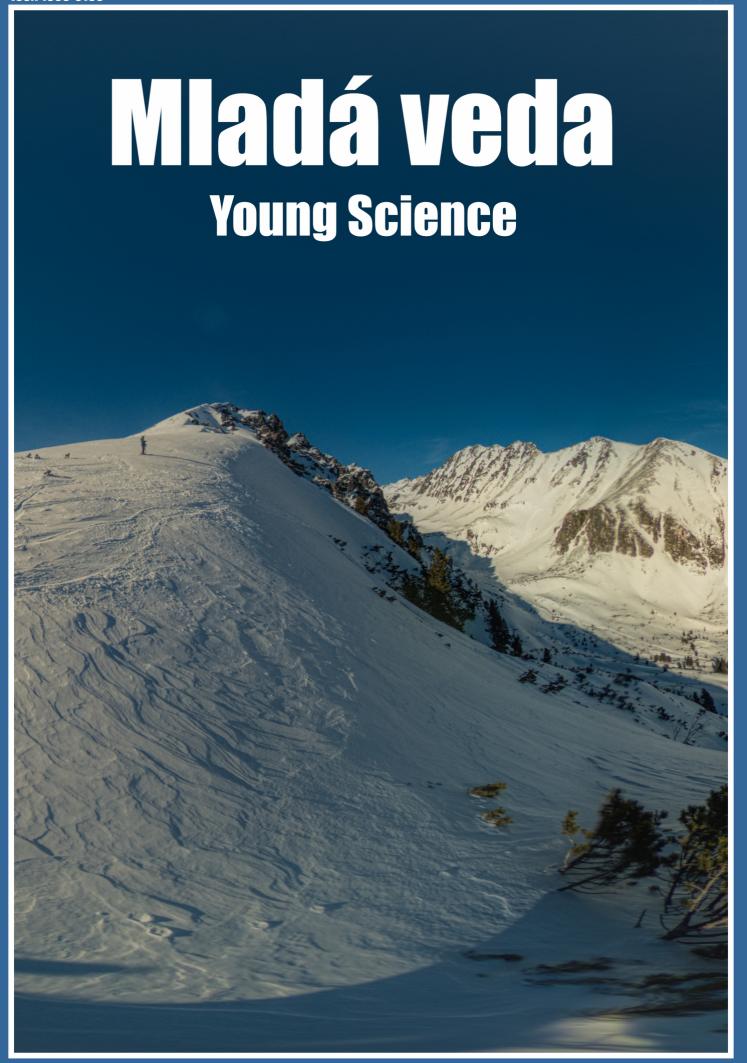
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# CURRENT CHALLENGES FOR BUILDING MANAGEMENT IN SLOVAKIA

### AKTUÁLNE VÝZVY PRE SPRÁVU BUDOV NA SLOVENSKU

### Martin Hanko, Richard Matúšek <sup>1</sup>

Martin Hanko works as an Assistant Professor at the Faculty of Civil Engineering of the Slovak University of Technology in Bratislava. In his research he deals with the topic of building maintenance by applying facility management and construction economics. Richard Matúšek worked as an Assistant Professor at the Faculty of Civil Engineering of the Slovak University of Technology in Bratislava. His research and current work focuses on the issues of building management and facility management.

Martin Hanko pôsobí ako odborný asistent na Stavebnej fakulte Slovenskej technickej univerzity v Bratislave. Vo svojom výskume sa venuje problematike údržby budov aplikáciou facility managementu a ekonomiky stavebníctva. Richard Matúšek pôsobil ako odborný asistent na Stavebnej fakulte Slovenskej technickej univerzity v Bratislave. Vo svojom výskume aj aktuálnej práci sa venuje problematike správy budov, facility managementu.

### **Abstract**

The aim of the article is to present the current situation and challenges for building management in Slovakia. The article points out the importance of facility management in making decisions about the facility in the current global situation and the ongoing risk of the pandemic. It briefly describes the current situation of service providers and clients in connection with the operation of buildings in selected aspects such as the ongoing increase in prices of materials and works, the implementation of apartment construction, or construction production. Many other indicators are important for evaluating the overall situation in facility management, which cannot all be included in one article due to the scope.

Keywords: building management, indicators, construction

### **Abstrakt**

Cieľom príspevku je priblížiť aktuálnu situáciu a výzvy pre správu budov na Slovensku. Príspevok poukazuje na význam facility managementu pri rozhodovaní objekte v súčasnej globálnej situácií a pretrvávajúceho rizika pandémie. Stručne opisuje súčasnú situáciu poskytovateľov a klientov služieb v spojitosti s prevádzkou budov vo vybraných aspektoch

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ako napr. prebiehajúce zvyšovanie cien materiálov a prác, realizáciu výstavby bytov, či stavebnú produkciu. Pre vyhodnotenie celkovej situácie vo facility managemente sú dôležité mnohé ďalšie ukazovatele, ktoré nie je možné všetky z dôvodu rozsahu zahrnúť do jedného článku.

Kľúčové slová: správa budov, ukazovatele, výstavba

### Introduction

Building management is a complex set of activities that ensure the smooth operation, maintenance and long-term functionality of a building. It includes a wide range of tasks, from technical services to administrative activities, with the aim of maintaining the building in optimal condition and providing users with a comfortable and safe environment.

Facility management (FM) is aimed at optimizing and streamlining the operation of buildings and all services associated with it. It is a modern approach to property management that goes beyond traditional maintenance and includes a wide range of activities from technical services to human resources management. Facility management is a complex and dynamic process that requires professional knowledge and experience. Its goal is to ensure that the building is functional, safe, comfortable and energy efficient. By implementing facility management, organizations can significantly improve their efficiency and reduce operating costs.

### Building management from a facility management perspective

The current situation in the economy of the Slovak Republic is in a difficult situation. The field of facility management is no exception. Facility management is, according to the international organization of facility management, a way to coordinate workers, work activities and the work environment in organizations, which includes the laws of architecture, business administration, technical and humanities. The goal of FM is strengthening all processes with the help of which workers work with the highest efficiency in the workplace and thus ensure the overall economic growth and success of the organization. (Somorová, 2010)

Standard ISO 41011 defines facility management as integrating processes within the organization, with the help of which agreed services are secured and developed, which help and make the basic activities of the organization more efficient. (STN EN ISO 41011, 2024) The task of FM is to make correct decisions and manage all supporting activities of companies and organizations. At a time of rising energy prices, inflation, operating costs, wages, or increasing all inputs, the involvement of facility management is essential. The general effort is to ensure the functioning of businesses and organizations that facility managers and strategic management of organizations have the opportunity to influence.

Currently, the greatest degree of influence on the functioning of companies and organizations is exerted by:

- the state, together with possible regulations and measures,
- great market volatility, even increasing in all areas,
- security of supply chains,
- the international situation affecting a range of factors.



The article briefly summarizes, according to the available financial and statistical data, the current state only for selected indicators that have an impact on the operation of buildings: material prices, construction production and the actual construction of apartments - their quantity.

The general view of the situation of facility management in Slovakia in 2024 is influenced by two important events. The beginning of the year is still marked by the ongoing coronavirus pandemic, and the second event is the international situation in Ukraine. (Stavmag.sk, 2024)

During the coronavirus pandemic, providers largely implemented measures, e.g.:

- implementation of new guidelines and measures in health and safety, regular informing of employees,
- cancellation of larger events,
- introduction of home office, stoppage of work/business trips,
- digitization,
- other measures.

During the coronavirus pandemic, clients largely implemented measures, e.g.:

- increased cooperation with facility managers, facility management providers,
- introduction of home office, stoppage of work/business trips,
- implementation of new health and safety guidelines, regular informing of employees,
- cancellation of larger events,
- digitization,
- other measures.

The current situation is significantly influenced by the situation in Ukraine, international sanctions, and the related measures of state authorities. Providers of facility management services as well as clients must solve and propose several measures.

Facility management service providers claim:

- high inflation in all market segments and pressure to increase wages (including the minimum wage),
- high inflation, increasing prices of materials, technical equipment, and the necessity of opening tendered contracts due to increasing operating costs of buildings,
- lack of goods, late delivery times and related penalties,
- reduction of areas in administrative buildings by the introduction of "home office" and the resulting pressure to reduce prices while maintaining the same quality of building management, property management,
- high competition between FM service providers, unfair practices in competition,
- compared to the previous period, there is a general shortage of workers and equally qualified workers. An improvement would be an increased quality of education (education, postgraduate education, professional education),
- the time allocated for the training of workers increases. Applying new control IT systems and the increasing complexity of operating these systems. The unification of IT systems in facility management would help,
- additional.



Clients of facility management services in the context of the current situation are implementing measures:

- reduction of operating costs by introducing a "home office" and reduction of own space needs, increased interest in the use of shared offices,
- reducing investments in buildings (reconstruction, modernization),
- due to inflation and the increase in the prices of goods, the opening of selection procedures, tenders, e.g.: energy, furniture, services,
- additional.

### Building management from the perspective of price development

The rise in construction prices is a complex issue that affects many factors. Although some stabilization is expected, it is likely that construction and real estate prices will continue to be higher than in the past. The rise in construction prices is a complex issue that affects many factors. Although some stabilization is expected, it is likely that construction and real estate prices will continue to be higher than in the past.

Increased energy prices have affected the production of construction materials. Global supply chain problems have caused shortages of some raw materials, which has led to their increased prices.

The overall price increase has also affected the prices of construction materials. There is a shortage of qualified workers in the construction industry, which leads to higher wage demands. Increased requirements for occupational health and safety increase the costs of operating construction sites. Requirements for energy efficiency and environmentally friendly materials increase construction costs. Complicated permits and administrative processes extend construction times and increase costs. Growing demand for new apartments, office space and infrastructure is increasing pressure on prices.

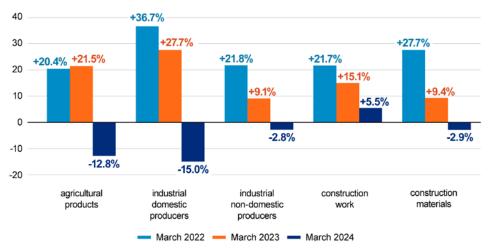


Figure 1 - The Situation in the Slovak Republic in the Listed Industries, Change in prices in the production sector (year-on-year in %) Source: slovak.statistics.sk, 2024c

Construction prices (fig.1) were 5.5 percent higher year-on-year in March, but the growth rate increased by 0.7 percent compared to February. In total, for the first three months of 2024, construction prices were 5.9 percent higher year-on-year. Prices of materials consumed in



construction were 2.9 percent lower year-on-year in March, falling for seven consecutive months. Compared to February, prices were 1.4 percent higher. In total, since the beginning of the year, prices of materials consumed in construction were 2.3 percent lower year-on-year. (Trend.sk, 2024)

### Building management from the perspective of construction production

Another important indicator is construction production. It includes work on the construction, reconstruction, expansion, restoration, repair, and maintenance of construction objects. The definition of construction production also includes the assembly work of building structures and the value of the built-in material. In addition to supplier construction companies, there are also non-construction companies (construction plants).

The total construction production in the country for the year 2023 was made up of:

New construction, renovations, and modernizations -63.8%.

Repairs and maintenance -22,6%.

Other work - 3.6%.

Construction production abroad -10,1%.

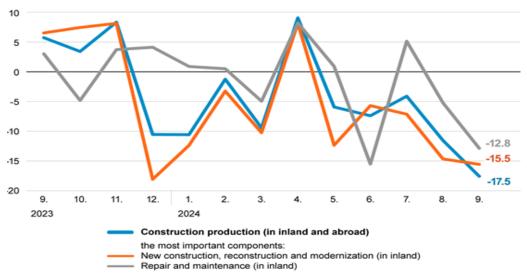


Figure 2 - Construction production of enterprises in the Slovak Republic (in constant prices, year-on-year in %) Source: slovak.statistics.sk, 2024a

The lag in the construction industry (fig. 2) deepened in September 2024 to the highest value since October 2020. All components of production dropped by double digits, both domestic and non-domestic production.

Production of construction enterprises in September 2024 reached EUR 672 million, year-on-year after conversion to constant prices, it dropped by up to 17.5%. This is the deepest decline in monthly results since October 2020. The construction sector has been slowing down (year-on-year) since December last year, with the exception of April this year. Compared to August, construction production decreased by 3.9%.

All components of construction production ended in a double-digit decline. Domestic new construction dropped by 15.5%, repairs and maintenance by 12.8%, the



smallest component – other construction works by more than a quarter. Domestic construction production represented more than 89% of the total volume of construction.

In the 4th quarter of 2023, completion of dwelling construction progressed dynamically to record values and helped to increase a year-on-year value of completed dwellings. At the end of the year, issuing of building permits was also more dynamic, but it could not compensate for the negative developments of the three previous quarters, the start of construction decreased by double digits in the summary for whole year.

In total, for the first nine months of 2024, the value of construction production exceeded EUR 5.1 billion, which was by 7.2% less year-on-year. They slowed down all its components, the dominant new construction by 8.7% and repairs and maintenance by 3.3%. In terms of the production focus, construction of buildings decreased by 4.8% and works on engineering constructions by 13.3%. Works abroad also lagged behind, by 3.1%.

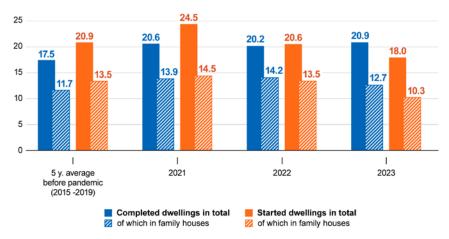


Figure 3 – Housing construction in the SR, number of dwellings in thousands Source: slovak.statistics.sk, 2024b

Higher number of completed dwellings, a decreasing construction rate and a slower starting of new construction characterized dwelling construction in 2023 (fig. 3), a total of 20,891 dwellings were completed in the SR, it was only by 3.3% higher than in 2022. In the long term, current construction was more dynamic than before the pandemic2), the number of completed dwellings exceeded the pre-pandemic average by a fifth. In 2023, the current number of completed dwellings represented the second highest value since the establishment of independent Slovakia. The number was higher than last year only in 2020.

### Conclusion

The current situation of building management with ensuring functional, trouble-free and above all efficient operation of buildings is challenging. One of the important tasks is timely and mutual communication between building managers and the strategic management of organizations for correct decision-making and policy in the management of organizations. In this way and with their experience, managers can internally help and facilitate the operation of organizations. However, external organizations and businesses in the current situation need support from the state, by ensuring both energy supplies and energy prices, stabilizing and reducing prices in all areas, or measures and assistance for organizations.



Building management faces several challenges that are influenced by changes in technology, legislation, economics and social expectations. The most significant include the pressure to reduce greenhouse gas emissions and the transition to renewable energy sources and the everincreasing demands for energy efficiency in buildings. These include: replacing old heating and cooling systems with more modern and energy-efficient solutions, implementing intelligent systems to optimize energy consumption and increase user comfort, using green infrastructure to improve energy efficiency and biodiversity, digitalization and automation, using sensors and the Internet to monitor and control technical building systems. The latest challenges include the application of artificial intelligence for predictive maintenance, optimizing operations and increasing safety, improving indoor air quality and ensuring a healthy working environment.

A separate category is the lack of young professionals in the field of building management, as well as the need for lifelong learning, constantly changing technologies and requirements require regular training of workers. Rising prices for energy, materials and services are putting ever-increasing pressure on cost reductions, so it is necessary to find new ways to reduce the operating costs of buildings.

This article was recommended for publication in a scientific journal Young Science by: Ing. Patrik Šťastný, PhD.

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