CIVITAS
Sustainable and smart mobility for all
2030

CIVITAS indicators

Real-time disruption information: message boards (TRA_IN_DS1)

DOMAIN

Transport	Environment	Energy	Society	Economy

TOPIC	**Information**	
IMPACT	**Real-time information on disruptions** *Increasing the number of message boards*	**TRA_IN**

Category

Key indicator	Supplementary indicator	**State indicator**

CONTEXT AND RELEVANCE

Real-time information about disruptions is crucial in transport systems because it allows passengers to make informed decisions, reducing uncertainty and minimizing individuals' delays. By providing up-to-date alerts on cancellations, delays, or alternative routes, real-time information improves user satisfaction and helps optimize network performance. For operators, it enables better incident management and resource allocation, allowing for a more resilient and responsive transport system. Real-time information may be provided via digital message boards, trip planning applications, and other communication platforms.

This indicator provides a measure of the availability of digital message boards for real-time urban mobility disruption information. **It is a relevant indicator when the policy action aims to increase the availability of real-time information on urban mobility disruptions. A successful action is reflected in a HIGHER value of the indicator.**

DESCRIPTION

The indicator is the ratio between the **number of message boards for urban mobility disruptions in the experiment area** and the number of inhabitants. The message boards may broadcast information regarding any urban mobility mode, such as vehicular traffic updates, public transport, and/or more.

The unit of measurement of the indicator is **message boards per inhabitant**.

METHOD OF CALCULATION AND INPUTS

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

Method 1

Estimation of the index based on direct observation	Significance: **0.25** 

The following information is needed to compute the indicator:

a) The number of urban mobility message boards in the experiment area
b) The number of inhabitants in the experiment area.

The experiment would result in a modification of the number of message boards.

METHOD OF CALCULATION

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

- **Retrieval of the number of message boards for urban mobility disruptions in the experiment area**. If in the 'before' scenario no message boards exist, this value equals zero.
- **Retrieval of the number of inhabitants within the experiment area.** This value can be obtained from census data.

- **Estimation of the index** by computing the ratio between the number of message boards retrieved in the first step and the number of inhabitants obtained in the second step.

EQUATIONS

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

$$\boldsymbol{DisruptionInfoIndex} = \frac{\boldsymbol{MsgBoards}}{\boldsymbol{Pop}}$$

Where:

$MsgBoards$ = Number of message boards for urban mobility disruptions in the experiment area

Pop = Population in the experiment area

ALTERNATIVE INDICATORS

This indicator measures the availability of message boards in the experiment area. Other indicators to assess the provision of real-time information about urban mobility disruptions are **TRA_IN_DS2** and **TRA_IN_DS3**.

TRA_IN_DS2 quantifies the proportion of transport operators whose services are integrated into a trip planning application that provides real-time disruption updates. Meanwhile, TRA_IN_DS3 assesses whether an integrated communication platform for real-time disruption information exists within the experiment area, allowing users to subscribe to updates. Being equally significant and easy to compute, the choice among the three indicators depends on the scope of the experiment being evaluated.