








CIVITAS indicators

Share of electric cars in the shared fleet (ENV_DC_SF1)

DOMAIN

				
Transport	Environment	Energy	Society	Economy

TOPIC

Decarbonization

IMPACT

Zero-emission cars

Increasing the share of zero-emission cars in shared fleets

ENV_DC

Category

Key indicator	Supplementary indicator	State indicator
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CONTEXT AND RELEVANCE

Transport activity is a major contributor to pollution, significantly impacting air quality, human health, and climate change. A substantial portion of transport activity takes place in urban areas, where high population density and concentrated economic activity lead to high transport demand. The reliance on motorized vehicles powered by fossil fuels exacerbates climate change by emitting greenhouse gases, such as CO₂. By addressing urban transport emissions, cities can enhance air quality and reduce carbon footprints.


This indicator is an estimation of the share of electric cars in the shared fleet of the pilot city. **It is a relevant indicator when the policy action is aimed at reducing the impact of urban mobility and transport on air pollution. A successful action is reflected in a LOWER value of the indicator.**

DESCRIPTION

The indicator is the proportion of Battery Electric Vehicles (BEV) in the fleet of shared cars in the pilot city. Being a share, 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		
Calculation of the proportion of shared electric cars based on data from service providers	Significance: 0.40	
<p>The following information is needed to compute the indicator:</p> <p>a) The number of shared cars by fuel technology in the pilot city</p> <p>The experiment would result in a modification of the share of Battery Electric shared cars in the pilot city.</p>		
<h3>METHOD OF CALCULATION</h3> <p>The indicator should be computed exogenously according to the following steps:</p> <ul style="list-style-type: none">• Retrieval of the number of shared cars by fuel technology in the pilot city. These values can be obtained from the shared mobility providers operating in the pilot city.• Estimation of the indicator (see the following equation).		

EQUATIONS

The value of the indicator should be computed as:

$$ElShCarSh = \frac{\sum_p ShCar_p^{<BEV>}}{\sum_p \sum_f ShCar_p^f}$$

Where:

$ShCar_p^f$ = Number of shared cars with fuel technology f in the fleet of shared mobility provider p

$ShCar_p^{<BEV>}$ = Number of Battery Electric shared cars in the fleet of shared mobility provider p

ALTERNATIVE INDICATORS

This indicator measures the percentage of electric cars in shared fleets. If the shared fleet in the pilot city includes other vehicle types, such as mopeds or light goods vehicles, indicator **ENV_DC_SF2** can be used to assess the share of electric vehicles across all shared vehicle types.