



**ACT**  
Government

# Progress Report on implementation of the **ACT Government Engineering Workforce Plan**

2023



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## Acknowledgement Of Country

The ACT Government acknowledges the Australian Aboriginal and Torres Strait Islander peoples of this nation. We acknowledge and pay our respects to Elders, past, present and future of the Ngunnawal people as the Traditional Custodians of the lands on which we live and where we conduct our business. We recognise the significant contribution of the Ngunnawal people and neighbouring Nations – the Ngambri, Ngarigo, Wolgalu, Gundungurra, Yuin and Wiradjuri to the Canberra region. For thousands of years these Nations have maintained a tangible and intangible cultural, social, environmental, spiritual and economic connection to these lands and waters.

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# Introduction

Developed by the ACT Chief Engineer and released in September 2020, the ACT Government Engineering Workforce Plan (the Workforce Plan) has been created to attract, develop and retain the engineering workforce required to deliver the infrastructure program for the Canberra region.

The Workforce Plan contains 19 actions grouped under four initiatives to:

- **Boost** the recruitment of engineers,
- **Optimise** our engineering workforce,
- **Strengthen** the engineering profession, and
- **Collaborate** with key stakeholders.

This report provides the third update on implementation of the Workforce Plan, as of October 2023.

Of the 19 actions:

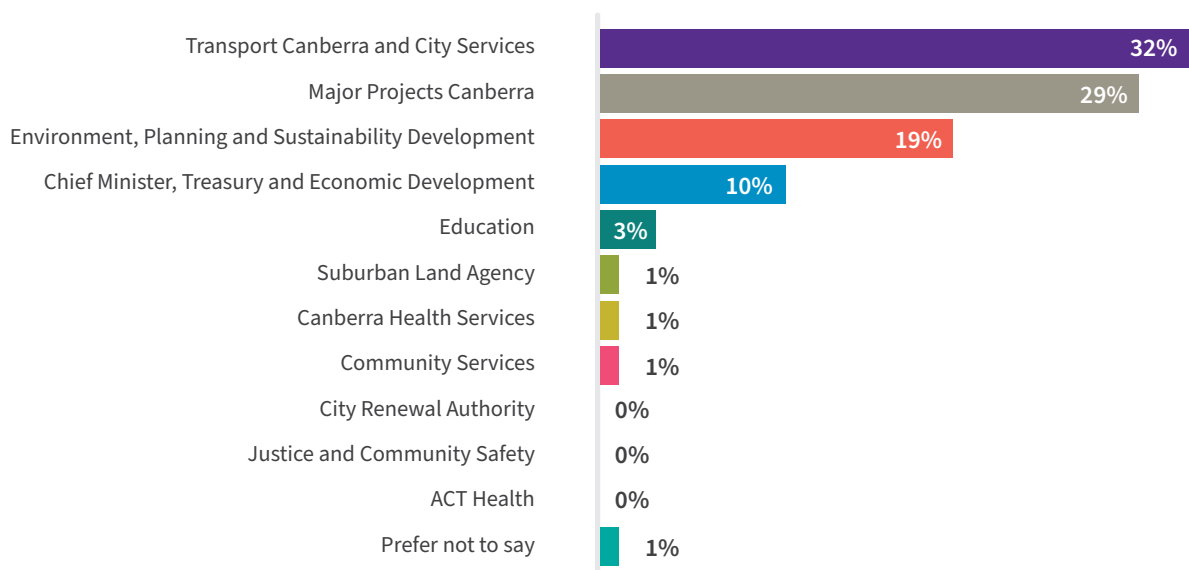
- 15 actions are now considered complete with ongoing business as usual activities, and
- 4 actions are on track to meet their deadlines and objectives.

# A snapshot of the ACTPS engineering workforce

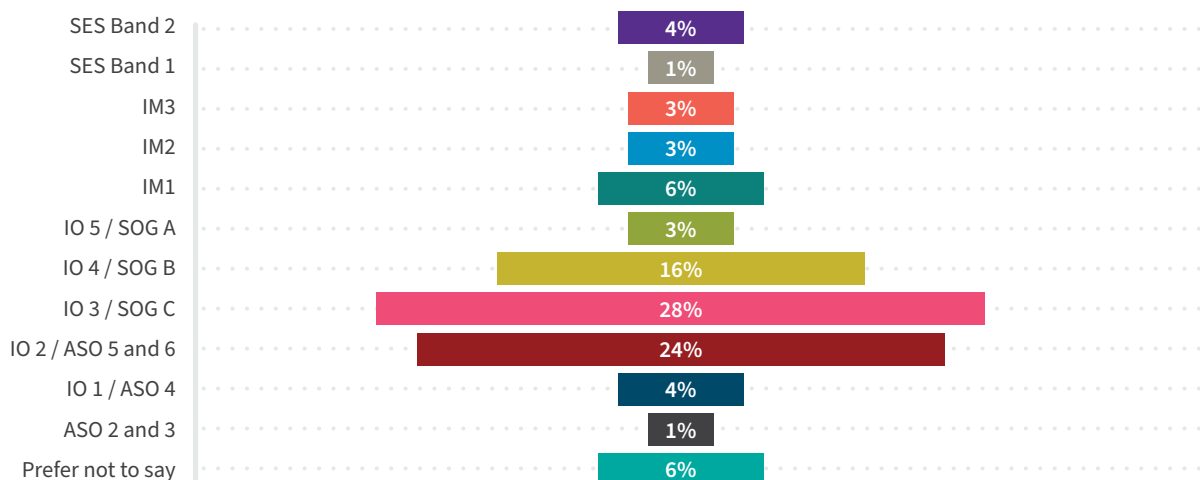
In November 2022 a survey was circulated to the 250 engineers working for the ACTPS. This was a follow on to the 2019, 2020 and 2021 surveys that informed the Engineering Workforce Plan and its implementation. The purpose of the survey was to determine the current engineering workforce in the ACTPS and look at how the Chief Engineer can best support the cohort.

**A snapshot of the results is provided below:**

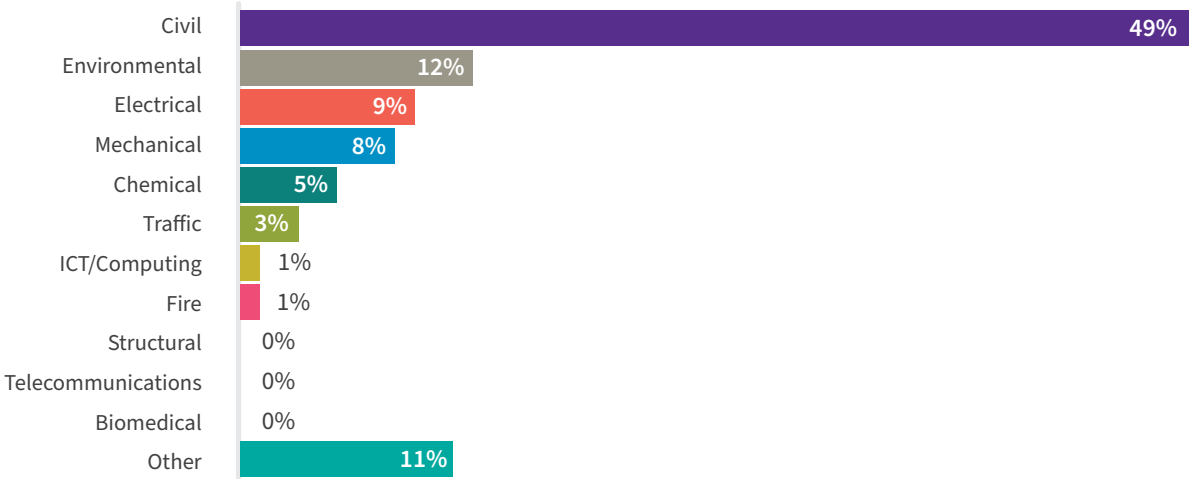
## Q. What Directorate do you work in?



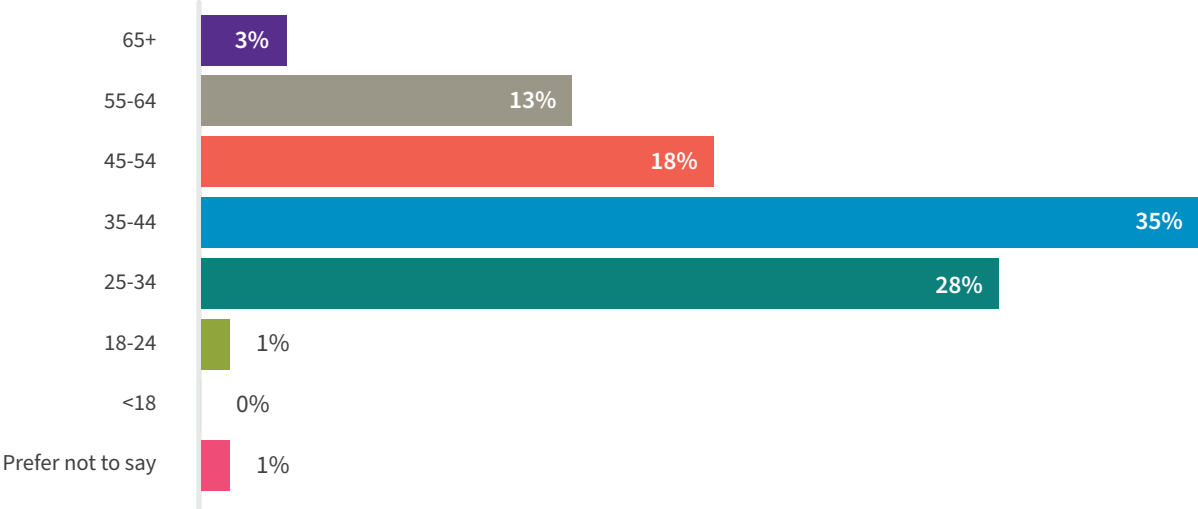
## Q. What is your substantive level?



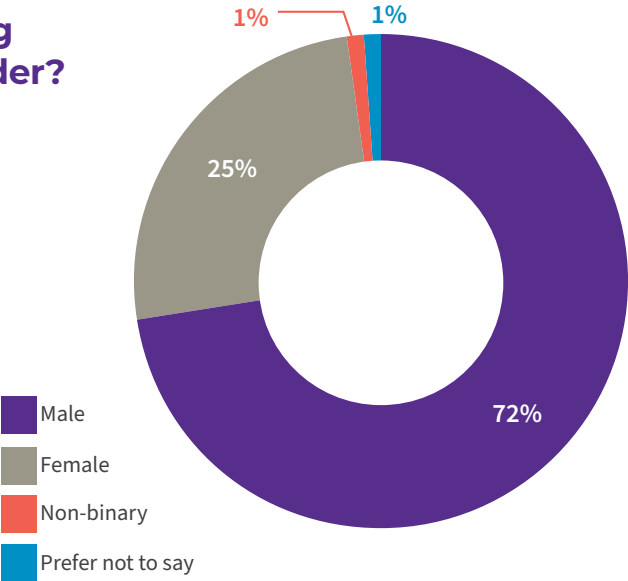
### Q. What is your engineering discipline?



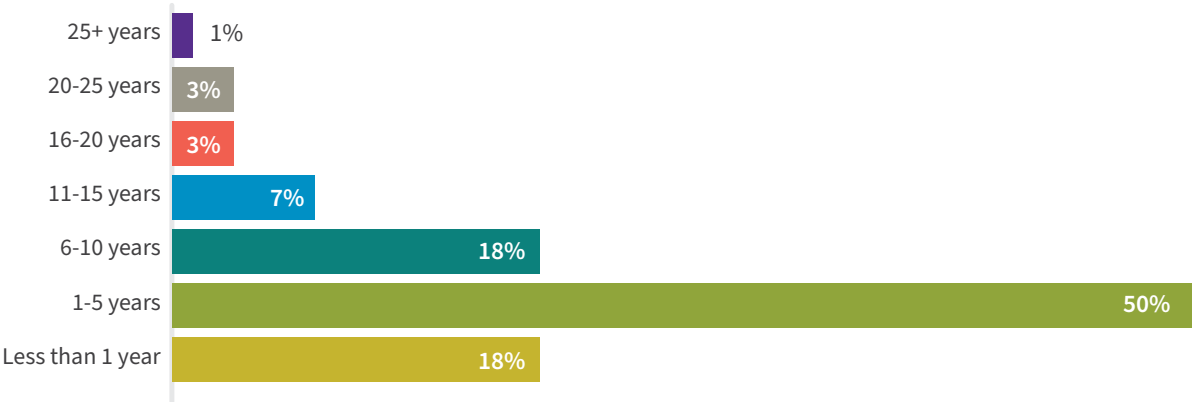
### Q. Which age group do you belong to?



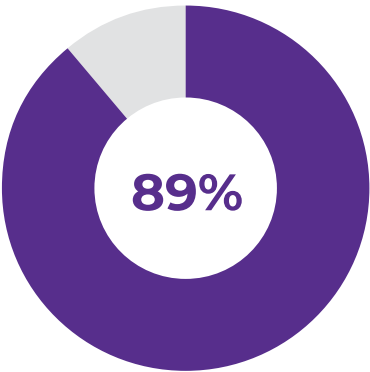
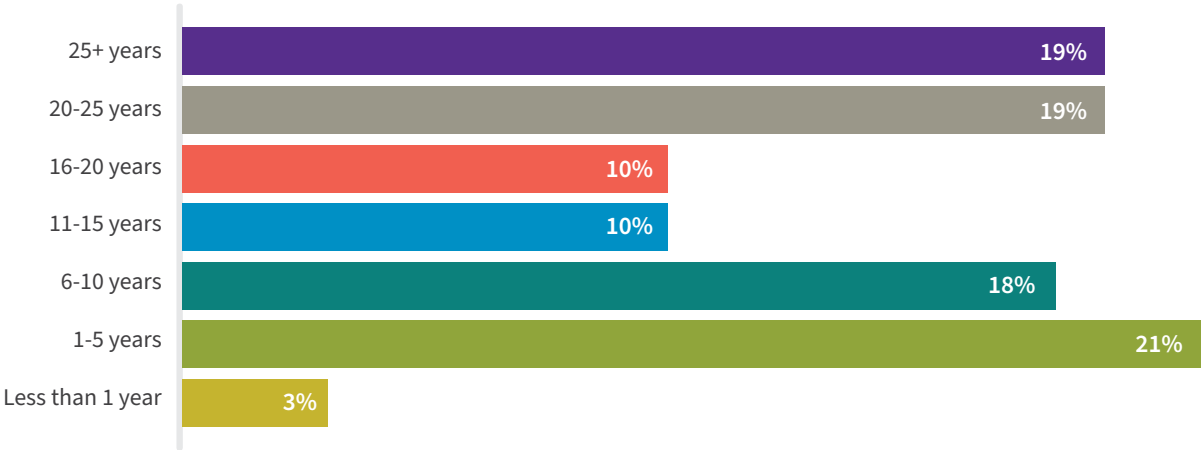
### Q. Which of the following best describes your gender?



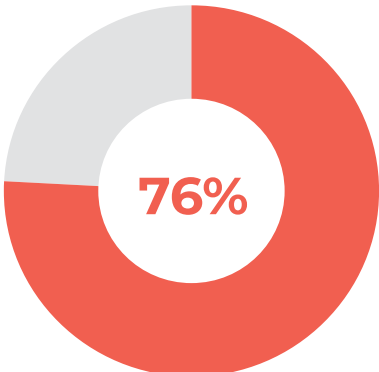
**Q. How many years have you worked in the ACT Government?**



**Q. How many years of engineering experience do you have?**



**Intend to continue working in the ACT Government**



**Would recommend a career in the ACT Government to other engineers**

# Key to status of actions

<b>Yet to commence</b>	Implementation has not yet commenced
<b>On track</b>	Implementation has commenced and meeting required timeframes
<b>Potentially at risk</b>	Implementation has commenced and milestones have not been/are at risk of not being met
<b>Completed / ongoing</b>	No further action required, being implemented through business as usual activities

## Timeframes

<b>Short term</b>	2020-2021
<b>Medium-term</b>	2022-2023
<b>Long term</b>	2024-2025

## Glossary

<b>ACT</b>	Australian Capital Territory
<b>CHS</b>	Canberra Health Services
<b>CMTEDD</b>	Chief Minister, Treasury and Economic Development Directorate
<b>CSD</b>	Community Services Directorate
<b>EPSDD</b>	Environment, Planning and Sustainable Development Directorate
<b>EDU</b>	Education Directorate
<b>HD</b>	ACT Health Directorate
<b>JACS</b>	Justice and Community Safety Directorate
<b>MPC</b>	Major Projects Canberra
<b>TCCS</b>	Transport Canberra and City Services



#	Action	Timeframe	Stakeholders	Implementation Update	Status
<b>Boost the recruitment of engineers, targeting entry-level and diverse groups</b>					
1A	Assist the ACT Government Graduate program to improve the attraction and retention of engineering graduates and ensure engineering positions are identified and available within each cohort	<b>Short-term</b> • Ongoing	<b>Lead:</b> • Chief Engineer <b>Stakeholders:</b> • Directors-General • ACTPS Workforce Diversity and Entry Programs, CMTEDD	The Chief Engineer acted as the Executive Sponsor of the infrastructure stream of the ACT Government Graduate Program for the 2021, 2022, 2023 and upcoming 2024 cohorts.  The Chief Engineer advocated amongst ACT Government Directorates to promote the recruitment of engineering graduates.  The 2023 graduate cohort has 5 engineers. This compares to 6 in 2022, 8 in 2021, 4 in 2020, 5 in 2019, 4 in 2018 and 2 in 2017.	
1B	Develop an ACT Government engineering cadet and internship program to support young people to undertake formal engineering studies with practical working experience	<b>Long-term</b>	<b>Lead:</b> • Chief Engineer <b>Stakeholders:</b> • Directors-General • Workforce, Capability and Governance Division, CMTEDD	The Chief Engineer has sponsored an internship through the Australian National University School of Engineering.  The Chief Engineer supported work experience for a year 10 student with MPC and TCCS.  Work will continue to support cadet and internship opportunities in government.	
1C	Target recruitment to encourage diversity, so the engineering workforce is more representative of the Canberra community	<b>Long-term</b> • Ongoing	<b>Lead:</b> • Chief Engineer • Directors-General <b>Stakeholders:</b> • ACTPS Inclusion & Graduate Programs, CMTEDD • Workforce, Capability and Governance Division, CMTEDD	The Engineering Workforce Plan has set a target of greater than 25% female engineer representation by 2025. In 2022 there was a 25% female engineer representation across the ACTPS, up from 18% in 2019 (Source: Workforce Survey - November 2022). Nationally 16% of the engineering qualified population are women, 14% of those working in engineering occupations (as of census night in 2021).  The Chief Engineer has supported the incorporation of an inclusivity statement into position descriptions for infrastructure officer and infrastructure manager recruitment processes in the ACTPS.  The Chief Engineer hosted a table at the UNSW Canberra 2023 Young Women in Engineering (YoWIE) Career Fair and supported leading and emerging female engineers in the ACTPS attend the International Women in Engineering Day industry breakfast.	
1D	Develop an employee value proposition (EVP) to show the benefits of working as an engineer in the ACT Government	<b>Short-term</b>	<b>Lead:</b> • Chief Engineer <b>Stakeholders:</b> • MPC communications and engagement	The Chief Engineer released an updated Employee Value Proposition in November 2022. The EVP is targeted at graduates and focussed on why they should want to be an engineer with the ACT Government.  The EVP has been distributed online and at targeted graduate recruitment events (eg. ACT Jobs Fair).  The EVP is updated annually.	

Yet to commence

On track

Potentially at risk

Completed / ongoing

#	Action	Timeframe	Stakeholders	Implementation Update	Status
1E	Engage with universities (for example, college open days) to talk about engineering opportunities in the ACT Government	Short-term	<b>Lead:</b> <ul style="list-style-type: none"> <li>Chief Engineer</li> </ul>	<p>The Chief Engineer meets regularly with representatives from the tertiary education sector (Australian Defence Force Academy from the University of New South Wales Canberra, Australian National University, University of Canberra and the Canberra Institute of Technology) to discuss collaboration opportunities.</p> <p>The Chief Engineer engagement includes:</p> <ul style="list-style-type: none"> <li>Hosted a table at the UNSW Canberra Higher Degree Research career fair.</li> <li>Presented to the UNSW Canberra School of Engineering on the civil engineering profession and what to expect from a future career as a civil engineer.</li> <li>Presented to ANU engineering undergraduates on the importance of engineering.</li> <li>Presented to the UNSW Canberra School of Engineering on environmental risk assessments.</li> <li>Supported the CIT Construction and Engineering Bridge Challenge.</li> </ul>	
<b>Optimise our existing ACT Government engineering workforce</b>					
2A	Work with ACT Government Directorates and Agencies to incorporate engineering requirements into their workforce plans, including identifying current skill shortages	Short-term	<b>Lead:</b> <ul style="list-style-type: none"> <li>Chief Engineer</li> <li>Directors-General</li> </ul>	<p>The Chief Engineer released a Directorate Engineering Framework in November 2020. The Framework provides directorates the tools to assess their engineering needs and to identify relevant roles and skill shortages for their Workforce Plans.</p> <p>The Chief Engineer regularly meets with Directorates to discuss their infrastructure requirements and engineering needs.</p> <p>The Chief Engineer consulted engineers from across the service in 2023 to identify the issues they are currently facing and how they can be supported.</p>	
2B	Introduce a professional development program for ACT Government engineers to enhance knowledge and maintain up-to-date technical skills	Short-term	<b>Lead:</b> <ul style="list-style-type: none"> <li>Chief Engineer</li> </ul>	<p>The Chief Engineer piloted an engineering competency framework in February 2021. The Competency Framework has been designed to allow staff to identify the skills and competencies they need to develop to be able to progress in their government engineering career.</p> <p>A pilot was completed with select participants from across government in June 2021, with a TCCS wide roll out currently underway since April 2022.</p> <p>Feedback from one participant noted – <i>I have been using the online tool since it was launched. I was able to identify operations and maintenance as a knowledge gap. I used this to seek out an acting opportunity to fill out this experience.</i> This highlights the value of the competency framework for career development and pathways.</p> <p>To continue to support the engineering cohort of the ACTPS the Chief Engineer sponsored a training session for staff members on Managing and Leading Others. Leadership skills were identified by the engineering cohort through the Annual Survey as an area for development.</p>	

#	Action	Timeframe	Stakeholders	Implementation Update	Status
2C	Introduce a mentoring program for ACT Government engineers to learn from internal and external experts	Medium-term	<b>Lead:</b> <ul style="list-style-type: none"> <li>Chief Engineer</li> </ul> <b>Stakeholders:</b> <ul style="list-style-type: none"> <li>Public Sector Management Group, CMTEDD</li> </ul>	<p>The Chief Engineer launched the ACTPS engineer mentoring program in October 2020. There have been four rounds of the mentoring program with representatives from all directorates and junior and executive staff involved. The Program has been created for staff to develop skills, share knowledge, encourage the formation of networks and work towards future goals.</p> <p>57 partnerships have been formed to date.</p> <p>Evaluations of the program are taken annually. There has been positive feedback received for the program. Extracts from the evaluations are below:</p> <ul style="list-style-type: none"> <li><i>Thank you so much for creating the ACT engineering mentorship program. I have had a great time with my mentor. I really got a great learning experience from him with exposure of critical aspects of both engineering and project management.</i></li> <li><i>The framework we have created in our initial stage of mentorship helped me in achieving knowledge and opportunities across the ACT government. Now, I have successfully secured a promotion.</i></li> <li><i>My mentor has helped me build my confidence and reduce the stress that can sometimes be associated with work.</i></li> <li><i>I've been given networking opportunities and a chance to engage with senior executives.</i></li> <li><i>I was given the perfect partnership; we have similar goals and shared interests.</i></li> <li><i>I trust my mentor and am able to ask the silly questions.</i></li> <li><i>I've learnt a lot and built some professional connections.</i></li> <li><i>It has been a very positive experience, really enjoy building the relationship with my mentee and seeing them progress.</i></li> <li><i>We have achieved most of the milestones set last year. I'm looking forward to continuing the mentorship this year too. Actually, the mentorship helped me a lot to win a Technical Officer position.</i></li> <li><i>We meet every month and discuss leadership and other issues. Thanks for providing this platform to us.</i></li> <li><i>Loving it, perfectly matched.</i></li> </ul>	

#	Action	Timeframe	Stakeholders	Implementation Update	Status
2D	Introduce a government to industry secondment program so engineers can gain experience in both the public and private sector to better understand the working requirements of each sector	Medium-term	<b>Lead:</b> <ul style="list-style-type: none"> <li>Chief Engineer</li> </ul> <b>Stakeholders:</b> <ul style="list-style-type: none"> <li>Public Sector Management Group, CMTEDD</li> </ul>	<p>The Chief Engineer launched a government to industry secondment program in 2021. The secondment program allows an early career engineer from the ACT Government, a professional engineering consultancy firm and a construction firm to undertake job swap placements.</p> <p>The program has been designed to provide professional development opportunities for staff while strengthening working relationships between government and industry.</p> <p>The program is now an annual offering. Evaluations of the program are taken following each rotation. Extracts from the evaluation are below:</p> <ul style="list-style-type: none"> <li><i>Learning about the intricacies of how each organisation functions has enabled me to develop a more rounded understanding of the entire process to deliver infrastructure in the ACT. Which I don't believe I ever would have experienced if not for this program and I will take with me throughout my career.</i></li> <li><i>It has been eye opening for me in understanding more about the culture and functions of the organisations in the delivery of ACT infrastructure. To me, all of these organisations have the same objectives; to deliver high quality and useful infrastructure for the ACT community. This point can sometimes be lost due to the nature of belonging to separate organisations but through programs like this it has really affirmed for me that all parties have the same goal and deeply care about their profession.</i></li> <li><i>I've gained a greater understanding regarding buildability, quality control, coordinating consultants and trade packages, as well as awareness on some industry innovations.</i></li> </ul>	
2E	Work with professional associations to develop a pathway for ACT Government staff to become chartered/registered	Medium-term	<b>Lead:</b> <ul style="list-style-type: none"> <li>Chief Engineer</li> </ul> <b>Stakeholders:</b> <ul style="list-style-type: none"> <li>Engineers Australia, Professionals Australia</li> </ul>	<p>The Chief Engineer has hosted regular briefings from Engineers Australia presenting to the ACTPS engineering cohort on the pathways to becoming a chartered engineer.</p> <p>Progress with the Competency Framework in Action 2B will provide a structured approach to professional development which aligns with becoming chartered.</p> <p>The Chief Engineer is supporting EPSDD in the development of the Engineer Registration scheme including providing advice on implications to the ACT Government workforce.</p>	
<b>Strengthen the engineering profession in the ACT</b>					
3A	Develop a Digital Engineering Strategy and associated training program	Medium-term	<b>Lead:</b> <ul style="list-style-type: none"> <li>Infrastructure Finance and Reform, CMTEDD</li> <li>Chief Engineer</li> </ul> <b>Stakeholders:</b> <ul style="list-style-type: none"> <li>Strategy and Transformation Office, Workforce Capability and Governance, CMTEDD</li> </ul>	<p>The Chief Engineer provides the government with strategic advice on key infrastructure projects. This includes championing the ACT's digital transformation in the infrastructure sector. Building Information Modelling (BIM) and the accompanying use of a common data environment form the foundation of this transformation.</p> <p>The Chief Engineer hosted an Innovation Forum on smart infrastructure and smart technology. The Forum brought a range of industry experts together to share their insights into the digital transition and allowed representatives from industry and government to learn from each other to create a stronger infrastructure sector for the ACT.</p>	

#	Action	Timeframe	Stakeholders	Implementation Update	Status
3B	Develop policies and procedures to ensure compliance with engineer registration legislation	Medium-term	<b>Lead:</b> <ul style="list-style-type: none"> <li>Planning, Land and Building division, EPSDD</li> </ul> <b>Stakeholders:</b> <ul style="list-style-type: none"> <li>Chief Engineer</li> <li>Workforce Capability and Governance, CMTEDD</li> <li>Directors-General</li> </ul>	<p>The Professional Engineers Act 2023 was passed in the ACT Legislative Assembly on 23 March 2023.</p> <p>The ACT Government is establishing a registration scheme to regulate individuals providing professional engineering services in the ACT. The objective of the scheme is to provide people and companies who engage engineers with confidence that those engineers have the necessary qualifications, experience and competencies to provide those engineering services.</p> <p>The Chief Engineer championed the consultation process with industry and engineers across the ACTPS and will support the Professional Engineers Registrar as the Scheme is implemented. The Chief Engineer has provided feedback on the guidelines being developed by EPSDD and has taken part in user testing with Access Canberra staff.</p>	
3C	Support a review and ongoing implementation of the Infrastructure Officer and Infrastructure Manager positions classifications	Medium-term	<b>Lead:</b> <ul style="list-style-type: none"> <li>Public Sector and Workforce Relations, CMTEDD</li> </ul> <b>Stakeholders:</b> <ul style="list-style-type: none"> <li>Chief Engineer</li> </ul>	<p>The Infrastructure Manager/Specialist (IM/S) and Infrastructure Officer (IO) classifications were introduced to address attraction and retention issues in the areas of development, delivery, management, operations and maintenance of major infrastructure projects by the ACT Government.</p> <p>The Chief Engineer coordinated a WhOG consultation on IM/S and IO classifications in May 2021 and will support an additional review in 2023/24.</p>	
3D	Create an ACT Government-funded Technology and Innovation Fund to support research and innovation in the engineering and infrastructure sector	Medium-term	<b>Lead:</b> <ul style="list-style-type: none"> <li>Chief Engineer</li> </ul> <b>Stakeholders:</b> <ul style="list-style-type: none"> <li>Directors-General</li> </ul>	<p>The Chief Engineer is supporting the ACT Government Renewable Energy Innovation Fund (REIF) as a government advisor. The REIF was established with \$12 million contributed by industry commitments associated with the ACT Government's first and second wind auctions. The REIF aims to:</p> <ul style="list-style-type: none"> <li>support renewable energy companies based in the ACT</li> <li>attract new ventures to the ACT</li> <li>develop new research and trades training opportunities</li> <li>support the development of a renewable energy ecosystem.</li> </ul> <p>The Chief Engineer will continue to make connections between industry and the tertiary education sector to promote research.</p>	
3E	Work with the tertiary education sector to support growth and capabilities of civil engineering programs, feeding into curriculum and promoting the benefits of working with the ACT Government	Short-term	<b>Lead:</b> <ul style="list-style-type: none"> <li>Chief Engineer</li> </ul> <b>Stakeholders:</b> <ul style="list-style-type: none"> <li>UNSW, ANU, UC, CIT</li> <li>CMTEDD</li> </ul>	<p>The Chief Engineer meets regularly with representatives from the tertiary education sector (Australian Defence Force Academy from the University of New South Wales Canberra, Australian National University, University of Canberra and the Canberra Institute of Technology) to discuss collaboration opportunities.</p>	

#	Action	Timeframe	Stakeholders	Implementation Update	Status
<b>Collaborating with key stakeholders to implement the Workforce Plan</b>					
4A	Establish an ACT Government Engineers network and online hub to share knowledge and collaborate on projects	Short-term	<b>Lead:</b> <ul style="list-style-type: none"> <li>Chief Engineer</li> </ul> <b>Stakeholders:</b> <ul style="list-style-type: none"> <li>Directors-General</li> </ul>	<p>In June 2020 the Chief Engineer established a community of practice that allows the approximately 250 engineers across government to share ideas and collaborate on projects.</p> <p>To support the engineering cohort of the ACTPS the Chief Engineer has sponsored the following presentations:</p> <ul style="list-style-type: none"> <li>Embodied emissions in infrastructure,</li> <li>Capital works program for 2023/24,</li> <li>Canberra's big battery,</li> <li>Flood risk management in the ACT,</li> <li>Leading and managing others, and</li> <li>Pathways to becoming a chartered engineer.</li> </ul> <p>The Chief Engineer is the Executive Sponsor of the ACTPS Sustainability Speaker Series. With over 500 members the last 12 months have seen presentations on:</p> <ul style="list-style-type: none"> <li>Low carbon infrastructure,</li> <li>Making spaces into places,</li> <li>Solutions for protection the ACT environment,</li> <li>Connecting nature, connecting people,</li> <li>Bringing the Environmentally Responsible Procurement Value to Life</li> <li>Enabling sustainability through digital innovation,</li> </ul> <p>The Chief Engineer has received positive feedback from the community of practice:</p> <ul style="list-style-type: none"> <li><i>Thanks for organising these events, I'm sure all attendees would agree, these regular presentations are extremely valuable.</i></li> <li><i>I appreciate your work in supporting engineers in ACTPS. I would like to thank you for organising the training program with our utility providers, as that practical exposure helped me build much-needed confidence.</i></li> </ul>	

#	Action	Timeframe	Stakeholders	Implementation Update	Status
4B	Recognise engineering excellence, leadership and innovation in the public sector through the introduction of an annual Chief Engineer award	Medium-term	<b>Lead:</b> <ul style="list-style-type: none"> <li>Chief Engineer</li> </ul>	<p>In December 2022, The Chief Engineer hosted the first ACT Chief Engineer Awards to promote engineering excellence, leadership, and innovation, both within the profession and the community.</p> <p>Two awards were presented for the:</p> <ol style="list-style-type: none"> <li>ACT Government Engineer of the year, and</li> <li>ACT Government engineering project of the year.</li> </ol> <p>The community of practice has been utilised to recognise the engineering innovation and excellence of the cohort on a regular basis.</p>	
4C	Establish an annual engineering workforce survey to set a baseline of current engineering skills and assess progress towards the workforce required for the ACT	Medium-term	<b>Lead:</b> <ul style="list-style-type: none"> <li>Chief Engineer</li> </ul>	<p>The Chief Engineer conducted a survey of the ACTPS engineering cohort in November 2019 to inform development of the Engineering Workforce Plan.</p> <p>The survey has been repeated annually in November since.</p>	
4D	Undertake annual evaluation and reporting of the Engineering Workforce Plan to Cabinet and publicly, to track implementation of actions and respond to changes in the industry	Medium-term	<b>Lead:</b> <ul style="list-style-type: none"> <li>Chief Engineer</li> </ul>	<p>This report constitutes the annual update to Cabinet on the Engineering Workforce Plan.</p> <p>Quarterly updates on the Workforce Plan and the actions of the Chief Engineer are released on the MPC website.</p>	

