

Governments often invest in models of infrastructure networks - managed by others

Infrastructure demand models tend to be built by specialists for specialists with little opportunity for the multi-disciplinary planner, policy-maker or entrepreneur to experiment or build their own. The public sector is increasingly being asked to be more generalist, entrepreneurial and innovative – all the while doing more with less.

Modelling techniques are changing

Current modelling techniques may be insufficient to analyse the range of potential opportunities and disruption within infrastructure sectors. Many models are aggregate models of infrastructure networks and require significant modification to consider new scenarios, convergence across sectors or land use change. Agent-based or activity-based (disaggregate) models, which focus on individuals or vehicles, tend to be more flexible at incorporating complex options or behavioural choices. These methods, along with new data sources and microsimulation techniques, are needed to effectively plan infrastructure networks. Often pioneered in transport demand modelling, these techniques can be transferable to energy, water and social infrastructure sectors.

Cityzen is a platform and ecosystem built for end users rather than for technical specialists

It provides a base set of data collection and model visualisation functionality and welcomes the latest and greatest innovations in analysis through a library of easy to understand applications (“App Store”).

The platform also enables easy publication of model visualisations for public-facing websites or internal testing and validation.

Users pay a nominal subscription for platform access and may purchase apps from developers. This should bring down the cost to access high quality modelling and exposes a wider range of infrastructure policy-makers, the private sector and interested citizens to the analysis – involving them more closely in the process of citymaking.

Building a platform for scale requires focusing on high quality core features

The Cityzen platform currently does not exist and requires a rigorous assessment of its product market fit. The aim is to make it easy for anyone to access infrastructure demand modelling without having to necessarily dive into theory or expensive technical consultants.

To make it worthwhile for users, the core features should be sufficient for most 80% of their needs and only unique features would be required from the “App Store”.

Dylan has successfully brought teams together around entrepreneurial ventures in the past

As someone who has personally been through this generalist to specialist path, Dylan will chart the initial vision but will eventually need to join with technical specialists and software developers to deliver the platform. The InfraChallenge mentoring would be invaluable in this initial idea development phase.

Dylan thrives on the creative process and team building associated with new ventures (having led small two small businesses as a student). He has a Bachelor of Commerce, a MSc in Sustainable Urban Development and 6 years of consultancy experience in both Canada and Australia. He currently works for Infrastructure NSW advising government on infrastructure policy and investment prioritisation.