

OVERVIEW

Infrastructure planning and delivery is costly and complex, meaning it typically has a long lead time. To ensure this significant investment in time and resources is well spent, it is important that governments not only get it right, but have a focus on continuous improvement, coordinated planning and delivery, and appropriate engagement with partners and stakeholders. We should be continually raising the bar to drive and optimise the performance and outcomes of each infrastructure investment.

Governance, accountability, and transparency are integral when planning for major investments in long-life assets. Integration between land-use and infrastructure planning enables identification and planning for future needs, particularly in an increasingly complex and interconnected environment. The Queensland Government recognises that it is critical to continue to invest in and improve governance arrangements, including through the use of place-based approaches and partnerships with industry and other levels of government. Harnessing the knowledge of local communities and industry partners will optimise infrastructure outcomes.

Increased use of digital and data analysis can improve the way we plan, design and operate infrastructure and related services. There is an opportunity to embed a 'digital by default' approach across the infrastructure lifecycle.

This chapter sets out the state government's crosssectoral priorities to improve the overall performance of its infrastructure program and the performance of its existing assets. It considers key themes common to the lifecycle of infrastructure development and across different asset classes.

It also considers the current and emerging trends described by Infrastructure Australia in both the 2021 Australian Infrastructure Plan and the 2019 Australian Infrastructure Audit, the interest in infrastructure and reform shared by both government and industry, and proposes an agenda of priority actions that is shaped by the current landscape of economic recovery, digitisation and climate change.



Port of Townsville

CASE STUDY

Growth Areas Team

A Growth Areas Team has been established to respond to land supply, population growth and residential development challenges across South East Queensland. Its core remit is to work collaboratively with state agencies, local governments, utility providers and industry to better match the demands for land and affordable and diverse housing, with supply. The objectives of the Growth Areas Team are to unlock approvals in targeted local government areas, accelerate outcomes in known growth areas, plan for new growth corridors and identify and implement systemic changes to the state's planning framework.

The Growth Areas Team works to overcome barriers that constrain new development in growth areas, while excluding areas of national or state environmental significance, by facilitating development approvals, partnering to undertake structure and infrastructure planning and identifying and promoting reforms that will improve the long-term management of Queensland's growth.

The Growth Areas Team also focuses on forming partnerships and facilitating outcomes with infrastructure providers to better align planning, funding and delivery in active and emerging growth areas.



Growth area house under construction



CHALLENGES

Better infrastructure integration

As our economy continues to grow and our population expands and shifts, building and maintaining infrastructure will become even more interconnected and complex. Integrated land-use and infrastructure planning can help manage changes in our economy and communities, particularly in areas of strong population growth.

Collaboration and continuous improvement of governance approaches can optimise infrastructure investment across multiple portfolios and asset classes. This can result in more multi-purpose facilities that leverage investment, are well-used and deliver a range of complementary and integrated government services. Improving the integration of infrastructure, land-use planning and economic development will better realise regional economic outcomes.







Resilience and sustainability

Queensland is Australia's most disasteraffected state, with the frequency and scale of natural disasters increasing because of climate change. These disasters can have a significant and lasting impact on affected communities and the infrastructure they rely on. Understanding regional climate risks and integrating resilience and sustainability across the infrastructure lifecycle will be critical to managing the operational and maintenance cost of our growing asset base.

Portfolio planning and performance

The transition of Building Queensland into the Department of State Development, Infrastructure, Local Government and Planning, and new infrastructure proposal development arrangements, means that agencies have a more active role in developing business cases for major infrastructure. Building capability across state and local governments will maximise existing portfolio planning, proposal development and project delivery outcomes.







OPPORTUNITIES

Attracting private sector investment

Our industry partners are seeking opportunities to invest in Queensland and to collaborate on infrastructure projects. Private sector participation in infrastructure planning, financing and delivery can offset financing shortfalls and bring innovation and technical expertise to projects. By working collaboratively with industry and across government we can establish the right environment to attract more private sector infrastructure investment.



Adopting data driven approaches to infrastructure

Data analytics and use of technology are increasingly being adopted to help infrastructure perform better. Technological advances allow the collection – and analysis – of information about the way we use infrastructure and the services it supports.

Creating new data sets and utilising existing ones can improve all aspects of infrastructure service delivery: how we plan for it, develop it, build it, use it and maintain it over its lifespan. This can be further enhanced by increasing the adoption of digital approaches to infrastructure planning, delivery, and operations including going 'digital by default' for Queensland infrastructure projects.

Increasing business confidence

Government is working with industry to develop mechanisms for greater transparency and certainty between governments and industry, including with a shared view of risk and innovation in infrastructure planning, delivery and operation.

Improving the prioritisation and sequencing of the government's infrastructure pipeline and its visibility for local market participation, provides industry with confidence and clarity in the forward work program.



Better performing buildings

The state needs to make every infrastructure dollar count. The private sector is leading the way when it comes to the adoption of better building practices, delivering more efficient buildings with better thermal comfort, reducing the requirements for trunk infrastructure and increasing resilience to extreme weather. Infrastructure Australia and the Property Council of Australia have identified that such practices are critical to lifting the performance of government assets and reducing operational costs.

There is an opportunity to adopt proven practices, to ensure new government buildings from social housing to schools, perform better for Queenslanders in a changing climate, while also embedding long-term operational cost savings into our growing asset base. The government supports a more consistent methodology for projects to be planned with regard to Queensland Government's *Best Practice Principles* for building construction.



Facilitating strategic precincts •·····

Precincts can drive collaboration and growth. There is an increasing trend towards the use of integrated precincts to facilitate and deliver world-class health, knowledge, innovation and community services centred around universities, hospitals, or major industrial areas.

There is an opportunity to create places where businesses, workers and technology come together to build skills and innovate, access new market opportunities, and create jobs.





PRIORITY ACTIONS



Encourage jobs, growth and productivity



Develop regions, places and precincts

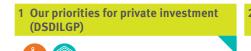


Enhance sustainability and resilience



Adopt smarter approaches

▼ WORKING WITH THE PRIVATE SECTOR



Identify and publish significant infrastructure opportunities that are suitable and would benefit from private investment. This will focus on opportunities that do not require government funding or long-term concessions.





Progressively build a longer-term view of infrastructure proposals to inform the Queensland Government Infrastructure Pipeline, improve coordination and sustain regional jobs, and identify opportunities for early market engagement. 3 More collaborative approaches with industry (DSDILGP)



Piloting opportunities to embed more collaborative approaches with industry into infrastructure optioneering and delivery across Queensland Government, building on the best practice of other jurisdictions and international experience. For example, collaborative contracting and early market engagement.

ENHANCING GOVERNANCE

4 Performance through leadership (DSDILGP)



Chaired by the Infrastructure Minister, an Infrastructure Cabinet Committee (ICC) will provide a renewed focus on infrastructure strategy and reform, as well as ensure capital infrastructure delivery remains on target. The ICC is overseeing this strategy and the supporting Regional Infrastructure Plans to align longer-term investment across government. 5 Data-driven infrastructure planning for regions (DSDILGP, DRDMW)



Scope and progressively establish a data-driven baseline of infrastructure performance along with an understanding of future demand drivers across Queensland's regions and infrastructure portfolios. Analysing this data will help to improve asset utilisation, inform statewide priorities and the ongoing development of Regional Infrastructure Plans.

6 Post-delivery analysis and strategic infrastructure assessment (DSDILGP)



Continue to develop and embed tools such as benefits realisation and post-delivery assessment in strategic infrastructure planning and policies as a critical step in capturing and understanding the impact of infrastructure beyond its physical construction and direct utilisation.

EMBEDDING DIGITAL AND DATA INNOVATION

7 Data insights (DSDILGP)



Scoping new data approaches to determine how data analytics and data-driven insights can be used more effectively across the infrastructure lifecycle from policy and planning to asset decommissioning.

8 Digital Twin (DSDILGP, DoR)



Work across government on the phased introduction of a statewide digital workbench to help plan, predict and understand Queensland's infrastructure to inform better decision making through the use of data. Digital twins have been emerging as a leading tool to present a more comprehensive understanding of the real world. 9 Building Information Modelling (DSDILGP with other agencies)



Continue implementing the government's commitment to use Building Information Modelling on all government infrastructure projects by 2023. Also continue to increase capacity and skills across the public service to support this 'digital by default' approach to infrastructure development.

▼ INFRASTRUCTURE PLANNING WITH A FOCUS ON PLACE

10 Regional Infrastructure Plans (DSDILGP, DRDMW)



Introduce a new place-based approach to infrastructure planning that better reflects the unique strengths and opportunities of each region. The progressive development of Regional Infrastructure Plans with regional stakeholders, will recognise the important role infrastructure plays in regional economic recovery, resilience, growth, and liveability. 11 Prioritising infrastructure planning for growth areas (DSDILGP)

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Evaluate recent infrastructure planning approaches for high-growth communities, including Social Infrastructure Investment Strategies (piloted for a Priority Development Area) and Infrastructure Coordination Plans to inform a leading practice that ensures communities of highest need are adequately serviced and well-coordinated.

12 Precinct governance framework (DSDILGP)



Developing a framework to determine the appropriate governance mechanism to support the development or activation of a precinct, ensuring the interactions between institutions, private sector and government deliver desired outcomes. 13 Facilitating growth precincts to drive regional jobs (DSDILGP)



Facilitate place-based regional economic strategies through growth precincts that leverage regional competitive strengths. The coordinated delivery of programs and initiatives, investment facilitation and attraction services, and enabling infrastructure will be supported by a program management approach.

RESILIENCE AND SUSTAINABILITY

14 Better performing buildings (DSDILGP)



Determine the best application of nationally recognised building performance ratings across Queensland Government agencies to improve resilience and reduce the operational costs of new and existing assets. 15 Zero-net emissions infrastructure plan (DSDILGP)



Improve emissions from infrastructure through the release of a zero-net emissions infrastructure plan.