








CIVITAS indicators

Shared mobility usage index – Version 2 (TRA_SH_US2)

DOMAIN

 <p>Transport</p>	 <p>Environment</p>	 <p>Energy</p>	 <p>Society</p>	 <p>Economy</p>
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TOPIC

Shared mobility

IMPACT

Use of shared mobility

Increasing trips by shared mobility modes

TRA_SH

Category

Key indicator	Supplementary indicator	State indicator
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CONTEXT AND RELEVANCE

Shared mobility services, including bike-sharing, e-scooter sharing, car-sharing, and ride-hailing, play an important role in sustainable urban transportation. They provide flexible alternatives to car ownership, encouraging a shift toward more sustainable travel modes. Shared bikes and e-scooters provide low- or zero-emission transport options, while car-sharing optimizes vehicle usage and reduces parking demand, freeing up valuable urban space for other purposes. Additionally, shared mobility services improve accessibility by bridging first- and last-mile gaps in public transport. Once implemented, ensuring adoption is essential to fully realize the environmental and social benefits of these schemes.


This indicator provides a measure of the usage of shared mobility vehicles. **It is a relevant indicator when the policy action is aimed at increasing the number of trips made by shared mobility modes in the city. A successful action is reflected in a HIGHER value of the indicator.**

DESCRIPTION

This indicator is the number of **shared vehicles trips per week per inhabitant**. This index is obtained as the ratio between the number of weekly usages of shared mobility vehicles in the city and the population in the city. The unit of measurement of the indicator is **weekly shared mobility vehicle trips 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		
Calculation of the index based on data from shared mobility service providers and census data	Significance: 1.00	
INPUTS The following information is needed to compute the indicator: <ul style="list-style-type: none">a) The number of trips by shared mobility vehicles per service provider in the city. This information can be obtained from the providers themselves. To ensure representativeness, it is recommended to collect 12 calendar weeks' worth of usage data.b) The city's population according to census data <p>The experiment would result in increasing the number of trips by shared mobility modes.</p>		
METHOD OF CALCULATION		

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

- **Retrieval of the number of trips by shared mobility vehicles per provider in the city.** If in the 'before' scenario there are no sharing schemes in operation in the city, this value equals zero.
- **Retrieval of the number of inhabitants within the experiment area.** This information can be obtained from census data.
- **Estimation of the index** by computing the ratio between the total number of trips 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:

$$ShUseIndex = \frac{\sum_p \frac{TripsSharedVeh_p}{T_p}}{Pop}$$

Where:

$TripsSharedVeh_p$ = Number of trips by shared mobility vehicles belonging to provider p in the city

T_p = Number of calendar weeks' worth of data from provider p

Pop = Population in the city

ALTERNATIVE INDICATORS

This indicator measures weekly trips by shared vehicles per inhabitant. Alternative indicator **TRA_SH_US1** calculates the number of subscriptions to sharing schemes per inhabitant. It should be noted that the number of subscriptions is only an indirect measure of usage, therefore the indicator described in this factsheet (TRA_SH_US2) is to be preferred, unless the goal is to track subscriptions, specifically.

Should the focus be on the **availability** of shared vehicles, **TRA_SH_AV1** quantifies the number of shared vehicles present in the city per inhabitant.