CIVITAS
Sustainable and smart mobility for all
2030

CIVITAS indicators

Modes included in travel passes (TRA_MM_FI4)

DOMAIN

Transport	Environment	Energy	Society	Economy

TOPIC	**Multimodality**	
IMPACT	**Functional integration of transport modes** *Increasing the number of modes included in travel passes*	**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 different transport modes included in a single travel pass available in the experiment city. The unit of measurement is **number of modes**.

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 travel pass and/or transport providers	Significance: **0.25** 

INPUT AND METHOD OF CALCULATION

After choosing a travel pass to evaluate, the indicator is simply obtained by retrieving information from the travel pass provider and/or transport providers. The indicator is the count of different transport modes included in the travel pass.

The experiment would result in an increase in the number of modes included in the chosen travel pass.

EQUATIONS

The quantification of this indicator does not require any equation. The value of the indicator $\boldsymbol{PassModesIndex}$ to be coded in the supporting tool is just the observed number of different modes included in the travel pass.

ALTERNATIVE INDICATORS

This indicator measures the number of different transport modes in the experiment city accessible using a single travel pass. In this framework, there are 5 alternative indicators to assess functional integration of transport modes: TRA_MM_FI5 evaluates fare integration, while TRA_MM_FI1, TRA_MM_FI2, TRA_MM_FI3 and TRA_MM_FI6 relate to multimodal trip planning applications.

Concerning fare integration, alternative indicator **TRA_MM_FI5** measures the share of transport operators whose services are accessible using a single pass. Both TRA_MM_FI4 and TRA_MM_FI5 are relatively simple to calculate, but the latter holds greater significance, as it expresses fare integration as a share of transport operators rather than a simple count of modes.

Regarding trip planning applications, **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. **TRA_MM_FI3** assesses the share of transport operators whose services are covered by a chosen multimodal trip planning application. 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 app downloads and modal/operator coverage rather than actual usage. 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.