



# SOUTH AUSTRALIAN CONSTRUCTION INDUSTRY WORKFORCE ACTION PLAN (2009 – 2014)



Government  
of South Australia

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Construction Industry Workforce Action Plan Reference Group

# CONTENTS

EXECUTIVE SUMMARY	3
Construction Industry Workforce Action Plan 2009 – 2014	4
SECTION 1: Introduction	4
SECTION 2: Workforce Planning in the Construction Industry	5
SECTION 3: Overview of the Construction Industry in South Australia	6
3.1 Scope of the Industry	6
3.2 Profile of the Construction Industry Workforce	6
3.3 Structure of the Construction Industry	7
3.4 Construction Industry Training Fund	7
SECTION 4: Skills in Demand: Short, Medium and Longer Term	8
4.1 Uncertain Economic Environment	8
4.2 Population Growth and Urban Planning	8
4.3 Emerging Technologies	8
4.4 Skill and Labour Requirements	8
SECTION 5: Key Workforce Development Issues for the Construction Industry	9
SECTION 6: Issues, Strategies and Proposed Actions	12
SECTION 7: Conclusion	19

The Construction industry in South Australia (SA) comprises three sectors: residential and commercial building, and civil construction. Supporting services such as design and documentation, project management, land and geotechnical surveying are incorporated in these sectors. Currently, the industry is the fifth largest employer of South Australians, and contributes \$4,045 Million (6.2%) to the Gross State Product (GSP).

While employment in the Construction industry is strongly influenced by demand and the economic cycle within the domestic economy, the industry plays an integral role in contributing directly to the State's economic development, and as a critical enabler through the provision of infrastructure for most other industries to achieve their business goals.

Although the industry has a relatively young age profile, the physical nature of the work results in a transition from the trades areas to other roles within the industry, alternative careers, or retirement. This impacts on the skills and labour requirements in numerous trades.

Prior to the current Global Financial Crisis (GFC), the drivers for industry workforce planning were to address the skills and labour requirements associated with a burgeoning State economy, and the replacement demand for retirements from the workforce over the next decade. These skills requirements are magnified by the fact that SA has an above average proportion of workers aged 45 years and over, and a lower proportion of younger people aged 25 years or less. This was compounded by a limited pool of appropriately skilled workers needed to meet this demand and open competition for labour from other high growth industries, in particular, mining.

In response to these labour market pressures, industry workforce action plans were commenced through an industry/government partnership in six priority areas as identified in the South Australian Government's *Skills for South Australia. Building on strong foundations* (2006). Construction was identified as a priority industry sector along with advanced manufacturing, agri-foods, resources (minerals), defence and health & community services.

Despite the GFC the number of people working in the Construction industry has grown which only serves to emphasise the need for an action plan to ensure that an appropriately skilled and productive workforce is available to manage the impact of the GFC and maximise opportunities once the economy begins to recover.

The Construction Industry Workforce Action Plan recommends a range of strategies for increasing participation in the development of the industry. It also provides a framework for a coordinated and comprehensive suite of strategies to address the issues facing the industry, and will form a critical component of the Training and Skills Commission's five year plan for skills and workforce development *Skills for Jobs* (2009)

The workforce issues and responses in the Construction Industry Workforce Action Plan have been identified by the industry through interviews, industry forums and research with various stakeholders.

The Reference Group, established to have oversight of the development of the Industry Workforce Action Plan, has recommended an industry led process involving the Construction Industry Training Board and the Construction Industry Forum to implement the key strategies and proposed actions (refer Section 6).

### Key issues include:

- > A lack of industry engagement in workforce planning and the implementation of workforce development solutions.
- > The image of the industry as a potential employer and the challenges associated with attraction and recruitment, particularly within the constraints of the structure of the industry.
- > Mobility of workers and their retention, which will be exacerbated by the minerals resource expansion, particularly in the State's upper northern regions when fully operational.
- > Training and development relevance and capacity to train the appropriate quantity of workers to the required quality and high level skills, particularly in relation to requirements associated with new technologies and initiatives such as environmental considerations.

### Responses to the above issues focus on:

- > Encouraging a greater level of industry engagement in workforce development solutions, with particular emphasis on the provision of improved information to enable better planning.
- > Assisting small businesses to develop and retain a highly skilled workforce.
- > Improving workforce participation through better promotion of the Construction industry, in particular the potential career pathways and opportunities.
- > Improving the quality of delivery and the level of coordination for existing and future skill development programs and initiatives in the school, vocational education and training and higher education sectors.



## 1. INTRODUCTION

In 2008 one of the greatest challenges facing businesses in South Australia was the shortage of appropriately skilled workers in the context of the forecasted economic developments within the State.

The *Review of Skills and Workforce Development in South Australia* (June 2008) commissioned by the State's Economic Development Board, indicated that an estimated 133,000 additional workers would be required across the South Australian economy over the next ten years due to opportunities resulting from major projects within the State. In addition, 206,000 workers would be required to replace people leaving the labour force due to retirement and other factors. This resulted in a projected 339,000 total job openings over the next decade. The total State workforce (including employed and unemployed) at that time was 815,000.

[http://www.southaustralia.biz/library/Economic\\_Statement\\_0.pdf](http://www.southaustralia.biz/library/Economic_Statement_0.pdf)

In response to these labour market pressures, industry workforce action plans were commenced in **six priority areas**, as identified in the South Australian Government's *Skills for South Australia: building on strong foundations* (2006).

[http://www.dfeest.sa.gov.au/Portals/0/documents/publications/skillsfora\\_sep06.pdf](http://www.dfeest.sa.gov.au/Portals/0/documents/publications/skillsfora_sep06.pdf)

**Construction**, which plays an integral role (a) in contributing directly to the State's economic development and (b) as a critical enabler through the provision of infrastructure for most other industries to achieve their business goals, was identified as a priority industry along with **advanced manufacturing, agri-food, defence, health and community services**, and **resources** (minerals).

The Construction Industry Workforce Action Plan provides a framework for a coordinated and comprehensive suite of actions to address the workforce issues facing the industry. It is intended to inform the Training and Skills Commission's five year plan for skills and workforce development *Skills for Jobs* (2009).

To reflect an industry/government partnership, a Reference Group comprising industry and government representatives was established to oversee the development of the Construction Industry Workforce Action Plan. An industry champion (Mary Marsland) who was endorsed by the SA Construction Industry Forum chaired the Reference Group. The Construction Industry Forum is a significant source and conduit for industry advice to the State Government.

Industry representation on the Construction Industry Workforce Action Plan Reference Group included representatives from the Construction Industry Forum (CIF) and the Construction Industry Training Board (CITB). In addition State Government agencies, which interface with the Construction industry in SA, were also represented. These included: Transport, Environment and Infrastructure, Trade and Economic Development (including the Office of Regional Affairs) and Housing SA. The Department of Further Education, Employment, Science and Technology in its role as the lead agency for workforce development was represented on, and supported, the Reference Group.

## 2. WORKFORCE PLANNING IN THE CONSTRUCTION INDUSTRY

Since the commencement of the Construction Industry Workforce Action Plan, a Global Financial Crisis (GFC) has swept across the World. Whilst Australia and South Australia is yet to feel the full impacts of that experienced in the Northern hemisphere, growth is slowing and forecasts predict that it will slow considerably further from the recent boom period peaks.

It is expected that the Construction industry project delays and cancellations at the national and State level that commenced at the beginning of 2009 will continue and significantly impact on the number and timing of the projects.

Initially, the softening of the economy seemed to ease the predicted skills and labour requirements in the Construction industry; however this has now changed with the Commonwealth Government announcement in February 2009 of the Nation Building and Jobs economic stimulus plan. This intervention outlines an ambitious program of major and minor infrastructure projects associated with schools, social housing, road safety and local government infrastructure projects, plus energy efficiency improvements in domestic housing.

The projects are to be delivered by the challenging timeframe of December 2010 and the significant capital injection will impact on skills and labour requirements in the Construction industry.

Although the drivers for the development of the Construction Industry Workforce Action Plan (CIWAP) may have changed since its inception, the rationale for the CIWAP remains as relevant in 2009 as it was at its commencement in 2008. Along with many industry leaders, the Reference Group recognised and endorsed the importance of industry continuing to train and develop skilled people, and to identify and implement strategies for addressing the future labour requirements.

In doing so, the impact of projected retirements in the medium to longer term can be addressed and as the economy begins to recover, the new opportunities arising are able to be maximised.

In the course of developing the CIWAP, the Reference Group has drawn on a range of resources including:

- > An “environmental scan” that details a range of existing research, projects and programs that address workforce issues.
- > The Construction Industry Workforce Profile, (based primarily on data from the 2006 Australian Bureau of Statistics [ABS] Population Census),

- > The Monash Employment Growth Forecasts
- > National Centre for Vocational Education Research (NCVER) reports;
- > Qualitative and quantitative research undertaken by the Construction Industry Training Board.

The Environmental Scan and the Workforce Profile are available in the Industry Information section of the Workforce Information Service website at <http://www.workforceinfoservice.sa.gov.au/>

It is acknowledged that some industry stakeholders have workforce data additional to that provided by the ABS. Feedback on both the Workforce Profile and the Environmental Scan is important for the future planning needs of the Construction industry.

To support the above information, the Reference Group has sourced qualitative data from the Construction industry through face to face interviews and forums. The continuing decline in the economic conditions since this industry data was gathered reinforces the need for ongoing monitoring and adjustment in order to maintain its reliability.

The Workforce Profile identifies levels of workforce demand and supply, whilst information sourced through consultations with a range of industry stakeholders and supported by industry research allows the development of a suite of strategies for the sector.



### 3. OVERVIEW OF THE CONSTRUCTION INDUSTRY IN SOUTH AUSTRALIA

#### 3.1 Scope of the Industry

For the purposes of this Industry Workforce Action Plan, the Construction industry in South Australia includes:

- > The residential and commercial building markets
- > The civil construction market

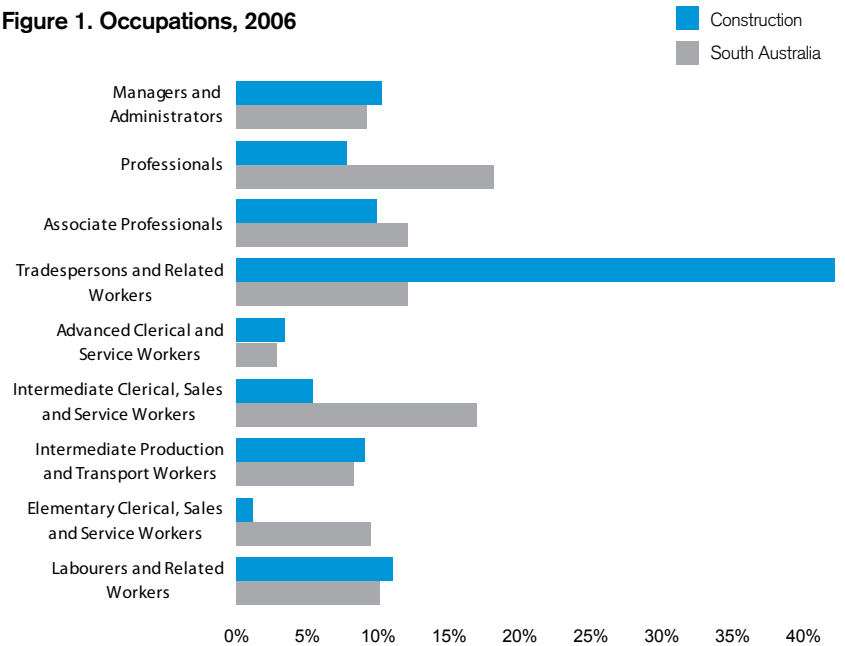
Within these markets, the supporting services such as design and documentation, project management, land and geotechnical surveying are incorporated.

In the Year to November 2008, there were 65,400 people employed in the Construction industry in SA<sup>1</sup>. Currently the industry is the fifth largest employer of South Australians and contributes \$4,045 Million (6.2%) to the Gross State Product (GSP).

#### 3.2 Profile of the Construction Industry Workforce

The Construction industry is composed primarily of Tradespeople and Labourers. As can be seen in Figure 1, 42% of the Construction workforce is engaged in trades; largely carpenters, electricians, plumbers and painters. In addition there are professional occupations (Multi discipline Engineers, Project Managers, Architects and associated Para-professional occupations). There are also significant proportions of managers (mainly Building Managers) and a range of Intermediate Production and Transport Workers (Mobile Construction Plant Operators, Truck Drivers and Structural Steel Construction Workers).

**Figure 1. Occupations, 2006**



ABS Census of Population and Housing, 2006

In keeping with the predominance of trade occupations in the Construction industry, trades qualifications are the most common level of qualification held by workers.

In the period 2003 -2007, the numbers of new apprentices and trainees in the Construction industry increased by 79.4% (over 1008 people), in comparison to an increase of 1.3% across all industries in the State. There was a particularly large increase in the number of apprentice and trainee commencements in plumbing, electrical, and air conditioning and heating. It is important to

acknowledge that the increase coincides with the CITB and other key industry stakeholders' increased emphasis on the promotion of apprenticeships as a career pathway.

Although the industry has a relatively young age profile, the physical nature of some trade sectors of the work can result in an earlier age transition from the trades area to other alternative roles within the industry, as compared with other industries. This impacts on the skills and labour requirement in such sectors.

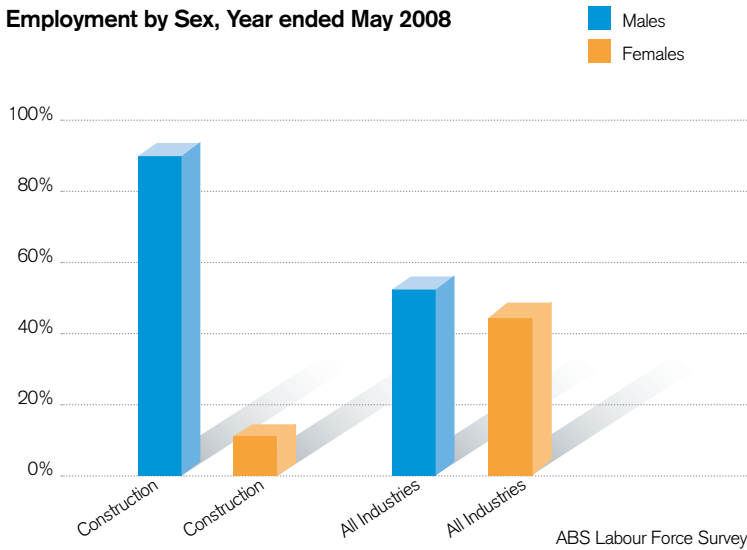
**Table 1: Age Groups, 2006**

Age Group	Percentage of Construction Workforce	Percentage of All Industries Workforce
15 - 24 years	16.0%	16.6%
25 - 44 years	46.6%	43.6%
45 - 64 years	35.2%	37.5%
65 years and older	2.2%	2.3%
<b>TOTAL</b>	<b>100.0%</b>	<b>100.0%</b>

ABS Census of Population and Housing, 2006

<sup>1</sup> Source: ABS Labour Force Survey Quarterly, November 2008 Note: The Construction industry is defined as: ANZSIC93, Division E - Construction, and ANZSIC93, 782 - Technical Services

**Figure 2. Employment by Sex, Year ended May 2008**



The gender distribution of people employed in the Construction industry is heavily weighted towards males (87.9% of the Construction workforce), compared to the average across all industries of 54.5%. In recent years the Construction industry has seen its share of female workers decline from 16.5% in 2003 to 11.9% in 2008.

Three-quarters of employment in the SA Construction industry occurs in the Adelaide metropolitan area. This reflects the general distribution of the population and employment across the state.

### 3.3 Structure of the Construction Industry

The Construction industry primarily uses subcontracting companies and trades to perform the work, with a large number of the enterprises being small businesses. Trends over the past few years show a marked growth in small business and labour hire firms, and a corresponding decrease in the size of enterprises. There are approximately 30,000 building and construction businesses in SA, with 96% of enterprises employing less than twenty persons and over 75% being non-employing businesses.<sup>2</sup> The large construction companies are relatively few in number and operate in a project pricing, tendering, and delivery management role, as well as new project development organisations.

They have relatively small numbers of permanent staff in these roles, with the majority of their staff in management, project management, estimating, programming and supervision positions. The bulk of the project delivery workforce and suppliers is subcontracted out to small and medium size companies.

The highly subcontracting nature of the industry has the potential to mask skills requirements. When construction projects are tendered an assumption is made that there is an endless supply of qualified tradespeople to meet the work requirements; however the pool of skilled labour is rapidly shrinking.

It is difficult for the Construction industry to predict its workforce needs and commit to workforce development in the boom and recession economic cycles in which the industry typically operates. The recent protracted boom period demonstrates the consequences of this approach, that is, cost escalation and project delays as a result of a lack of skilled workers. By the time the industry and government respond, together with the time required to develop the necessary skills, the economic cycle shifts. The boom periods are followed by recession and the workforce requirements fall as unemployment rises. Companies then abandon workforce development and a gap appears in the skilled workforce, which in turn creates pressure on skills requirements when the economy recovers.

This out of phase cycling has been a recurring theme for decades, and requires improved forward data and radical new methods to be jointly deployed by government and industry to break this inefficient cycle.

Longer term commitment to skills development is vital for the growth of the SA economy. However, companies operate in the “here and now” and in times of recession cannot afford to gamble on maintaining skill levels for the “normal” operating conditions let alone boom conditions. Maintenance of skills development requires the capacity for longer term planning, which is best supported by the provision of detailed and quality information by Government agencies.

### 3.4 Construction Industry Training Fund

As a result of industry advice to Government, legislation was first enacted in 1993 to establish the South Australian Construction Industry Training Fund. A levy of 0.25% is imposed on the estimated value of each construction project over \$15,000 (with some exemptions). The levy is paid by the end consumer of the construction service.

The CITB manages the levy and prepares an annual training plan, which is reported against to Parliament each year. Two key elements of the plan are the Current Worker Program that is aimed at facilitating skills and career development for existing workers in the immediate to medium term, and the Entry Level Training Program that aims to encourage and develop a foundation of skills for the longer term.

### 4.1 Uncertain Economic Environment

Prior to the current GFC, qualitative advice from industry was that the significant requirements for skills and labour in specific trades and professional areas impacted adversely on the ability to deliver projects. Occupations such as bricklaying, tiling and plastering, concreting, electrical trades, land surveyors, plant operators, engineers and architects were in critically short supply.

Further, evidence supplied by the CITB indicated that there are poor language, literacy and numeracy skills amongst workers in the Construction industry, and anecdotal evidence suggests that this extends to all occupational groups.

In the short term, SA will receive significant investment through the Commonwealth Government's *Nation Building and Jobs Plan*. The Plan requires and provides an opportunity for maintaining employment levels and increased participation in vocational education and training for the Construction industry.

In addition to the Commonwealth Government's *Nation Building and Jobs Plan*, there is a significant number of projects either currently underway or in the pipeline in SA – a large proportion of which will impact heavily on the Construction industry. While some projects, such as the Olympic Dam Expansion, may be delayed as a result of the current economic climate, a large proportion has already commenced and/or is funded by government.

Contributions to the Construction Industry Training Fund, which is calculated and paid on contracted work, have increased substantially in 2008/09.

However, given the uncertainties of the current world economic environment, it is difficult to predict the skill

requirements for the SA Construction industry in the medium to longer term.

Prolonged slowing of economic growth will create distortions in the labour market. Some sectors will show increasing levels of unemployment, other sectors will show employment growth.

In light of these challenging circumstances, there is a need for constant monitoring of the economic environment for currency, so that industry can be supported in undertaking workforce planning.

### 4.2 Population Growth and Urban Planning

In the short term, all three broad sectors of the Construction industry are under pressure to increase production capacity. For example, the housing industry regards annual production of around 11,000 units as 'capacity', yet housing starts in 2007-08 exceeded 12,000 and housing starts are increasing.

At the same time, SA is currently experiencing historically high population growth rates and is on track to meet the South Australian Strategic Plan population target of 2 million by 2050 well ahead of schedule. Again, for planning purposes this information will need to be reviewed periodically.

In addition, the South Australian Government is developing a 30-Year *Plan for Greater Adelaide* that outlines a vision for the future growth of Greater Adelaide. The plan includes the following key directions:

- > Within the next 30 years Greater Adelaide can house 500,000 more people, nearly 250,000 new dwellings and 160,000 new jobs
- > New housing will move over time from a 50:50 split between existing areas and new land divisions, to a 70:30 split

Similar capacity pressures are being faced by the non residential Construction industry. Continuing higher levels of activity are expected in 2009 and beyond with South Australian Government Infrastructure projects including the new Royal Adelaide Hospital and major defence projects.

### 4.3 Emerging Technologies

Should the Australian Government's Carbon Pollution Reduction Scheme be introduced within the anticipated 2010 timeframe, the legislation will impact on the way that the Construction industry does its business, and the emergence of clean technologies will require different approaches by the industry and new skills, including retrofitting.

There are also emerging technologies associated with the State's water and defence industries.

### 4.4 Skill and Labour Requirements

It is estimated that there will be around 5,500 job openings in the Construction industry in SA over the period 2007/8 to 2012/13. The majority of job openings are likely to occur as a result of replacement demand, that is, older workers retiring and people leaving the industry.

It is anticipated that the current economic conditions will dampen expansion demand over the next 12-18 months; however, the Commonwealth Government's *Nation Building and Jobs Plan* will provide some stimulus over this period. As the economy starts to recover from the global recession, the Construction industry is expected to experience stronger jobs growth<sup>3</sup>.

These estimated job openings will need to be filled through a range of strategies, for example: training, migration, people re-entering the workforce (such as from family leave).

Many workers will also require upskilling or retraining because of structural change and new technologies.

#### 3 NOTE:

- 1) DFEEST modelling based on the approach developed by the Economic Development Board (EDB) in their recent Economic Statement.
- 2) For the purposes of this modelling, the Construction industry has been defined as a set of core Construction occupations to focus on core construction competencies. As a result, the modelling data will differ from the traditional industry perspective which will include a broader range of occupations.

- 3) Job Openings is the estimated number of job opportunities from expansion, job turnover and retirement over the forecast period and is calculated by summing the change in the level of employment and the number of job openings arising from replacement demand.
- 4) Expansion jobs growth is based on a 5-year demand scenario developed for the Training and Skills Commission (TaSC) 5 year plan and is consistent with the approach used by the EDB in their recent Economic Statement. Employment impacts at the sector level are primarily based on the Monash CoPS future employment structure, however, as a number

- of major project initiatives are not incorporated into the Monash CoPS forecasts, the shares have been adjusted to take into account major project impacts on occupational demand. The occupational impacts from major projects have been derived from workforce planning surveys undertaken by SACES in the Minerals and Defence sectors.
- 5) The estimated level of job openings from job turnover and retirement is derived by applying replacement rates (as estimated by the Monash Centre for the Economics of Education and Training) to the baseline level of employment specified by the TaSC expansion demand scenario.

## 5. KEY WORKFORCE DEVELOPMENT ISSUES FOR THE CONSTRUCTION INDUSTRY

The key issues facing the Construction industry in SA in meeting the skill and labour requirements in the immediate, intermediate and longer term include:

### Lack of Industry Engagement in Workforce Planning and the Implementation of Workforce Development Solutions

In spite of considerable advocacy work undertaken by the CITB and major industry associations such as the Master Builders' Association, Housing Industry Association and Civil Contractors Federation etc, the Construction industry generally remains relatively inactive in implementing workforce development strategies such as planning, attraction, recruitment, managing, developing, and retention, particularly of older workers.

### Structure of the Industry

The structure of the industry and the processes in some industry sectors leads to fragmentation and the development of a culture that does not support workforce planning or development.

During the consultation phase of developing the Construction Industry Workforce Action Plan there was consistent recognition that the State's targeted economic growth would not be realised unless the need for structural and cultural change in the industry is addressed.

The consultation phase highlighted that in terms of workforce development and planning, the Construction industry is responsive when presented with pragmatic information by the Government about the real impact of scheduled projects for South Australian construction businesses.

### Workforce development challenges for small businesses

Small businesses need support in all aspects of workforce development, including employment and workforce planning. For example, many small businesses are reluctant to employ new staff, particularly apprentices (in some cases increasing the workforce by one, doubles the workforce) because business owners perceive that:

- > There is uncertainty in terms of future work
- > There is a loss of productivity associated with using existing staff for on-the-job training
- > Operators may be training their next competitor
- > The high turnover in the workforce results in costly repetition of the training cycle

### Industry associations' role as workforce development agents

Intermediaries such as industry associations are significant in implementing change and promoting the benefits of workforce development and its relevant tools. However, the structure and fragmentation of the industry has created small industry associations for whom lack of resources inhibits their ability to keep up to date with changing/evolving issues, or to keep members informed about issues such as occupational health and safety, workforce development etc.

### Procurement practices for construction projects contribute to discontinuity of workflow

Many building and construction projects are relatively short term, especially at the subcontractor level. The resulting uncertainty in the continuity of work impacts on the State's subcontracting capacities and can impact on the willingness to invest in recruitment and training. The industry's procurement practices can lead to a reduced commitment to workforce development across the sectors.

Succession planning is relatively rare, with many subcontractor micro businesses working specifically towards the retirement of the principal.

Within this environment there is a perceptible industry attitude that the hurdles to developing an increased and resilient skilled workforce are too difficult for any one company to overcome. As a result, the industry sectors' solutions tend to be limited in scope or consideration, with increased training or migration given as primary responses to address skills and labour requirements rather than a more holistic approach to workforce development.

### Short term planning

Industry pressures push subcontractors into a short, rather than long term, focus with operational success measured on annual returns. This practice restricts expenditure on longer term business development strategies such as skills development and growth.

This is compounded by the fact that it is difficult for the SA Construction industry to develop a longer term plan for business growth because the prospective work calendar is too unreliable and is not sufficiently detailed to enable informed understanding of the extent of the work.

In addition, the short-term planning/business arrangements between builders and subcontractors can also lead to inefficiencies, poor workforce planning and a reluctance by small businesses to employ and/or develop skills of employees. This short-term, results driven culture leads to the Construction industry viewing training as a cost rather than an investment.

Low industry profitability is reducing planning for, and investment in, the development of skills – particularly in relation to the emerging technologies and green collar skills.

Additionally, information on the Forward Works Program needs to be provided at a level of detail that will inform industry planning. Absence of sufficient details will continue to result in inappropriate 'gearing up' for skills/workforce development.

## Attraction and Retention of Skilled Labour

### Ability to retain skilled and productive workers over the medium to longer term in the light of the uncertain Global Economy

Perceptions of the industry as an employer vary. There is a view that if the industry puts good retention strategies in place, then its image as a potential employer will improve.

A frequently expressed view is that the industry lacks well defined integrated career pathways. While some trades eg, plumbing and carpentry, are attractive and well subscribed, skills requirements in areas such as tilers or plant operators provide opportunities to increase participation in industry. Promotion strategies need to be carefully targeted.

Enterprises that rely on a casual workforce may struggle to attract and retain skilled motivated workers who underpin innovation and productivity growth.

The "lack of continuity" nature of the industry also detracts from employment attractiveness.

### Apprenticeships/Traineeships

A view, which was expressed through the consultations, is that the apprenticeship system is not matched to current industry practises and is a remnant of indentured labour systems; relevant under past circumstances but now requiring change .

The structure of the industry militates against apprenticeship employment (See Issue 1 on page 12). This results in lack of employer hosts for Group Training Companies, accelerated programs such as OnTrack, and school-based pre employment programs such as Doorways 2 Construction.

### Community perception of the Construction industry and the awareness of potential career opportunities

Despite its many strengths the Construction industry in SA is viewed as an industry with an adversarial culture. It is predominantly male and is dominated by trade occupations, and parents/career advisors often steer potential new entrants away from a career in the industry. The industry needs to be perceived differently and promote itself more positively if it is to expand its traditional workforce and attract new workers, eg women.

### Barriers associated with migration

There are significant barriers associated with utilising the migration program in the Construction industry. Improved information on migration and temporary visa requirements and obligations need to be made more readily available to the industry and employers.

In addition, the sub contracting nature of the industry is a barrier to the implementation of some migration strategies because migrants are seeking employment rather than self-employment.

## Mobility of Workforce

### Workers exit from some trade areas at an early age due to the physical nature of work, or transition into training and management/supervisory roles

While this is inevitable and it can be a useful strategy to employ mature aged workers as trainers and mentors, there is a consequence in terms of losing skilled trades people from using their tools.

Current workforce development research indicates that if retention strategies are well developed, then attraction strategies are not an issue.

Early retirement from highly physical work areas will exacerbate the impact of the net loss of retirees compared with new starters over the next 10 years. This high net workforce loss over the next 10 years largely comprises very experienced people who will generally be replaced by inexperienced beginners. This is an issue that requires urgent data and impact analysis to develop effective responses.

### The mobility of the workforce impacts on the skill and labour requirements of the Construction industry.

As people gain their trade or degree qualification they move from the more traditional construction sector to other employers or sectors such as mining.

It needs to be recognised that once the mining sector gears up, there is likely to be a net migration from the Construction industry that uses similar skills. Local Construction industry companies experience higher cost pressures in attempting to retain staff and will need to be prepared for the migration.

Increased staff mobility is a two edged sword; it is a good retention policy for growing businesses that have interstate and/or international offices; but it is bad for single state local offices in staff retention as younger people are more mobile in their working life compared with the baby boomer generation.

### Adequate and timely information on the supply and demand for Construction industry trades and professionals is not readily available.

The resource sector boom of recent years, the engineer shortage and high remuneration displayed in the media have all combined to raise interest in the engineering profession and student numbers. Graduates follow the significant project and money trail found largely in WA and QLD. However, the Olympic Dam Expansion and the Air Warfare Destroyer projects have arrested that trend in recent years.

Many graduates aspire to transition quickly from design roles into project management to take advantage of the career advancement opportunities, which include management experience and earlier promotional opportunities.

Effective workforce planning and development is constrained by the lack of timely and reliable supply and demand quantitative workforce data.

## Training and Skills Development

### Capacity of the VET sector to deliver appropriate quantity and quality of training to meet future demand

The ageing workforce profile of the VET sector requires urgent attention through the implementation of workforce planning/development to ensure a sufficient supply of appropriately skilled and experienced trainers/assessors.

Some parts of the VET system are already under pressure in terms of the capacity to deliver the quantity of training currently required. This will be exacerbated by the future skill requirements of the industry. Alternative delivery methods are required to address the demand.



**Skill requirements of industry not adequately reflected in Training Packages**

The requirements of small/medium enterprises in SA are not adequately reflected in the industry’s national Training Packages in spite of significant consultation and attempted national engagement by the CITB.

In addition, Higher Education courses need to reflect the educational and skill requirements of the industry’s professions, particularly in relation to emerging technologies. Improved communication between industry and the higher education sector is vital to ensuring appropriately skilled graduates.

**Regulatory Issues**

Impending new licensing requirements will influence training and skills requirements.

**Identification and forecasting of skills needs**

An increased focus on environmental sustainability, energy efficiency and water efficiency will create a demand for new products, technology and construction, which will require new skills.

**Industry culture in relation to training**

The short term results driven focus of the Construction industry leads to the view that training is a cost rather than an investment. Low industry profitability is ‘dumbing down’ the development of skills.

Without options for further professional development and opportunities, (as provided by ‘Employers of Choice’) higher trained and skilled people apply wage pressures and move on if not satisfied.

Immediate skill needs take precedence over the longer term higher skills, efficiencies and company image. The nexus with the price of service in selection for work must be overcome in favour of an improved “value select” method for subcontractors.

Responses to these issues which are detailed in Section 6 have been considered by the Construction Industry Forum and endorsed as clear and important. In many instances, the recommended actions are seen as requiring urgent implementation.

## 6. ISSUES, STRATEGIES AND PROPOSED ACTIONS

### ISSUE

### STRATEGY

#### 1 INDUSTRY ENGAGEMENT WITH WORKFORCE PLANNING AND DEVELOPMENT

##### 1.1 The Structure of the Industry and the Ensuing Workforce Development Challenges for Small Businesses

###### Urgent and Important

The structure of the industry and the processes in some industry sectors leads to fragmentation and the development of a culture which does not support workforce planning or development.

**Strengthen the links within industry to ensure a coherent industry view that promotes the skills and workforce development agenda**

##### 1.2. Procurement Practices for Construction Industry Projects Contribute to Discontinuity of Workflow

###### Urgent and Important

Many building and construction contracts are relatively short term in duration especially at the subcontractor level which contributes to uncertainty in workflow continuity.

Procurement practices contribute to discontinuity and piecework contracting can reduce the commitment to workforce development across the sectors.

**Use State and Commonwealth Government initiatives and processes to influence improvements in procurement practices and contractor profitability**

##### 1.3. Short Term Business Planning

###### Urgent and Important

Industry pressures, an unreliable prospective work calendar and short term planning/business arrangements between builders and subcontractors lead to inefficiencies, poor workforce planning and a reluctance by small businesses to employ and/or develop skills of employees.

**Government and industry to work together to enable industry to undertake better business and workforce planning and development**

#### 2 ATTRACTION AND RETENTION OF SKILLED LABOUR

##### 2.1 Ability to Retain Skilled and Productive Workers over the Medium to Longer Term

###### Urgent and Important

The profile of the Construction industry needs to be elevated throughout the entire economic spectrum. It is important for skills development and recruitment that the positive messages from the State's economic developments particularly mining and defence developments are closely linked to the design and construction sectors which are key in making them happen.

Impending retirements over the next decade and the difficulties in replacing those workers because of the South Australian age profile will lead to a shortfall in experienced/skilled workers.

In addition, good retention strategies improve the industry's image as a potential employer.

**Further develop, promote and implement retention strategies**

## PROPOSED ACTIONS

1. Establish mechanisms so that the leaders in the industry build a united coherent voice to promote the importance of the industry as:
  - > An employer and contributor to the State's economic development; and
  - > A critical enabler through the provision of infrastructure for most other industries to achieve their business goals.
2. Strengthen the links between the structure of the industry, the State's economic growth and building business prosperity by:
  - > Strengthening the role of the Construction Industry Forum to support the high profile skilled workforce agenda for the industry through stronger collaboration with existing resources such as the Construction Industry Training Board, Australian Construction Industry Forum and Government agencies.

1. Use State and Federal Government capital works as a catalyst to improve sub contractor profitability by making some adjustments to the procurement methodology, for example:
  - > State Government to research and trial alternative procurement and contractual processes for capital works, such as "alliance contracting".
  - > Encourage strategic partnerships/longer term relationships within industry using models such as the Defence Teaming Centre model.
  - > Identify and promote models of good practice in business relationships between builders and sub contractors which have resulted in improved efficiencies.
2. Evaluate, refine and extend the Ten Percent Plan infrastructure procurement process being applied through the Building the Education Revolution and Social Housing initiatives to incorporate future Commonwealth and State Government, private sector and local government infrastructure projects.

1. To assist industry planning and improve Government/industry engagement, it is recommended that the Government:
  - > Provides improved information about the areas of opportunity for growth and the projected level of activity in the building and construction sectors in SA.
  - > Using this data, models the economic opportunity and value (in the form of its contribution to the State GSP); identifies, in collaboration with the Construction industry, the direct workforce implications; and provides a detailed information package to industry.
  - > Using government initiatives, assists firms through targeted training to improve long term planning, eg by identifying the economic opportunities and utilising improved business knowledge, and employment and workforce planning practices.
  - > Provides knowledge about the link between the State's forecasted economic development and the associated workforce implications in small/medium enterprise development programs, eg Building Better Business Capability in Workforce Development initiative.
2. Using the improved forward industry data, identify mechanisms for ensuring that all elements of the Construction industry skill supply chain are managed: ie activities to attract people to the industry are matched by appropriate activities in the areas of pre-employment, job placement, skill development (including up-skilling), job redesign and retention.

1. Promote the Construction industry by:
  - > Linking better with national strategies to influence the outcome of construction related policy decisions. The Construction industry Forum (CIF) to play a role in defining and advocating these strategies and where appropriate, working through the Australian Procurement and Construction Council (APCC), the Australian Construction Industry Forum (ACIF) and the Australian Forum of Construction Industry Training Funds (AFCITF) to influence the Construction and Property Services Industry Skills Council (CPSISC) to be more responsive to Construction industry input.
  - > Utilising State government initiatives (such as the Major Developments SA Directory)
  - > Identifying and promoting examples of good practice which support a strong positive image of the industry (for example the high safety culture) to current workers and businesses.
  - > Developing and displaying materials, website links, etc that demonstrate the skills applied in the construction sectors.
2. Elicit industry support to build a positive unified industry image in support of careers marketing eg by linking with the Australian Procurement and Construction Council (APCC) and the Australian Construction Industry Forum (ACIF) career promotion strategies
3. Encourage greater industry and government support for career path planning and development of the skills base of the existing workforce.
4. Urgently implement RPL/Skills Recognition to ensure that the large pool of semi and skilled labour in the industry with no formal qualifications meet the impending qualification and licensing requirements associated with the new regulatory environment.

## 6. ISSUES, STRATEGIES AND PROPOSED ACTIONS

### ISSUE

### STRATEGY

## 2 ATTRACTION AND RETENTION OF SKILLED LABOUR

### 2.2 Community Perception of the Construction Industry

#### Important

Despite its many strengths, the Construction industry is viewed as having an adversarial, predominantly male culture which is dominated by trade occupations.

To address skill requirements, it is important to encourage participation in the industry by a broad range of people, eg women, as opposed to a narrowly focused demographic.

**Develop and promote attraction strategies to the industry, focusing on the career pathways and diverse careers**

### 2.3 Mobility of Workforce

#### Important

Because of the physical nature of the work, workers exit from some trade areas at an early age, or transition into other roles like training and management/supervision. In addition, the attractive remuneration packages offered by competing industries such as the mining sector, results in a significant loss of skilled workers.

Many graduates aspire to transition quickly from design roles into project management to take advantage of the career advancement opportunities, which include management experience and earlier promotional opportunities.

Similarly, the lure of city and/or interstate lifestyles attracts many young tradespeople and professional graduates from rural areas.

**Develop and promote attraction strategies to the industry, focusing on the career pathways and diverse careers.**

### 2.4 Apprenticeships/ Traineeships

#### Urgent and Important

In addition to the outdated nature of the apprenticeship/traineeship system, the structure of the Construction industry militates against apprenticeship employment. This results in a lack of employer hosts for Group Training Companies, accelerated apprenticeship programs and pre employment programs.

**Develop and implement strategies to encourage the uptake of apprenticeships/traineeships**

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## PROPOSED ACTIONS

1. Using the range of materials that have been developed more effectively promote the diverse range of industry careers which encompass vocational and degree pathways and which target both genders and parents, particularly through the schooling sector. Utilise career expos, networks of careers advisers, regional career and workforce development centres, and industry initiatives.
2. Provide diverse pathways into the industry such as transition training for people from other industries (particularly manufacturing etc) and effectively market the opportunities in each of them.
3. 'Map out' an integrated career structure which encompasses career pathways between the sectors.
4. Identify new or under-utilised sources of labour and target them for specific recruitment strategies and provide appropriate support. Examples of such specific target groups include women (< than 20% participation rate); as well as the unemployed, and Indigenous Australians.
5. Attract more women to the industry and retain women employed in the industry by:
  - > Linking with the South Australian Women's Employment Participation Initiative: Stage 2 Industry Engagement.
  - > Utilising examples of good practice demonstrated by for example, Engineers Australia and Illawara TAFE NSW.
6. Develop and promote attraction strategies which target (upskill) people in the industry who are 'on the fringe' of the skills shortage areas and who have transferrable skills and experience.
7. Increase the effectiveness and coordination of links between industry and schools and industry and universities by:
  - > Working with partners such as SA Great in introducing the schooling sector to industry job requirements and future career opportunities.
  - > Improving the effectiveness and coordination of current relationships, eg the Doorways 2 Construction/ Engineering Pathways project.

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### Skill Mobility

1. Promote retention strategies to reduce mobility and losses from training and the industry including remuneration, job satisfaction strategies, eg, involvement in larger projects.
2. Provide industry with information about behaviours of changing workforce demographics e.g. many professional graduates aspire to transition quickly from design roles into project management roles (which include management experience and earlier promotional opportunities). This impacts on skills and labour requirements in the design profession.
3. Provide information on career paths to encourage movement within the industry – ensuring people are not lost to the industry.

### Geographic Mobility

4. Encourage Regional Development Boards to incorporate more information about workforce implications when planning economic development in regions.
5. Better utilisation of underemployed and unemployed in regions. Work with the South Australia Works in the Regions program eg Employment and Skill Formation Networks/Career & Workforce Development Centres to skill/upskill/screen potential workers.
6. Support initiatives to maintain 'core competencies' within regions to ameliorate losing experienced persons.
7. Encourage Government agencies to work with regional supports (eg, DECS, ESF Networks, TAFE SA) & CITB to assist regional service contractors to respond to skill and labour requirements created by workforce mobility.

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1. Review the apprenticeship/traineeship system.
  2. Research and trial initiatives to overcome the issues in regards to skills training and recruitment in the struggling small sub-contractor sector. Eg explore the development of a Group Training Scheme strategy which specifically targets the needs of the small end of business (eg base trades).
  3. Encourage the uptake of apprenticeships through the government procurement processes eg The Ten Percent Plan referred to in 1.2.
  4. Identify and promote good practice such as:
    - > Housing developers paying incentives to sub contractors for employing new apprentices.
    - > Employer approaches to employ and retain new people in the industry, eg the introduction of the Brick Levy etc.
  5. Using existing structures, such as the CITB and Group Training Schemes, focus on:
    - > Developing better links between employers and apprentices through established programs such as the Doorways 2 Construction program.
    - > Increasing apprenticeship intakes and improving apprenticeship completions by negotiating directly with major employers and industry organisations to support organisational apprenticeship mentors and workplace trainers.

## 6. ISSUES, STRATEGIES AND PROPOSED ACTIONS

### ISSUE

### STRATEGY

#### 2 ATTRACTION AND RETENTION OF SKILLED LABOUR

##### 2.5 Barriers Associated with Migration

###### Important

There are significant barriers associated with utilising the migration program in the Construction industry, particularly because of the subcontracting nature of the industry.

Identify and reduce the barriers to utilising the migration program for the Construction industry.

##### 2.6 Adequate and Timely Information re Supply and Demand for Construction Industry Trades and Professionals Not Readily Available

###### Urgent and Very Important

Effective workforce planning and development is constrained by the lack of timely and reliable quantitative workforce supply and demand data.

Strengthen the links between organisations that obtain the information and organisations that use the information, to enhance the quality and frequency of information flows

#### 3 TRAINING AND SKILLS DEVELOPMENT

##### 3.1 Capacity of the VET Sector to Deliver Appropriate Quantity and Quality of Training to Meet Future Demand

###### Urgent and Very Important

The ageing profile of the VET sector coupled with industry need for responsive, quality skill development, particularly in relation to emerging technologies, requires urgent attention.

Government, industry and educational providers to work together to assist the educational and training sector to ensure there is sufficient number of appropriately skilled providers to deliver the skills required by industry.

##### 3.2 Skill Requirements of Industry not Adequately Reflected in Training Packages

###### Important

National Training Packages frequently reflect the training requirements of the larger States and larger enterprises.

Industry and educational institutions continue to work collaboratively to ensure training incorporates changing industry needs.

## PROPOSED ACTIONS

1. Identify issues that impede the Construction industry's development associated with migration.  
Recommend appropriate changes to address the issues.
  2. Encourage Immigration SA to work more closely with the Construction industry.
  3. Assist industry to actively target the countries, and individuals from them, which are best able to gain recognised Australian industry qualifications and are significantly affected by the current economic downturn eg UK, Ireland, and USA to increase numbers of migrants who can quickly achieve skills recognition.
  4. Ensure regional status is retained for SA in relation to migration.
1. Significant effort should be undertaken by the Higher Education Council in relation to the State's workforce development agenda including an emphasis on workforce planning and appropriate data acquisition.
  2. Encourage the gathering and dissemination of better impact statistics (eg through destination studies) for University graduates, then review and respond as required to avoid growth restrictions in the professions.
  3. Education and training providers need to incorporate the future skill needs of the workforce when developing educational and training packages.
  4. Encourage industry, higher education and Government to co-operate to ensure better curricula selection and advice on future graduate types/numbers required. With this knowledge improvements will occur in the skilled supply of graduates for professions in the Construction industry.
  5. Industry utilises information sources such as the Construction Industry Forum (which works in conjunction with CITB/ISB) to contribute to higher education/Government decision making in relation to supply of professional occupations and trades.
1. Increase the uptake of workforce planning for the VET sector, including Trade Schools for the Future and Technical Colleges.
  2. When VET workforce planning is undertaken for the public provider's Building and Construction Programs (including in regional areas), utilise the workforce planning model developed for TAFE SA Manufacturing, Engineering and Transport Program.
  3. Provide support for innovative and flexible training delivery to contribute to the capacity and responsiveness of the training system.
  4. Encourage strategic partnerships between training providers and other organisations, including employers, to provide the required expertise in specific training areas.
  5. Support the industry supply chain of Registered Training Organisations to deliver appropriate units of the Certificate IV in Training and Assessment to existing workers in the industry, specifically those supervising apprentices and trainees.
  6. Explore new opportunities to apply the Construction Industry Training Fund for skill and workforce development.
1. Provide high level feedback from industry on changing demand for industry training including changes to flexibility of training, more training at the 'front end' and different methods of training delivery.
  2. Continue to link with the Skills DMC's/Construction and Property Services Industry Skills Council's (CPSISC) continuous improvement agenda.
  3. Support the COAG License Harmonisation Agenda, better align career paths with industry licensing outcomes and ensure that Construction Industry Training Packages reflect the licensing requirements.
  4. Industry bodies such as the Construction Industry Forum link with the Australian Construction Industry Forum to ensure that the Construction industry sectors (and their SME profile) are more effectively represented by the CPSISC.

## 6. ISSUES, STRATEGIES AND PROPOSED ACTIONS

### ISSUE

### STRATEGY

#### 3 TRAINING AND SKILLS DEVELOPMENT

##### 3.3 Identification and Forecasting of Skills Needs

###### Urgent and Very Important

Maximising the use of increased skills and technology as a solution to skills and labour requirements requires commitment to training and upskilling to ensure that workers are fully able to participate in the changing workforce.

It is crucial that industry research and development and the introduction of innovative goods, processes and services, drives workforce flexibility so that the industry can respond to productivity pressures and environmental issues.

Stakeholders work together to identify the emerging skill requirements and to develop initiatives and strategies for their adoption within the industry.

##### 3.4 Industry Culture in Relation to Training

###### Urgent and Very Important

The short term, results driven focus of the Construction industry contributes to the view that training is a cost rather than an investment. Low industry profitability is detracting from the development of skills.

Government and industry to promote the benefits to business of skills and workforce development



## PROPOSED ACTIONS

1. Continue to build flexibility by promoting opportunities for existing workers to increase their skills base and respond to changing needs.
  2. Facilitate continual dialogue between research facilities and industry to ensure research and associated knowledge is appropriate and rapidly transferred to, and adopted by, industry.
  3. Identify and promote best practice approaches undertaken by other industry sectors (such as the technology sector) in identifying and forecasting skill needs.
  4. Encourage the research and analysis of green collar jobs and environmental issues/factors that will impact on future skills outcomes.
  5. Identify and fund emerging technology skilling requirements associated with major infrastructure projects.
  6. Link the industry development agenda (research/implementation of new technologies) with the skills formation agenda.
  7. Undertake initiatives to develop closer links between suppliers and builders.
  8. Promote skills diversity as important to South Australian firms especially during changing economic climates and particularly in responding quickly when economic climates begin to recover.
  9. Ensure that vocational education in the schooling sector incorporates relevant curricula for industry eg language, literacy and numeracy skills are linked with industry requirements
1. Research and promote good practice in funding emerging Construction industry technology skill development associated with major projects.
  2. Develop and present a business case to industry employers for skills development as an essential investment by all to enhance the well being of the industry.
  3. Recommend a wider application of the strategy where 10% of labour is dedicated to training/apprentices/upskilling existing workers as per the Ten Percent Plan currently being applied in SA through the Commonwealth Government's *Building the Nation and Jobs Plan*.
  4. Actively profile and promote industry skills champions.

## 7. CONCLUSION

The CIWAP serves a dual purpose by raising awareness of current and future workforce development issues in the Construction industry; it will also be relevant in influencing priorities for resource allocation across the Vocational Education and Training and Higher Education sectors.

The Industry Workforce Action Plan highlights that despite considerable efforts by key stakeholders in the Construction industry, engagement with the workforce development agenda is limited. The plan identifies a number of reasons for this which include the way the industry is structured and the fragmentation that occurs as a result of that structure.

The uncertainties associated with the future economic climate are also challenging in terms of predicting workforce development needs in the Construction industry because employment in the industry is strongly influenced by the economic cycle and demand factors within the domestic economy.

In light of these challenging circumstances it is clear that constant monitoring of the economic environment for currency is required, so that industry can be better supported in its workforce planning.

The issues and responses identified in this Industry Workforce Action Plan have been presented to industry stakeholders for comment and endorsement. Stakeholders have endorsed the CIWAP as relevant and prioritised the issues and responses in terms of their importance and urgency.

Since the commencement of the Industry Workforce Action Plan there have already been opportunities to implement several of the strategies identified by industry as potential mechanisms to address the Construction industry's workforce issues.

