

# Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences



## Graduation Plan: All tracks

Submit your Graduation Plan to the Board of Examiners ([Examencommissie-BK@tudelft.nl](mailto:Examencommissie-BK@tudelft.nl)), Mentors and Delegate of the Board of Examiners one week before P2 at the latest.

The graduation plan consists of at least the following data/segments:

| <b>Personal information</b> |                  |
|-----------------------------|------------------|
| Name                        | Annalena Meixner |
| Student number              | 4940261          |
| Telephone number            | -                |
| Private e-mail address      | -                |

| <b>Studio</b>                         |  |                              |
|---------------------------------------|--|------------------------------|
| Name / Theme                          | Housing Management   |                              |
| Main mentor                           | Darinka Czischke   | Housing Management           |
| Second mentor                         | Yawei Chen   | Urban Development Management |
| Argumentation of choice of the studio | My personal motivation for choosing this study area derives from two interests: Affordable ownership of housing and the question of how to treat the environment and fellow citizens more cautiously. The scarcity of affordable homes, as well as problems of social, environmental, and economic sustainability pose huge challenges on the society of today. The area of Housing Management, and particularly collaborative housing might present a partial solution for the current problems, which I would like to critically research in greater detail. |                              |

| <b>Graduation project</b>       |   |
|---------------------------------|---|
| Title of the graduation project | <b>Sharing Sustainability<br/>The concept of Sharing in Collaborative Housing for more Sustainable Cities</b>   |
| <b>Goal</b>                     |   |
| Location:                       | TU Delft with research focus on the city of Vienna, Austria   |
| The posed problem,              | The set 17 Sustainable Development Goals for 2030 address the global sustainability issues regarding people, planet, prosperity, peace and partnership (United Nations, 2019). The human population worldwide spends most of the time inside buildings and the majority of this time at home. This indicates that the built environment has a huge impact on human behaviour and therefore on the sustainability of cities, particularly on the social, environmental and economic aspects. One way to a more sustainable lifestyle are collaborative housing communities. In |

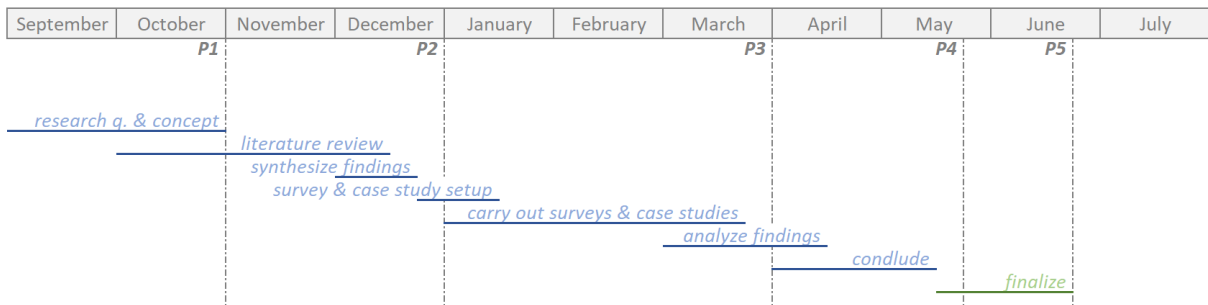
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|   | <p>research, those communities usually have a positive notation regarding social inclusion, affordability, and environmental sustainability, while there may be downsides as exclusivity, gentrification and economic risks for residents as well (Lang et al., 2018).</p> <p>Despite the obvious relevance and significance (see below), it remains unclear what the effects of sharing in collaborative housing on sustainability are.</p>   |
| <p>research questions and</p>                   | <p>Does the concept of sharing in collaborative housing increase the sustainability of cities?</p> <p>A: What are the theoretical impacts of <i>sharing</i> in collaborative housing on social, environmental and economic sustainability?</p> <p>B: What are the practical impacts of <i>sharing</i> in collaborative housing on social, environmental and economic sustainability?</p>   |
| <p>design assignment in which these result.</p> | <p>A: To answer the main research question, the existing literature is being consulted first. The review clarifies the contexts of collaborative housing, sustainability and sharing, and how those impact each other in a positive or negative way. The literature research also provides the framework for the empirical part of the work.</p> <p>B: The empirical part looks at the practice of collaborative housing. Case studies are carried out to determine whether the findings from part A that make collaborative housing potentially more sustainable than conventional housing apply to the practice of collaborative housing communities. The case studies are supported by a small survey of ten more projects, to gain more scientific relevance while at the same time maintaining the feasibility regarding the time frame of the graduation assignment.</p> <p>Both parts, A and B, will make up the conclusion of whether sharing in collaborative housing increases the sustainability and contributes to more socially, environmentally and economically sustainable cities.</p> |

## Process

### Method description

The research project starts with an explorative literature review on the topics of interest (as described below) and continues with the empirical research by case studies and a small-scale survey for broader insight.

Regarding the process, the current location on the timeline is the P2 where the literature review is largely completed and the setup of the survey and case studies begins.



### Literature and general practical preference

The written sources include scientific and peer-reviewed papers and journal articles, books, other articles, as well as grey literature like reviews and conference papers that could be found online, mostly through Google Scholar. The literature contains quantitative, as well as qualitative research, and consults theories, as well as research data on the topics of collaborative housing, sustainability, sharing and their impact and interdependencies.

The consulted literature involves the following works:

**Collaborative housing** (Fromm, 1991; Lang et al., 2018; L. Tummers, 2016; Twardoch, 2017; Williams, 2005)

**Sustainability in collaborative housing** (Czischke, 2018; Daly, 2017; Delendi, 2017; Krokfors, 2012; Marckmann et al., 2012; Scheller & Thörn, 2018; I. L. Tummers, 2017)

**Sharing in collaborative housing** (Agyeman et al., 2013; Belk, 2013; Goldsmith & Goldsmith, 2011; Hagbert et al., 2020; Hamari et al., 2016; Lamberton & Rose, 2012; Teubner, 2014; Vestbro, 2013; Wahlen & Laamanen, 2017)

For the case studies, the same written sources are consulted, along with semi-structured interviews with experts and residents. The surveys are being distributed to collaborative housing communities, respectively their spokesperson.

### Reflection

1. What is the relation between your graduation (project) topic, the studio topic (if applicable), your master track (A,U,BT,LA,MBE), and your master programme (MSc AUBS)?

The MSc program Management in the Built Environment regards various fields within the built environment amongst are Housing Management and Urban Development Management. The relatively new phenomenon of collaborative housing might offer

solutions to several urban problems. The graduation topic aims at determining whether sharing increases the sustainability and therefore finds its place in the current research areas of MBE, respectively collaborative housing and sustainability.

2. What is the relevance of your graduation work in the larger social, professional and scientific framework.

### Scientific relevance

Research in the field mostly focuses partially on social, environmental or economic aspects within co-housing communities (Lang et al., 2018). The relationship between these three kinds of sustainability is examined rarely. Tummers (2016) states that, partially due to the lack of verifiable quantitative data, it remains unclear whether co-housing initiatives contribute to socially coherent and healthy cities. After researching the measurable environmental factors of some intentional communities, Daly (2017) states that the field offers lots of research opportunities concerning the ecological and social aspects of intentional communities. Williams (2005) mentions the need for further research on the economic costs and benefits of living in different forms of CH as well as for solutions to the conflict between social cohesion and inclusion in CH communities. Finally, Jarvis (2011) stresses that collaborative housing and its role for a more sustainable future should not only be prioritized for further research, but also in future planning and policy.

In the context of Sharing Economy and Collaborative Consumption, sharing is currently an important topic, intersecting with other research fields like the internet or urban planning (Agyeman et al., 2013; Belk, 2013; Davidson & Infranca, 2016; Teubner, 2014; Wahlen & Laamanen, 2017).

Research on collaborative housing in the context of Austria is not yet extensive due to the usual focus on social housing in general, and furthermore, it often only focuses on a small area in the field, like on 'Baugruppen', only (Lang & Stoeger, 2018)

### Societal relevance

The societal relevance of the sustainability aspect of this thesis topic is obvious by the amount of attention that climate change and sustainability currently attract, partially through the 'Fridays for Future' movement and activists like Greta Thunberg. Other societal and economic issues like loneliness and affordability of housing further depict the demand for more social, environmental and economic sustainability of the housing sector. Furthermore, cities nowadays do not only lack the desired 'neighbourhood unity' but also face environmental and economic challenges like change and crises (Delendi, 2017). Overall, the new driving forces behind collaborative housing are 'affordability' and 'inclusion' (Czischke, 2018). The relevance of sustainability manifests in the Sustainable Development Goals (SDGs) for 2030 set by the United Nations General Assembly in 2015 (United Nations, 2019).

The relevance of sharing in today's context becomes obvious if one considers the sheer amount of ideas, concepts and businesses like Airbnb, Uber, Zipcar, Swapfiets or eBay, that appeared during the recent years. Teubner (2014) concludes by stating that 'sharing meets the pulse of the time' and that the evident benefits should drive politicians to actively support it.

The scientific and societal relevance of collaborative housing, sharing, and sustainability are therefore undoubted. This thesis contributes to the field of research by providing an understanding of the concepts and indications on how the concept of sharing in collaborative housing does, or possibly can foster more sustainable lifestyles and cities.

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