



Sharing Sustainability

The Concept of Sharing in Collaborative Housing
for more sustainable Cities

Annalena Meixner, 25.07.2020

Journey



Introduction

Motivation

Literature

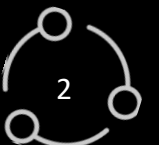
Methodology

Case Studies

Findings

Conclusion

Questions



UN Sustainable Development Goals



Introduction

Motivation

Literature

Methodology

Case Studies

Findings

Conclusion

Questions

Fridays For Future



Introduction

Motivation

Literature

Methodology

Case Studies

Findings

Conclusion

Questions

Loneliness, affordability, social exclusion



Introduction

Motivation

Literature

Methodology

Case Studies

Findings

Conclusion

Questions

Scientific

More research on social, environmental AND economic sustainability in CH is required.

(Daly, 2017; Williams, 2005; Jarvis, 2011)

Relationship between three concepts

(Lang et al., 2018)



Sharing Economy and Collaborative Consumption

(Agyeman et al., 2013; Belk, 2013; Teubner, 2014)

Introduction

Motivation

Literature

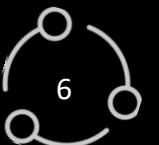
Methodology

Case Studies

Findings

Conclusion

Questions



Literature Review

Collaborative Housing

Sustainability

Sharing

Measurement

How does the concept of **sharing** in **collaborative housing** increase the **sustainability** of cities?

Introduction

Motivation

Literature

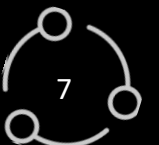
Methodology

Case Studies

Findings

Conclusion

Questions



Literature Review

Collaborative Housing

Selection Criteria

- Intentional community
- Strong focus on community
- Autonomous housing units
- Shared spaces and facilities



Introduction

Motivation

Literature

Methodology

Case Studies

Findings

Conclusion

Questions

Literature Review

Sustainability

Measurement

Social

Environmental

Economic

Social
Capital

Bonding capital
(soc. Cohesion)

Resource
consump-
-tion

Density
(space)

Ownership of
goods

Afford-
ability

Density
(space)

Exploitation of
goods

Introduction

Motivation

Literature

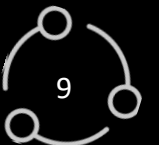
Methodology

Case Studies

Findings

Conclusion

Questions



Literature Review

Sharing

Sharing of ...

Spaces

Goods

Impact
on

Social

Environmental

Economic

Sustainability within Collaborative Housing

Introduction

Motivation

Literature

Methodology

Case Studies

Findings

Conclusion

Questions

Literature Review

Collaborative Housing

Sustainability

Sharing

Measurement

1. What is the impact of sharing on sustainability?

Increase

Introduction

Motivation

Literature

Methodology

Case Studies

Findings

Conclusion

Questions

6 Assumptions

Residents of the community have more frequent and intimate interactions.

The building has a smaller total floor area per person.

Households spend less on energy and maintenance due to a smaller total floor area per person.

The residents consume less goods.

The residents save costs for goods by sharing goods efficiently.

Households pay less rent compared to their desired alternative setting.

Introduction

Motivation

Literature

Methodology

Case Studies

Findings

Conclusion

Questions

Literature Review

Collaborative Housing

Sustainability

Sharing

Measurement

1. What is the impact of sharing on sustainability?
2. Research Methods
3. Theoretical Framework

Increase

Case Studies

Introduction

Motivation

Literature

Methodology

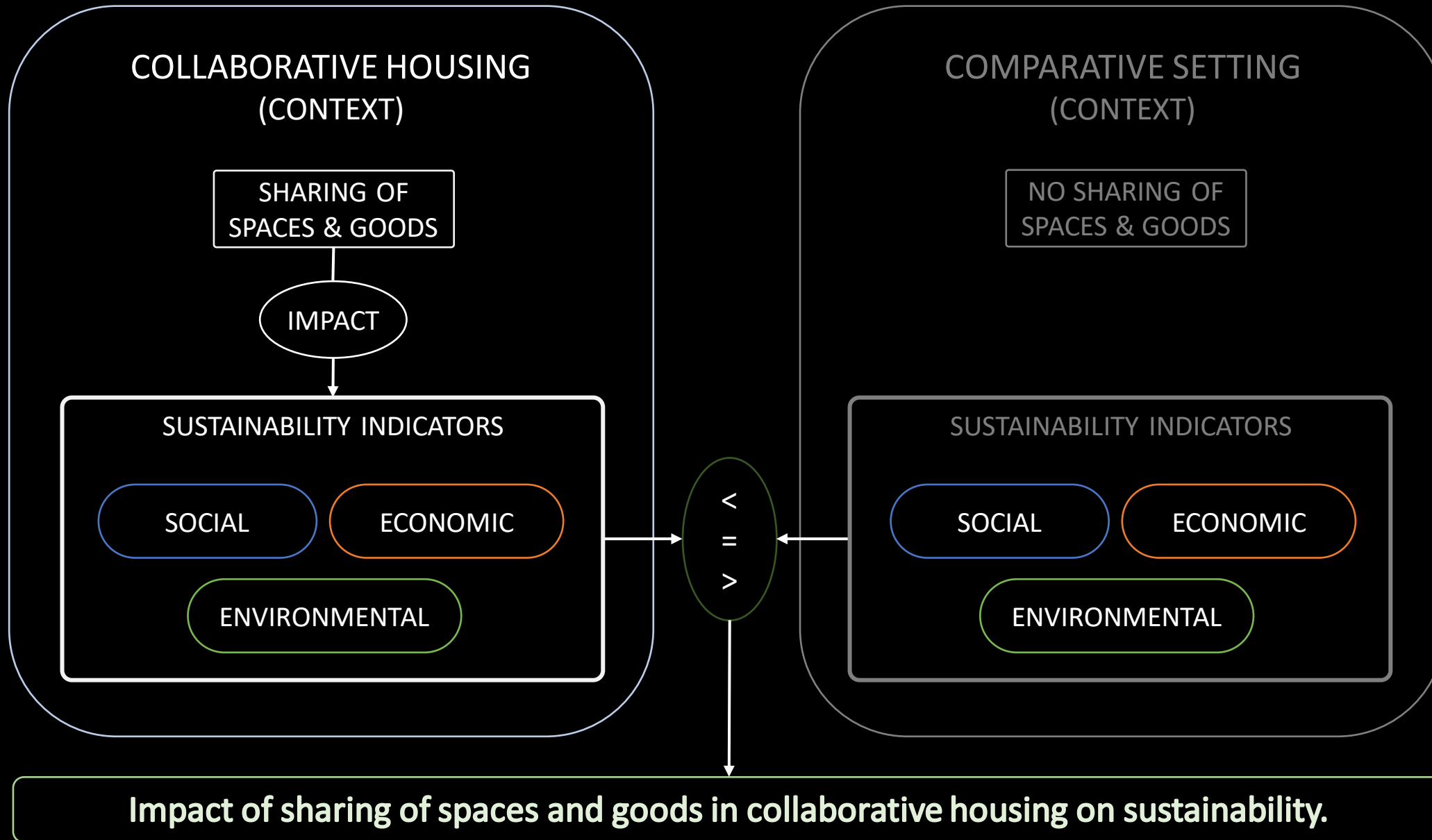
Case Studies

Findings

Conclusion

Questions

Theoretical Framework



Introduction

Motivation

Literature

Methodology

Case Studies

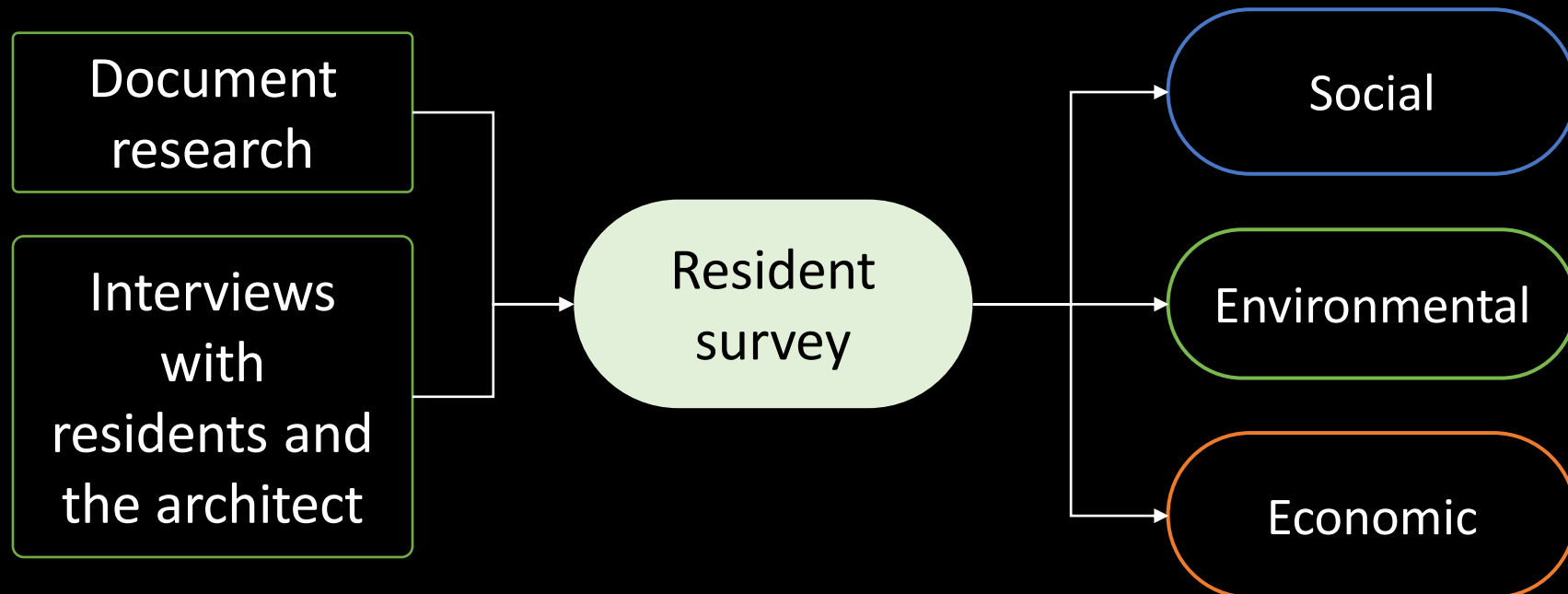
Findings

Conclusion

Questions

Research Methods

Case studies



Introduction

Motivation

Literature

Methodology

Case Studies

Findings

Conclusion

Questions

Case Studies



Pilot study CW Delft

Introduction

Motivation

Literature

Methodology

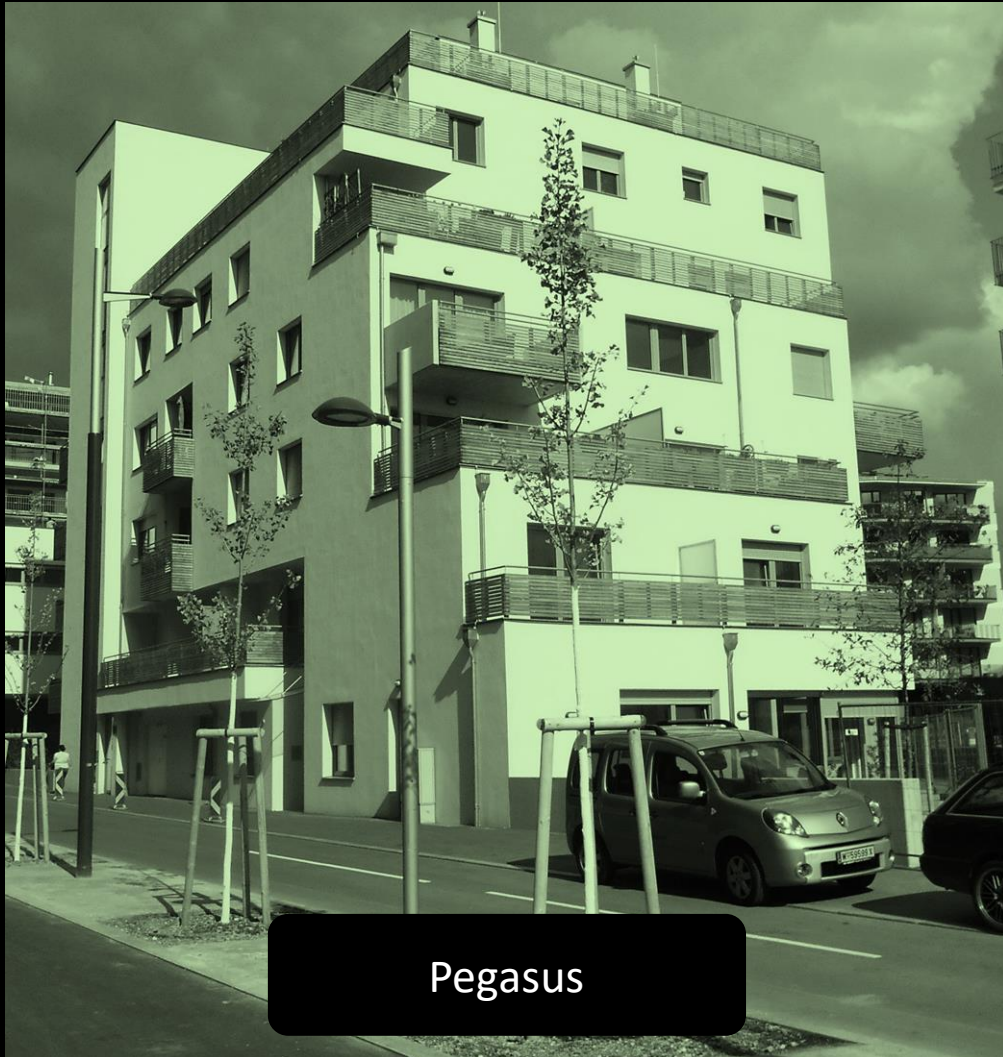
Case Studies

Findings

Conclusion

Questions

Case Studies



Pegasus



LiSA

Introduction

Motivation

Literature

Methodology

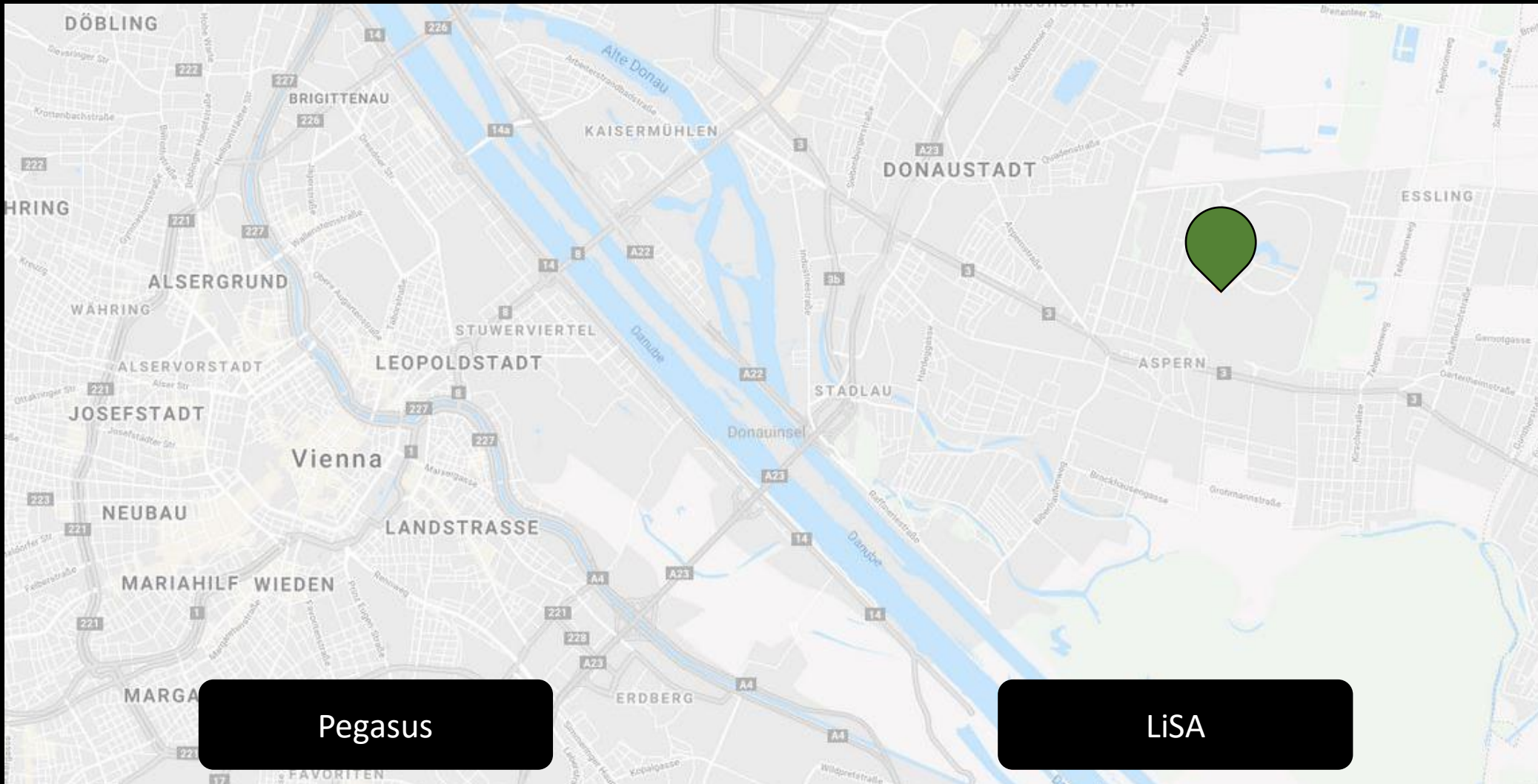
Case Studies

Findings

Conclusion

Questions

Case Studies



Introduction

Motivation

Literature

Methodology

Case Studies

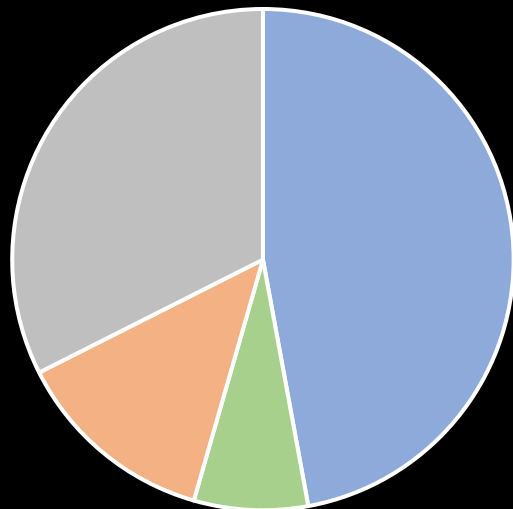
Findings

Conclusion

Questions

Pegasus

26 units



4.034 m²

Initiating members

Subsidized housing

Ownership

GFA Building

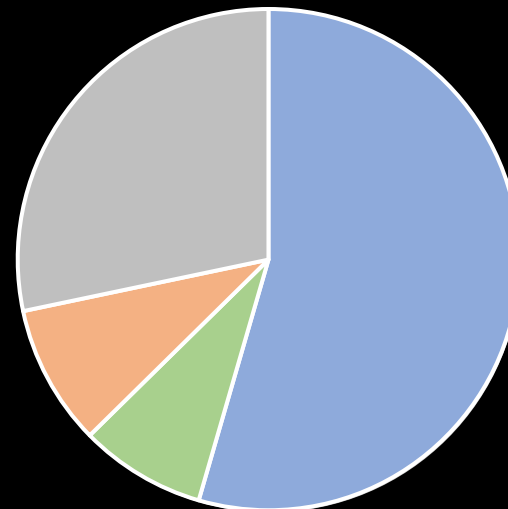
UFA Individual

UFA Shared

UFA Commercial

LiSA

44 units



5.598 m²

Introduction

Motivation

Literature

Methodology

Case Studies

Findings

Conclusion

Questions

Findings

Social

Environmental

Economic

Introduction

Motivation

Literature

Methodology

Case Studies

Findings

Conclusion

Questions

Literature suggests that by sharing...

Residents of the community have more frequent and intimate interactions.

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due to a smaller total floor area per person.

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Introduction

Motivation

Literature

Methodology

Case Studies

Findings

Conclusion

Questions

Groups and Networks due to sharing

Pegasus

LiSA

All

Participating

All

Recommended

Participation is

Expected

1,75

Hours/week

7,77

Introduction

Motivation

Literature

Methodology

Case Studies

Findings

Conclusion

Questions

Perception of the impact of sharing

Pegasus

LiSA

7,1

Safety and security

8,4

6,9

Overall: frequent and
intimate interactions

8,7

4,6

Proudness,
place attachment

7,3

6,2

Average

8,2

Introduction

Motivation

Literature

Methodology

Case Studies

Findings

Conclusion

Questions

Downsides

Pegasus

LiSA

- Feeling of injustice and emotional pressure through different engagement
- Too much closeness
- Social exclusion, clique formation, ...

Introduction

Motivation

Literature

Methodology

Case Studies

Findings

Conclusion

Questions

Total floor area per person

Pegasus

LiSA

1.686 m²

Current GFA

2.260 m²

1.496 m²

Desired GFA

2.286 m²

Introduction

Motivation

Literature

Methodology

Case Studies

Findings

Conclusion

Questions

- Household needs (guest room/office/gym ...)

Energy use

Pegasus

LiSA

- Bigger surface area
 - > higher costs on heating, electricity and maintenance
- Low consumption

Introduction

Motivation

Literature

Methodology

Case Studies

Findings

Conclusion

Questions

Lower rent

Pegasus

LiSA

- Subsidized housing

Introduction

Motivation

Literature

Methodology

Case Studies

Findings

Conclusion

Questions

Less goods consumption

Pegasus

LiSA

$3 < 9$

BBQ grill

$5 = 5$

-

Washing machines

$15 < 21$

$3 > 0$

Table tennis table

-

-

Bench saw

$3 > 0$

Introduction

Motivation

Literature

Methodology

Case Studies

Findings

Conclusion

Questions

Downsides

Pegasus

LiSA

- Different understanding of use, care and maintenance
- Damage, untidiness, ...
- Social tension and conflict
- Clear & extensive communication (emotional and time-consuming)

Introduction

Motivation

Literature

Methodology

Case Studies

Findings

Conclusion

Questions

Save costs for goods

Pegasus

LiSA

- Things that are not needed
- Costs for collaborative purchases (if not donated)
- Informal sharing

Introduction

Motivation

Literature

Methodology

Case Studies

Findings

Conclusion

Questions

Conclusion

What is the impact of sharing on sustainability?

Motivation?

Social

Social
Capital

Environmental

Resource
consump-
-tion

Economic

Afford-
ability

Introduction

Motivation

Literature

Methodology

Case Studies

Findings

Conclusion

Questions

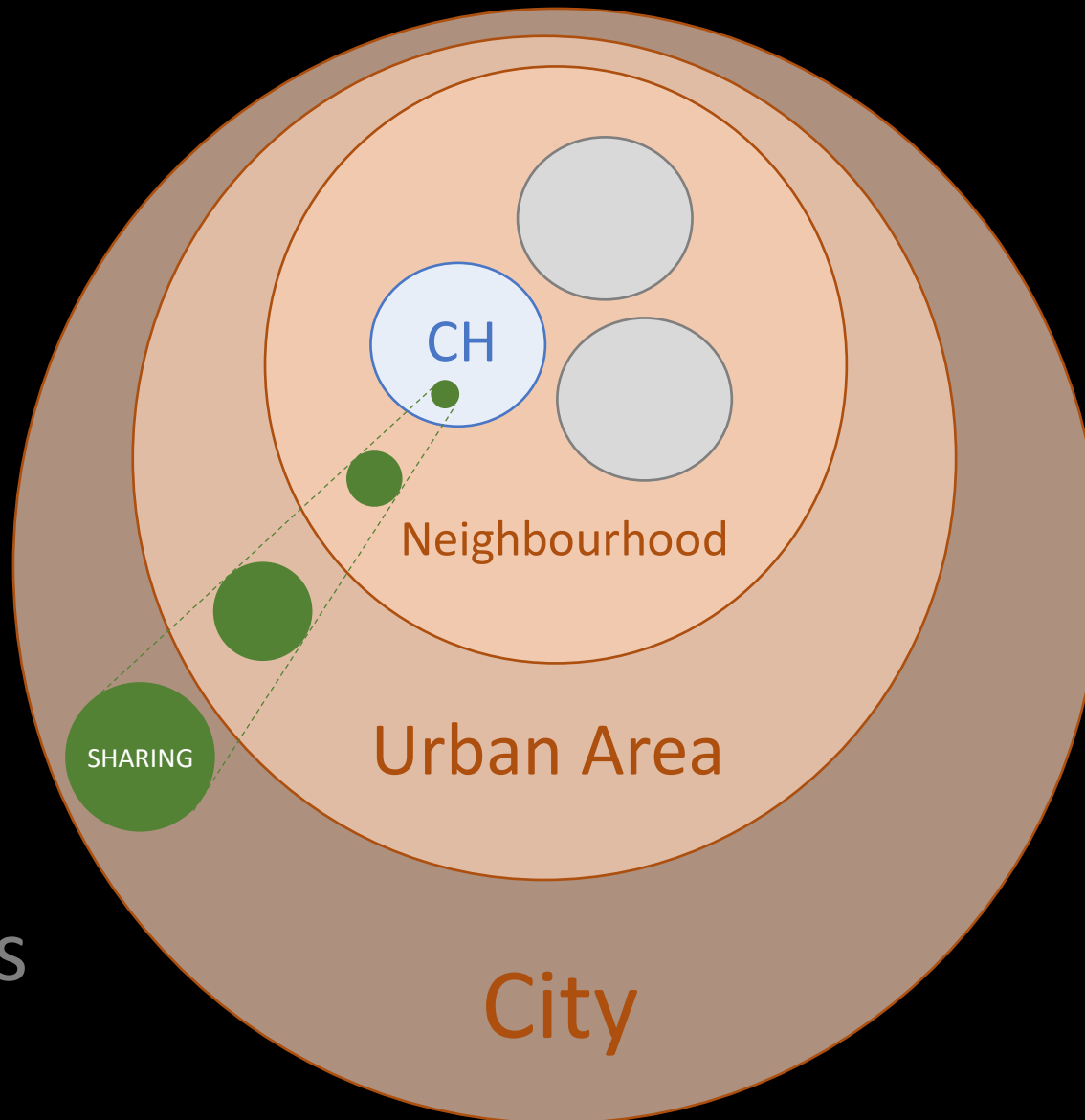
Consequence

Catalyst for more sustainable cities

1. Presence

2. Role model & experiment

Effectiveness depends on user participation



Introduction

Motivation

Literature

Methodology

Case Studies

Findings

Conclusion

Questions

Recommendation

For research

- Longer period of time
- Effectiveness of sharing on bigger scale

For future development

- Purposely implement sharing practices

For CH communities

- Put sustainability on your agenda
- Share your experiences
- Support each other's initiatives and fight social exclusion

Introduction

Motivation

Literature

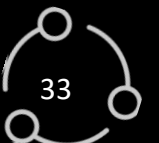
Methodology

Case Studies

Findings

Conclusion

Questions



Sharing Sustainability

- How sharing can increase the sustainability of cities

The opportunities of sharing for urban spaces are currently being overlooked.

(Agyeman et al., 2013)

Introduction

Motivation

Literature

Methodology

Case Studies

Findings

Conclusion

Questions



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Questions?

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