Freight Productivity

1. Road authorities do not choose to prevent congestion. On the contrary, they often choose to provide bus lanes that reduce road capacity by 25% or more, in effect increasing congestion for freight and so being anti-freight. A much better solution is for road authorities to choose to meter or gate traffic to prevent congestion. This has a lesser effect on capacity and permits traffic signals to be linked to allow platoons of traffic to pass through successive intersections, in a green wave, at about the speed limit. It is actually better for buses too because it reduces delays due to intersections.
2. Many car drivers do not value highly, their need to travel by car and it is well known that a very small increase in trip time will cause them to change mode, usually to a bus. The time saving by the removal of congestion is highly valued by freight and some other car drivers such that removal of congestion is economically justified, the saving to freight and some car drivers far exceeding the value of those who have switched to the bus, ***providing*** either the capacity of the road is increased to better than before, or vehicles are able to jump the queue at the metering or gating site. It follows that every freight route can be devoid of congestion, and can also deliver a green wave for traffic.
3. For the option where freight vehicles jump the queue, there are standard arrangements for high priority vehicles to jump queues, usually provided for buses, but that could easily be extended to freight. Freight vehicles could be permitted to use the priority queue-jump for free.
4. For the option where the capacity of the road is increased, capacity can usually be increased by 70% using two-phase intersections, an outcome of relocating turn phases from the intersection to the intersection approaches. Often capacity is governed by just one intersection and that is all that needs to be converted to two-phase, or for cheaper and immediate impact, capacity can simply be increased by banning right turns. Two-phase intersections preferably are re-arrangements of lanes within the existing intersection footprint, are driver-friendly and have right turn cross-overs on the approaches, separating and therefore simplifying driving decisions yielding half the crash rate of a conventional intersection. This reduces the number of traffic incidents and consequent delays, as well as the safety aspect.
5. Road authorities could undertake to prevent congestion on freight routes (or generally), by metering or gating traffic and provide priority access and green waves for freight vehicles using the options above.

Freight Distribution

6. The most efficient vehicles for freight distribution, mainly delivering of parcels, groceries and food are aerial podcars like Metrino. Very low weight and smooth running enables running costs of 5c per vehicle-km, average speed of 60kph, reliable and predictable trip times within 10 seconds and un-manned capacity of 400kg compare favourably with other options. There is no other concept existing or planned that is anywhere near that performance.
7. The business case and technical design are sound and the system has been available since 2008 but has not been brought into production. It is considered that this is because of sovereign risk, particularly because transport is a government function, subject to popular demand, and therefore innovation is not possible. Governments do not spend development funds on a rational basis according to Infrastructure Australia, but in this case, where the required due diligence, test track and pilot route can be financed, so not funded, it is only a matter of having a political commitment.
8. While no immediate benefit can be expected, it is prudent to support developments in technology and the best prospects for technology for freight appear to be aerial podcars, and fortunately this can be done at no cost to the government, and can also serve another purpose than freight. There would be benefits to freight from removing considerable car traffic from roads.