PRESS RELEASE -
COVID-19: Belgium analyses telecom data to measure the impact of confinement

Highlights
- Belgium's "Data Against Corona" taskforce has processed anonymized and aggregated telecom data from millions of Belgians, without compromising privacy
- The data is used to compute mobility metrics per postal code - such as the number of trips or the % of time spent outside of one's residential ZIP code
- Since national confinement measures have been enacted on March 18th, the average Belgian has reduced his mobility by more than 50%
- Belgians spend roughly 80% of their time at their home ZIP code

BRUSSELS (27 MARCH 2020) - In the fight against the COVID-19 pandemic, the Belgian Minister of Health (Maggie De Block) and the Minister of Telecom, Digital & Privacy (Philippe De Backer) have received the first results from the "Data Against Corona" taskforce that combines telecom data and epidemiological data in a privacy-friendly and GDPR-compliant model.
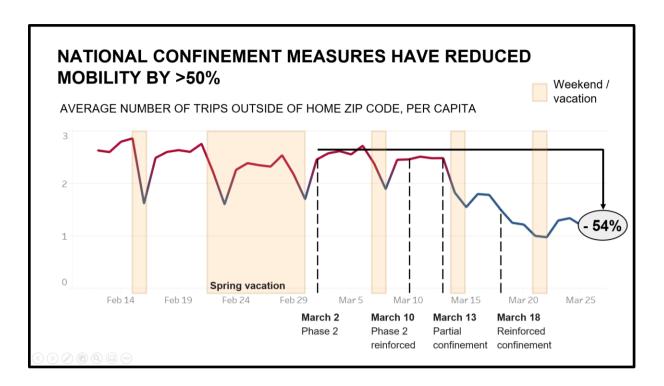
Like many governments around the world, the Minister of Health needs to recommend proportionate action to limit the propagation of the coronavirus disease. Since the disease is transmitted through human contact, the World Health Organization has recommended countries apply strong confinement and social distancing measures. However, many European countries have enforced varying degrees of confinement. In Belgium, a first national confinement measure was taken on March 13th (closure of schools, restaurants and bars), followed by a stricter confinement on March 18th ("stay at home" policy, work from home when possible, all non-essential stores must be closed).

To decide whether to maintain, reinforce or reduce the current confinement measures, Maggie De Block has asked Philippe De Backer to leverage telecom data to measure the evolution of mobility since the crisis began and how it has changed with the confinement measures.
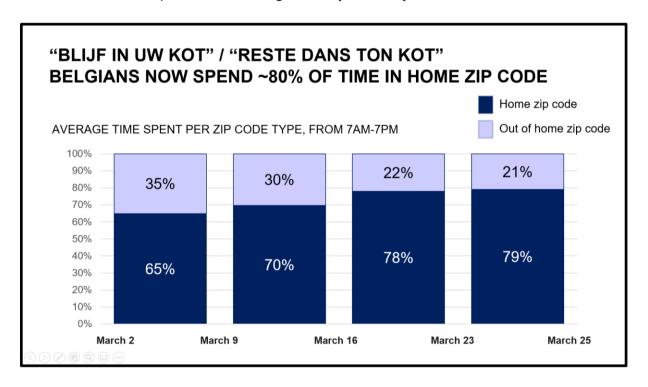
Without receiving any mobile phone number, name, or individual location data, the taskforce has been able to compute aggregate metrics per ZIP code that capture the relevant insights while guaranteeing the privacy of Belgian citizens. On the importance of privacy, Philippe De Backer states: "We will not sacrifice our citizen's right to privacy; the analyses are reviewed by an independent Ethics Committee and pre-authorized by the Belgian Data Protection Authority. We have absolute guarantees that the data we use are fully anonymous".
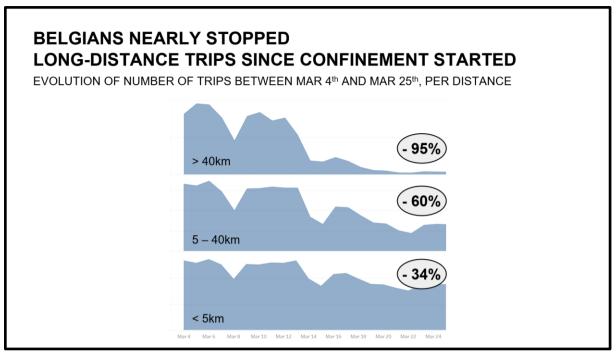

What are the results?

The data is processed to compute metrics that capture mobility, aggregated by ZIP code.

NATIONAL CONFINEMENT MEASURES HAVE REDUCED MOBILITY BY >50%

AVERAGE NUMBER OF TRIPS OUTSIDE OF HOME ZIP CODE, PER CAPITA

Weekend / vacation

Spring vacation

- 54%

| | | | | | | |
| Feb 14 | Feb 19 | Feb 24 | Feb 29 | Mar 5 | Mar 10 | Mar 15 | Mar 20 | Mar 25 |

March 2 Phase 2

March 10 Phase 2 reinforced

March 13 Partial confinement

March 18 Reinforced confinement

Since partial confinement measures started on March 13th, the average number of trips outside of one's home ZIP code has declined by >50%. As an order of magnitude, this is twice the decline compared to an average Sunday's mobility.

"BLIJF IN UW KOT" / "RESTE DANS TON KOT" BELGIANS NOW SPEND ~80% OF TIME IN HOME ZIP CODE

Home zip code

Out of home zip code

AVERAGE TIME SPENT PER ZIP CODE TYPE, FROM 7AM-7PM

March 2	March 9	March 16	March 23	March 25
35%	30%	22%	21%
65%	70%	78%	79%	

As a result, Belgians spend roughly 80% of their time at their home ZIP code.

BELGIANS NEARLY STOPPED LONG-DISTANCE TRIPS SINCE CONFINEMENT STARTED

EVOLUTION OF NUMBER OF TRIPS BETWEEN MAR 4th AND MAR 25th, PER DISTANCE

> 40km — - 95%

5 – 40km — - 60%

< 5km — - 34%

Mar 4 Mar 6 Mar 8 Mar 10 Mar 12 Mar 14 Mar 16 Mar 18 Mar 20 Mar 22 Mar 24

In addition, the analysis shows that long trips have drastically decreased.

The analyses are updated daily with the aggregated data from network operators. The government will follow the evolution of these mobility metrics and set proportionate confinement levels accordingly.

Beyond Belgium, Philippe De Backer sees a clear need to replicate the model across Europe: "Belgium was able to get results in less than 5 days. If every European country was able to do the same, we could measure the effectiveness of our public policies and learn from one another. It's time to act fast at a European level".

KEY CONTACTS:
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- **Sébastien Deletaille**, **Frédéric Pivetta**, "data for good" tech entrepreneurs, used telecom data to combat Ebola, Zika and Coronavirus epidemics - sebastien.deletaille@rosa.be +32 493 19 19 14; Frederic.Pivetta@dalberg.com +32 484 86 01 49
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CONTEXT ON DATA AGAINST CORONA TASKFORCE

On March 13th 2020, the Minister of Health and the Minister of Telecom and Privacy kicked-off a "Data Against Corona" taskforce that gathered four types of actors: i) representatives from the ministries, ii) data providers such as Mobile Network Operators and Sciensano (i.e. the national health data provider), iii) an operational team of experts (e.g. data science, spatial epidemiology, digital entrepreneurs), and iv) privacy and ethics committees.

The goal of the taskforce is to flatten the curve of the epidemic, by combining location and epidemiological data, for targeted use cases (e.g. the Minister of Health needs to monitor the reduction in mobility following national confinement measures, needs to predict where the virus is likely to propagate to allocate resources, ...). The Minister of Health's teams prioritizes the issues that are most helpful, and the taskforce then collects and analyzes the relevant data and formulates the results as actionable information.