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# The transit transformation Australia needs

Beneficiary funding as a natural and necessary evolution in mass transit planning, policy and delivery.

A discussion paper by  
Chris Hale Infra Strategy in  
partnership with  
Prosper Australia.



**Hale**

Infrastructure - Transport - Economics - Policy

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# Introduction

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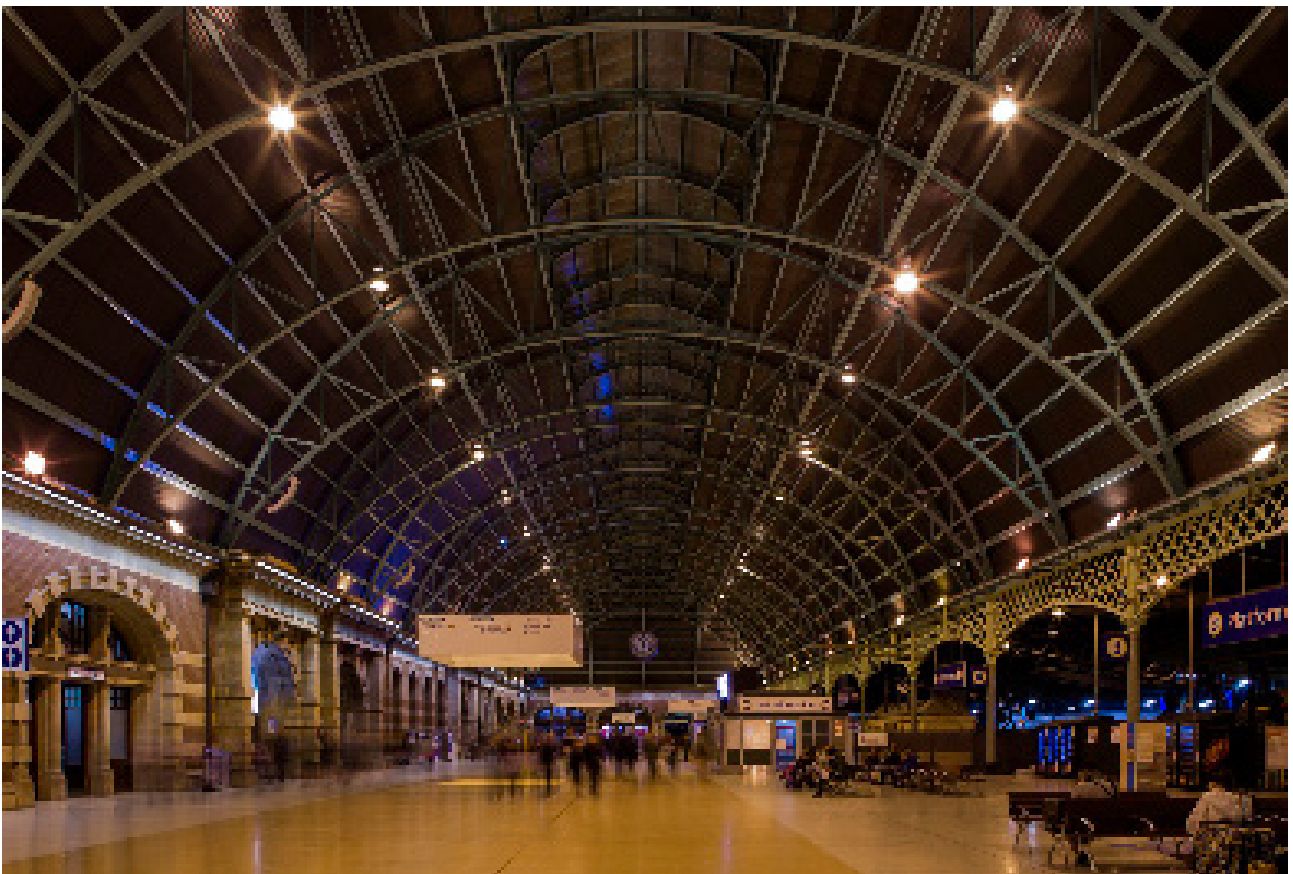
***“A well planned public transport network brings a city closer to itself.”***

A well planned public transport network brings a city closer to itself. It creates value for its citizens by reducing the distance between neighbourhoods. Businesses gain access to broader markets, and land value grows through quicker access to CBDs and major centres. People are brought closer to their friends and loved ones, are exposed to greater possibilities of work, and are able to reach their workplaces without the drama of traffic standstills or sardine-can train rides.

Visions for this modern, connected city where people are able to move easily over distance, and through densely populated areas are not far-fetched dreams, they are realities for many of our Asian neighbours and ‘competitor’ economies, and among many European cities.

However, it’s not simply the *shortage* of rail and other transport that has set us back from achieving modern cities for Australia. Our *imagination* and handling of the value created by transit are faulty.

Our policy toolbelt for funding the bold new projects we need to drag our cities and our daily lives into the twenty-first century is itself long overdue for an upgrade.





***“Our policy toolbelt for funding the bold new projects we need to drag our cities and our daily lives into the twenty-first century is itself long overdue for an upgrade.”***

For too long, instead of looking to our global neighbours for policy and practice leadership, we have shrugged our shoulders and pined for easy answers. This easy road has involved public-private partnerships and programs based around runaway borrowing, regardless of the long-term sustainability and workability of those approaches.

The current infrastructure funding paradigm in Australia obsesses over an artificially narrow list of ‘old-fashioned’ transport project benefits; decreased travel time for users and less congestion on the roads is about as far as the imagination stretches. We fall radically short of measuring the true depth of value created via a well-planned strategic transport project. The delivery of greater economic productivity and increases in land value are viewed as second-order externalities instead of core components or even *primary purposes* for transport projects.

A smarter and fairer approach to upgrading our transport networks would acknowledge, foster, and intelligently tap this value creation stream – working with mass transit’s proven global ability to at least partly pay its own way. Leveraging the increase in wealth resulting from land value and productivity gains has been a reliable funding pathway for the twenty-first century’s most renowned transport systems.

This paper outlines and promotes five of the key funding mechanisms used to do this:

1. **Capturing value through the mainstream tax system;** borrowing from future revenue increases that result from economic expansion delivered by major projects (Tax Increment Financing)
2. **Special fees or levies** to capture land value increases delivered by transit system development, or by changes to development rights
3. **Auction or sale of development rights** for transit-associated property
4. **An urban renewal authority** working to direct value creation and capture through land use mechanisms in harmony with major transit projects
5. **‘Direct property’ activities** as an income generator for transit agencies.

We don’t need to wait until 2050 to create transport systems that we need for our cities. We can build what we need within a tightly-managed 10-15 year horizon - if we work diligently and collaboratively across the urban planning, transport and policy spheres to deliver this necessary paradigm shift.

A significant program of work is required to educate planners and policy makers on the nature, evidence, techniques, and usage of important emerging funding mechanisms that will unlock the future cities we all want to live in.

***“We don’t need to wait until 2050 to create transport systems that we need for our cities”***

# Executive Summary

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This paper is provided as an independent policy perspective on ‘beneficiary funding’ for major mass transit programs, executed in partnership with Prosper Australia.

An initial chapter reviews the ‘need’ for sustained and ongoing mass transit investment in Australian major cities. We suggest that Australia has delivered relatively little in the way of major transit projects over the past 40 years (recent and current projects notwithstanding) and so the state-of-practice on programmatic funding and policy platforms for transit is felt to be outdated. A highly cyclical and politically-oriented approach to project planning and funding decisions creates a lack of certainty and continuity for industry, stakeholders, and ultimately transport users and cities.

Additionally, the sheer scale of transit project backlog seems to have inhibited our ability as a society and an industry sector to openly discuss and debate the issues and challenges at hand. Along these lines, a broad brushstroke analysis of urban and regional transit needs for Melbourne, Brisbane and Sydney is provided. The projects in our listing are un-controversial, with strong community support and (usually) some level of recognition from government and transport agencies. But state governments have not tallied these obvious projects into a listing for programmatic delivery, and mainstream government sources speak of many major transit project needs within a vague and impractical “30-year” horizon.

We take a necessary step in this paper toward the identification of actual investment need – and tally around \$91 billion to \$117 billion in transit investment need for Melbourne and Victoria. We identify between \$93 and \$100 billion of necessary investment for NSW and Sydney. While South-East Queensland appears to require some \$57 to \$63 billion in major transit investments on our count.

In each case, we suggest these be delivered on an orderly and predictable program over 10 to 15 years (rather than 30 or more). Commitment to such a program would make serious headway into the transit infrastructure backlog while providing a crucially-important period for economic transformation and growth.

Our second chapter reviews the state-of-practice in project appraisal and the general understanding of transport benefits, beneficiaries and impacts within current industry practice. We suggest that despite the decade-long existence of Infrastructure Australia, and the creation of state-based equivalent organisations, transport appraisal practices and business cases remain more-or-less the same today as they were a decade ago. We suggest it is profoundly difficult to understand project investment decisions and government priorities where there is no clear and fulsome sense of project benefits and beneficiaries. These uncertainties have led to a loss of faith with government and industry approaches to transport projects and decision-making among the community – and as a society, Australia needs to begin rectifying this unfortunate dynamic.

We provide a holistic depiction of the benefits that accrue in major transport projects, to remind readers of the need for comprehensive appraisal. Without clarity on ‘benefits’, it is difficult, among other things, to understand the basis and fairness of funding decisions and adopted delivery approaches.

Meanwhile, various international jurisdictions seem to have developed more viable, ‘programmatic’, steady, reliable and predictable approaches to funding major transit project needs over time. These innovations should be carefully considered for application in an Australia-relevant manner.

The paper then moves on to a discussion of ‘mechanisms’ for achieving value capture or ‘beneficiary funding’. We suggest that prior Australian discussion on these topics has been confused and confusing, but the options for real funding contribution boil down to five distinct categories of:

- Value capture through the existing, mainstream tax system
- Special fees or levies (of which there are five identified variations or sub-categories)
- Sale or auction of development rights
- Working via a 'comprehensive TOD and urban renewal agency'
- Direct property plays by the transit agency

Among all of these categories, funds generated must be ploughed-back into transit project resourcing. It is also important to see them as mutually-supportive. In most cases, multiple mechanisms (perhaps all at once) can be worked in intelligent combination, given that they each connect with distinctive beneficiary groups or benefit pools.

Our concluding section suggests the time has come for a new era in major project funding innovation and program delivery. This will need to be based on improved levels of trust in the workings of government and major transport projects. A workable and reliable process for integrating value capture and beneficiary funding into major project planning processes is outlined.





# Re-connecting our East Coast cities: a review of need

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*“Do present-day funding approaches provide a sustainable and sound base for programmatic, ongoing investment in projects beyond the current round?”*

Australian transport policy has endured ‘hard times’ for many decades now. A complete unwillingness to build new rail prevailed, more-or-less, from the time Melbourne City Loop opened in 1981 until the Epping-to-Chatswood investment in Sydney circa 2009. A generations-long stance against rail investment has influenced all aspects of transport planning, transport policy, the bureaucracy, transport-related consulting, and academia. Anti-rail rigidity has profoundly influenced the infrastructure stock and movement patterns of our cities.

Meanwhile overseas, nations such as Germany forged ahead in a predictable and stable manner with ongoing urban, regional, and inter-city rail investment as a mainstream and non-controversial element of government service provision. Elsewhere, particularly in Asia with its higher population growth patterns and economic dynamism, more innovative and commercial forms of project delivery and funding were mainstreamed. Like Australia, the Americans stood still on rail transit. However, we might learn certain things



from the US in terms of governance and transparency. There is undoubtedly something to take from each of these experiences and exemplars, and they will be discussed again in later parts of the paper. In this chapter - we outline the 'need' for ongoing, stable, and sizeable transit infrastructure investment, particularly within the big three Australian east coast cities.

While we recognise several major projects are underway (Metro Tunnel in Melbourne and Cross River Rail in Brisbane, for example) we want to ask a fundamental question: do present-day funding approaches provide a sustainable and sound base for programmatic, ongoing investment in projects beyond the current round?

Our review of prospective Victorian transit projects posits an identifiable capital investment need of between \$90 billion and \$117 billion. Over 15 years, this equates crudely to some \$6 billion a year in capital investment, as compared to an overall state current budget allocation to all infrastructure types. during 2018-23 of around \$10 billion per year.

**Table one: Indicative major transit projects 2020 to 2045 - Melbourne**

Project	Description	Indicative cost
<b>Melbourne Metro 2</b>	Underground suburban rail line Clifton Hill to Newport; 7 new stations incl. Fishermans Bend	\$20.8 billion
<b>Suburban Rail Loop</b>	Suburban orbital rail loop from Cheltenham to Werribee	\$30-50 billion
<b>Suburban rail signalling upgrade and service boost</b>	Comprehensive upgrade of all rail signalling to automatic train control, and consequent enhancement of service frequency.	\$2-3 billion
<b>Comprehensive tram network upgrade</b>	Comprehensive upgrade, all corridors. Stop spacing rationalisation, improved right-of-way, traffic signal priority, and improved fully accessible stop facilities	\$2-3 billion
<b>Tram line extensions and major projects (eg Fishermans Bend)</b>	Fishermans Bend light rail, plus select line extensions of existing tram routes	\$2 billion
<b>Airport Link</b>	Heavy rail line from CBD to Tullamarine Airport through Sunshine	\$8-13 billion
<b>Comprehensive regional rail upgrade</b>	Upgrade stations, signalling and rail tracks across all regional passenger lines – achieving meaningful travel speed improvements	\$5 billion
<b>Suburban stations redevelopment program</b>	Redevelop all stations as 21st century integrated transit nodes. Full weather protection, architectural merit, direct bus-rail interface. Prioritise key nodes/ centres first	\$15 billion
<b>Baxter extension, onward to Hastings and Mornington</b>	Extend from current Frankston line terminus onward to Baxter via Frankston East and Langwarrin, then line split for Hastings and Mornington destinations. Trunk corridor upgrades for express running to Melb CBD beyond Frankston LGA stations	\$5.6 billion
<b>Headline total capital requirement</b>	<b>Full 10-15 year capitalisation and upgrade program for Victorian mass transit</b>	<b>\$90 to \$117 billion</b>

A review of NSW mass transit needs and opportunities identifies a tally of around \$89 billion in capital investment required. This equates to a year-on-year investment need within mass transit projects of around \$6 billion over 15 years. By comparison, the total allocation to all infrastructure types in NSW currently stands at around \$22.5 billion a year.

**Table two: Indicative major transit projects 2020 to 2045 - Sydney**

Project	Description	Indicative cost
<b>Metro city &amp; southwest</b>	Chatswood to Bankstown via CBD and Sydenham	\$12.5 billion
<b>North-south Rail Line (incl. WSA link)</b>	St Marys Station to new Western Sydney Airport site (Badgerys Creek) – approx. 20 km	\$7 billion
<b>St Marys to Tallawong link</b>	St Marys station to current terminus of Northwest Metro link – approx. 18km	\$5 billion
<b>Bankstown to Liverpool metro conversion</b>	As conversion of existing rail corridors to metro	\$4 billion
<b>Liverpool to WSA link via Leppington</b>	Conversion of existing rail to metro, plus new southern corridor into WSA	\$4–6 billion
<b>Metro West</b>	Parramatta to Sydney CBD via Olympic Park and Bays Precinct, heavily tunnelled	\$18 billion
<b>Inner city light rail expansion initiative</b>	Additional inner city phases and routes of Sydney Light Rail – at assumed addition of around 30 km	\$6 billion
<b>Parramatta light rail expansion</b>	Second phase of project	\$2.5 billion
<b>Rail network signalling and service upgrade</b>	Comprehensive upgrade of all rail signalling to automatic train control, and consequent enhancement of service frequency to 5/10 peak/off-peak	\$3–5 billion
<b>Comprehensive regional rail upgrade</b>	Upgrade stations, signalling and rail tracks across all regional passenger lines – achieving meaningful travel speed improvements	\$7-10 billion
<b>Suburban stations redevelopment program</b>	Redevelop all stations as 21st century integrated transit nodes. Full weather protection, architectural merit, direct bus-rail interface. Prioritise key nodes/centres first	\$20 billion
<b>Headline total capital requirement</b>	<b>Full 10-15 year capitalisation and upgrade program for NSW mass transit</b>	<b>\$89 to \$96 billion</b>

A review of Queensland mass transit needs and options suggests around \$60 billion in capital investment required. This equates to around \$4 billion in transit investment, year-on-year, across 15 years. Currently, total budget allocation to all infrastructure types in Queensland sits on some \$11.35 billion per year.

**Table three: Indicative major transit projects 2020 to 2045 – Southeast Queensland**

Project	Description	Indicative cost
<b>Gold Coast light rail full build-out</b>	Coastal route completion to Coolangatta, plus select east-west routes	\$4 billion
<b>Gold Coast airport heavy rail connection</b>	Robina to Airport	\$4–6 billion
<b>Sunshine coast heavy rail</b>	Caboolture to Maroochydore	\$12.5 billion
<b>Sunshine Coast light rail</b>	Assume 50 km eventual total corridor length (including east-west elements)	\$9 billion
<b>Cross River Rail</b>	Dutton Park to Exhibition Station via Gabba and CBD	\$6 billion
<b>Ripley rail extension</b>	Ipswich to Bellbird Park via Ripley Town Centre	\$2.6 billion
<b>Suburban rail signalling upgrade and service boost</b>	Comprehensive upgrade of all rail signalling to automatic train control, and consequent enhancement of service frequency to 5/10 peak/off-peak	\$1–2 billion
<b>Comprehensive regional rail upgrade</b>	Upgrade stations, signalling and rail tracks across all regional passenger lines – achieving meaningful travel speed improvements. Particular focus on coastal route	\$5 billion
<b>Suburban stations redevelopment program</b>	Redevelop all stations as 21 <sup>st</sup> century integrated transit nodes. Full weather protection, architectural merit, direct bus-rail interface. Prioritise key nodes/centres first	\$7 billion
<b>City core mass transit initiative (West End, UQ, Indooroopilly connection)</b>	Improving directness and connectivity across Brisbane’s core SW-NE axis, traversing West End to UQ from CBD	\$2-4 billion
<b>Northshore rail extension</b>	Extending rail from Doomben Station through to Brisbane’s largest urban renewal site at Northshore Hamilton	\$1.5 billion
<b>Bus network and infra transformation program</b>	Comprehensive route rationalisation, stopping pattern improvement, dedicated bus lanes, signal priority and better stop facilities	\$2-3 billion
<b>Headline total capital requirement</b>	<b>Full 10-15 year capitalisation and upgrade program for NSW mass transit</b>	<b>\$57 to \$63 billion</b>

***“This requires re-engagement with basic questions around the value that new transit provides and the beneficiary groups to whom those pools of value accrue.”***

## **Forging ahead beyond the peaks and troughs**

Most of the above-listed projects are already known, and expectations for delivery over time already exist. They are also certainly *needed* – some might argue many are already overdue. However, under the prevailing reactivity of Australian transport policymaking, it seems likely that each will be addressed as an individual stand-alone project after trial by popular media, and when public opinion reaches an inflexion point (many years or perhaps decades hence). Most likely, each project will be initiated *idiosyncratically* - as a demonstration of ‘being seen to be doing something about transport’ by the government of the day. This is how transport projects ‘get up’ in Australia at present, apparently.

Without a fundamental change in transport policy culture, capability and practice, it is unlikely that the above-listed exercises will ever be articulated as an interconnected and mutually-reinforcing suite for each metropolitan area and its transport schema. Nor will our project list be delivered with predictable and reliable timing through a properly-funded continuous build process with non-partisan political support.

Are these impossible dreams? Because this is precisely what our cities demand. A change in political, public service, and industry cultures is long overdue, desperately needed, and now basically unavoidable. Infrastructure policy hold-outs may run, but they can’t hide forever from the need for sweeping change.

All that remains, in one sense, is for a natural process of policy and practice adaptation to unfold. This natural and necessary evolution in mass transit planning, policy, and delivery would meet contemporary realities and standards; fulfil the expectations of the general public and taxpayers; and align with the socio-economic and functional needs of each metropolitan area.

To avoid the ‘peaks and troughs’ of reactive and ad-hoc transport project planning, initiation and delivery, we must re-appraise our fundamental approach to transport funding over time. We ask the same questions of every Australian state government currently pursuing major transit projects:

- Is the funding strategy of your current highest-priority transport initiative a sustainable way of doing things over the coming cycle of a decade or more?
- Does that strategy enable a suite of subsequent, necessary transport projects over a decade or more?
- If not, why not?

These are important and necessary questions in most transport project funding circumstances. Yet at present, these questions are rarely posed by government and their advisors - let alone answered. There are substantial and obvious risks and costs associated with the currently-preferred mode of transport project funding (i.e. availability-based Public-Private Partnerships), yet there is little space for open discussion of (relatively) readily-available alternatives.

Luckily, the alternative pathway has its own compelling logic. The faulty availability-based PPP approach and its champions are unlikely to stand up against even a moderate level of scrutiny and open discussion. The task for those with a genuine interest in improving Australian cities is to provide that scrutiny and support the discussion of productive alternatives.

We need to know the path towards better, more reliable, more predictable and stable mass transit funding and delivery over time. This requires re-engagement with basic questions around the value that new transit provides and the beneficiary groups to whom those pools of value accrue.



# Strategic transport projects – benefits and beneficiaries

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***“Taxpayers, public stakeholders and decision-makers remain ignorant of who specifically benefits from major projects.”***

## Updating the outdated

There have been split loyalties within Australian institutional attitudes toward major project appraisal over the past decade or so. On the one hand, much has been made of the need to update and improve project appraisals: to render them more holistic, relevant, and ‘integrated’. On the other hand, few if any identifiable updates and improvements have been made. Today’s project appraisals and business cases are largely the same as the ‘traditional’ business cases from decades past.

Traditional approaches to project appraisal focus excessively (perhaps obsessively) on narrowly-defined transport-related impacts, incorporating transport benefits of limited merit and/or dubious validity such as travel time savings or congestion-reduction outcomes from road links. These ‘benefits’ have consistently proven to be illusory at best, and systematically misleading at worst. Yet these gambits are still central to decision-making.

Land use-related or productivity-related benefits and impacts are conceptualised as ‘non-traditional’, ‘non-core’, or somehow of limited relevance. In reality, the land use, business-related, and whole-of-economy benefits from major transport projects comprise some of the most legitimate and significant of all project benefit pools. As such, they should comprise core criteria upon which project decision-making rests.

The general outdatedness of project appraisals has sustained another major transport development problem in Australia: taxpayers, public stakeholders and decision-makers remain ignorant of who specifically benefits from major projects. We don’t know whether specific beneficiaries could or should have contributed funding to the project in-line with their received benefits. We are unable to judge the fairness and equity of beneficiary funding contributions relative to the contributions made by the average taxpayer (some of whom may never use or benefit from the new infrastructure to which they contributed).

Australian ‘value capture’ discussions have often noted that (to wit) “there are only two sources of ultimate project funding – users and taxpayers” - omitting that in international practice and practical reality, there are three ultimate sources; taxpayers, users, *and other beneficiaries*.

The relative weighting of funding contributions between taxpayers, users, and other beneficiaries is an open question with important practical, productive, and ethical dimensions. This question is rightly answered by a public policy decision-making process which rests on a realistic and clear assessment of benefits to the whole of the economy, in the first instance, and on the benefits that accrue very specifically to certain project users, other beneficiaries or beneficiary groups - mainly but not limited to beneficiary landholders and beneficiary businesses.

## An awkward bottom line

Public perceptions around the workings of government in the transport field are dim given the non-delivery of necessary urban infrastructure; poorly-conceived and improperly-planned projects; and the prioritisation of weak projects over strong. In addition to producing poor outcomes in transport itself, our dysfunctional approach to appraising, planning, prioritising, and funding transport projects also risks severely diminishing public faith in the workings of government. Anyone who doubts this risk ought to check-in with mainstream taxpayers and members of the general public as to their views on the politics and process around major transport commitments.

A widespread perception now exists of 'policy capture' by industry vested interests, mainly in the PPP and multinational consultancy sectors, on funding approaches, planning and land rezoning, and project prioritisation. Political actors are perceived to be quite content to use taxpayer funds to their own pork-barrelling ends.

The public service has seen a profound loss of standing in the eyes of taxpayers and the general public. Now prevalent is a view that public servants are incapable or unwilling to provide robust and independent advice to government or to meet their charter and ensure appropriate standards of practice and governance are observed.

The only viable response to these pressing and deep-seated social questions is to demand robust practices - beginning with up-to-date and holistic assessments of major project impacts and benefits.



## What are the pools of benefit from transport initiatives, broadly speaking?

Our graphic below speaks to an array of generally-accepted, real, and intuitively resonant transport project benefits. The level of benefit generated within each category will obviously vary from project to project, and the analytical task can be complex. But few transport practitioners would debate the idea that these nominated benefits do indeed accrue in greater or lesser degrees as a consequence of major transport initiatives.

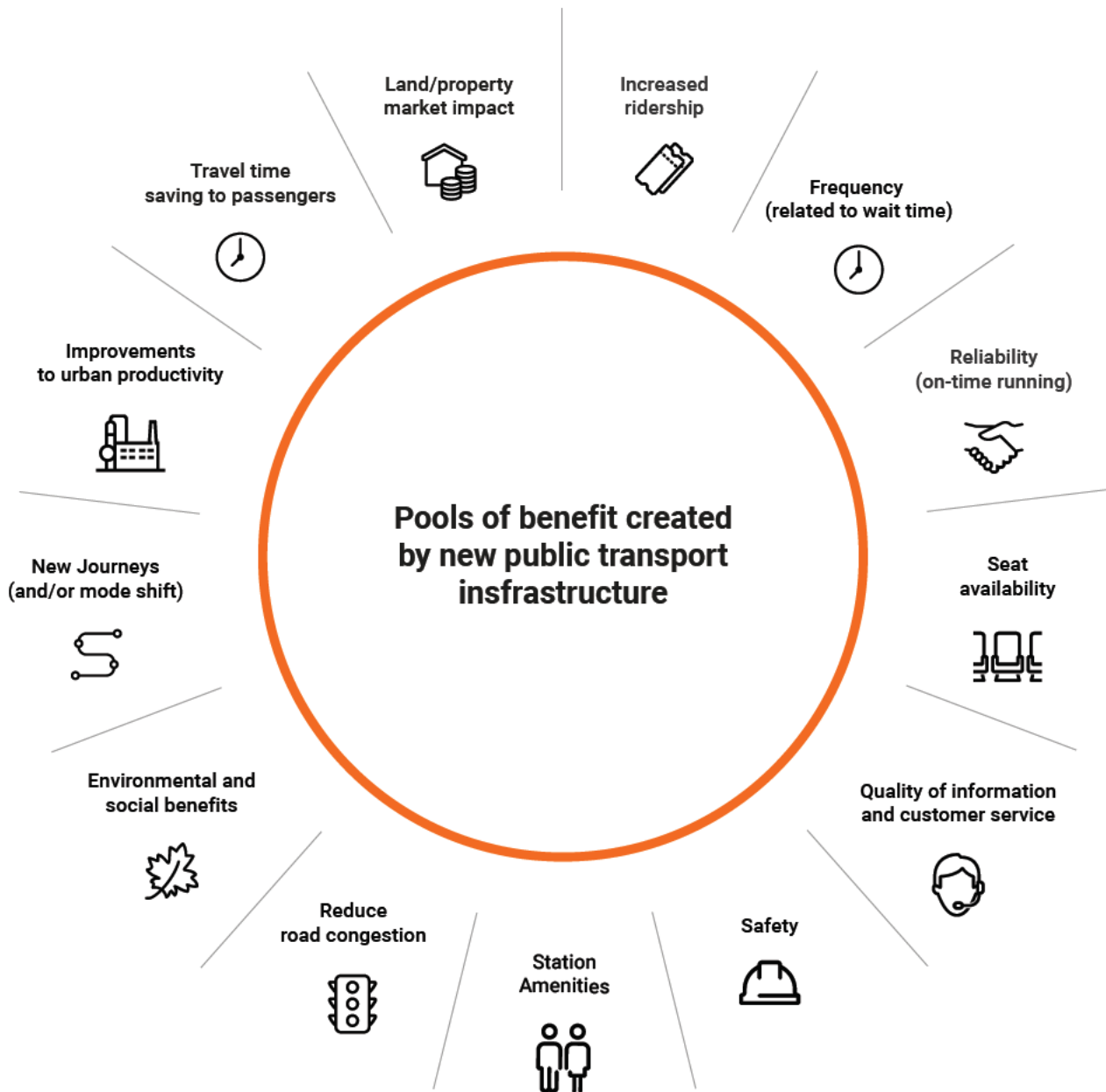


Figure 1. Pools of benefit created by new public transport infrastructure.  
New infrastructure or service results in better accessibility

***“Project decisions and funding arrangements in Australia are essentially ad hoc, and not referenced to an even-handed appraisal of benefits received by specific beneficiaries or beneficiary groups, or to the relative merits of alternative project priorities.”***

The first-step problem: not all major project appraisals review and include all of these benefits - fully, accurately, and holistically. A consequent second-step issue: decision-makers and planners lack a realistic picture of beneficiaries and benefits received within the projects that they work on. These hindrances lead to a fundamental third step problem: project decisions and funding arrangements in Australia are essentially ad hoc, and not referenced (or referenceable) to an even-handed appraisal of benefits received by specific beneficiaries or beneficiary groups, or to the relative merits of alternative project priorities.

Alongside profound problems of ethics and governance, this situation produces problematic limitations over decent and necessary projects that could otherwise be ‘easily’ funded were a benefit-cognate funding strategy developed. Brisbane’s decade-long and torturous struggle to deliver Cross River Rail, purportedly its ‘highest priority project’, is paradigmatic of funding policy failure in this sense. Under an alternative pathway, Cross River Rail might already be built, open, operational and delivering real benefits to the transport system, commuter convenience, and the Queensland economy. If only an intelligent and evidence-based funding strategy been developed and adopted in a timely manner!

The failure to formulate a workable beneficiary-cognate funding strategy means, among other problems, that potential beneficiaries miss out on timely delivery of useful projects offering substantive benefits. Commuters, residents, landholders, developers, employers, employees, government treasuries, the environment and the economy-at-large miss out because a confused, illogical and randomised project selection, prioritisation, funding and delivery environment prevails.

These problems are thankfully solvable

## **How has international practice resolved these benefit pools into meaningful project and program funding contributions?**

There are a range of international exemplars that provide important touchstones in contemporary transit program funding. We don’t need to slavishly copy these approaches, but cherry-picking the interesting and workable elements of prototypical transit funding arrangements is inherently worthwhile.

The ‘East Asian’ transit + property story is reasonably well known. It is exemplified in the Japanese private rail companies, Hong Kong’s MTR Corporation, and Singapore’s SMRT to a lesser degree. The basic story surrounds the involvement of rail companies and agencies in complementary real estate development actions, closely linked to the development and funding of rail infrastructure corridors and station facilities. In essence, development profits offset the cost of infrastructure development, while new residents, shoppers, and office workers underpin the ridership needed for operational sustainability.

The East Asian success story is sometimes more nuanced than its mainstream depiction in the West. For example – MTR relies heavily on government land grants and rezoning supports within Hong Kong’s restricted land market: MTR retains the land value windfall from statutory up-zoning. Meanwhile, the popularity of lifestyles oriented to rail travel in urban Japan owes much to the ultra-efficient, focused, and highly sophisticated engineering and operational cultures of its key institutions. This is something rarely canvassed in planning-oriented literature, and difficult for current Australian agencies to match.



Meanwhile, in Singapore, there has been a strong trend for multiple government agencies (not just the transit operator) to work proactively together on transit oriented development outcomes and infrastructure delivery programs. Singapore’s government now often auctions-off its new station area TODs to private sector bidders and delivery partners from the development industry (even allowing that ‘private sector’ and ‘private purchase of land’ are different concepts in Singapore relative to Australia).

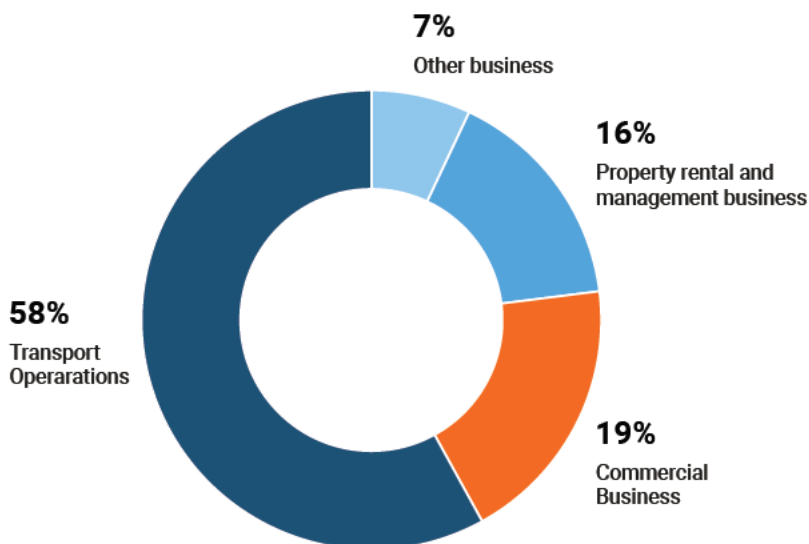


Figure 2. Indicative Hong Kong MTR Revenues

Continental Europe isn’t usually imagined as a source of transport funding ideas for free market Anglo economies, however, there are interesting trends and approaches to be noted. In particular – Dutch Railways (NS) have embarked over the past decade on a transformational program of investing in the complete redevelopment of key rail stations. These redevelopments have been strong on three fronts: in-station retailing and expansion of leasable in-station floorspace (e.g. expansion of transit agency property holdings via more intensive use of existing landholdings); meritorious architecture with robust passenger amenity outcomes; and tying station programs to public realm upgrades in surrounding precincts. Australian practices can learn from this example.

In particular, it is difficult to see Australian mass transit progressing anywhere interesting without recognition of the value brought by high-amenity station facilities of genuine design merit. In whatever context, value capture-related or otherwise, Australian lead transit agencies need to see the rail station environment as their remit and their domain. Furthermore, our planning policy discussions need to stop confusing ‘general’ transit-oriented development with that pursued specifically by transit agencies within properties they control and manage.

London’s Crossrail demonstrates the potential of innovative and ground-breaking, but also real and meaningful, transit funding contributions to underpin a massive program effort, in an economic and governance context that is resonant to Australian conditions. The British Crossrail innovations, to be brutally frank, also took place within a rail sector context that was arguably the most moribund, conservative and boring in the entire developed world. Hitherto, British rail’s main 21st century export of rail ideas had been the ‘franchise’ operational model – admitted even by its own industry participants to be an unworkable confected disaster. Now that our genteel British cousins have seen the need for transit funding innovation and delivered comprehensively on that need with Crossrail, Australia must sit up, take notice, and apply the learning.

In summary, Crossrail involves multiple non-traditional project funding sources, including a general ‘business rate supplement’ applied across a broad base of benefiting businesses (apparently quite positively received), as well as direct property plays, and a ‘tax increment financing’ play in which national government contributes borrowed funds against future increases in tax revenue due to projected expansionary economic effects.

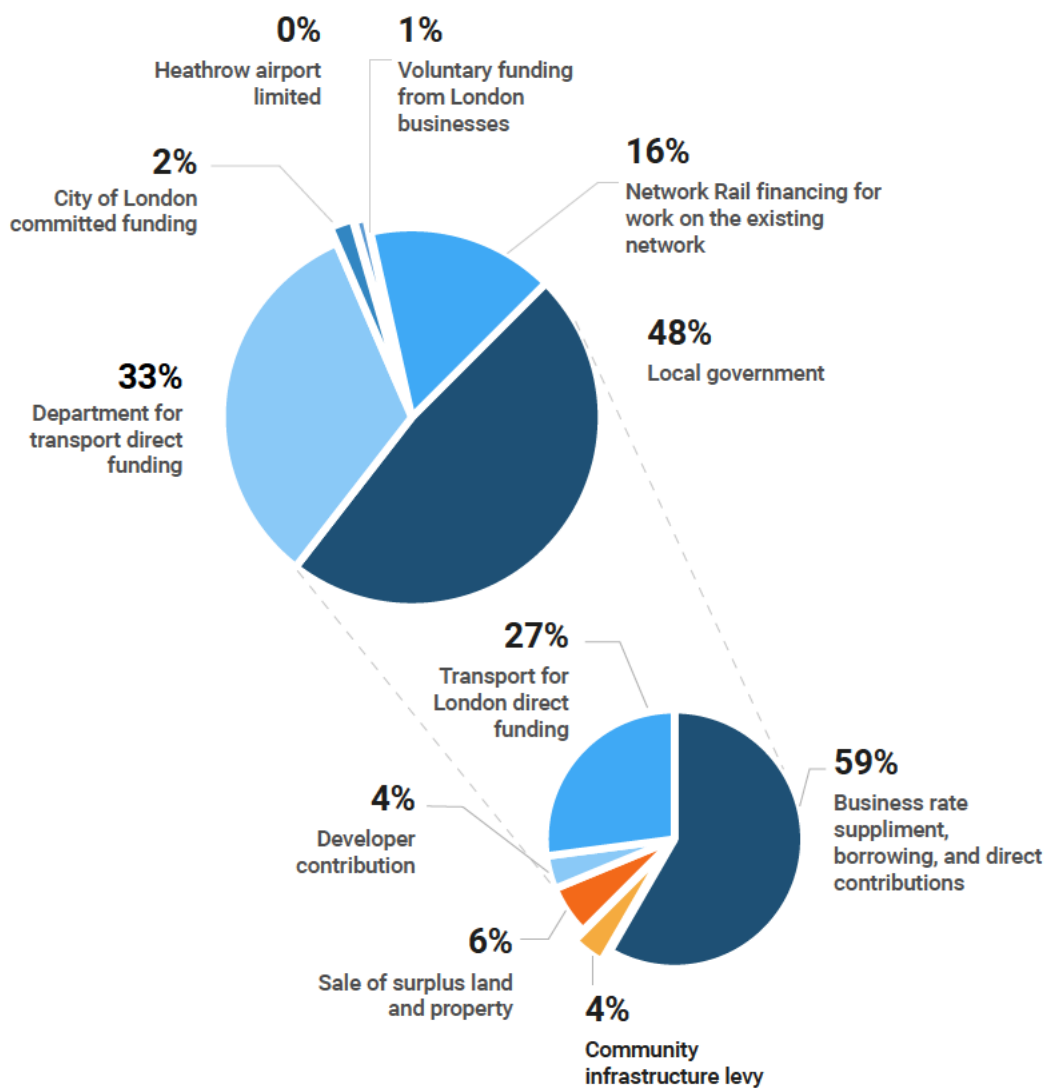


Figure 3. Indicative Crossrail funding breakdown

Having been surpassed by the British, US rail now takes the title as the most moribund rail sector in the developed world. However, the United States remains a diverse and vibrant policy environment. American academics popularised ideas of transit-oriented development and value capture, even if actual examples are relatively thin on the ground in US cities.

New US exemplars such as the 'Transbay' project in San Francisco point to interesting multi-partner value capture-based development approaches. However, it is probably in the area of governance that the United States has something to offer Australia. In particular, it is felt that the US separation of powers and their willingness to prosecute misuse of taxpayer funds has sustained a better and more effective allocation of available funding to sensibly-prioritised transit infrastructure projects. Transit projects in the US tend to involve lengthy preparatory work by the public service and tend to be integrated into a detailed capital planning cycle (such as it is when resources are so limited).

By contrast, it is difficult to identify a major transit project in Australian that is not an artefact of crude political interventionism in the operation of the public service. Most of our major projects tend to involve directing taxpayer funds to a favoured initiative with minimal developmental planning, open and logical paper-trail, comparison of alternatives, or scrutiny.

By contrast, in the US, examples of multi-billion dollar 'political projects' are relatively rare, and tend to meet with a robust legalistic counter-response. And so – in summary, a certain level of Americanism in our approach to major project governance could be useful in Australian contexts.

# Proven beneficiary funding solutions – the ‘five mechanisms’

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The Australian ‘value capture’ policy discussion has not unfolded expertly. A new policy discussion broom is overdue. As with many things, it might be time we observed and advised on the basis of what is known to work.

Along these lines, we have reformulated five distinct ‘mechanisms’ for delivering land value capture, beneficiary funding, and real support to transit project resourcing. Variations of these mechanisms are core components within every successfully-delivered value capture funding initiative. They are:

***“The future increases in tax base can be utilised as a payment stream over time, and/or borrowed-against to provide up-front funds for infrastructure delivery.”***

## **Mechanism A: Value capture through the existing, mainstream taxation system**

The idea of ‘tax increment financing (TIF)’ frequently appears in the value capture discussion, however, the definitions provided are a little wobbly. No-one can agree on what TIF means (even having received word from a variety of sources). Confusing definitions are frequently thrown around.

After carefully considering the parameters we propose that a workable and accurate definition of tax increment financing (TIF) might be: *Working within the existing taxation regime to identify potential tax take increases as a consequence of the expansionary effects of major transit projects.* The future increases in tax base can be utilised as a payment stream over time, and/or borrowed-against to provide up-front funds for infrastructure delivery.

TIF applies to different levels of government in different ways. Local government is presumably interested in identifying and mobilising prospective rates base increases due to property value uplift (if they are of a mind to contribute to rail initiatives – which is rare in Australia but need not be following the lead of jurisdictions like Gold Coast City Council). State government presumably looks to increased state land tax and/or stamp duty take. Federal government is oriented to income tax take, and perhaps GST or capital gains tax.

Readers should note that by the ‘existing tax system’ we mean ‘with no change intended or required’. This should immediately differentiate TIF from other options and mechanisms that involve new or special levies and fees (see below) in the minds of funding policy stakeholders. Additionally, ‘tax’ is broad-based, whereas ‘special fees or levies’ are clearly narrowly-defined, narrowly based, and specifically targeted.

Value capture through TIF does not acknowledge the varying deadweight costs and/or inequities of existing tax bases. For example - expansions in stamp duty revenue also come with increased macroeconomic costs due to the relative inefficiencies of these taxes. As noted by other commentators, a tax base heavily geared towards land and resource rents would facilitate value capture in the fairest and most efficient manner. Significant commentary on the relative fitness of existing taxes lies outside the scope of the present discussion however.

## Mechanism B: Special fees or levies

Special fees or levies target a very specific and clearly delineated beneficiary or 'customer' base. In beneficiary funding and project delivery environments they are essentially a 'fee for service' utilised directly and solely for improving transport conditions. They should never be confused with taxes.

Fees or levies should be charged in proportion to benefits received, and returned back into the value-generating infrastructure on which that 'fee for service' rests. There are a number of international examples worth referencing and understanding:

B1. *Betterment levies* that target defined subject areas, levied on beneficiaries of a major transit upgrade (and often constructed around increases in property value). For example, a levy on existing municipal rates within a specified catchment.

B2. *Connection fees* under which nearby property owners pay to interface their property directly to a rail station – invariably via an above-ground or below-ground walkway connection. These initiatives are already very common in high-density Asian cities, and likely to become increasingly relevant in evolving Australian urban contexts. To work as a funding mechanism, the connection fee should exceed the cost of construction, and be referenced to mutually-agreeable value uplift estimates.

B3. *Rezoning fees* through which landholders contribute-back a portion of the windfall benefit they receive from intensive up-zoning of their property. Noting that without mass transit connectivity and upgrades, intensive land uses and associated rezonings are much lower in their value impact and far less practical and sensible. The transit connection drives the ability to rezone, which generates the value increment that would otherwise stand as an unearned windfall. The rezoning fee closes the loop by ploughing revenues raised back into the infrastructure which enables well-targeted up-zoning.

B4. *Ticket surcharges* can contribute meaningfully to major project funding via a relatively small ticket increment. The traveller hardly notices the small cost uptick which, nevertheless, tends to add-up substantially when levied day-in-day-out from large numbers of benefitting travellers over an extended period of many years or decades.

Ticket surcharges can ensure that transit users, as the most significant pool of 'direct beneficiaries', contribute their fair share. They stand as a fundamentally sound, practical, efficient and fair mechanism for regular travellers and infrastructure users to contribute sensibly, relative to the large group of taxpayers who support projects via consolidated revenue yet do not actually use the transit connection nor benefit directly from it. Ticket surcharges involve the downside perception of inter-mixing operational revenue and capital funding questions (which is not as big a drama as it may first seem).

B5. *Voluntary planning agreements* are a seldom-discussed option. They seem to exist in NSW and Victoria with little fanfare, and very few high-profile examples as proven instruments for major infrastructure funding. At their best, voluntary planning agreements might be thought of as *an agreement between major landholders and government, in which the landholder provides a special fee to government on the basis of windfall received via land rezoning, for the funding of necessary and enabling major transit infrastructure.*

These instruments are so low-profile that their nature and structural frameworks are not widely known. And so, any uptake of 'voluntary planning agreements' as a beneficiary-funding option in Australia would require a period of refreshing and re-communicating their existence and usage. It is an opportunity to unearth the public interest aspects of voluntary planning agreements.



***“The link between revenue-raising via open market sale and funding contribution to the value enhancing infrastructure must be maintained.”***

## **Mechanism C: Sale or auction of development rights**

Value capture is strongly oriented around property-related issues, and so – it is presumably quite natural and useful to anchor some of our ‘mechanisms’ within mainstream property industry activities, processes, and behaviours. Many value capture discussions become mired in quantification: how to determine the extent and nature of value increments arising from transit upgrades. A mainstream property approach would immediately consider realising full and appropriate value by simply ‘going to market’. ‘Going to market’ via open sale process or auction is a mainstream activity within integrated rail + property environments such as Singapore and Hong Kong, and these approaches play a robust role in the overall resourcing and delivery of integrated rail infrastructure programs in those jurisdictions.

In practice, value realisation in a transit context usually means the sale of ‘air rights’ development opportunity above rail corridors or properties. Or it may involve the sale of some larger landholding around a new or upgraded station – on the presumption that the sale revenues go back into the infrastructure funding need, or that the incoming bidder is obliged to deliver station facilities and associated infrastructure according to appropriate specifications and standards.

Either way, selling-off rail-associated properties and tipping the proceeds back into consolidated government revenue is *not* a winning formula for infrastructure resourcing. Nor does it realise a closer and fairer relationship between value, benefits, and contribution. The link between revenue-raising via open market sale and funding contribution to value-enhancing infrastructure must be maintained.

Readers should also note that ‘fair and robust market value’ is only ever a function of prevailing property market conditions, and the number of interested, capable and active bidders. Taking rail-associated properties to market in weak real estate conditions, or among a highly concentrated number of prospective bidders, is not a sensible strategy. To achieve the best value from transit property plays, we must work with property cycles and encourage a diverse market of potential property industry bidders with the requisite skills and resources. Whether Australian markets meet these criteria at this particular point in time is an interesting and open question...

Careful strategy is required in order to pursue ‘open market’ approaches that can operate separately from the extremes of property market cycles while ensuring high-quality station facilities and associated infrastructure are delivered. We may be looking for ‘fair value and high-quality outcomes’ rather than the highest possible sale price, or an inflated market windfall sale. After all, public projects must be sustainable for orderly delivery by the incoming bidder to high-quality standards. These aspects add further nuance to the open market value capture mechanism. So far it seems that few if any openly-published sources have canvassed these issues in the Australian context.

***“Urban renewal authorities should be seen as a real and promising value capture ‘mechanism’”***

## **Mechanism D: a comprehensive TOD and urban renewal agency (with value capture capabilities)**

Value capture discussions have a tendency to be excessively theoretical, whereas delivery is all about the art of the possible. We must utilise obvious, available, and workable means. It is difficult to escape the conclusion that many of the considerations associated with successfully integrated land use-transport outcomes lie within the direct and traditional remit of urban renewal agencies or authorities.

These include: precinct master planning; land rezoning; achieving value through design; public realm amenity and urban design; subdivision and property sale; as well as embedding a comprehensive and intelligent strategic vision in precinct plans, with clear leadership and accountability. All of these aspects impact on value creation. A planning ‘authority’ seems well-placed to marshal resources and carry out such complex tasks under a robust governance umbrella.

This is not to suggest that Australia’s existing urban renewal agencies are perfect in these regards (they aren’t). Nor are they well-placed to deliver on value capture outcomes immediately and seamlessly without specific capability development. But ultimately, mainstreaming value capture in Australia involves its determined pursuit within urban renewal agencies that have up-to-date capacities, authority and remit.

*And so – urban renewal authorities should be seen as a real and promising value capture ‘mechanism’, which can target specific subject areas, and cover a long list of land use side and ‘value generation’ needs.*

The transport infrastructure side of the equation must be properly partnered, and the value generated captured and ploughed-back into infrastructure delivery (these things would involve adaptations beyond the current practices and interests of Australian exemplars).

Singapore’s Urban Redevelopment Authority provides a world-leading example in which ‘integrated’ planning has been advanced, and transport properly resourced and delivered for subject sites (albeit under very different governance and land tenure conditions).

In the author’s view, it is quite startling that urban renewal authorities have received almost no coverage in world value capture literature, given that some variation of an ‘overarching master planning and leadership organisation with land rezoning powers’ sits at the core of international success stories. While the Singapore URA example is clear, the Hong Kong example in which MTR plays the equivalent role probably obscures the story somewhat. Whereas Japan’s private sector master planning model probably adds further to the confusion (while still pointing to specific tasks and roles that are needed). In any case, the master planning and rezoning capability is crucial to successful value capture – and urban renewal authorities or agencies comprise the appropriate, already-extant Australian vehicle.

## Mechanism E: Direct property – with rail agency as developer

'Direct property activity' is invariably part of the value capture discussion - so much so that many audiences mistakenly see the two things as one and the same. Certainly, the 'East Asian' model rests heavily on direct property plays within a value capture-driven approach to business models and resource delivery over time. For definition, we suggest that Mechanism E is:

*A transit operator or agency proactively involved in developing and trading property holdings associated with stations and precinct or corridor-scale projects on a commercial basis, with the intent to use some of the profit from those activities for transit infrastructure and facility funding.*

Two additional aspects that are worth considering:

Firstly – engaging in 'direct property', the most familiar value capture model, does not preclude the engagement of other mechanisms simultaneously. This dictum applies across the board for all five mechanisms.

Secondly – although the extent and boundaries of a transit operator's property dealings remain an open and interesting question, it is invariably necessary that the transit operator provides a leading and active property intelligence *within the confines of their own station properties and landholdings*. This is important for a number of reasons, not least that the transit operator must move freely in operational and maintenance-related scenarios over time. The closer we get to the station core, the more we should assume that rail operators are the controlling property hand.

For Mechanism E, we suggest that the diversified, mature and sophisticated business models of East Asian rail companies are worth following. In particular – the major Japanese players have synergistically associated a wide array of profitable business activities and offerings to their station area retail-focused properties. The Japanese and other Asian rail companies tend to update their business model regularly and base their non-rail business and property offerings around a close understanding of the needs and interests of their regular ridership cohort. Rail companies of Japan are genuinely on-trend or trend-setting in their retail ideas and offerings. These offerings are in stark contrast to those of the retail property establishment currently operating in Australia, who, let's face it, tend to supply the 'supermarkets, lotto, doughnuts and jean stores' mix ad nauseam. The need to 'get with the times' and spot emerging customer interests sets a major challenge for Australian rail operators, but also a strong precedent and opportunity, as their property-oriented activities evolve.

It is not merely the action of 'getting into direct property' that Australian agencies may need to consider (they are invariably already involved in property). Rather, we must substantially refresh our proactivity of stance, and commercial strategic posture in order for direct rail property activity to play its natural role. Not only in value capture, but also in the daily life of Australian commuters and cities.

# Findings and policy recommendations for concerned stakeholders

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Due to the profound rail infrastructure backlog of Australian cities, and because of recurrent examples of egregious value 'loss' within wholesale rezoning actions, a change of policy direction is long overdue.

## Trust

Implementing the value capture mechanisms outlined above requires substantive change to longstanding policy, planning and project approaches. Substantive change requires extensive and evidence-based exploration in the public domain.

It is relatively uncontroversial to note that, in recent times, vested interests have come to dominate urban development policy, including major transport projects. Australians are no longer certain that 'the public interest' animates and directs planning and infrastructure policy. Moreover, there is no longer, it seems, any deep or abiding trust in the public service as stewards of policy outcomes, ideas, research, or discussion. Thus, the value capture policy engagement and communication process begins from a weak starting point in Australia.



Photo: Rotterdam Centraal Station by Nicky Boogaard

***“There is broad public support for better urban transport outcomes, better projects, more effective planning, retention of public and taxpayer value, and a stronger emphasis on the public interest and fairness.”***

Low trust in the bureaucrats, politicians and institutions responsible for land use and transit policy, along with running interference from vested interests, presents a genuinely problematic context. It is difficult to foresee an ‘easy’ pathway for a clear, evidence-based, public-spirited discussion of much-needed policy changes. Prospects for comprehension and support for value capture within industry and the public service appear hazy and poorly positioned at this time.

On the positive side of the ledger, the time for policy change has arrived. There is broad public support for better urban transport outcomes, better projects, more effective planning, retention of public and taxpayer value, and a stronger emphasis on the public interest and fairness.

Large numbers of Australians are now directly familiar with international cities and their successful policy and transport approaches. New and up-to-date approaches based on proven and successful international exemplars have every chance of being met with a positive and broad base of community understanding and support if effectively communicated.

***“Our suggested process would be for all relevant benefits to be holistically and fully assessed and presented.”***

## **Process**

To operationalise value capture or beneficiary funding mechanisms, they must be integrated cleanly into an overall project planning and decision-making process. For the most part, a project planning and delivery process involving value capture need not be vastly different from the process now prevailing within major projects. But certain key steps must be emphasised in order to move beyond current limitations, and into effective delivery of beneficiary funding concepts.

One important change in practice occurs at our notional ‘step 2’ in the process described below. Whereas current practice sees government agencies and their project teams ‘picking and choosing at whim’ the benefits they appraise or don’t appraise for transport initiatives, our suggested process would be for all relevant benefits to be holistically and fully assessed and presented.

This provides a platform for ‘Step 3’ – which is a fulsome and open-minded development of a project funding strategy (or a suite of alternative strategy options). This should be undertaken in order to provide a workable project delivery/funding pathway, through investigation and deployment of mechanisms that target and tap into specific and identified beneficiary pools. Strong emphasis should be placed on equity, the public interest, and generating a funding suite that offers the best and most cost-effective outcome from a constrained tax base.

'Step 4' gives explicit attention to value enhancement and project fine-tuning, which is arguably missing from current major project processes.

There are many opportunities for refining projects and improving 'value creation' - whether via detailed design-related work or through strategic or operational enhancements. We hope that taking these steps improves the decision-making process and better-positions the project itself for delivery and eventual operation.

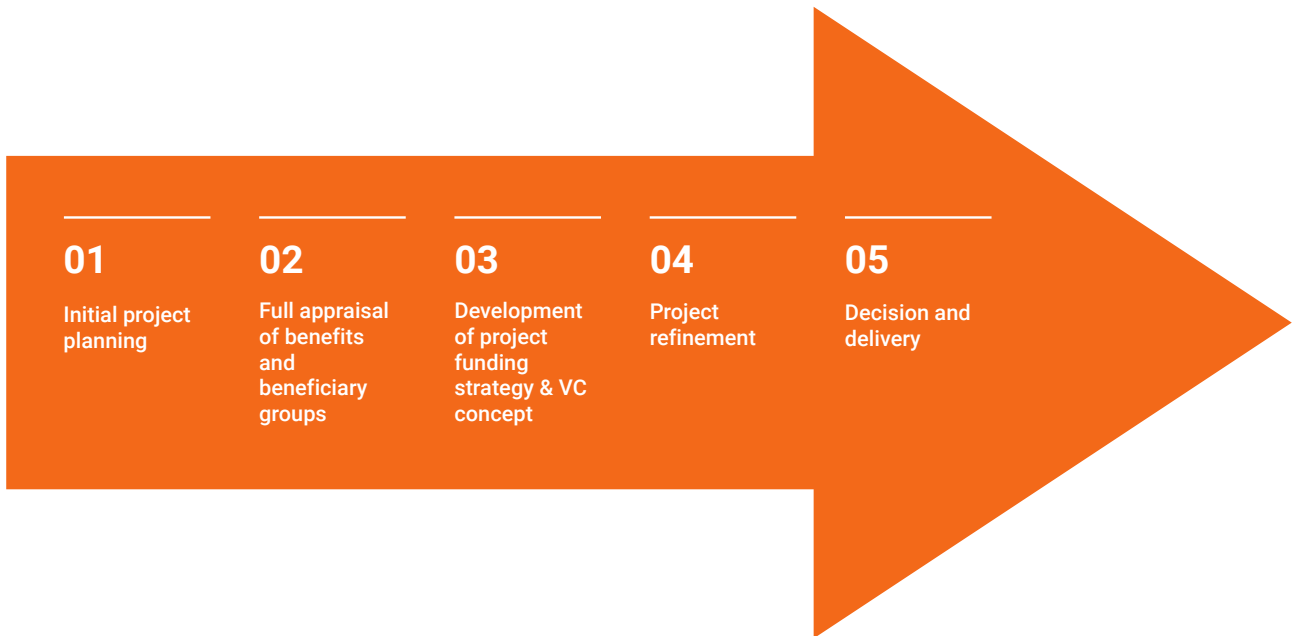


Figure 4. Intergating holistic assessment of benefits in project planning processes



## Priority policy agenda

Although time tends to move slowly in scenarios of major policy change, there are also inflexion points at which the agenda for change accelerates rapidly and major leaps are taken. We believe that interest in the topic of value capture and beneficiary funding will accelerate during 2019/20.

During this time, we recommend that interested stakeholders and policy participants adopt the following priorities:

- Re-cast transport infrastructure investment from 'individual, isolated projects' toward a predictable, orderly, and reliable sequence over a decade and more. Reorient policy from ad-hoc investment to programmatic, continuous build.
- Contract the transit project horizon in Australia's major cities. The current roster of projects should be actioned as a "10-15 year" agenda, rather than an unclear and uncertain '30-years plus' assumption.
- Position funding strategy and policy at the apex of the transport agenda. Individual technical aspects of value capture and beneficiary funding are important, but second-order work items (i.e. 'don't get lost in fine detail').
- Return the public interest, taxpayer interest, and 'best and most cost-effective delivery strategy' to the core of funding decisions for major projects. Concerned policy stakeholders may need to prepare for overt confrontation with the extremely costly and ineffective but vested interest favoured 'availability based PPP' model.
- Undertake detailed and extensive work on the applicability and adaptation of successful international value capture and beneficiary funding mechanisms within Australian conditions.
- Cease wholesale land rezonings in the absence of a supporting value capture funding strategy and framework. Concerned stakeholders must take *robust action* to spotlight and address the practice of land rezonings without the appropriate protection of public value; treatment of windfall gains; and appropriate action for transport infrastructure needs in the locality or corridor where up-zoning has taken place.
- Encourage government and the public service to loosen their grip on public policy discussion and policy development processes. A greater diversity of properly-qualified voices should be heard, and a greater array of options and opportunities explored, in a genuinely open-minded, transparent, and public-spirited manner.
- Scope-out and support the educational and technical needs of industry and the public service; increase familiarity with these moderately complex issues and mechanisms. Develop and sustain the technical skill sets required for effective delivery and mainstreaming.