

European urban transport projects: Evaluation on the right way

Lopke van Vliet^{1,2*}, Ila Maltese¹, Edoardo Marcucci^{1,3}, Valerio Gatta^{1,3}

¹ *TRElab, Department of political sciences, Roma Tre University, Rome, Italy*

² *Breda University of Applied Sciences, Breda, the Netherlands*

³ *Molde University College, Molde, Norway*

More than 70% of the European population lives in cities, which account for some 85% of the Union's GDP (European Commission, 2023). Most journeys begin and end in cities and the transport in cities generated 33% of the total urban greenhouse gas emissions in 2019 (Organisation for Economic Co-operation and Development, 2020). However, in many urban areas, the increasing demand for urban transport is totally inconsistent with sustainable urban mobility (European Commission, 2023). Within this context EU is often working together with cities and regions in order to set up policies and projects related to the improvement of 'urban passenger transport' and 'urban freight transport' without increasing their negative impact of the urban quality of life.

All these initiatives have been evaluated on their own way in order to measure their effectiveness (ex post), but also their efficiency (not only ex-post, but also ex-ante). Actually, evaluation has become an essential tool within the policy-making cycle (Fratesi, 2023), since, whenever the resources are limited, it is necessary to ensure that they are allocated in the best possible way, especially if the source is public (Maltese et al., 2023). On the other hand, it is not difficult to understand the correlation between the success of a policy and the consensus paid to its promoter.

The evaluation process may often consist of an evaluation framework written beforehand, and afterwards an evaluation report. However, since the framework is different for each project, it is not easily understood whether different subprojects or cities are evaluated in a unilateral way, and it is also ineffective since the cities all have to invest in coming up with their own framework. TRElab is looking for a unanimous evaluation framework for European projects related to urban transport, both passenger and freight. Much can be learned from past evaluations and experiences. This should be well researched in order to come to a concrete framework for evaluations for European urban transport projects. The main research question is phrased as follows: How can a best evaluation framework for urban passenger and urban freight European projects be defined on the basis of previous experiences and characteristics of the projects, and can this best evaluation framework be applied on the MOVE-21 project?

* Corresponding author: Lopke van Vliet <lopkevanvliet@gmail.com>

In order to investigate this topic, this paper will include a systematic literature research of Key Performance Indicators (KPI's) and its measures, based on past European projects, related to urban freight transport and urban passenger transport. The KPI's and the correlation with its measures serve as an important basis for a unanimous evaluation framework, from which the various cities in a project can do an evaluation in a desired way from operational level to specific level. The MOVE-21 project will be applied in this by testing the results of the literature review through a survey within the project's partners group, to which six major European cities belong. These Municipalities are asked to play the dual role of living labs establishing the main characteristics for the configuration of interconnected and intermodal micro hubs, as well as that of cities preparing to replicate measures taken elsewhere. These results will affect the content of the Evaluation Framework. Ultimately, cities can use the Evaluation Framework (partially or totally) for their own evaluation.

First, it is of great importance to investigate the meanings of an evaluation framework and formulate a clear definition from it. Several scientific articles will be read and from these the most important elements will be taken into defining the evaluation framework. Additionally, a comprehensive explanation of Key Performance Indicators will be provided, as they constitute a significant component of the evaluation framework to be defined.

The past experiences listed in the literature will consist of European projects related to 'urban freight transport' and 'urban passenger transport'. The paper describes the process and justification for collecting these projects. In the first attempt to list them, more than 20 projects were collected through the sources 'Cordis' and 'CIVITAS', which are websites where the projects with its reports and publications can be consulted. These projects were searched using the keywords 'urban' AND 'passenger' AND 'freight' AND 'transport', and included the filters 'Collection: Project', 'Start Date: from January 1, 2015' and 'End Date: through April 29, 2023'.

The next step is to further structure the documents consulted and gather the relevant chapters. Ultimately, in order to obtain the information on the main dimensions (such as Society-people, Society-governance, Transport system, Economy, Energy and Environment) which are selected in relation to the project objective, on the KPIs that are used in the project in relation with the main dimensions, on the way to measure the KPIs. This information will be gathered from 21 projects by initially selecting three projects and generating a list of keywords, serving as 'detectors', in order to effectively counsel the above information within the major documents of the projects.

Once all the information is gathered, it will be possible to define a unanimous evaluation framework, based on these past evaluations. This evaluation framework will serve as a basic framework for European projects within which several cities have their sub-projects. The cities can define their more specific framework from this basic evaluation framework. In this way, all cities within a project will be evaluated from a consistent perspective, promoting comparability and alignment in the evaluation process.

Next, the evaluation framework will be tested within the cities of the MOVE-21 project through a survey. This survey serves as a 'test' for the evaluation framework and it will include whether the partners find the same correlations between the main dimensions, the KPIs and the measures. The survey also aims whether the partners are missing important KPIs or measures or whether they would change anything in the framework. Based on the answers from the survey the definitive evaluation framework can be defined, so that the framework is now based on previous evaluations and the perspective of European partners within a European urban transport project.

The paper will consist of the following parts: after the introduction, the procedure by which the European and grandmotherly projects were identified and referred to for further analysis is described in detail. The results are presented in the third section while the discussion and conclusions follow in the fourth.

Parole Chiave: urban passenger transport; urban freight transport; European projects; evaluation framework; KPIs, measures

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Riferimenti bibliografici

CIVITAS. (2017, august 31). CIVITAS Evaluation Framework. Retrieved from civitas.eu: <https://civitas.eu/resources/civitas-evaluation-framework> (last access: April, 27th, 2023)

European Commission. (s.d.). Urban Mobility Package. Retrieved from www.transport.ec.europa.eu: https://transport.ec.europa.eu/transport-themes/clean-transport-urban-transport/urban-mobility/urban-mobility-package_en (last access: April, 27th, 2023)

Focus Economics. (2023). Economic Growth (GDP, annual variation in %). Retrieved from focus-economics.nl: <https://www.focus-economics.com/economic-indicator/gdp/> (last access: April, 27th, 2023)

Fratesi, U. (2023 forthcoming) Regional Policy: Theory and Practice, Routledge, London. ISBN Hardback: 978081536407, Paperback: 978081536408, eBook: 978135110761

Gertler, P. M. (2016). Impact Evaluation in Practice. Washington: International Bank for Reconstruction and Development/ The World Bank.

Kourtzanidis, K., Angelakoglou, K., Apostolopoulos, V., Giourka, P., & Nikolopoulos, N. (2021). Assessing Impact, Performance and Sustainability Potential of Smart City Projects: Towards a Case Agnostic Evaluation Framework. Sustainability, 13(13), 7395. MDPI AG. Retrieved from <http://dx.doi.org/10.3390/su13137395>

KU Leuven. (2023, february 15). Proceevaluatie. Retrieved from KULeuven.be: <https://www.kuleuven.be/onderwijs/learninglab/ondersteuning/evaluatie-feedback/evaluatie/proceevaluatie> (last access: April, 27th, 2023)

Maltese, I., Marcucci, E., Gatta, V., Sciallo, A. and Rye, T. (2023), "Challenges for Public Participation in Sustainable Urban Logistics Planning: The Experience of Rome", Hansson, L., Sørensen, C.H. and Rye, T. (Ed.) Public Participation in Transport in Times of Change (Transport and Sustainability, Vol. 18), Emerald Publishing Limited, Bingley, pp. 77-95.

Oliver, P. (2012). Succeeding with Your Literature Review. Berkshire, England.

Organisation for Economic Co-operation and Development. (2020). Decarbonising Urban Mobility with Land Use and Transport Policies. Retrieved from oecd.org: <https://www.oecd.org/env/Decarbonising-Urban-Mobility-with-Land-Use-and-Transport-Policies--The-Case-of-Auckland.pdf>

<https://move21.eu/> (last access: April, 27th, 2023)