

OPTIMIZING THE ENVIRONMENTAL APPROVAL PROCESS THROUGH DIGITAL TECHNOLOGIES AND TERRITORIAL MODELING

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Rezumat. *Articolul analizează procesul de avizare de mediu pentru Planul Urbanistic General (PUG) al oraşului Mioveni, propunând optimizarea acestuia prin intermediul tehnologiilor digitale și al modelării teritoriale GIS. Sunt identificate barierele administrative actuale, cum ar fi gestionarea fragmentată a datelor și lipsa de interoperabilitate, care cauzează întârzieri în aprobarea documentelor. Studiul demonstrează modul în care integrarea bazelor de date digitale și a simulărilor spațiale poate eficientiza procesul decizional, asigurând un echilibru între dezvoltarea economică și protecția mediului. Rezultatele converg către un model de optimizare care reduce timpii de procesare și sprijină dezvoltarea urbană durabilă a oraşului Mioveni*

Abstract. *The article analyzes the environmental permitting process for the General Urban Plan (GUP) of Mioveni city, proposing its optimization through digital technologies and GIS territorial modeling. Current administrative barriers, such as fragmented data management and lack of interoperability, which cause delays in document approval, are identified. The study demonstrates how the integration of digital databases and spatial simulations can streamline the decision-making process, ensuring a balance between economic development and environmental protection. The results converge toward an optimization model that reduces processing times and supports the sustainable urban development of Mioveni city.*

Keywords: Environmental permit, digital technologies, territorial modeling, urban planning, General Urban Plan (GUP).

1. Introduction

Urban planning represents one of the main tools used in spatial organization and development, playing a key role in ensuring the efficient use of resources and aligning economic and social growth with environmental protection requirements. In the context of continuous urbanization and increasing pressure on both the built environment and natural resources, urban planning documentation has acquired an essential role in establishing development directions for localities and maintaining a balance between urban development and the protection of environmental factors.

The General Urban Plan constitutes the primary urban planning document at the local level, through which the medium- and long-term spatial and functional

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