Improving Sydney's Future Transport

Twelve ideas for the update to the
Future Transport Strategy

October 2021

Committee
for
Sydney

Introduction

The changes to Sydney's transport system over the past decade have been nothing short of miraculous.

The build-out of Sydney Metro, coupled with upgrades to the bus network and Sydney Trains, has translated into significant ridership growth on public transport, and dramatic customer experience improvements.

The update to Transport for NSW's Future Transport Strategy 2056 is an opportunity to build on this success and continue the momentum.

If the updated strategy is matched by complementary thinking in the Greater Sydney Commission's next Greater Sydney Region Plan – especially with regard to shaping land use patterns to support walking and public transport – and Infrastructure NSW's next Five-Year Infrastructure Plan, Sydney can take another big step forward in terms of quality of life, decarbonisation and economic performance.

We are putting forward 12 ideas for prominent inclusion in the Future Transport Strategy 2056 update.

1. Adopt a mode share target

2. Continue to expand the Metro network

3. Support high-density around rail stations

4. Upgrade the bus network

5. Develop a program for making Sydney's streets and roads better for people

6. Reduce traffic volumes in the CBD

7. Adopt a more visionary motorway logic

8. Make cycling a serious mode of transport

9. Connect Sydney to the megaregion

10. Embrace emerging technologies

11. Use pricing more effectively

12. Change the KPIs for the organisation.

1. Adopt a mode share target

Without a clear target for what the transport mode split should be in future, along with measures to achieve that target, the approach to investments and road space allocation is likely to be *ad hoc* and scattershot, rather than focused and strategic.

As with climate targets, the point is not to have a target and then ignore it, but rather to develop a plan, report on progress regularly, hold people accountable to progress against the goal, evaluate potential investments based on their efficacy in achieving the goal — and finally to revise the plan as needed to achieve sufficient progress.

Mode-share is a good metric to use as a high-level goal because it sums up so many things. It directs the transport system not just to facilitate mobility in a quantitative sense of moving more people over greater distances, but in a qualitative sense of supporting a city to achieve a high-quality life, low environmental impact, and high economic performance.

People want to live in neighbourhoods where they can walk for local errands and for recreation, and they also want to be able to access all that Greater Sydney offers without sitting in traffic.

As we know from observing great cities all around the world, the transport pattern that aligns with these desires is one that emphasises walking, public transport and cycling as the primary modes of travel.

Mode-share targets can also be useful because they guide effort, attention and investment. Over a 20-year period, the share can be shifted in a positive direction with the right set of investments and policies.

Transport for London's continuing success in shifting mode-share — with a target to achieve 80% of all trips taken by active or public transport by 2041 — is instructive.

To ensure those targets are achieved, Transport for London reports annually on progress and how this is tied to executive performance pay (see recommendation 12).

Measuring mode share is complicated, and Transport for NSW will need to understand:

- How travel behaviour varies by trip purpose. In most cities, commuting represents only around 20% of trips and this may decrease if we see more working from home.
- How travel behaviour varies by location. Transport for NSW will want to have different targets for different places.
- How different modes are linked into an overall journey (i.e., walking to and from the train station). Strategies to shift mode will need to be effective at optimising the overall journey, not just one segment.
- How trips are linked (i.e., dropping kids off at school on the way to work). Strategies that accommodate trip linking will be essential.

Another approach to high level targets for the mobility system is a vehicle-kilometres travelled target. It has the benefit of being easier to measure and it's a direct indicator of an overarching sustainability goal, which is simply less driving.

It also recognises improvements like shorter car trips more clearly than a mode target. But vehicle-kilometres travelled targets are less common around the world, and perhaps a bit more difficult for elected officials.

Mode Share – Trips to work

Mode	Current mode split in Sydney *	Hypothetical future mode to work for Sydney	London mode share to work today
Drive	66.8%	40%	29.8%
Train	18.6%	32%	38.3%
Bus	07.0%	11%	14.9%
Tram or Ferry	00.5%	02%	-
Walk	04.6%	09%	09.7%
Bicycle	00.8%	05%	06.0%
Other	01.2%	01%	00.9%

* Percentage of work trips that involve leaving the home

2. Continue to expand the Metro network

The delivery of the Northwest Sydney Metro line, combined with the four other lines that have been committed, will stand as the single most important change to the transport system of this generation.

We believe it is essential that Transport for NSW continues to build on this success. The ultimate goal is to have a grade-separated rail network, which encompasses both Sydney Metro and Sydney Trains, and which allows people to get from "anywhere to anywhere" within the metropolitan area.

To achieve this goal, more Metro lines are needed – both to achieve better coverage of more parts of Sydney and to facilitate more direct routes via transfers between lines.

We know what mature systems like this can do from observing cities like London, Paris, New York and Tokyo. In those cities, several things stand out. First, the majority of trips are taken without a car, because the alternatives are so convenient. And second, it is easy to transfer between lines because service is so frequent. These systems do more than get people in and out of a CBD; they really allow people to go all over. This is what Sydney should be aiming for.

One of the great virtues of 'networks' is that as more nodes are added, the benefits increase to everyone else on the network. The next set of Metro lines has the opportunity to make many more parts of Sydney accessible – connecting Western Sydney to itself, adding cross-cutting north south lines, serving places that are currently under-served.

Along with the construction of Metro lines, Transport can do more to facilitate access to and from the stations.

Think in terms of passenger catchments – assigning every part of Sydney to the closest train station, and enabling access to that station – via foot, bicycle, shuttle bus, ride-sharing or private car.

We believe the Sydney Metro and Sydney Trains network should be placed at the centre of the long-range transport vision and should be seen as the primary way people travel when they need to leave their own neighbourhood.

The long –range network vision from the 2056 strategy
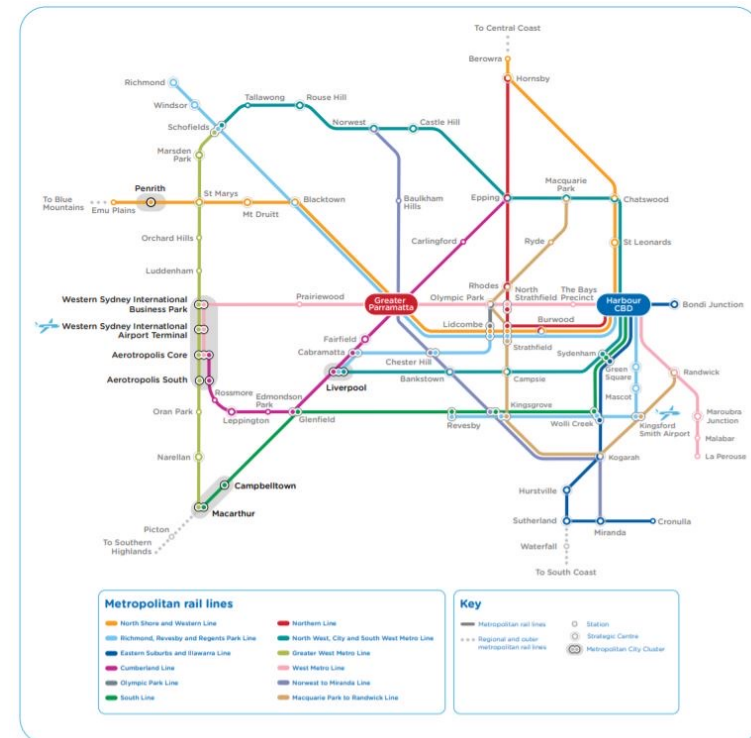
Source: – TfNSW Future Transport Strategy 2056

3. Support high-density around rail stations

The network of grade-separated rail isn't just the best way to get around, it's also the framework to guide future growth. When people have the opportunity to live near a train station, they are far more likely to use public transport.

Transport for NSW has a major supporting role to play in making land use change happen – and, in some cases, where land is owned by Sydney Metro or Sydney Trains, it has a leading role.

There are many wonderful examples, both built and in-process, of great station area developments. But just as often, Transport for NSW is actually impeding station area development.

Facilitating, encouraging, and in some cases leading land use intensification around rail stations should be a core strategy priority for the organisation, to bring the benefits of high-quality rail transport service to as many Sydneysiders as possible.

We would also note that this goal isn't just about housing supply or even job creation – it's also an opportunity to locate social infrastructure (schools, childcare, aged care, medical care and so on) in a place that will be accessible to people via public transport.

Source: – TfNSW, Sydney Metro
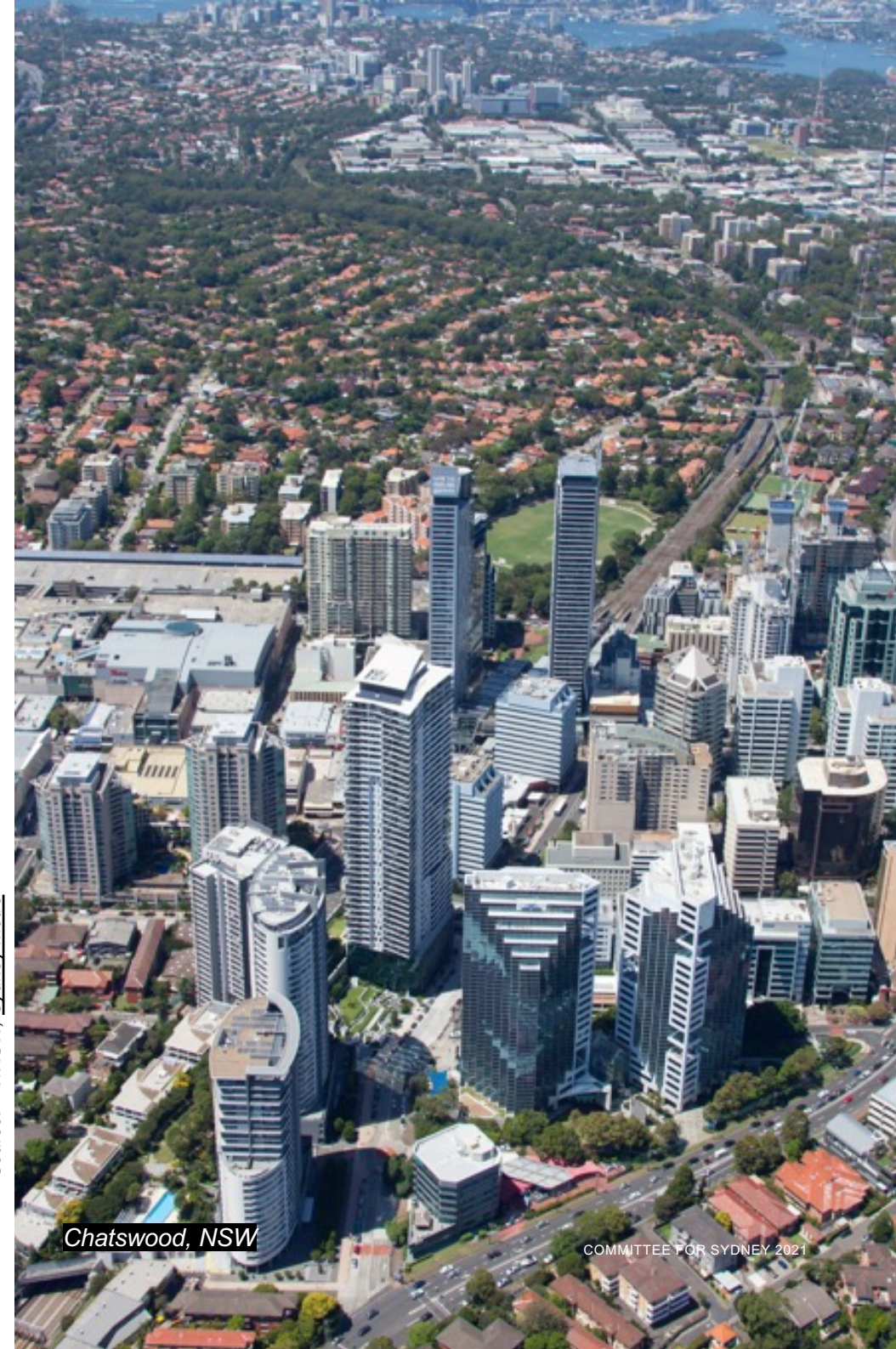
Chatswood, NSW

4. Upgrade the bus network

With 6% of trips to work currently taken on buses, this network is an important part of Sydney, but it has the potential to do more.

At the same time, we need to acknowledge that buses have significant negative impacts on the public realm, especially when they run in the kerb land immediately adjacent to the footpath: running fast-moving vehicles right next to the footpath is not a good experience from the perspective of pedestrian comfort.

We suggest Transport for NSW make three key moves:

a) Identify a set of arterial bus lines that should be upgraded to rapid bus service levels (presumably based on the 2036 network plan). The success of the B-line is instructive here. These arterial bus lines should be upgraded to act as much like rail as possible, following the design intent of bus rapid transit: high service frequency, reliable travel time, fast boarding systems, and other measures to reduce trip times. In some cases, it could mean boarding islands in the middle of the road, which is an international best practice for BRT. This level of service is appropriate where there is no parallel rail transport option and where high passenger volumes are possible.

b) Re-route bus lines to become feeder services to the train network wherever possible. This should result in operating cost savings, and it is a way to make full use of the investment in rail transport. If done right, it should not lead to significant travel time penalties, and may in fact speed up journeys for many people.

c) Rethink clearways. Running fast moving traffic right next to the footpath is not a good solution from the perspective of the public realm and pedestrian comfort.

Transport for NSW should work to adopt more sophisticated ways of getting its buses out of traffic. In some cases, rapid bus lines can go in a centre-running format, or routes can be changed to feed into train stations (as per a and b above). In other cases, it will be possible to remove general traffic to make bus services more reliable, rather than removing parking. Where none of these options is available, it is often better to accept a slower bus speed through the most important public space streets — i.e., local shopping streets — as a consequence of eliminating clearways.

As with road, rail, ferry and cycling projects, having a program with ambitious timelines matters a lot: some announced rapid bus lines like the connection between Parramatta and Macquarie Park have been languishing for almost a decade.

Finally, we note with great enthusiasm the announced plans to electrify the bus fleet. We hope to see this rolled out across the entire system as soon as practicably possible.

Rendering of proposed Bus Rapid Transit in Indonesia

Source: – GIZ International

5. Develop a program for making Sydney's streets and roads better for people

While the expansion of public transport ridership stands as Transport for NSW's great success over the past decade, we suggest its greatest area of weakness is the streets and roads.

Too many of Sydney's streets are being treated as 'traffic sewers' – infrastructure to facilitate throughput of traffic — instead of places where public life is lived. The past 30 years have seen a revolution of thinking about public space in cities all over the world, but this revolution has not yet arrived in Sydney.

Movement and Place is a good start of a cultural change to Transport's approach to streets. We would like to see the next transport strategy build on this momentum and lay out a program with funding, deliverables and KPIs that will make the streets better over a specified period of time. One element of this program to remake Sydney's streets and roads is a new set of street design standards – literally the engineering rules that govern the way they are designed.

Where traffic is in a separated motorway, the design of the infrastructure can continue to emphasise predictability, safety and speed for drivers. However, where a road is at grade with building frontages and pedestrians, the design of the street should ensure comfort for pedestrians — enabling vehicle access, but only in a speed and manner that does not harm pedestrian comfort.

Transport for NSW should undergo a comprehensive program to improve streets by:

a) Slowing traffic speeds
b) Widening footpaths
c) Removing clearways
d) Adding pedestrian crossings

Transport should also develop funding streams and KPIs to support this work at scale.

We suggest one of the places to start is high streets, which serve as the centres of neighbourhood life.

If difficult trade-offs must be made, these are the places where it is most important to prioritise the public space aspects of streets over the movement functions.

Transport for NSW should have a map of high streets and a distinctive decision-making approach in prioritisation of modes on those high streets.

Streets are shared spaces – Riley Street, Penrith

6. Reduce traffic volumes in the CBD

One of the most important things the Transport strategy needs to be able to do is treat different parts of Sydney differently.

The city centre is perhaps the most obvious example: its extremely high density requires the vast majority of people get there without driving.

The CBD is served by an extensive network of public transport lines, but at the same time the road network is inundating the CBD with too much traffic, which is severely limiting its potential.

Transport for NSW should adopt an explicit goal of reducing the number of vehicles in the CBD.

This could involve:

a) Eliminating on and off ramps in the city centre and Pyrmont
b) Adopting a policy in support of footpath widening and converting road space to cycleways anywhere in the CBD
c) Converting one-way streets to two-way streets
d) Adopting a maximum 30km speed limit across the entire CBD
e) Reducing delays to people crossing the road at signalised intersections
f) Increasing the number of diagonal crossings for pedestrians at traffic lights in the CBD.

Over time some of these policies, but not all of them, would make sense to apply in Parramatta, North Sydney, and other locations beyond the CBD, which aspire to be major centres of high-density knowledge economy jobs.

Source: – SGS Economics

Sydney CBD

7. Adopt a more visionary motorway logic

We accept that Transport for NSW will continue to build grade-separated motorways. However, these motorway projects need to add up to a network that makes Sydney more liveable, not less. Done correctly, it could be a big improvement for neighbourhoods to get traffic off the surface, and move it underground.

However, done incorrectly, Sydney will end up with traffic underground and continue to have just as much traffic on the surface – and all that will have been accomplished is a net increase in driving. As motorways are built, people will choose to live further away from work, overall vehicle-kilometres travelled will increase, and Sydney will be further locked into low-density land use patterns. None of that is good for Sydney in the long run.

However, if traffic is moved from surface streets to underground tunnels, everyone can win. We believe the experience of the eastern distributor is instructive here. When it was built, Crown Street and Bourke Street were reclaimed for neighbourhood life; today both are well-used and loved.

Transport for NSW should adopt a policy of doing the same thing every time it builds a new motorway through a part of Sydney that is already developed. Parramatta Road and Victoria Road (in Rozelle) should be converted to neighbourhood supportive streets once Westconnex opens: wider footpaths, a centre running public transport solution, street trees and frequent pedestrian crossings.

This will require investment, but it will be extremely productive. When and if the Northern Beaches Link is built, Transport should also bring back Military Road as a neighbourhood supportive street.

Finally, as tunnels are completed, Transport for NSW should take on the big move of removing the most damaging elements of the older motorway network from the CBD — ideally working toward undergrounding or removing the Western Distributor — made possible because the overall network now has other options for long distance travel by car and truck.

No city today would build elevated motorways through its CBD like that, and many cities all over the world are removing them. This idea deserves serious consideration in the long-range transport plan.

Opportunity to reclaim Parramatta Road.

8. Make cycling a serious mode of transport

Just 0.7% of trips to work are taken by bicycle in Sydney.

We believe the potential exists for this to increase significantly, based on experiences in cities like New York, which had rates of cycling very similar to Sydney, but which have made big changes over the past 20 years.

From a policy perspective, cycling is quite simple: when there is a network of safe places to ride, people will ride their bikes.

The political challenge is that individual cycleways tend to have relatively little uptake when they are isolated lines rather than elements of a comprehensive network.

People will not ride a bike if there is even one section of their journey that feels unsafe. The pay-off in terms of increasing rates of cycling doesn't happen in a linear fashion as lanes are added; instead there is a tipping point when the network of cycleways is ubiquitous.

As of today, Transport for NSW does not have a program in place that will lead to a significant increase in rates of cycling in Sydney.

Cycling is the missing mode.

We recognise cycling will never be the primary mode of choice for most people the way it is in some European cities. However, it is very reasonable to imagine cycling growing to be 5% or even 10% of trips to work; a major form of access to-and-from train stations; and a major form of access to parks, beaches and other recreation amenities.

Source: – NYCDOT

Bike path, New York City

Finally, we believe a rigorous analysis would find cycling is perhaps the most cost-effective way to shift trips away from driving.

Building Sydney's entire network of physically separated cycleways would cost less than a single Metro line, and that's before comparing lifecycle operating and maintenance costs.

Transport for NSW should adopt a two-part strategy reflecting the division between state roads and local roads:

a) Transport should take responsibility to plan, design, fund and deliver a core network of arterial cycleways, analogous to trunk lines in a public transport network. These would be built largely, but not exclusively, on state roads and would be approved by the state government.

b) Transport should adopt a policy of supporting LGAs whenever and wherever they choose to put in place cycleways on council-controlled roads. Transport can be passive in this effort, but should adopt a policy of essentially never saying no if a local council is willing to take the political heat to put in a cycleway. These projects will be further expedited if Transport is willing to be a funder or co-funder.

In general, the policy should be to create the space for cycling infrastructure by converting moving lanes rather than parking lanes; parked cars provide a buffer for pedestrians and a high value to the people along the street. But of course, specific designs will depend on the street.

Source: Sydney Cycleways.

Bike path, Sydney CBD

9. Connect Sydney to the megaregion

The next long-range transport strategy should speak to the importance of upgrading fast rail connections to Newcastle, Wollongong and possibly Canberra.

Over the next 40 years, the population of the 'Sandstone Megaregion' is predicted to grow from just over 5 million to around 10 million. This geography encompasses seven major universities, three ports and some of the fastest-growing parts of Australia's economy.

The best way to help this emerging megaregion get the benefits of scale and accessibility is to improve rail connections. Newcastle, Sydney and Wollongong are all strong, growing, dynamic cities, with their own economic strengths and ambitions.

Better rail connections supercharges all of this by facilitating greater interaction, and greater choice of where people live and work. Rail connections provide nodes where jobs concentrate; places with good rail infrastructure have a different economic structure and density.

The obvious first component of a fast rail network is a line between the Central River City (likely Sydney Olympic or Parramatta) and the Central Coast. The project should be designed to achieve a trip time of Sydney to Newcastle within one hour.

While this would be a very significant project, we believe that in spite of the extensive tunnelling required, this project would likely cost close to or less than that of West Metro (due to the relatively small number of stations), while being absolutely transformational for Sydney and the Central Coast.

A fast rail connection to Canberra is a longer-term idea, but one that we believe also has merit. We believe it would be appropriate for the strategy to speak to these connections.

Source: – Shannon Haritgan

Newcastle, NSW

10. Embrace emerging technologies

We hope the next plan will give high-level direction on emerging technologies. Things are changing rapidly in transport all over the world, with the likelihood of autonomous vehicles sometime in the future.

We are not arguing for a simplistic embrace of every new technology. Rather, we encourage Transport for NSW to develop a framework for evaluating emerging technologies that will enable it to be proactive about trialing, managing and deploying things that will further the agency's other goals.

Car-sharing and ride-sharing can provide the access of a car without the requirement to own one and pay for parking.

Mobility as a Service (Maas) can enable people to move around using a more flexible, multimodal approach.

Electric bikes and scooters can help people get to and from train stations and expand the distance of easy local trips within a 15-minute radius.

New mobility providers can operate franchises in designated catchment zones around each station to facilitate station access and bring virtually all of Sydney the opportunity to use public transport.

New approaches to freight and logistics can help alleviate the congestion of deliveries.

In these and many other ways, there is enormous potential for new technology to solve some of Sydney's most difficult mobility problems.

Parked Lime e-bikes, Bondi

11. Use pricing more effectively

Transport for NSW has scope to make better use of pricing – both as an incentive that influences behaviour and as a tool for ongoing operating funding. Recent legislation to impose a road user charge on electric vehicles is welcomed. But much more is possible.

Experience in other cities around the world has shown the key to building public support for pricing reforms is to make it clear the public is gaining something.

London used the proceeds from the congestion charge to significantly increase public transport service. San Francisco used the proceeds from demand-driven parking pricing to give fewer parking tickets and to fund increases to services. Very often, pricing reforms have eventually proven popular, after initial public opposition.

Some opportunities for pricing that we think merit further study include:

- Off-peak public transport fares to counter-balance the possibility of an emerging three-day work week, as hybrid forms of remote work take hold after Covid-19. Lower fares on Mondays and Fridays, as well as nights and weekends, might help balance the loads and help activate the city on the new 'long weekend.'

- Demand-driven parking pricing in Transport for NSW-controlled spaces – to ensure availability of supply and balance demand.

- A CBD congestion charge — which would support a broader effort to reduce traffic volumes in the CBD.

- An increase in the parking levy — which could be hypothecated to fund public realm improvements within the same area where it is generated.

- Differential pricing for freight vehicles can help manage congestion at the kerb, as e-commerce leads to ever more home deliveries.

- Better data collection on journeys can enable more successful demand management interventions.

In the long run, improvements to the road user charge should be contemplated as well. Ideally, these would reflect the social and environmental costs of driving and provide some incentives to shift trips away from the most congested times/routes.

Pricing transport is one way to manage the supply. It's an important tool in the policy toolbox. It is also a way to generate revenue to fund operations. It's an important tool for building a sustainable revenue model for Transport for NSW.

Pricing can shift demand in response to an emerging 3-day work week

CfS Leadership Survey 2021
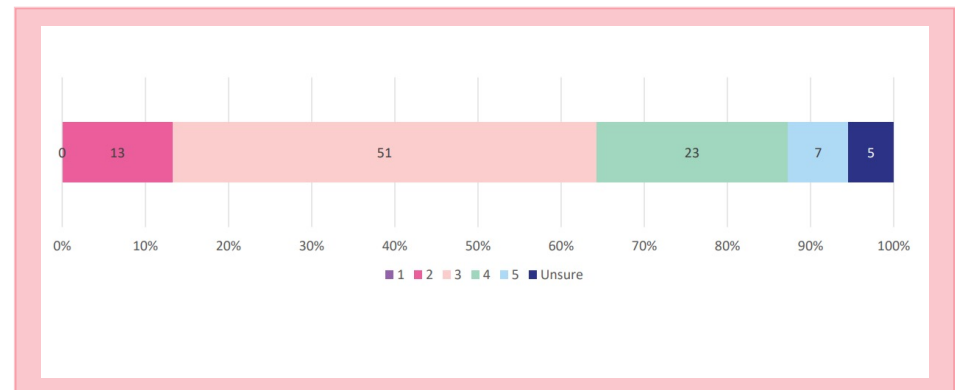
Response to the question: If your staff will work less than five days in the office, what is your expectation of how those days in the office will cluster?

12. Change the KPIs for the organisation

It is a well-known adage that "what gets measured gets done." The key performance indicators for the transport system need some rethinking.

Implicitly, much of Transport for NSW's work seems dedicated to the goal of maximising the throughput of vehicle traffic. That implicit (and sometimes explicit) KPI has led the agency to make some decisions that have eroded Sydney's livability.

We suggest the highest level KPI should be mode-share or Vehicle-Kilometres Travelled per capita, as discussed above. But every part of the organisation, and indeed every individual within the organisation, will have their own metrics.

Without any attempt at comprehensiveness, these are some critical performance indicators that we suggest Transport consider using:

a) Percentage of households within walking distance of a Sydney Train or Metro station (2km is reasonable for rail service)

b) Percentage of households within walking distance of a rapid bus line (1km is reasonable for rapid bus service)

c) Pedestrian collision and fatality rates

d) Pedestrian counts on shopping streets

e) Noise levels on shopping and residential streets

f) Percentage of kids walking/cycling to school

g) Percentage of stations that are fully accessible.

Harbour ferry

**Committee
for
Sydney**