

Creating 5,000 Digital Twin Apartments with UAV-captured Imagery



In a Swedish project with Spotscale, photorealistic and intelligent 3D models of over 5,000 apartments based on high-resolution drone imagery will enable Riksbyggen to inspect, measure and analyse the buildings more efficiently.

The project spans over 50 different housing areas of varying sizes, totaling more than 600 building bodies, containing over 5000 apartments all over Sweden.

The underlying imagery, captured by drones, contains hundreds of thousands of high-resolution images that have been automatically processed into photorealistic and intelligent 3D models. Through a cloud-based solution, Riksbyggen can inspect, measure and analyse the buildings in a completely new way, thanks to advanced machine learning and computer vision technology.

“The data is a valuable asset for our business processes, increasing rapidly within the real estate business. 3D models of our buildings will be complemented with building information and processed to create a basis for BIM models,” says Riksbyggen CDO, Amir Chizari.

Asset management functionalities

“Riksbyggen has chosen to invest in this project in conjunction with a transfer of the real estate to a new company called Unobo. The majority of the shares in Unobo will be acquired in 2021 by institutional investors. The purpose of this is to capitalize on the increase in the production of new rental properties with 20%. The data material from Spotscale will be used to describe our portfolio better to investors, by a novel way to experience the buildings, rather than from maps and images. We will also have great use for this in our own planning of new developments and infill projects,” says Carl-Johan Hansson, CEO of Unobo.

[Spotscale](#) has developed special functionalities for asset management such as quantity take-offs (QTOs) that provide instant quantifications of a building’s facades, roofs and windows. The cloud-based software also enables the detection of changes to the roof and facade materials over time and therefore can be used to plan maintenance, repairs and renovations.

“We are thrilled to collaborate with Riksbyggen for [such a massive project](#). This is a proof of our scalability in data processing and will enable us to develop our unique AI capabilities even further,” says Ludvig Emgård, founder and CEO at Spotscale.

Riksbyggen is a cooperative company that develops new housing projects, both for purchase and rental. It is also one of Sweden’s largest asset management companies for public and private owners.



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