

DESIGNING HEALTHY ENVIRONMENTS



DESIGNING HEALTHY ENVIRONMENTS

AN INTEGRAL APPROACH FOR THE DESIGN OF
HUMAN HEALTH SUPPORTING ENVIRONMENTS
IN THE HAGUE

P5 PRESENTATION

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4390636

29 January 2018

CONTENT

Problem field

- Spatial trends
- Health trends

Research approach: health promotion

Determinants of health

Design principles & elements

Cases studies

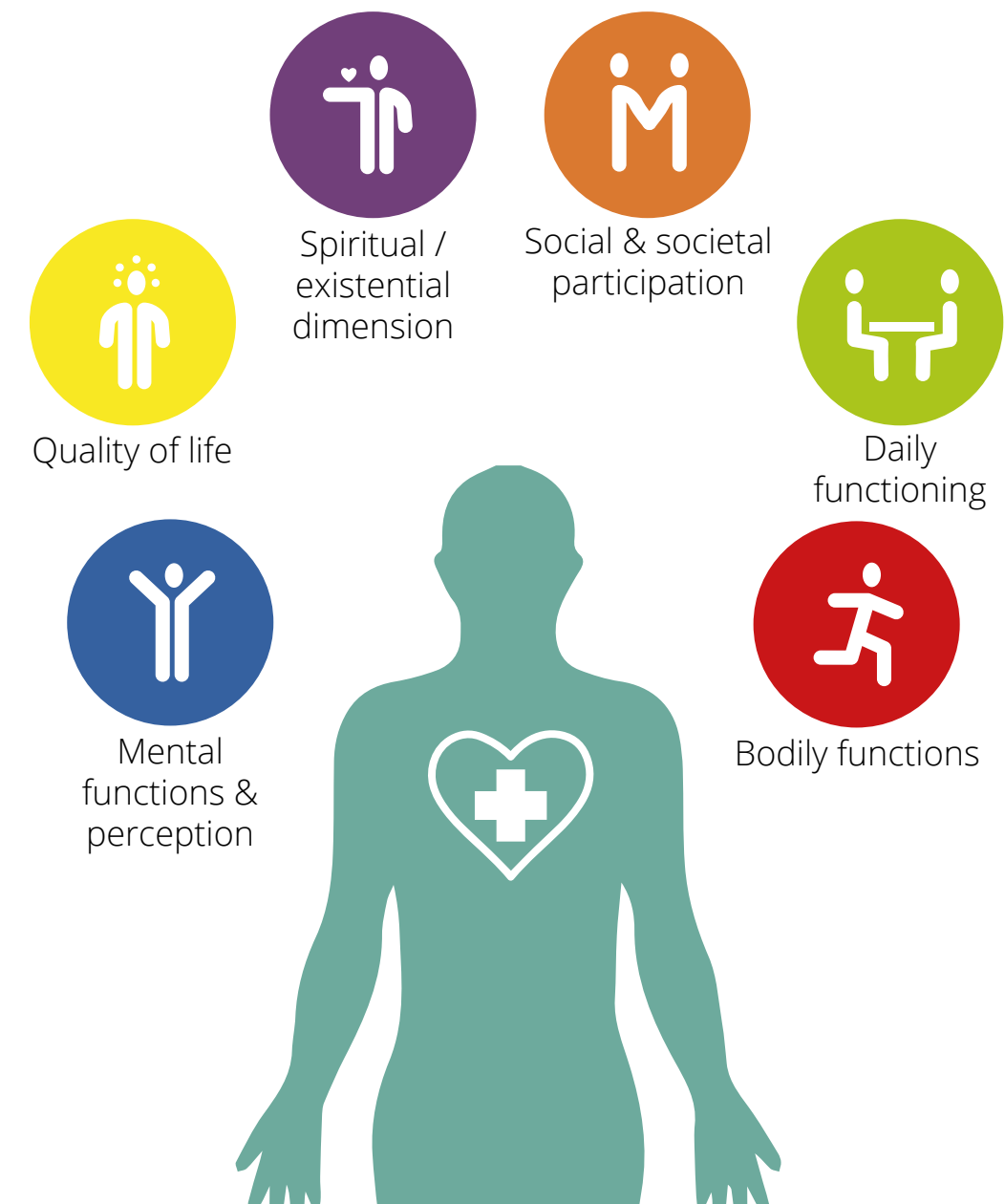
- Rustenburg Oost
- Morgenstond Zuid

Conclusions

Recommendations

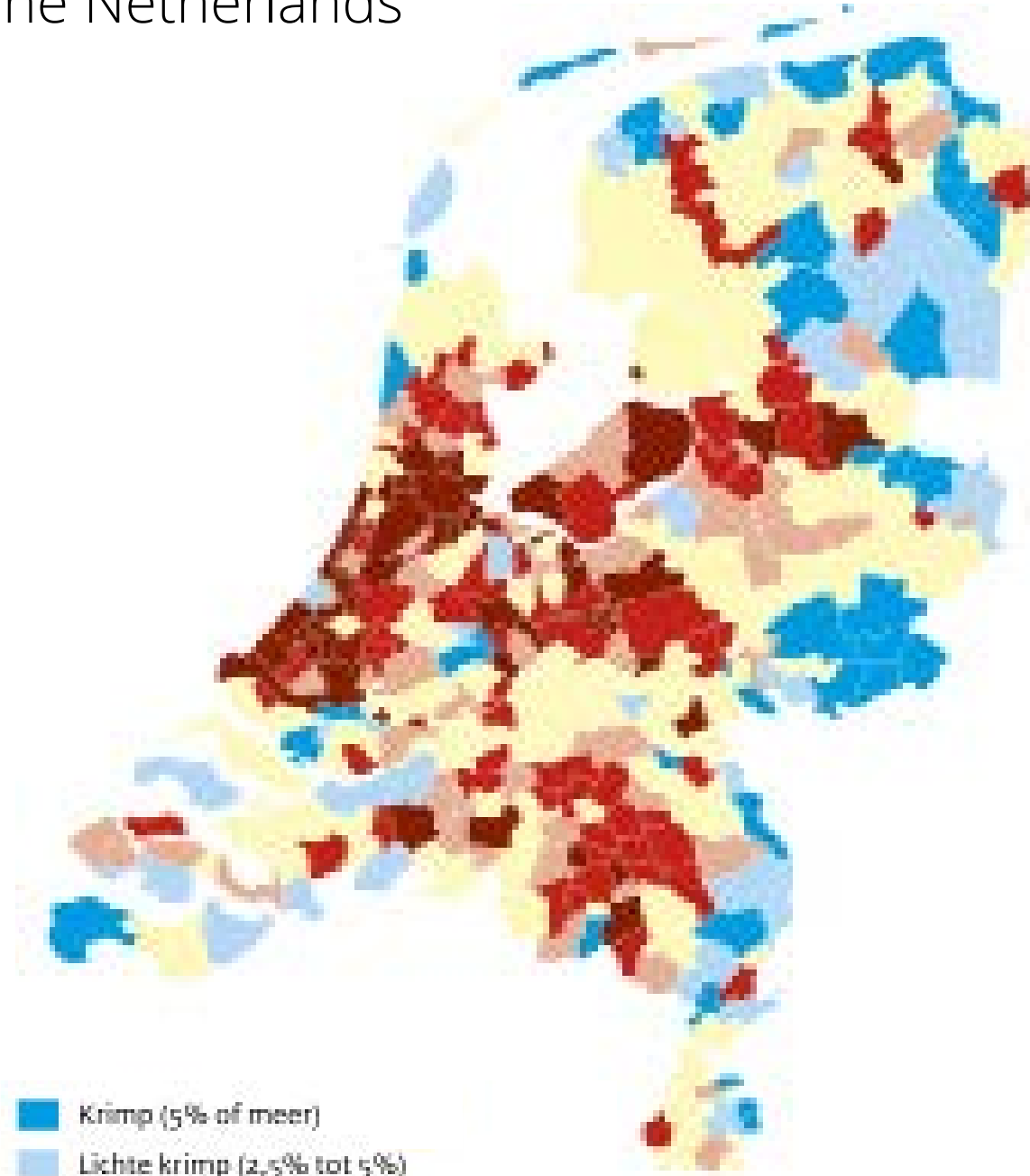
POSITIVE HEALTH

Health as the ability to adapt and to self-manage, in the face of social, physical and emotional challenges (Huber, 2014)



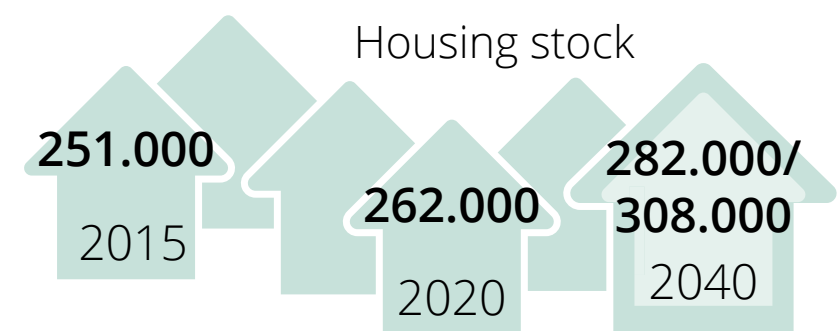
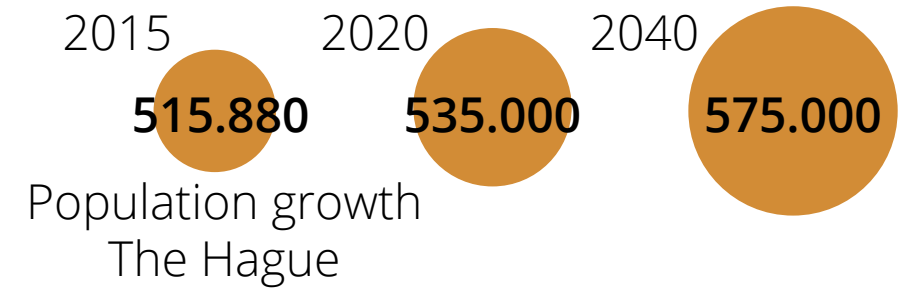
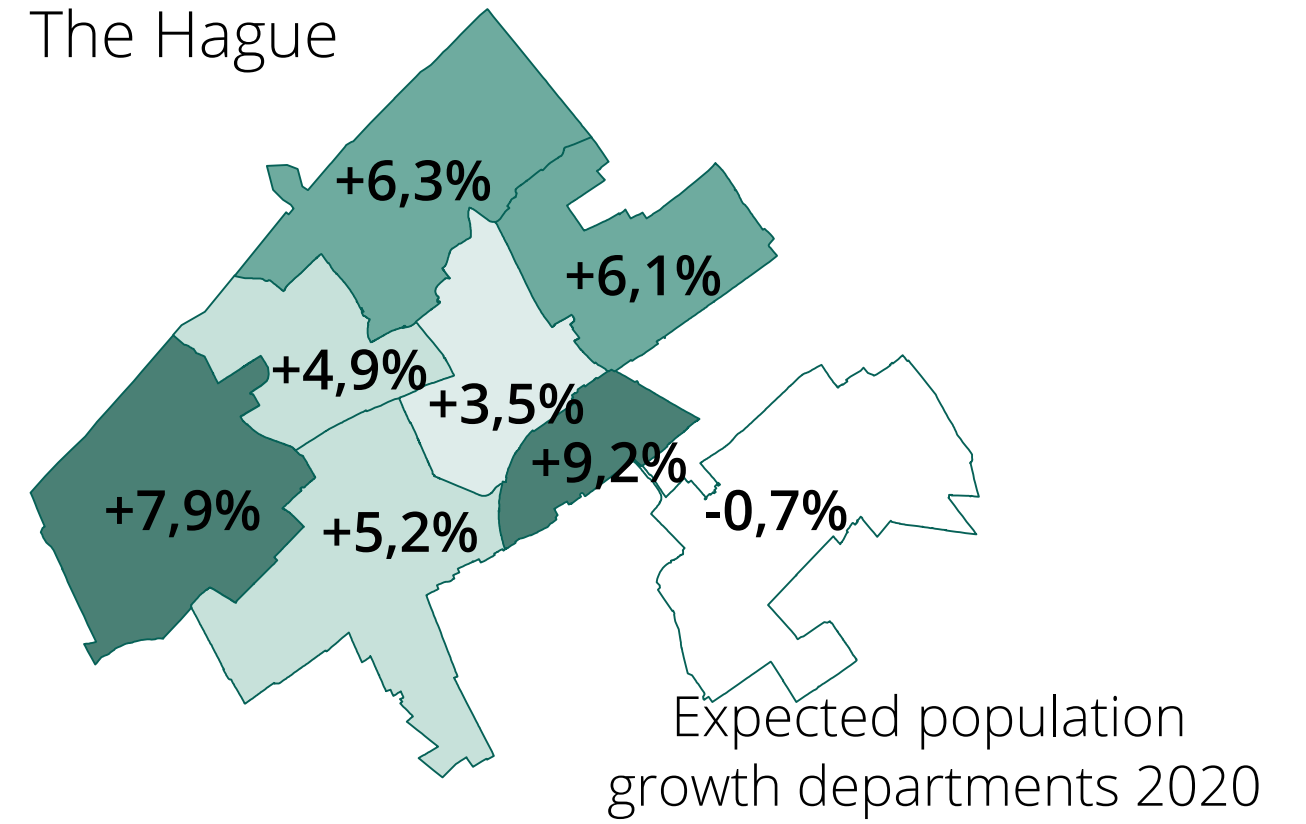
URBANIZATION

The Netherlands



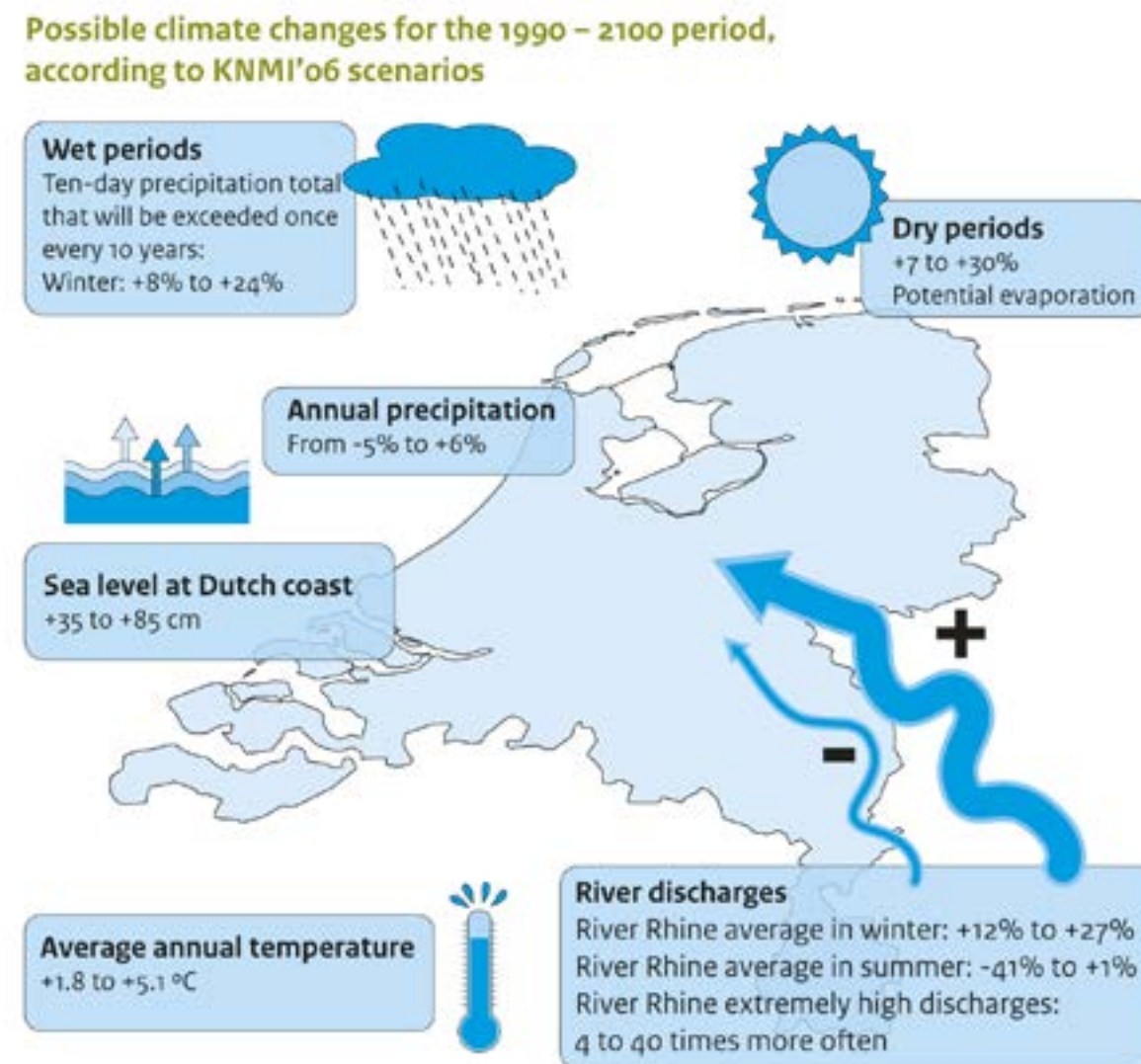
- Krimp (5% of meer)
- Lichte krimp (2,5% tot 5%)
- Redelijk stabiel (-2,5% tot 2,5%)
- Lichte groei (2,5% tot 5%)
- Groei (5% tot 10%)
- Sterke groei (10% of meer)

The Hague

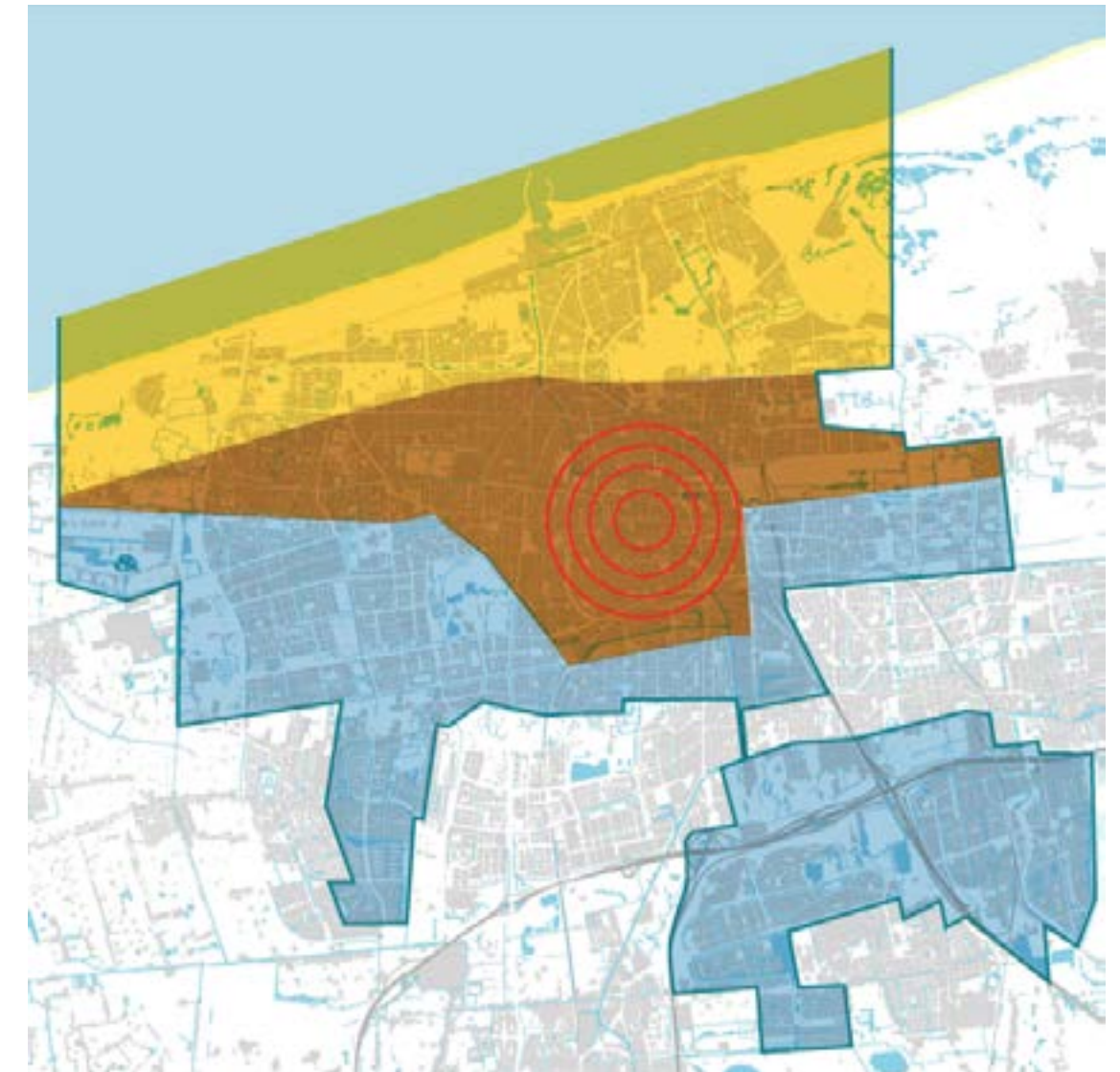


CLIMATE CHANGE

The Netherlands



The Hague



LEGENDA

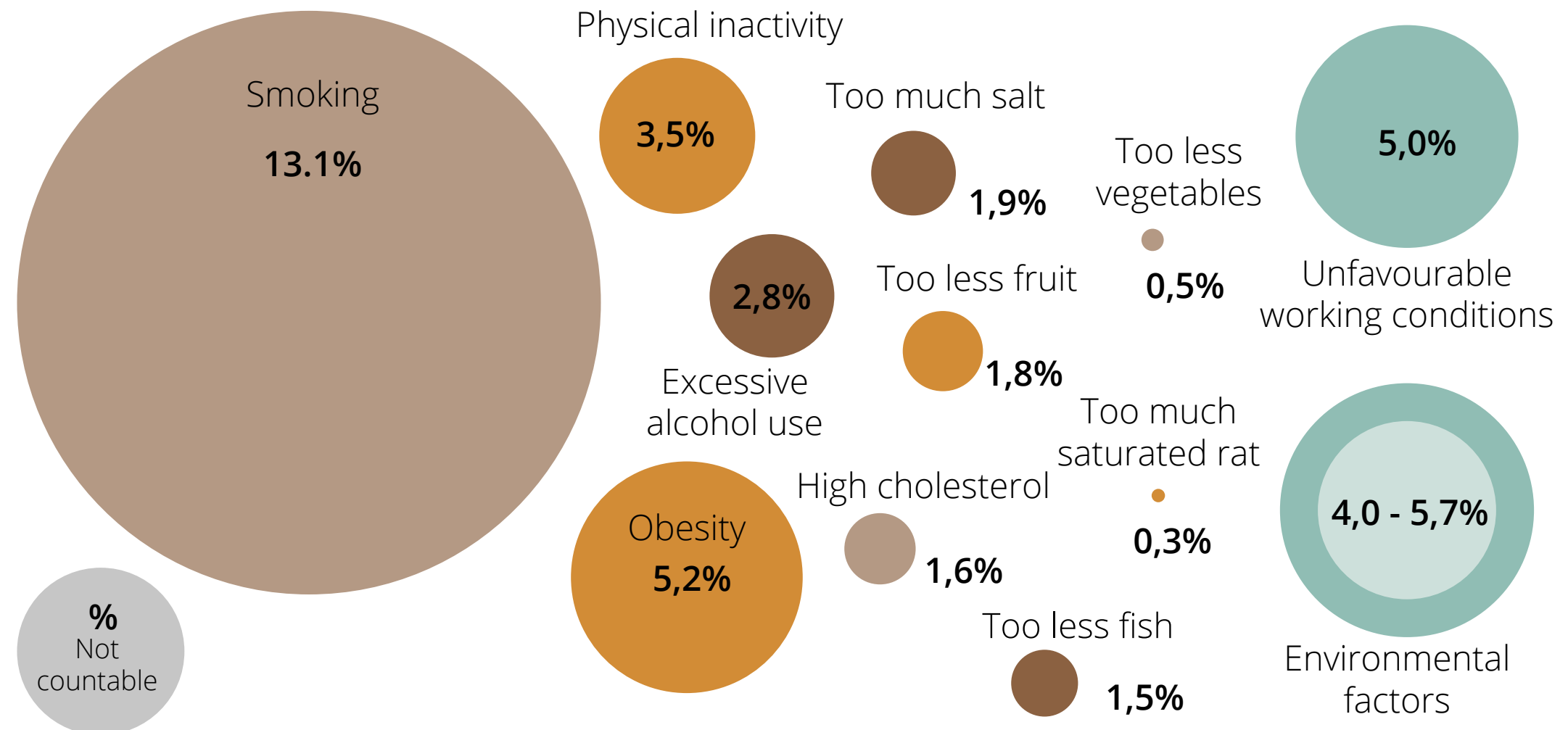
- Coastal zone: sea level rise and ground water nuisance
- Urban area: water nuisance because paved surfaces
- Polders: water nuisance because a lack of storage
- ⊙ Vulnerable for heat stress

HEALTH TRENDS: NL

Life expectancy is growing

More people with diseases

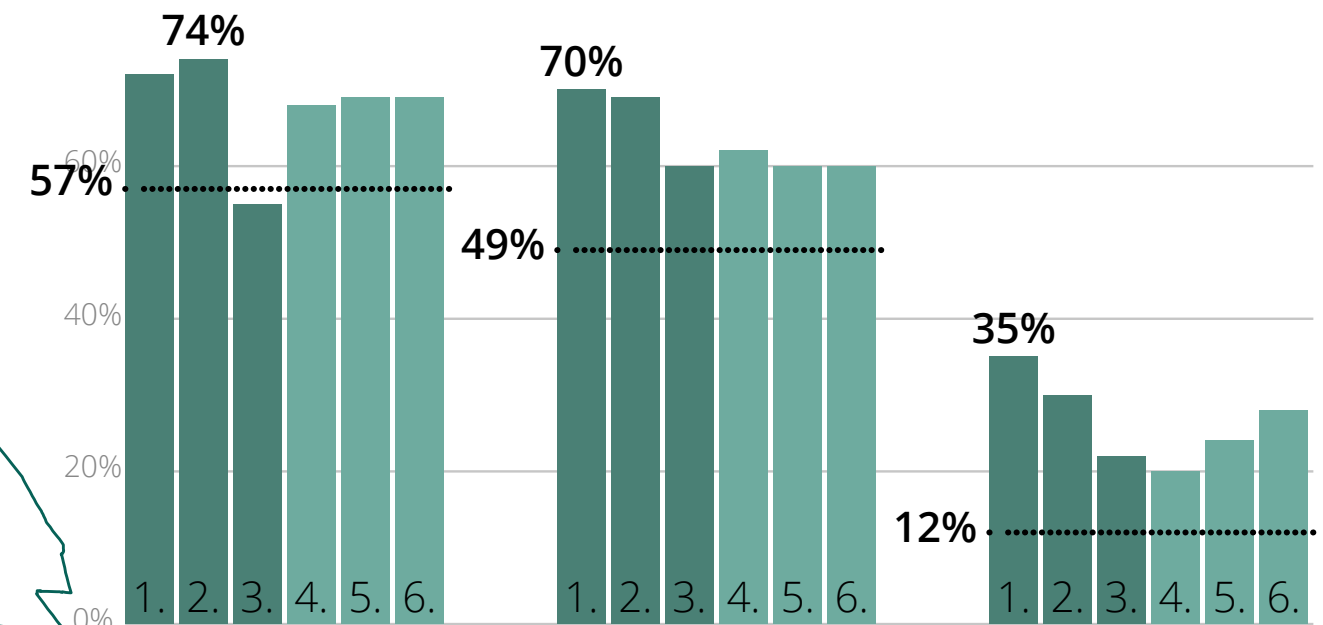
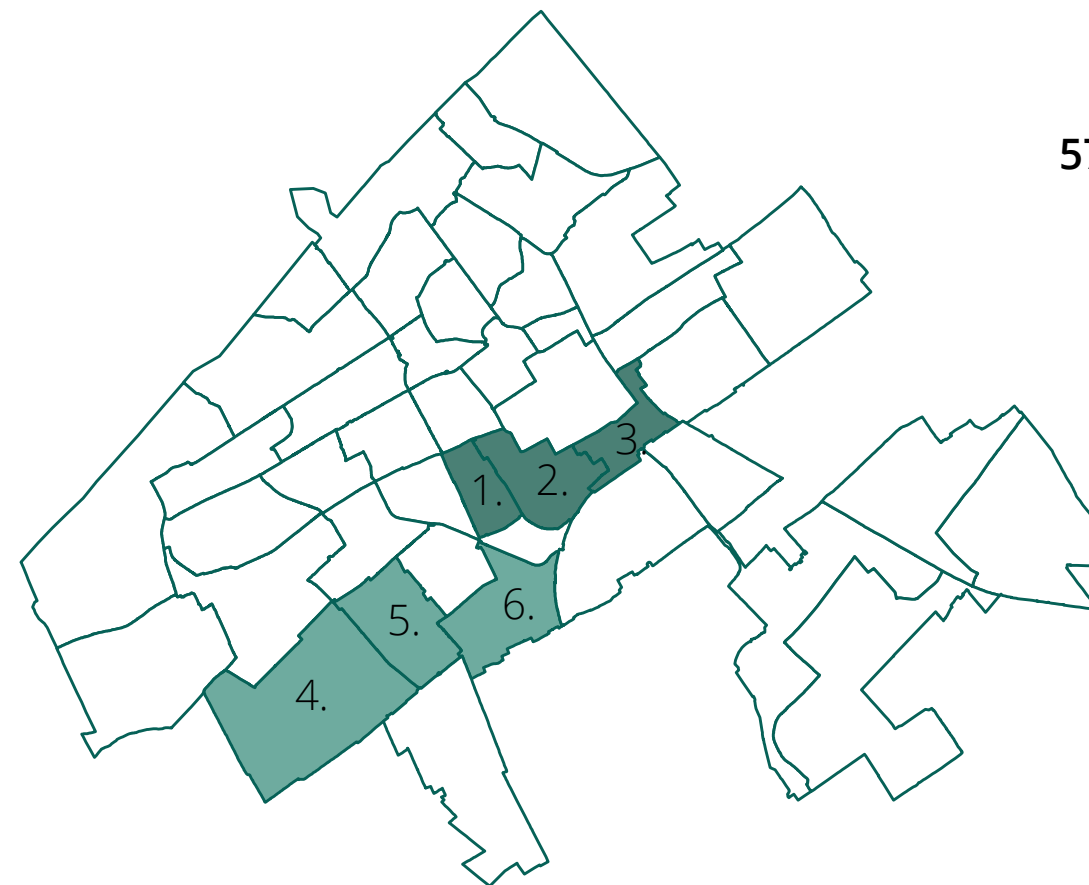
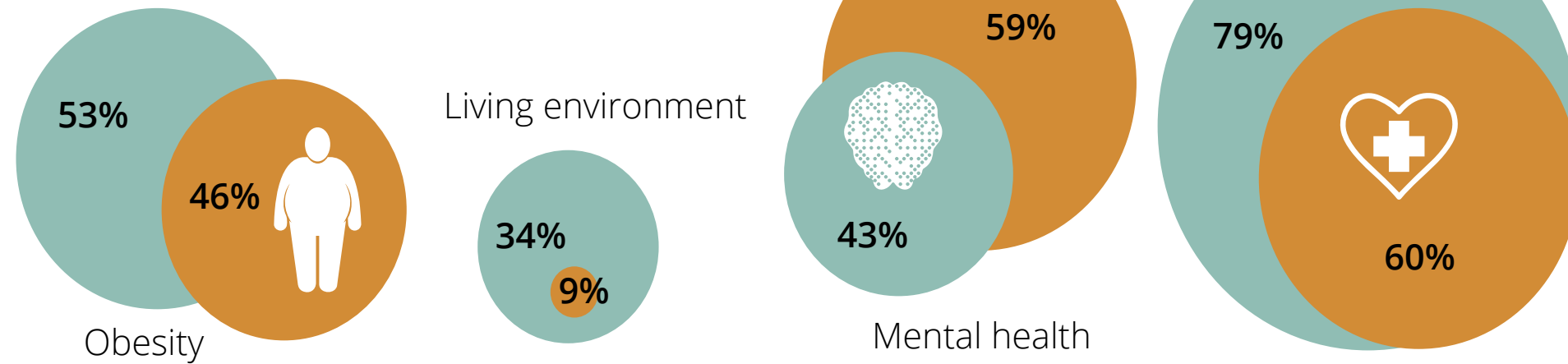
Behavioural risk factors



%
Not
countable

HEALTH DIFFERENCES THE HAGUE

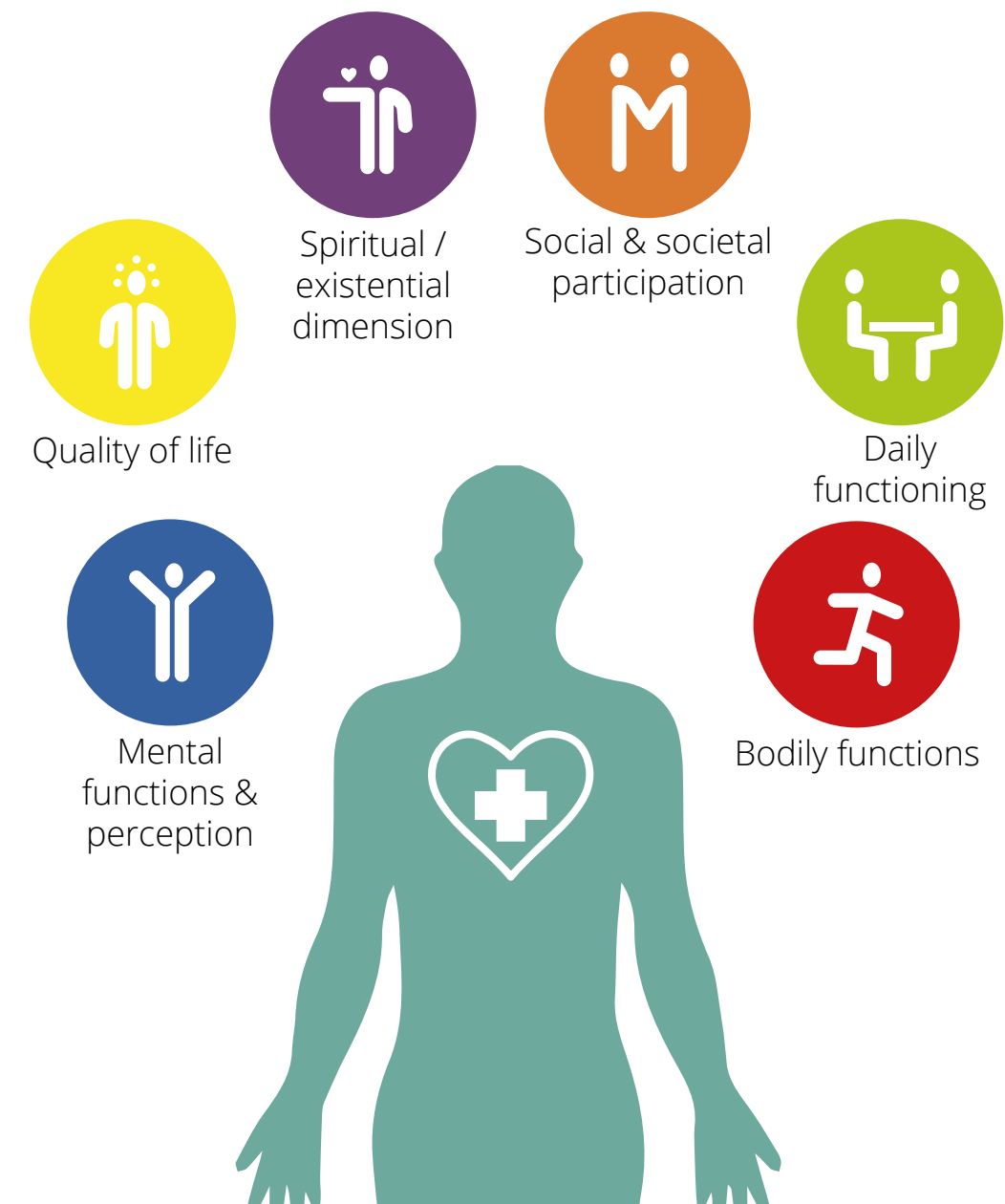
● Deprived neighbourhoods The Hague
● Non-deprived neighbourhoods The Hague



Dotted line is average of The Hague. The Hague 2012.

FROM HEALTH CARE TO HEALTH PROMOTION

From medication towards
healthy lifestyle



RESEARCH QUESTION

**How can the design of the
urban space promote human health
in The Hague?**

RESEARCH QUESTION

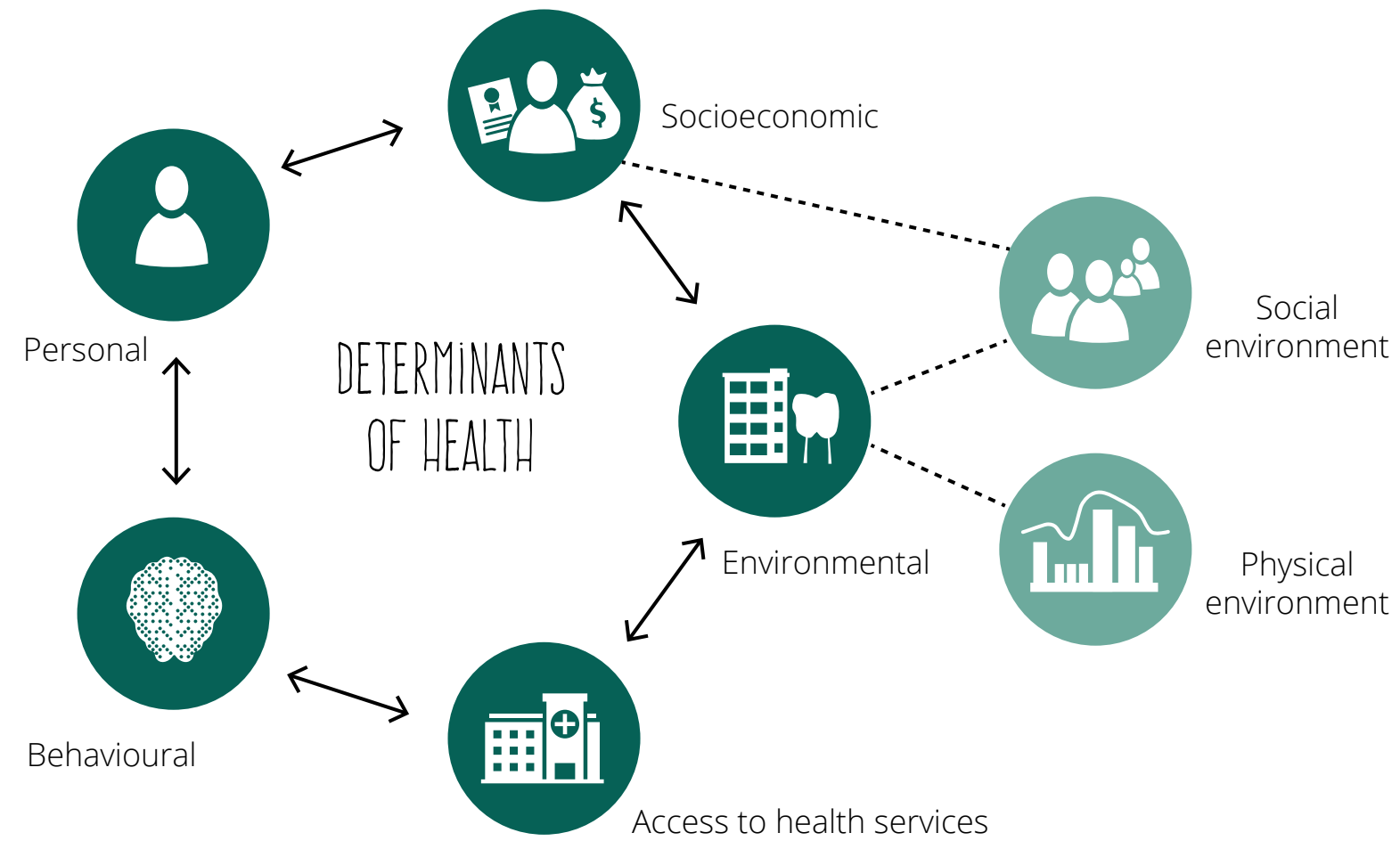
GOAL

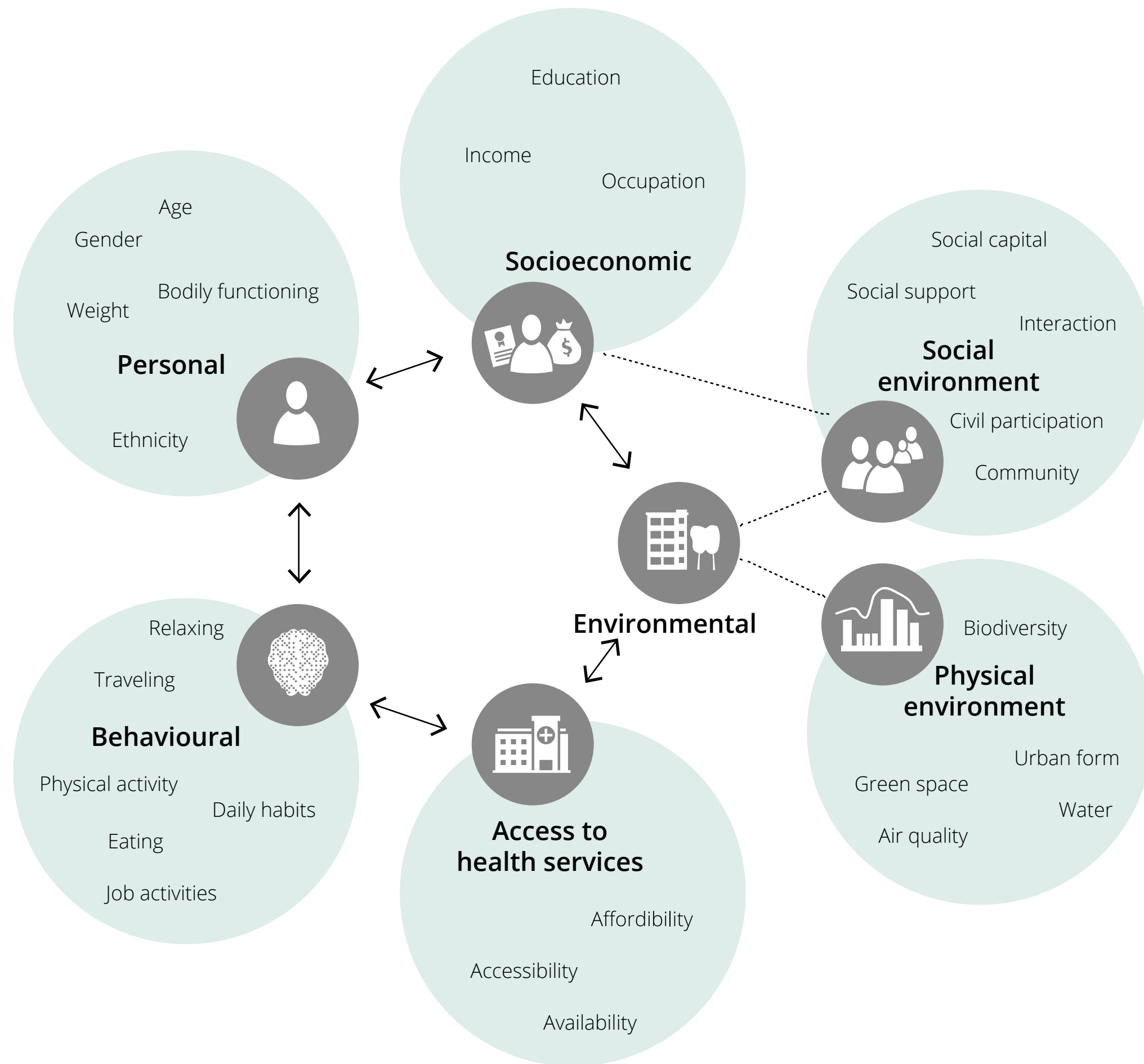
**Designing healthy environments
by spatial transformations which
will contribute the health of the
inhabitants in The Hague**

GOAL

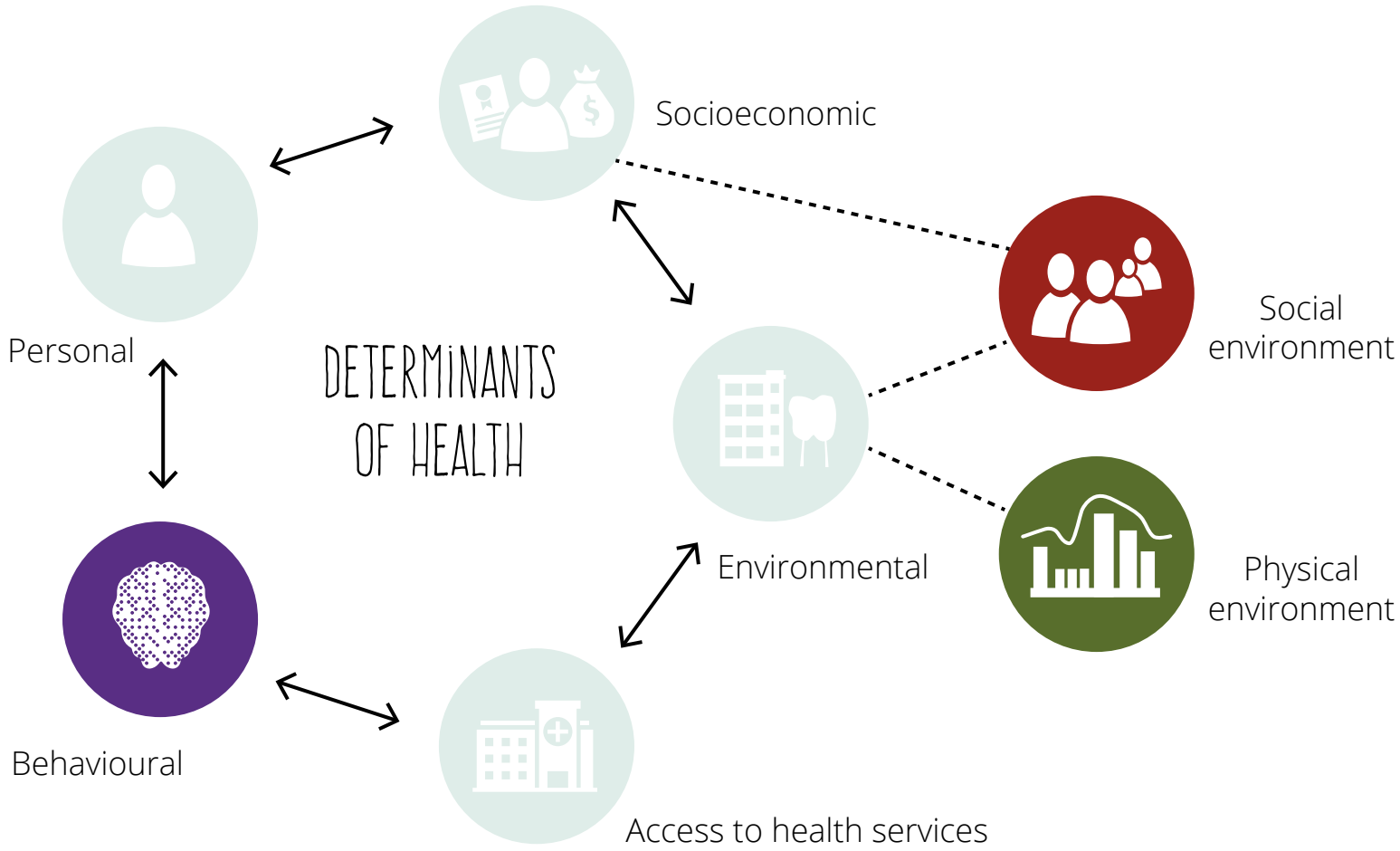
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DETERMINANTS OF HEALTH

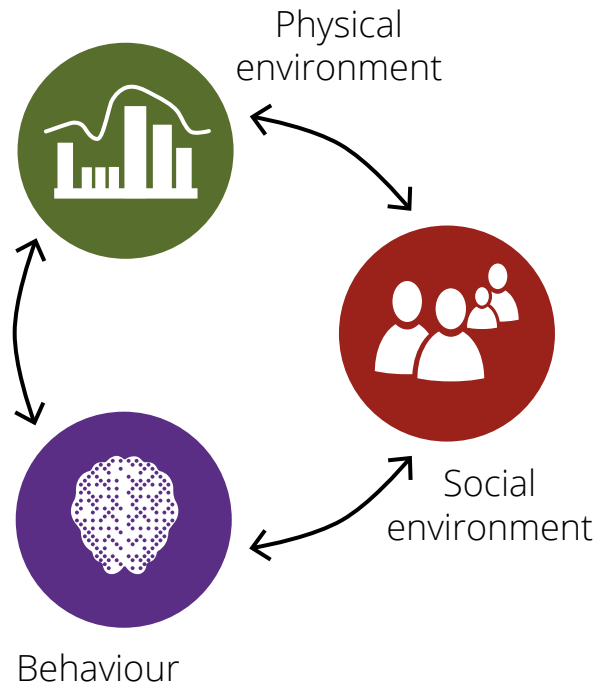
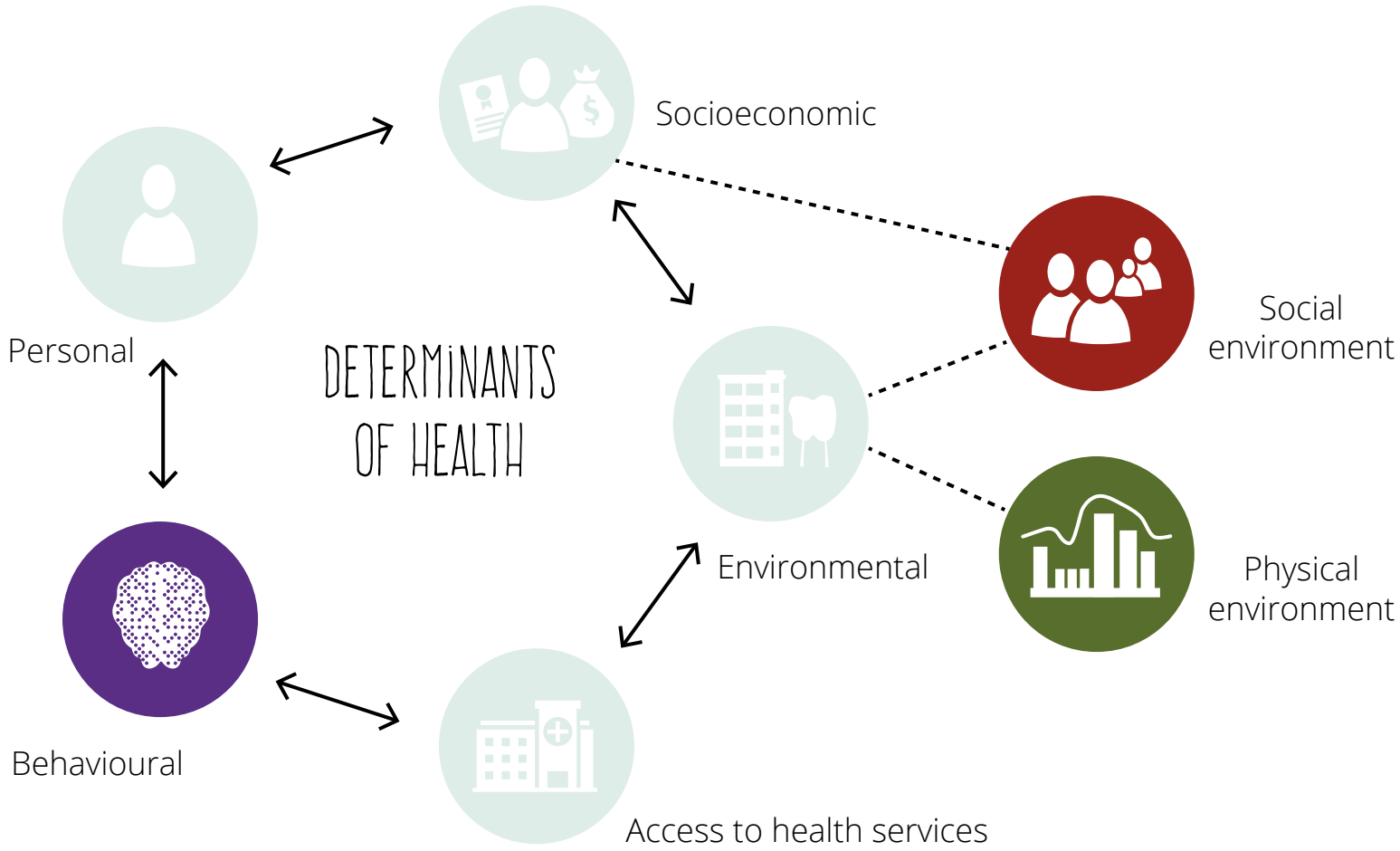




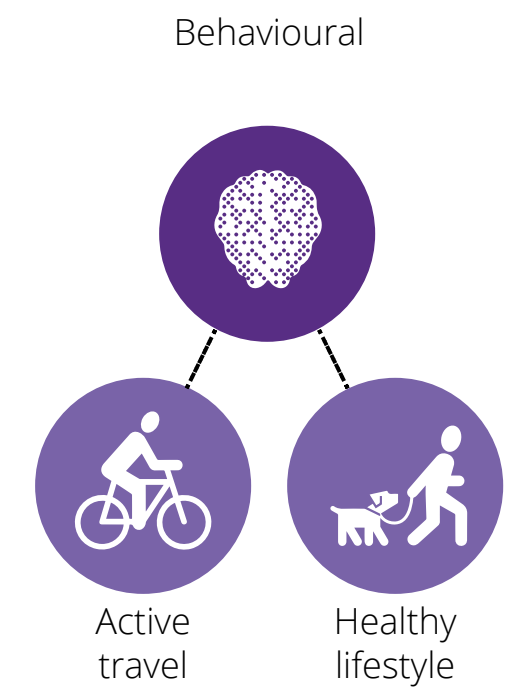
ENVIRONMENTAL SCOPE



ENVIRONMENTAL SCOPE



DESIGN PRINCIPLES

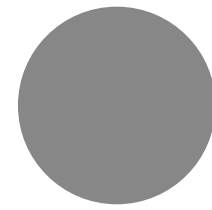


DESIGN PRINCIPLES

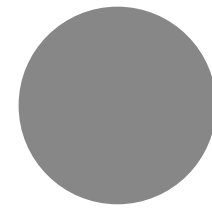


DESIGN APPROACH

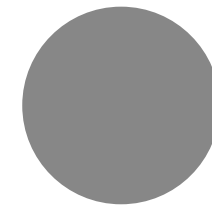
DESIGN CONDITIONS



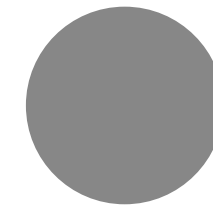
Safety



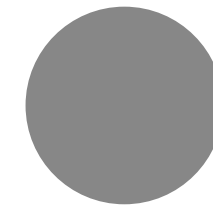
Scale



Accessibility



Context



Climate

HEALTHY DESIGN PRINCIPLES



Ecological
resilience



High quality
structures



Social
capital



Social
activities



Active
travel



Healthy
lifestyle

DESIGN ELEMENTS



Furniture



Sport- and interactive objects



Aesthetic and cultural objects



Green infrastructure



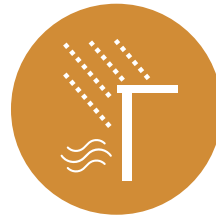
Food production



Water



Waste management



Environmental protection



Traffic calming



Nodes of public transport



Bicycle facilities



Routes



Ownership of public space



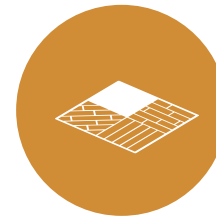
Local shops and facilities



Flexibility and temporality



Information provision



Surface



Lightning

EXAMPLE PRINCIPLE



EXAMPLE ELEMENTS



CASE STUDIES



RUSTENBURG OOST



MORGENSTOND ZUID



DIFFERENCES NEIGHBOURHOODS

Rustenburg Oost

Morgenstond Zuid

Pre-war housing
Row housing/ appartment buildings
Private ownership

After-war housing
Homogene porticoflats
Social housing

Less green
Less public space

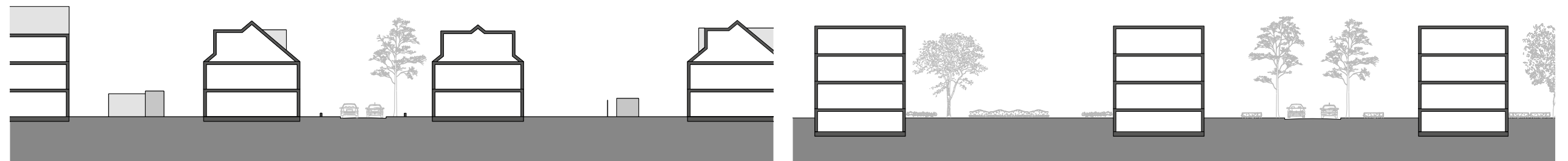
Much green
Much open space

Shows some devriped related issues

Deprived neighbourhood

Improvement public space

Densification & transformation



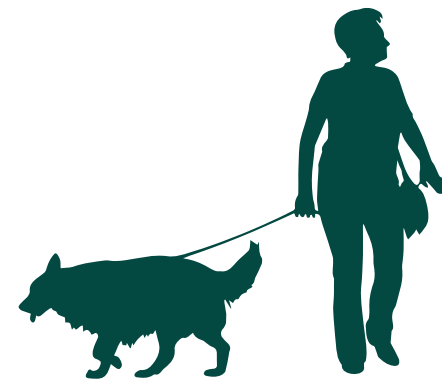
NARRATIVE



- John (44)** Software engineer
Obesity, BMI > 30
- Nadia (39)** Saleswoman at bakery
Diabetes mellitus
- Adam (9)** Primary school pupil
- Sofia (6)** Primary school pupil
Asthma & hay fever



- Harry (79)** Back and neck complaints
Recovering from a TIA
- Sara (75)** Volunteer at neighbourhood centre
Osteoarthritis



- Bea (67)** Since a year retired
Genetic coronary artery disease

Lives together with dog



- Jamal (25)** Cipier in a prison
- Talisa (22)** Law student
Experience much stress

CONTEXT NEIGHBOURHOOD

Rustenburg Oost



Morgenstond Zuid

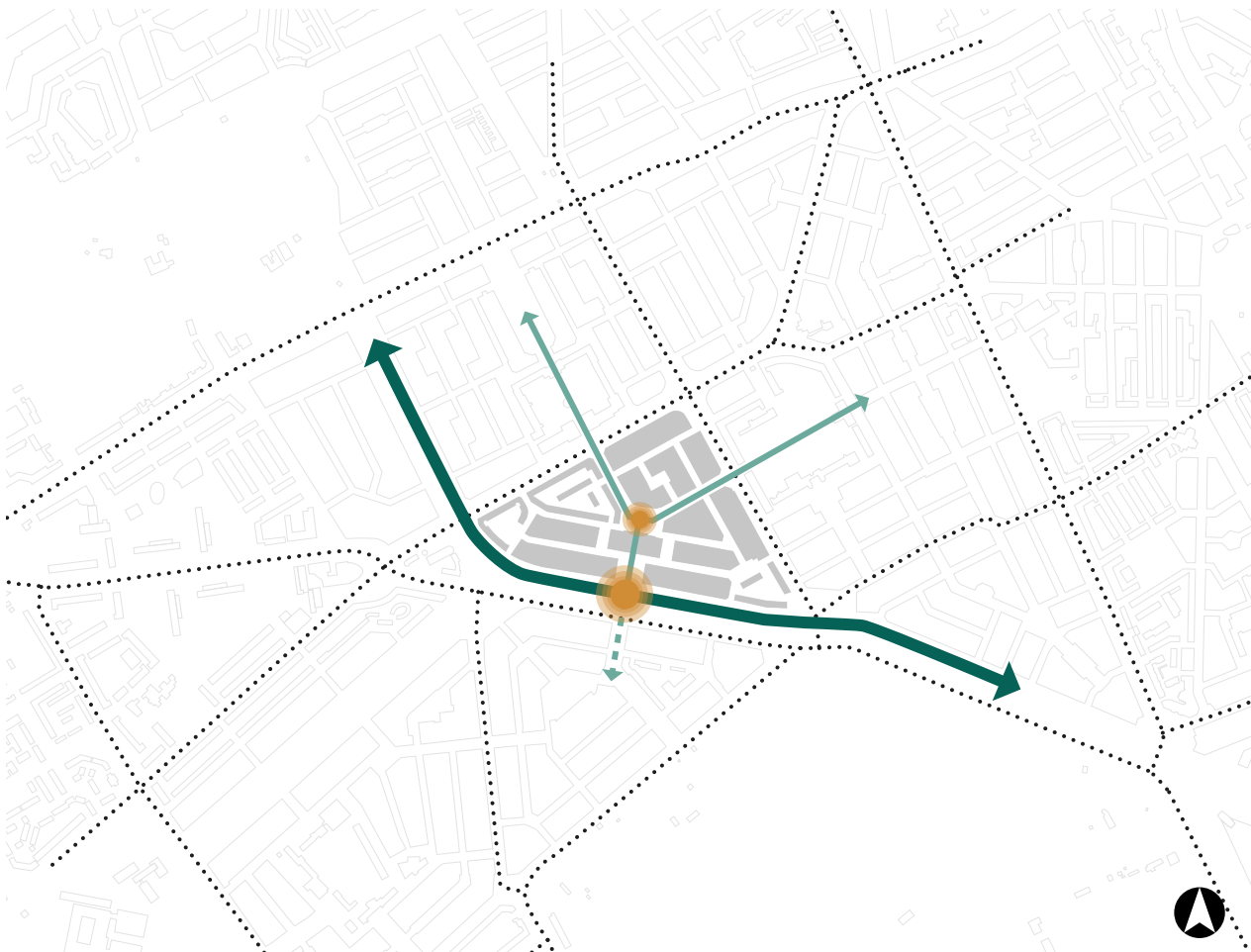


LEGENDA

-  Large green-blue zones
-  Important green-blue zones structures
-  Social functions

WATERLINE

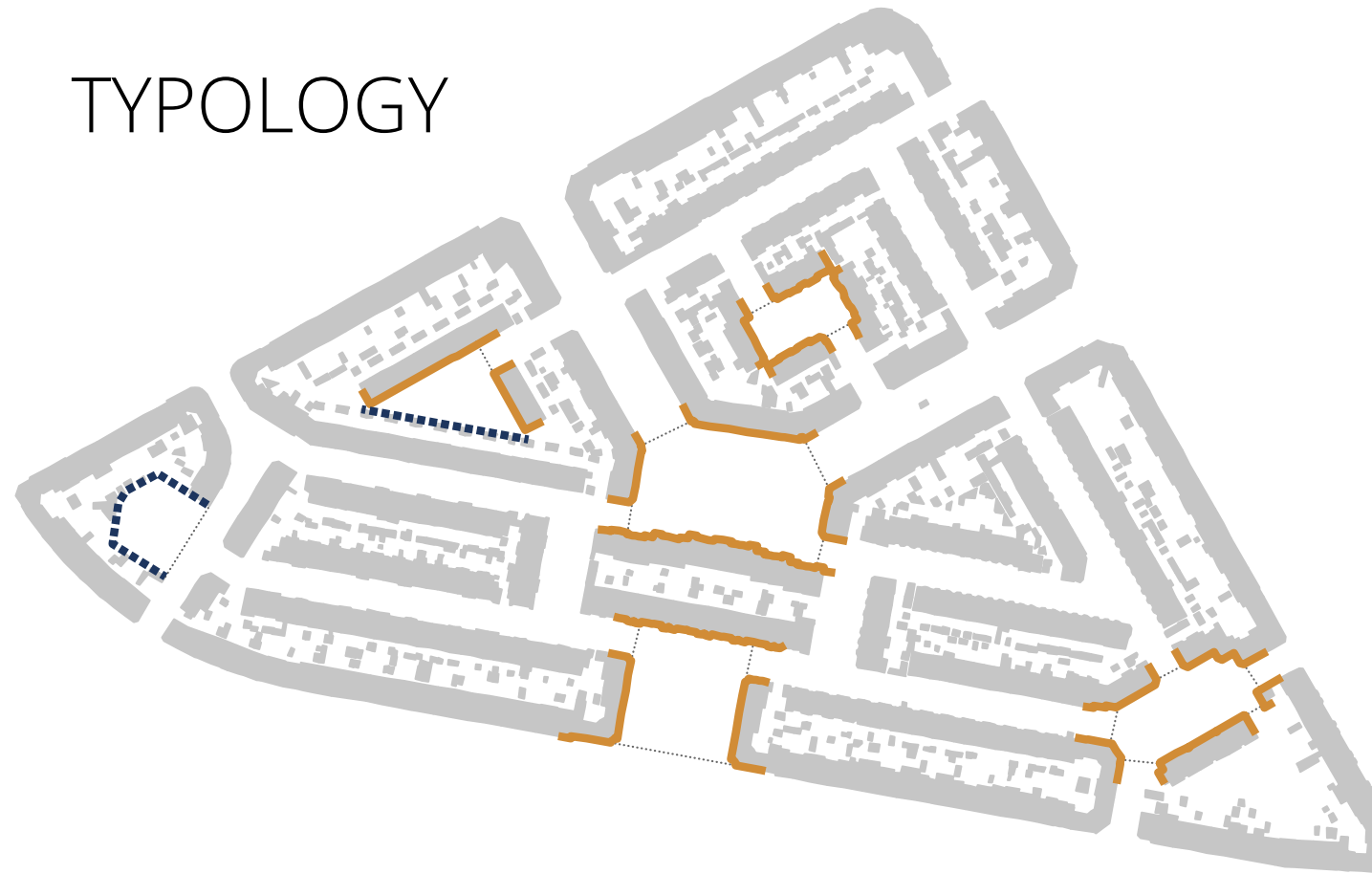
Rustenburg Oost



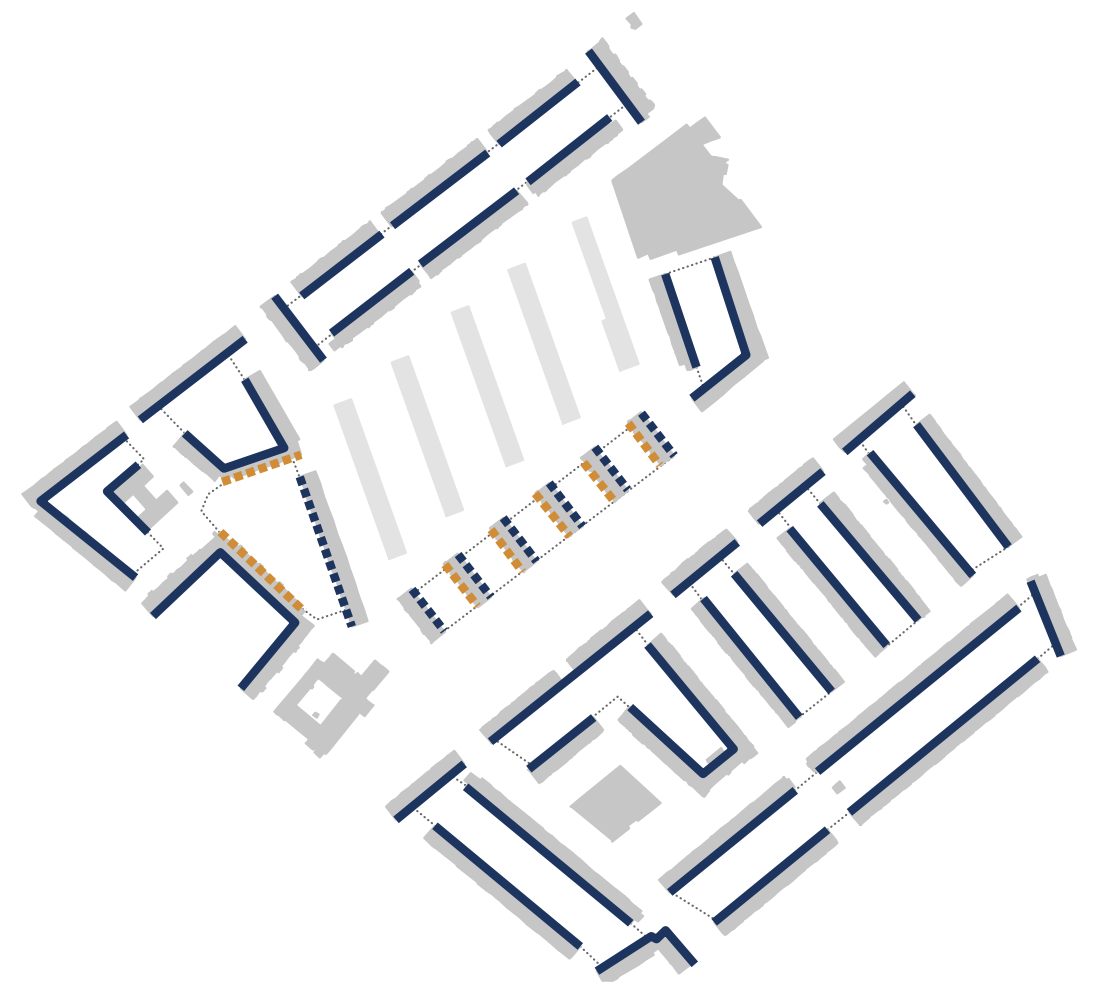
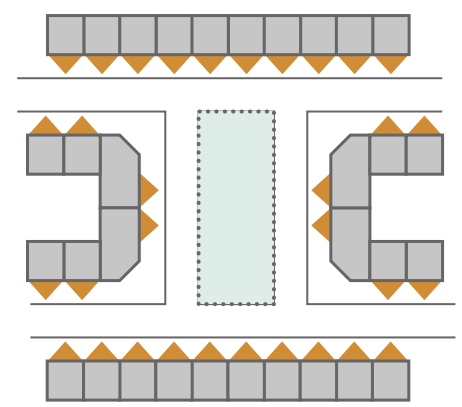
Morgenstond Zuid



TYOLOGY

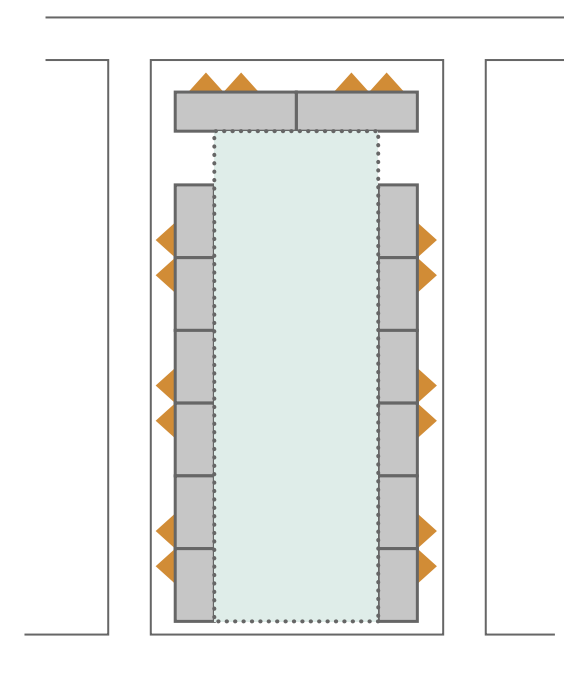


Rustenburg Oost



Morgenstond Zuid

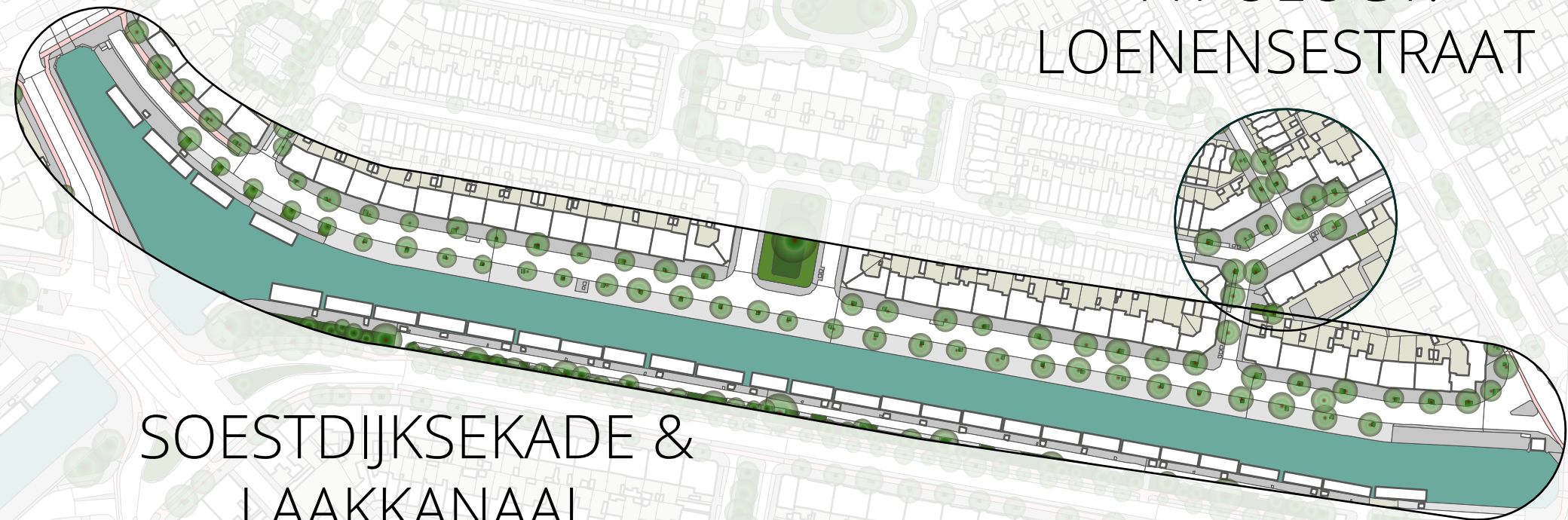
- LEGENDA
- Front of building
 - Back of building
 - Typological public space
 - Atypical public space
 - Buildings
 - Buildings in construction



- LEGENDA
- Front of building
 - Public space
 - Streets
 - Buildings

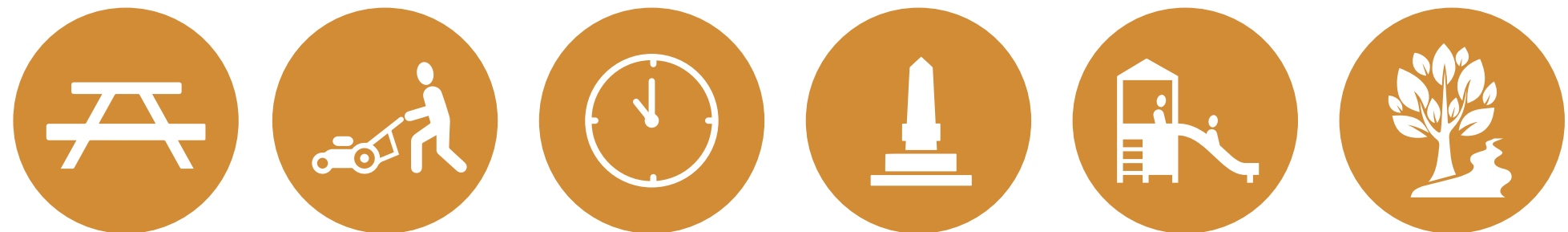
DESIGN LOCATIONS: RUSTENBURG OOST

TPOLOGY:
LOENENSESTRAAT



SOESTDIJKSEKADE &
LAAKKANAAL





WOONERF

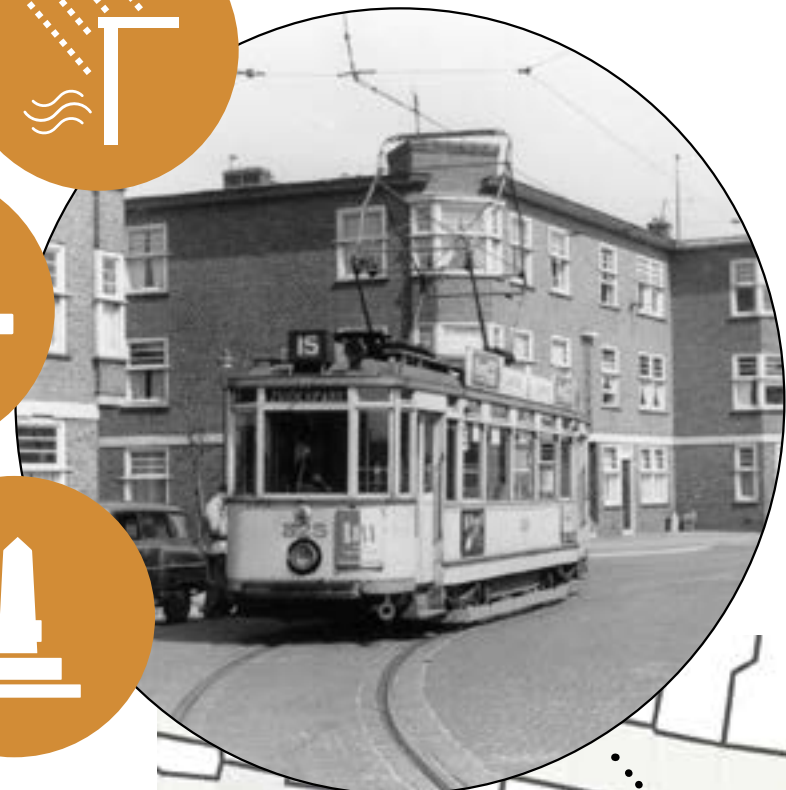




DESIGN:
RUSTENBURG OOST

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DESIGN:
RUSTENBURG OOST



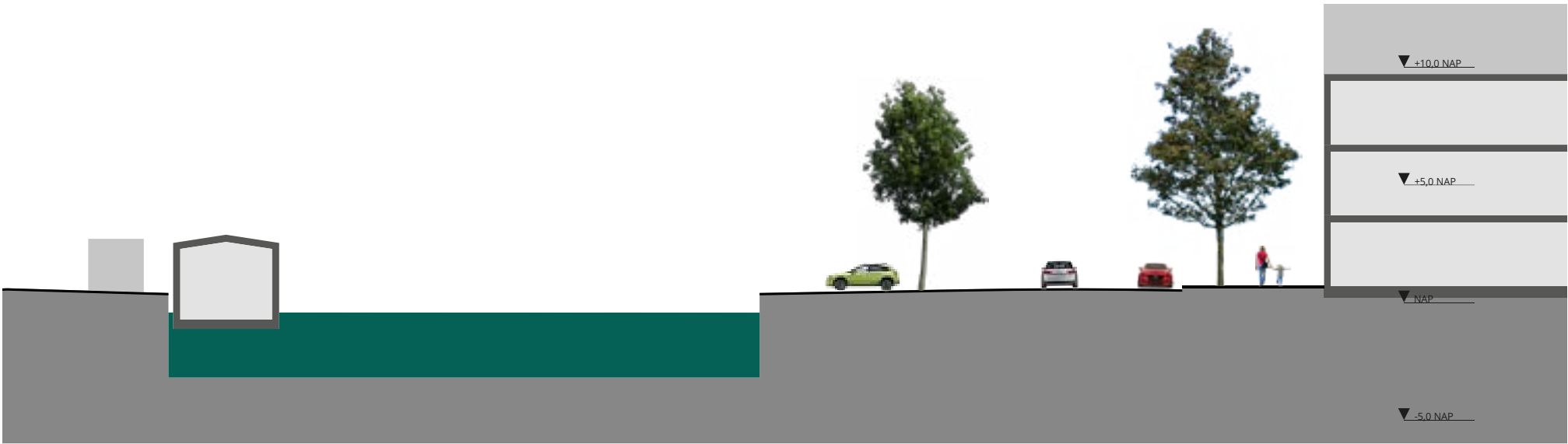
SOESTDIJKSEKADE & LAAKKANAAL



DESIGN:
RUSTENBURG OOST

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SECTION SOESTDIJKSEKADE & LAAKKANAAL



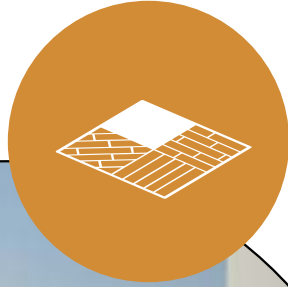
DESIGN:
RUSTENBURG OOST



DESIGN:
RUSTENBURG OOST

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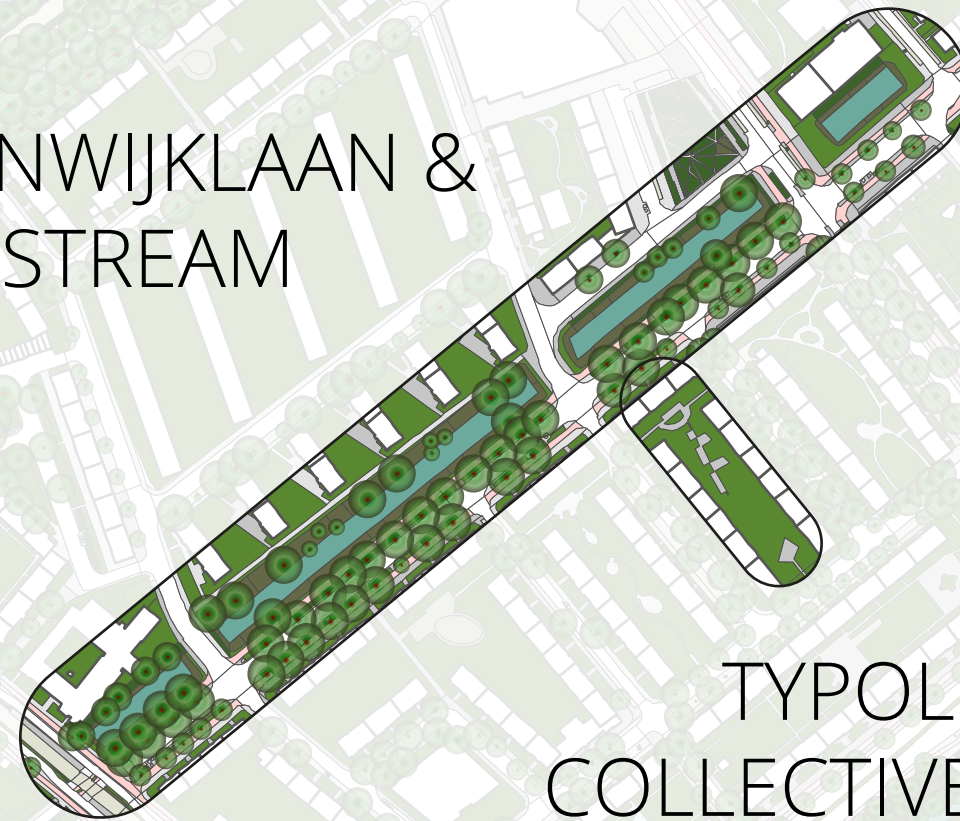




DESIGN:
RUSTENBURG OOST

DESIGN LOCATIONS: MORGENSTOND ZUID

STEENWIJKLAAN &
STREAM



TPOLOGY:
COLLECTIVE GARDEN





COLLECTIVE
GARDEN

DESIGN:
MORGENSTOND ZUID

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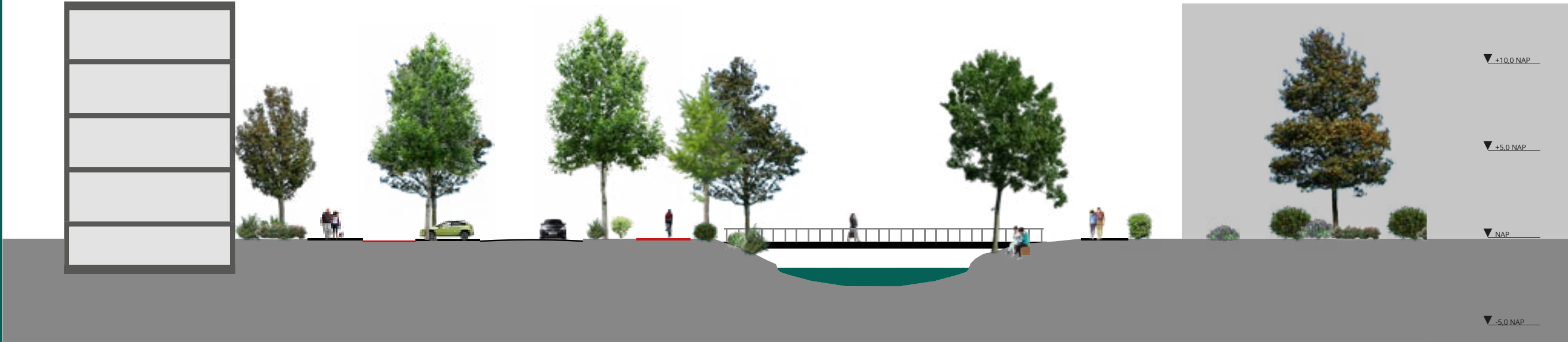
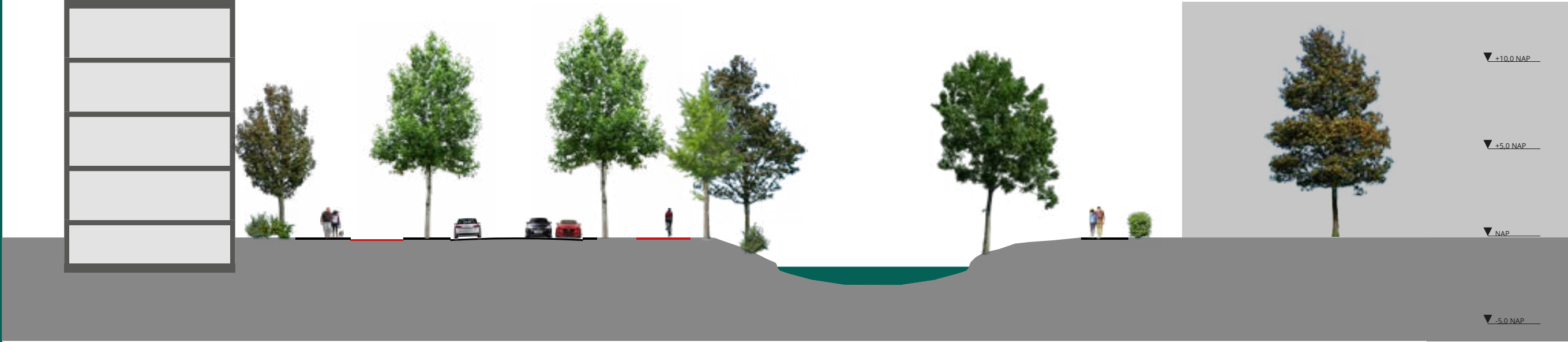
STEENWIJKLAAN & STREAM

DESIGN:
MORGENSTOND ZUID

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SECTION STEENWIJKLAAN & STREAM



DESIGN:
MORGENSTOND ZUID





CONCLUSION

**How can the design of the
urban space promote human health
in The Hague?**

CONCLUSION

Design principles



Ecological resilience



High quality structures



Social capital



Social activities



Active travel

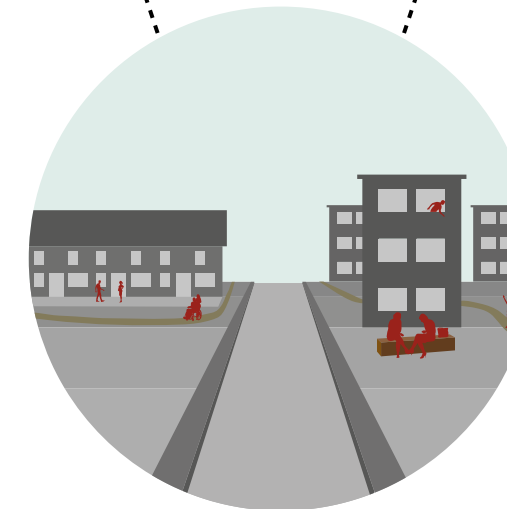


Healthy lifestyle

Determinants of health



Physical environment



Social environment



Behaviour

Goal



Healthy environment

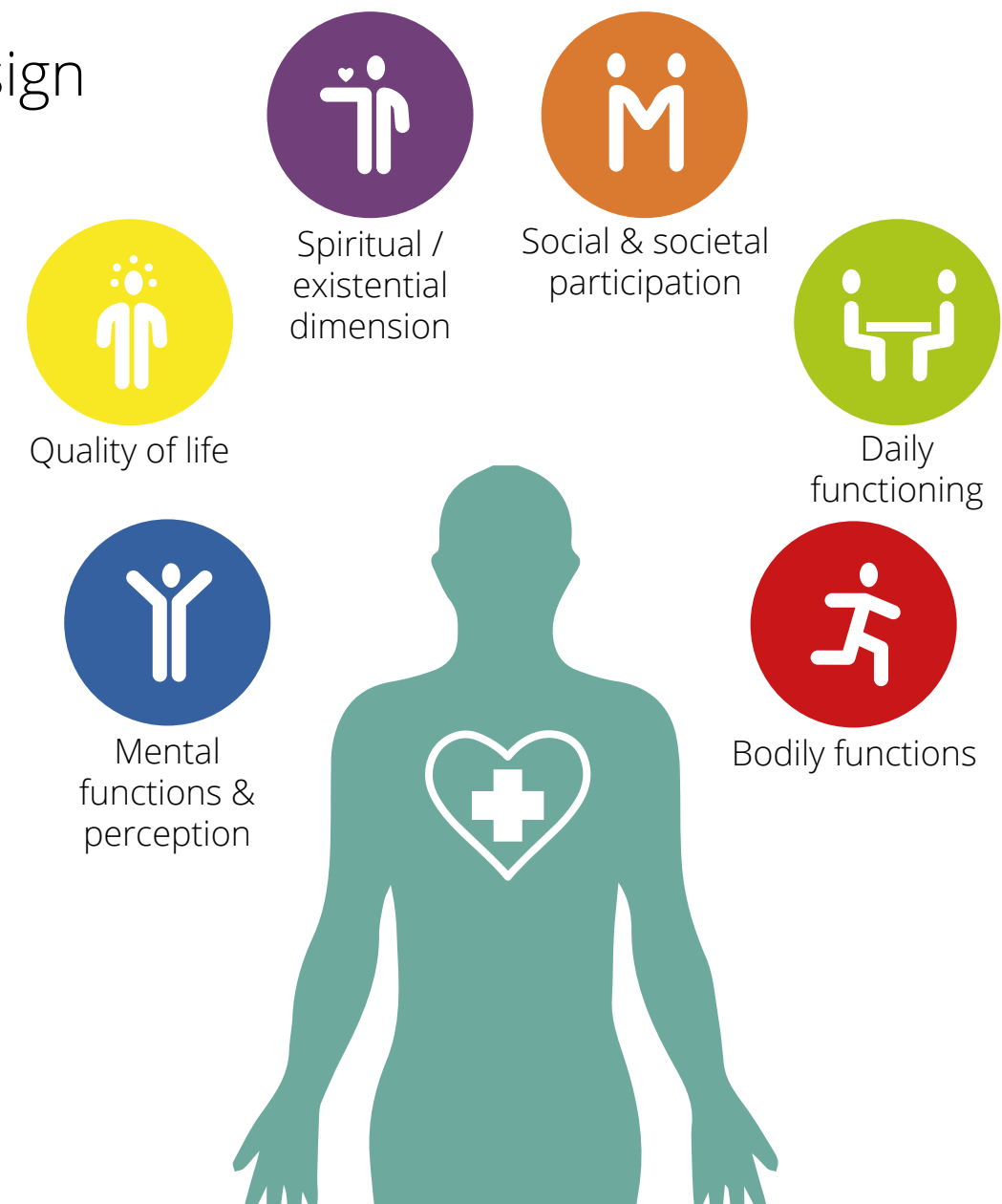
CONCLUSION

Comparison neighbourhoods:

- approach applicable on every type of neighbourhood/ public space

Long term investment

More awareness for health in urban design



RECOMMENDATIONS

Research

- More research necessary for stronger foundation, based on multiple positive aspects

Proces/ implementation

- More collaboration between health and spatial planning departments
- More investments for health promotion in public space

THANK U FOR LISTENING!

QUESTIONS?

