

Somar Digital - Total Cost of Journey Calculator

Hoe ki angitū - Waka Kotahi Innovation Fund

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Executive Summary

Introduction

Somar Digital applied to the Waka Kotahi Innovation Fund Hoe ki angitū, in July 2022, under the challenge of “Integrating low emission first-and last-mile travel solutions”.

Somar Digital received \$155,700 to fund the development and delivery of the Total Cost of Journey Calculator. The calculator would use the costs of taking public transport (data provided by Metlink) and compare those to the costs of taking a private vehicle. The private vehicle costs would include petrol, insurances, vehicle wear and tear, parking, and other vehicle running costs.

Objectives of the project

By providing users with more information at a time when they are deciding how to get around, we aim to encourage more users to take public transport - ultimately reducing climate impacts, congestion - key tenants of the challenge.

Methodology

The project had three phases:

- Research and design sprint: user experience research and design (\$31,500) and a development phase (\$124,200). It was delivered with Agile project management, using our existing design and development teams.
- Release of the calculator: the calculator tool was released on to the Metlink’s website and app journey planner in June 2023. It provides an estimate of the total cost of taking a car on the same journey. Total cost is an estimate of average running costs for a typical diesel, petrol or electric vehicle and includes fuel cost, road user charges, licensing costs, insurances, vehicle wear and tear, and parking costs. Fuel and electricity costs are based on recent fuel costs and home charging costs (for electric vehicles). This was delayed from its original timeline due to a redesign of the Metlink website and app which occurred simultaneously. The calculator sits within the Metlink Journey Planner, which is part of the Metlink website and apps. This gives access to the 200,000 monthly users of the website and the 70,000 monthly users of the Android and iOS.
- Understand impact on mode-shift: we intended to collect data on the number of users that made mode-shift decisions based on the outputs of the tool, by including a question in Metlink’s annual customer satisfaction survey. This was not able to be completed, but we plan to do this in 2024.

Key findings

Since the release, the calculator has seen significant uptake. It has been featured on over 260,000 journey plans on the Metlink website and apps, and 10.8% of Metlink users open it up to get further information about their private vehicle cost comparison. We show approximately 170 cost comparison calculations per day. Additionally, 68% of users have given feedback that they find the tool useful. Most of the 32% of respondents that gave negative feedback wanted more information in the tool, or about their specific journey, or said that the public transport cost was high.

During the research phase we found important decisions had to be made about how to calculate some cost factors. For example, insurance or vehicle wear and tear could vary, not only from vehicle to vehicle, but they also depend on unknown external factors. We made some assumptions and averages to take these variations into account.

We had intended to undertake some research to link the calculator to mode-shift decisions by including some questions in a Metlink customer survey. But the timing of the release of the calculator tool was not aligned with the survey.

We have continued to take feedback from users while the calculator tool has been live. We committed to continuing to improve the tool's usefulness based on this feedback.

Next steps

The next steps for this project include making future improvements to the Metlink calculator and ways to grow the number of users, the development of other use cases through engagement with potential customers outside the public transport sector, and the use of the Metlink calculator for other public transport customers.

Later in 2024 we will arrange for a survey either through Metlink or through the tool itself to seek feedback on whether the tool had an impact on mode shift. We will share the results with Waka Kotahi.

Through the Innovation Fund, Somar Digital has been noticed by other organisations in the energy sector and public transport authorities. We are exploring ways to leverage the underlying calculator engine for these use cases and hope to deliver some new products in 2024.