
Construction

Construction and Renovation: Sustainable and Eco-Friendly Buildings

The environmental impact of the construction industry is not often discussed, but it is one of the largest global sources of greenhouse gas emissions. By addressing sustainable construction and the renovation of existing university buildings, Charles University aims to significantly **reduce its overall carbon footprint**. There are many measures that contribute to sustainable construction, and the university is committed to their meaningful implementation in the management and operation of its buildings.

One of the key measures is the continuous **reduction of energy consumption**. Effective steps toward this goal include improving the thermal insulation of buildings, installing central thermostats, using motion sensors for lighting, and utilizing renewable energy sources. Modern "green" measures, such as **green roofs or vertical gardens**, have proven to be effective methods of insulation and microclimate regulation in urban environments.

As part of the Action Plan for implementing the Sustainable Development Strategy, Charles University has launched a **pilot study for the EPC** (Energy Performance Contracting) method at the Krystal Centre campus. If the results of the analysis are favourable, the practical implementation of the EPC method will begin.

Another environmental sustainability measure includes **bird-safe glass**, following practical guidelines issued by the Czech Society for Ornithology (ČSO).

The university has also committed to utilizing secondary materials, following the principles of the circular economy, and gradually transitioning from passive to active construction in terms of greenhouse gas emissions.

A long-term goal is to obtain **sustainable building certification** according to international standards (e.g. LEED).