CIVITAS
Sustainable and smart mobility for all
2030

CIVITAS indicators

Operators covered by trip planning applications (TRA_MM_FI3)

DOMAIN

Transport	Environment	Energy	Society	Economy

TOPIC	**Multimodality**	
IMPACT	**Functional integration of transport modes** *Increasing the number of transport operators covered by multimodal trip planning applications*	**TRA_MM**

Category

Key indicator	**Supplementary indicator**	State indicator

CONTEXT AND RELEVANCE

Functional integration of transport modes refers to the coordination of different transportation systems to create unified ticketing and trip planning platforms. This concept aims to create a well-connected network where various modes complement each other rather. By functionally integrating transport modes, cities enhance the overall efficiency and convenience of their mobility systems, making multimodal travel seamless for users.

Ensuring coordination between transport services is essential for improving the accessibility and attractiveness of public and active transportation. Through strategies like integrated fare and information systems users can navigate the transport network with minimal effort. A functionally integrated system encourages more people to use sustainable transport options, reducing car dependency, alleviating congestion, and promoting environmental and social benefits such as lower emissions, safer streets, and more efficient land use.

This indicator provides a measure of the functional integration of transport modes. **This is a relevant indicator when the policy action is aimed at improving the functional integration between different modes of transport. A successful action is reflected in a HIGHER value of the indicator.**

DESCRIPTION

The indicator measures the number of transport operators covered by a trip planning application active in the experiment city, i.e., the number of transport operators whose transport offer is available on the trip planning application.

The unit of measurement is **number of transport operators**.

METHOD OF CALCULATION AND INPUTS

The indicator should be calculated exogenously based on direct observation, **and then coded in the supporting tool.**

Method	
Estimation of the index based on information retrieved from the trip planning application	Significance: **0.25** 
INPUT AND METHOD OF CALCULATION After choosing a multimodal trip planning application to evaluate, the indicator is simply obtained from the application itself by observing the number of different transport operators covered by the chosen application. The experiment would result in an increase in the number of modes covered by the chosen multimodal trip planning application.	
EQUATIONS The quantification of this indicator does not require any equation. The value of the indicator $\boldsymbol{AppOperatorsIndex}$ to be coded in the supporting tool is just the observed number of	

different transport operators covered by the chosen multimodal trip planning application according to information retrieved from the application itself.

ALTERNATIVE INDICATORS

This indicator measures the share of transport operators whose services are covered by a chosen multimodal trip planning application. In this framework, there are 5 alternative indicators to assess functional integration of transport modes: TRA_MM_FI1, TRA_MM_FI2, and TRA_MM_FI6, relate to multimodal trip planning applications, while TRA_MM_FI4 and TRA_MM_FI5 evaluate fare integration.

TRA_MM_FI1 considers the number of modes covered by a chosen trip planning application. **TRA_MM_FI2** measures the number of users downloading trip planning applications active in the experiment city. Lastly, **TRA_MM_FI6** evaluates the share of multimodal trips managed through trip planning applications. Except for TRA_MM_FI6, the indicators related to trip planning applications are relatively simple to calculate, as they rely on straightforward computations and data that can be easily obtained through observation or by requesting information from application developers. However, their significance is limited as they measure the offering of applications, rather than their use. In contrast, TRA_MM_FI6 has higher significance since it assesses the extent to which multimodal trip planning applications are used. However, its calculation requires conducting a sample survey, making data collection more costly and time-consuming.

Concerning fare integration, **TRA_MM_FI4** counts the number of different transport modes accessible using a single travel pass, while **TRA_MM_FI5** consists of the share of transport operators whose services are accessible using a single pass. Both metrics are relatively simple to calculate, but TRA_MM_FI5 holds greater significance due to its representation as a share.