

Using KPIs to assess speeding

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Key Performance Indicators (KPI) on speed

- **Trendline** EU project aims to collect and analyze data to deliver road safety KPIs and for using them within road safety policies.
- Alternative KPI related to speeding are proposed to serve as **complimentary indicators** to the basic speed KPI proposed in the EU road safety policy framework 2021-2030.
- Additional speed KPIs were identified based on the **international literature** and after **consultation** with experts on the field.



Proposed Speeding KPI

- A. Percentage of vehicles travelling **within** the **speed limit** (minimum requirement)
- B. Speed below which 85% of drivers are driving (**V85**) (additionally requested)
- C. **Average speed** (including standard error and standard deviation) (additionally requested)
- D. Percentage of vehicles travelling **10km/h** or **20km/h** or **30km/h faster** than the speed limit (alternative speeding indicator)
- E. **Speed variation** expressed by the difference between the lowest and highest 10% of speeds per road type or area type or speed limit or vehicle type (alternative speeding indicator).

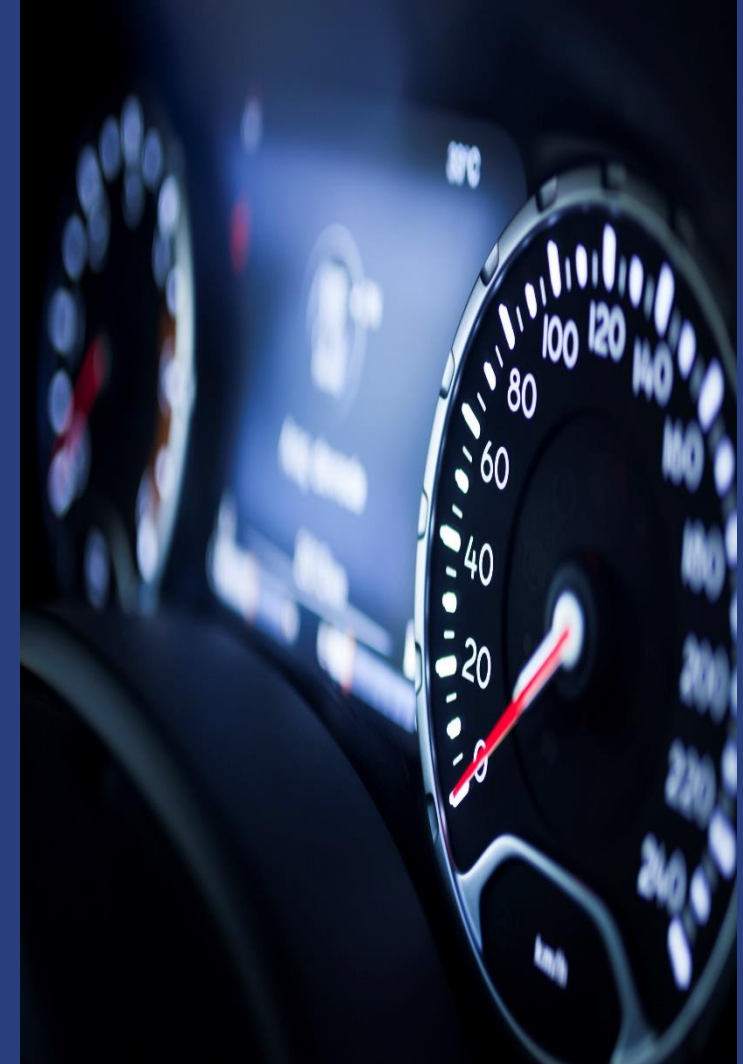


Requirements for calculating speeding KPI

	Minimum requirement	Optional
Traffic conditions	<ul style="list-style-type: none"> • Free-flow traffic 	<ul style="list-style-type: none"> • Non-free flow traffic data
Location	<ul style="list-style-type: none"> • Random selection • Representative of entire national road network • Covering the whole geographical area of the country • Measurements should not take place near fixed or mobile speed cameras • Minimum traffic flow of at least 10 vehicles passing per hour • Exclude locations where the speed limit was changed up to 6 months before the measurements or in between measurements and data analysis 	<ul style="list-style-type: none"> • Stratification by Regions
Road type	<ul style="list-style-type: none"> • Motorways • Rural roads (defined as roads outside built-up areas, but no motorways) • Urban roads (defined as roads inside built-up areas) 	<ul style="list-style-type: none"> • Differentiate between single and dual lane roads for rural and urban roads • Differentiate between speed limits within rural and urban roads
Vehicle type	<ul style="list-style-type: none"> • Passenger cars 	<ul style="list-style-type: none"> • Motorcycles • Vans and light trucks • Heavy trucks • Buses
Time period	<ul style="list-style-type: none"> • Weekdays • Daylight hours • Spring/autumn 	<ul style="list-style-type: none"> • Weekend • Night-time hours
Weather	<ul style="list-style-type: none"> • Good conditions 	
Sample size	<ul style="list-style-type: none"> • Min 2000 observations • Min 500 observations / road type • Min 10 locations / road type • The proportion of observations at each road type should be minimum 20% 	

Discussion

- The suggested speed KPIs include both **traditional** and **novel** options.
- When combined, they allow for a more profound understanding of the **actual situation** on the road in terms of speed.
- They can help better understand **existing problems** and select the most **appropriate measures**.
- **Costs** of data collection may be considerable, therefore, existing data sources should be fully exploited. Requirements for field measurements should be adjusted accordingly.



Thank you!

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