

Speed observatory (France mainland)

Results for the year 2021

October 2022

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Summary

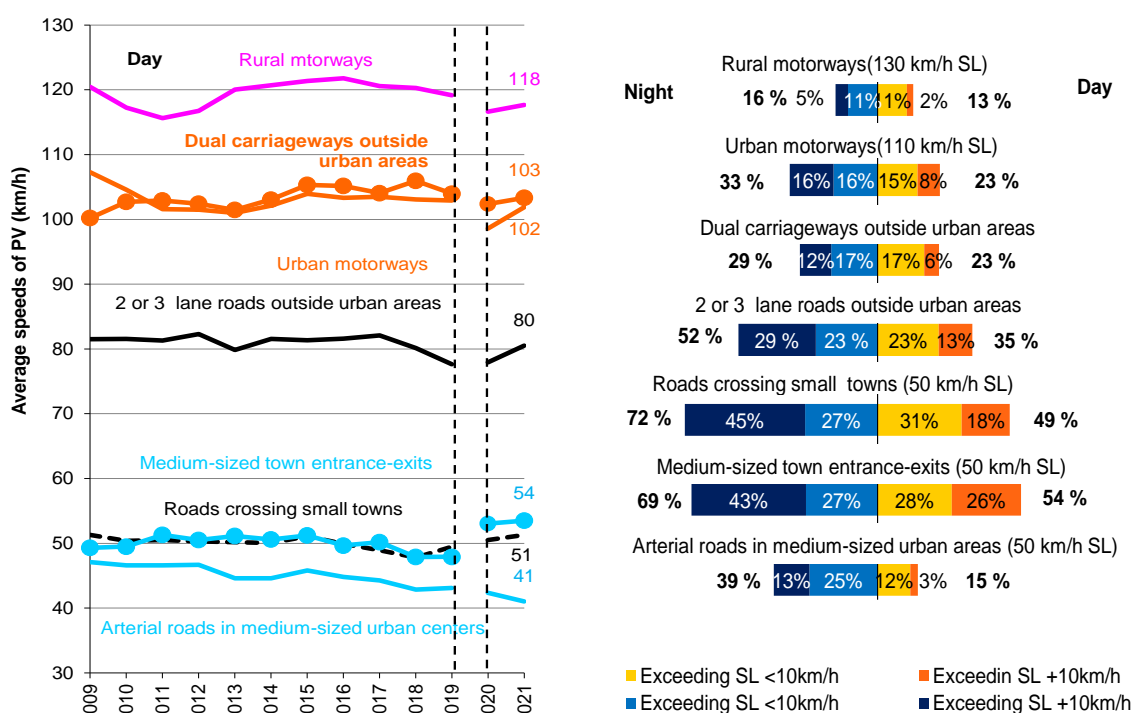
Comparisons of the results for 2021 with those from 2020 should be done with caution, as some observations usually carried out during the first semester could not be completed normally in 2020 due to the Covid-19 pandemic. In particular, the dual 2 and dual 3 lanes carriageways were impacted.

In 2021, there is a general increase in the speeds practiced by passenger vehicles on the roads, day and night. Without taking into account the urban motorways, whose 2020 measures were delayed by the pandemic, we observe greater daytime speed increases on the dual 2 and dual 3 lanes carriageways (+1.1 km/h on rural motorways and on dual 2 lanes roads) than on urban networks (from +0.5 km/h to +0.8 km/h). The opposite is observed at night, with speed increases of up to +2.1 km/h on average on roads crossing small towns. Only the average daytime speeds on arteries in the city center of average urban areas will drop in 2021. On single carriageways outside urban areas, some of which will be affected by an increase in the speed limit to 90 km/h in 2021, the increase is +2.6 km/h day and +2.1 km/h night.

In general, the following trends are observed for passenger vehicles:

- The **average speeds practiced by passenger vehicles** are increasing, day and night on practically all networks;
- On **2 or 3 lane roads** in particular, the average speeds practiced are up sharply compared to 2020 after an initial increase last year;
- the **rate of exceeding the speed limit** is particularly high on roads crossing small urban areas and entry/exit medium-sized urban areas;
- The speeds practiced **at night are higher than those during the day** (except on rural motorways), with greater differentials on networks in urban areas and on single carriageways outside urban areas;
- The speeds practiced by daytime passenger vehicles are **higher on weekends than on working days**;
- The change in **speeds practiced by HGV** is more variable depending on network, with a tendency to stabilize ;
- The speeds practiced by **utility vehicles**, observed during the day and on working days only, are lower than those by passenger vehicles.

Average speeds practiced by passenger vehicles and rate of exceeding the speed limit in 2021 by type of network



Key indicators of good behaviour in traffic 2021

Safety Performance Indicators (SPIs) – Definition European Commission

Rate of compliance with the speed limit and average speeds practiced, passenger vehicles

Network	% of compliance of the speed limit		Average speed (km/h)	
	Daytime	Night-time	Daytime	Night-time
Rural motorways (130 km/h speed limit)	86.7 %	84.3 %	117.7	116.3
2 or 3 lane roads outside urban areas (80-90 km/h speed limit)*	64.6 %	48.0 %	80.5	86.9
Arterial roads in medium-sized urban centers (50 km/h)	84.9 %	61.2 %	41.0	48.8

*speed limit variable according to local decisions, see method page 16

Rate of compliance with the speed limit and average speeds practiced, HGV

Network	% of compliance of the speed limit		Average speed (km/h)	
	Daytime	Night-time	Daytime	Night-time
Urban motorways (90 km/h speed limit)	94.8 %	96.8 %	82.7	83.2
2 or 3 lane roads outside urban areas (80 km/h speed limit)	75.3 %	65.8 %	73.3	76.5
Arterial roads in medium-sized urban centers (50 km/h)	90.3 %		38.4	

1. Introduction

Since the 1980s, ONISR has had a service provider carry out speed measurements and observations of road user behaviour at a set of observation points on the mainland road network.

For technical reasons, this system was interrupted between 2013 and 2015. Over this period, speed measurements were carried out by Cerema (Centre for studies and expertise on risks, the environment, mobility and development) on a sample of points representative of the panel of the observatory. Larger-scale measurements resumed in 2016 after a substantial evolution of the panel of observation points as well as minor changes in the methodology. Since 2020, the observatory's methodology has changed, as has the number of measurement points, going from 215 to 135 for a much larger workforce.

Speeds measured by the observatory **do not claim to be absolutely representative** of the traffic on the entire French road network. On the other hand, we consider that their evolution over time is quite representative of the general evolution of behaviour, in other words, these observations have a **relative representativeness**, if the panel of observation points is stable over time. The results of the speed observatory are therefore intrinsically linked to the panel of measurement points that feed it. For the year 2020, the results are more difficult to compare with previous years due to the change in methodology and part of the panel. They may also show breaks with the year 2021 due to observation periods and modified workforces following the health restrictions linked to the Covid-19 pandemic.

The substantial modification of the panel at the beginning of 2016 made it necessary to transcribe the previous results in order to express them according to principles allowing their comparison with the results of the years from 2016. A history of average speeds by type of network and by category of vehicles has thus been reconstituted for the period 2009-2015.

This note sets out the results for the year 2021, day and night, by type of road network, as well as the history of average speeds since 2009, for the categories of vehicles that have been the subject of at least 500 observations over the year: passenger vehicles, utility vehicles and heavy goods vehicles.

Appendix 1 summarizes by type of network the number of vehicles observed in each category.

Appendix 2 presents in detail the methodology followed for speed measurements and data processing, the changes made in relation to the system in force until 2012, the approach implemented over the 2013-2015 period as well as the principles used to reconstitute a relevant results history over the period 2009-2015.

Appendix 3 recalls the speed limit (SL) for heavy goods vehicles, used as assumptions for the calculation of the rates of exceeding the speed limit.

2. Rural motorways (130 km/h speed limit)

Things to remember

- The **average speeds practiced** by passenger vehicles **are up compared to the previous year** for the first time since 2016.
- The network of connecting motorways is the only one observed for which the speeds practiced **at night** by passenger vehicles are **lower** than those practiced **during the day**.
- The speeds practiced by passenger vehicles are on average **higher at weekends**, day and night.
- Despite a higher average speed practiced during the day, **the rate of exceeding the speed limit** by passenger vehicles is higher at night. Day and night, these are the lowest rates of the networks monitored by the observatory, all environments combined.
- The average speed used **by HGV** is up slightly compared to 2020. It remains lower during the day.
- The speeds practiced **by UV** are lower than those practiced by passenger vehicles.

Number of vehicles observed in 2021

Passenger vehicles		HGV		Utility vehicles Day – Working days	PTW Day – Working days
Day	Night	Day	Night		
678 335	88 108	96 101	36 910	1 250	166

Observations

After a significant drop in the average speeds practiced by daytime passenger vehicles in 2020 (perhaps due to the particular conditions of this pandemic year), the network of connecting motorways sees this indicator, start to rise again in 2021, at 117.7 km/h (+ 1.1 km/h).

The rate of exceeding the speed limit by daytime passenger vehicles is the lowest of all the networks monitored by the speed observatory, all environments combined, and is identical to last year, with 13 % overrun of the speed limit regardless of the level of overrun, and 2 % overrun of the speed limit greater than 10 km/h.

At night, the connecting motorways constitute the only network for which the speeds of the passenger vehicle observed are lower than those of the day, with an average of 116.3 km/h, stable compared to last year. On the other hand, the speeds are more spread out, which generates a higher rate of exceeding the speed limit with 16% of passenger vehicle above 130 km/h and 5 % above 140 km/h.

We also observe a higher average speed of passenger vehicle on weekends during the day (119.2 km/h against 117.0 km/h) and at night (117.1 km/h against 115.8 km/h).

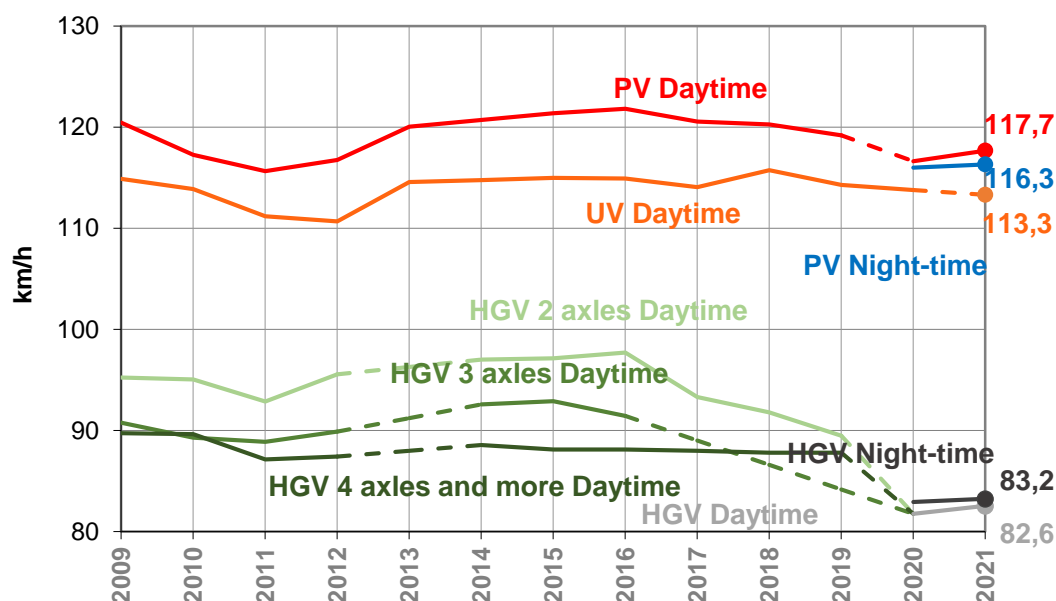
The speeds practiced by HGV are stable compared to 2020: 82.6 km/h by day on average (83.2 km/h by night) against 81.8 km/h by day and 82.9 km/h by night in 2020.

The rates at which HGV exceed the speed limit remain low on this network, day (5 %) and night (3 %).

Utility vehicles (UV), not observed in 2020, were again observed in 2021, daytime and on working days only. The average speed of these vehicles is 113.3 km/h, i.e. 3.7 km/h less than the average for passenger vehicle under the same observation conditions (daytime, working days).

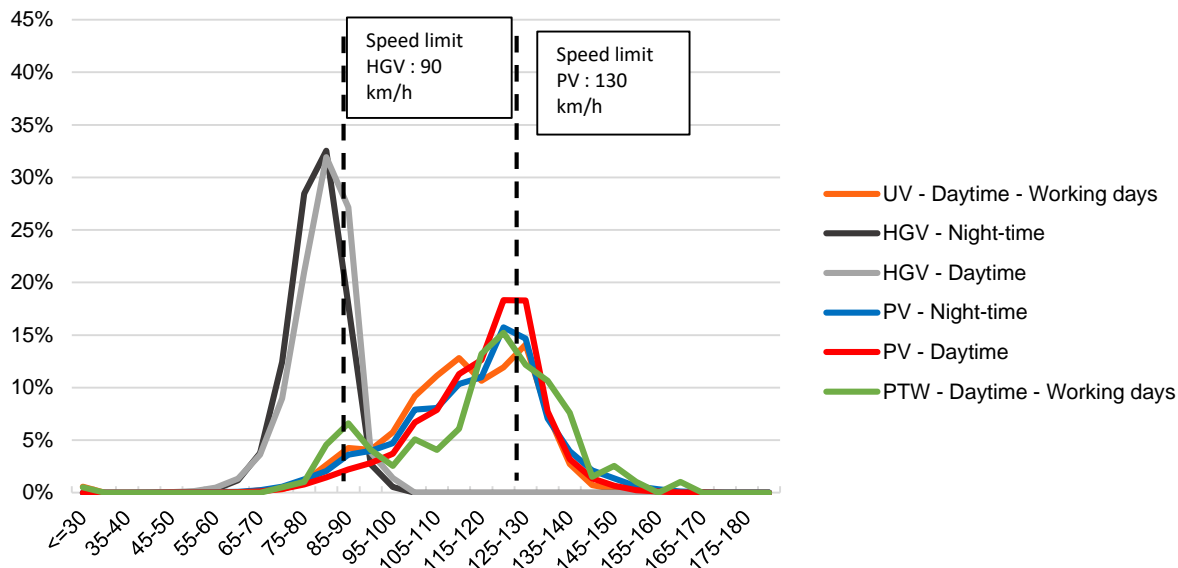
Evolution of average speeds, 2009-2021

**Average speeds on rural motorways
(130 km/h speed limit)**



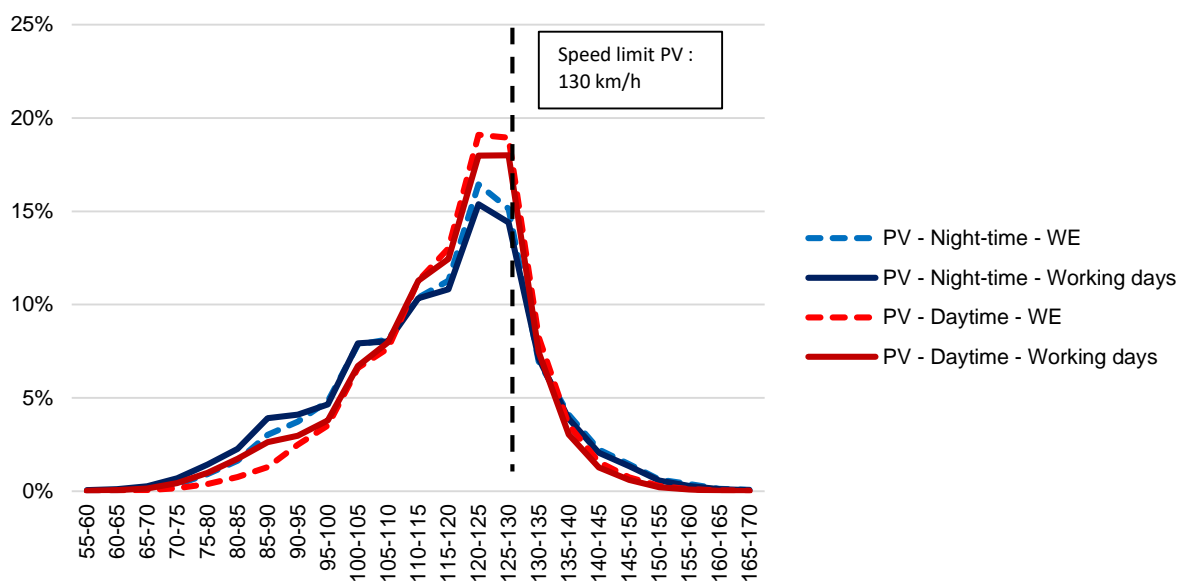
NB: No UV speed measurements in 2020, working days only from 2021.

Distribution of passenger vehicle, UV and HGV speeds, 2021



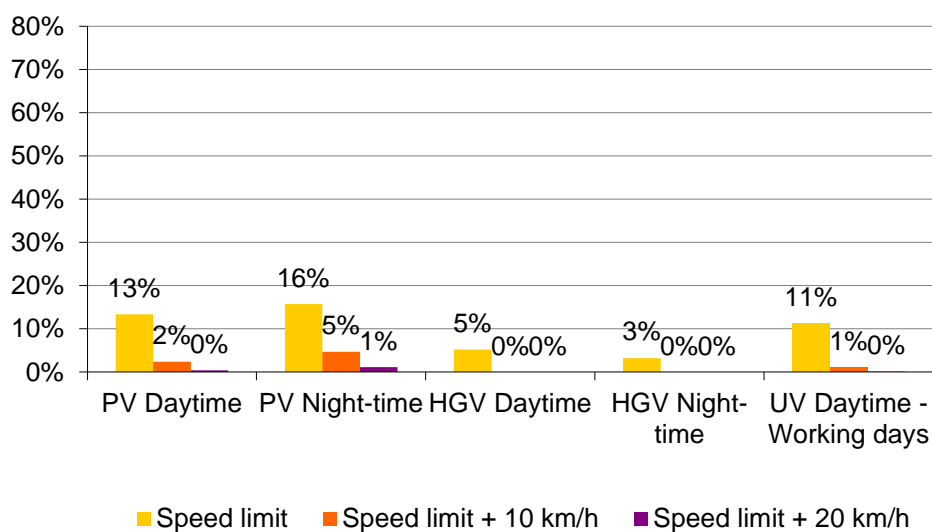
Speed limit applicable to heavy goods vehicles: see Appendix 3.

Distribution of passenger vehicle speeds, 2021



Rate of exceeding the speed limit (SL) in 2021

Rate of exceeding the speed limit on rural motorways



Speed limit applicable to heavy goods vehicles: 90 km/h (see Appendix 3).

3. Urban motorways (110 km/h speed limit)

Things to remember

- The **average speed practiced** by passenger vehicles is **down** 1.0 km/h compared to 2019.
- The speeds practiced by passenger vehicles are on average **higher on daytime weekends**, and similar between working days and weekends at night.
- The average speed practiced **by HGV** is increasing day and night.
- The speeds practiced **by UV** are lower than those practiced by passenger vehicles.

Number of vehicles observed in 2021

Passenger vehicles		HGV		Utility vehicles Daytime – Working days	PTW Daytime – Working days
Daytime	Night-time	Daytime	Night-time		
794 653	155 420	121 586	41 562	910	259

Observations

On the network of freeways, the measurements for the first half of 2020 were delayed compared to the usual schedule, and certain points could not be observed. In addition, the results for the year 2020 were undoubtedly affected. Comparisons are shown below between 2021 and 2019.

The speeds practiced by daytime passenger vehicles are down 1.0 km/h compared to 2019 (101.9 km/h against 102.9).

The speeds practiced by passenger vehicles at night are 3.6 km/h higher than daytime speeds: 105.5 km/h on average. Similarly, the rates of exceeding the speed limit are 10 points higher at night: 33 % of vehicles exceed the speed limit compared to 23 % during the day.

The speeds practiced by passenger vehicles are on average higher on weekends during the day (103.7 km/h against 100.6 km/h). At night, on the other hand, the speeds observed are slightly higher on working days (105.6 km/h against 105.4 km/h).

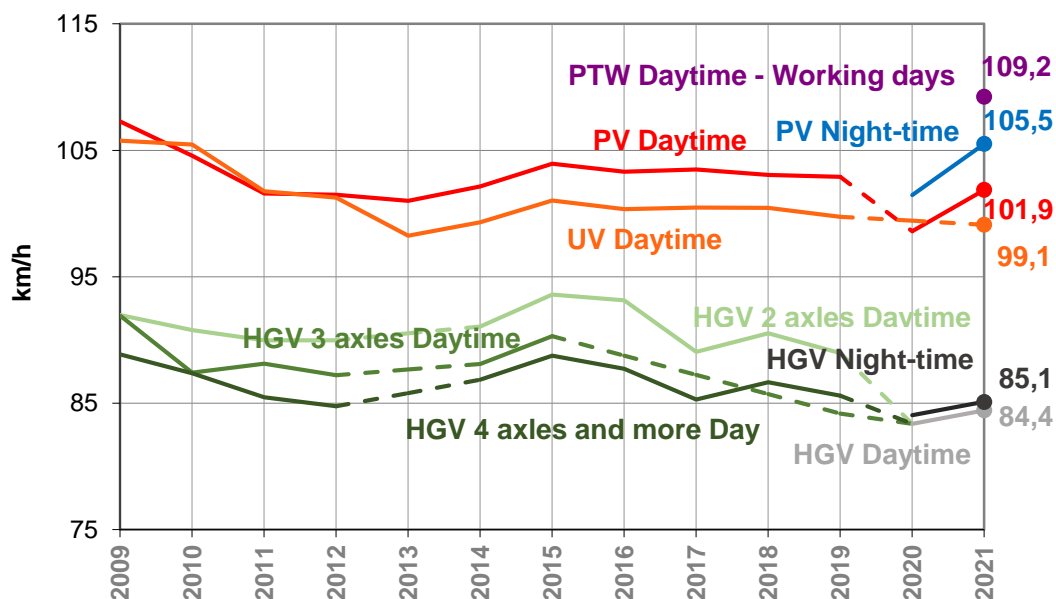
The speeds practiced by HGV during the day, reassessed downwards in 2020, are slightly higher than those observed at night. In both cases, they are up by +1.1 km/h compared to 2020.

The rate of exceeding the speed limit by the HGV is 10 % during the day against 5 % at night.

During the day, and on working days, utility vehicles travel 2.4 km/h on average below passenger vehicles. Over the same periods, powered two-wheelers drive an average of 7.7 km/h above passenger vehicles.

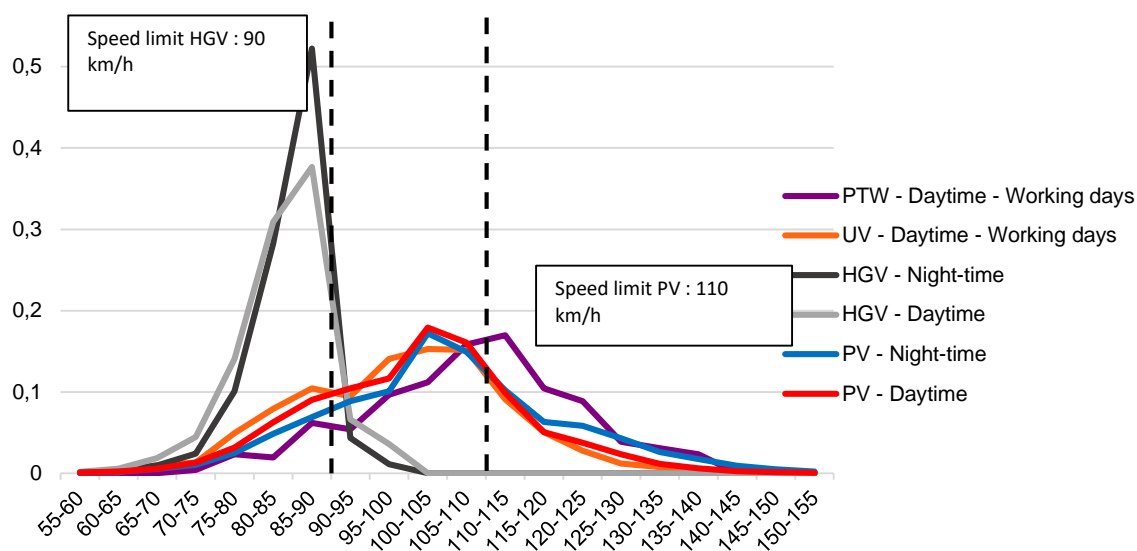
Evolution of average speeds, 2009-2021

**Average speeds on urban motorways
(110 km/h speed limit)**



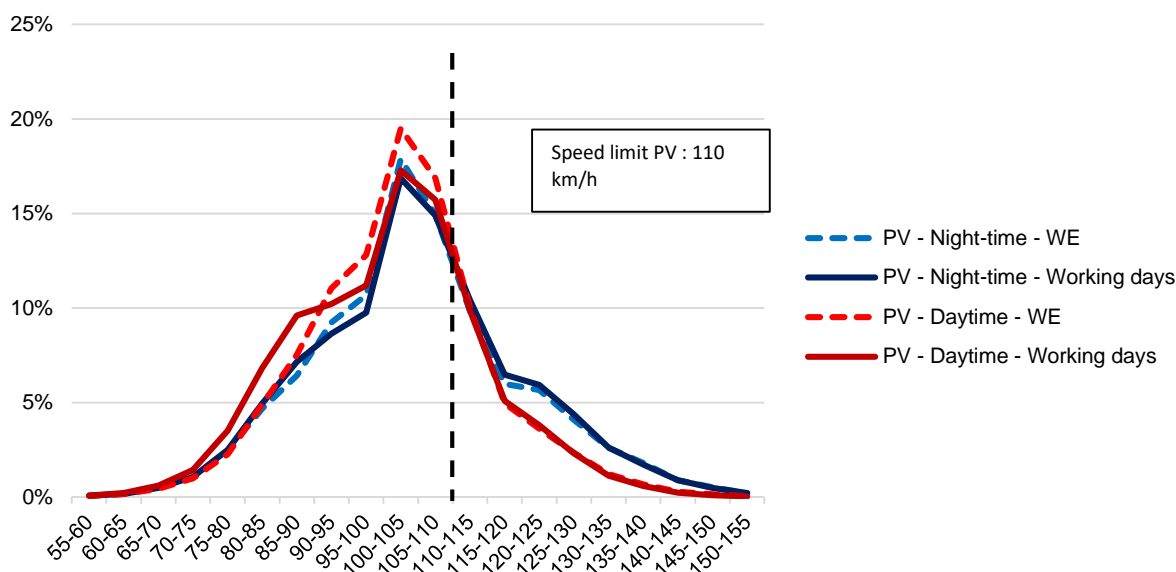
NB: No UV speed measurements in 2020, working days only from 2021

Distribution of passenger vehicles, UV, HGV and PTW speeds, 2021



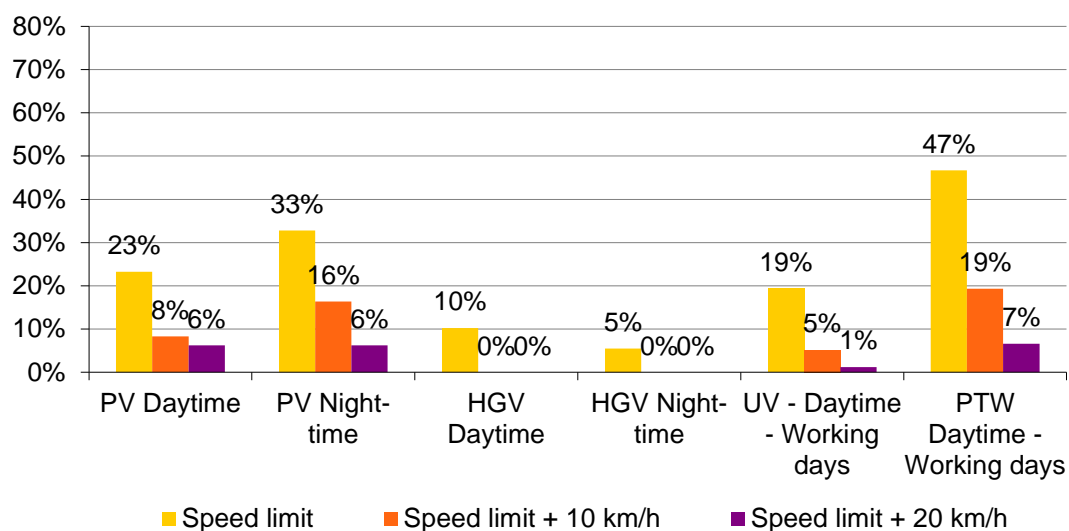
Speed limit applicable to heavy goods vehicles: see Appendix 3.

Passenger vehicles speed distribution, 2021



Rate of exceeding the speed limit (SL) in 2021

**Rate of exceeding the speed limit
on urban motorways**



Speed limit applicable to heavy goods vehicles: 90 km/h except for specifics (see Appendix 3).

4. Dual carriageways outside urban areas (110 km/h speed limit)

Things to remember

- The **average speed practiced** by passenger vehicles **increases** by +1.1 km/h compared to 2020.
- The speeds practiced by passenger vehicles are on average **higher on weekends during the day**, and similar between working days and weekends at night.
- The **distribution of speeds practiced** by passenger vehicles is greater at night than daytime.
- Passenger vehicles drive **faster** but HGV drive **slower** in daytime than on alternate motorways.

Number of vehicles observed in 2021

Passenger vehicles		HGV		Utility vehicles Daytime – Working days	PTW Daytime – Working days
Daytime	Night-time	Daytime	Night-time		
546 149	47 036	98 151	25 695	480	71

Observations

In 2021, the average speed practiced by daytime passenger vehicles on dual 2 lanes carriageways is up by 1.1 km/h compared to 2020 for an average speed of 103.3 km/h.

Unlike the alternate highways, there are few disparities between the average speeds practiced by daytime and nighttime passenger vehicles. Thus, during the day, this average is 1.4 km/h higher than that observed on the network of freeways, but it is lower at night.

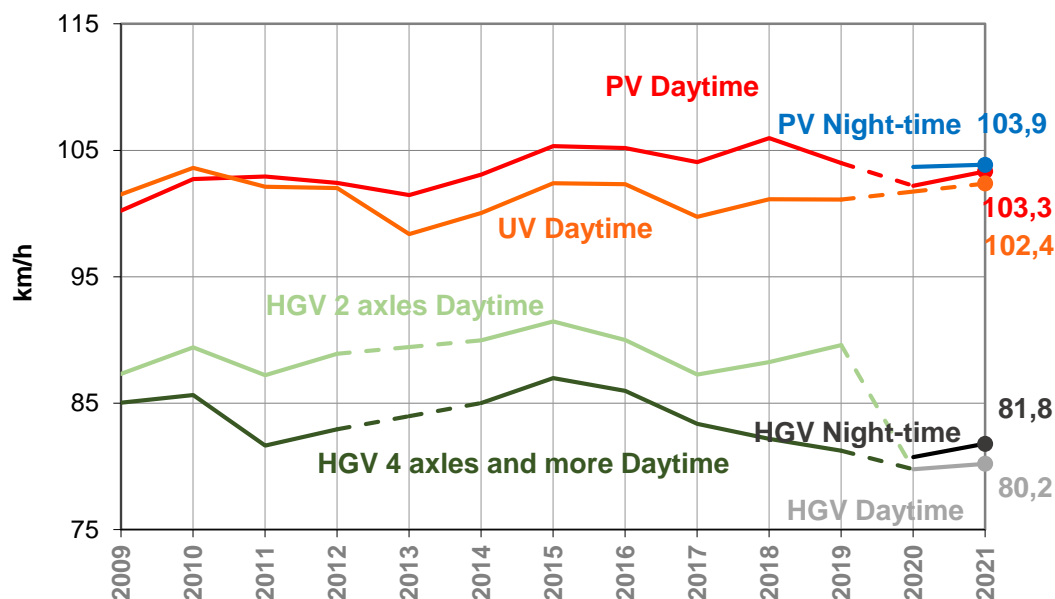
The Night-Day gap has faded compared to 2020 (+1.5 km/h at night), despite night speeds which remain 0.6 km/h higher than those during the day (103.9 km /h). On the other hand, the distribution of speeds is more spread out at night. Thus, the rates of exceeding the speed limit by passenger vehicles are higher there (29 % versus 23 %).

As for the freeways, the speeds practiced by passenger vehicles are on average higher at the weekend than on weekdays during the day and similar at night: respectively 104.5 km/h against 102.9 km/h during the day. , and 103.9 km/h against 103.8 km/h at night.

The average speeds practiced by HGV are up day and night compared to 2020 (respectively 80.2 km/h, +0.4 km/h and 81.8 km/h, +1.1 km/h h).

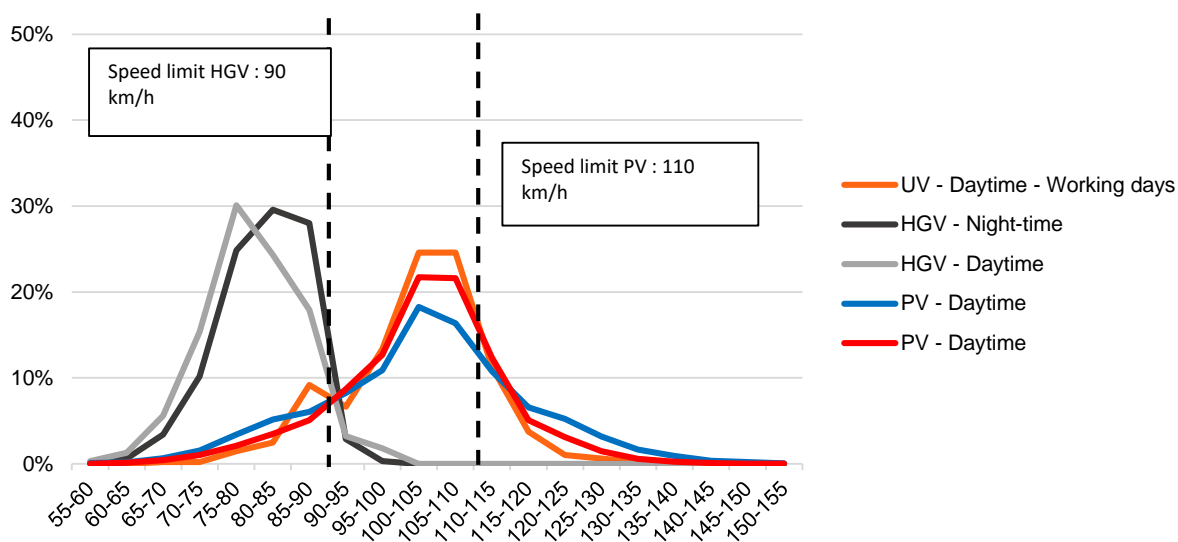
Evolution of average speeds, 2009-2021

**Average speeds on dual carriageways
(110 km/h speed limit)**



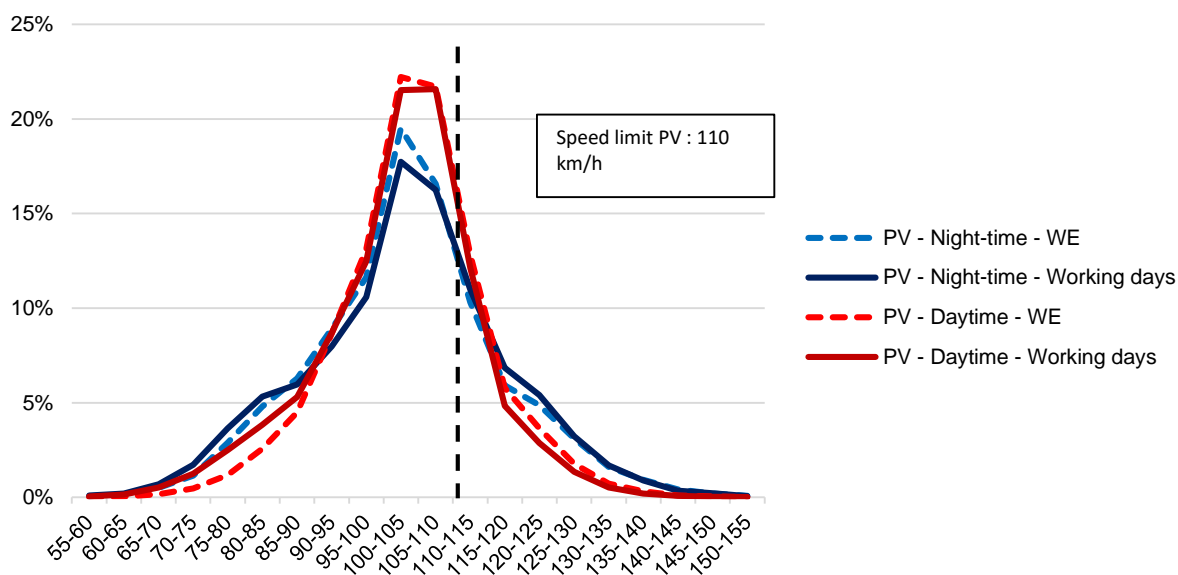
*No UV speed measurements in 2020, working days only from 2021

Distribution of passenger vehicles, UV and HGV speeds, 2021



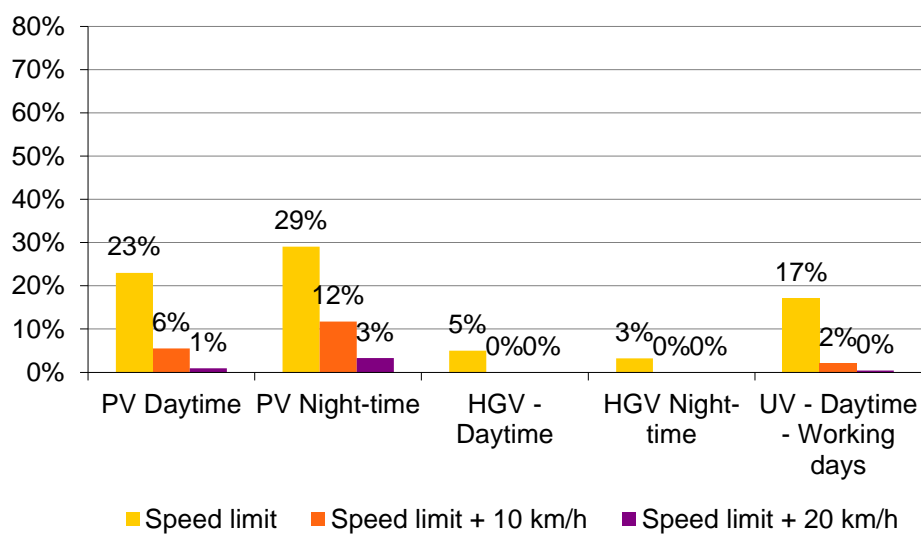
NB: UV numbers too low to be significant

Passenger vehicles speed distribution, 2021



Rate of exceeding the speed limit (SL) in 2021

Rate of exceeding the speed limit on dual carriageways outside urban areas



5. 2 or 3 lane roads outside urban areas (80 km/h speed limit, sometimes increased to 90 km/h)

On December 23, 2019, the promulgation of the **mobility orientation law** (LOM law) introduced the possibility of returning to 90 km/h from January 1, 2020 on two-way roads outside urban areas for sections under the jurisdiction of the President of the county council. In 2020 and 2021, 39 departments have chosen to raise the speed limit to 90 km/h on all or part of their network. The overall indicator of average speeds on 2 or 3 lane roads outside urban areas is defined below.

In order to obtain the figures closest to reality, the choice was made to apply to the 80 or 90 network a weight equal to the part of the department they represented on June 30, 2021 (half of the year) in the number of departments in France mainland.

For example, **the average speed over the entire network is calculated as follows:**

$$V_{avg} = \frac{N}{96} * V_{avg SL90} + \frac{(96 - N)}{96} * V_{avg SL80}$$

With $V_{avg SL90}$ and $V_{avg SL80}$ respectively, the average speeds on the networks at 90 and 80 km/h and N, the number of departments raised to 90 km/h on June 30, 2021.

The average of the speeds on the network at 90 km/h includes only the measurement waves at the time of which the points were located on networks where the speed limit applied was 90 km/h. The same is true for the average speed on the network at 80 km/h.

Things to remember

- The **average speed practiced** by daytime passenger vehicles **increases sharply** after stabilizing last year.
- The average speed practiced by passenger vehicles **at night** is 6.4 km/h higher than that practiced **during the day**.
- The speeds practiced by passenger vehicles are on average **higher on weekends than on weekdays during the day**, but lower on weekends than on weekdays **at night**.
- The speeds practiced on the network at 90 km/h are **higher** than those practiced on the network at 80 km/h **by 6.9 km/h on average during the day**.
- The average speed practiced by HGV is down.
- The speeds practiced **by UV** are lower than those practiced by passenger vehicles.

Number of vehicles observed in 2021

Passenger vehicles				HGV				Utility vehicles Daytime Working days	
SL80 km/h		SL 90 km/h		SL 80 km/h		SL 90 km/h*			
Day	Night	Day	Night	Day	Night	Day	Night	SL 80 km/h	SL 90 km/h
895 961	42 126	109 987	4 600	46 044	5 209	12 693	2 753	869	156

PTW Daytime – Working days	
SL 80 km/h	SL 90 km/h
50	39

* For heavy goods vehicles, the speed limit remains at 80 km/h regardless of the network.

Observations

The average speed practiced by daytime passenger vehicles is up by 2.6 km/h compared to 2020 (80.5 km/h compared to 77.9 km/h in 2020). At night, the speeds practiced by passenger vehicles are significantly higher with a higher average of 6.4 km/h (86.9 km/h, +2.2 km/h compared to 2020).

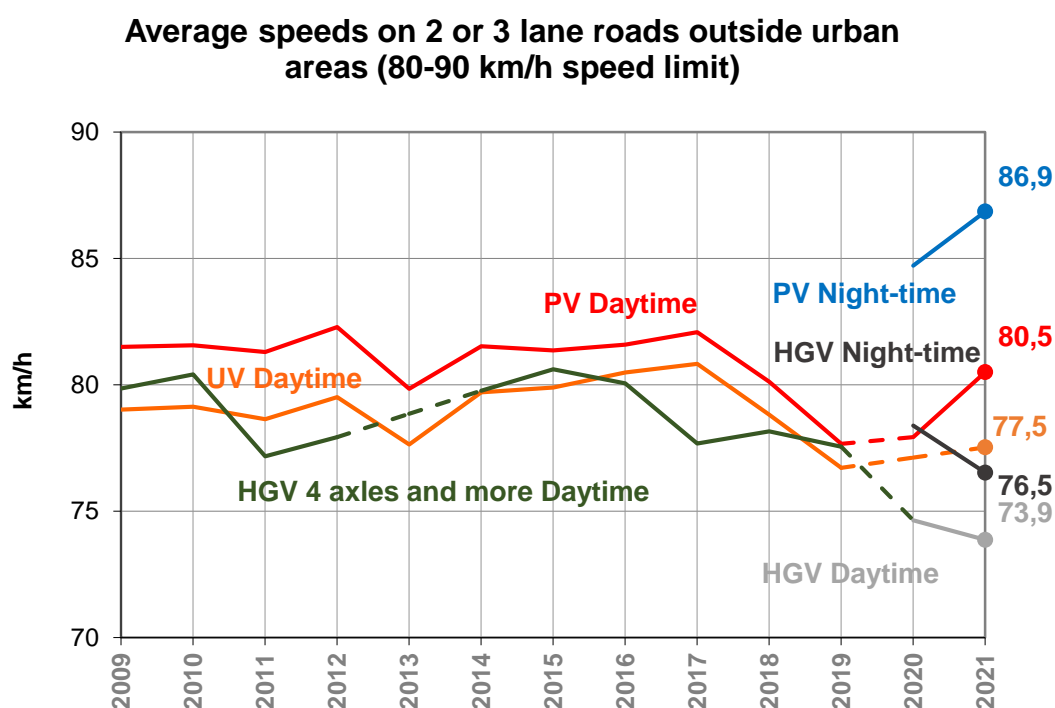
The speed limit exceeding rates remain stable with 35% during the day and 52% at night.

The speeds practiced by passenger vehicles are on average higher on weekends than on weekdays during the day (81.5 km/h against 80.2 km/h), but lower on weekends than on weekdays at night (85.9 km/h against 87.3 km/h).

Unlike PV, the average speeds practiced by HGV are down in 2021, day and night: 73.9 km/h during the day compared to 74.6 km/h in 2020 and 76.5 km/h at night compared to 78.4 km/h in 2020.

The speeds practiced by daytime UV, and on working days, observed for the first time since 2019, are 2.7 km/h lower than those practiced by passenger vehicles over the same periods.

Evolution of average speeds, 2009-2021



NB: No UV speed measurements in 2020, working days only from 2021.

For more details on the evolution of speeds between May 2018 and June 2019, and the overruns of the speed limit, please refer to the results of the Cerema speed observatory set up to ensure the evaluation of the measure. These results are presented in « Lowering of the speed limit to 80km/h – Final evaluation report - July 2020 ».

<https://www.cerema.fr/fr/centre-ressources/boutique/abaissement-vitesse-maximale-autorisee-80-kmh>

Average speed of PV, HGV and UV according to the speed limit applied (in km/h):

Passenger vehicles				HGV				Utility vehicles Daytime Working days	
80 km/h speed limit		90 km/h speed limit		80 km/h speed limit		90 km/h speed limit*			
Day	Night	Day	Night	Day	Night	Day	Night	SL 80 km/h	SL 90 km/h
77.9	84.8	84.8	90.3	72.5	76.7	76.1	76.3	75.6	80.8

PTW Daytime – Working days	
SL 80 km/h	SL 90 km/h
81.4	86.7

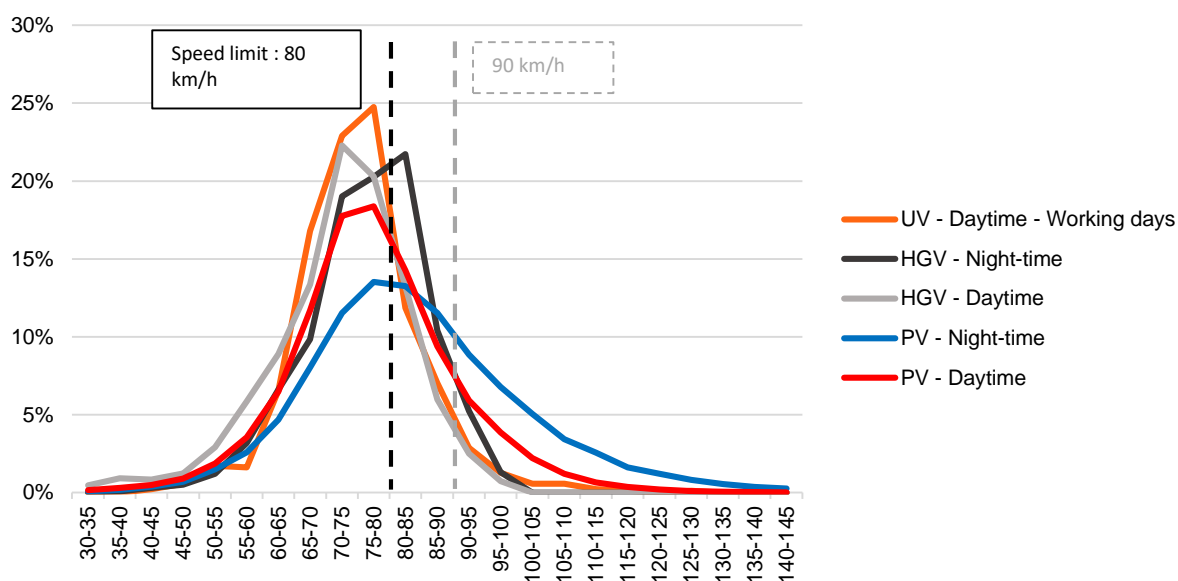
*For heavy goods vehicles, the speed limit remains at 80 km/h regardless of the network.

In grey: low workforce

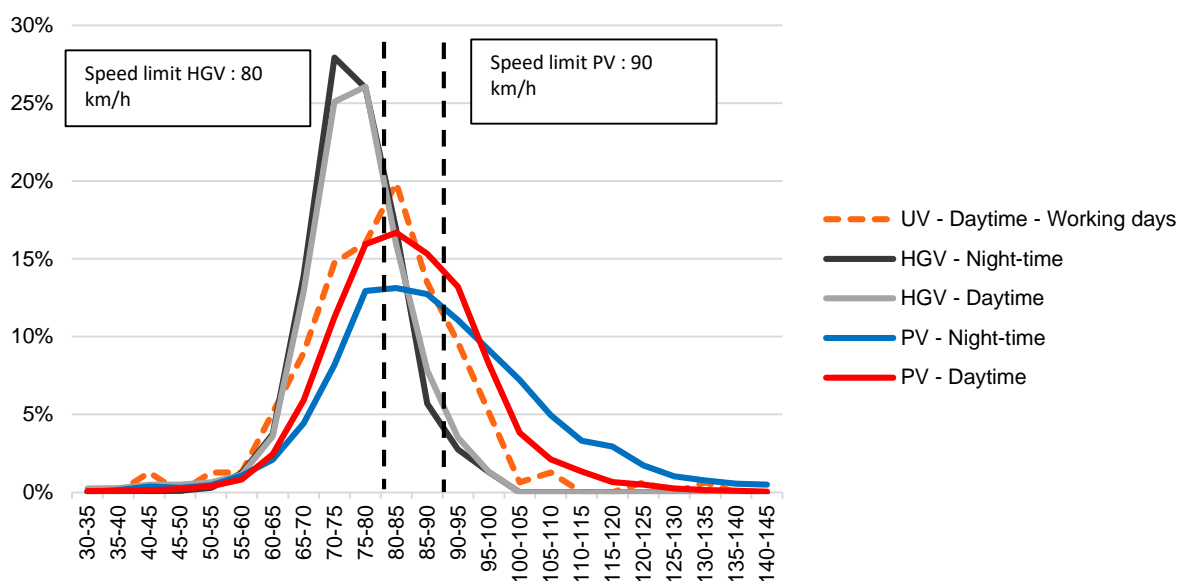
There is a difference of 6.9 km/h between the network whose speed limit is 80 km/h and that whose speed limit is 90 km/h during the day. On the same panels observed at the same waves of measurement, the average speeds were identical in 2019.

At night, this difference is less marked: 5.5 km/h more on the network at 90 km/h.

Distribution of passenger vehicles, UV and HGV speeds, passenger vehicles speed limit 80km/h, 2021

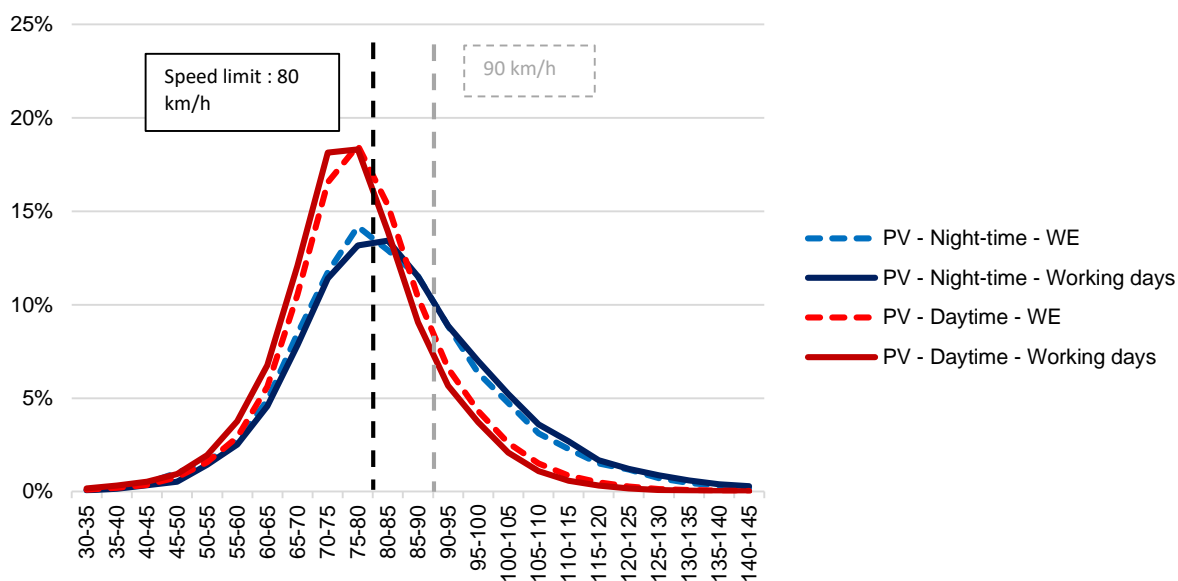


Distribution of passenger vehicles, UV and HGV speeds, passenger vehicles speed limit 90km/h, 2021

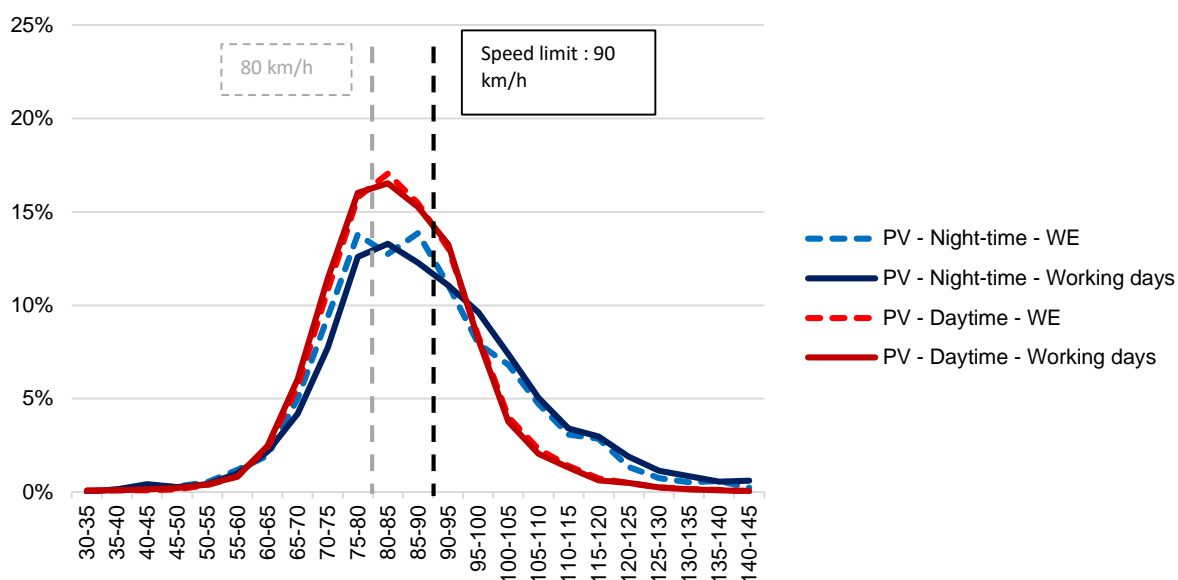


NB: Low UV workforce

Distribution of passenger vehicles speeds, speed limit 80 km/h, 2021

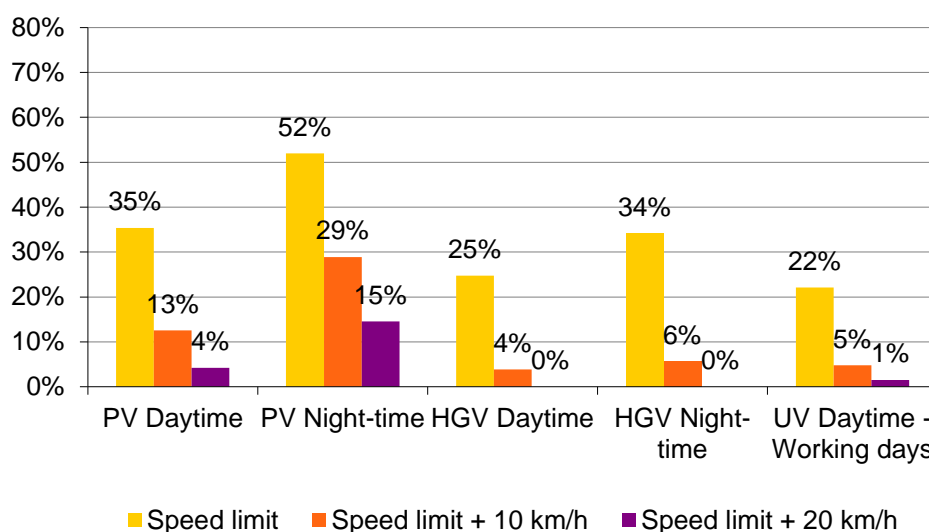


Distribution of passenger vehicles speeds, speed limit 90 km/h, 2021



Rate of exceeding the speed limit (SL) in 2021

Rate of exceeding the speed limit on 2 or 3 lane roads outside urban areas



*Figures from the speed limit 80 and 90 networks, with application of the method described on page 16

Rate of speed limit overrun by passenger vehicles according to the speed limit applied:

	80 km/h speed limit		90 km/h speed limit	
	Daytime	Night-time	Daytime	Night-time
Exceeding speed limit	38 %	57 %	30 %	44 %
Exceeding speed limit + 10 km/h	15 %	32 %	9 %	24 %
Exceeding speed limit + 20 km/h	5 %	16 %	3 %	12 %

Exceeding the speed limit by motorist users remains more frequent when the speed limit is 80 km/h.

According to the speed limit applied to passenger vehicles, the proportion of vehicles observed whose operating speed is within the range ...

	SL 80km/h				SL 90km/h			
	Passenger vehicles		HGV		Passenger vehicles		HGV*	
	Daytime	Night-time	Daytime	Night-time	Daytime	Night-time	Daytime	Night-time
80 – 90 km/h	24 %	25 %	19 %	32 %	32 %	26 %	24 %	23 %
90 – 100 km/h	10 %	16 %	3 %	7 %	21 %	20 %	5 %	4 %
100 – 110 km/h	3 %	8 %	0 %	0 %	6 %	12 %	0 %	0 %
110 – 120 km/h	1 %	4 %	0 %	0 %	2 %	6 %	0 %	0 %
> 120 km/h	0 %	4 %	0 %	0 %	1 %	5 %	0 %	0 %

*For heavy goods vehicles, the speed limit remains at 80 km/h regardless of the network.

6. Roads crossing small towns (50 km/h speed limit)

Things to remember

- The **average speed practiced** by day passenger vehicles is up for the third consecutive year.
- The network of roads crossing small urban areas is the one with the biggest difference between the speeds practiced by passenger vehicles **at night** and those practiced **during the day**: the night average is 8.5 km/h above that of the day.
- The speeds practiced by passenger vehicles are on average **higher on weekends than on weekdays during the day, but lower at night**.
- It is on roads crossing small towns that we observe the highest rate of exceeding the speed limit by passenger vehicles at night: 7 out of 10 vehicles are above it. This rate is also very high during the day (49 %).
- The average speeds practiced **by day HGV** are stable compared to 2020.

Number of vehicles observed in 2021

Passenger vehicles		HGV	
Daytime	Night-time	Daytime	Night-time
287 923	14 086	15 941	1 988

Observations

On roads crossing small towns, the average speeds practiced by daytime passenger vehicle are up for the third consecutive year. It went from 47.8 km/h in 2018 to 51.3 km/h for the year 2021, an increase of 3.5 km/h in 3 years.

This is the network with the greatest difference in average speeds practiced by passenger vehicles between day and night (59.8 km/h at night, i.e. 8.5 km/h more than during the day). Night speeds are up sharply (+2.1 km/h) compared to last year.

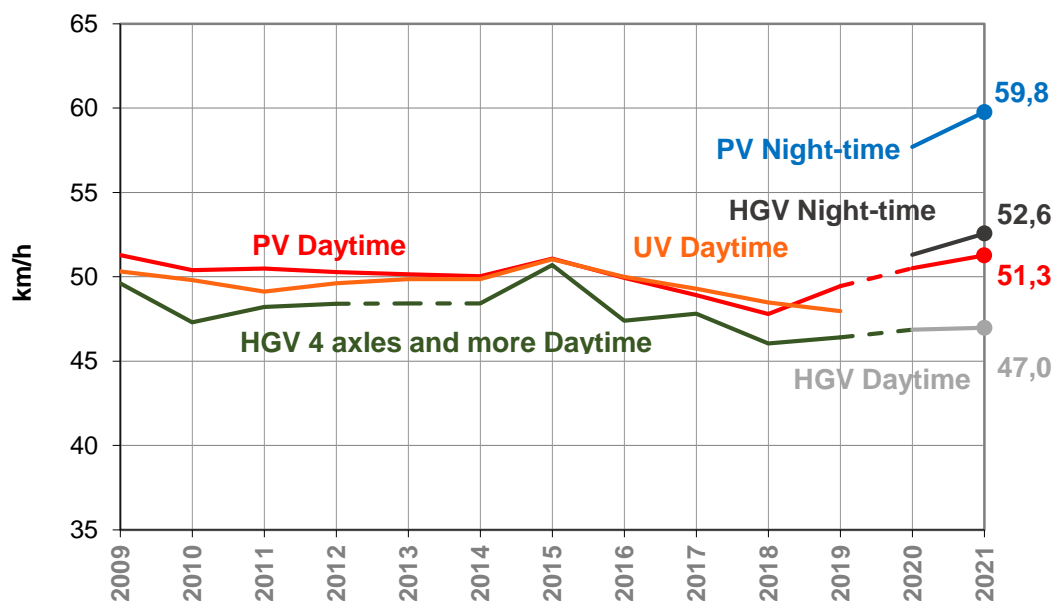
The speeds practiced by passenger vehicles are on average higher on weekends than on daytime weekdays (52.8 km/h against 50.7 km/h), but lower on weekends than on weekdays at night (58.4 km/h against 60.3 km/h).

The rates at which PV exceed the speed limit at night are very high: 7 out of 10 vehicles exceed the speed limit, and 45 % are above 60 km/h. During the day, one out of two passenger vehicles exceeds the speed limit and nearly one out of five (18 %) exceeds 60 km/h.

The speeds practiced by day HGV remain stable compared to last year (47.0 km/h compared to 46.9 in 2020). The rate at which HGV exceed the speed limit is also high, with one in two vehicles above the speed limit at night (one in four above 60 km/h) and more than one in three during the day (34 %).

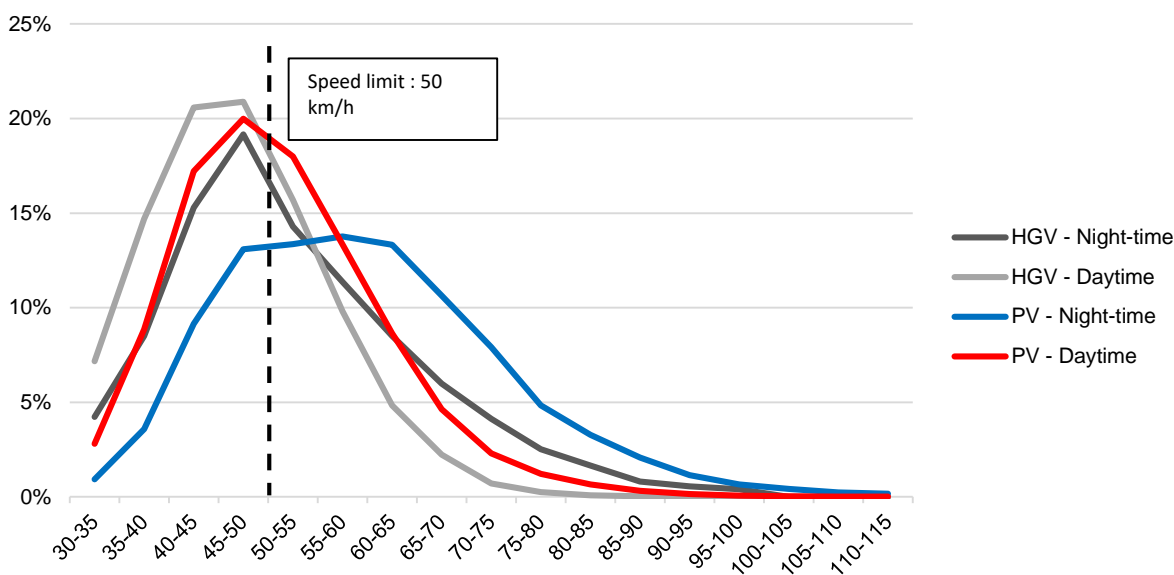
Evolution of average speeds, 2009-2021

Average speeds on roads crossing small towns (50 km/h speed limit)

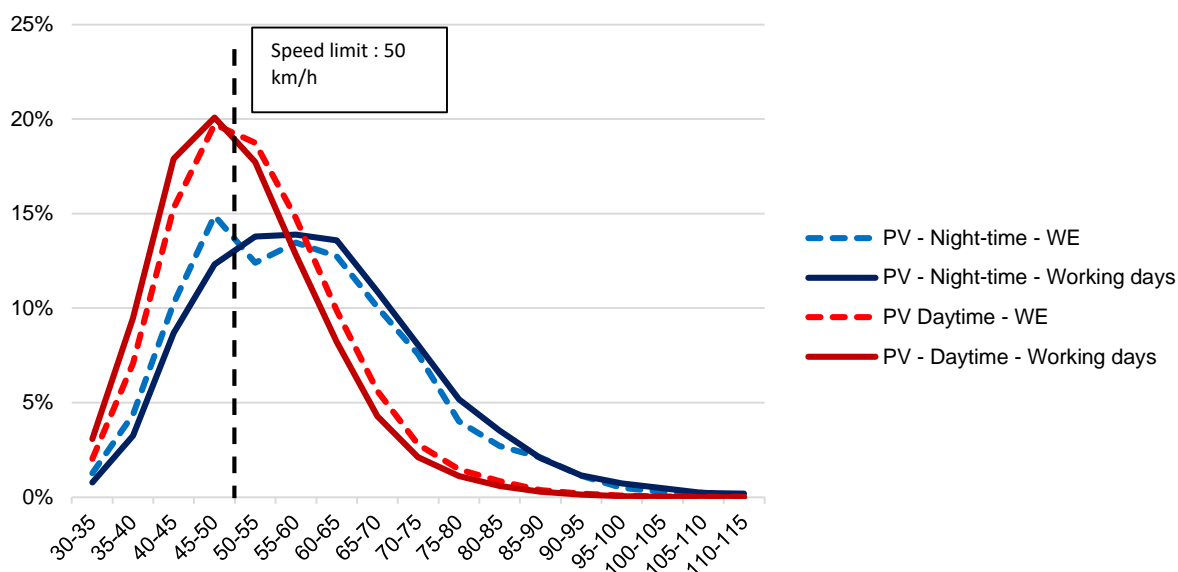


NB: No more UV speed measurements from 2020.

Distribution of passenger vehicle and HGV speeds, 2021

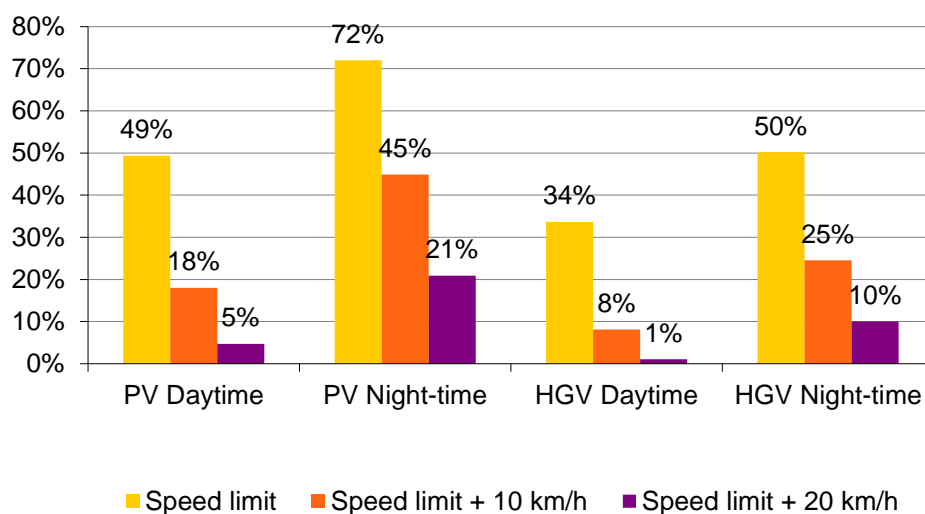


Distribution of passenger vehicle speed, 2021



Rate of exceeding the speed limit (SL) in 2021

**Rate of exceeding the speed limit
on roads crossing small towns**



7. Medium-sized town entrance and exits (50 km/h speed limit)

Things to remember

- The **average speeds practiced** by PV will see a moderate increase in 2021, day and night.
- The speeds practiced by PV are on average **higher on weekends than on weekdays during the day, but lower at night.**
- It is on the entry-exit of average agglomeration that we observe the **highest rate of exceeding the speed limit** by the daytime PV (54 %).
- The speeds practiced **by HGV** are down during the day.

Number of vehicles observed in 2021

Passenger vehicles		HGV	
Daytime	Night-time	Daytime	Night-time
214 158	8 841	5 824	269

Observations

After an upward reassessment of the average speeds practiced by passenger vehicles in 2020 following the change in methodology made, (+ approximately 5 km/h), the latter will experience a slight increase in 2021 (+ 0.5 km/h, 53.5 km/h).

The speeds of passenger vehicles at night experience a significant difference with those measured during the day. The average speed practiced at night by passenger vehicles (59.8 km/h) is 6.3 km/h above that of day.

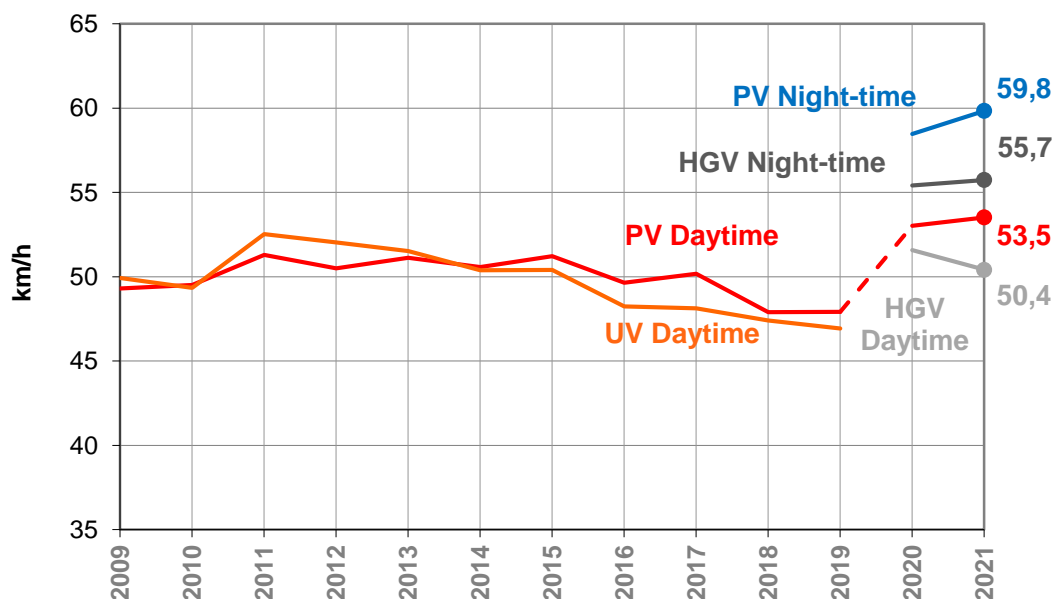
The speeds practiced by passenger vehicles are on average higher on weekends than on weekdays during the day (55.0 km/h against 53.0 km/h), but lower on weekends than on weekdays at night (58.6 km/h against 60.5 km/h).

The entry-exit roads of medium-sized urban areas constitute the network for which the rate of exceeding the speed limit by daytime passenger vehicles is the highest: 54 % of passenger vehicle travel above 50 km/h and 26% above 60 km/h. At night, exceeding the speed limit concerns 69 % of passenger vehicles and 43 % above 60 km/h.

The average speed practiced by HGV is down by 1.2 km/h in 2021 compared to 2020. As for passenger vehicles, we observe the highest rates of exceeding the speed limit on this network for HGV: 44 % exceed the daytime speed limit and 22 % above 60 km/h. At night, the numbers are too low to be statistically significant.

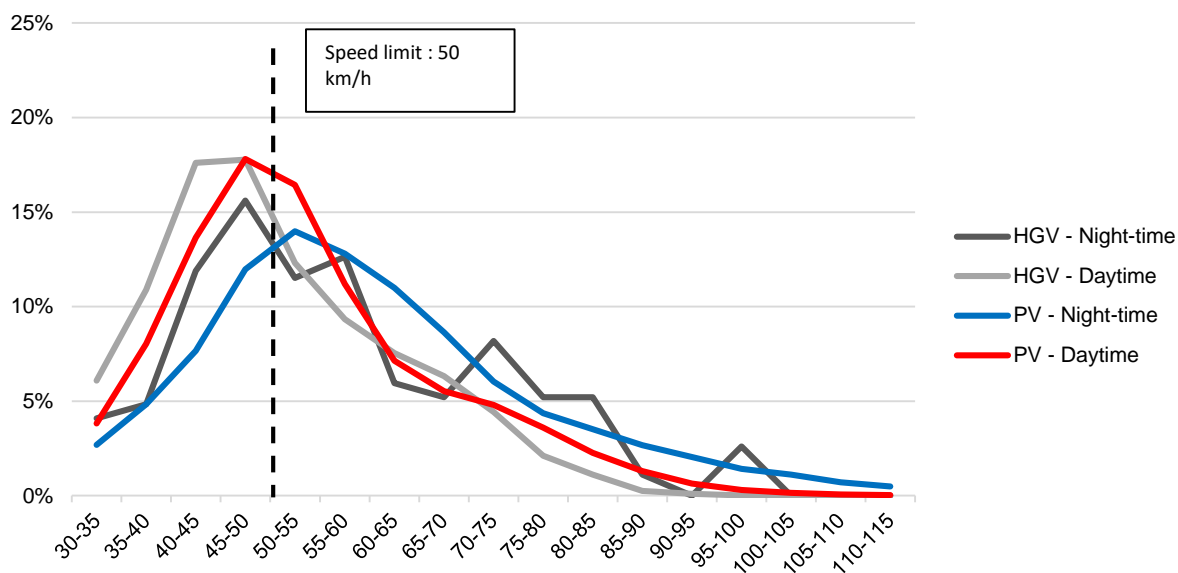
Evolution of average speeds, 2009-2021

Medium-sized town entrance-exits (50 km/h speed limit)

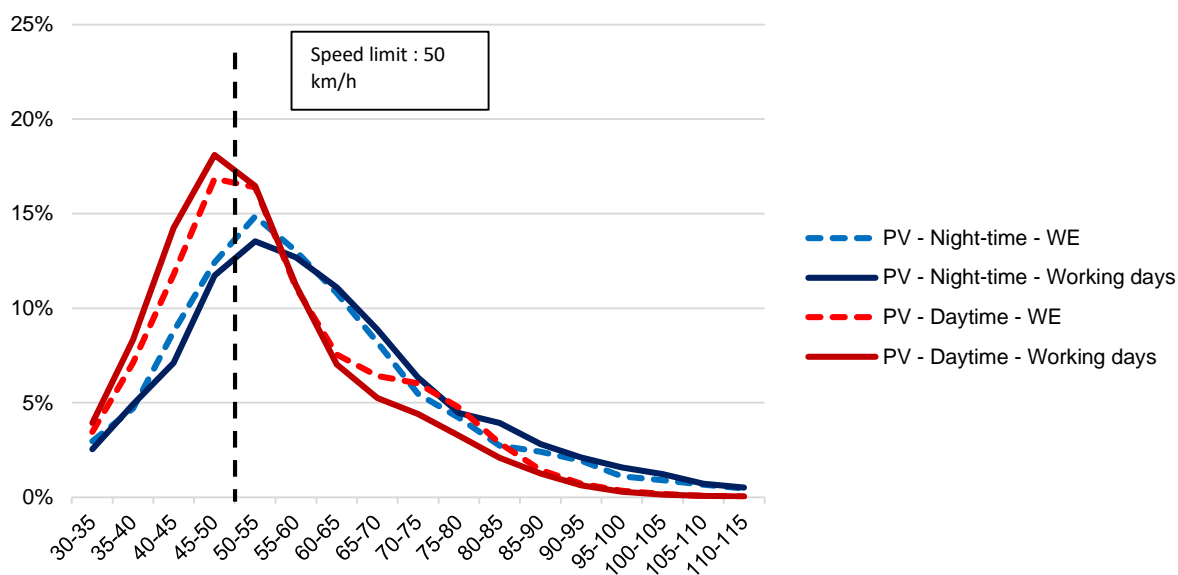


NB: No UV speed measurements from 2020.

Distribution of passenger vehicle and HGV speeds, 2021

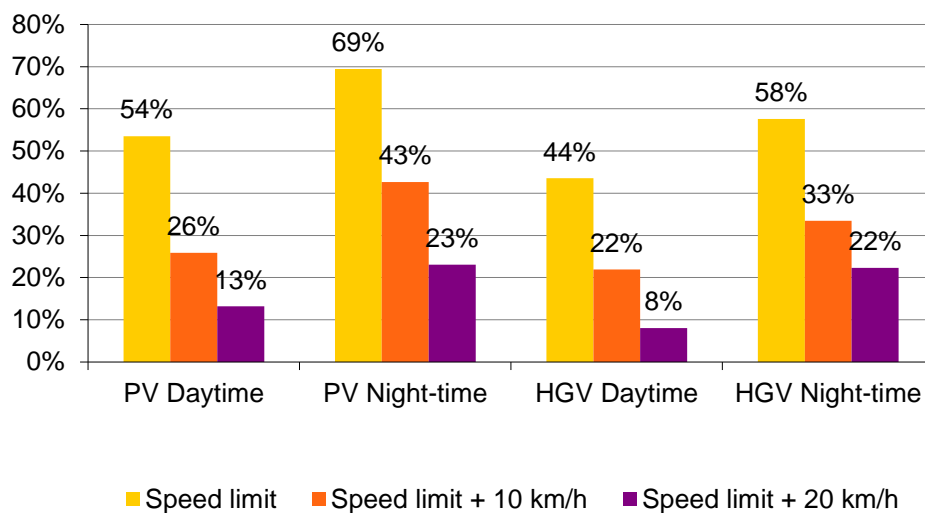


Distribution of passenger vehicle speeds, 2021



Rate of exceeding the speed limit (SL) in 2021

**Rate of exceeding the speed limit
on medium-sized town entrance-exits**



8. Arterial roads in medium-sized urban centers (50 km/h speed limit)

Things to remember

- The **average speeds practiced** by passenger vehicles (PV) are between 10 and 13 km/h below those of the other networks in urban areas.
- The speeds practiced by passenger vehicles are on average **higher at weekends than on weekdays during the day and similar at night**.
- The **rates for exceeding the speed limit** by daytime passenger vehicles are 3 to 4 times lower than for other networks in urban areas.
- The average speed practiced by day **HGV** is below 40 km/h.
- The speeds practiced **by UV** are below those of passenger vehicles.

Number of vehicles observed in 2021

Passenger vehicles		HGV		Utility vehicles Day-time Working days	PTW Day-time Working days
Daytime	Night-time	Daytime	Night-time		
212 169	11 635	5 409	205	702	115

Observations

Arteries in city-center of medium-sized urban areas make it possible to observe very different speeds to those, which are practiced on the other networks in urban areas.

The average speed practiced by daytime passenger vehicles is 41.0 km/h in 2021 (42.4 km/h in 2020), i.e. 10.3 km/h less than on roads crossing small towns, and 12.5 less than on the entry-exit of medium-sized urban areas.

At night, the average speed practiced by passenger vehicles is 7.8 km/h above (48.8 km/h). This is the second largest day-night differential observed for passenger vehicles after roads crossing small urban areas.

The speeds practiced by passenger vehicles are on average higher on weekends than on weekdays during the day (41.5 km/h against 40.8 km/h), but are similar on weekends and weekdays at night (48.7 km/h and 48.8 km/h).

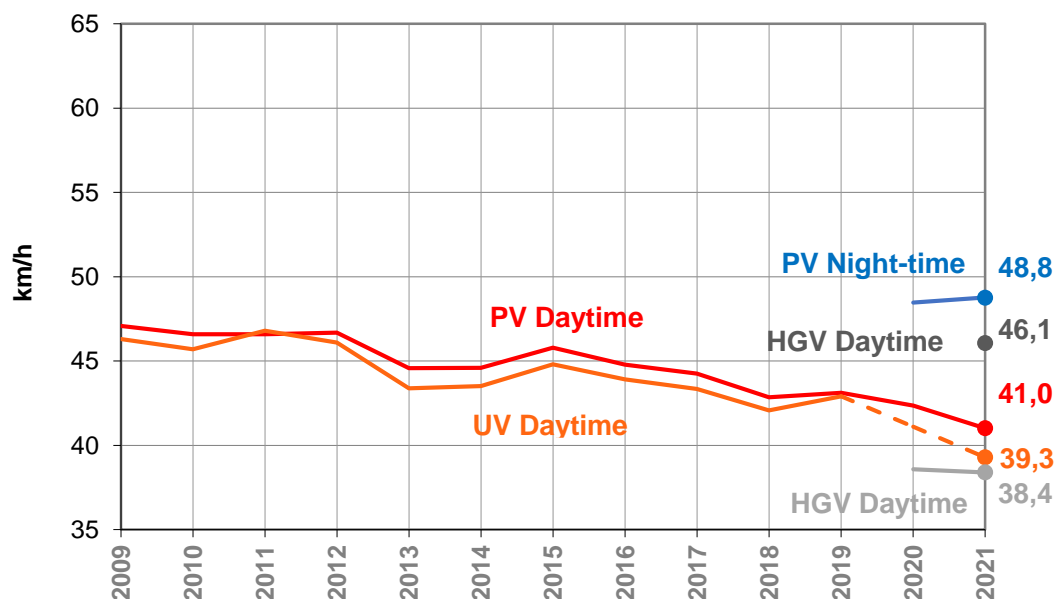
Like the average speeds, the overrun rates observed on this network are lower than for the other networks limited to 50 km/h: 15 % of passenger vehicles exceed the speed limit during the day, i.e. three to four times less than for the other networks in urban areas. At night, 39 % of passenger vehicles are exceeding the speed limit.

The speeds practiced by day HGV are particularly low: 38.4 km/h on average (- 0.2 km/h compared to 2020) and a rate of exceeding the speed limit of 10 %. At night, the average speed is 46.1 km/h.

The speeds practiced by daytime UV, and on working days, observed for the first time since 2019, are 1.5 km/h lower than those practiced by passenger vehicles over the same periods.

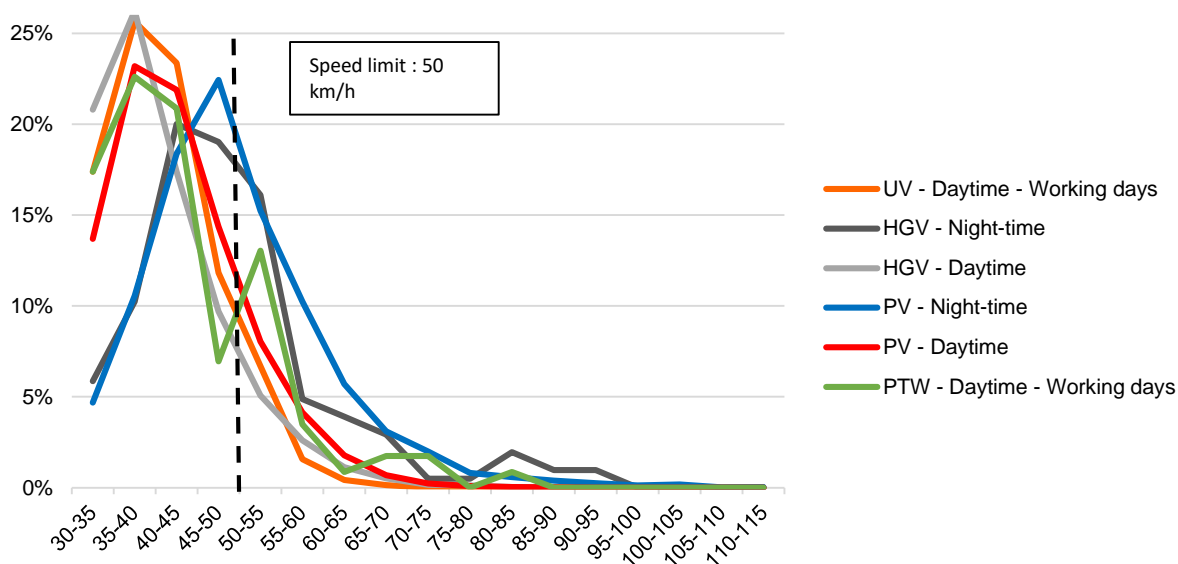
Evolution of average speeds, 2009-2021

Average speeds on arterial roads in medium-sized urban centers (50 km/h speed limit)

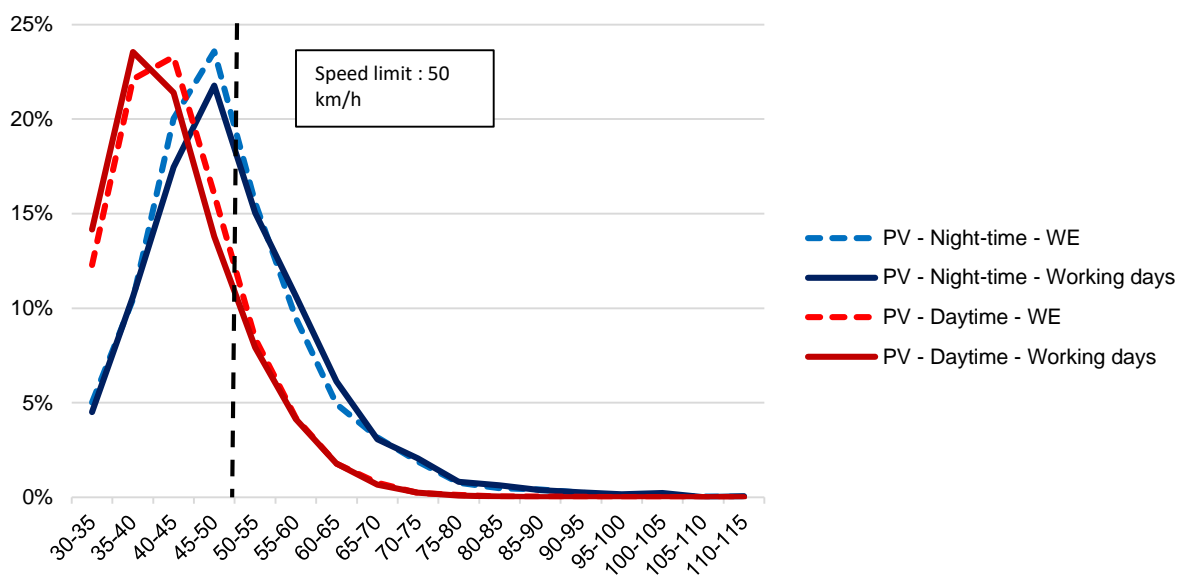


NB: no UV speed measurements in 2020, working days only from 2021.

Distribution of passenger vehicle and HGV speeds, 2021

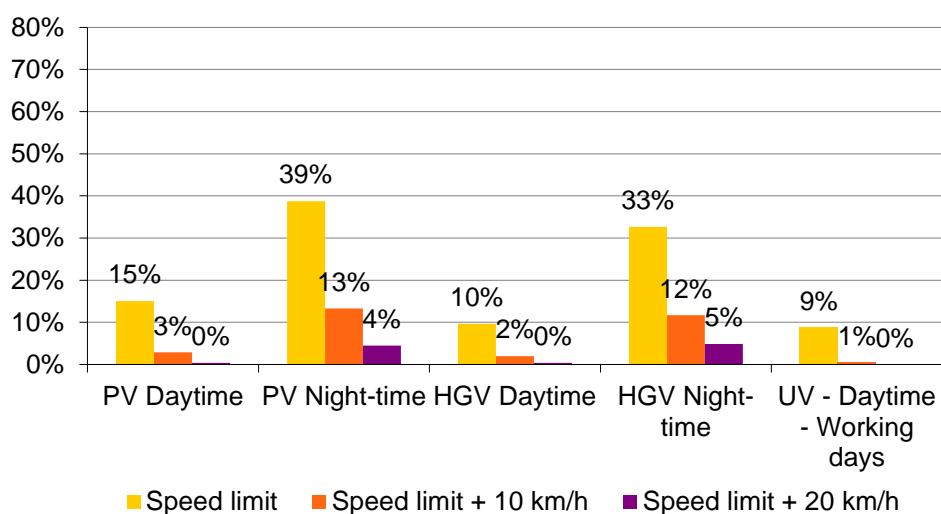


Distribution of passenger vehicle speeds, 2021



Rate of exceeding the speed limit (SL) in 2021

Rate of exceeding the speed limit on medium-sized urban centers



Appendix 1: Number of vehicles observed

The following tables present the number of vehicles observed in 2020 by type of network and by category of vehicle. For a given type of network, only the summary results of the categories of vehicles whose number is at least 200 are published. The shaded cells of the tables correspond to numbers below this threshold or to categories not observed for the year in question.

Day measures

Types of networks	PV	HGV	UV	PTW
Rural motorways	678 335	96 101	1 250	166
Urban motorways	794 653	121 586	910	259
Dual carriageways outside urban areas	546 149	98 151	480	71
2 or 3-lane roads outside urban areas	1 005 828	58 737	1 181	89
Roads crossing small towns	287 923	15 941	---	---
Medium-sized town entrances and exits	214 158	5 824	---	---
Arterial roads in medium-sized urban centers	212 169	5 409	702	115

PV: Passenger vehicles

UV: Utility vehicles (under 3.5 t)

HGV: Heavy goods vehicles

PTW: Powered two-wheelers

Night measures

Types of networks	PV	HGV	UV	PTW
Rural motorways	88 108	36 910	---	---
Urban motorways	155 420	41 562	---	---
Dual carriageways outside urban areas	47 036	25 695	---	---
2 or 3-lane roads outside urban areas	46 726	7 962	---	---
Roads crossing small towns	14 086	1 988	---	---
Medium-sized town entrances and exits	8 841	269	---	---
Arterial roads in medium-sized urban centers	11 635	205	---	---

NB: No UV and PTW speed measurements in 2021

Appendix 2: Methodology of the speed observatory

Since the 1980s, ONISR has had a service provider carry out speed measurements and observations of road user behaviour at a set of observation points on the metropolitan road network.

For technical reasons, this system was interrupted between 2013 and 2015. During this period, speed measurements were carried out by Cerema (Centre for studies and expertise on risks, the environment, mobility and development) on a sample of points representative of the panel of the observatory. A new market was launched in 2016 after a substantial change in the panel of observation points as well as more minor changes in the methodology. Since 2020, the observatory's methodology has changed, as has the number of measurement points, going from 215 to 135 for a much larger workforce.

This appendix successively presents:

- The methodology currently followed for speed measurements,
- The methodology in force between 2016 and 2019,
- Changes made up to 2012,
- The approach implemented over the 2013-2015 period.

It then sets out the principles used to reconstitute a history of results over the period 2009-2015, expressed according to principles authorizing their comparison with the results for the years 2016 to 2019.

a) Current methodology (since 2020)

The panel of measurement points

The panel includes 135 automated day and night measurement points (passenger vehicle and HGV measurements) and 48 trackside measurement points (PTW and UV measurements) during the day and only on working days. The following table details its composition by type of network.

Types of networks	Speed limit (km/h)	Number of points	
		Automated collection (passenger vehicle, HGV)	Wayside measurements (PTW, UV)
Rural motorways	130	24	16
Urban motorways	110	12	8
Dual carriageways outside urban areas	110	18	4
2 or 3-lane roads outside urban areas	80*	50	10
Roads crossing small towns	50	12	---
Medium-sized town entrances and exits	50	9	---
Arterial roads in medium-sized urban centers	50	10	10
TOTAL		135	48

* 90 km/h on the departments having chosen to raise the speed limit on certain axes. The number of vehicles concerned is displayed in part 5.

The measurement points are grouped together in around thirty departments spread over the metropolitan territory.

Requirements for measuring points

The speeds practiced must be representative, that is to say not constrained by a singular element in terms of geometry or speed limit. Thus, the measurement points must be located on straight, flat roads, without traffic disruption, and away outside urban areas by more than one kilometer from any singular element such as crossroads, traffic lights, modification of the speed limit, etc. In urban areas, this distance reduced to a few hundred meters.

The points must also be away from any automatic radar, at least five kilometers outside urban areas and 300 meters in urban areas.

Finally, the points must not be located in a dynamic speed regulation zone, where the speed limit is likely to vary constantly.

The service provider checks regularly (once or twice a year, as the case may be) that these requirements are being complied with for all the measurement points. Points reported as non-compliant are replaced as soon as possible.

Planning of measures, duration, periodicity

Two measurement campaigns are carried out each year, each covering four months. Observations are distributed to spread evenly over the four months.

Two types of measurements are carried out depending on the type of vehicle: automated collection for passenger vehicles and HGV, and measurements taken by trackside investigators for PTW and UV.

- Measurements in automated collection:

The service provider deposits the automated collection equipment on a support present at the edge of the track. The equipment remains at least 7 full days on site, day and night. The measurements taken between 9:30 a.m. and 4:30 p.m. are used for the "day" period the "night" period extends from 11 p.m. to 5 a.m.

- Wayside measurements:

The measurements take place on working days, between 9:30 a.m. and 4:30 p.m., therefore outside peak hours. The duration of the measurements is limited to 2 hours on site or 25 PTW and 50 UV readings.

Measurement methods

- Measurements in automated collection:

The measurements are carried out by radar counters installed on supports present by the service provider's teams on the side of the track.

Will be counted as PV all vehicles whose length is greater than or equal to 2 meters and strictly less than 6m. HGV are vehicles whose length is strictly greater than 9 meters.

The specifications stipulate that the measurements must be taken out of restricted traffic: we are interested in the so-called free speed that is to say that adopted by the driver in free-flowing traffic without interference or circumstantial constraints. During the analysis and filtering of the data, all 30-minute periods whose average speeds are considered too low with regard to the total sample are therefore deleted.

- Wayside measurements:

Measurements on motorways (connection or bypass) are carried out away from a bridge overhanging the traffic lanes. Measurements on other roads (including 2x2 lane roads) are taken on approach by a speedometer placed at the edge of the roadway.

The measures must be postponed if the traffic conditions appear modified or disrupted (construction site, congestion, extreme weather conditions, etc.). On the other hand, the measurements can take place in the rain if it does not present an unusual intensity.

Results, operations, publication

The results are provided by the service provider separately by type of network and for each of the following categories of vehicles: passenger vehicles, heavy goods vehicles, others for automated collection, and utility vehicles and powered two-wheelers for roadside collection. In particular, the number of vehicles observed, their average speed and the distribution of speeds in 5 km/h increments are available point by point.

The rates of exceeding the speed limit (SL) or a higher speed threshold are calculated directly from the distribution of speeds and do not take into account a possible lowering of the speed limit in the presence of bad weather.

Results based on a workforce of less than 200 vehicles are considered insignificant and are not published.

b) Methodology in effect between 2016 and 2019

The panel of measurement points

The panel is composed of 215 measurement points, 79 of which are also subject to night-time measurements. The following table details its composition by type of network.

Types of networks	Speed limit (km/h)	Number of points	
		Day measures	Night measures
Rural motorways	130	42	14
Urban motorways	110	24	14
Dual carriageways outside urban areas	110	36	---
2 or 3-lane roads outside urban areas	80*	50	20
Roads crossing small towns	50	25	12
Medium-sized town entrances and exits	50	15	9
Arterial roads in medium-sized urban centers	50	23	10
TOTAL		215	79

* 80 km/h as of July 1, 2018, except for passing lanes on 3-lane sections.

The measurement points outside the motorways are grouped in about twenty departments spread over the mainland territory. The points on motorways can be located in about fifteen additional departments.

Requirements for measuring points

The speeds must be representative, i.e. not constrained by a singular element in terms of geometry or speed limit. Thus, the measurement points must be located on straight, flat roads, without traffic disturbance, and at a distance of more than one kilometer from any singular element such as crossroads, traffic lights, modification of the speed limit, etc. In built-up areas, this distance is reduced to a few hundred meters.

The points must also be at least five kilometers away from any automatic radar, outside built-up areas and 300 meters away in urban areas.

Finally, the points must not be located in a dynamic speed control zone, where the speed limit is likely to vary permanently.

The service provider will check regularly (once or twice a year, depending on the case) that all the measurement points comply with these requirements. Points reported as non-compliant are replaced as soon as possible.

Measurement planning, duration, periodicity

Measurements are made on all types of days (working days and weekends), between 9:30 am and 4:30 pm for daytime measurements and between 10 pm and 3 am for nighttime measurements, thus outside peak hours.

The duration of the measurements is 20 minutes per lane on motorways (rural and urban) as well as dual carriageways outside urban areas, and 30 minutes (simultaneously on all lanes of the observed direction, whatever their number) on the other types of networks.

Two measurement campaigns are carried out each year, each covering four months. The sampling plan requires the investigators to return, according to the defined frequency, to the same measurement point on the same day of the week, and in the same time slot (according to a division into three time slots for the day and two time slots for the night). The observations are distributed in such a way as to spread evenly over the four months, to cover all days and all time slots. The total number of "speed" observations is thus about 95,000 per year.

Measurement methods

Measurements on freeways (link or alternate) are carried out at a distance from a bridge overhanging the traffic lanes. Measurements on other roads (including dual carriageways) are performed in approach by a kinemometer placed on the edge of the road.

The specifications stipulate that the measurements must be carried out without constrained traffic: we are interested in the so-called free speed, i.e. the speed adopted by the driver under fluid traffic without interference or constraints of circumstances. The measurements must be postponed if the traffic conditions appear modified or disturbed (construction site, congestion, extreme weather conditions, etc.). On the other hand, measurements can be taken in rain if it is not unusually intense.

Results, analysis, publication

The results are provided by the provider separately by type of network and for each of the following vehicle categories: passenger vehicles, light commercial vehicles, heavy goods vehicles (2 axles, 3 axles, 4 axles and more), public transport (buses and coaches), motorized two-wheelers, others. In particular, the number of vehicles observed, their average speed and the distribution of speeds in 5 km/h increments are available point by point.

The rates of exceeding the speed limit or a higher speed limit are calculated directly from the speed distribution and do not take into account a possible lowering of the speed limit in the presence of bad weather.

Results based on less than 200 vehicles are considered insignificant and are not published. This is particularly the case for:

- PTW (for all types of networks),
- 2-axle HGVs on 2- or 3-lane roads and networks in built-up areas,
- 3-axle HGVs on non-motorway networks,
- as well as HGVs with 4 or more axles on networks in built-up areas.

For night speeds, the average speed observed per type of network is compared to the daytime average on the same panel of points, in order to avoid selection bias.

c) Changes made until 2012

The methodology applied until 2012 was very similar to the approach taken between 2016 and 2019. The main change was in the number of measurement points and their selection.

The panel in use until 2008 included 285 measurement points, 80 of which were also subject to night-time measurements. It has been slightly reduced during the 2009-2012 contract due to works on some sites. The following table details the composition of the panel at the end of 2012.

Types of networks	Speed limit (km/h)	Number of points	
		Day measures	Night measures
Rural motorways	130	42	14
Urban motorways	110	24	10
Dual carriageways outside urban areas	110	25	---
2 or 3 lane national roads	90	49	19
Departmental roads with high traffic volume	90	49	---
National roads inside urban areas < 5000 inhab.	50	49	12
Medium-sized town entrances and exits	50	17	10
Arterial roads in medium-sized urban centers	50	23	10
TOTAL		278	75

The notions of "national road" and "departmental road" used for the typology of networks corresponded to the situation before the transfer of the road network to the departments in 2006. As this distinction is no longer relevant, the two types of networks "2 or 3 lane national roads" and "Departmental roads with high traffic volume" have been grouped into a single type comprising 50 measurement points. In addition, the number of measurement points has been reduced for roads crossing small towns and increased for dual carriageways outside urban areas.

The 2012 panel of speed measurement points has been completely reconsidered. 42 low traffic points (less than 30 passenger cars observed per shift in 2012) were eliminated. The other points were subjected to an exhaustive review in order to verify their compliance with the requirements aimed at ensuring the representativeness of the observations. 107 points of the 2012 panel were found to be non-compliant, mainly due to a change in the speed limit, the installation of an automatic radar in the vicinity, or a change in the geometry of the road. Replacement points were sought in order to obtain the required number. In the end, the panel of 215 points defined in early 2016 included 133 points in common with the 2012 panel (or 62%) and 82 new points (or 38%).

Other elements of the methodology had only minor changes:

- the requirements applicable to the measurement points have been completed by the absence of dynamic speed control zones, a device under development on motorways and urban expressways; this condition led to the elimination of several points from the previous panel;
- compliance with these requirements is now checked regularly;
- the number of measurement campaigns has been reduced from three to two per year;
- the observations no longer distinguish between registered and unregistered motorcycles, since registration is now compulsory for mopeds;
- the rate of overtaking the speed limit, calculated by the service provider, included the lowering of the speed limit in the presence of bad weather (110 km/h instead of 130, 100 km/h instead of 110, 80 km/h instead of 90); as this practice made it more difficult to interpret the evolution of the rate of overtaking over time, it was considered preferable to abandon it and to base the rate only on the speed limit applicable in bad weather

d) Approach implemented over the 2013-2015 period

The methodology followed by Cerema for the 2013-2015 measurements is very close to the previous and current modalities. Only the variations introduced in the approach are presented below.

The sample of measurement points

A sample of 58 points representative of the previous panel was selected. It is described in the following table.

Types of networks	Speed limit (km/h)	Number of points 2012 panel	Number of points Sample Cerema	Coverage rate
Rural motorways	130	42	14	33 %
Urban motorways Dual carriageways outside urban areas	110	49	14	29 %
2 or 3 lane national roads Departmental roads with high traffic volume	90	98	14	14 %
National roads inside urban areas < 5000 inhab Medium-sized town entrances and exits Arterial roads in medium-sized urban centers	50	89	16	18 %
TOTAL		278	58	21 %

Measurement planning, duration, periodicity

The measurements took place only during the day, and only on working days. The time slot was identical (9:30-16:30), as well as the duration of the measurements (20 minutes per lane on motorways and 30 minutes per direction on the other types of networks).

Only one measurement campaign was carried out in 2013, in October-November. In 2014 and 2015 three measurement campaigns were carried out respectively in March-April, June and September-October. Measurements were also made in March-April and June 2016, to feed the historical reconstruction process (see below).

The total number of "speed" observations was about 16,600 in 2013, 45,000 in 2014, and 46,600 in 2015. Therefore, caution should be exercised regarding the interpretation of trends observed in 2013.

Measurement methods

The procedure of the measurements is strictly identical to the current methodology. On the other hand, the measurements were preferably carried out in dry weather, whereas the general methodology only excludes extreme weather conditions. In practice:

- in 2014, out of the 163 measurement sessions performed, only 2 took place in rain and 2 others without rain but with wet pavement ;
- in 2015, out of 169 measurement sessions, none took place under rainy conditions and only one took place with wet pavement.

Results, analysis, publication

The observations were grouped according to less detailed vehicle categories than in the general methodology: light vehicles (including passenger vehicles and light commercial vehicles), heavy vehicles (without distinction of the number of axles) and PTW.

Because of the smaller number of measurement points, the results were published according to a network typology based solely on speed limit (130, 110, 90 and 50 km/h), instead of the 8 types of networks considered previously. Only the results based on a sufficient number of people were published.

e) Reconstruction of a 2009-2015 history

The speeds measured by the observatory **do not claim to be absolutely representative** of traffic on the entire French road network. On the other hand, it is considered that their evolution over time is representative of the general evolution of behaviors, in other words that these observations have a **relative representativeness**, under the condition of a panel of measurement points stable over time.

In fact, in order to meet the objective of absolute representativeness, it is necessary to identify all the characteristics likely to influence the value of each variable observed, and then to define the sample of points and collection periods in such a way that it is representative of the entire network with respect to each of these characteristics.

With respect to speed, there are countless characteristics that can be influenced. These include, but are not limited to

- vehicle category;
- the type of network;
- the speed limit;
- the possible proximity of an automatic radar;
- the geometry of the infrastructure: longitudinal profile (horizontal road, uphill, downhill, according to the longitudinal slope), plan (curves), cross-section (width of the lanes, existence of a paved shoulder, etc.);
- the nature and condition of the pavement;
- Vehicle flow, and the specific flow of heavy vehicles (which can slow down other vehicles on fast networks);
- weather conditions;
- geographic area (is there "cultural" variability between different regions of the country?);
- the type of day (working day or weekend, the reason for travel may be different);
- the nature of the trip (short or long distance, habitual or not, etc.).

For many of these factors, our knowledge of the road network is not sufficiently detailed: how the road network is divided up by lane width? And even if all of this were known throughout the country, aiming for a representative panel with respect to the variability of all these factors would require a number of collection points that would be out of proportion with the means available.

Thus, the general principle underlying the speed observatory is that its results are only representative of the panel of points and the conditions (days, time slots, etc.) under which the measurements were taken. On the other hand, the stability of the panel, its volume and the stability of the measurement conditions **make it possible to reasonably consider that the variation in speeds observed on the panel of points is representative of the general evolution of behaviors on the scale of the territory**, as long as the measurement points are distributed over the territory, that the observations are distributed between the different types of days and that the results are expressed by type of network and by category of vehicle.

A slight potential bias remains due to weather conditions. For obvious reasons of planning the surveyors' rounds, it is not possible to impose data collection under uniform weather conditions; only extreme conditions can lead to postponing the observations, in other cases the weather conditions are simply recorded for use in evaluating the results. Two options are then possible:

- to calculate the average speeds only on the points of the sample measured in the absence of bad weather; the sites constituting the basis of comparison would then be different from one campaign of measurements to another, which would call into question the stability of the panel; it would be moreover difficult to appreciate the share of this factor in the observed evolutions;
- to keep the calculation of the average speeds on the whole of the observed points, and to take into account the share of the observations under bad weather during the interpretation of the observed evolutions; it is this second option which was retained, considering that the high number of points of measurement and the holding of the surveys at the same periods of the year make it possible to mitigate this disadvantage.

In conclusion, the results of the speed observatory are intrinsically linked to the panel of measurement points that feed it. A substantial modification of the panel, such as that made at

the beginning of 2016, requires transcribing the previous results to express them according to principles allowing their comparison with the results of the years 2016 and later. The general principles of this approach are presented below.

General Considerations for historical reconstruction

How can we relate observations made on two different panels at different periods? We assume that the difference between these two observations is the sum of two independent differences: the difference linked to the change of panel and the difference linked to the change of period; in other words, we assume that a temporal evolution observed on a given panel would be observed identically on another panel as long as these panels are both considered to be generally representative. This is the hypothesis on which our speed observatory is based.

To reconstruct a history following a change of panel, it is then necessary to dissociate the difference linked to the change of panel from that linked to the change of period, in order to then apply the first as a correction to the temporal evolution of the results obtained from the old panel. Such a dissociation is possible if we have a set of observations where one of these two differences is neutralized:

- 1) either observations made simultaneously on the two panels: in this case, the difference linked to the change of panel is obtained directly by comparison;
- 2) or observations made at different periods on the same subset of points, included in both the first and the second panel considered: the difference linked to the change of period observed on this subset being considered independent of the composition of the subset, it also applies to the two panels considered, and the difference linked to the change of panel is obtained by subtraction.

The second approach assumes, however, that the subset is sufficiently large to be considered as generally representative (which is only an approximation, since otherwise it would be useless to use larger panels).

To date, only the average daytime speeds have been reconstructed. The reconstitution of speed distributions, which also allow to estimate the rates of exceeding the speed limit, is more delicate because it depends not only on the average of the observations but also on their dispersion. This question is still under study. As for the night measurements (carried out until 2012), their much smaller statistical base does not allow for a similar approach

Reconstitution of a history of average speeds 2013-2015

As an extension of its previous measurement campaigns, Cerema conducted in 2016 two measurement campaigns on the same sample of 58 points. We therefore have for the year 2016 a set of simultaneous measurements on the Cerema sample and on the 2016 panel, which allows to apply the first of the two approaches mentioned above.

However, the results of the Cerema measurements, due to their smaller size, are used in a more aggregated way:

- the points are grouped by speed limit (4 groups) and not in 7 types of network,
- vehicles are grouped into three categories: light vehicles (including passenger vehicles and light commercial vehicles), heavy vehicles (including the three categories now in force) and motorized two-wheelers.

The difference between the average speeds observed on the two panels, in other words the effect of the change of panel, is therefore only available for these groupings. Applied to the values measured at the time, it allows us to reconstruct average speeds for each of the years 2013 to 2015 and for each of the groupings of network types and vehicle categories.

In order to reconstruct average speeds based on the more detailed decomposition of networks and vehicles now in use, we adopt an additional assumption about how the average speeds of the detailed categories (e.g., passenger cars and LGVs) distribute around the average speed of their grouping (in this example, LVs). We calculate on the results of the 2016 panel observations the difference between the average speeds of each detailed category and the grouping category, as well as the proportion of vehicles in each detailed category. The same

calculation is performed on the 2012 results, giving generally close values, Finally we estimate the value of these deviations and proportions for the years 2013 to 2015 by assuming that these quantities evolve linearly between 2012 and 2016, which allows us to obtain an average speed for each type of network and category of vehicle according to the detailed classification.

For the year 2013, only passenger cars and LGV were reconstituted, because of the too small number of heavy vehicles measured during the single Cerema campaign.

Reconstitution of an history of average speeds 2009-2012

We do not have measurements simultaneously on the 2012 panel and on another panel; the first approach mentioned above is therefore not possible. On the other hand, the existence of 133 common measurement points between the two panels 2012 and 2016 allows to apply the second approach.

The approach adopted therefore consists of calculating the average speed by type of network and category of vehicle in 2016 on the subset of 133 common points, and then for each of the years to be reconstructed. The difference between the average speed of a given year and that of 2016 is considered as representative of the temporal evolution of the "type of network, category of vehicles" segment considered. This evolution is then subtracted from the general 2016 result (obtained on the whole panel) to obtain a reconstituted value of the average speed of the year in question.

This approach requires the use of detailed results (by measurement point) of the observations, which are only available from the year 2009 onwards; this is why the reconstitution has only covered the period 2009-2012. In any case, it is to be feared that the relevance of the hypotheses underlying the reconstruction approach will diminish as we go back in time.

Appendix 3: Speed limit for heavy goods vehicles

Article R413-8 of the Highway Code:

The speed of vehicles with a total authorized weight in charge of more than 3.5 tons or sets of vehicles with a total authorized rolling weight of more than 3.5 tons, except for public transport vehicles, is limited to:

1° 90 km/h on motorways ;

2° 80 km/h on roads with priority status and marked as such. However, this maximum speed is raised to 90 km/h for vehicles whose total weight is less than or equal to 12 tons on dual carriageways separated by a central reservation;

3° 80 km/h on other roads. However, this maximum speed is lowered to 60 km/h for articulated vehicles or vehicles with trailers whose total weight is greater than 12 tons.

4° 50 km/h in built-up areas. However, this maximum speed is raised to 70 km/h on the Paris ring road.

NB: Article R413-9 sets lower maximum speeds for vehicles transporting hazardous materials.