

TRANSPORT

AS A TOOL FOR TRANSFORMATION

New processes are saving communities millions of dollars, creating new jobs, and producing safer and friendlier places. **Kobus Mentz** draws from his experience around the region to see what can be gleaned.

Councils and communities around Australasia are grappling with complex transport challenges which threaten to stifle their economies and weaken their communities. Typically they are either confronted with too much traffic, congestion and harsh environmental conditions, or too few linkages to satisfy community and business needs.

Yet some new approaches are delivering remarkable outcomes. They are now less traffic-centric than in the past and traffic modelling, while important, isn't the sole driver. Non-transport issues are considered concurrently. Solutions vary as they flow from the context and are evidence-based, not ideological.

THEY START WITHOUT THE LAWYERS

Conventional approaches typically narrow down a set of options then consult formally leaving parts of the community dissatisfied if the selected solution is one-sided. The new processes remain informal for longer, giving win-win outcomes the best chance.

Trade-offs are articulated, and where some interests lose out completely they show evidence of having tested their viability. Community acceptance is usually high and the formal processes less contested.

Specialised workshops are usually used to crystallise the complex challenges into deliverable solutions.

THE RIGHT SEQUENCE IS SET The sequence is critical in order to get credible

outcomes, build support and mitigate risk:

1. Core priorities, scope and method;
2. Preparation and information sharing;
3. Single discipline inquiry;
4. Integrated options;
5. Evaluation;
6. Consensus;
7. Formalise – move quickly to formal processes while stakeholder enthusiasm and political endorsement is high.

The involvement of key stakeholders, iwi and the public is threaded into the sequence as justified by the project.

CORE PRIORITIES ARE AGREED EARLY

Distinctions are made between initiatives that will induce unnecessary travel and those that will stimulate economic and community benefits. Consideration is given to limiting sprawl as its infrastructure costs can be double that for urban areas, and fuel usage can be up to 66 percent more.

The right core priorities helped the Melbourne 2030 Growth Strategy save a projected 14 percent in travel, 23 percent in travel time, and A\$25-\$43 billion over 20 years.

Public transport is taken seriously as the capital, operating and external costs to society of the car can be up to 47 percent more than the bus and 32 percent more than rail.

Here in New Zealand, Queenstown is considering channelling parking revenue towards public transport improvements while increasingly favouring visitor parking over commuter parking.

Wellington City Council considered future-proofing its options in the Adelaide Road project by locating a 'bus-as-tram' lane in the centre so as to eventually facilitate future light rail.

A CULTURE OF TRUST, ENTHUSIASM, AND OWNERSHIP IS CREATED

In order to build trust previous solutions are set aside for a fresh start. All technical knowledge is shared openly. Enthusiasm is generated by articulating the wider benefits of a successful outcome and 'ownership' when participants' ideas are taken seriously.

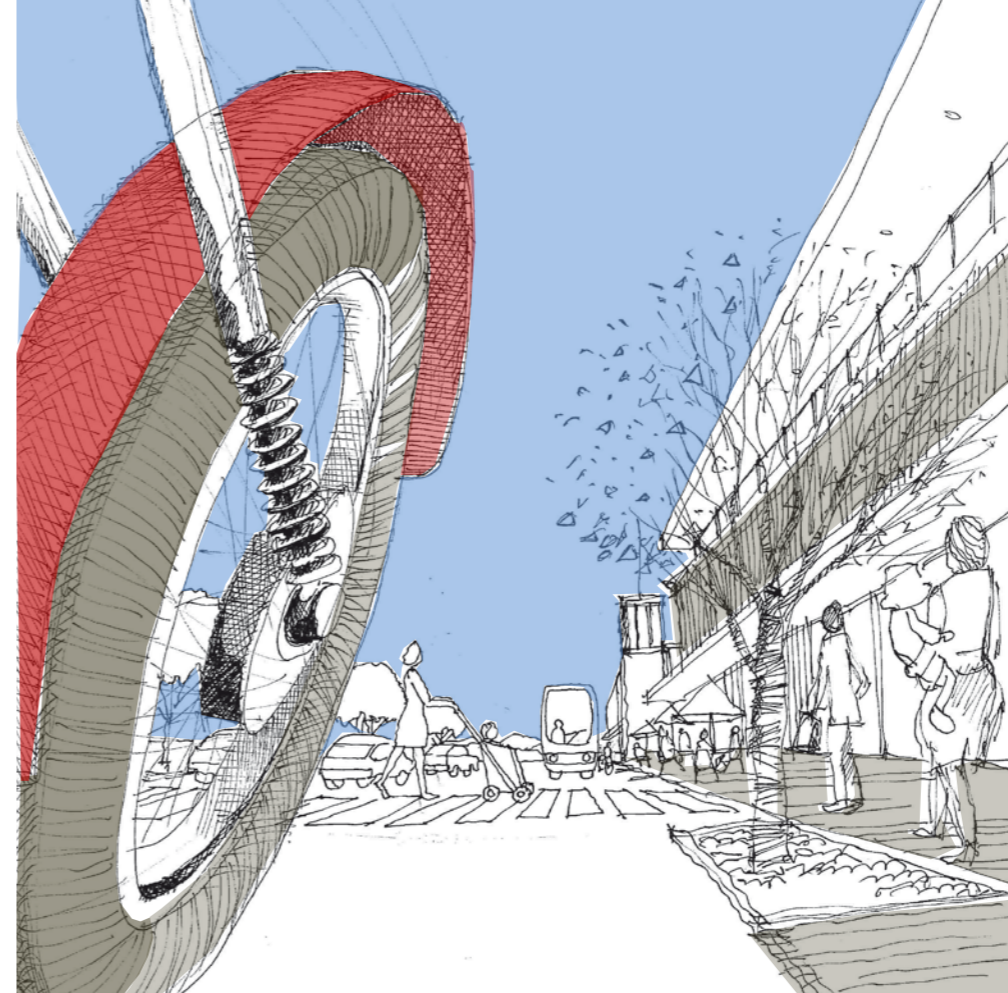
These principles proved effective in the recent East West Link project which aims to unlock Auckland's most congested freight area. Early preferences which were deemed harmful to several vulnerable communities resulted in tensions between authorities and agencies. These were reversed in a four-day workshop producing a more benign, yet highly functional, option with broad support.

THE RIGHT DISCIPLINES AND INTERESTS ARE REPRESENTED

To avoid outcomes being undermined downstream by omissions, social, environmental and economic issues are represented from the outset, even if only by a handful of specialists. Salient issues quickly emerge.

SHALLOW ANALYSIS IS AVOIDED

As shallow analysis results in shallow integration. Disciplines are facilitated to express their issues in-depth and define



and map their 'ideal' outcomes early on before engaging with others.

Non-transport disciplines are encouraged to produce their own provisional transport strategies allowing them to engage on an equal footing with the transport specialists.

TECHNICAL RIGOUR IS APPLIED

Critical elements, such as key intersections, are designed and tested on-the-spot using computer-aided drafting for accuracy.

Over in Victoria, Australia, at University Hill on-the-spot employment projections brought about a major shift in Whittlesea City Council's position on the design approach which in the end better facilitated its policy of creating jobs.

On-the-spot calculations are also provided which often avoids delays and costly reports. They can include: rough-order construction costs, development viability, housing yields, employment densities, retail and public transport catchments. Localised traffic modelling, as well as complex area-wide traffic flow modelling can be run overnight during the workshop for all the key options. Critical calculations are verified later.

At Wellington's Transmission Gully project, three alternatives for nine segments were thoroughly prepared,

allowing the selection process to save \$275 million on construction costs with improved urban and environmental outcomes.

EVALUATIONS REFLECT PRIORITIES

Collaboratively-produced criteria are weighted to align with the core priorities. Final preferences occasionally still require judgement calls by leadership.

INTEGRATED POSSIBILITIES ARE GENERATED

As these processes evolve, participants are able to deliver options which integrate arterials and all land uses, such as the state highway options for northern Christchurch. The location of the new town centre at Massey North, Auckland, is calculated to annually save \$70 million in retail leakage, 7.5 million vehicle kilometres, \$2.25 million vehicle operating costs, and 3375 tonnes of CO₂ vehicle emissions.

Movement and place are reconciled: Arterials are considered as corridors. Designs are varied to match the dominant transport functions, which in Auckland's liveable arterials are defined as freight, public transport, private vehicle and community 'preferences'.

Arterials' role as a 'place' is considered alongside their role as a 'link'. Conflicts that arise when 'place' constrains

movement, or the movement is destroying the place, are resolved through an inquiry-by-design process.

Where smaller settlements are divided by arterials, consideration is given to lowering speeds as vehicle volumes can increase with lower speeds due to shorter vehicle spacing.

Arterials that integrate, not divide, are favoured: Continued access is pursued through slip-lanes, left-in left-out streets, and on-site turnaround arrangements.

Connected street networks are valued: It is recognised that they:

- **Reduce distances travelled:** the connection of three culs-de-sac can save up to 25,000 vehicle kilometres travelled per year.
- **Enable local mixed-use economies:** 25-30 percent more jobs have been achieved in new public-realm-based town centres than segregated shopping centre / business and industrial park layouts.
- **Improve personal safety:** with up to 37 percent fewer burglaries, while houses in culs-de-sac and those backing onto parks have up to 22 percent and 37 percent more respectively.
- **Reduce peak hour traffic:** by up to 70 percent and shorten signal cycles.
- **Improve navigation:** especially with cross-roads which can be made as safe as 'T' junctions, and more pedestrian friendly than roundabouts.

Streets are made habitable: Narrower, low-speed streets with trees, and good pedestrian provision are promoted as at Harbour View in Auckland's Te Atatu Peninsula, where commercial performance changed developer attitudes in the region.

On-street parking is prized: The removal of on-street parking is questioned in the battle for extra bus, car, and cycle space, as this can degrade the environment and viability of local centres.

Cycling is championed: Where practical, cycle lanes are favoured but not in the main street.

For centuries, transport was deemed a servant to human needs. Currently we are at risk of turning this on its head through over-specialisation. These practical processes help to restore the balance. **LG**

• *Kobus Mentz is director of Urbanismplus which specialises in strategic urbanism. He wrote this article with assistance from Urbanismplus senior urban planner Susannah Goble.*