Climate change: Revitalization as a game changer?

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According to calculations by DIW, around 50 billion euros per year were recently spent in Germany on energy refurbishment measures in the existing residential building stock. The actual funds required, however, are estimated at up to 150 billion euros a year, which is not even including the commercial sector. In other words, the to be unleashed. Many good arguments for property owners and politicians can be found in the following article. The author is convinced that only a combination of promotion and mandatory measures will lead to success. (Editorial office)

The role of the building sector in addressing climate change is tremendous: according to the United Nations Environment Programme, the sector accounts for around one-third of global CO_2 emissions and takes up around 40 to 50 percent of available resources.

Rising energy costs resulting in tremendous financial burdens

At the moment, the issue is influenced by another serious factor, the cause of which seemed unthinkable only a few years ago: the rapid increase in energy prices as a result of the war in Ukraine. This aspect is already impacting on the entire real estate sector and will continue to do so in the future.

These two factors, particularly in their combination, present major challenges. After all, in view of the rise in energy prices, high consumption and emission levels could very soon mean that numerous German households as well as small and

medium-sized enterprises are exposed to enormous financial burdens - and will consequently face difficulties in making their back payments or even being able to pay the rent on time.

In order to counteract this development, the German real estate industry must not focus solely on new construction projects with DGNB Platinum certification. It is true that these projects hold great appeal and illustrate what is possible for residential and commercial properties for future generations. However, the real climate issues need to be tackled in the existing building stock.

On the one hand, a comparison of the total area and space involved shows how small the proportion of new construction (even in years of strong construction activity) actually is compared to the existing stock. Take commercial real estate, for example: According to the Federal Statistical Office, new construction completed in 2020 in the non-residential segment amounted to 29.2 square kilometers, while the stock of industrial and commercial space occupies 6,244 square kilometers.

The climate issue will be decided in the existing building stock

This contrasts with an emissions load that, at 120 million metric tons across all types of use in 2020, was registered at two percent above the limit, according to the Federal Environment Agency. By 2030, annual CO_2 emissions are to be reduced to 72 million metric tons per year. Commercial and, above all, industrial properties play a significant role here due to the size of their spaces ~~and areas~~ and their energy-intensive modes of operation.

So what is the best way for owners and real estate developers to deal with their properties in need of revitalization? Should they demolish the buildings and build new ones to high energy standards, or would it be better to refurbish and regenerate them prudently and expediently? Even though it is often not possible to achieve the full energy efficiency of a new building during refurbishment, "gray" energy in particular plays an important role.

Gray energy - inconspicuous but highly relevant

Gray energy includes CO_2 emissions generated during the production of building materials, their transport to the construction site, and the construction of the building. This category also comprises the emissions released by the demolition and removal of the old building fabric. Unlike ongoing energy consumption, this cannot always be measured in full and on an empirical basis.

However, a study by Werner Sobek AG on a large-scale revitalization and conversion project by the developer 6B47 in Vienna calculated that more than 18,500 tons of CO_2 were saved - compared with the fictitious demolition and new construction of the office building. This means that it can take many years or even decades for an efficiently operated new building to offset the effect of the gray energy consumed.

Consequently, the more sensible approach is often to revitalize the existing building fabric in such a way that the life cycle of the property is significantly extended. In some cases, the existing properties can be better utilized by adding storeys or extensions and subsequently increasing the density of available spaces.

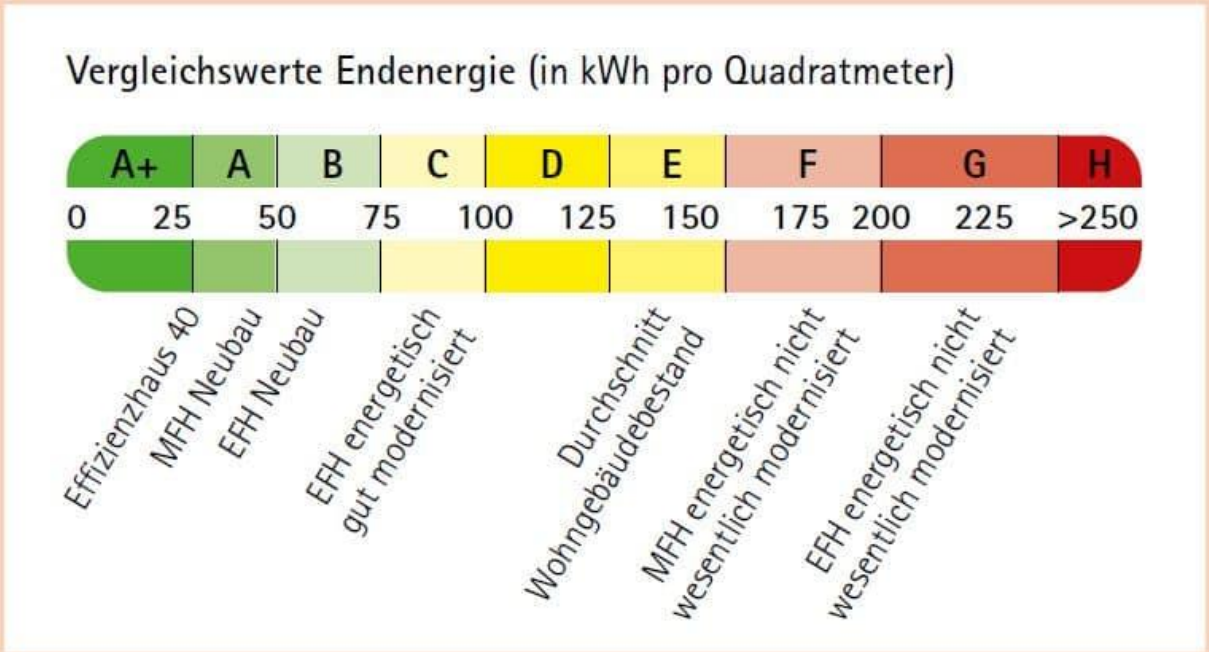
Revitalization can also be the more compatible option for building users. After all, demolition and new construction can only take place when the property in question is vacant. In this case, the site is unusable for months or even years. In the case of redevelopment, it may be possible to carry out parts of the work during ongoing operations. Consequently, the activities of the tenants in the properties will have to be at most partially suspended or only for a short period of time.

For some time now, politicians have also been focusing on the problem of aged and obsolete existing properties and their key role in climate change. In addition to the EU taxonomy and the disclosure regulation, which has been gradually coming into force since the beginning of 2021 and which primarily affects fund companies, there are other draft laws in the pipeline.

What could mandatory refurbishment achieve?

In this context, the proposals to revise the EU Building Efficiency Directive, better known as the proposal for a "refurbishment obligation" could be of great significance. This provides for the following: All residential properties that do not currently meet the standards of energy efficiency class F - i.e., properties with a maximum energy consumption of 199.99 kilowatt hours per square meter - must be refurbished to such an extent that they attain this level by 2030. As from 2033, efficiency class E with a maximum consumption of 159.9 kilowatt hours per square meter will then apply as the standard. There is even less scope for commercial properties. Their areas and spaces must comply with Class F by 2027 and Class E by 2030 (see Figure 1).

Abbildung 1: Einteilung der Gebäude in Energieeffizienzklassen A+ bis H



Quelle: www.verbraucherzentrale.de

These minimum standards are miles away from the lighthouse projects with platinum certification mentioned at the beginning of this article - and they are also well below what is now the statutory minimum standard for new-build properties. Accordingly, the potential effect of such a refurbishment obligation does not initially appear particularly impressive. But a closer look reveals that quite the opposite is true!

Significant climate benefits

In order to understand the dimension that mandatory refurbishment measures would involve, the following approximate calculation can be drawn up: according to the averaged value of the years 2017 to 2020, 6.8 percent of all rental apartments advertised throughout Germany did not meet the energy class F standards. If we only regard the year 2020, the figure still stands at 5.9 percent (see Figure 2).

Abbildung 2: Deutsche Miet- und Eigentumswohnungen nach Energieeffizienzklassen (in Prozent)

Quelle: F+B Wohn-Index Deutschland II 2021

The Federal Statistical Office (Destatis) recorded a housing stock of 42.8 million units in 2020. Given a rental housing quota of 53.5 percent (also according to Destatis), this results in around 22.9 million rental housing units for the year under review. If the 5.9 percent of apartments requiring refurbishment is applied here, this results in 1.35 million units.

Based on an average apartment size of 92 square meters according to the Federal Environment Agency, this would mean that around 124 million square meters of

space are in need of refurbishment. This rough estimate already shows how much work the industry would have to face if renovation were mandatory.
What climate effects would this yield? This is where the calculation admittedly becomes speculative. If we take just the difference of 50 kilowatt hours per square meter and year between the minimum measure of energy class F and that of energy class G, this results in an annual saving of 6,215 gigawatt hours.

If one considers that Germany's most powerful nuclear power plant, Isar 2, produced a total of around 12,000 gigawatt hours of electricity in the entire year 2019, the enormous potential becomes readily apparent. It should be noted that in this calculation, all buildings in energy class H, which do not even meet the lowest existing minimum standards, have already been mentally "upgraded" and included as class F properties. The actual effect is therefore likely to be even higher.

Only the combination of funding and mandatory measures will lead to success

There is no question that regulatory requirements of this kind are initially capital-intensive, and "coercive measures" are always interventions in property rights. This applies both to the professional owners of real estate portfolios and to the private landlords who own a significant share of Germany's residential real estate.

At this point, however, a legal obligation would be quite reasonable and justifiable, as it would set the right accents in the direction of revitalizing existing buildings and thereby cast a correct and important political guiding principle into a legal framework. The energy classes offer a rather abstract, but understandable and achievable target value that is based precisely on the existing building stock.

The refurbishment of existing buildings, however, should not only be mandated, but also adequately promoted and supported. That is why it is important that the KfW refurbishment programs continue to run without any unduly sensitive restrictions being imposed. In this respect, we are fortunately seeing positive impetus from policymakers. Unlike the funding for new construction, where the funding pots for KfW 40 efficiency houses amounting to one billion euros were used up after just a

few hours, the funding programs for the refurbishment and regeneration of existing building stock have been continued and are ongoing.

In March, the program was topped up again by 4.76 billion euros. But there, too, competition for the funds may well arise: Whoever submits first will be funded first. Against this background, the legislator should definitely ensure that sufficient funds are made available over the entire period until the due date in 2027 or 2030.

Federalism increases the testing efforts and input

Another measure that could easily accelerate the renovation of existing buildings without additional subsidies would be a uniform revitalization campaign instead of the largely regional nature of further subsidy programs.

This is because, in addition to KfW, numerous state banks and state-owned development institutions also subsidize modernization - but usually in accordance with their own "state-specific" requirements.

Consequently, for larger portfolio owners who operate nationwide, the fine print can ensure that they can rehabilitate more effectively in some states than others. Another issue is that some subsidies exist only as a loan option, not as a grant option. This means that owners who operate solely with their own capital may not be able to take advantage of some subsidies at all.

In other words, a (mandatory) refurbishment campaign can become a greater success if sufficient incentives are created at the same time and superfluous bureaucratic hurdles are lowered accordingly. In addition, further sensible subsidy programs should be developed that not only subsidize the specific measures, but also provide smaller real estate companies in particular or owners without special real estate expertise with the necessary knowledge for the refurbishment and regeneration campaign.

The banks are a decisive success factor

Another factor that determines the upsides and downsides of a restructuring campaign should not be underestimated: the approach of the financing parties. There is no doubt that the challenges for banks and other financiers are growing - this is ensured by the ever-stricter capital requirements of banks and savings banks (keyword: Basel IV) as well as the creeping divergence of regulatory lending values from actual market values over the past years. It is therefore understandable that higher security margins are required, especially for more complex commercial real estate projects.

In view of the inflation rates, not only the U.S. Federal Reserve, but in the meantime also the European Central Bank (ECB) has raised its key interest rates. Historically, however, banks are still able to cover themselves with capital at favorable rates - therefore the financing conditions should also remain affordable for real estate developers.

However, we are already seeing that average construction interest rates across all asset classes have already risen significantly since the beginning of 2022 and are well above the level of key interest rates. In a market reality with still low yields and constantly rising construction costs, developers therefore have relatively little scope for large-scale refurbishment or revitalization projects.

Even with the moderate turnaround in interest rates now underway, with key rates remaining behind the rate of inflation, i.e. "behind the curve", lending practices should be on moderate terms. This gives developers more scope to maneuver and would also be worthwhile for the financiers themselves in the long term - or to put it the other way around: negative consequences could arise if this support fails to materialize.

> “ The revitalization campaign of existing German real estate will become a much stronger focus for lenders.

Philipp Enenkel, Head of Real Estate Management at Aurelis

Affordable financing costs - also in the interest of the institutions

Numerous non-sustainable commercial properties that are currently still being operated economically could, for example, become stranded assets within a relatively short period of time: Firstly, the number of potential buyers is reduced, as the corresponding properties are no longer taxonomy-compliant and are accordingly no longer acquired by fund managers and similar players.

Subsequently, users whose own ESG regulations require the leasing of sustainable space will switch to sustainable real estate at the end of the lease cycle. This will be associated with significant devaluations for the then unattractive properties, so that the original property financing could become a bad loan.

But the positive opposite scenario is also conceivable. After all, according to a survey by law firm Addleshaw Goddard LLP, 80 percent of all financiers will stop lending to real estate companies if they do not act sustainably. Consequently, the focus is shifting much more strongly to "green" projects.

Consequently, the large-scale refurbishment of existing German properties as an important factor in achieving the climate targets in the building sector could become a much stronger focus for lenders. All the more so if the real estate industry succeeds in raising awareness and transparently demonstrating the importance of refurbishing and regenerating existing building stock.

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