

TEACHING MATERIAL GUIDANCE

1) Title of the material

Cappelletti, G.M.; Grilli, L.; Russo, C.; Santoro, D. Sustainable Mobility in Universities: The Case of the University of Foggia (Italy). Environments 2021, 8, 57. <https://doi.org/10.3390/environments8060057>

<https://www.mdpi.com/2076-3298/8/6/57>

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

The authors presented pieces of information that could be processed in a lifecycle perspective to analyze the implications of choices about modes of transport in terms of environmental impacts based on academic community surveys. Therefore, the article can be linked to the third, fourth and fifth sections of the SUMP circle related respectively to the determination of planning framework, analysis of the mobility situation (in particular the analysis of problems and opportunities for all modes of transport - **subsection 3.2.**), scenario building and joint evaluation (development of scenarios of possible futures - **subsection 4.1.**) and vision and strategy development (arguments for stakeholders – **subsection 5.1.**).

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

It is related to Transport and mobility planning (section 1 of the Mobility Manager competencies) especially 1c (understanding of travel behaviour) and 1e (evaluation of transport measures) as well as Data analysis for mobility planning, 1a (data collection and analysis).

4) Problem approached and content overview

Problem approach – how to shape the modal split in a life-cycle perspective in terms of environmental impact. The University of Foggia (Italy) conducted a mobility study to detect and evaluate the mobility routines of community members (students, academic and administrative staff). This paper presents the first results in terms of descriptive analysis. A questionnaire consisting of 17 questions was submitted and 3495 responses were obtained. After cleaning the dataset, contingency tables were extracted to statistically describe the main means of transport used by members of the Foggia University community, and with detailed data on the different means of transport, it was possible to estimate their emissions. According to the results presented in the paper, it is possible to carry out further reflections on the environmental implications of the choice of means of transport. This could influence university mobility policies and provide useful information for taking action to improve these sustainable choices.

The findings presented in this paper include:

- Characteristics of the respondents
- Analysis of commuting to university (time of day, season, kilometres travelled)



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- Analysis by mode of transport of respondents
- Auxiliary questions.

5) Who could be interested in this material?

The article is aimed at students and those looking for inspiration in shaping the modal split in a life-cycle perspective in terms of environmental impact.

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

The paper provides important information that can be processed in a life cycle perspective to analyse the environmental implications of transport mode choices. This could help to define a picture of sustainable mobility in the University of Foggia (UniFG) and provide a way to assess the environmental consequences of these choices, which could potentially be applied in other communities. Further development could envisage defining a sustainable profile for each community member.

By assessing the relative impact of each mobility choice, the university could also implement policies and strategies to confront and address the sustainable habits of students, professors and staff. The use of a standardised methodology such as life cycle assessment may be the best way to translate the information presented in this study into a simple eco-indicator that is scientifically accurate and easy to understand and accept by the public. The main idea of this study is to investigate the transport habits of members of the UniFG community to determine which transport modes are preferred and consequently to estimate the emissions produced. After an initial phase of cleaning the dataset, different types of information were extracted regarding the habits of the respondents concerning their membership structure, age and role in UniFG. These data show that the majority of the academic community (represented by young students) is oriented towards sustainable mobility and in particular towards improving public transport. Finally, based on knowledge of transport habits and distance travelled, emissions for different categories of transport modes were identified and statistically described.

The research carried out aims to develop a methodology that, starting from the University of Foggia, can be applied in general to any public/private organisation. In this way, organisations can learn about the habits of their members and consequently improve them. This study may allow the University of Foggia to adopt a more environmentally sustainable policy, but at the same time, if transferred to another context, it will allow us to understand the direction in which the interest in sustainable mobility is going.

7) Limitations

The problem was analyzed at a high level of generality. Nevertheless, the presented general conclusions and references may serve as an inspiration for Polish cities (universities) regarding problems that may occur during mobility management measures implementations.

