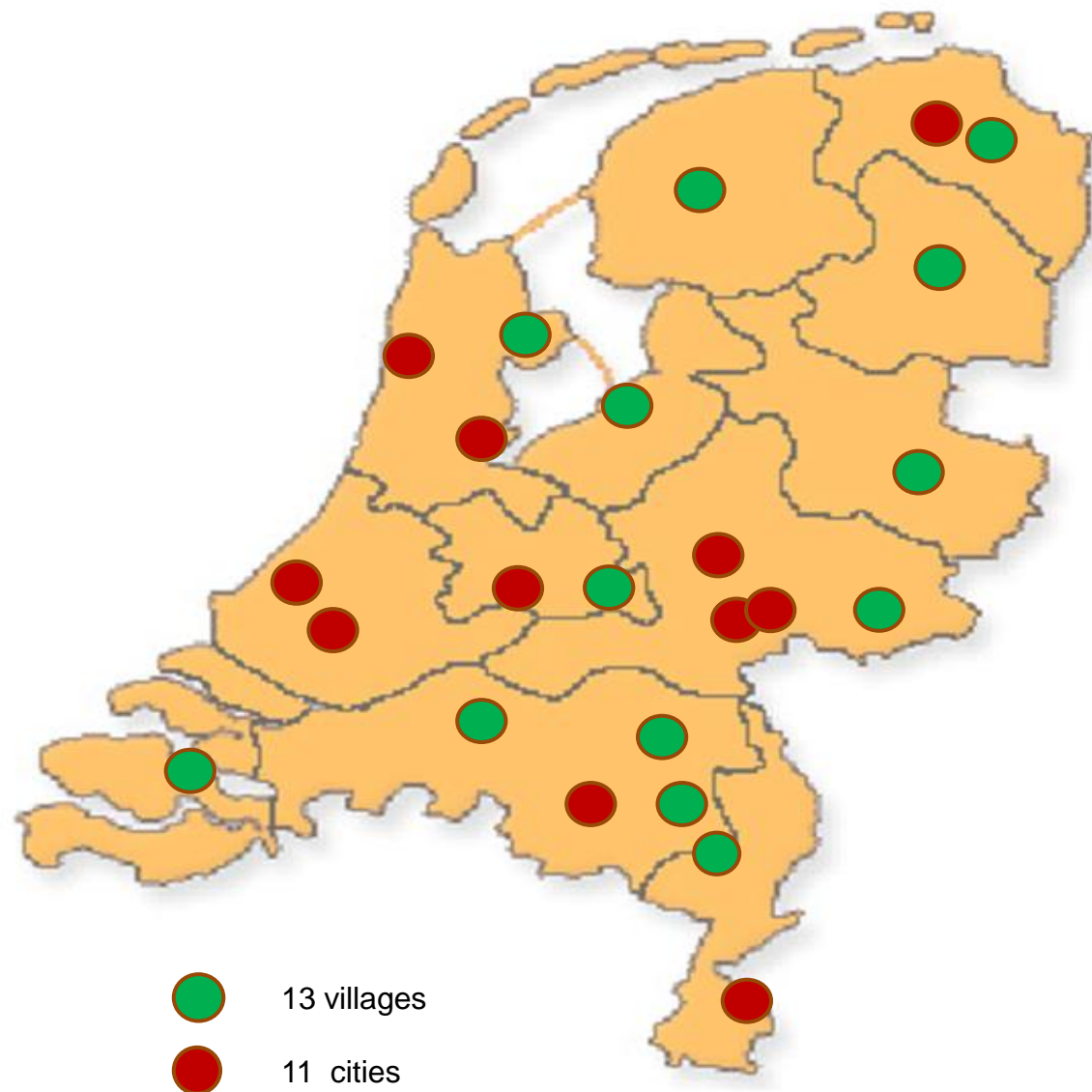
Correlation ALFs archive KCWZ Spearman's rho N=173		Legislation Period	Physical Scale	Group Mix	Level care facilities	Level welfare facilities	Level general facilities
Legislation period	Correlation Coefficient	1,000	,040	,290**	,003	-,123	,014
	Sig. (2-tailed)	.	,605	,007	,974	,216	,898
	N	171	171	85	129	103	89
Physical scale	Correlation Coefficient	,040	1,000	,184	,274**	,240*	,285**
	Sig. (2-tailed)	,605	.	,092	,002	,015	,007
	N	171	171	85	129	103	89
Group mix	Correlation Coefficient	,290**	,184	1,000	-,023	-,138	-,122
	Sig. (2-tailed)	,007	,092	.	,848	,295	,374
	N	85	85	85	69	60	55
Level Care facilities	Correlation Coefficient	,003	,274**	-,023	1,000	,451**	-,066
	Sig. (2-tailed)	,974	,002	,848	.	,000	,571
	N	129	129	69	129	90	77
Level welfare facilities	Correlation Coefficient	-,123	,240*	-,138	,451**	1,000	,225*
	Sig. (2-tailed)	,216	,015	,295	,000	.	,046
	N	103	103	60	90	103	79
Level general facilities	Correlation Coefficient	,014	,285**	-,122	-,066	,225*	1,000
	Sig. (2-tailed)	,898	,007	,374	,571	,046	.
	N	89	89	55	77	79	89

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

Table 4 Correlations ALFs database KCWZ

# 24 case study's in NL, scale in relation to group mix



Physical scale in relation to group mix	(extra) Small < 80	Medium 81 - 130	(extra) Large > 131
55+ with no or modest care need	<b>De Wemel</b> , Wemeldinge	<b>Jean Sibelius</b> , Eindhoven <b>De Schermerij</b> , Leersum	absent
mixed with higher care need	<b>De Sfinx</b> , Zeewolde <b>Eilandstaete</b> , Arnhem <b>St. Annahof</b> , Uden <b>De Berken</b> , Millheeze <b>Domus Bona V</b> , Nederweert <b>Huize St. Franciscus</b> , Veendam <b>Nij Dekama</b> , Weidum	<b>Rigtershof</b> , Grootebroek <b>Onderwatershof</b> , Rijswijk <b>BaLaDe</b> , Waalwijk <b>'t Derkshoes</b> , Westerbork <b>Het Reggedal</b> , Enter <b>Het Spijk</b> , Eefde	<b>Bergweg</b> , Rotterdam <b>De Pleinen</b> , Ede <b>Reinaldahuis</b> , Haarlem <b>Parc Imstenrade</b> , Heerlen <b>Menno Simons</b> , Amsterdam <b>Mercator</b> , Groningen <b>Huis ter Leede</b> , Leerdam
mixed with higher and/or no care need	absent	absent	<b>Malburgstaete</b> , Arnhem

<b>Physical scale – Social quality of housing</b> <b>18 quotes to analyze</b>	<b>number of quotes</b>
A high physical scale is needed for liveliness and a proper range of activities and groups.	5
Anonymity requires a high physical scale	1
On a low scale the fact that everybody knows each other has positive influence. Social control and social cohesion are more developed than on the higher physical scale	3
<p><b><i>Decision maker – Onderwatershof, Medium large - Mixed with higher care need – Quality</i></b></p> <p><i>When we thinks upwards ... they say: a minimum of 350 is needed, not because of financing but for a certain liveliness and mix and the fact that you can enter with a certain anonymity ... with merely 60 inhabitants you can't run a restaurant. At least 120 are needed. We wanted a restaurant anyway ... Quality above financing.</i></p> <p><b><i>Decision maker - De Berken, Extra small, Mixed with higher care need –Basic</i></b></p> <p><i>O yeah, de atmosphere is very much 'like knows like'... When there is a activity intramural as well as extramural joins in. People know each other, you see...</i></p>	
<b>Physical scale – Finance / Legislation</b> <b>115 quotes to analyze</b>	<b>number of quotes</b>
A certain physical scale and an amount of care indication hours is necessary to make ends meet for care organisations. People with a low care need are financially not lucrative. Services like, a restaurant, grocery store or night shift require a particular scale to be profitable.	4
Change in law: people should have a health indication in order to enter an ALF	5
Organizations have become more aware of the actual cost of housing	1
<p><b><i>Decision maker – Onderwatershof, Medium large - Mixed with higher care need – Quality</i></b></p> <p><i>My mother lived with 6 in a small scale housing project ... and then it became 7 and after that 8 ... This is invented behind a desk. Small scale doesn't work, 14 neither... when you start night shifts and demands getting crazier and crazier ...</i></p> <p><b><i>Decision maker De Wemel, Extra small, 55+ with no or modest care – Basic</i></b></p> <p><i>We own the new project I mentioned before. With 150, 155 dwellings ... In 4 little towers but on one lot. That was the final project the province would approve at that time regarding large scale building.</i></p>	



## Guided by quality drivers or institutional drivers?

- Legislation and financing determine emphatically: Assisted Living Facilities clearly changed in the examined period, with a heavier group mix
- Concerning this change in group mix, financial drivers are guiding, qualitative drivers are professed
- For new projects in this decade, more than ever the focus is on financial outputs because of the released legislation and the precarious financing
- For answers regarding quality, initiators are looking for evidence based indicators, now basing themselves on collective trends

[illegible]

## Next steps

April-Aug '12:

Elaboration quantitative analysis 265 projects in SPSS

Combined qualitative narrative and quantitative analysis in Atlas ti  
260 interviews inhabitants, initiators and professionals

Paper presentations ENHR 2012 Lillehammer (decision making) and  
ISG\*ISARC2012 (experienced SQH inhabitants) Eindhoven

Sept-Nov'12

Concept Assisted Living Atlas, Feedback decision makers  
Presentation Zorgvisie Bouwdag

April-December '12: Thesis

Spring '13: Assisted Living Atlas online

Spring '13: Defending thesis



# thank you for your attention



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ENHR, June, 24<sup>th</sup> 2012

[www.han.nl/aih](http://www.han.nl/aih)