



# Setting road (& parking) prices

An overview for Councillors & Officers

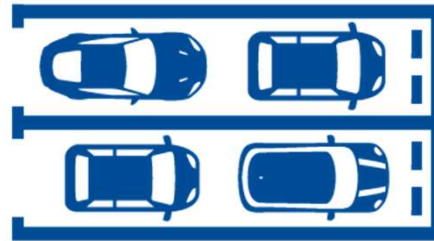
Many types of price  
are applied to transport



Here are some...



Cost-plus-profit



Land tax



Compulsory insurance



Penalty

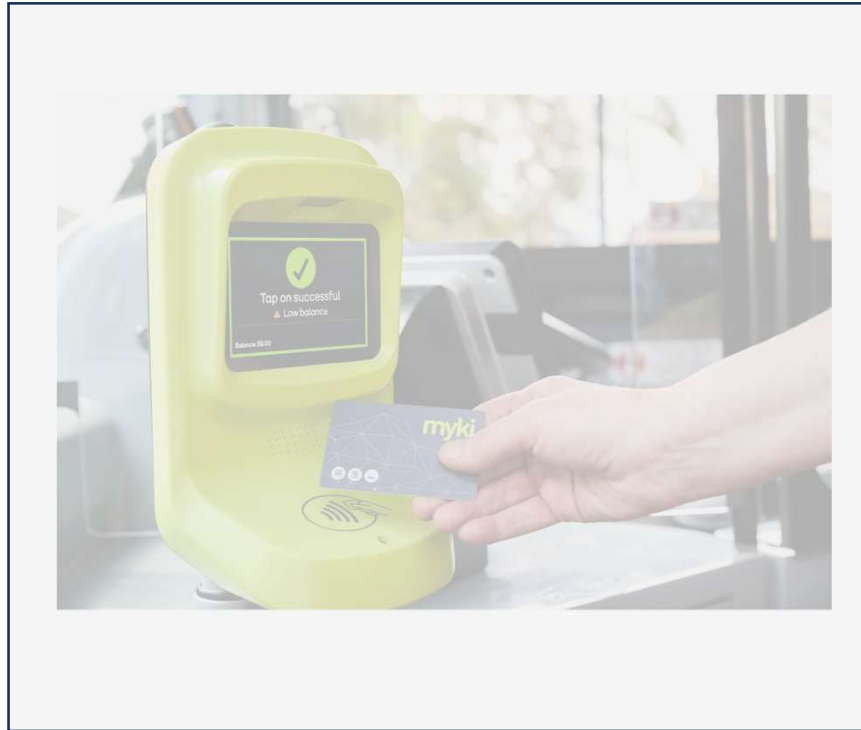


Network charge

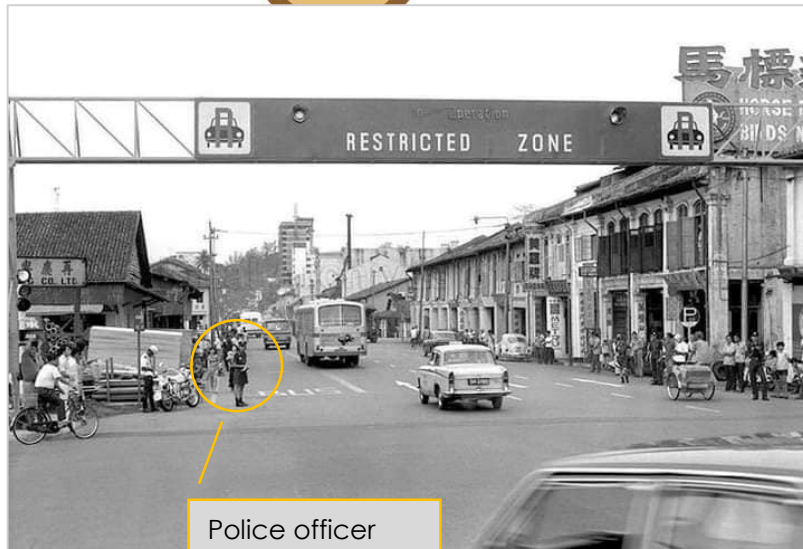
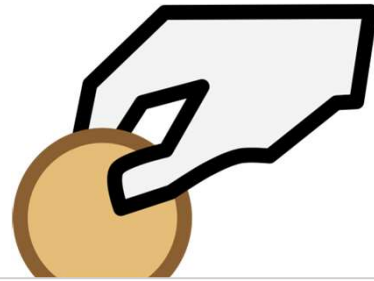


Luxury car tax

We will consider fees applied to the car trip



# Trip fees can be applied on the road



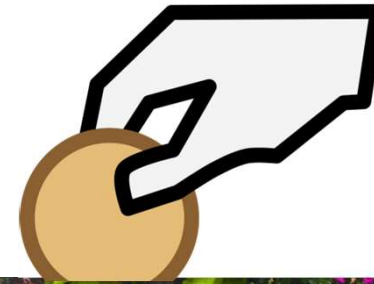
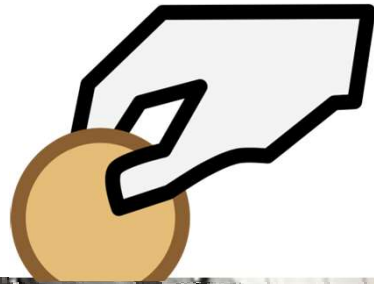
Police officer  
with a clipboard

Singapore 1970s

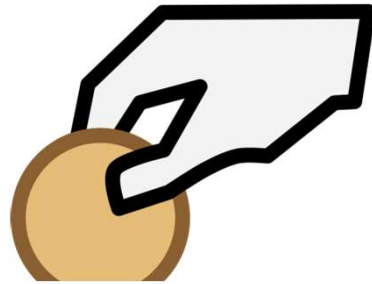


Manhattan 2025

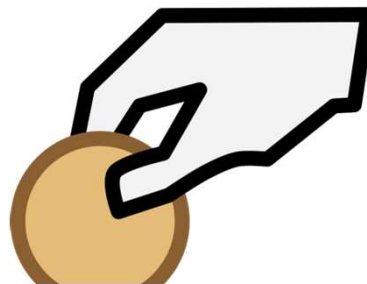
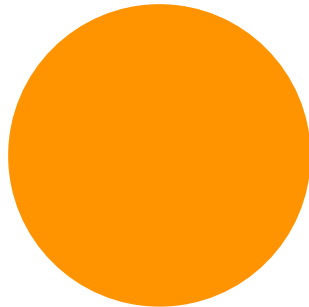
and at the kerb



# Trip charges have 3 main purposes



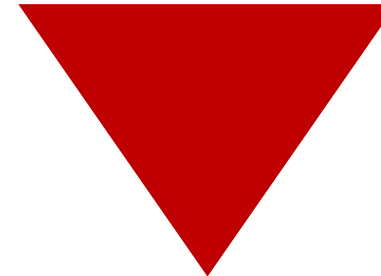
Revenue



System optimisation



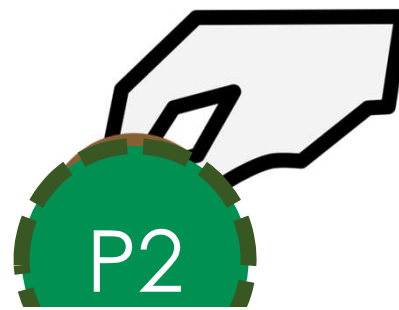
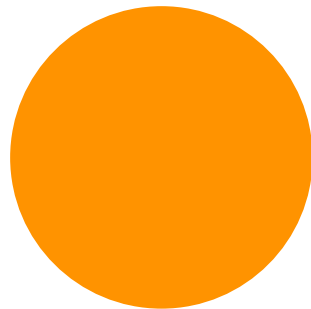
Discouragement



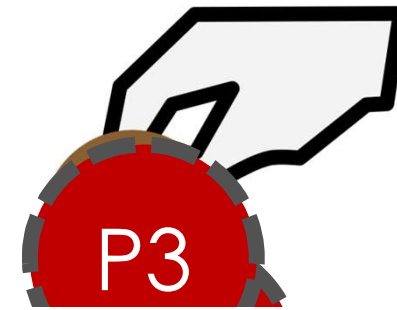
Each requires its own type of price



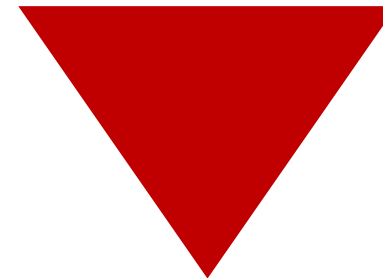
Revenue



System optimisation



Discouragement



I call the three prices  
the Spoon, the Fork, & the Knife



To slurp up revenue,  
the Price you need is a Spoon



To cut unwanted parts,  
the Price you need is a Knife



To know when it is cooked 'just right'  
the Price you need is a Fork



# We use these 3 prices on the road



**Slurp**  
for the big bypass



**Cut**  
Inbound private vehicles,  
smoky vehicles, non-resident  
vehicles...



**'Just right'**  
Optimum throughput



# and at the kerb



**Slurp**  
to meet budget



**Cut**  
in-bound vehicles



**'Just right'**  
Optimum throughput



# Let's look at the Spoon



The Spoon price has been raising revenue for thousands of years



Sydney Harbour Bridge 1932



# A Spoon fee should prove to be inelastic



The Spoon fee aims increases the cost,  
Without changing behaviour

# Spoon fees are kept low, so traffic & revenue remain high



The findings suggest that toll increases are likely to be effective in raising revenue for tunnel management authorities but ineffective in reducing or reallocating automobile traffic for transport planning purposes.

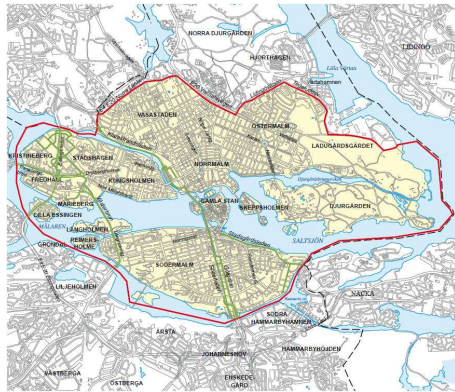
**Tunnel Traffic and Toll Elasticities in Hong Kong 2003**



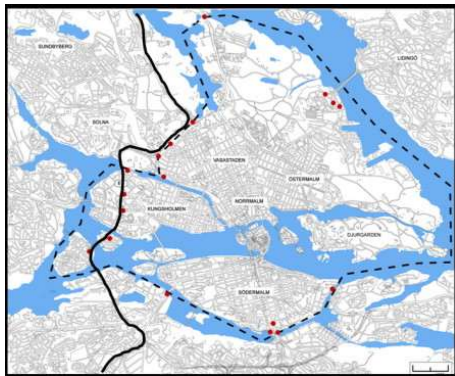
# Stockholm's charge is a Spoon



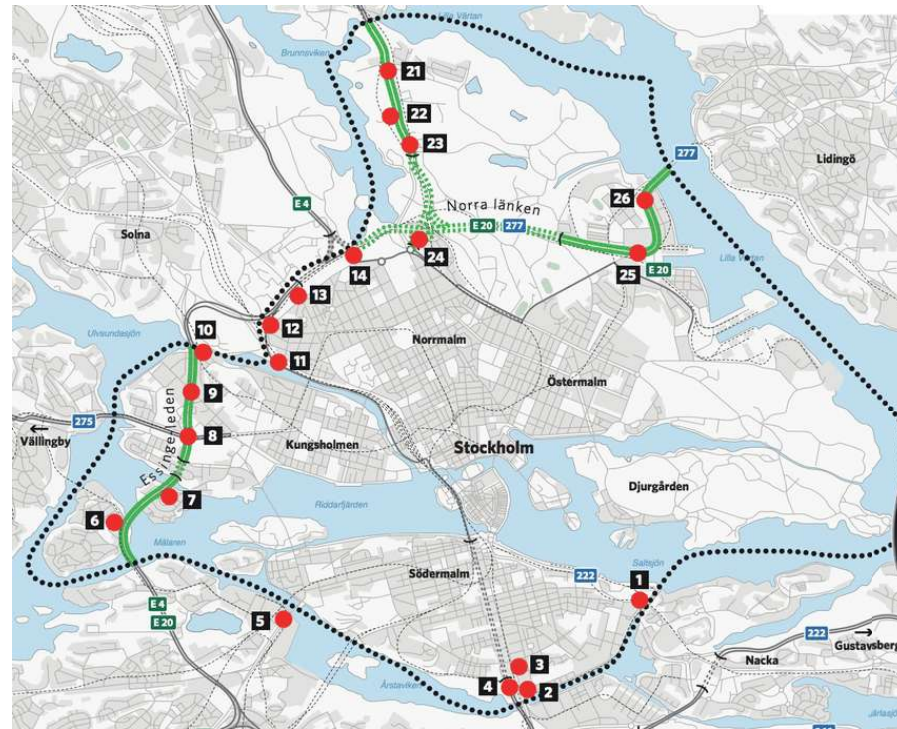
# You pay a fee to enter the cordon



Heavy vehicle zone  
1996



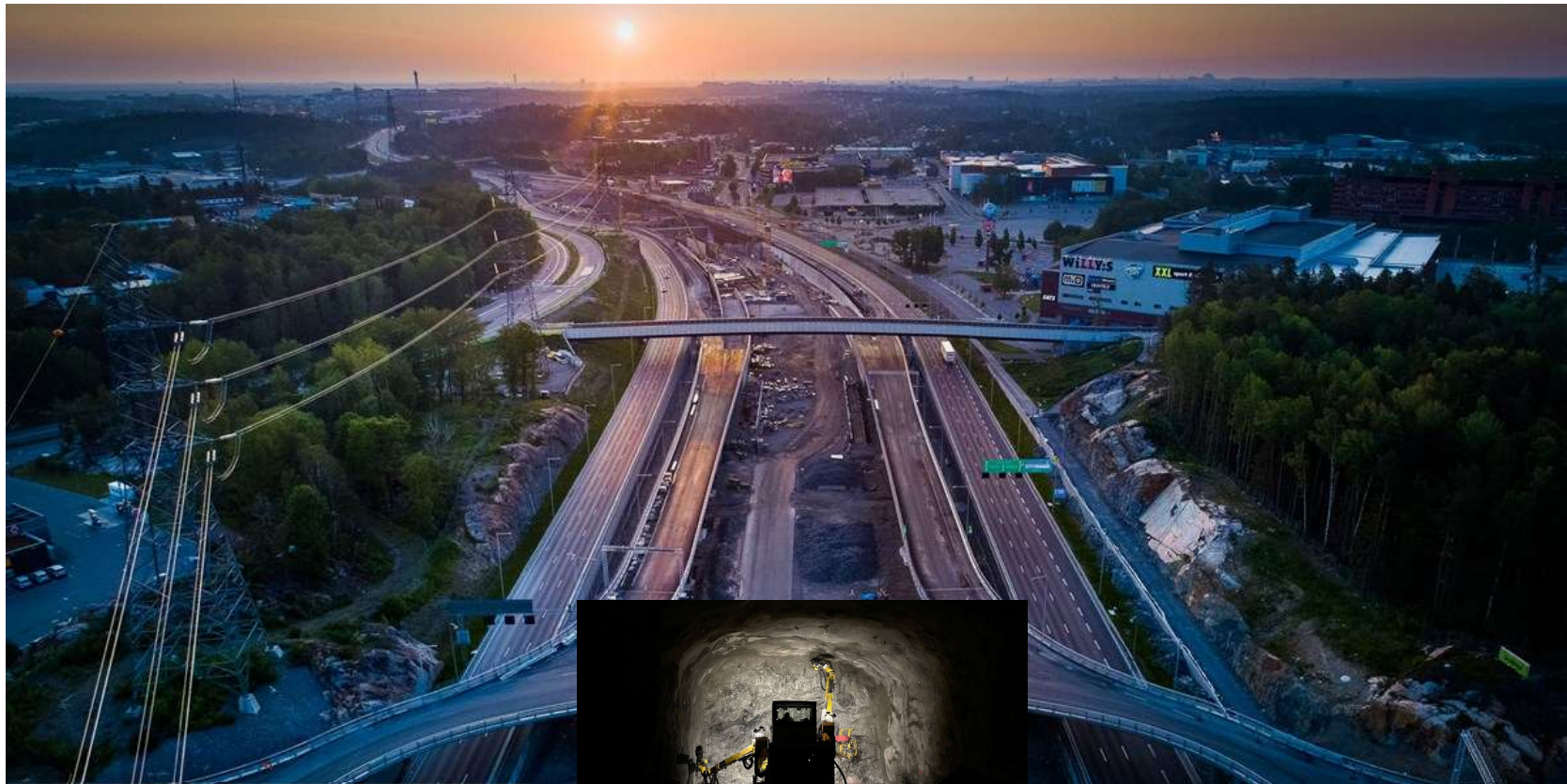
Trial 2006



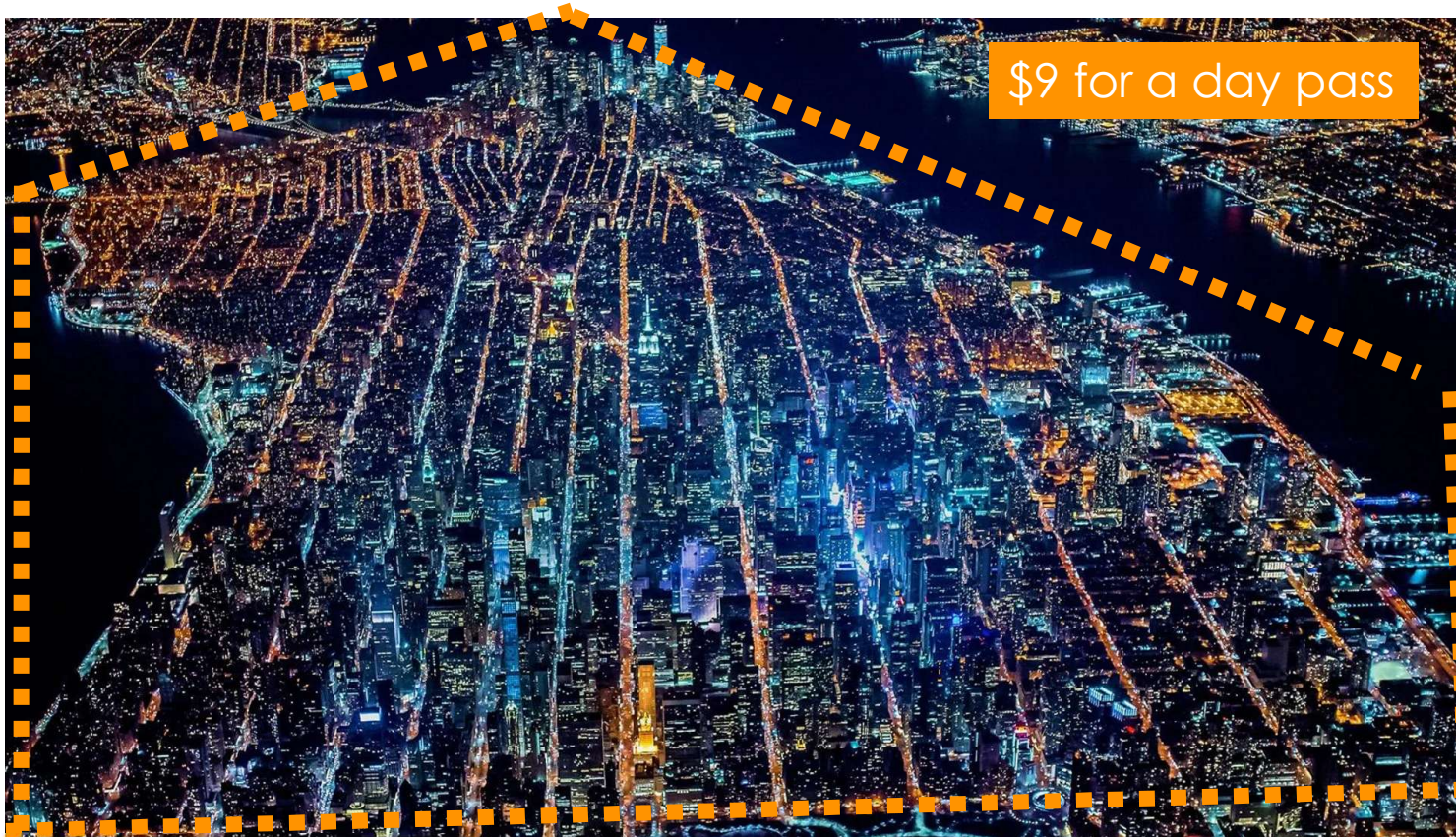
Today  
\$5 a trip  
Maximum \$20 a day



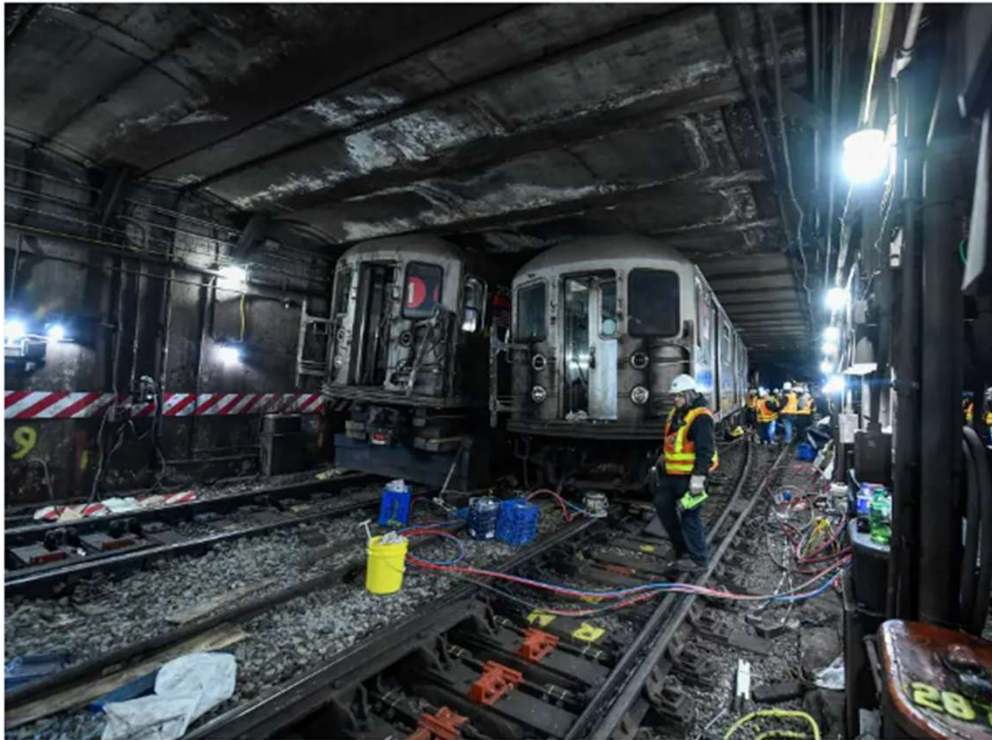
The revenue pays the interest on \$7b of debt used to build the Förfärd



The Manhattan charge is a Spoon  
You pay a fee to cross the dotted line



# The Spoon revenue pays the interest on \$7b of debt used to repair transit



MTA crews work at the site of Thursday's derailment on the Upper West Side on Friday, Jan. 5, 2023.



# These Spoons are well-disguised



Stockholm calls its Spoon a Crowd Tax or 'Congestion Charge'

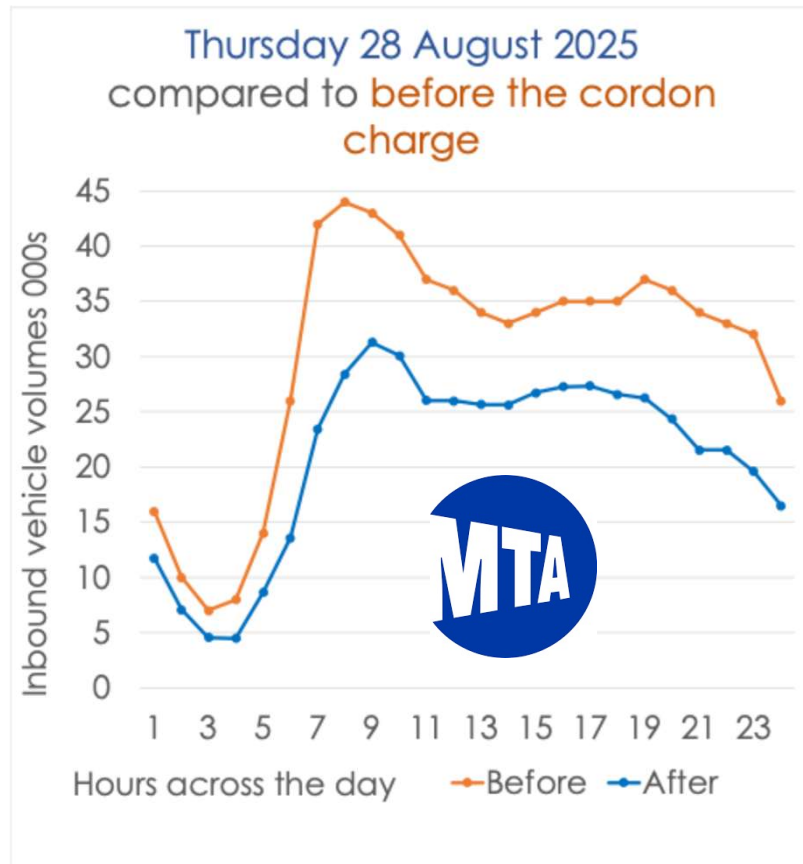


Manhattan calls its Spoon a 'Congestion Relief Zone'



Both fees contain a small knife

# Inbound trips to Manhattan are down by 11% but revenue is on target

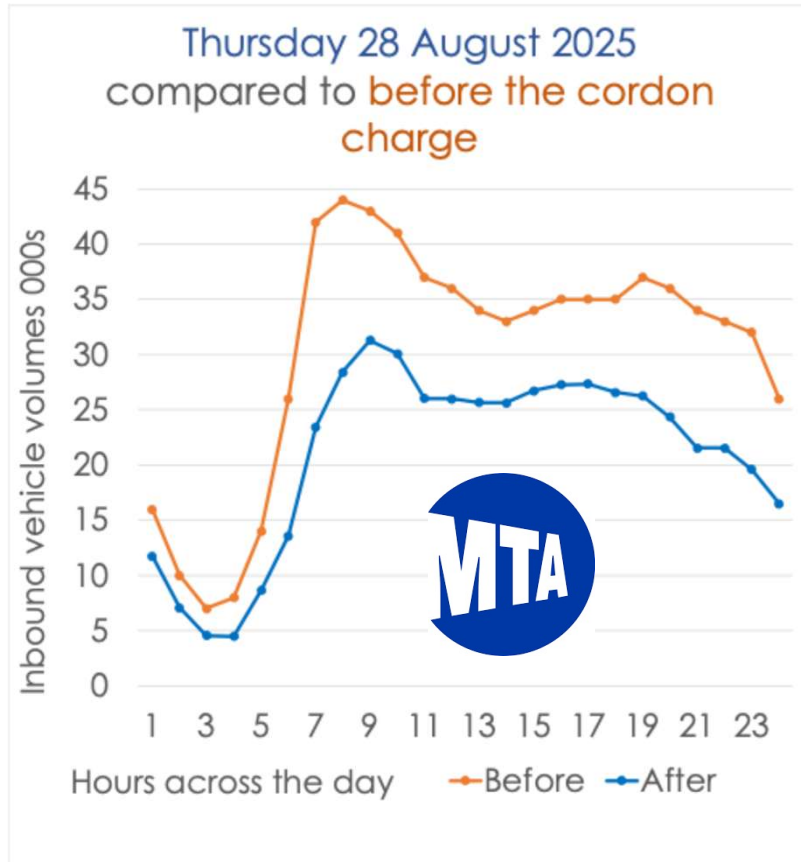


First-year actual revenue (Jan 5, 2025 → Jan 5, 2026): about \$550 million net, against the MTA's \$500 million annual projection — overperforming the conservative target.

<https://nycdailytldr.com/mta-funding-explained/>



# 'The nudge I needed'



Mr. Voulgaris, 51, who lives nearby and commutes out to the farm a couple of times a week, has stopped driving so frequently. Congestion pricing “was probably the nudge I needed to just do the train,” he said. *New York Times*



# Local governments can install a Spoon price in a parking meter



Ratepayers are paying \$23 million to maintain the beaches, according to Randwick Mayor Dylan Parker. (ABC News: Shaun Kingma)

Randwick Mayor Dylan Parker told 702 ABC Sydney locals had felt they could not access the beach in summer despite paying \$23 million in rates to maintain it.

"One of the key messages which locals have been raising with me has been their inability to actually access the beach, despite the fact that they're paying for it," Cr Parker said.

"We've found that actually during peak summer, a minority of beach users are actually from the local area.

**"We've gone to the community with a proposition that we actually think it is fairer ... that visitors contribute a modest cost to the upkeep of those beaches."**



Here's what Randwick Council spent on beach-related services in 2024-25:

**\$6.5M**

Lifeguard services

**\$2.2M**

Stormwater management

**\$5.5M**

Rangers and parking patrols

**\$0.5M**

Beachside events (NYE & Carols)

**\$5.1M**

Coastal walkway improvements

**\$0.4M**

Emergency works

**\$3M**

Beach cleaning and waste

**\$0.3M**

Support for surf clubs

Total cost of managing beachside areas

**\$23.5M**

19 May 2026

# Randwick is after a contribution to beach upkeep



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Randwick Mayor Dylan Parker told 702 ABC Sydney locals had felt they could not access the beach in summer despite paying \$23 million in rates to maintain it.

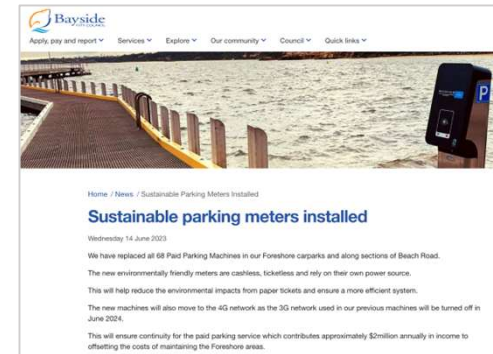
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**"We've gone to the community with a proposition that we actually think it is fairer ... that visitors contribute a modest cost to the upkeep of those beaches."**

## What will be the hourly rate of parking?

The rates are yet to be determined and will be subject to additional community consultation. As a comparison, it costs \$10 per hour to park at Manly Beach, \$11.60 at Bondi Beach and the offstreet parking at Coogee costs \$5.50 in summer.



Bayside:  
\$20.00 all day  
\$16.00 for 4 hours  
\$6.80 per hour  
~\$2m annual revenue

\*The longer – the cheaper  
A typical pattern for a Spoon price

19 May 2026

# Randwick residents are supportive, they will not be paying.

## Traders are afraid it will be a Knife and cut Arrivals

### Community has its say and majority supports Council's fairer beach funding model

Published Date: 18/05/2026

News Topic: [Planning & Development, Council](#)

Of those supportive of the proposal, the main reasons cited were fairness around user-pay, and ensuring visitors contribute to beach costs.



Randwick Council has concluded its largest community consultation ever undertaken receiving feedback from thousands of people on a proposal aimed at easing traffic congestion and making it easier to park at the beach.

The visitor pay parking proposal – charging visitors to park and exempting local residents – was open for six weeks from 4 March to 15 April 2026.

Provisional survey results from [Council's resident survey](#) undertaken by Logicy Research and sent to every household has received 12,039 responses from Randwick City residents and the results show majority support for the plan:

- ✔ 54% of the responses were supportive
- ✘ 41% opposed and
- ✎ 5% neutral

Those surveyed from outside of the Randwick Local Government area were less supportive with 23% support, 73% opposition and 3% neutral.

A [representative telephone survey](#) undertaken by Taverner Research of the Randwick City community also found majority support for the proposal:

- ✔ 64% of residents surveyed supportive
- ✘ 28% opposed and
- ✎ 8% neutral



Survey: 54% residents in favour  
Phone survey: 64% residents in favour

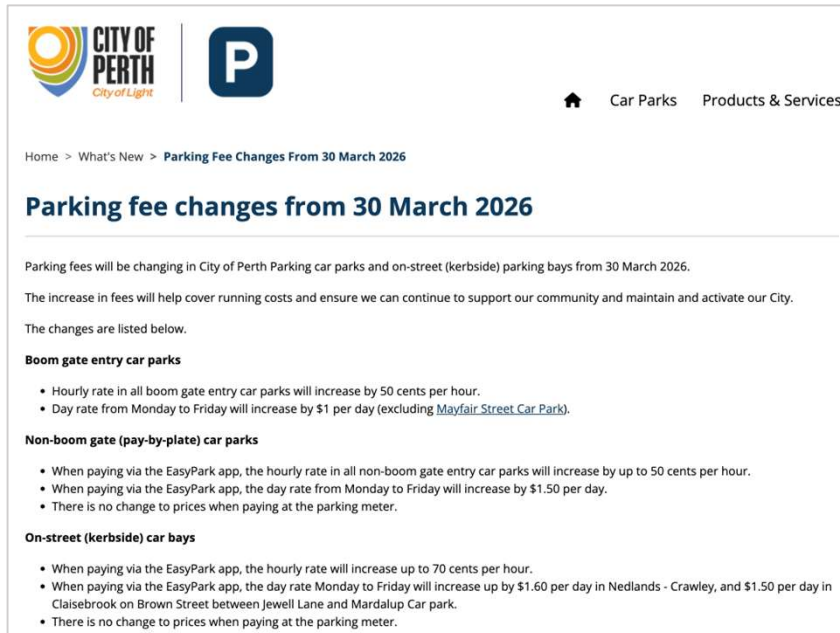
# The Spoon fee setter must ask 'How magnetic is Coogee Beach?'



If the attraction is high, the Spoon fee can be high without deterring Arrivals...



# Other ways to tell when someone is using a Spoon



The screenshot shows the City of Perth website with the following content:

- City of Perth logo and a 'P' parking icon.
- Navigation: Home > What's New > Parking Fee Changes From 30 March 2026
- Section: **Parking fee changes from 30 March 2026**
- Text: Parking fees will be changing in City of Perth Parking car parks and on-street (kerbside) parking bays from 30 March 2026. The increase in fees will help cover running costs and ensure we can continue to support our community and maintain and activate our City. The changes are listed below.
- Boom gate entry car parks**
  - Hourly rate in all boom gate entry car parks will increase by 50 cents per hour.
  - Day rate from Monday to Friday will increase by \$1 per day (excluding [Mayfair Street Car Park](#)).
- Non-boom gate (pay-by-plate) car parks**
  - When paying via the EasyPark app, the hourly rate in all non-boom gate entry car parks will increase by up to 50 cents per hour.
  - When paying via the EasyPark app, the day rate from Monday to Friday will increase by \$1.50 per day.
  - There is no change to prices when paying at the parking meter.
- On-street (kerbside) car bays**
  - When paying via the EasyPark app, the hourly rate will increase up to 70 cents per hour.
  - When paying via the EasyPark app, the day rate Monday to Friday will increase up to \$1.60 per day in Nedlands - Crawley, and \$1.50 per day in Claisebrook on Brown Street between Jewell Lane and Mardalup Car park.
  - There is no change to prices when paying at the parking meter.

- Fees are set by Finance as part of the budget process
- Fees are flat – the same
  - in all locations
  - on all days
  - at all hours
- Fees increase
- Fees never go down



If you want to cut something,  
the Price you need is a Knife

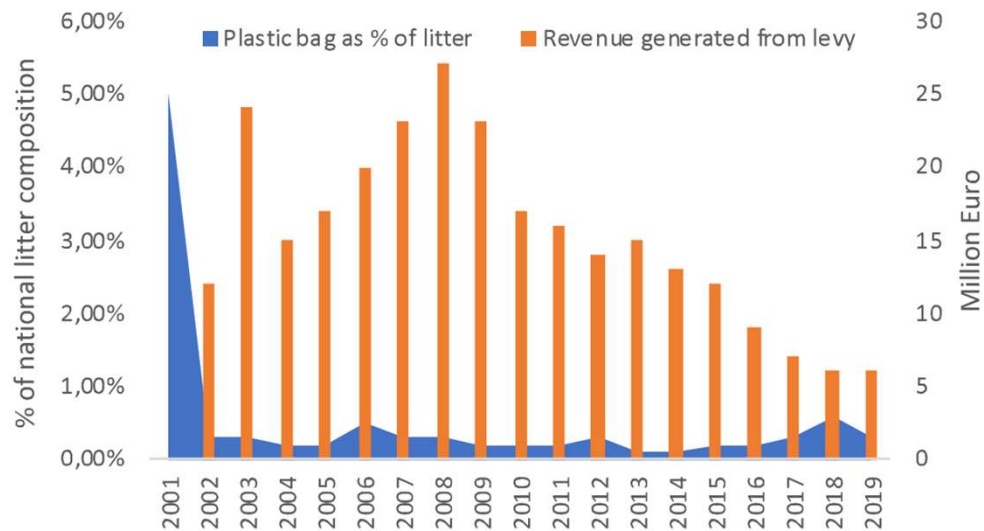


# Knife prices aim to cut consumption

**WILTON**  
RECYCLING

**Did You Know?**

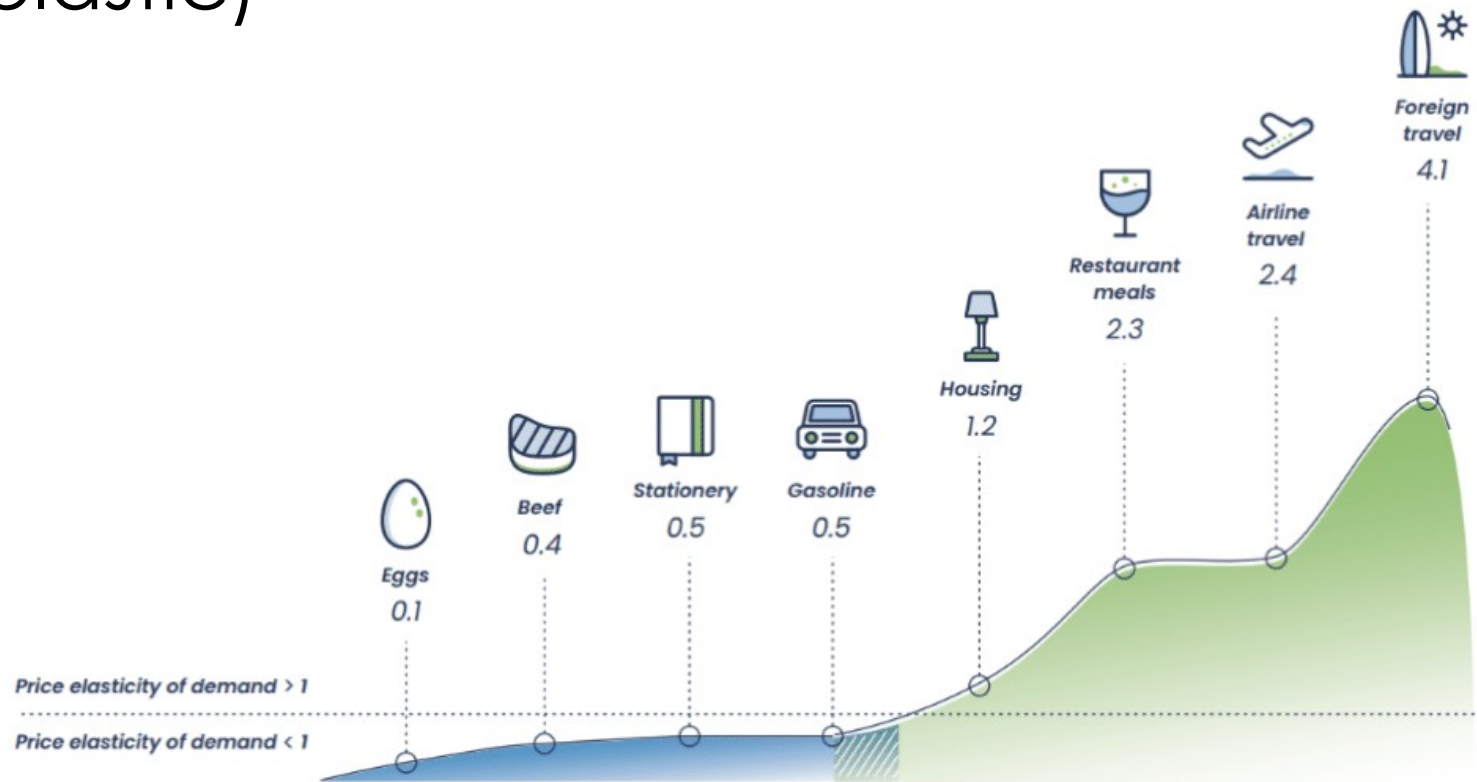
Ireland was one of the first countries to introduce a plastic bag tax in 2002, reducing usage by 90% almost immediately.



Successful Knife prices will not be a reliable source of revenue

Today Ireland's 36¢ plastic bag levy used to generate \$30 million a year.  
In 2025, it was \$1.9m.

A sharp Knife fee  
will make people think twice  
(elastic)



[California State University, Sacramento](http://www.calstate.edu/sacramento)

# Council permits carry Knife prices



## Fees for keeping a regulated dog

You must [pay annual registration fees](#) for keeping a dangerous or menacing dog.

You may qualify for reduced fees in subsequent years if you comply with the keeping conditions of a regulated dog.

Registration type	Full fee	Reduced fee
Dangerous dog	\$1,080.10*	\$271.85
Desexed menacing dog	\$763.45*	\$217.35
Non-desexed menacing dog	\$1,080.10*	\$271.85

\*The first-year registration of a declared dangerous dog or a declared menacing dog incurs additional fees for the issue of the distinctive collar and the sign.

Dangerous dog \$1,080 a year

## Fees and payments

- First permit issued at the property (12-month permit): \$53.50
- Second permit issued at the property (12-month permit): \$146
- Visitor voucher booklet for eligible properties (18 vouchers): \$64.60.

Excess vehicle \$146 a year

## Excess animal permits

There is a limit on the number of animals you can have at your property. If you want more than the specified number, you can apply for an excess animal permit.

The number of animals you can have without needing a permit depends on the size of your block of land.

Online

**1 Check if you need a permit**  
Check the table below to see if you need an excess animal permit.

Type of animal	Blocks bigger than 4000m <sup>2</sup>	Blocks between 330m <sup>2</sup> and 4000m <sup>2</sup>	Blocks smaller than 330m <sup>2</sup> and units
Cat	4	2	2
Dog	4	2	1
Rodent (including Guinea Pig) or Rabbit	10	5	2
Reptile	10	5	2
Game Bird	25	2	0
Poultry	25	10	0
Large bird (e.g. cockatoo)	5	5	2
Small bird (e.g. canary)	50	10	5
Rooster	0	0	0

Excess animals \$190 a year

# City of Sydney applies a Knife price through their kerbside permit scheme

## Resident permit fees

**Standard permit** (vehicles not in green vehicle guide)

- First permit: \$91
- Second permit: \$141

**Green concessions** ([What is my green vehicle rating?](#))

Vehicle emissions	First permit	Second permit
111.9 or less emissions (tailpipe CO2 g/km comb)	\$48	\$71
112–186.5 emissions (tailpipe CO2 g/km comb)	\$69	\$106
186.6–261.1 emissions (tailpipe CO2 g/km comb)	\$91	\$141
261.2 or more emissions (tailpipe CO2 g/km comb)	\$183	\$280

# In Europe they use Knife prices to cut pollution



London



Belgium



Sweden

# Milan uses a Knife price to cut pollution



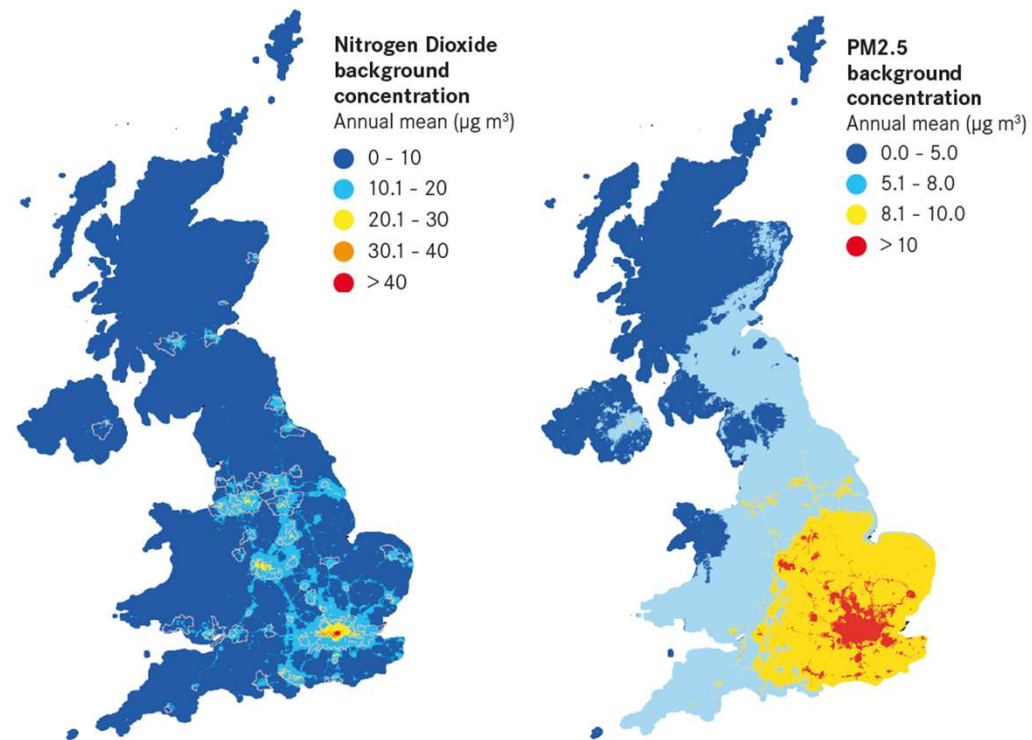
Milan is in the top 10 most-polluted cities in the world

# Unfortunately, the Knife is blunt

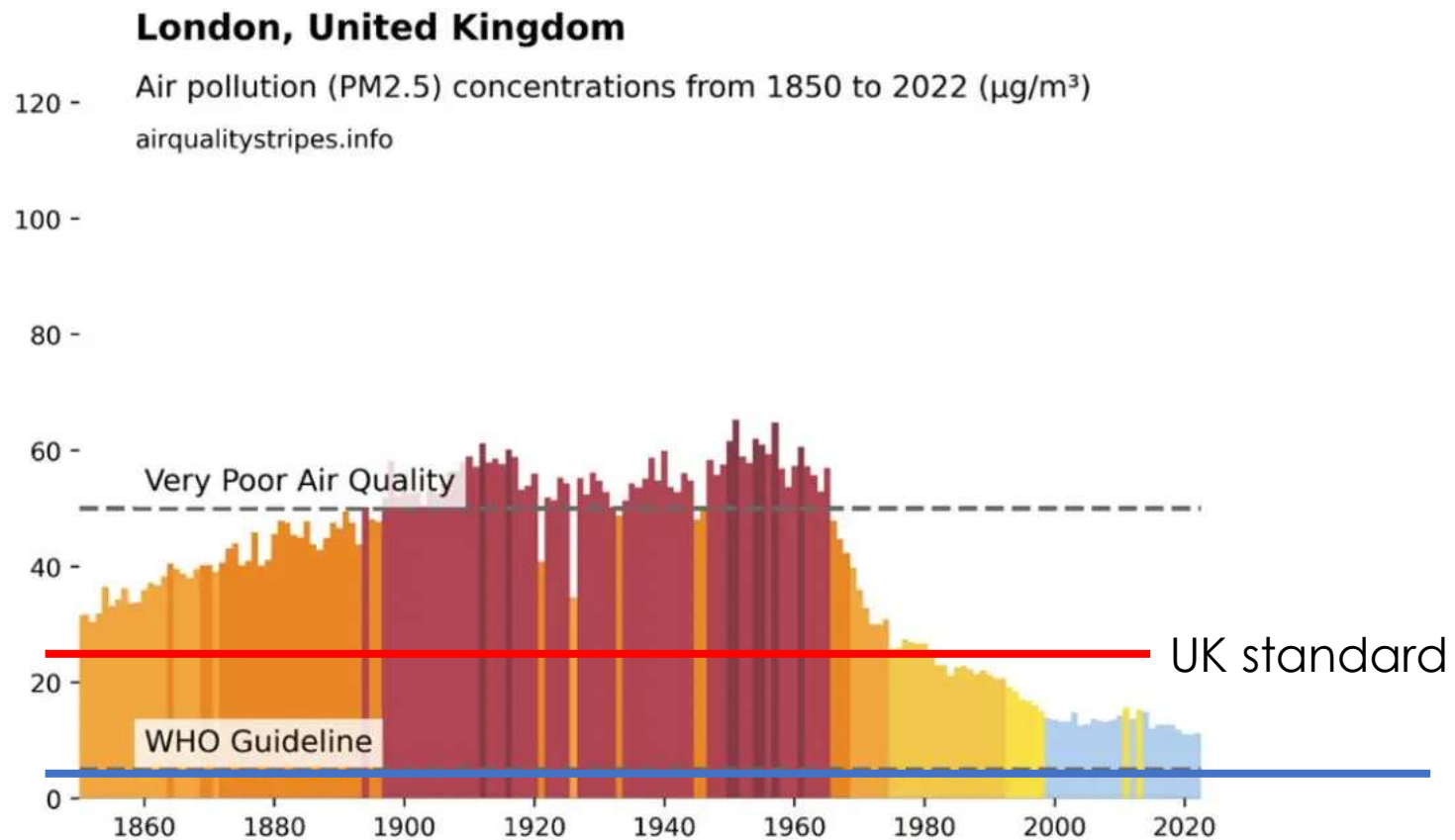


The Knife fee is \$12.20 to enter the cordon.  
EVs are exempt. As are newish hybrids.

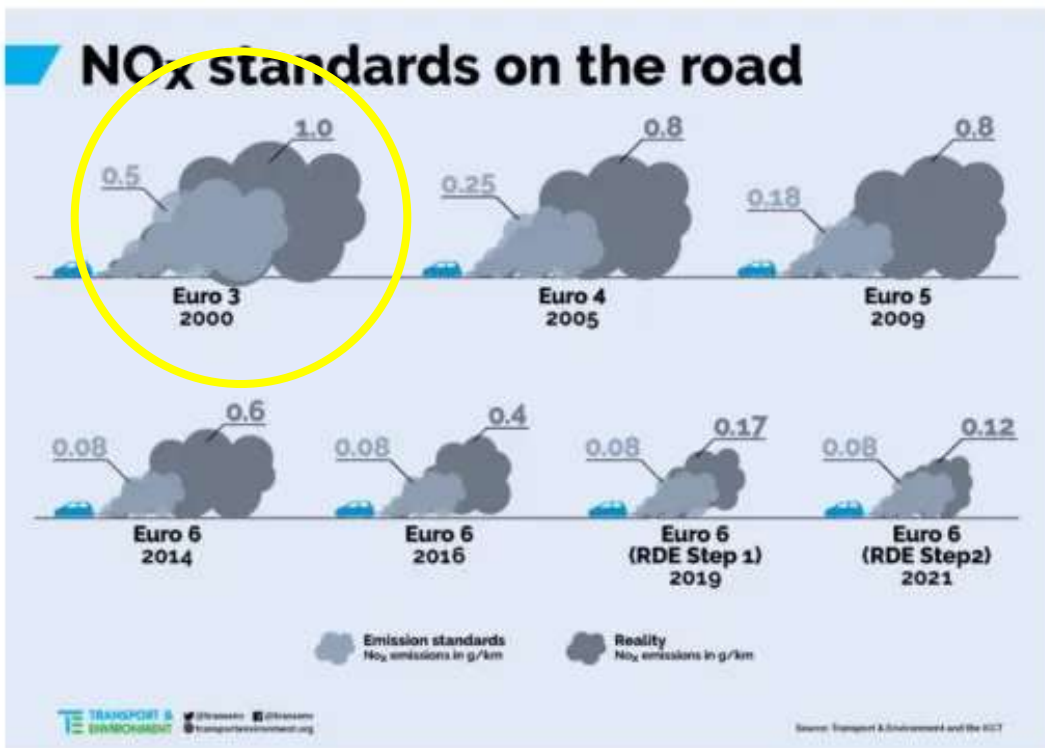
# You can see why London has a Knife price to cut pollution



# The reference for Knife prices, is an external benchmark



# \$24 a day to drive a Euro 3 car in London



Private

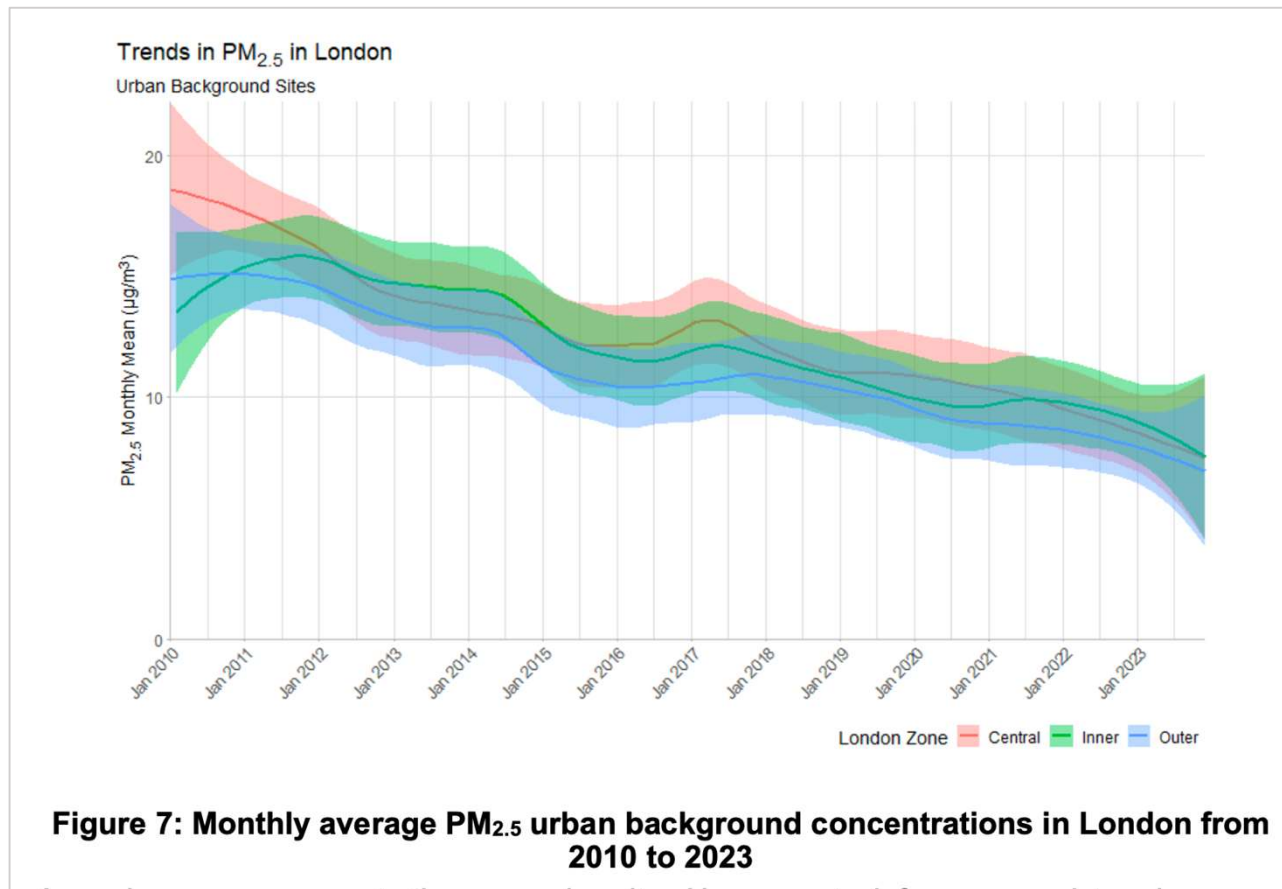
2003 Volkswagen Golf Sport Auto FMY03

\$5,000

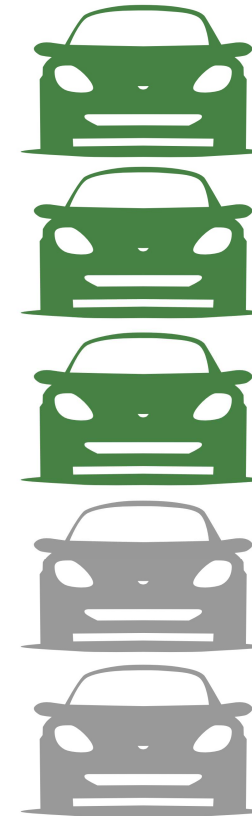
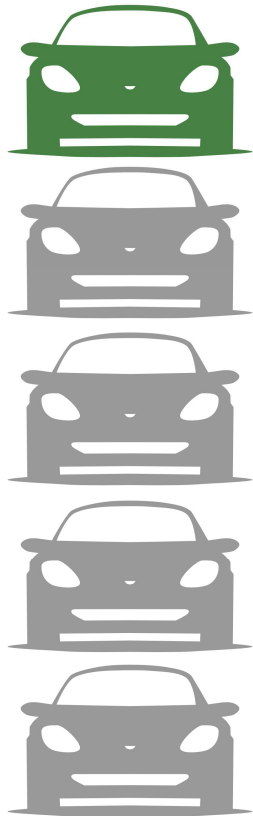
Excl. Govt. Charges



# That \$24 Knife is sharp



# A Knife price that cuts pollution does not cut the number of cars...



## Electric Vehicles +

Electric vehicles can enter the ZTL and park for free in the parking spots that are marked blue or yellow.  
Electric delivery vehicles can enter the ZTL 24 hours a day, so also between 08:00 - 10:00 when other loading and unloading is banned.

Milan

# To cut the number of vehicles, you need a Knife price on a Limited Traffic Zone

## Milano, è attiva la Ztl del quadrilatero della moda: orari ed esenzioni

Il divieto di accesso e circolazione nell'area è in vigore 24 ore su 24 e vale anche per le elettriche. Chi ha diritto alle deroghe

**Marco Bruckner**

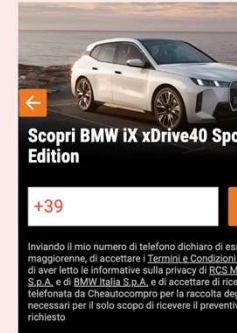
12 maggio 2025 (modifica alle 14:55) - MILANO



Dal 12 maggio 2025 a Milano è attiva la Ztl nell'area nota come quadrilatero della moda

Dal **12 maggio 2025** a **Milano** è attiva la zona a traffico limitato nell'area famosa come quadrilatero della moda. La Ztl prevede il divieto di accesso e circolazione, **dalle ore 00:00 alle ore 24:00** di **tutti i giorni** della settimana, nell'area delimitata da via Manzoni, Senato, San Damiano,

L'offerta del mese di  
**CheAutoCompro.it**



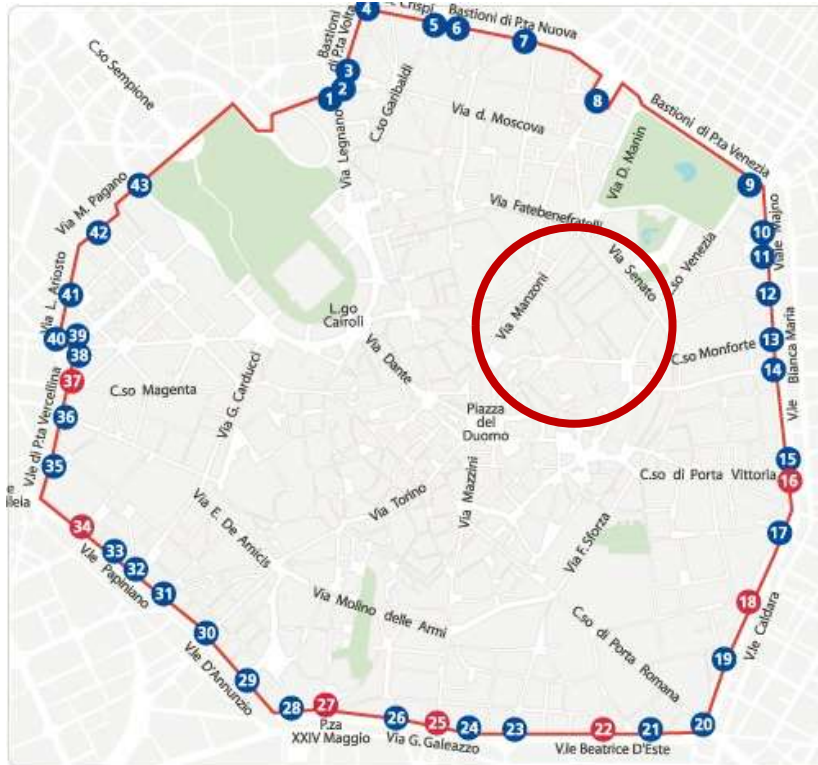
**weeboard**

**La Gazzetta dello Sport**

**Padel. Anytime. Anywhere**  
Prenota il tuo prossimo viaggio esclusivo a tema padel in tutto il mondo.



# Milan installed a new Limited Traffic Zone in 2025



**Piano Quartieri** 

**A PARTIRE DA LUNEDÌ 12 MAGGIO 2025  
SARÀ ATTIVA LA ZTL QUADRILATERO DELLA MODA**  
**STARTING FROM MAY 12, 2025,  
THE LIMITED TRAFFIC ZONE (LTZ) WILL BE ACTIVATED**

LA ZTL SARÀ ATTIVA DALLE ORE 00:00 ALLE ORE 24:00, TUTTI I GIORNI DELLA SETTIMANA

THE ZTL WILL BE ACTIVE FROM 12:00 A.M. TO 12:00 A.M., EVERY DAY OF THE WEEK

L'ACCESSO SARÀ CONSENTITO AI VEICOLI

**A SERVIZIO DI PERSONE INVALIDE**

**POLIZIA, AMBULANZE, VIGILI DEL FUOCO**

**TRASPORTO MERCI:**  
DALLE ORE 09:00 ALLE ORE 11:00  
DALLE ORE 20:00 ALLE ORE 01:00  
**TRASPORTO ALIMENTI DEPERIBILI:**  
DALLE ORE 09:00 ALLE ORE 11:00  
DALLE ORE 16:00 ALLE ORE 18:00  
DALLE ORE 20:00 ALLE ORE 01:00  
e a tutti i veicoli autorizzati ai sensi della D.G.C. n. 555 del 9 maggio 2024 e s.m.l.

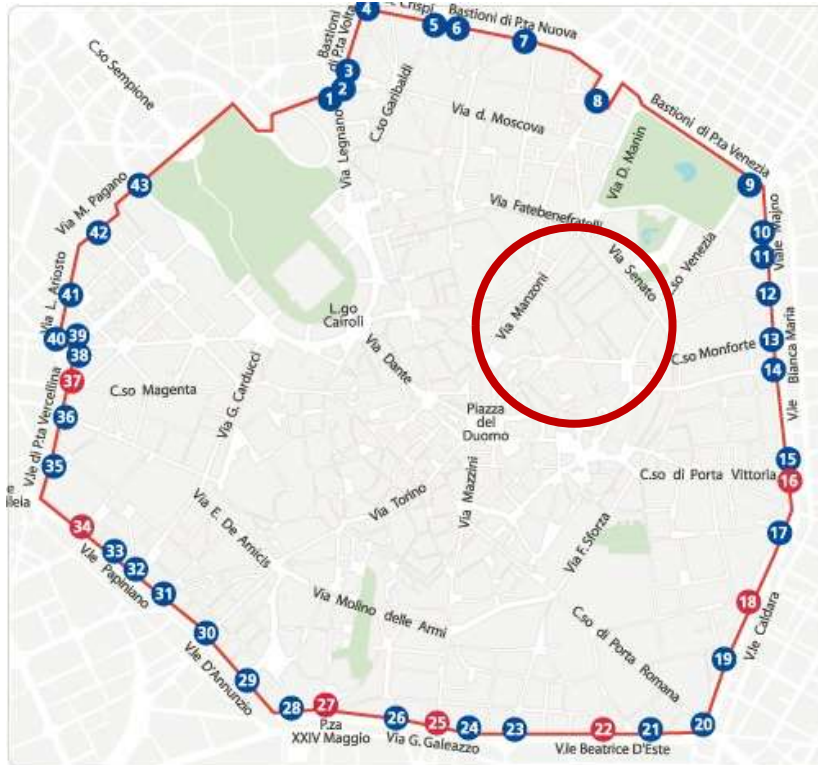
**INFORMAZIONI E PERMESSI:**

- [www.comune.milano.it](http://www.comune.milano.it)
- Ufficio Permessi - Polizia Locale | Unità Territoriale 1 dal lunedì al venerdì, dalle 08:30 alle 12:30 e dalle 13:30 alle 17:00

[comune.milano.it](http://comune.milano.it)  



# Unfortunately 'Limitato' in Italian means limited except for...



- Residents
- Owners of garages or parking spaces
- Those driving to the garages
- Service vehicles
- Trades (50 entries a year)
- Health care services
- Event vehicles
- Guests heading to hotels
- Taxis etc
- Car valet services
- Motorised two-wheelers

# London's Knife price aimed at limiting traffic is famous



\$34 for a day pass

But ineffective  
as it is undermined by exemptions



#### Taxis

Taxis (black cabs) are exempt from paying the Congestion Charge when actively licensed by Transport for London. A vehicle will be removed from the register of exempt vehicles on the surrender, expiry or revocation of the licence.

# Buses are now slower than they were when the scheme was introduced

London is the slowest-moving city in Europe again. Can the data show why?

Editorial team  
 Transport Blog  
 Jan 14, 2025 · 5 min read



Anyone who has found themselves sitting in a London traffic jam may not be surprised to learn that the UK's capital is its most congested – and the problem is getting worse.

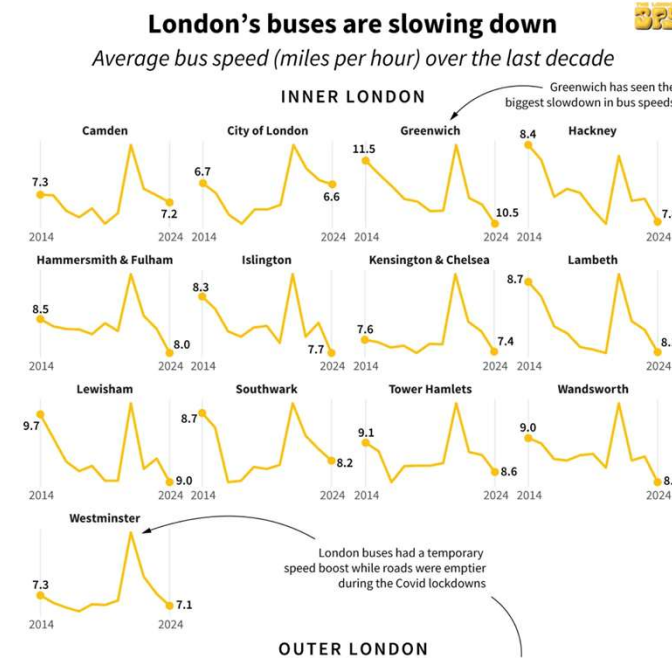


You're not imagining it — London buses are getting slower

Plus: angry dog walkers in the East End, an update on Heaven, and a chat with a London phone thief

NOV 24, 2024

13 | Share | ...



# Quick review

# We use these 3 prices on the road



**Slurp**  
for the big bypass



**Cut**  
Inbound private vehicles,  
smoky vehicles, non-resident  
vehicles...



**'Just right'**  
Optimum flow speed



# and at the kerb



**Slurp**  
to meet budget



**Cut**  
in-bound vehicles



**'Just right'**  
Optimum throughput

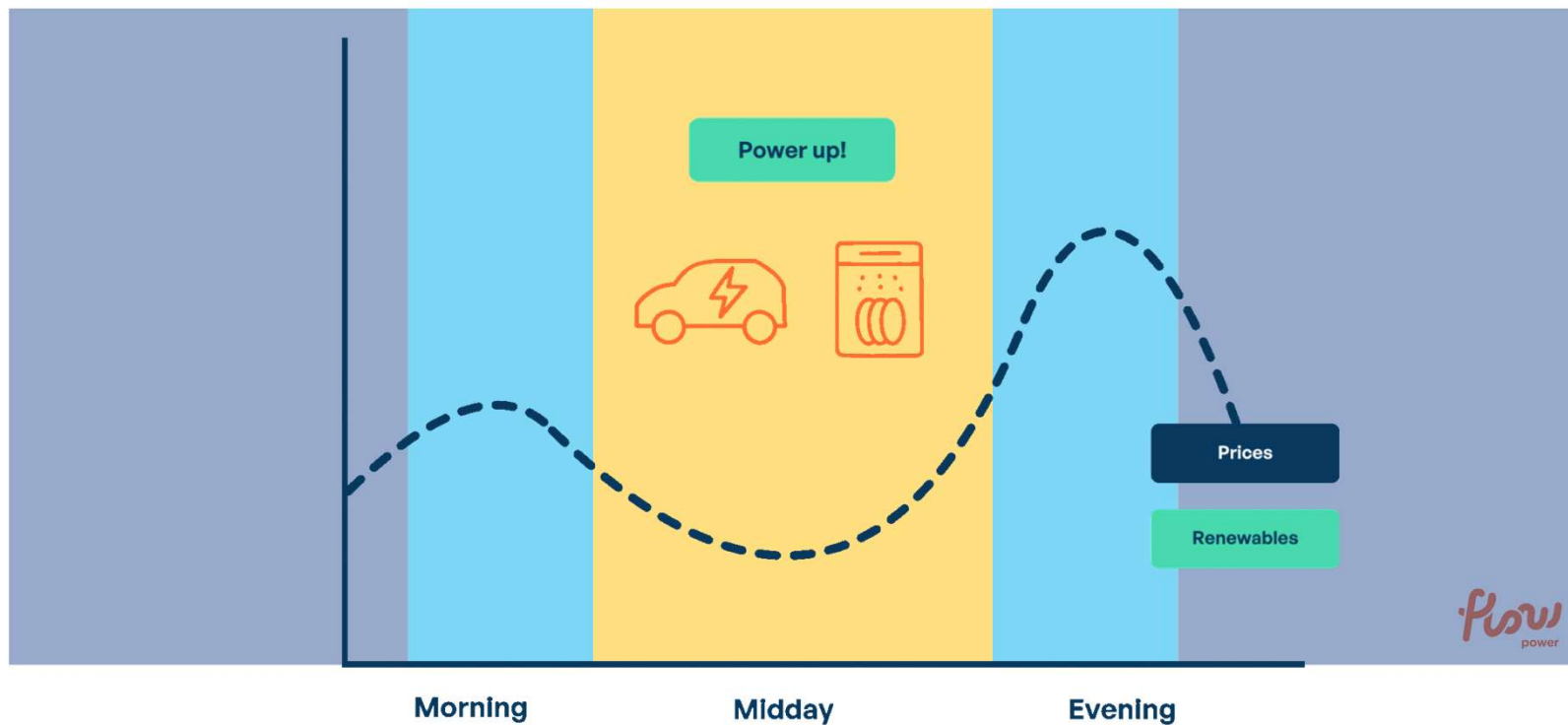


Now it is time to look at the Fork price

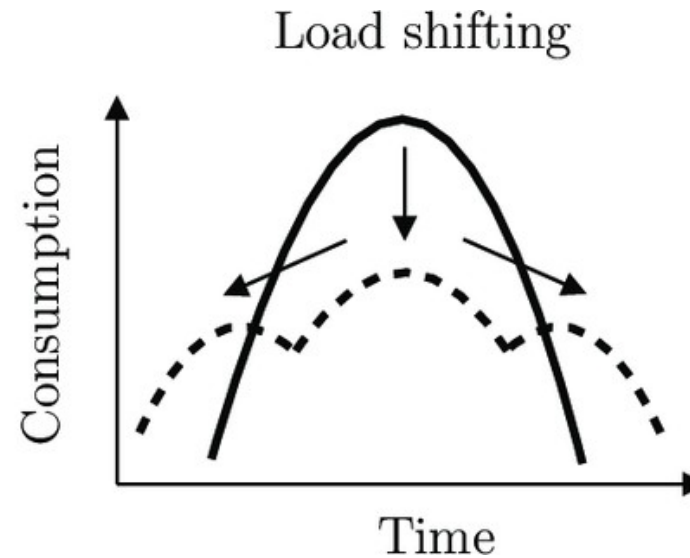
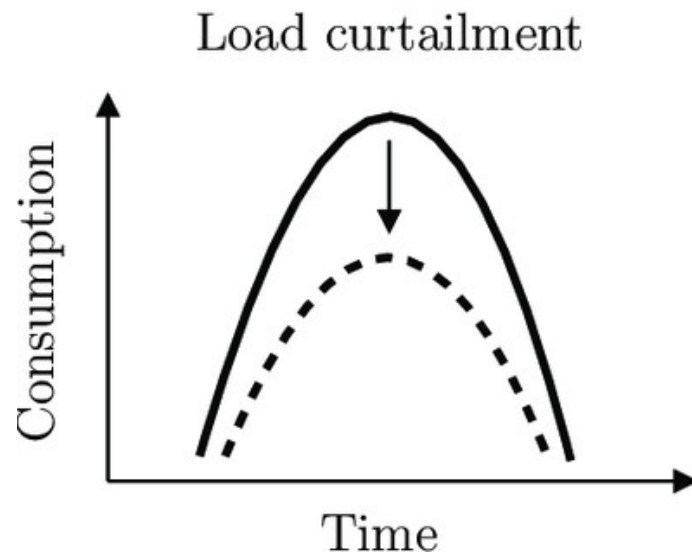


In electricity,  
the Fork is called time-of-use

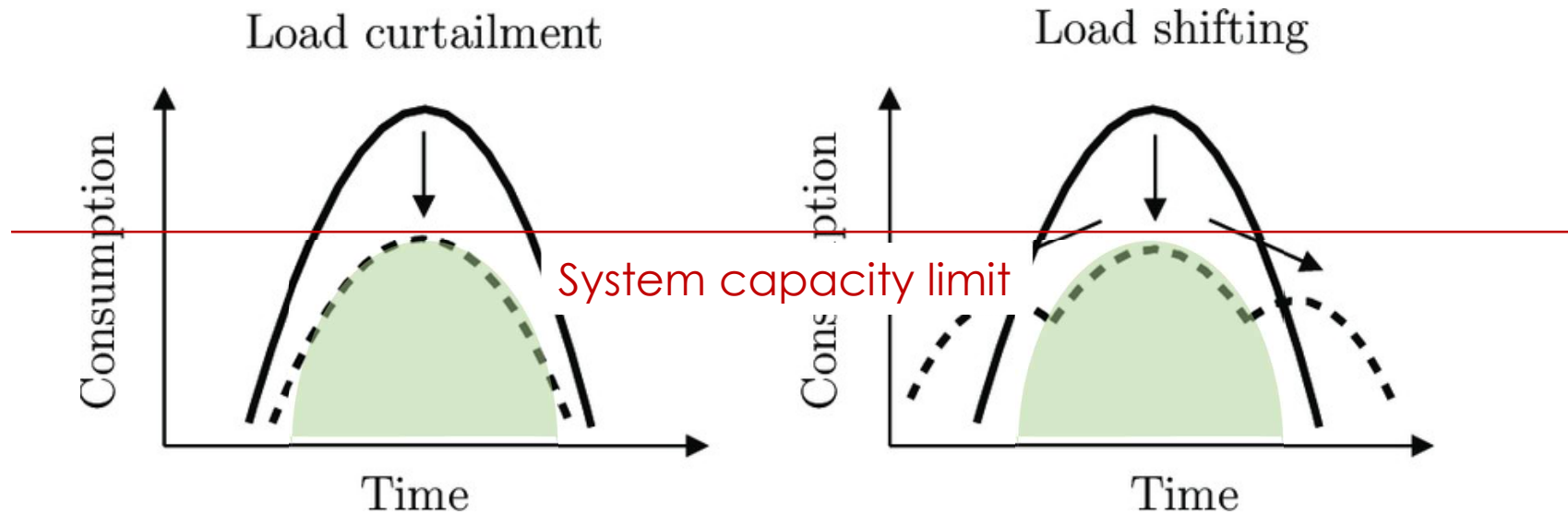
It should be called 'level-of-use'



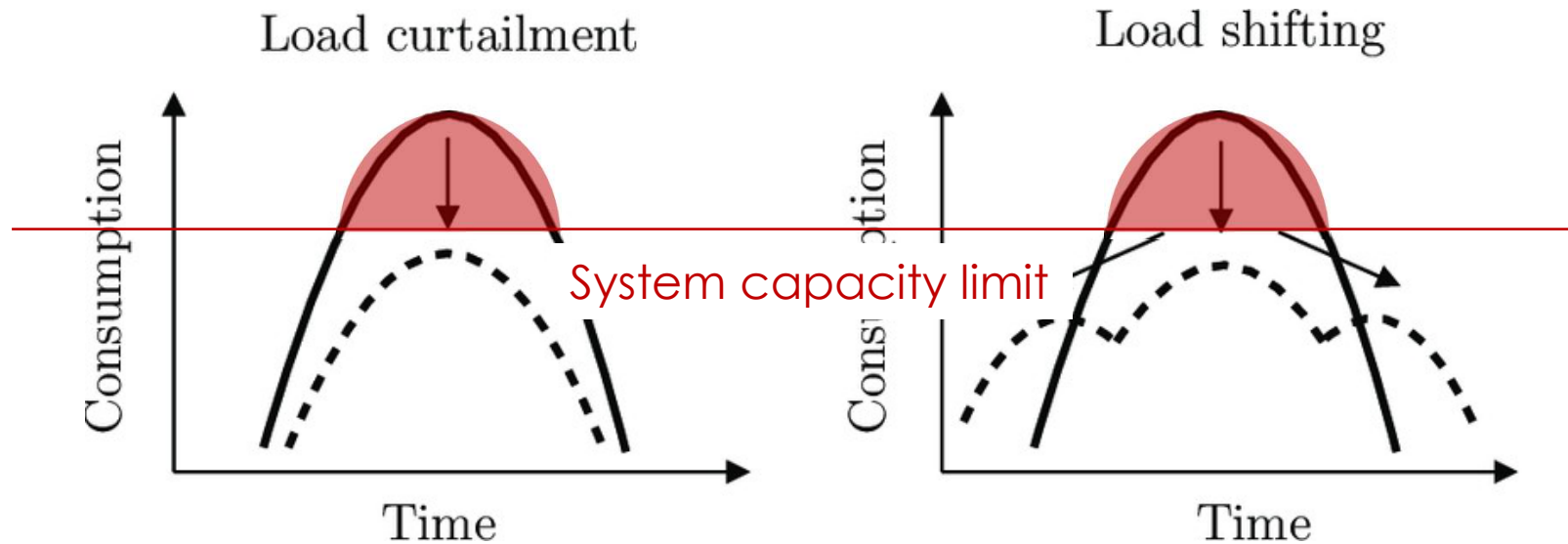
The intent of a Fork fee is optimisation – keeping the load within the capability of the system



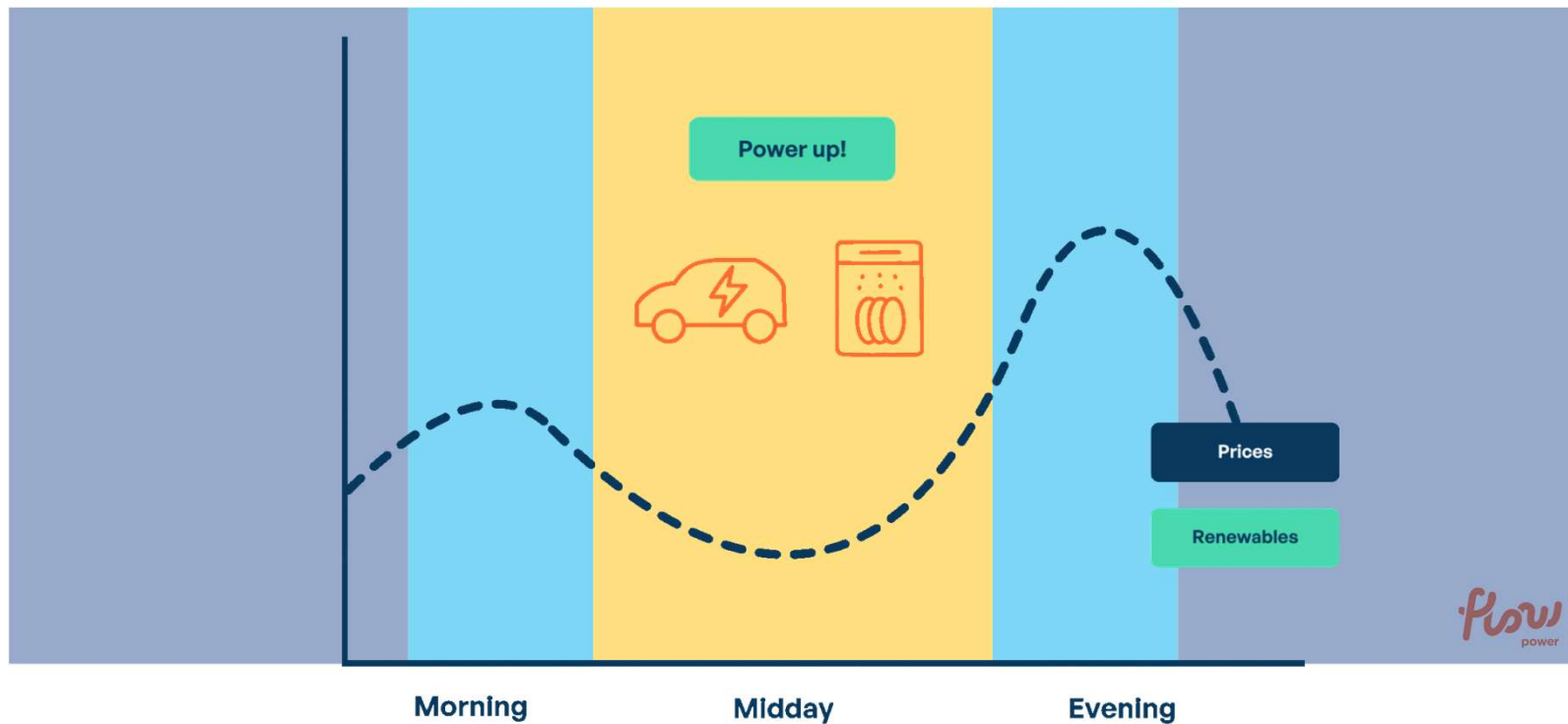
The reference points are the load & the system capacity...



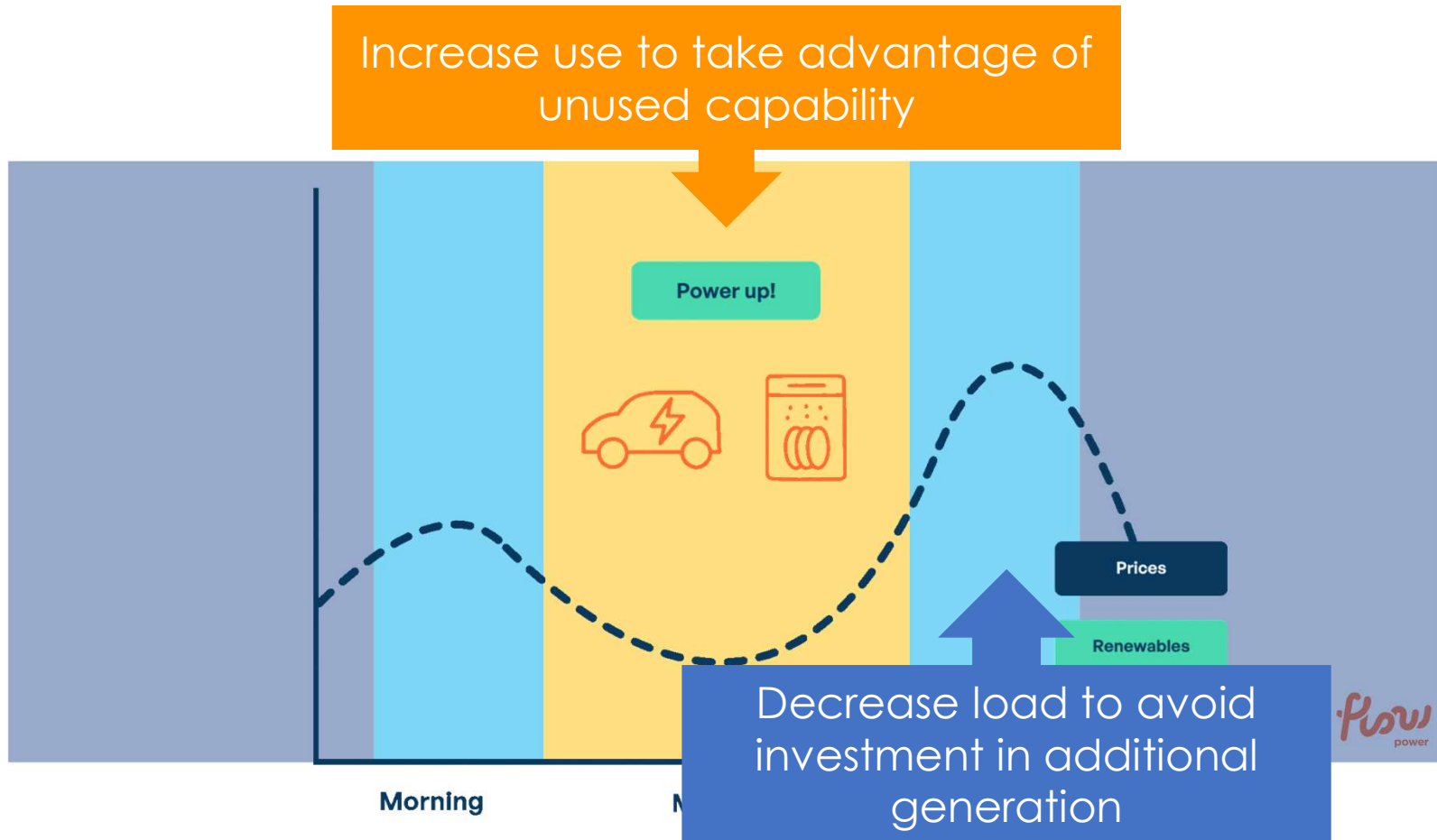
**Congestion** occurs when the load exceeds the system capacity



Fork fees rise when pressure is high, and fall when pressure is low



# So that we get the most out of the existing system



# Singapore – the Fork price on the road



Let's imagine a road,  
stressed at some times, quiet at others



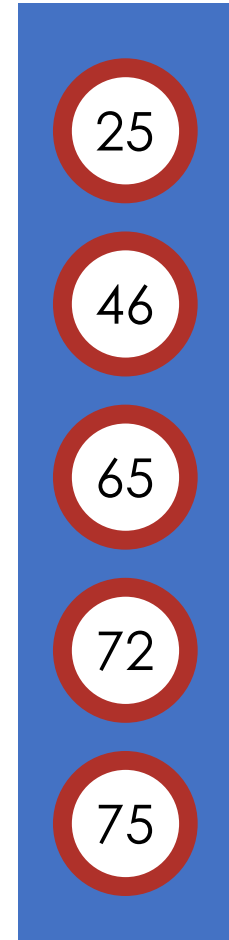
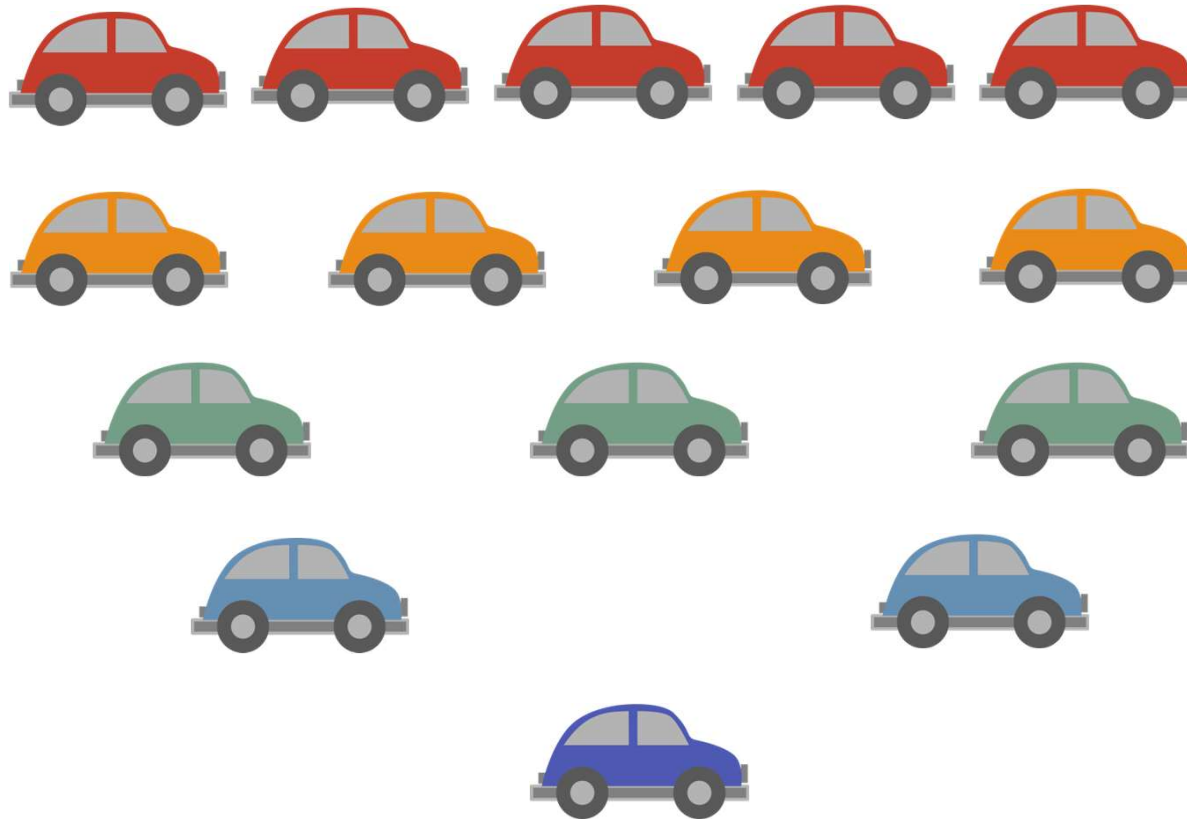
Rush hour



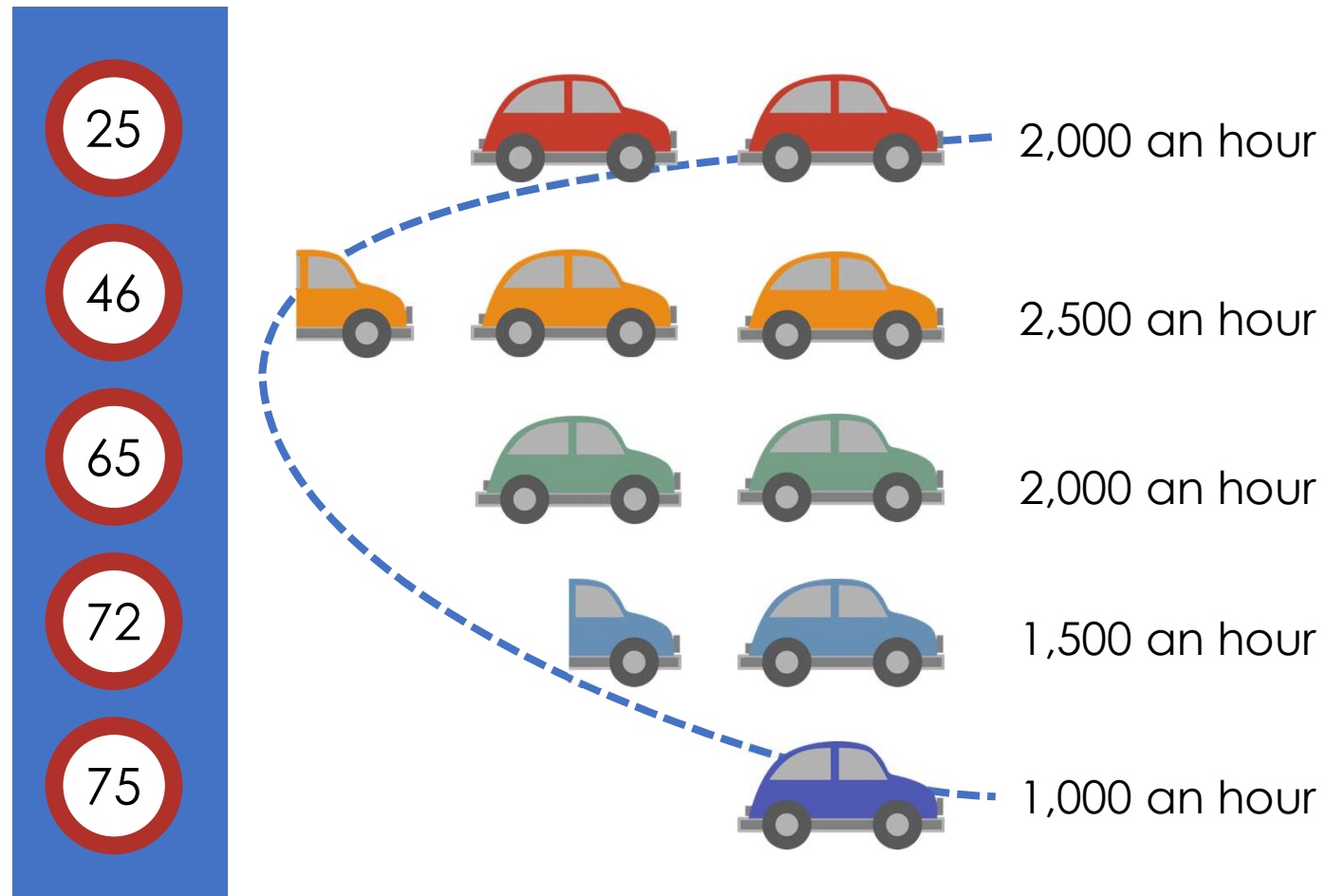
Overnight



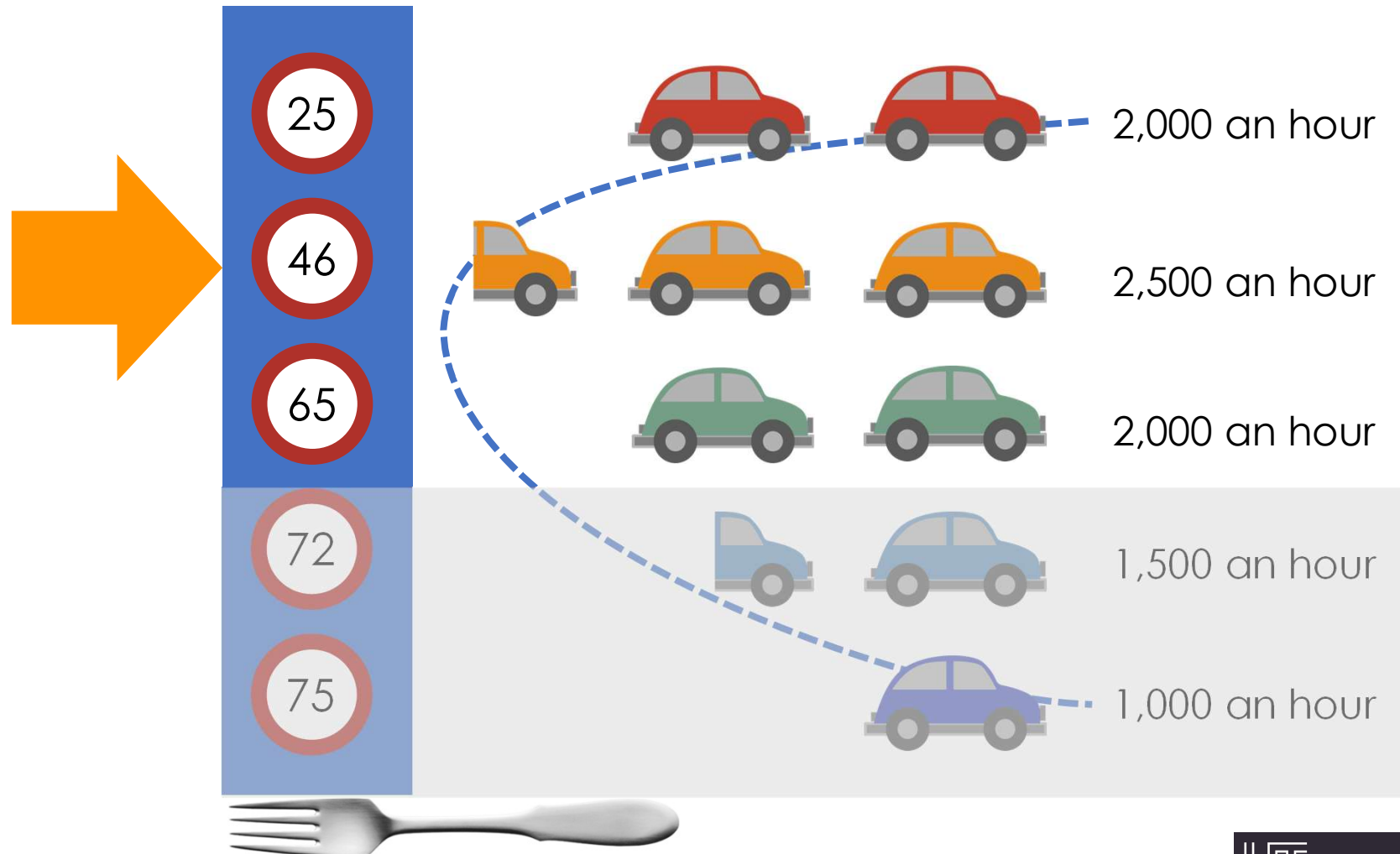
# The load determines the speed



# The speed signals the throughput



# Speed & throughput pass a tipping point



# Singapore sticks the Fork where speed/throughput are optimum



'ERP rates are differentiated based on traffic conditions and adjusted to keep traffic moving at an optimal speed range of 20-30 km/h on arterial roads and 45-65 km/h on expressways.'



25



46



65



72



75

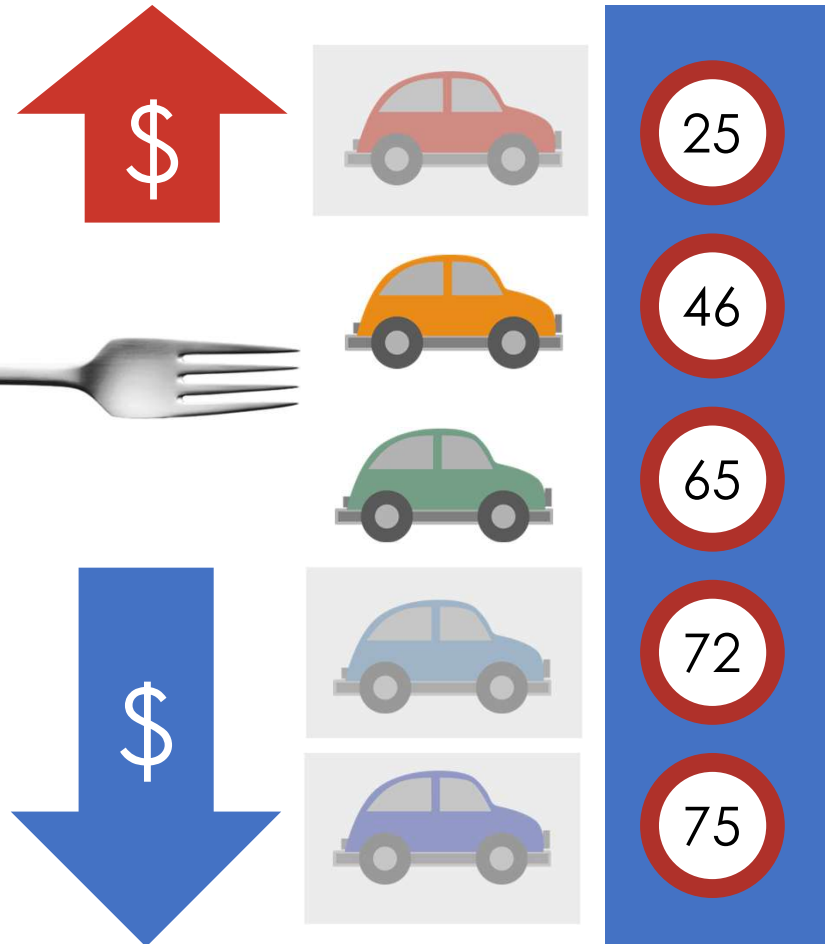


# Adjusting the fees to keep the load in the desired band

As the load rises, fees increase



As the load falls, fees fall



# Seattle uses Fork fees on Expressways and in parking meters



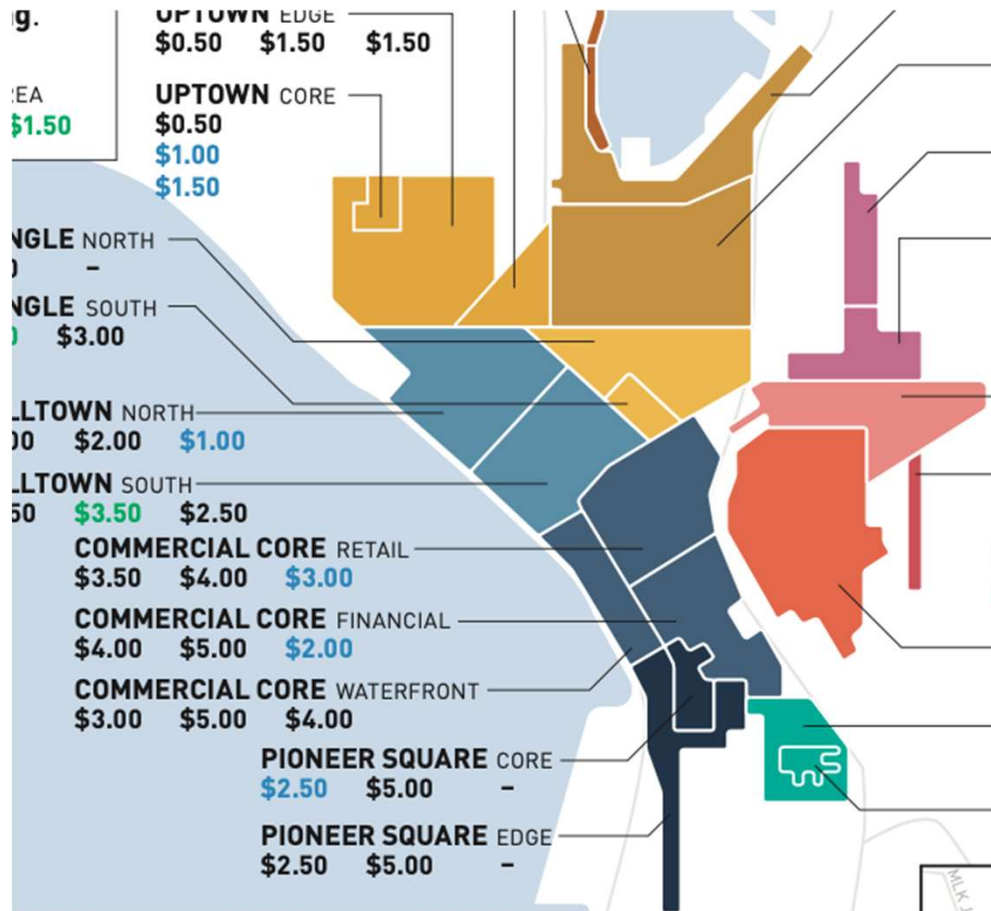
This was achieved through a persistent, patient, soft & transparent long-term strategy

The parking meter was invented by traders to deliver a Fork price



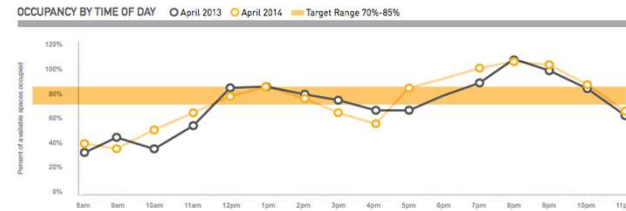
That prevented system overload and thereby maximised throughput

# Seattle divides the city into 'magnet' zones

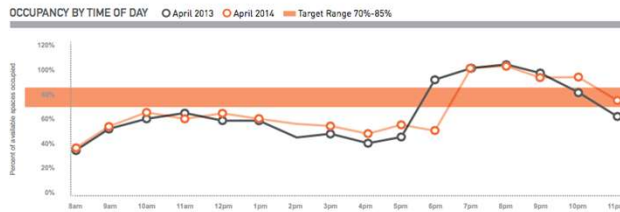


# And adjusts the rate each year

Increase



Hold



**FALL 2014 PARKING REGULATIONS**

**RATE PER HOUR** \$3.50

**PAID HOURS** 8AM to 8PM

**TIME LIMIT** 2hrs 3HRS AFTER 5 PM

**2014 ACTION** → INCREASE RATE

We will raise the rate because this area was on the watch list in 2013 with an occupancy of 89% and is above the target in 2014 at 92%.

**FALL 2014 PARKING REGULATIONS**

**RATE PER HOUR** \$2.50

**PAID HOURS** 8AM to 8PM

**TIME LIMIT** 2-4hrs 3 HRS AFTER 5 PM

**2014 ACTION** → NO CHANGE

We will not make a change because the occupancy meets target at 77%.



Decrease

**FALL 2014 PARKING REGULATIONS**

**RATE PER HOUR** \$1.50

**PAID HOURS** 8AM to 8PM

**TIME LIMIT** 4hrs

**2014 ACTION** → DECREASE RATE

We will lower the rate because the daytime occupancy was below target at 52% in 2013 and is 68% in 2014.

They ignore the revenue Spoon  
& avoid the discouragement Knife,  
aiming for a Fork fee that is just right...

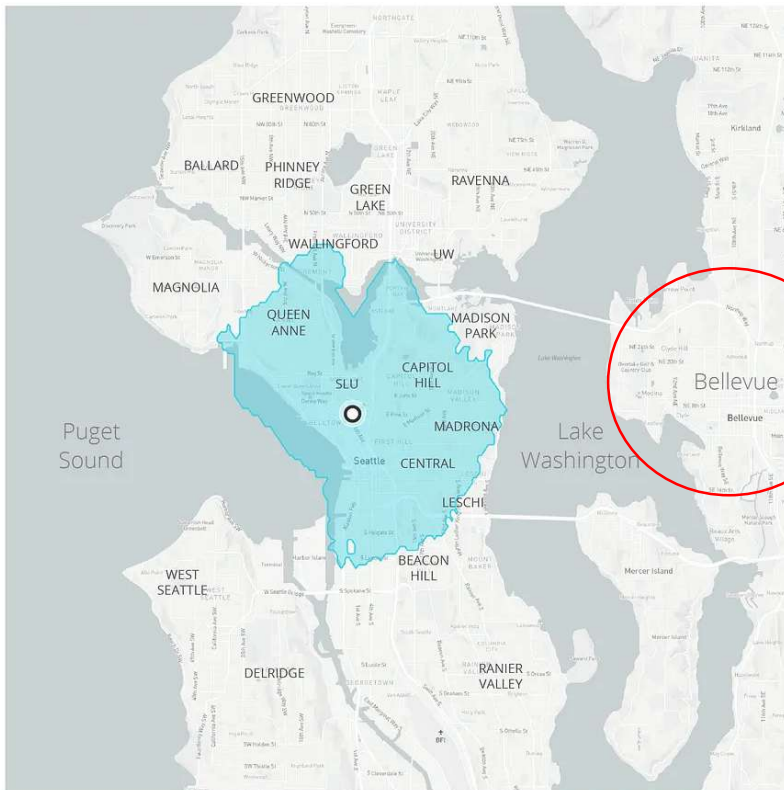
2019 Before Covid

ZONE	08:00 – 11:00	11:00 – 17:00	17:00 – 20:00
Commercial Core <b>Retail</b>	\$3.50	\$4	\$3
Commercial Core <b>Financial</b>	\$4	\$5	\$2
Commercial Core <b>Waterfront</b>	\$3	\$5	\$4

2023 After Covid

ZONE	08:00 – 11:00	11:00 – 17:00	17:00 – 20:00
Commercial Core <b>Retail</b>	\$2	\$3.50	\$2
Commercial Core <b>Financial</b>	\$2	\$3	\$0.50
Commercial Core <b>Waterfront</b>	\$2	\$4.50	\$3.50

# Bellevue east of Seattle



## TravelTime Map in Seattle

Starting Point:  
*2001 8th Avenue  
Seattle WA 98121*

Transport Type:  
*Walk*

Travel Time:  
*60-minutes*

References:  
[www.traveltimeplatform.com](http://www.traveltimeplatform.com)

**Linked in**



# Just voted to introduce paid parking at the kerb (or curb)

- To improve access to the street-level businesses that rely on the street parking
- Parking bays are full by midday and 25% of users overstay
- Fee range: \$1 - \$8
- Surplus:
  - Costs then...
  - Street activation
  - Free shuttle frequency
  - Pedestrian crossings



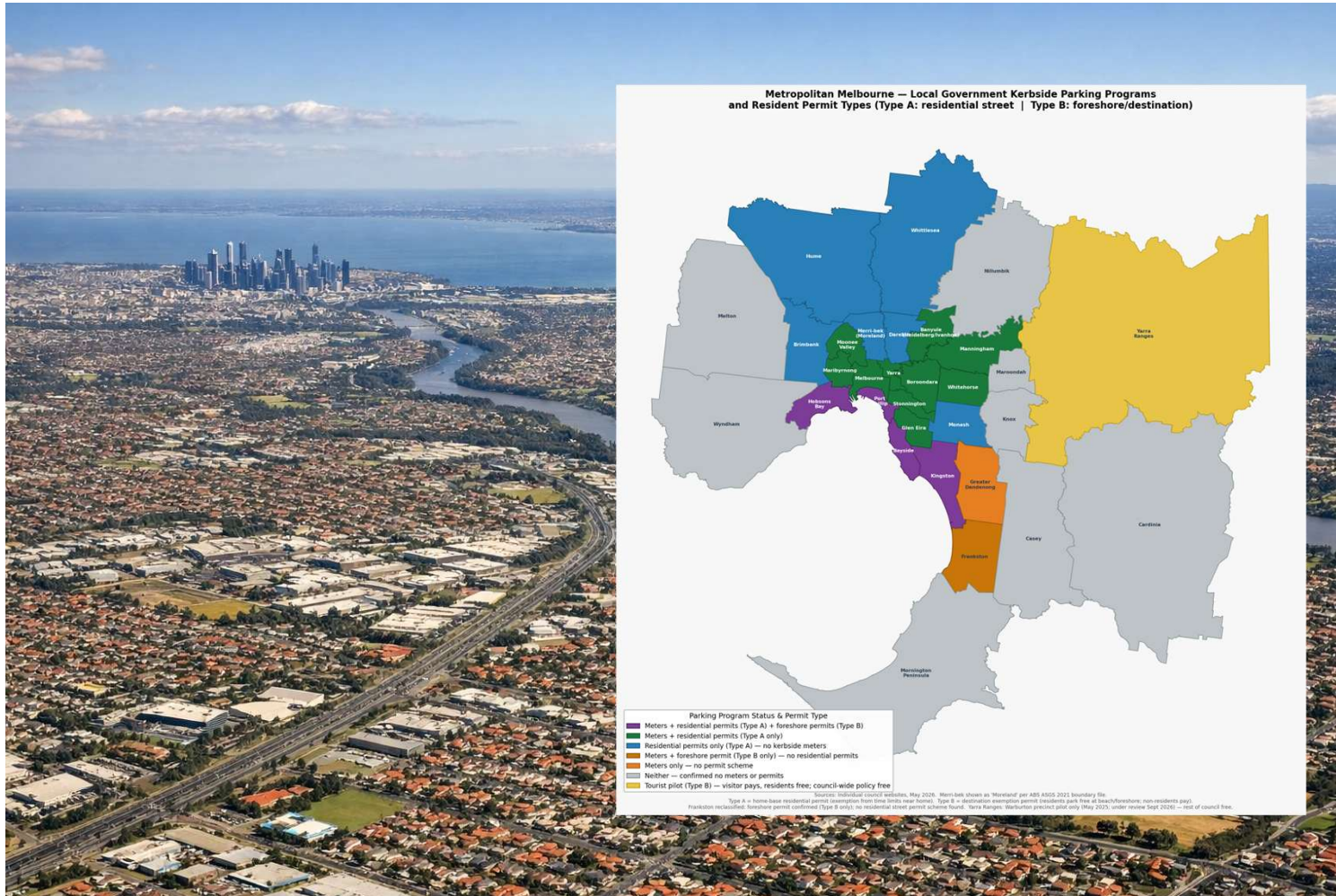
- "I'm not a big fan of paid parking...but I understand the need to try this,
- my bottom line is our business is benefiting from this program,"

Councilmember Lynne Robinson

# Coming in to land



# Coming in to land



You have three pricing tools:  
the Spoon, the Fork, & the Knife





## The Inside Guide to Congestion Pricing for roads & parking

Explore the 4 pillars of congestion charging for roads  
and parking: cause, price, surplus revenue & consent.

By Harry Barber · Launched 6 months ago

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No thanks >