



2024 QLD Major Projects & Pipeline Report

Gladstone – 20th November 2024





Queensland Major Projects Pipeline 2024





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2024 QLD Major Projects and Pipeline Report



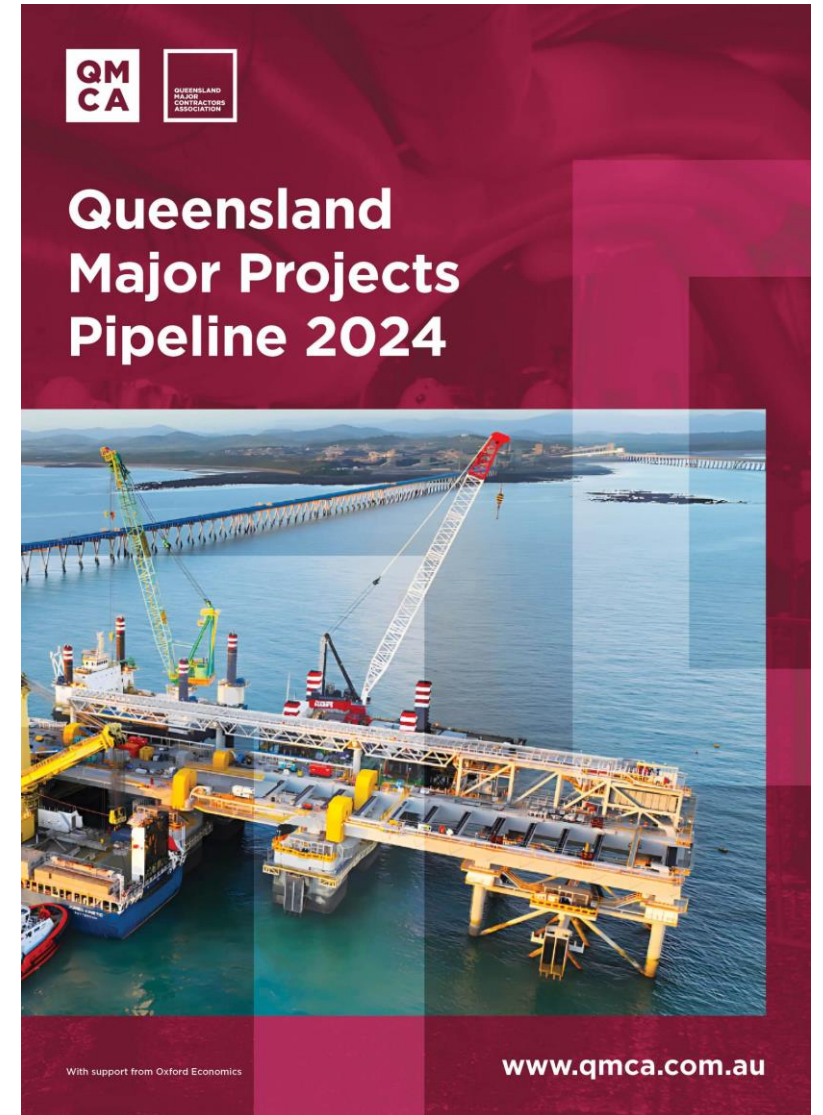
Andrew Chapman
QMCA





Agenda

- Key Findings
- Key challenges
- Opportunities
- Recommendations





Key Findings

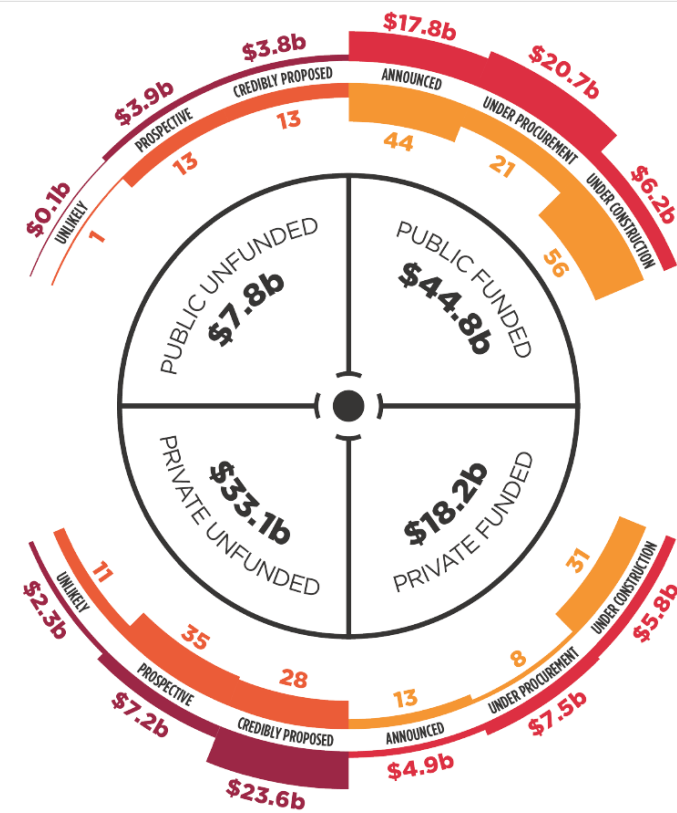




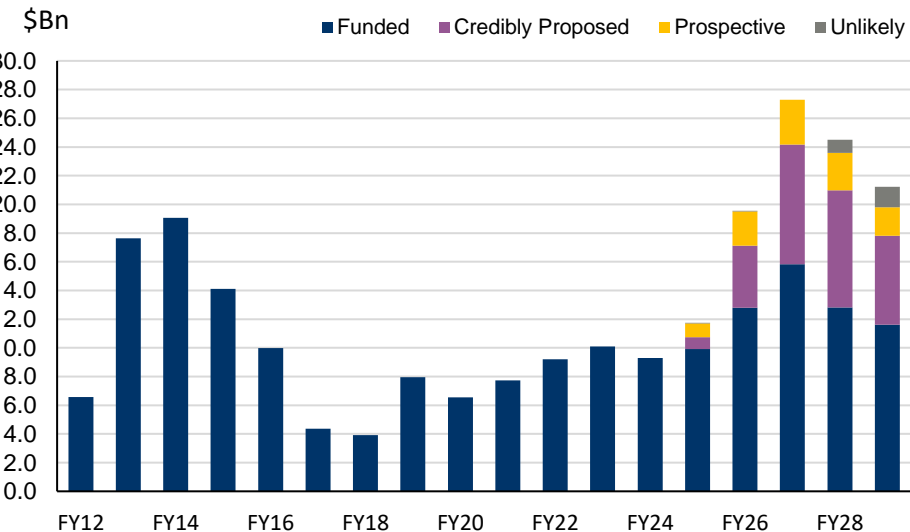
Key Messages



- Total 5 year pipeline value \$104b
 - \$12b increase on 2023 pipeline
 - 20% of the increase is down to “published” cost increases
- Delivery of work in FY24 was subdued
- Continued growth of mega projects (>\$1b)
- Labour- still need an extra 10,000+ people
- Regional hotspots: Wide Bay, Brisbane & south/ west (Logan-Ipswich- Toowoomba) and Fitzroy



Total Pipeline

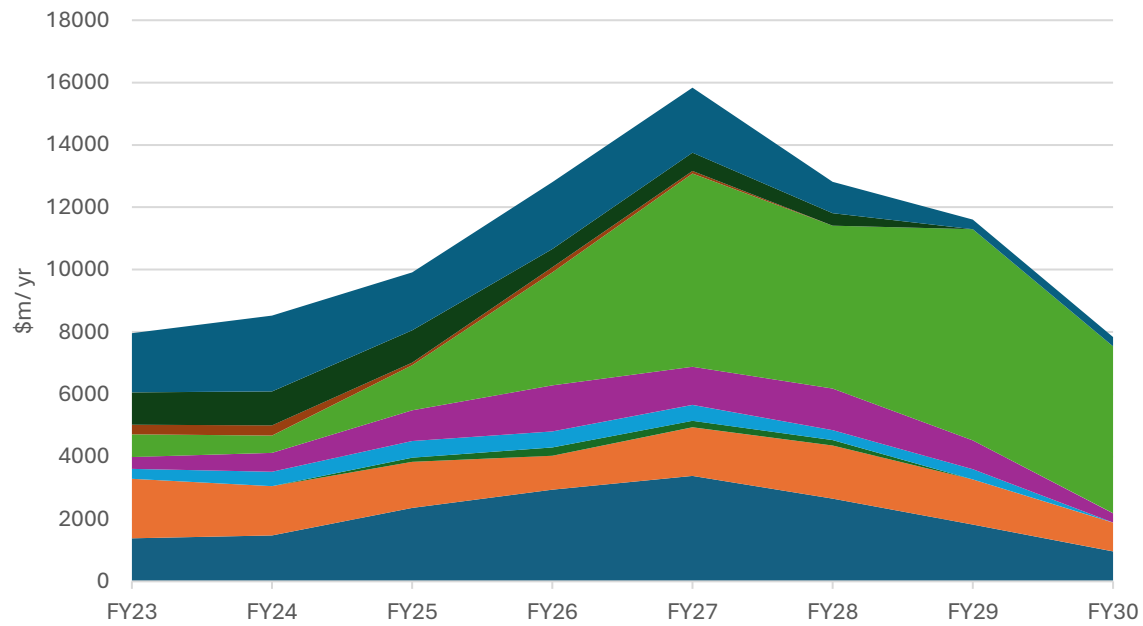




Pipeline Outlook- Funded Works

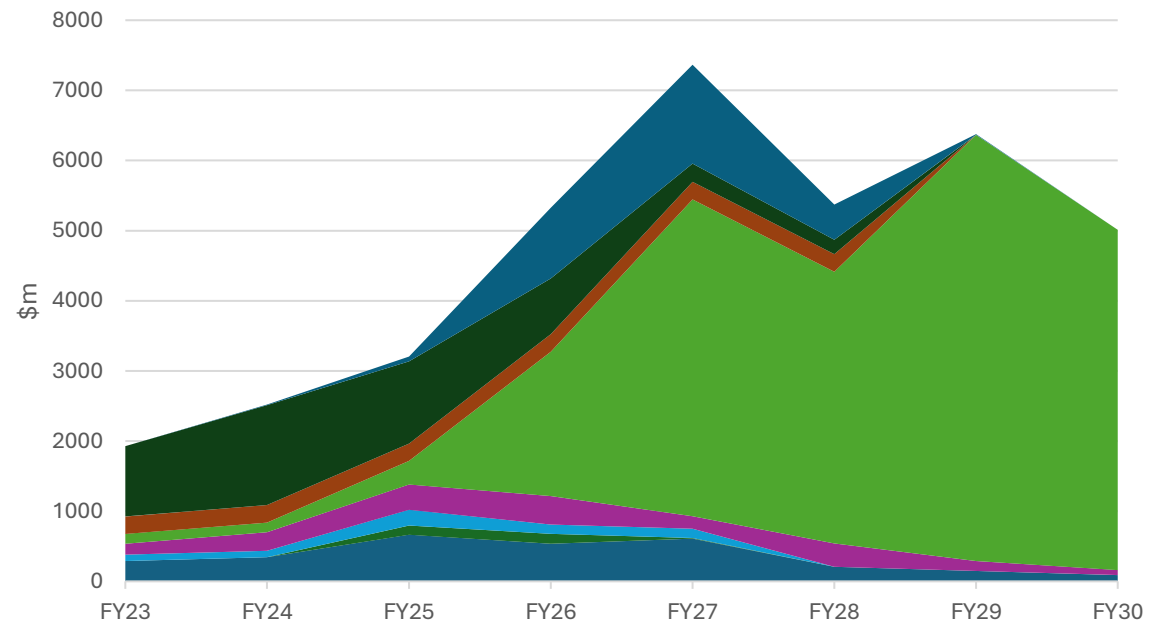


State Wide



- Roads & Bridges
- Rail
- Marine
- Defence
- Water & Sewerage
- Electricity
- Pipelines
- Telecommunications
- Energy
- Resources & Heavy Industry

Central QLD



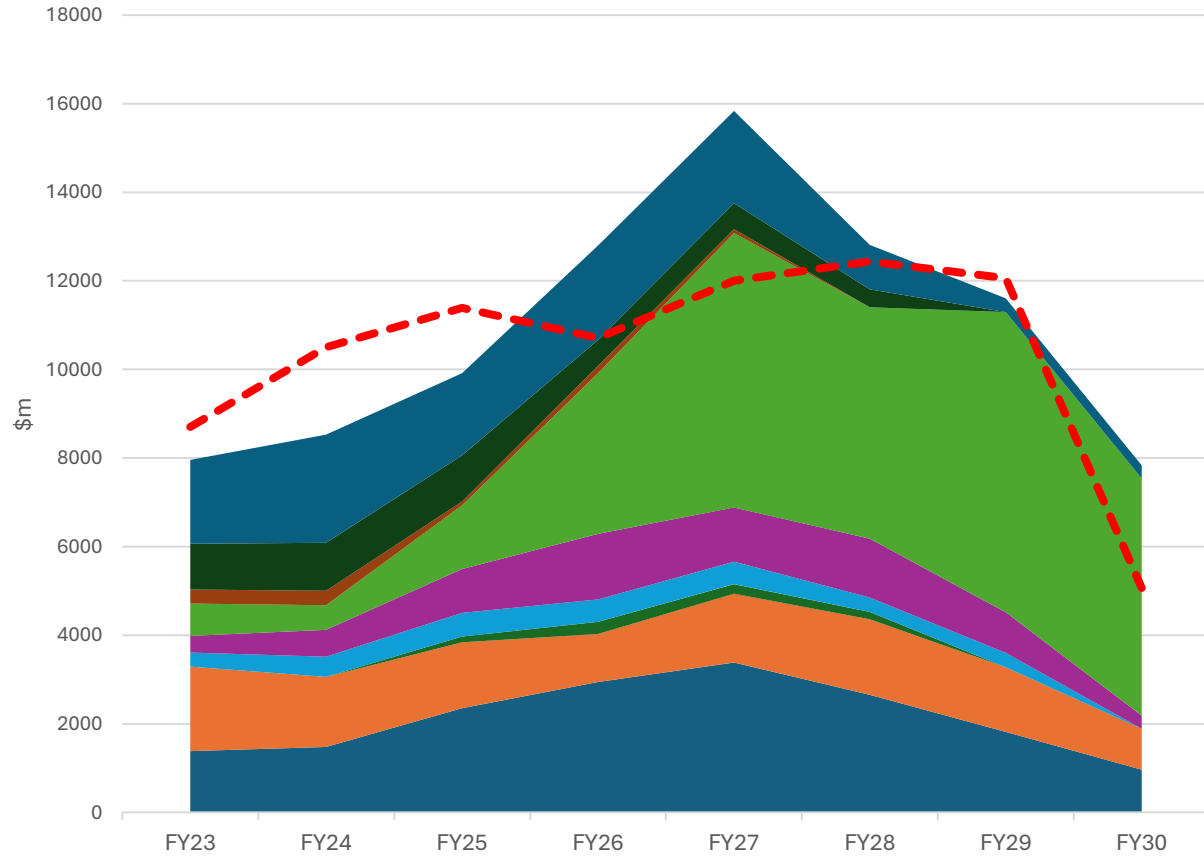
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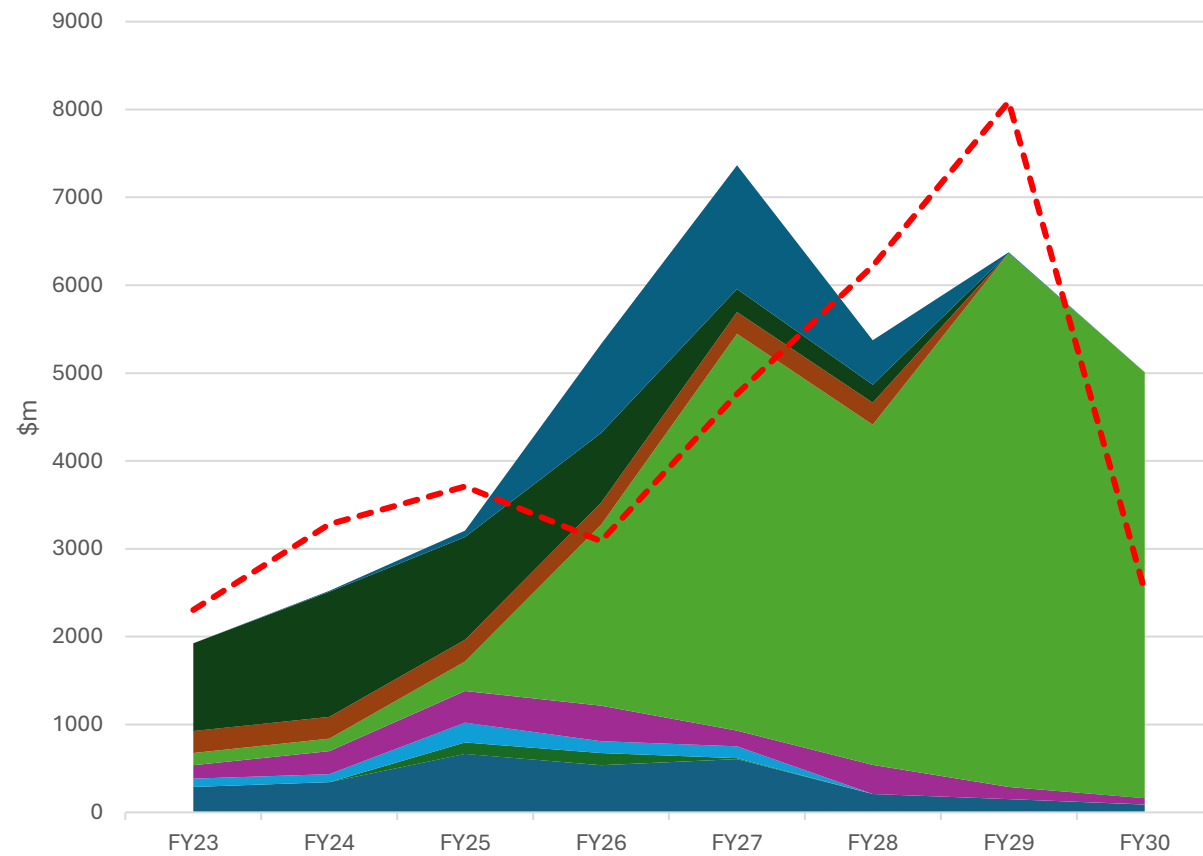
Pipeline Outlook- Funded Works



State Wide



Central QLD Region



- Roads & Bridges
- Defence
- Pipelines
- Resources & Heavy Industry
- Rail
- Water & Sewerage
- Telecommunications
- Marine
- Electricity
- Energy
- - - 2023 QMPPR

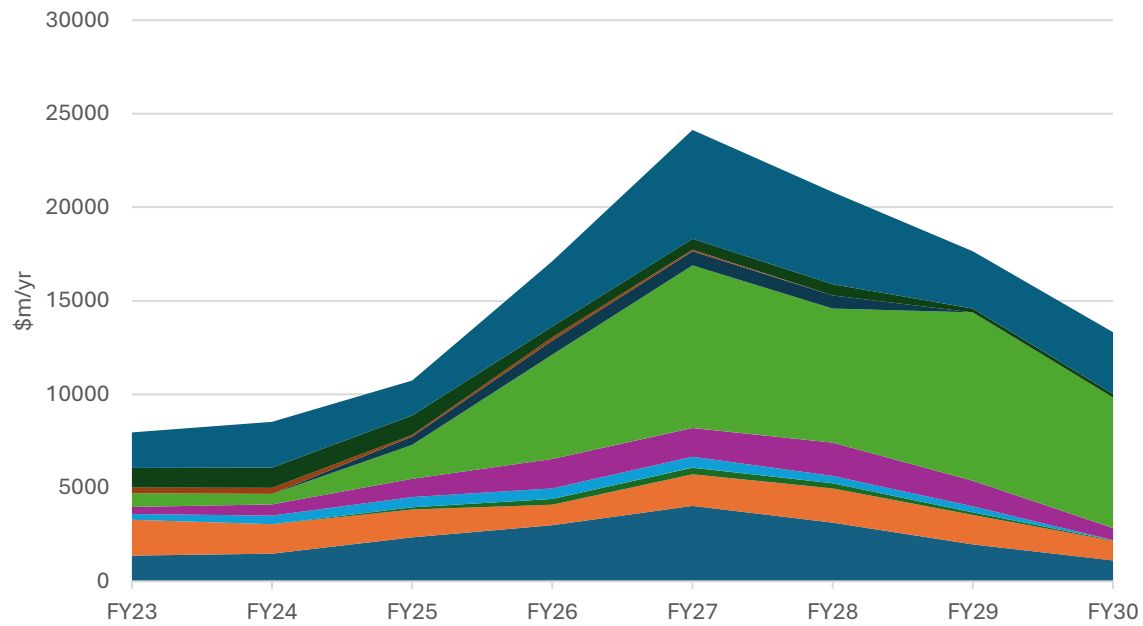
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- Pipelines
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- Rail
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- Telecommunications
- Marine
- Electricity
- Energy
- - - 2023 QMPPR



Pipeline Outlook- Funded + Credibly Proposed

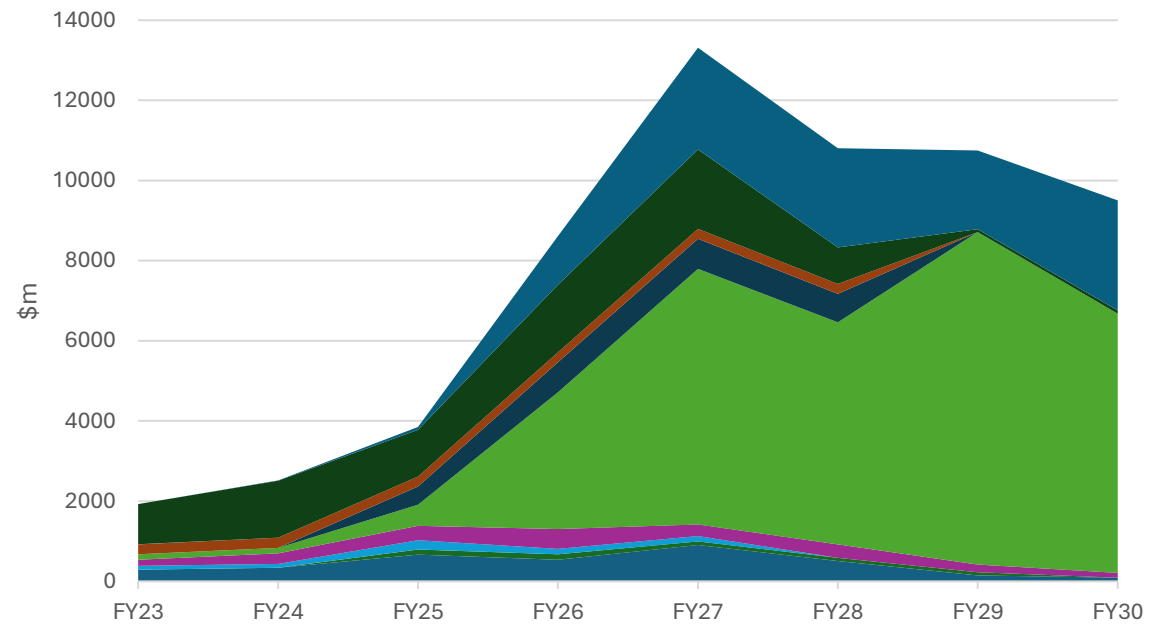


State Wide



- Roads & Bridges
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- Pipelines
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- Rail
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- Energy

Central QLD Region



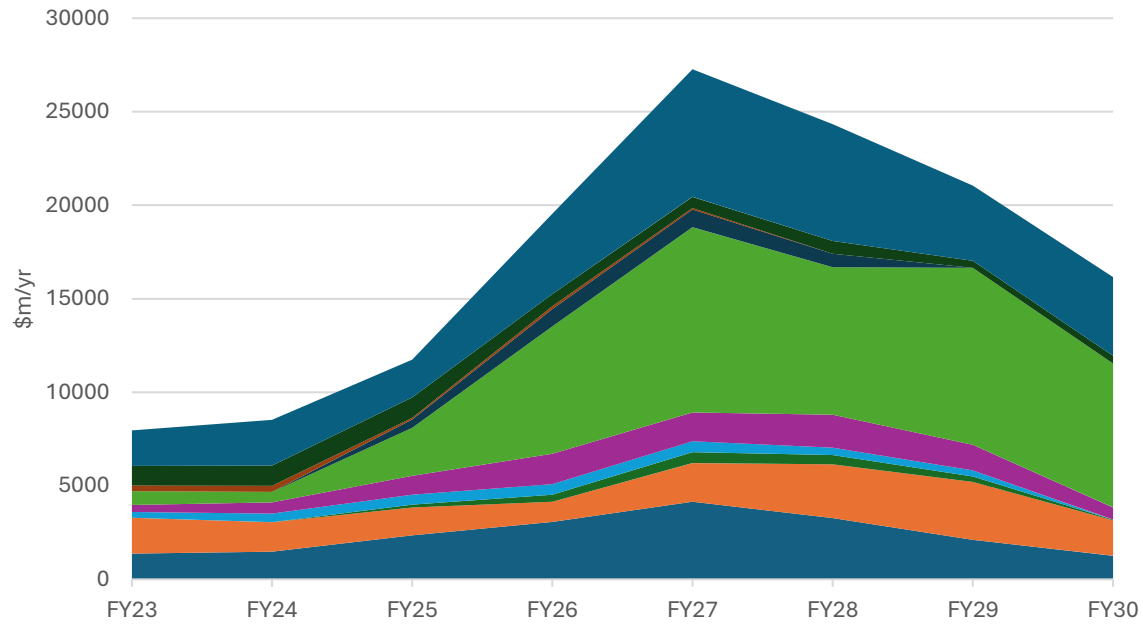
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Pipeline Outlook- Total Pipeline

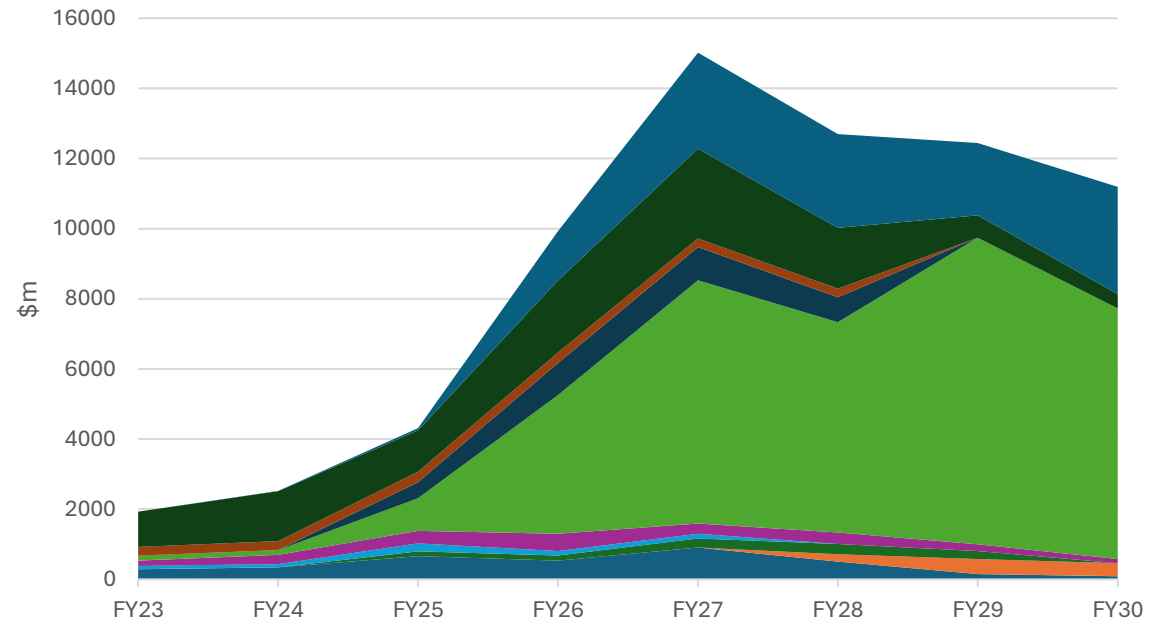


State Wide



- Roads & Bridges
- Defence
- Pipelines
- Resources & Heavy Industry
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Total Pipeline



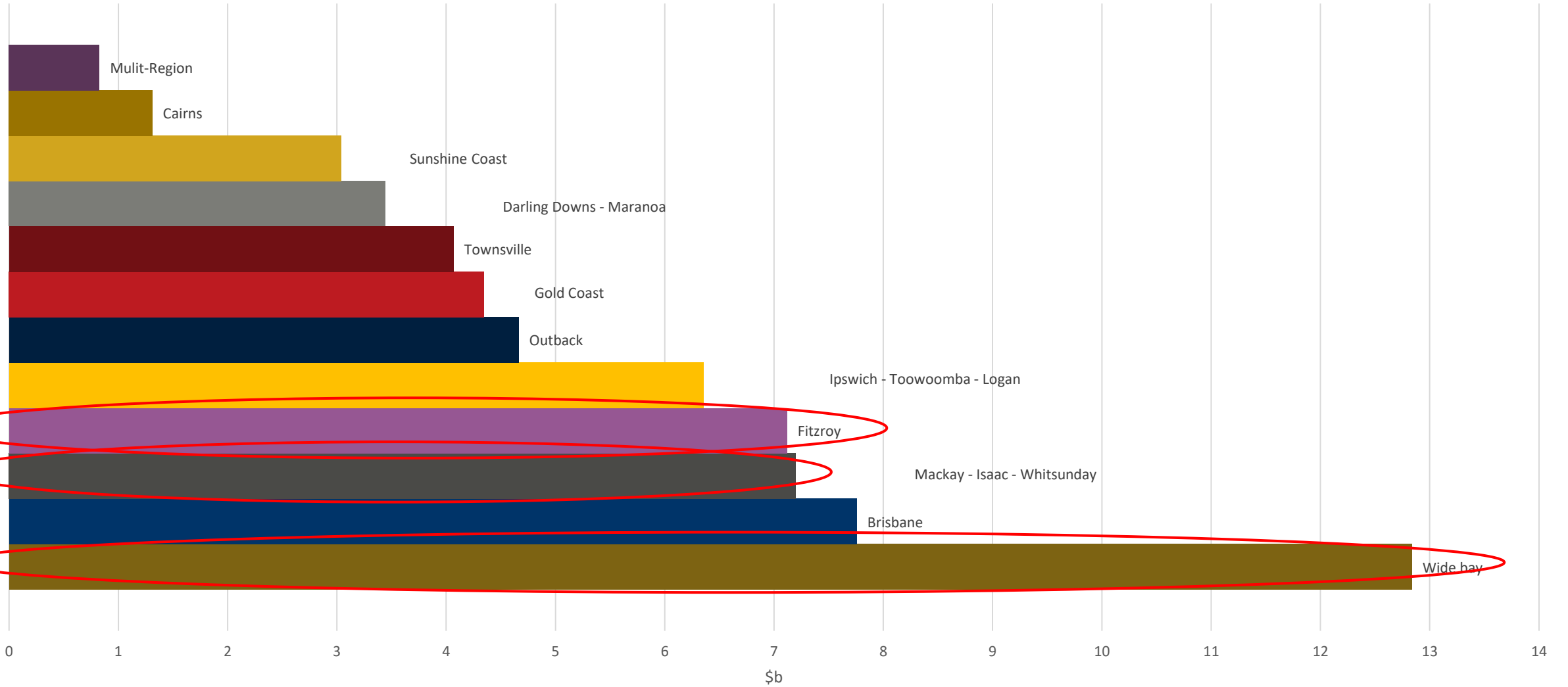
- Roads & Bridges
- Defence
- Pipelines
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- Energy



Regional Spend



Regional Analysis

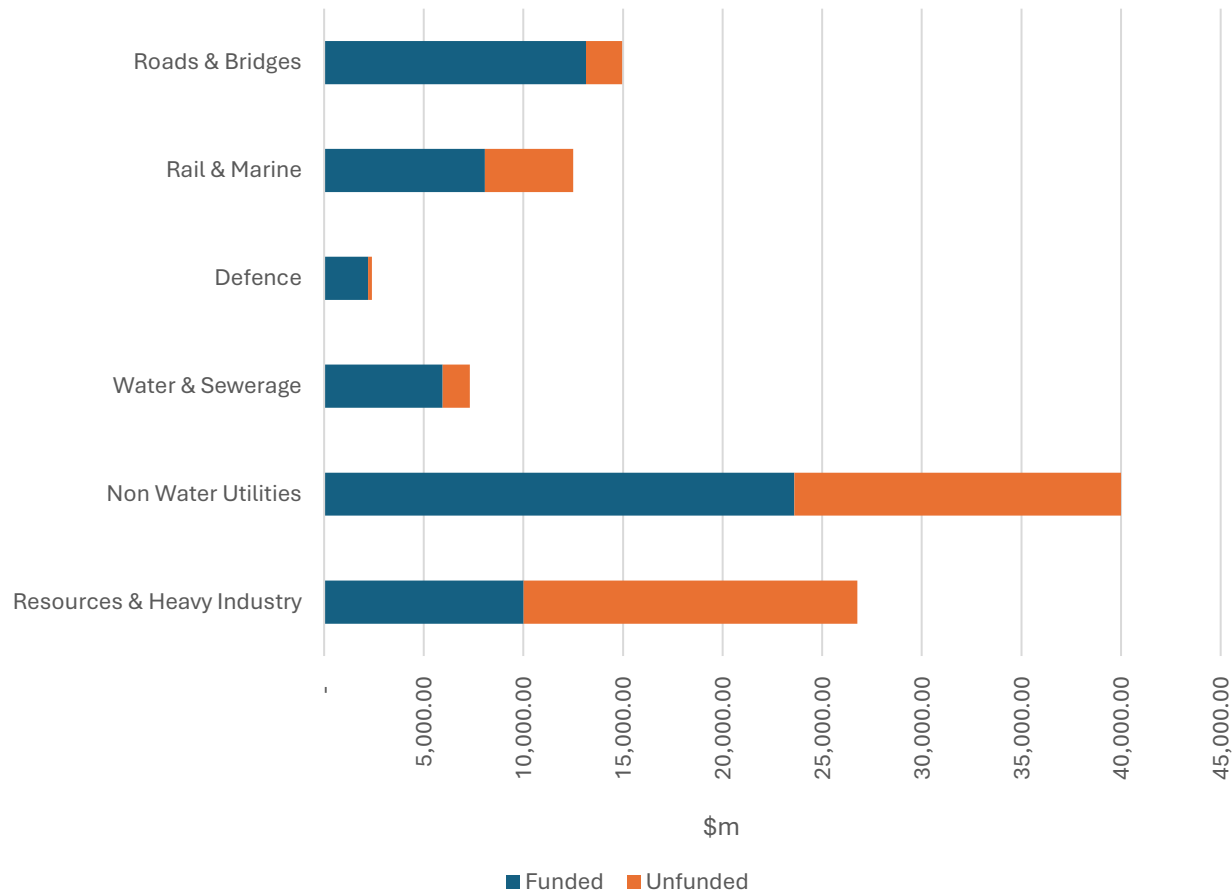




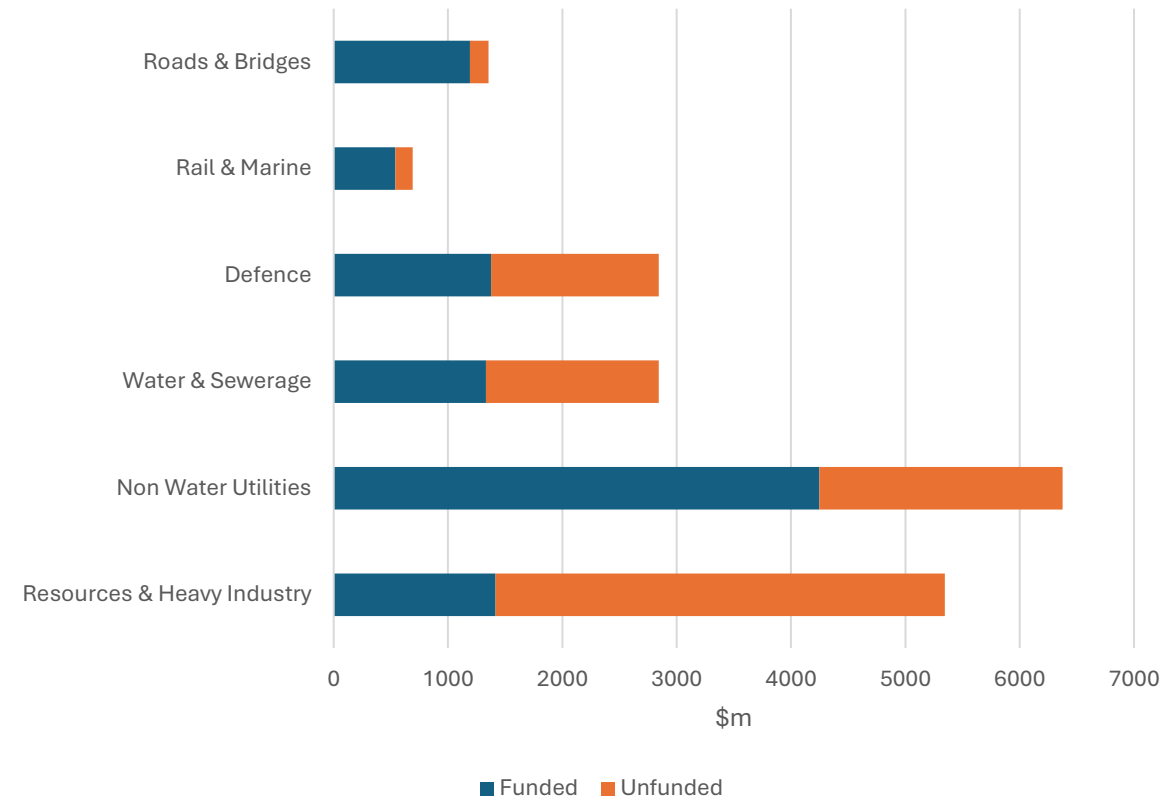
What Type of investment?



Sector Analysis- State Wide



Sector Analysis – North + North West QLD





Key Challenges





Key Challenges

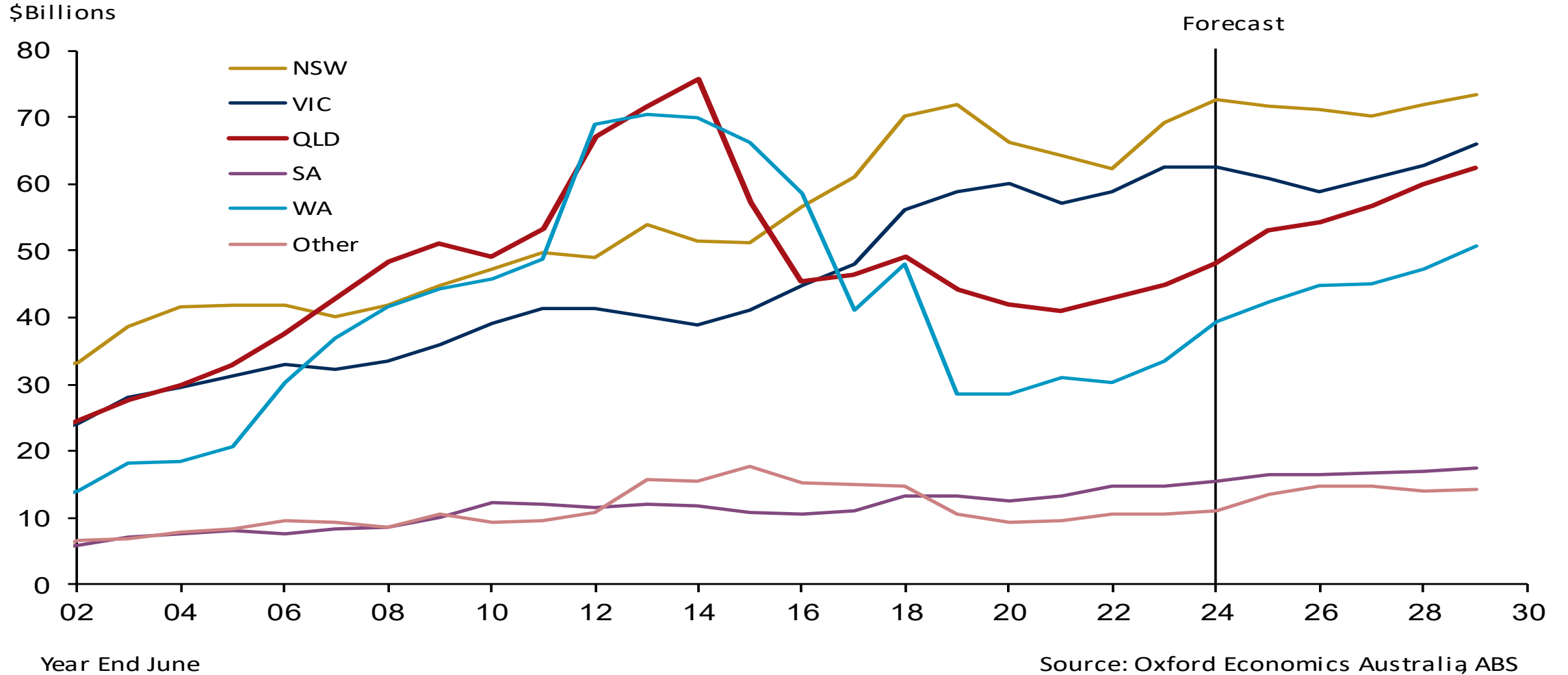


- Competing investments
- Capability
- Capacity
- Productivity
- Cost Pressures
- Pipeline Deliverability:
 - Industry capacity
 - Industry sustainability
 - Pipeline coordination





Competing Investments

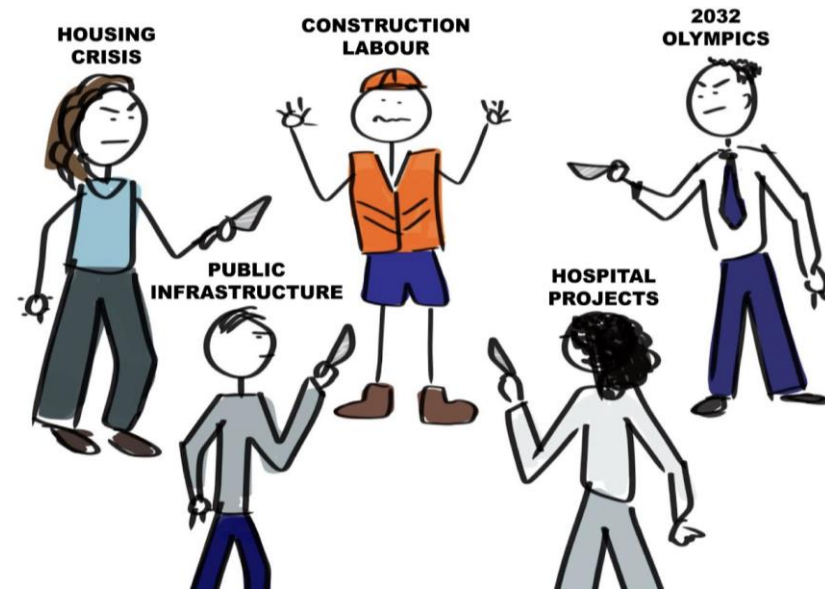


Source: Oxford Economics Australia & ABS

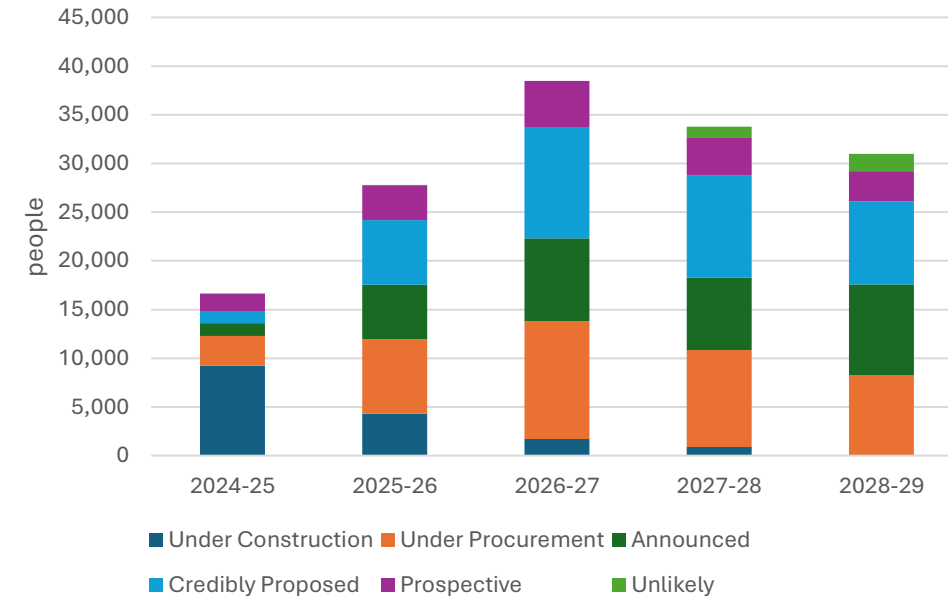


Capacity

- Labour demand:
 - 30,000 people employed across all of engineering and construction in QLD
 - Approx 55% only in major projects (~17k)
 - Average requirement for the major projects pipeline is 30,000
 - On that basis need to grow the total employment in the industry by 80%
- Current supply capacity of aggregates in QLD:
 - Steel: 1.2Mt/ yr
 - Concrete: 7.5Mm³/ yr
 - Aggregate: 52Mt/ yr
- Likely additional demand:
 - Steel: 180,000-200,000t/yr (Major projects ~150-160,000t/yr, Health, Housing & Olympics: 30-40,000t/yr)
 - Aggregates: New quarry sources will be required
 - Asphalt, cement and concrete



Average Labour Requirement by Project Status



Source: CSQ

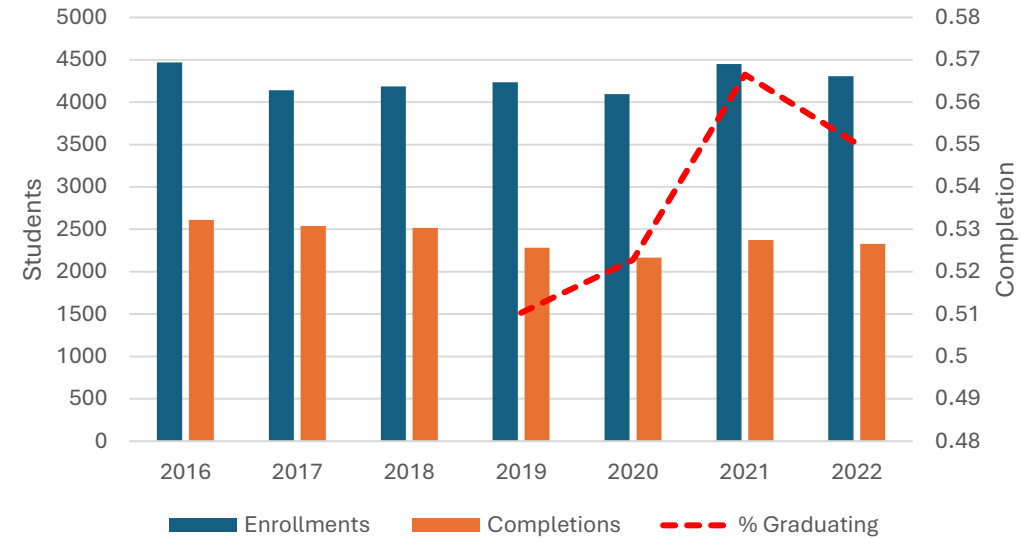


Capability

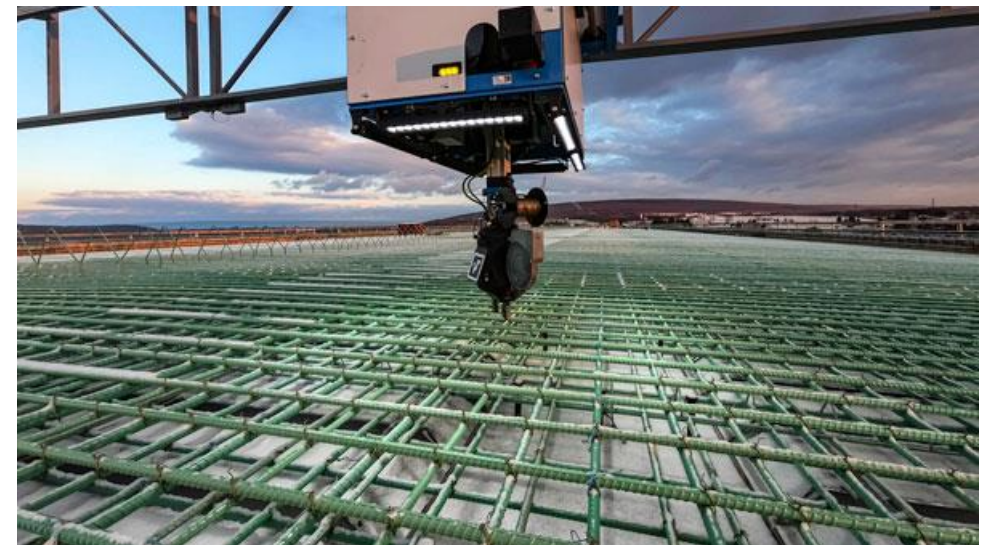


- Engineers:
 - Change in investment requires far more multi disciplinary skill set (civil, mechanical, electrical)
 - Graduating ~50-55% of those that commence
 - Demand is far outstripping supply
- Different technology skill sets as the industry moves to greater modularisation, prefabrication, automation & use of robotics, etc
- Local manufacturing and fabrication – needs to evolve to meet need (energy infrastructure, minerals processing etc)

Engineering Education



Source: Engineers Australia

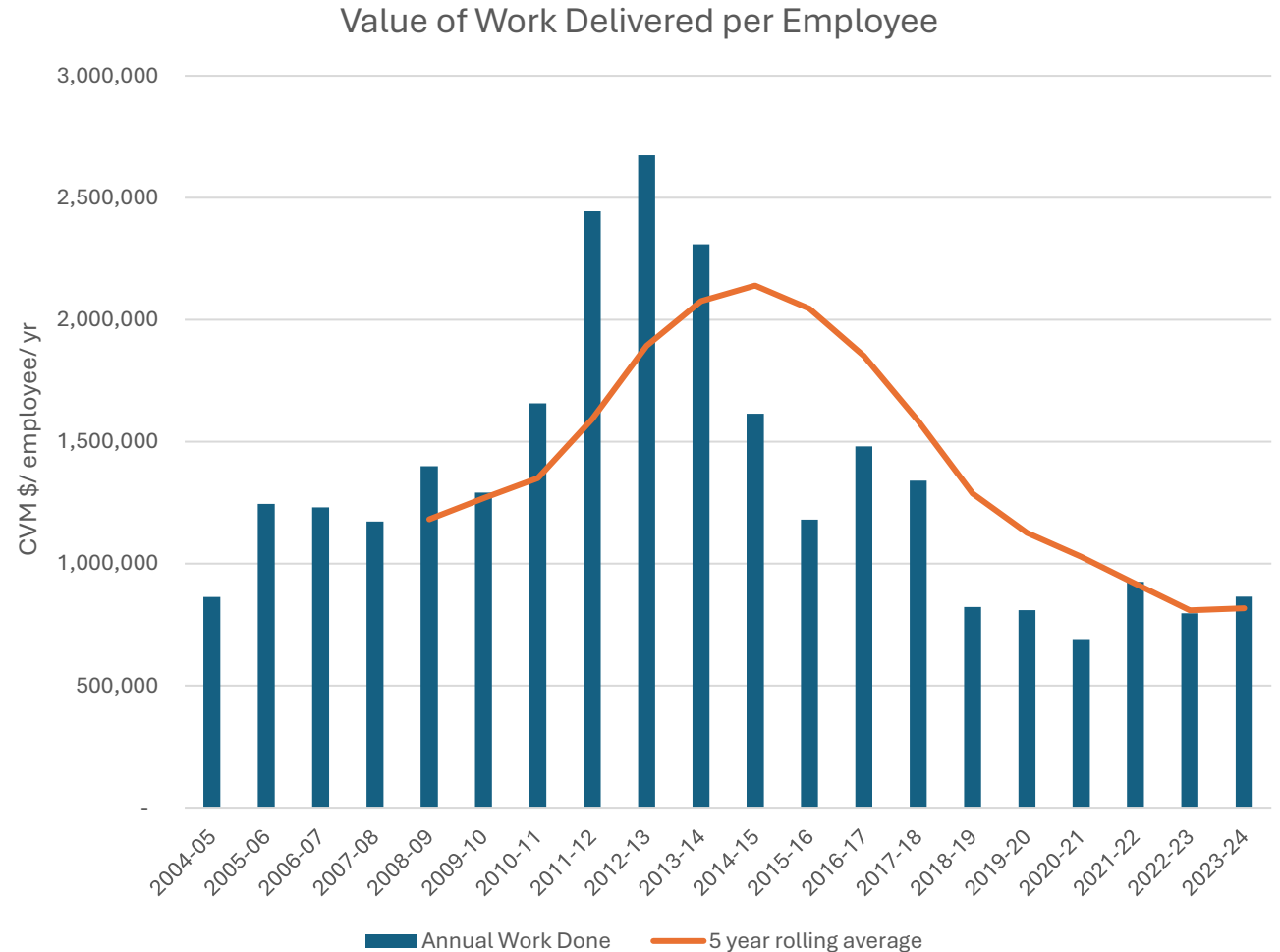




Engineering & Construction Productivity



- Factors affecting:
 - Technology & innovation
 - Work practices across project lifecycle (planning, approvals, engineering etc)
 - Specifications (technical and operational)
 - Lack of consistent and collaborative procurement and delivery management
 - Industrial relations (3-3.5 effective working days per week)
 - Policy settings affecting industry



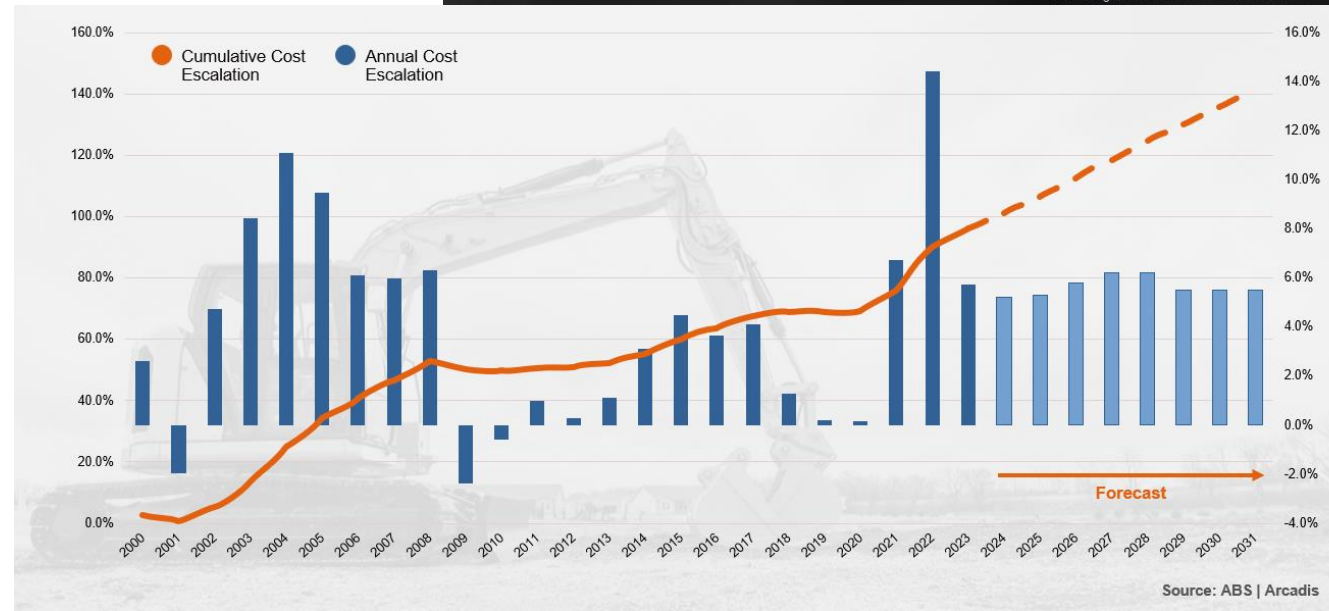
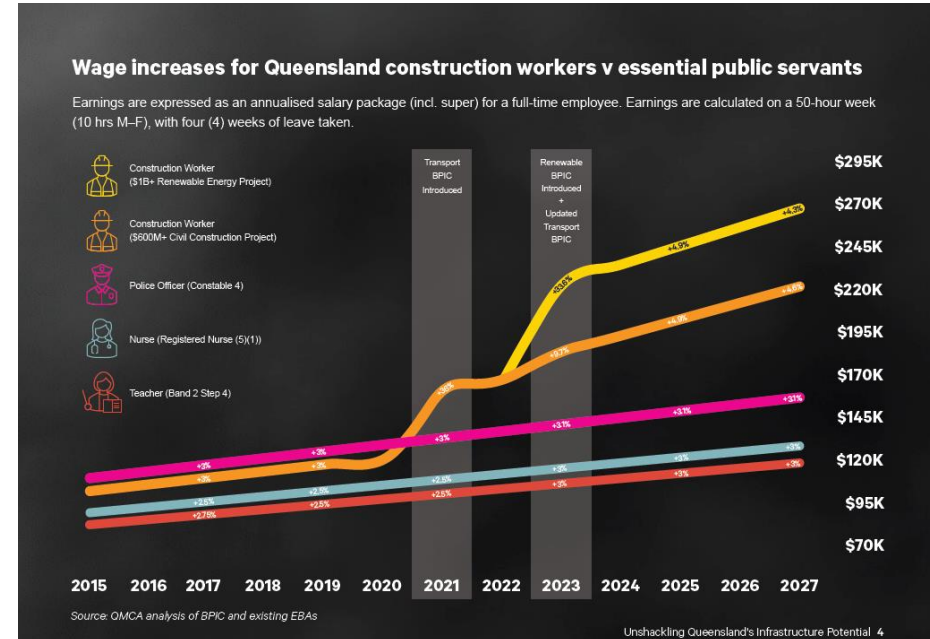
Source: ABS



Cost Pressures



- Policy settings impacting on costs
- Public investment crowding out other capital and trades availability
- Construction cost escalation:
 - 2010 to 2024, construction costs have increased by 51.5%.
 - Construction costs have increased by 32.3% since 2019
 - 2010 and 2020 (pre-pandemic) YoY average was 1.7%.
 - Between 2021 and 2024 the YoY average is now 8.0%.

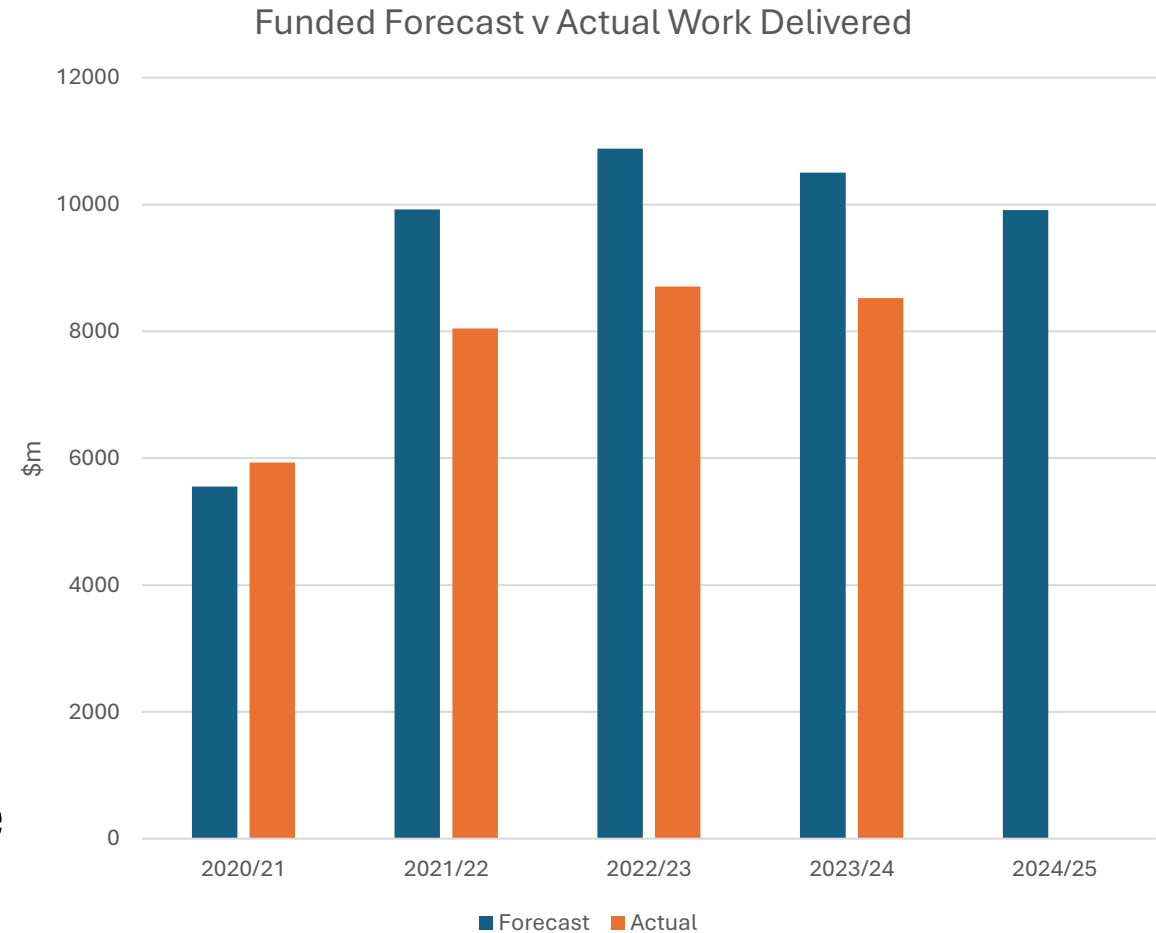




Pipeline Deliverability- Industry Capacity



- As the pipeline has grown, industry capacity to deliver has not been able to keep up.
- Between FY21 and FY24 have delivered on average 87% of the projected work
- External issues (Fed Gov't investment review) and productivity impacts have constrained delivery capacity
- Improving output and capacity by 10% and we are close to delivering the funded works





Pipeline Deliverability – Industry Sustainability

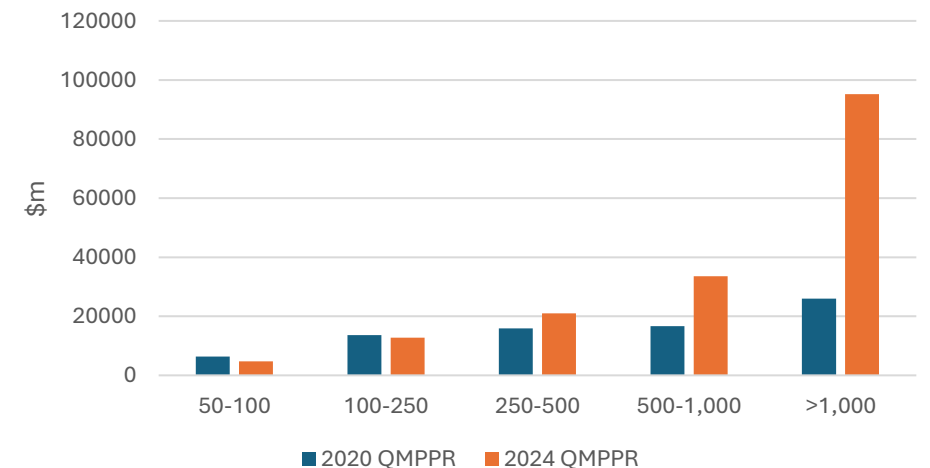


- Growth of the mega project- Since 2020:
 - 25% reduction in number of projects under \$100m
 - 146% growth in number of projects over \$1b
 - total value of projects over \$1b is 267% higher
- The sustainability of the industry relies on a diversity of work size
- Cost effective administration of projects?

Number of Projects



Pipeline Size (\$m)

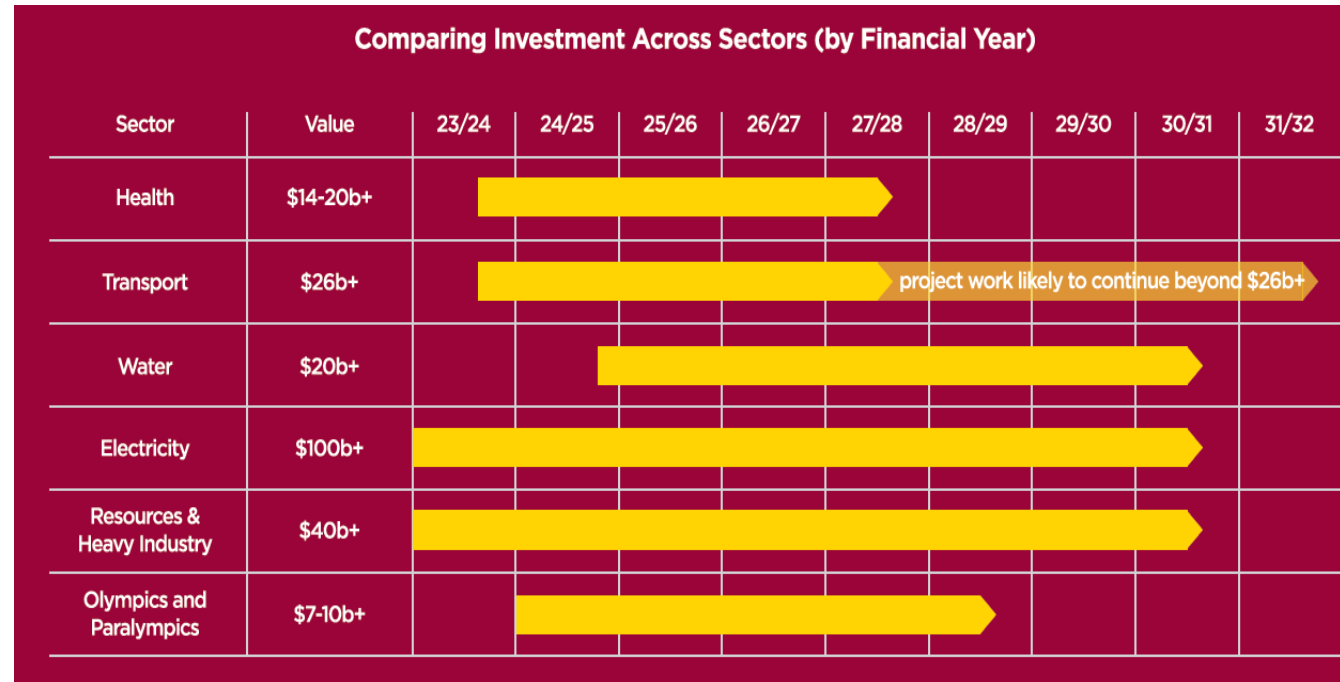




Pipeline Deliverability – Coordination and Collaboration



- Lack of a whole-of-government, sequenced approach to project delivery
- Lack of Collaborative procurement means less surety around cost and time
- Project development and approval process is too long and cumbersome
- Project specifications are too tight and don't enable high levels innovation that can help drive productivity





Opportunities & Recommendations

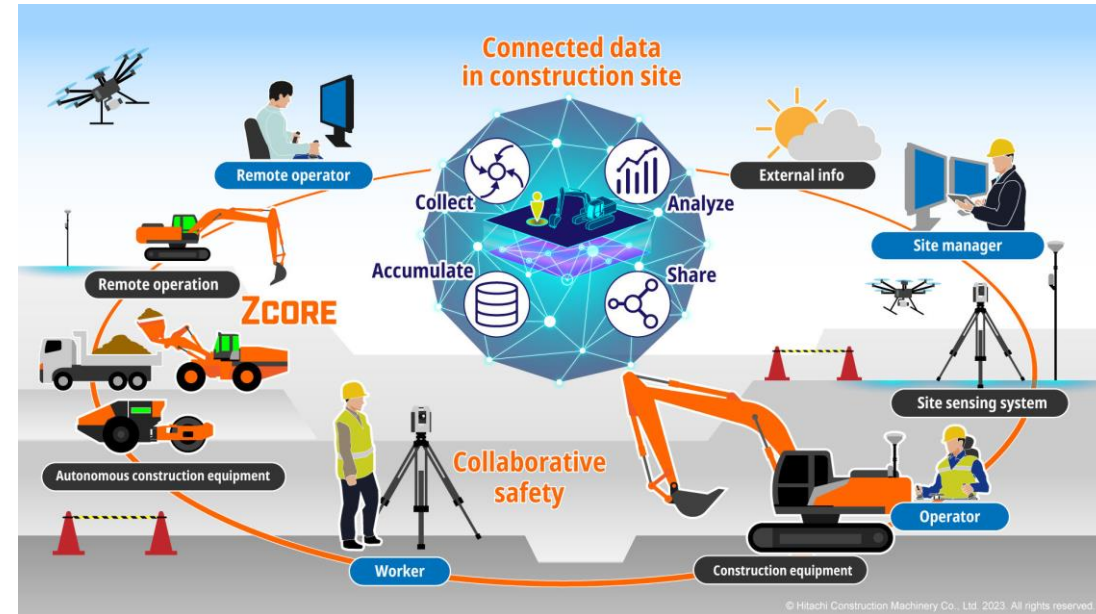




Opportunities



- Supply chain capacity- early investment in
- Value for money: Fit for purpose design and construction
- Productivity:
 - Digital tools, automation and construction methodologies
 - Policy settings changes
- Private sector investment
- Coordination of the pipeline
- Changing policy settings to enable safe productive work





Recommendations



- Deliverability:
 - Funding & financing
 - Supply chain capacity
 - Labour supply (and training)
 - Technology and innovation
- Sustainability:
 - Entire industry engagement
 - Procurement and collaboration
- Pipeline Coordination:
 - Streamline and remove excesses in project development and procurement
 - Prioritisation across the entire pipeline to help stimulate growth and investment (not boom bust)





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BUILD IT?[™]
YES
WE CAN!





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Director, Workforce Capability

CSQ - Construction Skills Queensland

Kim Hetherington



Building a skilled and resilient workforce in construction



Kim Hetherington / Director, Workforce Capability

CSQ | STRONGER FUTURES
IN CONSTRUCTION

Contents

- Industry Outlook
- Construction Workforce
- QMPP Labour & Skills
- Facing the Challenge Ahead





Industry Outlook

Key Labour Demand Drivers

Government Investment

Transport

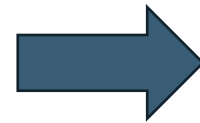
Clean Energy Transition

Housing & Community
Services

Education & Training

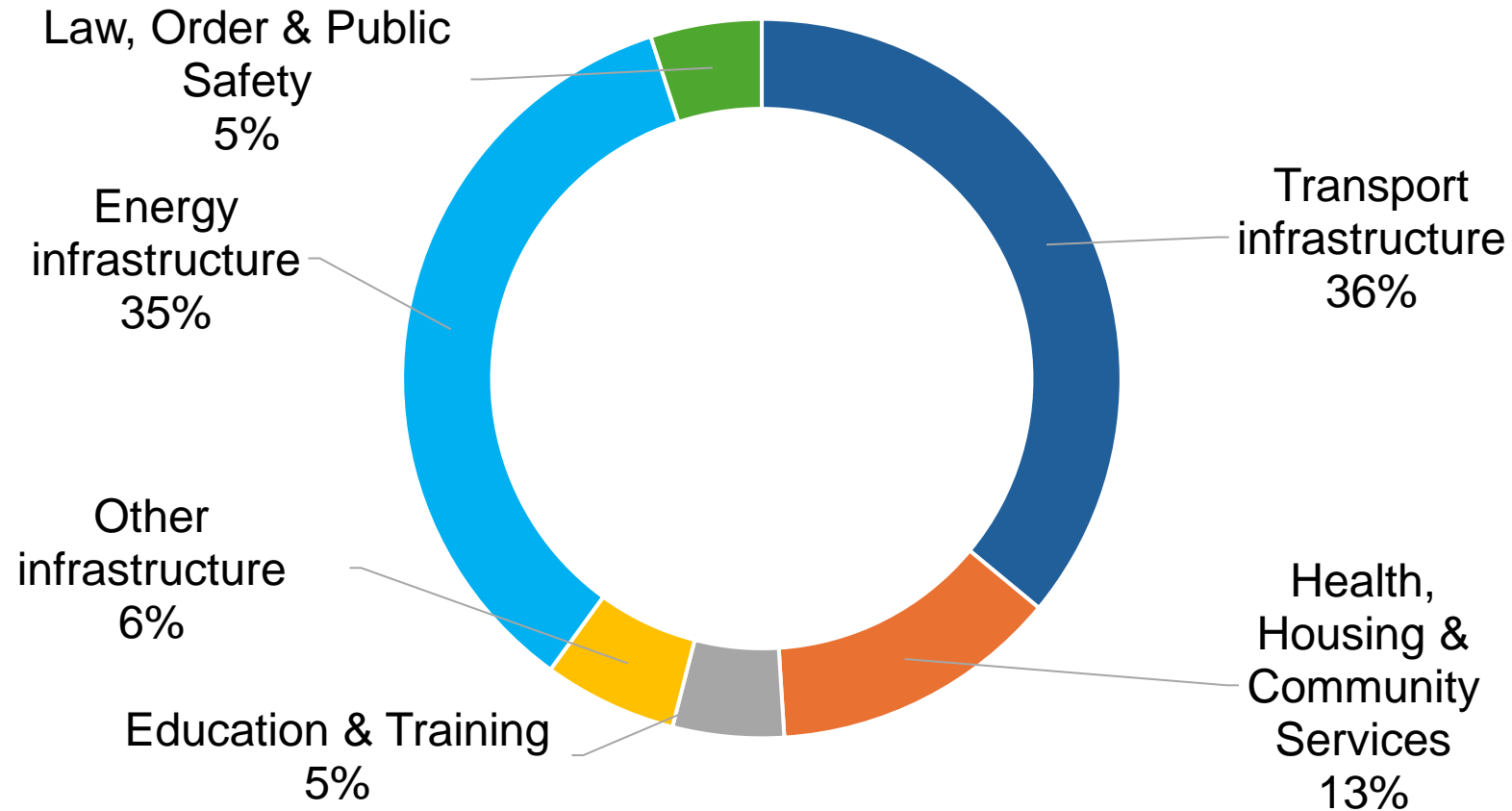
Health Expansion

Water Strategy



QLD Government Capital Purchases

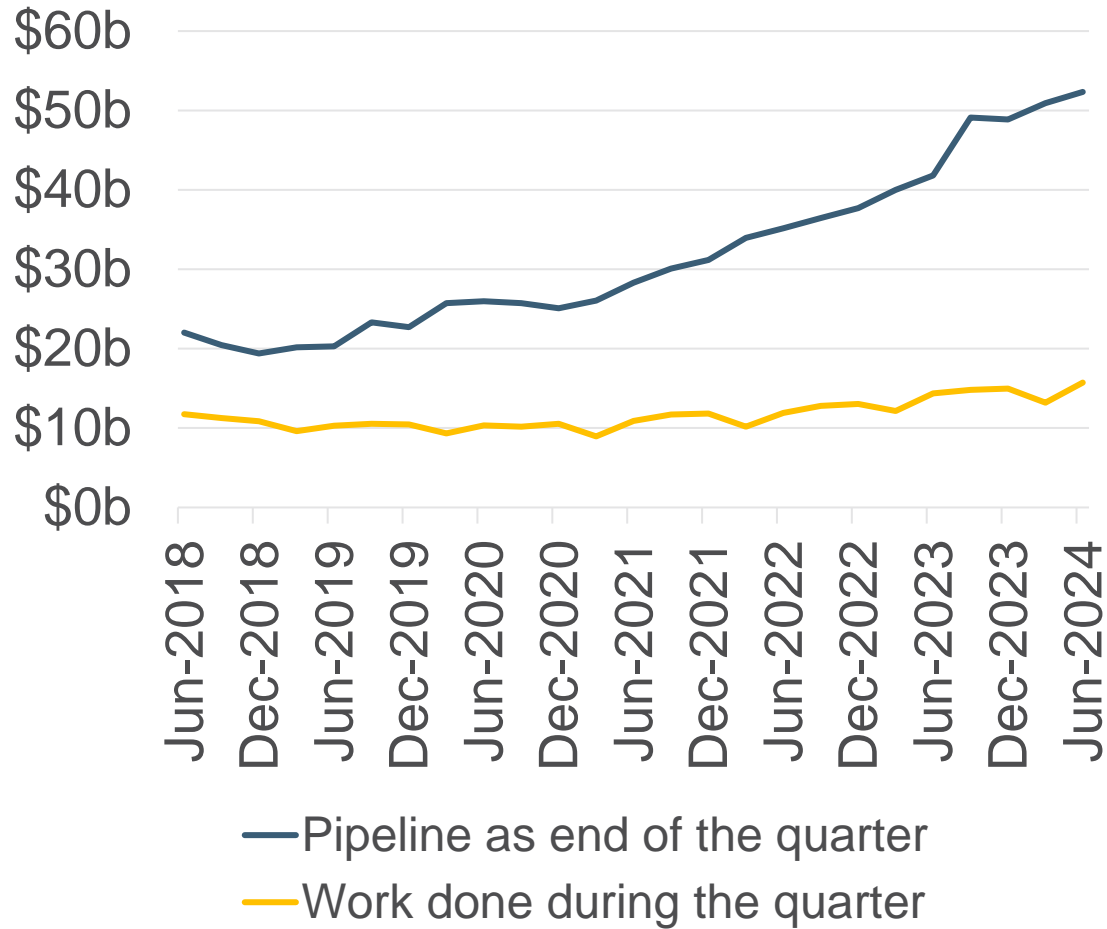
Capital Purchases by Purpose for 2024-25



Source: The State of Queensland (Queensland Treasury) - 2024–25 Queensland Budget; CSQ

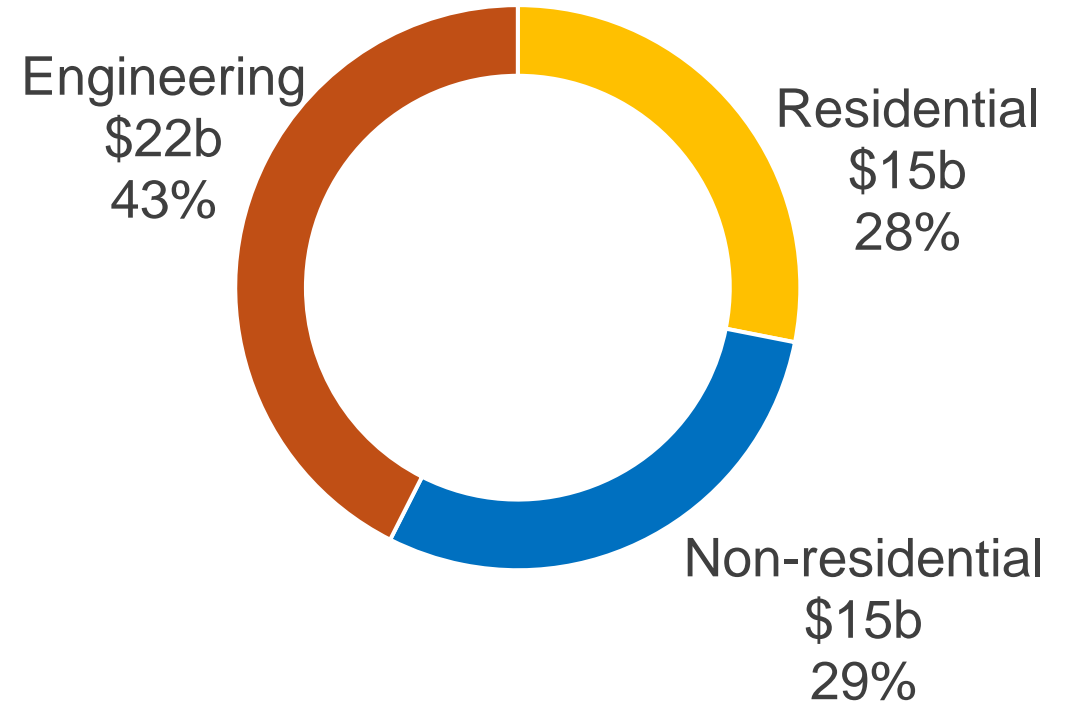
QLD Construction Activity

Pipeline & Work Done



Source: ABS

Pipeline as of June 2024: \$52b

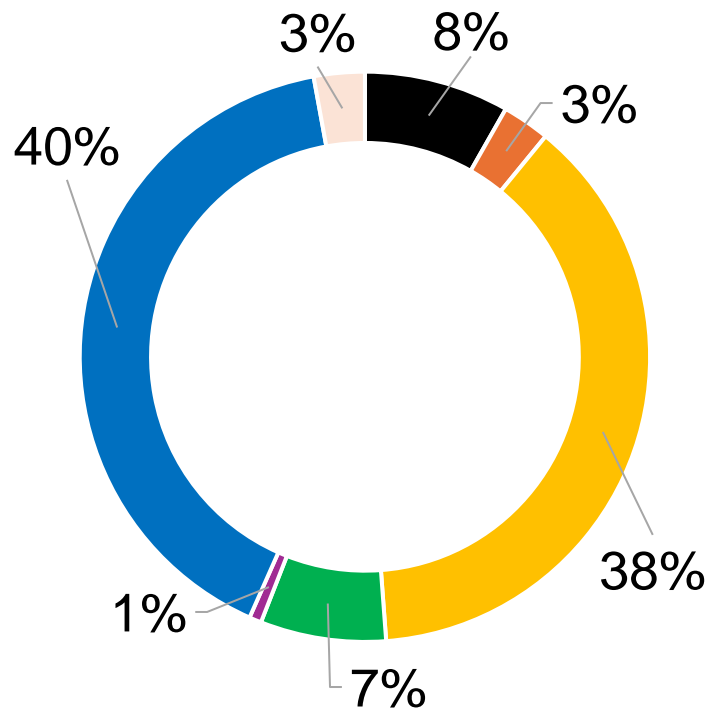


Source: ABS

QLD Engineering Pipeline (yet to be done)

As of June 2024: \$22b

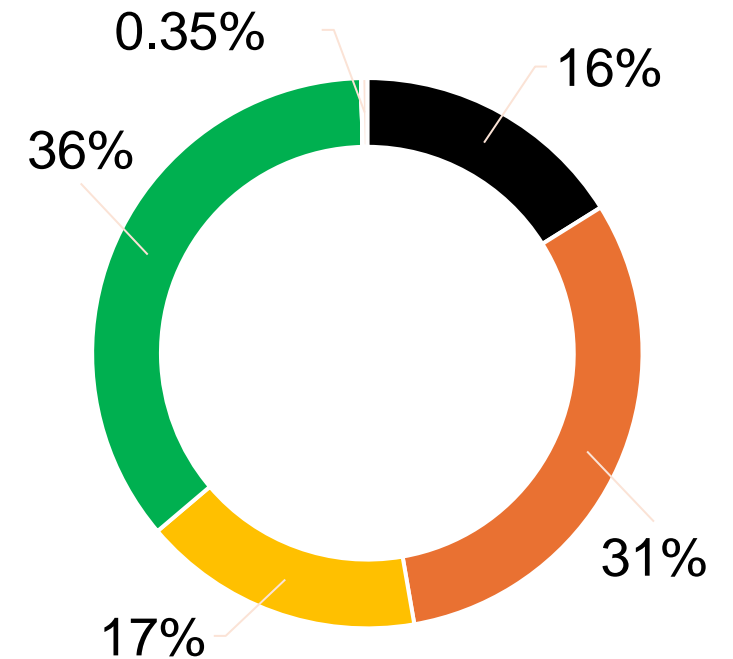
Private Sector



Source: ABS

- Roads, highways and subdivisions
- Bridges, railways and harbours
- Electricity generation, transmission etc. and pipelines
- Water storage and supply, sewerage and drainage ;
- Telecommunications
- Heavy industry
- Recreation and other

Public Sector



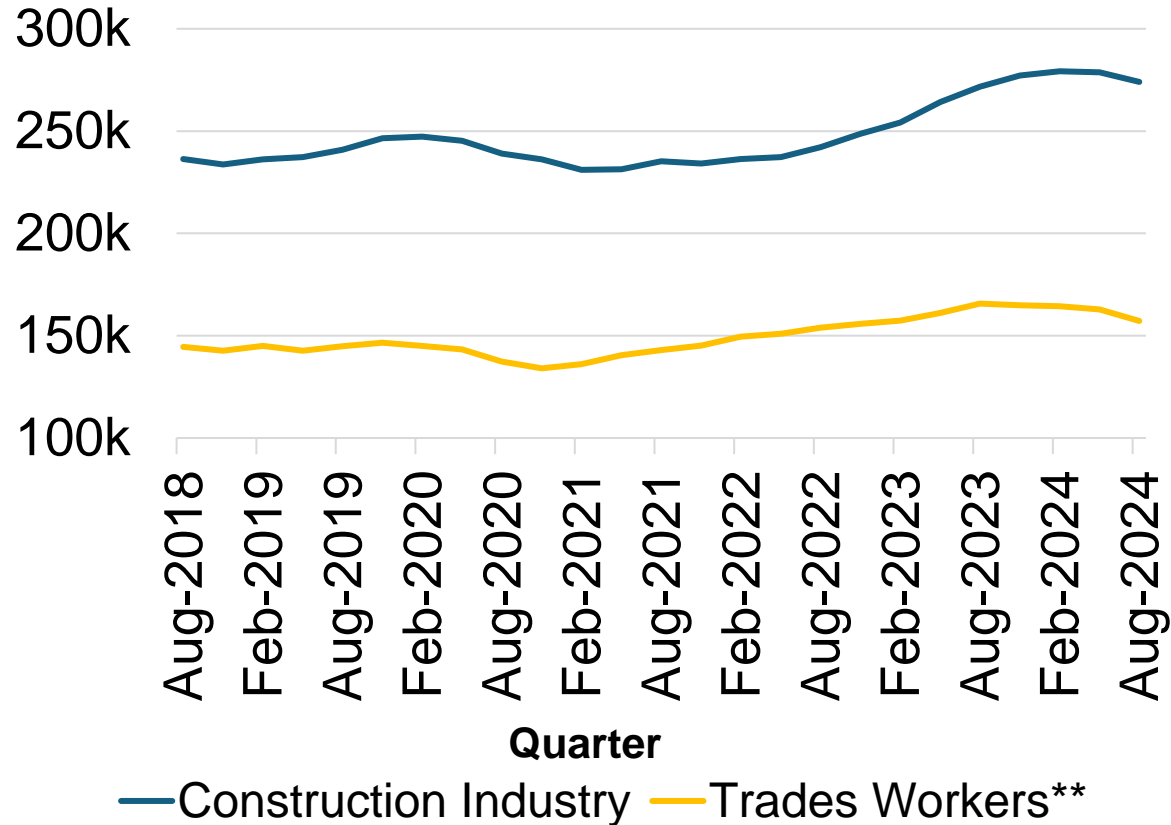
Source: ABS



Construction Workforce

Employment

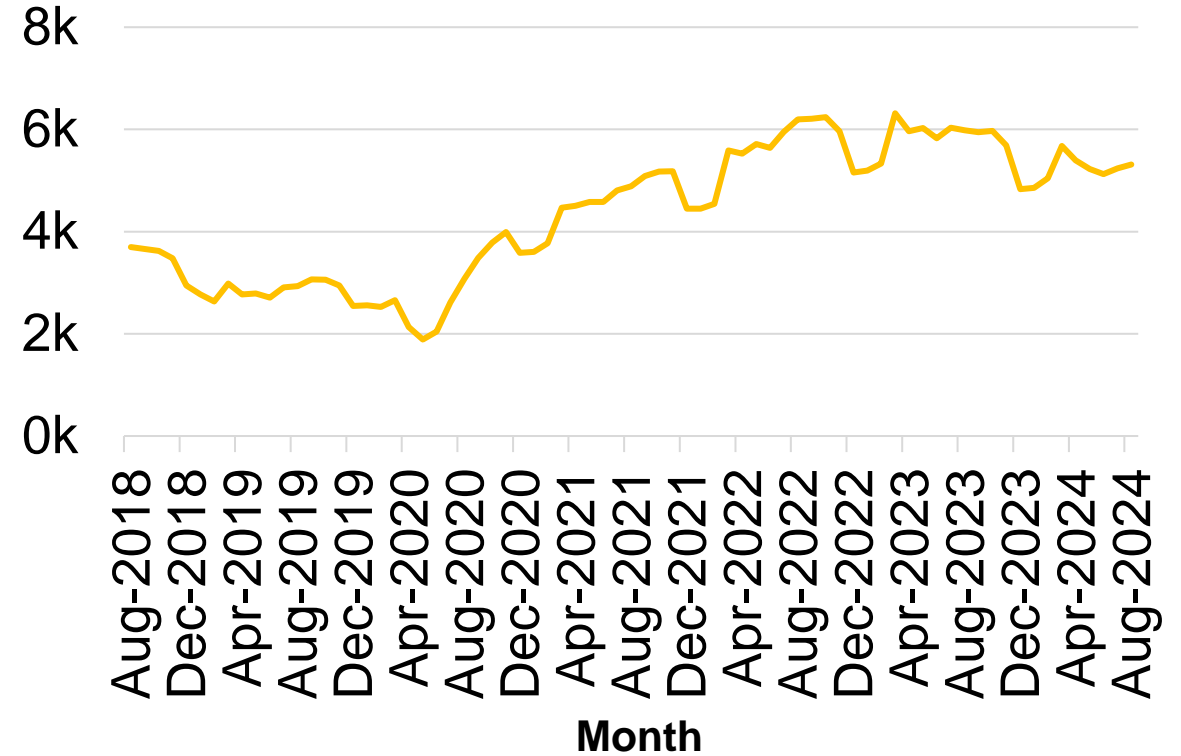
Construction Employment, QLD*



Source: ABS; JSA; CSQ

* Averages of preceding 4 quarters

Internet Vacancies for Trades Jobs**, QLD

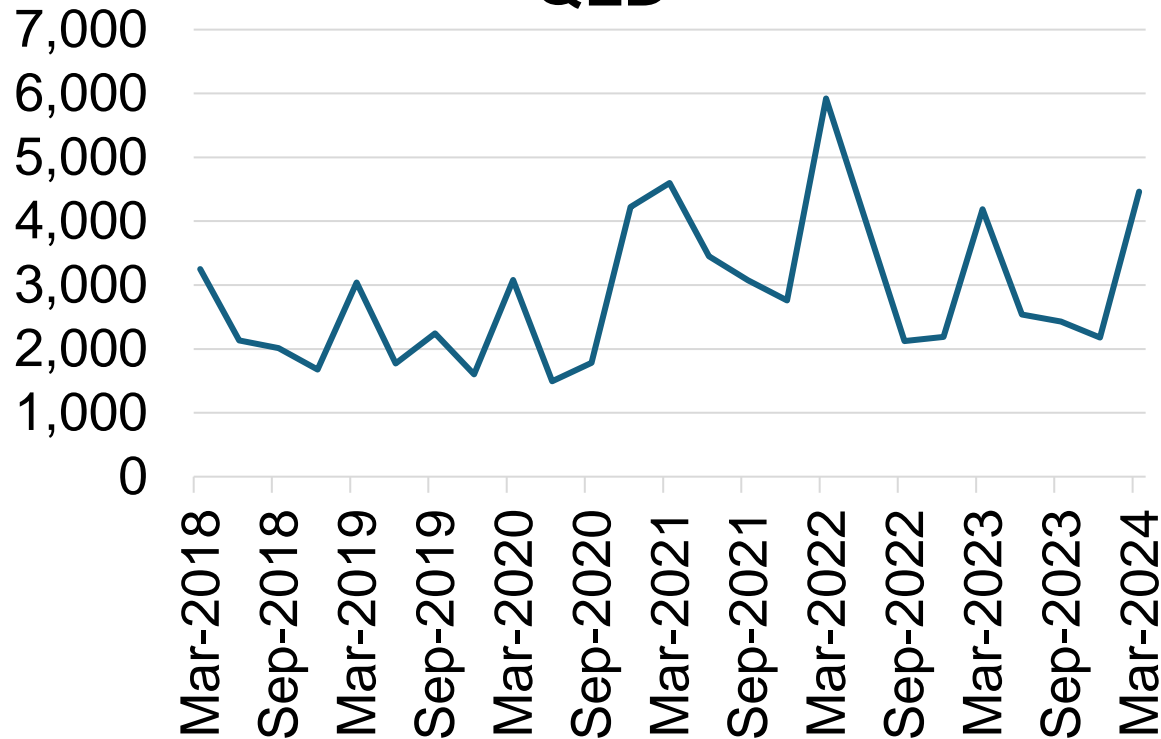


Source: ABS, JSA; CSQ

** Includes trades, labourers and machine operators

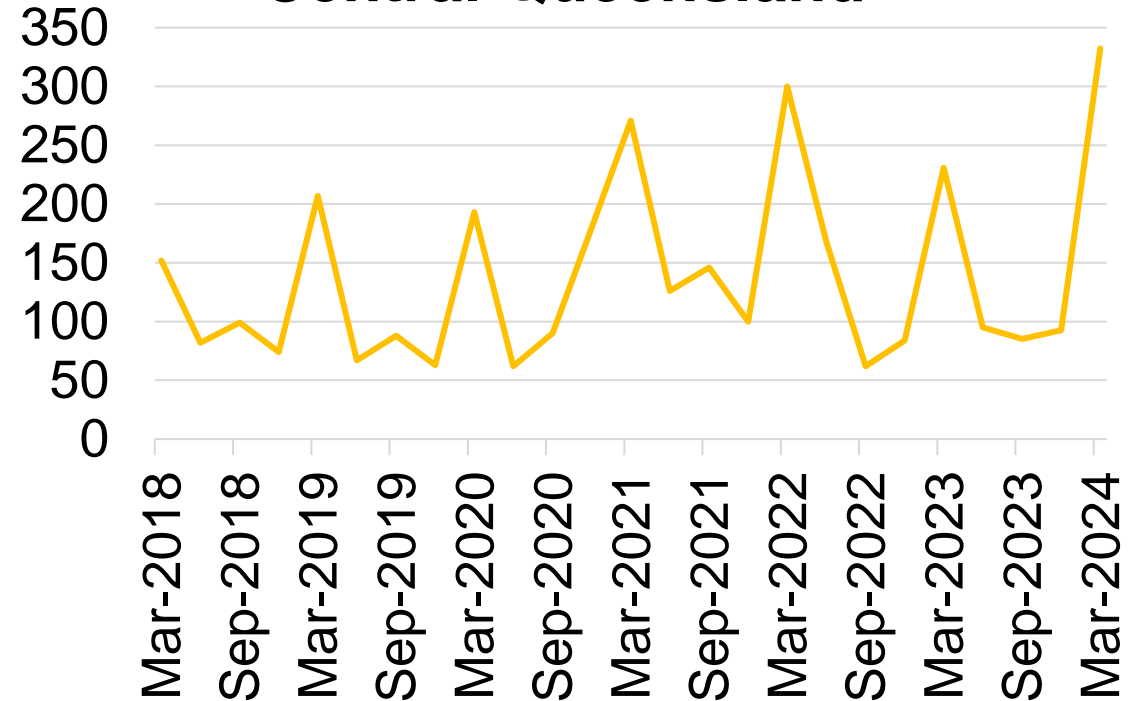
Building our own

B&C Apprentice* Commencements QLD



Source: NCVER (Based on March 2024 Database); CSQ
*pursuing construction qualifications

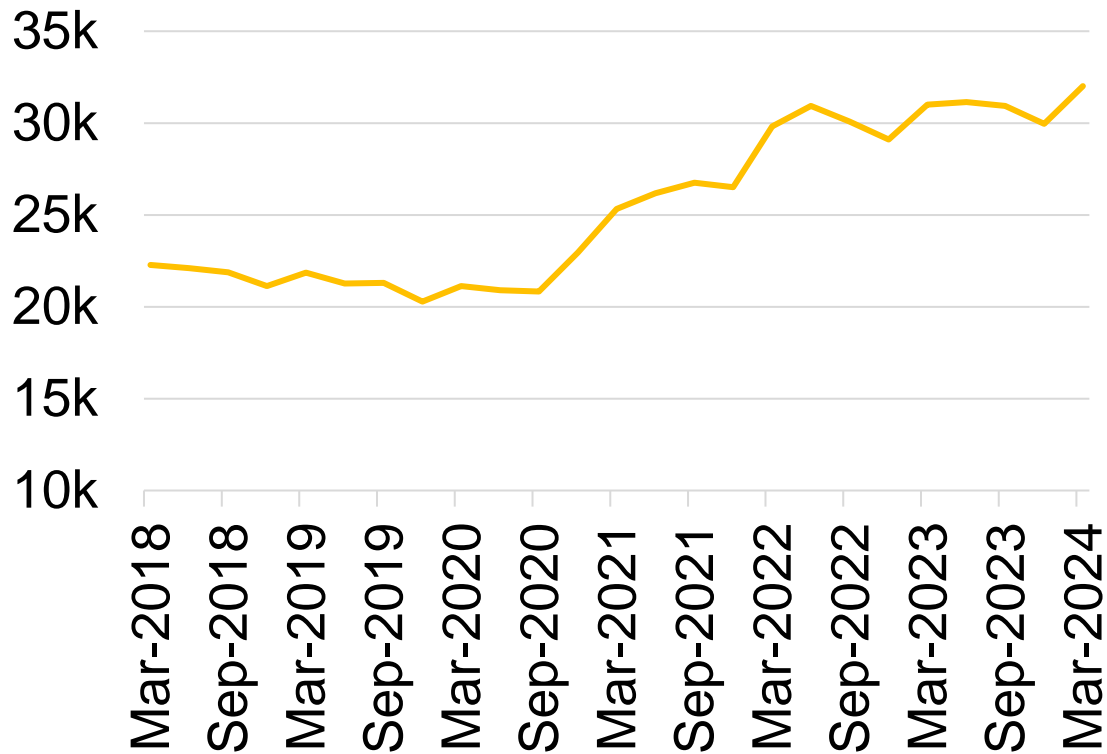
B&C Apprentice* Commencements Central Queensland



Source: NCVER (Based on March 2024 Database); CSQ
*pursuing construction qualifications

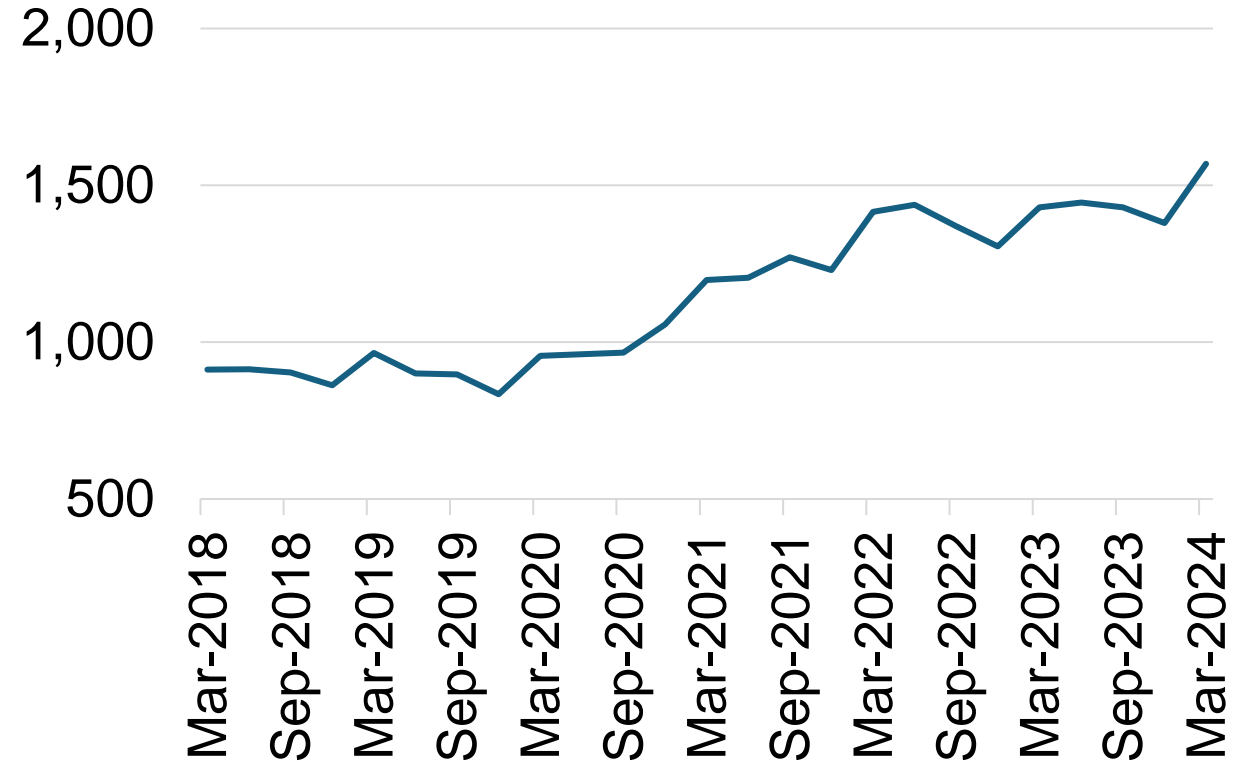
Building our own

B&C Apprentices* In-training, QLD



Source: NCVER (Based on March 2024 Database); CSQ
*pursuing construction qualifications

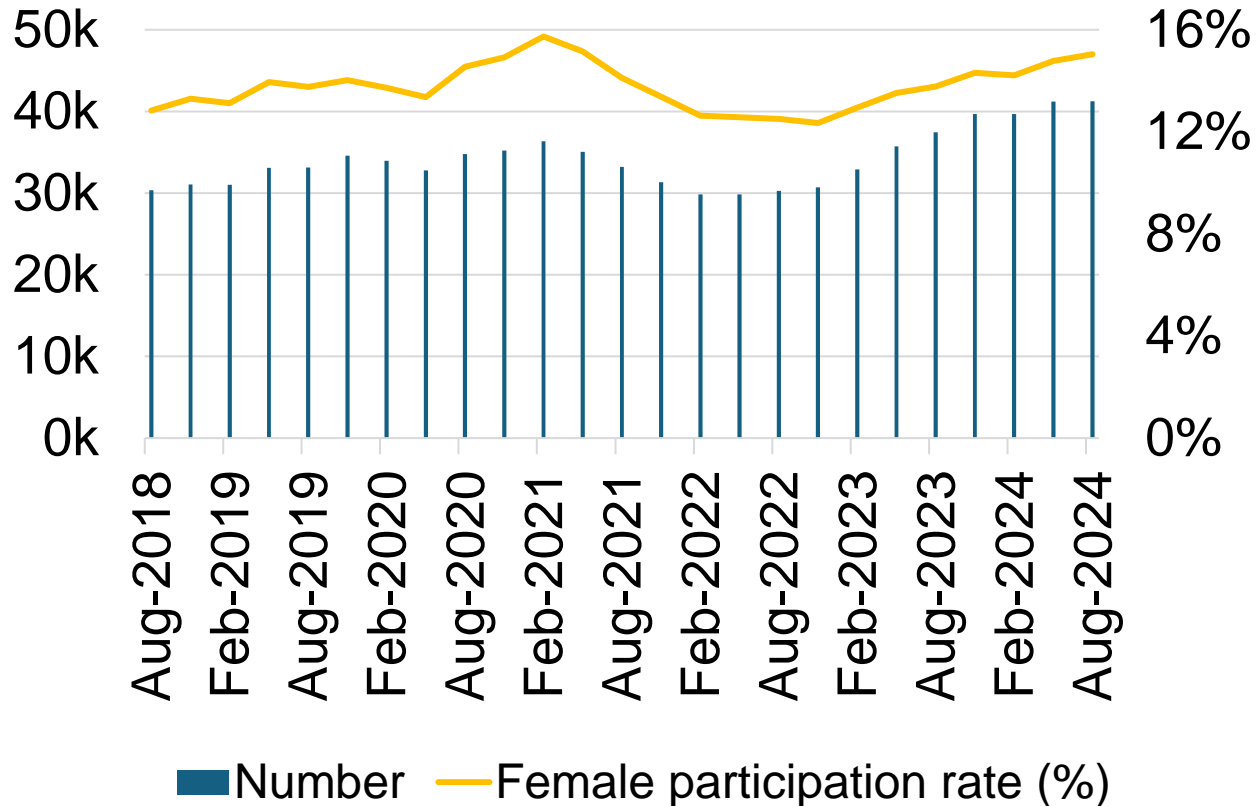
B&C Apprentices* In-training Central Queensland



Source: NCVER (Based on March 2024 Database); CSQ
*pursuing construction qualifications

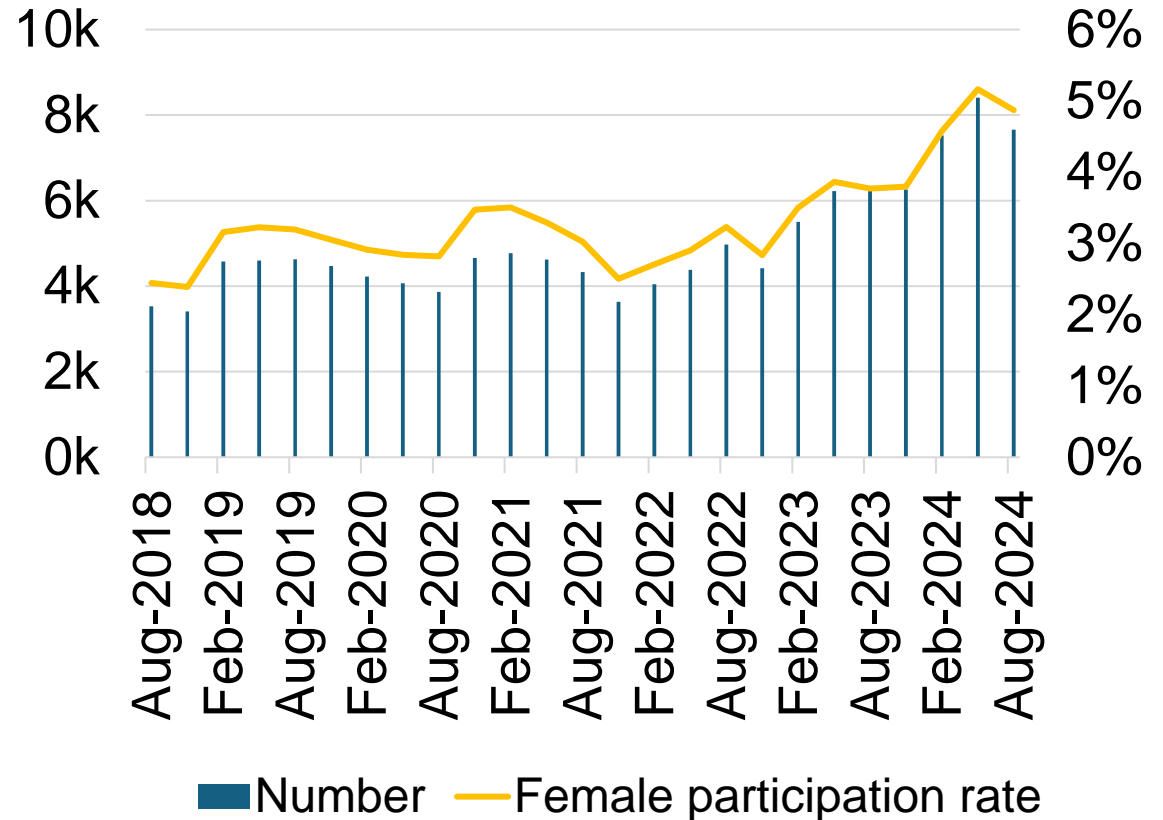
Females in Construction - QLD

Employment in Construction Industry*



Source: ABS; CSQ
*Average of preceding 4 quarters

Trades Workers** in Construction Industry*



Source: ABS; CSQ
**Includes trades, labourers and machine operators
*Average of preceding 4 quarters

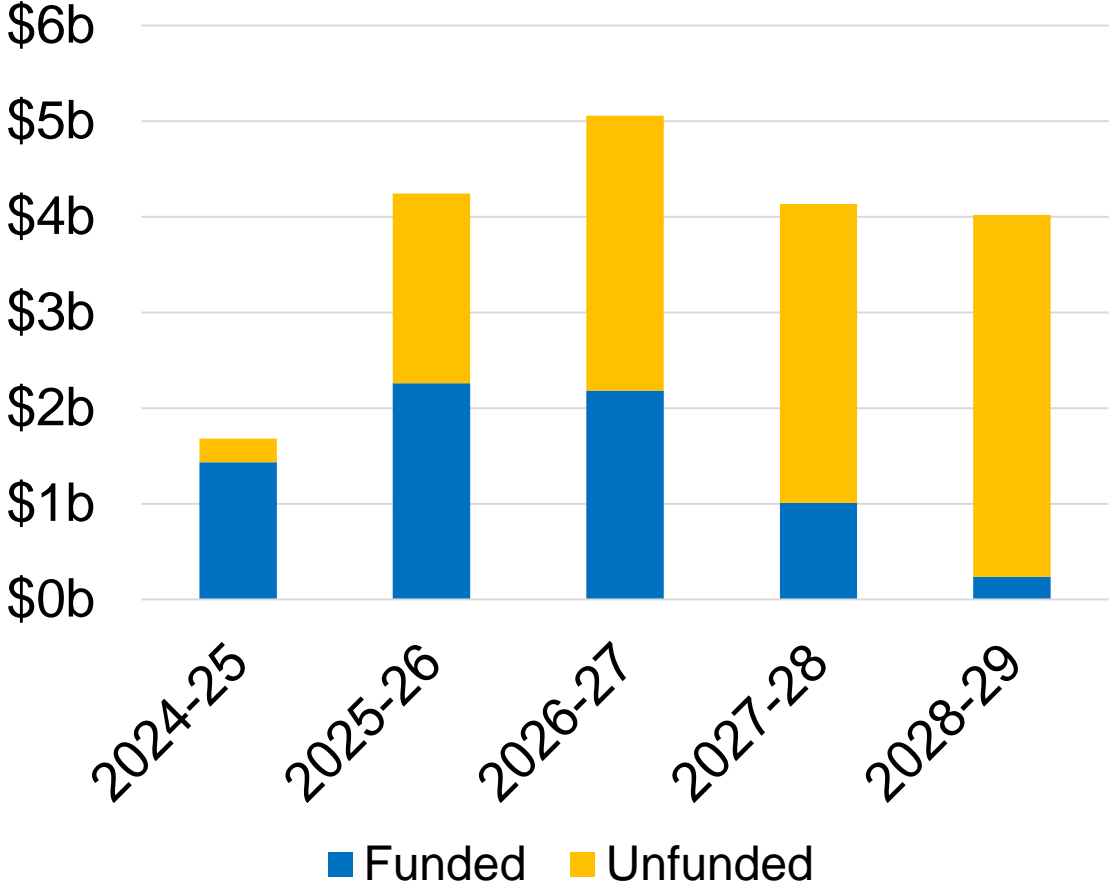


QMPP

Labour & Skills

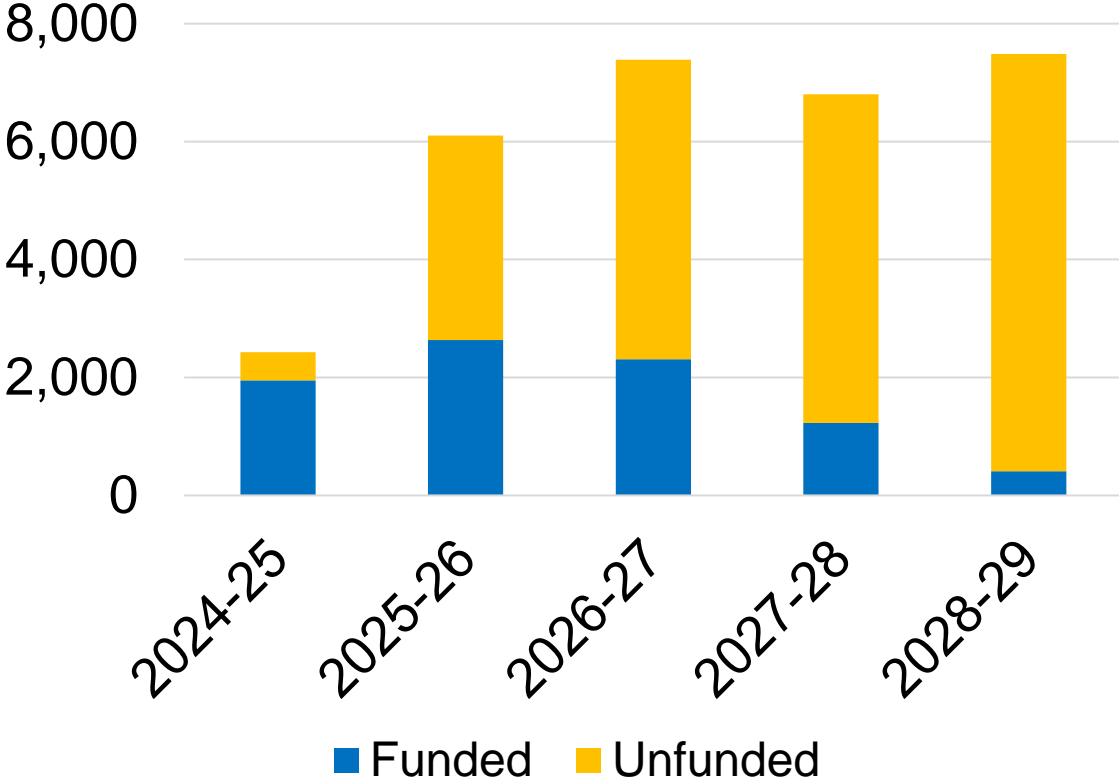
QMCA Engineering Projects: Fitzroy

Pipeline by Funding Status



Source: QMCA; CSQ

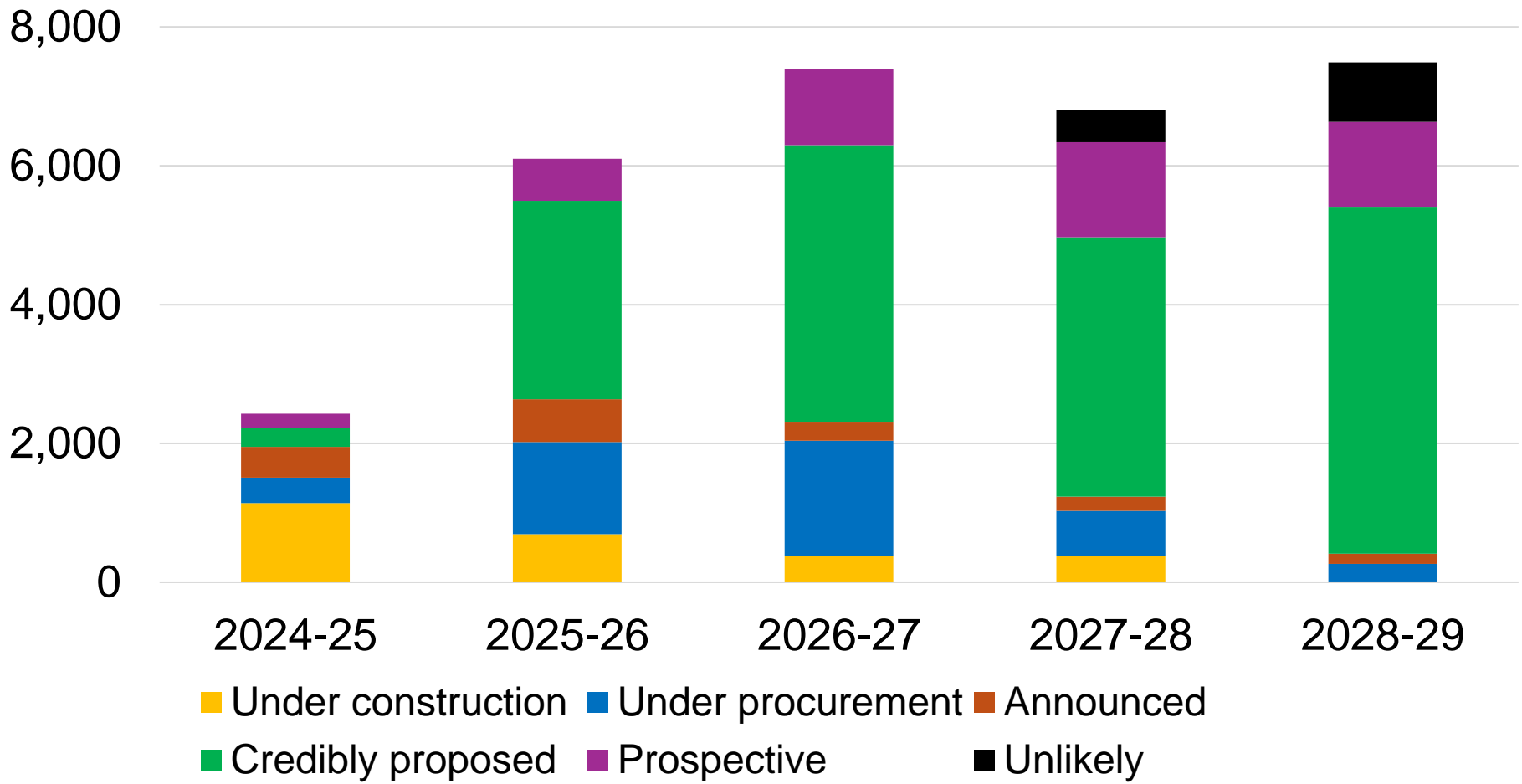
Average Labour Requirement by Funding Status



Source: QMCA; CSQ

QMCA Engineering Projects: Fitzroy

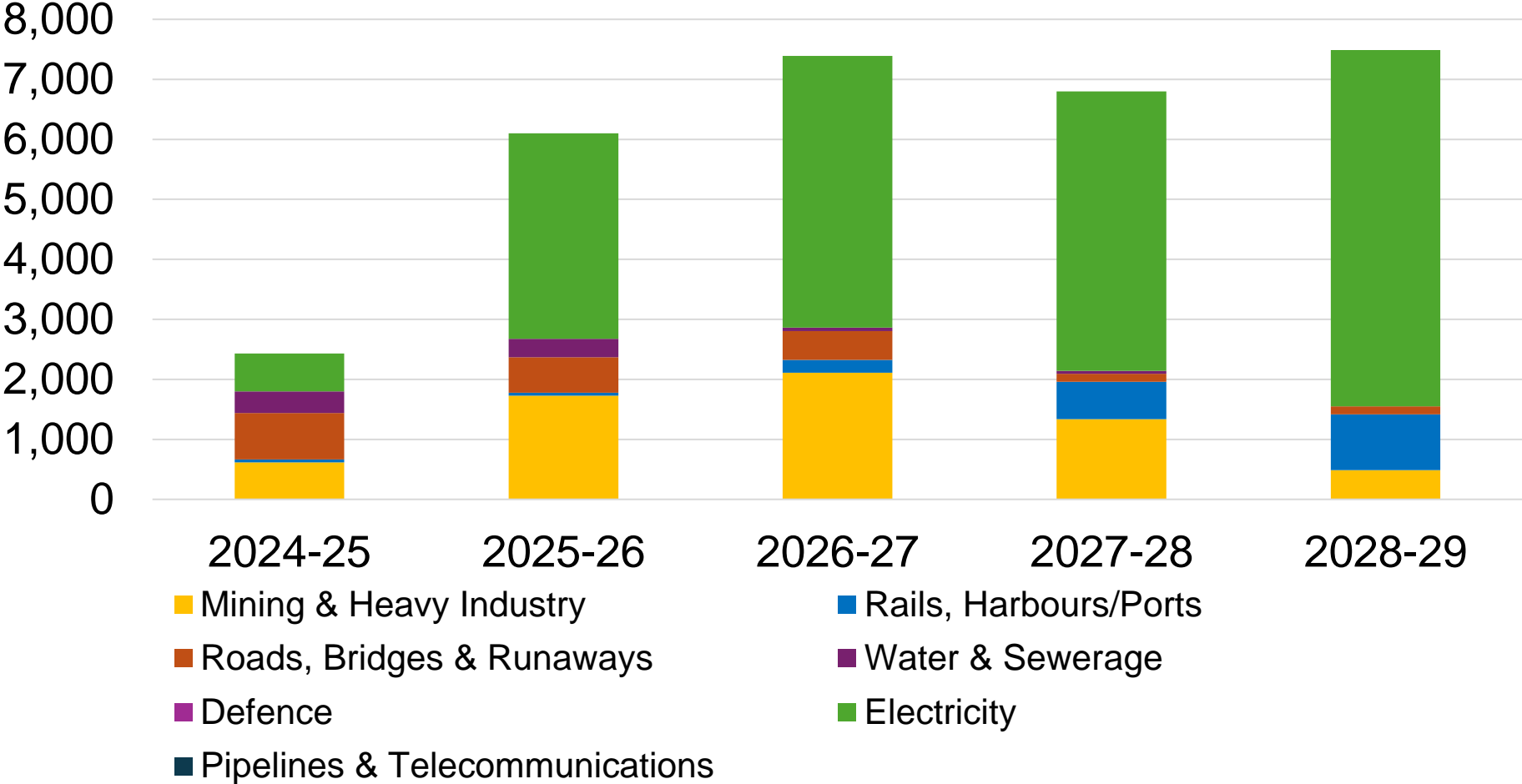
Average Labour Requirement by Project Status



Source: QMCA; CSQ

QMCA Engineering Projects: Fitzroy

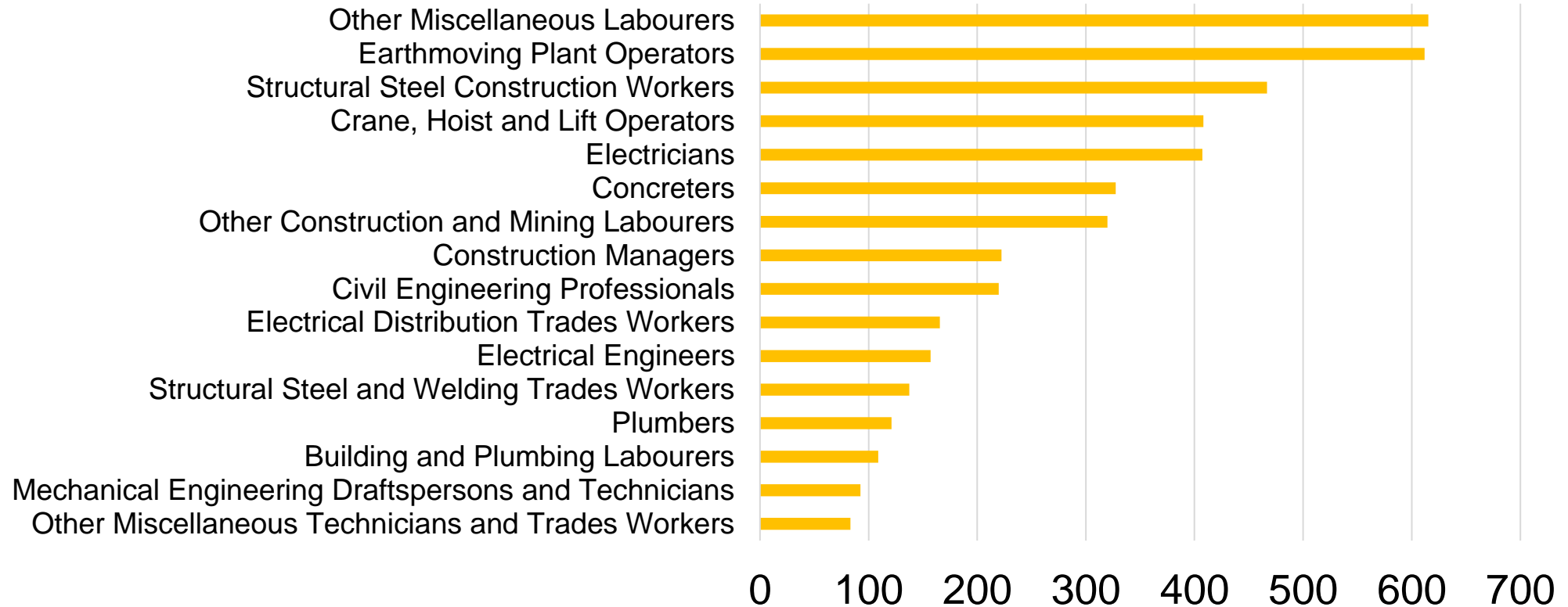
Average Labour Requirement by Project Sector



Source: QMCA; CSQ

QMCA Engineering Projects: Fitzroy

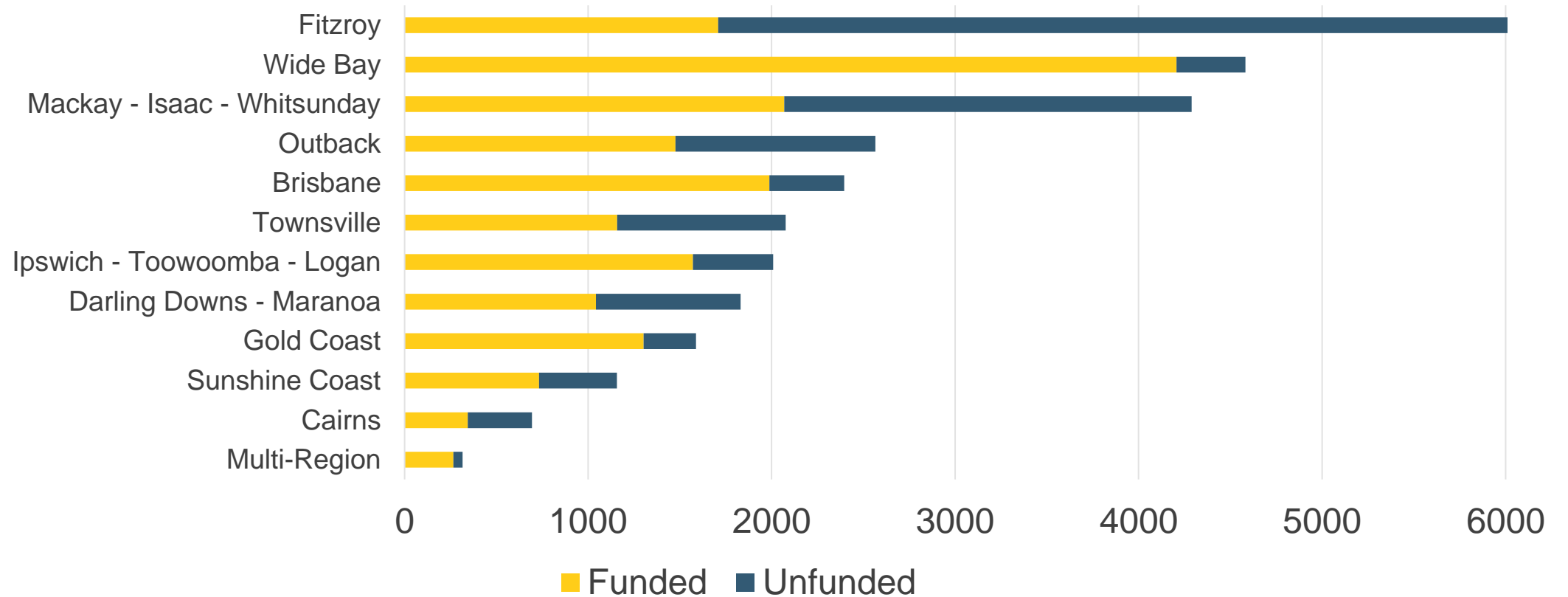
Key Construction Occupations in Demand Average (2024-25 to 2028-29)



Source: QMCA; CSQ

Regional labour requirement - QMPP

Labour demand by region and funding status, average (2024-25 to 2028-29)



Source: CSQ for QMCA



Facing the Challenge Ahead

What does industry need to do?



Breakdown barriers for underrepresented groups

Attract & retain apprentices

Improve apprentice completion rates

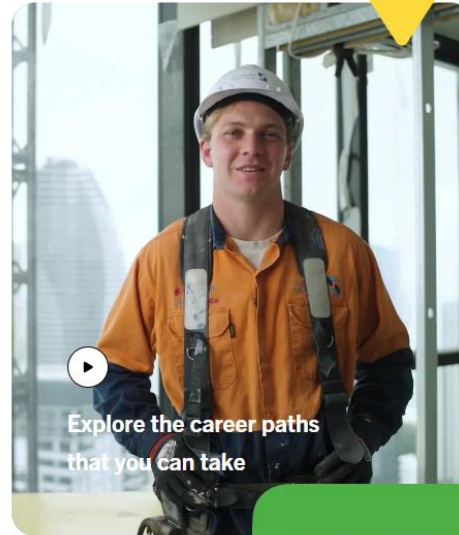
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Explore the career paths that you can take

CONSTRUCTION PATHWAYS

THINKING OF A CAREER IN CONSTRUCTION?

Construction offers:

- Excellent job stability and earning potential
- Great work/life balance
- In-demand skills and travel opportunities
- Opportunities for earning whilst you are learning through an apprenticeship/traineeship
- Many construction pathways - over 60 job types
- Lots of funded training to grow your career
- Varied work and job sites with changing scenery
- Great career progression on and off the tools

Choosing between uni or non-uni?

There is a lot to think about when choosing a career. It's easy to feel overwhelmed by the options and pressure to make the right choice.

Don't stress, you're not alone. Many young people haven't decided what they want to do yet and it is not uncommon to change over time. What is important is joining an industry where you can succeed.

To find out if a construction pathway is right for you, visit constructionpathways.csq.org.au

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Spotlight Story



Tiara Edwards
Civil Construction
Labourer / Plant Operator

“Females or younger people, don’t hold back. Even if you’ve never done it before, trial it out because you just never know.”



Key Takeaways

- QLD's construction activity pipeline is projected to maintain its upward trend.
- Residential activity may reach 2023 levels or slightly higher as we close out 2024.
- Non-residential activity, particularly hospital builds, and engineering work, remain buoyant.
- Labour shortages, material supply constraints, and cost escalation persist as key challenges.
- Population growth, NET ZERO transition, and the Brisbane 2032 Games are driving record infrastructure investment across the state.



Thank You





Panel Discussion



- Moderator: Patrice Brown
- Panelists:
 - Kristy Marks- Gladstone Regional Council
 - Lisa Roobottom- Alpha HPA
 - Matt Campuitti- Walz Group
 - Jacob Latter- Clough/ WeBuild





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