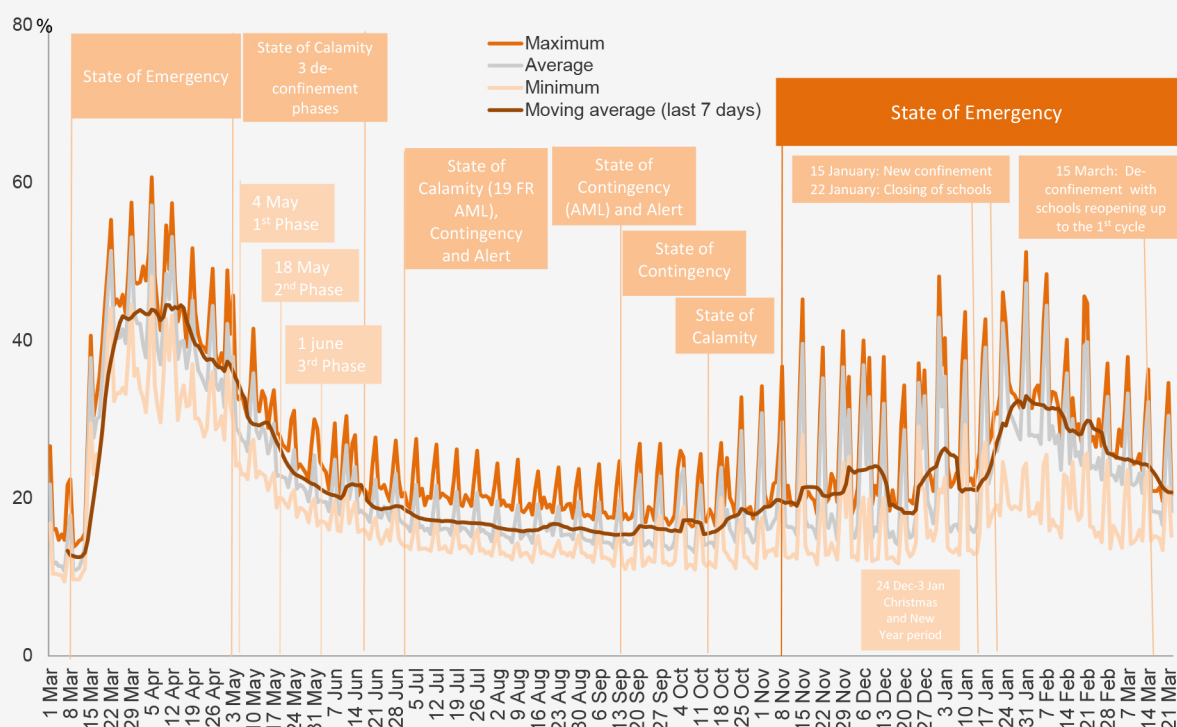# Population mobility indicators at regional level: an analysis based on information from Facebook's "Data for Good" Initiative

Taking advantage of Facebook's "Data for Good" initiative, the figure below shows the proportion of the population "staying put" between 1 March 2020 and 22 March 2021, namely the minimum, average and maximum values calculated based on the NUTS 3 sub-regions. The proportion of population that "stayed put" is based on the number of Facebook users associated with a single reference grid of 600mx600m during 8 am and 8 pm on day x, requiring at least three occurrences during that time period.

It is possible to observe that on Sundays there is generally less mobility of the population than on other days of the week. It is also noteworthy that after the first confirmed cases of COVID-19 and following the declaration of the first State of Emergency, there is a decrease in the mobility of the population, followed by an increase in the levels of mobility after the implementation of the de-confinement measures.

Considering the moving average of the last 7 days there has been an overall reduction in the average levels of mobility following the declaration of the State of Emergency on November 9 and subsequent renewals. In this context, the days before Christmas and after New Year are the exception, where there is an increase in mobility due to the general cancelling of measures restricting circulation. This tendency to reduce mobility is accentuated after the entry into force, on January 15, 2021, of extraordinary measures to limit the spread of the pandemic, including a new confinement period, followed by the closing of schools on January 22. From the second week of February onwards there is an overall upward trend in mobility levels, which is accentuated from 15 March onwards following the lifting of restrictive measures and the reopening of schools up to the 1st cycle of basic education.

Proportion of the population "staying put" between 1 March 2020 and 22 March 2021 – minimum, average and maximum values of NUTS 3 sub-regions

Source: Facebook's "Data for Good" Initiative. Data provided by Carnegie Mellon University. Note: The dates marked on the graph axis correspond to Sundays.

The following figure shows the levels of mobility of the population between 28 February and 22 March 2021 for the 25 NUTS III sub-regions. Overall, there are lower levels of mobility at the weekend and, in particular, on Sundays. An overall upward trend in mobility levels is also observed. In comparison with the values for the same reference day of the immediately preceding week, the increase in mobility registered on the working days after the entry into force of the lifting of the restrictive measures, including the reopening of schools up to the 1st cycle of basic education, is particularly noteworthy: on 15, 16 and 17 March, compared with the same period of the previous week (8, 9 and 10 March) in all the NUTS III regions of the Mainland and on 18 and 19 March, compared with the same period of the previous week (11 and 12 March) in all the NUTS III sub-regions of the country.

Proportion of the population "staying put" between 28 February and 22 March 2021 by NUTS 3

Renewal of the State of Emergency

Sunday, 28 February
Monday, 1 March
Tuesday, 2 March
Wednesday, 3 March
Thursday, 4 March
Friday, 5 March

Saturday, 6 March
Sunday, 7 March
Monday, 8 March
Tuesday, 9 March
Wednesday, 10 March
Thursday, 11 March

Lifting of restrictive measures
Reopening of schools up to the 1st cycle

Renewal of the State of Emergency

Friday, 12 March
Saturday, 13 March
Sunday, 14 March
Monday, 15 March
Tuesday, 16 March
Wednesday, 17 March

Thursday, 18 March
Friday, 19 March
Saturday, 20 March
Sunday, 21 March
Monday, 22 March

Territorial limits

NUTS II   NUTS III

60,7%   9,7%

Source: Facebook's "Data for Good" Initiative. Data provided by Carnegie Mellon University.

STATS lab