



CIVITAS indicators

Share of innovative public transport services (TRA_PT_IN)

DOMAIN











Environment

Energy

Society

Economy

TOPIC

Public transport

IMPACT

Innovative public transport

Increasing the share of trips made by innovative public transport services

TRA_PT

Category

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CONTEXT AND RELEVANCE

In the pursuit of sustainable urban mobility, cities are exploring innovative public transport services that go beyond traditional bus and rail systems. Unlike conventional public transport, which operates on fixed routes and schedules, these innovative services offer greater flexibility and personalization or are operated by innovative vehicle types.

These innovations aim to make public transport more efficient, flexible, and attractive to a broader range of users, including those who might otherwise rely on private cars. Innovative public transport services include, for example, demand responsive transit, a flexible transportation service that adjusts routes and schedules based on real-time passenger demand. By serving less populated areas more efficiently than traditional public transport, these services can enhance mobility in underserved regions and reduce wait times. The introduction and adoption of innovative public transport services can support a shift away from private car use, improving energy efficiency of the transport sector and reducing emissions.

This indicator provides a measure of the share of public transport trips made with innovative services in the experiment area. It is a relevant indicator when the policy action is aimed at increasing the share of innovative public transport services. A successful action is reflected in a <u>HIGHER</u> value of the indicator.

DESCRIPTION

The indicator is a measure of the **share of public transport trips made with innovative services in the experiment area**. Being a share, this indicator is **dimensionless**.

METHOD OF CALCULATION AND INPUTS

The indicator should be computed exogenously, by applying the method described and then coded in the supporting tool.



INPUTS

The following information is needed to compute the indicator:

- a) The number of trips per public transport provider in the experiment area.
- b) The number of trips per public transport provider made with innovative services in the experiment area.

The required information can be obtained from the transport providers themselves. To ensure representativeness, it is recommended to collect 12 calendar weeks' worth of data.

The experiment would, for example, add innovative public transport services, increase their availability, or change their features, resulting in a higher share of innovative public transport trips in the experiment area.

METHOD OF CALCULATION

The indicator should be computed exogenously according to the following steps:

- Retrieval of the number of trips per public transport provider made with innovative services in the experiment area. If in the 'before' scenario there are no innovative public transport modes in operation in the experiment area, this value equals zero.
- Retrieval of the number of trips per public transport provider in the experiment area
- **Estimation of the index** by computing the ratio between the total number of trips on innovative public transport modes obtained in the first step and the total number of public transport trips obtained in the second step.

EQUATIONS

The equation computing the index (last step of the method of calculation) is the following:

$$InnovPTIndex = \frac{\sum_{p} InnovPTTrips_{p}}{\sum_{p} PTTrips_{p}}$$

Where:

 $InnovPTTrips_p$ = Number of public transport trips made by innovative services from provider p in the city

 $PTTrips_p$ = Number of public transport trips from provider p in the city