Healthy Urban Areas

A qualitative research on how private developers can steer towards the realisation of health-promoting urban areas

JOSEFIEN HEIJBROEK (5021006)

TU Delft heijmans

AGENDA

1. Introduction
2. Literature research
3. Empirical research
4. Synthesis & Validation
5. Discussion & Conclusion

NOS Nieuws • Zondag 19 oktober, 09:00 • Aangepast zondag 19 oktober, 10:10

Patiëntenorganisaties waarschuwen: goede zorg wordt iets voor de rijken

(NOS, 2025)

NOS Nieuws • Maandag 8 september, 18:26 •
Aangepast maandag 8 september, 19:27

Werkdruk zorgmedewerkers nog hoger door minder inhuur van zzp'ers

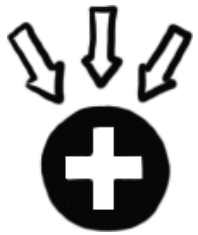
(NOS, 2025)

NOS Nieuws • Dinsdag 16 december, 09:53

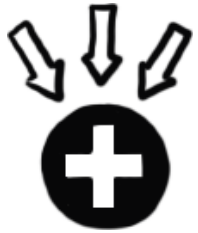
Vergrijzing zet door: voor het eerst meer ouderen dan jongeren in Nederland

(NOS, 2025)

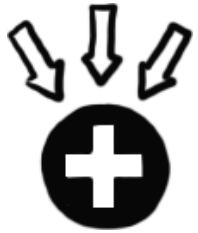
PROBLEM STATEMENT



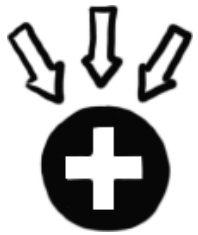
PROBLEM STATEMENT



PROBLEM STATEMENT



PROBLEM STATEMENT



RESEARCH QUESTION

How can developers steer towards the realisation of health-promoting urban areas?

RESEARCH STRUCTURE

Main question:	**How can developers steer towards the realisation of health-promoting urban areas?**				
Research type:	Literature research		Empirical research	Synthesis	Validation
Sub questions:	**SQ1:** What are the characteristics of a health-promoting urban area?	**SQ2:** How can the relationship between health-promoting urban areas, project developers, and steering roles be conceptualised?	**SQ3:** How do developers contribute to health-promoting urban areas in practice?	**SQ4:** How do theoretical and empirical findings compare in order to derive lessons for developers to realise health-promoting urban areas?	**SQ5:** How can lessons learned be shaped into validated recommended guidance for developers to support the realisation of health-promoting urban areas in the Netherlands?
Method:	Literature review		Document analysis, interviews with professionals, and resident interviews	Comparing and contrasting theory and empirical	Expert panel
Output:	Theoretical foundation Conceptual model		Cross-case analysis	Preliminary lessons learned	Validated recommended guidance for developers

2. LITERATURE RESEARCH

How can developers steer towards the realisation of health-promoting urban areas ?

How can developers steer towards the realisation of HEALTH-PROMOTING URBAN AREAS ?

- An area that stimulates healthy behaviours
- Systematic literature review

SOCIAL ENVIRONMENT

ACTIVE ENVIRONMENT

FACILITATING ENVIRONMENT

RESTORATIVE ENVIRONMENT

HEALTHY FOOD ENVIRONMENT

How can DEVELOPERS steer towards the realisation of health-promoting urban areas ?

- Private developers related to a construction firm
- Organisational system shaped by:

ORGANISATIONAL | LEGAL | FINANCIAL

How can developers STEER towards the realisation of health-promoting urban areas ?

- Multifaceted developer steering role
- Steering role → steering activities

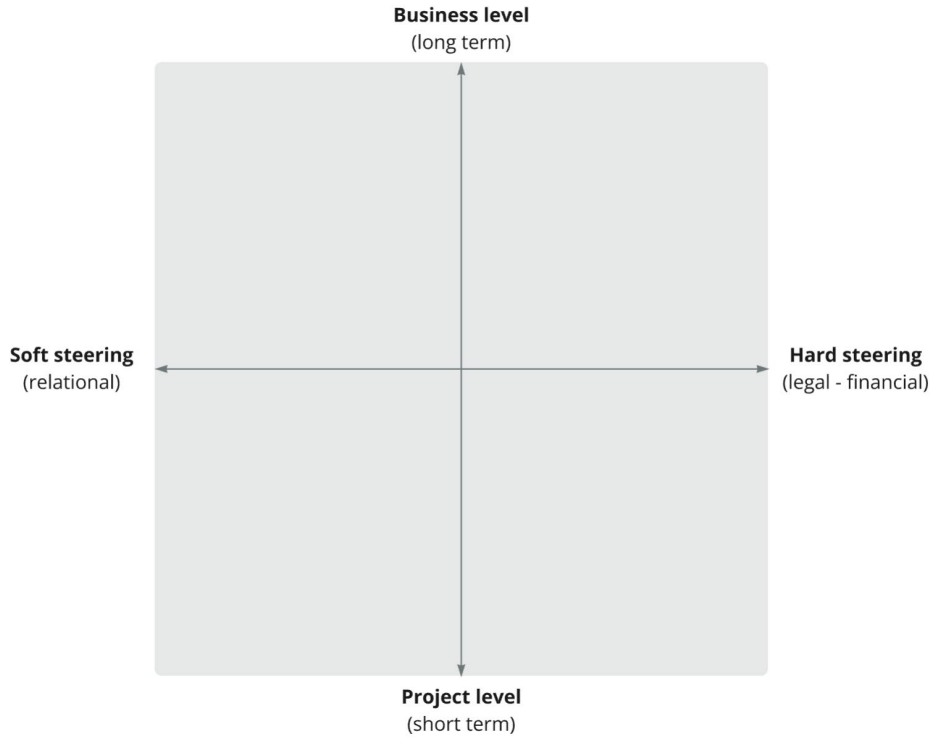


Figure: Multifaceted private steering role in urban development (translated from Heurkens, 2020).

CONCEPTUAL MODEL

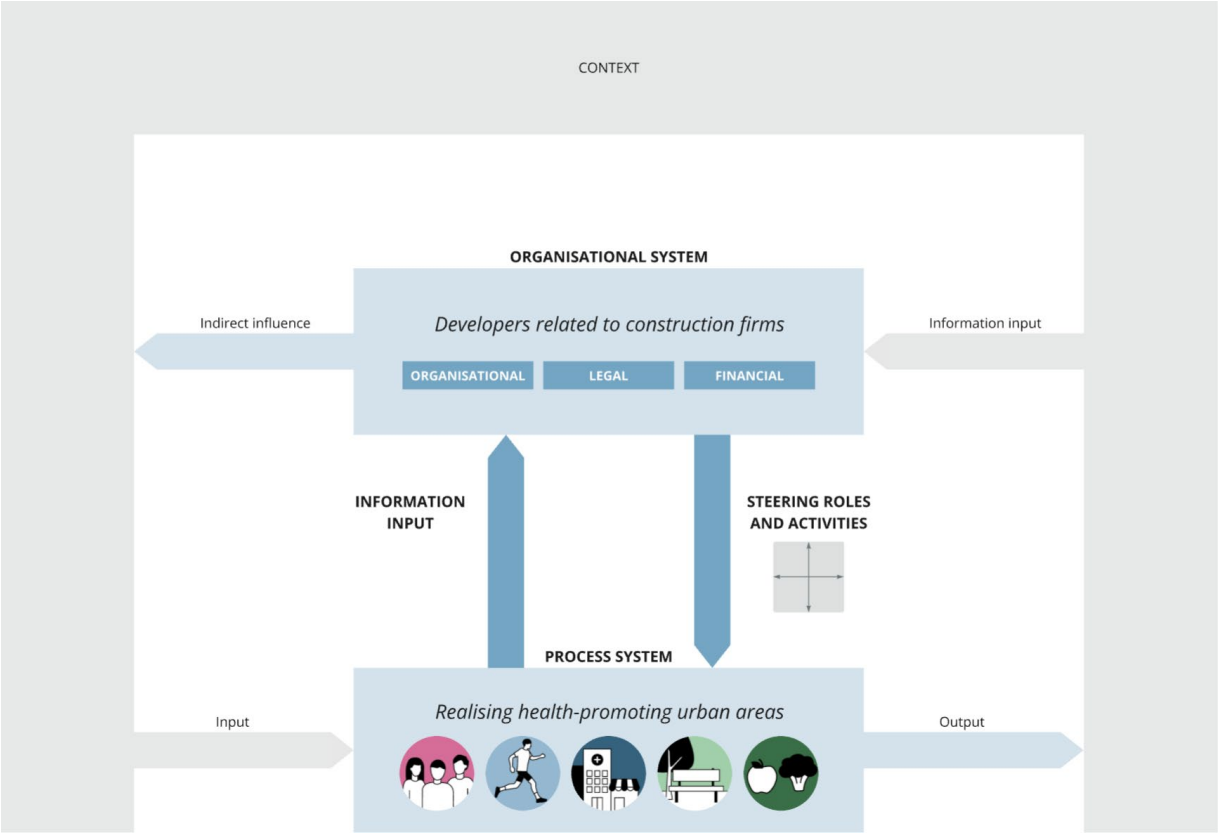


Figure: Conceptual steering model (own work, based on de Leeuw, 2002)

3. EMPIRICAL RESEARCH

CASE SELECTION

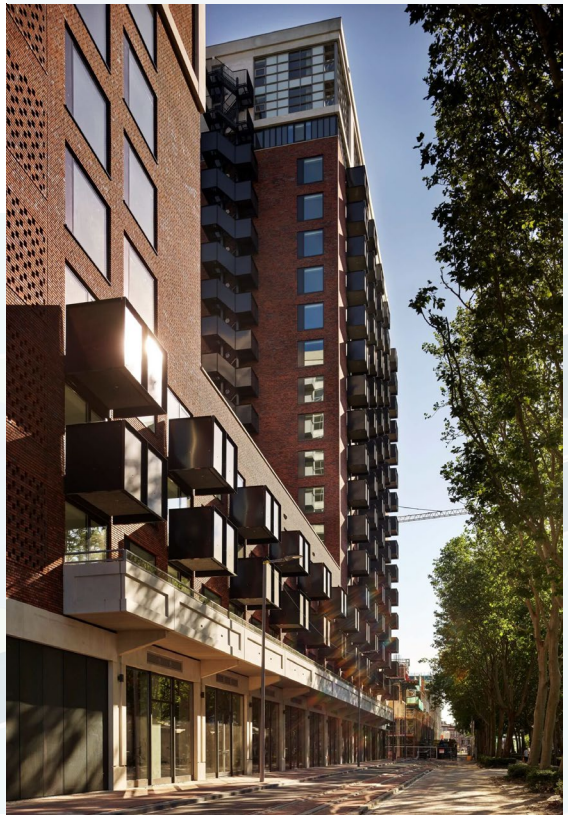
- Three cases situated in the same urban area

CASE SELECTION

- Three ca… area
- Critical c…

FENIX1

Cobana



De Groene Kaap

EMPIRICAL DATA COLLECTION

Scoping interview with a professional

Document analysis

Semi-structured interviews with professionals

Focus group interviews with residents

One-on-one interviews with residents

EMPIRICAL DATA COLLECTION

Scoping interview with a professional

Document analysis

Semi-structured interviews with professionals

Focus group interviews with residents

One-on-one interviews with residents

EMPIRICAL DATA COLLECTION

Scoping interview with a professional

Document analysis

Semi-structured interviews with professionals

Focus group interviews with residents

One-on-one interviews with residents

EMPIRICAL DATA COLLECTION

Scoping interview with a professional

Document analysis

Semi-structured interviews with professionals

Focus group interviews with residents

One-on-one interviews with residents

EMPIRICAL DATA COLLECTION

Scoping interview with a professional

Document analysis

Semi-structured interviews with professionals

Focus group interviews with residents

One-on-one interviews with residents

EMPIRICAL DATA COLLECTION

Scoping interview with a professional

Document analysis

Semi-structured interviews with professionals

Focus group interviews with residents

One-on-one interviews with residents

EMPIRICAL DATA COLLECTION

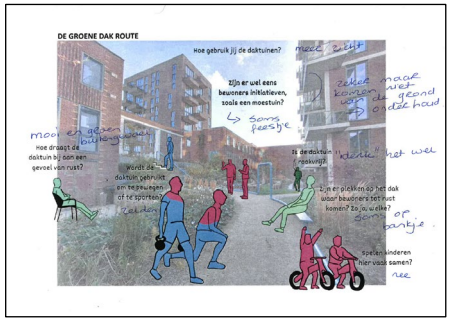
Scoping interview with a professional

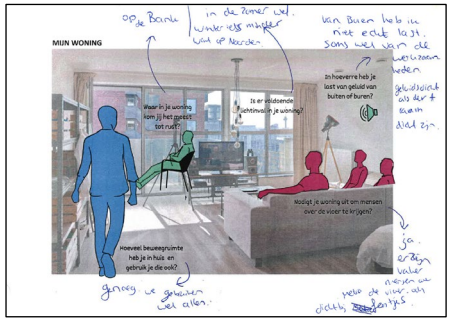
Document analysis

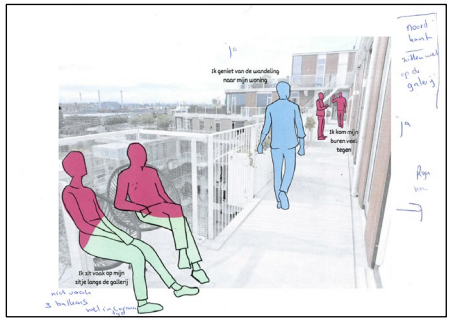
Semi-structured interviews with professionals

Focus group interviews with residents

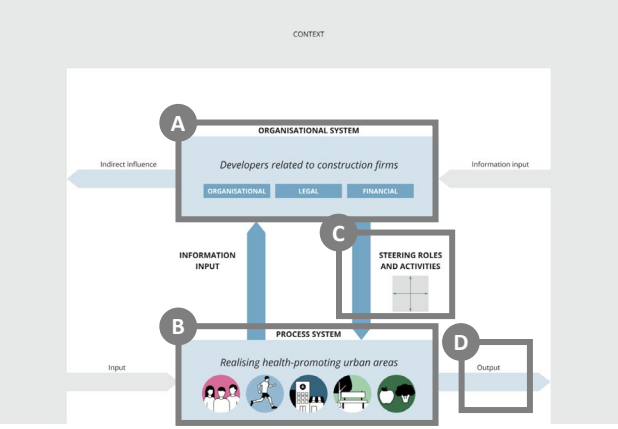
One-on-one interviews with residents



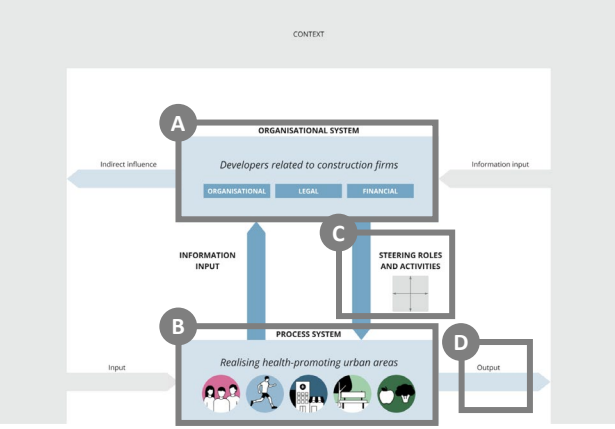




THEMATIC ANALYSIS APPROACH



IN-CASE ANALYSIS

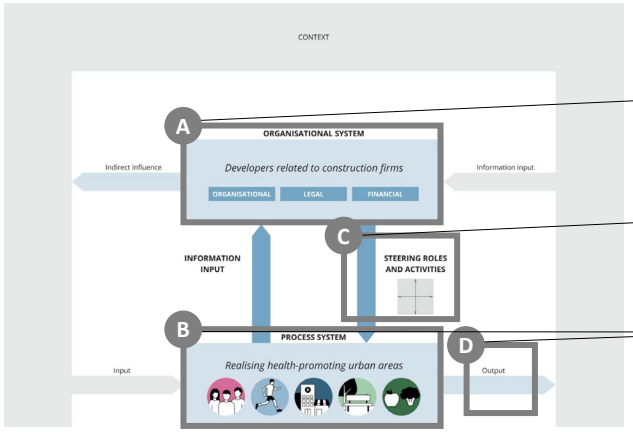


FENIX1

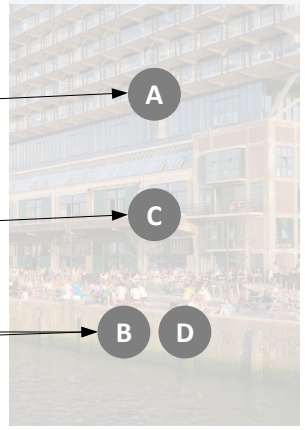
Cobana

De Groene Kaap

IN-CASE ANALYSIS



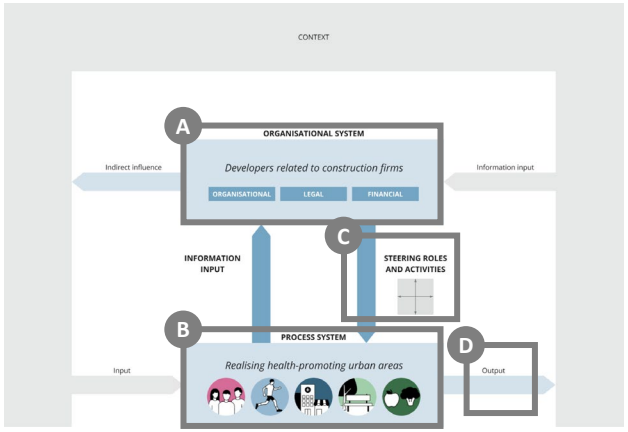
FENIX1



Cobana

De Groene Kaap

CROSS-CASE ANALYSIS



FENIX1	Cobana	De Groene Kaap	SIMILARITIES	DIFFERENCES
A	A	A	X	✓
C	C	C	X	✓
B D	B D	B D	X	✓

CROSS-CASE ANALYSIS: A ORGANISATIONAL SYSTEM

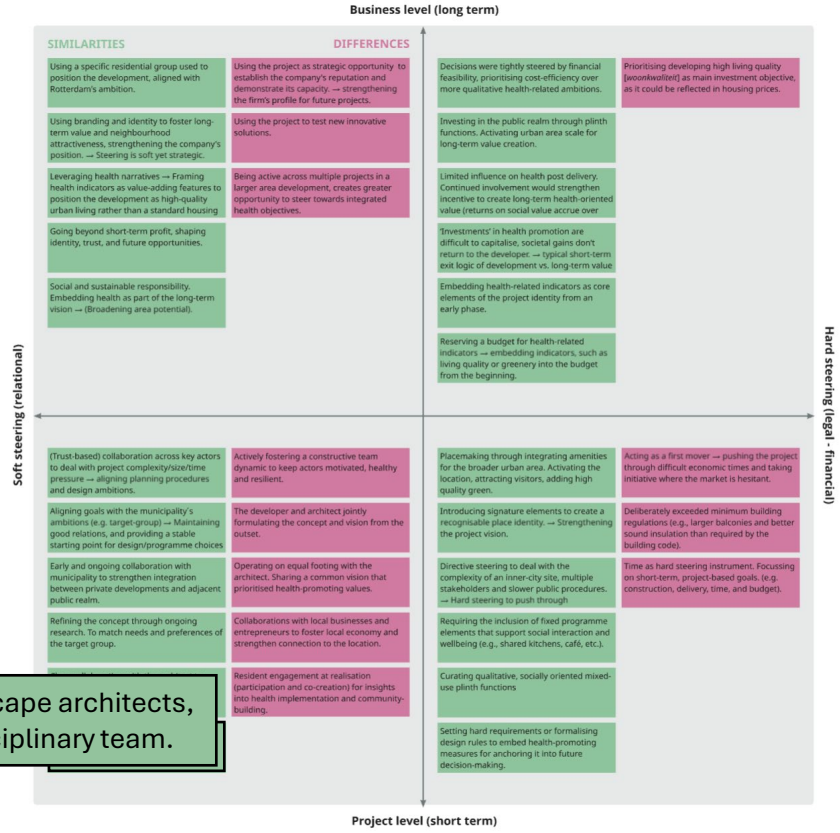
CROSS-CASE ANALYSIS: A ORGANISATIONAL SYSTEM

- Organisational, legal, and financial factors
- **Lessons learned:** steering activities for developers

CROSS-CASE ANALYSIS: C STEERING ROLES

CROSS-CASE ANALYSIS: C STEERING ROLES

- **Lessons learned:** also steering activities for developers
- Organised using the steering dimensions



Consult experts (e.g. landscape architects, ecologists) in a cross-disciplinary team.

CROSS-CASE ANALYSIS: B D HEALTH-PROMOTING INDICATORS

CROSS-CASE ANALYSIS: B D HEALTH-PROMOTING INDICATORS

- Intentions from **professionals vs.** experiences from **residents**
- **Lessons leaned:** matches and mismatches

SOCIAL ENVIRONMENT

ACTIVE ENVIRONMENT

FACILITATING ENVIRONMENT

RESTORATIVE ENVIRONMENT

HEALTHY FOOD ENVIRONMENT

CROSS-CASE ANALYSIS: B D HEALTH-PROMOTING INDICATORS

[over de gallerijen] ***“ik zie regelmatig iemand aan de andere kant lopen en dan zwaai ik van ‘hey even beneden afspreken’”*** *– resident (resident 11, 2025).*

FENIX1

Cobana

De Groene Kaap

CROSS-CASE ANALYSIS: B D HEALTH-PROMOTING INDICATORS

FENIX1

Cobana

X

"no offence, de saaiste daktuin die ik ooit heb gezien"
– resident (resident 10, 2025).

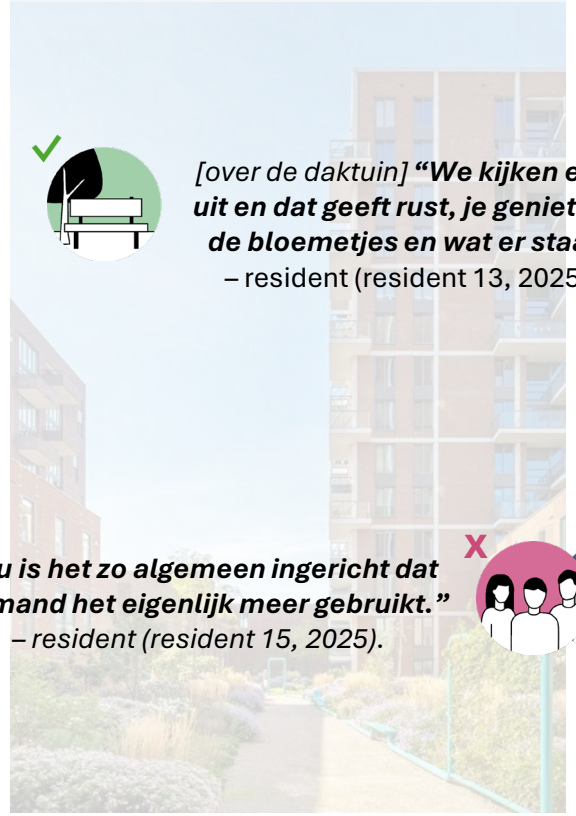
De Groene Kaap

CROSS-CASE ANALYSIS: B D HEALTH-PROMOTING INDICATORS

FENIX1

Cobana

De Groene Kaap



[over de daktuin] ***"We kijken er op uit en dat geeft rust, je geniet van de bloemetjes en wat er staat"*** – resident (resident 13, 2025).

"Nu is het zo algemeen ingericht dat niemand het eigenlijk meer gebruikt." *– resident (resident 15, 2025).*

4. SYNTHESIS & VALIDATION

SYNTHESIS & VALIDATION

Synthesis

- Combining the ‘lessons learned’
- Develop preliminary results
- Research-by-design approach

Expert panel

- Three experts
- Assessing preliminary results
- Refining the results

SYNTHESIS & VALIDATION

Synthesis

- Combining the ‘lessons learned’
- Develop preliminary results
- Research-by-design approach

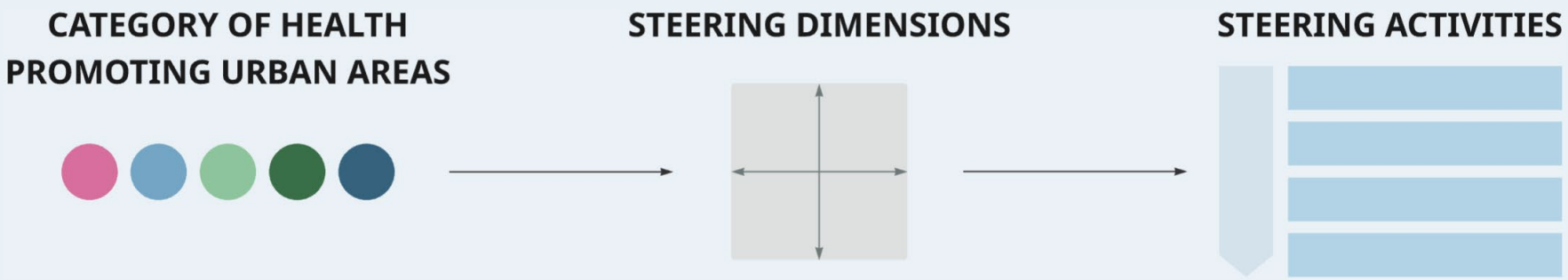
Expert panel

- Three experts
- Assessing preliminary results
- Refining the results

RESULTS

RECOMMENDED GUIDANCE

- For developers to achieve the realisation of a health-promoting urban area
- Eight principles



RECOMMENDED GUIDANCE

…community bu… throughout the development process, including a soft landing.

	STEERING ACTIVITIES
INITIATIVE PLAN. & DESIGN	Use project branding and project identity as a means to embed and communicate health ambitions.
	Ensure that adequate time is reserved for integrating health ambitions.
	Continually research the target group's lifestyles, needs and preferences (related to community involvement and social cohesion).
	Navigate municipal frameworks, actively explore where adjustments are possible and negotiate changes when necessary.
	During investor selection, consider the investor's ambitions and/or willingness to collaborate on health-related goals.
REALISATION	Engage future residents during the realisation phase (for example through participation, co-creation, or co-design).
	Deliberately plan sufficient phasing in project delivery.
	Set-up clear post-delivery agreements on long-term management and responsibility structures (e.g. support the establishment of a homeowners' association).
	Introduce a community manager or neighbourhood coach [*buurtcoach*] (or similar), to ensure activation of shared amenities.
MAINTENANCE	Temporary developer involvement after delivery, taking a proactive initial role in activating shared amenities.

…l elements that sup… ontaneous (social) encounters and ensure inclusion.

	STEERING ACTIVITIES
INITIATIVE PLAN. & DESIGN	Embed health-related indicators on social interaction as integral components of the project from the initiation or early planning & design development phase.
	Strategically use the architect selection process to secure design expertise aligned with social and inclusive design principles (ensure like-minded ambitions).
	Prioritise a select set of health ambitions and indicators.
	Allocate a dedicated budget for health-promoting indicators (e.g. reserving funds for community spaces from the outset).
	Leverage large-scale, mixed-use programmes to create financial and spatial capacity to incorporate socially oriented design principles.
	Introducing fixed programme elements that support informal social interaction.
	Collaborate closely with the architect to ensure like-mindedness and embed spatial strategies that support social cohesion and inclusiveness in the design.
REALISATION	Plan systematic monitoring across the development process to ensure that the ambitions are retained through design and execution.

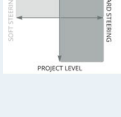
…g circulation ro… well-designed physical infrastructure to encourage everyday movement.

	STEERING ACTIVITIES
INITIATIVE PLAN. & DESIGN	Embed health-related indicators on movement and activity as integral components of the project identity from the initiation or early planning and design development phase.
	Strategically use the architect selection process to secure design expertise aligned with physical-activity-stimulating design principles.
	Prioritise a select set of health ambitions and indicators.
	Allocate a dedicated budget for health-promoting indicators (e.g. reserving funds for indicators that promote movement, play and sports from the outset).
	Leverage large-scale, mixed-use programmes to create financial and spatial capacity to incorporate socially oriented design principles.
	Introduce fixed programme elements that naturally encourage active behaviour (e.g. prominent, easily accessible central stairs).
	Exceed minimum building standards where beneficial (e.g. regarding bicycle storage).
REALISATION	Plan systematic monitoring across the development process to ensure that the ambitions are retained through design and execution.

…menities and pl… ctions to offer low-threshold sport and play facilities (tailored to the target group).

	STEERING ACTIVITIES
PLAN. & DESIGN	Continually research the target group's lifestyles, needs and preferences (to ensure subsequent decisions align with it).
	Identify and clearly define initial target groups early to provide a stable basis for design and programme choices (periodically reassess these definitions as new information becomes available).
	Select target groups underserved in the local housing market to ensure demand and reduce financial risk, enabling investment in health indicators.
	Introduce fixed programme elements that support physical activity
REALISATION	Plan systematic monitoring across the development process (to ensure that the ambitions are retained through design and execution).
	Treat (sports and play) amenities and facilities as integral components of the building (position them as value-adding features both financial and in terms of health, in communication with investors and residents).
	Collaborate with local businesses and entrepreneurs to strengthen connections to the location and increase likelihood of use (by the wider urban area).
	Apply placemaking strategies that integrate broader-area amenities, activate the location through attractive, high-quality public spaces.

…inimum building re… nts to create high-quality indoor living environments.



	STEERING ACTIVITIES
INITIATIVE PLAN. & DESIGN	Ensure that adequate time is reserved for exploring and integrating indoor environmental quality ambitions.
	Prioritise a select set of health indicators, including those on indoor living quality (as main investment objective).
	Allocate a dedicated budget for health-promoting indicators (e.g. reserving funds for high-performance sound proofing).
	Navigate municipal frameworks, actively explore where adjustments are possible and negotiate changes when necessary (for optimal building performance and indoor environmental quality).
	Exceeding minimum building standard (e.g. building code).
	Present health indicators as value-adding features (to position the development as more than a standard housing product).
REALISATION	Keep architect engaged throughout realisation phase to maintain design and health-promoting qualities.

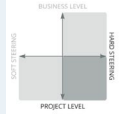
…h-quality, pu… …iven greenery at building and neighbourhood level.

	STEERING ACTIVITIES
INITIATIVE PLAN. & DESIGN	Embed health-related indicators on greenery as integral components of the project identity from the initiation or early planning & design development phase.
	Introducing signature elements to create a recognisable place identity (anchoring health-related project visions).
	Apply placemaking strategies that integrate broader-area amenities and activate the location through attractive public spaces.
	Use project branding to embed greenery into the project identity (to retain health ambitions throughout the development process).
	Prioritise a select set of health ambitions and indicators.
	Allocate a dedicated budget for health-promoting indicators (e.g. reserving funds for high quality greenery from the outset).
	Leverage large-scale, mixed-use programmes to create financial and spatial capacity to incorporate health-related design principles.
	Consult specialised designers and experts (e.g. landscape architects, ecologists) in a cross-disciplinary team for high-quality green design and integration.
	Select investors who are committed to maintaining high-quality greenery and supporting long-term health-related goals.
REALISATION	Plan systematic monitoring across the development process to ensure that the greenery ambitions are retained through design and execution.
	Set-up clear post-delivery agreements on long-term management and responsibility structures.
MAINTENANCE	Temporary developer involvement after delivery, taking a proactive initial role in activating shared amenities.

…level pro… …ning, supported by a soft landing, to develop a healthy food environment.

	STEERING ACTIVITIES
INITIATIVE PLAN. & DESIGN	Embed indicators on healthy food as integral components of the project identity from the initiation or early planning & design development phase.
	Align project goals with municipal ambitions on healthy and sustainable food systems (to provide a stable basis for design and programme choices).
	Plan systematic monitoring across the development process to ensure that the ambitions are retained through design and execution.
	Collaborate with local businesses, entrepreneurs or educational organisations involved in food production, cooking, nutrition education.
REALISATION	Select investors who are committed to supporting (long-term) healthy food environments.
	Curate high-quality, socially oriented mixed-use plinth functions that support food-related activities (e.g., cafés, small local food outlets, or educational spaces).
	Deliberately plan sufficient phasing in project delivery (to enable early activation and sustained use of food-related amenities).
	Reinvest part of the profit into shared amenities and socially oriented facilities, that support healthy food environments, where feasible.
	Set-up clear post-delivery agreements on long-term management and responsibility structures (for food-related spaces).
	Introduce a community manager or neighbourhood coach [*buurtcoach*] (or similar), to ensure activation of (shared) food-related spaces and amenities.
MAINTENANCE	Temporary developer involvement after delivery to support the initial activation of shared cooking spaces, gardens, or other food-related facilities.

…mming of all no… …ential functions with the needs and preferences of the target group.

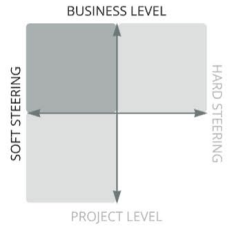


	STEERING ACTIVITIES
INITIATIVE PLAN. & DESIGN	Continually research the target group's lifestyles, needs and preferences (to ensure subsequent decisions align with it).
	Identify and clearly define initial target groups early to provide a stable basis for design and programme choices (periodically reassess these definitions as new information becomes available).
	Select target groups underserved in the local housing market to ensure demand and reduce financial risk, enabling investment in health indicators.
	Plan systematic monitoring across the development process to ensure that the ambitions are retained through design and execution.
	Design flexible plinth and communal spaces that can support multiple functions over time (e.g. through neutral layouts and adaptable utility infrastructure), to accommodate shifts in actual residents of building users.
	Treat communal and commercial spaces as integral components of the building (position them as value-adding elements both financial and in terms of health).
	Collaborate with local businesses and entrepreneurs (to foster the local economy and strengthen connections to the location).
	Use placemaking to integrate broader-area amenities and activate the location through attractive, high-quality public spaces.
REALISATION	Curate high-quality, socially oriented mixed-use plinth functions (that match current and anticipated user needs).
	Collaborate with nearby developments to steer on integrated, health-supportive and complementary functions in the wider urban area.

RECOMMENDED GUIDANCE

PRINCIPLE 1 - SOCIAL ENVIRONMENT

(Intentional) community building throughout the development process, including a soft landing.

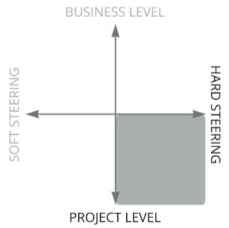


	STEERING ACTIVITIES
INITIATIVE PLAN. & DESIGN	Use project branding and project identity as a means to embed and communicate health ambitions.
	Ensure that adequate time is reserved for integrating health ambitions.
	Continually research the target group's lifestyles, needs and preferences (related to community involvement and social cohesion).
	Navigate municipal frameworks, actively explore where adjustments are possible and negotiate changes when necessary.
	During investor selection, consider the investor's ambitions and/or willingness to collaborate on health-related goals.
REALISATION	Engage future residents during the realisation phase (for example through participation, co-creation, or co-design).
	Deliberately plan sufficient phasing in project delivery.
	Set-up clear post-delivery agreements on long-term management and responsibility structures (e.g. support the establishment of a homeowners' association).
	Introduce a community manager or neighbourhood coach (or similar), to ensure activation of shared amenities (post delivery).
MAINTENANCE	Temporary developer involvement after delivery, taking a proactive initial role in activating shared amenities.

RECOMMENDED GUIDANCE

PRINCIPLE 2 - SOCIAL ENVIRONMENT

Design spatial elements that support spontaneous (social) encounters and ensure inclusion.

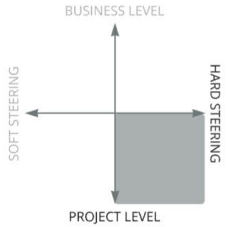


	STEERING ACTIVITIES
INITIATIVE PLAN. & DESIGN	Embed health-related indicators on social interaction as integral components of the project from the initiation or early planning & design development phase.
	Strategically use the architect selection process to secure design expertise aligned with social and inclusive design principles (ensure like-minded ambitions).
	Prioritise a select set of health ambitions and indicators.
	Allocate a dedicated budget for health-promoting indicators (e.g. reserving funds for community spaces from the outset).
	Leverage large-scale, mixed-use programmes to create financial and spatial capacity to incorporate socially oriented design principles.
	Introducing fixed programme elements that support informal social interaction.
	Collaborate closely with the architect to ensure like-mindedness and embed spatial strategies that support social cohesion and inclusiveness in the design.
REALISATION	Plan systematic monitoring across the development process to ensure that the ambitions are retained through design and execution.

RECOMMENDED GUIDANCE

PRINCIPLE 3 - ACTIVE ENVIRONMENT

Create inviting circulation routes and well-designed physical infrastructure to encourage everyday movement.

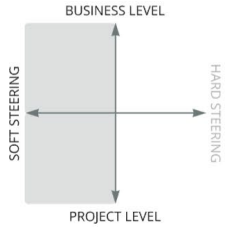


	STEERING ACTIVITIES
INITIATIVE PLAN. & DESIGN	Embed health-related indicators on movement and activity as integral components of the project identity from the initiation or early planning and design development phase.
	Strategically use the architect selection process to secure design expertise aligned with physical-activity-stimulating design principles.
	Prioritise a select set of health ambitions and indicators.
	Allocate a dedicated budget for health-promoting indicators (e.g. reserving funds for indicators that promote movement, play and sports from the outset).
	Leverage large-scale, mixed-use programmes to create financial and spatial capacity to incorporate socially oriented design principles.
	Introduce fixed programme elements that naturally encourage active behaviour (e.g. prominent, easily accessible central stairs).
	Exceed minimum building standards where beneficial (e.g. regarding bicycle storage).
REALISATION	Plan systematic monitoring across the development process to ensure that the ambitions are retained through design and execution.

RECOMMENDED GUIDANCE

PRINCIPLE 4 - ACTIVE ENVIRONMENT

Programme amenities and plinth functions to offer low-threshold sport and play facilities (tailored to the target group).

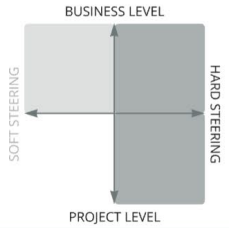


	STEERING ACTIVITIES
PLAN. & DESIGN	Continually research the target group's lifestyles, needs and preferences (to ensure subsequent decisions align with it).
	Identify and clearly define initial target groups early to provide a stable basis for design and programme choices (periodically reassess these definitions as new information becomes available).
	Select target groups underserved in the local housing market to ensure demand and reduce financial risk, enabling investment in health indicators.
	Introduce fixed programme elements that support physical activity
REALISATION	Plan systematic monitoring across the development process (to ensure that the ambitions are retained through design and execution).
	Treat (sports and play) amenities and facilities as integral components of the building (position them as value-adding features both financial and in terms of health, in communication with investors and residents).
	Collaborate with local businesses and entrepreneurs to strengthen connections to the location and increase likelihood of use (by the wider urban area).
	Apply placemaking strategies that integrate broader-area amenities, activate the location through attractive, high-quality public spaces.

RECOMMENDED GUIDANCE

PRINCIPLE 5 - RESTORATIVE ENVIRONMENT

Go beyond minimum building requirements to create high-quality indoor living environments.

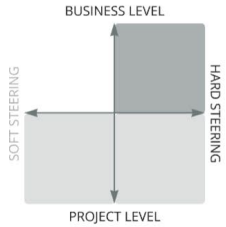


	STEERING ACTIVITIES
INITIATIVE PLAN. & DESIGN	Ensure that adequate time is reserved for exploring and integrating indoor environmental quality ambitions.
	Prioritise a select set of health indicators, including those on indoor living quality (as main investment objective).
	Allocate a dedicated budget for health-promoting indicators (e.g. reserving funds for high-performance sound proofing).
	Navigate municipal frameworks, actively explore where adjustments are possible and negotiate changes when necessary (for optimal building performance and indoor environmental quality).
	Exceeding minimum building standard (e.g. building code).
	Present health indicators as value-adding features (to position the development as more than a standard housing product).
REALISATION	**Keep the architect engaged throughout the realisation phase to maintain health-promoting qualities.**

RECOMMENDED GUIDANCE

PRINCIPLE 6 - RESTORATIVE ENVIRONMENT

Integrate high-quality, purpose-driven greenery at building and neighbourhood level.

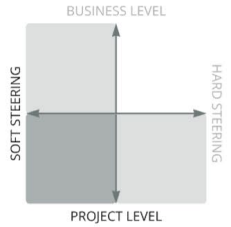


	STEERING ACTIVITIES
INITIATIVE PLAN. & DESIGN	Embed health-related indicators on greenery as integral components of the project identity from the initiation or early planning & design development phase.
	Introducing signature elements to create a recognisable place identity (anchoring health-related project visions).
	Apply placemaking strategies that integrate broader-area amenities and activate the location through attractive public spaces.
	Use project branding to embed greenery into the project identity (to retain health ambitions throughout the development process).
	Prioritise a select set of health ambitions and indicators.
	Allocate a dedicated budget for health-promoting indicators (e.g. reserving funds for high quality greenery from the outset).
	Leverage large-scale, mixed-use programmes to create financial and spatial capacity to incorporate health-related design principles.
	Consult specialised designers and experts (e.g. landscape architects, ecologists) in a cross-disciplinary team for high-quality green design and integration.
	Select investors who are committed to maintaining high-quality greenery and supporting long-term health-related goals.
REALISATION	Plan systematic monitoring across the development process to ensure that the greenery ambitions are retained through design and execution.
	Set-up clear post-delivery agreements on long-term management and responsibility structures.
MAINTENANCE	Temporary developer involvement after delivery, taking a proactive initial role in activating shared amenities.

RECOMMENDED GUIDANCE

PRINCIPLE 7 - HEALTHY FOOD ENVIRONMENT

Use building-level programming, supported by a soft landing, to develop a healthy food environment.

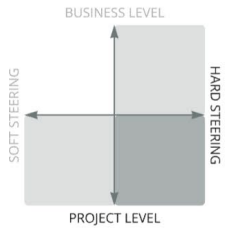


	STEERING ACTIVITIES
INITIATIVE PLAN. & DESIGN	Embed indicators on healthy food as integral components of the project identity from the initiation or early planning & design development phase.
	Align project goals with municipal ambitions on healthy and sustainable food systems (to provide a stable basis for design and programme choices).
	Plan systematic monitoring across the development process to ensure that the ambitions are retained through design and execution.
	Collaborate with local businesses, entrepreneurs or educational organisations involved in food production, cooking, nutrition education.
REALISATION	Select investors who are committed to supporting (long-term) healthy food environments.
	Curate high-quality, socially oriented mixed-use plinth functions that support food-related activities (e.g., cafés, small local food outlets, or educational spaces).
	Deliberately plan sufficient phasing in project delivery (to enable early activation and sustained use of food-related amenities).
	Reinvest part of the profit into shared amenities and socially oriented facilities, that support healthy food environments, where feasible.
	Set-up clear post-delivery agreements on long-term management and responsibility structures (for food-related spaces).
	Introduce a community manager or neighbourhood coach [*buurtcoach*] (or similar), to ensure activation of (shared) food-related spaces and amenities.
MAINTENANCE	Temporary developer involvement after delivery to support the initial activation of shared cooking spaces, gardens, or other food-related facilities.

RECOMMENDED GUIDANCE

PRINCIPLE 8 - FACILITATING ENVIRONMENT

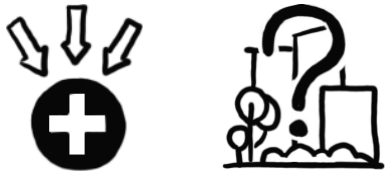
Align programming of all non-residential functions with the needs and preferences of the target group.



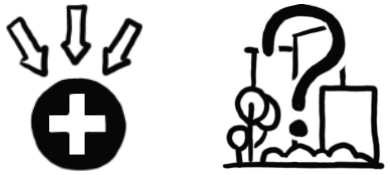
	STEERING ACTIVITIES
INITIATIVE PLAN. & DESIGN	Continually research the target group's lifestyles, needs and preferences (to ensure subsequent decisions align with it).
	Identify and clearly define initial target groups early to provide a stable basis for design and programme choices (periodically reassess these definitions as new information becomes available).
	Select target groups underserved in the local housing market to ensure demand and reduce financial risk, enabling investment in health indicators.
	Plan systematic monitoring across the development process to ensure that the ambitions are retained through design and execution.
	Design flexible plinth and communal spaces that can support multiple functions over time (e.g. through neutral layouts and adaptable utility infrastructure), to accommodate shifts in actual residents of building users.
	Treat communal and commercial spaces as integral components of the building (position them as value-adding elements both financial and in terms of health).
	Collaborate with local businesses and entrepreneurs (to foster the local economy and strengthen connections to the location).
	Use placemaking to integrate broader-area amenities and activate the location through attractive, high-quality public spaces.
REALISATION	Curate high-quality, socially oriented mixed-use plinth functions (that match current and anticipated user needs).
	Collaborate with nearby developments to steer on integrated, health-supportive and complementary functions in the wider urban area.

5. DISCUSSION & CONCLUSION

DISCUSSION



DISCUSSION



- Translating abstract health ambitions into developer-oriented principles.
- Alignment with RIVM & TNO (2025) – *Basisset Gezonde Leefomgeving*
- Intrinsic motivation is necessary.

DISCUSSION

- Limited influence beyond building scale.

DISCUSSION

- User perspectives are essential.
- Social environment reinforces other categories.

LIMITATIONS

- Composition and number of interviewees
- Small focus groups
- Researcher bias
- Local context
- Broad scope

CONCLUSION MAIN RQ

How can developers steer towards the realisation of health-promoting urban areas ?

- Integrating health ambitions early and consistently throughout the development process.

- Planning & design phase offers the greatest opportunities.
- Maintaining qualities requires ongoing monitoring and creating a “soft landing”.

- Achieving broader outcomes requires collaboration.
- User perspectives essential.

- **The study provides practical recommended guidance for developers.**

RECOMMENDATIONS

For practice

- Apply the results of this research
- Collaborate with the municipality
- Strengthen knowledge development and sharing

For future research

- The role of other actors
- Lack of precedents
- (Inter)national comparisons
- Quantifying healthy urban environments
- Barriers and drivers

RECOMMENDATIONS

For practice

- Apply the results of this research
- Collaborate with the municipality
- Strengthen knowledge development and sharing

For future research

- The role of other actors
- Lack of precedents
- (Inter)national comparisons
- Quantifying healthy urban environments
- Barriers and drivers

Healthy urban areas are necessary, but they do not emerge by chance; we need to treat health as a value-adding opportunity and embed it deliberately from the very start of development.

Thank you for listening

EXTRA SLIDES

EXTRA SLIDE

CONCLUSION PER SQ

SQ1

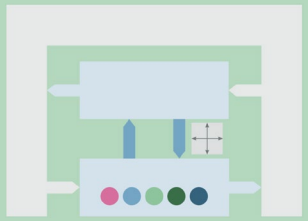
A **health-promoting urban area** is deliberately shaped to stimulate healthy behaviour.

5 categories identified, with characteristics of a health-promoting urban area:

Broken down into a comprehensive set of indicators.

SQ2

The relationship between *health-promoting urban areas, developers & steering* is conceptualised in a **conceptual steering model**:



SQ3

In practice developers integrated health-promoting qualities by shaping e.g.:

Communal spaces, circulation routes, greenery and mixed-use functions.

SQ4

The study **identified lessons** on how developers can steer towards health-promoting outcomes, which form the basis of the preliminary recommended guidance.

SQ5

The lessons were translated into **recommended guidance** to support **developers** in integrating health considerations into their projects.

EXTRA SLIDE

THEMATIC ANALYSIS APPROACH

Quotations / codes → identify themes

Deductive (closed) / inductive (open)

In-case + cross-case analysis

Interviews with professionals

Anonymise interview data *(Dutch)*

Interview summary *(Dutch)*

Analysis in Atlas.ti *(English)*

Interviews with residents

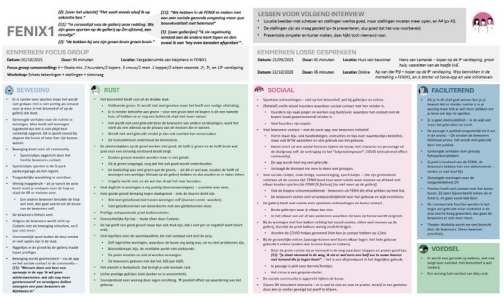
Interview summary *(Dutch)*

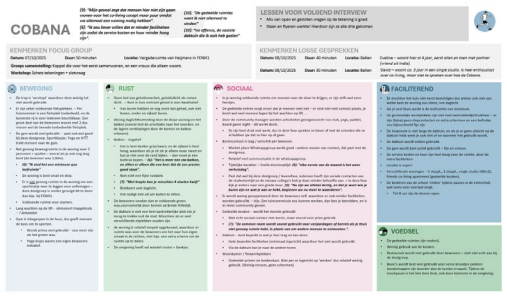
Analysis of interview findings *(English)*

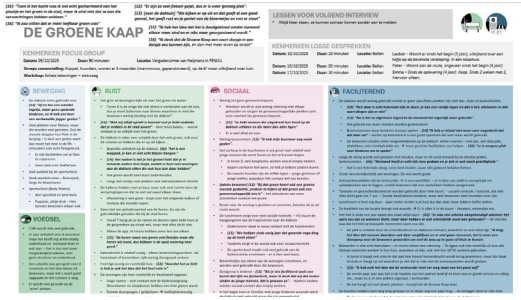
Developing preliminary lessons learned *(English)*

Validate the results and recommended guidance *(English)*

Categories





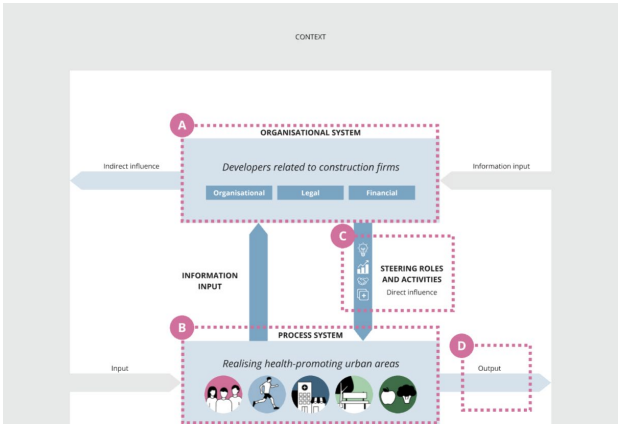


EXTRA SLIDE

CODING SCHEME

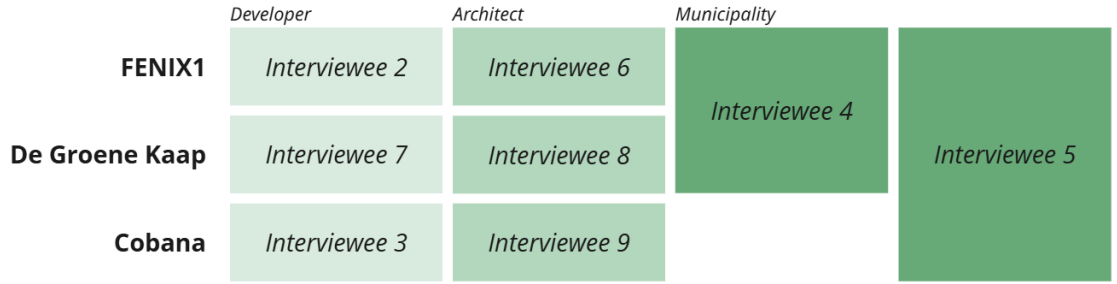
Table 18: Coding scheme for analysis of semi-structured interviews with professionals

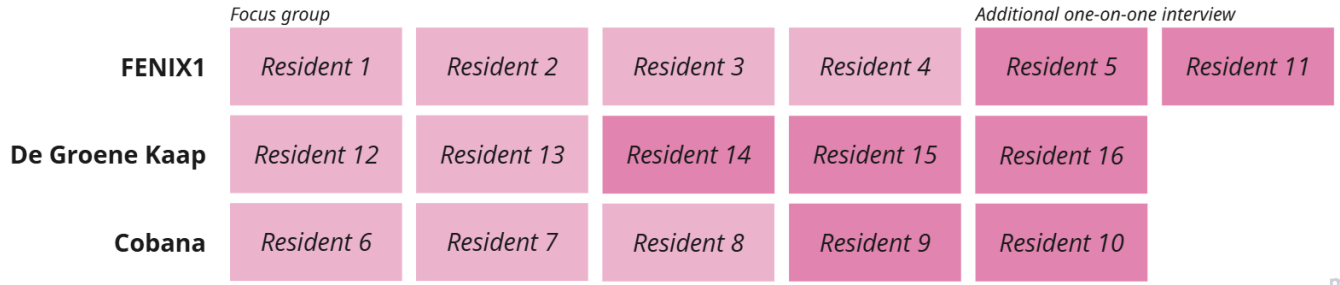
CODE GROUP	CODE LABEL	CODE DESCRIPTION	TYPE	LINK TO LITERATURE RESEARCH
A The organisational system	1. Timeline / project phase	*Timeline, project phase and involvement of diverse actors*	Open	
	2. Organisational factors	*Organisational factors that influenced steering*	Closed	Sec. 3.3.3 / 3.2.2 / 3.2.3
	3. Legal factors	*Legal factors that influenced steering towards*	Closed	Sec. 3.3.3 / 3.2.2
	4. Financial factors	*Financial factors that influenced steering towards*	Closed	Sec. 3.3.3
B Health-promoting urban areas	5. Social indicator	*Social environment indicators*	Closed	Sec. 3.1.4
	6. Restorative indicator	*Restorative environment indicators*	Closed	Sec. 3.1.4
	7. Active indicator	*Active environment indicators*	Closed	Sec. 3.1.4
	8. Healthy Food indicator	*Healthy Food environment indicators*	Closed	Sec. 3.1.4
	9. Facilitating indicator	*Facilitating environment indicators*	Closed	Sec. 3.1.4
	10. Other indicators	*Other indicators regarding the health of residents*	Open	
	11. Target group	*Indicator specifically related to target group of the dev.*	Closed	Sec. 3.2.4
C Steering and influence	12. Drivers	*Drivers for realising healthy urban areas*	Closed	Sec. 3.2.3 (*Incentives*)
	13. Barriers	*Barriers for realising healthy urban areas*	Open	
	14. Municipal involvement	*Includes: What would you have done different?*	Closed	Sec. 3.2.2 / 2.2.5
	15. Architect involvement	*Includes: What would you have done different?*	Closed	Sec. 3.2.2 / 2.2.5
	16. Investor involvement	*Investor influence/involvement*	Open	
	17. Other parties involved		Open	
	18. Entrepreneurial role	*Entrepreneurial developer steering role*	Closed	Sec. 3.3.4
	19. Investing role	*Investing developer steering role*	Closed	Sec. 3.3.4
	20. Collaborative role	*Collaborative developer steering role*	Closed	Sec. 3.3.4
	21. Initiating role	*Initiating developer steering role*	Closed	Sec. 3.3.4
Cases	22. Cobana		Closed	Sec. 4.1
	23. De Groene Kaap		Closed	Sec. 4.1
	24. FENIX1		Closed	Sec. 4.1
	25. Katendrecht / General		Open	



EXTRA SLIDE

DISTRIBUTION OF INTERVIEWEES





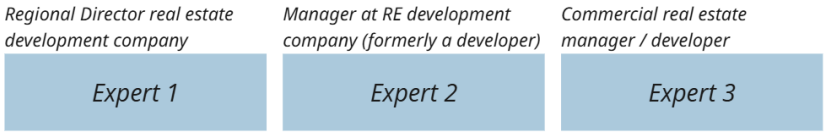


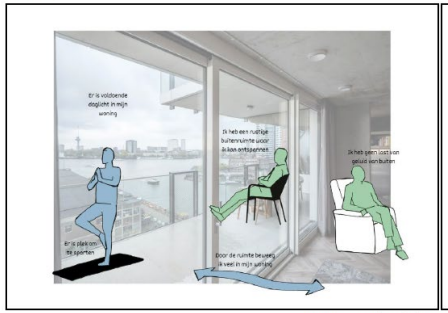
Table 17: Showing the diversity between the interviewed residents

CASE	PARTICIPANT	INTERVIEW TYPE	RENT/BUY	HOW LONG	AMOUNT	HOUSING TYPE
FENIX1	Resident 1	Focus group	Buy	ca. 8 years	1	10th floor
	Resident 2	Focus group	Rent		2	5e floor
	Resident 3	Focus group	Rent		2	5e floor
	Resident 4	Focus group	Rent	ca. 7 years	1	2e floor
	Resident 5	One-on-one	Rent	ca. 8 years	2	9e floor
	Resident 11	One-on-one	Rent	ca. 8 years	2	9e floor
De Groene Kaap	Resident 12	Focus group	Rent	ca. 0,5 years	2	App. with balcony
	Resident 13	Focus group	Rent	ca. 0,5 years	2	App. with balcony
	Resident 14	One-on-one	Buy	ca. 5 years	3	App. at courtyard
	Resident 15	One-on-one	Buy	ca. 4 years	4	Fam. house at route
	Resident 16	One-on-one	Rent	ca. 4 years	1	App. with balcony
Cobana	Resident 6	Focus group	Rent		2	1-room app.
	Resident 7	Focus group	Rent		2	1-room app.
	Resident 8	Focus group	Rent		1	1-room app.
	Resident 9	One-on-one	Rent	ca. 4 years	1 later 2	1-room app.
	Resident 10	One-on-one	Rent	ca. 3 years	1	Studio

EXTRA SLIDE

FOCUS GROUP DOCUMENTS

FENIX1



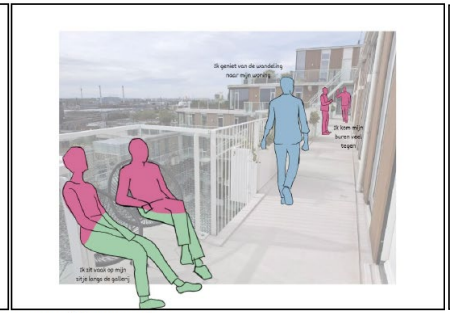
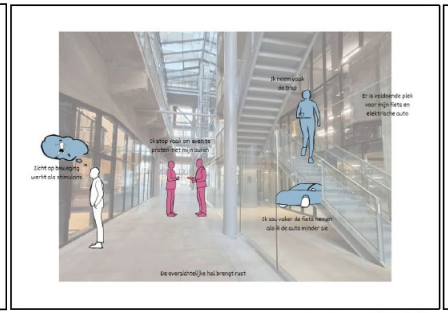


Figure 52 (left): (OSSIP, 2019) (own edits)
Figure 53 (rights) : (own photo) (own edits)



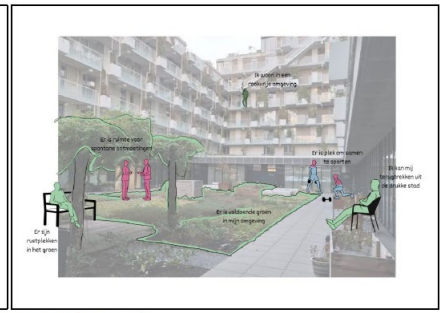
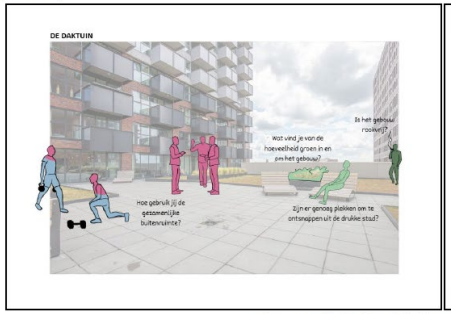
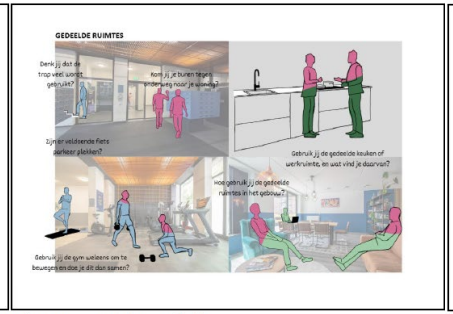


Figure 54 (left): (own photo) (own edits)
Figure 55 (rights): (own photo) (own edits)

Cobana





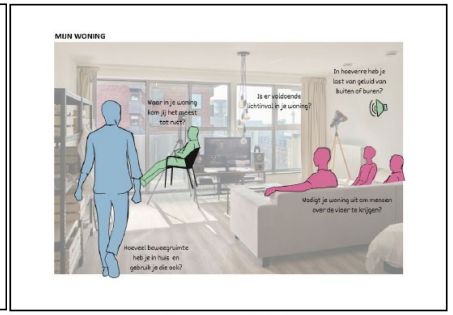
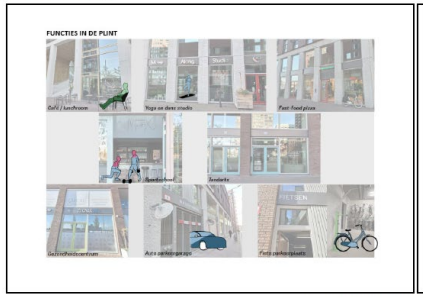


Figure 56 (left): (Rockfield Real Estate, 2025) (own edits)
Figure 57 (right): (Rockfield Real Estate, 2025; own photo) (own edits)

Figure 58: (Hummel, 2019) (own edits)

De Groene Kaap



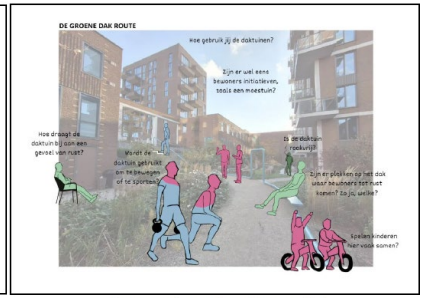


Figure 59 (left): (own photo's) (own edits)
Figure 60 (right): (own photo's) (own edits)

Figure 61: (own photo) (own edits)

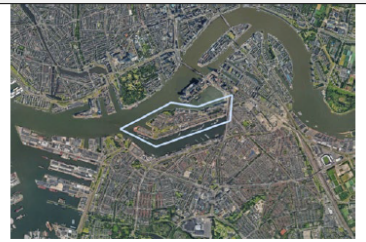
EXTRA SLIDE

URBAN AREA SELECTION

Table 4: Urban area selection criteria

METHOD		SELECTION CRITERIA	REASON
Case studies	1	An urban area within which multiple projects can be selected as case.	To research healthy urban areas through looking at individual projects. (More detail in paragraphs above).
	2	An urban area that has completed projects for a retrospective analysis.	To allow for evaluation of the project outcomes and derive the lessons learned, to inform the development of the conceptual framework.

Table 12: Urban area considered for the case study selection

Urban area		KATENDRECHT (ROTTERDAM ZUID)	KANALEN EILAND (UTRECHT)	DREVEN GAARDEN ZICHTEN (DEN HAAG ZUIDWEST)
Location				
Dev. timeline		*2006 – present*	*2002-2016*	*Circa. 2019 – present*
Selection criteria	1	*✓Includes 5 projects developed by Heijmans Vastgoed*	*✓Divided into 6 sub-plans.*	*✓3 smaller neighbourhoods form part of a larger urban area development.*
	2	*✓Last delivered project in 2023.*	*✓Completed in 2016.*	*✗First project delivered in autumn 2025.*
Sources		*(Cooiman, 2019; Heijmans, 2021)*	*(Heijmans, 2016)*	*(Gemeente Den Haag, 2025; Heijmans, 2022)*

EXTRA SLIDE

CASE SELECTION

Table 5: Case selection criteria

METHOD		SELECTION CRITERIA	REASON
Case studies	1	Availability of interviewees	To ensure sufficient interviews and data collection.
	2	Mixed programme within the building	To ensure the presence of diverse indicators for *health-promoting urban areas* (see Appendix 3).
	3	Project from a developer related to a construction firm.	To ensure relevance to the conceptual model and thus sufficient data for analysis (see Section 3.4).
	4	Completed projects for a retrospective analysis.	To allow for evaluation of the project outcomes and derive the lessons learned, to inform the development of the conceptual framework.

Table 13: Considered cases

Project		COBANA	FENIX1	PARKKWARTIER	HAVENKWARTIER	DE GROENE KAAP
Selection criteria	1	*(To be determined)*	*(To be determined)*	*(To be determined)*	*(To be determined)*	*(To be determined)*
	2	✓ *Residential units, flex workspaces, communal kitchen, restaurant.*	✓ *Residential units, restaurant, cultural cluster, offices, courtyard, public parking garage.*	✓/X *Residential units, Chinese church, primary school.*	✓/X *Residential units, commercial space, rooftop gardens, courtyard, private parking garage.*	✓ *Residential units, 2 sport centres, health centre, café, public rooftop gardens, courtyard, private parking garage.*
	3	✓ *Heijmans VG BV*	✓ *Heijmans VG BV*	✓ *Proper-Stok Groep (now Heijmans VG BV)*	✓ *Heijmans VG BV*	✓ *Stebru*
	4	✓ *Delivered in 2019*	✓ *Delivered in 2017*	✓ *Delivered in 2010*	✓ *Delivered in 2023*	✓ *Delivered in 2021*

Figure 20: Considered cases within Katendrecht (own work)

EXTRA SLIDE

ETHICS, DATA PLAN & TRUSTWORTHINESS

Ethical considerations

- Informed consent form
- Confidentiality and anonymity
- Data management and deletion
- Transparency with participants

Data plan

FAIR guiding principles are taken into account to enhance the reusability of scientific data.

- Findability
- Accessibility
- Interoperability
- Reusability

Data Management Plan

Strategies to ensure trustworthiness

- Credibility
- Transferability
- Dependability
- Confirmability