Thinking Outside the Box
2025 Thought Pieces

The Institute of Transport and Logistics Studies (ITLS) at the University of Sydney Business School started a commentary series in 2015, adding it to its portfolio of engagement with the broader community of interests in the space of Infrastructure, Transport, Logistics and Supply Chain Management.

While academic publications and reports are a very important outlet for high quality research including debates on themes with a rich policy and strategic value beyond theory, methods and evidence, there is room for a series of short pungent commentaries on themes that are of broad community interest. These are short pieces so they can be digested through the many social media platforms and focus on topics of currency that are also likely to be challenging and controversial – hence the titling of the series 'Thinking Outside the Box'. It has all the elements of critical thinking and the 'challenge of change'.

Each piece is published monthly since April 2015, and this collection covers the 2025 contributions together in one monograph. We hope it will be useful to researchers, consultants, government and industry agencies and associations as well as in the classroom for debate and discussion.

David A. Hensher
Founding Director, ITLS

Thinking outside the Box Series

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1. What is the value of time, and does it actually exist?

Professor John Rose explores the concept of the Value of Time (VoT) in transport economics, highlighting its significance in travel decisions and cost-benefit analyses, while questioning the relevance of traditional methods in today's context.

6 January 2025

One of the fundamental cornerstones of transport economics is the concept known as the value of time (VoT). The VoT is widely used in transport models as the key driver for predicting people's mode and route choices, as well as being the key monetary benefit measured in transport infrastructure appraisals based on traditional cost benefit analysis methods. But what is it, and what relevancy does it have today?

The concept of the VoT in transportation has its origins in micro-economic theory and was originally derived from a goods/leisure trade-off perspective. Under this framework, it is assumed that individual travellers are trading off travel time for time spent undertaking leisure activities. In terms of practice, the VoT involves the calculation of the marginal rates of substitution (MRS) between time and money.

Marginal in economics implies the last unit, implying that VoT measures the value people place on the last minute of travel. We measure the value of the last minute and not the first as this represents the actual value people are willing to pay to save an additional minute of travel time or alternatively willing to accept compensation for having to travel one more minute. Rate of substitution implies that individuals are willing to trade (substitute) one additional minute of travel, for some monetary cost or penalty. In economics, this is computed based on the concept of utility, in particular utility indifference. That is, consider a trip involving 20 minutes of travel time at a cost of $2.00. Economics suggests that a given individual will derive (dis)utility for such a trip of say X.

Now consider the same trip, only now it takes 19 minutes. The MRS, then, is how much more the individual is willing to pay above $2.00 for the additional minute they save travelling and still have utility equal to X. For example, they may be willing to pay $2.08, in which case they are equally indifferent between a trip that takes 20 minutes and costs $2.00, and a trip that takes 19 minutes and costs $2.08. In short, they are willing to pay $0.08 for the minute less spent travelling.

So how do we get data on the trade-offs people are assumed to make between time and cost? Three main methods exist. The first approach is based on an assumed relationship between time and the average weekly wage rate, specifically the VoT for private travel is valued at 40 percent of the average weekly earnings (AWE) rate of the employed population. For example, in May 2024, the average weekly earnings for an adult Australian working full-time was $1,923.40 pre-tax, and assuming a 38-hour work week implies an hourly earnings rate can be computed as $50.62. The VoT is therefore calculated as 0.4 × $50.62 or $20.25 per hour. Business travel VoT is valued at 128 per cent of average weekly

earnings (135 per cent of full-time average weekly earnings less seven per cent for payroll tax, also derived from the DOT, 1987 report, see Austroads, 2012), or $64.79 per hour.

So where do the percentages used come from? According to Wardman (1998), the current approach adopted for calculating the VoT using the AWE approach originated in the United Kingdom (UK). It was based on a meta-analysis of several studies in the UK (some revealed preference (RP), others stated preference (SP)), whereby a single VoT by trip purpose was obtained. This value is then compared to the existing wage rate. See also Hensher (2019). With respect to the employer business travel segment, however, Wardman (1998) notes that the majority of those surveyed were undertaking inter-regional rail trips (note that despite this, the AWE for business trips is used today for the VoT for trips undertaken within a city for people moving from their office to a meeting location 10 minutes down the road).

Aside from the AWE approach, SP experiments have been widely used where sampled respondents, drawn from some population of interest, are presented with hypothetical scenarios in which they are asked to select travel alternatives involving some form of time/cost trade off. SP data, whilst easy and relatively cheap to collect, is open to manipulation if not collected properly, and suffers from a range of issues, including strategic and hypothetical bias concerns. RP data have also been used, but much less so, often collected via respondent travel diaries or data capture devices such as GPS or mobile phones. Whilst many economists argue RP data is the gold standard, many issues exist regarding how best to collect such data, with many modelling hacks often required to produce behavioural meaningful estimates.

As such, each method for estimating the VoT possess unique challenges. The AWE rate is based on a meta-analysis of results from the 1980s and early 1990s, often involving a single study extrapolated to different modes. SP data is hypothetical and requires extreme care in how the survey is written and administered, whilst RP data is easy to manipulate in terms of how one constructs all the possible alternatives and often produces behaviourally nonsensical outputs.

Furthermore, the theories upon which the VoT were developed were derived many years ago under a different set of societal, economic, and technological circumstances than exist today. Whereas previously cash was king, nowadays a significant proportion, if not the majority, of payments for goods and services are paid either online or using credit cards, creating both a psychological as well as physical disconnect between the point of purchase and the time of payment. The question then becomes, do people truly understand the actual costs of what they are paying for, and if not, then how can they trade off real costs with something such as time? For transportation, this situation can be considered even more ambiguous.

For example, if I fill my household's car with petrol, but in the sequence of vehicle usage it is my spouse who uses the car for the next five trips, what is the monetary cost paid by the spouse for each trip that individual makes? Does my spouse even perceive a cost? And as we are assuming marginal costs at a trip level, what is the cost of each of the five individual trips to my spouse, or for that matter, to me?

Beyond the discrepancy of who pays the cost and who makes the trip, even if I, as the person who paid the original cost (say via credit card), use the household vehicle for trip making, am I paying for trips I previously undertook or trips I am yet to take? And when am I truly paying the cost of travel? When I tap my credit card, when I pay my credit card bill at the end of the month, or when I undertake the trip?

In a recent survey of 772 respondents, participants were asked to think more deeply about transport costs, particularly car trips. In the question, respondents were presented with the arguments of six economists, each suggesting that people calculate the cost of car travel differently. Interestingly, only 4.92 of respondents agreed with the economist who argued that people calculate the marginal cost of the trip and use this to make decisions about car travel. Interestingly, the majority of respondents (78.50%) agreed that people don't use the marginal cost or even an average proxy cost for each individual car trip (see Figure 1).

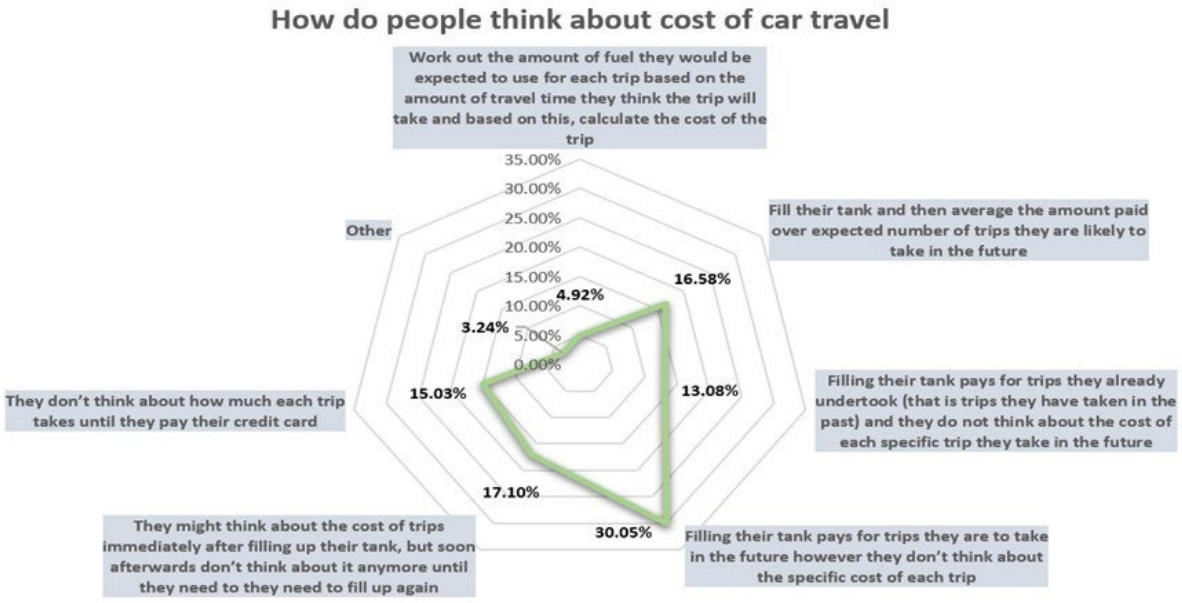

Figure 1: Responses to how respondents perceive car travel costs are computed. Source: Author

If true, then we are left with the old billiard ball argument often cited in economics: people when playing billiards don't calculate the angles and vectors of the balls once hit, but rather only act as if they do. Thus, the question is, do we want to make decisions about billion-dollar investments based on time/cost trade-offs, based on the assumption that people "act as if they do"? And more to the point, is it time to think about developing new theories about how people value things, that is consistent with modern day life?

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2. Energy policy and climate change

3 February 2025

Peter Thornton, Principal at Transportation Associates Pty Ltd and member of the ITLS Board of Advice, critiques the prevailing climate change discourse. He advocates for a balanced, cautious approach to energy transition and warns against climate alarmism and political virtue-signaling.

At risk to my reputation and of straying outside my domain professional knowledge, I felt I had to say something about all this. Foolish of me but hey!

The great *"religion"* of the late 20th and early 21st century is, of course, climate change. If you dare challenge any aspect of it, your fate is probably far worse than being hauled before the Spanish Inquisition. Certainly, anyone who dares challenge the orthodoxy is a heretic and climate change denialist. Burning at the stake (that would only add to global warming, of course) is thankfully out of favour but verbal abuse and scornful comment of anyone who dares question any aspect of it is rife.

And with such august people as the UN Secretary General using inflammatory terms such as *"global boiling*", it's hard to say, *"well wait a minute, let's think again about all this"* One person who has done this recently is Judith Curry, Professor Emerita of Earth and Atmospheric Sciences at Georgia Institute of Technology in her book *"Climate Uncertainty and Risk"*. This is not a treatise on denialism as perhaps you might think but one which takes the entire issue and throws much light on it, especially the issues that we are being told are indisputable truths, for example, the forecasts made by the IPCC, the degree of uncertainty and errors in them and the implications that has for policy making about many matters and especially energy policy. Anyway, if you have an open mind, I'd recommend reading her. If, of course, you think we're all doomed anyway, don't bother.

Australians, and especially our politicians of course, being the well-educated lot that we are and with our deep understanding of science (LOL), have been quick to embrace the mantra that *"the science is in"* and is unchallengeable. Unfortunately, if the public's understanding of science was just that little bit stronger, they'd know that the science is never in on anything and is only the best explanation we can offer at the time - until Einstein came along, Newton's Laws of Motion stood supreme - and it's not that they aren't relevant still - it's just that they don't explain everything or to the required accuracy free of error in every circumstance- and nor do the IPCC's or anybody else's climate models.

And on the matter of the science being in, we all hear people from every level and part of society speaking about the 97% of scientists who are in consensus about human induced climate change. But who knows where that number came from? Or more importantly what it means? Well, it first went viral when apparently President Obama tweeted *"Ninety seven*

percent of scientists agree #climate change is real, man - made and dangerous" back in 2013. Now that sounds like 97% of all the scientists on the planet, doesn't it? But it isn't - it's from an analysis of 12,000 climate related papers which merely showed that 97% of the authors *"either supported or assumed that humans are causing climate change"* -a rather different number! - and one which does not attribute the degree or significance. But, as Professor Curry says in her book, *"the key scientific issue is not whether anthropogenic greenhouse gases have caused any increase in global temperature - the issue is how much global warming has been caused by humans, about which there is disagreement amongst scientists."* While reporting on conflict is the usual preferred fare for journalists, unfortunately, reporting on disagreement about climate change, its scale, causes and implication for humankind tends not to be newsworthy.

Anyway, one thing that puzzles me is that we Australians seem to think that saving our less than 1% of total global emissions can actually make a difference and, more specifically, that those savings can be exclusively hypothecated onto our local climate and stop things like Barrier Reef degradation, coastal erosion, major flood events, droughts and fire. And politicians worldwide who are under so much pressure from climate activists (who definitely wouldn't read Professor Curry's book or anything else which challenges their *"religious"* beliefs) to stop reliable power sources fuelled by coal or gas in favour of, as yet, not equivalently reliable renewables.[1] And I am yet to see an accurate energy balance in terms of the amount of emissions to produce a kW of renewal energy as opposed to coal - I expect there is one, so feel free to advise me.

I sometimes wonder if, in our little population down under, as we demand we get to net zero by 2050 (?) and all drive electric cars and the like and every other virtue signalling activity, we have any idea of what is happening in the rest of the world. Only recently, I read of the Menghua Railway recently completed to run 1825 kms across China, on viaducts of such scale I can only dream of having designed, to deliver 200 million tonnes p.a. of coal for power generation. By comparison, Eraring Power Station, in NSW, burns about 5 million tonnes p.a. so just 2.5% of that - hardly within the order of accuracy of loading a coal wagon.

Anyway, a recent letter to the press about Australia's energy policy said, "*all deployable options should remain on the table.*" My response said I assume the writer includes options such as existing coal fired power generation, at least till an alternative reliable baseload generating capacity is firmly in place. (But I doubt that was what was meant). Again, especially as currently under construction in Asia are **new** baseload coal fired power stations of 100 times the power output of the existing Eraring Power Station. I am sure that, while most Australians will be happy to consume energy created other than directly from fossil fuels and delivered at a lesser cost[2], their enthusiasm will wane quickly after the first series of brown outs. Energy policy needs to have a rationale, sustainable balance that is not driven by base environmental alarmism. So, what do I think - well, I think Australia should continue making a steady and unpanicked transition to reliable forms of energy creation which best suits its energy needs and standard of living, and do the least harm along the way, including to children's mental state about the planet.

The latter is quite important - I am hearing young Australian women saying stuff like it's irresponsible to bring more children into this world. And that is sad.

Finally, we need to remember the Shirky Principle which states:

"*Institutions will try to preserve the problem for which they are the solution*".

The fact is that, as in the case of our own Barrier Reef research, there is no money in saying that there isn't a problem. And there are massive numbers of researchers whose careers, personal lifestyle and remuneration is tied to there being a climate problem. The likelihood of them saying "*well, actually there isn't a problem*" or even "*there isn't as bad a problem as we thought*" is next to zero. So, some caution has to be exercised by decision makers and those who would seek to influence them.

To summarize then:

- Climate change is occurring and has always occurred and always will; If you have any doubt about this and its scale then look at the data over the past 400,000 years from the Vostok ice core;[3]

- The extent to which this most recent increase is driven by humankind releasing CO2 and other atmospheric heating gases is not, contrary to what politicians say, a settled science – there is both uncertainty in the projections themselves being made by those who believe it is and there is still a large body of scientists who are uncertain that it is.

- Don't not be stampeded into drastic action by climate alarmists or band wagon jumping politicians or controversy seeking journalists, Remember - even the IPCC has not said climate change is the end of personkind or that we are doomed.[4]

- Don't think anything we do in Australia can be hypothecated to Australia's climate or indeed that anything we do, can change what is happening globally– only massive changes in US, Asia and Europe can do that.[5]

- Don't immediately believe that every storm or fire or flood or series thereof is the result of climate change – more than likely it's just one of the natural cycling of such events – always remember the Press is not particularly interested in the truth but it is interested in sensationalism and a story – many of the reporters are so young they have no memory of any prior significant climate events. Any even the most ardent climate scientists say local events cannot be sheeted home to climate change.

- Always listen to dissenters, always seek to find out the other side of the story or other viewpoint and understand it; then make up your own mind and only then act and act cautiously;[6]

- Make changes where it costs us nothing effectively to do so [7] ;

- Don't cripple the Australian economy by virtue signalling to the rest of the world.

- Don't force changes on the standard of living of Australians just because per capital we have a high rate of emissions – collectively, they are next to nothing on the global scale; and

- Use your brain, then stay calm and carry on.

There - I've said it!

Footnotes

[1] Only yesterday I penned this letter to the press *"Chris Uhlmann's article perfectly encapsulates the problems that happen when politicians, ideologues and other assorted activists get involved in planning and designing critical infrastructure instead of letting engineers get on and do it. They should stick to setting out socially acceptable broad objectives then get out of the way. In the case of energy, a simple direction to transition our electrical generation systems to reduce emissions as far as practical while ensuring that demand for power is always met - whether by retaining some gas, coal or other means of electrical generation - would have been more than enough, especially bearing in mind Australia's minute contribution to global emissions. As he says, what we are currently doing just looks like national virtue signalling on a grand, and potentially foolish, scale."*

[2] And to date there is no evidence that it is being delivered at lesser cost in Australia and in fact the reverse.

[3] https://en.wikipedia.org/wiki/List_of_periods_and_events_in_climate_history

[4] One of the most prominent doomers is Greta Thunberg. Here's what she said : *"Climate activist Greta Thunberg tweeted five years ago that catastrophic climate change will wipe out humanity unless the world forgoes fossil fuel usage and ceases consumption. But to Thunberg's dismay, her prediction didn't exactly pan out. On the contrary, realizing this, she quietly deleted her tweet in March in anticipation of Wednesday's anniversary. While gone, it forever lives in our hearts as a reminder not to fret over reactionary, alarmist predictions."* https://www.washingtonexaminer.com/restoring-america/courage-strength-optimism/of-course-greta-thunberg-was-wrong-about-fossil-fuels

[5] Respected economics journalist Ross Gittins said in the SMH on 21/9/2023 said *"climate change deniers and foot-draggers"* have been correct all along: *"nothing we Australians do will stop the globe warming unless the other major emitting countries – America, China and those in the European Union – also achieve net zero emissions by 2050."*. And *"all we can do is set a good example and urge the others to do likewise."* Pity he had to resort to pejorative language, but I say no amount of virtue signalling or dangling off overpasses is going to change that latter fact.

[6] it is very important on such a critical issue that it be challenged and that discrepancies cannot just be brushed over. If you can't explain the near past with all its data certainty, then you have no hope of predicting the future with all its uncertainty. All of which is why the great 20th century philosopher Sir Karl Popper said: *"If we are uncritical, we shall always find what we want: we shall look for, and find confirmations, and we shall look away from, and not see, whatever might be dangerous to our pet theories. In this way it is only too easy to obtain what appears to be overwhelming evidence in favour of a theory which, if approached critically, would have been refuted".*

[7] And provided you are happy to cover vast swathes of land including Indigenous lands with solar panels and wind turbines and stuff like that. Chris Bowen recently said *"Getting to the government's now-mandatory legal target of 82 per cent renewable power generation by 2030, he declared, would require the installation of 22,000 solar panels every day, and the erection of 40 large wind turbines every month for the next seven years. Plus, 28,000km of new transmission lines would have to be constructed for the resultant decentralised grid – even though, given the intermittency of wind and solar, these would be active only 30 per cent of the time on average."* https://www.theaustralian.com.au/commentary/swedens-botched-green-dream-a-warning-to-us-all/news-story/895a85e24ff0b9e68541e77a0404e1c1

3. Licence to kill waste

3 March 2025

Veronica Schulz and Professor Michael Bell propose the introduction of a ship recycling licence for EU shipowners as a potential solution to incentivise responsible recycling, improve environmental standards, and support the development of sustainable facilities within the EU.

The pressure of climate change brings a dual challenge and opportunity to the global ship recycling industry. With the Hong Kong Convention set to enter into force in June 2025, the International Maritime Organization (IMO) aims to establish a baseline for dismantling ships in ways that prioritise human health, safety, and environmental protection (International Maritime Organization, 2024). This convention, coupled with the Basel Convention's framework for managing hazardous waste (United Nations Environment Programme, 2011), represents a significant step forward in sustainable ship recycling. However, while they offer guiding principles, these frameworks have limitations in stringency, leaving loopholes that can undermine their effectiveness.

The Hong Kong Convention focuses on minimising environmental risks during ship dismantling but lacks rigorous enforcement mechanisms for facilities outside certified zones, especially in regions where regulations are less robust (NGO Shipbreaking Platform, 2019). For example, the Hong Kong Convention does not set requirements for the management of hazardous wastes once they leave the gate of the recycling facility. The convention also relies on flag state jurisdiction, which can be circumvented through flag-hopping to countries with less stringent enforcement.

Meanwhile, the Basel Convention regulates the transboundary movement of hazardous waste, but it struggles with ambiguous definitions, allowing hazardous materials to be misclassified as "second-hand goods", and its enforcement relies heavily on individual countries, leading to inconsistent application and persistent illegal waste trafficking (Khan, 2019). As a result, many ships continue to be dismantled in conditions that fall short of the standards these conventions aspire to uphold.

A potential solution that could accelerate sustainable ship recycling and prevent environmentally hazardous dismantling practices is the establishment of a ship recycling licence (Devaux & Nicolai, 2020). Rather than functioning like a typical driver's licence, this ship recycling licence would operate more like a deposit scheme for shipowners. By requiring EU shipowners to pay an annual fee, this licence would create a fund that could be used to support sustainable recycling facilities within the EU. At the end of a ship's life, if owners choose to dismantle their ships at an EU-listed recycling facility, they will receive full reimbursement of their contributions, effectively incentivising responsible end-of-life disposal.

The concept of a ship recycling licence aligns with the broader push for the "polluter pays" principle within maritime environmental policy (ClearSeas, 2024). Currently, it is common for ships to be dismantled on beaches in countries with less stringent environmental and safety regulations, such as those in South Asia, where shipbreaking practices often result in severe pollution and poor working conditions for labourers (Schulz & Bell, 2023). The proposed licence system would hold shipowners accountable for their choice of dismantling facilities,

encouraging them to think twice before sending vessels to facilities that might cut corners to save costs.

This licence scheme could initially apply to ships flagged in EU countries but could be extended to cover all ships entering EU ports, regardless of their flag. This would parallel the approach taken in the EU's Emissions Trading Scheme (EU ETS), which has extended its reach to international operators as they dock in EU territory (European Commission, n.d.). Such a move would allow the EU to leverage its market size to push for higher recycling standards worldwide, potentially setting a benchmark that other regions might emulate.

The funds collected from the licence fees could serve as more than just a deterrent against unsafe recycling; they would also be a means of bolstering the capacity of sustainable facilities within the EU Ship Recycling List. Ship dismantling is complex and costly due to the range of hazardous materials that need to be handled safely, from asbestos to heavy metals. By investing in the expansion of sustainable ship recycling facilities or improving existing ones, the EU could eventually lower the costs of recycling at certified facilities, making it more attractive for shipowners to follow sustainable practices without facing prohibitive costs. This investment could extend beyond simply building more facilities. Advancements in technology, such as robotic disassembly and improved waste handling systems, could significantly reduce the risks involved in recycling operations and lower the price tag of sustainable ship dismantling.

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4. Hybrid workers – evidence to support this new mainstream workforce in 2025

1 April 2025

Professor David A. Hensher and Dr Edward Wei analyse the current arguments for and against employees returning to the office full-time. They discuss how research supports the hybrid work model, showing no loss of productivity, and how it also contributes to reduced traffic congestion.

The latest debate on whether to ask government employees to return to the office five days a week is heating up and could become one of the focal points for the upcoming federal election, especially for federal public servants. While the debate between the two parties is predominantly centred on a claimed loss of productivity by working from home (WFH), the examples used typify cherry-picking with extreme examples ('never go on the office') and citing studies to fit arguments that are hardly indicative of reality. Stanford researchers have made a clear point in their research that the future winning work pattern is the hybrid work model with no productivity loss[1]. The majority of the Australian workforce are currently working either only in the office or in hybrid mode over the weekday. Australian residences who only work at home or other non-office locations, account for 6% of the total workforce, based on the latest research conducted by the Institute of Transport and Logistics Study (ITLS). Many of the WFH-only workers are business owners. The table shows that the hybrid workforce has increased in 2024 to over 40%.

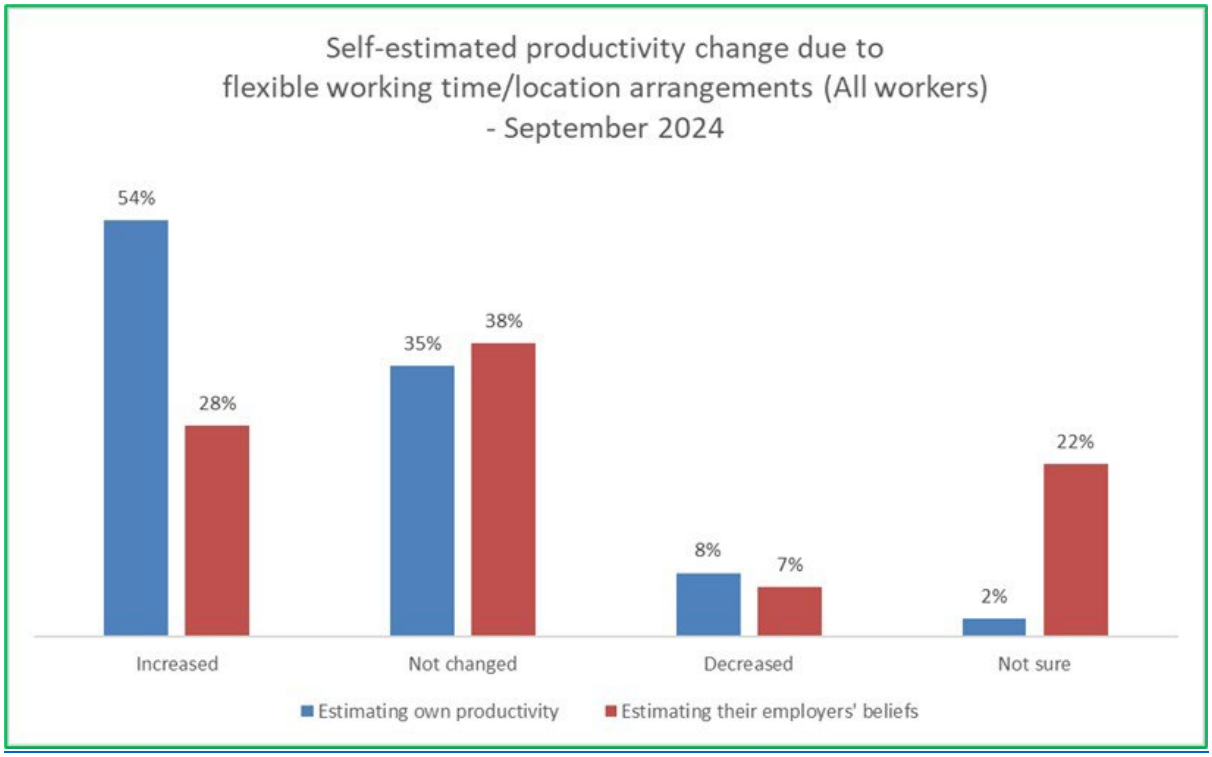
	ITLS Transport Opinion Survey	**ITLS Transport Opinion Survey**	**ITLS Employee Motivation, Performance and Well-being Survey**
	Mar-24	Sep-24	Oct-24
Office only workers	52%	51%	52%
Hybrid workers	37%	43%	42%
Non-office WFH only workers	11%	6%	6%
Sample size (national)	N=665	N=691	N=981

Source: https://www.sydney.edu.au/business/our-research/institute-of-transport-and-logistics-studies/transport-opinion-survey.html and https://ses.library.usyd.edu.au/bitstream/handle/2123/33272/ITLS-WP-2421.pdf?sequence=1&isAllowed=y

In October 2024, hybrid workers on average work 41.8 hrs/week, more than the 34.3 hrs/week by office-only workers, and 29.7 hrs/week by the WFH-only workers. Over a week, in average, 63% of working hours are in the office, 28% of the time WFH, and 9% of the time working in other locations. There is no reason to think that hybrid workers work less since they are the hardest working group. We see strong evidence of a blended workday for each day of the week where work occurs in both the office and the home. On average, hybrid workers spend most hours in the office on Monday and Wednesday (5.3 hours), followed by Tuesday and Thursday (4.9 hours). On Friday, they work less in the office (4.6 hours) with the balance of hours WFH.

This blended day takes pressure off the road and public transport networks in peak periods. We find that on average, commuters depart from home 70% of the time during peak hours. Whereas 74% of office-only workers drive to work, only 53% of hybrid workers drive to work, with 31% of hybrid workers taking public transport compared to 15% for office-only workers.

The TOPS survey conducted in September 2024 found that 54% of Australian workers believe their productivity has increased, with another 35% suggesting no change; or 90% of the workers do not believe the flexibility of where and when to work has reduced their productivity. When asked whether their employer believes in a productivity change, 66% suggest that their employers also think the productivity has increased or is maintained, with a further 22% not sure.



Source: https://www.sydney.edu.au/business/our-research/institute-of-transport-and-logistics-studies/transport-opinion-survey.html

Fenizia and Kirchmaier (2025)[2] in a UK survey of public servants, found on average a 12% improvement in productivity, a finding that runs counter to the assumptions underlying current proposals to force federal employees in the USA and Australia back into the office. The study found that these gains were primarily driven by reduced distractions than in the office, where employees were more likely to be interrupted by conversations, coffee breaks, and other non-work-related interactions. By contrast, the relative isolation of remote work allowed for sustained focus, contributing to the higher amount of work logged from home.

The suggestion that productivity has decreased is inaccurate and is being used by many to misinform the real benefits of the hybrid working model. The argument that WFH means loss of productivity is out of date.

[1] https://thehill.com/opinion/technology/4981026-federal-employees-telework-productivity/

[2] https://thehill.com/opinion/technology/4981026-federal-employees-telework-productivity/

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5. Opinion: Opinion: A Cut in Fuel Tax Is Not a Policy—It's a Populist Diversion

5 May 2025

David Brown and Professor David Hensher argue that the Coalition's proposal to cut fuel excise by 25 cents per litre is a short-term political move lacking long-term public value and fails to address broader issues in transport policy.

The Coalition's proposal to cut fuel excise by 25 cents per litre for 12 months may sound like a gift to voters, but let's be clear: it's not policy. It's not reform. It's not even strategic relief. It is a short-term political sugar hit that fails the most basic test of long-term public value.

This is not an argument about party politics. It's about defending the space for serious, evidence-based decision-making in public policy. As economist Saul Eslake rightly observed, neither major party is offering lasting structural reform; both are just chasing votes.

At face value, 25 cents a litre sounds generous—until you examine the assumptions. The so-called "average" saving is based on a hypothetical weekly usage of 52 litres of fuel, a figure pulled from thin air rather than real data. That level of usage implies significantly higher-than-average driving patterns, possibly twice the actual median. Many motorists—particularly those in smaller vehicles, hybrids, or EVs—will see little of the supposed benefit. And yet the narrative is being sold as if all Australians will be equally better off.

That it's only for 12 months is another crucial detail quietly omitted from the headline pitch. The real savings will be meagre for many, but the longer-term costs—financial, environmental, and policy-wise—could be significant.

This isn't just about numbers on a spreadsheet. Playing politics with fuel excise is playing with fire.

History Has Warned Us

History is littered with examples of governments fiddling with fuel tax for electoral gain—often with regrettable consequences. In the United States, the federal fuel tax has been stuck at 18.4 cents per gallon since 1993. Over that time, inflation has doubled. The result? A crumbling road network. As of early 2025, nearly 40 per cent of major roads in the US are in poor or mediocre condition. Once frozen, taxes are politically hard to restore, even when critical infrastructure is at stake.

Australia has its own form. In 2001, then-Prime Minister John Howard cut excise by 1.5 cents a litre and scrapped future indexation. It was quietly reversed more than a decade later. In 2022, the Morrison government halved fuel excise for six months. It was labelled one of the worst policy failures of the year—poorly targeted, barely noticed by those most in need, and irrelevant to operators like truck drivers who already received rebates.

Universal subsidies rarely help those who need support the most. Like past water subsidies that mainly benefitted households with large gardens and swimming pools, a blanket fuel discount helps frequent, high-consumption users. In contrast, targeted support—such as increased public transport investment or direct income supplements—better serves low-income households.

Fuel Policy Must Face the Future
A meaningful policy approach doesn't just lower the price at the bowser. It confronts broader questions: how do we ensure mobility access for all while managing congestion, pollution, and infrastructure costs? What role should user-pays systems play in future transport planning?

We must move beyond dabbling. Serious reform includes time-of-day pricing, congestion charges, and road user charges based on distance travelled. These tools are more effective at managing demand, funding infrastructure, and supporting behavioural change.

Yes, they're politically harder to sell. But they're also fairer and more sustainable. Professor David Hensher has shown how even modest road-use pricing can encourage smarter travel choices without causing financial pain. He advocates dropping the term "congestion tax" in favour of language that better reflects its benefits—reduced delays, cleaner air, better cities.

We also need to flip the conversation. Instead of obsessing over what people pay, let's talk about what they get: safer, quieter streets; healthier lifestyles; time reclaimed from traffic jams. Cities are for living, not commuting.

Avoiding the Trap of Moral Superiority
Advocates for serious reform must also rethink how we communicate. A tone of moral superiority doesn't win hearts or votes. But there are ways to frame the debate constructively.

Take pollution. I've had productive conversations even with climate sceptics by focusing on local air quality. Imagine the next transport ministers' meeting held in a schoolyard beside a congested arterial. Suddenly, the cost of inaction becomes personal and urgent.

Or consider the rise of hybrid work. Working from home just one or two days a week can slash commute distances and costs, easing strain on both households and networks. There's real potential here for targeted incentives to make a tangible difference.

The Danger of Clickbait Populism
Unfortunately, populist gestures thrive in a media environment addicted to clickbait. Thoughtful policy debates are swamped by emotive headlines and short-term sloganeering.

Professionals, economists, and planners must fight back—not with lectures, but with vision. They must articulate real-world gains. They must show how good policy not only works on paper but improves lives.

The 25-cent per litre cut isn't just a fiscal misstep—it's a missed opportunity to pivot the national conversation toward a smarter transport future. We can and must do better.

We can—and should—spend some time highlighting the flaws in shallow, election ploys. But the greater task is not to dwell on what's wrong; it is to build momentum for what is right. That means presenting thoughtful, long-term solutions in a way that resonates with the community, not just as abstract policy, but as practical steps toward a more liveable, equitable and sustainable future—something people can recognise, relate to, and support.

6. Strategic Transport Models are relevant but need to be better understood

2 June 2025

Dr Supun Perera and Professor David Hensher discuss the evolving role of Strategic Transport Models (STMs) in transport planning, highlighting their value in understanding complex behaviours and testing policies. The authors advocate for innovation and improvement in modern models to enhance decision-making in transport systems.

There has been a lot of commentary recently on LinkedIn on the relevance or otherwise of Strategic Transport Models (STMs). It is appropriate yet again to revisit some of the well-trodden arguments in defence of the value of STMs, but with the maturity to recognise their limitations and hence to use them judiciously in contributing to our understanding of how tested initiatives impact the key performance outputs being investigated.

Importantly, STMs are not just about forecasting but increasingly on an understanding of behavioural relationships today that can be used to assist in forming a position of what future settings might look like. We often describe this as 'Vision (or decide) and Validate' in contrast to 'Predict and Provide'. Carefully crafted STMs have the ability to satisfy both approaches.

Strategic Transport Models: Powerful Tools or Dangerous Weapons in the Wrong Hands?

Prediction is very difficult, especially if it's about the future! - Niels Bohr

Strategic models have long been a cornerstone of transport planning, but they are increasingly scrutinised for their perceived inability to capture complex, dynamic realities. Numerous recent works have challenged the utility of these models, pointing to inherent limitations such as their reliance on historical data and assumptions of static behaviour. While these critiques are not without merit, they risk undermining the significant value that transport models bring to planning processes when used appropriately.

What is the role of transport models?

Transportation is a derived demand shaped by complex human behaviour, making it inherently difficult to model with precision. Transportation models are not just tools for forecasting demand; they also offer critical behavioural insights into the transportation system. For instance, by analysing elasticities (such as responsiveness to changes in fares, travel times, crowding, and urban design) and quantifying willingness to pay (e.g., for time savings or reliability), models provide a nuanced understanding of how people adapt to varying conditions. More importantly, models can address "what-if" questions, providing planners with a perspective on the initiatives that warrant detailed consideration [1].

Why are models being criticised?

Traditional transport modelling has relied on the "predict and provide" approach that passively forecasts travel demands by extrapolating historical trends and behaviours into the future. This approach risks keeping us trapped in a vicious cycle of ever-expanding road capacities, ultimately reinforcing the status quo.

This mindset is now being replaced by a 'Vision and Validate' approach, which is a proactive, outcome-focused strategy, supported by new planning tools to shape demand rather than merely reacting to it. Vision and Validate overcomes the traditional limitations by encouraging communities to envision their future (after all, the best way to predict the future is to create it together!) and test policies against desired outcomes [2].

Transport models face several key criticisms that highlight their limitations in aligning with the 'Vision and Validate' approach. Traditional models often rely heavily on historical data and static assumptions (falling victim to the 'ceteris paribus' fallacy—the assumption that all other factors remain constant), failing to account for dynamic societal, technological, and behavioural changes, such as induced (or reduced) demand and real-time responses, leading to flawed projections.

In many cases, behavioural nuances such as willingness to pay and time-of-day variations are frequently oversimplified or omitted. Also, the effectiveness of any model can be constrained by skill gaps among analysts, which can lead to misinterpretation and poor decision-making.

What can be done?

The good news is that, while the above criticisms are valid for older models (dare we suggest the very conventional Vanilla flavour 4-step models), they do not reflect the state of modern transport models. Advances in modelling techniques now allow for greater flexibility and responsiveness to changing conditions. For example, scenario-based modelling can account for potential shifts in travel behaviour, such as increased remote working, the adoption of electric vehicles, or the impacts of pricing mechanisms like congestion tolls. Dynamic feedback loops—such as those that capture induced (or reduced) demand or mode shifts—are increasingly incorporated into contemporary models, reducing reliance on static assumptions [3].

However, it is true that the quality of a model's output depends on the quality of its inputs. It is also worth noting that the effectiveness of models depends as much on the clarity of the questions posed as on the inclusion of behavioural responses such as feedback effects, and the validity of assumptions [1].

Critiques of transport models often reveal systemic issues, such as errors in land-use projections or population forecasts. Improving their accuracy and relevance requires using diverse, up-to-date data sources, including real-time traffic data, GPS insights, and behavioural studies, to better inform assumptions. Models should be embedded within broader decision-support systems that integrate qualitative insights from community and stakeholder engagement to align decisions with societal objectives.

Context-specific calibration is critical, as high-level generalisations often lead to misleading results and poor decisions. Transparency is equally important, with clear documentation of assumptions and limitations to enable critical interpretation by practitioners and the public. Ultimately, transport models must complement, not replace, human judgment, integrating quantitative analysis, qualitative interpretation, and stakeholder input to address the complexities of transport planning effectively.

Final remarks

Transport models are not infallible, but their structured approach to analysing transport systems and testing policy interventions makes them indispensable in enabling effective planning and allocation of public funds. For instance, transport models provide a necessary input into cost-benefit analyses (CBA). Hence, transport models cannot be avoided as a standardised tool to compare current and future scenarios that require some kind of benchmark.

Criticisms of outdated practices should inspire innovation, not rejection. By evolving transport models to align closely with the Vision and Validate framework, and maintaining transparency, practitioners can ensure these tools remain central to creating effective and sustainable transport systems.

Therefore, the solution to the current shortcomings is to improve practices and build better models to guide our decisions (after all, an educated guess is better than stabbing in the dark), as well as train analysts and decision-makers to better understand the role of STMs. Otherwise, we risk throwing the baby out with the bath water!

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7. The Panama Canal and its importance for Australia

1 July 2025

In the light of President Trump's recent comments, Professor Michael Bell discusses the significance of the Panama Canal for global freight and considers how rising costs and proposed alternate routes may affect Australia's supply chains.

Recent threats by US President Trump to "take back" the Panama Canal have prompted a discussion about the importance of the canal for the global economy and, at least in this part of the world, for Australia.

The Panama Canal was built and owned by the US in the early 1900s before being given to Panama in 1999 under two treaties, signed by US President Jimmy Carter back in 1977. The neutrality of the Panama Canal was guaranteed by treaty (Ittimani, 2025), which of course does not prevent political influence and interference.

Although US President Donald Trump claimed that China was "operating" the canal, in fact China's involvement relates to a concession granted to the Hong Kong company Hutchinson-Whampao in 1996 to operate the Port of Balboa, on the Pacific side of the canal, and the Port of Cristobal, on the Atlantic side of the canal. In 1999 US State Department officials said that they "have not uncovered any evidence to support a conclusion that the People's Republic of China will be in a position to control canal operations" (Davidson, 2025). So, while it would appear that the Hutchinson-Whampao involvement in port operations does not pose a direct threat to US interests, it is conceivable that China through this and other commercial operations could become influential on Panama, which does operate the canal. This could resurrect the Monroe Doctrine of 1823, whereby the US sees any interference in the political affairs of the Americas as a hostile act.

The US is responsible for the majority of the cargo passing through the Panama Canal, with China a distant second (Davidson, 2025). The canal is an important gateway for US Gulf and East Coast ports, including the relatively small traffic to and from Oceania (Australia and New Zealand). 40 per cent of US container traffic passes through the Panama Canal. The Panama Canal route is faster for containers between China and the US East Coast than the Suez Canal route by around six days. Added to this, Houthi attacks in the Red Sea have recently rerouted most container traffic from the Suez Canal round the Cape of Good Hope, further increasing the potential advantage of the Panama Canal.

Fees, set by the Panama Canal Authority, have soared in recent years as a result of droughts, which have depleted Lake Gatun and connected reservoirs, thereby reduced the capacity of the canal (Ittimani, 2025). With climate change, droughts can be expected to be more severe and frequent. The original Panamax locks lose more water than the newer Neo-Panamax locks, due to a water recovery system which can reclaim 60% of the water used by the locks. There would need to be significant investment for the original Panamax locks to be given the water recapturing ability of the Neo-Panamax locks, which could be financed by the higher fees that the Panama Canal can now command due to its reduced capacity.

In 2024 Maersk informed its clients that ships with containers to and from Oceania will no longer traverse the Panama Canal (La Rocca, 2024). Instead, a rail connection would be used to move containers about 80 km between the Port of Balboa on the Pacific side of the canal to and from the Port of Manzanillo on the Atlantic side of the canal. While the rail transit time may be comparable to

the Panama Canal transit time, the process of loading and unloading containers will add delays and costs.

A good alternative to the Panama Canal for North America is the US "land bridge", whereby containers offloaded at Los Angeles or Long Beach, or possibly Oakland, are taken by rail on double stacked wagons to destinations across the country and on the East Coast. Not only would this substitute for the canal but would also be welcome business for US railroad companies. More generally, getting containers off the road network and on to the rail network is good for the environment, particularly where the trains are electric, and improve road safety while also reducing wear and tear on the road network. For this reason, both Sydney and Melbourne are currently trying to shift more container traffic to and from their container ports on to the rail network.

A great strength of maritime transport is that there are almost always alternative routes, and this is true for the Panama Canal. However, it is also true that any forced rerouting of cargo will also increase the cost of freight transport. The rerouting of container shipping round the Cape of Good Hope to avoid potential Houthi attacks in the Red Sea has led to a marked and widespread increase in freight rates. So, while the Panama Canal may not be of strategic importance to Australia, any loss of canal capacity, which is more likely to be due to climate change than political interference, will ripple through supply chains and push up costs in Australia (Bartos, 2023).

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8. From Research to Reality: Bridging Transport's Academic-Practitioner Divide

4 August 2022

Russell King highlights the persistent disconnect between transport research and real-world application, proposing a practical, AI-driven tool to make academic insights more accessible and actionable for practitioners.

Transport research often takes over a decade to reach practical implementation, if it ever does. This disconnect serves no one: not academics, practitioners, or the public using our transport systems. There has long been a desire to close the gap between academic research and on-the-ground implementation, and many approaches have been tried, but the gap remains. What is holding us back?

The Barriers

1. Technical Language
While practitioners use transport terminology daily, academic language in journals remains challenging even to experienced professionals. This discourages practitioners from reading journals or engaging with researchers.

2. Language Diversity
Valuable transport research exists in many languages. We risk missing important insights simply because they weren't written in the practitioner's language.

3. Time Constraints
Practitioners rarely have time to search for and thoroughly read research that might be relevant to their work.

4. Specialisation
Transport professionals typically focus on specific areas. They need targeted access to relevant research without wading through unrelated material.

5. Limited Follow-up Access
Implementation typically requires more than just reading a paper. Practitioners need easy ways to contact researchers for follow-up questions.

6. Making Research Relevant
Research varies greatly in its relevance and applicability to on-the-ground implementation. Practitioners need easy ways to provide feedback to researchers on the usefulness of their research.

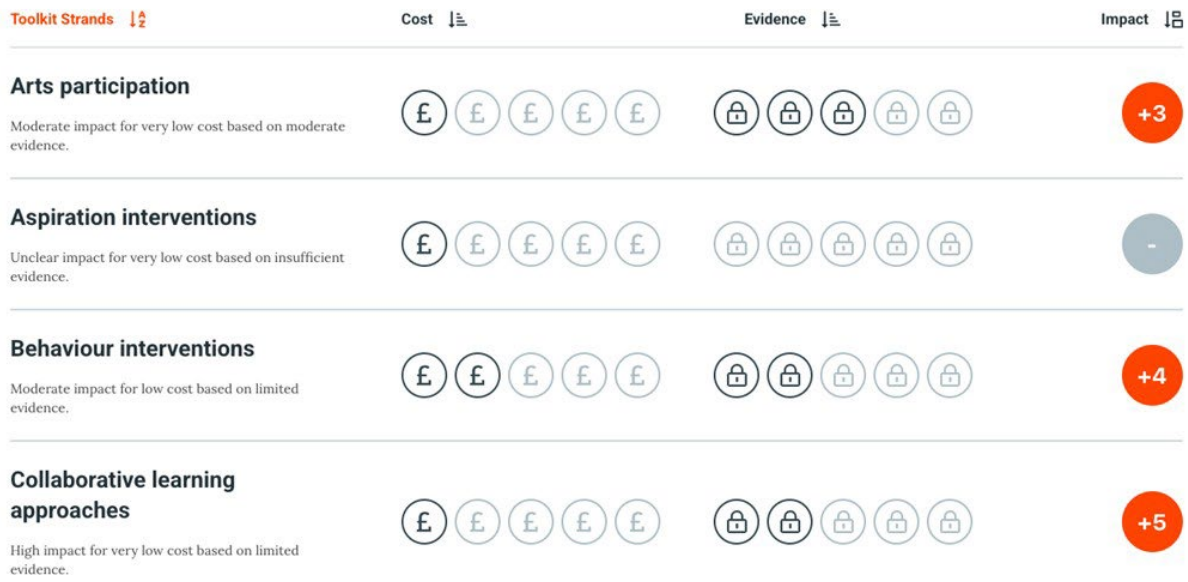
7. Prioritisation Challenges
Practitioners must decide how to implement research findings within existing constraints. However, most research offers little guidance on relative importance compared to other priorities in the same domain. Existing research tools are designed for academics, not practitioners, further widening the gap.

The Solution: A Practitioner-Focused Research Tool
We need a tool that:

1. **Proactively delivers** global research updates to practitioners, likely via email
2. **Provides accessible summaries** in the practitioner's preferred language
3. **Personalises content** based on individual professional interests
4. **Facilitates connection** with researchers through contact information

5. **Enables quick feedback** on the relevance of research
6. **Offers implementation guidance** on the relative priority of research findings

The first four elements can be readily developed using AI and translation software in a customised newsletter format. It is easy to build tools for practitioners to provide feedback quickly on the relevance of research to what they do. The prioritisation component requires more development, but successful models exist in other fields. The Education Endowment Foundation, for example, translates education research into prioritised teaching strategies (see image). A similar approach in transport could transform how research is implemented.



Education Endowment Fund Teaching and Learning Toolkit example. Source: https://educationendowmentfoundation.org.uk/education-evidence/teaching-learning-toolkit

Implementation Approach
Modern technology makes this solution technically feasible and relatively easy to create, though strategies to manage AI limitations will be necessary. The tool could begin as a university-funded project before being spun out of the lab. A subscription model where practitioners or their organisations pay for the service could provide sustainable funding. If successful in transport, this approach could extend to other disciplines with similar academic-practitioner divides.

Stakeholder Benefits
This tool could provide many benefits.

For Academics:
- Increased research impact and visibility
- Collaborative opportunities with transport agencies
- Enhanced justification for research funding through demonstrated real-world application
- Feedback that can inform future research directions

For Practitioners:
- Access to cutting-edge solutions
- Evidence-based decision-making
- Professional development through exposure to the latest thinking

For Transport Users and the Public:
- Improved service quality through faster implementation of innovations
- More efficient use of public resources through evidence-based practices
- More sustainable and inclusive transport systems informed by comprehensive research

Potential Challenges and Mitigations

Quality Control
AI is a powerful tool, but it has drawbacks, such as hallucinations. Any system will need to implement expert review processes and feedback mechanisms where AI has helped to create content.
Sustaining Participation
Key will be ensuring that there is ongoing use by busy practitioners. This will require a continual focus on understanding and meeting the needs of practitioners.
Funding Sustainability
Transitioning from start-up funding into a fully fledged self-sustaining model is critical. Developing appropriate subscription options and partnerships will be essential.
Measurement of Impact
A key mission of the solution is to create an impact and that will mean developing ways of quantifying its effectiveness, ideally in transport outcomes.
Managing Information Overload
Large volumes of research are constantly being generated. There is a risk that, despite filtering, practitioners either face information overload or do not get to see the most important papers in their field. Prioritisation algorithms that meet the needs of practitioners will be critical to success.

Additional Benefits
While this tool focuses on making research more accessible, it should also help holistically to reduce barriers between academics and practitioners. By making research more approachable, it should encourage greater interaction and mutual learning between them.

Next Steps
This concept promises benefits for academics, practitioners, and transport users alike. The next step is to develop a detailed proposal to secure initial funding. By bridging this gap, we can accelerate the implementation of valuable research insights and improve transport systems for everyone.

9. How social and spatial equity must be at the forefront of e-scooter legislation in New South Wales

1 September 2025

Dr Yuting Zhang, Professor John Nelson and Professor Corinne Mulley discuss the implications of NSW emerging legislation for the legalisation of e-scooters and what it means for both shared schemes and private use. They emphasise the importance of keeping issues of transport equity and social inclusion to the forefront when considering the sustainable transport futures of micromobility.

In late 2024, the New South Wales (NSW) Government unveiled an E-mobility Action Plan, outlining a pathway towards legalising e-scooters [1]. The move comes amid growing public uptake and media attention on e-scooters: more than one million NSW residents have ridden an e-scooter, there are nearly half a million privately owned devices in homes across the state, and yet only 22% of people know that riding private e-scooters on public roads remains illegal.

It is timely to consider the impacts of this e-scooter legalisation decision. Legalising private e-scooters will likely increase their visibility and usage, which in turn may shape public attitudes and influence councils' willingness to adopt or expand shared e-scooter programs in the future. While wider exposure to e-scooters might build public support [2-4]; it could also fuel concerns about safety [5, 6]. It is likely that demand for shared e-scooters may also shift, as some current or recent users of shared services transition to personal ownership while others continue to value the convenience of shared services where they exist. These shifts will inevitably affect how operators manage their fleets and business models. International examples can provide insights on this matter. Paris introduced shared e-scooters in 2018 and legalised private ones a year later [7]. In 2023, shared services were discontinued following public controversy and a referendum [8]. While this outcome reflected a unique blend of policy, politics, and urban context, the presence of private e-scooters arguably softened the transition away from shared schemes for existing users. NSW should pay close attention to how cities have managed similar transitions—both the successes and pitfalls.

A critical dimension of this policy change lies in its implications for transport equity and social inclusion. Micromobility devices, often promoted as a "sustainable mode" of transport, particularly for first- and last-mile connections, holds promise. But does it benefit or disadvantage everyone equally? Evaluating the shared e-scooter trial in NSW showed the rider profile was typical of e-scooter use worldwide: mainly male, aged between young and middle adulthood, with middle to high income. Most trips were made for leisure rather than for commuting to work or study. These findings raise important questions about whether e-scooters serve the broader public effectively. Barriers to equitable access for a broader cross-section of the population are varied and complex. They may include concerns about personal safety, service availability and quality, digital and technological barriers (e.g., lack of access to smartphones or digital banking), and inadequate infrastructure. The list is long. If we want e-scooters to become a useful part of the NSW transport system in the long term, many of these obstacles must be considered. Otherwise, the NSW Government risks introducing a service that further excludes already disadvantaged populations, delivering benefits only to a limited segment of the population.

On the positive side, e-scooters may offer a glimpse into a more sustainable transport future for NSW. The state's urban environments have long been shaped by car-centric planning, resulting in cities that are heavily reliant on private vehicles. In Sydney, steep topography has limited the success of shared bike programs, while shared e-bikes, though offering some advantages, have yet to achieve

widespread adoption. Personal cycling for commuting also remains relatively uncommon, hindered by safety concerns, inadequate infrastructure, and long travel distances. Within this context, e-scooters especially when legalised and better integrated into the transport network could help bridge an important mobility gap. Their low physical effort, small footprint, and operational flexibility make them a promising option for short urban trips, particularly in areas poorly served by public transport.

Currently, it is not clear if there will be more shared e-scooter schemes in the near future in NSW. To avoid confusion for the public, applying uniform regulations to both private and shared e-scooters is an attractive option. It simplifies enforcement, ensures consistent safety standards, and promotes fairness. However, important differences in use cases, accountability, and operational models warrant a more nuanced regulatory approach. A hybrid model common in places like New York City [9] may be more appropriate. Core safety rules (e.g. helmet use, speed limits, riding zones) could apply universally, while operational requirements (e.g. parking management, fleet caps) are tailored by ownership type. NSW already employs this blended approach with other micromobility devices. Privately owned and shared e-bikes are covered by the same legal classification, but shared schemes are subject to additional operational rules [10]. A similar framework could guide e-scooter regulation: consistent where possible, differentiated where necessary.

Ultimately, e-scooter legalisation must be guided by broader urban mobility goals: improving access, reducing emissions, and promoting safety. As NSW embarks on this new mobility chapter, it will be important to ensure that policy design reflects not just technical and legal considerations, but also social and spatial equity.

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10. Small parcels, big problems: Why Australia must rethink its trade reliance

4 September 2025

Professor Ben Fahimnia explores how a sudden change in U.S. trade rules has prompted Australia Post to suspend most parcel services to the U.S., dealing a major blow to small Australian exporters and highlighting the urgent need to diversify markets.

Australia Post has suspended most of its parcel services to the United States. On paper, it looks like an ordinary logistics matter. In reality, it is a gut punch to small Australian businesses that depend on American customers.

The cause is a sudden change in US trade rules. Until recently, goods under USD $800 could enter the US tariff-free. That exemption has now been scrapped. Every parcel, no matter how small, attracts new charges.

Washington argues that the policy will curb drug smuggling and counterfeit goods sent through the mail. But instead of catching criminals, the rules are hitting legitimate exporters.

Think of an artist selling prints online, a start-up producing natural skincare, or a boutique clothing label shipping just a few dresses each month. They are now forced to pay tariffs upfront or risk losing customers. Many will simply walk away from the US market altogether.

Large companies can absorb these costs. They have compliance teams, legal advisers, and established logistics systems. But the one-person business working from a spare bedroom cannot. And yet, it is these small exporters who carry Australia's reputation for creativity, innovation, and quality.

There is a bigger warning here. For decades, the US has been a land of opportunity for Australian artisans, boutique producers, and niche exporters. That opportunity is now being shaken by tariffs designed not for them, but for a completely different problem. As American trade policy grows more protectionist and unpredictable, Australia's reliance on a single partner looks increasingly fragile.

The answer is not to retreat, but to diversify. Asia's middle class is booming, and with rising incomes comes a hunger for premium, high-quality, and distinctive goods. This is where small Australian businesses can shine.

For example, Japanese and South Korean consumers have long shown a willingness to pay for authenticity, traceability, and sustainability in food and lifestyle products. Southeast Asian markets are rapidly expanding, with consumers eager for luxury cosmetics, ethical clothing, and artisanal goods. By strengthening links with these regional partners, Australian exporters can spread their risk while tapping into dynamic, fast-growing markets.

But diversification requires more than just new trade routes. Small exporters need accessible trade tools such as digital platforms that simplify customs paperwork, affordable shipping solutions, and programs that connect local businesses with overseas buyers. If the government and industry bodies can work together to expand e-commerce trade corridors across Asia, then small Australian exporters will not only find new customers, but also be able to access them more smoothly and at lower cost.

Trade agreements have historically been focused on big-ticket exports like iron ore, beef, and wine. These sectors are important, but they are only part of our story. The thousands of smaller businesses (designers, food innovators, skincare brands, craft producers) are just as vital. They create jobs, sustain regional communities, and project Australia's cultural and creative identity to the world.

To support them, trade deals should include provisions that simplify customs for small parcels, reduce red tape for micro-exporters and open doors to digital commerce platforms. Modern exporting is increasingly done parcel by parcel, not container by container.

Beyond trade agreements, the government could expand practical support programs. Export-readiness training tailored for small businesses, grants for digital marketing in new markets, and subsidies for participation in regional trade shows could all make a tangible difference.

Australia Post and other logistics providers also need to be part of the solution. Creating bundled, cost-effective international shipping services for small exporters would allow them to remain competitive, even when facing complex regulatory environments.

Resilience at home is just as important. Encouraging small businesses to sell across multiple online platforms reduces dependency. New tools such as blockchain for supply chain verification and AI-driven logistics tools can help level the playing field against bigger competitors.

Collaboration is another piece of the puzzle. Too often, small exporters face tariffs, logistics and marketing challenges on their own. Industry associations and chambers of commerce could pool knowledge, create shared distribution hubs in key markets, and push for policies that reflect the realities of small-scale exporters. Collective strength can achieve what no single operator could manage alone.

Australia Post's suspension is more than a shipping hiccup. It is a wake-up call. If we want our small businesses to survive and thrive, we must build trade networks that are diverse, resilient, and less vulnerable to the shifting winds of US politics. Diversification into Asia and beyond, smarter government trade policy, and targeted support for small exporters are not optional – they are essential.

Australia's reputation abroad is not just built on mining exports or agricultural commodities. It is built on the ingenuity of thousands of small businesses that carry our story to the world in every parcel they send. Protecting them is not only an economic necessity, but a cultural one.

11. Time for a reset of bus contracts?

2 October 2025

Professor David Hensher discusses how global bus contracts have shifted from public ownership to a mix of competitive tendering and negotiated performance-based contracts. He highlights the key to success lies in contract design, risk sharing, and aligning strategic, tactical, and operational goals for long-term public transport value.

Bus contracts throughout the world have undergone gargantuan changes over the last 40 years as many countries have moved away from nationalised and publicly owned bus services. While there have been many benefits from this move, in recognition of the advantages of opening up the local bus service market to competition, the pendulum has swung away from a fully economic deregulated model towards one where competition for the market recognises the natural monopoly characteristics of local bus service delivery.

We now see a mixture of competitively tendered (CT) contracts and negotiated performance-based contracts (NPBC) in many geographical jurisdictions, with the choice commonly driven by a view that CT ensures transparency and best value for the taxpayers' dollar (given that such services are essentially funded from government budgets), whereas NPBCs lack such transparency. This claim has eroded over the years as we have come to see evidence that cost efficiency and network effectiveness outcomes are often as good as, if not better, under NPBCs compared to CT. Competitive tendering will not solve everything; NPBC's also have value, but they come with conditions (as do and should CTs), and benchmarking is essential in both cases.

Hensher and Stanley (2010) reviewed the evidence together with numerous studies reported in the Thredbo series, suggesting that the case for tendering is no guarantee of achieving a cost efficient ('value for money') and service efficient outcome that is a significant gain over a well-designed negotiated contract model accompanied by a well-articulated performance regime with monitored key performance indicators. Despite the calls for careful comparison, competitive tendering in the main has won out on the claimed argument of transparency. Hensher (2015) questioned this and provided evidence that many negotiated metropolitan contracts in Australia and elsewhere have been more cost efficient and hence give greater value for money than tendered contracts. The argument that competitive tendering is the best way to refresh the market has not been proven to be as effective as incumbent operators selling out to mainly multinational bus operators in many jurisdictions globally. Indeed, the greatest quantum of businesses changing in many jurisdictions in Europe and Australasia, in particular, has occurred through such purchase and not tendering. Using data linking CT prices of successful bids to NPBC outcomes (Hensher 2015), the evidence suggests that the gains from CT are often illusory (outside of the situation of an incumbent public operator). These findings send a strong message about the presumption that competitive tendering is necessarily the only way forward. It may be more ideological (maybe economic rationality?) than good sense. While many governments suggest that CT ensures transparency, the practice of CT does not ensure such a claim is necessarily valid, as details of tender review and assessment are rarely published and claims of cost savings cannot often be verified. There are suggestions that the transactions costs of CT compared to negotiation are as much as 10% higher.

The comments above have a pedigree in the literature on institutional maturity, and what we have through the current green initiative, as highlighting the issues, is effectively a relatively immature market where we have much to learn about how best to transition into and deliver post-transition to clean energy services, a cost efficient and cost-effective bus service. This is a good argument for negotiation rather than tender. 'Optimal' regulatory schemes when there is investment uncertainty aligns well with the theoretical arguments presented in Laffont and Tirole (1993). Competitive tendering is a high-powered regulatory scheme, and under uncertainty[1], if risks cannot be reduced, it will increase the cost of capital.

A lower powered incentive scheme, such as a negotiated contract (or rate of return regulation in the regulatory literature) may be optimal in this scenario, at least for a transition phase until uncertainty is lower. This would transfer risks to the government or users (depending on who assumes the financial consequences of unexpected cost changes) and implicitly assumes that governments (or users) are better able to absorb these risks, as they should, given that it is their policy commitment being implemented. As the product of joint decision making, negotiated contracts are peculiar insofar as both parties voluntarily surrender some measure of freedom to each other, and yet this sacrifice enables both to gain more than what would otherwise be possible until the risk are unambiguous and appropriately allocated in the determination of an efficient contract price.

As a caveat, we are not assuming that regulators are highly professional and skilled in the relevant tasks and responsibilities, any more than bus operators are, or that they both strictly comply with public accountability and transparency and low corruption, although these latter concerns appear to be more relevant to developing economies. The negotiated transition is a way of sharing skills that are greater in one group than another including other participants such as asset suppliers (both manufacturers and energy generators and distributors who have far more knowledge on green technology than other parties (at least to date)). Any presumption that negotiated contracts may not be optimal and deals are often done, even when there is uncertainty regarding the operational environment compared to competitive tendering, is not justified from the evidence (see Hensher 2015).

Regardless of the relative merits of these two procurement models, the re-tendering model is premised on the (often implicit) assumption that we have a high level of knowledge of the expected levels of costs associated with the provision of bus services in the next contracted period, and with stable technology this was easier to predict. Both the regulator and operators (incumbent or otherwise) have always had access to information that allows the establishment of a cost-efficient cost as a total cost/kilometre. With a stable technology, this can be calculated by assuming that the bus fleet will continue to be diesel with a known depreciation profile (typically straight line) over an agreed life of the bus asset[2]. In addition, the maintenance program centred on diesel vehicles is well established as are the requirements for staffing to ensure that the timetabled and other bus services are delivered to the market without delay. This also has been achieved with a clear appreciation of the size of the fleet required to fulfil contracted services. Under competitive tendering, the regulator has been able to receive bids and to compare them in such a way that they are strictly comparable in terms of what will be offered, essentially a well-designed level playing field (with known technology and associated costs). That is, the specification of all deliverables is very homogeneous, unambiguous, and deemed to align with best practice. The difference between winning and losing is effectively linked to cost comparisons and offers of improved service quality. Hensher et al (2016) investigated disruption costs in bus contract transitions and provided evidence that evaluators on tender evaluation committees do recognise the inherent risks in changing the service provider in bus contracts, and that it is possible to quantify the financial trade-off that evaluators make in balancing the risk associated with transition and disruption and the offer price. For example, if we take the median marginal rate of substitution between changeover cost and offer price reported by Hensher et al (2016), the prices offered by a new provider might be adjusted upwards by the evaluation committee in their recognition of the impact of uncertainty due to expected risk of incurring transition costs from a change of incumbent, with the adjusted amount depending on the lowest offer price[3]. This is exactly the risk setting that will exist (and worse) under the transition to a green fleet in particular.

Regardless of whether a CT model or a NPBC model has merit in the eyes of the regulator and/or the operator, the defining revelation that has surfaced over many years is in the detail of exactly how a bus contract should be structured and delivered, not only at the time of a bid or negotiation, but during the entire period of an active contract leading up to a new bid or negotiation. We are now in a very strong position to look back and review the elements that have worked and have not worked, not always as agreed by one or more parties in the contract chain, but rather what the more experienced regulators and operators have garnered from active participation. In many ways, the selection of a CT or NPBC model is not the main concern; rather, the important consideration is the detail contained in a contract, and how it is interpreted by each party both under normal operations and when there is a dispute.

Some of the key elements that need drastic reform include a move to more flexible (hence less rigid) contracts, identifying risk and ensuring it is shared across all who gain to benefit, simplifying contracts at the *ex ante* bid stage with a recognition of an ability to review and revise during the tenure of the successful bidder, the opportunity to migrate to a collaborative contract (of great value in the decarbonisation transition), and to protect trust in the partnership between a principle and an agent.

Whatever reform is undertaken, we should always be reminded that the the primary strategic objective is the long-term delivery of high-quality value for money public transport. In the reset journey, always think STO: Strategic (S), Tactical (T), Operational (O), a framework to capture the intent of the bus contract reset roadmap. The STO framework serves the process extremely well regardless of the modal or institutional setting. It is a powerful way of establishing order in the planning and policy process. At *the Strategic level* the focus is on the establishment of broad goals and objectives and guidance on ways of achieving outcomes consistent with such goals ('what do you want to achieve'). *The Tactical level* highlights the supporting mechanisms to achieve the strategic goals (where the contract and regulator sit); and *The Operational level* focuses on delivering the desired services to the market consistent with the strategic intent and aided by tactical mechanisms. Importantly, user and wider community are key stakeholders, with roles to play in clarifying goals at the S level, suggesting system design factors at the T level, and operational ideas at the O level, including feeding back on outcomes.

The strategic focus for promoting and improving public transport is very much about reducing external costs, supporting agglomeration economies and providing a mobility safety net (a merit good argument) and all tactical and operational initiative must have regard to this overriding set of objectives (see Stanley and Van de Velde 2008), something that is too often neglected in the details associated with contract design and delivery. Pushing governments to be more specific about the value it expects from public transport, would be a great step forward, since it adds substance on what value for money looks like. This then defines expectations for the scope of public transport service contracts, including what incentive mechanisms might need to include, and more clearly puts contract details in their right place (at T/O). We will never get the T/O right if we do not spell out the strategic intent more fully. At present, we suggest that bus contracts are relatively good at focusing on the here and now, except when the market changes, and not at the future - there is too much conservatism without real long-term benefits assessed against the strategic objectives; and generally, contracts will have a schedule of services to be delivered on day one of the contract and sometimes, but rarely, will they have some future service changes containing aspirational changes for network enhancement in the future.

Footnotes

[1] Another reason why tendering may not be appropriate when there is much uncertainty and bidders value of the good are correlated is that the result may be prone to the "Winner's curse". We suggest this is part the result of poor tenderer assessment practices that fail to contrast the ultimate winners bid price with a benchmarked sense of 'sensible prices.

[2] Operators in many countries have reduced the period of write off in line with their revenue flows in order to reduce the tax impost in a particular year; however, with a flat revenue stream there is little gain in so doing. In cases where operators continue to own buses, general requirements are for an average age of 12 years and no bus to be greater than 25 years. In NSW, for example, the government specifies an approved panel from which operators may purchase their buses. Individual chassis and body manufacturers tender to be placed on that panel.

[3] For example, if we have a bid offer from a non-incumbent of say $AUD6/km, then we might adjust this up to $6.25/km. as the relevant comparison with offer from an incumbent.

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12. How supply chains are being rebuilt in a world of tariffs and trade wars

3 November 2025

Ben Fahimnia explores how supply chains went from being largely invisible systems to becoming front-page news, driven by delays, shortages, and rising prices that affect homes and boardrooms alike.

For supply chain and logistics professionals, it has been a relentless period. Global networks have faced constant disruptions. Consumer expectations have surged. Transport costs, labour shortages, and geopolitical risks continue to bite. In Australia, the challenge is greater because of our distance from major markets and reliance on imports.

This is no longer a temporary situation. Supply chains are being reconfigured for a very different future.

One disruption after another

The recent string of disruptions — from COVID-19 to port congestion, trade disputes, and container shortages — has exposed how fragile extended supply chains can be. A pair of sneakers, for example, might be made from parts sourced in Thailand, Vietnam, and China. It is assembled in Indonesia, shipped to Sydney, stored in a distribution centre, and then delivered to a customer in Melbourne.

That process breaks easily. Factory closures, flooding, strikes, or customs delays can trigger cascading problems. When one part of the chain slows down, every link after it is affected. Lead times stretch. Costs increase. Customers wait.

Global trade tensions are reshaping supply chains

The latest shock is coming from geopolitics, as Trump's sweeping new tariffs on imports place new strain on global supply chains.

The logic behind these tariffs is simple: make imports more expensive to push manufacturers to build locally. But in a world of highly integrated global supply chains, where even the simplest product relies on components from multiple countries, the consequences are anything but simple.

This wave of trade barriers signals a broader trend. Governments are rethinking their overdependence on fragile international supply lines, prioritising supply chain sovereignty, speed, and resilience over pure cost savings. The globalised, just-in-time system that has dominated for decades is being replaced by a new model of regionalised and in-house production.

Why the world is rethinking where it makes things

One clear response to these rising risks is a gradual but noticeable return to local manufacturing. While offshore production has historically been cheaper, it comes with hidden risks — transport delays, customs issues, and now trade tariffs that can rapidly erode those savings.

In Australia, this shift is already happening. R.M. Williams has increased boot production at its Adelaide plant. Bega Cheese streamlined local processing to maintain control of its milk supply chain. Enware Australia ramped up domestic production of safety equipment to avoid delays in imported stock.

This move is not about nostalgia or national pride. It is a pragmatic strategy to improve resilience, cut transport risks, and give companies faster access to stock. Shorter, domestic supply chains reduce exposure to geopolitical shocks and allow businesses to react quickly to market shifts.

The New Customer Standard: Faster, Cheaper, and Smarter

Consumer expectations have evolved too. Australians are shopping online more than ever and expecting faster, more reliable service. Same-day delivery windows, live tracking, and proactive delay notifications are now standard. And while inflation has lifted costs, customers remain price-sensitive.

This has raised the bar for logistics providers. Warehouses and last-mile networks are under constant pressure. Businesses are expected to deliver faster without inflating prices. The margin for error is shrinking.

AI and data are the new supply chain assets

As physical supply chains grow more complex and politically risky, digital capability is becoming the critical buffer. Big retailers and transport operators now rely on AI, predictive analytics, and control towers to manage their networks in real time.

Woolworths, for example, uses a data-driven control tower to track inventory, forecast stockouts, and move product pre-emptively to avoid empty shelves. Transport providers increasingly use route optimisation software to navigate road closures, port delays, and surging demand.

These systems help businesses stay ahead of problems, rather than react after delays or cost overruns occur.

A new supply chain model is taking shape

The supply chains of the future will not be built on lowest-cost sourcing alone. They will be a deliberate mix of local and offshore suppliers, strategically balancing resilience and efficiency. More goods will be made or assembled closer to home. Distribution centres will be more agile. Last-mile networks will need to be smarter and more flexible, capable of managing local disruptions and volatile demand.

For Australia — an island economy heavily exposed to global risks — this agility is essential. Rising US tariffs on our key Asian trade partners indirectly affect us through shifts in commodity demand, investment uncertainty, and currency pressure.

The good news is that many businesses here are already adapting. Those who embrace regionalised, data-driven, and risk-aware networks now will be better placed to manage the next disruption — and there will be a next one.

Final Thought

What was once a background function has become a strategic business priority. Supply chains are no longer just about moving goods. They are about managing risk, navigating geopolitical shifts, and protecting brand reputation.

As new trade barriers, economic nationalism, and consumer expectations reshape the landscape, the way we source, store, and deliver products in Australia is changing for good. The next era belongs to supply chains that are resilient, digital, and flexible — and those who invest early will be the ones who stay ahead.

13. Transport and land use is so intertwined and cannot be ignored in strategic policy initiatives

1 December 2025

Professor David Hensher argues that tackling Sydney's congestion requires a coordinated mix of transport, land use, and policy strategies rather than relying on single infrastructure fixes.

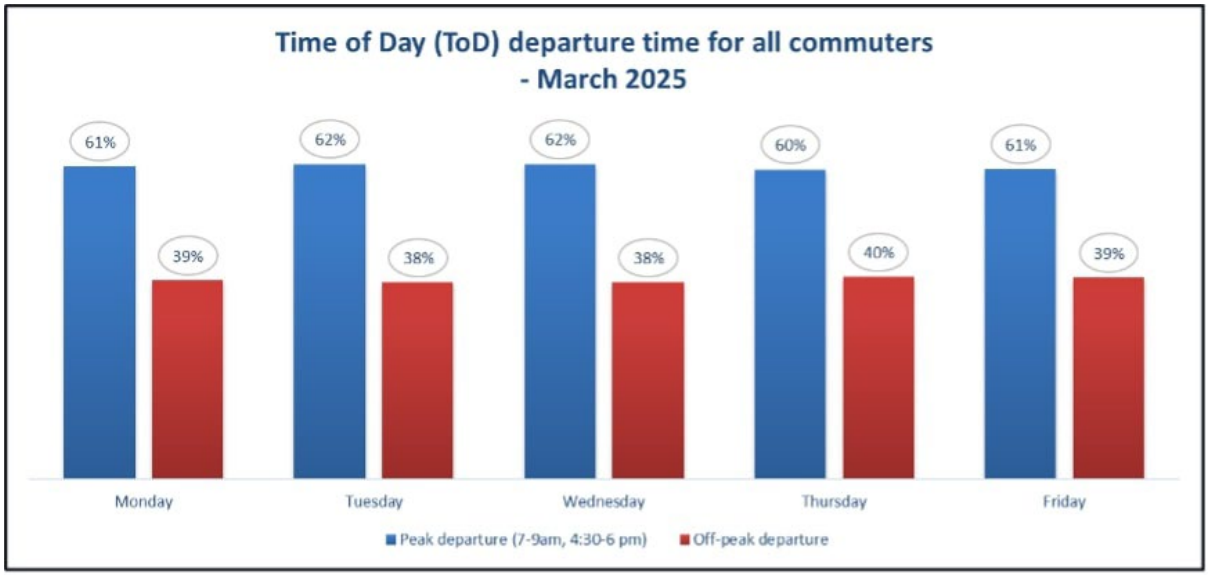
I recently was interviewed by a TV channel in Sydney to discuss, in their words, congestion busting strategies for the southwest and northwest growth centres in Sydney. Before the interview, I was shown a map of existing and proposed rail extensions and road investment to cater for the needs of the growing population, with the anticipated dialogue to focus in my interview on my views on various rail initiatives. In pre-interview discussions, I suggested that a much broader agenda is required. An underlying assumption of most discussions on the need to invest in more public transport, mainly rail, and build more roads or expand capacity of existing roads, is an old school view in the belief this will contain congestion through a switch away from the car toward public transport and deliver improved travel times for the predominant continuation of car use.

I offered the following commentary as a way of trying to place such claimed congestion busting solutions into perspective. Opening statements included my view that 'to make public transport more attractive we must make the car less attractive' and any investment to improve public transport must accord with the three criteria of 'increased frequency, connectivity and visibility'. Moreover, a focus only on transport strategies will not work unless they are planned in tandem with land use strategies. While investment in new rail facilities is to be encouraged, it must be assessed in the context of other public transport solutions and far too often the ideological view is that it must be rail or rail. This is expensive, and it is often stated that such an investment, within the budgets available, can only buy a few years of patronage growth before we are back to where we were in previous years. Why is this? There are many reasons, but the most obvious one relates to the dominant convenience of the car, but also the recognition that many passenger-related trips can only be achieved by car, notably trades people who are a growing amount of trip activity, as well as the freight distribution sector. This points to the need to find ways to tame the car, the ute, and the truck, and rail investment as part of a public transport plan. Public transport investment is sadly hardly going to change the dial in terms of modal share which in Sydney has fluctuated for years around 20% public transport with little change.

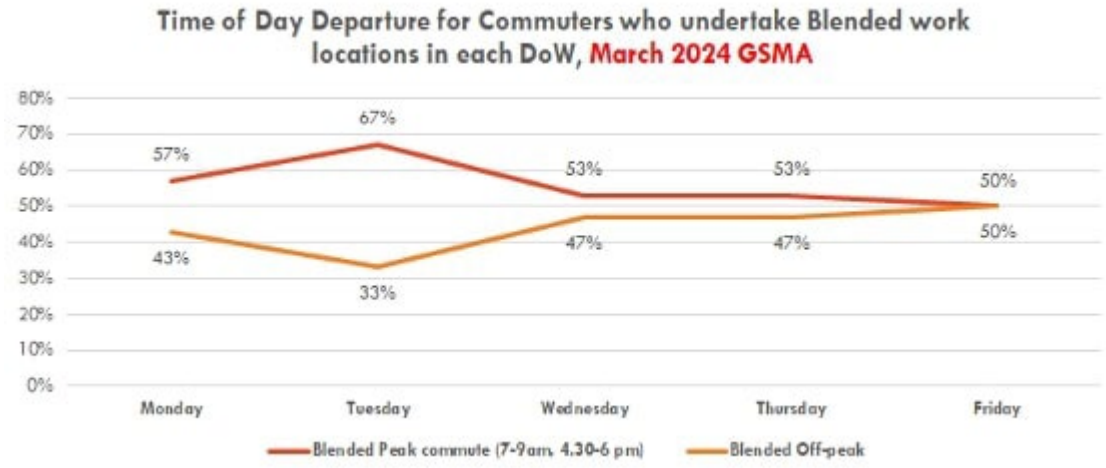
1. The first is the re-pricing of the use of cars, utes and trucks, in a way that makes users and state treasuries no worse off. It can be done, with my best example being to give everyone a choice and deliver benefits to individuals and society. The key feature is the option for people to switch from a fixed annual registration fee to a distance-based charge during peak periods (for a portion of the fee) and ensuring that the total cost does not exceed the full registration fee. This structure enables those who opt out of a certain number of peak trips to avoid the distance-based charge, reaping financial savings while enhancing travel times for those who drive during peak periods. We know that about 60% of all peak car trips can switch out of the peak if the incentives to do so are there. We can show that not only are car users better off, but Treasury is also better off.

2. Transit-Oriented Development (ToD) to encourage higher-density housing and commercial development near transport hubs to reduce reliance on cars. This is where rail projects may deliver their greatest benefits, but this can also be achieved by significant investment in bus-based hubs.[1]

3. Staggered Work Hours and Remote Work Incentives as policies to spread peak demand and reduce overall traffic volumes. We know that this has, since Covid-19, resulted in a significant amount of switching of car use out of the peak periods to off-peak periods. Citing the March 2025 Transport Opinion Survey (TOPS)[2], a biannual survey of adults aged 18 and over across Australia, launched in March 2010, for all commuters (including both office only and hybrid workers), Monday, Tuesday, Wednesday and Friday have the higher percentages of people leaving home during peak hours (61% to 62%), either in the morning or afternoon peaks (i.e., afternoon peak for working the night shift). On Thursday, 60% of workers leave home on their commute during peak hours. Overall, there are minimal differences in peak-hour commuting across the weekdays, but importantly we see a significant amount of commuting departing outside peak periods (see the first graph for all cities in Australia). In the second graph for the Greater Sydney Metropolitan Area (GSMA) we can see that, except for Tuesday, the move to the off-peak is significant for workers who undertake blended work that involves part of a day in the main office and part at a remote location such as at home. Ironically, the increase in flexible remote working has achieved many of the aspiring aims to reduce congestion in the peak periods on our roads, although it has resulted in a drop in use of public transport as traffic levels are less constraining on the road network.



Time of Day (ToD) departure time for all commuters - March 2025



Time of Day Departure for Commuters who undertake Blended work locations in each DoW, March 2024 GSMA

4. *Smart Traffic Management,* especially the Sydney Coordinated Adaptive Traffic System (SCATS): This real-time traffic control system adjusts signal timings based on traffic flow, helping to reduce delays and improve efficiency, and also incorporates bus priority requests which reduces delay variability relative to schedule.

5. Focussing much more on in-filling public transport as a system of bus-based corridors that also allow, initially, at least, multi-occupant cars to share the dedicated lane(s) as a politically clever way of appeasing the car market and demonstrating efficient use of road space. Bus systems can deliver the same or better service capacity (which is far more relevant than vehicle capacity) than light rail, while also improving on connectivity beyond the linehaul offer of rail that still requires significant first and last mile connections. Bus, sadly, is still regarded by many planners as a mode to connect to a rail hub (and as a school child service) with the implicit adage that 'buses are boring, and trains are sexy'.

6. *Parking* can play a big role as a disincentive to car use that comes with either not being able to park at the destination - this is unfortunately not an issue for many destinations in Sydney - or making parking expensive. Road capacity can be dramatically increased if roadside parking, particularly on arterial roads is banned, leaving the opportunity for an extra lane in each direction.

In summary, a strategic approach to achieving objectives associated with sustainability and equity outcomes in the provision of improved mobility and accessibility, should consider multiple policy initiatives since the overall net impact on modal share, emissions and pollution, for example, is insightful and impactful in contrast to isolated initiatives. We encourage transport planners to stop focussing on single initiatives (e.g., reduced fares), but to break down barriers of multi- department working to co-ordinate meaningfully with land use planners so as to assess combinations of initiatives that can not only be better value for money outcomes but make a real difference in achieving the goals sets under strategic policy aspirations.[3]

Acknowledgement. I thank John Nelson and Corinne Mulley for comments on an earlier version.

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[1] Encouragingly there is a focus on TODs in Greater Sydney as the recognition of the link between housing and transport comes to the fore during the current housing crisis.

Transport Oriented Development Program | Planning - note that the Planning dept has decided to call it Transport Oriented Development.

[2] https://sydney.edu.au/business/our-research/institute-of-transport-and-logistics-studies/transport-opinion-survey.html

[3] I recognise that combining packages of measures is, of course, the approach adopted by Travel Demand Management (TDM) and yet it can be hampered by the challenges of working across transport, planning (and other) departments.