TEACHING MATERIAL GUIDANCE

1. Title of the material

Assessing Sustainable Mobility Measures Applying Multicriteria Decision Making Methods

https://www.mdpi.com/2071-1050/12/15/6067

2. Which section of the SUMP it is relevant to?

The material presents methods of evaluating influence of mobility management in different sized cities. It is dedicated for local governments and scholars and can help to control sustainable urban mobility plans. The material fits well with 11.111.1.

3. Which Mobility Manager knowledge this material is the most relevant to?

It is related to stakeholder involvement tools (section 7 of the Mobility Manger competences). The report has also a direct reference to Section 1f (strategic planning and public administration involvement).

4. Problem approached and content overview

The material focuses on the need for designing transport systems in consonance with the importance of the environment, thus promoting investment in the growth of non-motorized transport infrastructure. The development of the concept of sustainable mobility puts emphasis on the integrated planning of transport systems, and pays major attention to the expansion of non-motorized and public transport, and different sharing systems, as well as to effective traffic management involving intelligent transport systems.

The article examines a compiled set of mobility measures and identifies the significance of the preferred tools, which involve sustainable mobility experts. The paper also applies multicriteria decision making methods in assessing urban transport systems and their potential in terms of sustainable mobility. Multicriteria decision making methods have been successfully used for assessing the effectiveness of sustainable transport systems, and for comparing them between cities. The proposed universal evaluation model is applied to similar types of cities. The article explores the adaptability of the model by assessing big Lithuanian cities.

With reference to the detailed analysis of practical research and methods applied in other countries, this study aims to reasonably classify mobility measures and assess their significance in line with the size and characteristics of the city. Also, multicriteria decision making methods (MCDM) assist in assessing the transport systems of the biggest Lithuanian cities in terms of sustainable mobility.

The results of the undertaken assessment show that it is appropriate to use the ranking method in determining the cities occupying the leading positions with regard to individual thematic areas. However, the numerical significance of thematic areas needs to be considered when assessing the overall level of SUM development.

Co-funded by the Erasmus+ Programme of the European Union

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5. Who could be interested in this material?

Students who are looking for:

- overall information about SUMP document,
- important aspects to include in SUMP and key principles
- practical use of MCDM methods with example,
- method of selecting mobility measures and practical use of measures.

6. What is worth mentioning as an innovative factor for the reader?

The material shows practical use of different MCDM method to evaluate achieving the objectives of sustainable development inside the transport. A comparison of two types of assessment has shown varying results in term of priority. Differences in the findings demonstrate that ranking significance does not consider the actual level of implementation of the urban mobility measure within the MCDM assessment process.

7. Limitations

Not noticed. The material is clearly written and can help in formulating, implementing and controlling sustainable urban mobility plans.

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