Information Session – Wednesday 10 May 2023

Bus Boarding Assistant Innovation Challenge

Opendata.transport.nsw.gov.au

Transport pays respect to Elders past and present, and recognises and celebrates the diversity of Aboriginal peoples and their ongoing cultures and connections to the lands and waters of NSW.

Agenda

- Welcome Address – Julie Thompson

- Open Data & Innovation @ Transport for NSW – David Phillips

- Bus Boarding Assistant Innovation Challenge – Joel Beencke & Jon Walls
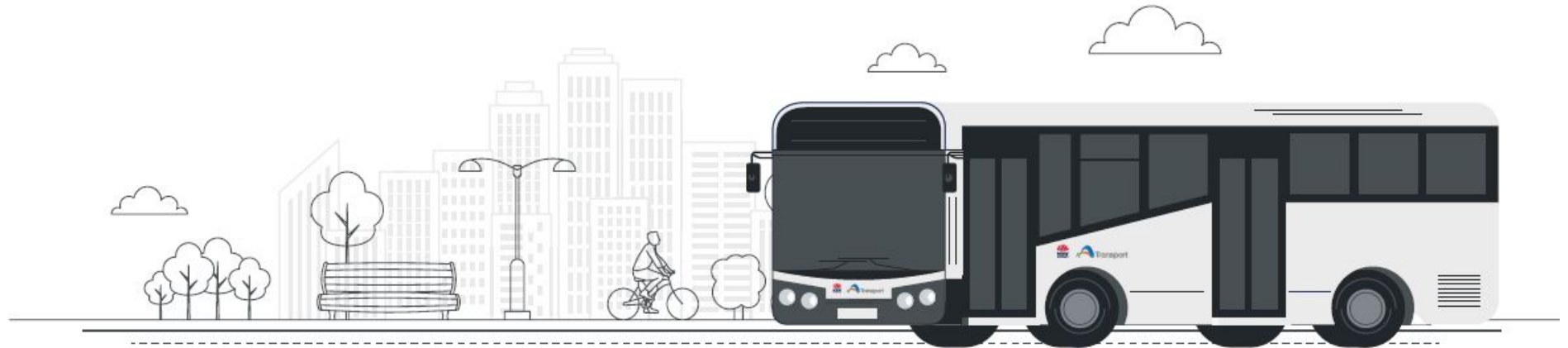
- Q&A Session – Marcela Kilkenny

Welcome Address

Julie Thompson
Director of Social and Economic Policy
Transport for NSW

Open Data & Innovation

David Phillips,
Data & Apps Program Lead, Open Data & Innovation
Transport for NSW

Open Data:
A platform for innovation since 2016

Opendata.transport.nsw.gov.au

18.1B API hits

3100+ registrations for free TfNSW ODI events

30k+ visitors to the Open Data forum

1260+ Open Data Forum posts

275K+ visitors to the Open Data Hub

217 datasets

registered applications **8,268**

61,087 registered users

open data

Innovation Challenges

Endorsed Apps

Innovation Challenge Process

INFORMATION SESSION
An Information Session is held to for the community with a Q&A session with TfNSW and members of relevant industries.

INTERNAL PANEL SHORTLIST APPLICANTS
An internal panel from various departments across TfNSW shortlist applicants to pitch their ideas on Pitch Day.

FINALISTS ENTER INCUBATION
Finalists are informed and incubation begins. Finalists receive support from the ODI team and TfNSW subject matter experts.

CHALLENGE OPENS
Information on the Innovation Challenge is published on the Open Data Hub and applications open.

APPLICATIONS CLOSE
Applications officially close on the Open Data Hub.

PITCH DAY EVENT
A Pitch Day is held for shortlisted applicants. The panel of judges are from Transport and members of relevant industries.

REAL WORLD TRIALS
Selected incubatees will enter real-world trials on Transport for NSW buses.

Bus Boarding Assistant Innovation Challenge

Joel Beencke
Innovation Lead
Open Data & Innovation
Transport for NSW

Challenge Statement

Can you create a digital solution to empower people who need help to hail and board a bus?

The Problem #1

Signalling the bus driver

- **Blind, vision impaired** and people with **intellectual/ cognitive disabilities** have difficulty identifying an approaching bus.

- **Limited mobility** travellers can have difficulty seeing the bus and being seen by the driver.

The Problem #2

Requesting the boarding ramp

- It is not always obvious to **drivers** when **limited mobility** travellers need to use the boarding ramp.

- **Drivers** benefit from knowing the ramp is required before they arrive.

  - At some stops drivers must use designated ramp areas.
  - Some buses have manual ramps at the front. Other buses have an automatic ramp at rear doors.

The Problem #3

Am I at the right stop?

- **Blind and vision impaired** travellers can have difficulty determining if they are at the correct location.

  - Some of our bus interchanges are complex, with multiple bus stops.

The Problem #4

Am I near my destination?

- **Blind, vision impaired** and people with **intellectual/cognitive disabilities** can have difficulty determining where they are on their journey.
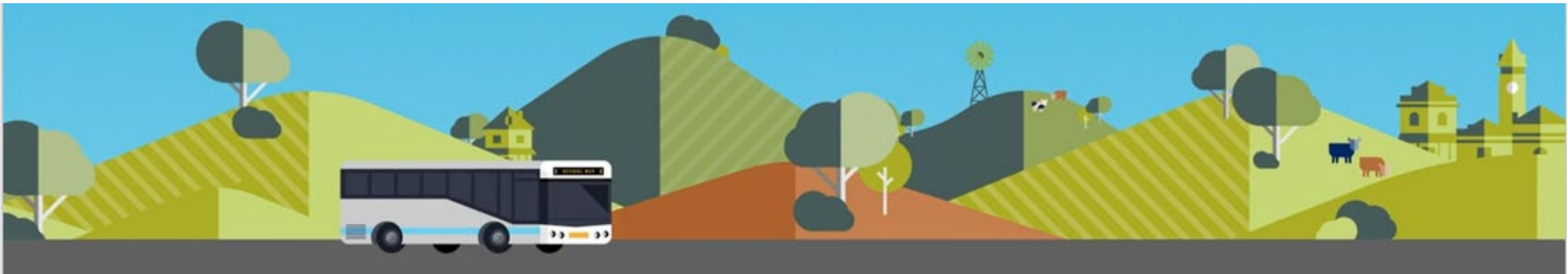
The Problem #5

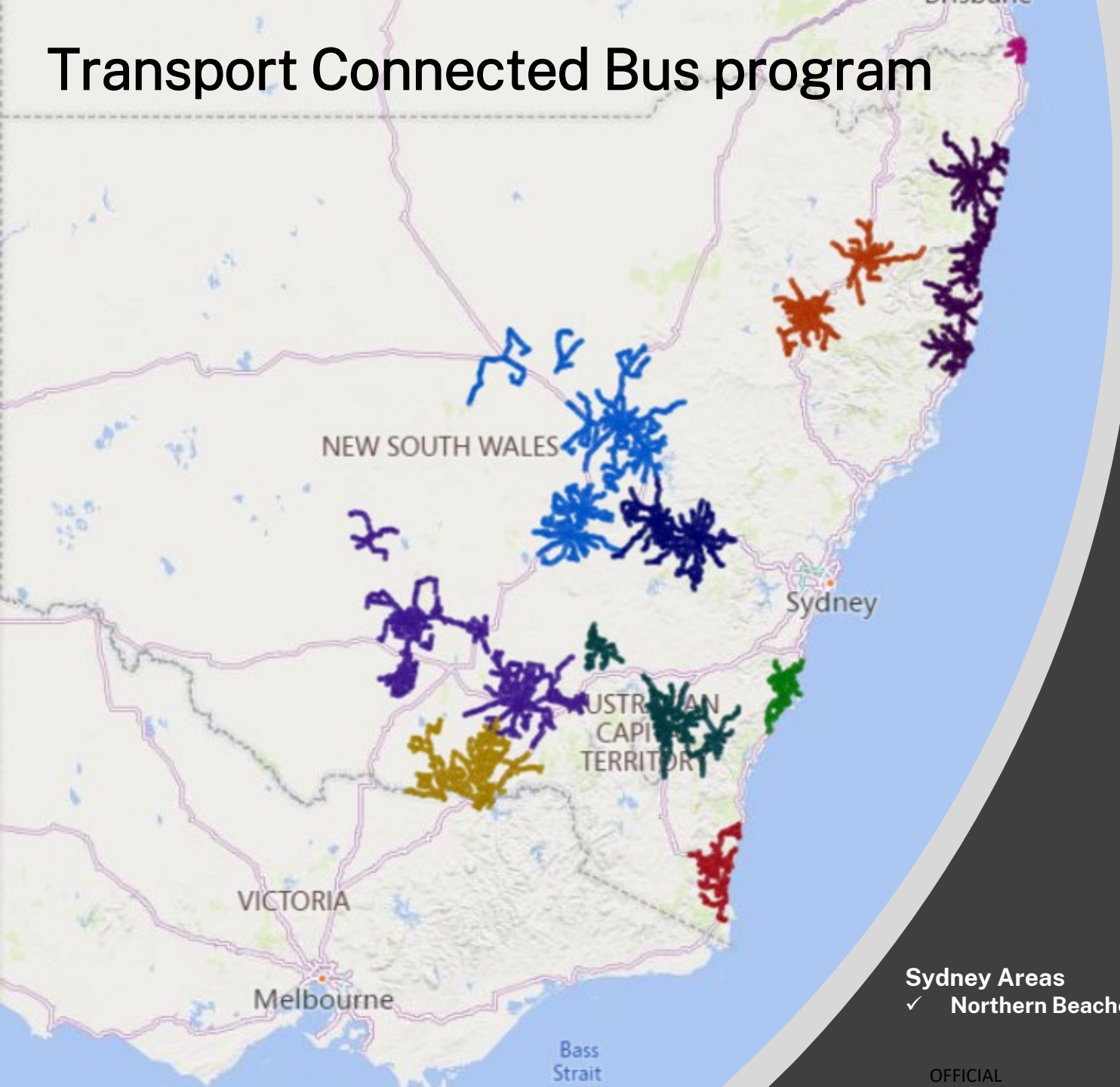**Requesting the bus to stop when onboard**

- **Blind**, **vision impaired** and **limited mobility** travellers can find it difficult to press the stop button.

Emerging Bus Technology

Jon Walls,
Director Rail Systems Technology & Strategy
Transport for NSW

Transport Connected Bus program

Customer Information
Customers can use websites and apps to **plan their journeys**, and via real-time info know when their bus will arrive and how **full** they are

Performance Management
Data Driven performance reporting enables enhanced contract management, leading to **value for money** RRBSC Contracts

Regional Areas
- ✓ Albury
- ✓ Armidale
- ✓ Bathurst
- ✓ Bega
- ✓ Coffs Harbour
- ✓ Dubbo
- ✓ Grafton
- ✓ Nowra / Bomaderry
- ✓ Griffith
- ✓ Orange
- ✓ Parkes / Forbes
- ✓ Port Macquarie
- ✓ Queanbeyan
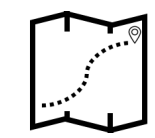- ✓ Tamworth
- ✓ Tweed Heads
- ✓ Wagga Wagga

Sydney Areas
- ✓ Northern Beaches

16 Regional Areas

~80 Operators

~1300 Vehicles

~1900 Routes

New technology

Requests can be sent via API to buses with new console

- Notification message appears to driver when approaching stop.
- Driver console displays request icon in list of upcoming stops.

TfNSW Open Data APIs

- **Bus stop geo-location, Realtime bus updates, and more**

- [Public Transport - Timetables for Realtime data](#)
  - Static timetable, stop locations & route shape information
- [Public Transport - Realtime Trip Updates](#)
  - Stop time updates for active trips, replacement vehicles, and changed stopping pattern
- [Public Transport - Realtime Vehicle Positions](#)
  - Current vehicle positions
- [Public Transport - Realtime Alerts](#)
  - Service alerts for contextual information about events and disruptions
- [Trip Planner APIs](#)
  - Stop Finder, Trip Planner, Departure Monitor, Service Alerts, POIs

- New [Bus Boarding Assist API](#) (Restricted access)
  - Send/cancel request to bus

open
data

Boarding Assist API

This boarding assist only works with TCB and Bline buses.

GET	/cancelpickup	cancel the requested passenger pickup

Show/Hide | List Operations | Expand Operations

Request a Passenger pickup at a stop on an active trip

GET	/passengerpickup	passenger pickup request

[BASE URL: /v1/boarding

Response Content Type application/json ⌄

Parameters

Parameter	Value	Description	Parameter Type	Data Type
Trip_Id	(required)	The GTFS Trip Id of the active trip	query	string
TSN	(required)	the TSN of that active trip	query	string
Name		Text string	query	string
Message		Text string	query	string

Timeline

Registrations open for information session
17 April 2023

Information Session and submissions open
10 May 2023

Submissions close
24 May 2023

Pitch Day
7 June 2023

Review
December 2023

Trials begin
September 2023

Incubation begins
July 2023

Judging Criteria

1. **Customer Experience and Usability** - is the solution appealing, effortless, intuitive and easy to use for the target segments?

2. **Market Feasibility** - How well do you understand the customer, what benefits they will derive from the solution and how likely they are to use it?

3. **Innovation** - Is the product unique and original, and does it demonstrate tangible technical innovations?

4. **Technical Feasibility** - Can the team deliver the solution?
Can they demonstrate an understanding of technical inputs to solution development and ensure ongoing technical stability?

5. **Commercial Sustainability** - is the solution likely to be commercially sustainable in the long term?

Seed Funding

- Up to $50,000 seed funding per team selected to enter incubation.

Q&A Session

- Facilitator:
  - Marcela Kilkenny – Senior Data & Apps Analyst – Open Data & Innovation, TfNSW
- Panel:
  - Julie Thompson, Director of Social and Economic Policy, TfNSW
  - Jon Walls, Director Rail Systems Technology Strategy – Infrastructure & Place, TfNSW
  - David Phillips, Data & Apps Program Lead – Open Data & Innovation, TfNSW
  - Joel Beencke, Innovation Lead – Open Data & Innovation, TfNSW

Next Steps

- Submissions close 11:59pm on Friday 24th May, 2023

- Website for submissions and information: opendata.transport.nsw.gov.au/bus-boarding-assistant-challenge

- Questions: opendataforum.transport.nsw.gov.au or email us opendataprogram@transport.nsw.gov.au

- Follow us on Twitter: @DataTfNSW