

“There is more to be done than to make figures to show whether the railways are paying or not. You have to take into account consideration the areas to be tapped and the development of the country through which the railway passes ... instead of that, people bought and sold land and they got rich: and it was almost painted on the clouds the railways were not paying.”

Michael Joseph Savage – Evening Post 10 June 1938, 10.

“Roads are made, streets are made, railway services are improved, electric lights turn night into day, electric trams glide swiftly to and fro, water is brought from reservoirs a hundred miles off in the mountains – and all the while the landlord sits still.”

Winston Churchill in 1909

1. Introduction

This additional submission to the Transport and Infrastructure Committee of the New Zealand Parliament on the **Inquiry into the future of inter-regional passenger rail in New Zealand** is from Heriot-Edievale Limited and has been prepared by its Director, Michael van Drogenbroek with some input and review from both James Llewellyn of Taith Consulting and Dr Natalie Allen and the team at The Urban Advisory. It builds further on work currently underway by the broader Making Rail Work team that is preparing a follow up report due in February 2023 to its initial report that was published May 2022. It has been developed as a follow up to my submission presented to the Inquiry on 24 November 2022 at the request of Transport and Infrastructure Committee members.

Specifically, this submission seeks to explore the following three questions:

1. How could we build a 30,000 population town off the back of rail?
2. How could we get the private sector to fund some of this?
3. Could you please provide an example of how this could work?

These questions follow on from one of the key recommendations that I made in my original submission which was:

“That capital funding sources and delivery timeframes be investigated. Sources of funding can include a mix of: farebox based on affordable fares, TODs (e.g. Central Hamilton station location under Centre Place Tainui development), Land value uplift capture, fuel taxes and general taxation (NZLTF), local body rates as at present, overseas funding partners, export financing, wet leasing ex rolling stock manufacturers, Community based partnerships (Development Corporations, Co Ops e.g. Making Rail Work proposal as a test case), population growth increasing funding base, capital release by individuals from less private car ownership”

The questions are detailed and answered below with examples and Case Studies as detailed in Appendix 1, 2 and 3 at the end of this submission.

2. Answer to Question 1

Passenger rail generally works best in very large urban areas (where there is high development density and close proximity of stations to population bases) and for longer inter-regional

journeys where there is a speed and /or convenience advantage over the private car. Where these two types of passenger rail service intersect, there is the potential for very significant growth at key nodes in city centres, outer suburban locations and provincial towns, including potentially the development of whole new settlements and towns adjacent to a railway line.

Longer distance inter-regional passenger rail is the basis of the Making Rail Work proposal for the Tauranga – Hamilton – Auckland corridor: linking three existing expanding economic hubs with each other and connecting intermediate settlements (which have significant growth potential) on the way. In this way the number of station-to-station pairs increases the range and variety of journeys that can be undertaken, compared with a service linking two centres with nothing in between. It is certainly possible that new towns can be enabled by such developments.

This wider range of journey possibilities then increases the attractiveness of individual places for larger scale development, because there are more places people can now live and work. In turn the whole growth corridor becomes a dynamic set of economic, social and cultural relationships between settlements.

When implemented therefore as part of an integrated land use and transportation system, inter-regional passenger rail can deliver both significant benefits and avoided costs – both to existing communities and future ones to be developed. It can have a major role in supporting our existing network of towns, neighbourhoods and supports: a) population shifts in line with regional and national economic aspirations, and b) new residents to live at density as per the Government’s aspirations as outlined in the National Policy Statement on Urban Development (NPS-UD), the Government Policy Statement on Housing and Urban Development (GPS-HUD), and the National Policy Statement on Highly Productive Land (NPS-HPL).

Greater use of passenger rail compared with single occupancy private car also helps to avoid costs that are often hidden, including highway maintenance, crashes, air pollution and infrastructure for car-dependent development of cities and towns.

It is important to conceptualise inter-regional rail as a broad economic development catalyst rather than ‘just’ a transport project. Interagency and stakeholder alignment and well-developed precinct plans are essential to realise the potential population, wellbeing, and economic benefits of rail - this will be expanded upon in the following sections. Further utilising the existing infrastructure in regional towns and district’s economic growth aspirations provides a great opportunity for growth

Greenfield development that takes advantage of new road networks (for example Pōkeno, Cambridge, Levin) highlight there is demand for housing in regional centres and what could be new towns. Integrated rail precincts can address this demand and challenges faced by regional centres including: housing affordability, housing typology mix, reduced neighbourhood amenity, car-dependency, and competition for workers with larger centres.

History has also shown that developing strong transport links such as rail can also encourage inward overseas investment and this combined with the appropriate population strategy can help to focus investment opportunities upon which the whole nation benefits.

Therefore, passenger rail can do so much more than simply deliver a set number of houses in a particular area. It can create sustainable and attractive transit-oriented communities that challenge the car-dependent development paradigm and realise huge benefits for both Kiwi

families and businesses upon which the economy depends. It will encourage entrepreneurial activity and developers to be creative in the way communities and towns develop and are ultimately funded and help with ultimate sustainable funding for inter-regional passenger rail.

See **Appendix 3 – Case Studies** for some good examples and case studies on how such developments can occur that encourage new town and city urban developments.

3. Answer to Questions 2 and 3

These are best answered together, as they are inter-related.

Question 2 – Potential for Private Sector Funding

In New Zealand there are traditionally two ways that passenger rail infrastructure and services has been funded – by transport users (through fares and motoring taxes) and taxpayers (through income and sales levies).

The concept of “Land Value Capture” (LVC) seeks to add a third funding source – wider beneficiaries of public infrastructure and service investment. The basis for LVC is that these beneficiaries – most notably property owners, landowners and developers – gain windfall profits from their land that would not otherwise accrue but for the public investment. LVC therefore seeks to acquire a proportion of this unearned profit to recoup at least some of the infrastructure investment - thereby reducing the burden on users and general taxpayers and making more money available for other projects.

Given the right approach, landowners and developers are often willing in principle to contribute some of the “transportation gain” towards the construction of rail infrastructure as it is often recognised that land values can command a higher price and will sell quicker at properties closer to, and with good access to, train stations. In the New Zealand context, care also needs to be taken to work closely with Iwi as the Tangata whenua in line with our Treaty of Waitangi obligations regarding any actual or perceived transfer of value away from traditional land owners. What often does not find favour with developers, though, are statutory measures such as direct or indirect taxation. These are often bitterly resisted, especially if state agencies cannot truly “ring-fence” such levies for specific transportation improvements. When such measures are threatened, entrepreneurs simply cease or postpone development.

Successful rail-related developments overseas have been based on precinct plans that maximise the opportunities for growth around stations. These recognise the typical multiplier opportunities around rail stations in town centres (particularly those developed pre-WWII): integration with neighbourhood amenities, walkable streetscapes, and connectivity to other commercial precincts. A deliberate process of brokering and alignment with stakeholders (public, private, community, Mana whenua) to develop a precinct plan (sometimes known as Integrated Transport and Capital Works Plan) provides certainty in goals, commercial opportunities, outcomes, and Return on Investment (ROI) for all parties.

Early communication of potential infrastructure contributions, ownership & tenure mix (leasehold, freehold, land-use), land amalgamation and acquisition requirements has produced certainty for private developers and reduced their risk in becoming involved in projects. Further catalyst employers have successfully driven long-term and sustainable employment for regional

towns, both encouraging population growth, a supportive ecosystem of businesses, and commuting from other regional centres.

It is worth noting the indirect benefits and cost savings associated with rail. For example, avoiding greenfield, car-dependent growth reduces the negative economic impacts of congestion, road maintenance, and air pollution. Concentrated growth will also support the economic activity and revenue of existing centres.

Question 3 – How LVC Might Work

LVC consists of three steps.

1. Value creation - when government takes action on or adjacent to private land, that increases its value; usually an infrastructure investment often coupled with a change in land use regulations which makes an area more attractive for development.
2. Value recovery - when the full or partial value increase is recovered from the beneficiaries by the government through a specific mechanism.
3. Value distribution - when the recovered land value is reinvested in other projects to realise public benefits and / or offsets costs already incurred.

The Organisation for Economic Co-operation and Development (OECD) has produced a taxonomy of LVC mechanisms which, whilst not completely comprehensive, provides a good overview of the main options. This taxonomy, **shown in Appendix 1**, reveals there are a number of mechanisms that can raise funding from investment beneficiaries. It should be emphasised that ideally, these beneficiaries should be considered as active partners rather than passive recipients of a tax.

There is little evidence that LVCs are being actively considered for capital funding passenger rail infrastructure in New Zealand, which still comes from a mix of Road User Charges (through the Waka Kotahi National Land Transport Fund), local body transport rates and Crown Appropriations (from general taxation) provided to KiwiRail.

The OECD taxonomy does not include Tax Increment Financing (TIF), which uses a proportion of future tax revenues generated by development to repay borrowing costs for building the enabling infrastructure. This approach is being used for funding of infrastructure for housing development which is then paid back by the increase in rates collected – for example at Silverdale north of Auckland. Again there are currently no examples of TIF being considered for passenger rail in New Zealand.

4. Use of LVC for Passenger Rail

LVC is actively being looked at for supporting the development of new rail transit routes in countries as diverse as the USA, UK, Australia, Sweden and Canada. Some LVC schemes have now reached a level of maturity that it is being adopted for raising developer funds for a variety of rail transportation projects. It has been shown that LVC can raise between 20% and 75% of the capital cost of a new line including stations in some urban settings for example.

Where the right market conditions exist, it is possible to use LVC to great effect in paying towards the cost of transport and especially rail transit projects.

Case Study: London Crossrail – The Elizabeth Line

Crossrail was one of the first UK projects to successfully deploy value capture tools as a key part of its funding strategy. Value capture contributed over £1 billion towards the project capital costs and raised the bar for future investments.

Crossrail (now known as the Elizabeth Line) put in place a clear strategy at the earliest possible stage of the project life cycle, thus ensuring that the right supporting legislation, governance and regulation was in place to enable the strategy. Crossrail led all negotiations directly with developers, creating and then managing all the subsequent commercial agreements, not only maximising benefits to the project purse, but also ensuring that the deals created a win-win for both the public and private sectors.

Additional benefits included the construction of Canary Wharf and Woolwich station boxes, whilst the developers created high quality commercial and retail space together with adjacent housing. These transport-oriented developments (TODs) have helped deliver on Crossrail's promise to lead on urban renewal and regeneration. This can be seen clearly at Tottenham Court Road Station with the opening of the Elizabeth Line driving this part of the city to provide improved public and private facilities.

Appendix 3 – Case Studies has more details on this and other case studies.

In the early stages of the financial feasibility assessment of a major rail passenger project, if there is a shortfall in funds, there may be a wish to elevate the project up the governmental priority list by requesting less government help or evidence of debt service ability from the project itself. An LVC mechanism can help authorities pioneer with self-financed projects, given the right conditions. Importantly the earlier the process of capturing value takes place the more can be raised.

Examples of new LVC are hard to find in New Zealand or even Australia, especially significant value capture taxes which would rise along with the potential massive windfall gains in land value in the big cities that come with multibillion-dollar roads and rail lines. The new Suburban Rail Loop in Melbourne, Victoria is being assessed as a major test case for Value Capture as its major source of funding – this is an AU\$50 to AU\$100 Billion project and at its genesis LVC was trumpeted as the major source of funding to effectively underwrite the initial Government funding over time.

Historically Hong Kong, Japan, London and the USA provide good examples where rail companies have been able to fund significant portions of their capital costs by developing and subsequently capturing the land around and above their train stations. This not only created a new funding source to help fund infrastructure, it also generated new housing and retail space around rail transit hubs. Much of the original Railroads in the USA were funded this way and helped to develop whole new “greenfield” towns along rail corridors. Examples in New Zealand of such developments around rail stations include the developments that happened above the downtown Britomart rail station in Auckland in the 2000s. The challenge is to ensure that rail is able to capture this value as Michael J Savage, former NZ prime minister, noted as far back as 1938. Whilst it is unlikely to fund 100% of the required capital funds such mechanisms can significantly lower the burden on taxpayers and ratepayers and can be part of the funding mix to give New Zealand better options. Indeed as stated earlier overseas experience shows this source

of funding can be in the range of between 20 & 75% of capital funding requirements through ongoing annuities.

Of course it suits people with vested interests in land to be subsidised by everybody else. Yet there is a remarkable degree of consensus – including from developers – on the need for expanded land taxes to take their proper place alongside other taxes. Such expanded land taxes spread across the big cities could take a load off the general taxpayers in funding the transport infrastructure from which city and new regional property owners ultimately benefit, either directly or indirectly. So too could levies on landowners who benefit from transport-specific zoning and density decisions, especially related to rail. This is a tool which is advocated by several prestigious bodies involved in planning and development (but not others). The equivalent portion of government money which would have been spent on urban or regional transport could stay in the pot of consolidated revenue, to be spent on any number of other essential services or infrastructure – including raising the deplorably dangerous standards of many country roads. Or it could reduce pressure on government debt and/or privatisation. It could also reduce the burden of funding required for public transport subsidies.

Successful rail-aligned urban regeneration have the following in common:

- Strong vision and precinct plan with clear goals and outcomes
- Good governance structures, that have clear roles, cross-agency transparency and continuity throughout development process
- Strong placemaking principles through tenure mix, anchor institutions, catalyst projects, and neighbourhood amenity
- A long-term vision of implementation and benefit-realisation.

The various studies in **Appendix 3 – Case Studies** at the end of this submissions give several real world examples of how these rail aligned regeneration can occur in various parts of the World.

5. Recommendations and Next Steps

With these points in mind a number recommendations could be formed:

Recommendation 1: A broad-based land development tax, where required, could be introduced across New Zealand for new residential developments to help fund necessary sustainable infrastructure including the provision of passenger rail services required to give residents good sustainable transport access and make places vibrant and attractive to live in. The wide array of organisations from across the political spectrum supporting a new, broader new land development specific land tax system need to combine their political lobbying efforts. Inward investment from international partners and financiers from overseas (such as KfW- IPEX Bank) can help bridge fund projects, with some Crown initial underwriting for a period, until the benefits are clear to beneficiaries at which time this value can be captured through broad-based land development tax. This will help give comfort that such taxes will not be levied before benefits are apparent to the ultimate beneficiaries of such investments.

Recommendation 2: More urgently – and with tens of billions of dollars in transport infrastructure already in the pipeline or planned – governments need to introduce “major

beneficiary” contributions through expanding LVC options through regulations and legislation. There should probably also be levies on the windfall gains in land value which come from planning decisions related to particular transport projects, which are enjoyed simply at the stroke of a pen. Continued delay in capturing value reduces the potential revenue, as land speculation continues apace.

Recommendation 3: The Central Government needs to uniformly enforce its stated policy of insisting the regions ensure beneficiary contributions before handing over Central Government funds for new transport infrastructure. This of course will not totally supplant Central Government funding but contribute to the pot of funding sources. Care needs to be taken here to engage with Iwi and Tangata whenua ensuring our Treaty of Waitangi obligations are met.

Recommendation 4: The planning profession needs to urgently address the conundrum of preserving prime agricultural land on the urban fringes e.g. the highly fertile land around South Auckland such as Pukekohe, and at the same time as capturing some of the increased land values for transport infrastructure spending in the same fringe, or further afield regional areas. Inter-regional passenger rail opens the opportunity of going much further afield from these areas to create new settlements and towns with more sustainable transport links and services from the bigger centres where often the productive agricultural land is not so pervasive.

Recommendation 5: Representing the people with the strongest interest in value capture, politicians in regional areas at all levels of government need to band together to demand greater equity in transport infrastructure spending. They should also demand that big-city and some new town beneficiaries on the rail corridor contribute their fair share for taxpayer-funded projects that increase the value of their land e.g. developers could help fund a new station at Pokeno in the Northern Waikato as their residents will benefit from this investment.

We believe that LVC has not been given the priority from successive New Zealand governments, that it should have, and it is time that serious work is done to make it happen – including business case, legislative reform and sector capacity / capability building. With huge pressure on public finances, the time is now right for fundamental change.

Next Steps

We will be exploring these benefits and the areas discussed above in more detail in the next Making Rail Work report which is due in February 2023 which will include some case studies on how strong passenger rail links can encourage growth along a rail corridor including even potentially the development of whole new towns.

As part of our report, we will also discuss the impacts on heritage sites, Iwi, Tangata whenua, farming land, ecological (including areas of scientific reserves) and areas of outstanding natural beauty.

We would be very pleased to continue to engage with committee members when the report is finalised.

APPENDIX 1 - Organisation for Economic Co-operation and Development (OECD) has produced a taxonomy of Land Value Capture (LVC) mechanisms

Mechanism*	Basic Description	How it Works
Infrastructure Levy	Tax or fee levied on landowners possessing land that has gained in value due to infrastructure investment initiated by the government.	<p>Government initiates the infrastructure and identifies the catchment area in which landowners are deemed to benefit from public works and pay the levy.</p> <p>The amount of the levy should be based on quantification of land value benefit obtained and can be either a one-time payment or spread over a longer period.</p>
Developer Obligations	Cash or in-kind payment designed to defray the costs of new or additional public infrastructure and services private development requires.	<p>Triggered by the initiative of private developers and land owners.</p> <p>Obligations can be either negotiated between government and developers, or calculated using a fixed formula.</p>
Development Rights	Cash or in-kind contributions payable in exchange for development rights or additional development potential above a set baseline.	<p>May be levied to build at a higher density beyond an established baseline that is defined in a plan or set of regulations.</p> <p>Requires clear, predefined land-use and zoning regulations that set baseline and maximum densities.</p> <p>Developers may also be charged for development rights when governments alter zoning or relax density regulations.</p> <p>In some cases, limited development rights, for example in protected environmental areas, can be transferred to a different plot better suited to higher density development.</p> <p>Types and amounts of cash or in-kind charges are usually defined in advance by local regulations.</p>
Land Readjustment	Pooling fragmented land parcels for joint development, with owners transferring a portion of their land	Privately-owned, contiguous plots of land are pooled and developed jointly.

Mechanism*	Basic Description	How it Works
	for public use to capture value increments and cover development costs.	<p>Often coupled with zoning changes or relaxed density regulations so that newly developed land becomes more valuable.</p> <p>Landowners provide a share of their land for public infrastructure and service sand are returned a smaller plot that is nonetheless more valuable due to the improvements made.</p> <p>Can be initiated by local governments or private landowners.</p>
Strategic Land Management	Governments actively taking part in buying, developing, selling and leasing land to advance public needs and recoup value increments borne through public action.	<p>Governments buy land or use existing holdings to extract values from them, which can in turn be used to fund public infrastructure and services.</p> <p>If governments acquire land at predevelopment prices, they can fully capture increases in value that are due to public development or regulatory changes.</p> <p>Governments can recover land value gains through sale or lease of rezoned and developed plots that are greater in value.</p> <p>Governments can lease usage rights, capturing value increments through higher rents.</p>

* Note these mechanisms are known by different names in different countries, and the OECD has used definitions which it believes can generally be understood.

Critical Success Factors for Land Value Capture (LVC)

The key to LVC success lies in its 5 basic elements. These are:

1. Both developers and project sponsors acknowledge LVC as an even-handed and transparent process for project funds generation. For the project sponsor, the aggregate of LVC contributions is known ahead of the decision to proceed. Any shortfall can be secured from other sources with certainty. Developers make their contributions when the project is committed (when their land value is assured).
2. Capacity and capability – Public sector organisations need to be staffed with people who have the skills and experience to apply to principles of LVC to real-world situations. A


wide variety of such skills are needed, including development economics, land valuation, financial modelling, geo-spatial modelling, risk assessment / mitigation, benefits assessment / realisation, project planning and commercial negotiation.

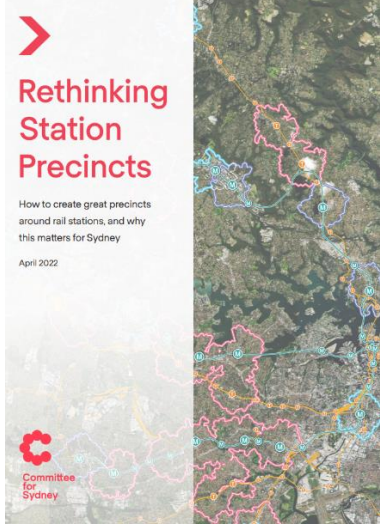
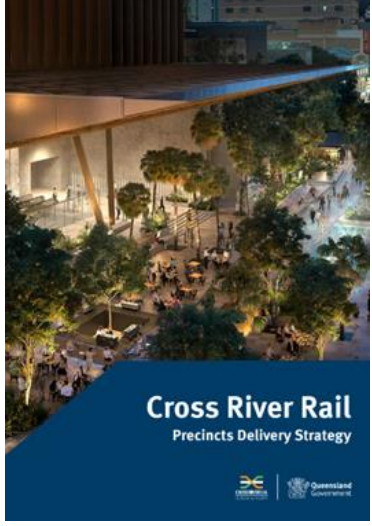

3. There needs to be the political will and public support to make LVC happen in practice, recognising the need to establish the fairest means of allocating funding shares to users, taxpayers and current unearned beneficiaries.
4. Investment is secured from value that beneficiaries would not otherwise have gained. For developers, the LVC process leverages the benefits of a new transportation scheme to enhancing the customer attraction of their adjacent properties. Without their support the project would not proceed. It is a staged process that transportation promoters can deploy in a number of ways whilst maintaining complete control. The progressive way in which LVC is deployed makes it especially attractive for local and central government agencies to adopt. From start to finish, transportation officials have complete visibility of the process and can influence its course at any time.
5. LVC encompasses traditional planning measures and can meet relevant Local or Central Government procurement requirements. Regional and City authorities can still negotiate their planning gain measures with developers who have committed funds through LVC agreements though they will not expected to pay twice for the same benefit. Modelling systems and processes can allow all relevant public bodies to adopt LVC as a fair and transparent way of raising funds for infrastructure projects.

APPENDIX 2 - The OECD goes on to identify only limited use of LVC in New Zealand:

Mechanism*	New Zealand Name	Legislative Provision	Usage
Infrastructure Levy	None	None	None
Developer Obligations	Developer contributions	Sections 106 and 197 of Local Government Act (2002)	Frequent by local government
Development Rights	Inclusionary Zoning, FAR Bonus, Transferable Development Rights	Local Government Act (2002) and the Affordable Housing Enabling Territorial Authorities Act (2008) now repealed	Rare to occasional by local government
Land Readjustment	None	None	None
Strategic Land Management	None	Land Act (1948) and Urban Development Act (2020)	Rare by national and local governments

APPENDIX 3 - Case Studies

Case Study	Descriptions and Website:
	<p>This paper looks at the Australian Government’s Principles for Innovative Financing that were released in 2016. It examines how projects can be analysed for their suitability for innovative financing arrangements and new revenue streams – including equity, loans, government guarantees, user charging and value capture. Value capture is a term used to describe a range of funding and financing mechanisms which seek to leverage the broad range of benefits (such as uplift in property values and labour force accessibility) which can be generated by new or upgraded transport infrastructure.</p> <p>Various case studies are explored.</p> <p>https://apo.org.au/sites/default/files/resource-files/2016-11/apo-nid70469.pdf</p>
	<p>This study by the OECD looks at land readjustment and expropriation together with effective enabling legal frameworks that can successfully fund the development of transportation systems and their surrounding areas.</p> <p>It examines various case studies from diverse countries such as Japan, France, South Korea, The United Kingdom and Argentina.</p> <p>It highlights that land expropriation and readjustment techniques are a proven method to fund infrastructure development, with Korea and Japan using them successfully since at least the 1960s.</p> <p>https://www.oecd.org/publications/financing-transportation-infrastructure-through-land-value-capture-8015065d-en.htm</p>
	<p>This study, led by Canterbury University of New Zealand, looks at Land value capture to fund transport investments in cities, international implementation case studies and lessons that can be learned. Case studies looked at include:</p> <ol style="list-style-type: none"> 1. Linha Verde, Curitiba, Brazil – Highway Conversion to BRT 4 2. Kwun Tong Line Extension, Hong Kong 5 3. Gold Coast Rapid Transit: Light Rail 6 4. NoMA Gallaudet University Infill Station development 7 5. London Cross Rail 8 6. Ørestad Development Scheme, Copenhagen Metro, Denmark 9 7. MAX: Red Line Airport Light Rail, Portland, Oregon, USA <p>https://www.branz.co.nz/pubs/research-reports/er17/</p>

Case Study	Descriptions and Website:
	<p>Sydney is in the middle of a rail infrastructure boom, with the potential to transform the way its people live and move around. Making the most of this investment will require a sophisticated approach to land use around stations, involving issues of governance, planning, land economics, urban design and placemaking. This study examines that and shows how that creates value and potential funding over time.</p> <p>https://sydney.org.au/wp-content/uploads/2022/05/Committee-for-Sydney-Rethinking-Station-Precincts-May-2022.pdf</p>
	<p>This document articulates the strategic aspirations for the Cross River Rail (CRR) precincts in Brisbane, Australia by: discussing the precinct visions and their alignment to the Queensland Government’s policy ambitions; establishing guiding principles for future development (further detail provided in Section 5); and outlining the process being undertaken by the Cross River Rail Delivery Authority to realise the aspirations for the precincts.</p> <p>https://s3-ap-southeast-2.amazonaws.com/cross-river-rail/wp-content/uploads/2019/12/14102642/Cross-River-Rail-Precincts-Delivery-Strategy.pdf</p>
	<p>This study looks at how examples of potential faster inter regional passenger rail investment Australia can act as a catalyst for regional development. Fast, frequent and reliable rail services can change the economic dynamics of cities and regions and this can lead to value creation and ultimate value capture to help fund such initiatives.</p> <p>https://www.jacobs.com/sites/default/files/2022-03/Fast-Rail-Growing-Regional-Centers.pdf</p>