

## Abstract

Housing is a topic that concerns everyone, but the attention for housing has grown in the last years. There is an enormous urge for sufficient and affordable housing in a world where we cannot ignore globalisation. The market is looking for a way to answer this demand for affordable housing. Industrial housing is one of the answers.

Industrial housing can provide an affordable, fast, and quality solution against the tremendous pressure on the housing market. It is an industrialised process to create efficient, flexible, and affordable housing on a large scale and at the same time offer a sustainable circular solution. Multiple constructors developed a product, but despite these benefits and the products that are already available, most of the new houses are still constructed in a traditional way. The reason for this is a lack of knowledge about the industrial housing product, hesitation of the market and lack of cooperation between actors. This research analyses industrial housing and the opportunities and barriers to scale up the production of industrial housing. The goal of this research is to identify the improvements in the process that are needed to scale up the production. To identify the required improvements needed, an understanding of industrial housing, the production process, and the actors involved must be gained. Therefore, in this research, a literature study has been carried out that describes the development of housing in relation to industrial housing, defines the scope of this research, and gives insight into the process with the involved actors. The literature study is complemented with an empirical study, in which interviews have been conducted to get findings from practice. The empirical research focuses on the industrial product, process, and project. This project was explored as a case study on the use of a building flow. The identified barriers and opportunities of the theoretical and empirical study were compared to define recommendations in the synthesis. An expert panel of experts in industrial housing was held to validate and discuss the recommendations. The main recommended adaptations include innovations and digitalisation of the product, national guidance and regulations from the public parties using a long-term vision, the clients in industrial projects must start thinking in terms of the product, the function of a building flow and the transparent exchange of knowledge that is needed to create cultural and organisational change.

*Key terms: Industrial Housing, Housing Shortages, Housing Market, Production Process, Barriers and Opportunities*