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# Multidimensional Approach to Analyse the Environmental Impacts of Mobility

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**Abstract :** Mobility has been evolved to a determining field of science. The continuously developing segment involves a variety of affected issues such as public and economic sectors. Beside the changes in mobility the state of environment had also changed in the last period. Alternative mobility as a separate category and the idea of its widespread appliance is such a new field that needs to be studied deeper. Alternative mobility implies finding new types of propulsion, using innovative kinds of power and energy resources, revolutionizing the approach to vehicular control. Including new resources and excluding others has such a complex effect which cannot be unequivocally confirmed by today's scientific achievements. Changes in specific parameters will most likely reduce the environmental impacts, however, the production of new substances or even their subtraction of the system will cause probably energy deficit as well. The aim of this research is to elaborate the environmental impact matrix of alternative mobility and cognize the factors that are yet unknown, analyse them, look for alternative solutions and conclude all the above in a coherent system. In order to this, we analyse it with a method called 'the system of systems (SoS) method' to model the effects and the dynamics of the system. A part of the research process is to examine its impacts on the environment, and to decide whether the newly developed versions of alternative mobility are affecting the environmental state. As a final result, a complex approach will be used which can supplement the current scientific studies. By using the SoS approach, we create a framework of reference containing elements in which we examine the interactions as well. In such a way, a flexible and modular model can be established which supports the prioritizing of effects and the deeper analysis of the complex system.

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