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Customer Stewardship: Infrastructure's missing link

Policy Outlook Paper No. 5

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Better Infrastructure Initiative

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Garry Bowditch

Executive summary

Customer stewardship matters because infrastructure is an intimate part of nearly every aspect of our lives, therefore quality of services and astute long-term investment decisions have never been more important.

The quality of a community's assets and services – schools, hospitals, roads, water, power and waste – together have a profound impact on life-defining decisions: where we live, what jobs we do and how we connect with our community and friends. Infrastructure now has an even bigger role in shaping the future quality of life for our children and grandchildren.

Customer stewardship in infrastructure challenges all stakeholders to much broader thinking and to finding more enduring answers to our economic problems (Chapter 2). This paper argues these answers are more likely to be found in the fertile soil of building relationships, which reinforce growth through reciprocity and are sustained with a commitment to participation first.

No jurisdiction should tolerate an absence of customer stewardship from its infrastructure. The challenge of implementing it is neither technical nor engineered in its nature. Instead, it demands cultural change powered by governance reform where governments enable owners and operators to interact with customers to inform decisions about the types of services they need and prefer.

The Better Infrastructure Initiative (BII) has intensified the development of a framework for customer stewardship since it was first outlined in *Policy Outlook Paper No. 4, Building a national consensus – why customer stewardship matters*. *Paper No. 5, Customer stewardship: Infrastructure's missing link*, has benefited from deep collaboration with the industry to develop and pilot much-needed tools like the customer stewardship Five Pillars Blueprint and Compass (Chapter 3). These can help owners and operators to create the right capabilities and navigational skills to prepare for and get underway on their customer stewardship journey, or voyage as it were.

Embedding a customer stewardship ethos into every aspect of the infrastructure life cycle is BII's goal. However, it can only be achieved through a long-term process of cultural change supported with better regulation and market design that consistently rewards collaborative quality outcomes.

Australia is, and will most likely continue to be, a big and world-leading spender on infrastructure. As such, it has a great deal to gain by embracing customer stewardship and staying closely aligned with customers and communities, as this will deliver major project benefits sooner, and with less capital.

First-class infrastructure governance standards have yet to turn towards the reforms that can benefit services, customers and community. Technical engineering and financing considerations remain dominant and are centred on the physical aspects of infrastructure as an asset, rather than delivering the right long-term service outcomes, which for customers too often are left to chance.

Timely, scaled and feasible infrastructure is critical to unlocking national productivity growth. Customer stewardship seeks to not only deliver the right long-term outcomes for its customers but also ensure the nation's productivity is enhanced with better capital allocation that uses less money and other resources.

Static infrastructure occurs for many reasons, which include a compliant mindset shaped through onerous regulation and contractual lock-in, or just a managerial preference for running on 'business as usual' assumptions, all lead to it being less sensitive to customers.

Static infrastructure, for whatever reasons it occurs, risks being a drag on the economy and our quality of life. It manifests in many ways, such as preventing getting to work quickly, causing greater anxiety to access essential services, as well as stress when customers get poor value for money.

Infrastructure owners and operators in Australia and around the world can benefit greatly by holding themselves accountable too much higher governance standards associated with customer stewardship. In doing so, they will open up new value creation pathways for themselves and their customers with less risk of future regulatory intervention. But before that can happen, all infrastructure providers need to ensure they have the right organisational foundations to demonstrate a readiness to embark on a customer stewardship journey.

All 10 exemplars profiled show a predisposition that orients their people and management processes to the customer, and in particular the capacity to exchange information with them to inform future decisions. Whatever their differences, these exemplar organisations share in common a willingness to be alert and ready for change and want to share their customer stewardship journey to help others also make positive relationships.

For example, Southern Cross Station in Melbourne now has 13 years of experience that has emboldened PPP concession holder Civic Nexus to go above and beyond the contract to make sure the right long-term outcome is secured for the city, its citizens and investors. Meanwhile SA Water and Adelaide Airport have struck up a unique collaboration to address extreme higher temperatures that make airports more expensive and less attractive destinations. And in so doing they found a way to fix what was previously thought unfixable.

Sydney Water knows that its water is for living well and must be invested in responsibly and that is why it has developed an economically and transparent mechanism to do just that. In the case of Melbourne Convention Centre, South Wharf precinct development is a customer-centred expansion to an existing PPP that focuses on place-making, new business and investment and long-term jobs for the global city of Melbourne.

Importantly, across the Tasman, City Rail Link, New Zealand's largest transport project, sets a global benchmark for its customer stewardship of integrating indigenous culture into the design and delivery of this city-transforming endeavour. The next steps (Chapter 5) are to develop and implement a reporting framework for customer stewardship that provides a common platform for infrastructure service providers where they can report on what they are doing about building a customer stewardship culture, and what circumstances are shaping decisions and outcomes achieved for customers, communities and their investors.

A customer stewardship-reporting framework needs to emerge to improve the quality of the conversation with customers, which can then underpin a more positive and forward-looking investment environment.

Building community confidence that both public and private infrastructure is meeting, and will continue to meet long-term interests are essential to a prosperous future. Customer stewardship is rapidly evolving to help reset the industry from a pretty obvious starting point, by first lifting the quality of exchanges with customers.

Chapter 1
It's a matter of stewardship

Customer stewardship is a fundamental reform and a catalyst for cultural change centred on people and relationships. Australia can rely on this to help navigate the future with greater ambition and conviction to service first.

The proposition of this Policy Outlook Paper is to re-establish a fundamental and too often missing link in the chain of responsibility for infrastructure provision, namely long-term customer stewardship. Done well it offers modern infrastructure a framework so that two very important and enduring outcomes are secured.

- First, community and customer trust is strengthened with every dollar invested in infrastructure, and
- second, the quality of capital allocation to infrastructure is enhanced with investment returns that come with the full permission of customers and the community.

Together these form important benchmarks for a sustainable, positive and enduring customer-centred infrastructure future.

Customer stewardship embeds a set of foundation pillars that can help guide project sponsors, owners and operators of infrastructure as they navigate through the complexities of infrastructure decision-making without losing sight of customer needs and community expectations.

At its heart is that all infrastructure should seek to deliver services that translate effectively and dynamically over time into what is needed and preferred by customers and the communities they serve.

But translating the huge upfront investments, where there is a big focus on engineering and technology that defines much of the long-term legacies of infrastructure, can make the end customer difficult to recognise and focus on. These same characteristics also make it hard to respond to customers over the medium to long term and bring about change when it is needed; overcoming these cultural and technical biases describe the customer stewardship challenge.

Customer Stewardship defined

Infrastructure has not always had the benefit of a strong customer-centred culture.

Customer stewardship is fundamental to the future of infrastructure, because without it an absence of both discipline and purpose to guide the capital and operational spending will prevail. Left unchecked, this would not be conducive to building community and customer trust and deny investors the full potential of their investments.

Peter Block (1993)[1] defined stewardship as:

> *...the set of pillars and practices that have the potential to make dramatic changes in the governance of our institutions. It is concerned with creating a way of governing ourselves that creates a strong sense of ownership and responsibility for outcomes at every level of the organization. It is a buck that stops everywhere. It means having more of a partnership with customers and creating self-reliance on the part of all who are touched by the institution. It says that the answer to economic problems is not reduced costs or better funding; it is to focus on relationships, reciprocity, and participation first.*

Customer stewardship for the purposes of this Policy Outlook Paper and the previous one is informed and inspired by Block and we would simply describe it as: the collective management pillars and practices that focus on long-term customer outcomes.

Unless customer stewardship is embedded into every infrastructure organisation, regulatory agency and contractual instrument associated with them, its absence will almost certainly contribute to systemic problems and poor customer service that will be increasingly expensive and more difficult to deliver.

Disruption, trust and leadership

The most important decision made by Tim Berners-Lee, acknowledged as the inventor of the World Wide Web, was not the creation of computer source code but the decision to share it with a global community of users. In just a few decades, it is easy to see the impact the internet has had on many business models, creating new businesses while destroying others; the impact on society, however, has been even more complex and far-reaching.

In 1998, Google enabled internet users to find things without clumsy 'Yellow Pages'. Since 2004, Facebook has enabled individuals to be connected no matter what the distance. Opinions that once were shared one conversation at a time are now shared with thousands instantaneously around the globe. Since the mid-1990s smartphones have made the internet available nearly everywhere, and made desktop computers less important.

But what has all this got to do with infrastructure?

Surprisingly, as so many businesses have been disrupted by technology and shifting social norms, basic forms of infrastructure have been relatively immune.

But it is now infrastructure's turn for disruption driven in part by technology but mostly by the infrastructure customers themselves. These customers are emboldened to air their concerns, dissatisfaction and delights with escalating expectations of not only services that work, but meet ethical and economic standards as well.

Infrastructure customers are no longer tolerant of price increases, falling service standards and decisions they believe are not leading to good outcomes in the short, medium and long term. While this creates a volatile environment for infrastructure owners and operators, it is also awash with opportunities for customers, entrepreneurs and investors to shift the infrastructure paradigm to customer stewardship. In fact, those that get it 'right' will define the next generation of wealth and jobs that will shape our cities and compel economies to adapt.

While the rise of the internet has been unambiguously apparent, so has the global decline in trust. The Edelman Trust Barometer Global Report,[2] which has been examining the issue of trust for almost 20 years, demonstrates that globally trust in institutions has been declining.

The 2018 Edelman report is particularly insightful. Edelman argues that what we are seeing globally is a polarisation of trust. The survey, with over 33,000 respondents from 28 countries, reveals that overall there are low levels of trust in institutions, but also that there is volatility around trust.

Despite the world drifting into a stagnant state of distrust as described by the Edelman report, there are also very clear signals that community stakeholders expect business to lead in redressing this crisis of trust. Indeed a convincing 64 percent of survey respondents say CEOs should take the lead on change rather than waiting for government to impose it. That means that the top priorities for CEOs are to: build trust in their company (69%), ensure their products and services are high quality (68%), ensure business decisions reflect company values (64%), and increase profits/stock price (60%).[3]

Earning the right to be trusted

Customers and community sentiment are intimately intertwined, particularly when considering essential infrastructure like water, energy, and transport such as toll roads. Stakeholders and communities are increasingly scrutinising organisations for the stewardship that goes beyond basic environmental and pricing considerations, to capital structure. This includes the role of debt versus equity, dividend payouts to shareholders, responsible human capital management and reinvestment in the infrastructure assets and businesses that run them.

The challenge for Australia, and indeed the world, is the infrastructure consensus and the community trust that underwrites it that has endured for a century must not only be maintained, but also extended as the scale and complexity of infrastructure needs continue to escalate rapidly.

Governments around the world have sought to strengthen their position with the promise of big infrastructure projects. However, political expediency is often a contributing factor in governments sponsoring the wrong projects, at the wrong time and place, resulting in cost overruns, and high opportunity cost to people's liveability and national productivity.

As a result, the quality of infrastructure governance in both the Organisation for Economic Co-operation and Development (OECD) and the developing world has considerable scope for improvement. At the same time as infrastructure governance has been underperforming, there appears to be a broader 'megatrend' at play where trust across the globe in both cities and regional areas, appears to be increasingly in short supply.

Customer-led infrastructure is a simple acknowledgment that what customers care about is not the infrastructure as a physical asset – but the services they receive from that infrastructure.

The basis to maintain and then further earn the right to be trusted will require infrastructure owners and operators to meet a fundamental 'service' expectation that is made up of two essential and interrelated parts.

The first is the presentation of services that are relevant, reasonably priced and with informed choice. The second is these assets and services are managed to a standard that can adapt and flex to changing circumstances, so the fabric of the broader infrastructure network is better off, and not compromised over time with falling service standards in one area that constrains overall network performance.

Although diligent engineering, technical design and maintaining assets are obviously important and critical to infrastructure, it is also apparent these traditional areas of competency are quickly emerging as not being enough.

It is imperative when governments invite private capital to have the privilege of ownership and custodianship of infrastructure that they are not only motivated to perform, but also rewarded to achieve stewardship outcomes that accord with community values.

The Better Infrastructure Initiative (BII) *2017 Customer Stewardship Exemplars* highlighted that ownership structure was a lesser consideration than that of an organisation's transparency, accountability of fiduciary board and culture. While stewardship was evident in aspects of many organisations, our research found it was developing unevenly across infrastructure.

> Up until now finding the right path for the industry to evolve has been challenging and elusive for many owners, operators and regulators of infrastructure.

However, the transition from long-term management of the asset to the stewardship of the infrastructure customer has never been closer, following an extensive university and industry collaboration that has the potential to reform, enhance and re-align industry to the community and its customers.

Reigniting ambition

Global infrastructure must move beyond its current ambitions of technical excellence to a future where customers, asset owners and operators exchange information, understand needs and preferences and are motivated to meet them in a way that lifts the performance of the entire system.

This simple process of stewardship underpinned by respect and humility to the customer and the community has been progressively lost, as infrastructure gets bigger and more complex.

Correcting this situation and adopting a positive, long-term framework that rewards and recognises customer stewardship is an important catalyst to develop a new mindset, culture and mode of operation for infrastructure that can rebuild trust through better service, lifting innovation and driving responsible investment performance.

Modern lifestyles have dramatically shifted the way in which we interact with others, and in particular how we rely on infrastructure whether it is at a community, city or national level.

As individuals we are increasingly delegating significant elements of our well-being not only to other people, but also to institutions, be they government or private sector, to deliver life-giving services in health, ensure the safety of our children in transport, and the connectivity and quality of our intense social and economic lives through utilities.

At the heart of delegating such intimate aspects of our lives is an assumption and expectation that we can trust those given this great responsibility to act with integrity and with our best interests in mind. Trust is at the core of an individual and personal relationship we have with institutions. Infrastructure has a disproportionate role to play in ensuring trust accretes over the long term through the responsible provision of services that underpin our safety, social and economic wellbeing.

Investors must choose wisely

Institutional investors can and must help buttress an enduring customer-led, market-based stewardship for infrastructure. That is where responsible owners are active in managing their assets to meet the shifting needs of customers, and seize the initiative in reimagining infrastructure that will adapt and perform to higher standards of service and innovation over the long term.

While many investors are attracted to the infrastructure asset class because it is typically a safe haven from volatility accompanied by inflation adjusted returns, it is important not to lose sight of customers, and engage them to ensure services are timely, scaled and feasible.

A plethora of challenges confronts investors. On the one hand, they are under pressure to deliver dividends, especially to retirees that depend on investments to meet living costs, and on the other hand they need to also reinvest in assets and networks in response to climate, technology and social change.

Public trust is delicately balanced as to how investors navigate these challenges.

A means to an important end

Events unfolding in the political and business world point to the fact that trust and integrity continue to touch many dimensions of our lives, and the speed at which we have to extend trust to participate in this interconnected, congested and dynamic world is accelerating owing to the abundance of new technologies and business models that are emerging.

The irony of current global circumstances is that while trust in public institutions may be in short supply, as individuals we appear to be extending our trust at a rate of growth like never before.

For example, we may be very reluctant to trust a politician or a bank with intimate aspects of our lives, yet we appear to be ready to jump in a car with a complete stranger and have them drive us through ride-sharing schemes or have an algorithm determine our best route for travel, and what we buy online or stream and watch.

It will not be easy to deconstruct the phenomenon of trust and how it may manifest itself in our fast changing world. Artificial intelligence will test the boundaries of community trust even further,

and it is important that its integrity when applied to infrastructure maintenance and operations is of a high order consistent with pillars of customer stewardship.

It is for these reasons that customer stewardship is a means to a very important end; rebuilding and sustaining customer and community trust. Integrity demonstrated through the consistent behaviour of investors, owners and operators represents a big step forward, and done well and with the support of regulators should help secure greater scope for new investment and better returns in existing infrastructure as well as greenfield opportunities.

The buck stops where?

Policymakers around the world must reconcile their rhetorical argument that infrastructure is for the long term with a commitment to a customer stewardship framework that ensures good long-term outcomes.

In other words, a framework that can better accommodate change so assets and services can adapt to future uncertainties and shifting needs of customers, communities and the broader economy. This is a precondition for infrastructure to be a genuine contributor to better living and productivity, not a drag on either.

Infrastructure is not a low-risk endeavour; it faces an array of complexities and uncertainties where its owners and operators must flex and adapt to its changing circumstances.

There is neither regulation nor government intervention that can assure customer-led infrastructure takes root. It relies on responsible owners that have a disciplined and transparent approach to managing their balance sheet, and a strong focus on customer interaction to inform new investments.

It is now time for the talent and excellence of the infrastructure sector to refocus on the customer and be ready to be more accountable about their capabilities and outcomes their governance systems produce. It is important that reform proceeds where infrastructure owners and operators are acknowledged and rewarded for delivering consistently strong customer stewardship outcomes, not just building and maintaining assets.

Chapter 2 will examine industry and political developments and their implications of how business will need to be readier to navigate outcomes that are beneficial to customers, shareholders and, most importantly, the community.

Global infrastructure must move beyond its current ambitions of technical excellence to a future where customers, asset owners and operators, understand needs and preferences and are motivated to meet them.

Chapter 2
The state of play of infrastructure

Infrastructure owners and operators face uncertainty, risk and change, but at the same time the opportunity for growth and delivering value to customers and the community has never been greater. This chapter briefly summarises some of the forces for change, highlighting the role that customer stewardship for infrastructure can play to help navigate the future for investors, operators, regulators and policymakers.

Governments face important choices

A traditional challenge for governments is the contest between fiscal management and infrastructure investment. The need to prioritise fiscal management in order for governments to retain their credit standing in capital markets and confidence with the public, means that not all the infrastructure needs that are identified can always be met from the public balance sheet.

According to a survey by the European Investment Bank nearly 600 cities in Europe report sizeable gaps in infrastructure investment.[4] The survey reveals the main barriers to infrastructure investment are tight fiscal budgets with 75 percent of municipalities reporting that a lack of finance due to fiscal constraints is the main obstacle to infrastructure investment.[5]

It is important that policymakers de-link the choice between fiscal responsibility and infrastructure investment. Infrastructure can and should accrete more productivity and higher living standards that expand the whole economy, including taxation revenue. With the right governance and regulatory frameworks it is possible for governments to meet infrastructure investment needs through a combination of public investment and private capital.

Money still flowing but institutional investors not filling gaps investors

According to the Official Monetary and Financial Institutions Forum (OMFIF) there are 750 global public investors managing US$36.2 trillion of assets, an increase of 7.3 per cent over the last year. OMFIF reports that between 2009 and 2017 such funds' combined asset allocation to infrastructure grew by 165 percent.[6] As investors increasingly allocate to infrastructure, the challenge to find investment opportunities remains. The 2018 Preqin Global Infrastructure Report reveals US$150 billion of its funds have been committed but not allocated to invest in infrastructure. This has increased from US$65.8 billion in 2012. [7]

The continued presence of such capital is likely to sustain infrastructure asset prices in the short to medium term. In the absence of a pipeline of investment opportunities from government, investors will seek to allocate capital into non-traditional infrastructure assets. An example of this is the acquisition of Brookfield Infrastructure Partners of Enercare, which rents furnaces, water heaters and air conditioners to 1.6 million residential and commercial customers in Canada and the United States, for US$3.1 billion.[8]

According to Preqin, the annual number of infrastructure deals completed fell in 2017 for the first time in a decade: 2378 transactions were completed for an estimated aggregate US$916 billion, representing a 6 percent drop in number but an 8 percent increase in estimated aggregate value from 2016.[9] At 1.8 percent of GDP, investment in infrastructure in the European Union is the lowest in 20 years.[10]

Uncertainty for private capital

Despite tight fiscal settings, the appetite of governments to access private capital is mixed.

In some cases there are structural disincentives for governments to open up infrastructure to private investors. In the European ports sector, for example, which the European Commission estimates needs €750 billion in total network investment from 2016 to 2030,[11] Connecting European Facility Transport grants by the EU are budgeted at €24.05 billion for 2014–2020.[12] In the latest round of grants, 12 projects were selected corresponding to a grant funding of €85.8 million.[13] For EU governments that may consider privatising ports infrastructure, the risk is they may miss out on their share of EU funding in the event that a port was privatised. The extent to which structural factors create disincentives for private investment is an area that needs to be better understood.

In the United Kingdom the high-profile collapse of Carillion, a large UK facilities management that held 420 contracts with the public sector, is likely to have reduced public trust that the private sector can manage infrastructure. [14] Concerns about the performance of water utilities and private transport operators have led to calls for nationalisation by the UK's Labour Opposition. The threat is considered real by investment markets, which have marked down the shares of UK utilities since Labour Party Shadow Chancellor John McDonnell announced at Labour's annual conference in September 2017 that 'rail, water, energy, Royal Mail: we are taking them back'.

In Italy the tragic collapse of the Morandi Bridge with the loss of 43 lives has resulted in a vocal attack on the operator, with ministers arguing that they 'did not spend the money they were supposed to'. At the time of writing, Autostrade was defending its record.[15] Prime Minister Giuseppe Conte wrote on social networks: 'From now on, all concessionaires will be bound to reinvest most of their profits in modernising the infrastructure they [manage], they will have to comply very stringently with their maintenance obligations and, more generally, they will have to understand that infrastructure is not a financial income, but a public good.'[16] One of the challenges for private sector infrastructure service providers that are delivering infrastructure under concession agreements is that the terms of agreements are locked down in confidentiality agreements that are designed to ensure competitive tender processes, but reduce public visibility of the terms of infrastructure asset management. This lack of visibility in turn can reduce public trust in private sector operators.

In the US, President Trump's infrastructure plan has been released and is awaiting debate in Congress. The plan is seeking to stimulate US$1.5 trillion of investment in infrastructure over the next ten years through a series of infrastructure reforms and a focus on creating incentives for states to attract new, non-federal revenue streams dedicate to infrastructure investments.[17] It would divest certain infrastructure assets the federal government owns, including energy transmission assets, Ronald Reagan Washington National and Dulles International airports and George Washington and Baltimore Washington parkways.

The President's infrastructure plan has a much-needed focus on reforming impediments to infrastructure investment; however, its passage through the legislative process is uncertain. It proposed, for example, to amend title 40 of the United States Code, which because it restricts the US Government's ability to sell property has a federal property civilian inventory of facilities with an average age of 47 years. The reforms propose allowing the government to take assets no longer needed by any federal agency directly to market. As a result any interested party could purchase assets at a fair market value. The challenge in the US is to progress infrastructure reforms through a divided Congress.

China's Belt and Road Initiative (BRI) promises to make progress through mostly government funding on meet the US$1.7 trillion annual spending on infrastructure investment that the Asian Development Bank estimates is needed between 2017 and 2030 to maintain growth momentum, eradicate poverty and respond to climate change.[18,19] The passing back to Chinese owners of the Sri Lankan port at Hambantota and 69km^2 of land in 2017 because the Sri Lankan government was unable to service debts on loans, has led to disquiet in the

region, with Malaysia and Pakistan curtailing and suspending projects.[20, 21]

The global environment for infrastructure illustrates that governments face challenges in how they deliver infrastructure.[22] With concerns about PPP models, challenges driving infrastructure reforms through parliaments, and geo-political tensions, there is no certain pathway. In this environment customer stewardship with its focus on adaptability, transparency and serving society may offer a pathway for new sustainable long-term investment.

Go beyond the contract: New PPP source code

In *Policy Outlook Paper No. 2, Shifting Australia's infrastructure mindset to the long game*, we introduced the 'Better Infrastructure Futures Framework' (BIFF) with the intention of helping policymakers, investors and the community to better understand the uncertainty and opportunity around long-term infrastructure. The framework's intention was to illustrate that while PPP or similar infrastructure contracts with long-term contractual terms provide a high level of certainty for both the government and owner/operator, these benefits are not costless, and indeed may have an escalating opportunity cost over time to both investors and the economy. In fact, the longer the contract period, the greater chance the benefits of contractual certainty at project commissioning may be offset in future decades. This is because the contract may prevent or give little incentive for the concession holder to respond to emerging threats and opportunities. The result can be infrastructure that is inflexible and static in its environment and for customers.

From our discussions with governments and project managers it is clear there is an untold story of the PPPs that are working. Critical to success is an approach by both government officials and infrastructure asset operators to go 'beyond the contract'. If a PPP is being managed with a 'tick the box' approach that focuses on abatement for sub-standard performance, then a conflict relationship is institutionalised and the PPP is likely to underperform. The key ingredient for successful PPPs, a culture of collaboration, cannot be measured with a tick the box approach.

In the current environment where it is difficult for policymakers to confidently set key performance indicators (KPI) for a PPP for five years let alone 30, Customer Stewardship Blueprint (page 16) may offer a circuit breaker to establish a new collaborative culture that allows projects to adapt over time to the benefit of all. In doing so, they can help jurisdictions to get back on course when experiencing unsatisfactory outcomes with PPPs.

An inquiry by the United Kingdom House of Commons Public Administration and Constitutional Affairs Committee, which examined the ramifications of the collapse of facilities management and construction firm Carillion, heard evidence that successive governments have sought to transfer risk inappropriately with procurement teams aggressively seeking to maximise risk transfer, in some cases without knowing key data about the services they were asking companies to bid for.[23] The committee expressed concern that the sole business justification for private finance initiatives (PFI) appeared to be to keep projects off government balance sheets. The committee concluded: 'It is unacceptable that almost 30 years after the first PFI projects were initiated, the Treasury cannot produce an evidence base to support its claims that PFI is worthwhile for any reason apart from the fact that it takes debt off balance sheet.'[24]

The committee also expressed concern that the government's focus on costs was leading to poor outcomes. It stated: 'The Government appears to focus unduly on cost in its contracting decisions, with a detrimental effect on service quality. The Government's priority to save costs has frequently led to worse services. The Government's approach of pursuing the lowest possible cost and the highest possible risk transfer has flowed from a very transactional approach to contracting.'[25]

Our future may rely on customer stewardship

Customer stewardship provides a pathway for greater effectiveness in translating dollars invested into positive long-term economic and social impacts. It is the necessary scaffolding that every infrastructure entity should adopt as it experiments, designs and implements customer-led initiatives in the infrastructure sector.

Put simply, customer stewardship is the collective management pillars and practices that focus on delivering quality long-term customer outcomes.

We should no longer tolerate an absence of long-term customer stewardship of infrastructure, and the opportunity to begin that transformation is

now possible. Infrastructure forms a potent asset and network that has a lot to do with shaping our future destinies. It is for this reason that customer stewardship is not only important, our future may rely on it.

Customer stewardship offers a pathway to create a 'cycle of trust' that is critical to bridging the growing divide between investors, communities and governments.

Local, national and global infrastructure has the potential to shape a much better, safer and inclusive world. How we can together activate such a vision, of earning trust and the framework for applying customer stewardship, is discussed in the next chapter.

There is neither regulation nor government intervention that can assure customer-led infrastructure takes root. It relies on responsible owners that have a disciplined and transparent approach to managing their balance sheet, and a strong focus on customer interaction to inform new investments.

Chapter 3
Customer stewardship: the reset

Opening up new pathways for enhanced economic performance and social impact is the long game for customer stewardship. That is, a future based on relationships, reciprocity and participation first. It also recognises that infrastructure cannot just rely on past management and regulatory practices limited to cost cutting, rate of return caps and efficiency drives with a 'take it, or leave it' customer philosophy.

This chapter examines the Customer Stewardship Blueprint and how it can be used as a reset for the industry to bring positive change for customers and shareholders in infrastructure.

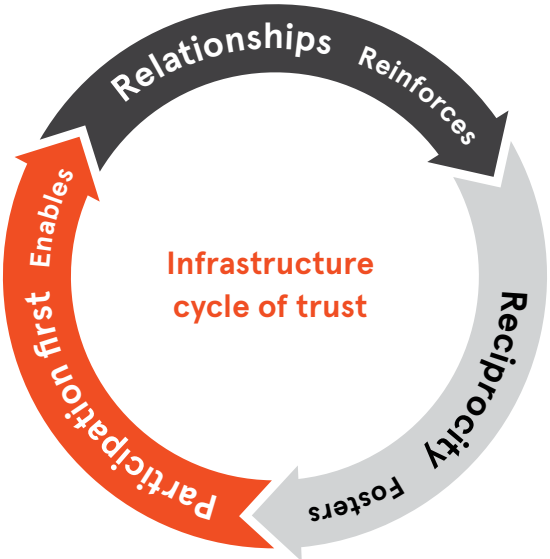
Infrastructure's 'cycle of trust'

This cycle is illustrated in figure 1, which we define as being constituted by adherence to a set of bedrock values, principles practice pillars that create trust with positive impacts for customers, owners and the communities they serve.

Customer stewardship is intended to invigorate a positive and forward-looking transformation agenda so that infrastructure owners and operators can more effectively manage its future in partnership with customers and stakeholders, with less regulation and more latitude to work collaboratively with customers.

Australia should be ambitious about a future where customers and service providers exchange information, understand needs and preferences and are motivated to meet them. It is also important this occurs without the need for intrusive government intervention that can be costly to implement, potentially ineffective at creating good long-term outcomes and that can weaken the leadership role of customers.

Figure 1: Customer stewardship, creating a cycle of trust in infrastructure



The role of economic regulation is fundamental to the viability of a customer-led future for infrastructure, particularly as many entities are monopolies and provide essential services to the community. **Box 1** examines some of the more modern practices of regulation that put the onus on the owner operator to bring the customer into pricing and capital investment decisions.

Policy Outlook Paper No. 4, Building a National Consensus: Why Customer Stewardship matters, first outlined in 2017 the need to strengthen the chain of responsibility, accountability and transparency for long-term customer outcomes.

Ten customer stewardship principles were detailed to collectively represent specific dimensions of customer stewardship. Five principles (rights and fairness, informed with choice, stakeholder management, human capital management and customer-centric design) were focused on short-term and transactional nature of dealing with customers, while the remaining five pillars (transparency, planning, innovation, risk and leadership) were more broadly concerned with long-term customer, community and system-wide wellbeing.

One of the key commitments from the Policy Outlook Paper was the intention to establish a Customer Stewardship Expert Reference Group (ERG).[26] The ERG was established in early 2018, with its role being defined as:

- to be a national leadership group to build the case for policy reform and cultural change
- in support of customer-led infrastructure to develop tools that use data, case examples, models and frameworks to deliver quality long-term customer outcomes for infrastructure.

Refer to end note 26 for list of organisations that make up the ERG.

Strengthening the 'cycle of trust' for infrastructure has been a key focus of the ERG. It is about having the industry do more in the dynamic provision of timely, scaled and feasible infrastructure services, without the need for further government regulation or other forms of intervention wherever it is possible to do so.

Having worked diligently throughout 2018, this chapter summarises the ERG's deliberations.

Box 1: Modernising economic regulation, power to the customer

Victoria's water regulator, the Essential Services Commission (ESC) has developed and implemented a new framework for setting water prices with a focus on customers for the state's 17 publicly owned water corporations.

The ESC delivers price determinations for water utilities every five years and is also charged with regulating energy and transport and administering the rate-capping system for the local government sector.

The ESC asks water corporations two questions that summarise its new approach; what value do you deliver to your customers and what difference are you making in your customers' lives?

The ESC, which has regulated water prices since the early 2000s, noted that while in the early days there were notable increases in performance, there has been little change in recent years with performance now clustering. The new framework aims to give businesses the autonomy to pursue the outcomes of most importance to their customers.

According to ESC Chair Dr Ron Ben-David: 'in the future it will not be possible for water businesses to prepare price submissions without having meaningfully engaged their customers. Businesses will need to identify their customers' concerns, interests and priorities so that their submissions can be expressed in terms of the outcomes valued by their customers. To be clear, this requirement is not just a procedural nicety. There will be no satisfactory regulatory outcomes for a water business that fails to do so.'

The ESC's focus is not to assess the business of the water corporations. Submissions from water corporations are therefore framed as a discussion with customers about the services and outcomes they require. Each business must then decide on how it will deliver those outcomes.

Under the new framework, the regulator is relegated to assessing the accuracy and veracity of a business's self-assessment. The rate of return businesses can earn will then depend on the consistency between the ESC's assessment and the water corporation's self-assessment.

The ESC's new customer-focused framework raises the question as to whether it is time for the Victorian Government to free up its 17 water corporations so they can adapt their businesses. Water corporations are subject to six separate regulatory agencies: Department of Environment, Land, Water and Planning; Department of Treasury and Finance (DTF); Essential Services Commission (ESC); Environment Protection Authority (EPA); Department of Health and Human Services; and Energy and Water Ombudsman (Victoria).

There is evidence that water corporations are seeking to collaborate with neighbouring businesses. An example is the Gippsland Regional Water Alliance[1], with South Gippsland Water, East Gippsland Water, Gippsland Water, Westernport Water, and Southern Rural Water identifying efficiencies across procurement, fleet management, customer services and meter reading.

Enabling water corporations to merge, and to take on new functions, such as waste management where there are clear links and overlaps in favour of the customer, is a next area of focus for water in Victoria and further afield.

For further reading: Dr Ron Ben-David, Marcus Crudden & Dean Wickenton 2016, *A new approach to regulatory pricing*, Essential Services Commission, Network, September 2016.

Customer stewardship blueprint

The 10 customer stewardship principles originally outlined in the Policy Outlook Paper No. 4 have been refined into five pillars of practice. As they are outcomes focused, the pillars effectively combine to communicate simply to customers and communities the qualities, principles and values that they can expect to be applied to the infrastructure that they use today, and how it will be planned and operated into the future.

The challenge for an industry-wide change in adopting customer stewardship, is the multitude of businesses models, regulations and competitive dynamics that occurs across the sector nationally and internationally. It is important to strike the right balance so that customer stewardship is not seen as strict compliance regime but rather a voluntary embrace of key pillars of practice that is not prescriptive and allows maximum latitude for asset owners and operators to find the best way to balance the competing needs and interests of an infrastructure entity.

Figure 2 details the essential elements that make up the customer stewardship blueprint. The pillars and the underlying bedrock of values and principles are intended to work together to strengthen capability and accountability across the many dimensions in planning, designing, building and operating infrastructure.

Customer stewardship bedrock

To achieve or consistently track towards customer stewardship relies on an organisational foundation that must rest on firm values and a customer-centred culture that endures over the long term. Human capital management, customer-centred design, sustainability management, privacy and data integrity are essential bedrock values and principles that infrastructure service operators must establish before seeking to undertake customer stewardship.

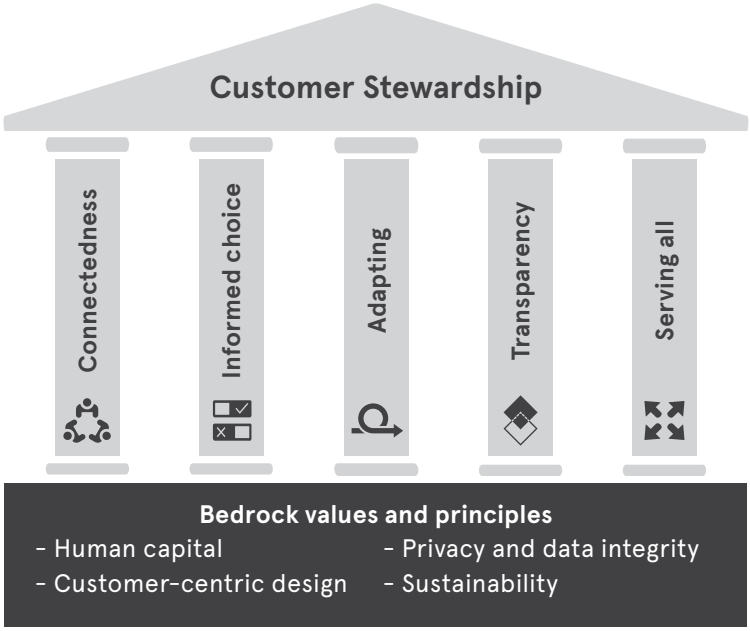
The impact of these inputs is summarised as follows:

Human capital management: an improving culture, management of specific opportunities and risks, including health and safety, employee performance and incentives, are probably more likely to fit with a stewardship ethos.

For example, better practice consists of service providers that:

- establish systems and processes to manage all aspects of human capital and its development
- evidence the importance of organisational culture. Ensure incentives for staff and executives are transparent and linked to customer outcomes
- keep a record of managing key risks such as health and safety, employee performance management and transparency, around incentive structures.

Figure 2: Customer Stewardship Blueprint – bedrock principles and pillars of practice



For example, how executives and staff are paid can influence their priorities to focus on quality of customer support and affect the quality of interaction with customers.

Linking pay and salaries to the delivery of relevant customer outcomes is one mechanism for testing whether the entity has aligned its incentives structures with customers. Linking pay to relevant customer service outcomes is an indicator the infrastructure service provider regards customer outcomes as materially important.

Investing in employee skill development, hiring practices, proactively managing employee performance and organisation culture programs are mechanisms that support organisations to deliver over the long term.

Strengthening human capital management is a bedrock value and cultural foundation that can help set up the infrastructure sector to achieve greater self-direction and self-regulation. In other words, less government intervention that can be prescriptive and reduce scope for a more dynamic, innovative partnership implied with customer-led infrastructure.

People matter in infrastructure and ensuring all systems and processes reinforce a customer-centred culture based on principles rather than rules.

Customer-centred design: is concerned with the extent an entity can demonstrate evidence of systems to measure and adjust in the process of sustaining long-term customer loyalty. This is fundamental in blending together short- and long-term considerations of customer stewardship.

The integration of customer needs and preferences into decision-making for infrastructure design and ongoing service delivery is pivotal to customer stewardship.

For example, better practice consists of service providers that:

- establish and implement customer management systems that reinforce a customer-focused culture
- put customers at the centre of everything that they do, and have systems that continue to address customer needs and preferences over time using existing ways to measure net promoter scores, satisfaction and other customer listening practices that:
  - » demonstrate structures, processes and programs to gain continuous customer insights and customer feedback, focusing on: maintaining operational excellence
  - » develop and maintain a customer-driven culture
  - » deliver clear, simple and transparent information, services, or transactions so that customers get the most from the experience.

This bedrock value and cultural setting is broader than customer satisfaction, which is generally defined as being affected by recent experience at the point of consumption. Customer management systems need to have a focus on the long term and are about ensuring customer experience is repeated and enduring.

Customer-centred design seeks to instil a culture of continuous improvement. It is also highly consistent with evidence-based decision-making, where qualitative and quantitative data are more central.

These practices are helpful to proactively respond to challenges and adapt in the face of changing customer expectations.

Sustainability: is where management practices are focused on delivering long-term outcomes. Evidence that sustainability considerations are integrated into management practices would include:

- alignment of executive remuneration to long term outcomes
- consideration of long-term environmental and social risks
- demonstrated commitment to planning.

Privacy and data integrity: is where management practices are focused on managing data with respect for individual privacy with data systems that protect against cyber hacking. Data is critical for better evidence-based decision-making and improved service delivery. Evidence that privacy and data integrity are integrated into management practices would include:

- infrastructure risk management systems integrated with privacy and data
- data used for executive management decisions, with a focus on ways new insights can be extracted from data drilling.

The Expert Reference Group developed five statements that are intended to serve as customer stewardship pillars of practice to support and sustain a long term 'cycle of trust' for infrastructure. These pillars are summarised in table 1.

Table 1: Customer Stewardship Pillars of practice

Creating a cycle of trust through:	We want infrastructure...	Where...	Because...
1. Connectedness	...to work as a coherent system	...connectedness is much more than just being physical, but also coordinated and integrated in its functions and values	...infrastructure customers, communities and the economy rely more than ever on highly functional interdependent networks
2. Informed choice	...that is committed towards ensuring informed choice for customers and stakeholders	...information for customers is presented simply to ensure they can act upon it to fulfil their needs and preferences	...deeper customer interaction with asset owners and an environment of informed choice will encourage better use of existing assets before consideration of building new assets
3. Adapting	...that can be changed, repurposed and adapted over time	...there are incentives to encourage/ enable flexible responses to changing technology, disruptive trends and customer behaviour	...infrastructure that is not adaptable can be a drag on innovation, productivity, economic growth, customer and community well-being
4. Transparency	...that is accountable to its long-term goals	...performance is transparent and open to regular review	...infrastructure (stewards) should always provide quality and timely information through an open platform that enables the previous informed choice pillar, while driving contestability through innovation and investment
5. Serving all	...that serves all society over its long life	...the needs of customers, asset owners and stakeholders are in balance, and no greater burden is placed on those that are disadvantaged	...infrastructure must continue to demonstrate that it can serve economic, social and environmental challenges for all, not just those that can afford to pay for it

Pillars of practice

To assist organisations to self-assess their customer stewardship capabilities and practices, the following section considers the customer stewardship pillars from the perspective of four questions.

- Why it matters?
- What needs to change?
- How to put into practice?
- How to assess where an organisation is at?

Pillar 1: Connectedness

Why it matters?

Customer stewardship requires infrastructure to work as a coherent system that is connected and integrated, functioning as part of a seamless, interdependent network.

Connectedness is important because infrastructure customers, communities and the economy rely more than ever on highly functional interdependent networks to support economic and social well-being over the long term. Connectedness must bridge both the physical and technology dimensions of infrastructure assets and service provision.

What needs to change?

It goes beyond short-term functional relationships, so infrastructure assets and services can continuously adapt with the customer, stakeholders and the economy over the long term. To do this, connectedness when it operates well as a pillar ensures adjacent infrastructure complement each other to work as a network that can transform customer behaviour, service outcomes and regulation.

Putting it into practice

Connectedness must seek to ensure there is a strong alignment of values, and a shared commitment to securing outcomes that extend beyond the traditional boundaries of infrastructure assets and operations to the networks its customers rely upon, regardless of public or private ownership, including payment and information systems.

For example cars, buses and trains may all be used to complete a single journey and rely on an integrated connectedness that is physical, informational and payment-dependent to deliver a desired outcome. Breaks in connectivity are immediately obvious to customers of the network as they traverse it, and have immediate adverse effects.

While a water network, for example, is usually managed by one entity, it is still in reality a network of many elements of public and private infrastructure, with very similar connectedness requirements. In these cases, customers of the network may only notice connectedness failures at the end point of the network or in its outcomes, rather than along the supply chain journey.

Infrastructure assets and networks should always make living and working both easier, more productive and resilient. In doing so they power better long-term economic and social opportunities for our communities and the nation in the future.

Are we there yet?

What to look for in your organisation includes but is not limited to:

- evidence of policies and processes where the infrastructure asset operator demonstrates awareness of dependence of connected and adjacent networks
- evidence the entity is investing and working beyond defined institutional boundaries where necessary to ensure stewardship practices improve its economic, social and environmental ecosystems
- is there evidence the entity is active with ‘blue sky’ alternatives that originated with customers, stakeholders and communities through the development of trials and pilot schemes
- evidence the entity is responding to customer demand, including considering new investments, mainly using business as usual/profit, operational measurements
- evidence that focus is on managing risks, with risk management processes incorporating broader network considerations, and values reflect community strengthening.

Pillar 2: Informed choice

Why it matters?

Customer stewardship requires infrastructure that ensures informed choice for customers and stakeholders.

Informed choice is important because it equips customers and stakeholders with the necessary information to choose wisely and with an understanding of the consequences of their decision. For owners and operators this is valuable in informing the allocation of capital and other resources efficiently and effectively today and in planning for the future.

What needs to change?

Too often the decision to invest is an administrative/bureaucratic process devoid of customer input or discovery mechanism to identify preferences.

Inherent and fundamental to this pillar is the quality, accuracy and timeliness of information and data to inform when and how to engage with the infrastructure asset and services to best meet their particular needs and preferences.

Good choices can only be built on good information that is inclusive of price to reflect cost of delivery, and access to a range of different quality of services.

Putting it into practice

Informed choice applies to two broad categories:

Customer choice: users and customers can make good decisions to meet their unique needs and preferences, eg choose an energy supplier, transport mode and route; decisions concerning whether or not to buy adjacent services, such as a home water filter or home energy storage device. It is critical that information for the customer is presented simply so they can act upon it to fulfil their preferences. A 'price discovery mechanism' is desirable wherever possible through choice of different prices for service quality outcomes, especially in respect to peak periods of demand. Information given to customers should not be limited to financial costs – sustainability, security, convenience and so forth all represent costs that customers should have access to quality information so as to inform their decisions.

Stakeholder choice: organisations, governments and communities are able to make the right investment decisions, eg do we need a wider road, a desalination plant, a new power station, or an upgraded stadium, and with what attributes? Capital allocation decisions are then led by the use of customer needs and preferences, willingness to pay, data, benefits, and direct customer engagement, to support enhanced infrastructure efficiency and efficacy. Unlocking deeper customer interaction with asset owners, and facilitating an environment for informed choice in new products and services can encourage the better use of existing assets, before committing to building new assets.

Are we there yet?

What to look for in your organisation includes but not limited to:

- evidence the entity can demonstrate willingness to interact with customers, with its focus on delivery of basic outcomes in terms of information and choice to aid customer outcomes
- evidence the entity is seeking to address passivity from customers faced with too much choice or choice that is too complex to effect positive change for them
- evidence of reaching out to provide customers with information to aid choice, eg when to engage, best ways/means to do it
- evidence the entity is accelerating its interaction with customers, with new trials and pilot programs to inform its capabilities and product/service development.
- evidence that price for quality offering is being pursued.

Pillar 3: Adapting

Why it matters?

Adaptable infrastructure is important because these asset and service networks must be dynamic parts of our society not historical relics.

Customer stewardship requires infrastructure that can change, be repurposed, and made more resilient to meet long-term economic, social and environmental challenges and opportunities of the future.

What needs to change?

There is too much focus on design and construction of physical assets and too little attention to whole of life incentives to change, and where restrictive contractual and regulatory practices prevent innovation, customer and community-centricity that undermine long-term productivity, economic growth and liveability.

Putting it into practice

Infrastructure planning and management must be hardwired for adaption to customer needs, and where necessary have well defined independent and transparent mechanisms (ie merit and judicial review processes) that enable change to occur.

Private investors must also seek to be better at adapting infrastructure, and embrace the benefits of managing risk and seizing new opportunities through use of debt and equity holdings to support long-term dynamic change wherever possible.

Infrastructure should continually adapt to and deliver services when and how customers want them today, and into the future, based on fair and reasonable costs of provision, pricing and quality of service. Risk and innovation should be central to planning to allow flexible responses to, for example, changing technology, trends in disruptive activities and shifts in customer preferences and behaviour.

Where infrastructure appears inflexible, flexibility should still be sought. For example, while a road tunnel cannot be easily widened or changed once built, dynamic lane control may make it adaptable to meeting customer, stakeholder and investor expectations.

Easy substitution is a valid form of adaptability. That is, if an asset is designed to be easily replaced, upgraded or substituted at reasonable cost, convenience and sustainability, then it serves the adaptability goal even it if is not adaptable in itself. This process of substitution generally occurs through a well- functioning network of interconnected assets and services.

Are we there yet?

What to look for in your organisation includes but not limited to:

- evidence the entity has structured its approach to innovation and risk management through master plans, eg 20-year horizon/ 5-year update. Weighted Average Cost of Capital (WACC) drive capital decisions; the market sets expected returns
- evidence the entity understands innovation from a technology perspective; reacts to disruption where it affects business
- evidence risk plans are signed off at board level with individual board members responsible via sub-committee
- evidence master plans and capital budgets are delivering; the entity will embed trials into planning cycles to build enhanced organisational capability for dynamic change
- entity proactively embeds innovation in decisions, implements trials, scans the horizon
- evidence risk matters for whole board, with entity demonstrating evidence it understands and practices the connection with innovation and planning
- evidence long-term environmental and social risks are considered.

Pillar 4: Transparency

Why it matters?

Transparency is important so infrastructure can be an agent of change pursuing continuous improvement, not a static asset. It can help keep political interference in-check, identify under and exemplary performance and inform follow up actions with investors, operators, market disruptors, regulators and customers.

Customer stewardship requires infrastructure that is accountable to long term goals throughout its life cycle; where operational performance and governance of data and payment systems are transparent and open to regular review.

What needs to change?

Infrastructure assets should provide quality and timely information through an open platform that enables the previous informed choice pillar, making it easy to determine how, what and where to use an asset or service while driving contestability through innovation and investment.

Putting it into practice

Community trust is significantly sourced from transparency being consistently applied to all lifecycle phases, assessment, implementation, strategic planning and ongoing operations.

Transparency requires formal and embedded practices, including reporting, disclosure and governance, in a manner that protects these practices in the long term from individual decisions, political cycles or any other short-term demands.

Are we there yet?

What to look for in your organisation includes but not limited to:

- evidence the entity reports on an annual cycle focusing on issues that are seen to be sensitive to stakeholders
- evidence the entity provides some disclosure of its approach to human capital management and customer-centred design
- evidence the entity is progressively and innovatively embedding transparency into management practices with a readiness to communicate in ways to meet customer and community expectations outside of annual reporting cycles
- evidence the entity understands the importance of enhanced reporting on approach to human capital management and customer-centred design
- evidence the entity is moving away from a disclosure approach to transparency to embrace stakeholder engagement.

Pillar 5: Serving all

Why it matters?

Lifting economic and social inclusion, along with enhanced environmental outcomes must be done through open and contestable mechanisms. Serving all in society is important because infrastructure must continue to demonstrate that it can address economic, social and environmental challenges for all, not just those that can afford to pay for it.

What needs to change?

Customer stewardship requires infrastructure that serves all members of society, over its long life to a satisfactory standard.

Serving all requires government and private owners and operators working together; where efficiency and efficacy of regulation, pricing and subsidies supporting universal access can be sustained over the long term.

Transparency is essential to this pillar, to invite innovation and competitive disruption without being dominated by vested interests; while continuing to attract long-term private investment and enterprise.

Putting it into practice

Several layers of 'serving all' are recognised when putting this pillar into practice, and all of these should be addressed where appropriate to the infrastructure in question.

- **Personal benefit:** some assets and services must provide direct benefits for all, eg for essential services like water or energy, along with access to labour markets through use of toll roads, are recognised as being important.
- **Indirect personal benefit:** some assets may provide indirect benefits to a segment of the community, eg the rail link I never use still speeds up my drive to work; these benefits to indirect beneficiaries must be considered and maximised.
- **Societal benefit:** some assets may provide only societal benefits to a segment, eg money is spent on a stadium I never use but I recognise society as a whole benefits from strong sports infrastructure provided it goes all the way to community-level facilities to champion wide-scale participation.

At no stage should a greater burden be placed on those that are disadvantaged when infrastructure changes, both for current and intergenerational stakeholders.

Are we there yet?

What to look for in your organisation includes but not limited to:

- evidence the entity emphasises widespread community communications to inform stakeholders of areas of change
- evidence the entity promotes special offers to all customers
- evidence planning encompasses consideration of vulnerable and disadvantaged customers
- evidence the customer charter impacts on management practices, including commitment to trial and pilot programs to support social inclusion
- evidence the entity will report on performance and action plans to support continuous improvement in respect of social inclusion
- evidence planning and investment decisions consider the outcomes of vulnerable and disadvantaged customers.

Image courtesy of Infranexus.

“Customer stewardship enables maximum latitude for asset owners and operators to find the best way to balance the competing needs of customers and stakeholders.”

Getting to work: navigating true north with customer stewardship

Infrastructure entities that want to benefit from using customer stewardship must first recognise the journey is more important than the destination. This is particularly the case as infrastructure has a very long economic life, and the purpose of customer stewardship is to enable an organisation to adopt a principles-based management culture so assets and services can better flex and adapt to the uncertainties and opportunities of the future.

Staying close to your customers is an important discipline for success, and ensuring a mindset of adaptation and value creation. This process will entail many complex factors in determining the future direction of an organisation, and knowing when to change tack to optimise performance while keeping customers reassured and satisfied.

The readiness of an organisation to embark on a dynamic journey of customer stewardship will depend on the state of play with its cultural settings as already described. It will also rely on the state of maturity in respect of the five pillars, and the rate at which these practices will evolve over time, and the disposition of management to know when a current strategy and course of direction needs to be reset.

Importantly, it is not possible nor desirable for codified rules to describe what management should be doing at any one time in respect of customer stewardship, except that they need to be continually vigilant to change and ready for it.

It is for this reason that we have developed a Customer Stewardship Compass that organisations can use to inform what and how they could go about choosing their strategic direction based on for example:

Internal capabilities and processes: like any journey success will depend on the readiness and level of competency within an organisation to perform and ensuring the chosen course of direction and difficulty of the journey are appropriately matched. Continuous improvement of internal capabilities to support the five pillars of practice, outcomes should improve incrementally when tested with some 'stretch' in the strategy and difficulty of the journey.

External environment: despite barriers to entry and regulations that in the past have mitigated full impact of external challenges, even for some monopolies this situation is breaking down. In addition, the broader macroeconomic circumstances that include economic, social, technological and political factors are becoming more complex and in some cases volatile. This is forcing change, and too often it is highlighting a lack of readiness within organisations to competently navigate and execute a customer stewardship growth strategy.

The Customer Stewardship Compass is detailed in **figure 3**.

The points of the Customer Stewardship Compass (Compass) describe four distinctive directions that are thematically labelled as engagement, iterative, integrative and transformative. An organisation is considered be on a customer stewardship journey when it is actively pursuing a course of action along one or more points of the Compass. However, should an organisation be simply compliant with its regulatory undertaking and has a business as usual (BAU) mindset, then it is most likely considered to have not begun its customer stewardship journey.

It is envisaged over a life cycle of an asset or business that once an organisation has broken away from the constraints of a BAU existence and is plotting its customer stewardship journey, that it will most likely traverse all points of the Compass as it interprets its environment, calibrates its capabilities and adjusts objectives and aspirations so it is in the best possible position to create value.

Staying close to your customers is an important discipline for success, and ensuring a mindset of adaptation and value creation.

The Compass points are summarised below. They can be used as navigational themes to help an organisation organise itself internally for the customer stewardship journey it intends to make or is making. The Compass will also help an organisation in contextualising its customer stewardship narrative and communicate to stakeholders what it is doing, why and how it intends to be more customer-centred. This is critical to redressing the lack of quality public information on important customer stewardship initiatives in the public arena that was reported in the last Policy Outlook Paper.

Engagement

- **Maturity readiness:** early stage, essential practice zone.
- **Motivation:** recognition the customer is central to current and future performance, and is no longer constrained by a BAU mindset.
- **Expectations:** the entity should be in the process of embedding customer stewardship pillars of practice into its management, and enhanced early stage continuous learning with the customer is evident. Current outcomes of this journey may not be necessarily matched with either a financial nor operational performance upside at the present time. As organisations become more competent with 'engagement' they will increasingly redirect themselves to being 'iterative', as is discussed next.

Iterative

- **Maturity readiness:** intermediate to advanced.
- **Motivation:** experimentation and testing new ideas and practices.
- **Expectations:** regardless of experience or level of advancement in respect of customer stewardship, this is a fundamental touchstone for organisations to repeatedly return to, to test assumptions, pilot new ideas and recalibrate themselves to the customer and stakeholders in readiness for faster incremental change and even transformational jumps.

To be successful, continuous learning as a cultural marker will need to be evident. The entity can demonstrate it is progressively strengthening customer stewardship pillars into management practices; by implementing change to key operations, planning and cultural settings, there should be at least episodic improvement and the co-existence of profit and customer loyalty.

Integrative

- **Maturity readiness:** intermediate to advanced.
- **Motivation:** the entity insists on organisational stretch so it can further evolve as a mature customer-centred organisation, where a strong track record of achievement to become exemplary compared with its peers.
- **Expectations:** a partnership emerges where shared values, wins and losses see dissolving boundaries. That is, where customer and service providers blur as an organisation seeks to be integrated and vested to the customer, both for now and the future. All customer stewardship pillars are well embedded in management practice and culture development; financial performance is strong; and customer trust is consistently high.

Transformative

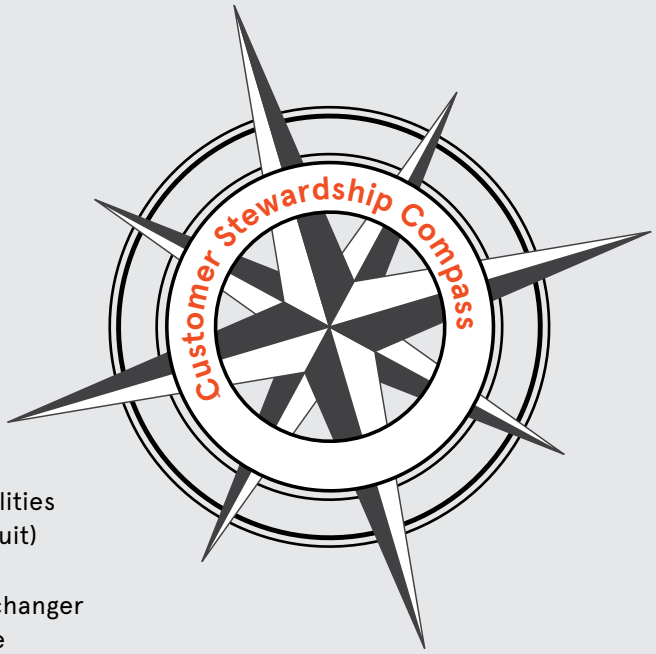
- **Maturity readiness:** advanced, not commonly pursued.
- **Motivation:** adopts a game changer mindset, with attendant risk appetite and pursuit of abnormal financial result and extreme customer loyalty.
- **Expectations:** the entity dissolves many of the organisational boundaries between infrastructure asset operators and the customer. It reshapes and defines new supply chains bonded by a unifying ethos of customer-centred design that transcends time, risk and public policy settings. Management practices and culture are categorised by a flexible, nimble and adaptable approach to changing circumstances, where customer stewardship pillars are no longer operational but cultural markers for the entity and in turn the industry.

The Compass will help organisations navigate their customer stewardship journeys and to tell meaningful stories about why and how they intend to be more customer-centred.

Figure 3: Navigating the four points of the Customer Stewardship Compass

Iterative
Readiness: Intermediate to advanced capabilities

Mindset: Testing assumptions, recalibration, faster change/transformation



Integrative
Readiness: Intermediate to advanced capabilities

Mindset: Evolving maturity, emerging partnerships, dissolving boundaries, embedded pillars

Transformative
Readiness: Advanced capabilities (uncommon pursuit)

Mindset: Game-changer attitude, extreme customer loyalty, nimble/adaptive approach to changing circumstances

Engagement
Readiness: Early-stage capabilities

Mindset: Unconstrained by usual business, embedding pillars, continuous learning embarkation, competency leading to 'iterative'

Where to now?

As is the case with any journey, customer stewardship should invite spontaneity and new challenges into your organisation. Some entities may refer to these developments as risk and uncertainty, which is certainly the case, but they also come with opportunities and new value creation. Your capability to turn these into substantial outcomes for your customers and stakeholders is a cornerstone of this work.

Regardless of the challenges and uncertainties confronting your organisation on the customer stewardship journey, knowing where your 'true north' lies is a powerful asset and the Compass is an important navigational aid to set direction, time your change and know when to set new headings.

These decisions should be happening across your organisation. Big decisions occurring with executives and their boards, as well as providing latitude for your empowered staff and aligned teams to be making astute decisions as they interact with customers, that together will also represent equally big decisions with enduring outcomes.

The practical implications of this is that customer stewardship empowers its employees and stakeholders to maximise their contribution by being able to use their discretion, judgment and intelligence to manage situations with customers that ensure good long-term outcomes.

Peter Drucker most appropriately summarises what we think customer stewardship journey is seeking to lock in for organisation. He stated in the Pension Funds Revolution:

> *"a business, even a small one, needs strong, autonomous management with the authority, continuity and competence to build and run an organisation." Further "management must be clearly accountable to somebody and that accountability must be institutionally anchored. It means that management must be accountable for performance and results rather than for good intentions. It means that accountability must involve financial accountability, even though everyone knows that performance and results go way beyond the financial bottom line".*[27]

Chapter 4 will now turn to practical case examples of organisations on the customer stewardship journey, we refer to them as exemplars. They will help inform what good customer stewardship looks like, and inspire how your own organisation may adopt and or even further enhance hard-earned gains with your customers and stakeholders.

Chapter 4
From vision to action, 2018 Customer Stewardship Exemplars

Infrastructure has not always had the benefit of a customer-led mindset. Fortunately that is changing, reflecting a spirited cohort of owners and operators that have a vision for the future of infrastructure where they are in partnership with customers and stakeholders.

This chapter describes the many and varied journeys under way where customer stewardship is both a motivation for change and its guiding light. *The* Better Infrastructure Initiative (BII) has used the customer stewardship framework of bedrock values, principles and pillars (figure 2) presented in Chapter 3 to examine and highlight what good customer stewardship looks like and how it is being practised in Australia and New Zealand.

BII's acknowledgement of being a 2018 Customer Stewardship Exemplar is done in the spirit of collaboration with industry as we seek to define a new pathway for infrastructure where contractors, owners and operators have the motivation and latitude to work with their customers and stakeholders in delivering responsible infrastructure in both greenfield and brownfield settings.

The 10 exemplars presented in this chapter build further on the *2017 Customer Stewardship Exemplars* detailed in our last *Policy Outlook Paper No. 4. Building a National consensus; Why customer stewardship matters*. Four exemplars from 2017, Sydney Airport, Port of Brisbane, Transurban and Transport for NSW are revisited and acknowledged for new initiatives and developments, with six new organisations recognised in 2018. The *2018 Customer Stewardship Exemplars* are:

- Melbourne Convention and Exhibition Centre
- SA Water and Adelaide Airport
- Southern Cross Station (Melbourne)
- Auckland City Rail Link
- Brisbane Airport
- Sydney Water
- Transport for NSW
- Sydney Airport
- Port Brisbane
- Transurban.

The 2018 Customer Stewardship Exemplars are by no means the only infrastructure service providers that are demonstrating best practice. The challenge, as we have discovered from our engagement with industry, is that keen management teams too often have important initiatives of what they are doing to embed customers at the forefront of their operations are untold in the public domain. Customer stewardship seeks to provide an independent research environment for this to happen, and to use the data and better practice insights to support the transformation of the industry in Australia and globally.

Figure 4 (page 30) provides a snapshot of the 10 exemplars for 2018, and a detailed discussion of each follows later in this chapter. All of these exemplars are dynamic and their narratives are unfolding as they navigate the complexities of economic and social challenges and opportunities. Whatever their differences, these organisations share in common a mindset to be ready to change, and not be entrenched in business as usual or relying on a compliance mindset to what is the minimum effort to conform to a concession deed or regulation governing their activities.

2018 Customer Stewardship Exemplar journey highlights

SA Water and Adelaide Airport

Pages 34-35
Extreme higher temperatures make airports more expensive and less attractive destinations, until a unique collaboration may have found a way to fix what was previously thought unfixable.

Melbourne Convention and Exhibition Centre

Pages 32-33
South Wharf precinct development is a customer centred expansion to an existing PPP that focuses on place making, new business and investment and long term jobs for global city Melbourne.

Southern Cross Station (Melbourne)

Pages 36-37
Thirteen years of experience has emboldened PPP concession holder Civic Nexus to go above and beyond the contract to make sure right long term outcome is secured for the city, its citizens and investors.

Auckland City Rail Link

Pages 38-39
New Zealand's largest transport project sets global benchmark for its customer stewardship approach to integrating indigenous culture into design, delivery of this city transforming endeavour.

Brisbane Airport

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Brisbane Airport is creating a gigabit precinct to thrust Brisbane and Queensland economy forward.

All images are courtesy of exemplar organisations, asset owners and/or their operators.

Sydney Airport

Pages 46-47
Master planning, consultation and early adoption of cutting edge technology are a potent mix for ensuring readiness for future. Enabling better regulation so Sydney's two airports can be greater than sum of its parts is next frontier.

Port of Brisbane

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Working beyond the port gate will not only deliver Brisbane a healthier river but makes for better business and more capital to invest in new facilities like a cruise ship terminal.

Transurban

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Bitumen and cars are important, but enabling customers with Trip Compare helps make them informed and empowered to get the best value for money from their tolls.

Transport for NSW

Pages 44-45
People want more from their transport system, that's why data, technology and focus on pilots and trials like on-demand public transport is key to living up to high expectations.

Sydney Water

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Water is for living well and must be invested in responsibly and that is why Sydney Water has developed, an economically and transparent mechanism to do just that.

Customer Stewardship Blueprint: five essential pillars (pages 16-23)

1. Connectedness
2. Informed choice
3. Adapting
4. Transparency
5. Serving all

*Refer to pages 25-28

Exemplar case studies

Melbourne Convention and Exhibition Centre

Adapting

Stewardship challenge

Built on industrial land consisting of old factories and warehouses, the 50,000-square-metre Melbourne Convention Centre project was a public-private partnership between the Plenary Conventions consortium – comprising Plenary Group, Brookfield Multiplex, and BGIS 28 – and the Victorian Government completed in 2009. As the State's long-term asset management partner, infrastructure specialist Plenary faced a choice whether to passively manage the asset or respond to changes in conference demand and Melbourne's population growth by adapting the project to ensure it met future demands.

An architectural and commercial success. The Melbourne Convention and Exhibition Centre is recognised for continuing to adapt to changing markets through the A$350 million expansion of the Centre and broader South Wharf precinct.

Stepping up

Completed on time and on budget in 2009, the A$1.4 billion Melbourne Convention Centre project, part of the Melbourne Convention and Exhibition Centre (MCEC), is recognised as an architectural and commercial success. With a 6-Star Green Star Design rating by the Green Building Council of Australia, it is also one of the greenest convention centres in the world.

South Wharf precinct. Photo: Peter Glenane.

Melbourne Convention and Exhibition Centre. Photo: Peter Bennetts.

Developed to increase Melbourne's business tourism market, the project facilitated the urban renewal of a former industrial site into an active tourism, mixed-use retail, hotel, residential and food-and-beverage precinct.

The project is a great example of value capture in global PPP infrastructure markets.

While delivering the project for the Victorian Government, public-private partnership (PPP) partner Plenary attracted A$1 billion of complementary commercial development that included a five-star hotel and more than 100,000 square metres of food and beverage, and retail development.

A main feature of the project is its main hall, a flexible space that can be used as a 5500-seat auditorium. The largest operable walls in the southern hemisphere and a unique retractable seating system allow the hall to be divided into three separate theatres, one with capacity for up to 2500 people. The hall is celebrated as a 'building within a building', wrapped by more than 16,000 square metres of foyer and event space, and banquet and meeting rooms.

The project has won a host of design and infrastructure awards including the 2010 National Architecture Award, 2010 Victorian Architecture Medal, and 2008 National Infrastructure Award for Government Partnership Excellence. It has also been awarded gold certification by leading tourism certification group EarthCheck and won the 2010 Urban Development Institute of Australia National Environmental Excellence Award, setting the global standard for sustainable convention centre design.

In mid-2016 the Victorian Government, Plenary and other private partners commenced a more than A$350 million expansion of MCEC and the broader South Wharf precinct – one of the first expansions of an operating PPP in Australia.

The project included a 20,000-square-metre expansion of MCEC, a new 347-room, four-star quality Novotel Melbourne South Wharf hotel and a new 1150-space multi-level car park.

Completed in July 2018, the expansion increased MCEC's total size to more than 70,000 square metres, ensuring it remained the largest business tourism and events destination in Australia.

Up to 1300 people worked on site during construction of the original Melbourne Convention Centre project, and around 700 people were employed during construction of the expansion. More than 2400 new ongoing jobs have since been created by the private sector investment in the mixed-use retail, office, hotel, residential and food and beverage precinct.

Plenary plays a key role in the ongoing asset management of MCEC as special purpose vehicle (SPV) and asset manager. Plenary's operational model provided ability to innovate through a risk-and-reward sharing mechanism between Plenary and services provider Brookfield GIS. This cost-effective but hands-on approach allows significant savings to be returned to the State while ensuring Plenary is incentivised to maintain the centre to a high standard throughout its life.

Where to next?

Proactive management of the asset identified the opportunity to adapt the asset to new needs, ensuring that a precinct served a wider community. The whole South Wharf precinct demonstrates the success that can be achieved when the public and private sectors work in true partnership to deliver critical pieces of public infrastructure.

Peter King, Chief Executive, Melbourne Convention and Exhibition Centre, says "customer experience was front of mind when planning the design – we wanted to ensure our facilities suited the needs of our customers, rather than constraining them to fit within our space. Everything we do at MCEC is based around the fact we are here to connect and inspire. We will fulfil our obligation to connect and with the help of our wonderful new spaces - we will inspire. Our business has benefited from the partnership approach Plenary takes and we look forward to continuing this good work into the future."

SA Water and Adelaide Airport

Connectedness and Adapting

Stewardship challenge

One of the challenges facing urban environments is the heat island effect. The annual mean air temperature of a city with 1 million people or more can be 1–3 degrees Celsius warmer than its surroundings.[29] Heat islands impact communities in many ways including increasing summertime peak energy demand, heat-related illness and mortality, and water quality. For the aviation sector, extreme heat impacts on productivity. Airplanes take off due to lift, the force from the movement of air underneath a plane's wings.[30] Hotter air is thinner, meaning there are less molecules to support an aircraft's weight. As temperatures rise airplanes therefore need more thrust. To manage extreme heat airplanes may reduce cargo or passengers, or as was demonstrated in June 2017 at Phoenix Sky Harbor International Airport cancel flights.[31] With Adelaide experiencing higher average temperatures the stewardship challenge is to find a way to reduce heat at the airport to ensure continued efficient operations.[32]

Stepping up

SA Water is a government owned statutory corporation providing water and sewerage services to 1.6 million people in South Australia. Adelaide Airport Ltd is the fifth-largest domestic airport in Australia serving around 8 million passengers annually.[33]

SA Water and Adelaide Airport have conducted a three year trial to study the possible temperature reductions that can be achieved through irrigation of open space at Adelaide Airport.

As part of the regulations to operate an airport, areas adjacent to runways are required to be open space. Airports must actively manage open spaces in order to manage risks including birds that can be hazardous to aircraft. Management activity in many cases simply involves mowing the grass.

SA Water and Adelaide Airport wanted to investigate whether, through irrigation and use of particular crops, it was possible to cool the airport precinct. From SA Water's perspective a trial aimed to demonstrate a new use for recycled water from a nearby wastewater treatment plant and provided an opportunity to gather data on the extent of cooling that can be achieved. This information could be used to demonstrate the benefits of irrigation, particularly for custodians of large open public spaces and not only increase revenue from recycled water use, but also improve liveability in urban areas. The trial participants identified a number of potential aviation benefits that could apply including reduced air temperature on and above the runway on take- off and reduced energy consumption by cooling towers at the terminal building.

> Extreme high temperatures make airports more expensive and less attractive destinations, until a unique collaboration may have found a way to fix what was previously thought unfixable.

Adelaide Airport set aside 3.5 hectares for irrigation south of the runway away from aircraft activities. The original aim of the trial was to quantify the air temperature reductions that could be achieved through irrigation and to identify and trial potential low bird density ground covers that would be suitable for irrigation across the airside area. Once the trial was implemented it became clear that there may be other benefits from irrigating open space including, potential fuel savings from aircraft take off, maintenance of aircraft payloads during high and extreme high temperatures and reduction in erosion from both jet engines and from summer storms.

Originally only one of the 3.5 hectares was sown to Lucerne, however due to the quantification of the larger temperature reduction in the Lucerne crop compared to the irrigated grassed areas and observation that Lucerne had not proved more attractive to wildlife in the small plots in which it was planted, the entire 3 hectare area was sown with Lucerne in January 2018. The area was irrigated on average three times per week between the start of December to the end of April for the first year of the

trial, and twice per week during the second year of the trial. The irrigation occurred at night, initially during the airport curfew hours of 11pm to 5am, but then extended to the night-time hours of 9pm to 5am. The rate of water application per irrigation event was in the order of 12 to 15 millimetres.

Lucerne is a high water use crop, with high evapotranspiration rates so it has a higher potential to contribute to temperature reduction compared to other crops or ground cover. Importantly there is also an established market for hay which creates an economic opportunity from actively managing of open space.

The water used for irrigation was sourced from a nearby stormwater Managed Aquifer Recharge (MAR) scheme that is owned by SA Water. If the trial is to be expanded in the future, recycled water from the Glenelg Wastewater Treatment Plant would be used as the quality and quantity are more suitable for the site.

The results of the trial reveal that the average temperature difference on irrigated land was 2.4 degrees Celsius below that of unirrigated areas, with most warm days having a difference of more than three degrees Celsius. The trial then used this information to undertake financial and economic assessment based on expansion of the irrigation area to a 200 hectare plot.

The introduction of Lucerne production was shown to provide a financial advantage over the current management practice (base case). Extrapolated the costs and benefits of Lucerne hay from the trial site to a wider 200 hectare area at Adelaide Airport, using a conservative and a very conservative scenario. The results showed a payback period of 7–12 years. The net present value (NPV) over a 25 year period shows a significant financial advantage relative to the NPV of the base case. Whilst there is a significant upfront expenditure due the installation of irrigation infrastructure analysis suggests that this cost is expected to be neutral after 9 years compared to the on-going cost associated with current management but could vary between 7 and 12 years, depending on yield outcomes.[34]

Where to next?

SA Water and Adelaide Airport's Heat Reduction Trial demonstrates the opportunity that comes from infrastructure operators coming together with their unique skills and assets to solve problems. There is the potential that if the trial is successfully expanded that airlines would benefit from ability to maintain payloads on days of extreme heat, less stress on engines resulting in maintenance costs and fuel savings. Extreme temperatures impact on the ability of aircraft to achieve thrust, requiring more fuel and potentially less cargo and passengers. The risk of flight cancellations, when temperatures rise above the safe operating limits of aircraft, is also likely to reduce.[35] Finding a viable funding and financing model to support this pilot is an important next frontier to focus on.

Adelaide Airport using a device to measure air temperatures and UV radiation.

Image courtesy of SA Water and Adelaide Airport.

Southern Cross Station (Melbourne)

Connectedness, Adapting and Serving all

Stewardship challenge

Southern Cross Station is a large, multi-modal transport hub redeveloped between 2002 and 2006 that is located in Melbourne, Australia. The station operates as a public-private partnership (PPP) concession from Public Transport Victoria (PTV) on behalf of the State of Victoria. The stewardship challenge for the station's operator, Civic Nexus, is to maintain the functionality, efficiency and 'relevance' of the facility in an environment of continually increasing patronage due to changes to population demographics and evolving changes to the Melbourne/Docklands city-scape.

PPP concession holder Civic Nexus goes above and beyond the contract to make sure the right long term outcome is secured for the city, its citizens and investors.

Stepping up

Southern Cross Station features separate train and a bus Interchange facilities and is the central point for interstate, regional and suburban trains and coaches in Melbourne, as well as connections to Tullamarine and Avalon airports. It is the State of Victoria's busiest and most critical public transport interchange.

Civic Nexus, 100 percent owned by IFM Investors (IFM), was awarded the contract to design, construct, finance, lease, operate and maintain the facility, which is currently in year 13 of 30 operating years. Southern Cross Station Pty Ltd (SCSPL) is the operational arm of Civic Nexus and manages the facility under a management agreement.

Civic Nexus's approach to Active Asset Management, a term that it describes as the combination of strategic planning and forward vision with the operational hands-on management of the facility, is ensuring Southern Cross Station can adapt to a rapidly changing environment.

The station was originally designed with a projected peak capacity of 30,000 users an hour, which is expected to be reached in 2050. Civic Nexus estimates that number was surpassed in 2016, with the station currently servicing 1.4 million patrons a week with an annual patronage of over 75 million, double what the patronage was expected to be. With the growth of Melbourne and development of Fishermans Bend, Australia's largest urban renewal project covering approximately 480 hectares close to the Melbourne CBD, Southern Cross Station is likely to experience continued growth over the coming decade.

The challenge for Civic Nexus is to maintain the functionality, efficiency and 'relevance' of the facility in an environment of continually increasing patronage due to changes to population demographics, evolving changes to the Melbourne/Docklands city-scape and major initiatives across the public transport network.

To prepare for future projected changes and continue to service their customers' and stakeholders expectations, Southern Cross Management team have undertaken high level strategic planning and dialogue with relevant stakeholders, (including the State Government and Public Transport Victoria). With continued increased patronage and the further impacts of various rail infrastructure projects in Victoria (including the Regional Rail Revival Project, the Melbourne Metro project and the proposed Airport Rail Link), Southern Cross Station has considered how the infrastructure and services delivered may adapt to maintain and improve the customer experience.

Adapting involves consideration of customer movements and travel paths, the connectivity of the various rail and station services, accessibility for special needs and movement impaired persons and maximising the social and economic value of the facility.

Southern Cross Station has taken the initiative to undertake strategic planning to increase the long-term capacity, amenity and function of the station precinct, whilst addressing the impacts of future increased patronage and is in discussion with the State and relevant stakeholders.

Image courtesy of Infranexus.

Key relationships are maintained across all of government, (local and federal), council, Police and emergency authorities as well as transport operators and adjacent stakeholders to ensure that the Southern Cross Station influence extends beyond its boundaries.

Risk, resilience and community safety
A core task for management is to provide a safe and non-disruptive journey for customers who access Southern Cross Station every day. Southern Cross Station Management work alongside Victoria Police and Emergency Management Victoria to ensure that Southern Cross Station contributes to the safety of all Melbournians with a pro-active, co-operative and consultative approach.

The efficiency of the facility also has a 'social value' for many customers; such as a parent getting home in time to have dinner with the children or a special needs or movement impaired person being able to utilise support services at the station to assist them to access a train, tram, bus or taxi service. Notable initiatives include:

Guide Dogs Victoria Beacon Project: In conjunction with a Guide Dogs Victoria and PTV initiative, the project is a trial installation of small beacon technology devices in key strategic areas of the station that connects to an app developed by Guide Dogs Victoria that provides location- based information through audio output. Trialled in early 2018, the information such as 'you are at XXX and the taxis are located 200 metres on your right...' transforms the experience of vision impaired patrons.

Travellers Aid Australia (TAA): TAA provide services at the station that range from buggy mobility services to ferry patrons to and from their transport to medical companion services, in which volunteers escort patrons from the station precinct to appointments in Melbourne CBD. Over 100,000 people utilised Travellers Aid services at Southern Cross during the 2017-2018 financial year. Southern Cross Station provides funding to TAA and has recently increased funding for staffing and buggy provision at Southern Cross Station to increase capability and level of service.

Mission Engage Youth Program: Southern Cross Station actively supports the Father James Grant Foundation - Mission Engage Youth Program for at risk youth. This program consists of a 12-day course aimed at giving a diverse range of often disengaged youth key tools, experience, information and motivation to assist them move forward with employment and life opportunities. Southern Cross Station management team members provide insights and support groups participating in each course.

Where to next?
Customer stewardship will remain a key focus (and outcome) of Southern Cross Station's Environmental, Social and Governance (ESG) program as the facility adapts and moves forward. In conjunction with key partners and stakeholders, such as IFM and PTV, Civic Nexus is focused on continuing to consider their customers' needs and expectations wherever possible, seeing Southern Cross Station as the hub of Melbourne and Victoria and as a place for our customer's to connect, not only with services, but with friends and family.

Auckland City Rail Link

Transparency and Serving all

Stewardship challenge

Auckland City Rail Link (CRL) is a 3.45km twin-tunnel underground rail link whose construction is due to be completed in 2024. It is New Zealand's largest transport infrastructure project and includes the redevelopment of Mount Eden Station and development of new underground stations at Wellesley and Victoria Streets, with extension of the existing rail line through Britomart Station to Albert, Vincent and Pitt Streets. The challenge for the CRL project team was to develop the project in a way that fits with the culture, beliefs and traditions of the Mana Whenua, the Māori tribal groups who have these rights in Tāmaki Makaurau, Auckland. The potential was for the project to not only deliver from a technical engineering perspective, but to contribute socially to the community.

New Zealand's largest transport project sets a global benchmark for its customer stewardship approach to integrating indigenous culture into the design and delivery of this city transforming endeavour.

Artists impression of Mount Eden Station after redevelopment.

Image courtesy of City Rail Link.

Stepping up

The project identified the aspiration to be exemplary in the practice of sustainability – encompassing the four well-beings (environmental, cultural, social and economic). As part of defining sustainability outcomes, the City Rail Link Ltd project team established a forum with Mana Whenua, the Māori tribal groups around Auckland.

In the Māori worldview, all natural and physical elements of the world are related through whakapapa (genealogy) and each is controlled and safeguarded through spiritual beings. All living things have mauri and it is essential to protect it.[36]

CRL designed the project to integrate seven Te Aranga pillars:

- Mana: individual and collective high quality formal relationships
- Whakapapa/Whakamana: names and naming as a means of reconnecting iwi narratives to place
- Tohu: the acknowledgement of wider Mana Whenua cultural landmarks
- Taiao: bring landscape elements back into urban areas
- Mauri tu: maintaining and enhancing the environmental quality of water, air and soil
- Mauri toi: reinscribing iwi narratives into architecture and urban design
- Ahi ka: exploring opportunities to facilitate a meaningful living presence for iwi.

The design of stations is an example of the integration of Te Aranga pillars. Station entrances are influenced by the Maori creation story, each telling the story of Ranginui, the sky father, and Papatuanuku, the earth mother. Their close embrace was separated by their son, Tane Mahuta, who pushed them apart to bring light (Te Whaiao) into the world and, the state of creation into being (Te Ao Marama).

The architecture and materials used in each station entrance emphasises the relationship between solid earth on the ground and the sky above the entrance. The entrances express the deity identified for each location, representing the unique identity of the station. Ecology is embedded into the design to achieve integrated, cost-effective and innovative solutions to create healthy, diverse and restorative environments. The identity and integration of the stations into their local precincts will reinforce both their existing identities and a more pedestrian-focused future in line with the City Rail Link intentions and the objectives of the Auckland Plan and Auckland City Centre Masterplan.

While the project faces a number of engineering challenges, including transferring the historic Britomart Chief Post Office via pressurised hydraulic jacks onto tensioned concrete beams so that CRL infrastructure could be built underneath, the social outcomes from the project merit specific attention.

With an estimated 1600 jobs on offer at peak construction, CRL is targeting employment for Māori, Pasifika and youth along with others who are marginalised in the workforce. To be successful, companies wanting to win contracts for construction will need to demonstrate how they are going to help CRL achieve its social outcomes strategy.

The pillars of Crime Prevention through Environmental Design (CPTED) have been incorporated, as well as the optimisation of performance for cost, maintenance and safety.

Where to next?

Mana Whenua, the Māori tribal groups who have these rights in Tāmaki Makaurau, Aucklandhave acknowledged the project as fitting with and supporting kaitiakitanga, which translates to guardianship or protection.[37] The project demonstrates the opportunity to embed customer stewardship principles into infrastructure projects from design to implementation and sets a benchmark for Australia and other nations to acknowledge and co-design infrastructure in collaboration with their indigenous people.

Brisbane Airport

Connectedness, Adapting and Serving all

Stewardship challenge

Brisbane Airport is growing as an aviation hub with international passengers growing by 5.2 percent to more than 5.9 million in FY18. Over 17.5 million passengers flew domestically in FY18, a 1.5 percent increase on FY17. Brisbane boasts more domestic connections than any other airport in Australia, which drives the growth of the business hub. With the expansion of the northern International Terminal adding 11,000 square metres of space, and new runway currently under construction scheduled to open in 2020, Brisbane Airport is well positioned to be the nation's preferred gateway airport. Brisbane Airport Corporation understands that people don't travel to an airport, they travel to a destination. With 24,000 people working on or with the airport, located 8km from Brisbane CBD, and with 500 hectares of land available for future development, the stewardship challenge facing Brisbane Airport is how to continue its evolution serving its growing customers whilst becoming an integrated services hub for the benefit of Brisbane and the Queensland economy.

Stepping up

Brisbane Airport is in the midst of a 10-year A$3.8 billion infrastructure investment program that aims to position the airport as the nation's preferred gateway airport. Investments include the recent A$135 million expansion of the northern International Terminal and apron that provides an additional 11,000 square metres of terminal space, and 55,000 square metres of new pavement capable of accommodating A380, B747, A330, A340 and A787 aircraft. Brisbane's New Runway, scheduled to be completed by 2020 is the largest aviation construction project in Australia and will significantly increase current capacity once completed.

In addition to core infrastructure, Brisbane Airport is investing in ways that will improve customer outcomes, today and for the future. An example is the establishment of Changing Places Facilities. Standard accessible toilets do not meet the needs of all people with a disability or their carers. People with profound and multiple learning disabilities, as well as spinal injuries, spina bifida, motor neurone disease, multiple sclerosis or an acquired brain injury, often need extra facilities to allow them to use the toilets comfortably.

Image courtesy of Brisbane Airport.

Brisbane Airport is creating a gigabit precinct to thrust Brisbane and Queensland economy forward.

Changing Places Facilities are different to standard accessible toilets in that they have extra features such as an electronically operated height adjustable adult size changing bench. A new facility has been constructed at the Domestic Terminal with a facility at International terminal expected to be completed by October 2018.

Brisbane Airport's strong focus on sustainability is a recognition that through quality management it can support the airport's long term resilience. With over 285 hectares of protected biodiversity zones, more than 10 percent of the airport's landmass, the airport even produces its own Brisbane Airport Wetlands Honey from eight European honeybee hives that pollinate local flora.

Since south-east Queensland's water restrictions in 2006-2009, Brisbane Airport has focused on water management. The construction of the new runway provided an opportunity to invest in a new recycled water pipeline that is delivering around 1250 megalitres (ML) of class A+ recycled water to the project. With an estimated usage of 4.5ML per day, the pipeline treats and re-uses waste water instead of it being discharged to Moreton Bay.

The recycled water is produced at Queensland Urban Utilities' (QUU) Luggage Point facility and is pumped via the pipeline directly to the Airfield site. This water is currently primarily used for airfield concrete pavement, fine crushed rock production and landscaping. In the future other uses will include the airport's air-conditioning. Brisbane Airport also owns, manages and operates the potable water distribution services on the airport, and is a registered water provider with the Department of Energy and Water Supply.

Energy is being managed through the installation in 2018 of a 6-megawatt solar system including 22,000 solar panels. These panels will generate close to 18 percent of BAC's direct annual energy consumption.

Over the last decade Brisbane Airport has invested in broadband technology. Management understand that Smart Cities will increasingly integrate information and communication technology (ICT) and Internet of things (IoT) technology in a secure fashion to manage assets. High speed, high capacity connectivity will enable shared data insights, new sources of operational data, cost efficiency and innovative applications. Synonymous with high-speed connectivity is the term, gigabit.

Reflecting its importance in the Brisbane and Queensland economy, Brisbane Airport is establishing Australia's first airport gigabit precinct with 250km of full fibre infrastructure allowing existing and new business tenants access to ultrafast internet connectivity. Its vision is to expand its fibre investment with the ability to offer business tenants across commercial, industrial and retail precincts 1000 Mbps upload/download speed, compared to best case National Broadband Network (NBN) connection of up to 100 Mbps.

According to Brisbane Airport management, the rapid increase in cloud hosted services and applications is driving the need for higher Upload and Download speeds. At present, telecommunication providers including NBN are struggling to meet the demand for high speed connectivity at an affordable price point. Investing in ultra- fast broadband, coupled with 500 hectares of land available for development, enables Brisbane Airport to build services to support its customers with the potential of driving the development of a smart city precinct with benefits to Brisbane and the wider Queensland economy.

Where to next?

Airports are hubs for travellers. Brisbane Airport's vision to create a gigabit precinct raises questions as to what the future of airports will be. The strategic opportunities for Brisbane Airport include capitalising on existing Infrastructure to better service existing clients and establishing a smart-campus platform to service internal business requirements now and into the future. Instead of only being hubs for travellers, future airports, and their surrounding precincts, may well be hubs for connectivity.

Image courtesy of Brisbane Airport.

Sydney Water

Adapting, Transparency and Serving all

Stewardship challenge

The value of water changes according to demand and supply. To ensure appropriate investment timings for water conservation, Sydney Water developed the Economic Level of Water Conservation (ELWC). This ensures that water continues to be conserved and is scaled up or down depending on the value of water. Customers benefit from bill affordability because investments are only made when most appropriate. The community also benefits from water conservation activities helping to defer costly investment in water supply augmentation.

Water is central to life but its value can change. To influence prudent water conservation investment, Sydney Water developed an economically transparent mechanism.

Stepping up

In the past, obligations on Sydney Water to conserve water have been fixed and prescriptive. From 1995, Sydney Water was required to achieve a per capita reduction of water use to 329 litres per person per day by 2011. From 2011, they were required to ensure that water use did not exceed this limit. From the mid-2000s, Sydney Water was also required to ensure that the volume of water lost to leaks from its network did not exceed 105 million litres a day.

This approach to saving water was not dynamic in that it did not vary with dam levels. This framework may not have always incentivised the most economically efficient water conservation investment decisions.

Water is valued in two ways. Short term value of water is dependent on its scarcity. A high dam level results in a low short run value of water. Long-run value of water, which is intended to reflect long term investment in infrastructure and supply, is not directly affected by dam storage levels but reflects the regulated retail price of water.

Dam levels can change relatively quickly and unpredictably. In early January 2017, Sydney Water's dams were at 89.7 percent. By August 2018, the entire state of NSW was declared in drought. Greater Sydney remains fortunate to have a secure and affordable water supply system, with water storages two thirds full.

As part of its Operating Licence 2015–2020, Sydney Water for the first time adopted investment in water conservation based on the Economic Level of Water Conservation (ELWC) methodology.

Image courtesy of Sydney Water.

Collaborating and planning to deliver better value for customers and communities - Parramatta River Group.

Image courtesy of Sydney Water and Water Services Association of Australia.

ELWC is a forward-looking methodology that is designed to promote economically efficient investment in water conservation, including water efficiency, leakage and recycling. It evaluates whether the cost to society of a water conservation project is less than the value of water that it saves. If so, it is considered economically efficient. Sydney Water's ELWC methodology is based on a marginal value framework, where investment in water conservation could increase until the cost of saving an extra volume of water is just equal to the cost of supplying an extra volume of water.

The ELWC approach enables Sydney Water to have a series of programs that have already been trialled that can be rolled out as dam levels, and the value of water changes. An example is the WaterFix Residential program that allows customers to choose the type of plumbing service they need to improve water efficiency in the home, providing customers with a choice of services to suit their individual needs. This service includes replacing showerheads, toilets and taps, and repairing leaks by a qualified plumber. The program which has been in operation since 1999 initially on a subsidised basis is now offered to residential customers at cost recovery rates. For the next five years Sydney Water predicts that Waterfix residential will save an additional 9.729 million litres of water every year.

To understand the impact of variable climate, Sydney Water is currently undertaking an innovative project with the University of NSW, exploring medium-term forecasts from 6 months to 5 years in order to analyse Sydney's water demand under different climatic scenarios.

Where to next?

As Sydney's population continues to grow and with 100 percent of NSW in drought, the need to focus on water conservation will also grow. Sydney Water is well placed to respond to future demands as it plans for water conservation over the coming years. The water supply system is supported by the Metropolitan Water Plan that serves the city during drought. Under the Plan, Water Wise Rules are always in place. These are common sense actions about how to use water outdoors. Under the Metropolitan Water Plan, the Sydney Desalination Plant commences start-up when storages reach 60 percent and restrictions are required when total dam storage falls below 50 percent.

A snapshot of other investment

Sydney Water is investigating long-term solutions for wastewater outfalls at Vaucluse and Diamond Bay and is currently separating the last combined sewer stormwater system in Woolloomooloo and other inner-city suburbs. Sydney Water is also collaborating with the Parramatta River Catchment Group (PRCG) with engagement around making the river swimmable. The Parramatta River Masterplan asked 1100 residents across 11 local council areas about barriers to their swimming in the river, preferences for activating new swim sites, and desire for recreation in the River. This consultation, led by PRCG and supported by Sydney Water confirmed that community wants convenient natural swim sites in the catchment. The consultation was combined with research on ecological health, water quality and waterway governance to create the 2018 10-step masterplan to a living river.

Transport for NSW

Informed Choice and Adapting

Stewardship challenge

Sydney now has a population of 5.1 million, which grows by 2 percent annually. By 2056, Transport for NSW (TfNSW) expects NSW will have more than 12 million residents.[38] Sydney will be a global city similar in size to London or New York, and its transport networks will need to handle 28 million trips a day. The NSW Government's 40-year Future Transport Strategy, the first transport plan in Australia to harness technology to improve customer and network outcomes, seeks to provide the framework to manage that growth. With Sydney Trains experiencing consistent and ongoing growth of patronage (July Opal trips grew by 15 percent from 25.5 million in July 2016 to 29.5 million in July 2018) the stewardship challenge is whether TfNSW's planning can meet the pace of change.

Stepping up

The NSW Government's Future Transport 2056 plans investments in large transport infrastructure projects, such as Sydney Metro West that will link Sydney CBD and Parramatta, and the Sydney Metro City and Southwest that will upgrade the Bankstown Line addressing one of Sydney's biggest rail bottlenecks. It also provides a framework for planning and investment decisions for a range of smaller projects and trials are underway that seek to improve customer experience and deliver outcomes.

Customer Satisfaction Index

To gain insight into the changing needs of customers, TfNSW has developed a Customer Satisfaction Index, which reflects the voices of over 17,000 customers. With an approach focused on "co-design" TfNSW aims to identify factors that impact customer travel experience and assess, test and validate solutions. This collaborative approach has a high rate of success in providing solutions that address the root cause of customer pain points. TfNSW's customer satisfaction has recently increased 9 percent with buses and trains with service innovation playing a key role.

Open data

TfNSW are supplying real-time data to apps with over 1.8 billion unique customer downloads in total. The Open Data program aims to enable developers, technologists and data analytic centres opportunities to create innovative solutions for customers. Using data channels developers can create the next generation of real-time transport apps.

People want more from their transport system, which is why data, technology and focus on pilots and trials like on-demand public transport are essential to living up to high expectations.

Contactless payments

TfNSW has expanded its contactless payments trial to Light Rail and Sydney Ferries so that customers can now pay for fares using a credit card. Contactless payments offer a convenient alternative to an Adult Opal single trip ticket without needing to buy a ticket from an Opal ticket machine. Sydney's role as a global tourist magnet – NSW attracts 30 million visitors a year – means that contactless payment will not only benefit tourists, but commuters who will experience reduced congestion updating their own Opal cards at peak tourist times. Contactless payment can now be access to pay fare on services that run to 57 locations across Sydney, including popular tourist destinations like Manly, Darling Harbour, Barangaroo, the International Convention Centre, Star Casino and Sydney Fish Markets.

Young drivers

Young drivers are over-represented in fatal crashes and are a high-risk group on NSW roads.

Research shows that telematics-based feedback might be effective in improving the safety of young drivers by changing behaviours associated with crashes and near-misses, such as speeding and harsh braking and acceleration.

The NSW Government is trialling in-car technology with 1000 drivers who will be able to install a telematics device in their vehicle that will be linked to their smartphones, to record and rate driver behaviour such as speed, acceleration, braking and turning. The technology has the potential to not only save lives but also reduce Green Slip prices for young drivers.

Connected vehicle technology to keep traffic flowing

Recognising that heavy vehicles take a long time to

stop and start, which can cause delays for all road users, the NSW Government has announced a trial to expand the Sydney Coordinated Adaptive Traffic System (SCATS) which will allow trucks to be able to "talk" to traffic lights. This trial will detect a heavy vehicle approaching traffic lights and provide more green time, with the aim of easing delays for all motorists.

On demand public transport

The Transport for NSW On Demand Transport pilot program was launched in November 2016 to identify and pilot creative new ways to deliver transport services on demand. The overarching objective was to improve understanding of how different models could improve customer outcomes and value for money, with data from each pilot to be used to inform improvements across the entire network.

Following a competitive market process, TfNSW launched 11 on demand public transport pilot services, between October 2017 and May 2018, operating across Greater Sydney, Illawarra, the Central Coast and Newcastle. The pilots were scheduled to run for a minimum term of six months with the ability for TfNSW to extend contracts for up to 24 months.

On demand public transport services allow customers to book a vehicle using an app, online or phone, for pick up from either home or a convenient nearby location, taking customers to a local transport hub or point of interest.

To date there have been more than 100,000 passenger trips, and patronage growth across the trials has been positive with incremental week on week growth. Customer satisfaction survey results confirm customers are very satisfied, and believe the on-demand services provide a better alternative to other the transport options available to them.

TfNSW are looking at on-demand differently to many jurisdictions, looking at opportunities to truly integrate on-demand services with existing transport networks – and this is driving major changes in thinking on how the whole integrated transport network is designed to deliver better customer services.

Transport planning in regional NSW

In Regional NSW, efforts have traditionally centred on public transport services and roads that get people and goods to Sydney. People in the regions often want to get to their nearest regional centre. A key focus of Future Transport 2056 is therefore to improve local connectivity through the development of a hub and spoke network model.

Image courtesy of Transport for NSW.

This network model focuses on providing connections to regional cities and centres, not just Sydney. Capitalising on the role that regional cities and centres play as hubs for employment and services such as retail, health, education and cultural activities, services are based on a range of modes, reflecting the level of demand and distance for journeys.

The 30-minute city

In Sydney TfNSW have traditionally focused on providing peak services to Sydney CBD and east of the metropolitan area. Initiatives in Future Transport 2056 aim to deliver the Greater Sydney Commission's metropolis of three cities – the Eastern Harbour City, the Central River City and the Western Parklands City - where people can access the jobs, education and services they need within 30 minutes by public transport or walking and cycling.

A hierarchy of multi-modal corridors will support travel to one of the three cities or metropolitan centres within 30 minutes. City-shaping corridors are major trunk road and rail public transport corridors providing higher speed and volume linkages between our cities and centres that shape locational decisions of residents and businesses. City-serving corridors are higher density corridors concentrated within 10km of metropolitan centres providing high frequency access to metropolitan cities/centres with more frequent stopping patterns whilst centreserving corridors are local corridors that support, buses, walking and cycling, to connect people with their nearest centre and transport node.

Where to next?

TfNSW has the stated purpose to make NSW a better place by shaping and managing a connected transport system. Through a range of trials and initiatives TfNSW is well positioned to deliver continuous improvement in network performance. TfNSW has recognised that a possible impediment to further progress is the absence of a comprehensive set of performance and evaluation metrics by which it can assess its performance in increasing transport coordination/integration. TfNSW is seeking to increase its knowledge of both 'best practice' and 'next practice' in the area of integrated performance measures, using its Research Hub to foster collaboration between TfNSW, the tertiary sector, industry and other government agencies that are interested in transport and related research.

Sydney Airport

Connectedness and Adapting

Stewardship challenge

The aviation industry has experienced significant change over the last twenty years. The rise of low-cost airlines, coupled with innovations in aircraft such as the Boeing A380 have required airports to constantly adapt and invest. Having invested more than A$4.3billion since 2002, how will Sydney Airport continue to adapt to new challenges, including anticipated growth in passengers and freight, enhanced sustainability obligations and new technologies?

Stepping up

As globalisation has enhanced the role of cities, airports have become critical to local and national economies. In 2017, Sydney Airport hosted more than 43.3 million passenger movements, which is around a quarter of the nation's total.[39] The quality and efficiency of Sydney Airport will help shape Sydney as a global city.

Planning for the future of such an important piece of Australia's national economic infrastructure is critically important and Sydney Airport's regulations require development of a 20-year Master Plan to establish the strategic direction for efficient and economic development at the airport over the period of the plan and to reduce potential conflicts between uses of the airport site.

Sydney Airport adopts a 'total system' approach
Planning for a 20-year horizon requires extensive consultation and collaboration to understand the potential factors that might impact on the internal and external environment. This is made more challenging by the susceptibility of the aviation sector to global volatility including the security climate and economic factors such as exchange rates and oil prices.

An extensive and iterative stakeholder consultation process is undertaken with a range of parties including Government agencies, airlines and other industry stakeholders to carefully map out the ensuing 20-year period. Consultations with airlines are particularly important. The decisions that airlines make about their own aircraft investments and routes impact on the airport.

Consultations for Sydney Airport's current Preliminary Draft Master Plan 2039 focused on forecasts of passenger demand, aircraft types, seating densities, load factors, frequencies, peak and off-peak operations, turnaround times and freight volumes. Reflecting airline focus on load factors and introduction of larger aircraft it is expected that passengers per aircraft will increase by approximately 24 percent over the next 22 years.

A key trend that emerged as a result of Sydney Airport's consultation was that the most significant market for growth will be international travellers, with international passenger numbers likely to almost double from 15.9 million in 2017 to 31.5 million in 2039.[40] This reflects the opening of a new airport in the Sydney basin during the planning period, which is expected to attract some domestic capacity. It is also a reflection of Sydney Airport's proximity to Asia and increases in global tourism and travel are expected to drive international travel. In particular, growth is expected in major Asian markets, including China, India, South Korea and Vietnam. Total air passenger numbers are estimated to increase by 51 percent from 43.3 million in 2017 to 65.6 million in 2039.[41]

Delivering on the strategic direction
Having outlined its strategic direction, Sydney Airport must then develop a plan for how its proposals for growth and expansion will be delivered.

Master planning, consultation and early adoption of cutting- edge technology are a potent mix for ensuring readiness for the future. Enabling better regulation so airports can be greater than the sum of their parts is the next frontier.

Image courtesy of Sydney Airport.

Core to this, is that Sydney Airport sees itself as essentially a service provider to the entire airport community. By taking a 'total system' approach there is an assurance that each interrelated system associated with airport infrastructure operates as cohesively and effectively as possible. Sydney Airport management understands that there are often conflicting demands and seeks to treat passengers of all airlines in all terminals as its customers, with the objective of ensuring the safest, most secure and positive passenger experience through every step of their journey.

Integral to this is how airports engage with their stakeholders. An example of this is the success of the Australian airport first, Aeronautical Services Agreement (ASA), negotiated between the airlines and Sydney Airport. This ASA committed to developing a service level framework that includes a set of customer-focused KPIs aimed at improving the quality and efficiency of operations to support the success of airline partners and the passenger experience.

Sydney Airport collaborates with the airlines to ensure their business needs are prioritised; measurement parameters are set up and reporting mechanisms are established. The key performance indicators (KPIs) track service outcomes related to enhancing passenger experience, improving operational outcomes and streamlining facilitation.

In addition, Sydney Airport publishes key service related metrics publicly. Doing so helps to ensure continued improvements and facilitates a relationship of trust between Sydney Airport, its business partners and passengers. By listening to what drives overall satisfaction for passengers and using these insights to inform and prioritise investment decisions, there has been a year on year improvement in not just overall satisfaction but they key drivers of overall satisfaction.

In planning for the next 20 years, Sydney Airport will work with its airline customers to agree its 'next generation' Aeronautical Services Agreement which is expected to refine and further embed an outcomes-focussed approach that will drive the best outcomes for passengers.

Sydney Airport is also building on the efficiency of the asset through investment in technological innovations, upgrading its digital infrastructure, including undertaking a pilot of a biometric passenger identification system. Sydney Airport identified an opportunity to increase the efficiency, convenience and security of passenger processing. In June 2017, Sydney Airport approved funding for a world-leading biometrics pilot to further streamline and enhance the passenger airport experience.

In partnership with Qantas, Sydney Airport is trialling the first stages of this 'couch-to-gate' biometric technology solution with Qantas passengers. The process being tested enables passengers to complete automated check-in, bag drop, lounge access and boarding using biometric access identification. Following the initial test phase, Sydney Airport plans to expand the trial to include mobile check-in and is in consultation with the Federal Government to introduce automated border processing.

This investment in technology results in efficiency outcomes for Sydney Airport, its airline customers and other stakeholders, reducing costs and improving the overall passenger experience.

Where to next?

Monitoring Sydney Airport's performance against metrics agreed with stakeholders has provided significant insight into its business. Armed with evidence of improving satisfaction scores across key measures of service quality, as well as improving outcomes in areas such as the check-in experience, new technology is helping to keep airport customers informed and in more control of their journey. Delivering road network improvements in partnership with the government and working with government to address a variety of the regulatory constraints will ensure Sydney can have a highly functional and coherent two airport system. This working partnership will increase in importance if stewardship standards are to be improved.

Armed with the knowledge that customer stewardship done well, is good for business and all stakeholders, Sydney Airport is focused on bringing a customer led approach to its business as it plans for its next 20 years of operations.

Port of Brisbane

Connectedness, Adapting and Serving all

Stewardship challenge

Located at the mouth of the Brisbane River, Port of Brisbane is managed and developed by the Port of Brisbane Pty Ltd (PBPL) under a 99-year lease from the Queensland Government. The Brisbane floods in early 2013 devastated communities but also had an economic cost to the Port of Brisbane from the flow of sediments that required dredging. To address the challenge of floods, Port of Brisbane management needs to be prepared to work outside of the Port's direct asset base. The Port of Brisbane is a diverse port serving a range of customers. The rise of the cruise ship industry has created a challenge for management of adapting to future needs, while catering for existing customers.

Stepping up

Blue River

It has been said that at one time people could drop a penny into the Brisbane River and see it sparkling on the bottom.[42] For a range of reasons, including farming practices, the Brisbane River is now constantly muddy. Because Moreton Bay is an estuary, the constant flow of tides means that once sediment is generated it does not settle.

According to research by James Lockington and Laura Beckingham at the University of Queensland,[43] mud in Moreton Bay has expanded 400km^2 from 1970 to 2015. In a 1970 survey, 400km was covered by mud, which had increased to 800km^2 by 2015.

Increased sediment, 80 percent of which comes from the Lockyer Valley has an impact on the environment,[44] particularly seagrass which needs clear, clean waters to grow. One concern is that Moreton Bay's seagrass beds are disappearing, which is affecting the local dugong population.[45]

Sediment flowing into Moreton Bay also has a financial impact for Port of Brisbane's maintenance dredging to remove around 300,000m^3. The Brisbane floods in early 2013 resulted in about 1.4m^3 million of silt and sediment accumulating in Port of Brisbane channels, or the equivalent of more than 920 shiploads of dredged material, which took 20 weeks to remove.[46]

Addressing the sediment that comes into Port channels required the Port of Brisbane to work 'beyond the gate'.

Working with stakeholders, including the Queensland Government, the Port of Brisbane provided A$500,000 to fund a pilot Offsite Stormwater Treatment Project upstream in the Lockyer Valley.[47] Following the success of the pilot, an additional A$500,000 was committed.

The first stage involved stabilising and rehabilitating approximately 750m of eroded creek bank along Laidley Creek and replanting around 4000 native trees and grasses. The second stage rehabilitated a further 200m of creek bank and constructed two cross-bed grade control structures. The project has demonstrated positive impacts, including preventing 4800 tonnes of sediment each year from entering Laidley Creek. Previous research by Commonwealth Scientific and Industrial Research Organisation (CSIRO) Land and Water suggested that reducing sediment flow by 50 percent may be possible through a combination of bank revegetation,[48] gully revegetation and establishing hillslope buffer strips. The longerterm challenge for the Port of Brisbane and its stakeholders is to establish governance, funding and financing mechanisms to expand the project.

Working beyond the port gate will not only deliver Brisbane a healthier river but makes for better business and more capital to invest in new facilities like a cruise ship terminal.

Cruise terminal

According to the Cruise Lines International Association, demand for cruising worldwide has increased from 17.8 million passengers in 2009 to an expected 28 million passengers in 2018.[49]

Reflecting growing international demand, in October 2017, Port of Brisbane reached an agreement with the Queensland Government to build the Brisbane International Cruise Terminal (BICT) at Luggage Point.[50] The terminal is expected to be operating by mid-2020 and generating almost A$5 billion in economic value for the Queensland economy alone within 15 years.[51]

Carnival Australia has entered into a long-term agreement that has been approved by the ACCC, committing to purchase 100 'foundation' berthing days for 15 years to underwrite the construction of the new terminal. In exchange, Carnival Australia receives priority berthing rights at the terminal.

The A$158 million facility illustrates that ports need to adapt to a changing environment. Just as the aviation sector transformed over the last 15 years with the growth of low-cost airlines and development of new high-performance aircraft capable of carrying larger passenger loads, the development of the global cruise industry requires ports to adapt.

Port of Brisbane is demonstrating that it is proactively adapting to the changing needs of customers, including the changing nature of the customers. Ports are often considered international infrastructure, representing a gateway to trade. The benefits of investment in port infrastructure can create value for society, such that port owners have to constantly scan the horizon to address new challenges and opportunities. Port of Brisbane is demonstrating its continued capacity to do this and invest in capital saving technologies and environmental remediation, so it can expand and diversify responsibly and efficiently.

Where to next?

Supporting efforts to turn the Brisbane River blue may take many years. Working outside the Port of Brisbane's traditional base has the added benefit of demonstrating to the community how it can contribute to creating a healthy environment. To make Port of Brisbane's investment in a cruise terminal a success it will need to collaborate with Brisbane Airport and Coolangatta Airport to create a seamless service from airport landing to anchors aweigh.

Artists impression of new cruise terminal.

Transurban

Informed Choice, Transparency and Serving All

Stewardship challenge

A major stewardship challenge for toll roads in Australia arises when the value of paid travel is not immediately apparent to customers because they cannot see what the traffic is like on the alternative un-tolled route. In peak periods, when traffic volumes lift and speeds inevitably slow, increased congestion can create a perception that toll roads do not represent good value for money.

Stepping up

Transurban is an ASX-listed toll road services company that owns and operates concessions in Australia, including most recently WestConnex, identified that it's roads are increasingly important to the movement of people and goods in Australia's three largest cities.

In 2017, Transurban was recognised as an exemplar for its work establishing the LinktGo project. LinktGo was released in NSW for trial in May 2017. It is a GPS-based smartphone app that enables users to pay for their tolling trip-by-trip without commitment or the need for a tag.

Research through the Transurban Voice of Customer program revealed that the value for money from toll roads is less apparent when traffic volumes increase and speeds slow. Customer feedback indicated that trust between customer and toll road operators could be increased if there was increased transparency around road performance and if this information was available in a timely manner to help motorists make more informed travel choices.

Transurban prioritised this challenge to find a solution. It initiated a customer-centred ideation process that tested innovative ways to share information that enabled customers to see their travel time savings and toll costs, and weigh up the real time benefits of toll road travel.

This process identified the opportunity for development of a solution that helped motorists easily compare toll roads to alternative roads at their nominated time of travel. The solution would make it easy to compare value attributes such as time savings, vehicle efficiency and travel ease against toll costs.

Image courtesy of Transurban.

Bitumen and cars are important, but empowering customers with Trip Compare helps make them informed and enables them to get the best value for money from their tolls.

In 2018, Linkt Melbourne launched Trip Compare – a travel comparison tool that provides transparent information on the performance and value of CityLink compared to alternative non-tolled routes.

Available on the Linkt Melbourne website (linkt.com.au/melbourne/using-toll-roads/trip-compare), motorists can select example tolled travel routes, and compare both current and future estimated travel time savings, toll costs, fuel usage and CO2 emissions. The comparator tool also identifies the number of traffic lights that can be avoided on the tolled option when compared with the next best alternative route.

This information in Trip Compare is calculated using a variety of independent data sources including Google Maps data, VicRoads traffic light data, and vehicle efficiency formulas that are aligned with Transurban's current sustainability reporting.

Making these comparisons readily available enables customers to make a holistic assessment of value. It helps them to make informed travel choices and have greater confidence that toll road travel, when they choose it, meets their personal needs.

Where to next ?

Transurban is currently using the learnings from this concept to explore additional ways to communicate information that might be useful for customers. Over time it expects their value-added services to evolve into more powerful tools that help customers assess value and make informed decisions before, during and after their travel.

Image courtesy of Transurban.

Final remarks

Infrastructure is an active player in our lives that shapes decisions about where we live, what jobs we do and the future quality of life for our children and grandchildren.

It is for this reason that we question whether the call for higher prices, more funding and lower costs is the only way to meet the future infrastructure needs of a community. Stewardship invites bigger thinking and enduring answers to addressing our economic problems where there is a greater focus on relationships, reciprocity and participation first.

No jurisdiction should tolerate an absence of customer stewardship of its infrastructure. Infrastructure is a potent asset and network that shapes future destinies. It is for these reasons that customer stewardship is not only important; our individual and collective futures rely on it.

Winston Churchill was very insightful when he famously remarked,

> *'...we shape our buildings, and afterwards, our buildings shape us.'*[52]

Local, national and global infrastructure has the potential to shape a much better, safer and inclusive world where all stakeholders benefit. The tools to activate such a vision, of earning trust and opening up new and attractive investments with the five pillars and Customer Stewardship Compass will be essential in translating the journey with the customer into value creation for all.

Australia is, and will most likely continue to be, a big and world-leading spender on infrastructure. As a result, it has the most to gain in providing a much-needed demonstration effect to the rest of the world as to what first-class infrastructure governance can do in delivering the right long-term outcomes for its people.

Infrastructure is not and must not be static. As we demonstrate with the 2018 Customer Stewardship Exemplars (Chapter 4), infrastructure done well should be constantly evolving and changing to meet the needs of a dynamic economy and society it serves. When infrastructure is static, this complacency serves as a drag on our lives preventing timely travel to work, causing greater anxiety to access essential services, and results in the gradual erosion of quality of life and amenity of places that we cherish.

Infrastructure is part of a system, and should be managed to give maximum efficacy to that system. Having a great airport or even a very fast rail corridor means little if the adjacent road and rail systems fail to connect with and work coherently with it. To have quality infrastructure, its connectedness is much more than just being physical, but also coordinated and integrated in its functions and values.

We are all different, with differing needs and expectations of infrastructure. Informed choice seeks to ensure we can access necessary information for each of us to act upon our preferences and have them fulfilled with responsible and prudent investment decisions.

Infrastructure may be complex but that must never be an excuse for tolerating underperformance and insensitivity to customers. There is no way that an individual can look through and understand the intricate details of how a water or energy system functions. The more transparent an operator is about the problems it faces and the solutions it is working on – whether that be today or preparing the asset for the future – the more confidence we can have that investment is occurring in a timely, scaled and feasible way.

The final customer stewardship pillar, infrastructure must serve everyone, is not just the responsibility of owners and operators, but demands that governments must have the right fiscal and policy settings to ensure this is possible, while keeping services dynamic and adaptable.

Australia has been at the forefront of attracting private capital into infrastructure. The preparedness of Australian superannuation funds to invest in infrastructure has meant the burden of meeting the expanding capital needs of airports, ports, energy and roads has been supported by private capital, not taxpayers.

Asset recycling pioneered in NSW and with close follower early adopter Victoria has been able to activate a reinvigorated if not historical infrastructure investment agenda for their jurisdictions. Despite the enormous benefits, challenges persist and must not be ignored as governments contemplate the ways and means of funding and financing infrastructure.

When assets are privatised, it is imperative that policy, regulatory and commercial settings are calibrated so the community is assured it is getting a good deal.

Airports and some marine port privatisations have resulted in very strong capital investment in both megaprojects and critical small projects that remove bottlenecks and decongest to great effect. This has been done prudently so the best use of existing infrastructure occurs before embarking on building new assets. The combination of fiduciary boards and light-handed regulation has allowed these assets and business to responsibly invest and prepare for the future.

But how do customers and the community know whether assets are being gold plated and whether an investment is necessary?

One of the ways in which governments have sought to balance the interests of the community and the private sector is with public-private-partnerships (PPP). As we have discussed in our previous reports, PPPs are good at managing risk and certainty, particularly during the design and construction phase of the life cycle.

However, managing a PPP through an extended list of KPIs does not engender a culture of collaboration, problem solving and adeptness to the future. The best PPPs, as identified among the exemplars, are those that adapt and change through a collaborative process with government and their customers, not through black letter compliance to contractual deeds.

It is not possible, nor desirable, to overly specify and codify rules, contracts and regulations as to what infrastructure owners and operators should be doing at any one time. The foundation that will ensure readiness to embark on a dynamic customer stewardship journey is an organisation's bedrock values and principles coupled with the five pillars of practice that orient it to the customer and the capacity to exchange information with them to inform future decisions.

> Customer stewardship is not an option but a necessity if infrastructure is to reach its full potential in contributing to our wellbeing.

We must make the market and the role of the customer central to the future of infrastructure so that private investment can work purposefully to that end.

The challenge of implementing a customer stewardship future for infrastructure is neither technical nor engineered in its nature. Instead, it demands cultural change powered by governance reform where governments enable owners and operators to interact with customers to inform decisions about the types of services they need and prefer.

Embedding customer stewardship principles into the operation of infrastructure assets and businesses is a long-term process that has the means to slowly rebuild community confidence that infrastructure is working to meet their long-term interests.

The Better Infrastructure Initiative has continued the development of a framework for customer stewardship that we first outlined in *Policy Outlook Paper No. 4, Building a national consensus – why customer stewardship matters*. This paper has benefited from deep collaboration with the industry to develop and pilot much-needed tools like the Customer Stewardship Pillars and Compass so that owners and operators can use them to navigate a purposeful customer stewardship journey.

The next step is to develop and implement a reporting framework for customer stewardship that provides a common platform for infrastructure service providers to report on what they are doing about building a customer stewardship culture, what circumstances are shaping decisions and outcomes achieved for the customer.

A customer stewardship-reporting framework needs to emerge to improve the quality of the conversation with customers. In addition, it is this framework that must be independent and rigorous, complete with data and case examples that can deepen and shift the quality of the dialogue between asset owners and operators with their investors, regulators and policymakers for both greenfield and brownfield projects and businesses.

Just as we recognise that infrastructure is part of a system, so too must we ensure the framework for reporting on customer stewardship connects with work that others are doing. Specifically we identify the Principles for Responsible Investment (PRI), Global Real Estate Sustainability Benchmark (GRESB) and International Institute for Sustainable Development (IISD) that are doing important and complementary work to secure a better infrastructure future.

Recommendations

1. Embed customer stewardship in all major decisions
Federal, state and local government must address the missing link in their infrastructure governance – customer stewardship – towards enhanced focus and accountability to customers and function of markets.

2. Enable customers to always shape infrastructure
All public and private sector organisations must embrace and practice customer stewardship values and principles in their project selection and governance processes that enable customers to shape all aspects of the asset life cycle for infrastructure.

3. Reward customer stewardship practices
Investors as owners of infrastructure need to ensure the operators of infrastructure are given the latitude and motivation to use customer stewardship practices, including engaging with and maintaining high standards of customer trust and integrity of assets and services.

4. Motivate a reporting and transparency ethos
Asset recycling programs and other infrastructure divestment and investment processes need to embed a customer stewardship ethos of accountability, and mechanisms for reporting to ensure all decisions will accrete to customer outcomes and benefit the infrastructure system as a whole.

5. Better communicate genuine achievements
Owners and operators need to communicate their customer stewardship achievements, (using case studies, data with their stakeholders) to redress misconceptions and build trust and understanding about quality of planning and management capabilities in preparing for the future.

Infrastructure may be complex but that is never a reason for tolerating under performance and insensitivity to customers.

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    Member organisations

    - Brisbane Airport Corporation
    - Bureau of Infrastructure, Transport and Regional Economics
    - Customer Experience Company
    - CIMIC
    - Department for Infrastructure, Regional Development and Cities (Federal)
    - EnergyAustralia
    - Port of Newcastle
    - John Holland Group
    - Media Super
    - National Australia Bank
    - NSW Data Analytics Centre (NSW Treasury)
    - Port of Brisbane Pty Ltd
    - QIC
    - Sydney Airport Corporation
    - Sydney Water
    - Transurban
    - Transport for NSW

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The Better Infrastructure Initiative is guided by 10 key propositions:

1. Better infrastructure requires better long-term planning.
2. All infrastructure interventions should be scaled, targeted and feasible.
3. The biggest impediment to better infrastructure is lack of transparency.
4. Infrastructure businesses are better than infrastructure projects.
5. Land-use planning and infrastructure planning are the same thing.
6. Good project selection is paramount; financing is secondary.
7. Infrastructure is primarily about service outcomes to people and business.
8. Risk is a catalyst for more innovation.
9. Better infrastructure relies on strong institutional memory.
10. Leadership matters.

The John Grill Centre for Project Leadership helps organisations lead projects that positively impact economic value and social well-being.

Working to support project challenges, changing leadership mindsets and practices through robust initiatives and programs we create positive change in individuals, project teams, their practices and organisations.

Through partnerships with government, industry and academia we undertake research to address the challenges of infrastructure, energy and technology-enabled business transformation to deliver the right projects for the future.

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