



VALUE WHAT EXISTS

03

BREEAM REFURBISHMENT

Retaining and upgrading existing buildings can reduce environmental impact while creating new value.

Professional publication



Sustainability Opportunities for Existing Buildings



Szerző: Kluha Enikő
Fenntarthatósági vezető
BREEAM Assessor, AP

When we think about the sustainability challenges of the construction industry, new, energy-efficient buildings often come to mind. However, one of the most important ways to reduce environmental impact can also be to avoid new construction and instead modernise existing buildings, giving them a new lease of life or a new function.



Renovation offers **opportunities not only to improve energy efficiency, but also to reduce embodied carbon**, for example by retaining existing structures and materials, while increasing the building's technical, economic and functional value. But how can sustainability considerations be incorporated within the constraints and specific characteristics of an existing building, and what value can a well-planned renovation create? The BREEAM Refurbishment and Fit Out rating system provides a structured framework precisely for this purpose.

Build or Renovate?

There is a saying that the **cheapest energy is the energy we do not use**. Applied to buildings, we could similarly say that **the most cost-effective or sustainable building is the one that does not need to be built in the first place**.

Professional forums increasingly highlight the need for the construction industry to make greater use of the existing building stock through refurbishment and adaptation, rather than relying primarily on new construction.



Green building rating systems have also developed assessment frameworks specifically for these situations. BRE has introduced updated requirements for refurbishment projects under BREEAM Refurbishment and Fit Out Commercial v7. Similarly to the new-build scheme, this framework covers the entire lifecycle of a renovation project – from defining the need for the project and progressing through the design stages, construction and technical handover, through to commissioning and completion. In doing so, **it encourages improvements in the performance, lifespan and resilience of existing buildings**.

Based on our experience, it is encouraging to see that requests from owners and developers seeking building certification for refurbishment projects are becoming increasingly common.

Sustainable Refurbishment: More Achievable Than It May Seem

The framework mentioned above specifically takes into account the characteristics of non-residential building renovation projects. Whether it is a shell & core refurbishment or a tenant fit-out, **the applicable assessment criteria can be tailored to the scope and technical content of the works**. In addition, specific requirements apply to buildings subject to heritage protection.

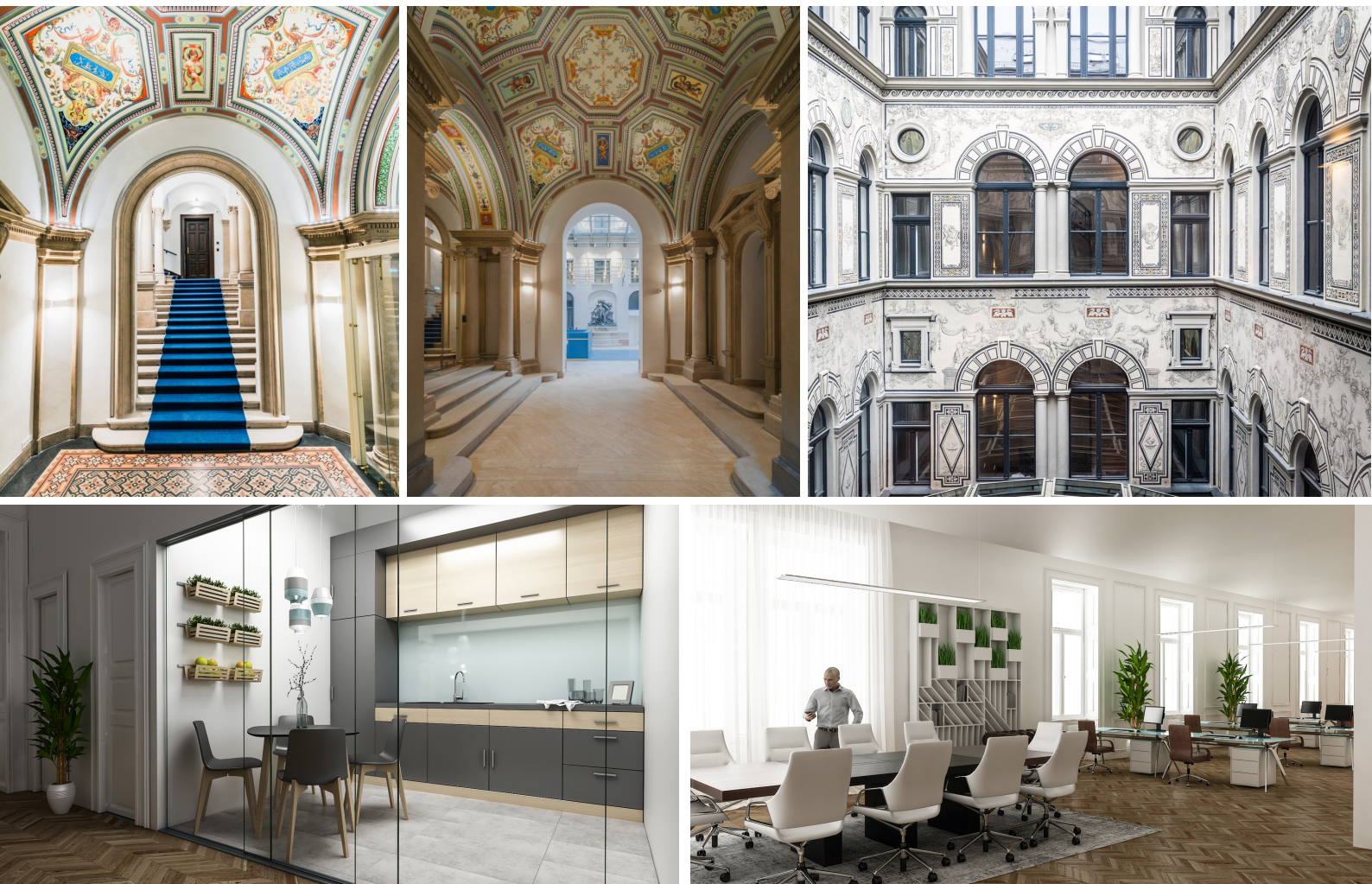
An existing building may have limitations and constraints in terms of its design and technical solutions, meaning that the same technical standards or level of energy efficiency as those achievable in a new building may not always be feasible. **BREEAM takes this into account when assessing energy efficiency**, for example, by not simply expecting performance equivalent to the standards of a new building, but instead comparing and assessing the building's condition before and after the refurbishment.

Retaining the structural frame, external envelope or other building elements can shorten the construction period, thereby reducing the environmental impact associated with construction activities. At the same time, using fewer new materials can significantly reduce the building's carbon footprint.

Retaining, reusing and recycling existing structures and materials also supports the principles of the circular economy.

Creating New Value from What Already Exists

The refurbishment of a deteriorated, vacant or simply outdated building holds significant potential. In addition to improving energy efficiency, already mentioned above, **renovation can significantly enhance the comfort and wellbeing** of future building users.



Better indoor air quality, as well as improved thermal and acoustic comfort, all contribute to this. It can also make the building suitable for a wider range of users, for example by improving accessibility.

Through modernisation, a building can also be prepared for the short- and long-term impacts of climate change, while existing climate-related risks, such as flash flooding, can also be addressed. The renovation can also create opportunities to reduce energy and water consumption or, for example, to utilise rainwater and greywater. If the property includes external areas, their ecological quality can also be improved by enhancing biodiversity and increasing green space.

In addition to environmental value, refurbishment can also create **economic value**. Modernisation can reduce operating and maintenance costs by improving the quality, performance and lifespan of building structures and systems. **The market value, occupancy rate and rental potential of the property may also increase.**



A well-planned investment can create **urban and community value** as well. Bringing a deteriorated or underutilised building back into use can also help reactivate its surroundings, while avoiding disruption to the existing urban fabric. In the case of valuable, protected buildings, **refurbishment also provides an opportunity to preserve architectural and cultural heritage** while adapting the building to contemporary needs and giving it a new lease of life or function.