CIVITAS indicators

Real-time disruption information: trip planning apps (TRA_IN_DS2)

DOMAIN

Transport	Environment	Energy	Society	Economy

TOPIC	**Information**	
IMPACT	**Real-time information on disruptions** *Increasing the share of transport operators whose disruption information is included in a trip planning application*	**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 real-time urban mobility disruption information on trip planning applications. **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 assesses the availability of real-time disruption information on a chosen trip planning application. The indicator quantifies the ratio between the **number of transport operators in the experiment area whose disruption information is included in the chosen trip planning application** and the total number of transport operators in the experiment area.

The 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.

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 transport operators in the experiment area whose disruption information is included in the chosen trip planning application.
b) The number of transport operators in the experiment area.

The experiment would result in a modification of the number of operators whose disruption information is included in the chosen trip planning application.

METHOD OF CALCULATION

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

- **Retrieval of the number of transport operators in the experiment area whose disruption information is included in the chosen trip planning application**. If in

the 'before' scenario no real-time disruption information was provided via the application, this value equals zero.

- **Retrieval of the total number of transport operators in the experiment area.**

- **Estimation of the index** by computing the ratio between the value retrieved in the first step and the total number of operators obtained in the second step.

EQUATIONS

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

$$DisruptionInfoIndex = \frac{OpRealTimeInfo}{Op}$$

Where:

$OpRealTimeInfo$ = Number of transport operators in the experiment area whose disruption information is available on the trip planning application under study

Op = Total number of transport operators in the experiment area

ALTERNATIVE INDICATORS

This indicator measures of the availability of real-time disruption information via a trip planning application. Other indicators to assess the provision of real-time information about urban mobility disruptions are **TRA_IN_DS1** and **TRA_IN_DS3**.

TRA_IN_DS1 measures the availability of message boards for urban mobility disruptions in the experiment area. 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.