

KEEPING CONDOMINIUMS *UP TO DATE*

Anyone planning to renovate the energy efficiency of their private property must consider many things, but can ultimately make a quick decision about implementation. The decision-making processes are much more difficult for condominium owners: If they want to renovate the parts of their property owned in common, they often have to appease a wide range of interests. A study conducted by the Lucerne University of Applied Sciences and Arts together with partners from the field looked at the financial side of such renovation projects and searched for innovative financing models.



Condominiums as known from sales brochures. But even these buildings will one day reach the end of their useful life and will then have to be renovated by their owners. Photo: Shutterstock

A technical report about the results of a research project in the field of buildings and cities, which is financially supported by the Swiss Federal Office of Energy. The report has been published in the technical magazine Immobilien Business (issue March 2023).



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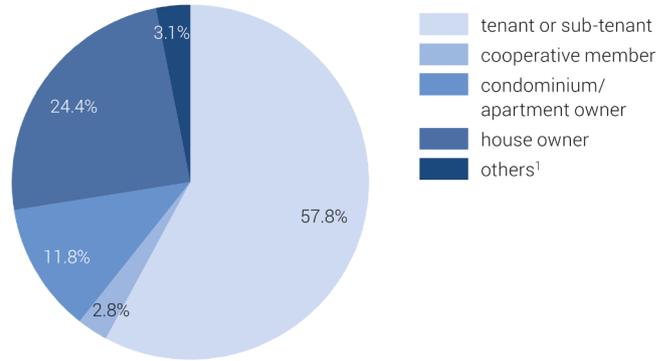
Buildings account for around 40% of Switzerland's energy consumption. In residential and non-residential buildings, there is much room for reducing consumption and achieving long-term climate targets. According to the Energy Perspectives 2050+ of the SFOE, the building sector should consume significantly less energy by 2050, namely 65 TWh compared to 90 TWh in 2019. In order to master this Herculean task, large-scale energy refurbishments are needed: More than one million buildings are not, or are hardly, insulated and thus are urgently in need of refurbishment. In addition, two-thirds of houses are still heated by fossil fuels or electricity. Around 1% of building stock is currently renovated every year to improve energy efficiency. To achieve the country's climate policy goals, the pace of renovation must be doubled.

Backlog of condominium renovation

The task of renovating buildings to be more energy efficient falls on people who own condominiums, and others, according to a new study by the Lucerne University of Applied Sciences and Arts: "In Switzerland, around 180,000 buildings with residential units under condominium ownership that were built before 1980 are in need of renovation. The increasing renovation backlog is mostly due to a lack of long-term strategic planning of structural renovation measures and financing." The HSLU Institute of Architecture was in charge of the study. The association Casafair Switzerland, the Swiss Condominium Owners Association, VIO Treuhand AG and IMMO-Support GmbH were involved as practical partners. The project was supported by the SFOE.

The researchers focused on the question of financing renova-

Occupancy status of occupied dwellings, 2020



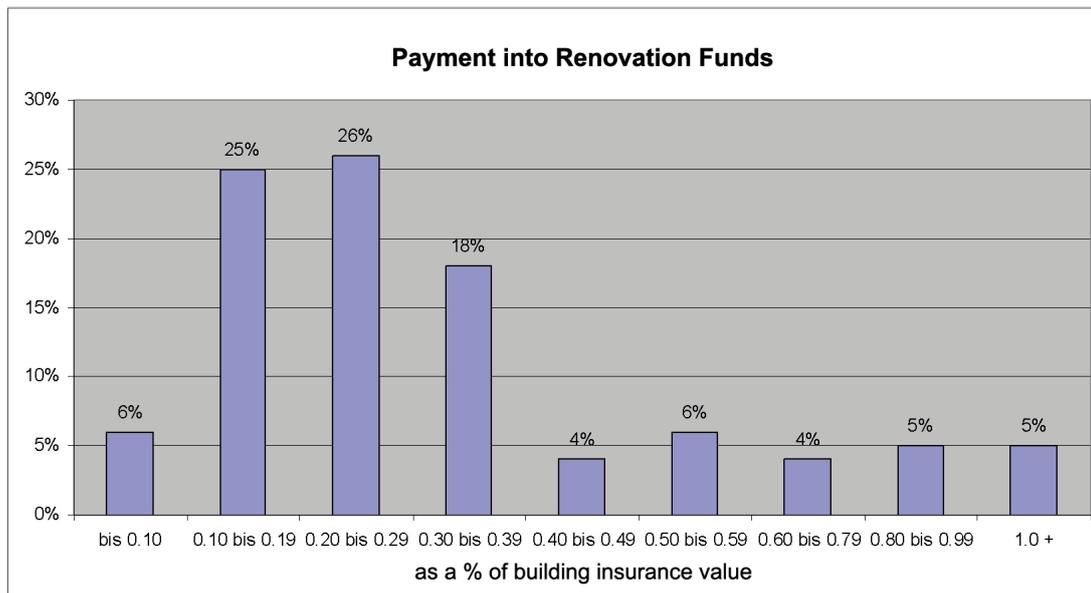
¹ dwelling provided free of charge by relative or employer, employee accommodation (e. g. caretaker dwelling), lease

Sources: FSO – Structural survey, Buildings and dwellings statistics © FSO 2022

Around 12% of the Swiss population live in condominiums. There were around one million condominiums in Switzerland in 2018.

Graphic: FSO

tions in condominiums. As a rule, condominium owners' associations can draw on a renewal fund, which they accumulate with monthly payments. "The renewal fund does provide funds for value-preserving and sometimes also value-enhancing measures on the jointly occupied property, but experience shows that the monthly contributions are too low and thus there are often far too few funds available," says Project Manager Thomas Heim. According to earlier surveys taken by the Lucerne agglomeration, an average of 0.25% of the building insurance value is set aside each year – significantly less than the 0.8% that is often cited as a benchmark for value-preserving measures on the jointly owned areas alone.



An earlier study by the Lucerne University of Applied Sciences and Arts used empirical data from the canton of Lucerne to show how much money condominium associations actually pay into their renewal funds. Only 10% of communities reached the benchmark of 0.8% of the building insurance value. Graphic: HSLU study 'Erneuerungsfonds im Stockwerkeigentum'

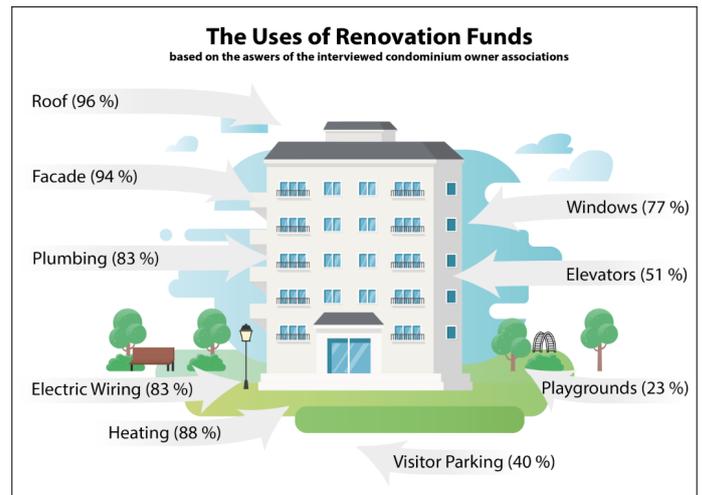
Existing and new types of financing

In recent years, the willingness to make financial provisions for modernizing renovations has likely been dampened even more, because the money set aside did not yield any interest, or even accrued a penalty because of negative interest. Even if interest is once again earned on reserves in the future, sufficient funds will not necessarily be available for energy-efficient renovations. Against this background, the researchers looked for financing options for renovation measures, taking into account existing and alternative financing models. For this purpose, they examined existing financing models and, based on application examples, developed solutions that are suitable for closing any financing gaps.

The "ideal way" to finance energy-efficient renovation, according to the study team, would be an adequately funded renovation fund. Since these funds are "very often or even mostly" underfunded, the payments are often increased with a view to renovation, or a special payment is agreed upon if the individual owners are in a position to do so. If the funds are not sufficient even in this way, individual, financially strong condominium owners can grant the community a loan, which is later paid back to the lenders with interest. "Depending on the renovation measure, a majority decision of the owners is required, and this is not always easy to achieve," says Thomas Heim. "Alternative financing models could help fund community-driven renovation solutions."



As a guideline, condominium associations should set aside 0.8% of the building insurance value each year for value-preserving measures on the common property, plus a further 1.1% to keep their private property in good condition. For a condominium with a building insurance value of 600,000 Fr., 400 Fr. per month would have to be saved for the common property and another 550 Fr. for their private property. Photo: B. Vogel



In an earlier study entitled 'Erneuerungsfonds im Stockwerkeigentum', a team of researchers from the Lucerne University of Applied Sciences and Arts determined the purposes for which condominium owner associations wanted to use the money from their renewal funds. Renovation of the roof and the building facade were most frequently mentioned in the survey. Illustration: B. Vogel/Shutterstock

Funding from the bank

Another route to energy-efficient refurbishment – still rarely practiced – is via a bank loan to the condominium owners' association. Since this is risk financing, the bank's granting of the loan is subject to conditions and must be examined on a case-by-case basis. The study authors cite a property with 26 apartments in the canton of Aargau as an example: The roof had already been renovated earlier, but now a good 1.1 million francs was needed to renew the facade, elevator systems, electrical wiring and staircases, with only 400,000 francs available in the renovation fund. Loans from a bank (620,000 Fr.) and a private individual (100,000 Fr.) would provide the necessary funds. The financially stronger owners had initially refused to take out a loan, but relented because thanks to the borrowed money, a renovation in stages with additional costs of up to 250,000 francs could be avoided. In addition, there were tax advantages to be had thanks to the deductibility of the bank loan (although cantonal differences must be taken into account here). "If the financing model of loans to condominium communities becomes widespread, financing institutions could be interested in further developing it into a standard product in the future, building on the offer of external financing of refurbishments to condominium communities by Raiffeisenbank St. Gallen," the study team speculated.

A third financing approach would involve cross-financing a refurbishment by means of a structural extension: Here, the building renovation would be paid for from the profit generated in the course of the refurbishment by the addition of a floor, or extension to the property occupied by the residential owners. This approach can be considered if densification is legally possible and the extension promises a striking profit thanks to a good location. The study team illustrated its idea with a model calculation: adding 530 m² of living space to a building with 18 apartments built in 1961 would generate a profit of 1.2 million francs. That is enough money to finance a comprehensive energy renovation.

To date, this type of cross-financing has only been practiced when private properties are sold as condominiums in the course of renovation and structural expansion. In the case of existing condominiums, on the other hand, this has not been done as of yet. The reason: unanimity of the condominium owners is required for such a renovation, and often the owner of the top-floor apartment is resistant to an additional floor. "In this sense, an extension could be more promising, e.g. as an annex building between a row-shaped development," says Thomas Heim.

Solving decision blockades

In order to implement such a complex project, an investor would be needed who would not only be willing to develop the addition or extension, but ideally would also take on the renovation. The study team from the Lucerne University of Applied Sciences and Arts sees a promising financing model here, which also has the potential to "overcome the hurdle of unanimity in the renovation of properties under condominium ownership." To ensure that such renovations are implemented in the future, the study team believes that incentives are needed: For example, the party that loses its roof terrace due to an increase in height could be won over to the renovation project by receiving appropriate compensation, or could be given an attractive right of first refusal on the newly created apartments. The study team also suggested that municipalities could provide financial support for additions or extensions.

In addition to financing renovations, instruments are needed to increase transparency regarding the condition of existing properties. For this purpose, the study team took up an earlier proposal for the creation of a maintenance and renovation label: "The label would confirm that an up-to-date main-



It is already common practice today that the profit generated by a property expansion is used to finance an energy renovation. According to the HSLU study, this approach would also be expedient for condominiums, if the obstacle of unanimity in the decision-making process for renovation can be overcome through appropriate incentives. The Basel property pictured was privately owned and was sold as condominium property after an increase in height, combined with an energy renovation. Photo: Atelier Fontana, Basel

tenance strategy is in place. Periodic re-certification would be required to ensure that the maintenance strategy is current. The label would not only serve as a seal of quality for project developers and future buyers of condominiums, but would also provide existing condominium owners with transparency and security in their decisions to finance renewal measures."

Planning for the long-term

The community of condominium owners is responsible for maintaining and, if necessary, increasing the value of their property. In order to meet this responsibility, forward-looking planning is indispensable, the project's final report states: "It is imperative for the renewal fund (as well as for the other

financing options) to have appropriate strategic long-term planning for modernizing renovations, which should include a regular review of the upcoming maintenance and renovation work." The management contract provides an important basis for focusing on long-term maintenance, renovation and financing planning.

- The **final report** on the project 'Alternative Finanzierungsmodelle bei der Erneuerung und Verdichtung im Stockwerkeigentum' is available at:
<https://www.aramis.admin.ch/Texte/?ProjectID=47504>
- For **information** on the project, please contact Nadège Vetterli (nadege.vetterli@lanex.ch), external head of the SFOE research program Buildings and Cities.
- Further **technical papers** on research, pilot, demonstration and flagship projects in the field of buildings and cities can be found at: www.bfe.admin.ch/ec-gebaeude