MULTIPLE BENEFITS AS DRIVER OF ENERGY EFFICIENT BUILDING RENOVATION



MULTIPLE BENEFITS OF ENERGY-EFFICIENT RENOVATION: OWNER AND TENANT PERSPECTIVES

In order to achieve national and European climate targets, it is essential to increase energy efficiency in existing buildings. The energyefficient renovation of apartment buildings offers numerous additional benefits for both property owners and tenants, from increased value and risk reduction for the former to improved health and comfort levels for the latter.

The range of ownership structures in German building stock (see chart) means that the various groups do not usually pursue the same objectives in terms of energy efficiency improvements. For profit-oriented housing companies, profitability is the main consideration when making renovation decisions. Other benefits that cannot be directly monetised --- such as increased living comfort - are therefore rarely considered in investment decisions. Private landlords who own only a small number of apartments account for the largest share of apartments in Germany. However, in cities and metropolitan areas where there is an increasing shortage of housing the ownership situation is different. Here, more apartments are owned by larger housing associations.

Owners decide on the timing and quality of energy-efficiency renovation activities, but they are often unaware of the additional advantages these can offer. With this in mind, we highlight the numerous benefits from both owner and tenant perspectives below.

Ownership structure in the German residential building stock¹

- Private landlords
- Homeowners' associations
- Public housing associations
- Private housing companies (profit-oriented)
- Housing cooperatives (non-profit)
- Others



How multiple benefits make a win-win situation

If both owners and tenants enjoy additional advantages from renovation, it's a win-win situation. Clearly recognisable benefits, such as increased thermal comfort, can help to increase the acceptance of renovation measures – and, in some cases, the (slight) rent increases these may entail. To achieve this, however, there must be good communication between owners and tenants, and the benefits must be tangible for both sides. Quantification and monitoring can help illustrate them, but for residents especially the most powerful factor will be their direct experience of improved housing and greater comfort.

¹ Source: Statista



Multiple benefits of energy-efficient renovation from different perspectives

	Building owners	Residents
Energy saving	Better rentability	Lower energy costs
Health benefits	Higher tenant satisfaction	Better health (fewer respiratory diseases), higher thermal comfort
Reduced maintenance in	Lower administration costs, fewer	Less noise pollution and disturbance to everyday
renovation buildings	customer complaints	life from frequent repairs
Climate-resilient building	Lower long-term risks due to potentially	Lower CO ₂ footprint, protection against
	increasing climate regulations or	potentially rising costs due to CO ₂ price (limited
	performance	reallocation of costs)

Multiple benefits for building owners

Building owners are primarily interested in generating returns from their property while keeping costs low. Due to changing governmental regulations, climate protection measures and potentially increased tenant satisfaction, energy renovations should be of interest to landlords. The market value of a property is particularly important for building owners, as is the question of whether it can be sold or let at a higher price if it has been renovated and offers various benefits. Even in saturated housing markets, properties that are not well insulated, offer little light and are not up to date can lead to tenant dissatisfaction and give their landlords a bad reputation. These factors offer an entrepreneurial risk associated with high costs for property owners, since they can have an impact on the rental/ sale price, the vacancy risk and the market value of the company.

The following diagram shows the multiple benefits that building owners can gain, and the risks they can avoid, by maintaining a high energy standard. Whether the different benefits or risks are relevant for the respective owner group depends on how many apartments are in a building, which additional benefits are attained, and which time periods are considered. Climate risks, for example, tend only to be considered in the long term and are not relevant for shorter investment cycles. Other factors include the level of rental market saturation, what government energy efficiency requirements can be expected in future, and how climate-resilient the buildings are assessed to be.



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Multiple benefits for tenants

A high-quality renovation generally provides residents with multiple benefits. Secure monitoring using new digital tools, right from the start of the planning phase, can help to reveal the benefits as they emerge in real time. Involving tenants early on in the renovation process contributes to higher satisfaction and increased awareness of the multiple benefits it offers. Public funding initiatives such as the German KfW programmes could subsidise multiple benefits, linking their level of support to the multiple benefits achieved, and offering higher funding volumes or dedicated budgets to certified sustainable and healthy buildings.

In a saturated rental market, where tenants do not have the option of selecting apartments according to certain criteria, the multiple (health and well-being) benefits of an apartment may not be factors taken into consideration. However, at least in smaller cities and rural areas, if there was greater awareness of the many benefits of healthy and sustainable housing this could become a strong factor in rental choices, with more tenants requesting healthy, energy-efficient apartments and thus increasing demand.

High-quality renovations

A high-quality renovation should always be a deep renovation leading to considerable energy and CO2 savings (> 60% energy savings). It must remain focused on the residents' needs, and guarantee that the comfort (in terms of light, temperature fluctuations, draughts and humidity) after the renovation is at least at the same level as before. The various renovation activities should be coordinated to realise their maximum energy-saving potential along with other multiple benefits.



Real estate certification schemes

There are a number of building certifications which provide residents and buyers with important information at a glance. These are mostly related to new buildings, especially commercial properties, but they can also be applied to renovated residential buildings.

DGNB certification	BREEAM certification	LEED certification
Assesses the overall performance of buildings in relation to: Ecological quality Economic quality Socio-cultural and functional quality Technical quality Process quality	Assesses the entire life cycle of buildings in relation to: Energy Water Material Transport Waste Environment	Assesses the entire life cycle of buildings in relation to: Sustainable land Water efficiency Energy and atmosphere Materials and resources Indoor environmental quality
	Health and comfort Management Soil and ecology	

Policy recommendations:

- 1. Sustainability reporting and disclosure requirements, which serve financial institutions as a basis for their investment decisions in the real estate industry, should systematically collect and present the multiple benefits of building renovation.
- 2. Policy guidelines and regulations should be designed for the long term and already include a gradual increase in minimum energy performance standards in existing buildings. In this way, lock-in effects and losses in value in the portfolio (stranded assets) can be avoided.
- 3. Possibilities of participation for tenants should be expanded and used more frequently in order to establish trustful partnerships between tenants and landlords. Support programmes could also be effective here.
- 4. The EU member states have to assess the so-called "wider benefits" of energy-efficient renovation in their long-term renovation strategies (LTRS). In this context, the first step should be to document and, as far as possible, quantify the added benefits to society in the area of health and well-being.

Additional literature

The factsheet builds on the results of the project "Multiple benefits as driver of energy-efficient building renovation" which can be found on the <u>project webseite</u> and <u>here</u>.

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This factsheet is based on the results of the project « Multiple benefits as driver of energy-efficient building renovation » which is funded by the German Federal Foundation for the Environment (DBU) and carried out by the HUMBOLDT-VIADRINA Governance Platform and the Buildings Performance Institute Europe.

June 2020

The Buildings Performance Institute Europe is a European not-for-profit think-tank with a focus on independent analysis and knowledge dissemination, supporting evidence-based policy making in the field of energy performance in buildings. It delivers policy analysis, policy advice and implementation support.

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