

# **Managing increased demand: *The digitalisation of road transport networks***

A network diagram consisting of various sized blue and green circles connected by thin lines, representing a digital network. Some nodes are highlighted with dashed circles.

***“Demand for goods, building materials and the transport of resources is higher than ever, thanks to population growth, massive infrastructure projects and growing access to consumer goods from new markets”***

**Digitalisation** refers to the automation made possible by digital processes.

Efficiencies can result when digital technologies enable previously separate processes to be linked and integrated.

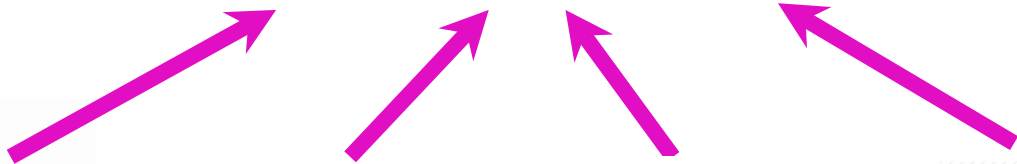
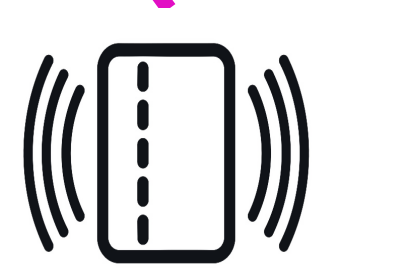
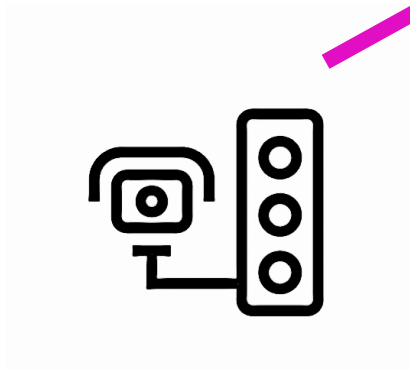
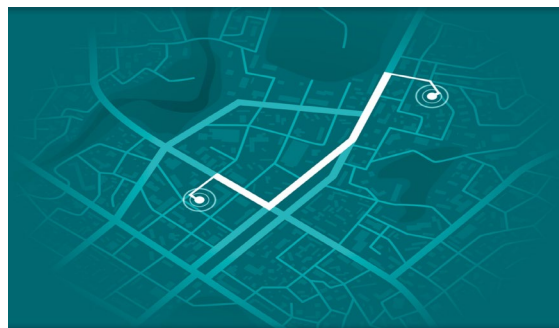
***Digital Transformation Agency***  
***Australian Government***



Just as power, water and roads infrastructure enable us to go about our everyday lives...

...digital equipment and systems are core to our everyday lives – they help make sense of the vast amount of data we are faced with.

***Department of Industry, Science, Energy and Resources  
Australian Government***



Road network  
Management/  
Planning

**Off-vehicle**  
data  
collectors

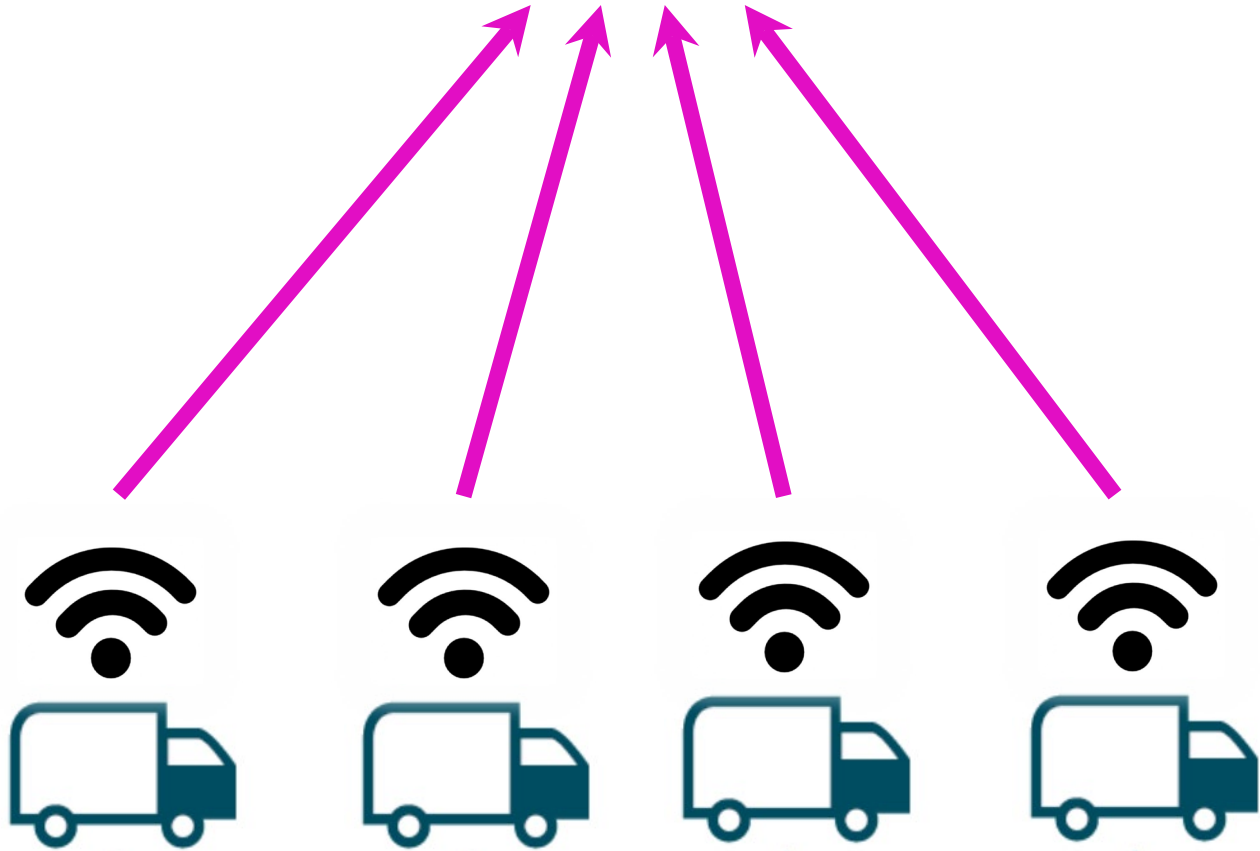
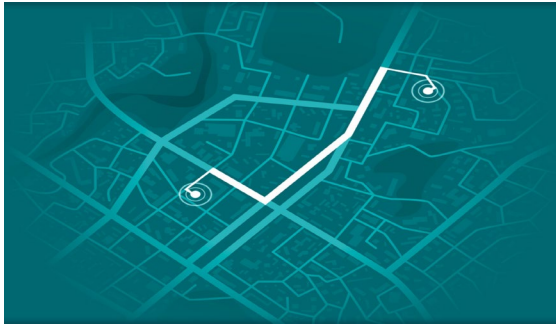
On-vehicle  
data  
collectors



Road network  
Management/  
Planning

Off-vehicle  
data  
collectors

On-vehicle  
data  
collectors



**It's already happening**





SITUATION:



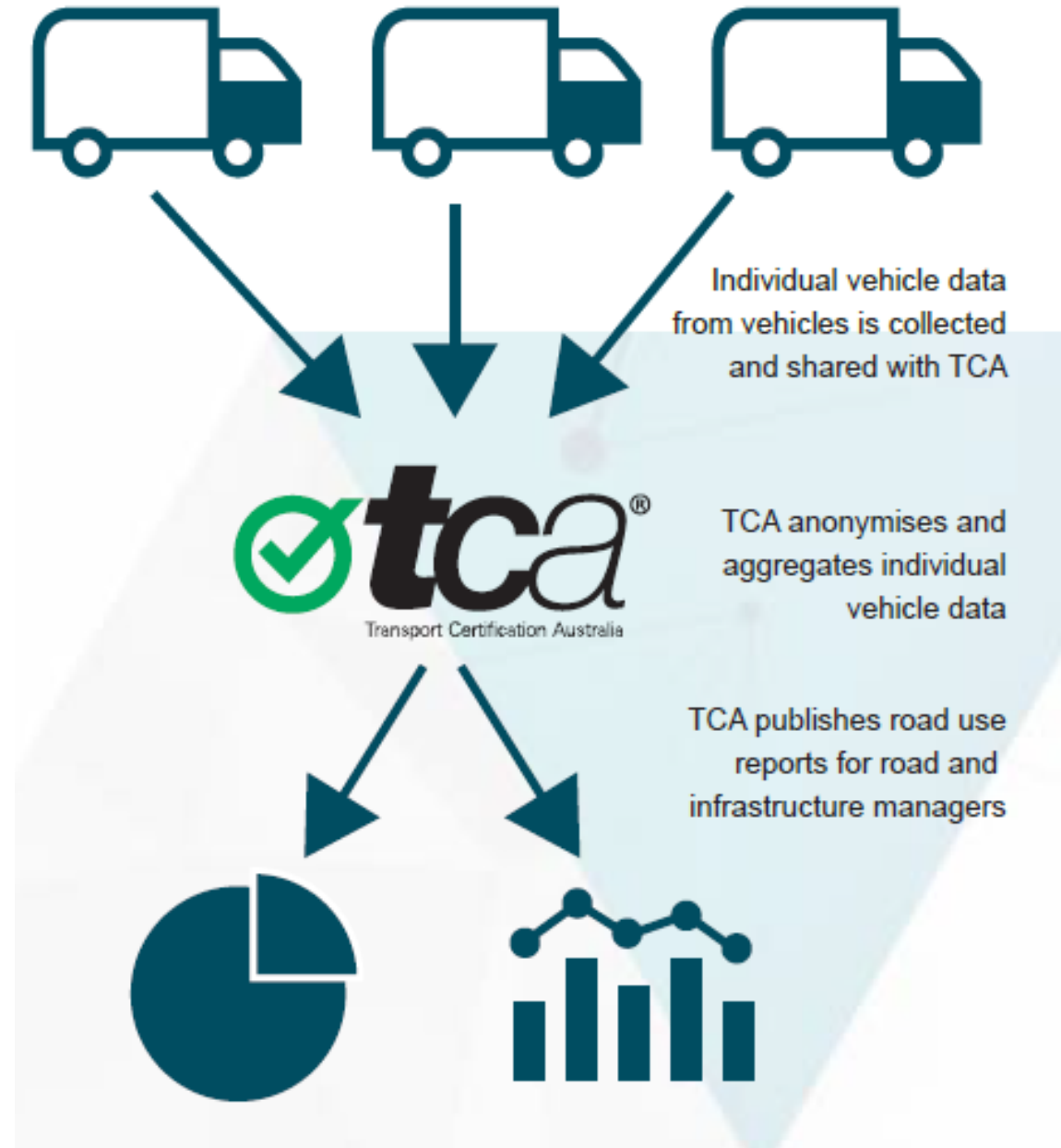
ANALYSIS

DOWNLOADING 67%



*Introducing:*

**Road  
Infrastructure  
Management  
(RIM)**



# But how?

<b>Consent</b> Agreements (to share selected data)	✓
<b>Secure</b> data transfer, storage and destruction	✓
<b>Anonymization</b> and <b>aggregation</b> of data	✓



# Managing demand through data

## Journeys by vehicle type

	November 2017	December 2017	January 2018	February 2018	March 2018	April 2018	May 2018	June 2018	July 2018	August 2018	September 2018	October 2018
B Double	688	534	565	535	620	567	687	516	557	632	562	628
Cranes	6	7	2	9	6	11	7	8	13	21	16	13
...orian enrolled HPFV	49	43	47	62	77	46	43	45	28	50	32	63
Rigid and Trailer	8	2		5	4		5	3		1	4	7
Semi Trailer	33	33	22	26	41	44	49	57	56	85	60	40
...orian-enrolled HPFV	25	42	75	126	181	200	169	136	175	141	179	204
Unknown	5	1	8	18	29	13	4	15	11	17	8	9

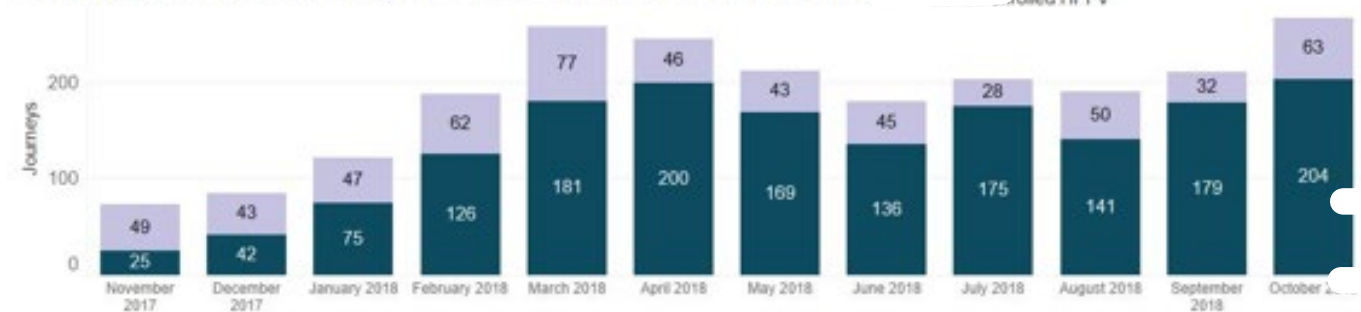
## Journeys/week



## Unique vehicles/week



## HPFV-type journeys per mo.



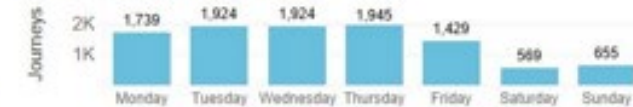
## Position record locations



## Average speed by hour of day (km/h)



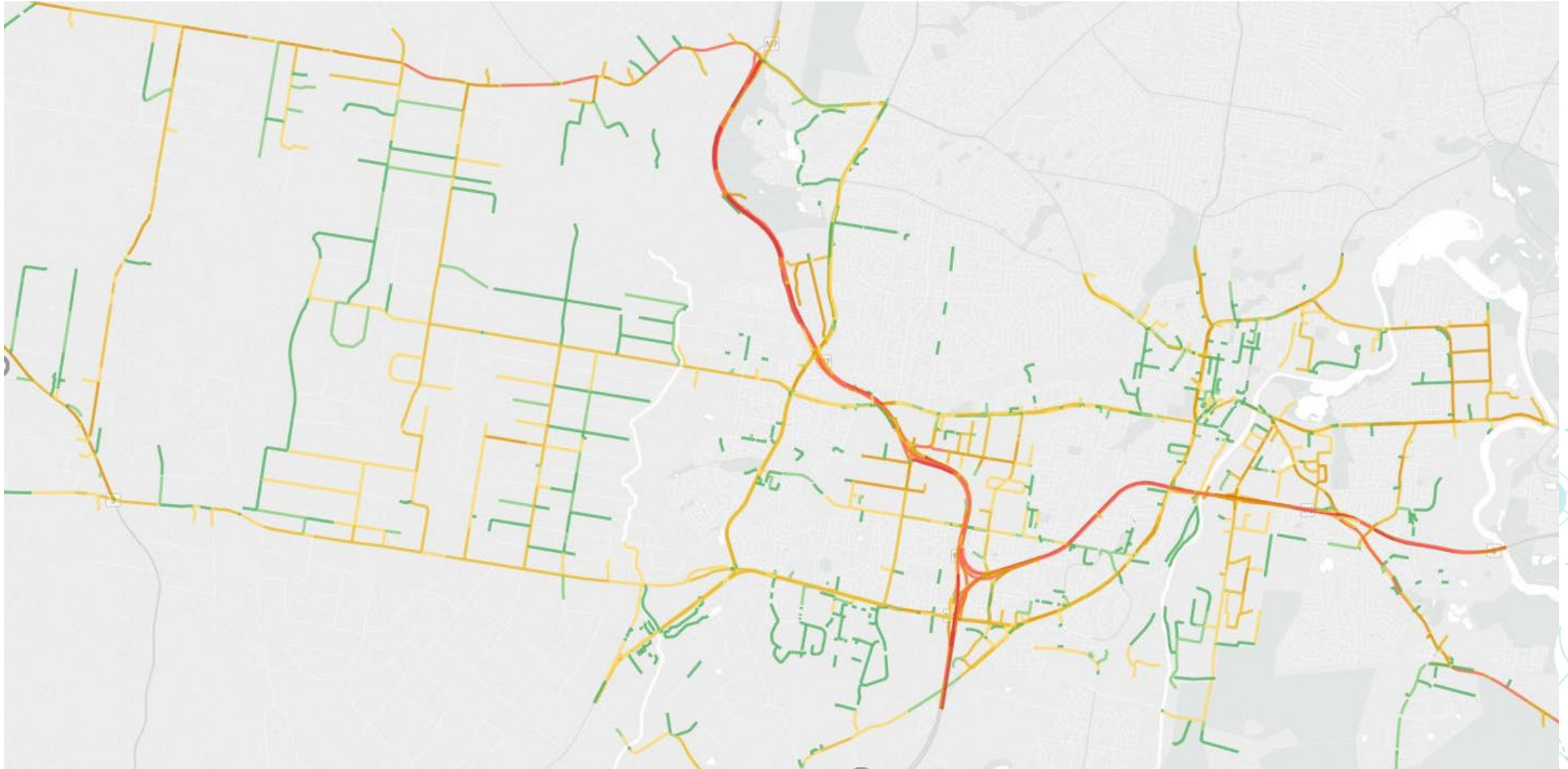
## Journeys by weekday



## Vehicle type breakdown

	% of journeys	% of unique vehicles
B Double	69.7%	57.9%
Cranes	1.2%	6.0%
...orian enrolled HPFV	5.7%	14.1%
Rigid and Trailer	0.4%	1.1%
Semi Trailer	5.4%	10.0%
...orian-enrolled HPFV	16.2%	7.4%
Unknown	1.4%	5.9%

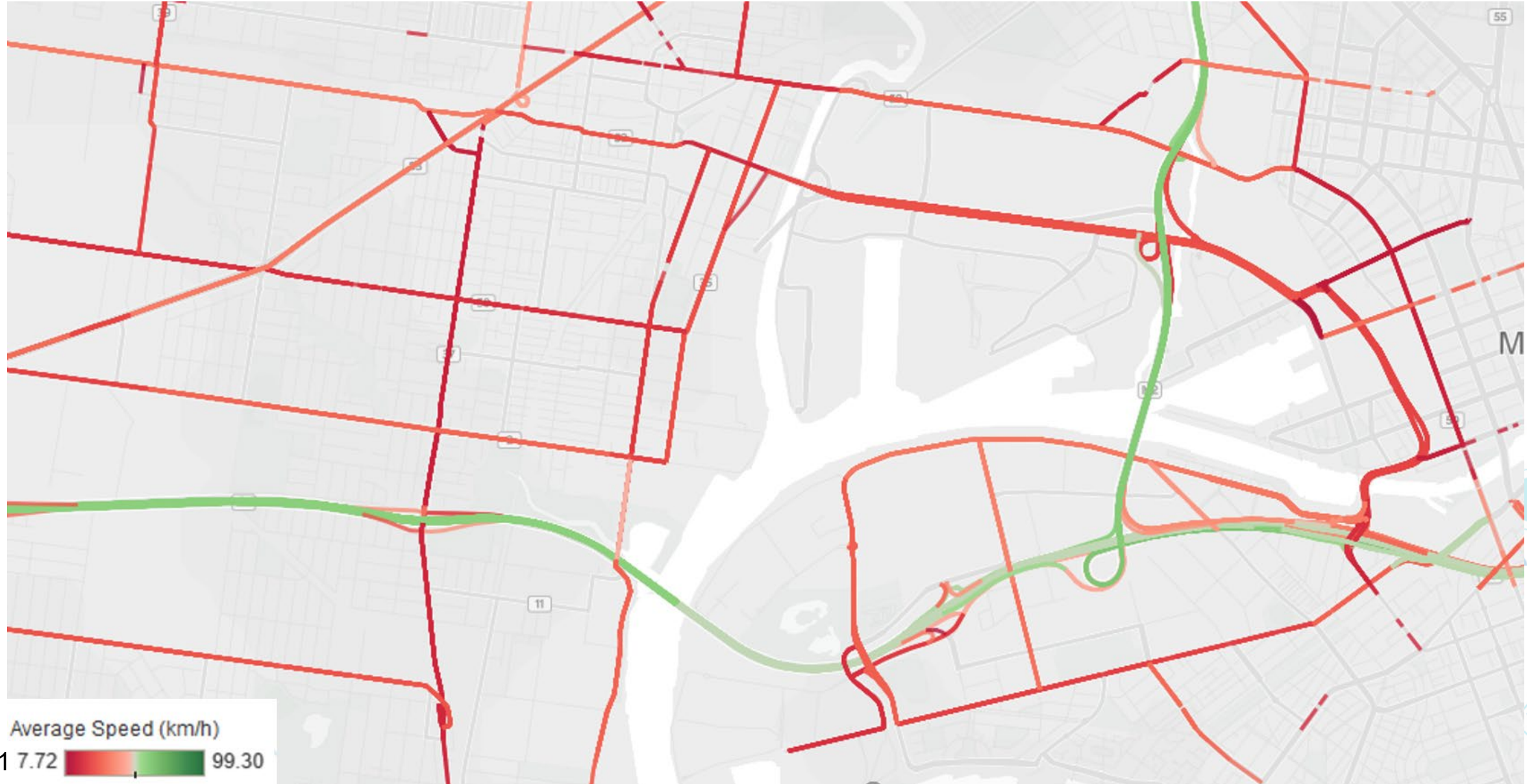
# Managing demand on local roads



# Managing origin-destination demands



# Managing demand by travel speed





**Safety, Productivity &  
Environment Construction  
Transport Scheme (SPECTS)**

**Port Botany Container  
Movement Efficiency Scheme**

**Dangerous Goods  
Vehicles Movement Analysis**

**NSW Freight Data Hub**





# Key Freight Routes – Heavy Vehicle Usage Data Project

3 October 2019



How can the digitalisation of  
transport help manage  
increased demand in Victoria?



*let's go.*

**WE CAN'T.**

*Why not?*

**WE'RE WAITING FOR GODOT.**