CRP's Lunchtime Launch: Making Monitoring Meaningful

Thursday 25th February 2021

1:15pm – 2pm

CROSS RIVER PARTNERSHIP
Delivering London's Future Together

Today's Speakers

Mariana Barrios Cabrera
Vivacity Labs

Speaker

Susannah Wilks
Director
Cross River Partnership

Chair

Abby McDougall
Technical Project Officer
Cross River Partnership

Speaker

Fiona Coull
Project Manager
Cross River Partnership

Speaker

Stav Friedman
Project Officer
Cross River Partnership

Chat Moderator

Joshua West
Communications & Business Development Manager
Cross River Partnership

Technical Lead

VIVACITY

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Delivering London's Future Together

Today's Agenda

1. Introduction to CRP

2. Making Monitoring Meaningful

3. Vivacity Labs

4. CRP and Data Analysis

Have your say:
Q/A session at the end of all the presentations

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Introduction and Context

Susannah Wilks, CRP

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Delivering London's Future Together

Our Vision

People

Work with engaged people, connecting stakeholders to successfully collaborate and deliver

Places

Deliver great places, sharing best practice whilst ensuring all businesses are supported to grow sustainably

Projects

Deliver innovative projects for partners encouraging businesses to shift from incremental to permanent change, whilst inspiring others to do more at pace

Working towards sustainable businesses and improving air quality.

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CRP's Major Funders

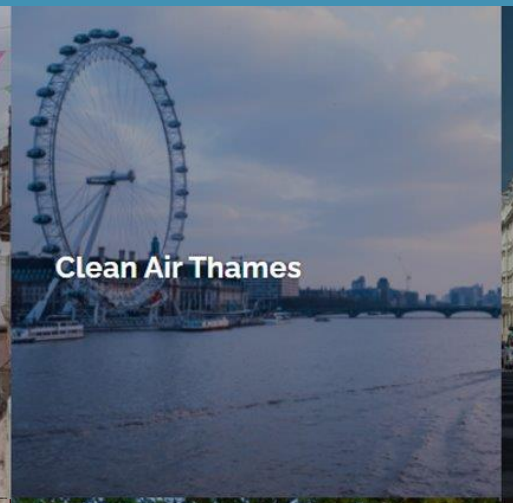
Department for Environment Food & Rural Affairs

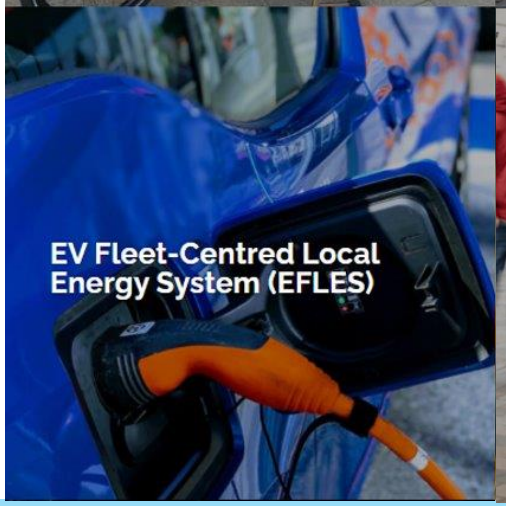
INDUSTRIAL STRATEGY

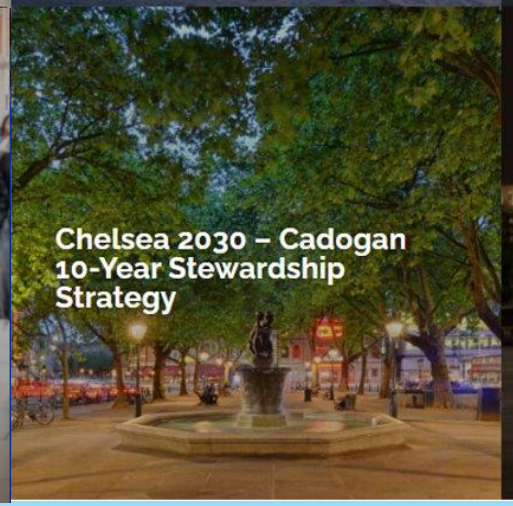
MAYOR OF LONDON

Transport for London

CRP Projects







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Making Monitoring Meaningful

Abby McDougall, CRP

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How has transport planning changed?

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Accelerated
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Ambitious

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Experimental

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Low traffic zones 'force cars into streets where poorer people live'

Evering Road has recently become part of the Hackney Downs LTN and has had bollards put in the middle to prevent through traffic

RICK FINDLER FOR THE TIMES

Despite a loud opposing minority, low-traffic neighbourhoods are increasingly popular

Peter Walker

YouGov poll found positive views on LTNs are three times higher than negative ones

▲ The Oval Triangle low traffic neighbourhood in Lambeth, London. Photograph: Tom Wall/The Observer

Controversial

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Why is monitoring important?

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Why is monitoring important?

Proof of concept

Identify problems or concerns

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Why is monitoring important?

Proof of concept

Identify problems or concerns

Create an open conversation

Build trust and confidence

Support the transition to becoming permanent

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Personal air quality monitoring

Citizen science study at King's College Hospital

Traffic monitoring in Soho using Vivacity sensors

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Clean Air Routes

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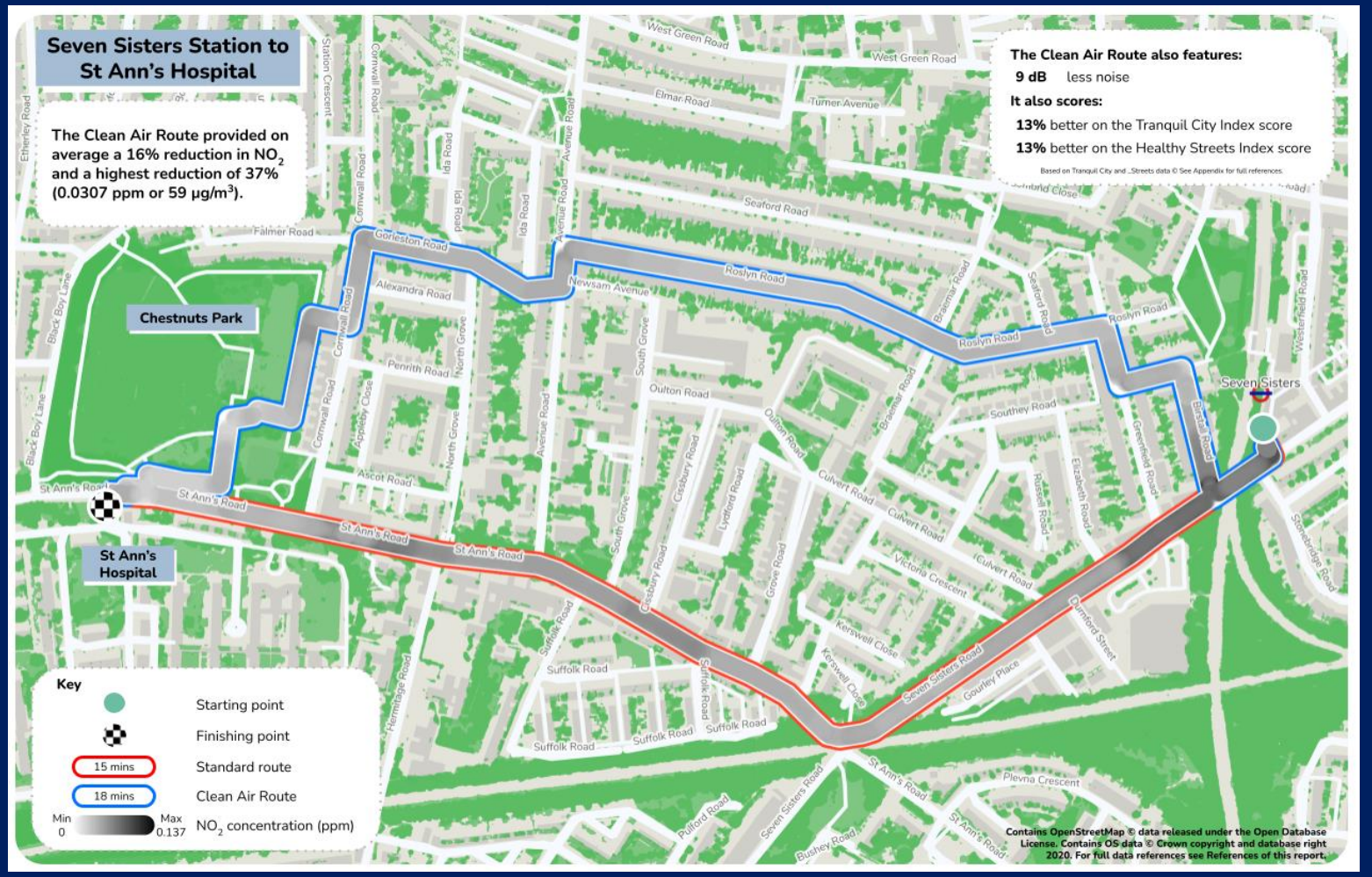
Average exposure to nitrogen dioxide was between 6% and 23% lower on the Clean Air Routes, with a **maximum reduction of up to 41%**



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The final report is now available to view online:

crossriverpartnership.org/wp-content/uploads/2020/03/Clean-Air-Routes-Monitoring-Report-FINAL-2021-min.pdf

01

1. Introduction

1.1 Cross River Partnership

Cross River Partnership (CRP) is a public-private partnership working with 10 London boroughs, 17 private sector partners and 6 strategic agencies to deliver innovative projects that contribute to the social, environmental and economic health of London.

1.2 Clean Air Villages

The **Clean Air Villages 3 (CAV3) project** is being delivered on behalf of 16 partners, including 12 Local Authorities and 4 Business Improvement Districts (BIDs) across London. **Fig. 1.1** shows the 16 focus areas as part of this one-year project funded by the Defra Air Quality Grant. CRP is engaging with businesses, hospitals and wider communities to encourage behaviour change and support activities to reduce air pollution and congestion.

1.3 Clean Air Routes

In 2017, as part of the Clean Air Better Business (CABB) programme, CRP and partners identified and developed London's first on-street clean air walking routes. The purpose of a Clean Air Route is to encourage pedestrians to take quieter backstreets, thereby reducing their exposure to harmful air pollution. In August 2020, CRP commissioned Tranquil City to monitor pollution concentrations along 15 new routes as part of the CAV3 project. Initial routes were identified by CRP, with support from the CAV3 Local Authority and BID partners, shown beneath **Fig. 1.1**. It was agreed that an additional Clean Air Route would not be developed for Northbank BID to avoid duplicating existing and extensive work that has been carried out within the BID footprint.

Figure 1.1. Map of focus ar

City of Westminster
angel.l
h&f
Harin
LONDON
Lewisham
merton

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Tranquil City 2020 ©

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2. Methodology

Table 2.1. Summary of monitoring conditions for each route survey conducted.

No.	CAV3 Partner	Date	Location (short title)	Time	Temperature (°C)	Cloud level	Wind (kph, direction)	Adjustment Factor
1	Angel.london	14/10/20	Angel	Morning	9	Partly	14, NE	NA
2	London Borough of Lambeth	6/10/20	Camberwell	Evening	15	Cloudy	25, W	NA
3	City of London Corporation	20/10/20	City of London	Morning	13	Cloudy	19, S	0.88
4	Royal Borough of Kensington & Chelsea	15/10/20	Cromwell Road	Evening	13	Cloudy	16, NNE	NA
5	London Borough of Lewisham	13/10/20	Deptford	Morning	8	Partly	11, NW	NA
6	The Fitzrovia Partnership	21/10/20	Fitzrovia	Evening	15	Cloudy	24, W	0.54
			Great Ormond Street Hospital	Morning	11	Partly	20, WSW	NA
			Holloway Road	Evening	18	Cloudy	22, SSW	0.85
			Richmond	Morning	10	Partly	9, W	NA
			Seven Sisters	Evening	12	Cloudy	19, NE	NA
			Shepherd's Bush	Morning	13	Partly	17, SW	0.69
			Soho	Morning	8	Partly	14, NNE	1.09
			South Bank	Evening	13	Clear	10, WNW	1.32
			Tooting	Morning	9	Partly	16, W	NA
			Wimbledon	Evening	15	Partly	18, W	NA

Tranquil City 2020 © January 2021

Clean Air Routes Monitoring Report

February 2021
Revision 03

Delivered as part of the Clean Air Villages 3 (CAV3) project, funded by the Defra Air Quality Grant.

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Delivering London's Future Together
Tranquil City

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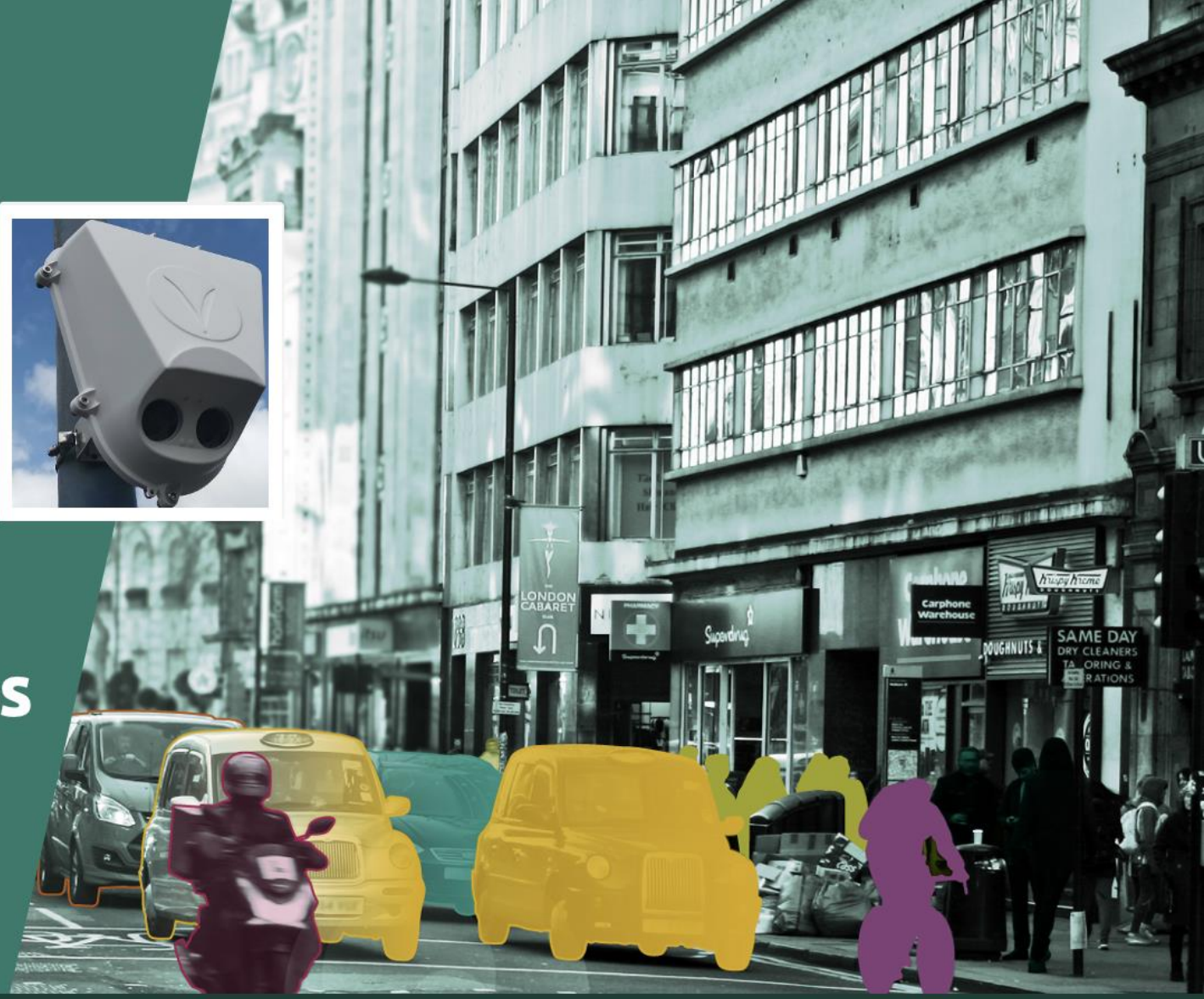
Introduction to Vivacity Labs

Mariana Barrios Cabrera, Vivacity Labs

VIVACITY

Introduction to Vivacity Labs

www.vivacitylabs.com



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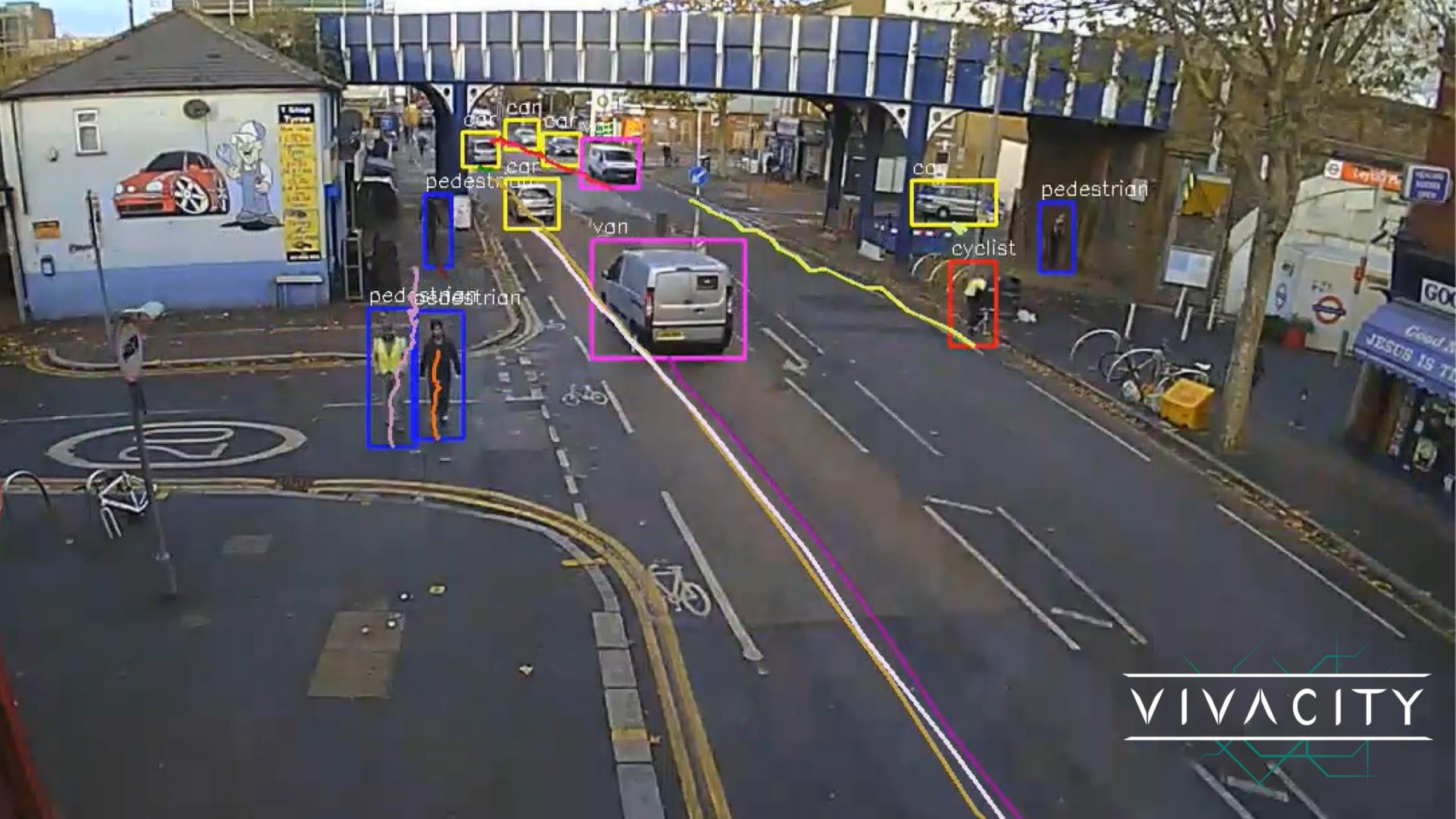
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cyclist
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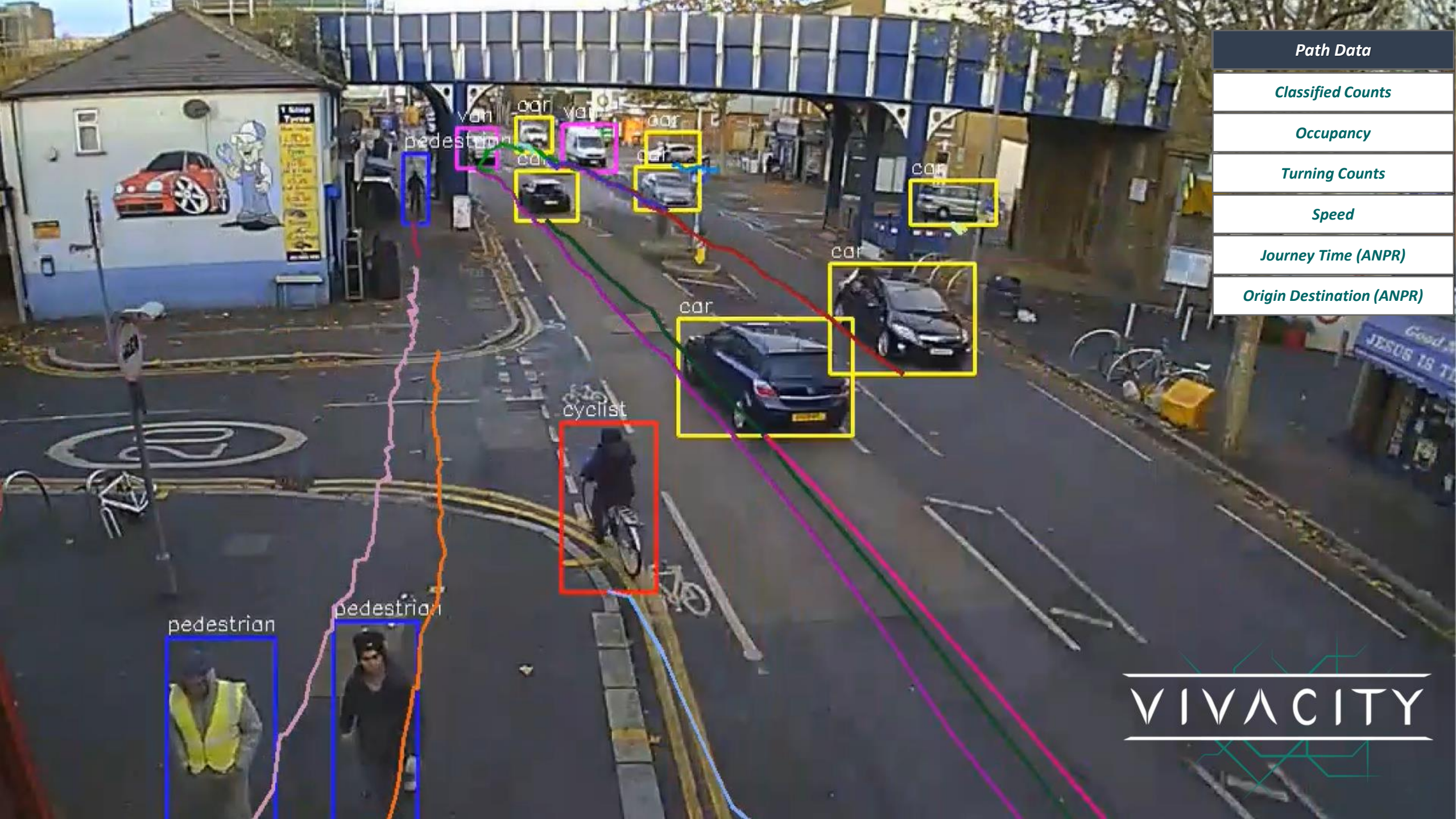
VIVACITY


Path Data
Classified Counts
Occupancy
Turning Counts
Speed
Journey Time (ANPR)
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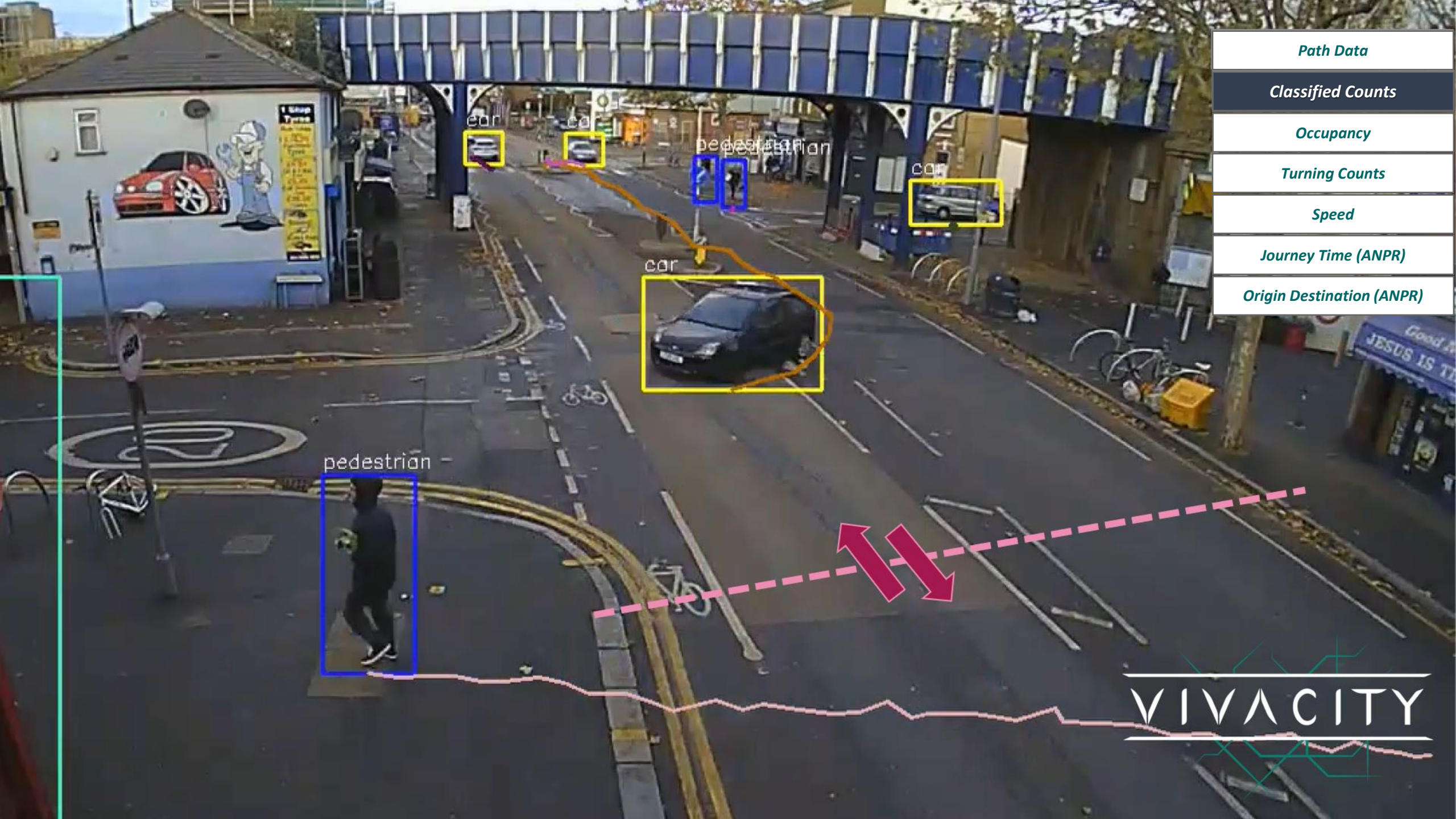
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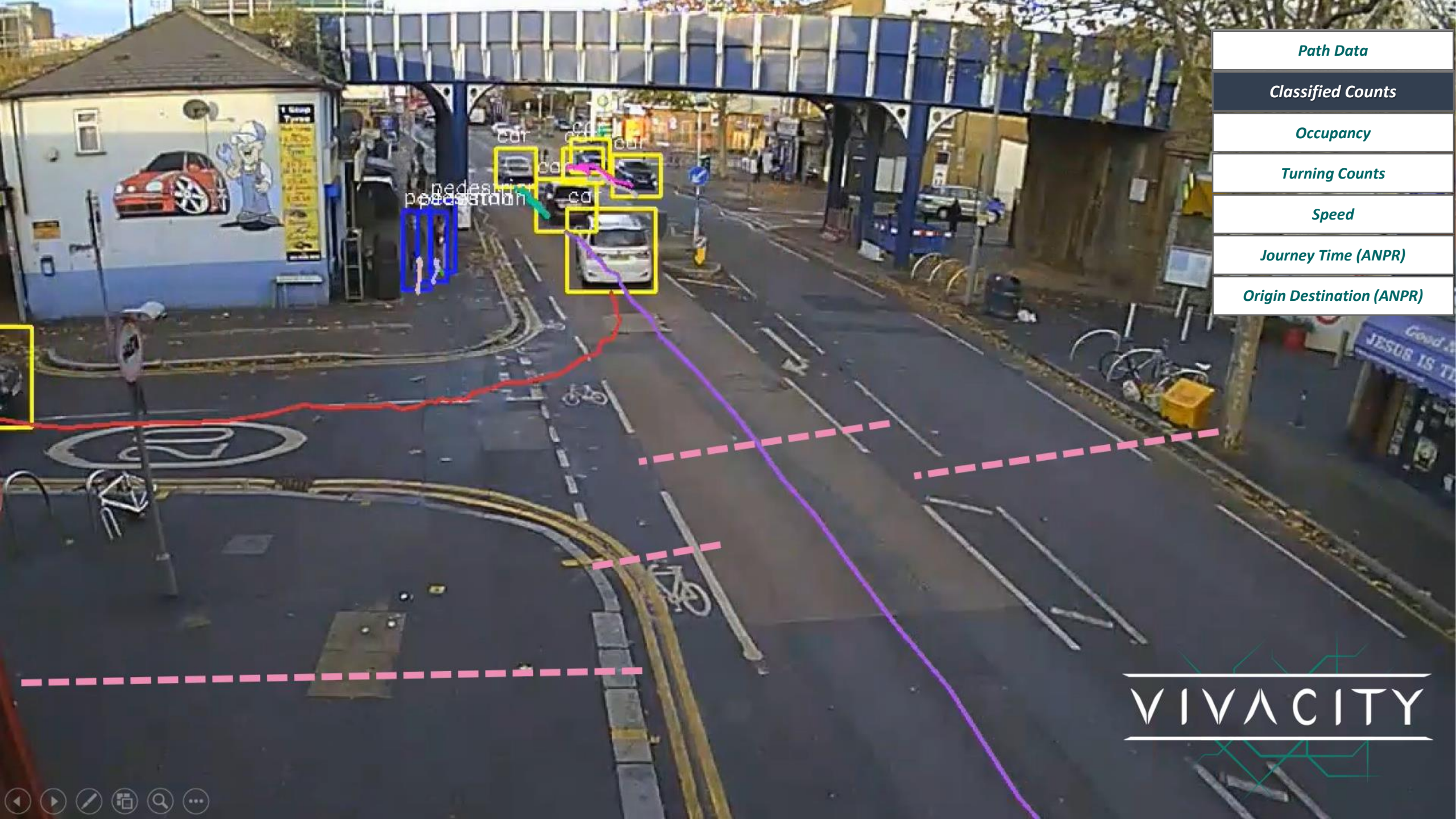
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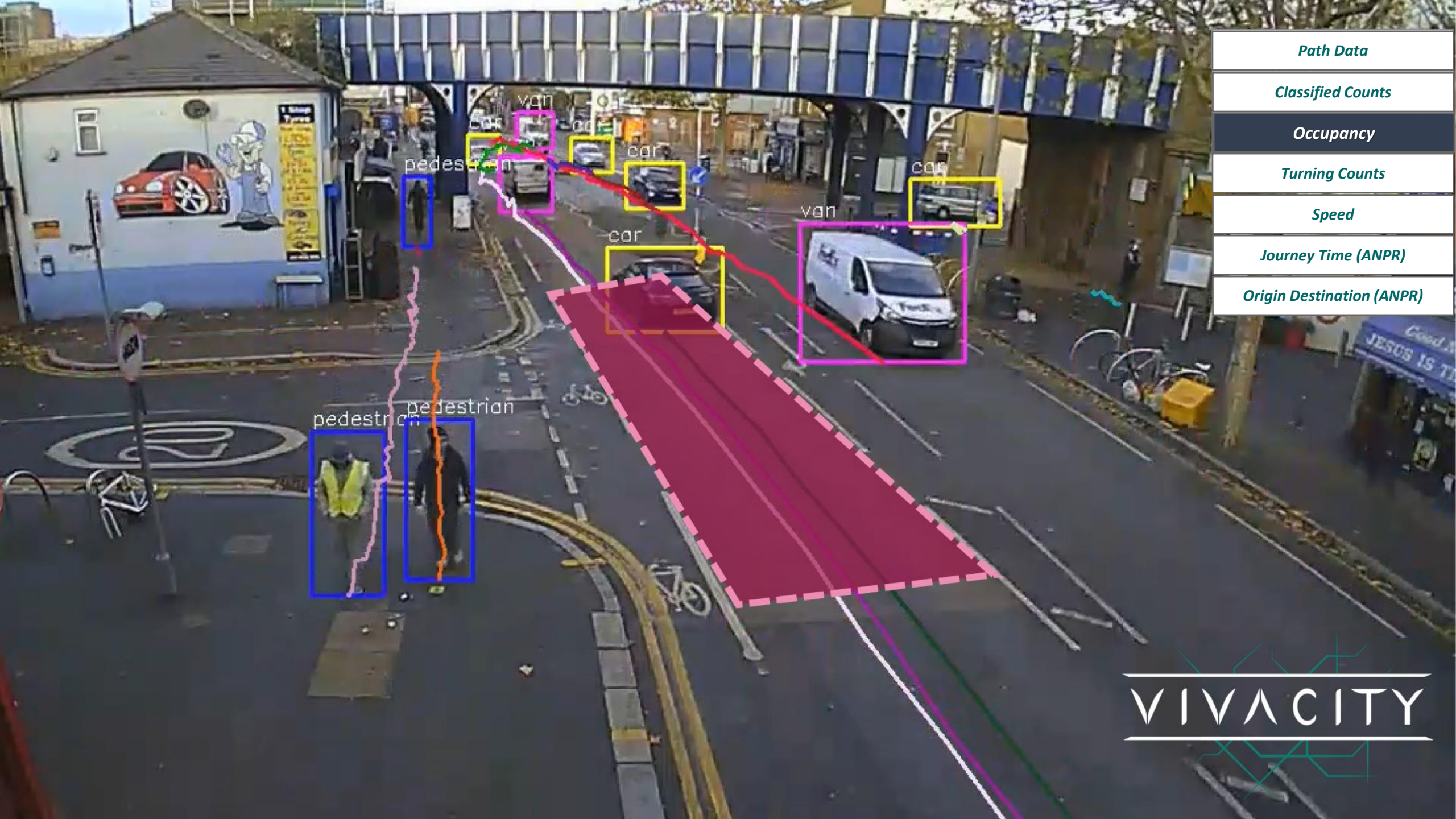
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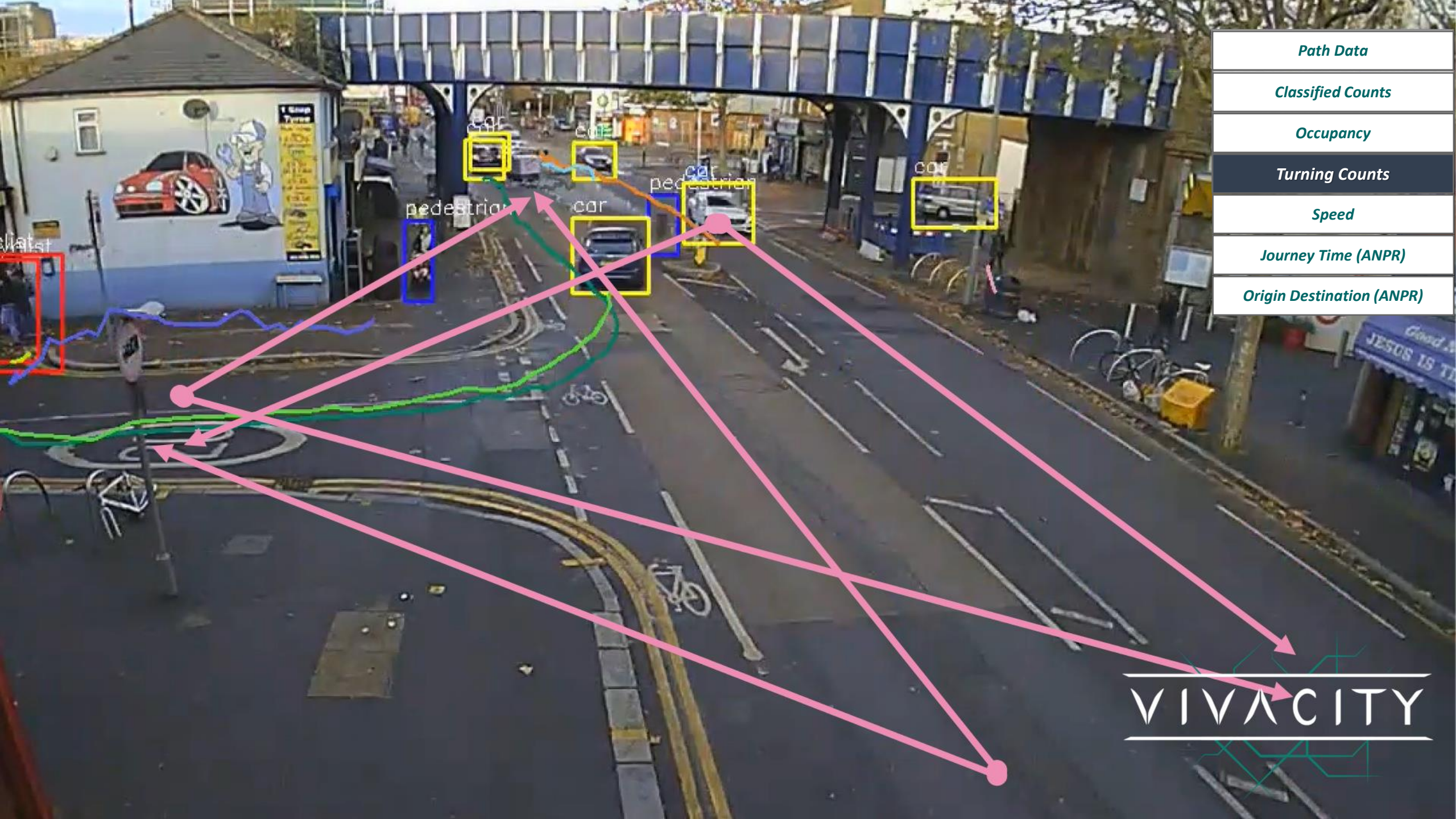
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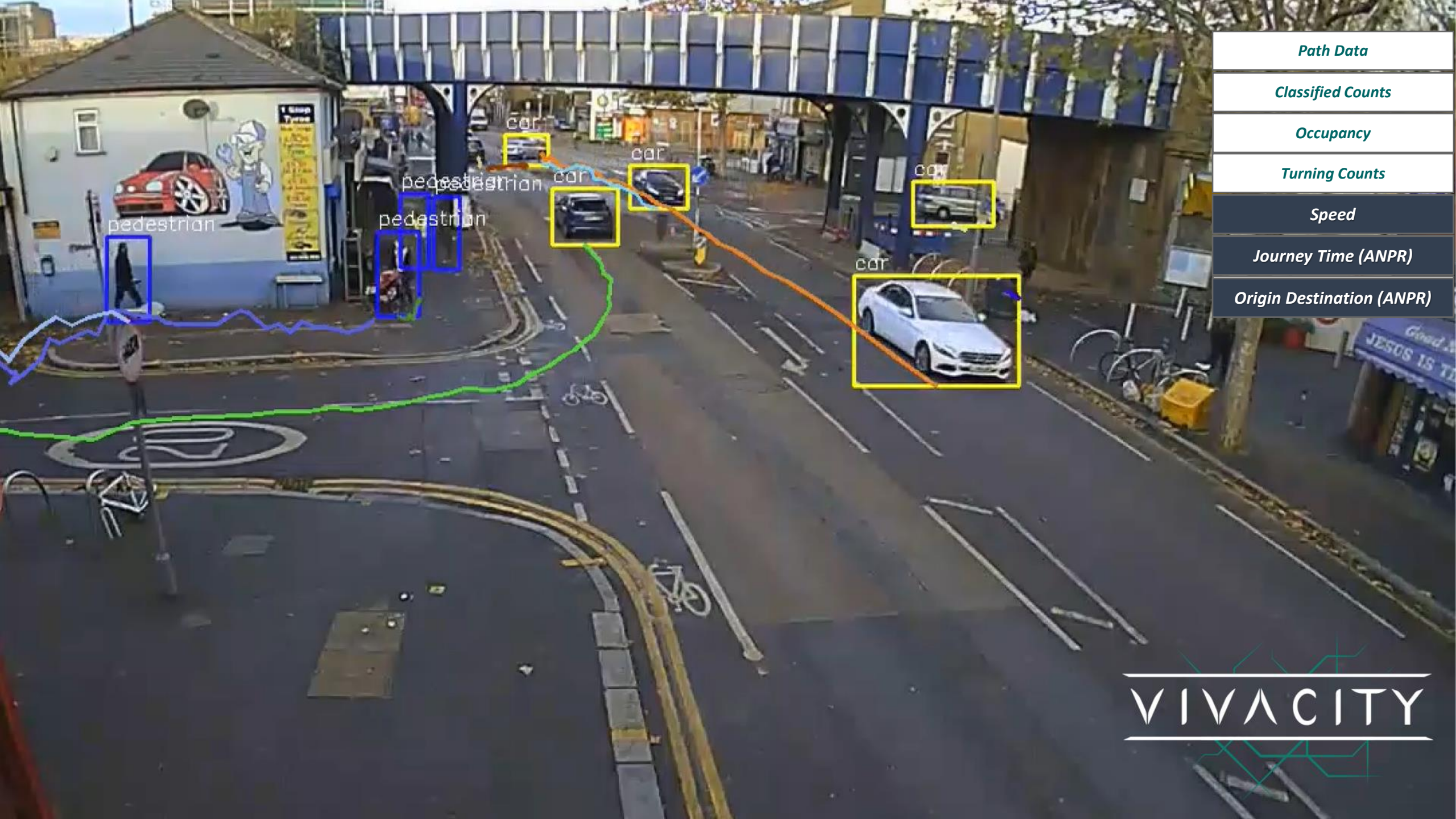
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Path Data
Classified Counts
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Turning Counts
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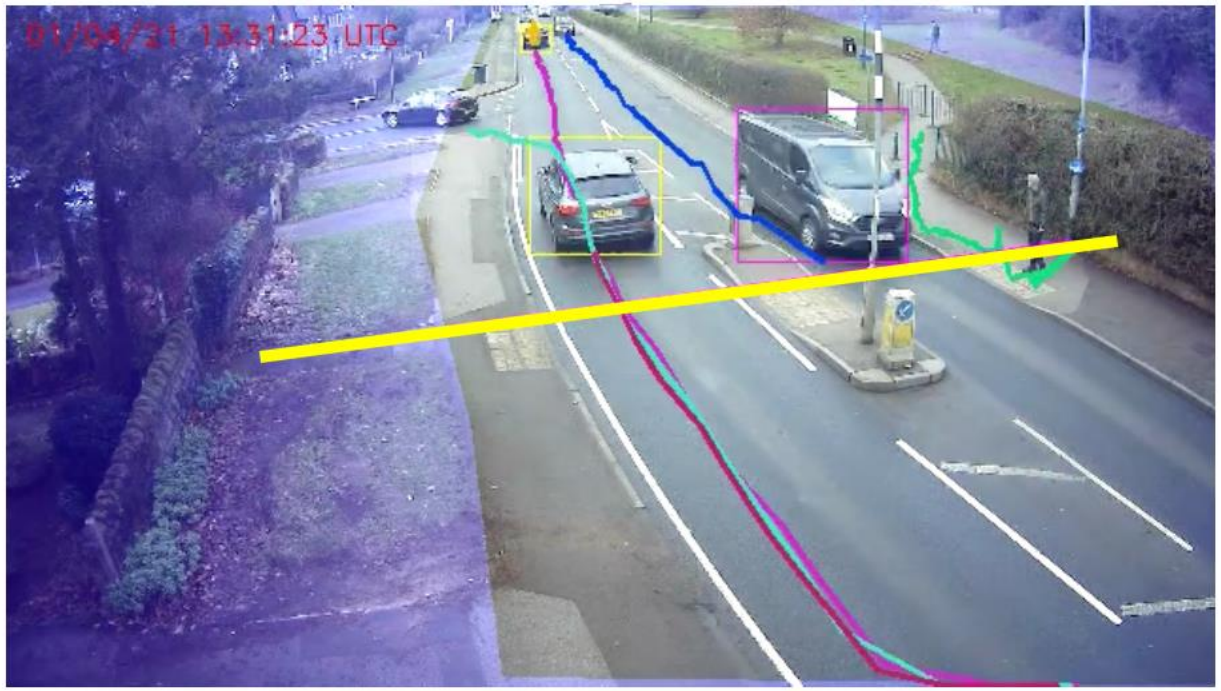
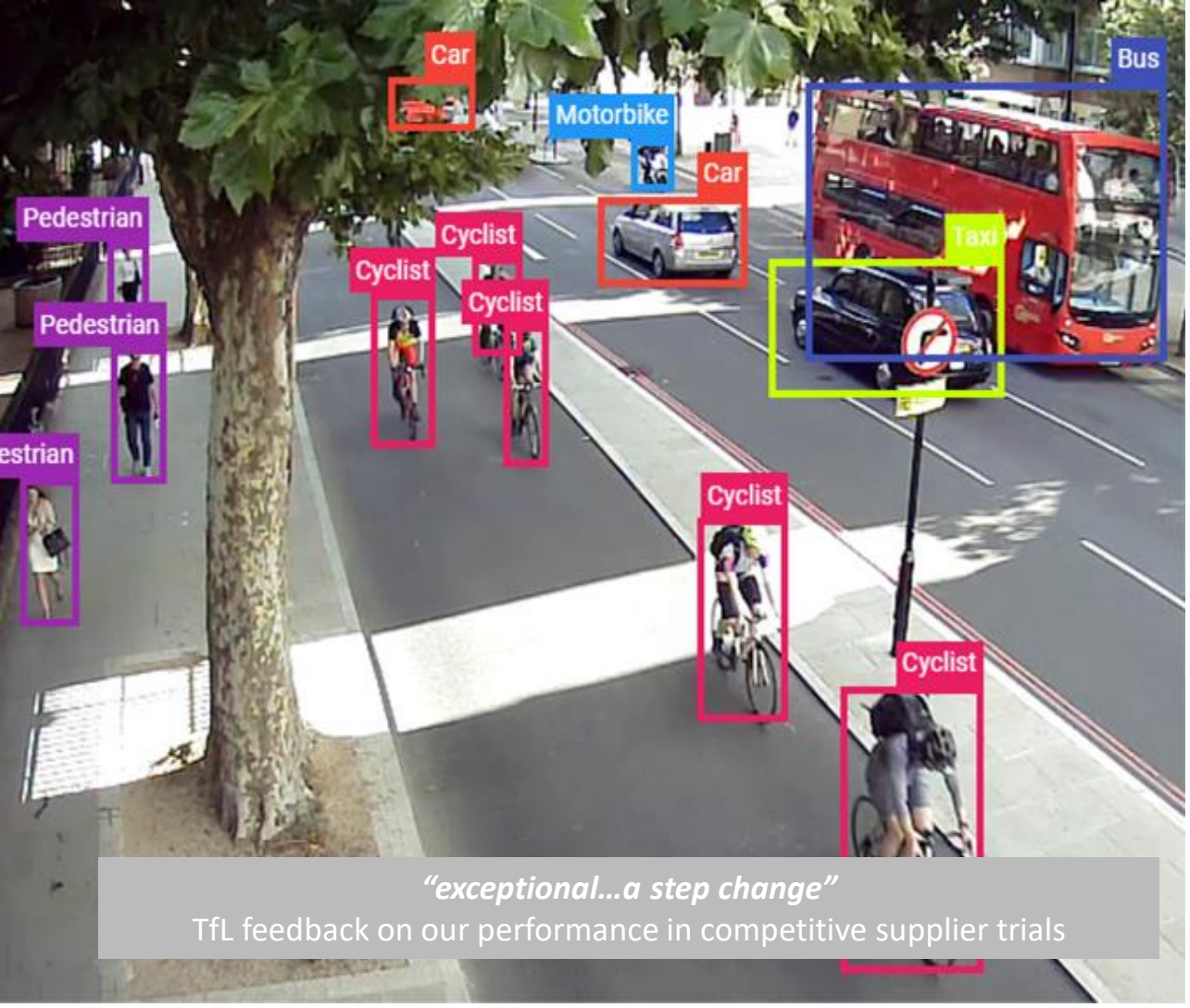
Journey Time (ANPR)
Origin Destination (ANPR)
VIVACITY

Two Lenses from one single sensor

Standard Feutures



Journey Time (ANPR)



"exceptional…a step change"
TfL feedback on our performance in competitive supplier trials

Classification & Counting

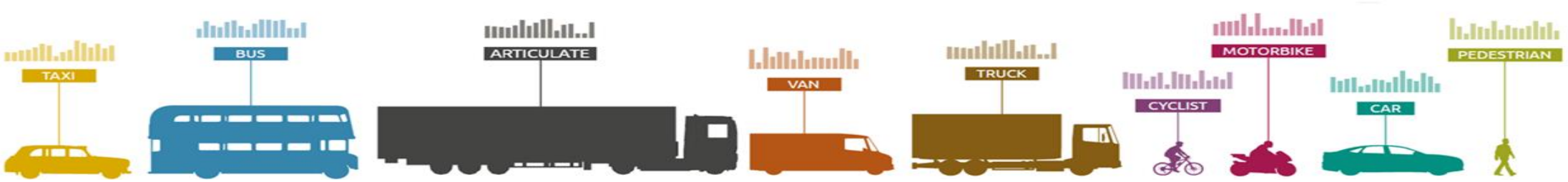
Providing real-time, on-device counting & classification, using the same algorithms as in driverless vehicles.

97%

accuracy validated by TfL vs. human counting
TfL are now rolling out at scale, as **no other technology** can provide our level of insight.

9

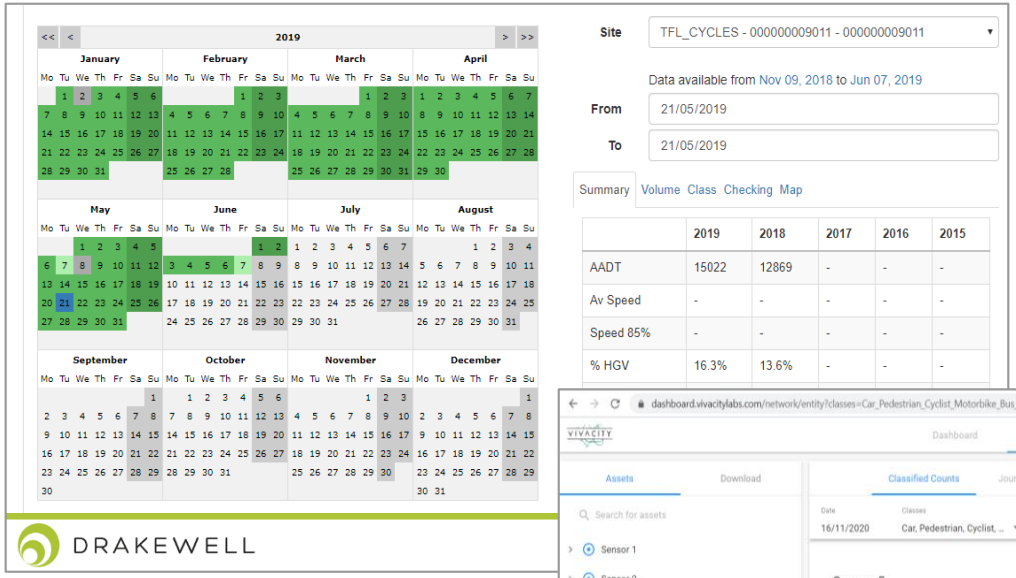
classifications, including pedestrian, cyclist, motorbike, car, taxi, LGV (van), PSV (bus), OGV1 (rigid HGVs) and OGV2 (articulates)



Accessing the Data

The sensor data can be accessed in three different ways:

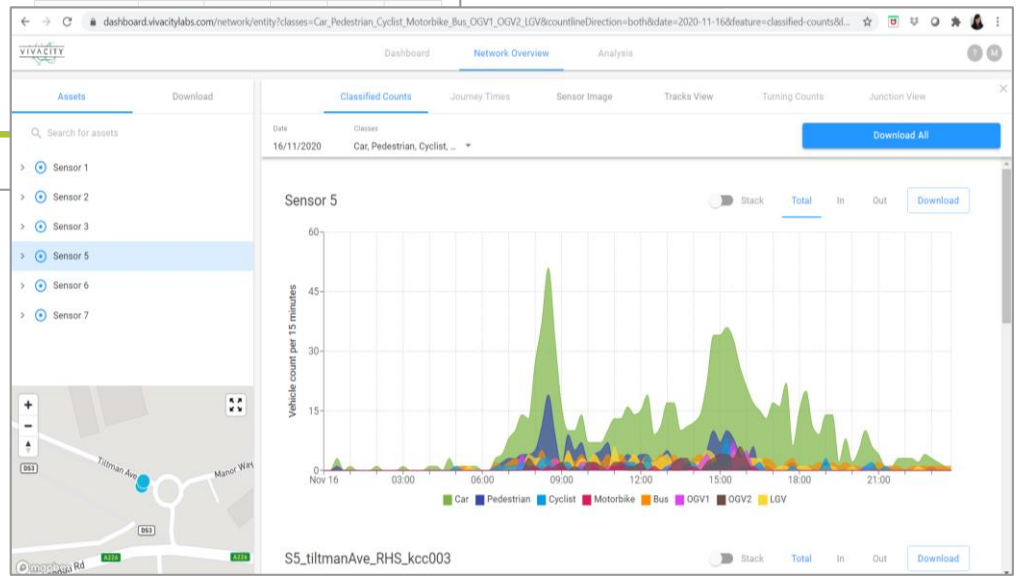
- Through Vivacity's Dashboard (classified counts, path data, turning counts and image space)
- Through an API (classified counts)
- Through integration with 3rd party systems (classified counts)



APIs

already integrated with common interfaces, including C2, Cloud Amber, Stratos, & Dynniq

Image copyright Drakewell



Dashboard

Classified count can be downloaded

CRP and Data Analysis

Fiona Coull, CRP

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CRP Vivacity Monitoring Project

- Identify strengths / weaknesses in network.
- Air quality data inferred using CRP's in house MeasureBEST tool.
- Data processed for you with in depth analysis of trends and individual reports to inform decisions and stakeholders.
- Measure impacts of Streetspace interventions.
- Ability to monitor pedestrian interactions.
- Can be tailored to your needs and provides proof of concept /robust guidance.

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CRP Vivacity Monitoring - Locations

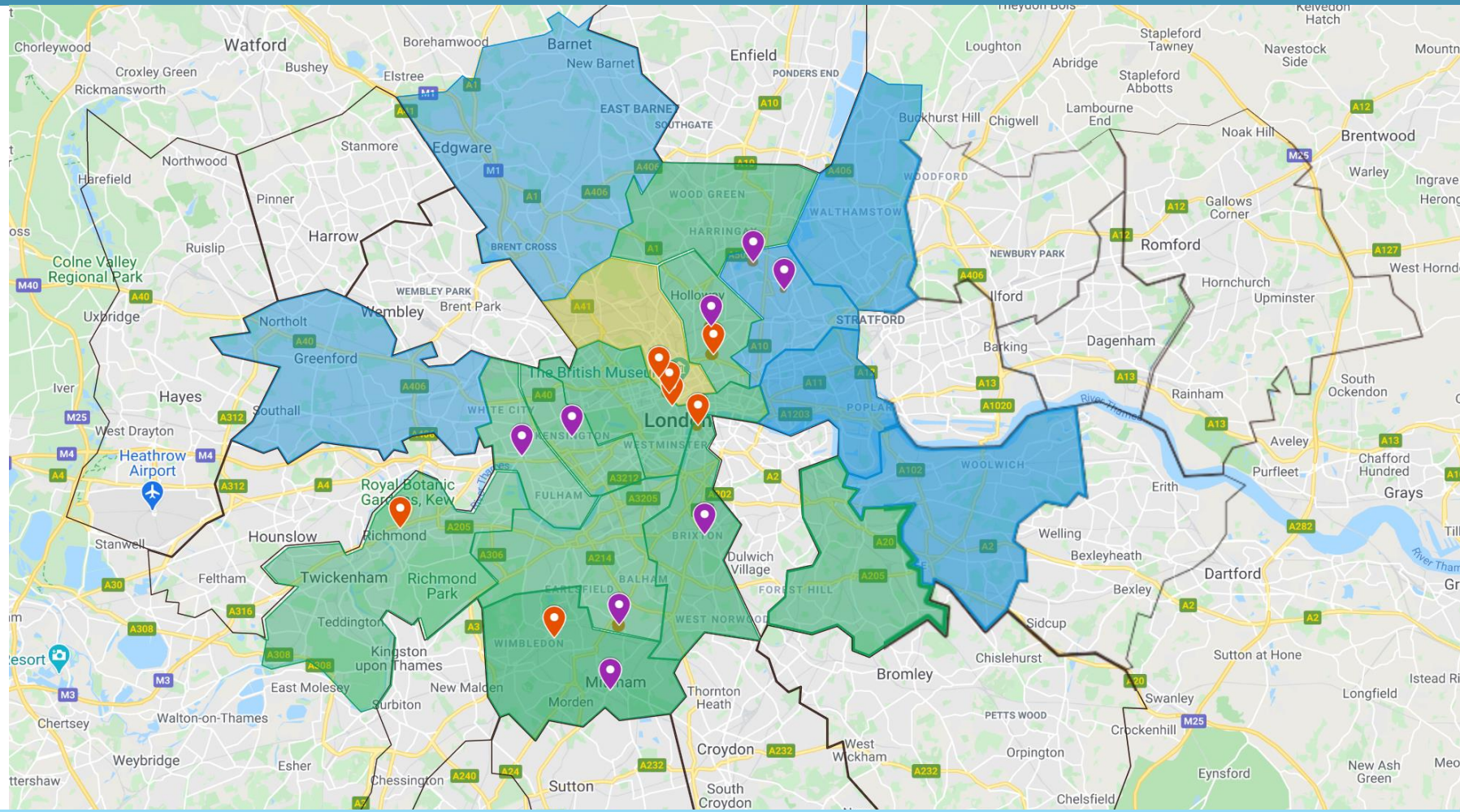
Vivacity Monitoring Locations

- Healthy Streets Everyday
- Clean Air Villages

Borough Partners

- Healthy Streets Everyday
- Clean Air Villages
- Clean Air Villages & Healthy Streets Everyday

16 sensors have been installed in Boroughs across London



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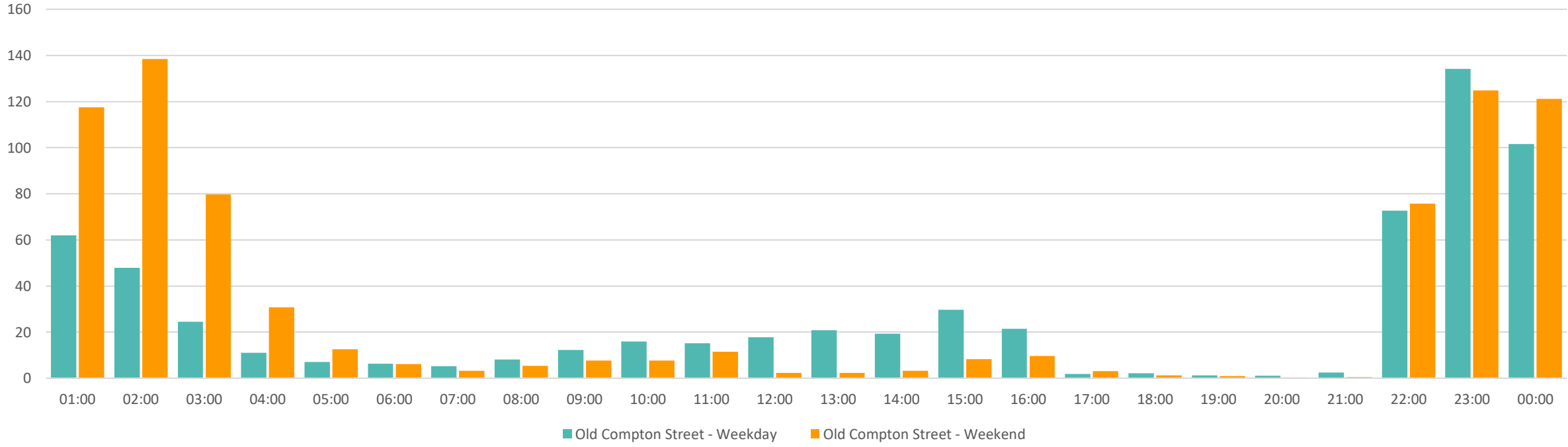
CRP Vivacity Monitoring – Impact of Al Fresco Dining

Old Compton Street and Dean Street, Soho
Complete Monitoring Period (27/08/20 – 31/10/20)

Cars (Hourly averages)



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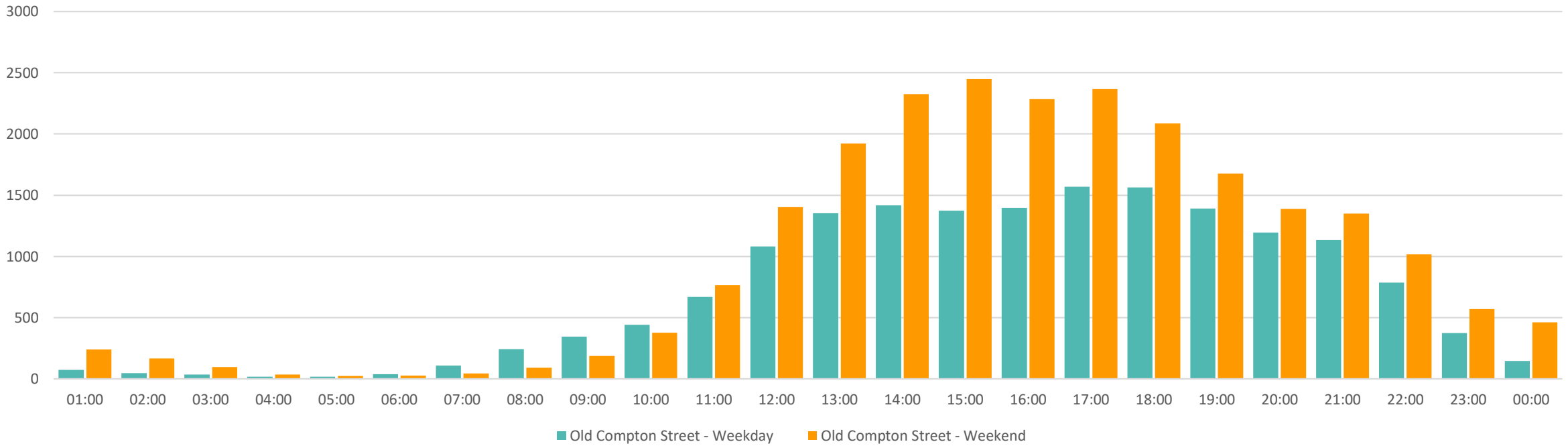
CRP Vivacity Monitoring – Impact of Al Fresco Dining

Old Compton Street and Dean Street, Soho
Complete Monitoring Period (27/08/20 – 31/10/20)

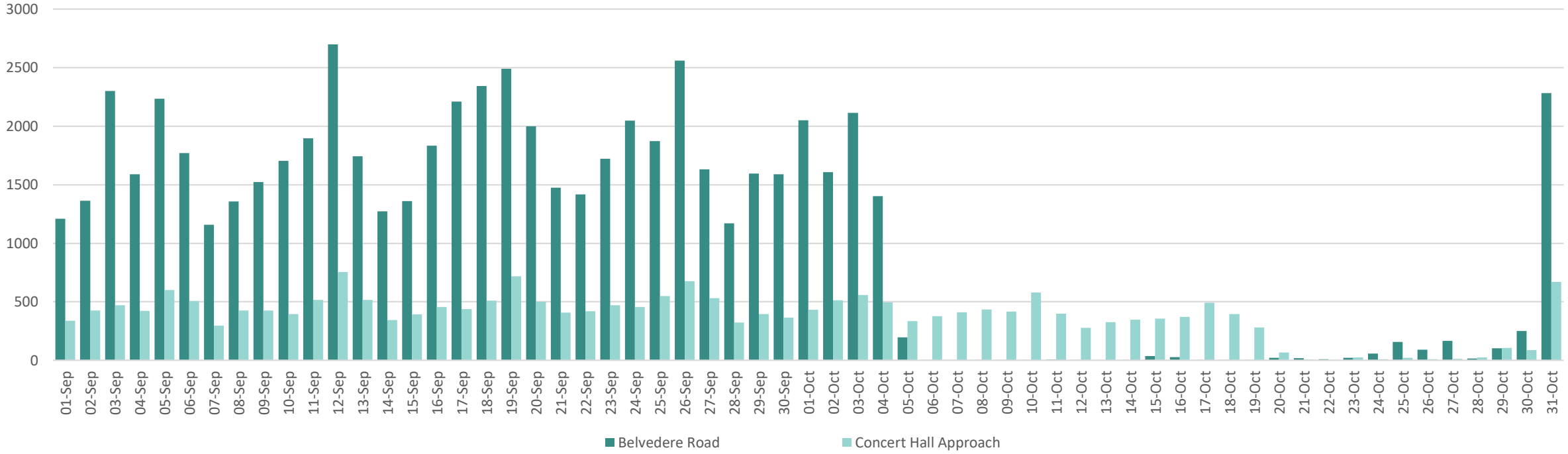
Pedestrians (Hourly averages)



CRP Vivacity Monitoring – Roadworks

Belvedere Road and Concert Hall Approach, South Bank
Complete Monitoring Period (01/09/20 – 31/10/20)

Cars (Daily Counts)



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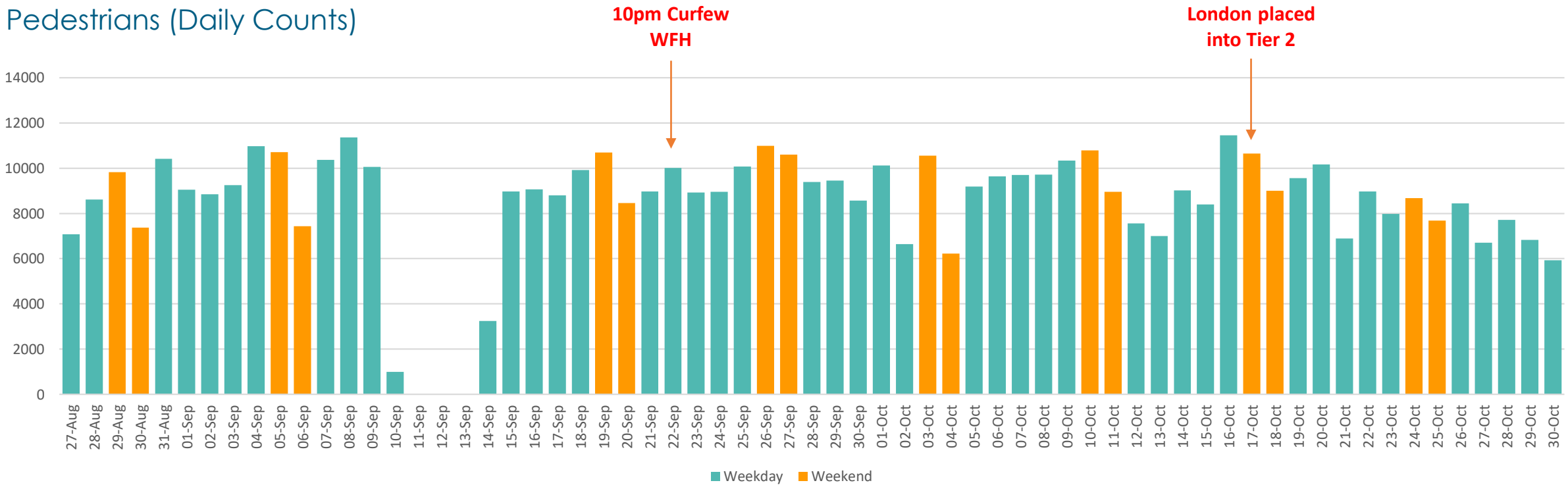
CRP Vivacity Monitoring – Impact of Restrictions

Mitcham Road, Tooting
Complete Monitoring Period (27/08/20 – 30/10/20)

Pedestrians (Daily Counts)



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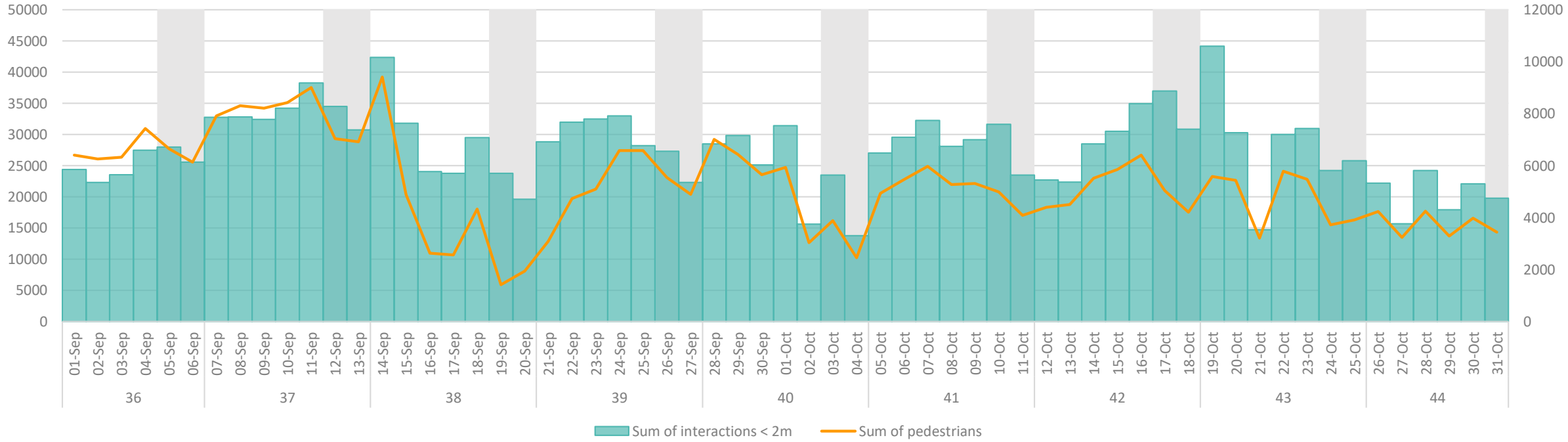
CRP Vivacity Monitoring – Pedestrian Interactions

Liverpool Road, Angel
Complete Monitoring Period (01/09/20 – 31/10/20)

Pedestrian interactions of less than 2m (social distancing)



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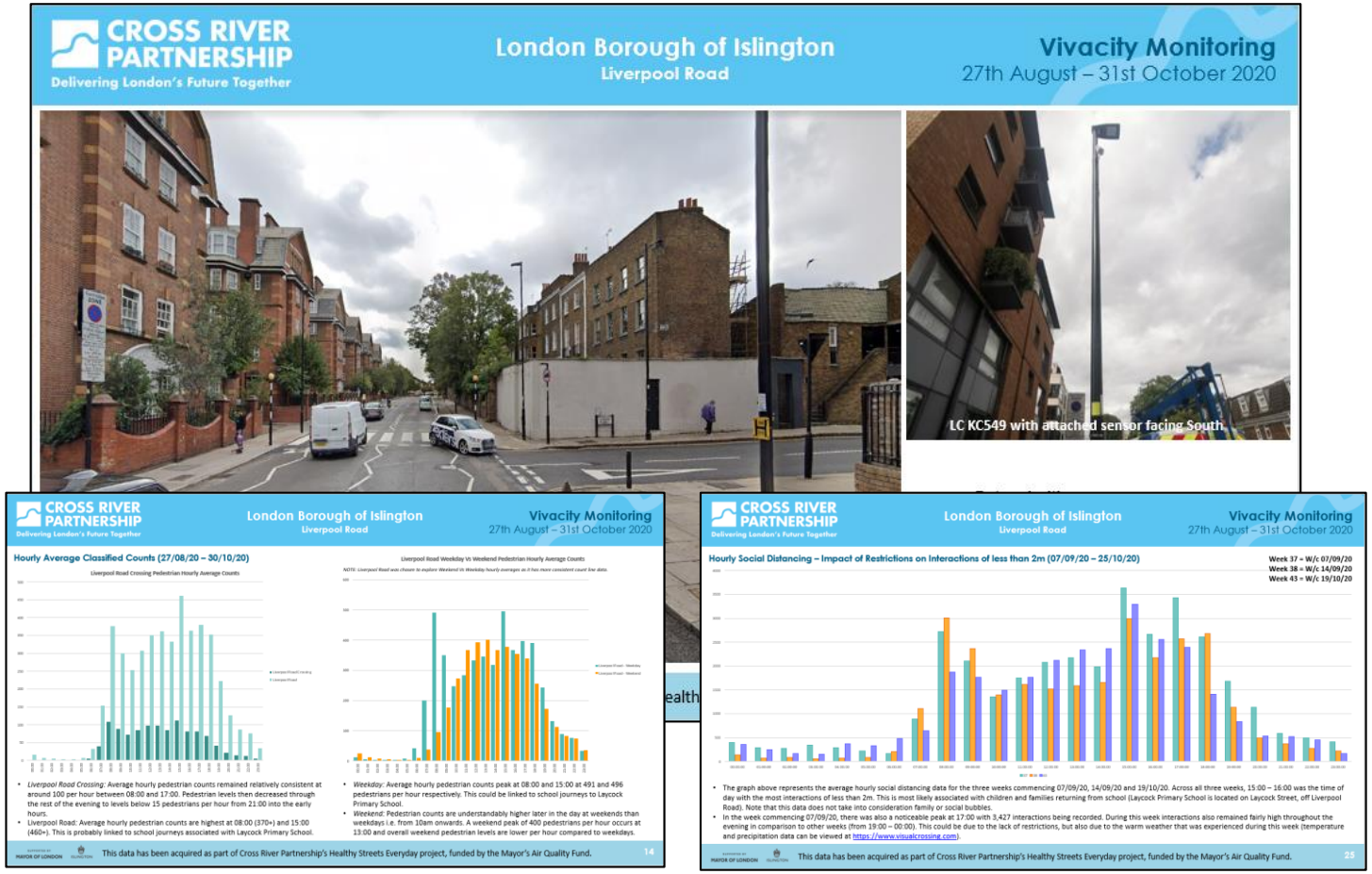
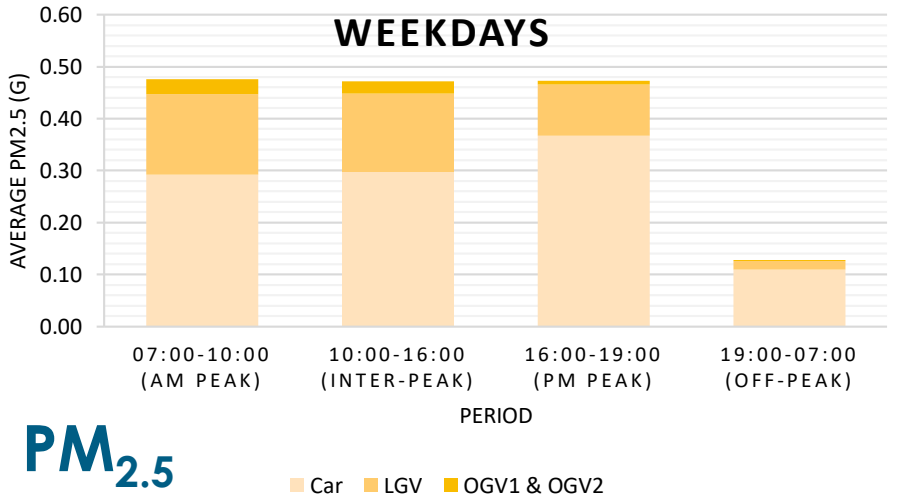
CRP's Data Analysis Services



- CRP can provide data analysis services and provide individual reports tailored to your needs.
- CRP's in house tool can help understand local emissions associated with classified count data for even richer analysis.



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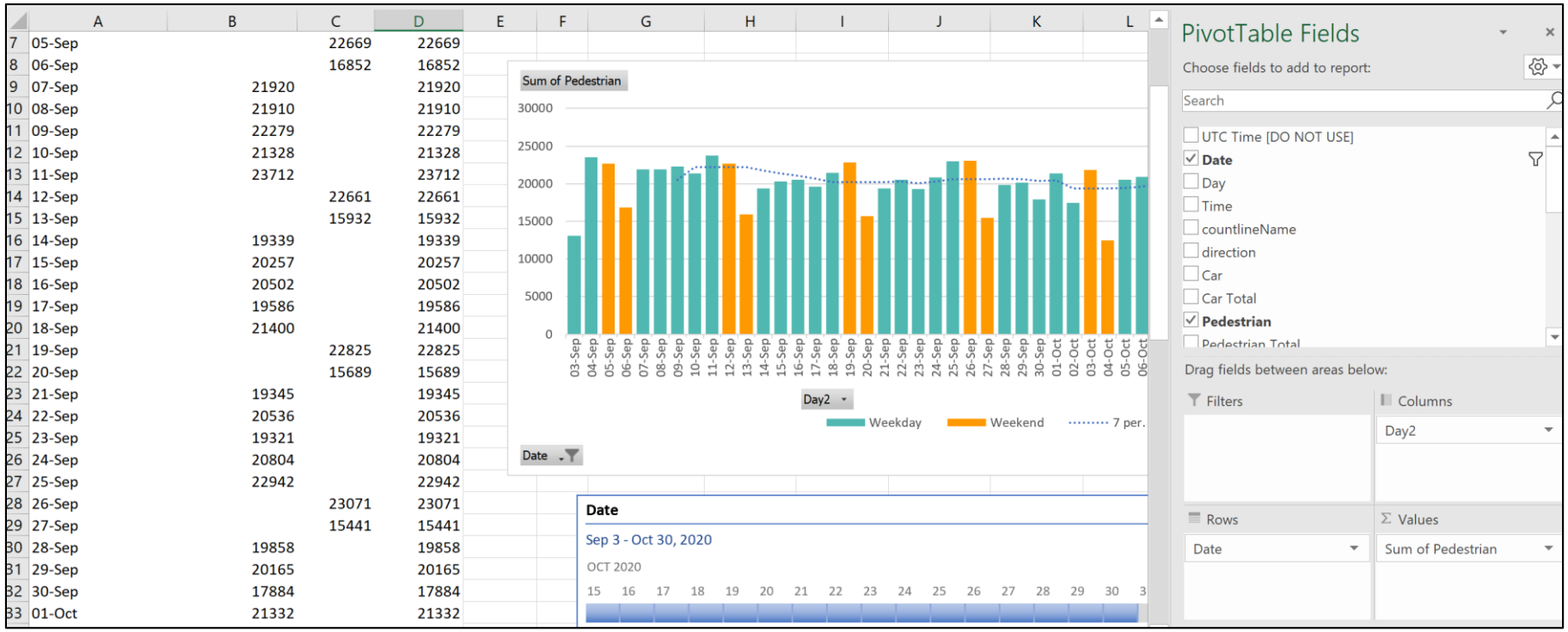
Get in Touch!

If you would like to understand more about how CRP can help you to unlock the full potential of your data by providing detailed analysis and additional insights please get in touch!



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8	06-Sep		16852	16852
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10	08-Sep	21910		21910
11	09-Sep	22279		22279
12	10-Sep	21328		21328
13	11-Sep	23712		23712
14	12-Sep		22661	22661
15	13-Sep		15932	15932
16	14-Sep	19339		19339
17	15-Sep	20257		20257
18	16-Sep	20502		20502
19	17-Sep	19586		19586
20	18-Sep	21400		21400
21	19-Sep		22825	22825
22	20-Sep		15689	15689
23	21-Sep	19345		19345
24	22-Sep	20536		20536
25	23-Sep	19321		19321
26	24-Sep	20804		20804
27	25-Sep	22942		22942
28	26-Sep		23071	23071
29	27-Sep		15441	15441
30	28-Sep	19858		19858
31	29-Sep	20165		20165
32	30-Sep	17884		17884
33	01-Oct	21332		21332

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Q&A Session

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Sign up to our next event!

CRP Lunchtime Launch 3:

Town Centre Futures

Thursday 25th March

1:15pm – 2pm

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Thank You!

Mariana Barrios Cabrera
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Fiona Coull
Project Manager
Cross River Partnership
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www.crossriverpartnership.org

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