CASE STUDY:
DATA VISUALISATION

We helped City of Casey discover the gaps in their public transport accessibility with a data visualisation tool that uses the same technology as Uber, so they could advocate for more public money to improve public transport.

City of Casey is a local government area in Victoria, Australia, 40km south-east of Melbourne CBD. It is one of Victoria's largest and fastest growing municipalities.

1 - CHALLENGE

The City of Casey has the most residents of any Victoria municipality. Casey's population has doubled over the past 10-years and is set to exceed 500,000 people by 2041. Casey is committed to Plan Melbourne's 20-minute City concept, which includes access for all constituents to essential services by sustainable transport modes within 20-minutes. The problem is that infrastructure has not kept pace with population growth, and public transport does not currently offer a level of service that makes it a legitimate transport alternative to the car.

The council wanted to launch a "Commit to Casey" campaign to advocate for funding major infrastructure projects and services to enable it to meet the 20-minute target. First, however, they needed to clearly understand and be able to communicate – more than anecdotally -exactly where the transport gaps were.

2 - SOLUTION

Orbica worked with City of Casey to develop an interactive web tool to illustrate the level of public transport accessibility to locations in and around the municipality that are deemed essential to day-to-day life: hospitals, health centres, government services, education, entertainment etc. We layered publicly available datasets such as GTFS feeds of public transport, census data and Vic Roads centreline datasets, in conjunction with open-source tools such as Postgres, Geoserver and DeckGL. The result is an interactive data visualisation that use the same technology as Uber to bring to life the geographic coverage of routes of buses and trains to key services over a time period. It includes an analysis of routes to these locations, the frequency and associated population catchments, thereby identifying service gaps that are a barrier to the 20-minute City.

3 - RESULTS

The prime aim of the web tool was to deliver insights into the inequality of public transport across Melbourne's South East in an easy-to-understand, user-centric way. This newfound clarity allowed City of Casey to advocate for fast, frequent and reliable public transport services for its community.

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