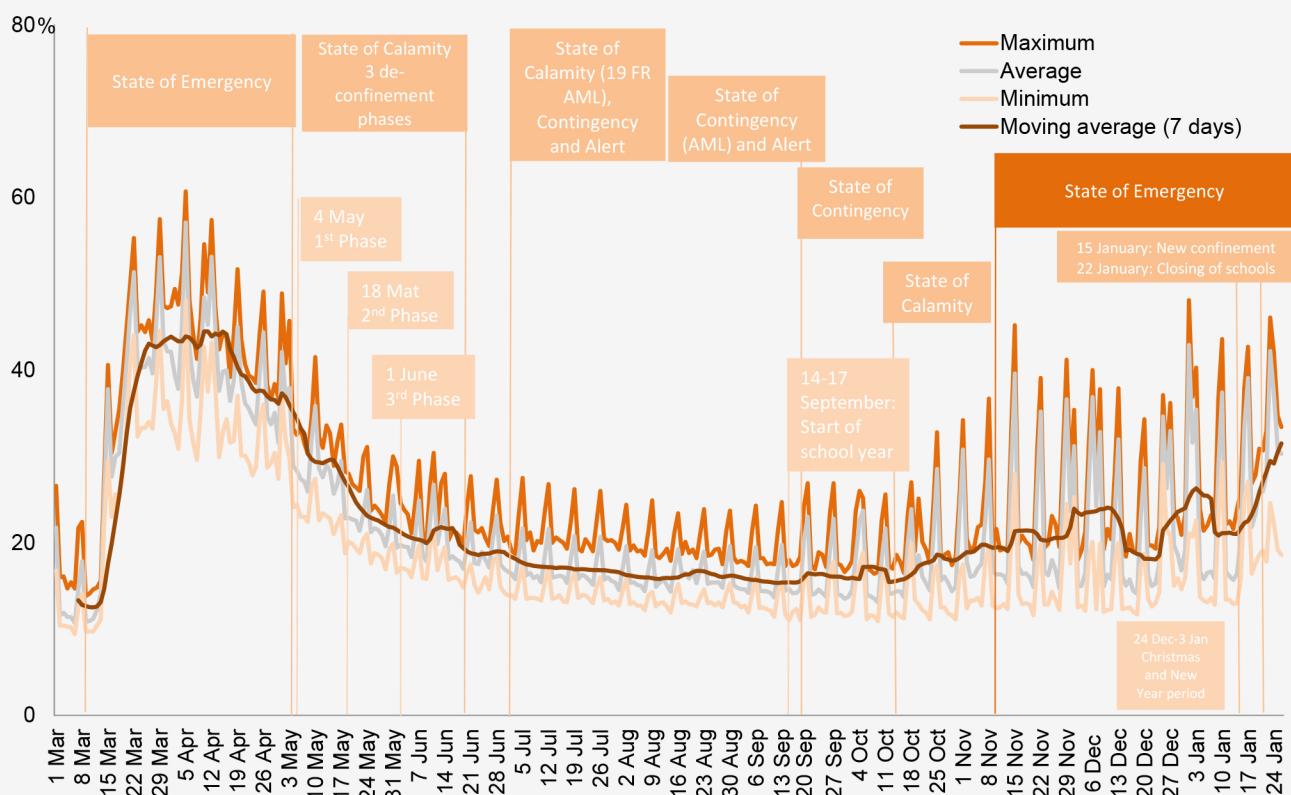# Population mobility indicators at regional level: an analysis based on information from Facebook's "Data for Good" Initiative

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 26 January 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. In particular, the decrease in mobility levels recorded on Friday, Monday and Tuesday, January 22 (-8 p.p.), 25 (-9 p.p.) and 26 (-7 p.p.), compared with the same days of the previous weeks (January 15, 18 and 19), should be noted. On the contrary, there is a slight increase in mobility (+2 p.p.) on Sunday, January 24 compared to the previous Sunday (January 17).
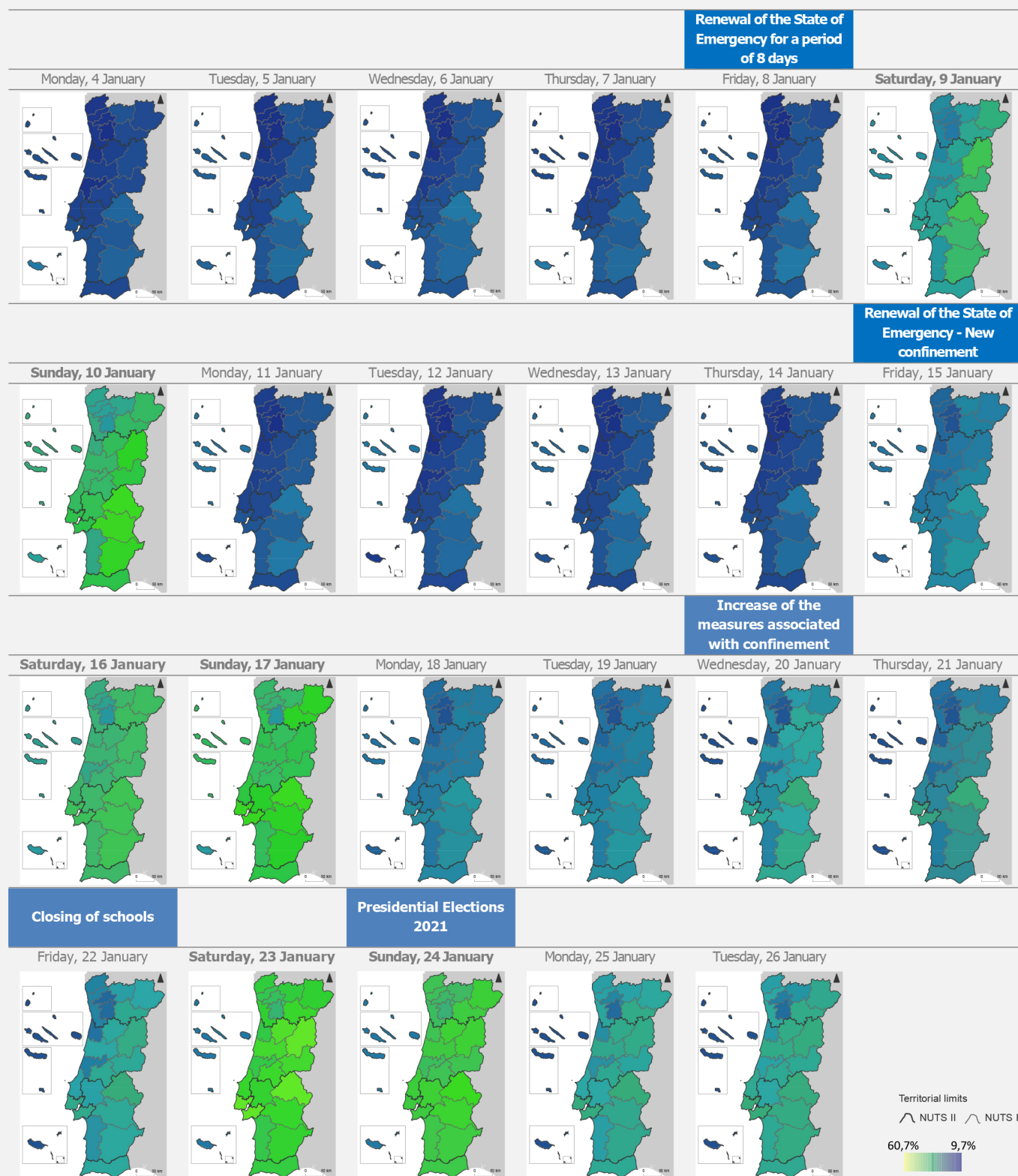

Proportion of the population "staying put" between 1 March and 26 January — minimum, average and maximum values of NUTS 3 sub-regions

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 mobility levels of population between January 4 and 26, 2021 for the 25 NUTS 3 sub-regions. Overall, there are lower levels of mobility at weekends. Also noteworthy is the decrease in mobility on working days following the declaration of a new confinement period. In particular, there was a decrease in mobility levels in most sub-regions on January 22 (Friday), January 25 (Monday) and January 26 (Tuesday) compared to the same days in previous weeks (January 15, 18 and 19).

Proportion of the population "staying put" between 4 and 26 January 2021 by NUTS 3

STATS·lab

Renewal of the State of Emergency for a period of 8 days

Monday, 4 January | Tuesday, 5 January | Wednesday, 6 January | Thursday, 7 January | Friday, 8 January | **Saturday, 9 January**

Renewal of the State of Emergency - New confinement

Sunday, 10 January | Monday, 11 January | Tuesday, 12 January | Wednesday, 13 January | Thursday, 14 January | Friday, 15 January

Increase of the measures associated with confinement

Saturday, 16 January | Sunday, 17 January | Monday, 18 January | Tuesday, 19 January | Wednesday, 20 January | Thursday, 21 January

Closing of schools

Presidential Elections 2021

Friday, 22 January | **Saturday, 23 January** | **Sunday, 24 January** | Monday, 25 January | Tuesday, 26 January

Territorial limits — NUTS II — NUTS III

60,7% — 9,7%

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