CIVITAS
Sustainable and smart mobility for all
2030

CIVITAS indicators

Number of logistics operators participating in optimisation schemes for urban freight delivery (TRA_FR_FC3)

DOMAIN

Transport	Environment	Energy	Society	Economy

TOPIC	**Freight**	
IMPACT	**Efficiency of urban freight distribution** *Increasing the number of operators participating in optimisation schemes for urban freight delivery*	**TRA_FR**

Category

Key indicator	**Supplementary indicator**	**State indicator**

CONTEXT AND RELEVANCE

Motorised freight transport is widely used to deliver goods in urban areas, but it contributes significantly to energy consumption, emissions, noise, and space occupancy. These externalities are exacerbated by inefficiencies in the distribution systems, such as sub-optimal routing and the presence of multiple operators with overlapping delivery areas. These weaknesses may be addressed by fostering the adoption of advanced operations management practices and co-operation across logistics providers.

This indicator provides a measure of the number of logistics operators in the experiment city participating in optimization schemes. **It is a relevant indicator when the policy action aims to increase the efficiency of urban freight distribution. A successful action is reflected in a HIGHER value of the indicator.**

DESCRIPTION

This indicator represents the **number of logistics operators in the experiment city participating in optimisation schemes for urban freight delivery**. Optimisation schemes may consist of collaborative or externally coordinated optimization efforts. **Collaborative actions** aim to facilitate co-operation between logistics providers, by setting up networks that enable different operators to share data and consolidate shipments, increasing load efficiency and reducing distances travelled in urban area; meanwhile, **externally coordinated optimization efforts** are led by public authorities and may include compliance with time window restrictions, low-emission zone requirements or the use of centralized booking platforms for loading bays, among other measures.

The unit of measurement is **logistics operators**.

METHOD OF CALCULATION AND INPUTS

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

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

INPUT AND METHOD OF CALCULATION

The indicator is simply obtained by observing the number of different logistics operators in the experiment city participating in optimisation schemes for urban freight delivery.

The experiment would result in an increase in the number of logistics operators taking part in such schemes.

EQUATIONS

The quantification of this indicator does not require any equation. The value of the indicator $\boldsymbol{EffFreight}$ to be coded in the supporting tool is just the observed number of different logistics operators in the experiment city participating in optimisation schemes for urban freight delivery.

ALTERNATIVE INDICATORS

This indicator assesses the number of operators in the experiment city participating to optimization schemes. Other indicators assessing the provision of facilities and conditions promoting efficiency in urban freight distribution are **TRA_FR_FC1** and **TRA_FR_FC2**. TRA_FR_FC1 measures the presence of urban logistics platforms in the experiment area, while TRA_FR_FC2 quantifies the proportion of logistics operators applying advanced management systems. For all alternatives, data collection and computation are equally simple. The choice among the three indicators depends on the scope of the experiment being evaluated.

To assess efficiency of urban freight transport as the average load factor of delivery vehicles, the framework provides indicators **TRA_FR_EFB** (B2B deliveries) and **TRA_FR_EFC** (B2C deliveries).