

DEVELOPING SUSTAINABLE MIXED-USE URBAN AREAS

Recommendations on product and process based on
theory and top-down and bottom-up planning examples
Overhoeks and Buiksloterham

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GRADUATION RESEARCH

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CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

Ever since starting my Bachelor of Architecture at the Delft University of Technology in 2010, I have been filled with the belief that architecture and urbanism are about so much more than just aesthetics and are a reflection of and a tool to shape the behaviour of people and societal processes. The rational side of architecture and urbanism, in which the design is first and foremost an adequate solution to a set task, has therefore always been central in my focus.



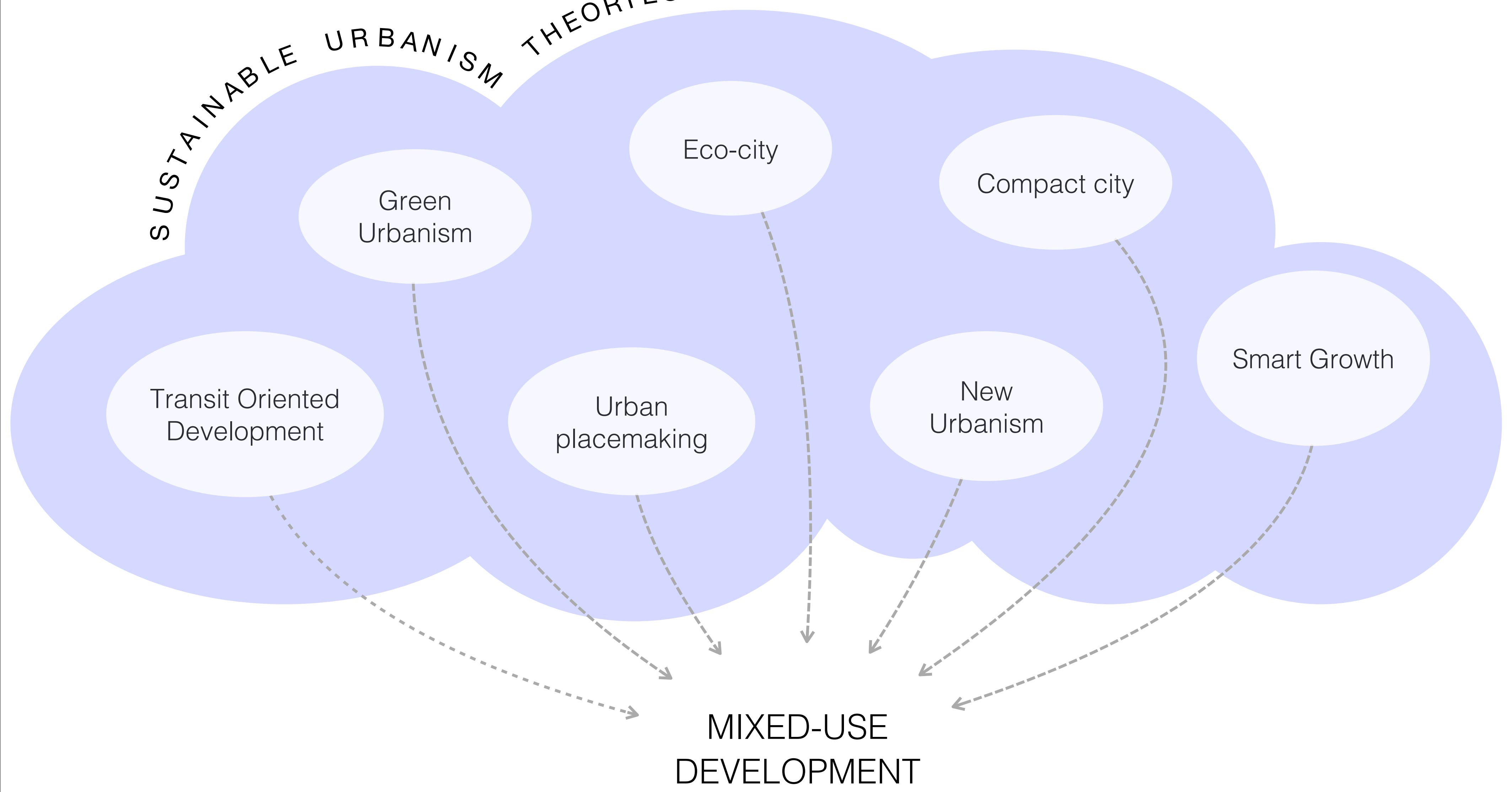
CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

In my opinion, this complex task facing real estate and urban area development today, is the challenge of finding a way to develop sustainable buildings and urban areas.

In the present era with the imminent climate change and the approaching end of the fossil-fuel period, this sense of sustainability is often compromised, especially in cities, as the sites of the largest conglomerations of people and resources.

In order for cities to be sustainable, urban areas must be designed in such a way that they create environmentally, economically and socially sustainable circumstances for urban life, without compromising the needs of future generations. This calls for a structured planning method.

SUSTAINABLE URBANISM THEORIES

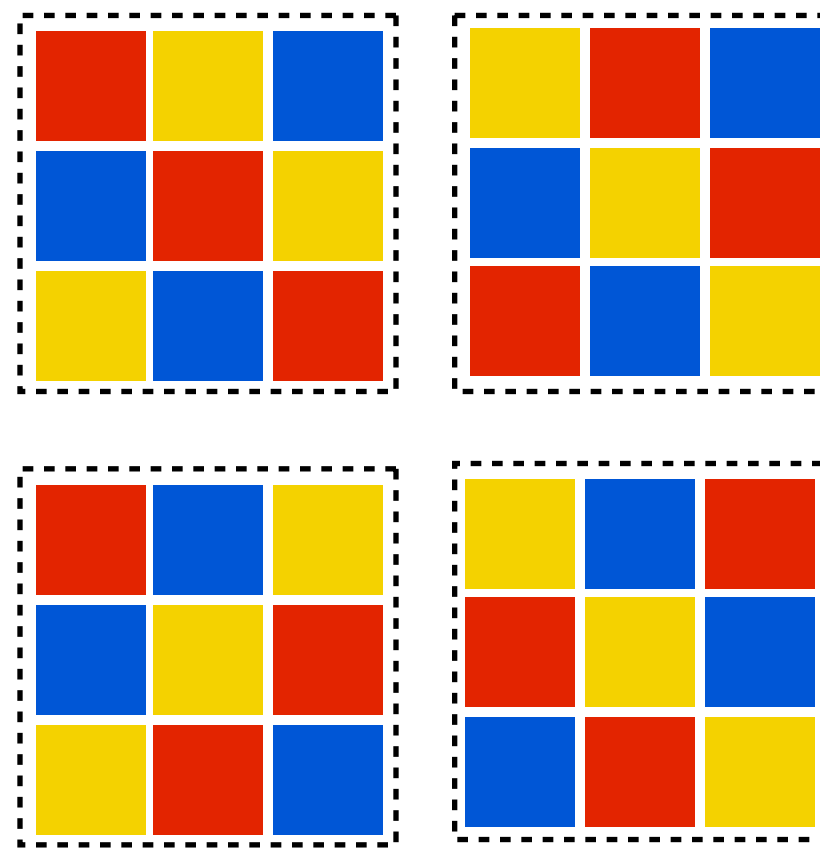


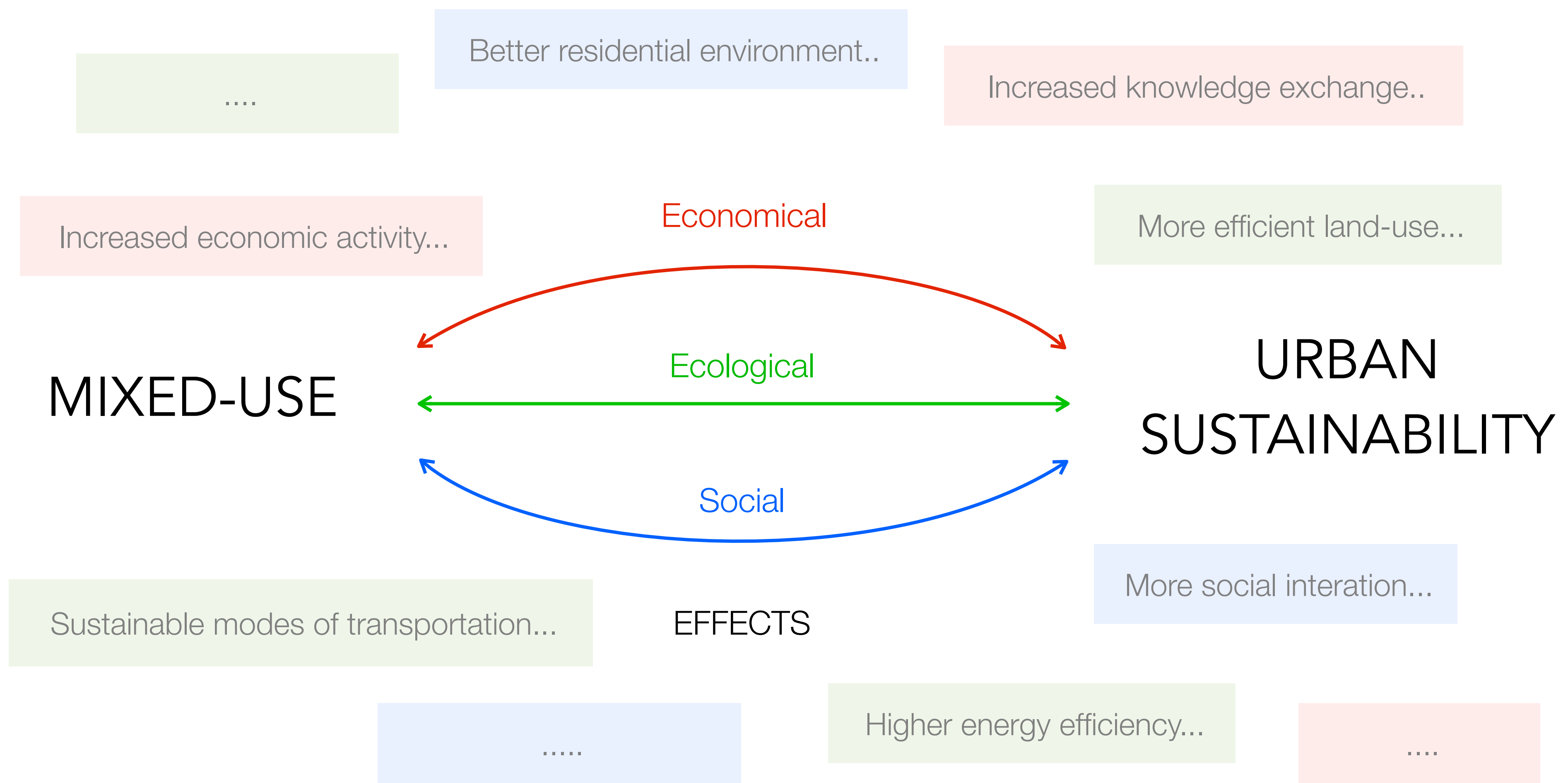
CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

Over my studies I've tried to focus on this subject, and while studying the many contemporary theories on sustainable urbanism, it struck me that almost all of them had one main concept at their core: Mixed-use development.

Mixed-use development:

The urban planning concept of integration of a variety of functions (= functional land-uses, ie. residential, commercial, industrial, etc.) in urban areas (*Miller & Miller, 2003; Jabareen, 2006*).





CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

Since the 1960's the concept of diversity as a requirement for a viable urban area emerged in urban planning literature, and from research and practice it has been shown that mixed-use development has a clear positive relationship with urban sustainability for numerous reasons, for example in terms of ecological footprint, transport, health and quality of life.

In this way, the concept of mixed-use has become widely applied in the practical urban planning field as a formula for achieving sustainable urban areas, and is adopted in urban development projects all over the world, including in the Netherlands.



CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

In practice however, we see that the concept of mixed-use does not always induce the sustainable effects that theory subscribes. Instead of inducing for example economic activity and social safety....



CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

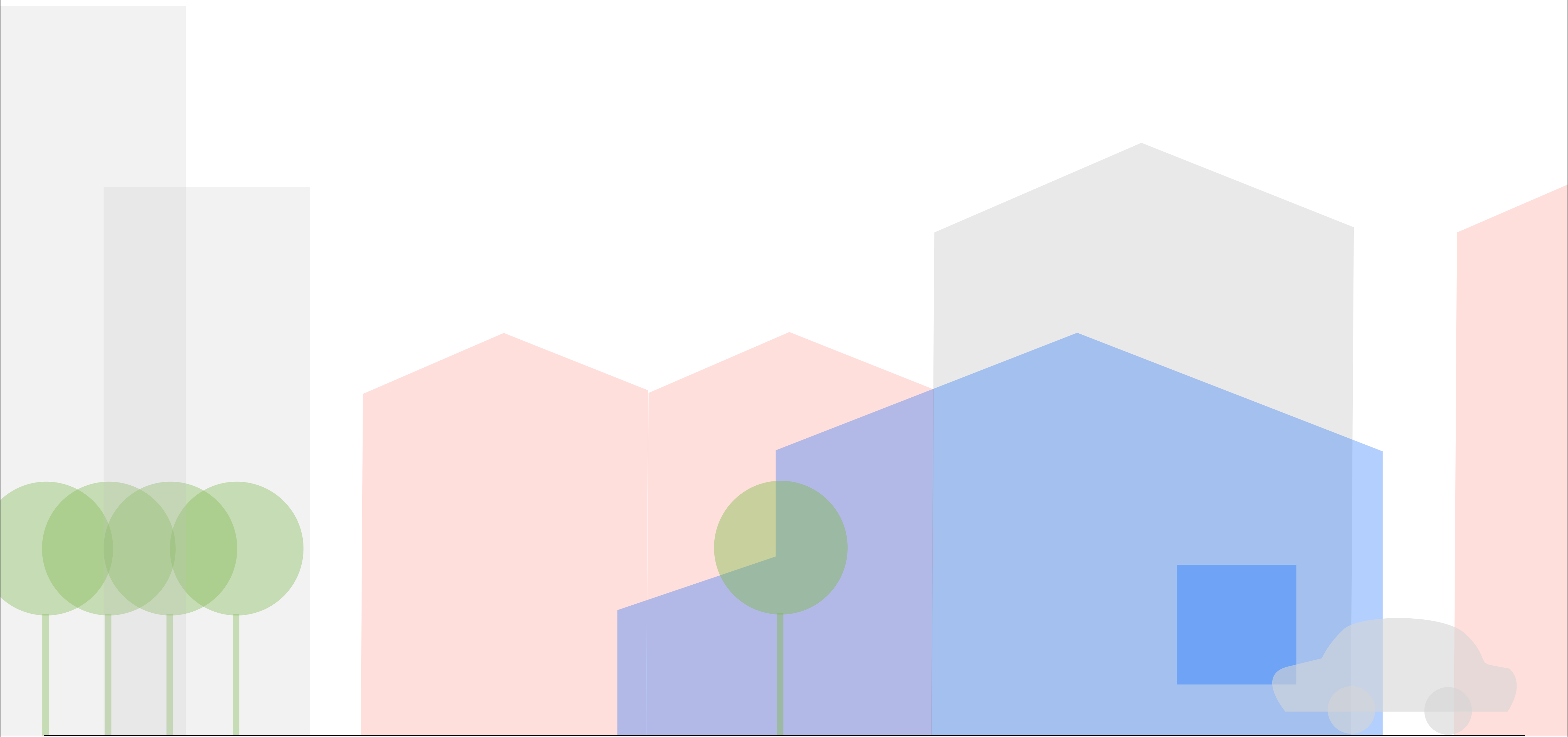
.....some projects achieve the opposite, as can be seen in this picture.

When looking at the way in which mixed-use development is implemented in practice, we see that the concept of mixed-use is interpreted in many different ways.

Residential

Recreational

Commercial



CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

Not only is the physical implementation of mixed-use in terms of urban form different, with for example different degrees of mixed-use and different distances between the functions...



CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

...also the design of the urban area development process employed for mixed-use areas varies greatly from project to project.

CONCEPT
Mixed-use
development

PRACTICE

- Different physical implementations of mixed-use in the development result

- Different mixed-use urban area development approaches

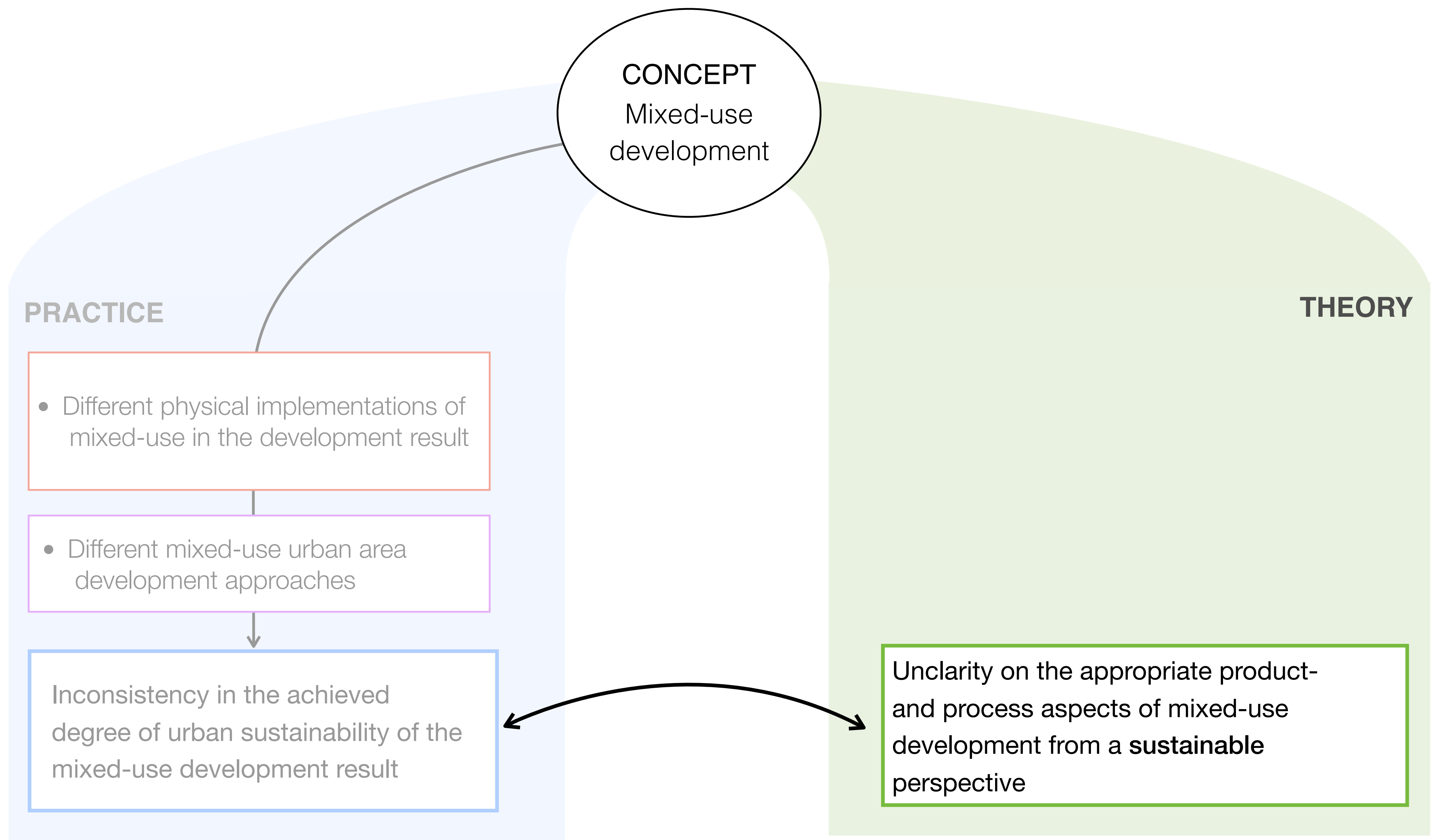
Inconsistency in the achieved degree of urban sustainability of the mixed-use development result



CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

But what is the underlying reason that some mixed-use developments are not achieving the full sustainability benefits of mixed-use?

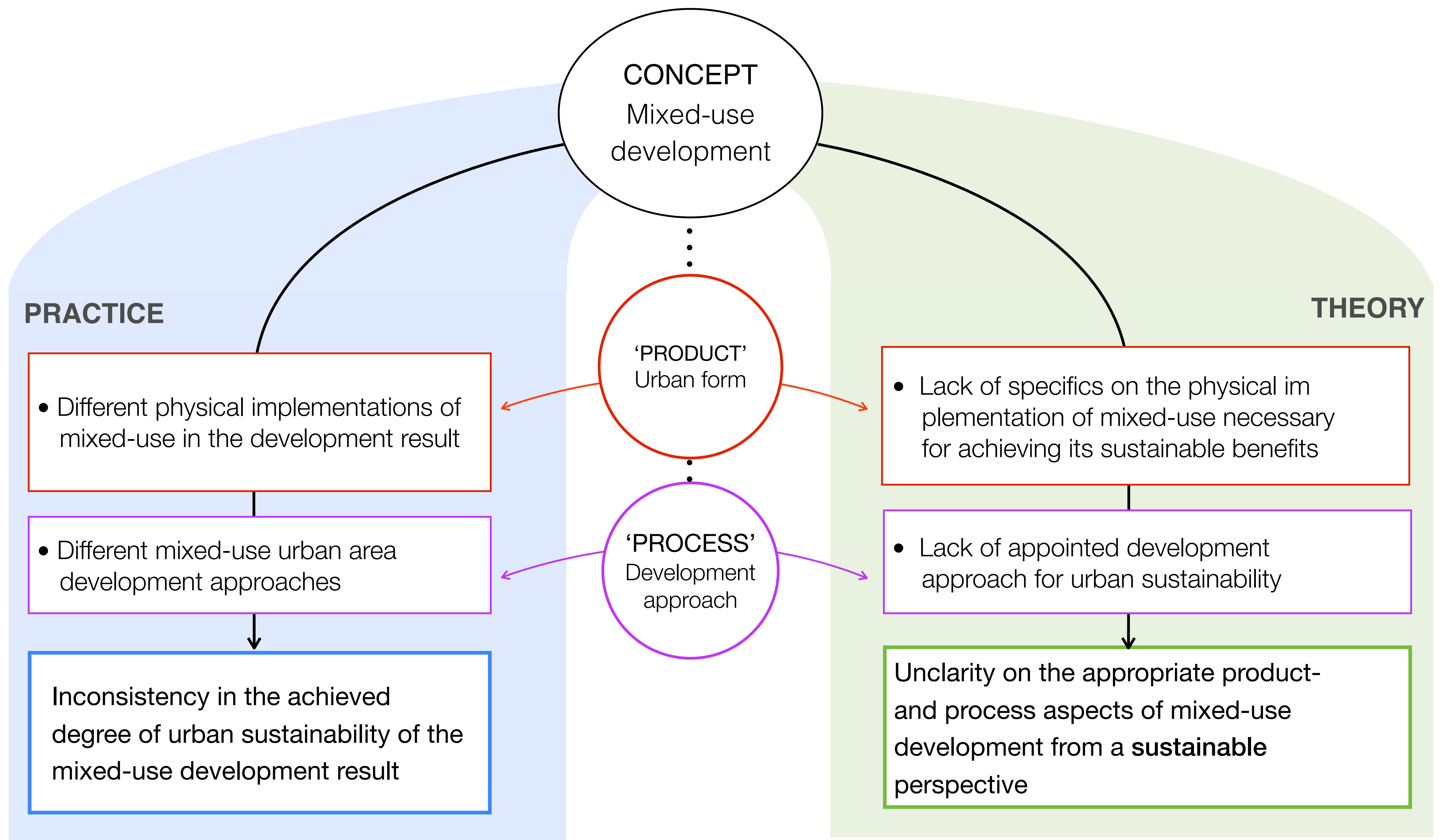
Apparently there is uncertainty in the practice of urban area development on how to develop sustainable mixed-use urban areas, both in terms of product (what to develop) and process (how to develop it). This is subscribed by a lack of formulated specifics on the physical form of implementation of mixed-use and a lack of an answer on what development approach is best from the perspective of achieving sustainable mixed-use areas in theory.



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CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

When looking at theory, it becomes clear that, although the concept of mixed-use and its sustainable benefits are widely researched and recommended, almost no physical specifics on the sustainable form of implementation of mixed-use in practice are formulated in literature.

In the field of the development approach, likewise, many theories are formulated on the allegedly most promising methods of urban area development in the present time, but no clear answer has been provided on what development approach is best from the perspective of achieving a long term sustainable end-product.

RESEARCH QUESTION:

'How can long term urban sustainability be achieved in mixed-use urban area developments?'

PRODUCT

'What urban form offers most potential for achieving long term sustainable urban areas?'

PROCESS

'Which development approach offers best opportunities for achieving long term sustainable mixed-use urban area developments?'

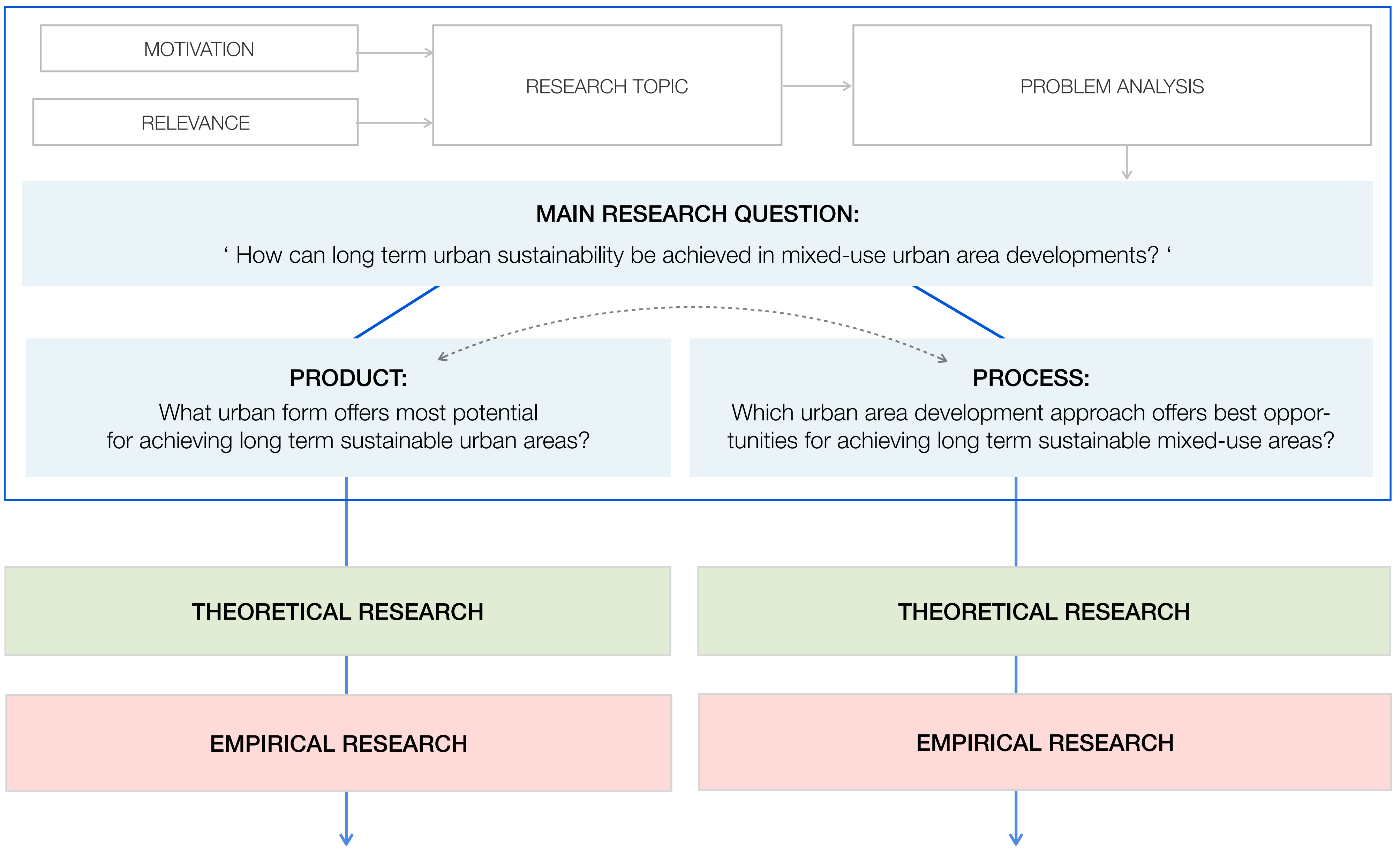
A cohesive framework of aligned recommendations on urban form and development approach for achieving sustainable mixed-use areas, that can be applied in practice

CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

For this reason, the goal of my research was to take away these uncertainties and provide a clear answer on the product and process aspects that are determinative for the sustainability of mixed-use urban areas.

From this, I wanted to formulate a cohesive framework of aligned recommendations on urban form and development approach for achieving sustainable mixed-use areas, providing actors in mixed-use urban area development processes with the possibility to steer on these aspects, and enhance sustainability of the development results.

I. BACKGROUND



CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

In order to do this, I developed a research method that was based on on the one hand theoretical research in which I wanted to synthesise the existing, dispersed knowledge on sustainable urbanism and urban area development, and on the other hand additional empirical research of two urban area development cases that demonstrated two development approaches in practice.

PRODUCT

PROCESS

II. THEORETICAL FRAMEWORK

1. MIXED-USE & URBAN SUSTAINABILITY

What is 'optimal' urban sustainability?

What is the full sustainable potential of mixed-use?

What physical characteristics are important in achieving this potential?

LITERATURE REVIEW

SEMI-STRUCTURED INTERVIEWS

RECOMMENDATIONS ON PRODUCT FROM THEORY

2. MIXED-USE & SUSTAINABILITY IN URBAN AREA DEVELOPMENT

How and in what ways does the urban area development process work?

What are the particularities of mixed-use urban area development?

What are the particularities of implementing sustainability in UAD process?

LITERATURE REVIEW

SEMI-STRUCTURED INTERVIEWS

RECOMMENDATIONS ON PROCESS FROM THEORY

CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

The theoretical framework presents the theoretical recommendations on the sustainable mixed-use urban form and development process, that can be retrieved from analysis of existing literature and conducted interviews with professionals from the urban area development field.

The first part of the theoretical framework on the product presents the definition of 'optimal' urban sustainability, the relationship of mixed-use with this urban sustainability, and the translation of the concept of mixed-use into physical characteristics of urban form, such as for example short streets, diverse design, a lot of green etc.

The second part analyses the urban area- and mixed-use development process, including the participating actors and their roles and the main existing theories regarding collaboration, development approaches, and the implementation of sustainability in urban area development.

Together, these subjects will lead to product and process recommendations from theory, which will be tested and supplemented by the empirical part.

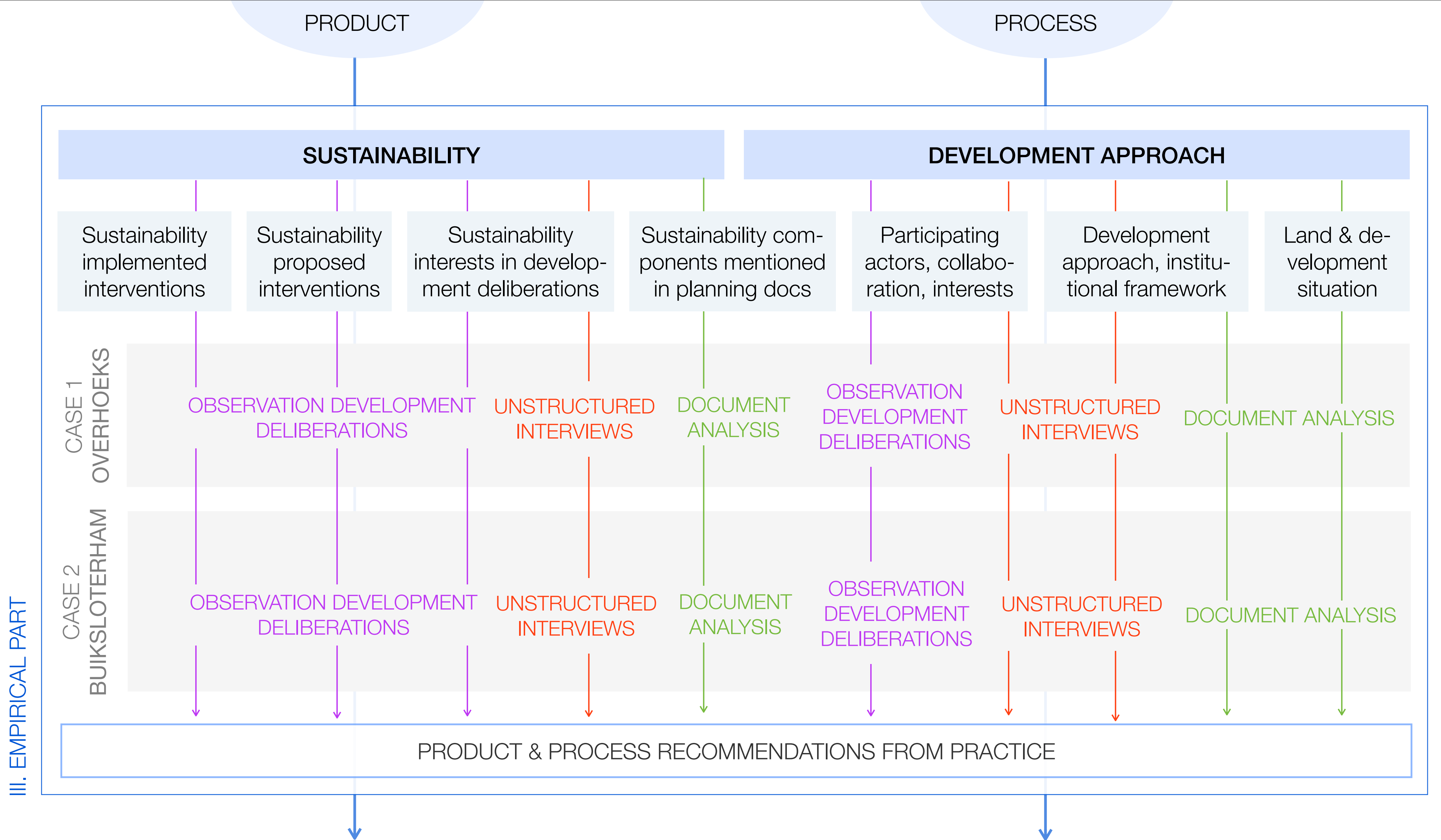


CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

The empirical part describes the research of urban area development in practice, through the case study of two urban area development projects in the Netherlands. For these cases Overhoeks and Buiksloterham are chosen: two formerly industrial areas in Amsterdam Noord that are currently being developed to mixed-use districts. These cases are chosen because, although the context of the cases are very comparable, the development approaches of the two adjacent areas are completely opposite. Lying at the opposite side of the water of the central station of Amsterdam, in relative close proximity of the historic city centre, the authorities have recognised Overhoeks and Buiksloterham as promising, accessible areas to replicate a dynamic, inner city environment with a high degree of mix of living, working and recreation.

Overhoeks is a typical example of what in this research is called a top-down development approach, in which the municipality owns the land, formulates a top-down, pre-defined plan, and a small amount of developers develop the real estate along this plan under strong control of the municipality. The whole area was in the hands of one owner, Shell, and is now sold to the municipality which thus has full control over the land, offering great opportunities for such a top-down approach.

The area of Buiksloterham, in contrast, was dispersed over a very large amount of different owners. This has resulted in another development approach, a what I call bottom-up approach, in which the area is developed incrementally in plots based on private initiatives and investment, and the municipality takes a facilitating role with only limited investments.



CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

The purpose of the empirical part is to study the two opposing urban area development approaches and evaluate them from the perspective of which one offers most opportunities for achieving long term urban sustainability, according to the desired sustainability components determined by theory.

The particularities of the cases such as the land situation will be analysed and compared, just as the actors, such as the municipality, developers, investors or end-users that are participating in both the development processes. Furthermore the content, sequence and decision-making in the development processes was closely studied, by analysing the formal plan development process in terms of the official planning documents of the cases, such as the zoning plan and the final designs, and the informal plan development process in terms of 41 development deliberations that I observed over the course of my internship as an assistant project manager in the project teams of both projects at the municipality of Amsterdam.

All of this will result in additional product and process recommendations coming from practice.

PRODUCT

PROCESS

THEORETICAL RESEARCH

EMPIRICAL RESEARCH

IV. CONCLUSIONS

CONCLUSIONS ON PRODUCT

'What urban form offers most potential for achieving long term sustainable urban areas?'

CONCLUSIONS ON PROCESS

' Which development approach offers best opportunities for achieving long term sustainable mixed-use urban area developments? '

RECOMMENDATIONS ON PRODUCT

RECOMMENDATIONS ON PROCESS

CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

In the final part of the research, the product and process recommendations from practice and theory will be synthesised into an aligned set of conclusions and recommendations on the urban form and development approach in the context of achieving long term sustainable mixed-use areas (which I will tell you about right now).

Sustainability:

- The endurance of systems and processes (*Vreeker, Deakin & Curwell, 2008*).
- The capability of something to sustained on the long term, requiring a long term viability and independency of finite resources (*Merriam-Webster Inc, 2004*).

CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

As I told you, my research started with researching what urban sustainability actually is.

My research has shown me that the way sustainability is defined in development projects is important for the degree of sustainability that will ultimately be achieved.

In general terms, sustainability is the endurance of systems and processes. It indicates the capability of something to be sustained on the long term, requiring a long term viability and an independency of finite resources.

When talking about sustainability in the context of the built environment, the emphasis is almost always put on environmental sustainability, with clear and measurable indicators such as for example pollution, co2 emission and energy consumption. To achieve a true, long term sense of urban sustainability as just described however, urban areas also have to be economically, and socially viable and sustainable; the famous three pillars of sustainability.

This integrated approach to sustainability is crucial for achieving the full sustainability benefits of mixed-use developments, or, for that matter, for achieving true sustainability in any development. If something is not environmentally, economically or socially viable, it will not continue to be successful and ultimately disintegrate.

SUSTAINABILITY



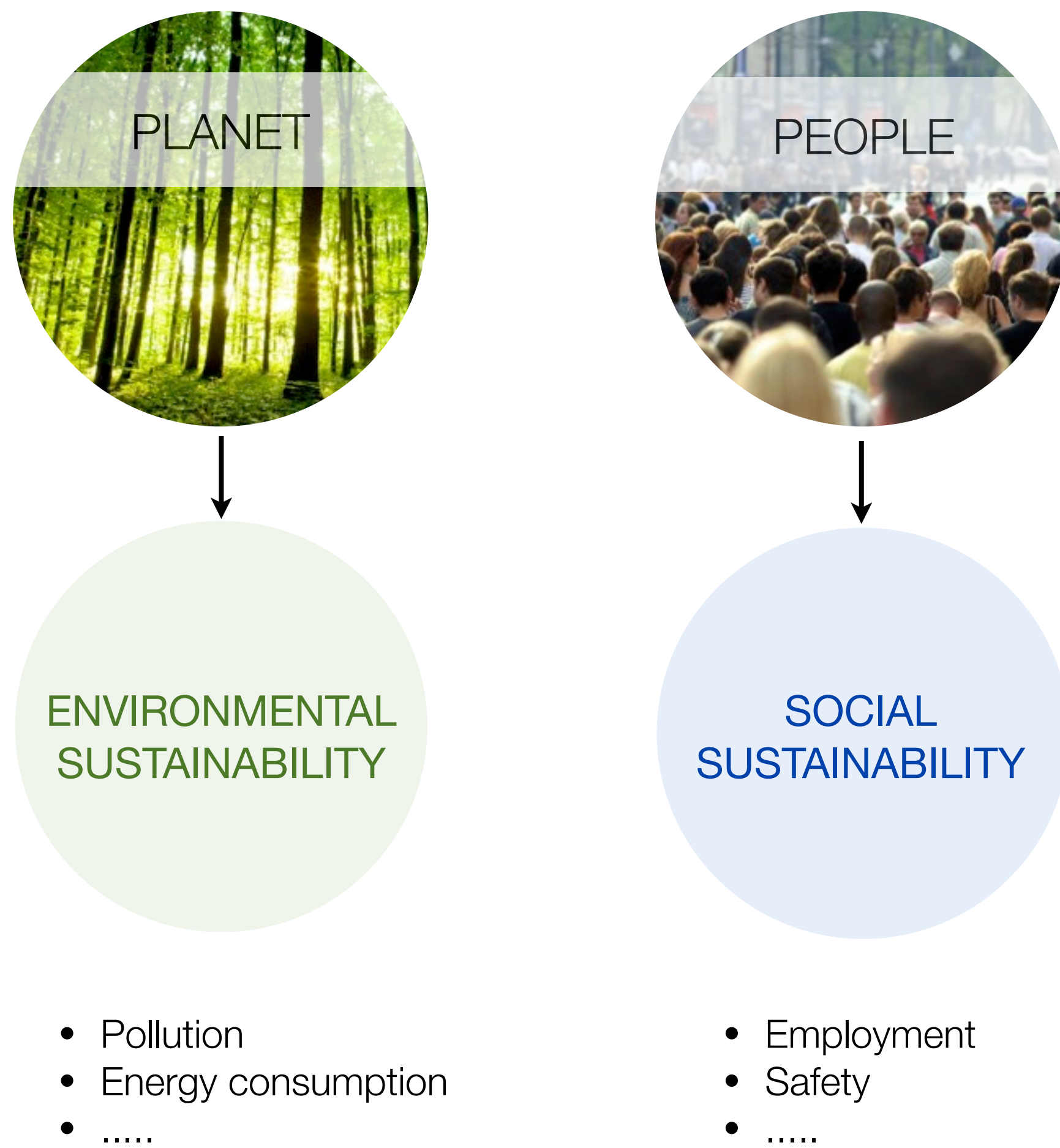
- Pollution
- Energy consumption
- Etc.

CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

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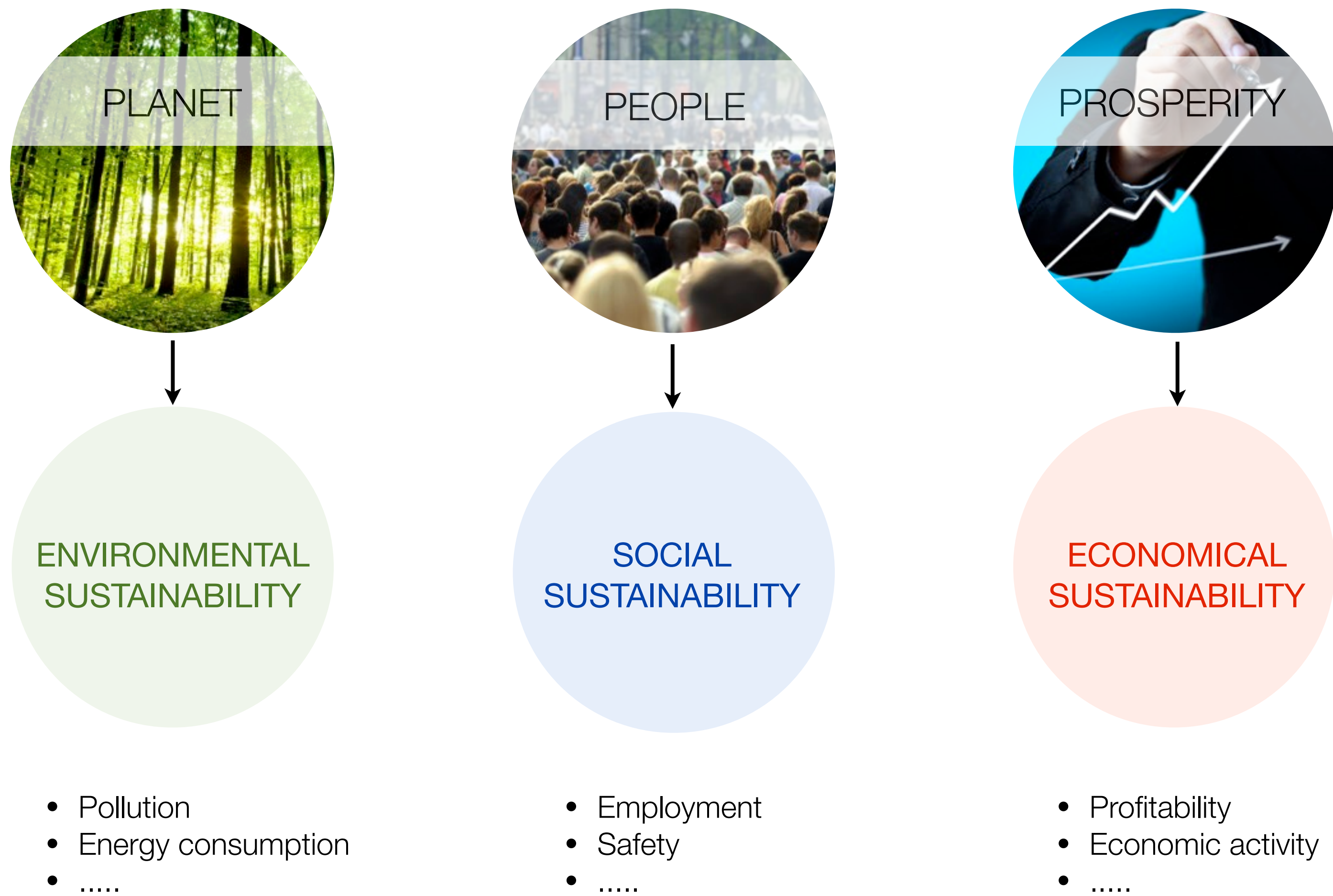
SUSTAINABILITY



CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

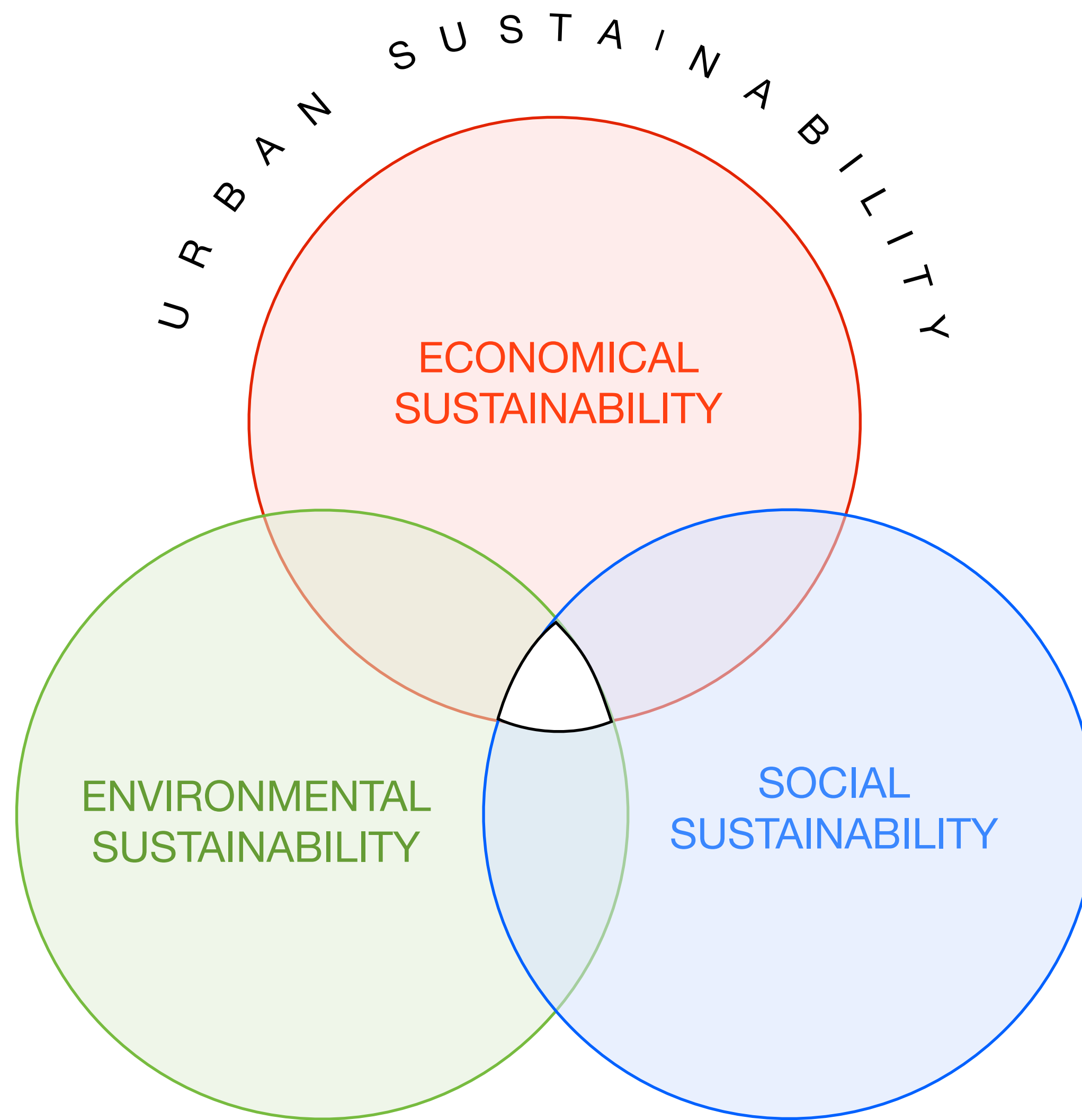
...Socially...

SUSTAINABILITY



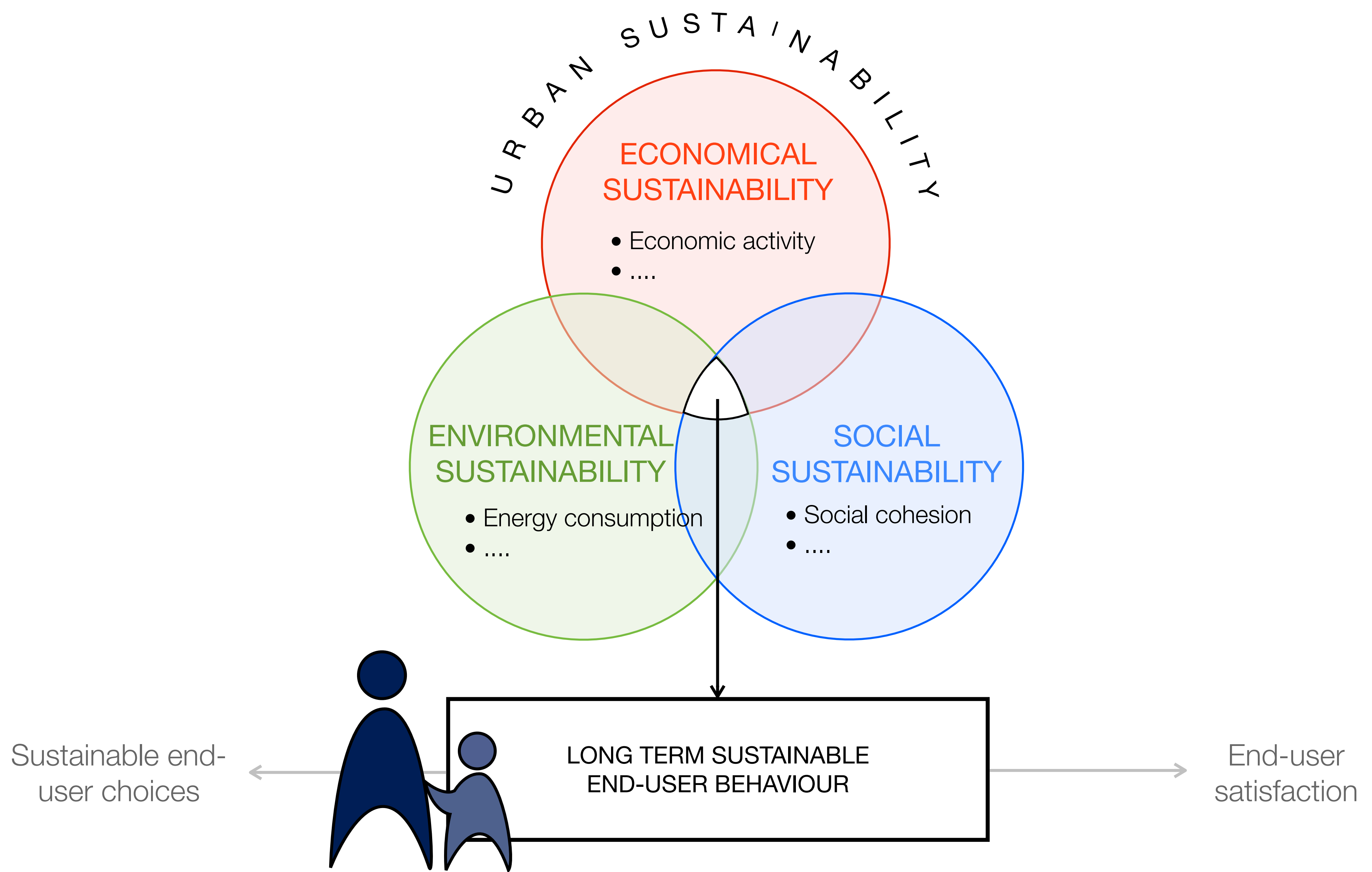
CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

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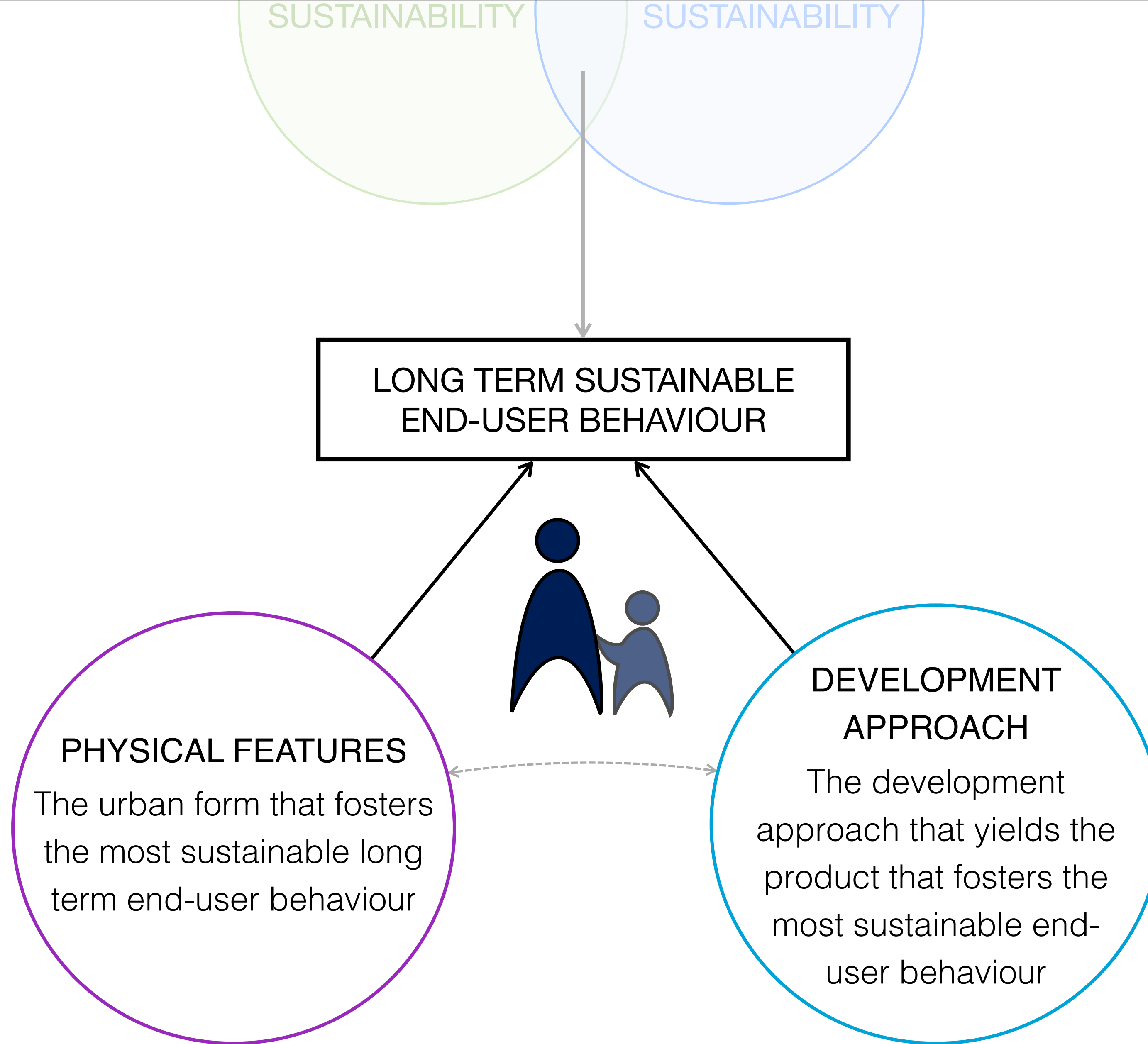
CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

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CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

Following this holistic definition of sustainability, the most sustainable urban form has been defined as the urban form that achieves the most sustainable long--term end--user behaviour, since for endurance and viability it is essential for sustainable systems to be utilized and therefore to undertake a sustainable behaviour that will continue to exist. It overarches the different aspects of sustainability and brings them back to their initial driver.



CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

These end-user behaviours pose certain requirements to the urban form, which are determined with the help of literature, observation of practice and input of experts in the form of relevant physical variables.

The development approach that offers best opportunities for achieving long term urban sustainability will be determined according to the the extent to which it succeeds in facilitating the emergence of these particular sustainable product features.

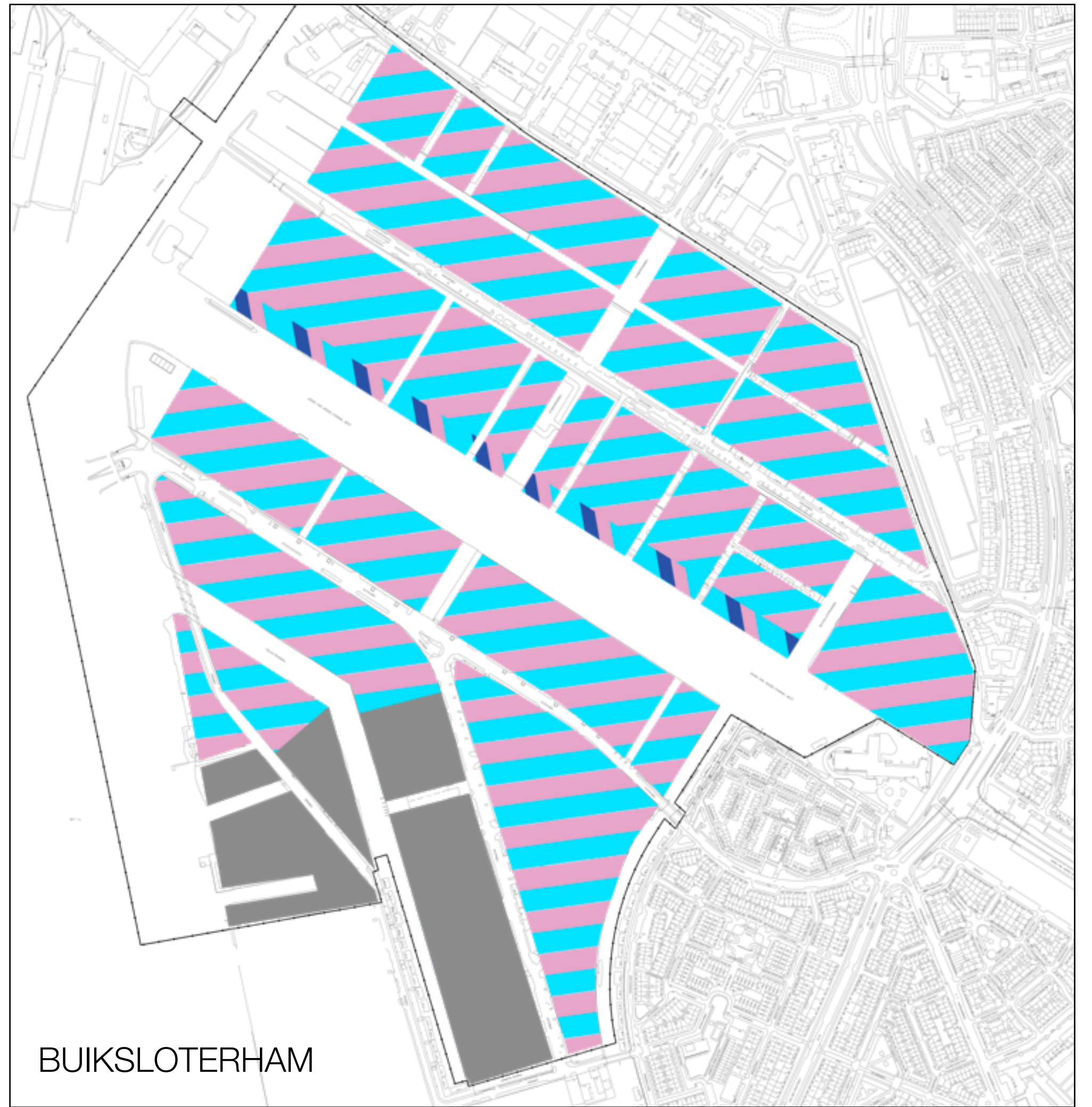
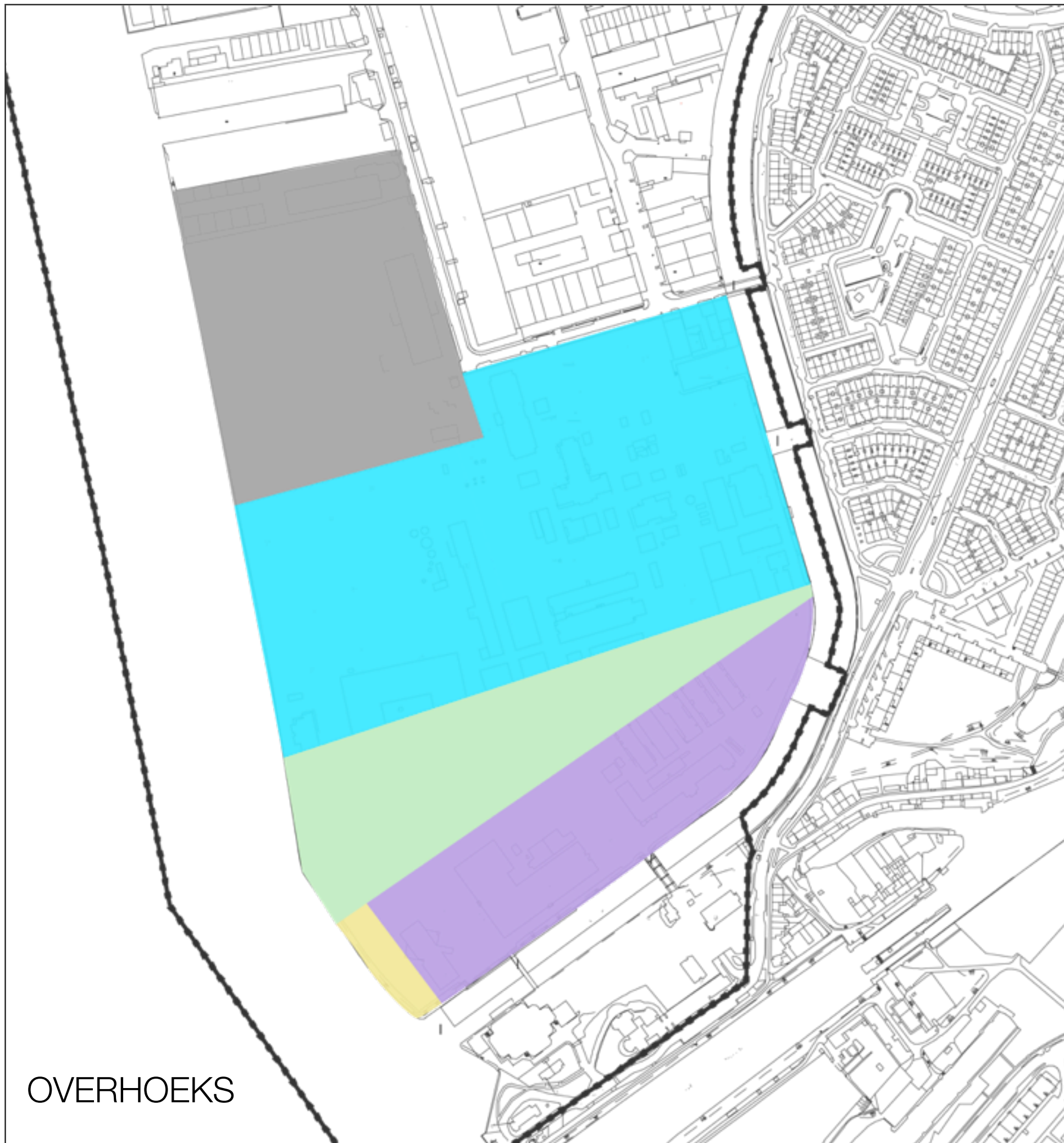
WHAT URBAN FORM OFFERS MOST POTENTIAL FOR ACHIEVING LONG TERM SUSTAINABLE URBAN AREAS?

ANSWER: FINELY-GRAINED, PEDESTRIAN-ORIENTED, VIBRANT, AND DISTINCTIVE MIXED-USE NEIGHBOURHOODS

CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

Based on the findings from theory and empiry, the urban form that offers most potential for achieving long term urban sustainability can be laid out as mixed-use neighbourhoods with specific physical features that foster walkability, vibrancy, diversity, freedom for the end-user to shape his own environment, and a sense of identity.

COMPANIES
 WORKING
 LIVING
 FACILITIES
 PARK
 MIXED-USE
 CULTURE



CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

Firstly, the functions in the mixed-use area should be adequate, meaning they have to offer a full package of necessary functions for a variety of social groups, and furthermore diverse, attractive and compatible with each other, with a high degree of interweaving and distribution of functions over the area, and low function-to-function distances.

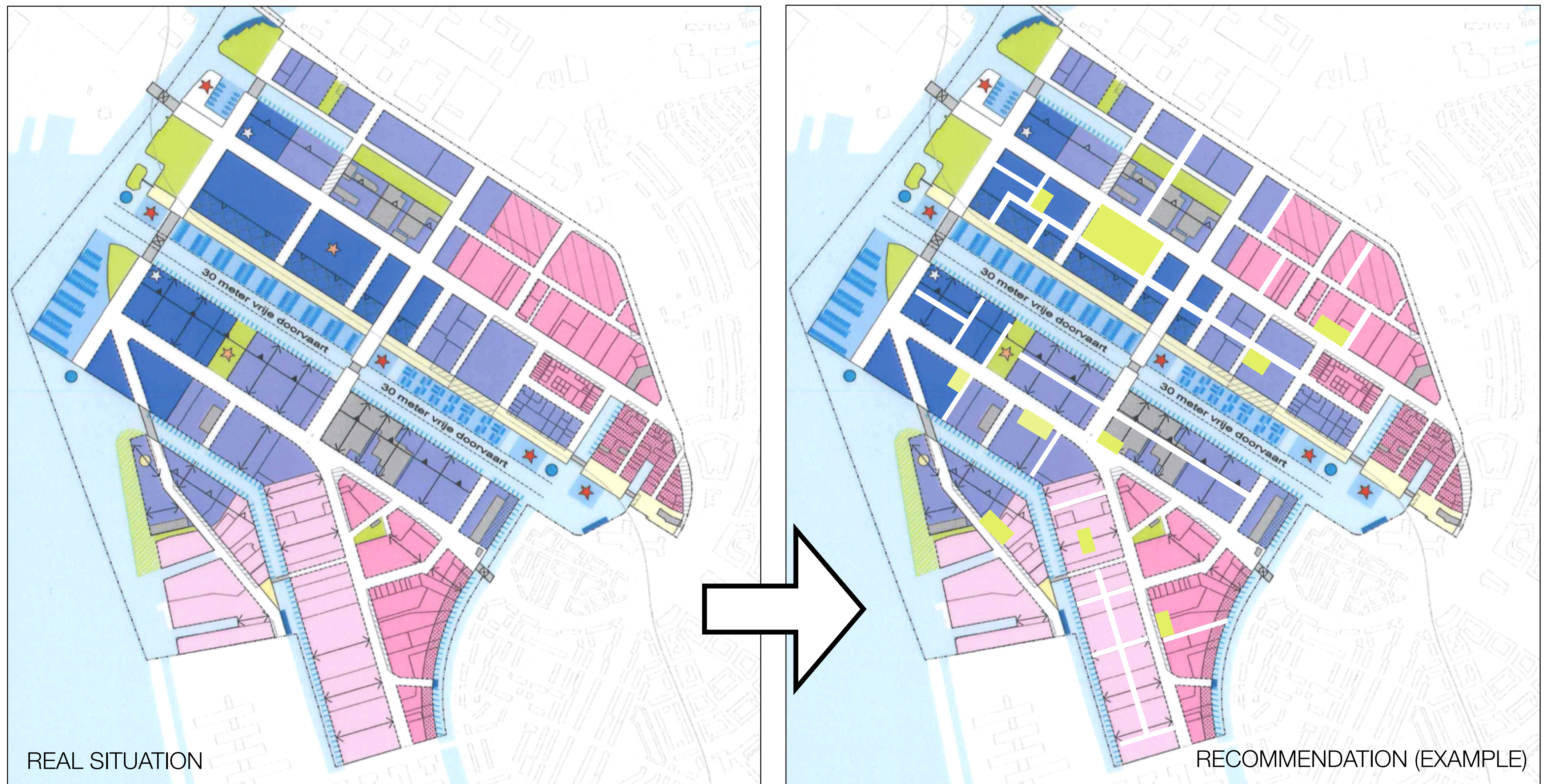
This means that a function mix on the level of the plot as is done in Buiksloterham, is more desirable from a sustainability perspective than a function mix into functional zones as is for example done in Overhoeks.



CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

The density of the area should be at least high enough to support economic viability of the functions. The real estate, infrastructure and public space should be fit, safe, comfortable and attractive for their function, while real estate should at the same time be flexible enough to be able to accommodate a variety of functions.

COMPANIES WORKING (MAIN) + LIVING LIVING (MAIN) + WORKING LIVING PUBLIC SPACE



CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

The sustainable benefits of mixed-use development increase as the size of separate plots and (visual) blocks is fine, the length of streets is short, and the visual connection between spaces is high. Buiksloterham does very well regarding many product- and process recommendations from this research, but this is one of the aspects that could be improved in Buiksloterham, by a higher interweaving and interconnection of spaces through a finer road-network.



CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

Furthermore high amounts of public space



CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

... presence and notability of historic and distinctive characteristics,



CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

...presence and visibility of green and water...



CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

...and architectural quality of the built elements positively impact urban sustainability.



CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

Core in successful mixed-use districts is a sense of identity, which allows users to identify with the area and be bound to the place.

In this light, existing local cultures and other characteristics should be exploited and end-users should get a large freedom to shape their own environment, increasing diversity, economic activity and end-user satisfaction.




CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

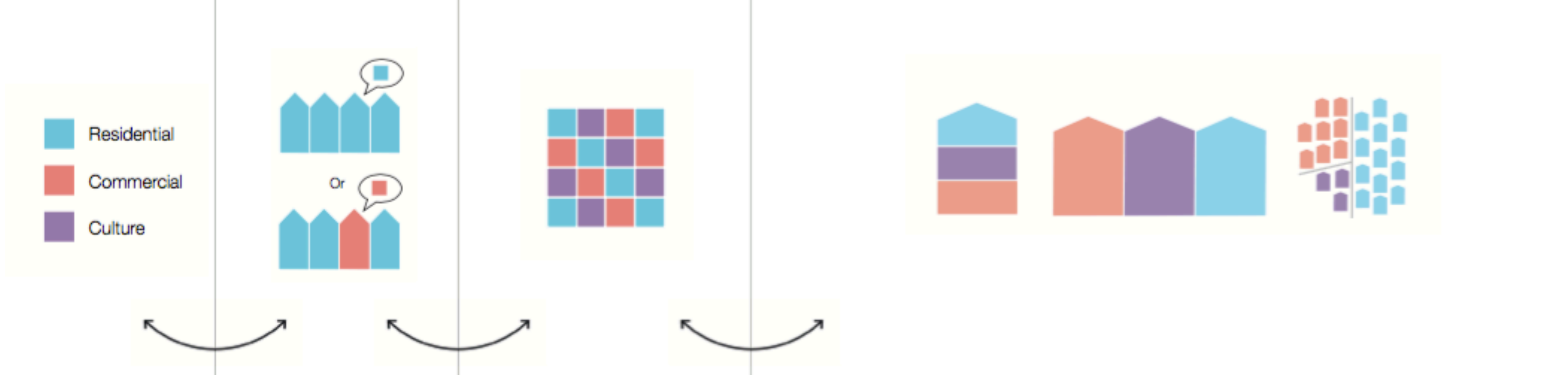
A disorientation of the car and instead a focus on slow modes of transport such as cycling and walking and (clean and) integrated public transport is crucial. This should be expressed in urban form by low walking distances to public transport nodes and bicycle storages, and a high ratio of the space being attributed to walking and cycling versus a low ratio to the car



CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

Last but not least, although mixed-use development by itself already possess inherent benefits in the field, performance in environmental sustainability should not be forgotten, pursuing energy- and resource efficiency, fossil-fuel independency and sustainable materials and systems.

*  = One real estate development (can be small (house) or large (large building / plot))

CATEGORY	CHANGEABLE ELEMENT	INFLUENCED SUSTAINABILITY COMPONENT	INFLUENCED VARIABLES	POSSIBLE VALUE	DIRECTION DESIRED VALUE FROM SUSTAINABILITY PERSPECTIVE
Function mix	Type of function (on a certain location)	Interweaving of functions	Scale of function mix	1 (On the level of the building), 2 (On the level of the block), 3 (On the level of the district), 4 (On the level of the city)	Small
					
Urban Form	Grain (size of plots)	Potential for proprietary, functional and visual diversity	Proprietary diversity	# of owners per square meter in arel	High
			Diversity of functions	# different functions in area	High

CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

Each of these features are substantiated by multiple researches, and translated into variables and desired values from the perspective of urban sustainability.

This list is attached to my research results and can serve as a guideline when designing mixed-use urban areas, by using it during the development process to oversee the impact on urban sustainability of proposed interventions in the development deliberations and to guard sustainable decision-making.

WHICH DEVELOPMENT APPROACH OFFERS BEST OPPORTUNITIES FOR GIVING LONG TERM SUSTAINABLE MIXED-USE URBAN AREA DEVELOPMENTS?

CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

Also a specific development approach has been formulated that, based on the recommendations from theory and from the observations of Overhoeks and Buiksloterham, should achieve long term sustainable mixed-use areas.

Before going into the specifics of this approach, one particular component is very important in the context of working towards a sustainable urban area development.

WHICH DEVELOPMENT APPROACH OFFERS BEST OPPORTUNITIES FOR GIVING LONG TERM SUSTAINABLE MIXED-USE URBAN AREA DEVELOPMENTS?

1. Integration of product and process

CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

When aiming to achieve a sustainable mixed-use urban area development, 'product' and 'process' are no isolated components that can be designed autonomously. The development process and product are interrelated, with both the organisation of the process influencing the development outcome in many ways, and the product posing certain requirements to the process in order to allow certain results to be produced. For example, a product that yields a high degree of end-user satisfaction and a large end-user influence on their own environment, can only be achieved if also the process is designed to fit this ambition, by for example incorporating the end-user in the development process. An integration of the urban area development product and the urban area development process thus lies at the core of sustainable urban areas.

WHICH DEVELOPMENT APPROACH OFFERS BEST OPPORTUNITIES FOR GIVING LONG TERM SUSTAINABLE MIXED-USE URBAN AREA DEVELOPMENTS?

- 1.** Integration of product and process
- 2.** Coping with contextual change

CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

Furthermore, the fact that achieving sustainable urban areas is not only a matter of product- and process choices but is also dependant on the circumstances of the development, should not be forgotten. Development processes do not function in isolation amidst of their context, and are influenced by many changing socio-economical circumstances that can change the perspective on the development. Overhoeks and Buiksloterham know all about this, going through the large financial crisis in 2008-2010. So far, this uncertainty has mostly been interpreted in the urban area development practice as a danger that has to be avoided and minimised through planning, but in reality, urban area development strategies have to cope with this inherent aspect of urban area development. This requires a plan that is in touch with the contextual circumstances of the project and is capable of change.

WHICH DEVELOPMENT APPROACH OFFERS BEST OPPORTUNITIES FOR GIVING LONG TERM SUSTAINABLE MIXED-USE URBAN AREA DEVELOPMENTS?

ANSWER: PRIVATE-LED DEVELOPMENT WITHIN A FLEXIBLE YET DIRECTIVE INSTITUTIONAL FRAMEWORK + A FOCUS ON SUSTAINABILITY

CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

Now, the development approach determined as offering the most potential for achieving long term urban sustainability in the development result given all these factors, is according to my research a combination of top-down and bottom-up planning in which the municipality sets out and guards a broad strategic course, and the development is led by private parties and housing associations who develop the area in plots, on own initiative according to their own ideas.

Research has shown that when private parties are given the freedom to develop what they want, they demonstrate a large capacity to fit to location specific circumstances and offer long term socially and economically viable solutions. Next to this, since urban areas are ultimately meant for the people, private parties provide indispensable knowledge and interests for successful urban area developments, which is hard to replicate, predict and shape by top-down planning as is done in Overhoeks. Therefore the contemporary opinion is that private parties are better off developing themselves. Buiksloterham strongly follows this direction.

Because private parties however do inherently represent other interests than public parties, strategic direction by public parties such as the municipality is still necessary to protect the public interest in the area.

WHICH DEVELOPMENT APPROACH OFFERS BEST OPPORTUNITIES FOR GIVING LONG TERM SUSTAINABLE MIXED-USE URBAN AREA DEVELOPMENTS?

ANSWER: PRIVATE-LED DEVELOPMENT WITHIN A FLEXIBLE YET DIRECTIVE INSTITUTIONAL FRAMEWORK + A FOCUS ON SUSTAINABILITY

a. Longer and wider commitment of private parties

CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

In this approach, the developing private parties are encouraged to take on responsibilities that go beyond the traditional scale and term of the development of a single building, including for example development of public space and becoming investor or user of a building, leading to larger scopes and longer term commitments and engagement in the development of the area as a whole.



CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

In Buiksloterham this is already employed with projects such as for example cityplots, in which a housing association develops multiple blocks, including public space.

WHICH DEVELOPMENT APPROACH OFFERS BEST OPPORTUNITIES FOR GIVING LONG TERM SUSTAINABLE MIXED-USE URBAN AREA DEVELOPMENTS?

ANSWER: PRIVATE-LED DEVELOPMENT WITHIN A FLEXIBLE YET DIRECTIVE INSTITUTIONAL FRAMEWORK + A FOCUS ON SUSTAINABILITY

a. Longer and wider commitment of private parties

CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

Plan developments should be formed through participatory and collaborative decision-making processes in a setting of horizontal inter-actor relationships, in which the actors combine their means and knowledge to come to mutually beneficial, integrated solutions.

WHICH DEVELOPMENT APPROACH OFFERS BEST OPPORTUNITIES FOR GIVING LONG TERM SUSTAINABLE MIXED-USE URBAN AREA DEVELOPMENTS?

ANSWER: PRIVATE-LED DEVELOPMENT WITHIN A FLEXIBLE YET DIRECTIVE INSTITUTIONAL FRAMEWORK + A FOCUS ON SUSTAINABILITY

- a.** Longer and wider commitment of private parties
- b.** Large end-user influence over development result

CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

Core to this development approach is that the ultimate end-users of the area get a large influence over the shaping of their own environment, both through close inclusion in the development process or provided opportunities to build their own homes or business spaces. This increases the distinctiveness, attractiveness of the area and enhances end-user satisfaction, peoples commitment to their area, and ultimately social sustainability.



CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

This can be achieved through for example private commissioning formulas, as is being done in Buiksloterham.

WHICH DEVELOPMENT APPROACH OFFERS BEST OPPORTUNITIES FOR GIVING LONG TERM SUSTAINABLE MIXED-USE URBAN AREA DEVELOPMENTS?

ANSWER: PRIVATE-LED DEVELOPMENT WITHIN A FLEXIBLE YET DIRECTIVE INSTITUTIONAL FRAMEWORK + A FOCUS ON SUSTAINABILITY

- a.** Longer and wider commitment of private parties
- b.** Large end-user influence over development result
- c.** Directive role of municipality (long term strategic vision aimed at public interest)

CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

The role of the public authorities and ultimately the municipality is to facilitate these private development initiatives, while at the same time keeping a strong direction over the process from a long term, wide-scope, public interest-oriented strategic planning basis. This directive role can be played through binding planning instruments such as structural visions and planning documents which formulate spatial and legal boundary conditions, by encouraging certain types of developments by offering specific incentives, by keeping a certain control over the land, and by taking up the management of the urban area development process, which offers steering opportunities.

WHICH DEVELOPMENT APPROACH OFFERS BEST OPPORTUNITIES FOR GIVING LONG TERM SUSTAINABLE MIXED-USE URBAN AREA DEVELOPMENTS?

ANSWER: PRIVATE-LED DEVELOPMENT WITHIN A FLEXIBLE YET DIRECTIVE INSTITUTIONAL FRAMEWORK + A FOCUS ON SUSTAINABILITY

- a.** Longer and wider commitment of private parties
- b.** Large end-user influence over development result
- c.** Directive role of municipality (long term strategic vision aimed at public interest)
- d.** Facilitating role municipality (supporting investments, incentives, subsidies)

CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

The municipality can facilitate by helping market parties and individuals to explore the potential of the area and by supporting investment decisions by private parties, through aiding investments in supportive structures such as infrastructure, financial arrangements, and relaxed procedures.

WHICH DEVELOPMENT APPROACH OFFERS BEST OPPORTUNITIES FOR GIVING LONG TERM SUSTAINABLE MIXED-USE URBAN AREA DEVELOPMENTS?

ANSWER: PRIVATE-LED DEVELOPMENT WITHIN A FLEXIBLE YET DIRECTIVE INSTITUTIONAL FRAMEWORK + A FOCUS ON SUSTAINABILITY

- a.** Longer and wider commitment of private parties
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- c.** Directive role of municipality (long term strategic vision aimed at public interest)
- d.** Facilitating role municipality (supporting investments, incentives, subsidies)
- e.** Flexible institutional framework

CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

For this, an appropriate institutional framework has to be employed that finds a balance between a maximum degree of freedom for the development of valuable private initiatives, and the regulations necessary for the protection of the aims of the development.

WHICH DEVELOPMENT APPROACH OFFERS BEST OPPORTUNITIES FOR GIVING LONG TERM SUSTAINABLE MIXED-USE URBAN AREA DEVELOPMENTS?

ANSWER: PRIVATE-LED DEVELOPMENT WITHIN A FLEXIBLE YET DIRECTIVE INSTITUTIONAL FRAMEWORK + A FOCUS ON SUSTAINABILITY

- a.** Longer and wider commitment of private parties
- b.** Large end-user influence over development result
- c.** Directive role of municipality (long term strategic vision aimed at public interest)
- d.** Facilitating role municipality (supporting investments, incentives, subsidies)
- e.** Flexible institutional framework
- f.** FOCUS on sustainability

CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

Last component of this development approach focused on maximising the potential for urban sustainability of mixed-use urban areas, is that all of this should happen with a focus of long term urban sustainability in mind. The sense of sustainability should be incorporated in the strategic plan and steering of the municipality, but should also be instated in the minds of the private actors participating in the urban area development, and guarded throughout the development process. An integrated conception of sustainability that includes environmental, economical and social sustainability in the equation is vital, and requires a long term, integrated thinking across the whole lifecycle and across scales, systems, disciplines and actors.

RECOMMENDATIONS

CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

Next to these conclusions, some more specific recommendations can be made on the implementation of the recommended development product and development approach.

I made detailed recommendations in various fields of the recommended product and process components, such as collaboratively working towards an integrated vision for the area, municipal investments in sustainable structures on area level, inclusion of a sustainability expert as an actor in the projectteam and many others.

RECOMMENDATIONS

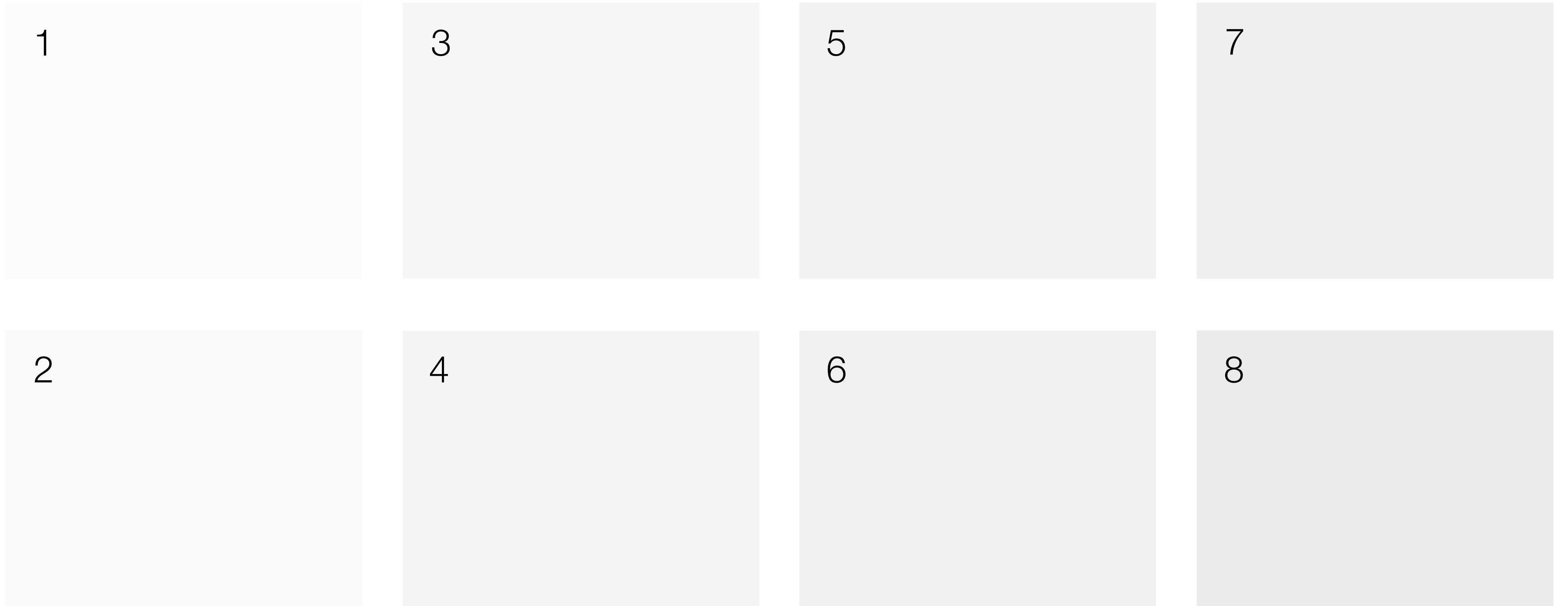
→ A SUSTAINABILITY-ORIENTED WORKING METHOD

CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

Most important recommendation is that urban area development processes should adopt a working method oriented on sustainability, that I have outlined in my report based on the actions in the process that have shown to be important for the achievement of sustainable results in the analysis of the formal and informal plan development process of the case studies.

RECOMMENDATIONS

→ A SUSTAINABILITY-ORIENTED WORKING METHOD

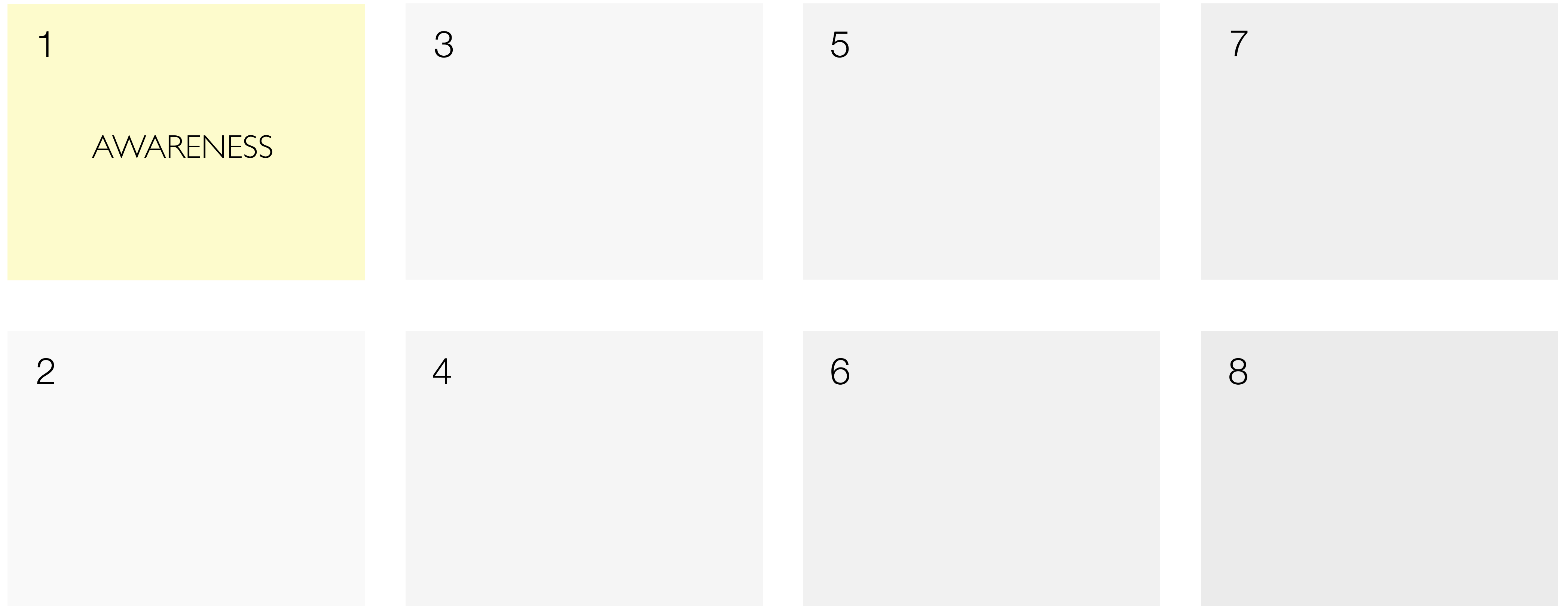


CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

This sustainability-oriented working method consists of eight steps, that also stand symbol for the new mentality that should be adopted in the urban area development process.

RECOMMENDATIONS

→ A SUSTAINABILITY-ORIENTED WORKING METHOD



CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

First step in a sustainability oriented development process is awareness. Sustainable urban area development starts with the actors participating in the development process being aware of the need and urgency for sustainability, as well as the meaning and implications of the (integrated and multi-dimensional) concept sustainability for the area.

RECOMMENDATIONS

→ A SUSTAINABILITY-ORIENTED WORKING METHOD



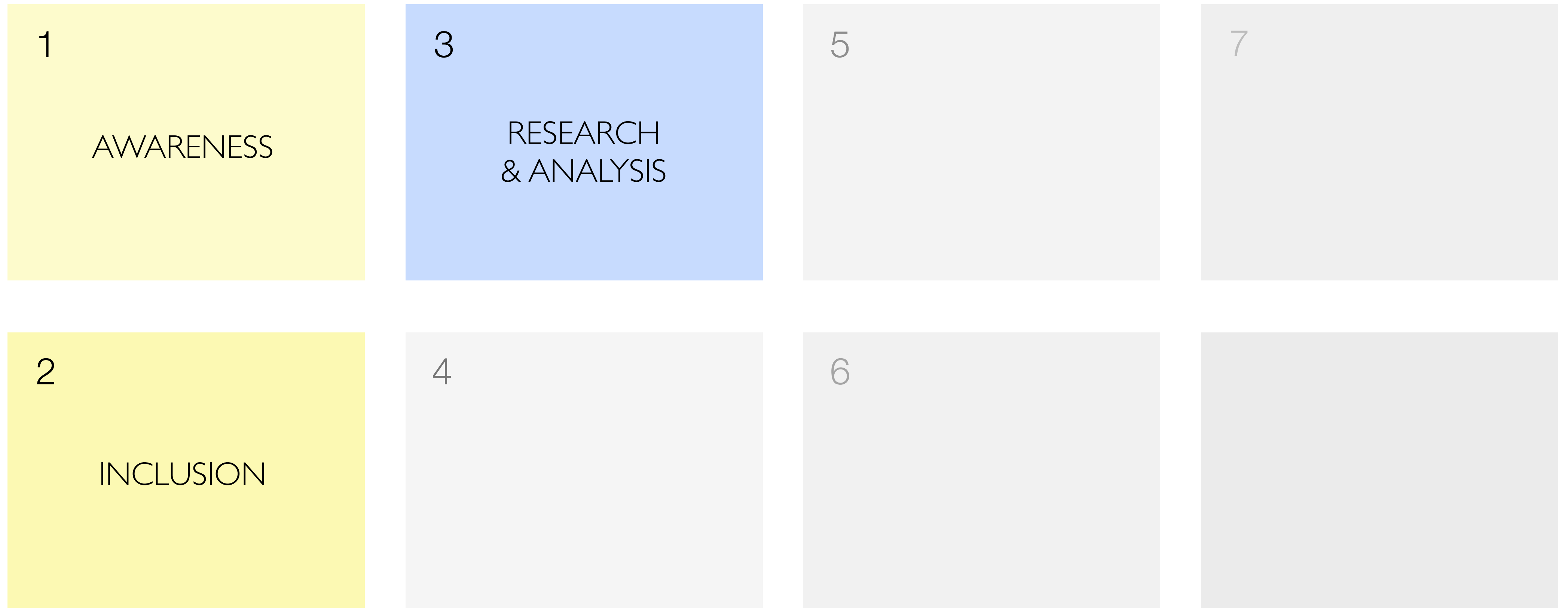
CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

Second step is inclusion.

Actors must, at the start of the project when formulating the brief of the development task ahead, actively choose to incorporate sustainability in the goal statement of the development project in order to indeed allow it to play a role and be incorporated in the development process.

RECOMMENDATIONS

→ A SUSTAINABILITY-ORIENTED WORKING METHOD



CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

When the goal of urban sustainability is included in the development project, a phase of research and analysis should be conducted in order to, based on this, come to a strategic long term and wide-scope vision for the city/region as a whole and thus the optimal direction of development of the area determined by the public authorities.

RECOMMENDATIONS

→ A SUSTAINABILITY-ORIENTED WORKING METHOD



CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

Based on the conducted research and analysis and the strategic, long term vision for the direction of the area in the context of successfulness of the urban region as a whole, the sustainable ambitions specific for the area should be set.

RECOMMENDATIONS

→ A SUSTAINABILITY-ORIENTED WORKING METHOD



CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

The fifth step is an important one because when ambitions are set, it is crucial that these ambitions are operationalized into concrete aims and requirements. The literature and case studies show that one of the most common reasons for not achieving good results in the field or urban sustainability even when this has been included in the ambitions of the project, is the lack of tangible goals and requirements. This means that when specific results or aims are set, these should as good as possible be translated into explicit requirements with criteria for evaluation and assessment, and not be left to an idea that is supposed to be understood.

RECOMMENDATIONS

→ A SUSTAINABILITY-ORIENTED WORKING METHOD



CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

Furthermore, aims should not only be made concrete, but these should also be made binding to the actors in the area. The case studies have shown situations in which even when aims were concrete and the stakeholders and developers had signed to commit to them, these were not achieved after all because they were overrun by more direct interests later in the development process. After the aims have been jointly set up by the parties in the development, these aims should therefore be made binding to the actors, so that developing parties also experience consequences when these aims are not achieved.

RECOMMENDATIONS

→ A SUSTAINABILITY-ORIENTED WORKING METHOD



CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

The seventh step is that these goals are guarded throughout the development of the area. Although design proposals and development plans are currently tested to numerous regulations and criteria, the large lines are often forgotten. Therefore, each development deliberation and test of plans should always have the overview of the core, integrated ambitions of the area at hand, that should repeatedly be checked as the design evolves.

RECOMMENDATIONS

→ A SUSTAINABILITY-ORIENTED WORKING METHOD

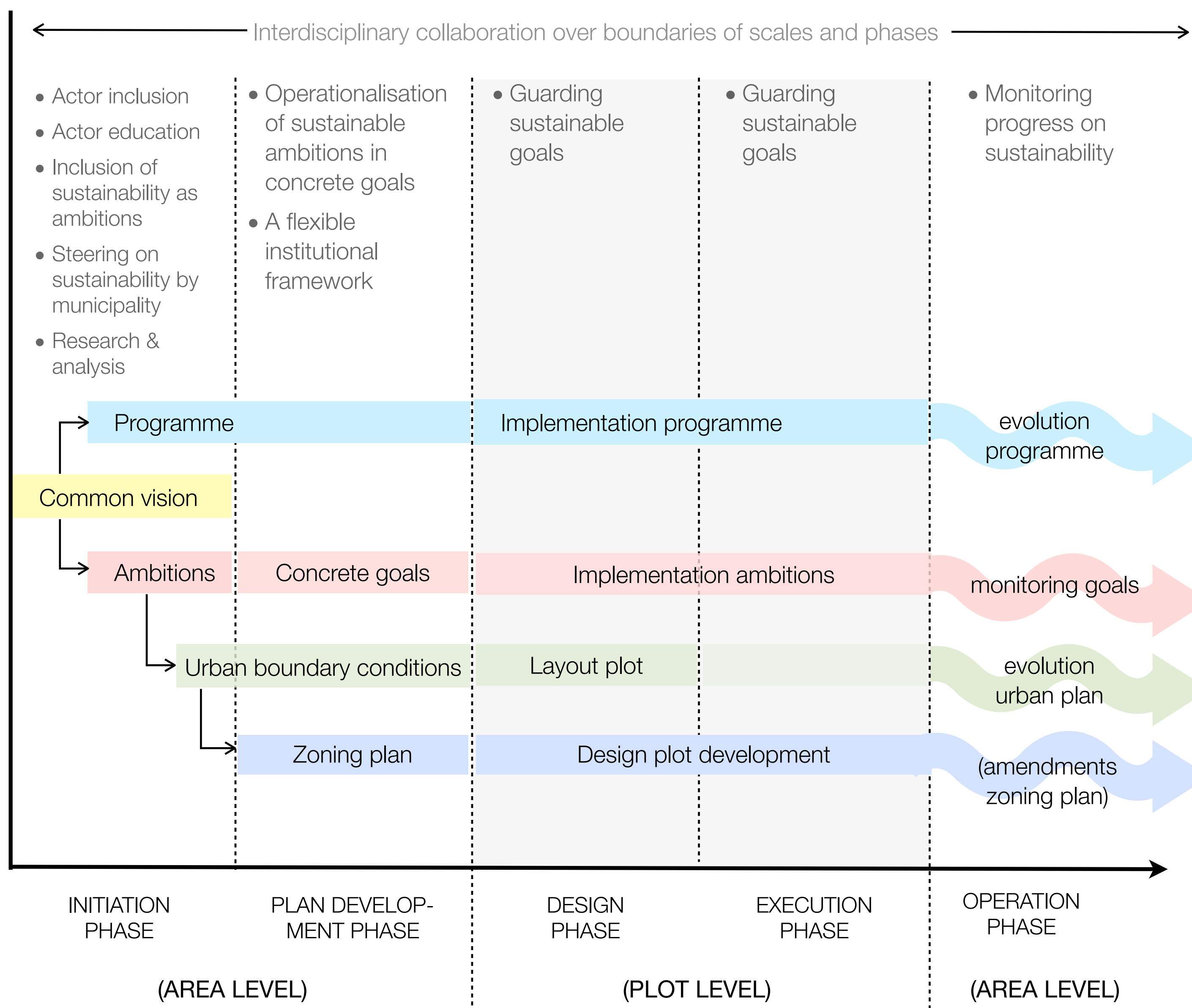


CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

Finally, the last step of the sustainability-oriented development approach is that the progress in the field of sustainability and the specifically set goals is monitored. When a project is completed and operating, it should be checked whether the objectives of the plan are accomplished and whether the set principles are kept through monitoring and evaluation, so that adjusting measures in the project itself or in other, undeveloped projects in the area can be taken to protect the achievement of the sustainable goals of the area as a whole. If this monitoring is implemented in an integrated way and processed in a good digital information system, this monitoring should require minimum extra capacity and effort and should provide great insights for the further developments of the area.



THANK YOU



CONTEXT & RELEVANCE | RESEARCH PROBLEM & GOAL | METHOD | FINDINGS | RECOMMENDATIONS

Diagram of overall recommendations (process) and recommended occasions to change product aspects.

MIXED-USE



NEW YORK



STOCKHOLM



AMSTERDAM



ROTTERDAM



MELBOURNE

I. MIXED-USE (BACKGROUND)

The concept of mixed-use development has become widely applied in the practical urban planning field as a formula for achieving sustainable urban areas, and is adopted in urban (re)development projects all over the world.

PHYSICAL FORM OF IMPLEMENTATION TYPE

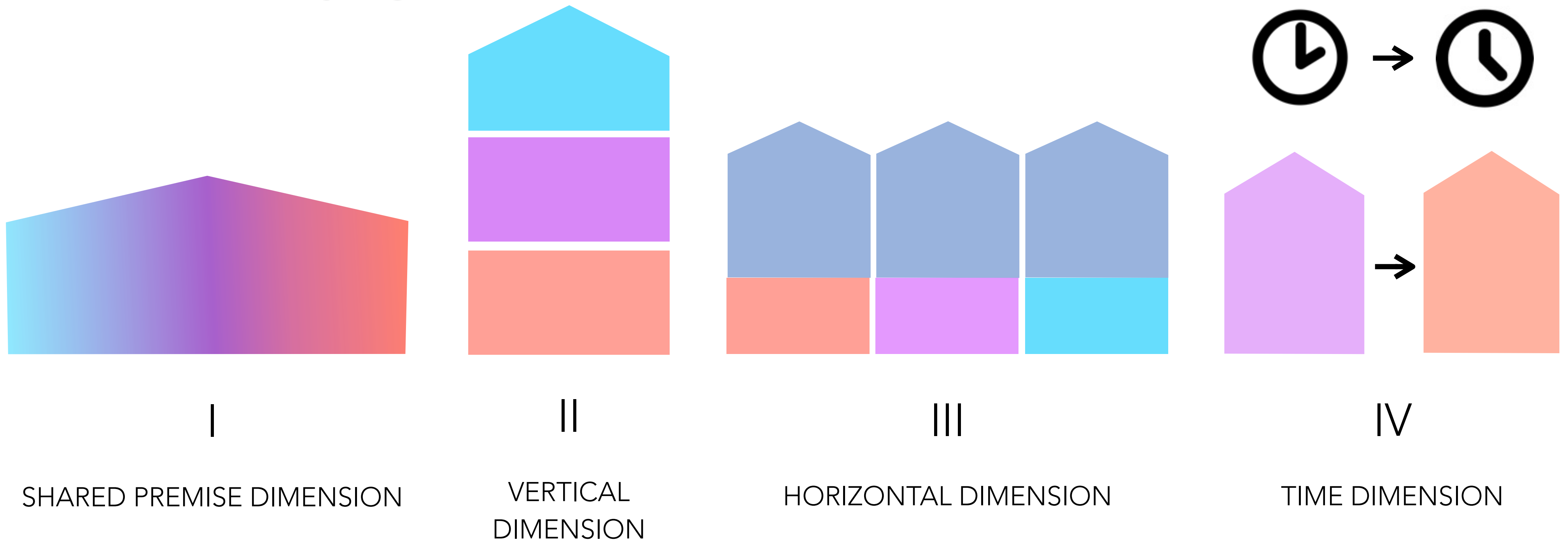


I. MIXED-USE (BACKGROUND)

The physical form of implementation of the concept of mixed-use can differ on five conceptual levels. Type of functions,

PHYSICAL FORM OF IMPLEMENTATION

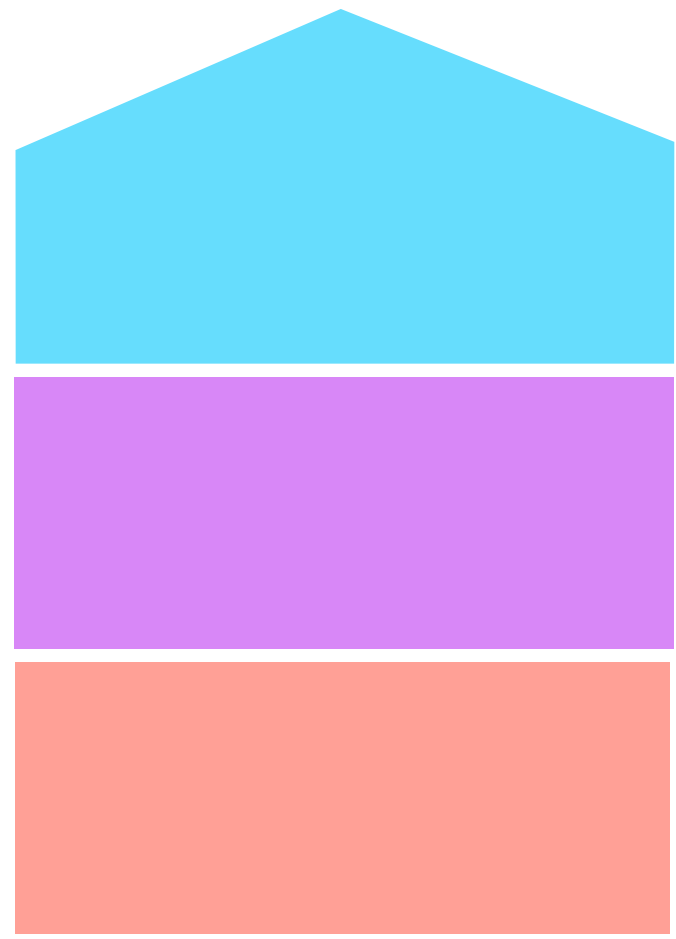
DIMENSION



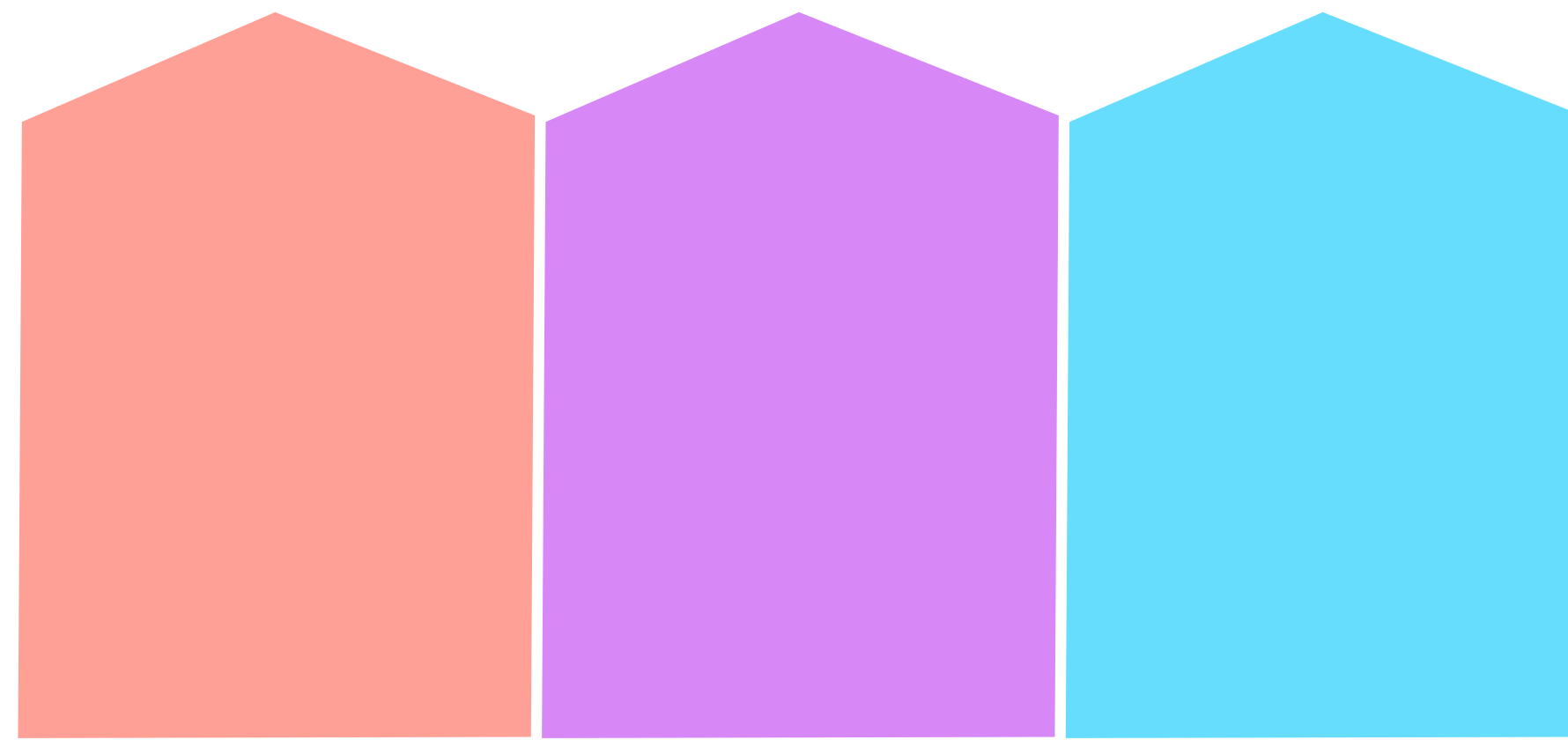
I. MIXED-USE (BACKGROUND)

PHYSICAL FORM OF IMPLEMENTATION

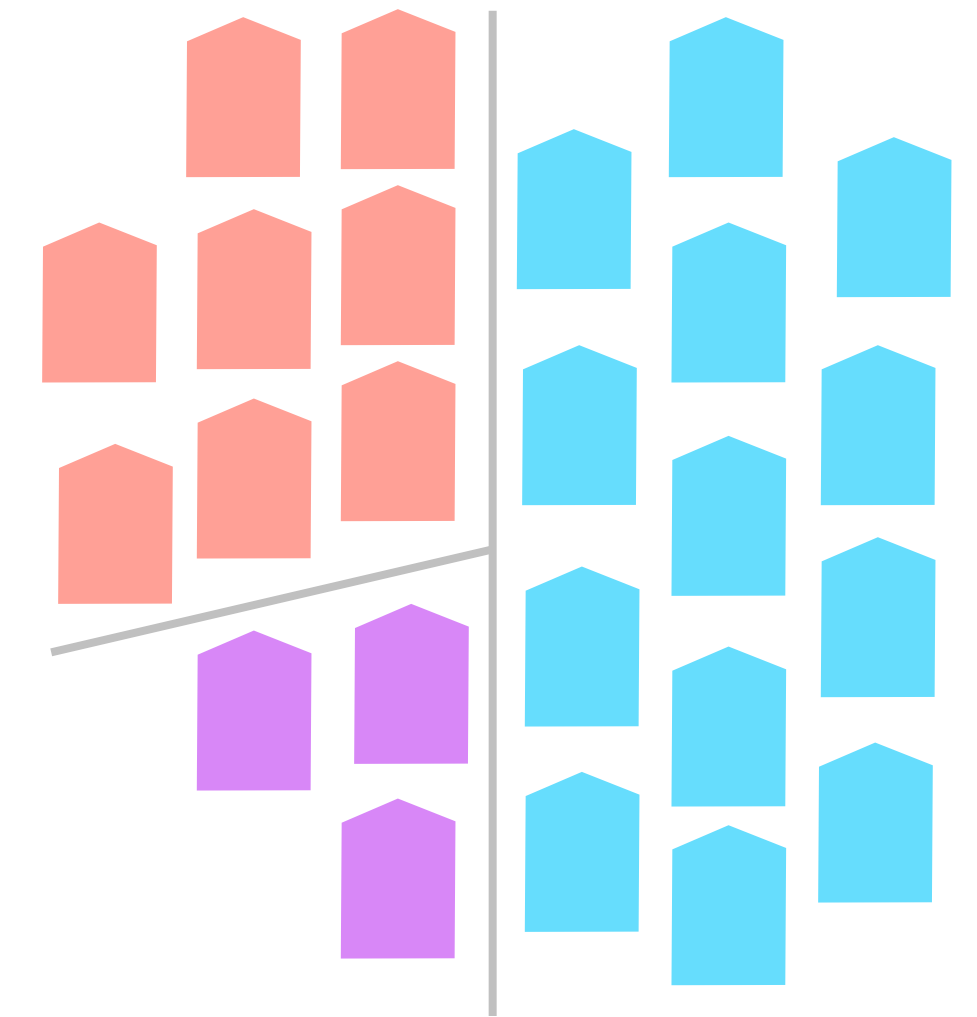
SCALE



FUNCTION MIX ON THE
LEVEL OF THE BUILDING



FUNCTION MIX ON THE
LEVEL OF THE BLOCK

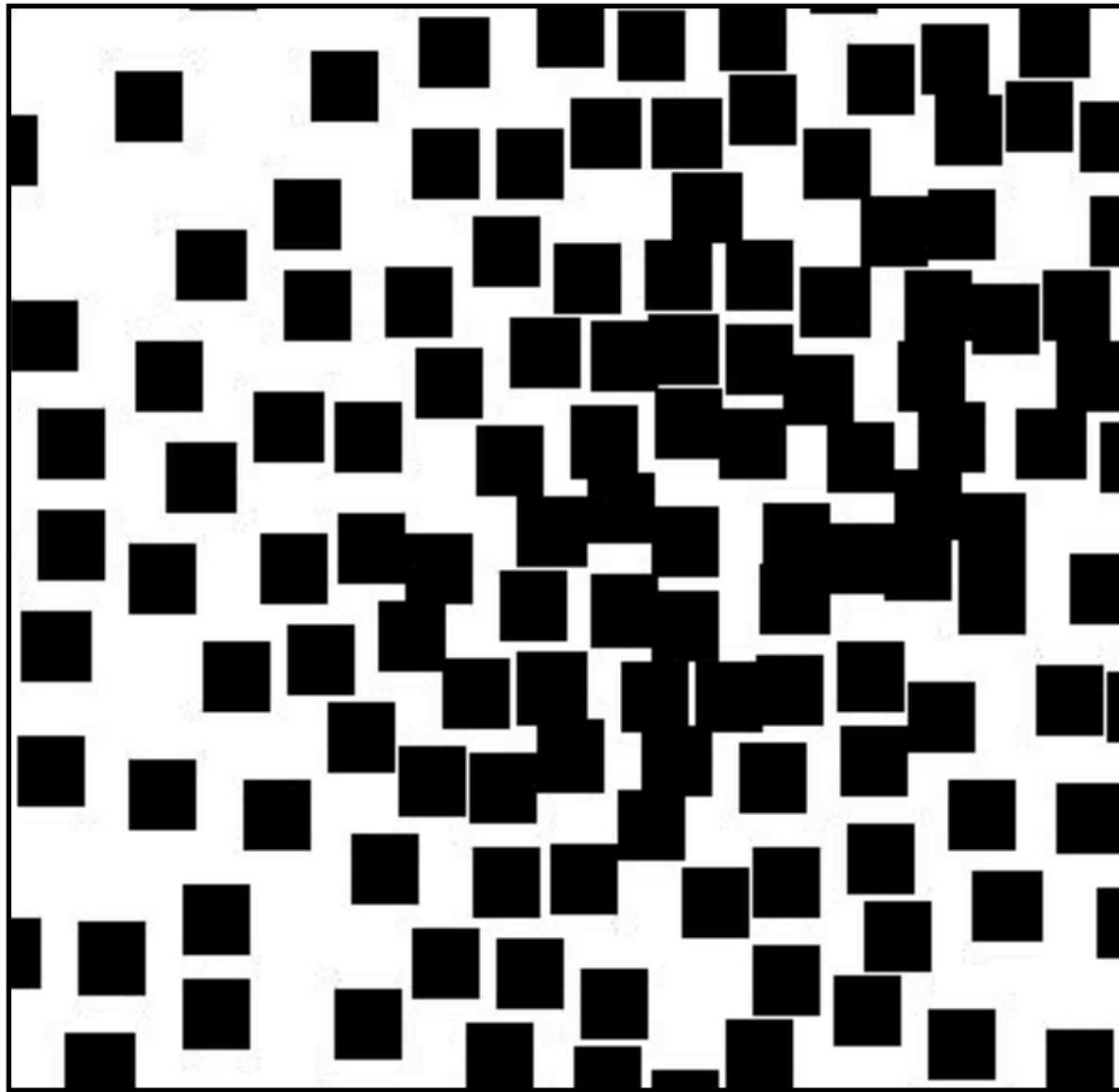


FUNCTION MIX ON THE
LEVEL OF THE AREA

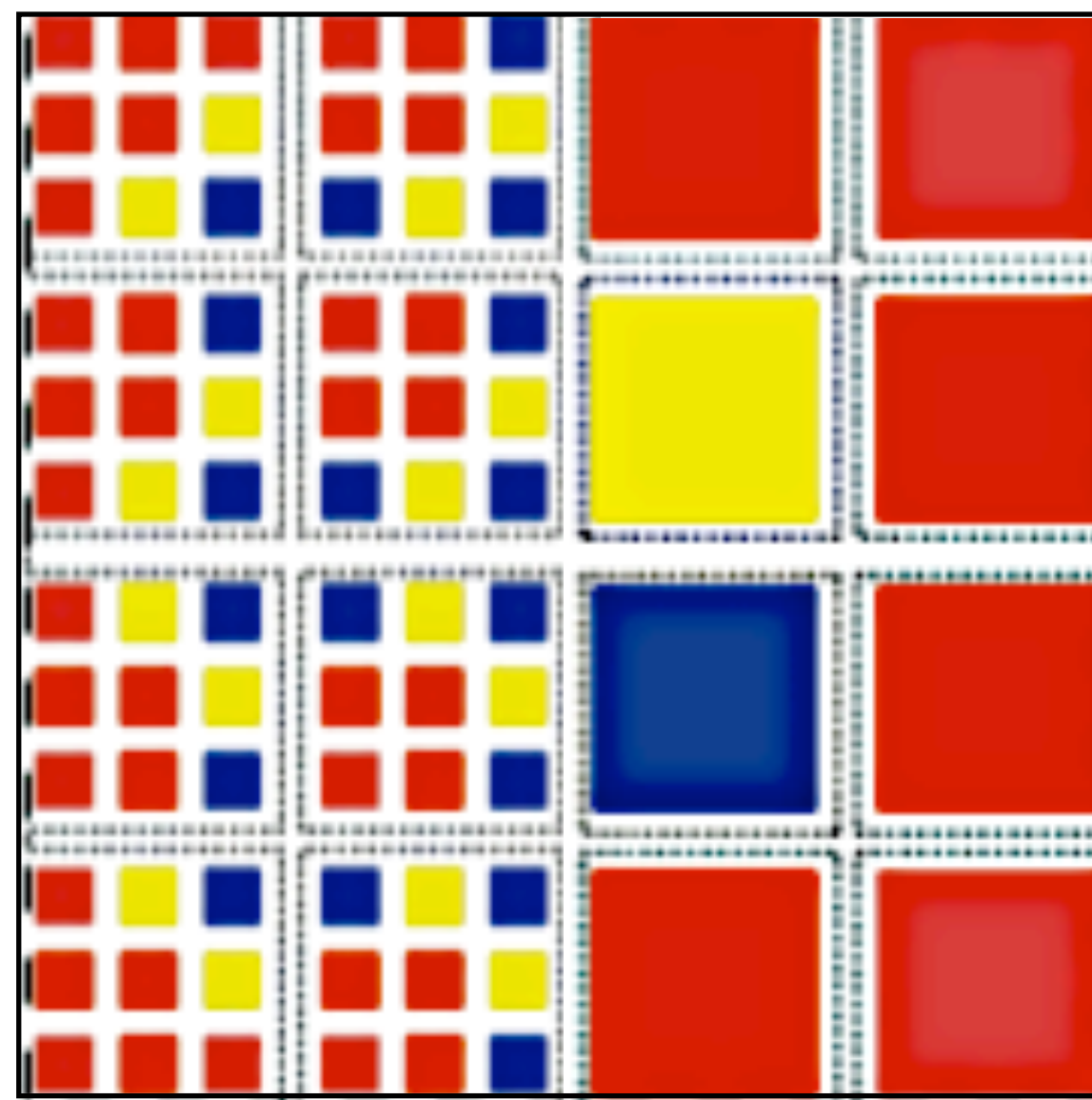
I. MIXED-USE (BACKGROUND)

PHYSICAL FORM OF IMPLEMENTATION

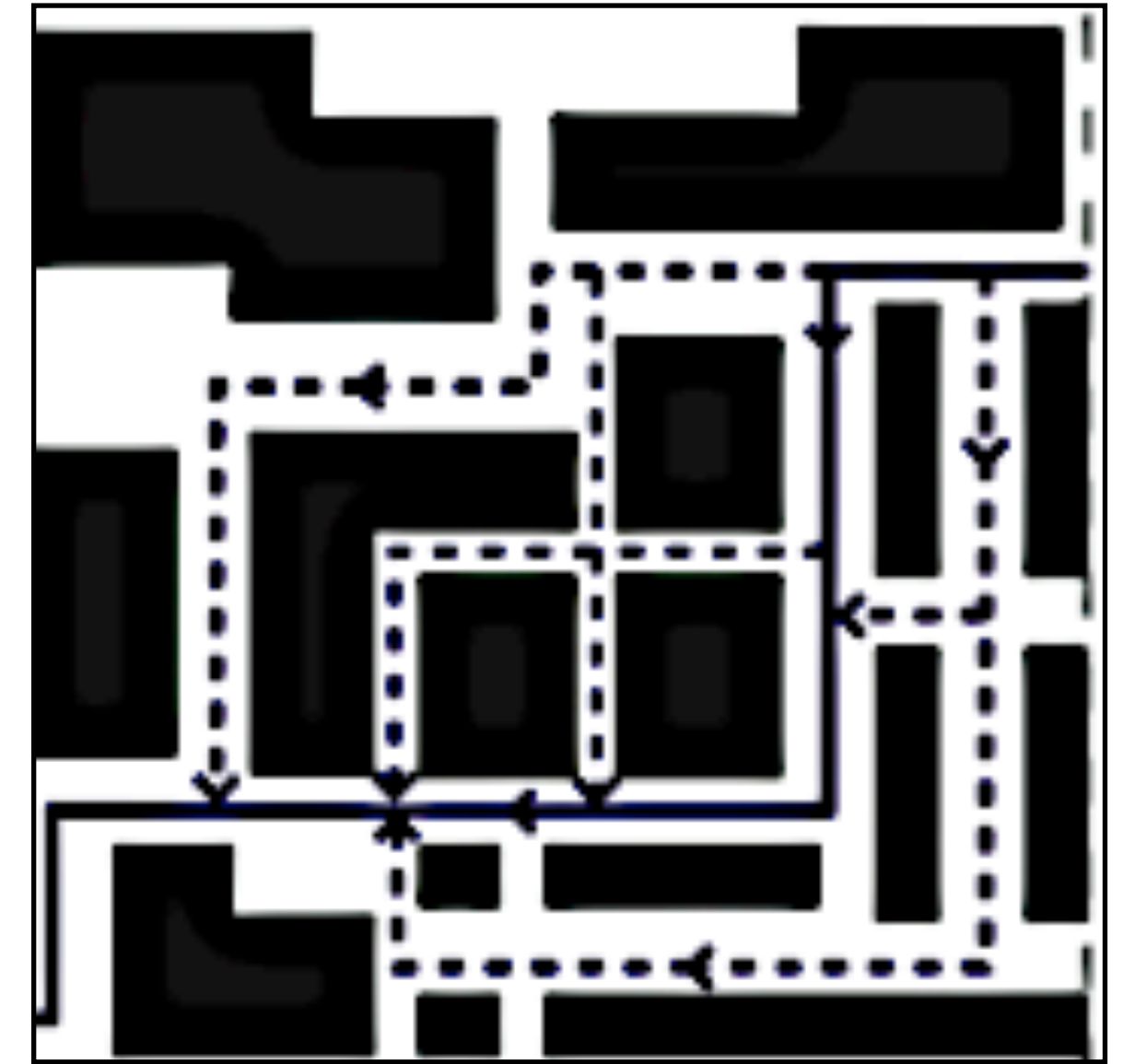
URBAN TEXTURE



DENSITY



GRAIN

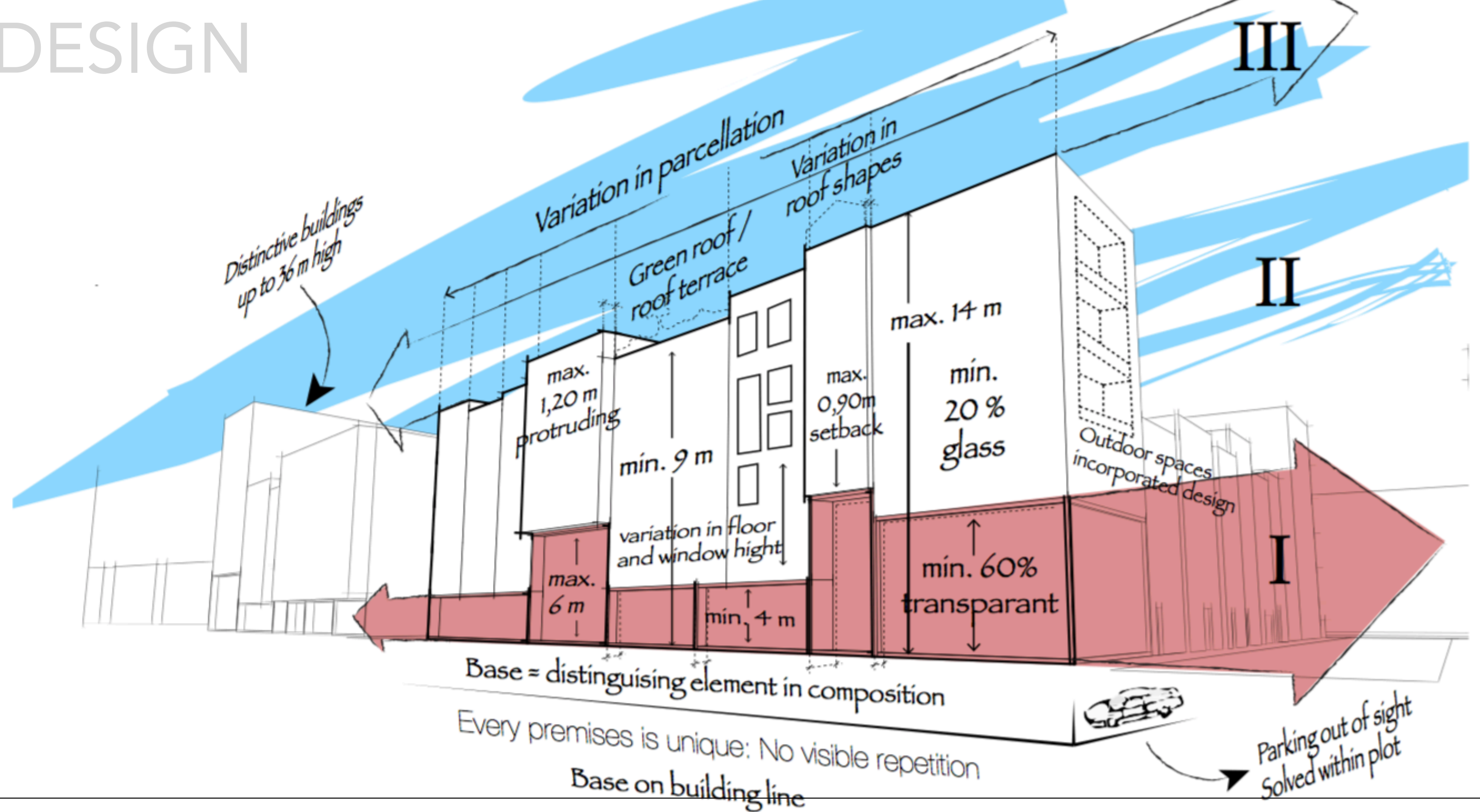


INTERWEAVING

I. MIXED-USE (BACKGROUND)

PHYSICAL FORM OF IMPLEMENTATION

DESIGN



I. MIXED-USE (BACKGROUND)

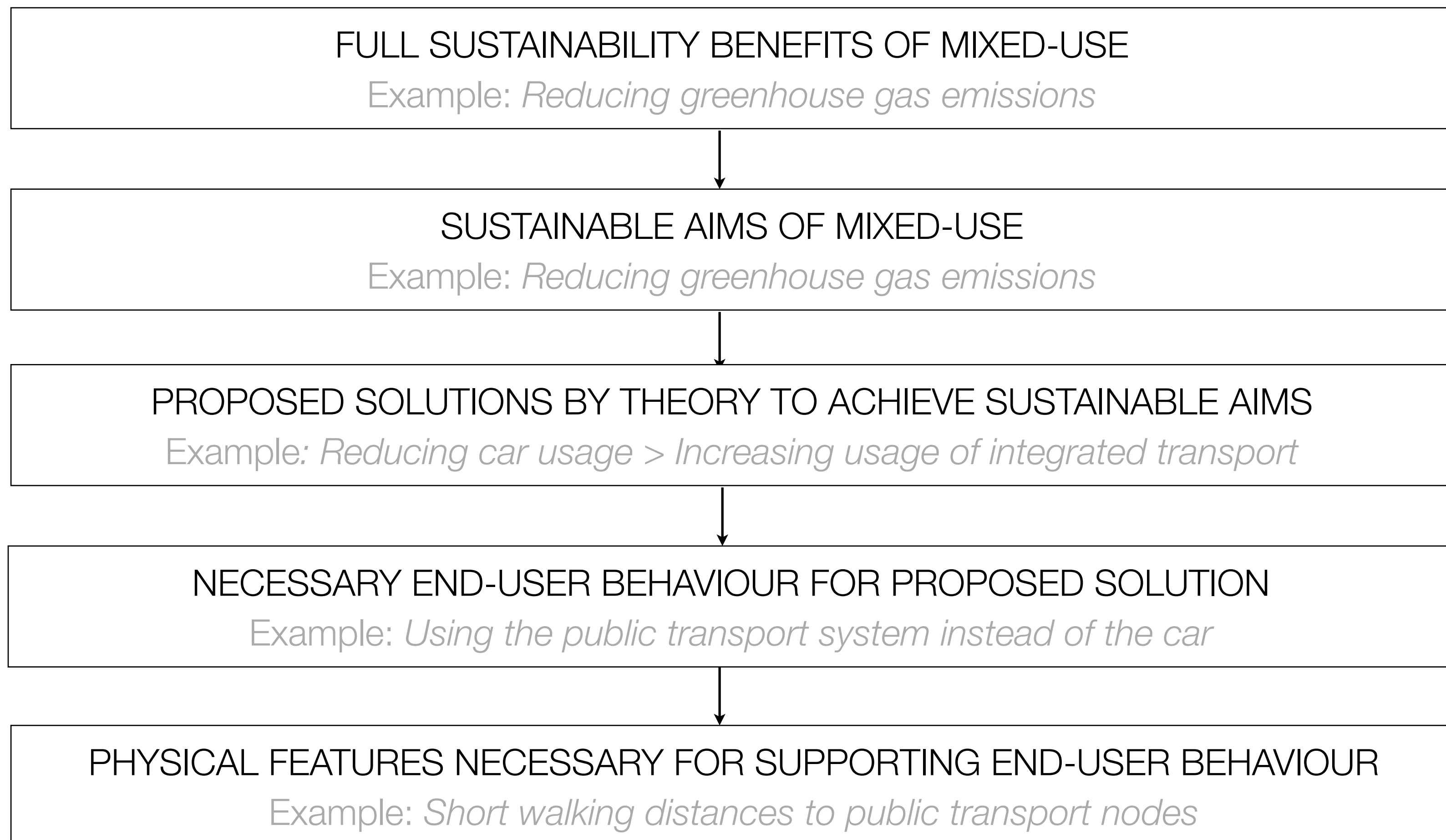
and finally, the exact design.

In this research these five conceptual levels are summarised in the 'urban form' in which the concept of mixed-use is implemented.

The different urban forms of implementation lead to different results in the field of sustainability.

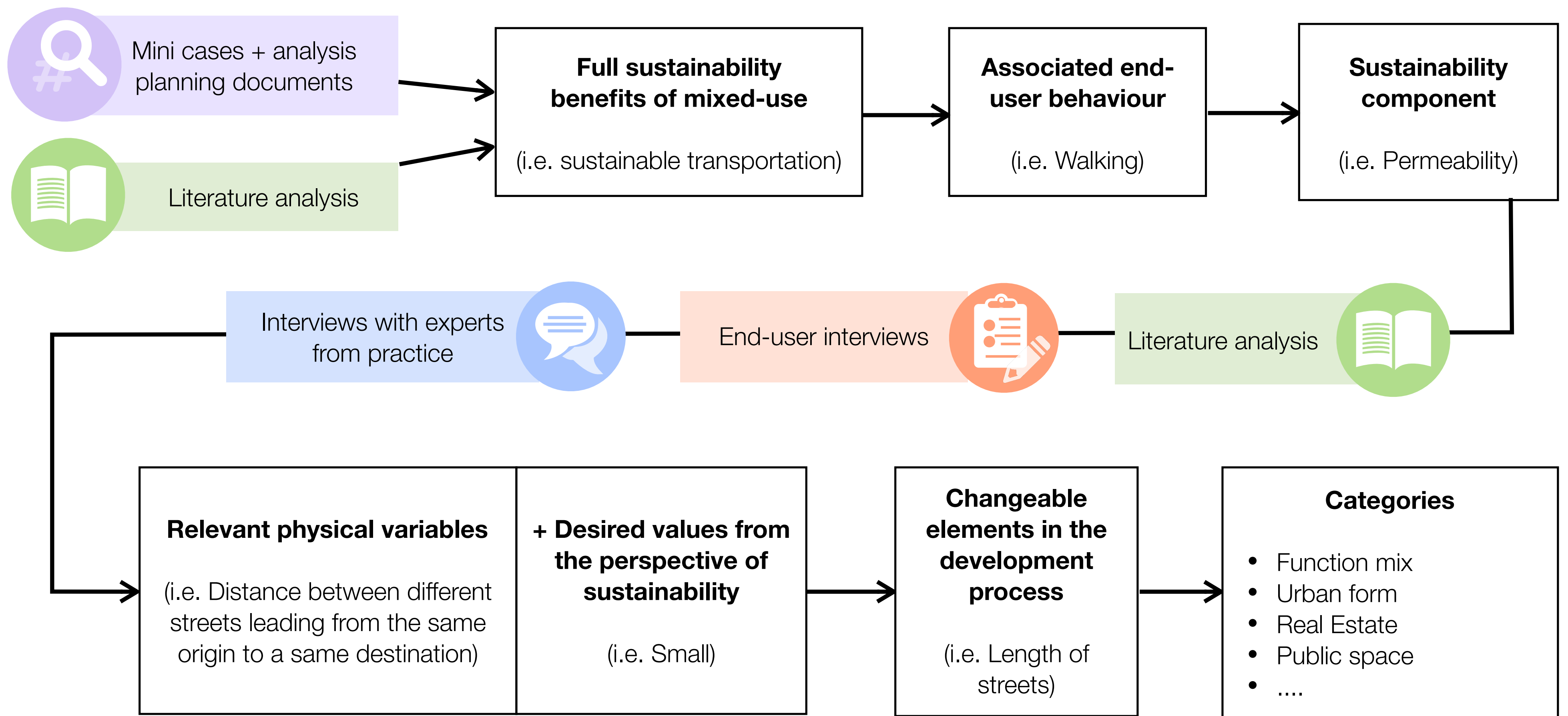
THEORETICAL FRAMEWORK

HOW CAN THE MOST SUSTAINABLE URBAN FORM BE DETERMINED?



II. THEORETICAL FRAMEWORK

The last part of the theoretical framework on the product side focuses on deducing this urban form. This is done in a number of steps. First the full sustainability benefits of mixed-use are distinguished from theoretical literature and practical evidence. These full sustainable benefits are regarded as the sustainable goals mixed-use development aims to achieve. Next, the solutions that mixed-use poses for all of these aims according to theory are added. These solutions all presuppose a certain end-user behaviour that can logically be deduced. Finally, this end-user behaviour poses certain requirements to the urban form that can be deduced from theory and practice. These variables of urban form along with their desired value from the perspective of sustainability will compose the final product recommendations on the urban form that offers most potential for achieving long term urban sustainability.



II. THEORETICAL FRAMEWORK

CONCLUSIONS (THEORY, PROCESS)

- a.** Participatory, collaborative processes in a network structure in which actors work towards a shared vision
- b.** Private-led development
- c.** Facilitating municipal role
- d.** Flexible institutional framework
- e.** Incentives for sustainable development
- f.** Business models that foster long term commitment



II. THEORETICAL FRAMEWORK

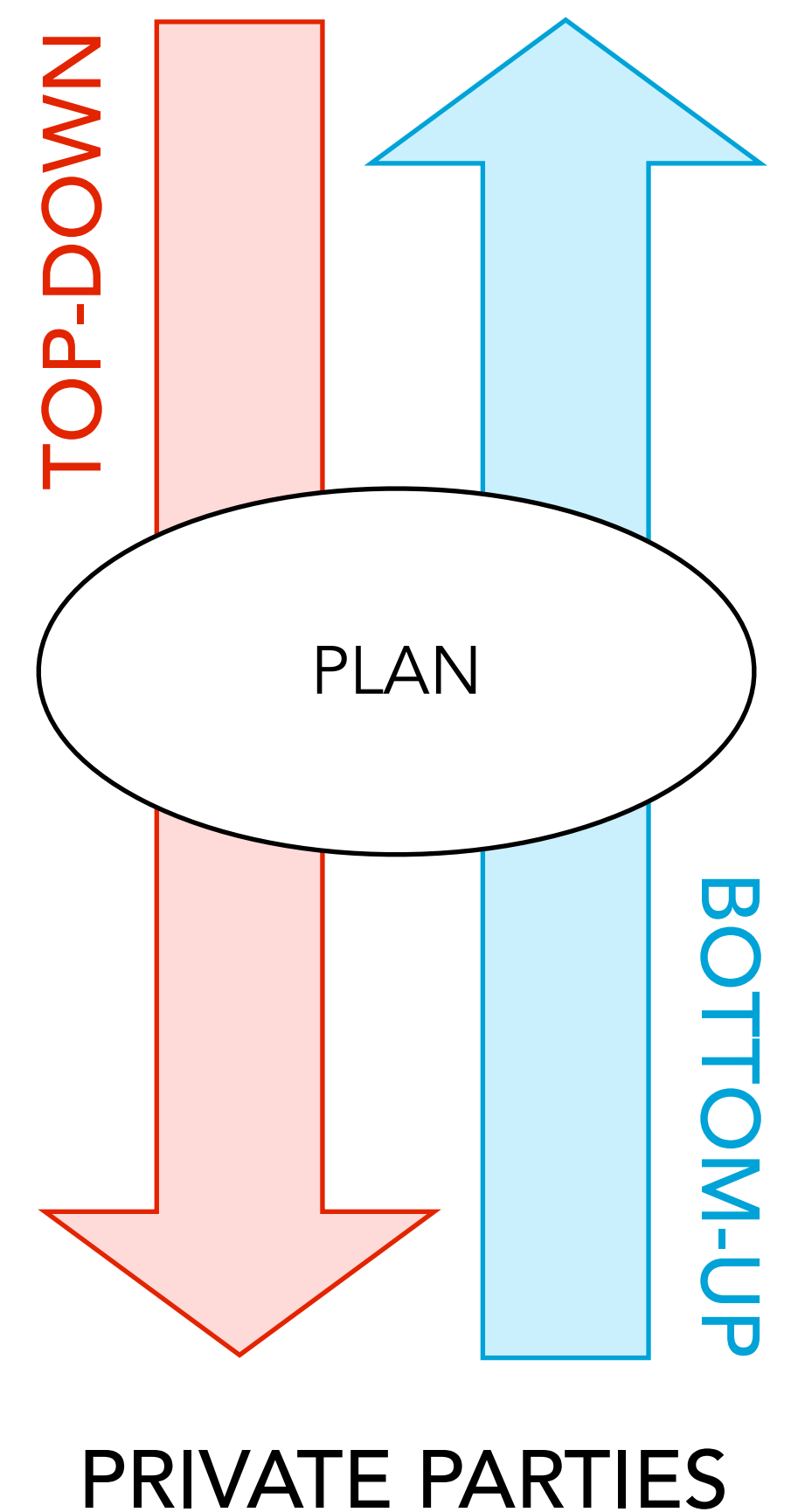
Also the process-part of the theoretical framework has lead to some recommendations from theory.

Firstly, a collaboration method in which all stakeholders collaborate in a context of horizontal relationships is considered most appropriate for contemporary urban area development. Inclusion of all actors, including the end-user, is important in this light, and by collaboratively working towards an integrated vision for the direction of development of the area, actors provide the best chance of reaching agreement and achieving the best results.

CONCLUSIONS

- a.** Participatory, collaborative processes in a network structure in which actors work towards a shared vision
- b.** Private-led development
- c.** Facilitating municipal role
- d.** Flexible institutional framework
- e.** Incentives for sustainable development
- f.** Business models that foster long term commitment

PUBLIC AUTHORITIES



II. THEORETICAL FRAMEWORK

Regarding the development approach, a number of development approaches have come forward from theory, of which the most important differences in fact come down to a single variable: the degree of governmental control in the urban area development project. In this, completely top-down approaches in which the public authorities basically prescribe the development plans are one extreme, and bottom-up approaches in which the development is driven by private parties are on the other end of the ladder.

Because of limits to the belief of makeability of society that the top-down approach suggests,

and an increased awareness of the indispensable knowledge and interests market parties and end-users provide for successful urban area development,

private-led development is increasingly being regarded as the way forward for urban area development.

It demonstrates a capacity to fit to location specific circumstances and offer long term socially and economically viable solutions.

Public authorities are recommended to replace their active development role with a facilitating role, and a flexible institutional frameworks that gives private developers freedom to act.

In order to ensure sustainable development by the private actors, the offering of incentives can be used to push private developers in the right direction.

In the same context, some theoreticians defend a change in the private developers mentality by giving them a more long-term commitment to the projects, increasing the long term interest of private actors in the area as a whole, and increasing the sustainability of the result.

CASE

MATERIAL

The development of the area Overhoeks started in 2003, when the former owner of the area, Shell, decided to pull back onto a 7 hectares large plot for their Shell Technology centre Amsterdam and sell the remaining 20 hectares of the land.

The municipality of Amsterdam jumped in, and the same year a traditional top-down development strategy was decided, in which Shell was the land-owner, the municipality was the land-developer and ING RED was the real-estate developer.

In collaboration with these parties an urban masterplan was designed in 2004, in which the urban plan and phasing was established that is still maintained today. In the area next to the shell technology centre, a large mixed-use program will be developed, in a ratio of about 70% living and 30% working + facilities.

LAND SITUATION

	OVERHOEKS	BUIKSLOTTERHAM
Municipal ownership, municipal use	17 plots - 74% of the land	20 plots - 33% of the land
Municipal ownership, in leasehold	(13 plots, in future)	48 plots
Municipal ownership, rented out	(1 plot, in future)	4 plots
Private ownership	1 plot (STCA)	18 plots
Total:	18 plots (27 hectares)	82 plots (100 hectares)

FINDINGS

EMPIRY

The development of the area Overhoeks started in 2003, when the former owner of the area, Shell, decided to pull back onto a 7 hectares large plot for their Shell Technology centre Amsterdam and sell the remaining 20 hectares of the land.

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In collaboration with these parties an urban masterplan was designed in 2004, in which the urban plan and phasing was established that is still maintained today. In the area next to the shell technology centre, a large mixed-use program will be developed, in a ratio of about 70% living and 30% working + facilities.

ACTOR ANALYSIS

- a.** More and more emerging actors in Buiksloterham
- b.** Same overarching actor types, but: end-user developer in Buiksloterham
- c.** Merged roles
- d.** Different disciplines in project team
 - More legal experts in Buiksloterham
 - More urbanists in Buiksloterham
 - Architectural supervision in Overhoeks
 - Neighbourhoodmanager in Overhoeks
 - Sustainability expert in Buiksloterham

III. EMPIRICAL PART

In the context of studying the development approaches, an actor analysis has been performed.

From the actor analysis, it has come forward that there are more and more emerging actors in Buiksloterham, which can be ascribed to the chosen development approach in Buiksloterham, with more individual plots and thus development projects than in Overhoeks.

Secondly, the actor types in the urban area developments are the same and demonstrate the same traits, with the exception that in Buiksloterham, the so called 'end-user developer' is often included in the development process through PC projects, causing a situation in which the end-user is thus directly involved in the development process. This is never the case in Overhoeks.

What also becomes clear is that in practice the roles in the urban area development process are not as distinct as in the traditional situation before the crisis which is often described in theory. The roles of the actors are often blended, with certain organizations or individuals taking on multiple of these roles.

Lastly, there are some differences in the actors appointed to the projects in the municipality itself; Some attributable to the chosen development approach, but some also demonstrating a difference in focus between the two urban area development projects.

In overhoeks there is for example a larger degree of supervision by the municipality on the architectural designs of private developers. Furthermore, there is the inclusion of a neighbourhood manager in Overhoeks and a sustainability expert in Buiksloterham.

ANALYSIS PLANNING DOCUMENTS

a. Different planning documents

- STANDARD 'PLABERUM' DOCUMENTS OVERHOEKS
- OPEN PLANNING PRODUCTS BUIKSLOTHAM

b. Different decision-making sequences

- IMPORTANT DECISIONS EARLY IN THE PLAN DEVELOPMENT PROCESS

c. Different intentions

- FLEXIBILITY
- SUSTAINABILITY
- MIXED-USE

III. EMPIRICAL PART

After the analysis of the actors participating in the urban area development process, the formal collaboration-, plan development- and decision-making process has been studied.

This has been done by analyzing the formal planning documents of the two urban area developments, from the city level structural visions to the definitive designs on plot level.

From the analysis of planning documents, it turns out that the planning documents from Overhoeks and Buiksloterham differ in terms of the type of planning documents that are used, the sequence in which decisions are made, and in terms of the intentions they display for the urban area development projects.

Different planning documents - Overhoeks largely sticks to the standard planning documents for urban area development processes outlined by the municipality of Amsterdam's 'Plaberum', while Buiksloterham deliberately deviates from these standard documents, abandoning the pre-defined masterplan and adding new planning documents in the development process on plot-level, directed towards more private participation in the development process and more information and requirements on sustainability.

Different decision making sequences - From the planning documents it comes forward that certain levels of decisions that have proven to be very influential on the final degree of urban sustainability according to theory, are decided very early on in the plan development process and not necessarily (by the actors) with the long term public interest in mind.

Different intentions - Last way in which the planning documents differ is in the intentions they display, such as, for example, flexibility. Buiksloterham aims at flexibility with an incremental development that leaves room for small scale private development initiatives, while Overhoeks does not. This leads to different types and structures of planning documents and also influences the way and degree of detail in which the plan decisions are recorded in the planning documents.

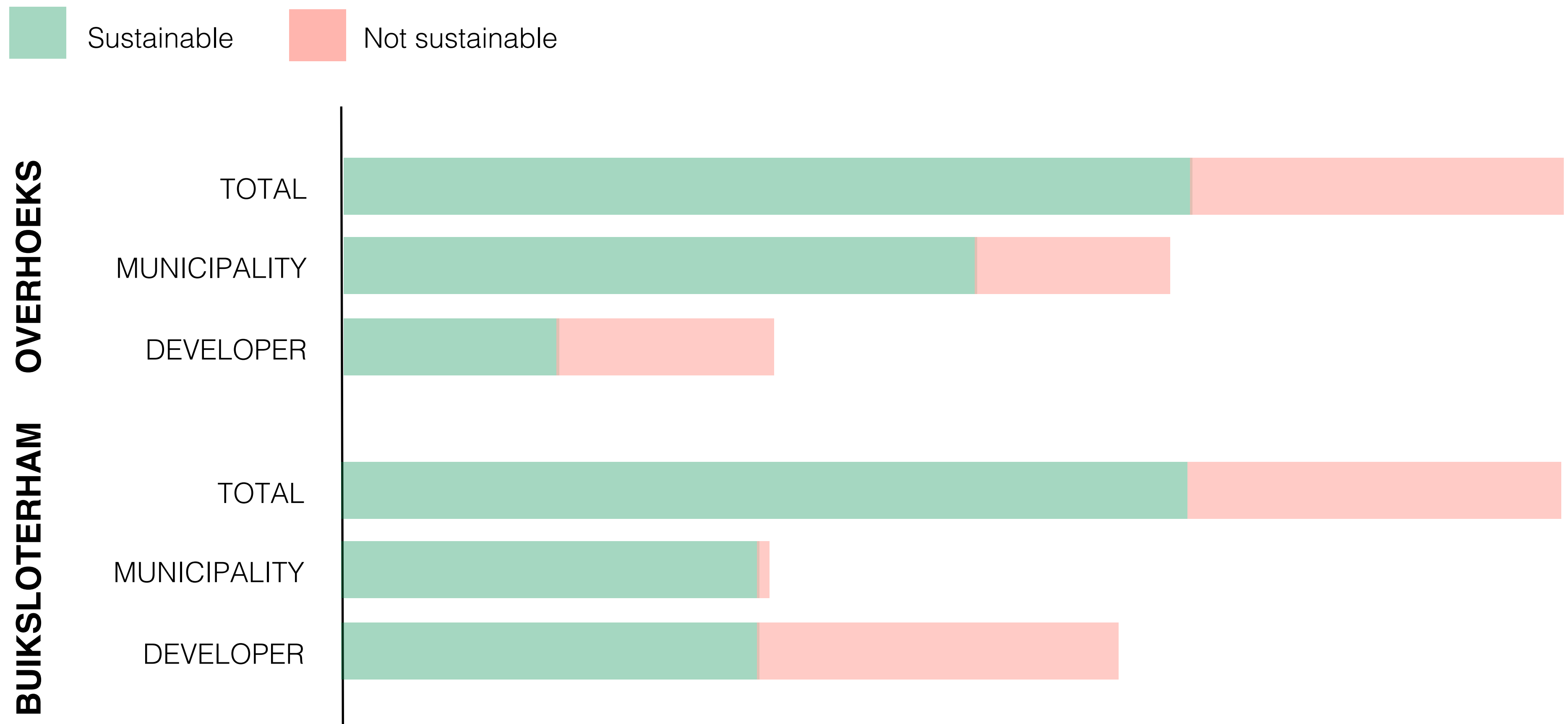
Another way in which the intentions of urban area developments can differ is the degree to which they aim at long-term sustainability of the development result. Where in Buiksloterham sustainability is the number one intention of the urban area development, Overhoeks does not include it in the planning documents as a goal.

Furthermore, Also the type and character of the area that is pursued and the interpretation of mixed-use differs between Overhoeks and Buiksloterham, with Buiksloterham aiming at a finely grained mixed-use all over the plan area and Overhoeks actually interpreting it in large functional zones.

When evaluating these from the perspective of sustainability, some recommendations can be deduced on how to pursue and insure the implementation of sustainability in the formal plan development process, which will be come back to in the conclusions.

ANALYSIS DEVELOPMENT DELIBERATIONS

Sustainability interests expressed in development deliberations:



III. EMPIRICAL PART

As last part of the empirical part, development deliberations of the urban area developments of Overhoeks and Buiksloterham are analysed to investigate the decision-making process that underlies the decisions that are recorded in the planning documents.

Over the course of the empirical part of this research I have done an internship at the municipality of Amsterdam, which allowed me to observe the within the period of the internship occurring development deliberations of Overhoeks and Buiksloterham/

From the more than 20 analyzed development deliberations for each case, the interests manifested by the actors, the interventions proposed and opposed by the actors and the eventual decisions made are analyzed.

These aspects are analyzed on the topic of their impact on mixed-use and the urban sustainability of the area following the sustainability components and values from theory, and subsequently related to the features of the project in which they were mentioned,

such as the urban area development project (and thus development approach), the land- and development situation of the sub-project, the phase of the project, the actor defending or opposing them and, ultimately, their implementation.

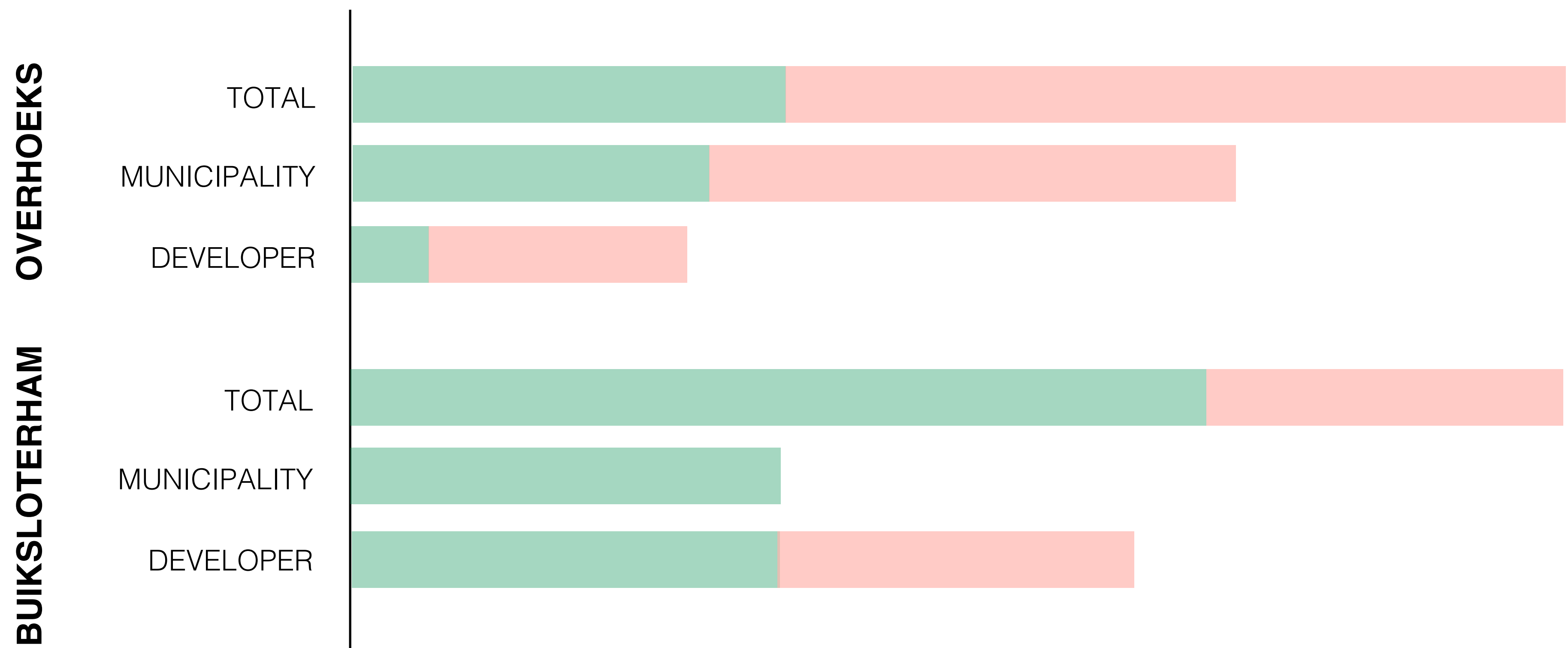
Based on these findings, trends can be observed on the sustainable orientation of the actors and the position of sustainability in the decision-making balance in relation to these aspects, from which, once again, recommendations can be derived, this time in the field of the unrecorded development process.

Focus on sustainability in BSH and focus on streamlined development process in OH - From the manifested interests by the actors in the development deliberations, we can see that in Buiksloterham there is quite a large focus on sustainability, with both the municipality and developers in Buiksloterham expressing many sustainable interests and also expressing interests on scales that go beyond their own development projects.

In Overhoeks, both the municipality and the developer express this much less, and are instead more focused more on the streamlinedness of the development process.

ANALYSIS DEVELOPMENT DELIBERATIONS

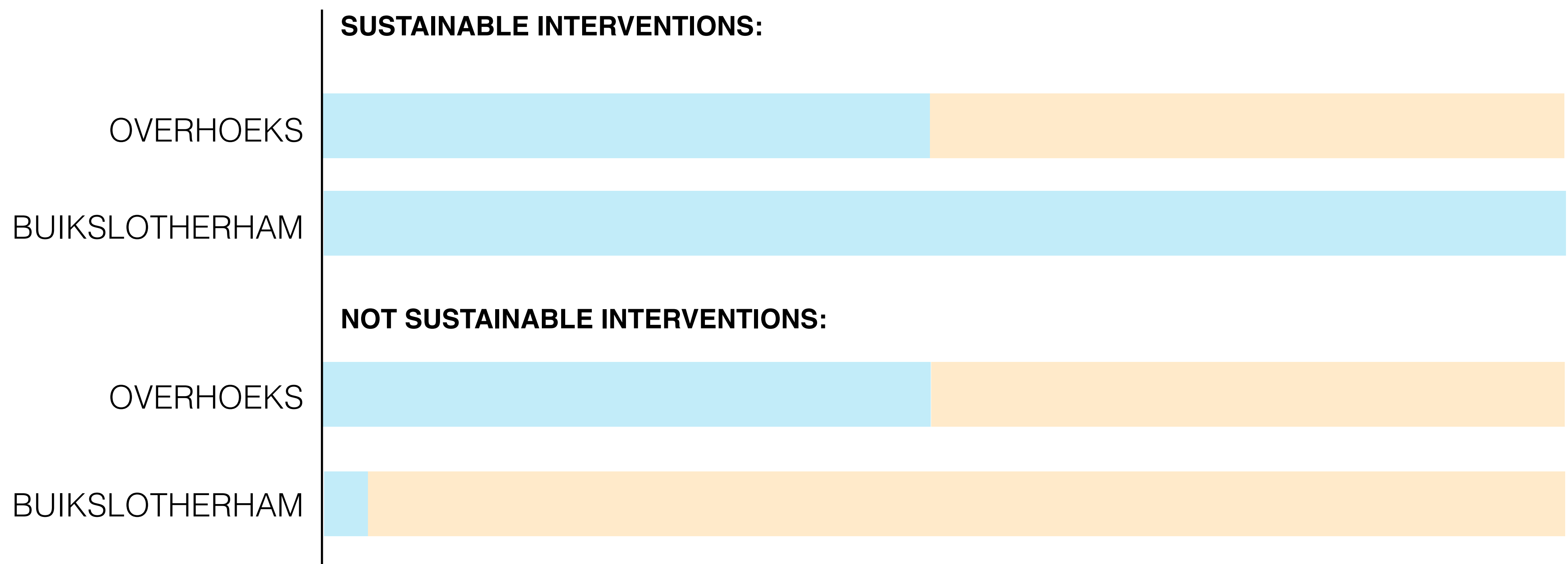
Sustainability Interventions proposed in development deliberations:



This is also reflected in the type of interventions that were proposed (see this image),

ANALYSIS DEVELOPMENT DELIBERATIONS

Implementation interventions proposed in development deliberations:

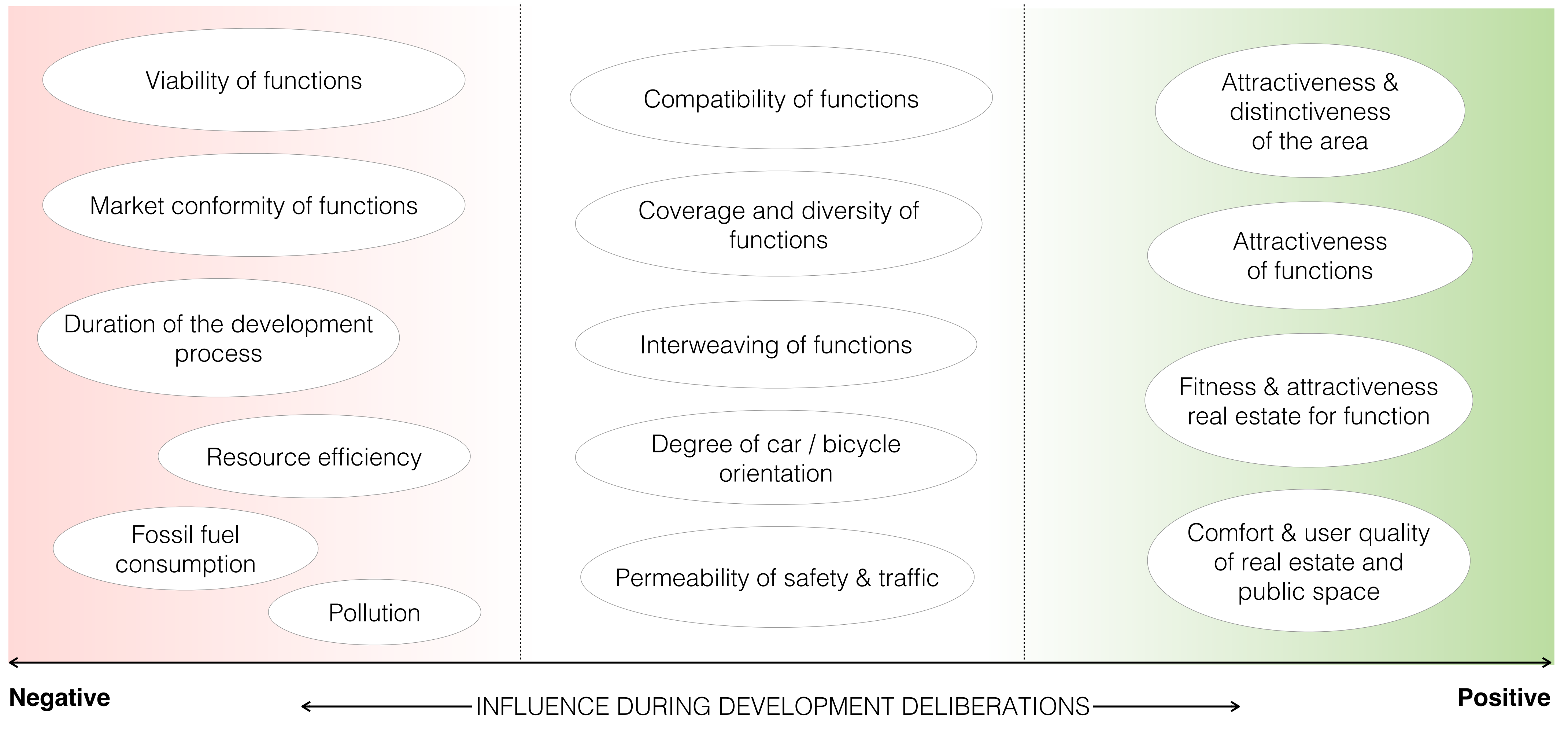


III. EMPIRICAL PART

...and finally in the amount of sustainable interventions that are eventually implemented, indicating a higher weight of sustainability in the decision making balance in Buiksloterham.

Culture of mutual collaboration in Buiksloterham - Actors also demonstrate a larger inclination to collaborate in Buiksloterham than in Overhoeks, with the actors trying to help the other actors and trying to find mutual interests.

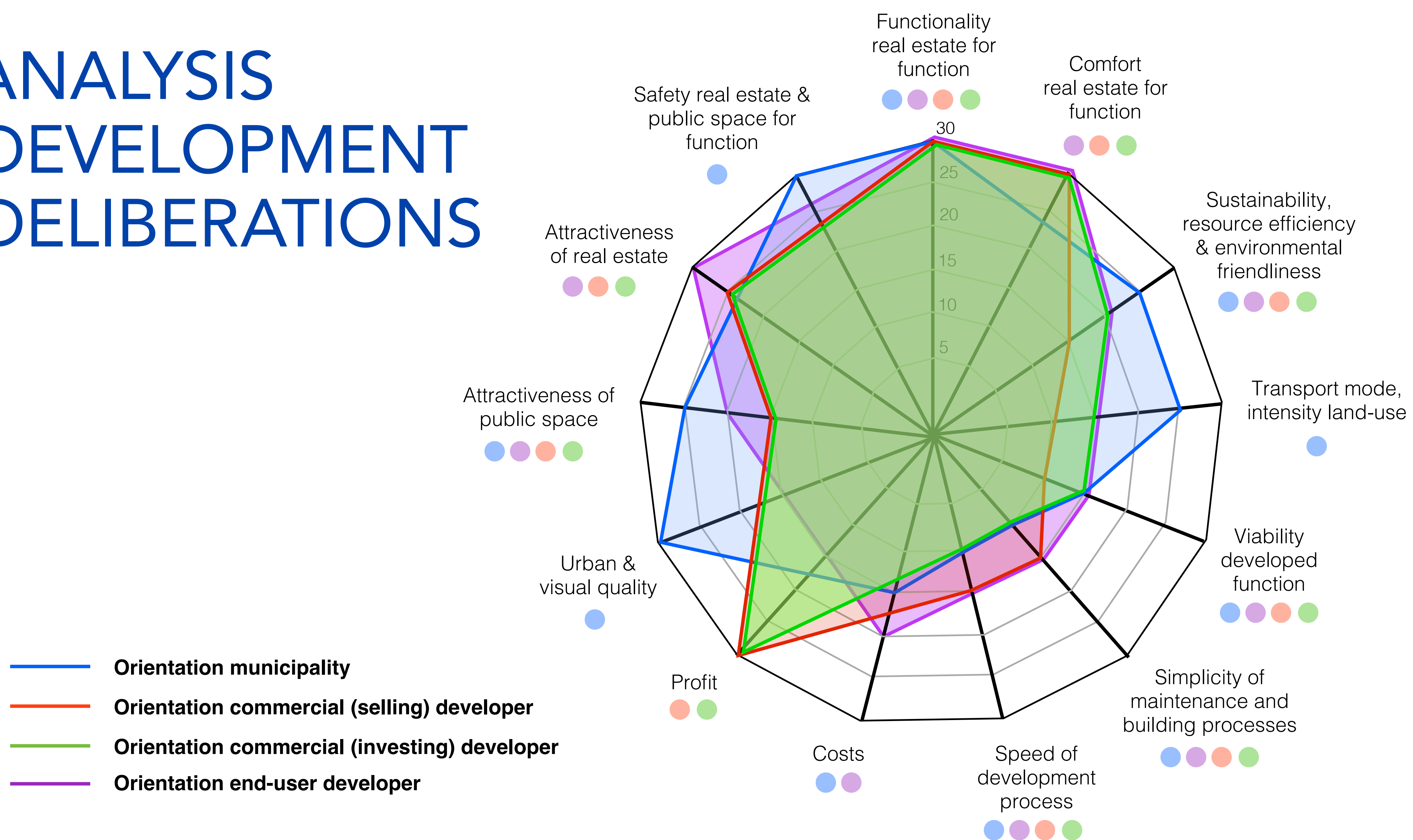
ANALYSIS DEVELOPMENT DELIBERATIONS



III. EMPIRICAL PART

Also general findings could be found that were true for both Overhoeks and Buiksloterham, such as which theoretical sustainability components were most vulnerable during the development process,...

ANALYSIS DEVELOPMENT DELIBERATIONS

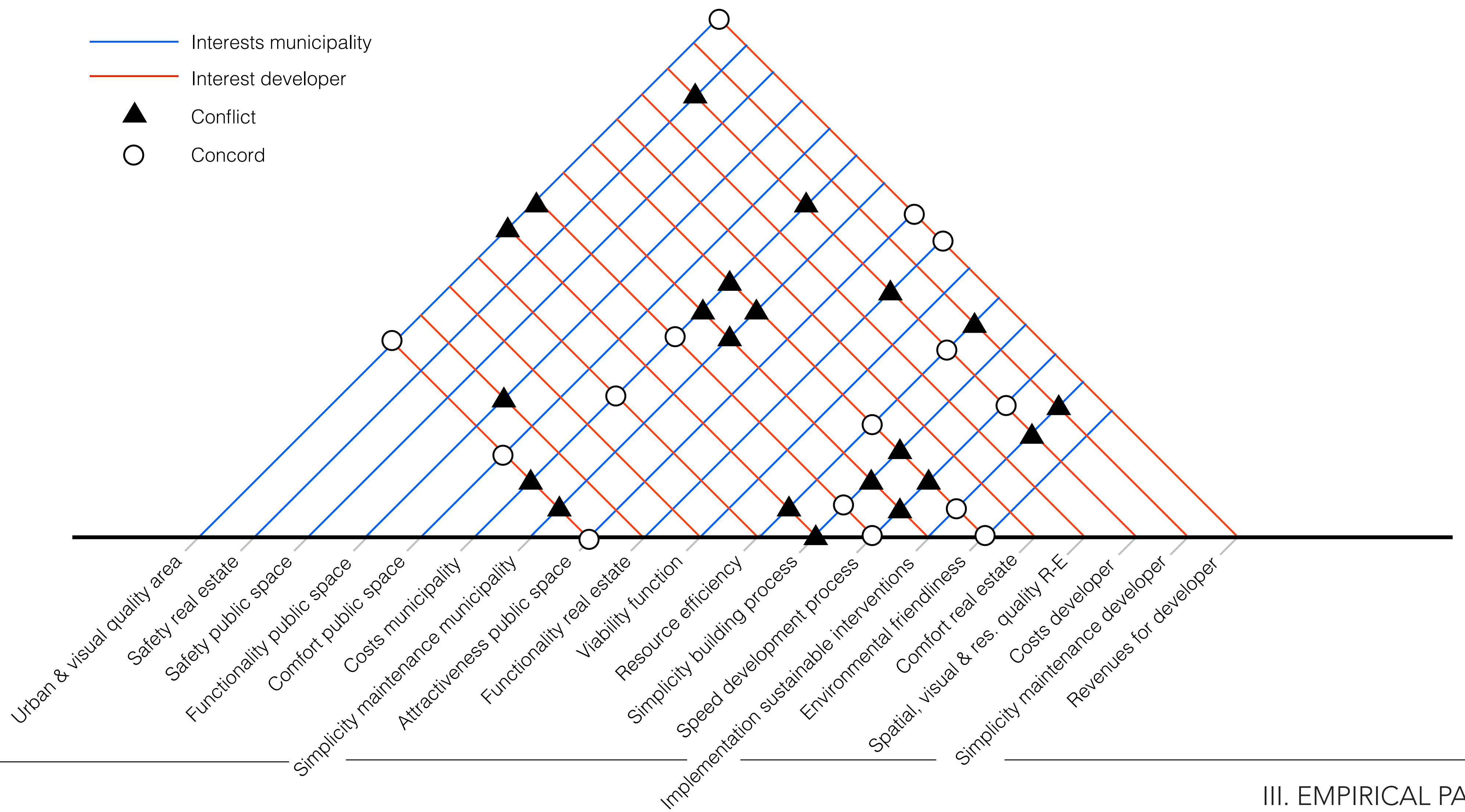


III. EMPIRICAL PART

...the general orientation of the actors,

ANALYSIS DEVELOPMENT DELIBERATIONS

- Interests municipality
- Interest developer
- ▲ Conflict
- Concord



III. EMPIRICAL PART

...and the most occurring conflicts of interests in the development deliberations

ANALYSIS DEVELOPMENT DELIBERATIONS

Sustainability interventions proposed in development deliberations: ■ Sustainable ■ Not sustainable

OVERHOEKS

TOTAL

MUNICIPAL LAND, MUNICIPALITY

LEASEHOLD, DEVELOPER

LEASEHOLD, TENDER

TOTAL

MUNICIPAL LAND, MUNICIPALITY

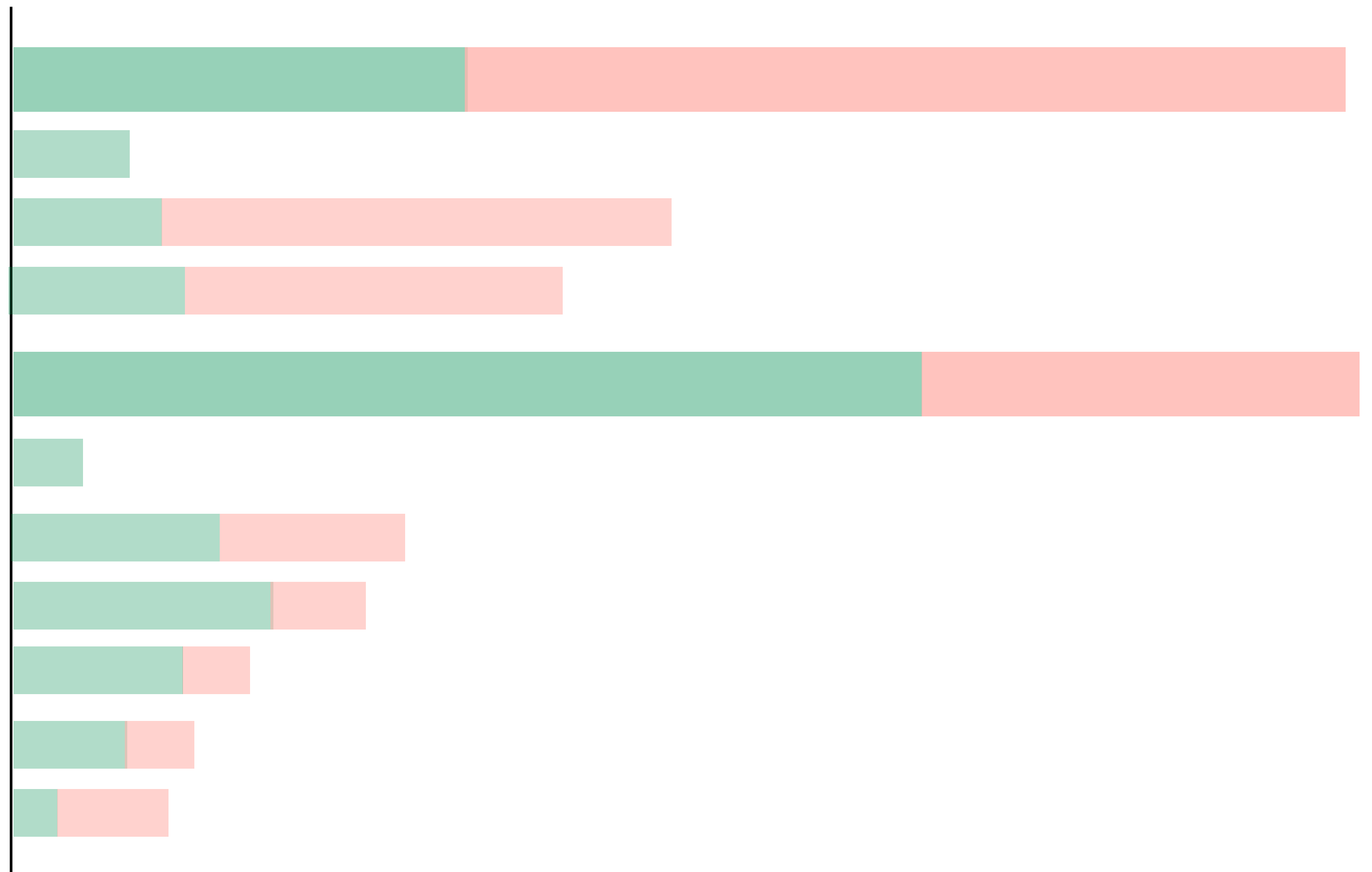
LEASEHOLD, DEVELOPER

LEASEHOLD, TENDER

LEASEHOLD, CPC

LEASEHOLD, PC

PRIVATE LAND, PRIVATE DEVELOPER

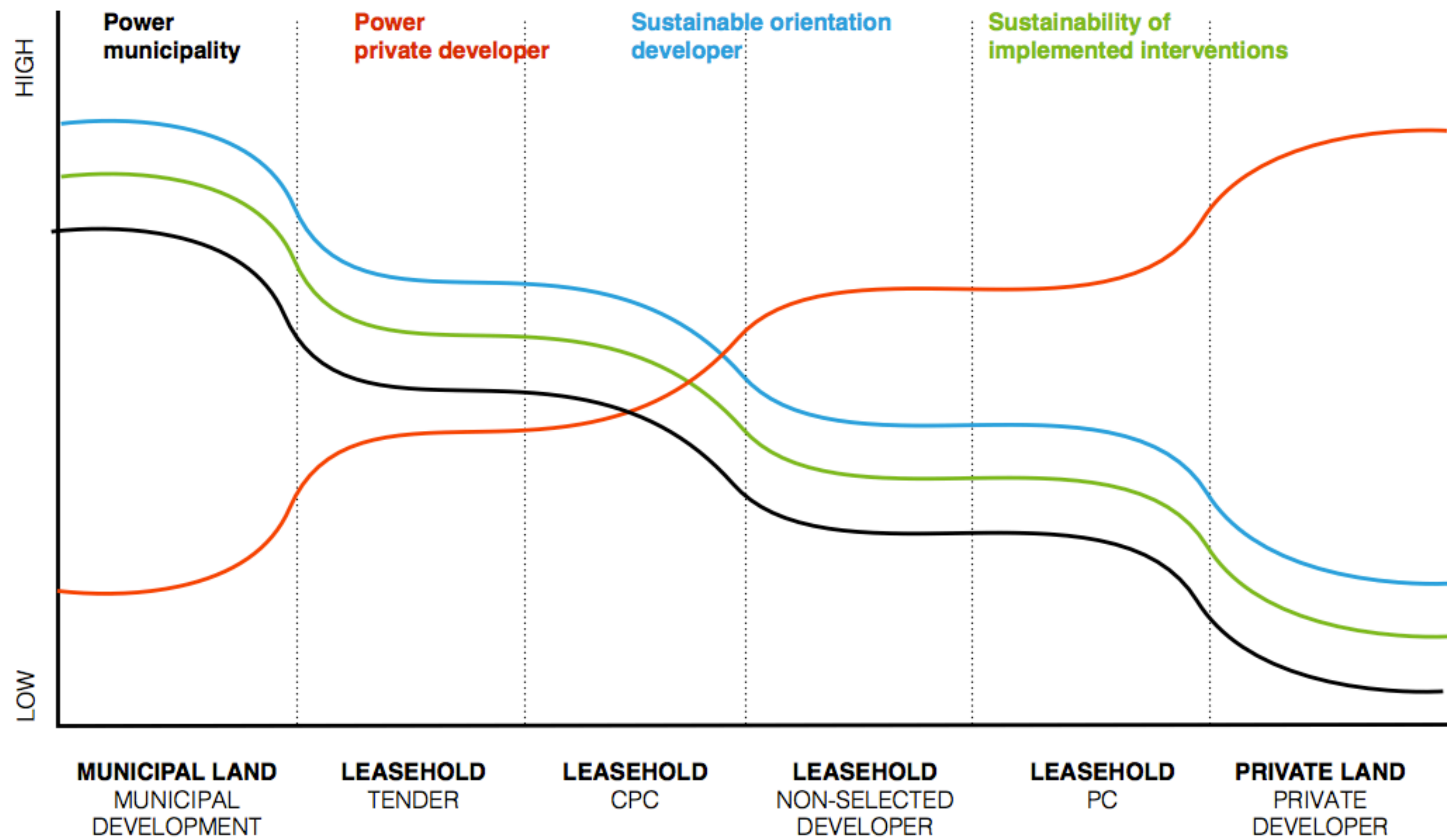


III. EMPIRICAL PART

Also, although the used data set is too small to come to factual conclusions some trends can be observed in the relationship between the sustainable orientation and the land and development situation and phases of projects.

The sustainable orientation of the developer and sustainability of implemented interventions was highest in the municipal developments and decreased as the power of the municipality decreased and the power of the private developers rose, as can be seen in this diagram,

ANALYSIS DEVELOPMENT DELIBERATIONS

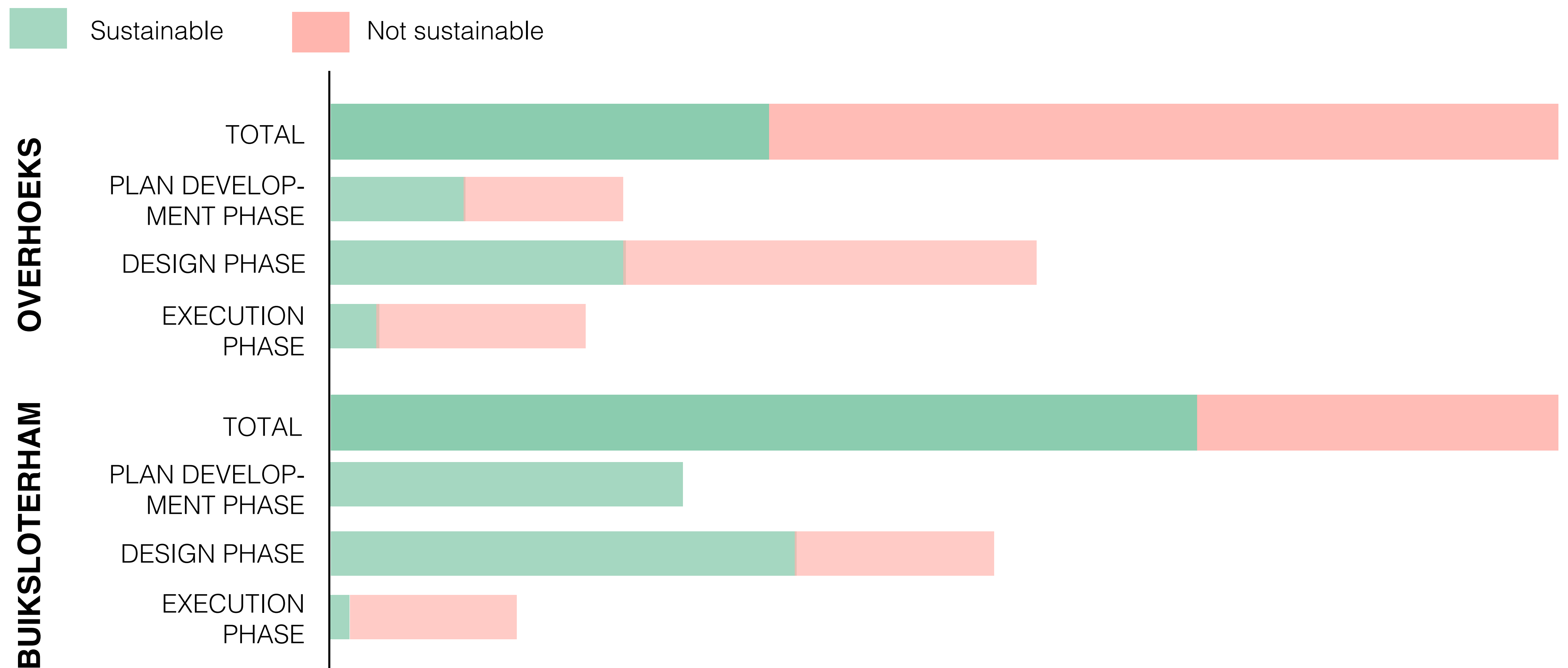


III. EMPIRICAL PART

leading to a situation more or less like this.

ANALYSIS DEVELOPMENT DELIBERATIONS

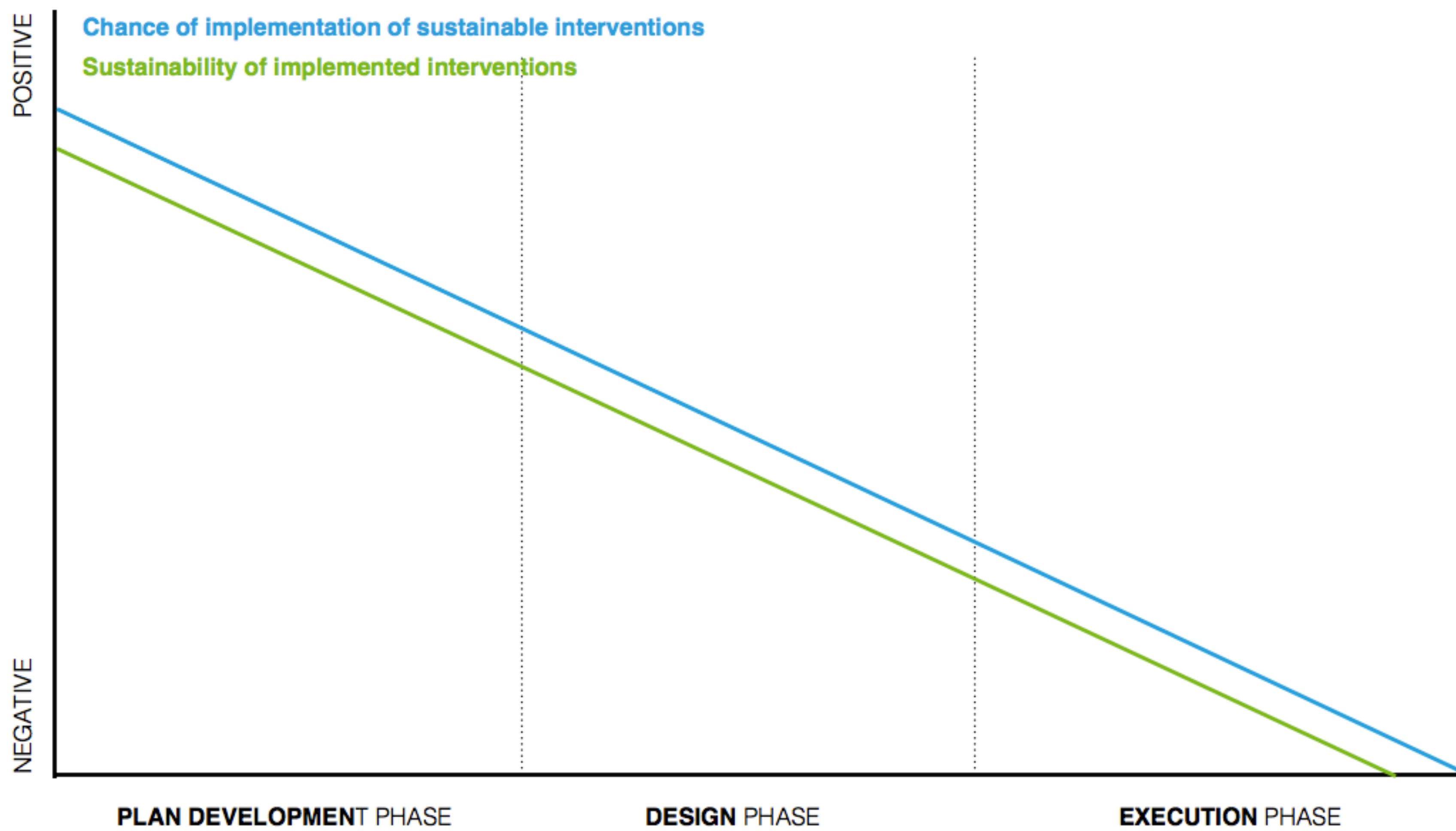
Sustainability Interventions proposed in development deliberations:



III. EMPIRICAL PART

Finally, regarding the phase, we see that the sustainable orientation of the actors is highest and the opportunity for implementing sustainable components is also the highest in the plan development phase, and decreases as the development process progresses.

ANALYSIS DEVELOPMENT DELIBERATIONS



III. EMPIRICAL PART

In the execution phase, sustainable interests are often overruled by more direct and practical interests relating to time and money, leading to many very unsustainable decisions being made in the execution phase.

RECOMMEN- DATIONS

The development of the area Overhoeks started in 2003, when the former owner of the area, Shell, decided to pull back onto a 7 hectares large plot for their Shell Technology centre Amsterdam and sell the remaining 20 hectares of the land.

The municipality of Amsterdam jumped in, and the same year a traditional top-down development strategy was decided, in which Shell was the land-owner, the municipality was the land-developer and ING RED was the real-estate developer.

In collaboration with these parties an urban masterplan was designed in 2004, in which the urban plan and phasing was established that is still maintained today. In the area next to the shell technology centre, a large mixed-use program will be developed, in a ratio of about 70% living and 30% working + facilities.

RECOMMENDATIONS PRODUCT

- a.** Stadswarmte
BUIKSLOTTERHAM
- b.** Sustainable tenders
BUIKSLOTTERHAM
- c.** Small plots
BUIKSLOTTERHAM
- d.** Respecting and exploiting local culture
BUIKSLOTTERHAM
- e.** CPC & PC formulas
BUIKSLOTTERHAM
- f.** Citizen-designed public space (Papaverpark)
BUIKSLOTTERHAM

RECOMMENDATIONS PROCESS

1. ACTOR EDUCATION

a. Make actors aware of need and urgency for sustainability

c. Increase actor understanding urban sustainability

- Full scope of sustainability
- Lifecycle approaches
- Increase knowledge on sustainable solutions
- Emphasize end-user importance

b. Demonstrate **BENEFITS** of urban sustainability to actors

- Not necessarily more costs
- Higher benefits with longer term commitments

d. Connect goals to product: mixed-use

- Increase knowledge on how actor objectives can be achieved in terms of urban form
- Show potential of mixed-use development

e. Couple research and practice

RECOMMENDATIONS PROCESS

2. INTERDISCIPLINARY COLLABORATION

- a. Stakeholder inclusion
- b. Transparent and communicative attitudes
- c. Working towards a shared vision
- d. Appropriate management by independent or public party
- e. Sustainability advisor / manager as part of the project team

RECOMMENDATIONS PROCESS

3. MUNICIPAL DIRECTION

- a. Prioritization of sustainability in policy
- b. Alignment of public policies on different scales
- c. Management of urban area development process
- d. Keeping control over land (leasehold)
- e. Offering incentives
- f. Supportive investments (in sustainable interventions) on area level

RECOMMENDATIONS PROCESS

4. MUNICIPAL FACILITATION

- a. (custom) Coordination of processes
- b. Communication with stakeholders in the area (Neighbourhood manager)
- c. Citizen participation platform
- d. Supportive investments
- e. Financial arrangements / subsidies
- f. Collaborative attitude
- g. Simpler and relaxed procedures

RECOMMENDATIONS PROCESS

5. FLEXIBLE INSTITUTIONAL FRAMEWORK

a. Framework with criteria instead of masterplan

b. Urban area development aims translated to boundary conditions:

- Detailed enough to ensure goal

- Flexible enough to allow private initiatives to flourish

c. Clauses for amendment

RECOMMENDATIONS PROCESS

6. A SUSTAINABILITY ORIENTED WORKING METHOD

- a. Awareness of sustainability (actor education)
- b. Inclusion of sustainability (choice)
- c. Research (analysis of local conditions, potential and opportunities)
- d. Formulation of ambitions (sustainable ambitions specific for area)
- e. Operationalization of ambitions into concrete goals (incl. assessment)
- f. Making sustainable ambitions binding
- g. Guarding sustainable goals (in each development project) (use list)
- h. Monitoring progress in the field of sustainability