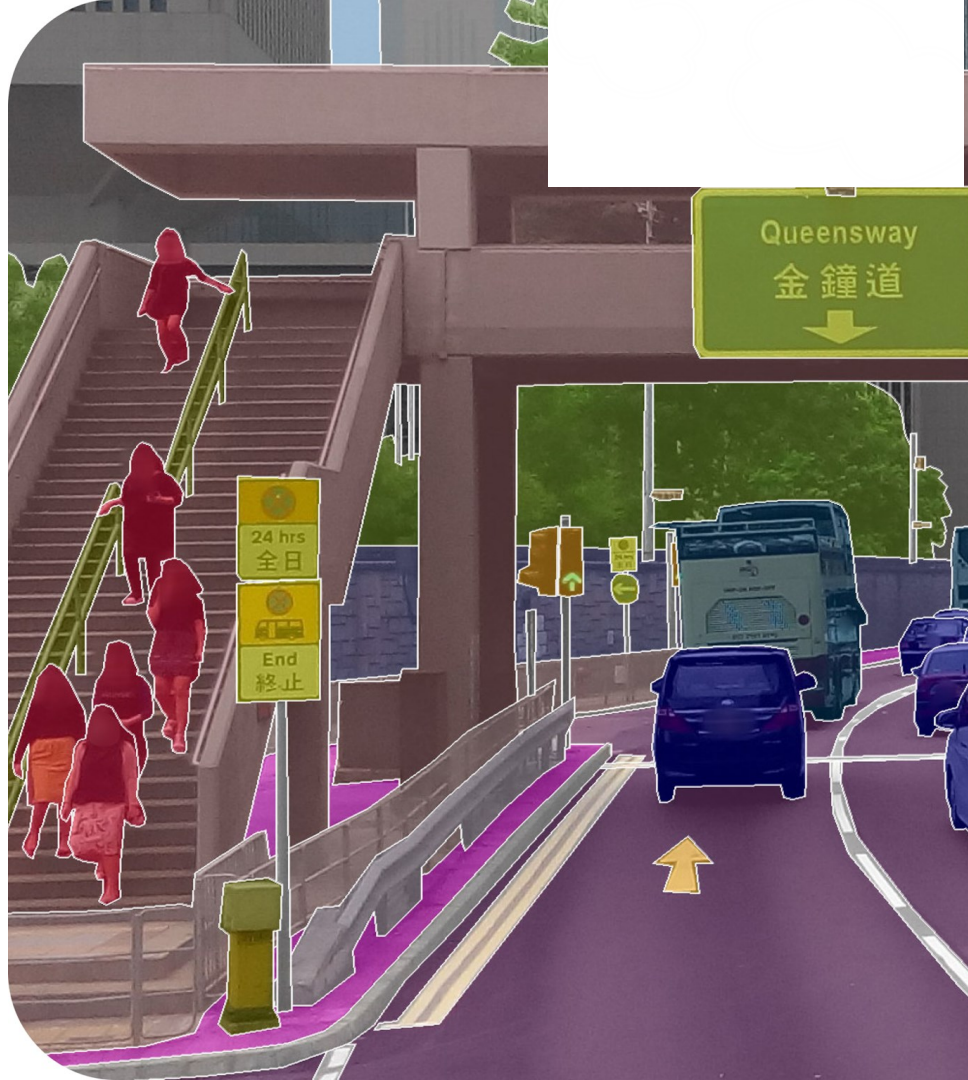


Computer vision and collaboration

Spatial Information Day 2019

*Edoardo Neerhut - Strategic Partnerships
Manager*

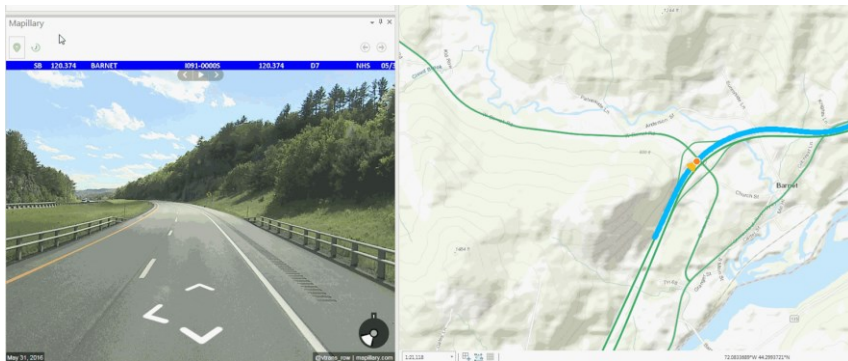
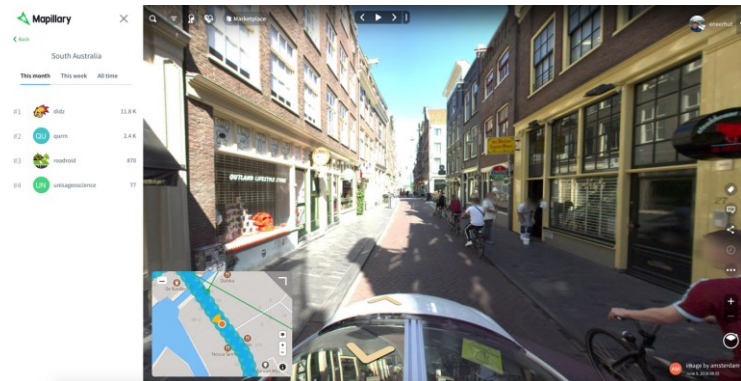
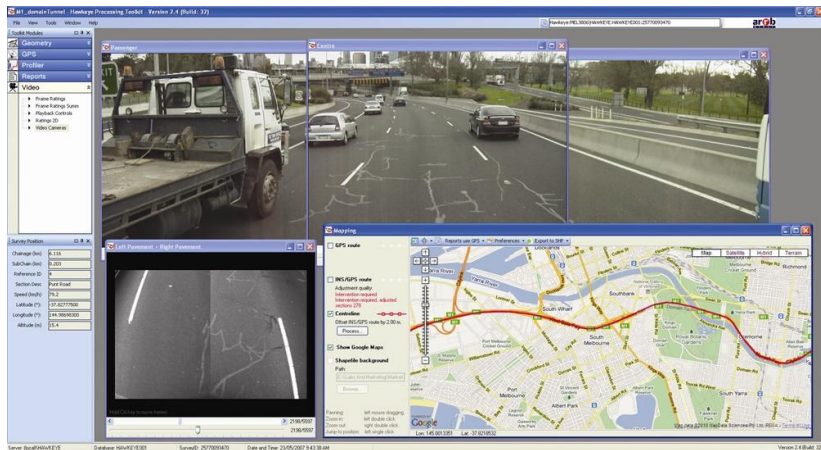




Traditional road assessment



Why do cities collect street-level imagery



What kind of assets are important?

- ▶ Benches 
- ▶ Bike racks 
- ▶ Fire hydrants 
- ▶ Mailboxes 
- ▶ Phone booths 
- ▶ Street lights 
- ▶ Utility poles 
- ▶ Crosswalks 
- ▶ CCTV Cameras 
- ▶ Catch basins 
- ▶ Manhole 
- ▶ Information signs 
- ▶ Rubbish bins 
- ▶ Traffic lights 

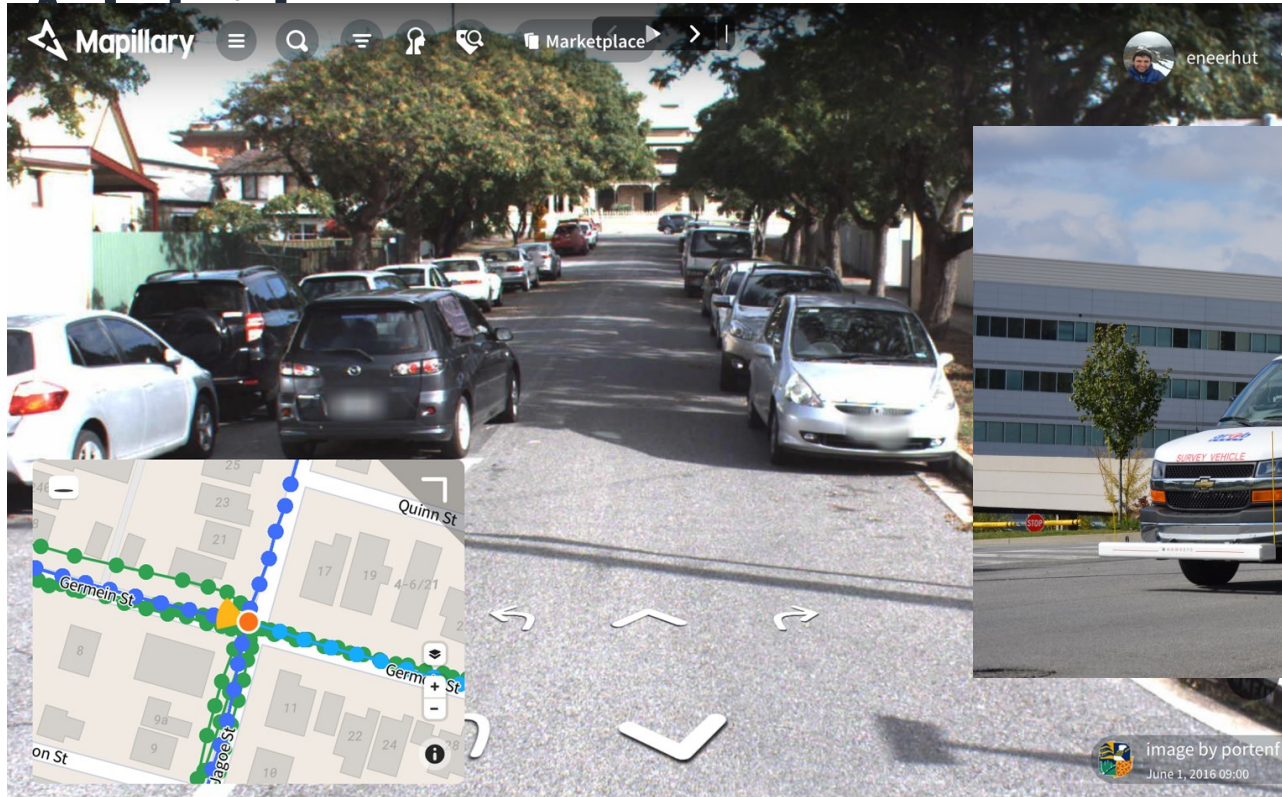




City of Port Adelaide Enfield



Open images/data from City of Port

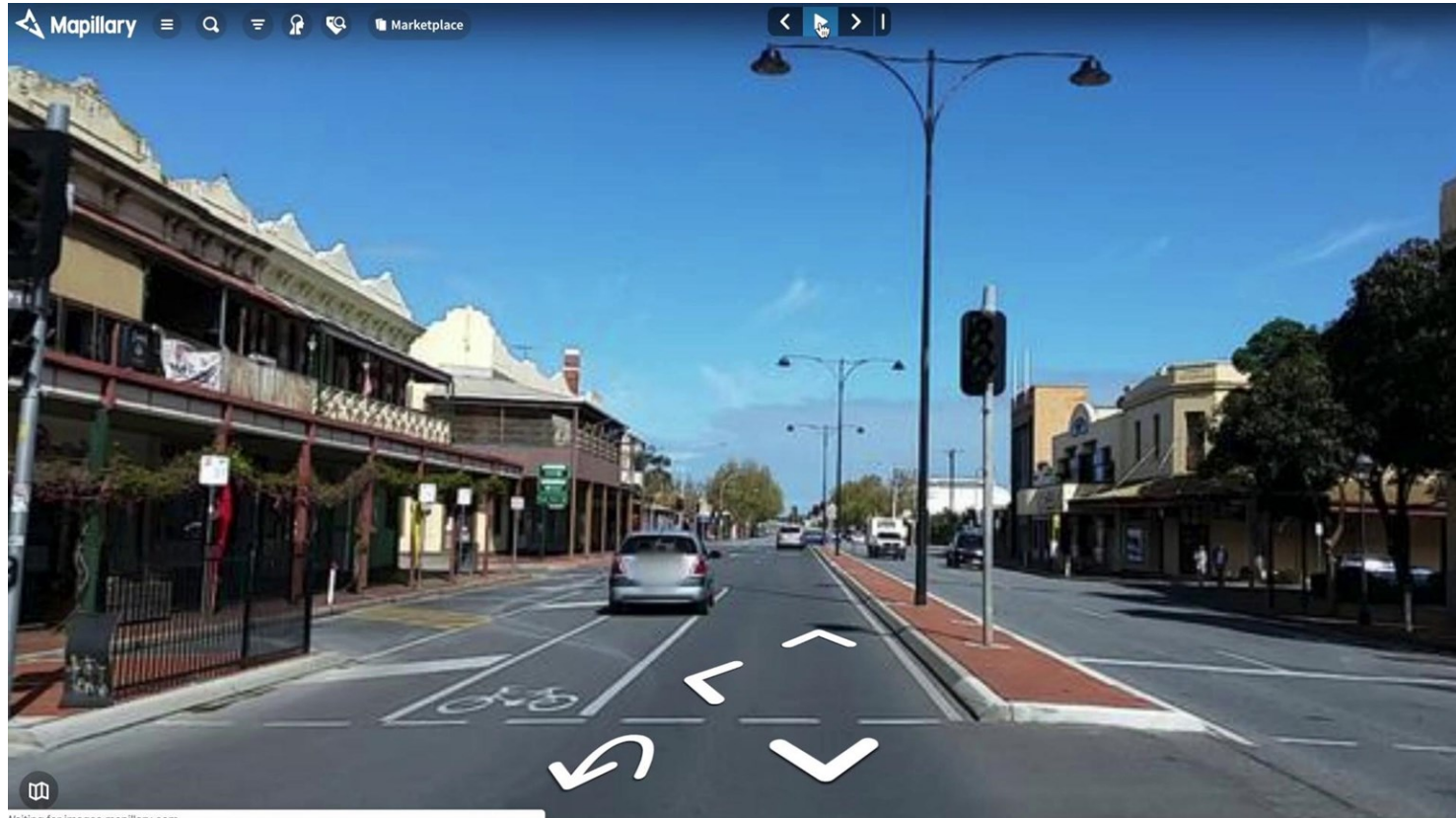




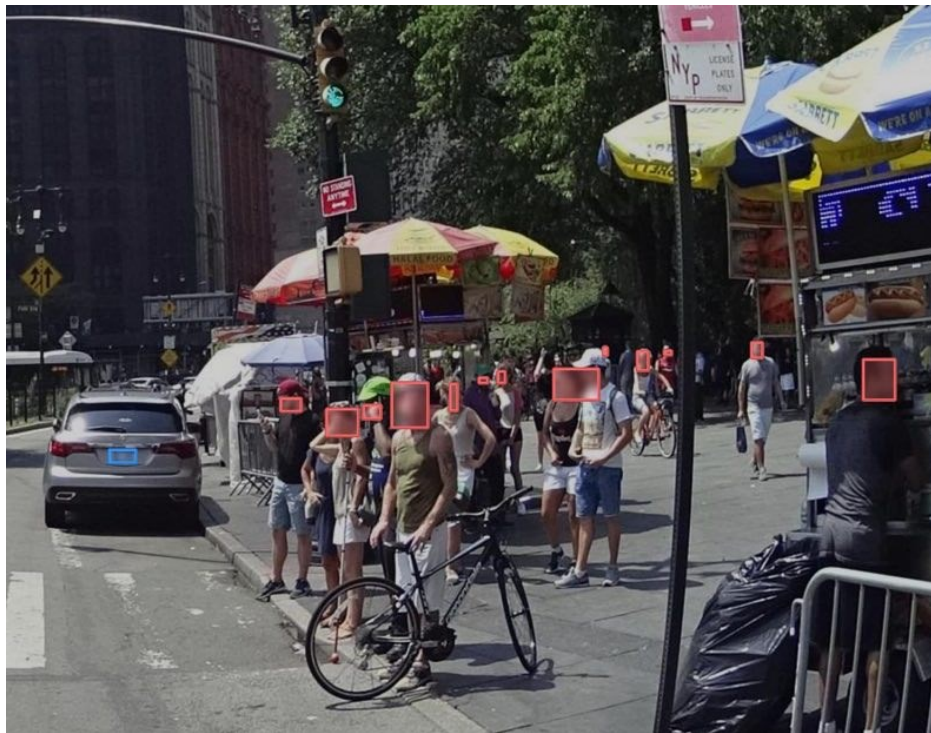
Computer vision & machine generated data



Improved viewing experience



Privacy



	Face (Recall)	Face (FPR)	License (Recall)	License (FPR)
Microsoft API	5.9%	0.0013%	N/A	N/A
Google API	9.4%	0.0035%	N/A	N/A
Amazon API	40.7%	0.0323%	N/A	N/A
Google Street View*	89% (cities) 90.7% (campus)	0.1%	96.5% (US) 93.6% (EU)	0.1%
Mapillary	99.3%	0.063%	99.9%	0.078%



Machine generated map features

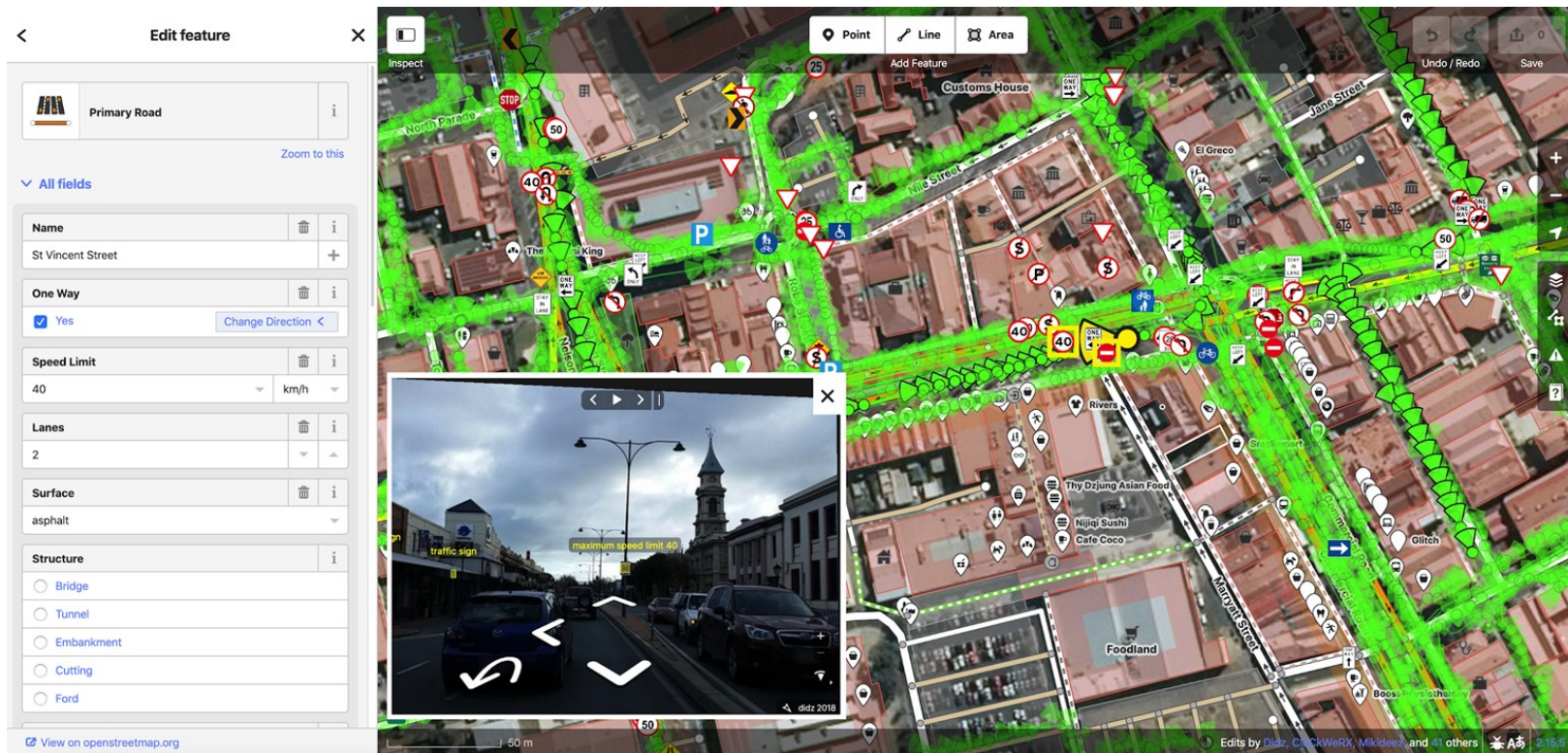




Collaboration and community engagement



Imagery and map data in OpenStreetMap



Port Adelaide open data

Enfield

Followers

2

Organisation



CITY OF

Port Adelaide Enfield

Port Adelaide Enfield Council

Established in 1996, the City of Port Adelaide Enfield is one of the largest metropolitan Councils within South Australia. Extending from the River Torrens to Outer Harbor and... [read more](#)

Social

Google+

Twitter

ISO19115/ISO19139 XML

RDF

JSON

Public Toilets in City of Port Adelaide Enfield

Public Toilets in City of Port Adelaide Enfield. Only includes ones that are open 7 days a week during the day. Excludes toilets that require a key by arrangement. Data available to download in various formats from Council's open data portal.

Data and Resources



Public Toilets in City of Port Adelaide Enfield

Locations of Public Toilets in the City of Port Adelaide Enfield that are...

Explore

council

port adelaide enfield

public conveniences

toilets

Additional Info

Field	Value
Title	Public Toilets in City of Port Adelaide Enfield
Type	Dataset
Language	English
Licence	Creative Commons Attribution
Data Status	active
Hosted/Linked	Linked
Update Frequency	annually
Landing Page	https://data.sa.gov.au/data/dataset/cb6e69e7-7be1-4205-8092-db8d488e10df
Date Published	28-05-2015
Page Updated	10-09-2019

1 Comment

South Australian Government Open Data Directory

Edoardo Neerhut

Recommend

Tweet

Share

Sort by Newest



Join the discussion...



Daniel O'Connor · 4 years ago

Quite useful!

I've added these to openstreetmap.org, so they should be usable by anyone that uses OSMAnd or similar GPS tools - cyclists, tourists, etc.

1 ^ | v · Reply · Share



OpenStreetMap editing in South Australia

OSMCha

v0.60.5

Order by ▾

eneerhut ▾

Filters (4)

291 changesets.

Verifying motorway_junctions and ref tags from aerial and street level imagery #maproulette

Invalid tag modification

75645269

0 1 0

CloCkWeRX

a day ago

Speed limits

Straight segment in feature

75639810

3 2 0

CloCkWeRX

a day ago

Add speed limits, signs

75639767

1 4 0

KanaLee

3 days ago

Verifying motorway_junctions and ref tags from aerial and street level imagery #maproulette

75585884

0 1 0

LFord

3 days ago

deleted motorway_junctions on way that were not at junctions and ref tags from aerial and street level imagery #maproulette

Invalid tag modification

75585704

0 4 0

← 1 2 3 4 →

Changeset: 75639810

Open with ▾

Verify ▾

DETAILS

CloCkWeRX (50940 edits) created a day ago

Speed limits

Translate

Straight segment in feature

SOURCE

;streetlevel imagery;mapillary;mapillary-signs

IMAGERY

Maxar Standard Imagery (Beta); Mapillary Images;Mapillary Sign s

EDITOR

ID 2.15.5

mapbox

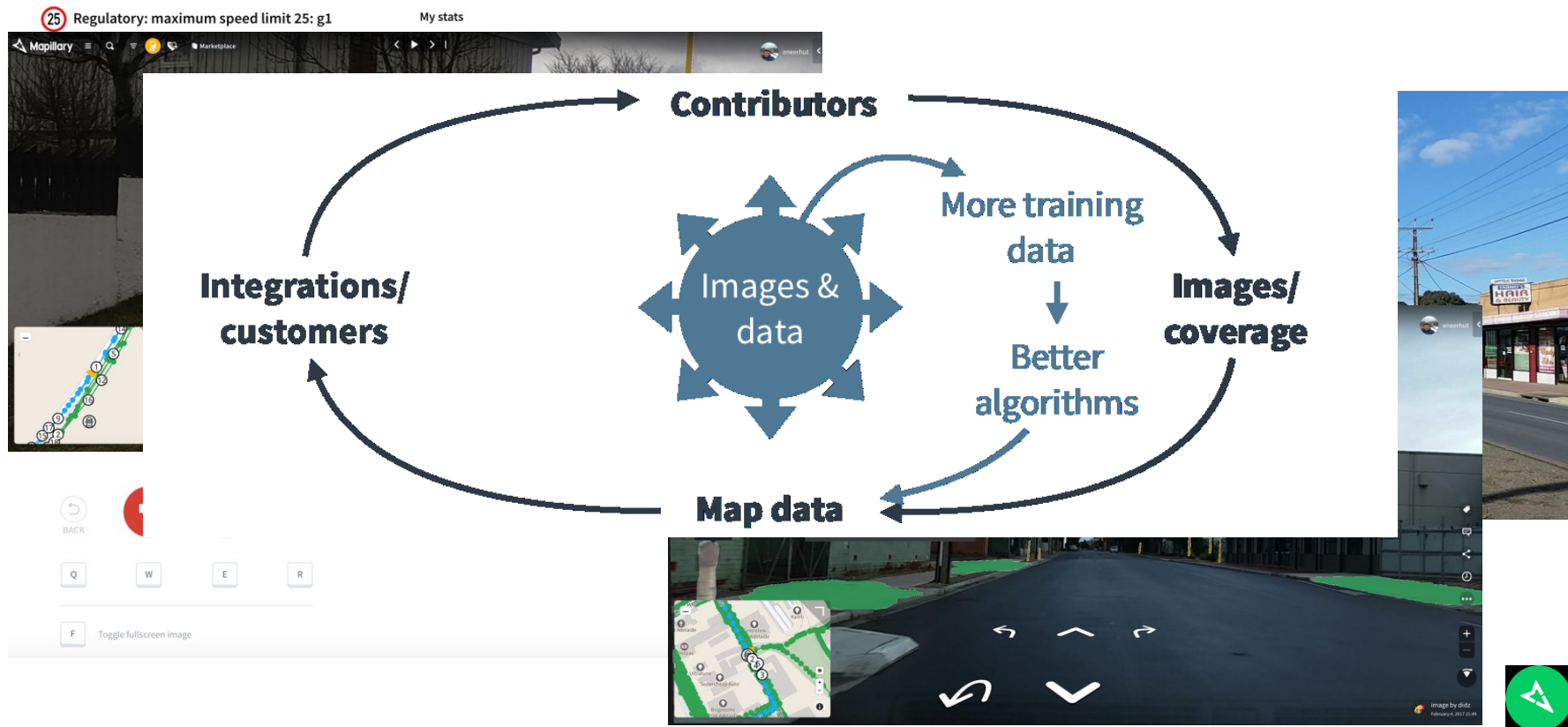
Mapbox © OpenStreetMap Improve this map © DigitalGlobe



Map feature layer in OpenStreetMap



Community verifications

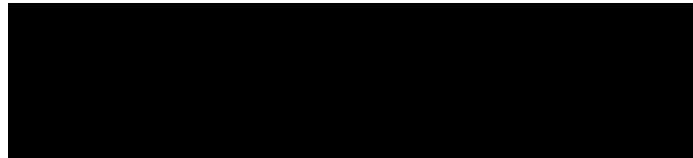
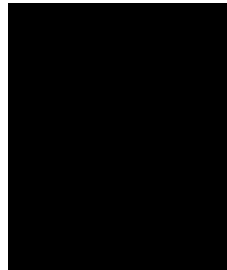




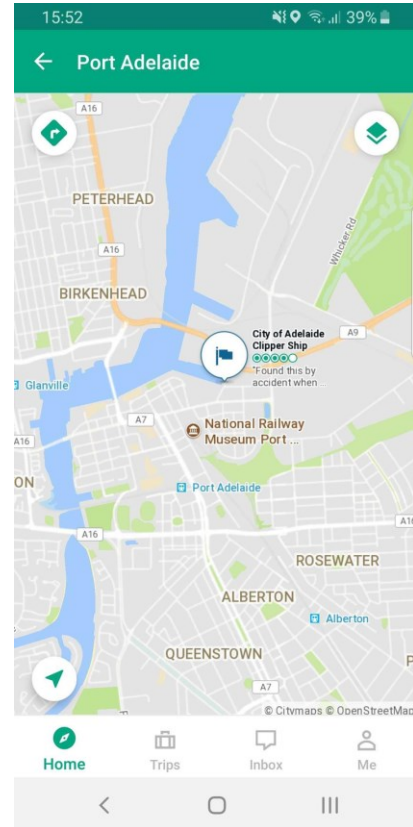
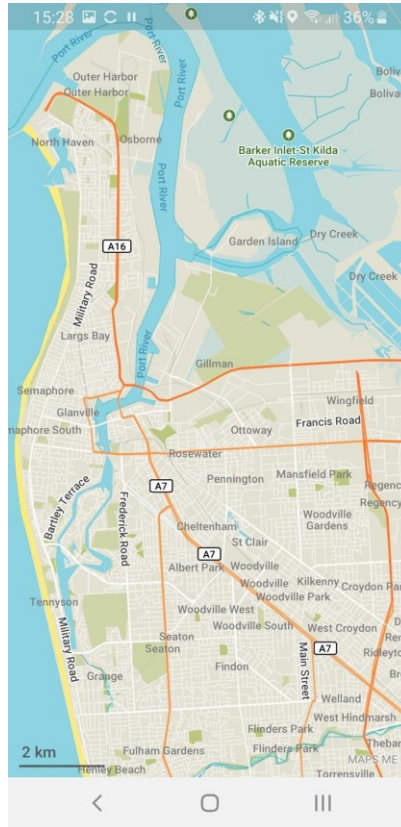
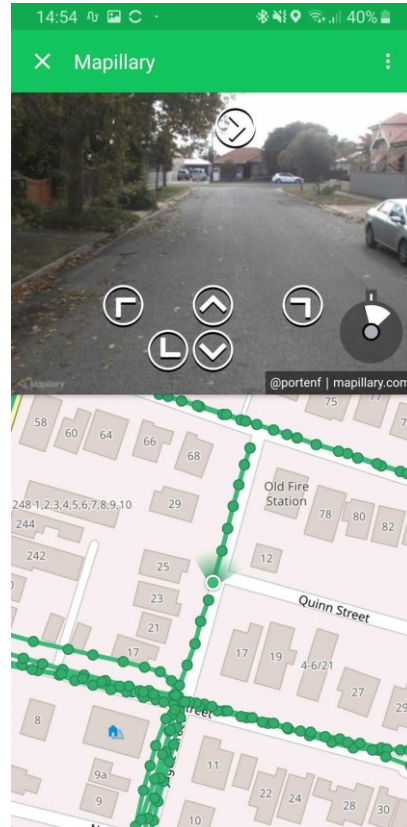
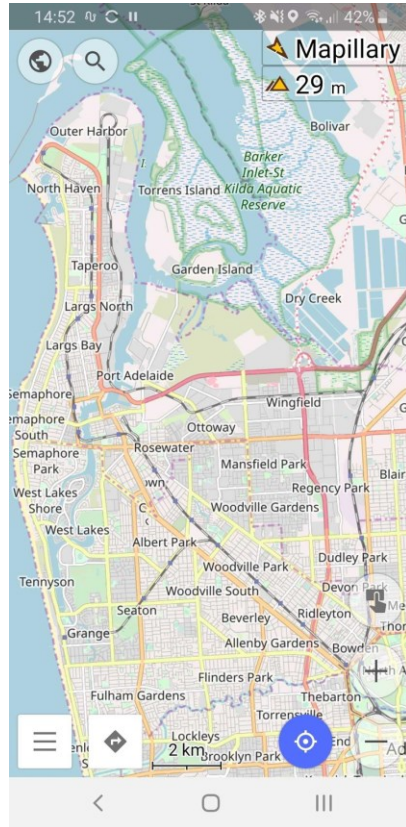
Enriching location based services



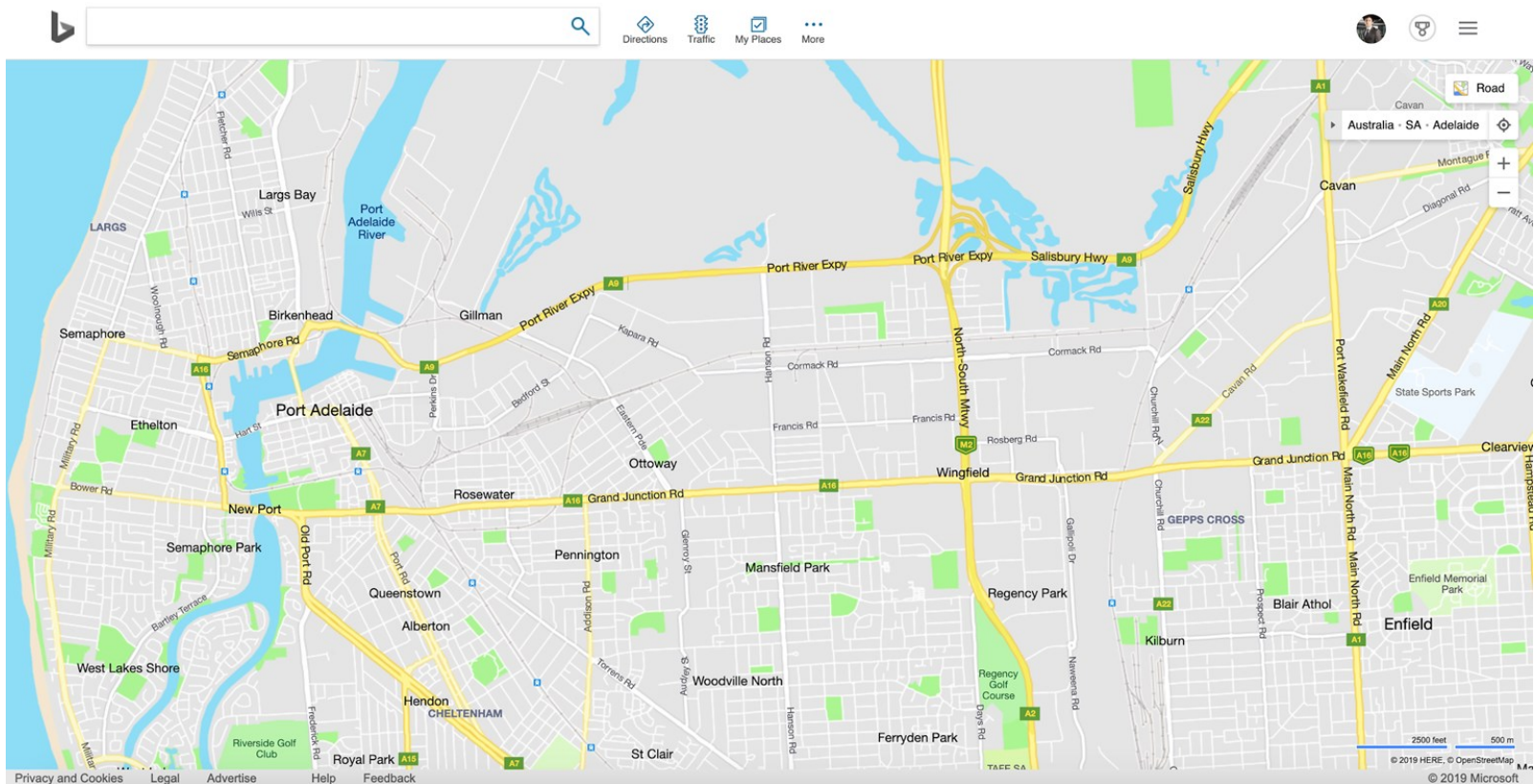
Why does OpenStreetMap matter for a city council?



OpenStreetMap in mobile applications

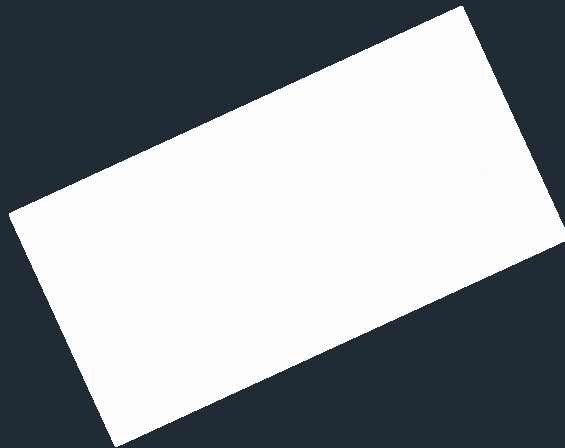


Microsoft's Bing Maps in Australia

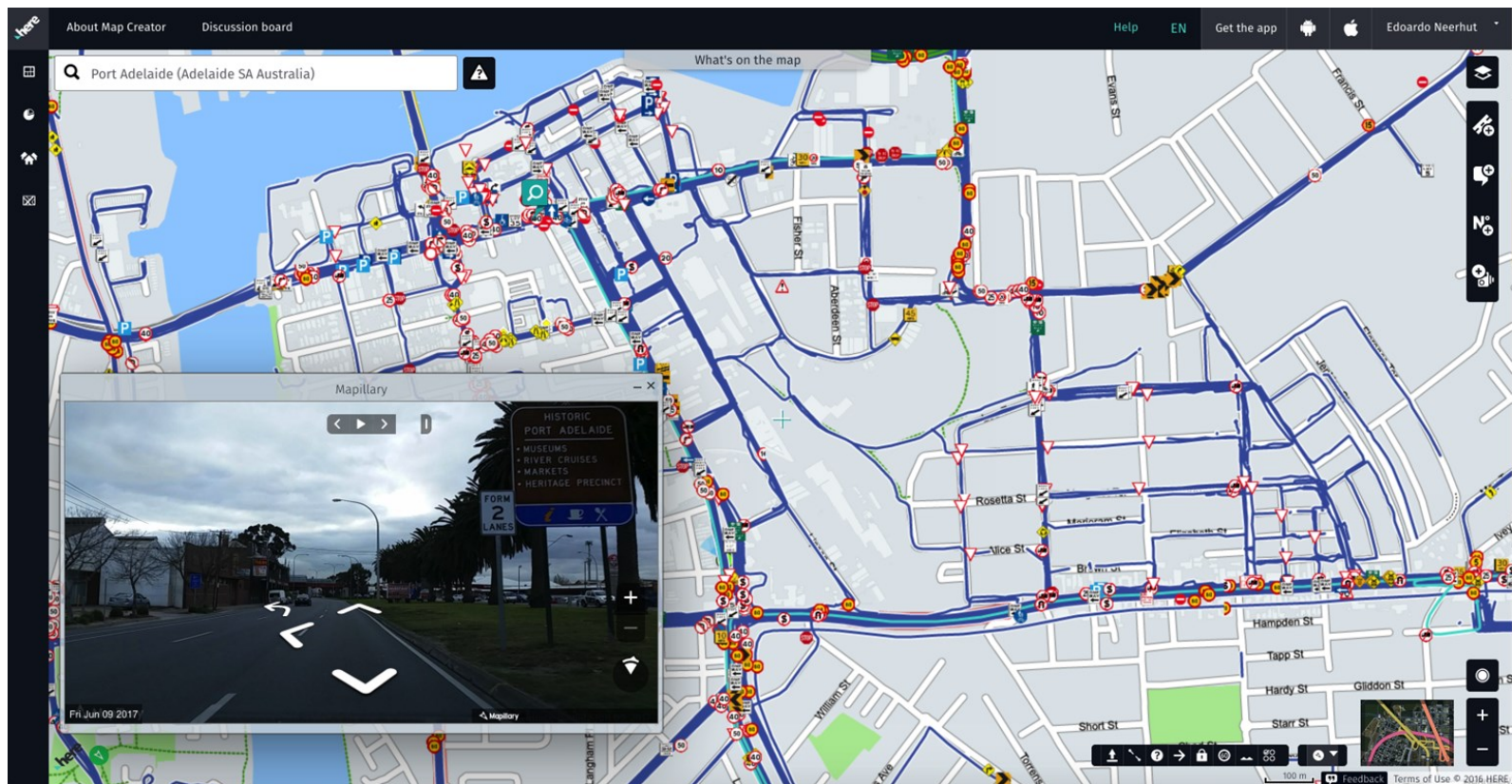




HERE Technologies



HERE Map Creator





Operationalise existing fleets



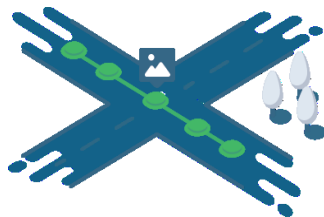
Operationalise fleets

**MAPPING
CAMERA**



Equip fleet with
Mapillary firmware
enabled dashcam

FLEET VEHICLES



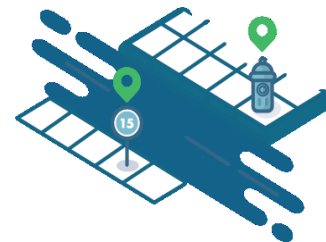
Passive image
capture during
regular activities

**MAPILLARY DESKTOP
UPLOADER**



Mapillary ingests
images/video to
servers and
processes data

IMAGERY & DATA



Location data and
fresh imagery



Operationalise fleets



Let's scale map data collection in South Australia



@mapillary



@eneerhut

