

## Thredbo 16: Continuing the competition and ownership story

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### 1. Thredbo lands in the Lion City

In August 2019, 162 delegates from 30 countries gathered at Nanyang Technological University (NTU) in Singapore to participate in the 16<sup>th</sup> *International Conference on Competition and Ownership in Land Passenger Transport* (Thredbo 16). Since its inception, the Thredbo conference series has documented best practice in public transport institutional reform, contract design and implementation, growing to encompass all topics in transport planning, policy, financing, data and funding (Wong and Hensher, 2018), with a wide range of market settings, modes and geographies represented (Bray et al., 2018). The conference is unique in bridging the divide between research and practice and Thredbo 16 was no exception with a roughly even split of delegates from academia and industry/government.

The objective of the Thredbo conference series is to provide an international forum to examine passenger transport competition and ownership issues, reporting on recent research and experience and developing conclusions on key issues. The focus is on determining the effects of different forms of competition, ownership and organisation for land-based passenger transport on operators, users, governments/funders and society as a whole. The conference series is directed towards a broad audience of policy makers, planners, government and political decision makers, infrastructure and service operators, consultants, researchers, academics and students, and is recognised as one of the most important international forums for the analysis and debate of competition and ownership issues in land passenger transport.

Thredbo 16 was the conference's first foray into Asia. The conference featured the usual plenary sessions, industry roundtables, keynote speakers and technical tours. The highlight of the conference, however, remained the in-depth workshops examining a curated series of key topics in detail—a unique feature of the Thredbo series (and seldom found in academic conference settings). A total of eight workshops were held in parallel streams over three days, featuring a total of 97 technical presentations plus co-creation sessions to design policy and research recommendations. These workshops are listed below, with each accompanying workshop report (developed by the workshop chair and rapporteur) provided in parenthesis:

- **Workshop 1:** Models of mainstream public transport provision (Preston and Walters, Forthcoming)
- **Workshop 2:** Practical considerations in implementing different institutional regimes (Velde and Alexandersson, Forthcoming)
- **Workshop 3:** Emerging business models and implications for the transport ecosystem (Merkert and Wong, Forthcoming)
- **Workshop 4:** Realising the potential benefits of demand-responsive travel (Currie and Wong, Forthcoming)
- **Workshop 5:** How much regulation should disruptive transportation technologies be subject to? (Smith and Theseira, Forthcoming)
- **Workshop 6:** Better service delivery through modal integration (Mulley and Yen, Forthcoming)
- **Workshop 7:** Assessing the wider benefits of public transport projects (Stanley and Stanley, Forthcoming)

- **Workshop 8:** Beyond the farebox: Sustainable funding of public transport by better understanding service values (Poon and Vickerman, Forthcoming)

The purpose of this synthesis report is to identify the broad range of strategic issues which emerged as key defining issues in Thredbo 16. Whilst there exists a broad alignment of each issue with the eight workshop topics, there are also a number of cross-cutting themes identified which are treated here in a standalone format. Issues were selected based on an assessment of each workshop report, workshop presentation and selected technical papers presented during the conference. This report concludes with a number of recommendations in terms of possible workshop topics and conference directions for Thredbo 17 in Kobe, Japan (2021).

## 2. The role of ownership

One of the recurring themes of the Thredbo 16 conference was the role of ownership, which was explored in a number of workshops, as exhibited by the workshop reports and presentations. The issue was first sparked by the Managing Director of Go-Ahead Singapore who, in the opening plenary, remarked how fantastic it was to operate in the asset light bus contracting model (BCM) of Singapore (Sections 4 and 5 consider contract design and their practical realities). One is reminded of many other asset light business structures which have prospered in recent years (e.g., ridesourcing, discussed in Section 6)—many built on the peer-to-peer model of the collaborative economy (the “everything as a service” mentality). Workshop 3 discussed how in the railway and airline markets, vertical separation has brought about new business opportunities for rolling stock leasing companies (ROSCOs) and aircraft leasing companies (some of which have even ventured into operations through ‘wet leasing’—e.g., HiFly). Holding companies (e.g., MTRC, International Airlines Group) are another product of recent trends and developments in ownership and business structures and are a way of managing risk and maximising returns (Merkert et al., 2020).

The merits of the government ownership of bricks and mortar and vehicle assets in the public transport sector (particularly buses) caused great contention and debate at Thredbo 16. The impetus for government asset ownership is often driven by the desire to lower the barrier of entry and to maximise the available number of interested bidders in a competitive tender. This has certainly been the motivation for the BCM in Singapore (Goh and Swee, 2017). Sometimes, the desire for greater standardisation and integration also comes into play (c.f., Section 7). A key question is whether it is desirable for government to hold such assets on its balance sheet. The contrary view was made that businesses are not just built on financial returns but return on capital as well—the latter of which cannot be extracted under government asset ownership.

Linking back to the Singapore case, there exists the classic case of correlation versus causation in terms of how much of the success of the BCM may be linked to its particular asset ownership model. Workshop 3 concluded that the Singaporean context is very different to other locales with its very forward-looking authority which had adequate money, resources and capability. Government ownership of assets allows quicker technological adoption (with links to asset life) which other jurisdictions simply do not have the appetite for. As such, it is clear that the particular objectives and underlying context comes into play in terms of determining what asset ownership approach is most appropriate. What is required is not a myopic, blind pursuit of a *process* goal (of a contract specification) often driven by dogma and ideologism, but a better appreciation of nuance in ensuring that context-specific institutional structures are put in place, guided by clear *end* goals. The need to take a broader view is a recurring theme and considered again in the context of economic appraisal and funding challenges in Sections 8 and 9.

### 3. Business models, value propositions and risks

Another cross-cutting theme relates to risk, value and the business ecosystem. The allocation of risk is a core Thredbo topic which influences the choice of market arbitration and contract design. One of the classic Thredbo recommendations on appropriate risk sharing between the authority and operator is that risks should be allocated to the party that can best manage the risk. This is often difficult to determine, and Workshop 2 concluded that inadequate risk allocation in the past may have triggered a revolving re-allocation of (arguably unmanageable) risks. This is akin to the idea of regulatory cycles, an important Thredbo cornerstone initially proposed in Gwilliam (2008).

Many industry participants at Thredbo are bus operators. Workshop 3 hence considered a case study involving bus operators, arguing that the ability to carry risk serves as a central value proposition for a business and, by extension, determines the viability of its business model. The present trend has seen de-risking on both sides of the operator in the value chain: on the manufacturer side with vehicles-as-a-service and the ever advancing (digital) capabilities of buses with many defects/maintenance requiring the expertise of the original equipment manufacturer (with links to new technologies like autonomous and electric); and on the government side with the government ownership of assets and management contracts. In some markets (e.g., Singapore), government even manages the hiring and training of bus captains (through the Ministry of Manpower and Singapore Bus Academy). In Darwin, Australia, the government even undertakes crew scheduling and development of rosters for their contracted bus operators. Bus operators therefore become nothing more than an organiser of labour and are vulnerable to being squeezed out of the transport ecosystem (e.g., think a bus manufacturer putting drivers on their products and suddenly being able to take the role of a bus operator). There are many parallels of such developments in other sectors where such intermediaries have failed to adapt and hence been disrupted out of the sector—e.g., Blockbuster, Borders, Kodak. There is hence value in bus operators maintaining some risk (those they are best placed to take up) and the ownership of assets like depots and buses is critical to this mission.

The need to diversify also forms the impetus for how incumbent operators of passenger services might like to broaden their customer base and revenue streams to become a broker or aggregator of mobility as a service (MaaS). MaaS is a popular business ecosystem being touted to provide a one-stop shop experience for customers across a range of different modes (Wong et al., 2019). It embodies the ideals of modal integration (c.f., Section 7), but also brings with it, governance challenges (Section 6) in terms of how such a service will be delivered and regulated.

### 4. Best practices in contract design

The operator/regulator relationship is complex and lies on a spectrum which may be marked by the extreme notions of economic deregulation and public monopoly. Early Thredbo conferences (in the 1990s) identified the weaknesses of these extremes in great detail (Wong and Hensher, 2018), and so successive conferences over the past two decades have been devoted to refining the ‘middle ground’ of contracted and franchised regimes. Workshop 1 continued to explore this flagship Thredbo theme in reviewing developments in the contracting-out of public transport services.

The workshop made several recommendations around oft-neglected dimensions of contract design. The first relates to the need to consider not only the relationship between the operator and the authority, but also that between the workforce (especially frontline employees) and the operator. In many settings, the tender scenarios offer transfer arrangements for operating staff during contract transitions. This is immensely important to achieve buy-in for institutional change from the workforce and their representing union, especially when transitioning from a public operator for the very first time. Beyond this, there is scope to consider what role workforce incentives might play in the design

and specification of public transport contracts. This is perhaps an avenue for operators to demonstrate their value proposition in an increasingly homogenised market (c.f., Section 3).

Workshop 1 identified that there is a global move away from contract incentives—indeed, Singapore’s BCM has no such patronage incentive. This is consistent with the growth of gross cost and management contracts discussed in Section 5. However, network-level incentives to enhance integration should be further researched and pursued. There exists an important interface between network design and contract design, including around the definition of contract boundaries (both geographic and modal), as well as more operational specifications around the design of the service offering (routes and timetables). The idea here is linked to how future business models (Section 3) and multimodal contract offerings might help in endogenising modal integration (Section 7).

Workshop 1 also looked to the future for how contract design might evolve. The workshop offered the following view around the increasing blur in boundaries over who constitutes the tendering authority, as well as greater hybridity in the design of contracts and the award mechanism:

*“With respect to governance, we might expect devolution, regionalism and localism to continue to impact on public transport provision, with new forms of combined authorities emerging. We might also expect the boundaries between competitive and negotiated contracts to be more blurred and continued experimentation with hybrid contractual arrangements. Our assessment is that in effective mature markets the balance between operators and authorities is finely tensioned. In less effective, less mature markets, authorities are often ineffectual and inconsistent. In some mature markets, there are dangers of cartelisation, where the dominant operators have effectively captured the authority.”*

A major recommendation from Workshop 1 is to develop a Thredbo knowledge compendium as a one-stop shop for accessing best practice design principles and assessment frameworks on institutional reform and contracting-out options in the public transport sector. Whilst past Thredbo conferences, the Thredbo website and published papers (as *Research in Transportation Economics* special issues) are indeed a valuable resource, these materials may be less accessible to transport practitioners like policymakers and consultancies.

Rather, what is suggested is a contract design guidebook co-developed by the Thredbo community aimed specifically at practitioners. This can be similar to *The BRT Standards* produced by the Institute for Transportation and Development Policy (ITDP, 2014) and other guidance documents developed by non-profits like the Transit Centre and the Eno Center for Transportation, as well as supranational organisations like the World Bank (which themselves often rely on Thredbo contributions as empirical evidence). A Thredbo-developed guidebook would constitute a way for people to get information “from the horse’s mouth”, and its initial development can be modelled off review-type papers like Hensher and Stanley (2010) and Hensher et al. (2008) (which introduces the idea of the ‘ideal contract’). Examples of useful content to include (and how they could be structured/segmented) are listed in Table 1. Specifically, the document will need to outline the range of reform options available, including different award mechanisms, contract designs and specifications, and in what mode, geographic and market maturity settings each option is most ideally suited for.

Table 1: Key issues in the contracting cycle (Preston and Walters, Forthcoming)

<b>Market geography and maturity</b>	<b>Setting up the competition</b>	<b>Contract specification</b>	<b>Contract award</b>	<b>Contract review and enforcement</b>
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Less mature urban market - Unimodal (bus) (after Walters)	CfEoI. Briefing. RfP. Clear commitment. Sufficient time. Sufficient & accurate data. Funding.	Institutional maturity Keep it simple. Small batches, up to depot scale. Market development. Elements of environmental specifications.	Gross costs with unreliability penalties.	Cost escalators. Demand & Supply data.
Mature urban market - Multimodal (bus and rail) (after van Oort et al.)		More advanced. Depot scale (100 buses). Environmental specifications.	Gross costs with quality incentives.	
Mature inter-urban market - Unimodal (rail) (after Preston)		Route scale.	Net subsidy with quality incentives.	Cost escalators. Revenue modifiers. Demand & Supply data.

## 5. The regulator/operator dynamic

Thredbo is characterised by intellectual debates on key issues of contention which transcend individual conferences. Two such issues are the relative merits of tendering versus negotiation (Wallis et al., 2010), and gross cost versus net cost in terms of revenue allocation (to the regulator in the former and operator in the latter) (Stanley and van de Velde, 2008). These two usual topics of debate appeared to have subsided somewhat in Thredbo 16, as informed Workshops 1 and 2. Workshop 2 saw some level of overlap with Workshop 1, but was unique in exploring the *practical* aspects of implementing reform and maintaining the tension between the operator and the regulator. The workshop also explored the benefits and challenges of encouraging or regulating foreign public transport operators to participate in the bidding process.

The main recommendation of Workshop 2 was to increase the strength of the public transport authority and to opt for gross cost contracts wherever possible (already the norm in many markets). Part of this is influenced by the local operating regime in Singapore. The view was offered that the “authority is given more authority in Singapore” (also echoed in Workshop 3), and hence able to transcend the practical realities of the political process (to the envy of people in other countries). With regard to revenue allocation, Workshop 2 considered that passenger growth through net cost contracts appeared, on balance, to be illusionary. It was recognised that most influencers of patronage, at least in the urban setting, were not under the control of the operator. Gross cost contracts have also been proven to be much simpler to administer, and easier to transition to a net cost regime when required (rather than vice versa from gross cost to net cost).

The workshop found that the role of the political context and political leadership were often disregarded in research on alternative institutional regimes. Often, any change or reform requires a ‘trigger’, which might include the arrival of a new administration, presence of a concrete crisis (e.g., COVID-19), or changes in national/supranational (e.g., European Union) laws. Further, it is important

to avoid the temptation to think that change is always for the better (and indeed, what is better?) and to recognise that it is far easier to diagnose the problems, than to find their solutions.

Workshop 2 also offered a range of helpful advice with respect to running contract tenders. Firstly, standardisation is helpful to enhance the predictability and confidence in the tendering process, although too much emphasis may mean rigidity and be an obsessive and illusory target. Paying attention to properly devising the evaluation procedure, including using double valuation teams, helps to build confidence in the system amongst bidders, by helping to prevent the cross-pollination of bias, errors and other issues between evaluators. Too many quality criteria, however, can add too much complexity and result in difficulties in the awarding model. In the case of a tender not having enough bidders, then one approach may be to consider unbundling parts of the production chain to be awarded separately (thereby reducing the barrier to entry). The workshop also called against aiming for a 'dubious' perfection, noting that it is "better to inherit a bad structure with good people than a good structure with bad people".

A major diagnosis of Workshop 2 relates to how tools like contracts and competition fit within a set of wider policy objectives (a similar lesson to Sections 8 and 9). Rather than fixating on the 'tool' of contracting-out, it is better to align the broad goals between stakeholders, find the level of agreement and allow it to act as a reference point for the development of reform plans and options. Too often, the reality is inversed and contracting-out is seen through a myopic lens as a panacea for all sorts of challenges:

*It was argued that contracting cannot be viewed only in technical/efficiency terms and that competition cannot be viewed only as an administrative/regulatory mechanism in mature markets.*

Workshop 2 took the view that we may be (re)developing greater public sector involvement in the public transport sector. The external shock of COVID-19 certainly supports this observation as many net cost operators seek emergency funding support and gross cost operators seek to invoke 'force majeure' clauses in their contracts. The exhibition of yet another phase of the 'regulatory cycle' necessitates that experiences and lessons with public production in past decades are heeded to. Challenges will ensue in ensuring that public entities are competent and efficient, as much as they can be as compared with their private sector counterparts.

## 6. Technology, regulation and governance

New technologies bring a number of implications for the transport ecosystem, including on physical service offerings, as well as the regulatory/governance interface (for instance, with new data generators which enable far more sophisticated contract management capabilities to be realised). The cross-cutting nature of these implications meant that technology was considered within the remit of a number of Thredbo 16 workshops. Workshop 1 looked at the role of regulatory sandboxes to test new technologies and regulations. Workshop 3 considered how technology was driving the emergence of a number of new business models, including MaaS. Workshop 4 considered the service design and management of demand-responsive transport (DRT), as a major beneficiary of technological change. Finally, Workshop 5 brought many of these issues together in looking at the governance requirements of new technologies and services. The focus of this section is on Workshops 4 and 5.

Early Thredbo conferences in the 1990s saw a number of contributions on "unconventional modes", describing essentially what has evolved today in a digitally enabled form as DRT or microtransit. Workshop 4 considered the development challenges, user perspectives, and the design/planning

experiences of DRT. As a point of context, the workshop was held against a backdrop of an at times dogmatic desire to ‘uberise’ mainstream public transport (Mulley and Kronsell, 2018), often led by transportation network companies who are at the forefront of developing new business and funding models (Workshop 3). The stark reality, however, is that more than half of all DRT schemes introduced in the world have failed, as indicated by Workshop 4 paper Currie and Fournier (2019). Workshop 4 hence sought to break down the promise and realities of DRT, and to determine whether it is desirable that they be mainstreamed.

One of the key constraints of DRT relates to clarity—both in terms of purpose and the cost of providing the service. Workshop 4 questioned whether DRT was trying to reinvent the wheel, especially in the context of the many trials where the purpose of implementation is often unclear (some commentators call these “trials for trials’ sake”). The workshop argued for the need to begin with the objective, rather than the solution (that being DRT):

*“Policymakers embarking on any DRT project should begin with clearly defined objectives and sufficient resources to be able to achieve those objectives.”*

To help with identifying the policy objective and assessing whether DRT is suitable, there is a need to better quantify the benefits of DRT services. This involves ex-post evaluation of DRT schemes so as to avoid lessons not being learned or wheels being reinvented. To aid in this, there is a need to better develop DRT key performance indicators, including looking at employing minimum vehicle occupancy targets and caps in vehicle kilometres travelled.

Clarity around the benefits of DRT services is also important, as it pertains to the costs of providing DRT (or more accurately, its relative cost as compared with an established baseline). One of the greatest difficulties is in defining what is this baseline subsidy rate (the counterfactual). Usually, this is a fixed route bus service that the DRT replaces, or more bespoke community transport or special needs services which often have an independent funding stream/mechanism (e.g., what is provided for under the Americans with Disabilities Act in the US). This requires clarity in the rationale/objectives of the DRT service, which would likely vary according to different spatial contexts (rural/suburban/urban) and end user markets (commuters, elderly, etc.). As a normative determination, this is often easy to get politicised, leading to criticism and can result in government being apprehensive in the use of public funds. Again, the role of politics is under-researched amongst Thredbo contributions.

This governance interface is the focus of Workshop 5, which looked at the challenges of regulating emerging, disruptive technologies. The scope of the workshop included how policies and regulations drafted, negotiated, ratified, implemented and analysed, as well as the impacts of policies and regulations (both intended and unintended). One of the major sources of tension for government is in finding the right balance between enabling new services, practices and entrants to emerge, whilst also ensuring adequate and equitable service delivery, a fair and competitive landscape and fulfilment of policy objectives. Again, the lack of clarity around the stated/unstated objectives of regulation is a shortcoming, especially given that these are highly contextual and situational.

Workshop 5, through the presented papers, explored the regulatory experience of three topical technologies—ridesourcing, autonomous vehicles and MaaS. The workshop noted that ridesourcing generally succeeded in cases where it had been legalised, although questions remain around government oversight, effects on travel behavior, work conditions and job security, as well as the compensation of incumbents (taxis). The present regulatory pressures affect these existing stakeholders, whereas for autonomous vehicles and MaaS, the focus is more on enabling

experimentation and innovation (Smith and Hensher, 2019). Indeed, governments may even be said to be competing over creating the most conducive conditions for experimentation with autonomous technologies (again a reference to “trials for trials’ sake”).

The role of the ‘governed’, or private enterprise actors, is also an important consideration. The workshop noted that MaaS had far weaker lobbying power than the autonomous technologies industry, since they are led primarily by startups and the odd non-profit association (like the MaaS-Alliance), rather than established technology companies and automotive incumbents with far greater lobbying power and deep pockets. In terms of ridesourcing, the workshop saw how possible adverse impacts on taxi incumbents (and the perceived popularity of the taxi industry) influenced government positioning on new ridesourcing entrants:

*“Significant lobbying elements from both proponent and adversary actors were moreover identified as to influence how governments approached ridesourcing. The governments’ choices to either pave the way or block ridesourcing (or something in between) seemed to, at least in part, come down to the reputation of the incumbent taxi industry and whether it was organized enough to fight off ridesourcing.”*

Workshop 5 concluded with a series of very comprehensive and systematic policy recommendation insights. These policy recommendations and accompanying descriptions are presented in Table 2.

*Table 2: Key recommendations from Workshop 5 on regulating disruptive transport technologies (Smith and Theseira, Forthcoming)*

<b>Recommendation</b>	<b>Description</b>
Establish the baseline	Establish the current social purpose/role(s) of the markets that might be disrupted
Set the ambition	Pin down and disseminate inspiring visions and realistic societal goals to align activities
Investigate institutional fit	Consider how the service fits with current regulatory frameworks and ongoing agreements
Open up for dialogue	Involve both incumbent and emerging actors when shaping policy (including possible losers)
Cater for flexibility	Design broad legislative frameworks addressing pressing issues, but with flexibility for local variations and evolution over time
Use light but firm touch	Allow some initial leeway but shape markets through proactive policies and investments
Engage in exploration	Participate in collaborative experimentation in order to share local and domain knowledge
Prepare for data sharing	Ensure that information is standardised, reliable and available as well as shared (both ways between operators and regulators)
Analyse societal effects	Implement mechanisms for following up on direct and indirect as well as the short- and long-term effects of technology/policy
Be curious but cautious	Have an open mind but evaluate how tax dollars are best spent

## 7. Endogenising modal integration

Whilst modal integration was the explicit, dedicated focus of Workshop 6, the integration objective itself also manifested itself in Workshop 3 on multimodal business models (like MaaS), as well as Workshop 1 in terms of how contract design needed to account for network objectives. Workshop 4 on DRT also cited the complexity of the service offering and the technology proficiency of the public



as key constraint in the successful implementation of DRT. The possibility to integrate such services under a multimodal MaaS platform was heralded as a major future opportunity.

Workshop 6 aimed to bring these discussions together by investigating the tension between ensuring integration and meeting governance objectives, including in the context of maximising competition. The workshop revealed a critical lack of depth in terms of the motivation for, and the many facets of MaaS, amongst the research and practitioner communities. For instance, there has traditionally been a myopic focus on integrating specific modes in a physical sense, as opposed to considering the organisation, data integration, and even land use factors which are equally important. Integration also needs to be adapted to apply to both transfer dependent systems (feeder to trunk routes) and less transfer dependent systems (open rather than closed BRT systems).

A schema was hence developed (Figure 1) to better communicate the many layers of integration, inspired by van de Velde (1997)'s STO (strategic, tactical, operational) framework—another Thredbo cornerstone. At the centre of the diagram is what integration is ultimately operationalised as an end-to-end user experience (making seamless from the decision to travel, to the conclusion of the trip/activity). A number of tactical factors help to make this possible, including information and fares integration, as well as contractual and network elements helping to enable integration. The provision of integrated information (in green), for instance through journey planning applications, is arguably more advanced at present than the level of integration demanded contractually. On the outside of the diagram are research activities (of which Thredbo is part) and regulatory measures which help to enable those tactical-level functions.

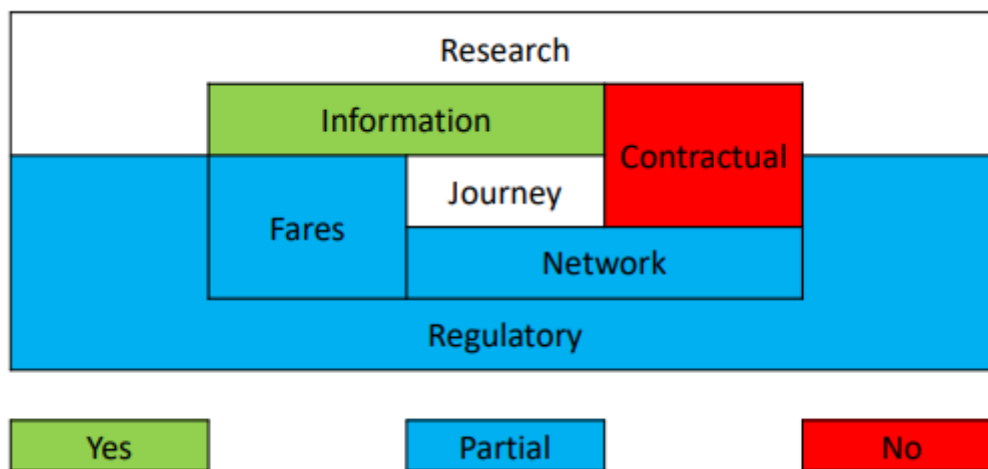


Figure 1: Integration consists of many layers. The provision of an integrated end-to-end journey is dependent on a number of tactical factors (middle ring) and strategic influencers (outer ring). The colours show how well each factor was assessed to be in enabling integration (Mulley and Yen, Forthcoming)

On the issue of contractual challenges, Workshop 6 pointed to several challenges herein. Firstly, levels of responsibility and access to finance continues to vary greatly between and across different levels of government. A siloed mentality may arise even within a single level of government. In these instances, passengers need to understand the institutional set up to benefit from any form of integration (particularly the case for fares). Secondly, integration is seen as a cost, due to a poor understanding of the benefits of different integration options. A classification framework was suggested that can allow policymakers to see how adding an extra 'layer' of integration would add to efficiency, particularly in first/last mile contexts.

Workshop 6 made the important point that integration is only as good as its ‘weakest link’, showing the crucial role of the first and last mile. This also relates to how policy formulation and operator viewpoints linked to key performance indicators (like on-time running) might conflict with integration objectives (such as waiting for a late-running connecting service). The aim, therefore, is to ‘design in’ multimodal integration, aided by a set of a best practice governance arrangement. The potential role of multimodal mobility contracts (linked to the idea of MaaS) can help to endogenise this integration problem:

*Papers on holistic approaches to journey integration would be topical for Thredbo 17. These could include the potential role of mobility contract which could be seen as endogenising integration and the role of MaaS in an integrative framework.*

## 8. The bigger picture in economic appraisal

Workshops 7 and 8 both argued for an inversion of typical processes in the contexts of appraising the capital costs of projects and infrastructure (Section 8), as well as operating costs in terms of public transport subsidies outlaid (Section 9). The traditional analytical setting for a project impact assessment is rather narrowly focused on just user benefits/costs (e.g., travel time savings). Better analyses also take into account system internal benefits/costs, such as network benefits. The most comprehensive methodologies also incorporate system external benefits/costs, such as externalities and agglomeration economies. These are often termed ‘wider’ economic benefits.

Such a designation is inherently problematic because it varies according to context or the assessment framework. Wider benefits cease to be wider if the planning/policy process is framed around a societal goal-oriented setting. This is an important distinction because it shifts the focus away from a project or initiative impact assessment to project definition through needs identification, founded on societal values. Workshop 7 noted:

*Participants argued that a preferred approach is to concentrate on identifying (triple bottom line) societal goals and identifying initiatives to achieve those goals, in which case ‘wider benefits’ become core rather than add-ons. This shifts the planning/policy cycle focus to the starting point: need identification and initiative definition, as distinct from narrowly based impact assessment of initiatives conceived elsewhere.*

The societal objective may be defined as an integrated land use, transport, housing and governance strategy. The workshop noted that Vancouver, Canada, was often hailed for being a model of a compact polycentric development pattern most likely to be appropriate for larger cities (and as a pattern for regional development). All cities and regions should publish and implement a vision and long-term development strategy to deliver triple bottom line benefits for residents and visitors. More specific measures like minimum service levels for social inclusion and greenhouse gas emission reduction targets can also be defined as *absolute constraints* within these strategies.

Workshop 7 also shared a number of broader perspectives. There remains a fixation on large, big ticket items, often due to their political popularity. Packages of smaller initiatives (which often perform better in cost-benefit analyses) should receive equal recognition. Secondly, the discount rate in social and environmental disciplines need research, especially in light of the present unprecedentedly low global interest rate environment.

## 9. A broader view on finance and funding

Workshop 8 closely aligned with Workshop 7, in arguing for a broader perspective, but on the treatment of finance and funding. The workshop argued that policymakers' focus ought not to be on intermediate (output) objectives like cost efficiency or subsidy reduction, but rather final (outcome) goals like better accessibility/mobility for the end user.

In most cities around the world, funding via the farebox is usually quite limited, often accounting for just 30-80% of public transport operating costs. This leads to pressure on the exchequer and a desire to contract-out (amongst other measures) as ways to reduce the subsidies outlaid. Workshop 8 argued that there should rather be a focus on delivering "optimal mobility" across all modes (bringing into mind modal integration objectives in Section 7), rather than exclusively focusing on the provision of sustainable funding to public transport. This involves allowing for a level of cross-subsidisation, both between transport modes and across market sectors. For instance, road pricing could be developed as a revenue earner to help support public transport (London is a proven success story). This will require a level of political commitment, and the transparent hypothecation of revenues to reinforce trust, but in doing so can help create shared societal value. Land value capture is another strategy which integrates the property sector with transportation (popular in Japan and Hong Kong). Workshop 3 also noted the role of new market entrants in the mobility sector (i.e., technology players who have previously not ventured into transport operations) whose entire business model is predicated on cross-sector harmonisation and the blurring of traditional sector boundaries. These constitute innovative new ways of conceptualising finance and funding.

In taking a broader view from a policy perspective, Figure 2 was developed to illustrate the need to move away from a myopic concern with sectoral and linear relationships, to recognising a more all-encompassing complex set of multi-directional interactions. With sustainable transport (or optimal mobility) at the centre, the middle ring outlines a set of policy instruments which can be used to attain this objective. The outer ring then offers the various set of factors, or inputs which will determine the appropriate mix of policies and policy instruments, categorised by technological, governance and behavioural. In closing, this important reflection was made:

*"Formulating policy is thus not a straightforward set of linkages between instruments and objectives but a more nuanced understanding of a matrix of factors and their impact not just on the direct transport outcomes but also on the way people understand and value aspects of the transport services available."*

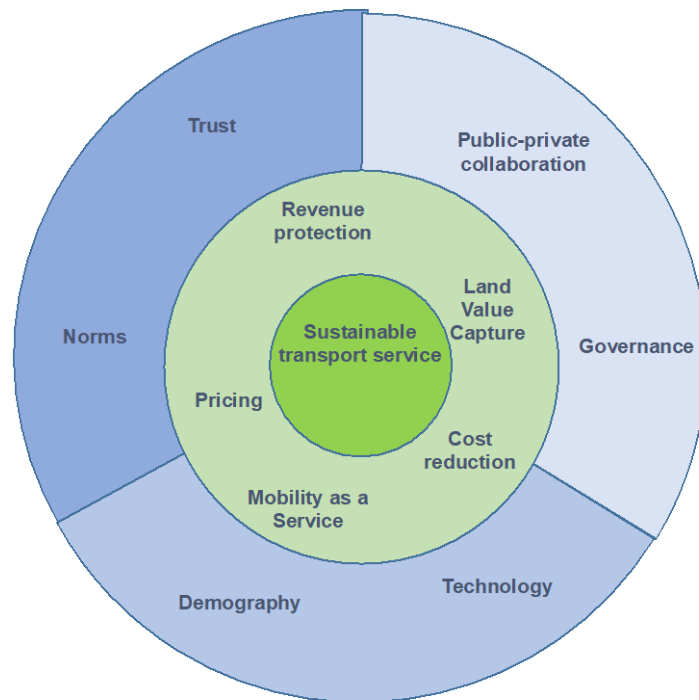


Figure 2: Conceptualisation of elements in a sustainable transport system (Poon and Vickerman, Forthcoming)

## 10. Towards Thredbo 17

Thredbo 16 proved to be very well received by both Thredbo ‘regulars’ and new attendees. The conference continued the Thredbo story to document the latest global experiences and to continue the Thredbo competition and ownership journey. This report reflected on a number of cross-cutting themes which emerged across different workshops during the conference. Important lessons were learnt around the role of ownership, new technologies and business models and how these will need to be regulated and governed, including via new contract designs and specifications. The important role of context, politics and other practical realities resonated across virtually all workshops. Sections 8 and 9 sought a broader view in a number of policy facets. It is this bigger picture thinking which motivates the below recommendations for how Thredbo topics might need to be refined in preparation (perhaps as candidate workshops) for Thredbo 17 in Kobe, Japan (2021):

- Move from ‘regulation’ to **‘governance’**, to open up for a broader understanding of government activities
- Move from ‘disruptive technologies’ to **‘emerging mobility’**, thereby not seeing the future mobility landscape through the lens of the existing paradigm
- Move from ‘transport’ to **‘mobility’**, to focus on accessibility impacts on end users rather than physical service delivery
- Move from ‘technology’ to **‘service’**, to focus on the value of technology, rather than the technology itself
- Move from ‘business models’ to the **‘transport ecosystem’**, recognising that many challenges are beyond the realm of traditional firm boundaries, but rather affect a broader network of actors and agents
- Move from ‘process goals’ to **‘end goals’**, thereby internalising wider economic benefits
- Move from ‘finance’ to **‘optimal mobility’**, to enable a more complete funding model for the transportation sector

In terms of conference direction and its real-world policy impacts, the idea was put forth in Workshop 1 to develop a Thredbo knowledge compendium. An accessible report format will help to bring added

value to the rich diversity of research and experiences and bring Thredbo on par with supranational organisations (like the World Bank) who are often heralded as ‘thought leaders’ by the practitioner community. Some critique of the conference also emerged, although this is by no means isolated to the Singapore edition. The concern was raised that Thredbo offered a somewhat limiting view since all content contributions were seen through the lens of competition and ownership (including as it relates to contracts). Others point out that Thredbo has strayed too far away from its original purpose and become somewhat of a generic transport conference. As Thredbo evolves, it is important to determine to what extent Thredbo might continue to be niche and how much it wants to broaden to attract a more generalist transportation audience.

A significant global challenge which has emerged since Thredbo 16 is the COVID-19 pandemic, with significant ramifications on the transport sector, its funding and governance. How well is the transport industry prepared to weather these ‘black swan’ events? Has the continual focus on cost efficiency meant that there is now less capability to ‘scale up’ in times of crisis—such as to implement rigorous sanitation regimes or to run an emergency network at short notice? Authorities worldwide and the Thredbo ‘narrative’ have encouraged the build-up of very successful and ‘lean’ operators, which are a point of credit but also a source of potential policy conflict and tension going forward. The next edition of Thredbo will make for interesting case studies on the issue and bring clarity as to what is required to ensure that the land passenger transport sector can be more resilient and adaptable.

For more information

*The 17th International Conference on Competition and Ownership in Land Passenger Transport (Thredbo 17) is being held 5-10<sup>th</sup> September 2021 in Kobe, Japan, jointly organised by Kobe University and the Institute of Transport and Logistics Studies (ITLS) at the University of Sydney.*



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