

George Yannis, Alexandra Laiou (National Technical University of Athens-NTUA)

KPI Alternative Speeding Indicators

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Definition of the KPI

- Minimum requirement:

**Percentage of vehicles travelling 10km/h or 20km/h or 30km/h
faster than the speed limit**

(i.e. the percentage of vehicles overspeeding *by less than or equal to* 10km/h, 20km/h or 30km/h)

Each Member State could additionally calculate the KPI using the intervals that are more meaningful to them taking into account national law provisions.

- Additionally suggested to measure:

**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**

Composition of the Key Expert Group

Expert	Organisation	Country
Alexandra Laiou	NTUA	Greece
Helga Mondésir	ONISR	France
Johannes Mesimäki	VTT	Finland
Paul Deane	RSA	Ireland
Stephen Kome	CTL	Italy
João Cardoso	LNEC	Portugal
Anna Vadeby	VTI	Sweden

Also supported by the Key Expert Group on KPI Speed

Activities undertaken

- **Concept note** on Alternative Speeding Indicators (ASI) – March 2023
- **Setting-up** of the KEG on ASI – June 2023
- On-line KEG **meeting** – July 2023
- Working document on ASI – **First draft** – November 2023
- **Review** of the working document by KEG – November 2023
- Exploration of **interest** for a **pilot** on ASI – November 2023 up to February 2024
- Working document on ASI – **Second draft** – December 2023
- On-line discussions - comments within KEG members – January 2024 up to June 2024
- Working document on ASI – **Final draft** – July 2024
- Feedback on **progress pilot** – October 2024/ December 2024/ March 2025
- Reception of **pilot results** – February-April 2025

Pilots and tests

KPI	Finland	Italy	Poland	Portugal
% of vehicles travelling 10km/h 20km/h or 30km/h over the speed limit	<ul style="list-style-type: none"> • Passenger car on weekday-daytime / road type • weekday/daytime / road type and vehicle type (passenger car, truck/HGV) • Passenger car / time period and road type Free flow 	<ul style="list-style-type: none"> • Passenger car on weekday-daytime / road type • weekday/daytime / road type and vehicle type (passenger car, vans-buses-trucks) • vehicle type / time period and road type Free flow 	<ul style="list-style-type: none"> • Passenger car on weekday-daytime / road type • weekday/daytime / road type and vehicle type (passenger car, vans-buses-trucks) • vehicle type / time period and road type Free flow Non-free flow 	<ul style="list-style-type: none"> • Passenger car on weekday-daytime / road type • weekday/daytime / road type and vehicle type (passenger car) • vehicle type / time period and road type Free flow
difference between the lowest and highest 10% of speeds (variation) per road type or area type or speed limit or vehicle type	as above	as above	as above	as above
% of vehicles overspeeding using other speed intervals	Yes (≥ 31 km/h)	Yes (≤ 5, 11-39, 40-59, ≥ 60 km/h)	No	Yes (≥ 40, ≥ 60 km/h)

Pilots and tests - Finland

ASI	Motorway (120 km/h)	Expressway (100 km/h)	Rural road (80 km/h)	Urban road (60 km/h)
% of vehicles travelling 10km/h 20km/h or 30km/h over the speed limit	32,6 % 7,4 % 0,9 %	43,3 % 10,5 % 2,0 %	50,3 % 11,7 % 2,6 %	55,8 % 10,8 % 1,1 %
difference between the lowest and highest 10% of speeds (variation) per road type or area type or speed limit or vehicle type	28,9	21,0	17,2	14,8
% of vehicles overspeeding using other speed intervals (≥ 31 km/h)	0,2 %	0,5 %	0,6 %	0,2 %

Note: Results for the min requirement: passenger car on weekday-daytime per road type

Pilots and tests - Italy

ASI	Motorway (130km/h)	Expressway (110 km/h)	Rural road (90 km/h)	Urban road (30 km/h)	Urban road (50 km/h)
% of vehicles travelling 10km/h 20km/h or 30km/h over the speed limit	4,7 % 5,7 % 5,8 %	8,5 % 11,9 % 13,0 %	10,8 % 15,8 % 18,0 %	30,3 % 46,7 % 53,2 %	18,4 % 26,6 % 29,2 %
difference between the lowest and highest 10% of speeds (variation) per road type or area type or speed limit or vehicle type	46,0	51,0	44,0	34,0	39,0
% of vehicles overspeeding using other speed intervals (≤5, 11-39, 40-59, ≥60 km/h)	3,2 % 1,1 % 0,0 % 0,0 %	5,0 % 4,8 % 0,1 % 0,0 %	6,4 % 8,0 % 0,3 % 0,0 %	15,6 % 24,2 % 0,4 % 0,0 %	10,4 % 11,5 % 0,3 % 0,0 %

Note: Results for the min requirement: passenger car on weekday-daytime per road type

Pilots and tests - Poland

ASI	Motorway (140 km/h)	Expressway (120 km/h)	Rural road (90 km/h)	Urban road (50 km/h)
% of vehicles travelling 10km/h 20km/h or 30km/h over the speed limit	21,4 % 9,8 % 4,3 %	42,6 % 23,0 % 12,3 %	23,8 % 11,5 % 5,2 %	41,4 % 15,7 % 4,9 %
difference between the lowest and highest 10% of speeds (variation) per road type or area type or speed limit or vehicle type	50,0	49,0	43,0	30,0
% of vehicles overspeeding using other speed intervals	no	no	no	no

Note: Results for the min requirement: passenger car on weekday-daytime per road type

Pilots and tests - Portugal

ASI	Motorway (120km/h)	Rural road (90km/h)	Urban road (50km/h)
% of vehicles travelling 10km/h 20km/h or 30km/h over the speed limit	17,0 % 1,3 % 0,0 %	27,0 % 4,4 % 0,0 %	7,6 % 2,4 % 0,1 %
difference between the lowest and highest 10% of speeds (variation) per road type or area type or speed limit or vehicle type	38,4	38,7	20,7
% of vehicles overspeeding using other speed intervals (40+, 60+ km/h)	0,0 % 0,0 %	0,0 % 0,0 %	0,0 % 0,0 %

Note: Results for the min requirement: passenger car on weekday-daytime per road type

Lessons learned

- For the development of KPI Speed and ASI the **same data** are needed but **differently analysed**.
- Generally, the percentage of vehicles **overspeeding decreases** at **higher** overspeeding **levels** (i.e. 10, 20, 30 km/h over the speed limit) showing a restrained inclination to speeding.
- In most cases the **higher** the speed **limit** is, the **higher** the speed **variation** (difference between the lowest and highest 10% of speeds) gets showing different behaviours towards speeding in different contexts.
- Meaningful overspeeding intervals differ among Member States implying **different levels** of **tolerance** against speeding reflected in the respective enforcement practices and sanctions.

Key choices for the future methodology

- The suggested ASI provide a good **further insight** into overspeeding taking into account national facts on speed limits, distribution of vehicle types and road types.
- Based on the relevance of ASI with KPI Speed it is suggested that ASI are **incorporated** into the KPI Speed methodology.

Current status of the Methodological Guidelines

- The guidelines for ASI are based on a **review** of the methodological guidelines on KPI Speed.
- The **minimum requirements** set for ASI are those set by the EC for KPI Speed as described in the Commission Staff Working Document SWD (2019) 283.
- The Guidelines include the minimum requirements to deliver the ASI and recommendations for optional **additional speeding measurements**.
- Member States can decide to extend or not their methodology, depending on **available means** and their own **research questions**.
- Pilots did not reveal any methodological issues concerning the calculation of the proposed ASI. Thus, the current version is considered the **final** Methodological Guidelines.

Discussion / Questions

- In cases where different speed limits exist for the same road type (e.g. rural roads with 70km/h, 80km/h or 90km/h speed limit), it is advised that the **prevailing** speed limit is considered.

Given the transition phase of **urban** speed limits from **50** to **30km/h** it is suggested that two **different categories** are considered for urban roads and are compared to each other.