Accelerated Innovation (AI): Sustainability for Better Humanity
21–24 May 2025
Bangkok, Thailand
make learn TIIM PIConf
Management, Knowledge and Learning
International Conference
Technology, Innovation and Industrial Management
Sustainable Development



# Enabling Factors and Trends in the Integration of Cargo Bikes into Sustainable Logistics Systems

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## Abstract

*The ever-growing demand for urban delivery and the increase in the share of small shipments in the total volume of cargo flow contribute to increased conflicts over the use of road space and excessive air pollution, especially in cities. To create a healthy and attractive urban environment, it is necessary to develop sustainable, environmentally friendly solutions. The purpose of this study is to comprehensively analyze the factors and trends in the development of sustainable urban logistics systems focused onthe use of cargo bikes. This study proposes a systematic literature review to examine the available peer-reviewed literature and statistical data on what trends are characteristic for the development of sustainable urban logistics systems in a dynamic environment in the context of supply chain management. This study adopts systems approach, analogy, generalization, analysis and synthesis, including bibliometric and statistical analysis as the main research methods. An analysis of the prerequisites and trends in the development of urban logistics systems in the context of socio-climatic transformation allows us to conclude that the use of cargo bicycles can be one of the most effective solutions for building sustainable urban logistics systems. The introduction of cargo bicycles into logistics chains helps to improve the environmental situation, optimize the last mile of delivery, reducing company costs and reducing traffic congestion in megacities. The key factors contributing to the popularization of cargo bikes are the development of specialized infrastructure, government support, digitalization of logistics processes and integration with smart transport systems.*

**Keywords:** sustainability, city logistics, cargo bikes, urban dynamic environment, last mile delivery, urban freight transport, decision support systems