



Hello

I am Thijmen van Os

I am here to give my P5 presentation

Accessibility enhancement by the 15 minute city in Amsterdam Nieuw-West

To what extent is the 15-minute city able to enhance social sustainability?



Support



First mentor

Ir. E.H.M. (Ellen) Geurts



Second mentor

Dr. A. (Aksel) Ersoy



Content in this presentation

- Introduction (chapter 1)
- Literature (chapter 2)
- Methods used (chapter 3)
- Results (chapter 4)
- Discussion (chapter 5)
- Conclusion (chapter 6)



1

Introduction



Topic introduction

- Rapid urbanisation
- Sustainability becomes an issue
- Environmental- and Social sustainability: quality of life



(Figure 2, Alexander Spatari)



(Figure 1, Dmitry Chistoprudov)

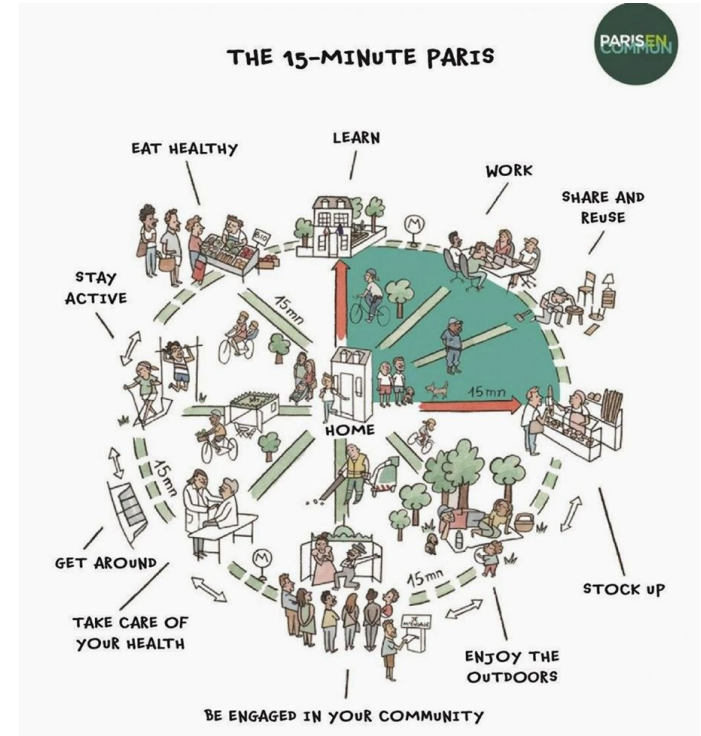
Spatial justice

“the fair and equitable distribution in space of socially valued resources and opportunities to use them” (Soja 2009)



Topic introduction

- 15-minute city concept to enhance social sustainability
- Accessibility



(figure 3, Micaël)



Problem statement

Missing link

It is difficult to grasp to what extent the 15-minute city is able to enhance social sustainability as the indicators of accessibility are not completely understood.



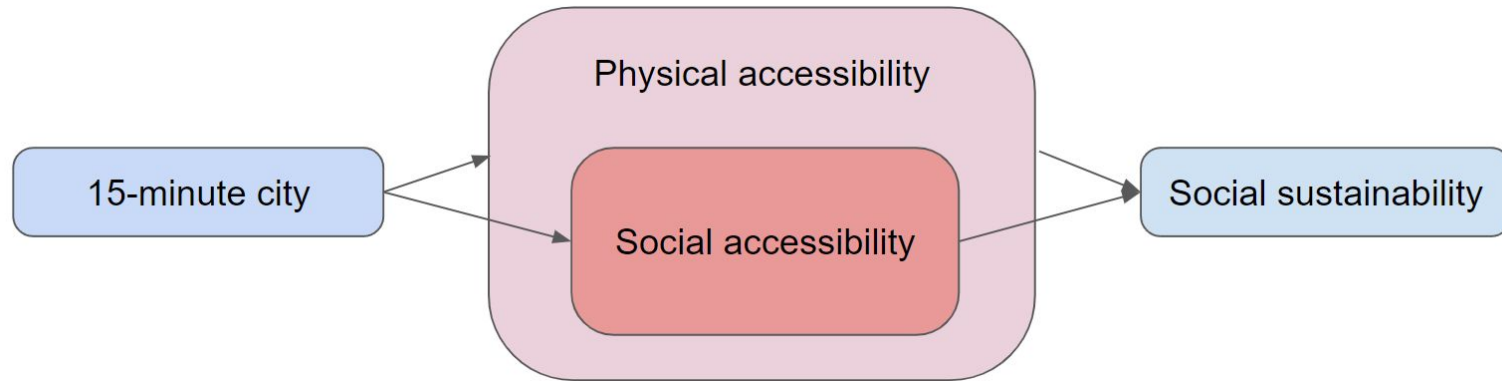
Purpose and relevance

Develop understanding

The goal of this research is to identify the indicators truly affecting accessibility and see to what extent the 15-minute city is able to enhance social sustainability



Conceptual model



(Figure 3, Own work)



Research questions

Main research question

- *MRQ: To what extent is the 15-minute city able to enhance social sustainability?*

Sub research questions

- *SQ1: What is social sustainability in an urban context? **Literature***
- *SQ2: What are the indicators of a 15-minute city and accessibility? **Literature***
- *SQ3: To what extent is the municipality of Amsterdam enhancing accessibility in Nieuw-West? **Case study***
- *SQ4: To what extent is accessibility experienced by the residents of Amsterdam Nieuw-West? **Case study***



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Literature

SQ1: What is social sustainability in an urban context?

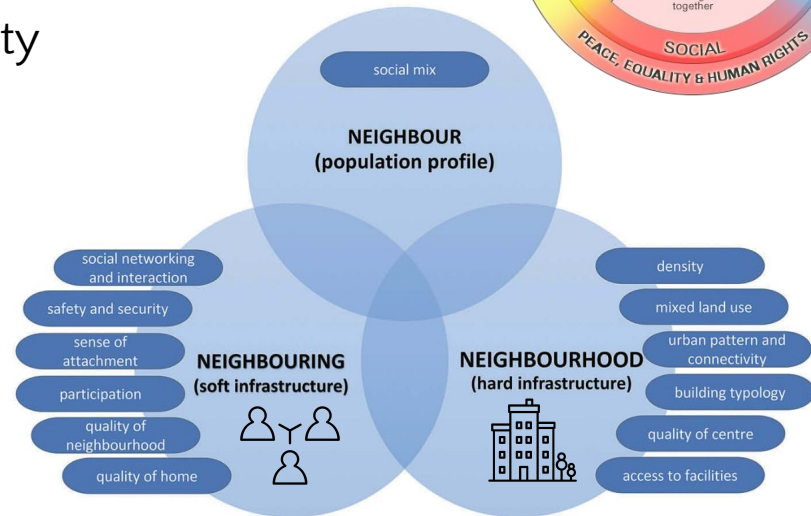
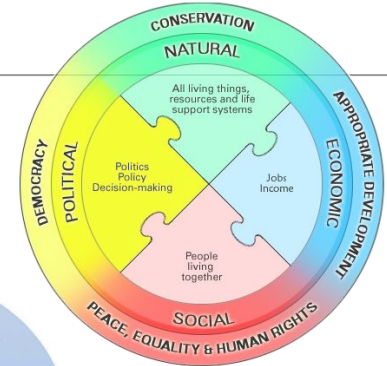
Social sustainability is about the maintenance or improvement of the well-being of people (*Chiu, 2004*)



Social sustainability

- Social sustainability as a goal
- Triad of social sustainability
 - Neighbourhood
 - Neighbouring
 - Neighbour

(Figure 4, UNESCO)



(Figure 5, Shirazi & Keivani)



2 types of infrastructure

Neighbourhood

Experienced qualities by the built environment

(Shirazi & Keivani, 2018)

Neighbouring

Experienced social qualities in the built environment

(Shirazi & Keivani, 2018)



Indicators affecting social sustainability

- Neighbourhood - hard infrastructure
 - Access to facilities
 - Urban pattern and connectivity
 - Mixed land use
- Neighbouring - soft infrastructure
 - Sense of attachment
 - Social networking and interactions
 - Safety and security

SQ2: What are the indicators of a 15-minute city and accessibility?

Accessibility reflects the ability to reach frequently visited places efficiently and conveniently (*Cheng, Bertolini & Le Clercq, 2007, p.17*)



2 scales of accessibility

Macro scale

Accessibility to a place

(Mitropoulos et al., 2023)

Micro scale

Accessibility of a place

(Mitropoulos et al., 2023)



2 categories of accessibility

Physical accessibility

Accessibility related to hard
infrastructure

directly designed



(Figure 7, WUR)



(Figure 6, Rob Menger)



2 categories of accessibility

Social accessibility

Accessibility related to soft infrastructure

Indirectly designed



(Figure 8, Monica Schroeder)



(Figure 9, Bob Owen)

(Figure 10, indebuurt Leiden)



Indicators affecting accessibility

- Macro scale
 - “Reason” to walk
 - Spatial justice
- Micro scale
 - Reason to “walk”
 - Urban vitality
 - Social cohesion



(Figure 11, Frans Paalman)

The 15-minute city is an urban concept which sees that all the necessities of the city are accessible within 15 minutes of walking or cycling (*Monero,2021*)

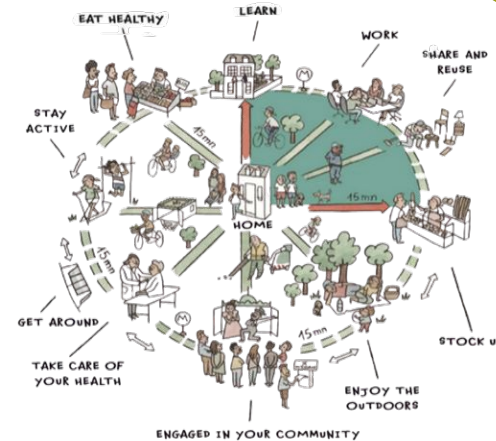


Indicators of the 15-minute city

- 15-minute city indicators
 - Human rhythm
 - Density
 - Proximity
 - Diversity



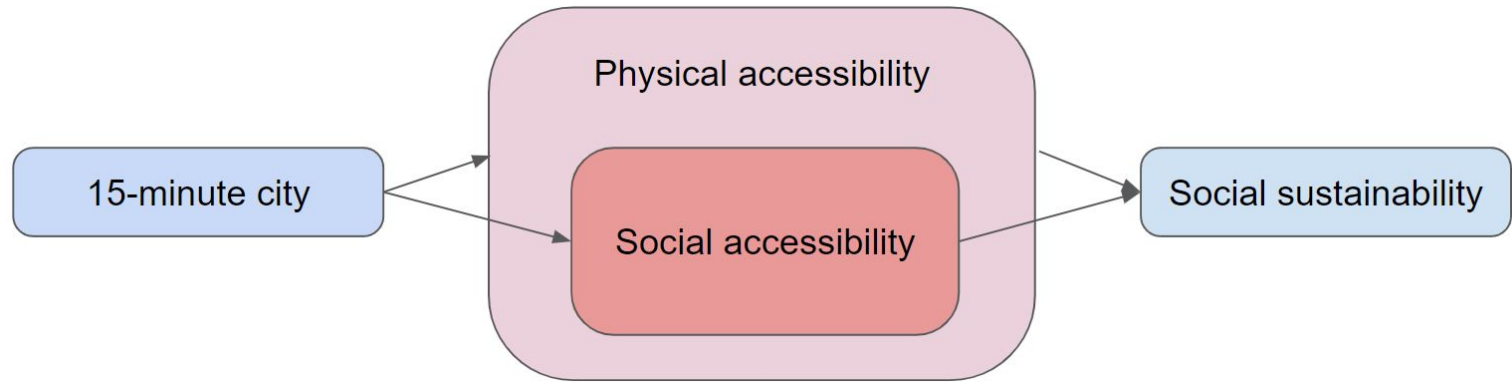
(Figure 12, n.d.)



(Figure 13, Micaël)



Conceptual model



(Figure 3, Own work)



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Research method



Type of study & Strategy

Goal

The goal of this research is to elaborate on the link of accessibility between the 15-minute city and social sustainability

- Reasonably unexplored phenomenon
- Explorative
- Qualitative methods
- Case study
- Interviews



Case studies chosen

Macro scale

Amsterdam Nieuw-West

- Municipal plans relate to accessibility
- Personal ties to the researcher

Micro scale

Osdorpplein

- Urban vitality
- interesting social mix



Research questions

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Data collection

Municipality

Case study documents and interviews with PM's for municipal implementation of accessibility

-2 Project managers

Residents

In depth interviews about trade offs and considerations relating to the macroscale

-6 Residents

Passers-by

Short on the street interviews about trade offs and considerations relating to the micro scale

-50 Passers-by

User experience as perceived by officials in their official function
and user experience as perceived by the users in their user function



Operationalisation

Officials municipality

Analysis of the omgevingsvisie, elaborations of the project managers on accessibility related topics from them

User Residents

First a short survey then drawing of a mental map
Interview focussed on routes and transportation on the macro scale

User Passers-by

Short simple interview about the user experience in Osdorpplein, good and bad qualities which affect their visit



Results

SQ3: To what extent is the municipality of Amsterdam enhancing accessibility in Nieuw-West?



Municipal accessibility implementation

- Accessibility in the AUP
 - Self sufficient neighbourhoods
 - 'licht, lucht en ruimte'
- Omgevingsvisie
 - Mobility
 - Urban fabric
 - Details
 - Mixed use and social mix



(Figure 14, Van Eesteren)



Municipal accessibility implementation

- Mobility
 - Car usage and space in Nieuw-West
 - Mobility and densification
 - Other mobility options

“Why should you be able to reach everything by car?” -PM1

“The funny thing is, greenery, walking and cycling can be combined. The car is difficult to combine as bicycle paths and footpaths can exist in a soft environment while cars always need concrete and stones.” -PM1

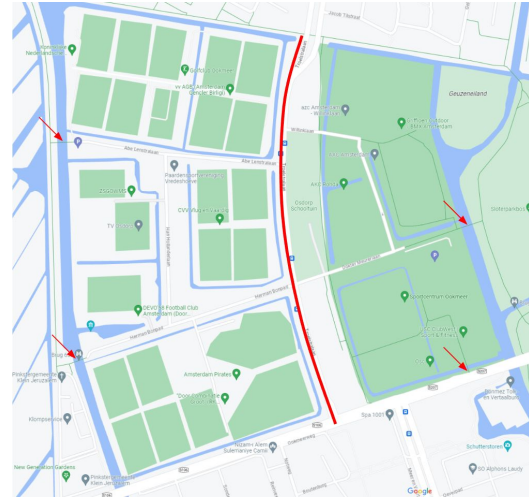
“Reducing cars will make the city more accessible because it becomes more pleasant to move around without one” -PM2



Municipal accessibility implementation

- Urban fabric
 - connection between neighbourhoods
 - Logic and comfort

“So we say that that fabric of the park in relation to those neighbourhoods is not right, so you actually need to make maybe 10 entrances so that little boy who needs to play sports or that girl who needs to go to the gym, that they can get there easily. ... If you look at the fabric through the city there are dozens of places where it fails” -PM1



(Figure 15, Google)



Municipal accessibility implementation

- Details
 - Puccinimethode
 - Clear and unified public space design signifying its use



(Figure 16, Municipality of Amsterdam)



Municipal accessibility implementation

- Mixed use and social mix
 - Places for everyone
 - Places which appeal to specific demographics

“Moroccan or Turkish youths are looked down upon at Rembrandtplein but they feel welcome in their own neighbourhood in for example Plein 40-45, and they love it” -PM2

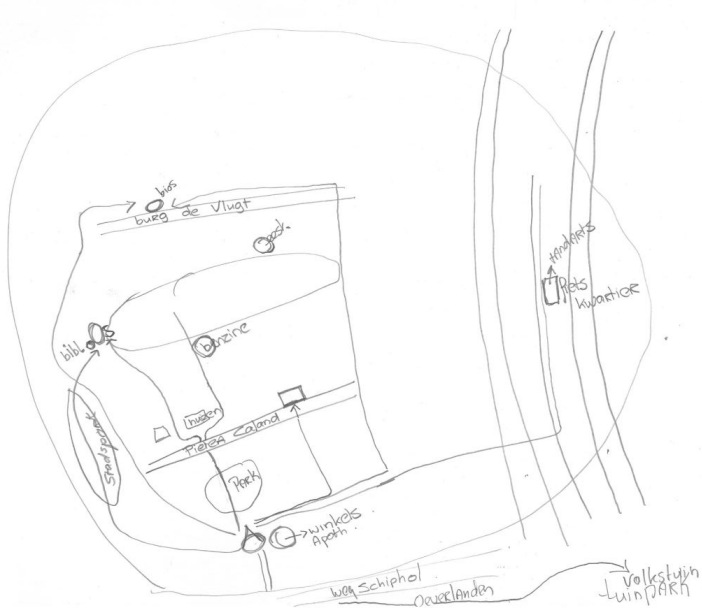


(Figure 17, Municipality of Amsterdam)

SQ4: To what extent is accessibility experienced by the residents of Amsterdam Nieuw-West?



Accessibility experience - macro scale Nieuw-West



(Figure 18, Own work)



(Figure 19, Own work)



Accessibility experience - macro scale Nieuw-West

- Transportation

- Bicycle
- Parking

- Public transport
○ vs bicycle

- car
- need for the car

- walking

“If I don’t have my electric bicycle in view for more than 30 minutes in Nieuw-West I will choose a different mode of transportation”.

“when I need to be on time during rush hour I avoid public transport as the line I would use is delayed to often at that time”



Accessibility experience - macro scale Nieuw-West

- Routing
 - public transport and cars
 - fastest route
- cycling and walking
- scenery, greenery
- separated from cars
- chaotic city centre
- comfort and convenience



(Figure 20, Siebe Swart)



Accessibility experience - Micro scale Osdorpplein



(Figure 22, Jean-Pierre Jans)



Accessibility experience - Micro scale Osdorpplein



(Figure 21, Osdorpplein Amsterdam)



Accessibility experience - micro scale

- Transportation

"I dislike that they are going to remove free parking"

"I am taking the tram because it's so windy, normally I take the bicycle"

Mode of transport	Frequency
Car or Motorcycle	4
Public transport	17
(Electric)bike	13
Walking	14
No result	2
total	50

(Table 1, Own work)



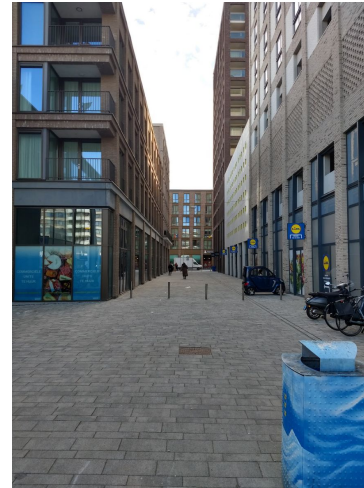
Accessibility experience - micro scale

- Buildings and facilities
 - physical accessibility, hard infrastructure

“the ‘licht lucht en ruimte’ is totally gone”

“I like how there is enough open space to freely move around”

“I am excited to see what stores will open here because it is quite barren as of now”



(Figure 23, Own work)



Accessibility experience - micro scale

- Mixed use
 - physical accessibility, hard infrastructure

“it is practical”

“There are only only chains here, no quality or fun stores”

“They are only adding eateries”

“the offer in muslim cultural food and stores is great and that's why I come here”



(Figure 24, Own work)



Accessibility experience - micro scale

- Urban fabric
 - physical accessibility, hard infrastructure

“where do I go from here”

“I only realised you could go further after working here for a month”

“I feel like Osdorppelein is not connected to the area around it”



(Figure 25. Own work)



Accessibility experience - micro scale

- Social mix
 - social accessibility, soft infrastructure

"I don't feel part of the community and not welcome"

"It's cosy and the people are nice"

"There should be more cultures represented here"

"I really appreciate the Moroccan vibe"



(Figure 26. Own work)



Accessibility experience - micro scale

- Safety and comfort
 - social accessibility, soft infrastructure

"I won't let my son cycle through here on his own because of the other youths"

"I've been threatened with violence by them"

"I don't come here in the evening as everything is closed and it doesn't feel safe"



(Figure 27, Own work)

Identity

The identity of Osdorpplein is experienced differently by different users.



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Discussion



Discussion and limitations

- Social sustainability
 - Categories of soft and hard indicators
 - Quality of life from an built environment perspective



Discussion and limitations

- 15-minute city
 - According to literature its nearly utopian
 - Set the perspectives used



Discussion and limitations

- Accessibility in literature
 - indicators of accessibility overlap with those of social sustainability
 - difference lies in abstraction level
 - Example: safety versus open facades



Discussion and limitations

- **Accessibility** different research methods
 - Different perspectives on user experience
 - professionals versus users
 - who is right?



Discussion and limitations

- **Accessibility** findings on the macro scale
 - limitation of the scale levels used
 - Confirmation: safety, separation from cars, proximity to amenities etc.
 - Contradiction: chaos in urban fabric



Discussion and limitations

- **Accessibility** findings on the micro scale
 - Confirmation: details, logic and clear routing is important
 - Contradiction: one best urban identity, without cars, high density and mixed use spaces
 - People have different needs and desires in terms of identity and infrastructure



Discussion and limitations

- Scope of the research
 - Limitation: scale of the study



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**Conclusion and
recommendations**



Conclusion - Research method

- Interviews with **users**
 - It's important to study experiences directly
 - direct research methods confirmed the suspicion of unknown accessibility indicators being present
 - **measured** experience by officials versus
 - **experienced** experience by users



Conclusion - findings

- Limits of the 15-minute city
 - *Human rhythm, density, proximity, diversity are positive qualities but it is a single identity*
 - not everyone wants to live in a 15-minute city
 - not everyone can live in a 15-minute city



Conclusion - Recommendations

- user focussed research methods work
 - minor addition to the academic debate related to the findings due to the limited scope of the research
 - major addition the practical side of user experience studies in the built environment with a proof of concept relating to the usefulness of mental maps and street interviews as research methods

Spatial justice

“the fair and equitable distribution in space of socially valued resources and opportunities to use them” (Soja 2009)

MRQ: To what extent is the 15-minute city able to enhance social sustainability?

These user focussed methods have shown that the 15-minute city concept does not enhance social sustainability as its concept in its entirety promotes **spatial injustice** by discriminating against certain demographics needs and desires.



This was my P5 presentation

*Thank you for your attention,
are there any **questions?***



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Figures

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