Modelling working from home impacts on travel and land use

Waka Kotahi Research Paper

Working from home has altered patterns of travel in New Zealand. Whilst we don’t yet know the whole story of how this plays out, we do know that the tools we use to base decision making need to adapt and include changes in commuting travel behaviour.

This research paper is tasked with understanding the causes of choosing work from home as a mode of travel, and furthermore how to represent these choice attributes in a strategic modelling context. The research also considers wider methods available for capturing and applying in a forward-looking framework.

Some of the influences of behaviour are too complex to be forecast using traditional methods. They require an alternative framework to develop ‘futures’ for. Enter scenario planning. Some of the variables and their statistical characteristics would play well in a traditional model. Some of them would play better in the next generation of modelling – Activity Based Modelling.

Different approaches have been considered and weighed up in terms of feasibility, effort, resources and ease of use within the industry.

The outcome of this work is a framework which can represent WFH in modelling and appraisal, but one which brings together the paradigms of traditional forecasting methods and elements of scenario planning and ‘Decide and Provide’.