Thesis

Assessment and Multi-Criteria Decision Analysis of Socio-Economic Sustainability Indicators for the Light Electric Vehicle (LEVs)

Initial Situation

Light Electrical Vehicles (LEVs) are an essential element for sustainable mobility and hence Energy Transition. There is a need to evaluate the sustainability impact of the LEVs. In the SCiSuSMob-1 project, an extensive sustainability criteria catalogue was developed for light electric vehicles based on the ecological, economic and social dimension. The detailed quantitative evaluation of these sustainability indicators, especially over socio-economic indicators is still not thoroughly conducted for LEVs.

Objectives

The primary goal of this thesis is to evaluate the indicators from the developed criteria catalogue for the ongoing research project 'Sci-SusMob-2'. After the evaluation, the secondary goal is to rank the indicators using the well-known MCDA methodology. The requirements of the thesis candidate and pathways to conduct this thesis could be followed as:

Your Profile:

1. Currently studying Sustainability Management/Development, Environmental, Business Management, or closely related studies.
2. Experience in conducting surveys and interviews helpful
3. Basic theoretical understating of quantitative methods for criteria comparison
4. Proficient in MS-Excel and/or Python
5. Keen interest in mobility and sustainability.

Your pathways for the thesis

- Literature research over the existing studies for the sustainability evaluation for mobility in general.
- Filter and identify the most relevant indicators from the existing catalogue via the proper method.
- Evaluate the indicators through the research, survey, and interviews.
- Apply the suitable multi-criteria decision analysis (MCDA) over the indicators.
- Present the result in a clear and scientific way.
- If required, perform an additional sensitivity analysis.

If you have any questions, feedback, or interest, please contact:

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