


Chapter 9


The Problematic Field of Implementing Technological Innovations in Mobility Systems on the Path to Sustainable Development

Natalia S. Alekseeva

 <https://orcid.org/0000-0002-7355-3277>


Peter the Great St. Petersburg Polytechnic University, Russia

Svetlana V. Pupentsova

 <https://orcid.org/0000-0003-3742-0482>

Peter the Great St. Petersburg Polytechnic University, Russia

Maria G. Livintsova


 <https://orcid.org/0000-0003-3565-3880>

Peter the Great St. Petersburg Polytechnic University, Russia

Habib Noorbhai

University of Johannesburg, South Africa

Olga V. Kalinina

 <https://orcid.org/0000-0002-4617-2823>

Peter the Great St. Petersburg Polytechnic University, Russia

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ABSTRACT

Mobility systems are now at the center of social, economic and environmental agendas, influencing quality of life, spatial accessibility and carbon footprint reduction. Nevertheless, innovation faces a number of challenges such as resource scarcity, knowledge lacunas and conflicting interests of parties. The aim of the study is to analyze the challenges of implementing technological innovation of mobility systems towards sustainable development. In this paper, mobility systems are considered as complex socio-technical systems, which creates the need for interdisciplinary research to study the mentioned problems of technology innovation adoption. The significance of the research results lies in understanding the problem field of implementing technological innovation in urban mobility systems for sustainable development. The results provide a basis for developing strategies to overcome its barriers - resource scarcity, social and economic inequalities, and conflicts of stakeholder interests.

INTRODUCTION

The current global situation calls for a transition to sustainable development, which has become one of the key challenges for society. Despite the existence of well-established models, approaches, and practices for achieving this transition, pressing issues remain, such as the need to scale these solutions and adapt them to modern challenges and new conditions (Management Association, 1 C.E.). The essence of the transition lies in the necessity for society to revise the existing social contract. Kalshoven and Zonderland (Huntjens, 2021) suggest that the social contract is an implicit agreement among members of society to create a better and safer shared life. This contract outlines how public goods and services are distributed based on the balance of contributions and benefits.

New challenges in the socio-political agenda have become catalysts for the necessity to overhaul this contract, including changes to international models of relations between governments and economies (Vuković et al., 2020), between economies and civil society, as well as among commercial entities (Atiku et al., 1 C.E.). Today's global-scale problems underscore the need for a systemic shift from addressing localized issues to tackling broader national and international interests (Popescu et al., 1 C.E.). As a practical solution to these global challenges, the United Nations adheres to its 17 Sustainable Development Goals, which provide a roadmap for governments, businesses, and civil society. Achieving this roadmap would allow for a balance among the economic, social, and environmental priorities of the world.

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