



# Final evaluation of 80 km/h speed limit on single carriageway roads outside built-up areas

based on estimated ONISR 2020 data  
(dated 25/06/2020)

**French Road Safety  
Observatory**

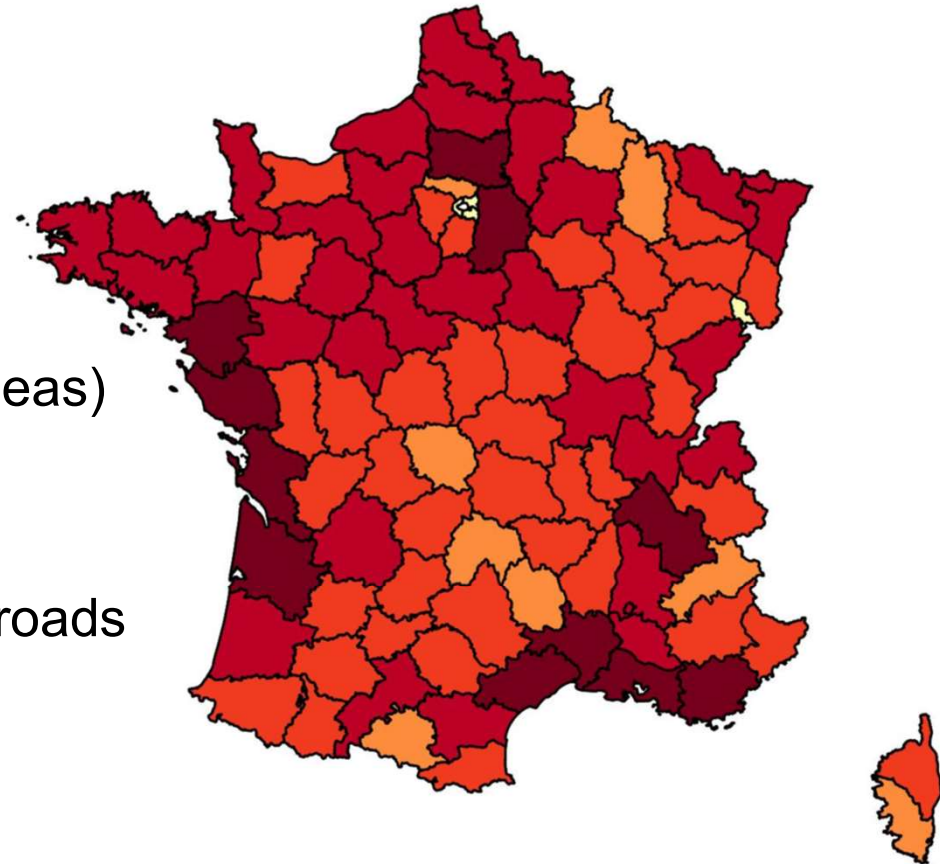


**The main fatality indicators for 2019 and  
before have been certified by the French  
Authority for Public Statistics**

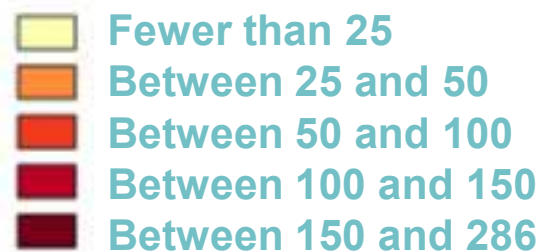
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## France at a glance

- Population : 66 million inhabitants
- Area : 600.000 km<sup>2</sup>
- Exposure : 606 billion veh.km
- **2019** : 3 500 RT fatalities (incl overseas)
- 80% population live in urban areas
- 63% RT fatalities on non-motorway roads outside built-up areas



### Fatalities on the rural network over 5 years (2012-2016)



## Road fatalities on non motorway roads outside urban areas,

- 2 188 fatalities in France mainland
- 1 546 fatalities in Italy
- 1 163 fatalities in Germany
- 1 096 fatalities in the United Kingdom
- 964 fatalities in Spain

*Source : IRTAD, 2016 data for non motorway roads outside urban areas*

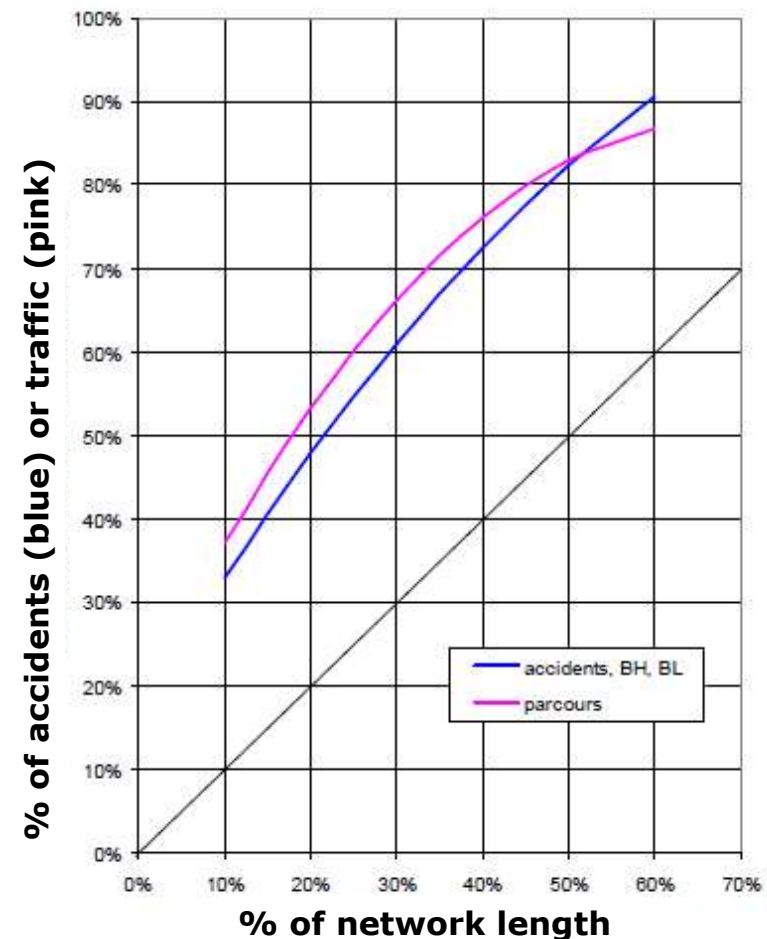
The most serious accidents occur first on the primary network,  
as this is where most of the traffic is

When the main network  
represents :

- 10% of RN+RD network length, it registers 38% of the fatalities
- 20% of RN+RD network length, it registers 55% of the fatalities
- 30% of RN+RD network network length, it registers 64% of the fatalities

Cerema 2015-2017 study :

Traffic and accident shares of the main  
county roads (RD)



- **President François Hollande : May 2012-May 2017**

- **November 2012 : 2020 target to reduce fatalities by 50% (Minister of Interior)**
- **November 2013** : Expert committee of National road safety council advises key measures to meet the target : 300 to 400 lives could be saved each year by reducing the speed limit from 90 to 80 km/h on single carriageways outside built-up areas
- **June 2014** : National road safety council advises government to experiment a reduced speed limit of 80km/h on rural network
- **July 2015 to July 2017** : experiment on 80km of trunk road network (RN)

- **President Emmanuel Macron : May 2017-May 2022**

- **December 2017** : Prime Minister says in the media that from his personal perspective we should decrease the speed limit to 80 km/h
- **9 January 2018** : Interministerial committee chaired by Prime Minister Edouard Philippe announces 18 new measures.
- **1<sup>st</sup> July 2018** : speed limit change to 80 km/h on single carriageway roads outside built-up areas
- **24 December 2019** : the Act on Organising Mobility(Loi d'Orientation des Mobilités) authorises local authorities to raise the speed limit to 90km/h on certain routes.

## Monitoring key performance indicators for the speed limit reduction to 80 km/h

Cerema task force was organised the following way :

- A « coordination » task led by Marine Millot (*Cerema Méditerranée*) and Emilie Jeannesson-Mange (*Cerema Transport infrastructures and Materials*) ;
- 4 specific topics:
  - « Speed monitoring» led by  
Eric Violette et Cyrille Le Lez (Cerema Normandie-Centre) ;
  - « Accident analysis» led by  
Gilles Duchamp et Nathalie Mompert (Cerema Sud-Ouest) ;
  - « Cultural changes» led by Chloé Eyssartier (Cerema Ouest) ;
  - « Societal effects» led by  
Valérie Buttignol, Olivier Troullioud et Jean-Romain Raffegeau  
(Cerema Méditerranée).

## Road traffic accidents – 2018 and 2019- France mainland

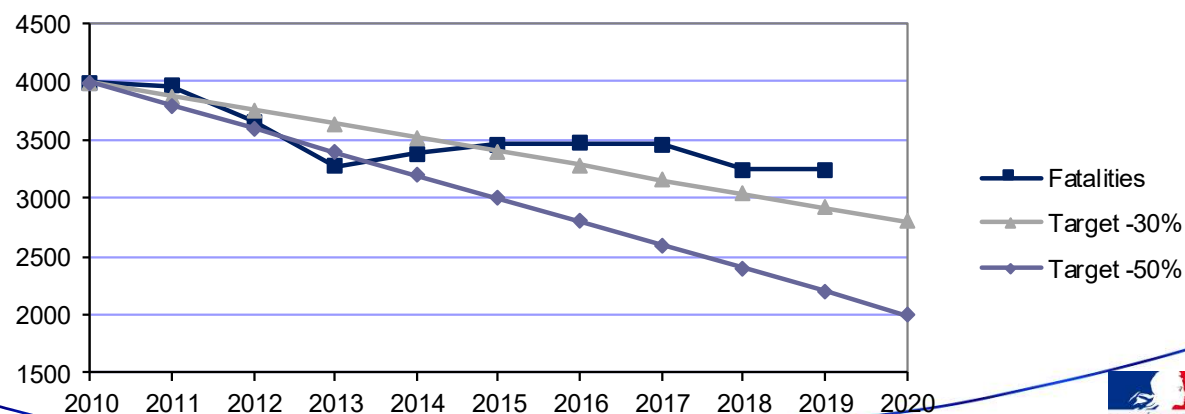
Road fatalities **strongly decreased between 2017 and 2018 (200 fewer fatalities in 2018)**.

**2019 results** showed a stability (4 fewer fatalities compared to 2018), but the trend is dramatically different according to road networks (**confirmed decrease outside built-up areas**, stability on motorways, strong increase in built-up areas).

Results for the year 2018	Injury accidents	Killed within 30 days	Injured people
<b>2018 final results</b>	<b>55 766</b>	<b>3 248</b>	<b>69 887</b>
2017 final results	58 613	3 448	73 384
Difference 2018 / 2017	-2 847	-200	-3 497
<b>Variation 2018 / 2017</b>	<b>-4,9%</b>	<b>-5,8%</b>	<b>-4,8%</b>

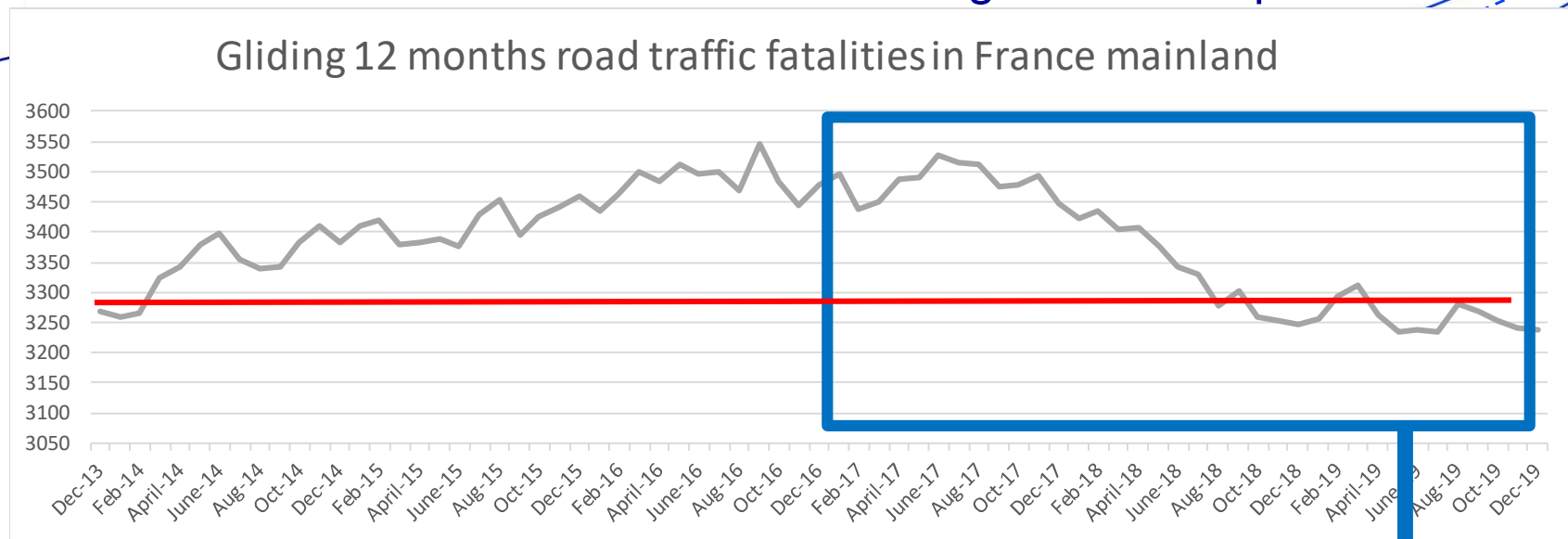
Results for the year 2019	Injury accidents	Killed within 30 days	Injured people
<b>2019 final results</b>	<b>56 016</b>	<b>3 244</b>	<b>70 490</b>
2018 final results	55 766	3 248	69 887
Difference 2019 / 2018	250	-4	603
<b>Variation 2019 / 2018</b>	<b>0,4%</b>	<b>-0,1%</b>	<b>0,9%</b>

Annual number of road traffic fatalities in France mainland



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# Road traffic fatalities 2013-2019 over a rolling 12 months period



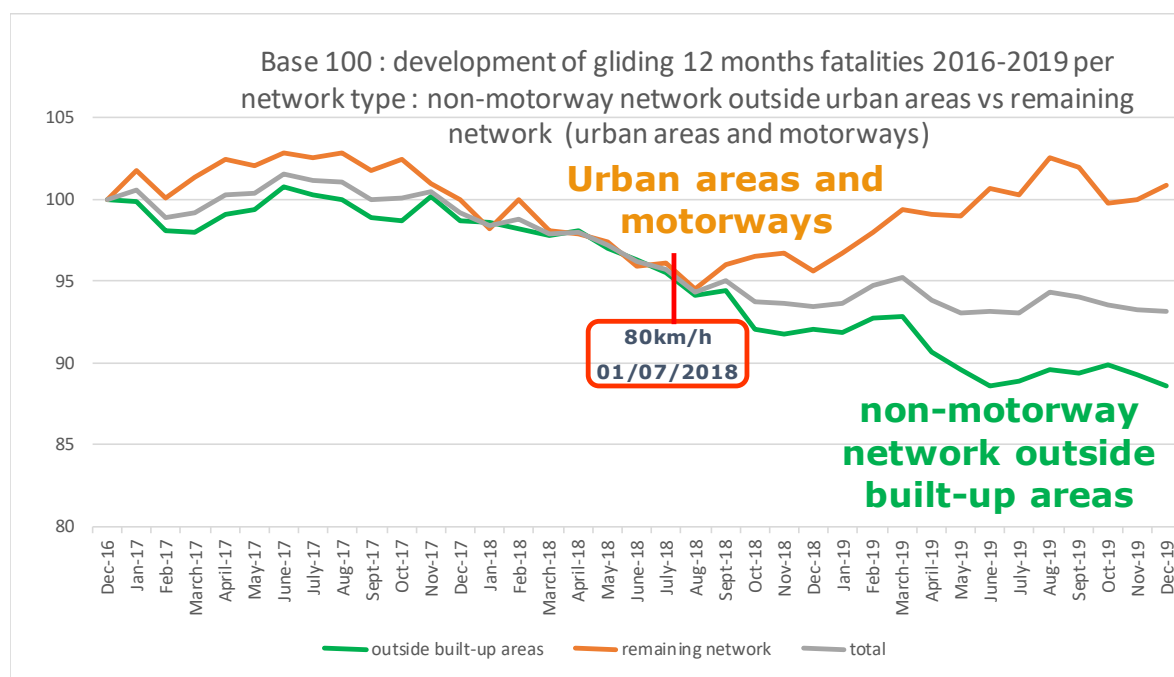
**1st half 2018:** downward trend in all networks.

**2nd half 2018: trends split:** **gain of 125 lives\*** on rural roads, **17 lives\*** on other networks.

**1st half 2019 :** **76 lives\*** gained on rural roads, but **52 fatalities** more\* on other networks.

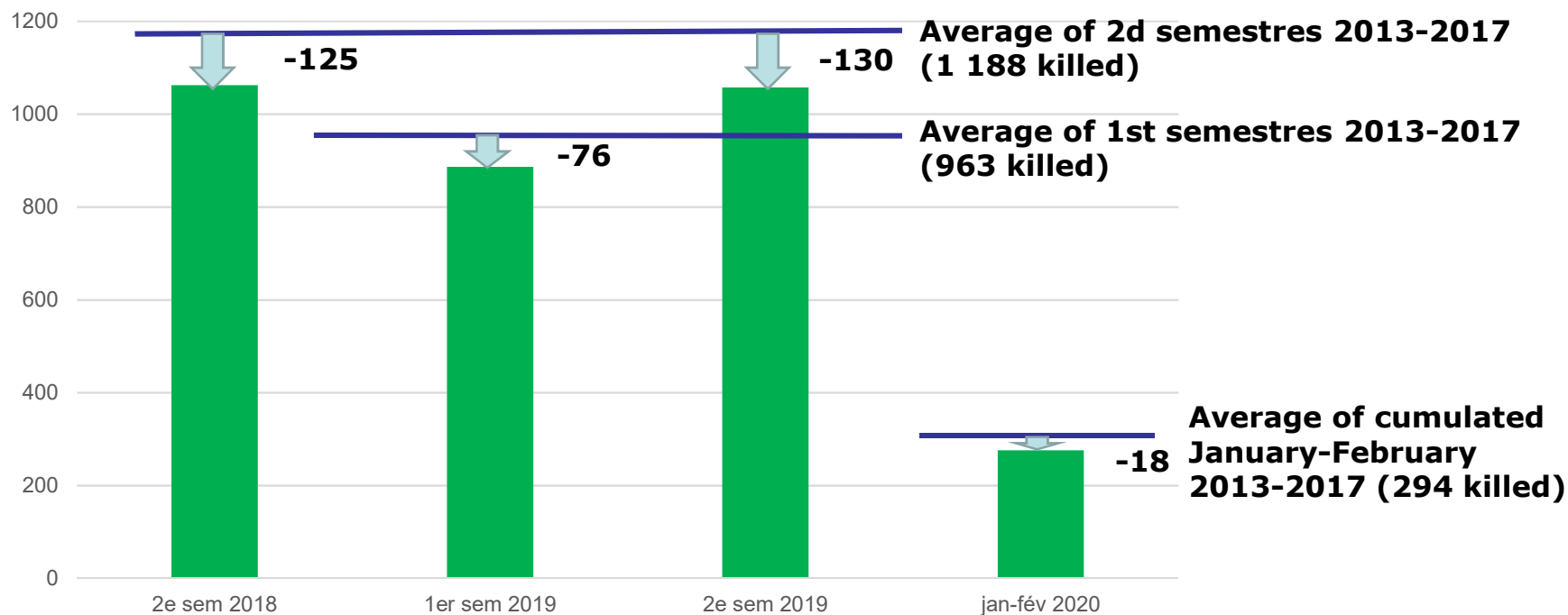
**2nd half 2019 :** gain of **130 lives\*** on rural roads, **10 lives\*** on other networks = **2nd half 2018**.

\*compared to the average per half year of the 5 years 2013-2017 (reference)



# Fatalities decrease on roads outside built-up areas since 1st July 2018, compared to the reference average 2013-2017

Fatalities on non-motorway roads outside built-up areas



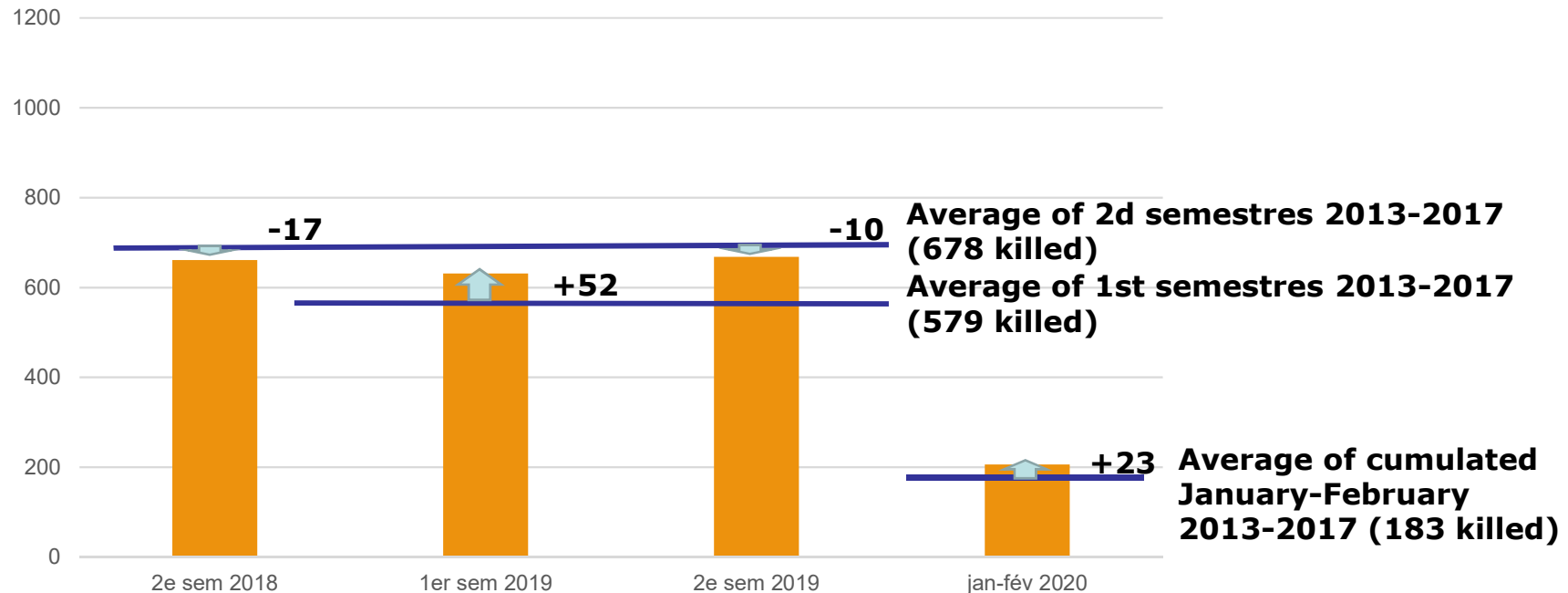
**The number of lives spared is of 349 lives over 20 months**

when compared with the average of the same months over the reference period 2013-2017.

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# Slight increase of fatalities over the other networks since 1st July 2018, compared to the reference average 2013-2017

Fatalities on other networks (motorways and streets in built-up areas)



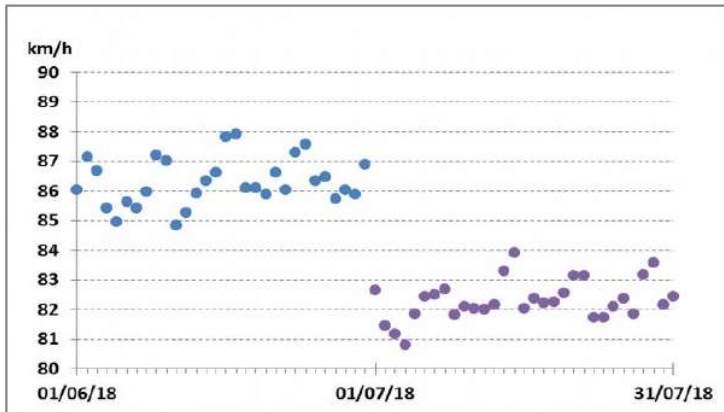
**Over 20 months, 48 more fatalities were accounted for**  
when compared with the average of the same months over the reference period 2013-2017.

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# A specific speed observatory to assess the impact of speed limit reduction on traffic behaviours

- **Goals:**
  - To collect, process and analyse driving speeds on roads concerned by the 80km/h measure before and after the July, 1st 2018
- **The observatory :**
  - 50 points chosen on variety of roads (localisation, traffic and uses)
  - Localisations as neutral as possible so road users may be able to drive at their desired speed.
- **Associated means :**
  - Adapted materials for microscopic measurement of traffic
  - Specialist teams and common procedures to ensure measures quality during both years of monitoring.
- **Measurements :**
  - Speed measurements collected from June 2018 to December 2019
  - Calculated indicators from data of **143 millions passing vehicles** .
- **Results :**
  - **Cars drove 3.5 km/h slower in average**
  - **Trucks drove 1.8 km/h slower in average**
  - **No change regarding vehicle platoons**

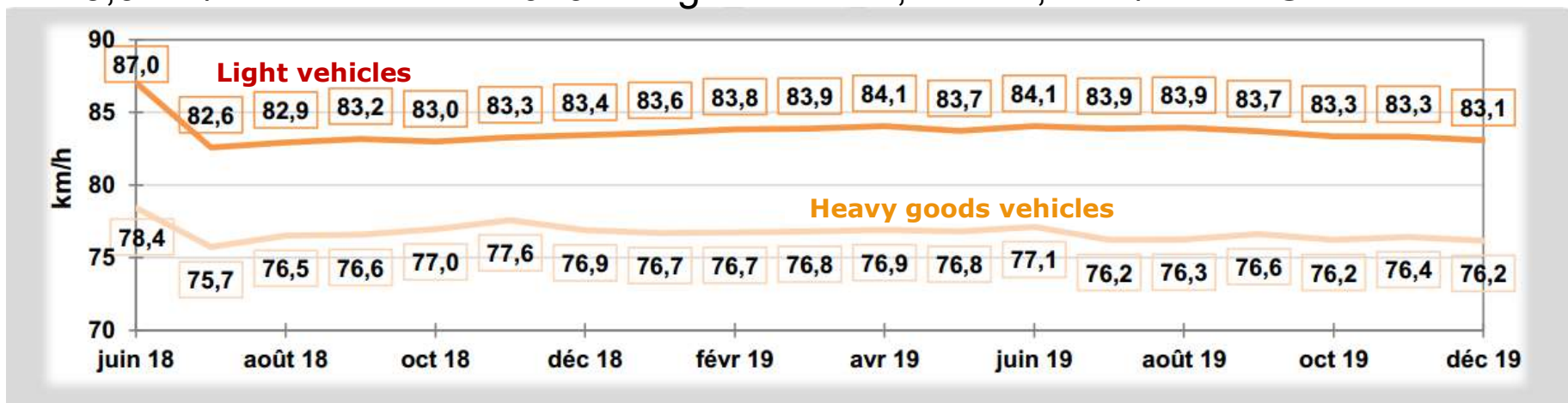
## Average speed changes before and after (June 2018 to December 2019)



Daily average speeds in June (before) and July (after) 2018 on the network impacted by the 80 km/h on 1st July

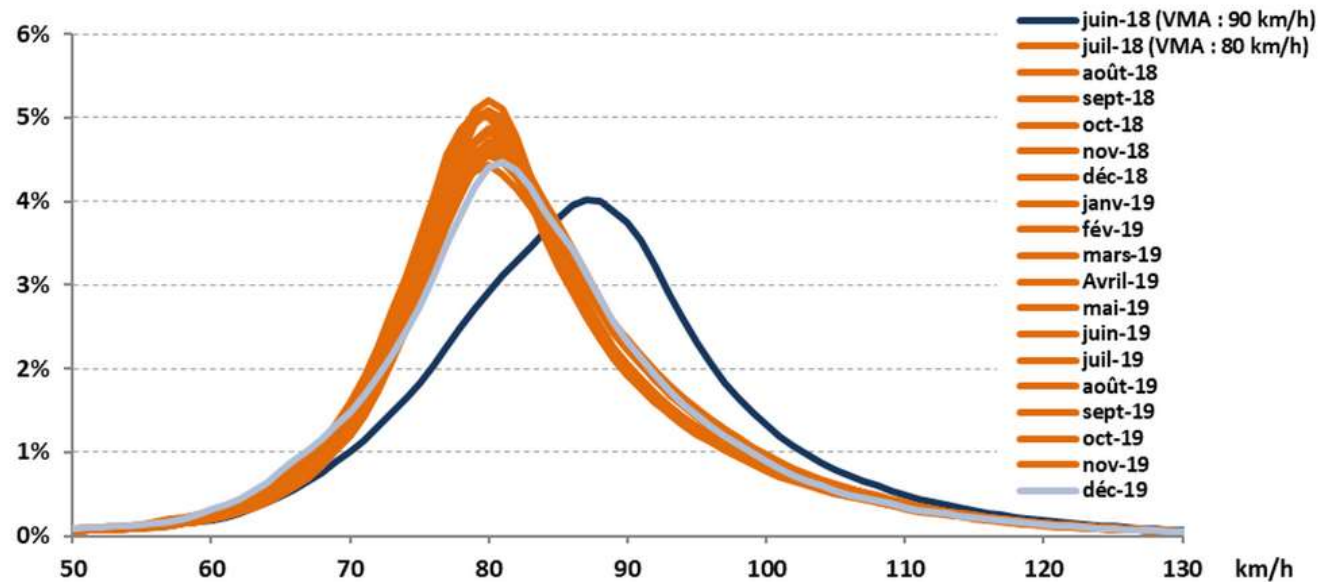
- A sudden drop of light vehicles driving speeds from the very 1st July 2018, although it was a Sunday
- The decrease on average driving speeds for light vehicle and heavy goods vehicles :
  - -3.8 km/h for cars between June and September 2018
  - -1.8 km/h for HGV between June and September 2018

- Since then, the mean speed increased back up to +1 km/h, and decreased back -3,9 km/h in December 2019 for light vehicles, and -2,2 km/h for HGVs.



# Light vehicles driving speeds changes before/after (June 2018 / July 2018 to December 2019)

**Car speed distributions from June 2018(before measure) to December 2019**



**The 80 km/h  
speed  
observatory is  
composed of  
50 locations  
far away from  
speed radars,  
where traffic  
is free to flow.**

- The whole driving speed distribution has moved to the left and narrowed, which means a decrease in driving speeds.
- The diagram curves of distributions between September and November 2018 are similar, which means a stability in drivers behaviours once the measure is in place.

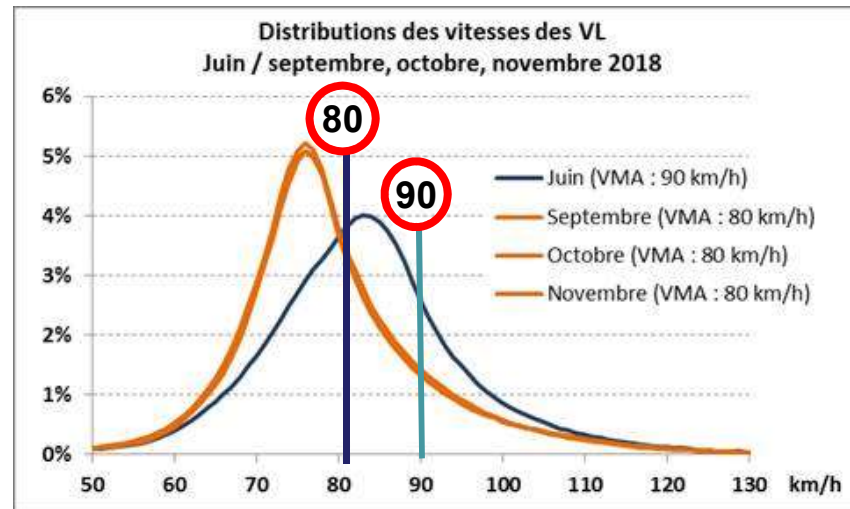
Since then, speed distributions have moved only slightly to the right ; the 80 km/h measure remains efficient.

# Speed distributions on single carriageways

## France from 90 to 80km/h

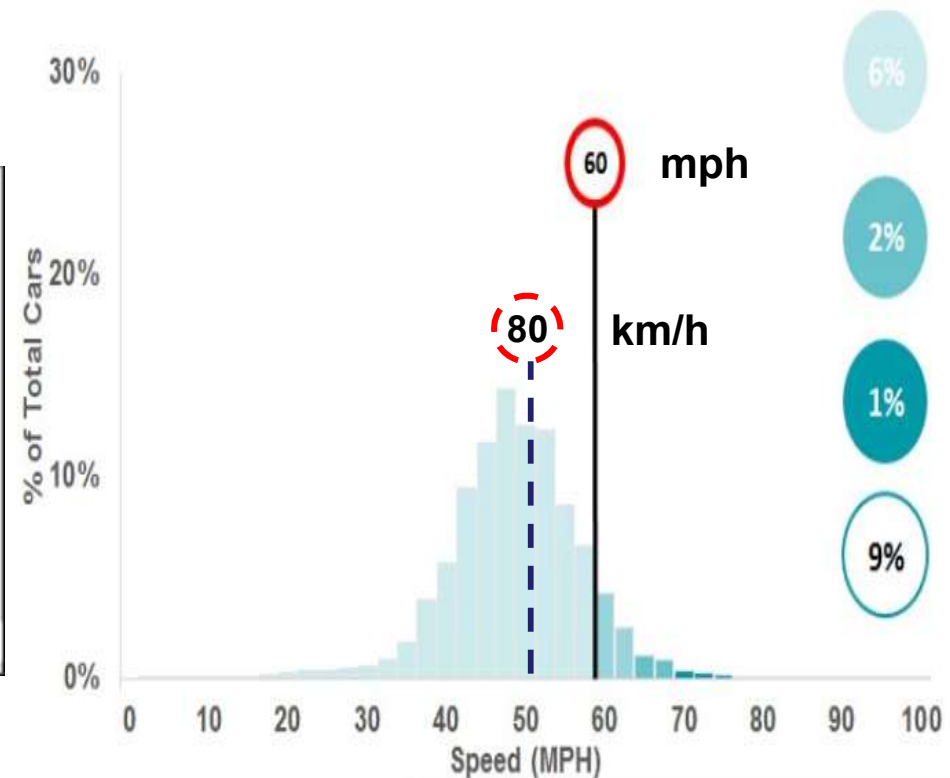
Lowering the speed limit reduces  
mean speeds,

But speed limits do not effect  
behaviours the same way in both  
countries



## England 97km/h

### Single Carriageways



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The share of vehicles which drive with low or very low time gaps (  $< 2$  sec or  $< 1$  sec) remain stable before and after the speed limit reduction :

- 25% of Light veh (VL) and 6% of HGV (PL) with a time gap under 2 seconds
- 7% of Light veh and 1% of HGV with a time gap under 1 second

In proportion,

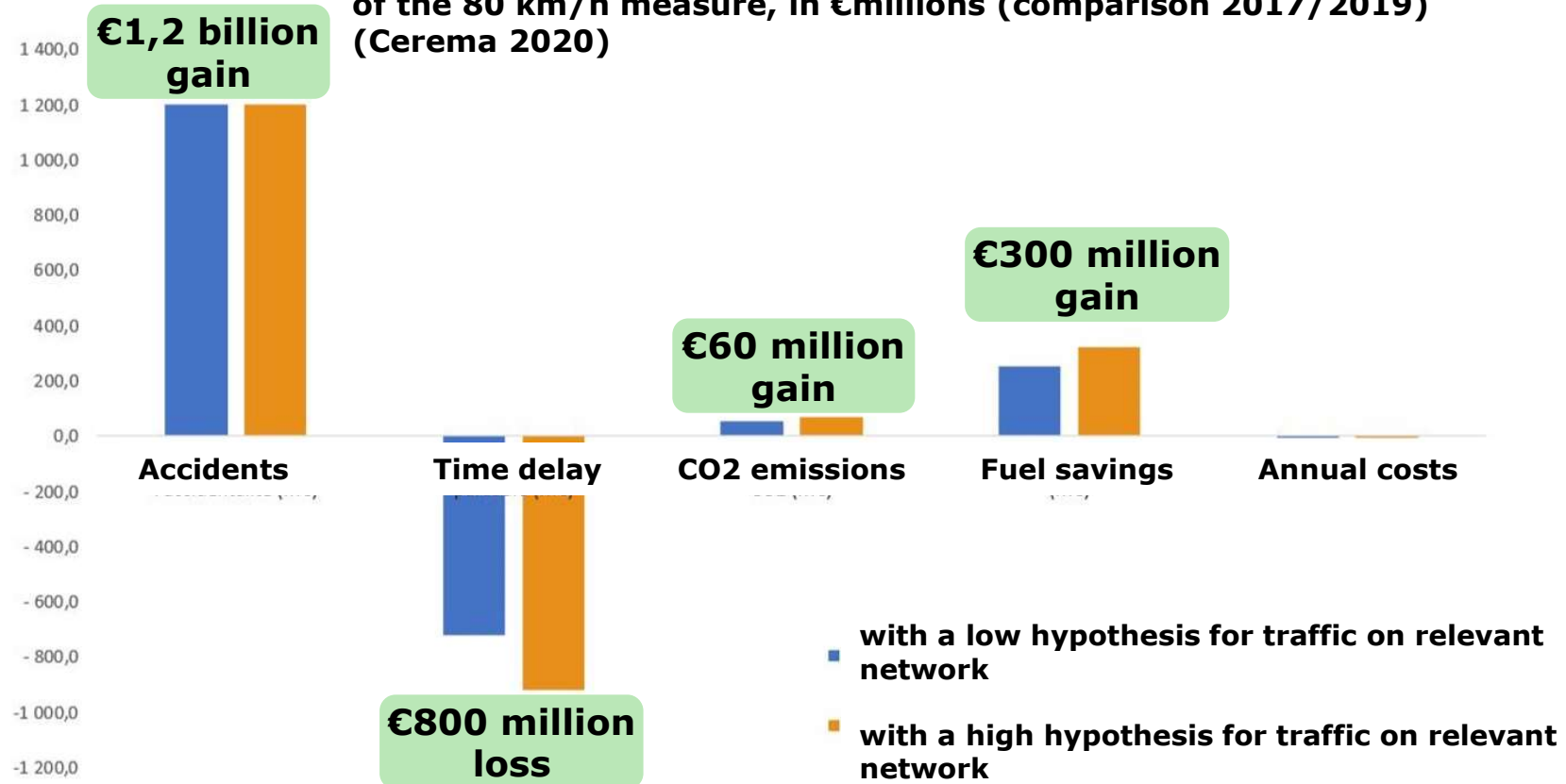
**HGVs do not drive closer to other vehicles since the 1<sup>st</sup> July 2018.**

The measure had **no impact on the generation of platooning.**

The majority of platoons are made up **exclusively of light vehicles.**

# A positive overall socio-economic balance sheet in the order of €700 million per year

Gains and losses composing the socio-economic balance sheet  
of the 80 km/h measure, in €millions (comparison 2017/2019)  
(Cerema 2020)



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## Journey time follow-up before/after (June 2018 to June 2019)

A sample of 298 itineraries with a 25-30 km length was selected across the whole mainland counties. Each one was composed of at least 70% single carriageway rural roads.

Study with  
Google maps API.

During the week:

- 8h, 17h
- 10h-15h

On Saturday:

- 15h.

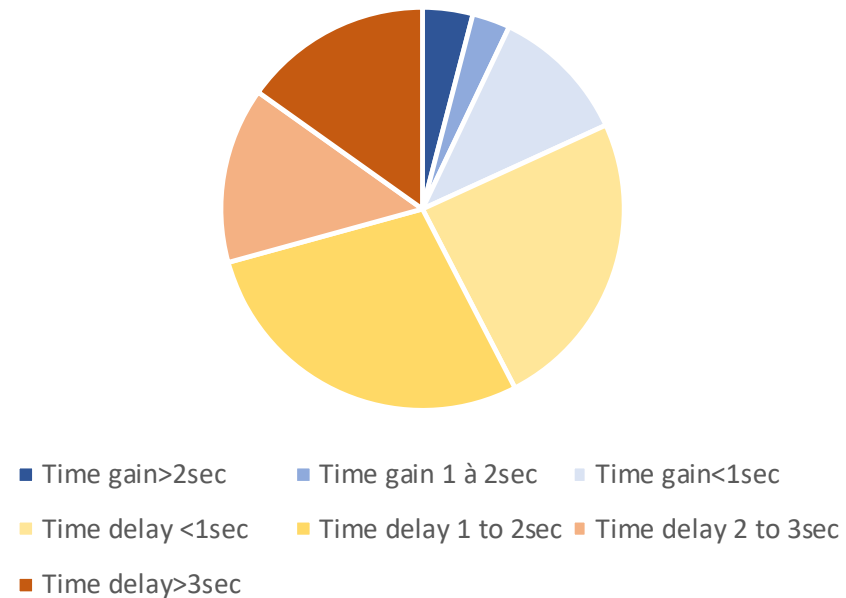


**Location of the 298 itineraries that were studied for their travel time before/after the implementation of the speed limit reduction with Google Maps API.**

## Journey Time follow-up before/after (June 2018 to June 2019)

- On average, a trip duration extended by **one second per kilometer**
- **For 19%** of itineraries, the trip duration was shortened.
- 52% of itineraries showed a time loss under 2 seconds per kilometer
- 15 % showed a time loss greater than 3 sec/km.

Change in trips duration between June 2018 and  
June 2019 (second/km)



## Before

- Survey end of April 2018, 5,310 respondents aged 18 +, representative of the French population

84 % use car as main travel mode on that network

30% are in favour of the measure, 40% against it.

77% intended to comply always or nearly always with 80 km/h.

Reason for not complying very often is that “they like and want to drive fast”. Time delay is rarely quoted.

## After

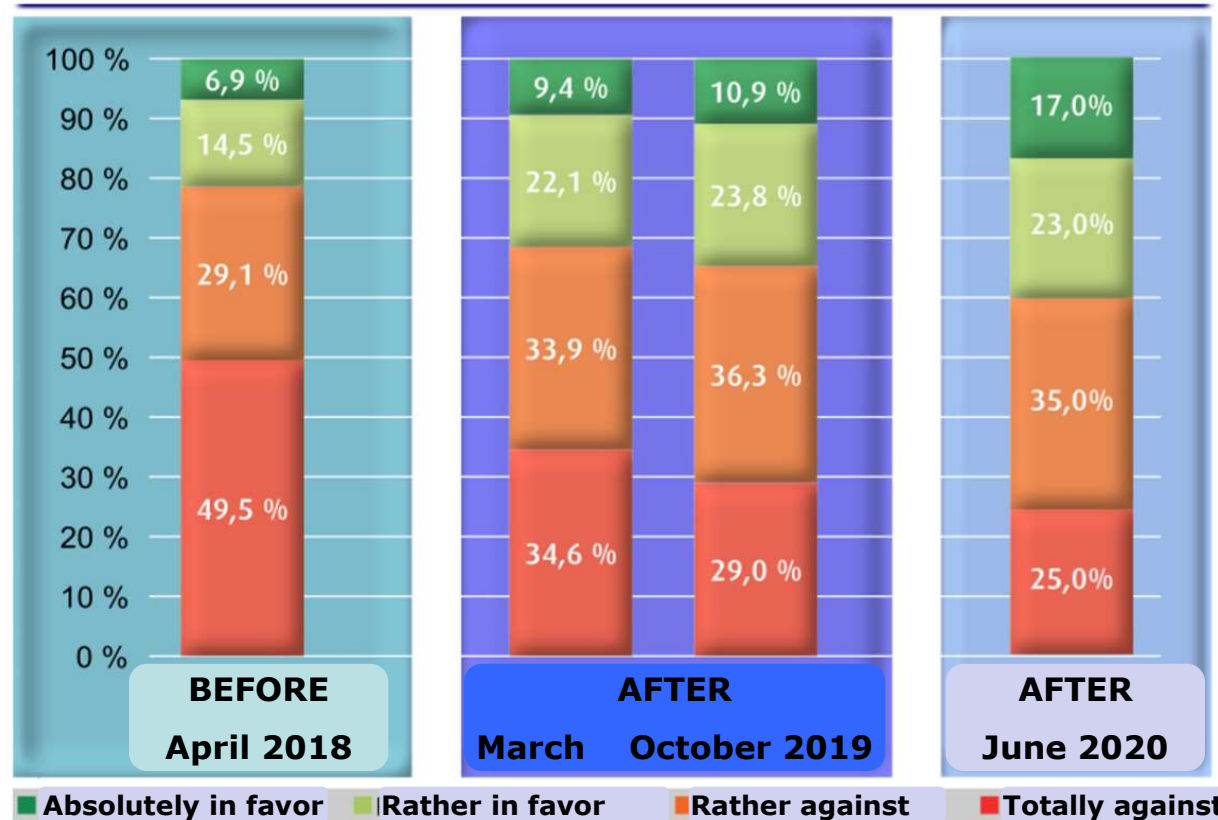
- 3 surveys : March 2019, October 2019, June 2020 with 3,800 respondents, comparable to those of the « before » survey

48% are now in favour of the measure (53% of women, 44% of men)

While 40% were totally opposed to the measure, they are now only 20%.

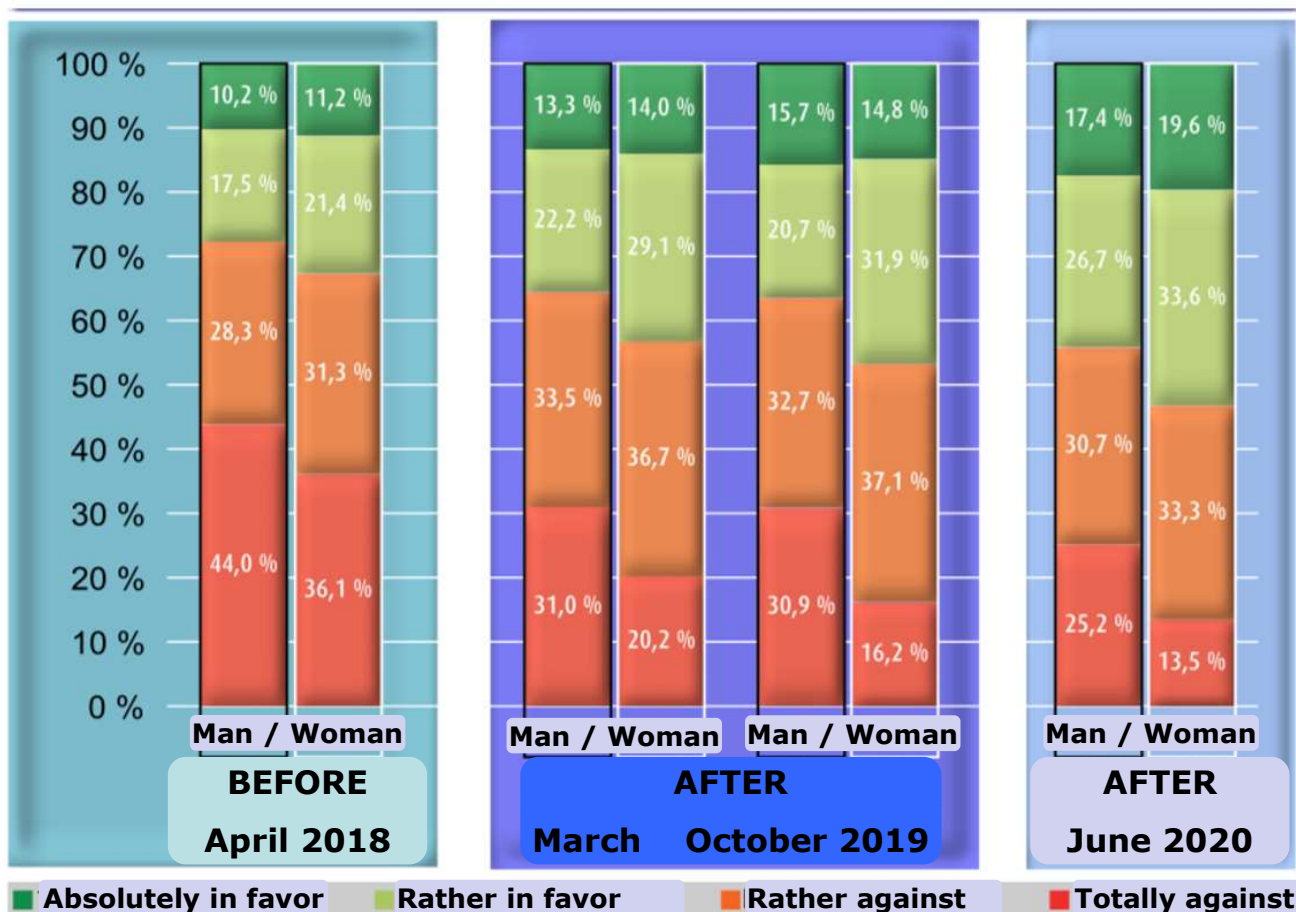
Even among respondents the most opposed to the 80 km/h, they estimate their additional travel time to be at worst between 2 and 5 minutes.

# Agreement is progressing for all audiences, especially for people living in rural areas as shown below



*Pourcentages de répondants habitant en zone rurale en fonction de leur niveau d'adhésion à la mesure et des vagues d'enquête : vague 1 (avril 2018), vague 2 (mars 2019), vague 3 (octobre 2019), vague 4 (juin 2020)*

# Women agree more often with the new measure than men



Pourcentages de répondants sur leur niveau d'adhésion à la mesure, en fonction du genre et des vagues d'enquête : vague 1 (avril 2018), vague 2 (mars 2019), vague 3 (octobre 2019), vague 4 (juin 2020)

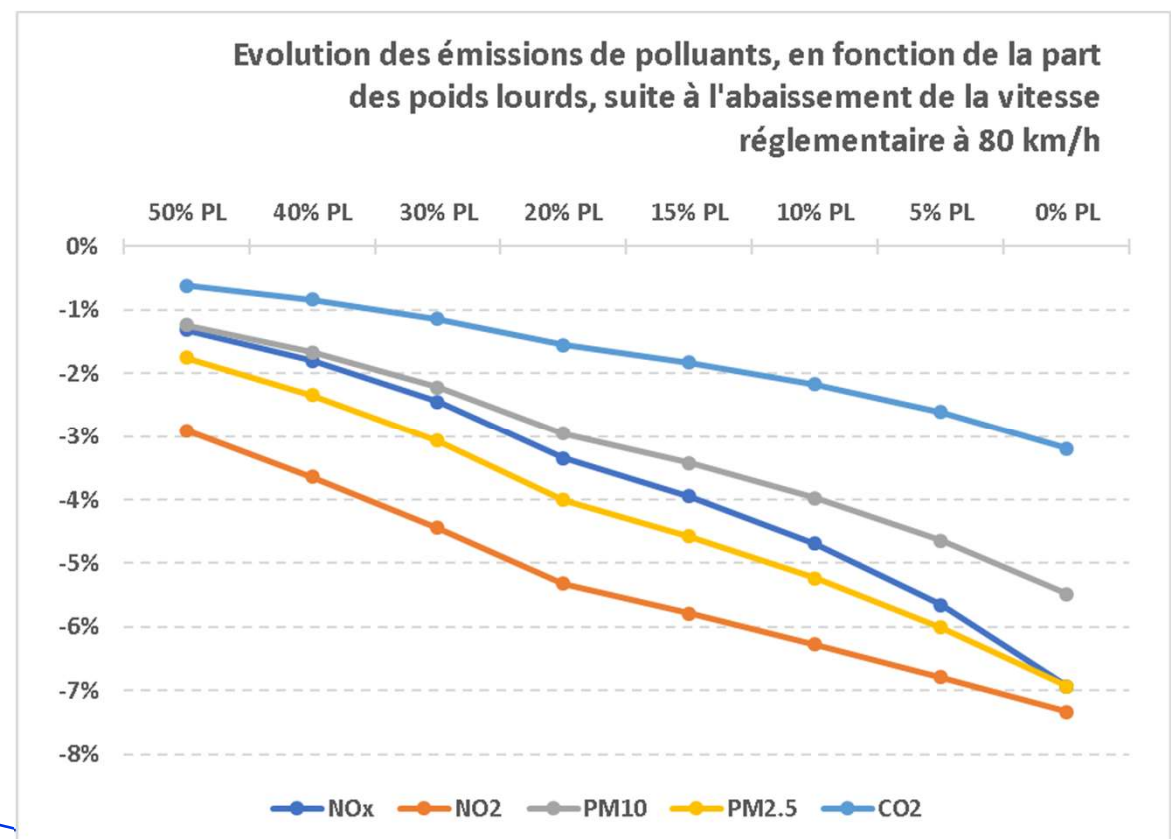
This study was based on models currently available concerning air pollutants and published in April 2018 (before implementation of the measure).

It is expected that the speed limit reduction will :

- reduce greenhouse gases (CO<sub>2</sub>) by **3% at most**
- reduce pollutants harmful for our health (Nitrogen oxide and fine particles) **by 7% at most**. This would benefit the population living within 50m from rural roads.

**The gain decreases as HGV traffic share increases.**

**Reduction in air pollutant emissions, according to the share in HGV traffic, as a result of the reduction of the speed limit to 80 km/h**



# Annex Tables

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# Fatalities on single carriageway roads outside built-up areas (not including motorway)

	BAAC						BAAC				BAAC données provisoires (estimation ONISR)	
	2013	2014	2015	2016	2017	moyenne 2013-2017	2018	Ecart à la moyenne	2019	Ecart à la moyenne	2020	Ecart à la moyenne
Janvier	158	147	158	144	141	150	138	-12	133	-17	156	6
Février	139	143	142	167	129	144	121	-23	142	-2	120	-24
Mars	133	158	138	168	164	152	156	4	158	6	91	-61
Avril	149	158	160	149	173	158	178	20	134	-24	65	-93
Mai	122	160	170	184	192	166	170	4	146	-20	135	-31
Juin	188	207	186	179	208	194	193	-1	174	-20	ND	
Total premier semestre	889	973	954	991	1007	963	956	-7	887	-76	ND	
Jullet	222	201	221	230	220	219	202	-17	209	-10	ND	
Août	212	205	205	197	190	202	159	-43	175	-27	ND	
Septembre	196	196	165	212	188	191	194	3	187	-4	ND	
Octobre	193	222	250	210	206	216	155	-61	165	-51	ND	
Novembre	163	171	186	149	182	170	176	6	161	-9	ND	
Décembre	203	184	194	200	168	190	177	-13	161	-29	ND	
Total second semestre	1189	1179	1221	1198	1154	1188	1063	-125	1058	-130	ND	
TOTAL ANNUEL	2078	2152	2175	2189	2161	2151	2019	-132	1945	-206	ND	

Tableau 28 - Nombre de tués mensuels sur le réseau considéré, par année - Source : BAAC officiel pour 2013-2019 – ONISR données estimées pour 2020

# Fatalities for the remaining road network.

	BAAC						BAAC				BAAC données provisoires (estimation ONISR)	
	2013	2014	2015	2016	2017	moyenne 2013-2017	2018	Ecart à la moyenne	2019	Ecart à la moyenne	2020	Ecart à la moyenne
Janvier	85	88	104	92	114	97	91	-6	106	9	104	7
Février	82	82	93	96	75	86	97	11	112	26	102	16
Mars	67	103	81	87	103	88	79	-9	97	9	63	-25
Avril	87	96	98	94	108	97	106	9	101	4	38	-59
Mai	102	100	97	110	105	103	98	-5	97	-6	70	-33
Juin	105	104	113	106	116	109	97	-12	118	9	ND	
Total premier semestre	528	573	586	585	621	579	568	-11	631	52	ND	
Juillet	122	101	132	126	123	121	126	5	119	-2		
Août	110	101	127	104	107	110	87	-23	115	5		
Septembre	116	121	92	122	109	112	128	16	123	11		
Octobre	115	125	128	105	113	117	119	2	92	-25		
Novembre	89	109	110	109	90	101	92	-9	96	-5		
Décembre	110	102	111	137	124	117	109	-8	123	6		
Total second semestre	662	659	700	703	666	678	661	-17	668	-10		
TOTAL ANNUEL	1190	1232	1286	1288	1287	1257	1229	-28	1299	42	ND	

Tableau 29 - Nombre de tués mensuels sur le reste du réseau, par année - Source : BAAC officiel pour 2013-2019 – ONISR données estimées pour 2020