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

20 July 2020
Final report on 80kph impact 2019 final data, 2020 estimates
France at a glance

- Population: 66 million inhabitants
- Area: 600,000 km²
- 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)

- Fewer than 25
- Between 25 and 50
- Between 50 and 100
- Between 100 and 150
- Between 150 and 286
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
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 length, it registers 64% of the fatalities

Cerema 2015-2017 study:
Traffic and accident shares of the main county roads (RD)
Historical background for the speed limit reduction

• 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.
  - 1st 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.
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 Mompart (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 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

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<td>0,4%</td>
<td>-0,1%</td>
<td>0,9%</td>
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</table>
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.

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

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

- 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.
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.
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
Comparing car speed distributions between June 2018 and December 2019

In December 2019, 58% of car drivers still drive over 80 km/h. 35% of car drivers drive between 80 and 90 km/h, 23% drive over 90 km/h.
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 1st 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)

- €1.2 billion gain
- €60 million gain
- €300 million gain
- €800 million loss

with a low hypothesis for traffic on relevant network

with a high hypothesis for traffic on relevant network
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.
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)
User survey before/after implementation of the 80 km/h speed limit

**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 among all populations

**BEFORE**
April 2018

- Absolutely in favor: 10.7%
- Rather in favor: 19.6%
- Rather against: 29.8%
- Totally against: 39.8%

**AFTER**
March 2019

- Absolutely in favor: 13.7%
- Rather in favor: 25.8%
- Rather against: 35.2%
- Totally against: 25.3%

October 2019

- Absolutely in favor: 15.2%
- Rather in favor: 26.6%
- Rather against: 35.0%
- Totally against: 23.2%

**AFTER**
June 2020

- Absolutely in favor: 18.0%
- Rather in favor: 30.0%
- Rather against: 32.0%
- Totally against: 20.0%
and in particular for people living in rural areas

Before April 2018
- Absolutely in favor: 6.9%
- Rather in favor: 14.5%
- Rather against: 29.1%
- Totally against: 49.5%

After March 2019
- Absolutely in favor: 9.4%
- Rather in favor: 22.1%
- Rather against: 33.9%
- Totally against: 23.0%

After October 2019
- Absolutely in favor: 10.9%
- Rather in favor: 23.8%
- Rather against: 36.3%
- Totally against: 23.0%

After June 2020
- Absolutely in favor: 17.0%
- Rather in favor: 23.0%
- Rather against: 35.0%
- Totally against: 25.0%
Women agree more often with the new measure than men.

BEFORE
April 2018

AFTER
March 2019

AFTER
October 2019

AFTER
June 2020

Men | Women
-----|-----
Absolutely in favor | Rather in favor | Rather against | Totally against

20 July 2020
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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 (CO2) 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.
Annex Tables

Base 100: development of gliding 12 months fatalities 2016-2020 per network type: non-motorway network outside urban areas vs remaining network (urban areas and motorways)

- Remaining network: motorways and built-up areas
- Non-motorway roads outside built-up areas

80 km/h
01/07/2018

20 July 2020
Final report on 80kph impact
2019 final data, 2020 estimates
### Fatalities on single carriageway roads outside built-up areas (not including motorway)

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

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20 July 2020
Final report on 80kph impact
2019 final data, 2020 estimates
Fatalties for the remaining road network.

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|               | 568  | -11 | 631  | 52   | 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

20 July 2020
Final report on 80kph impact
2019 final data, 2020 estimates