CIVITAS
Sustainable and smart mobility for all
2030

CIVITAS indicators

Share of road network equipped with traffic calming or with speed limit 30km/h or lower (SOC_SF_NS)

DOMAIN

Transport	Environment	Energy	**Society**	Economy

TOPIC	**Safety**	
IMPACT	**Safety of road network** *Increasing road safety in urban areas*	**SOC_SF**

Category

Key indicator	Supplementary indicator	**State indicator**

CONTEXT AND RELEVANCE

Ensuring the safety of road users is crucial for creating sustainable and liveable urban environments. This involves reducing road accidents through measures such as traffic calming, improving road design and setting speed limits of 30 km/h or lower. These interventions help decrease the risk of injuries and fatalities on urban roads, in addition to promoting active mobility by creating safer, more inviting spaces for walking and cycling.

This indicator measures the share of road network equipped with traffic calming or with speed limit 30km/h or lower. **It is a relevant indicator when the policy action is aimed at increasing urban road safety. A successful action is reflected in a HIGHER value of the indicator.**

DESCRIPTION

This indicator is the share of road segments and intersections within the pilot area that are equipped with traffic calming measures or have a speed limit of 30 km/h or lower. The indicator is **dimensionless**.

METHOD OF CALCULATION AND INPUTS

The indicator should be calculated exogenously based on the specified inputs according to the method presented below and its value should be coded in the supporting tool.

Method	
Calculation of the indicator based on road network map and speed limit regulations	Significance: **0.20** 

INPUTS

The following information is needed to compute the indicator:

a) The number of road segments and intersections that are equipped with traffic calming measures or have a speed limit of 30 km/h or lower.
b) The total number of road segments and intersections in the pilot area.

The experiment would result in a modification of the number of road segments and intersections that are equipped with traffic calming measures or have a speed limit of 30 km/h or lower.

METHOD OF CALCULATION

The indicator assesses the road network as a collection of **road segments (stretches of road between two consecutive intersections) and intersections**. It is computed **exogenously** through to the following steps:

- **Count the number of road segments and intersections that feature at least one form of traffic calming**—such as speed bumps, chicanes, or raised intersections—**or have a speed limit of 30 km/h or lower**. This information may be retrieved from road network maps and speed limit regulation.

- **Count the total number of road segments and intersections in the pilot area**. This information may be retrieved from road network maps.

- **Estimation of the index** by computing the ratio between the number of road segments and intersections that are equipped with traffic calming measures or have a speed limit of 30 km/h or lower and the total number of road segments and intersections in the pilot area (see equation below).

EQUATIONS

The indicator should be computed as the following ratio:

$$SfIndex = \frac{SfRd}{TotRd}$$

Where:

$SfRd$ = Number of road segments and intersections that are equipped with traffic calming measures or have a speed limit of 30 km/h or lower.

$TotRd$ = Total number of road segments and intersections in the pilot area.

ALTERNATIVE INDICATORS

This indicator evaluates road safety by measuring the share of road network with traffic calming measures or speed limits set below 30 km/h. It allows for an indirect assessment of safety, as lower-speed environments are widely recognized as reducing both the likelihood and severity of accidents.

In addition, this Evaluation Framework provides complementary indicators that provide different perspectives on safety. **SOC_SF_SF1**, **SOC_SF_SF2**, and **SOC_SF_SF3** assess safety by quantifying the number of accidents occurring on urban roads; as such, these indicators offer a direct measure of road safety outcomes. Furthermore, **SOC_SF_PS1** assesses perceived safety during personal mobility; this indicator reflects how secure individuals feel while navigating the urban environment. Perceived safety is influenced by multiple factors, including infrastructure design, traffic conditions, lighting, and the behaviour of other road users.