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# WELSH WATER EMBARKS ON PROOF OF CONCEPT IN WATER LEAKAGE MANAGEMENT WITH CITI LOGIK

a Citi Logik Case Study

**Leakage reduction remains a large challenge for Utility companies across the UK. Whilst there are a number of techniques currently used to identify leakage, Dwr Cymru Welsh Water (DCWW) are always looking for new innovative approaches to improve accuracy and efficiency in targeting. In 2019, DCWW engaged with Citi Logik to understand the opportunities that mobile phone data may present in understanding true demand in an area, and therefore identify areas of potential leakage and where demand is not reflected.**

## Using census data to manage usage patterns

One method employed is to use population figures in an area to understand the theoretical demand and then match it against the actual usage in that area. Where usage is higher than that expected it may be a target area for greater leakage scrutiny. The population figures are currently based on a number of data sets such as census data as well as privately purchased population statistics.

But if DCWW wants to understand the theoretical usage on any particular day, week or month it also needs an understanding of the transient population to do its calculations. For example, a flux of tourists over a period of weeks in the summer at coastal resorts or over a few days at the annual Hay on Wye festival, or changes in the city as students come and go all impact the theoretical usage value.

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## Working with Citi Logik to take a new approach to using data

To become more accurate, Welsh Water embarked on a proof of concept project with Citi Logik in which it uses anonymous mobile data sets from Vodafone to more accurately model population in an area.

This approach helps to better understand the population and movement but it can also help the team at DCWW better understand other operational demands such as general network management and resource management.

Euan Hampton, who works within the Innovation team at DCWW, commented: “Citi Logik is recognised by government departments for its innovative work in using Vodafone mobile data for transport planning. It made them a natural partner for us to undertake this proof of concept study with. Our hope is that during the proof of concept, our DCWW data analytics team will be able to extract further insight into resident and transient populations.”

Get in touch: enquiries@citilogik.com

www.citilogik.com