



2024 QLD Major Projects & Pipeline Report

Brisbane – 14th November 2024





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2024 QLD Major Projects and Pipeline Report

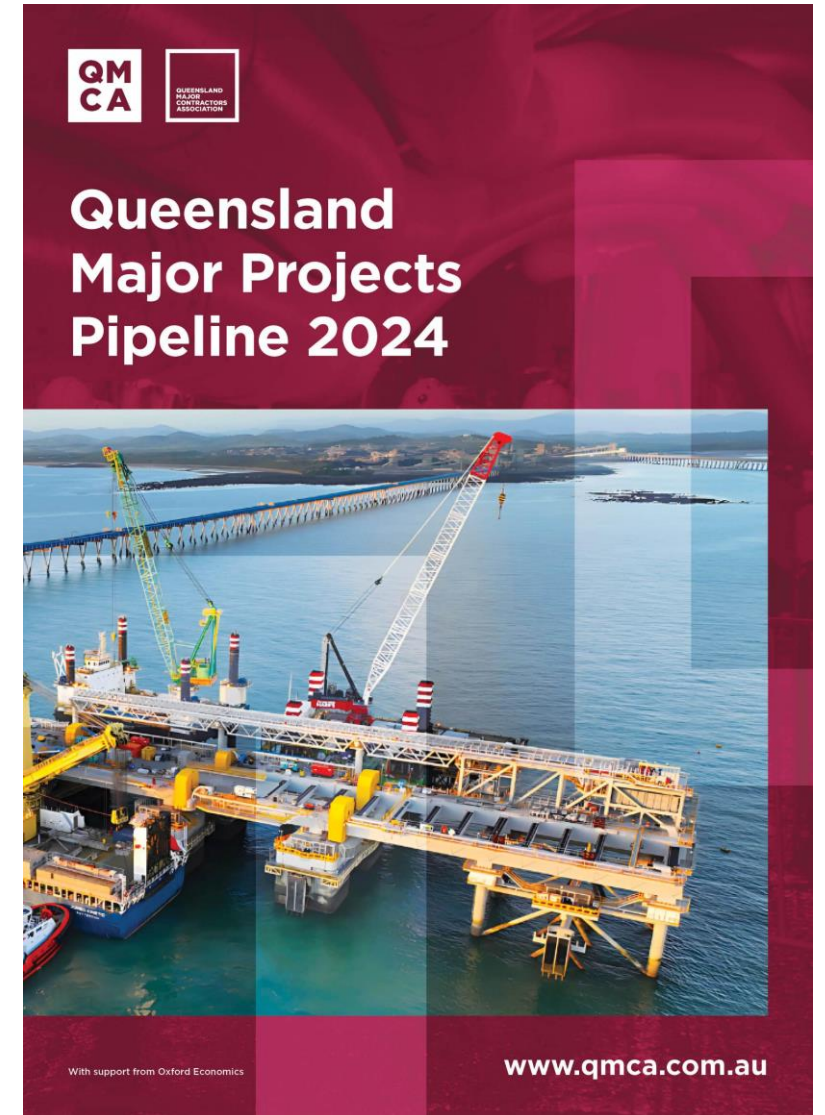
Andrew Chapman
QMCA





Agenda

- Key Findings
- Key challenges
- Opportunities
- Recommendations





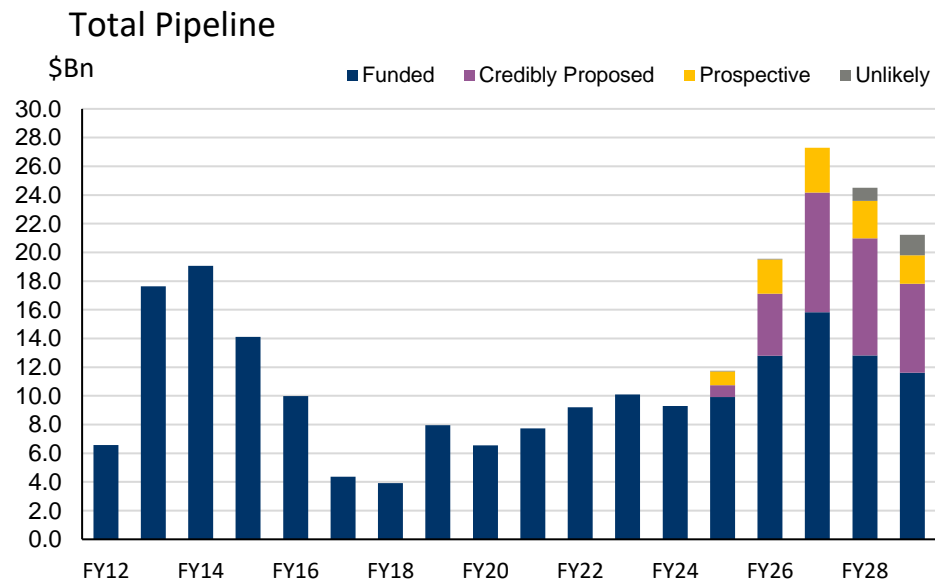
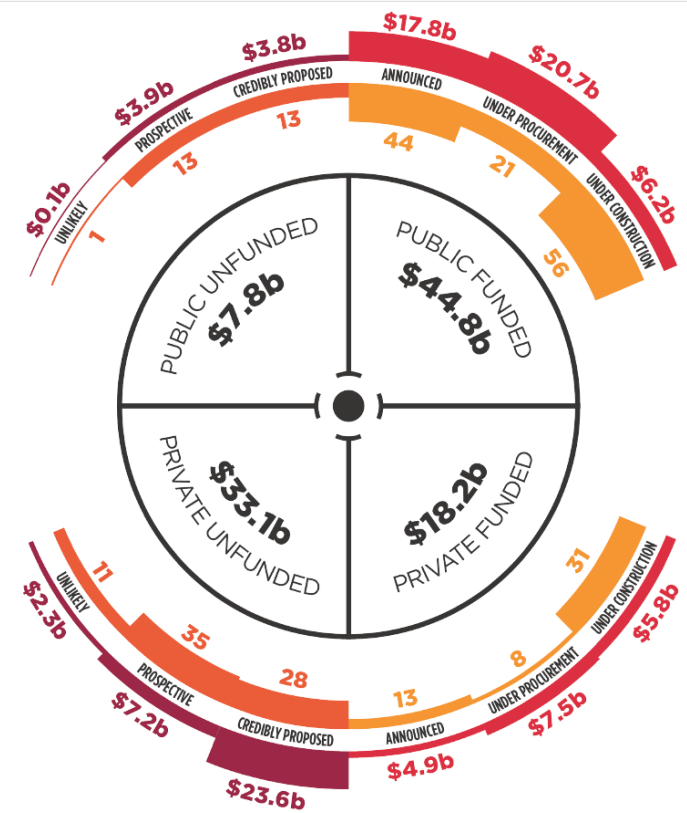
Key Findings





Key Messages

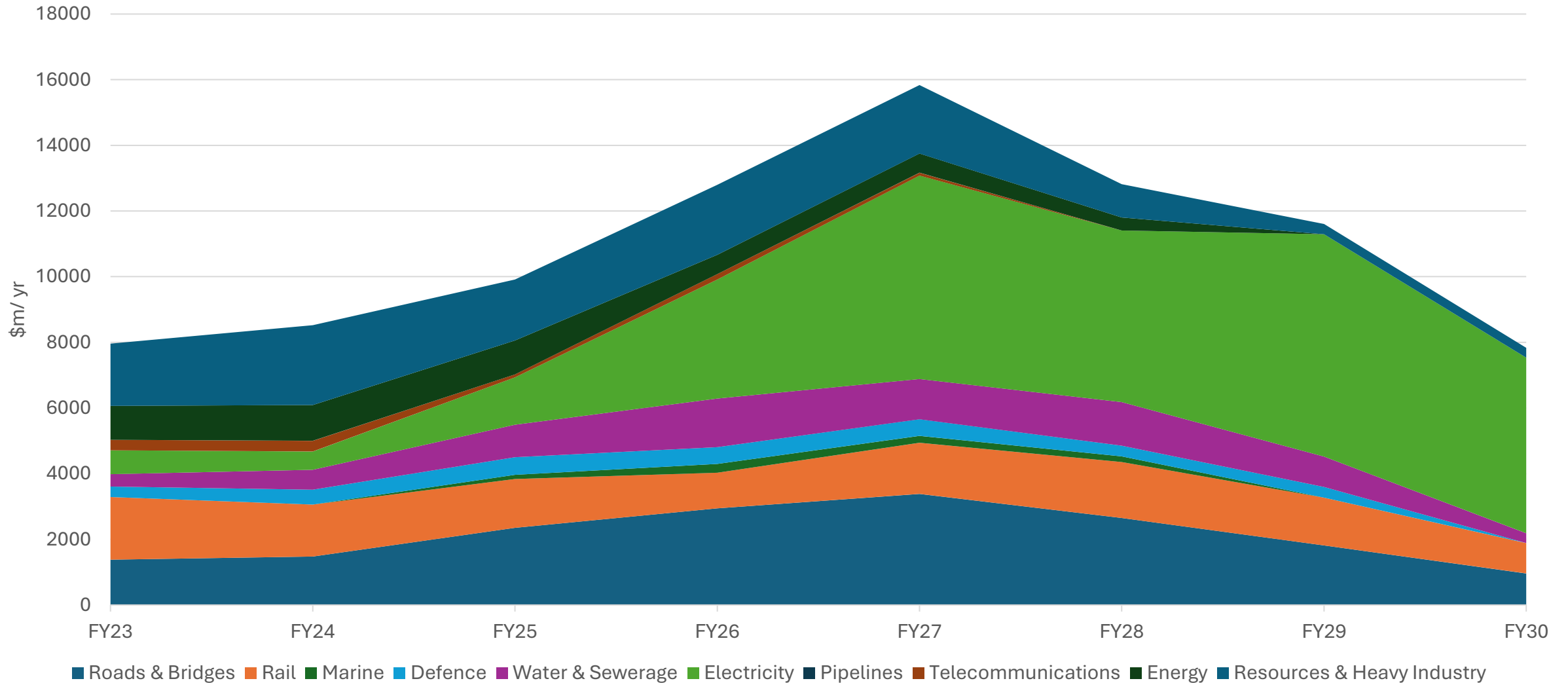
- Total 5 year pipeline value \$104b
 - \$12b increase on 2023 pipeline
 - 20% of the increase is down to “published” cost increases
- Delivery of work in FY24 was subdued
- Continued growth of mega projects (>\$1b)
- Labour- still need an extra 10,000+ people
- Regional hotspots: Wide Bay, Brisbane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





Pipeline Outlook

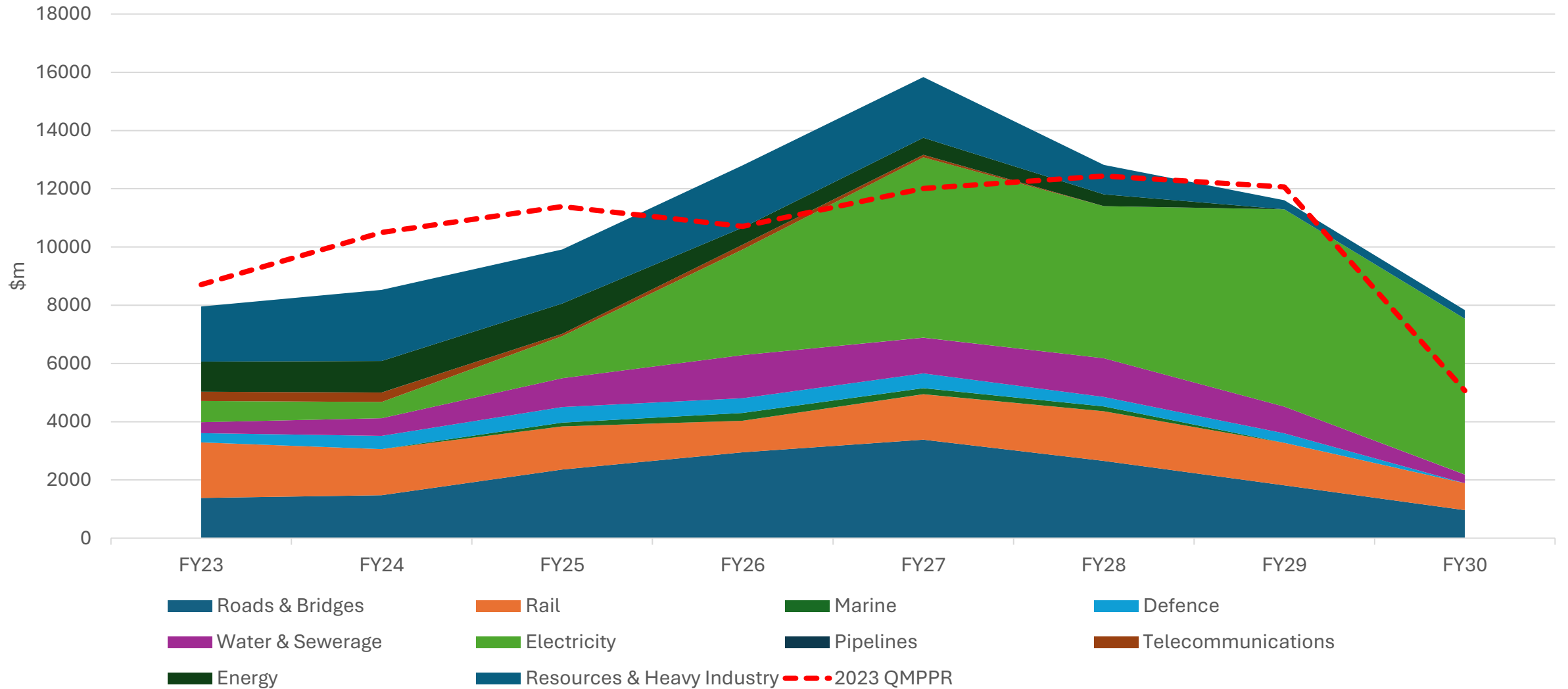
Funded Works





Pipeline Outlook

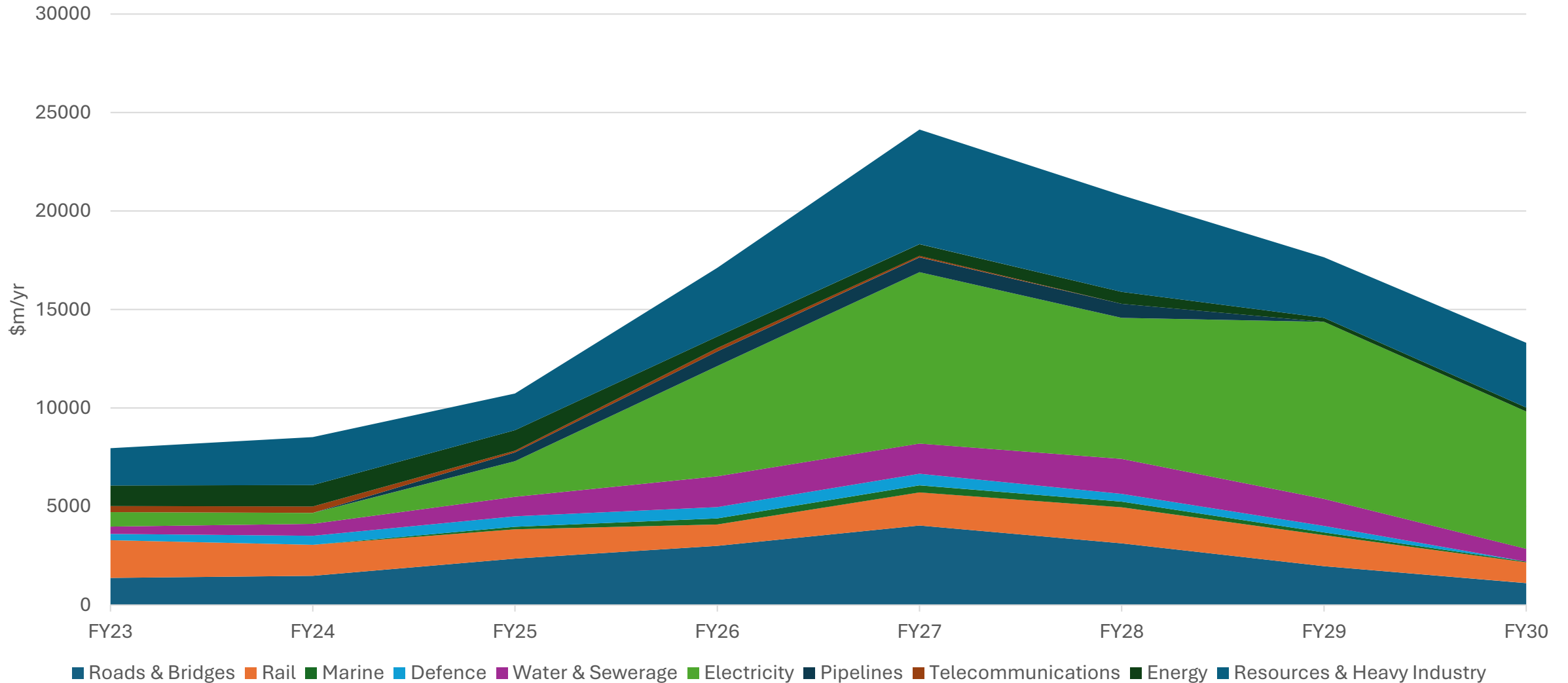
Funded Works Profile





Pipeline Outlook

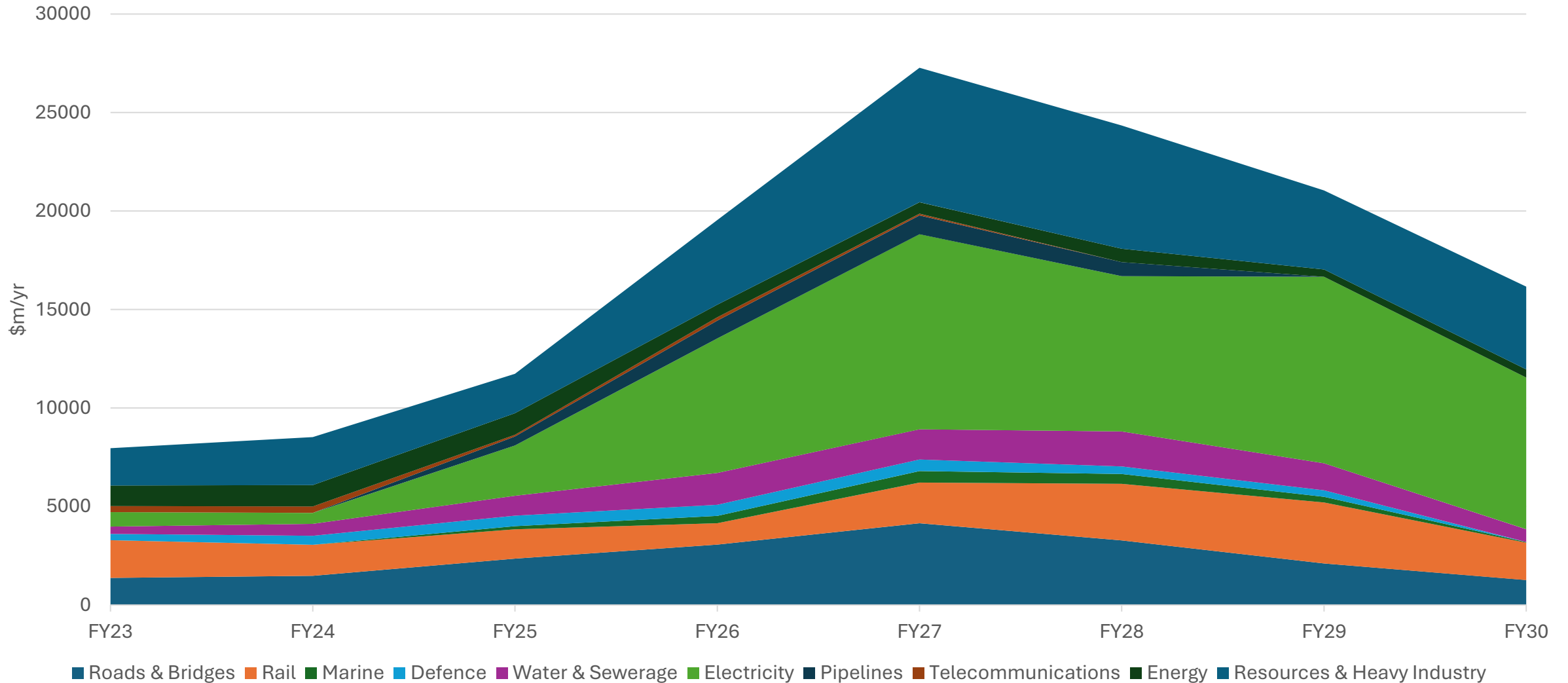
Funded + Credibly Proposed





Pipeline Outlook

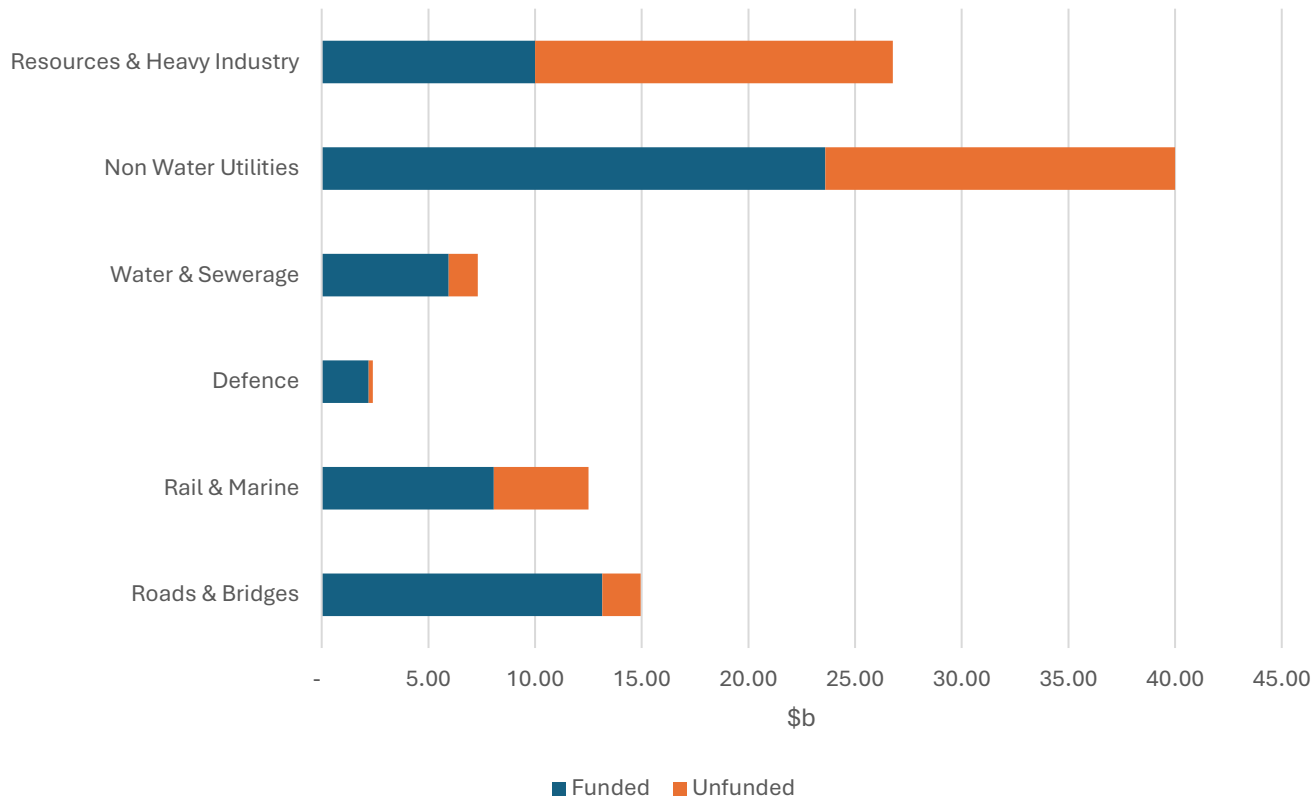
Total Pipeline



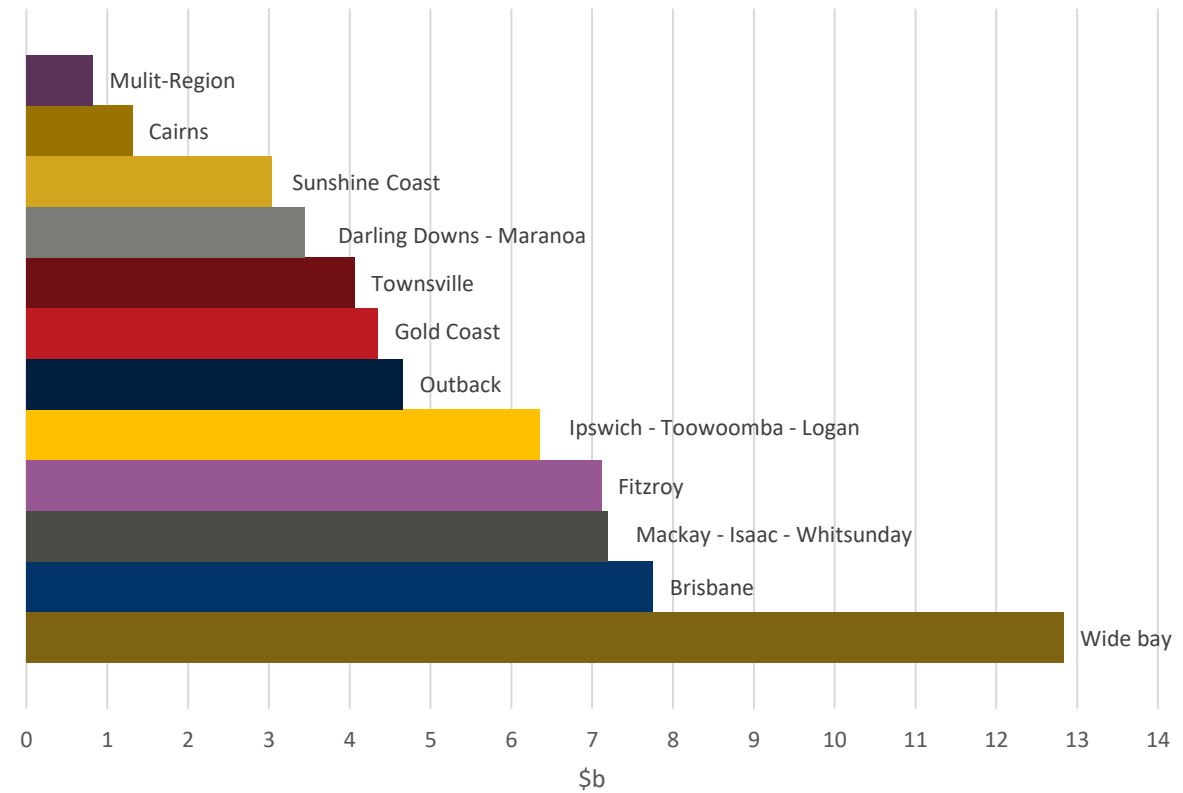


Where and What Type of investment?

Sector Analysis



Regional Analysis





Key Challenges





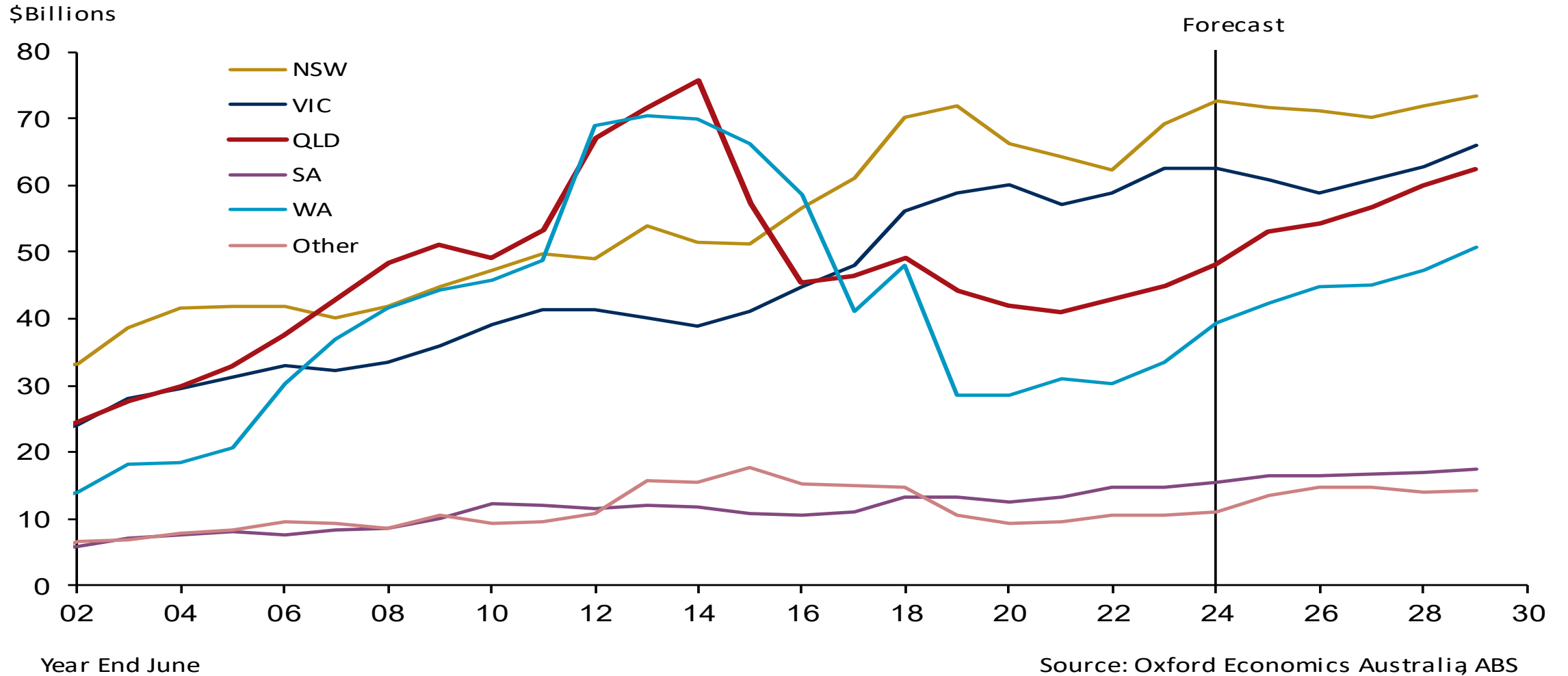
Key Challenges

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





Competing Investments

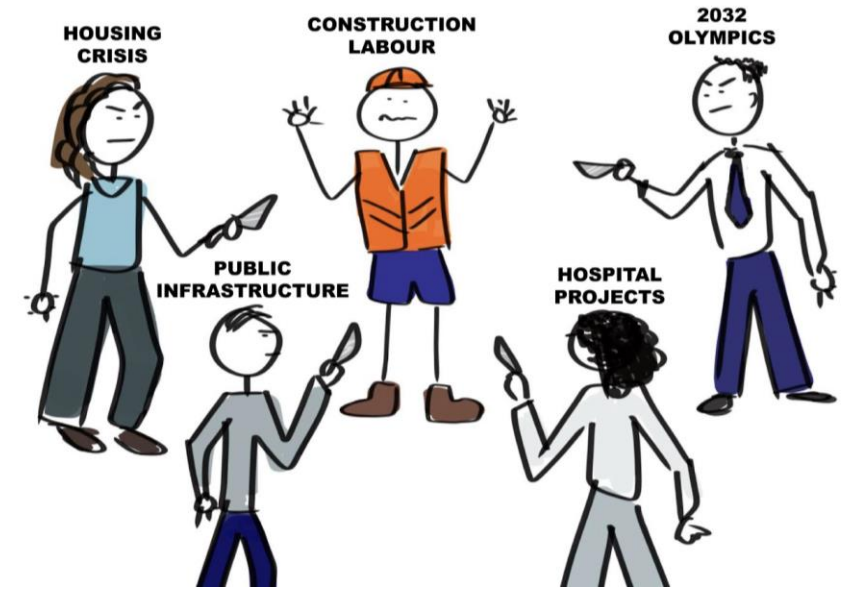


Source: Oxford Economics Australia & ABS

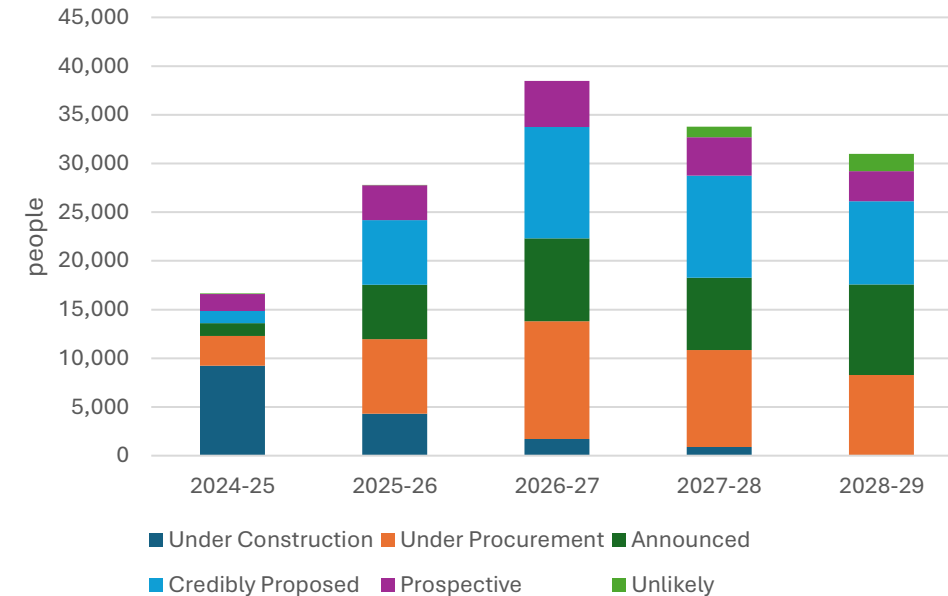


Capacity

- 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



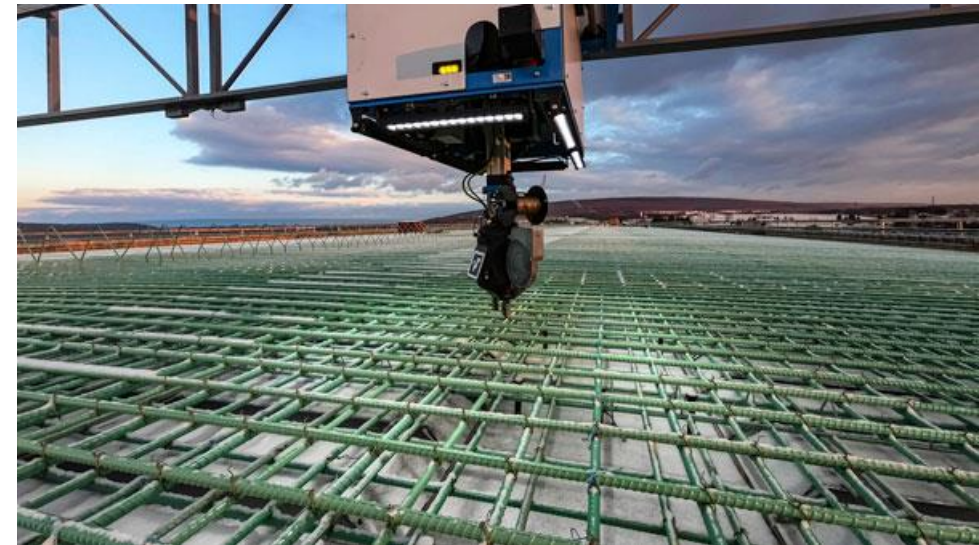
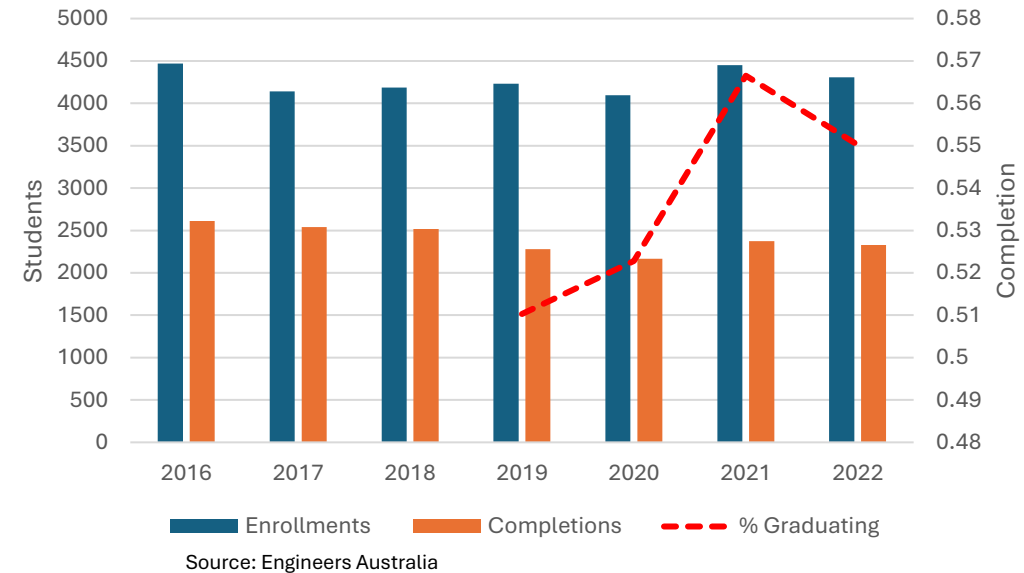
Source: CSQ



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)

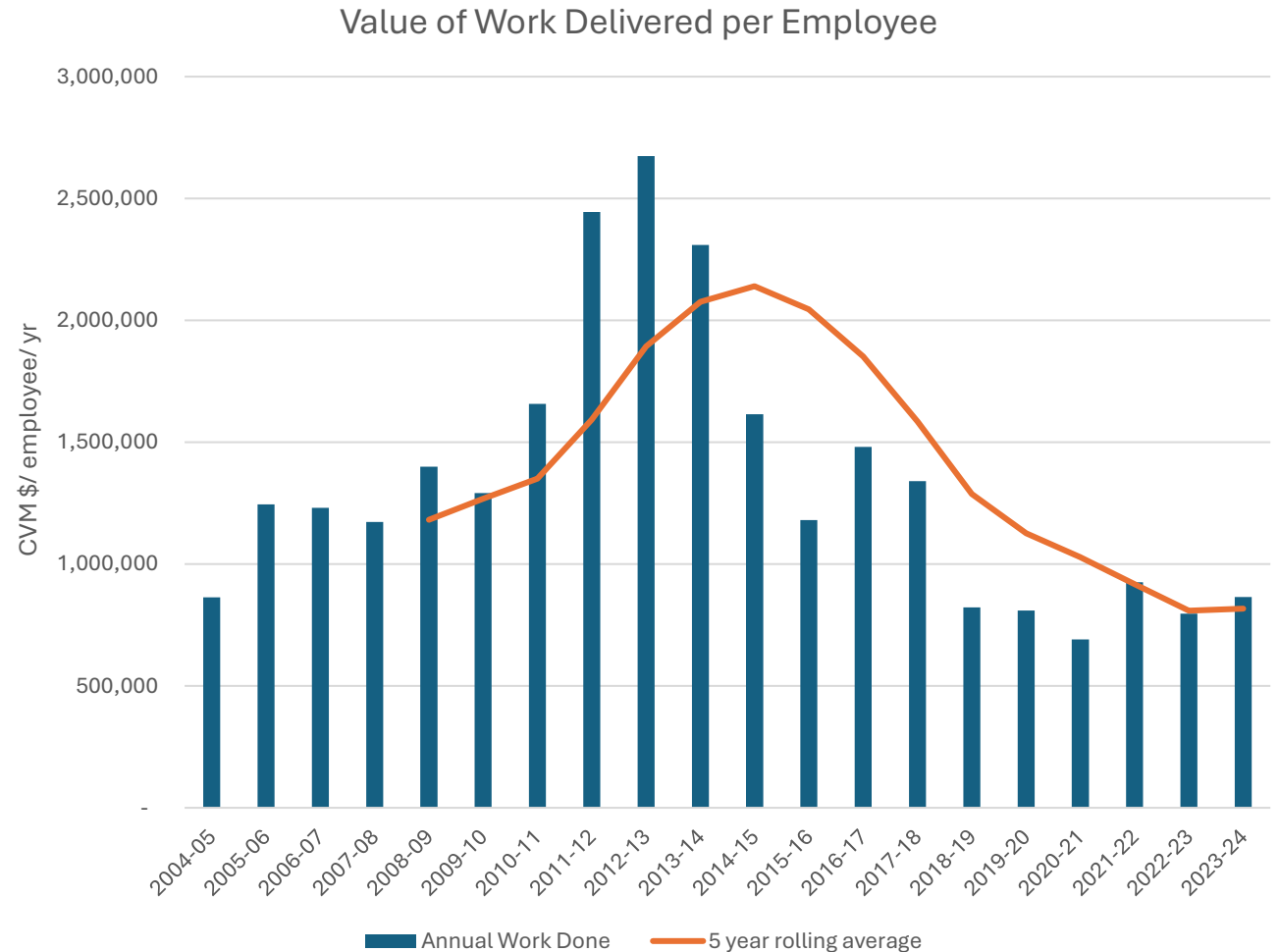
Engineering Education





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



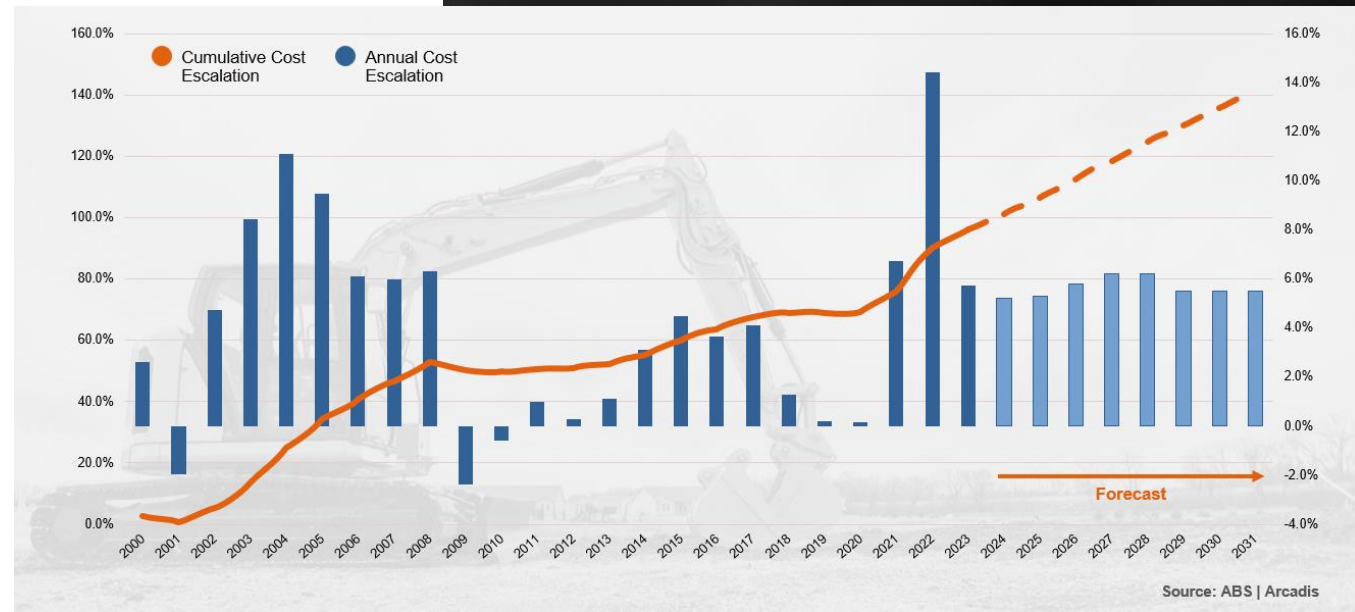
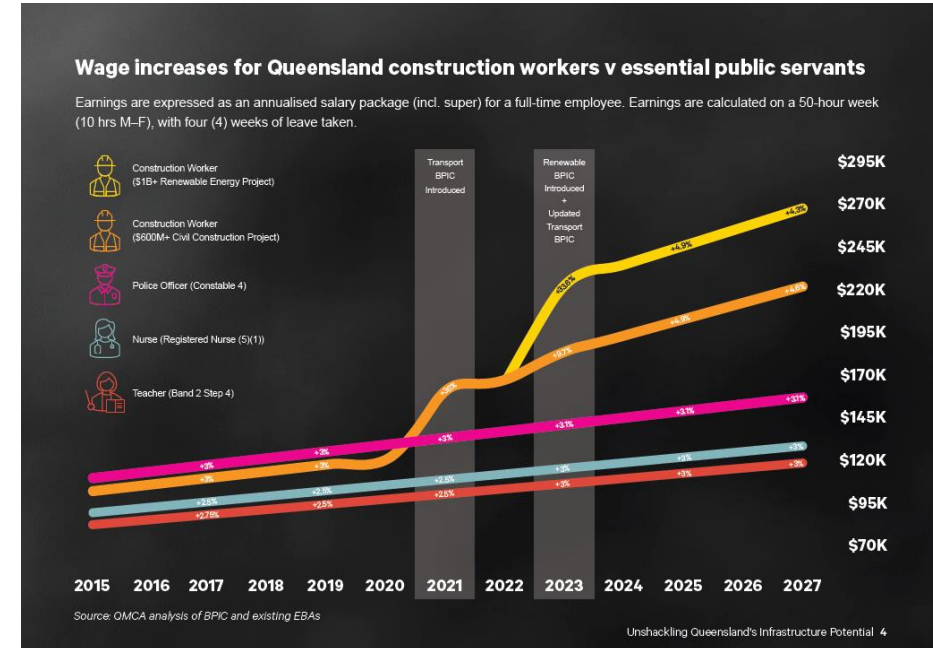
Source: ABS



Cost Pressures



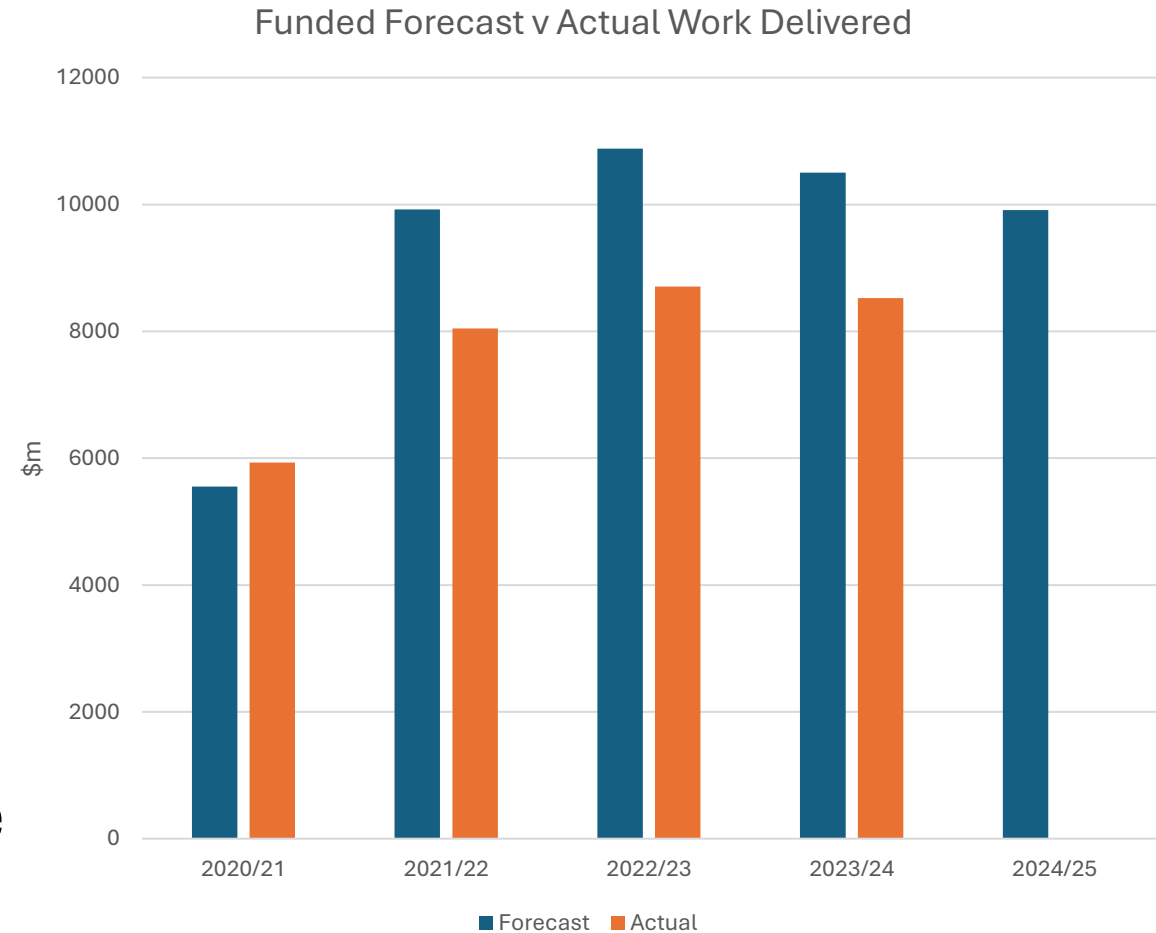
- Policy settings impacting on costs
- Public investment crowding out other capital and trades availability
- Construction cost escalation:
 - 2010 to 2024, construction costs have increased by 51.5%.
 - Construction costs have increased by 32.3% since 2019
 - 2010 and 2020 (pre-pandemic) YoY average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

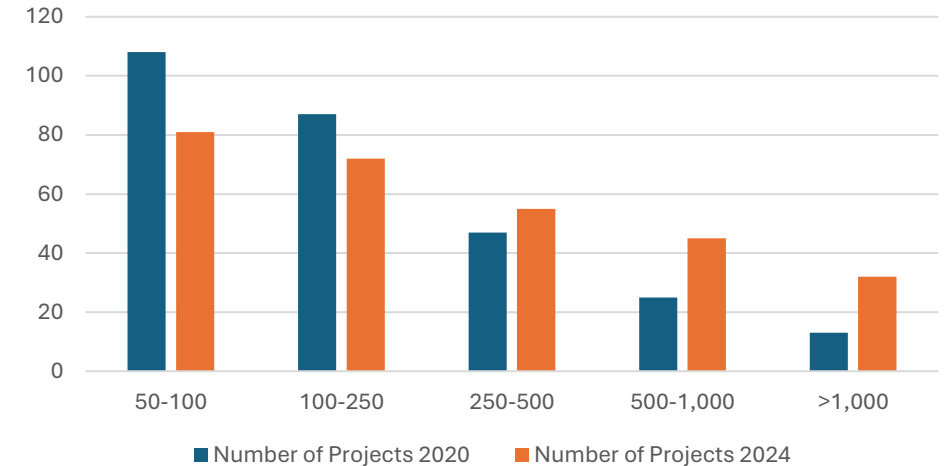




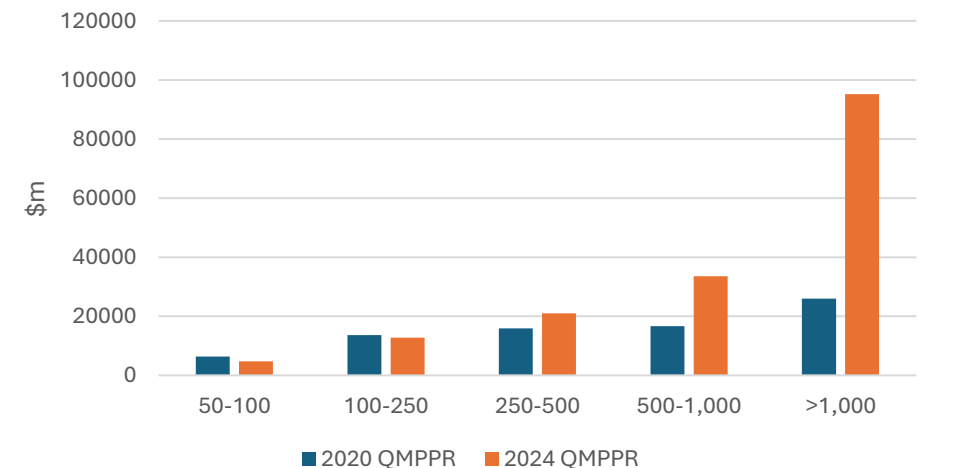
Pipeline Deliverability – Industry Sustainability

- 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



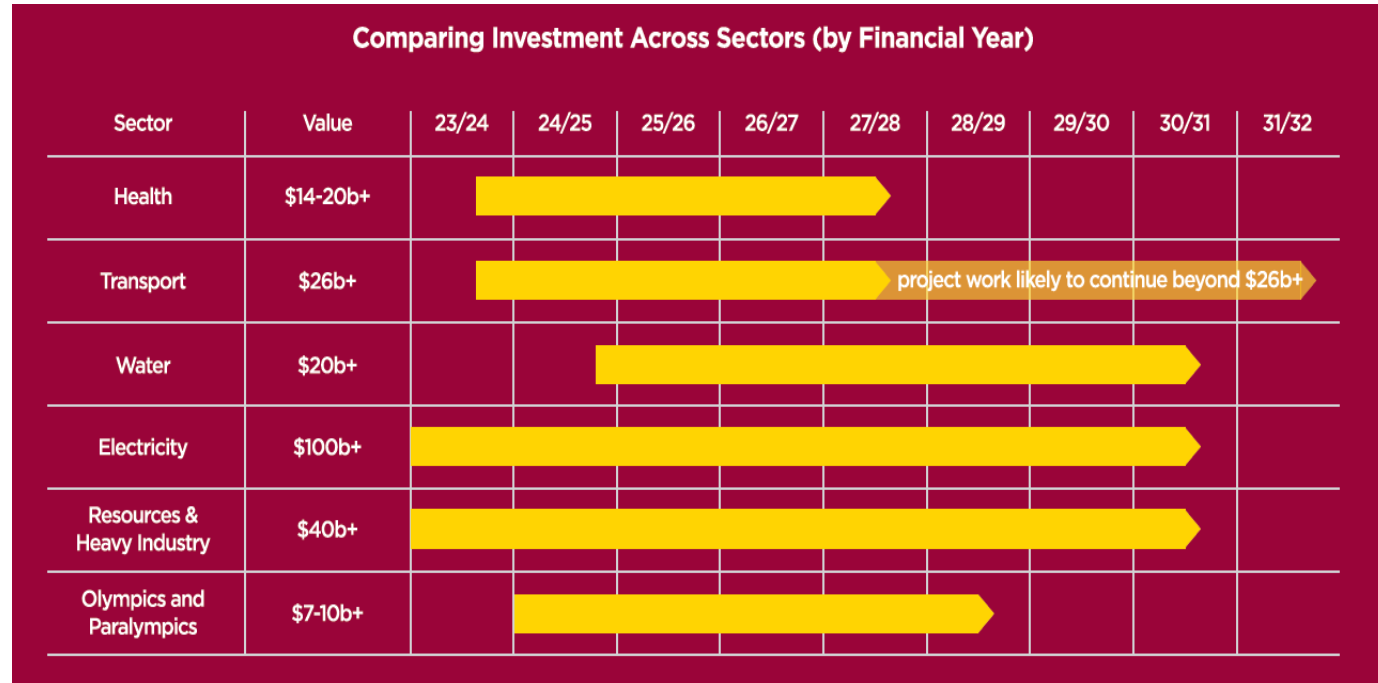
Pipeline Size (\$m)





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





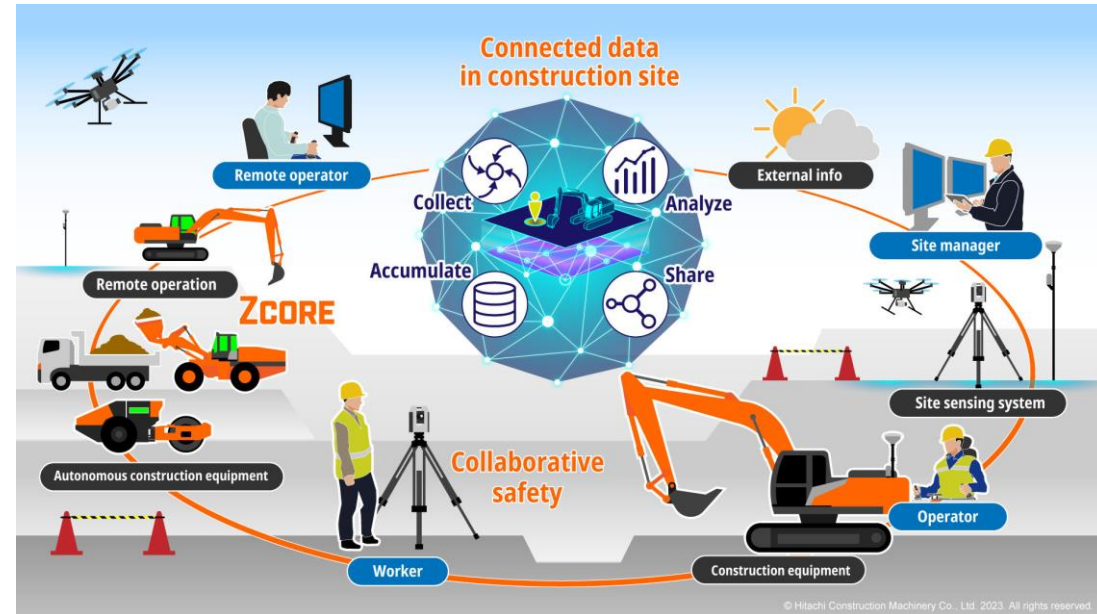
Opportunities & Recommendations





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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YES
WE CAN!





Thank you to contributing authors:



Queensland Major Projects Pipeline 2024



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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

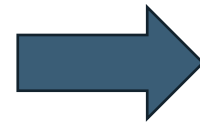
Clean Energy Transition

Housing & Community
Services

Education & Training

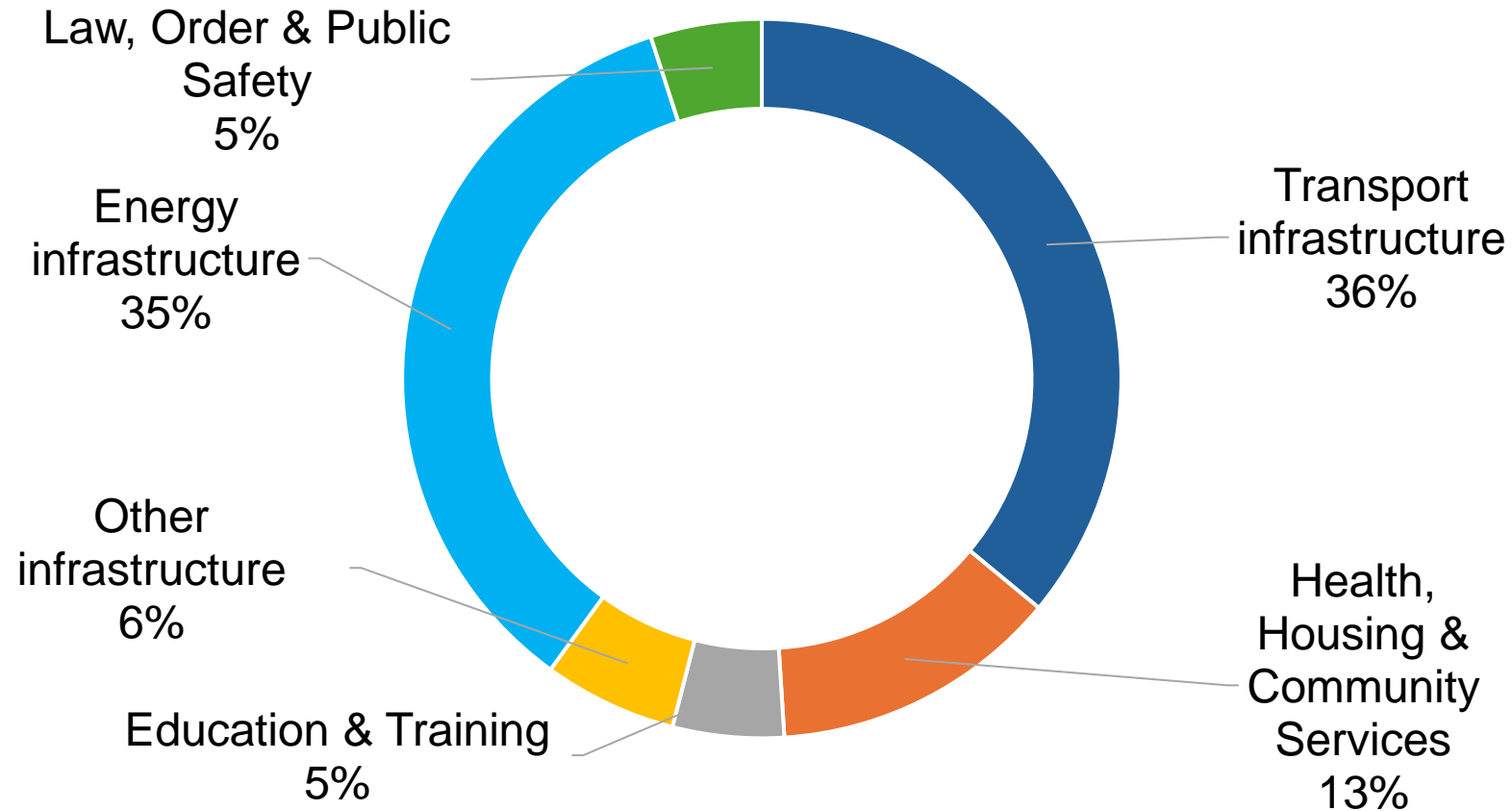
Health Expansion

Water Strategy



QLD Government Capital Purchases

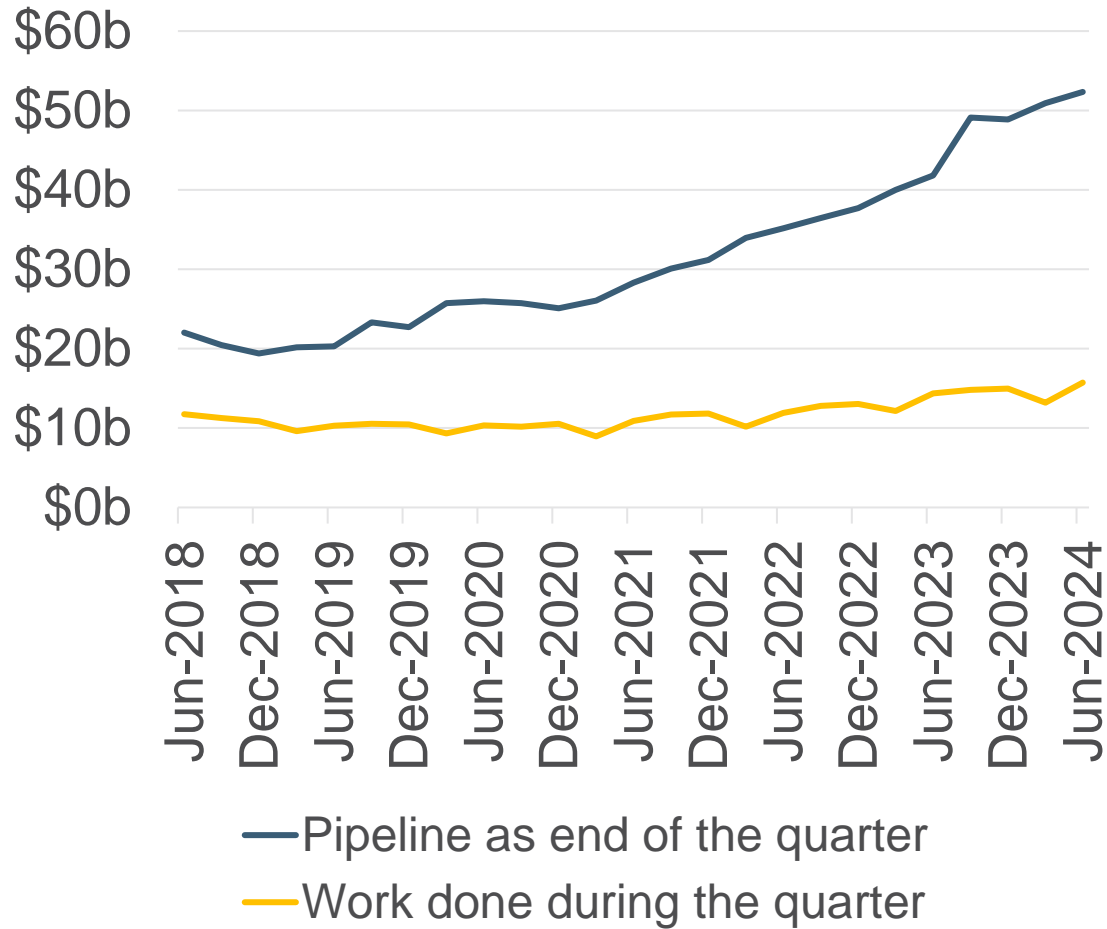
Capital Purchases by Purpose for 2024-25



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

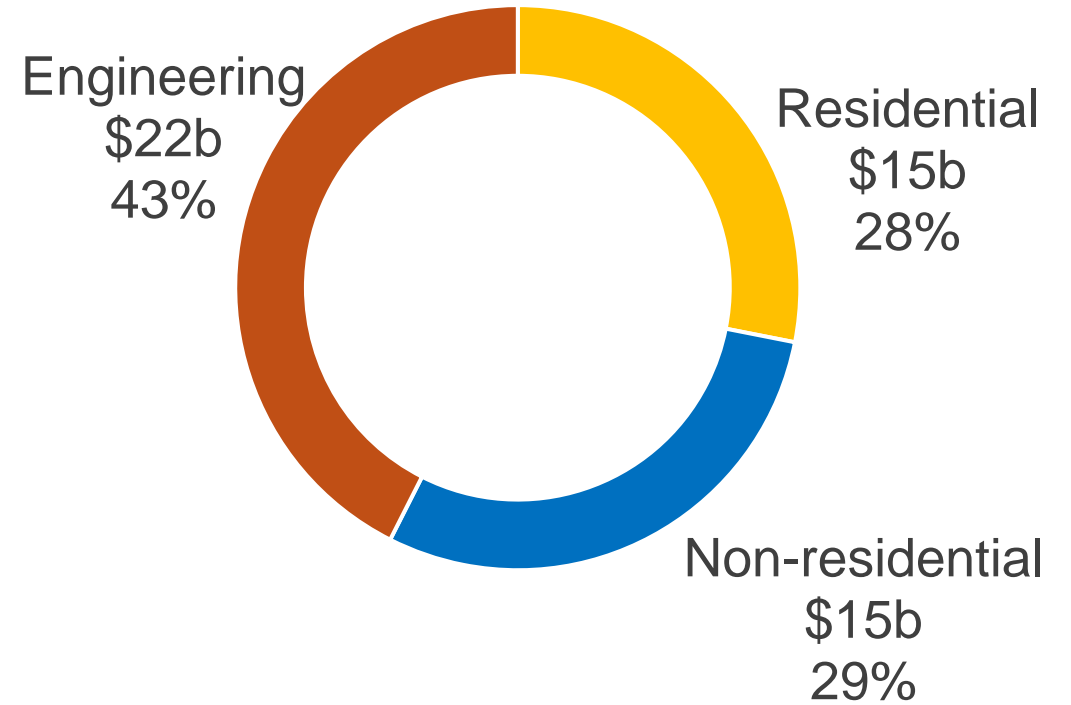
QLD Construction Activity

Pipeline & Work Done



Source: ABS

Pipeline as of June 2024: \$52b

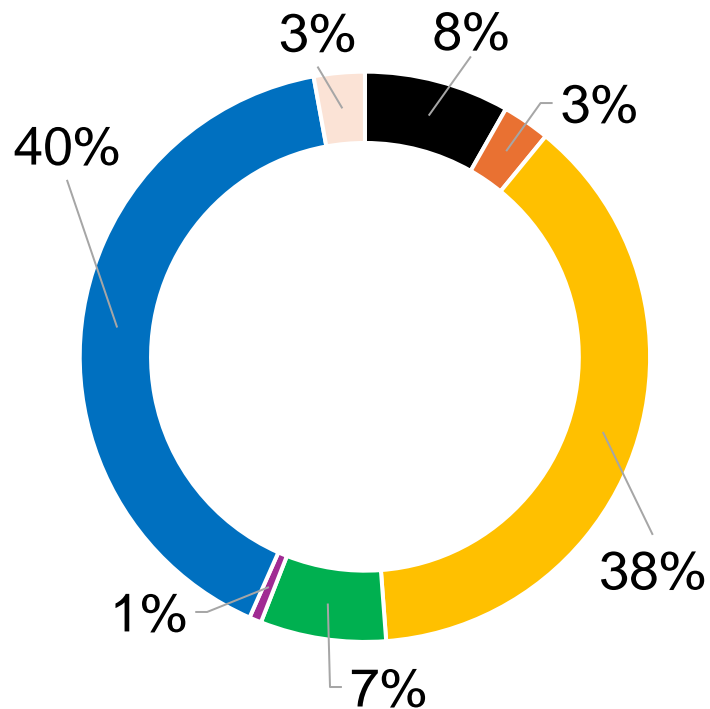


Source: ABS

QLD Engineering Pipeline (yet to be done)

As of June 2024: \$22b

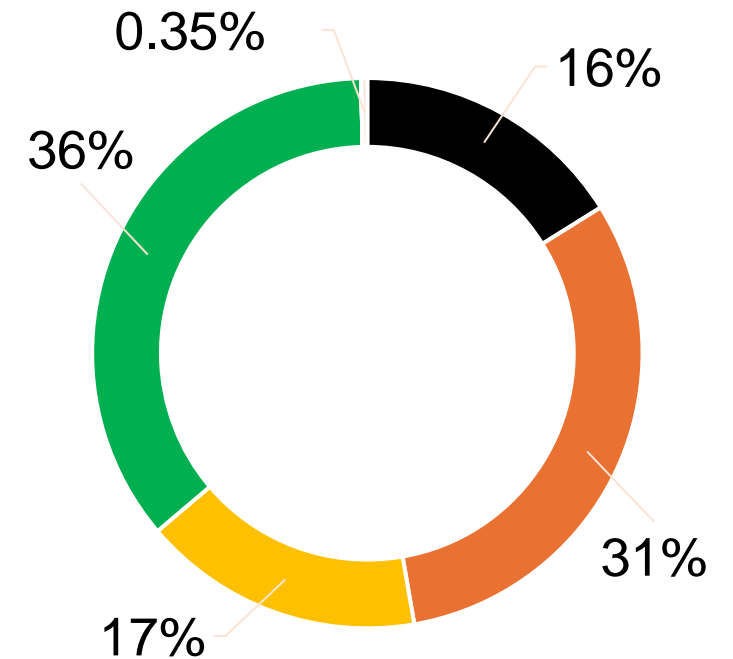
Private Sector



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



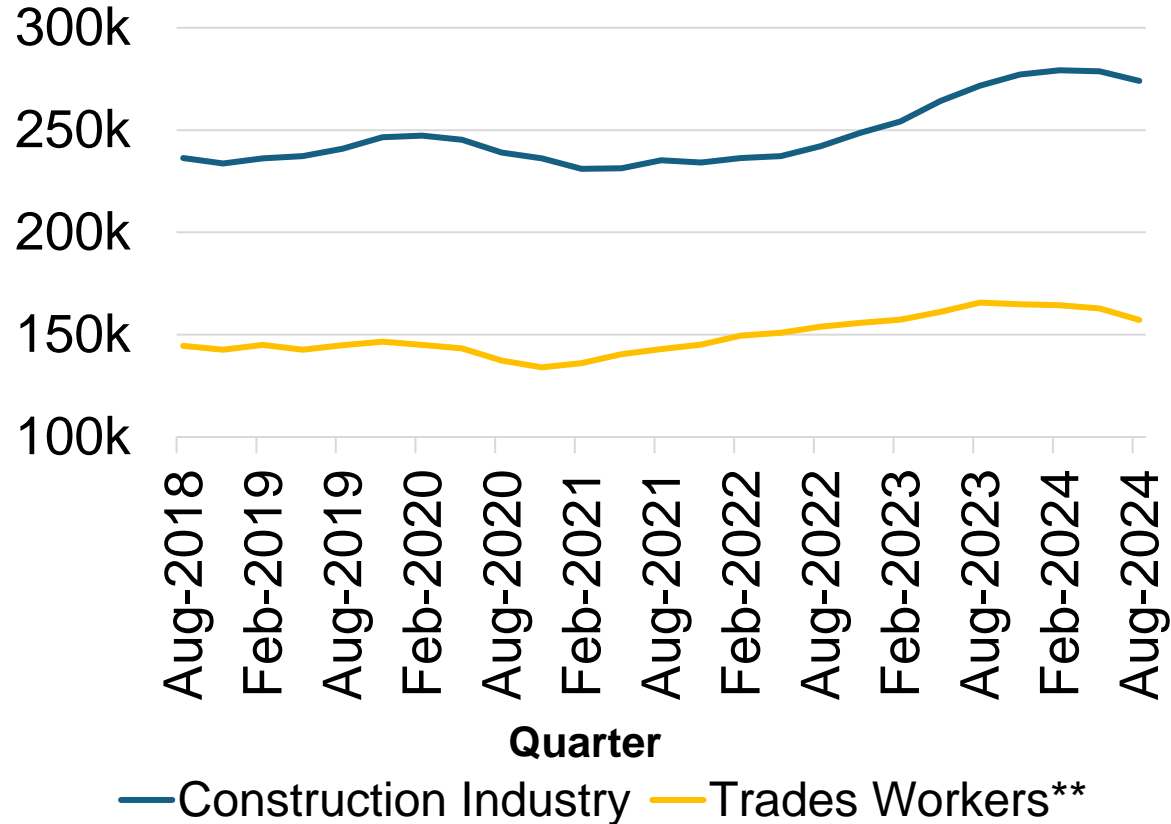
Source: ABS



Construction Workforce

Employment

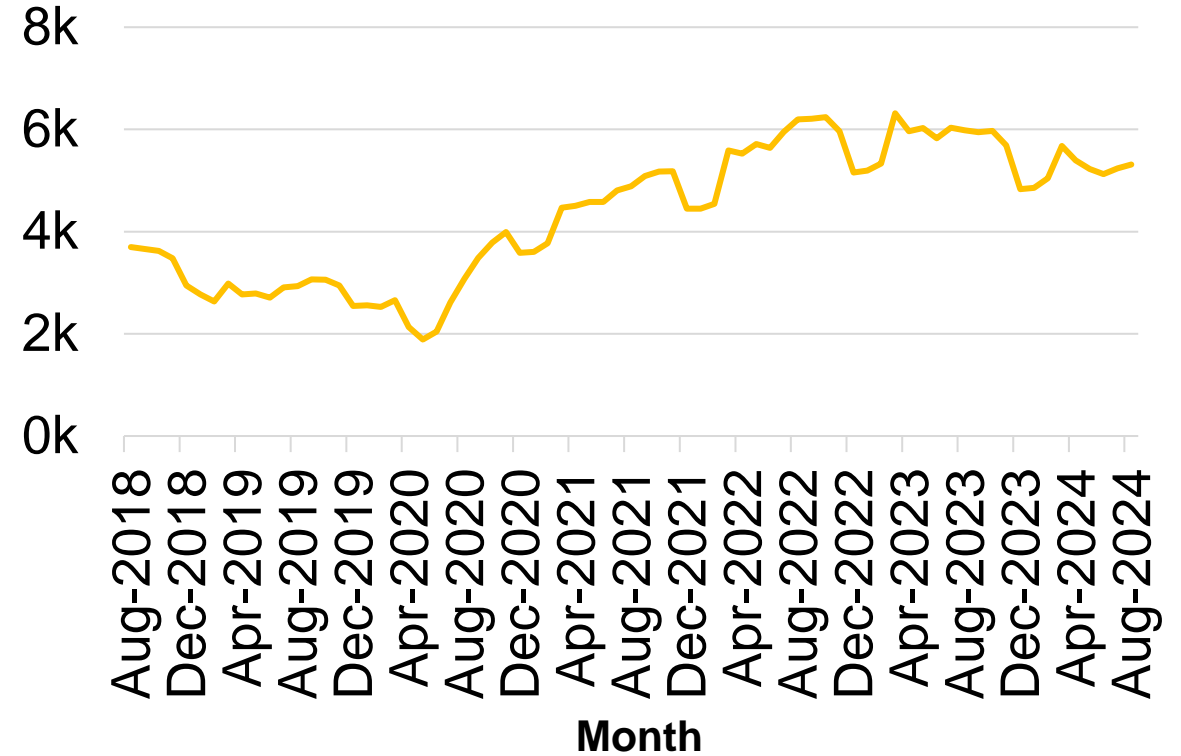
Construction Employment, QLD*



Source: ABS; JSA; CSQ

* Averages of preceding 4 quarters

Internet Vacancies for Trades Jobs**, QLD

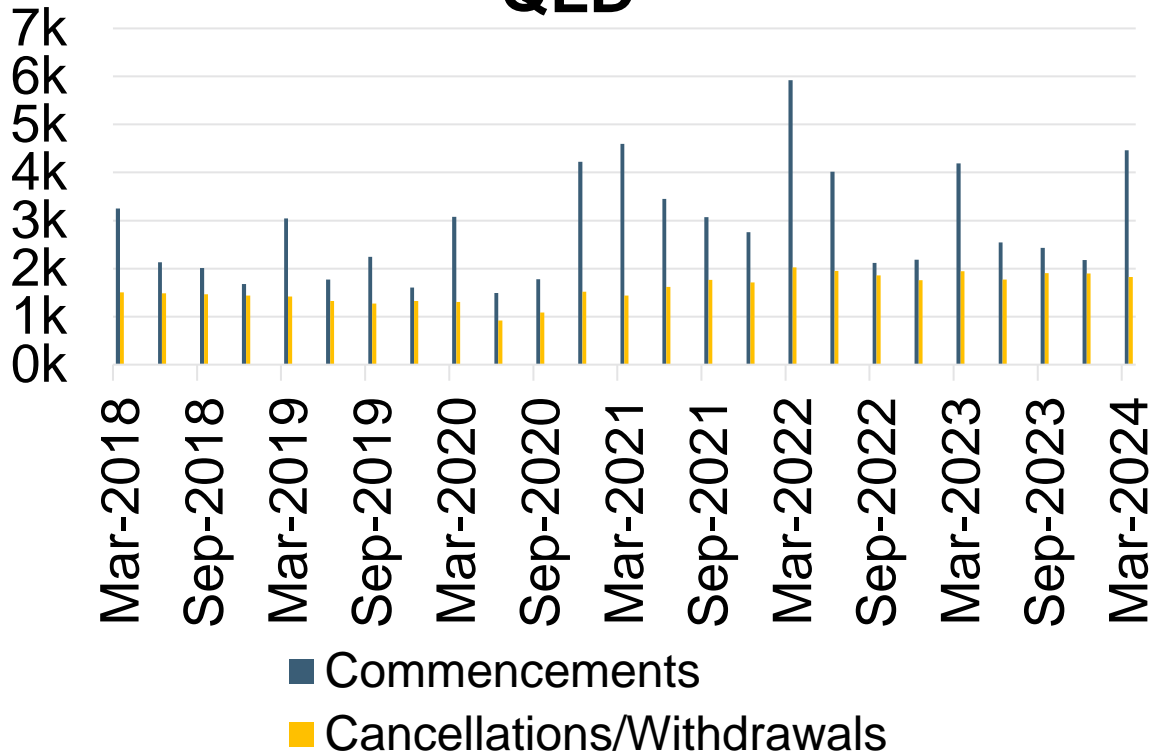


Source: ABS, JSA; CSQ

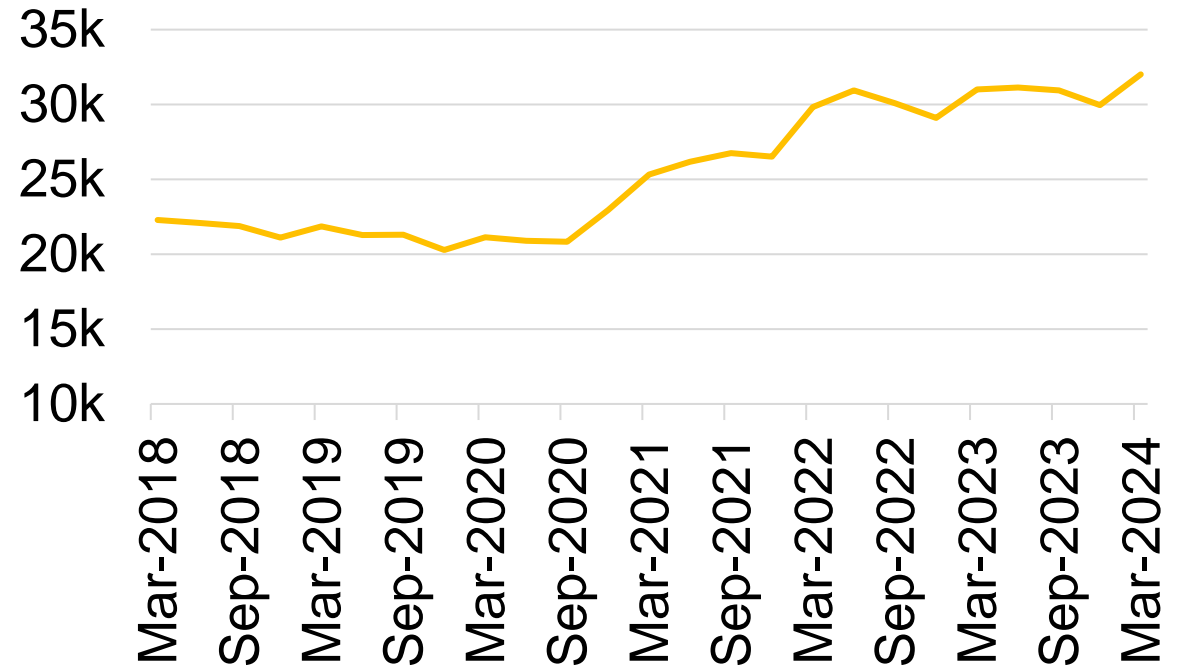
** Includes trades, labourers and machine operators

Building our own

B&C Apprentice* Commencements & Cancellations/Withdrawals, QLD



B&C Apprentices* In-training, QLD

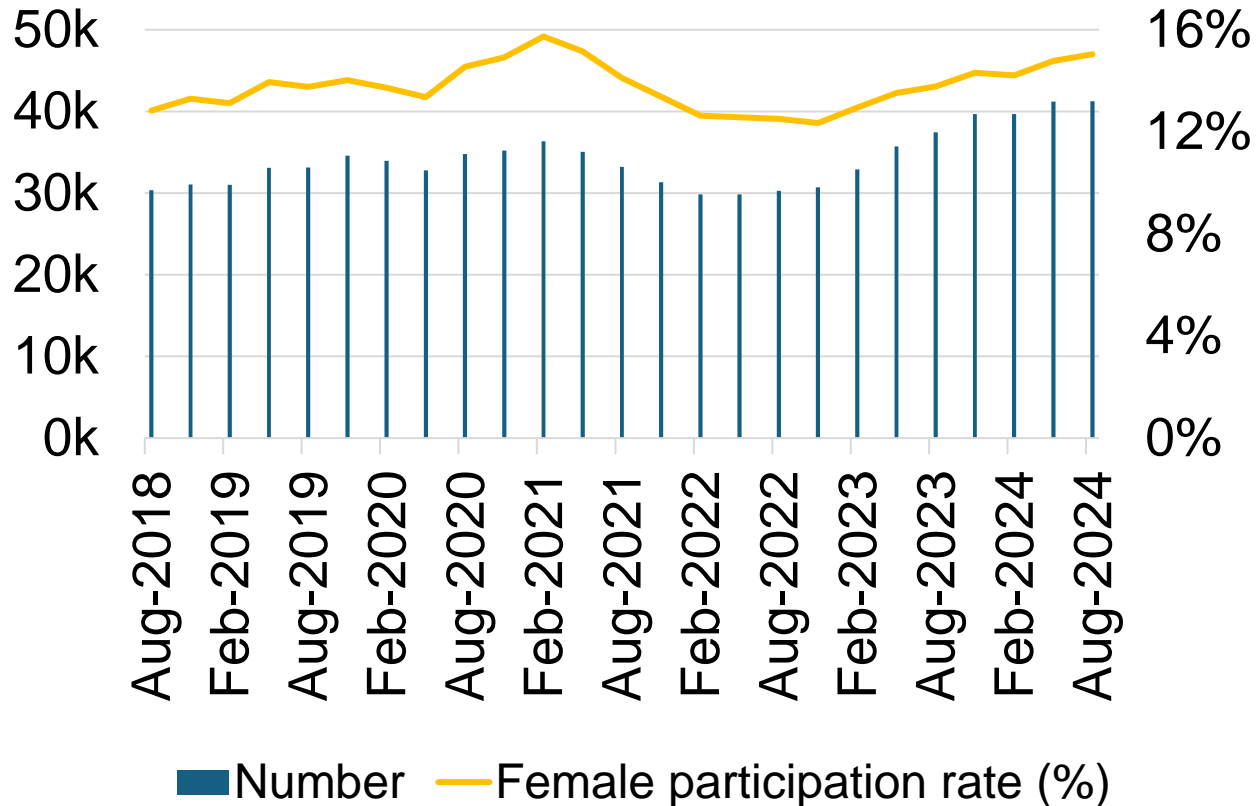


Source: NCVER (Based on March 2024 Database); CSQ
*pursuing construction qualifications

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

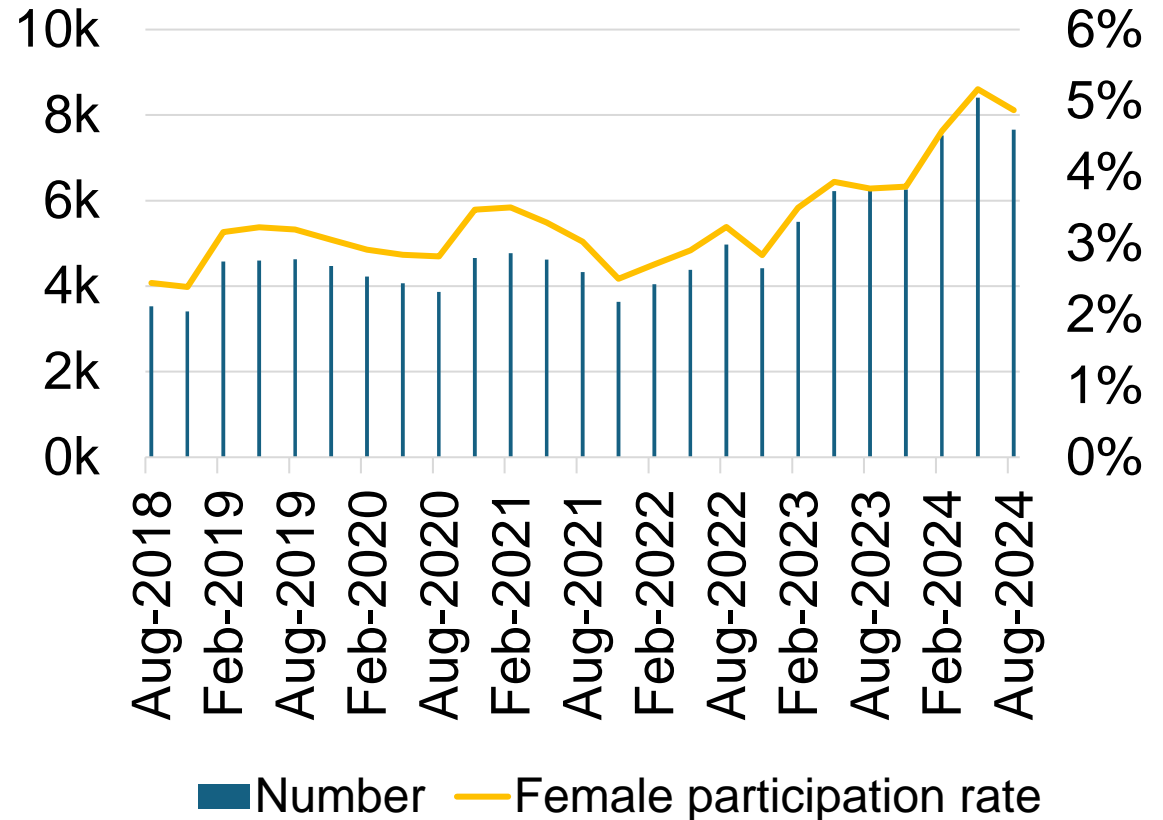
Females in Construction - QLD

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

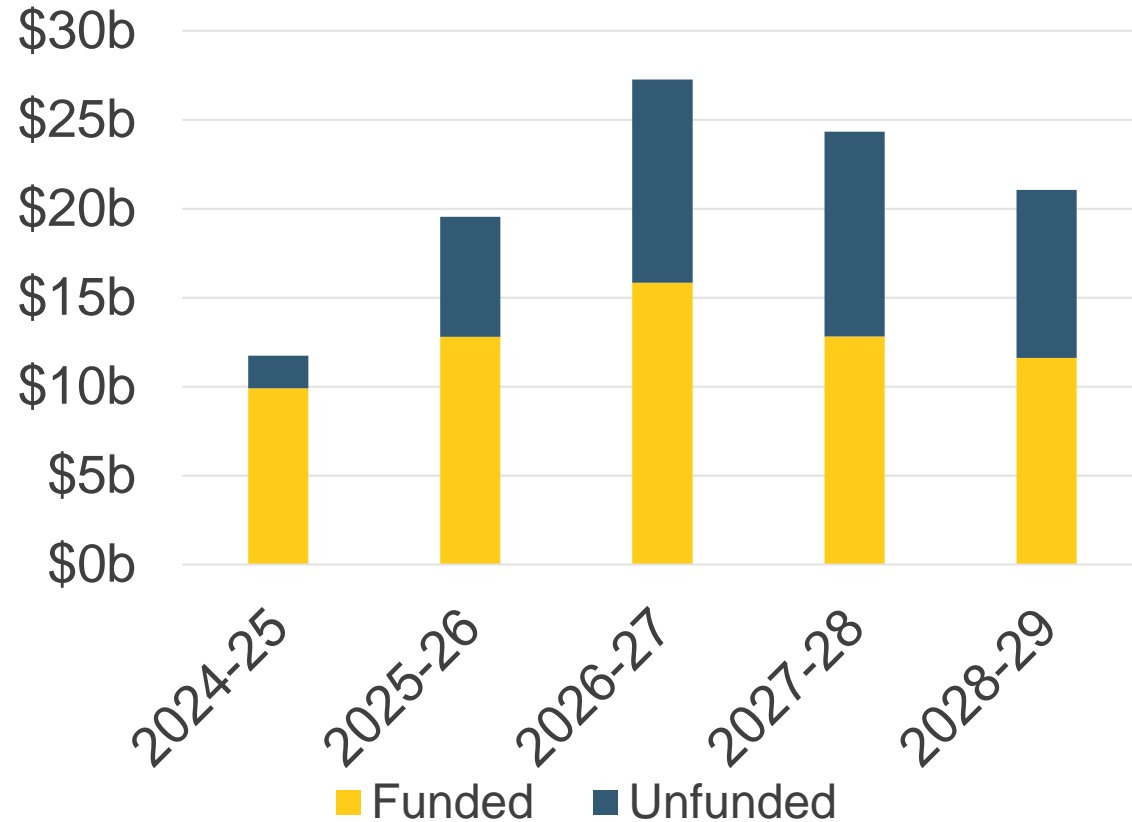


QMPP

Labour & Skills

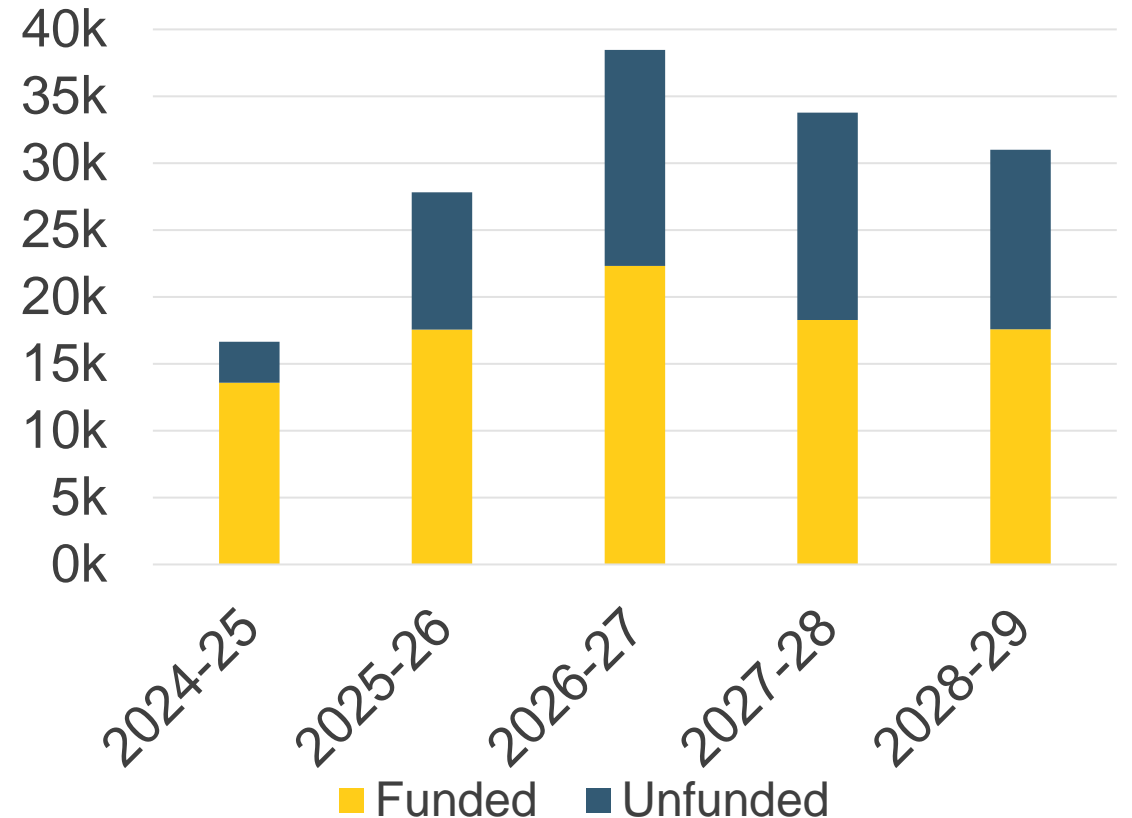
Average labour requirement - QMPP

Pipeline of engineering projects, by funding status



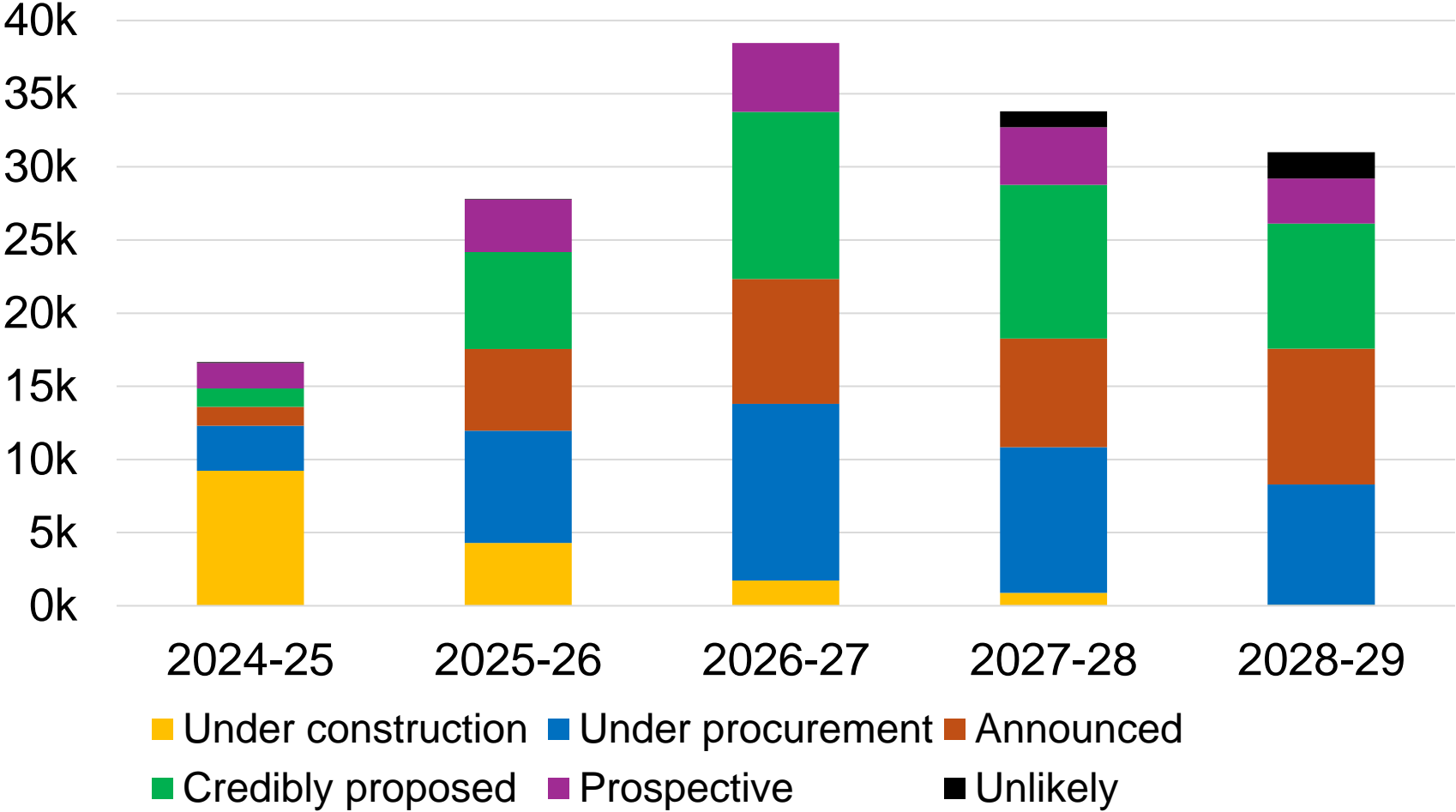
Source: QMCA

Average labour requirement, by funding status



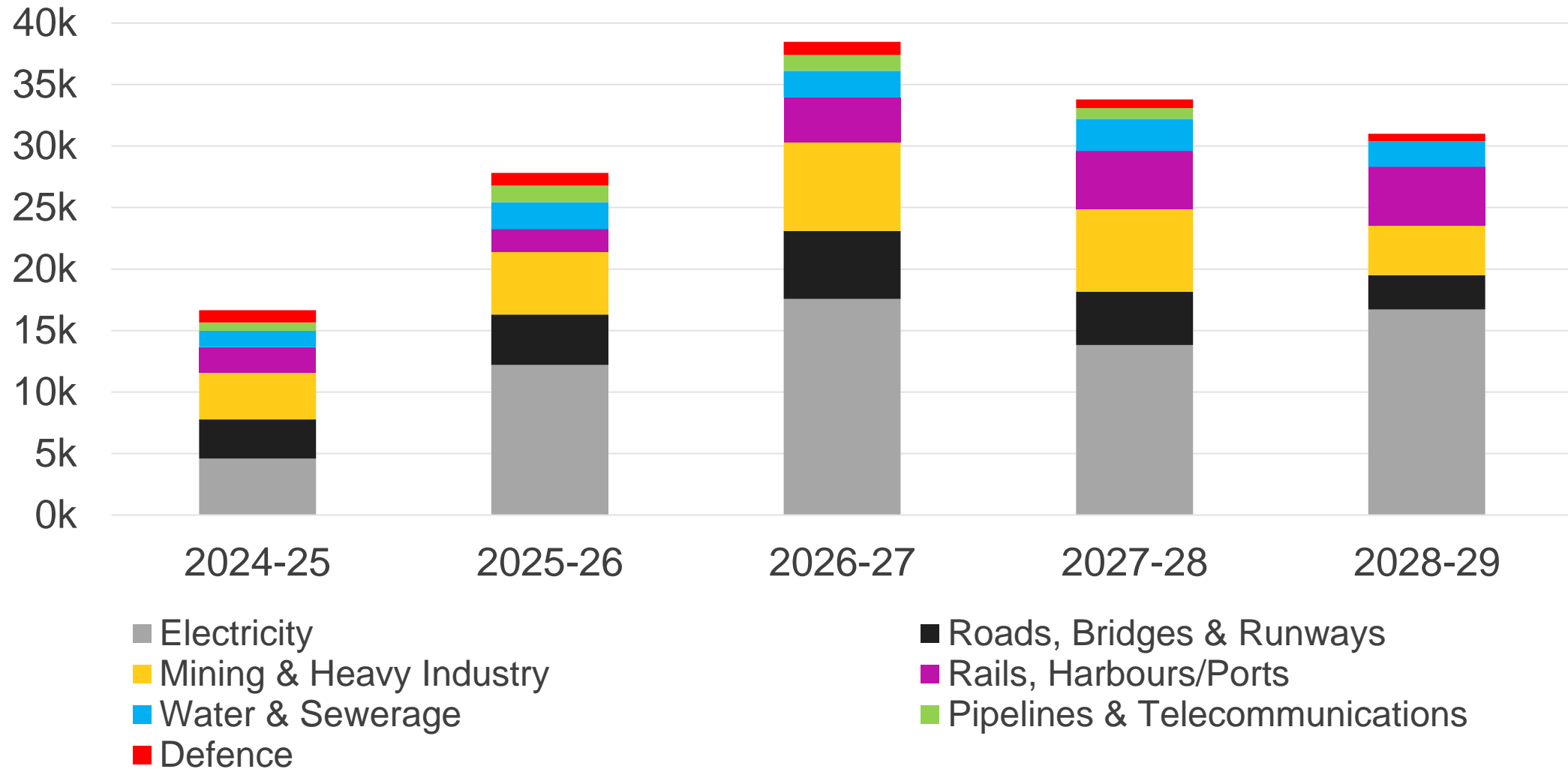
Source: CSQ for QMCA

Average labour requirement by project status - QMPP



Source: CSQ for QMCA

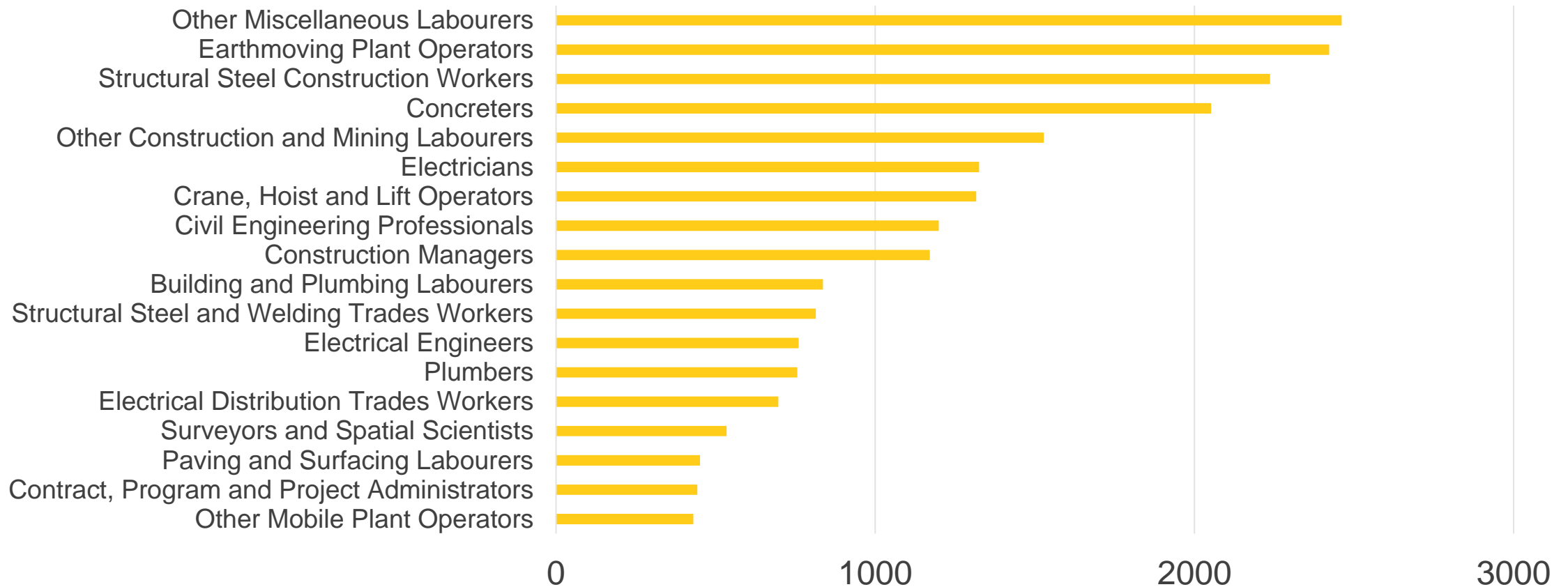
Average labour requirement by sector - QMPP



Source: CSQ for QMCA

Key occupations - QMPP

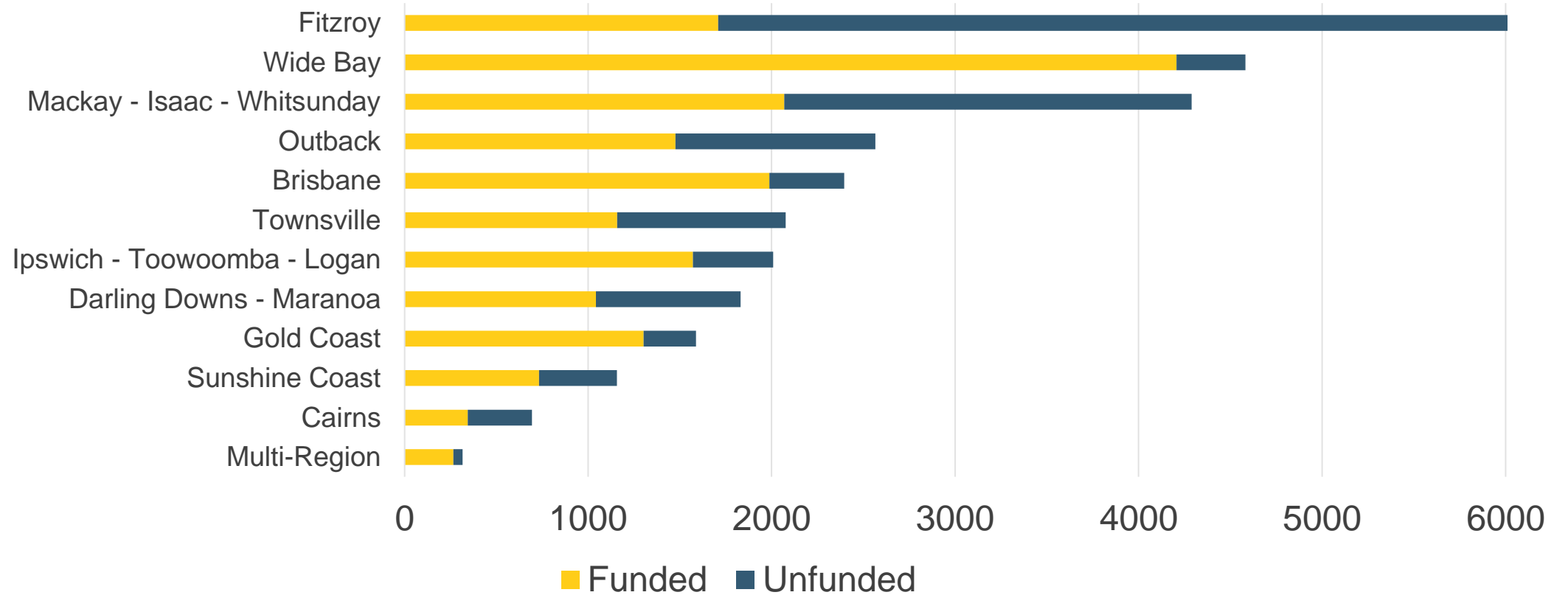
Key construction occupations in demand, average (2024-25 to 2028-29)



Source: CSQ for QMCA

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

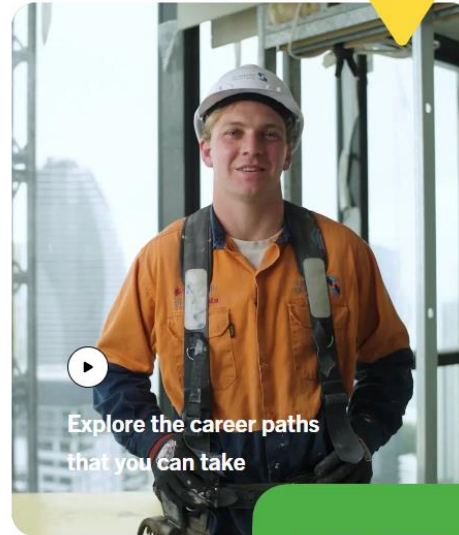
Be part of the solution

FIND YOUR PATHWAY

Be a part of one of the biggest and most exciting industries in Queensland.

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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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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





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Minister for State Development, Infrastructure and Planning and Minister for Industrial Relations

Hon. Jarrod Bleijie MP





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QMCA Chair David Balmer





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