



# DEPARTMENT FOR THE ECONOMY NORTHERN IRELAND USES CITI LOGIK TO HELP THE UK PLAN FOR BREXIT

a Citi Logik Case Study

**The 2016 vote to leave the EU posed numerous challenges for government departments. Perhaps one of the most complex and well documented was the impact of the border between Ireland and Northern Ireland.**

**Residents between the two countries have been able to move freely across the land border for work, education and family reasons, to tourism, shopping and leisure. But as part of the preparations to leave the EU, the Department for the Economy in Northern Ireland, was concerned with the impact leaving could have on border crossing, and wanted to see if certain groups of people or areas would be adversely affected, and as a result, say how the economy would change.**

## Establishing the impact

The Department's remit is to support people and businesses thrive and compete in a global economy and the insight would be used to determine how the negotiations would need to be conducted within that context. It would also influence how future policy would need to be shaped to manage the movement as well as form economic strategy for the future of the country.

It was therefore vital to know how many people were moving across the border on a daily basis and for what purpose. As well as to know how close to the border they lived and the likelihood of crossing.

Though the Department has access to a number of data sources, there was no single definitive way to measure population movement and the reason why people were travelling.

## Finding an answer

The team needed to find a way to identify where people were going, when they were going and how frequently in order to answer the question. In researching suitable methods, the Department found that mobile data could be used to spot patterns, and applied at a scale no other measurement tool could offer.

Working with Citi Logik the Department was able to use anonymised mobile location data from Vodafone to establish the travel movements and frequency. The mobile data from Vodafone represented a large and robust data set upon which to extrapolate estimates. There was also flexibility in the way the anonymous data could be analysed in the Citi Logik platform, helping the team achieve a clear picture of what was happening where and when.



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Billions of events were fed into the Citi Logik platform. This raw data was then analysed further to identify to get more specific about how many people were moving and they were travelling to, the travel routes, and whether the sites were places people were moving around in, so shopping centres, or to dwell so likely to be for work. This could then be expanded to produce more precise estimates of the total number of people moving across the border each year.

Wendy Lecky, from the Department’s EU Exit Analysis Branch explains the findings: “The modelling established that around 110 million people cross the border each year and that those living closest to the border were more likely to travel. We were also able to establish if people were crossing the border for work or other purposes and it drew out how those movements changed during the week compared to the weekend. As a result, we were able to say with confidence that the scale of people movement was significant and that any restrictions on the movement of people would have a larger impact on specific areas.”

## Future Planning

“Working with Citi Logik was very positive, explains Wendy. “And despite our different locations we were able to work together remotely to achieve our project goals. The scale of the mobile data Citi Logik had access to directly contributed to the quality of the analysis they could do. It is now a widely accepted figure for within Northern Ireland and the rest of the UK – in fact the numbers have even been ‘adopted’ by the Office for National Statistics being utilised in one of their publications.

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Since conducting the study, a memorandum to agree a Common Travel Area has been signed between the Irish and UK Governments, allowing free people movement to continue.

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