Reimagining the workforce for public transport: interim action plan

Celeste Young, Neil Parry and Kumi Heenetigala
Institute for Sustainable Industries and Liveable Cities
Victoria University
All material in this document, except as identified below, is licensed under the Creative Commons Attribution-Non-Commercial 4.0 International Licence.

Material not licensed under the Creative Commons licence:
- Victoria University logo
- Any other logos
- All photographs, graphics and figures.

All content not licenced under the Creative Commons licence is all rights reserved. Permission must be sought from the copyright owner to use this material.

Disclaimer: Victoria University advises that the information contained in this publication comprises general statements based on scientific research. The reader is advised and needs to be aware that such information may be incomplete or unable to be used in any specific situation. No reliance or actions must therefore be made on that information without seeking prior expert professional, scientific and technical advice. To the extent permitted by law, Victoria University (including its employees and consultants) exclude all liability to any person for any consequences, including but not limited to all losses, damages, costs, expenses and any other compensation, arising directly or indirectly from using this publication (in part or in whole) and any information or material contained in it. This paper represents the opinions (findings, and conclusions or recommendations) of the authors, and is the product of professional research. It is not meant to represent (reflect) the position or opinions of the Victorian Government or the Rail Manufacturing Cooperative Research Centre.

Acknowledgements: The authors greatly appreciate the financial support from the Rail Manufacturing Cooperative Research Centre (funded jointly by participating rail organisations and the Australian Federal Government’s Business Cooperative Research Centres Program) through Project R3.3.3 – Reimagining the workforce: building smart, sustainable and safe public transport (Victorian Department of Transport and Victoria University). The authors also acknowledge the assistance provided by the Victorian Department of Transport in this study and the following people for their contributions to the development of this project: Chris Eves, Stuart Thomson, Christopher Wong and Larry Jordon. We would also like to thank all the organisations and individuals who participated in this study for their contributions and generosity.

March 2020


This report is one of a seven reports relating to the ‘Reimagining the workforce: building smart, sustainable, safe public transport’ research project. The complete suite of reports is as follows:
1. The Victorian rolling stock context. Literature review.
2. Community perceptions of careers working with rolling stock.
3. Organisational context assessment of inclusion and innovation in the Victorian rolling stock sector.
5. The economics of rolling stock manufacturing, maintenance and operations for Victoria’s public transport sector.
7. Reimagining the workforce for public transport: interim action plan.

Images: Bigstock Photo Library
## Table of contents

*Introduction*  
*Background*  
*The workshop*  
*Overview of the strategic actions*  
*Considerations for success*  
*Specific programs and bodies identified aligned with the interim plan*  
*The roles of collaborating parties*  
  *The role of industry leads*  
  *The role of government*  
  *The role of universities and educational institutes*  
*Strategic action 1*  
  *Action*  
  *Strategic outcome*  
  *Task goals*  
  *Key considerations for program success*  
*Strategic action 2*  
  *Action*  
  *Strategic outcome*  
  *Task goals*  
  *Key considerations for program success*  
*Strategic action 3*  
  *Action*  
  *Strategic outcomes*  
  *Task goals*  
  *Key considerations for program success*  

*Appendix A: Process for selection of actions*  
*Appendix B: Opportunities for action*
Introduction

The rolling stock component of Victoria’s public transport sector workforce operates, designs, builds and maintains the trains, trams and buses used in Victoria’s public transport system. Its workforce spans the rail, bus and manufacturing sectors, and is central to the effective functioning and safety of public transport. Changing communities, organisational structures and the emergence of digital and cyber technologies (Industry 4.0) are driving the need for transformation across the sector. As these changes are likely to continue for the foreseeable future, building a suitably skilled workforce is now critical to the future sustainability of the industry.

The current investment in infrastructure and changes to contractual requirements, particularly local content and social procurement, offer substantial opportunities for sector renewal at a local level. Building capability and resilience across the entire supply chain is now critical if the opportunities on offer are to be realised. Current workforce development challenges include:

- Rapid expansion in areas of the sector
- New technologies and service demands
- A lack of a positive workforce image
- An ageing workforce and skills shortages in key areas
- Changing training and upskilling needs
- Changing community expectations of work
- A need to attract and retain a diverse and skilled workforce for the future.

All areas of the ‘Reimagining the workforce: building smart, sustainable, safe public transport’ study indicate that the solutions to the current issues faced by the sector are not contained within the sector alone, and that developing collaborative partnerships and understanding within and beyond the sector’s agenda is now critical. There is also a considerable amount of information in relation to the nature of the problems, but little that supports the practical application of these recommendations. Achieving sustainable solutions will be a long-term prospect that will require the sector to look beyond its technological focus to the people and skills needed to enable and sustain changes.

This proposed interim plan aims to provide an industry-led solution for the Victorian workforce. Its purpose is to provide an evidence-based foundation for the development of future actions across the public transport sector, which addresses the current workforce issues, builds sustainable growth of the future workforce and supports local economies in Victoria.

Background

This development of a proposed interim plan is the final output of ‘Reimagining the workforce: building smart, sustainable, safe public transport’ – a collaborative research project between the Department of Transport (DoT), the Rail Manufacturing Cooperative Research Centre (RMCRC), Victoria University (VU) and industry, which commenced on 1 July 2019 and will be completed by 30 June 2020. The aim of this project was to identify key components needed to build a sustainable and resilient future workforce.

The project undertook a systematic assessment of the Victorian public transport rolling stock sector from three perspectives: economic, organisational and community in the broader context of the public transport system of trains, trams and buses. This was undertaken across the areas of procurement, organisations, training and the community. It used a case study approach that examined specific organisations within the rolling stock and public transport system in Victoria using an ‘end user-based research methodology’, which is transdisciplinary and combines end user and academic knowledge.

A literature review and four research reports were undertaken prior to a workshop involving a representative group of industry stakeholders. These reports formed the evidence base for the findings summarised in the context paper that was provided prior to the workshop. Specific areas studied were:

- The organisational context to examine existing strengths and assess barriers, needs, opportunities and benefits with respect to an inclusive and innovative workforce
- How the 18–30 year-old community perceive and understand the public transport sector as a potential employer, and their general expectations for careers in the rolling stock sector
- The composition of the workforce, skill profiles and future needs, challenges and opportunities, and the economics of vocational training
- The economics of local procurement and its impact on future employment, especially in relation to small to medium enterprises (SMEs).
The workshop

The workshop was undertaken on 5 March 2020, and brought together key stakeholders from across the industry to offer an opportunity for them to take an active part in developing solutions to the opportunities identified by the research. The participants were from across the public transport sector organisations (train, trams, buses and manufacturing) and also key industry, government and educational bodies, agencies and organisations.

The aim of the workshop was to identify three key actions that would form the basis of an industry-led interim implementation plan.

Key questions for the workshop were:
- Where are the opportunities for actions?
- What is needed to realise these opportunities?
- Who should be responsible for implementing and enabling these opportunities?

The format of the workshop was as follows:
- Presentation and discussion of key research findings
- Review of the opportunities identified in each area of the research – community, organisational and training, and economics of procurement
- Identification of additional opportunities by participants
- Prioritising and selecting three key opportunities
- Identifying components needed to achieve the action
- Development of the action plan and identification of key tasks.

The opportunities considered and the process for selection of the key priority actions are outlined in Appendices A and B.

Overview of the strategic actions

The three actions selected were:
- Develop a clear image of the public transport sector to appeal to young people
- Optimise local content, and maximise social and economic benefits
- Develop a ten-year strategic plan for training to support workforce development and workforce profiles for Victoria.

Beneath these actions, specific tasks were selected for the next 12 months to support progress on the overarching objectives.

Considerations for success

The success of these actions are dependent on a number of factors including:
- Effective industry and government collaboration – the need for an independent host organisation or appointed facilitator to the plan to ensure the best interests of industry are served, and a positive working relationship is maintained between all leading parties.
- Governance structures to support collaboration – the development of collaborative governance to ensure transparency and quality of program delivery and research from which all stakeholder parties benefit.
- Resources and funds to support activities – consideration of how existing resources/programs can be leveraged and maximised, and who should be responsible for supporting funding and resource gaps.
- Cohesion across actions – the three actions selected are interrelated and mechanisms for knowledge exchange between the different industry leads and participants of each action will be important.
- Industry commitment – to maintain and sustain actions for the duration of the plan.

The advent of the COVID19 pandemic and the uncertainty surrounding what the next 12 months is likely to hold, means a level of flexibility and adaptiveness will be needed to ensure that the plan is able to deliver on its outcomes. Consideration will need to be given in relation to this and program design during the scoping phase.
Specific programs and bodies identified aligned with the interim plan

A number of existing programs and bodies were identified during the workshop as being aligned or having similar agendas to the plan. Consideration will need to be given as to how the plan can leverage and work with these to enhance the outcomes of these existing programs and the plan.

Programs and bodies identified included the following:

- The National Rail Plan (National Transport Commission and ARA)
- The Australasian Railway Association (ARA) Workforce Development Committee
- The ARA Rail and Industry Group
- The ARA national workshop with TAFEs (date to be confirmed)
- The ARA ‘rebranding’ activity currently in progress
- The ARA Future Leaders Program
- The Horizons’ Program, Rail Industry Safety and Standards Board (RISSB)
- The Newport Rail Academy, Level Crossing Removal Project – Skills Council for Rail
- The Community Traineeship Program, Victorian Government
- The Office of the Lead Scientist (Victoria) STEM program
- Local Learning and Employment Networks Program (Victoria)
- The National Skills Commission – Australian Government
- The Victorian Skills Commissioner.

The roles of collaborating parties

The role of industry leads

The role of industry leads is to provide leadership, and champion each action. They will also be responsible for working with others to establish governance, resources and oversight of outputs. Industry leads may be public and private peak bodies, or agencies and individual or boundary organisations.

The role of government

The role of the government is to collaborate with industry and universities in relation to the provision of data and knowledge, and where appropriate, auspice and facilitate actions and provide funding to enable the plan.

The role of universities and educational institutes

The role of universities and educational institutes is to collaborate with industry and government to provide research and knowledge that is tailored to industry needs to enable the tasks of this plan.
Strategic action 1

Action
Develop a clear image of the public transport sector to appeal to young people.

Strategic outcome
Improved perception of the public transport sector amongst young people, as evidenced by improved metrics in key result areas such as image, training and job applications.

Task goals
The three goals in relation to the next 12 months of activity are:
1. Increase the understanding of the range of jobs available in public transport and the supply chain.
2. Diversification of the workforce.
3. Develop young people’s understanding of innovations and opportunities in public transport to increase attraction.

Key considerations for program success
- The ARA’s current communication initiative and the potential to collaborate with this to enhance the impact of both initiatives, and other such initiatives that might be applicable (e.g., The Office of the Lead Scientist [Victoria]).
- The need to identify key stakeholders, what resources are available, and where current activities can be leveraged to support the proposed actions.
- To identify and work in with existing resourced organisations and networks.
- The need to secure a coordinating resource and, if necessary, funding to support this.
- To proactively pursue funding available to support activities.
<table>
<thead>
<tr>
<th>Goal</th>
<th>Task(s)</th>
<th>Potential stakeholders</th>
<th>Resources</th>
<th>Potential industry leads</th>
<th>0–4 months</th>
<th>5–8 months</th>
<th>9–12 months</th>
</tr>
</thead>
</table>
| Increase the understanding of the range of jobs available in public transport and the supply chain | Establish working group and coordinating mechanism to support project and funding | Victorian Skills Commissioner (VSC)  
The Rail Academy Newport (RAN)  
The Level Crossing Removal Project (LCRP) | A coordinator or coordinating body and funding to support this | Alstom  
Local Learning Employment Network (LLEN)  
South East LLEN  
Department of Transport (DoT)  
Australian Rail Association (ARA) | ✓ | | |
| Increase the understanding of the range of jobs available in public transport and the supply chain | Develop a marketing/engagement plan | VSC | ARA  
LLEN | Alstom  
LLEN  
South East LLEN  
DoT  
ARA | | ✓ | |
| Increase the understanding of the range of jobs available in public transport and the supply chain | Identify and leverage platform opportunities to showcase public transport careers in front of young people and their influencers | VSC  
RAN  
LCRP  
LLEN | ARA  
LLEN | ARA (as co-champion)  
LLEN (as co-champion)  
South East LLEN | ✓ | ✓ | |
| Diversification of the workforce | Nominate Industry Ambassadors and Mentor Program Sponsors | Victorian Rail Advocate  
DoT  
Local Jobs First Commissioner | ARA | ARA (organising)  
Companies (participating and supplying ambassadors/mentors) | ✓ | | |
| Diversification of the workforce | Introduce a requirement for Youth Employee Dividend and/or involvement of students in contracts | DoT  
Local Jobs First Commissioner | — | DoT | | | ✓ |
| Develop young people’s understanding of innovations and opportunities in public transport to increase attraction | Industry-led showcase | Companies | Workforce Training Innovation Fund (WTIF) | ARA leads with call for companies to participate and/or sponsor | | | ✓ |
| Develop young people’s understanding of innovations and opportunities in public transport to increase attraction | Student-led design thinking competition assessed by industry (industry identify needs, students solve needs in open competition targeting university, TAFE, and high school students) | Companies (industry) | WTIF | LLEN in collaboration with Department of Education (through WTIF), with universities and TAFEs participating (VU a possibility) | | | ✓ |
Strategic action 2

Action
Optimise local content, and maximise social and economic benefits.

Strategic outcome
Cost-effective, socially responsible sustainable employment through:
- Maximising social and economic benefits
- Greater transparency, flexibility and equitable risk assignment in the procurement process
- Ensuring that the risk is consummate with the reward for supply chain participants
- Better quantifying, where possible, social benefits that result from procurement (e.g., ‘youth dividend’, increased wellbeing and local economic growth).

Task goals
- Clarify understanding of “local content”
- Align local content requirements with supply chain capability-building
- Clarify how risk is transferred through the supply chain and how this can be managed more equitably
- Ensure better information and coordination across the procurement process
- To understand how to best leverage R&D to maximise return on investment (ROI) for local content, social and environmental benefits.

Key considerations for program success
- The need to translate complex concepts so that people can use this information in their contexts and decision making (KISS principle)
- Risk needs to be commensurate with reward for active participation to be viable throughout the supply chain
- Business culture change needs to part of the process
- What mechanisms might need to be developed to support contractual changes
- The need to secure a coordinating resource and, if necessary, funding to support this
- Commitment and buy-in from key stakeholders
- To proactively pursue funding available to support activities
- SMEs identify opportunities to evolve their business models beyond supplying products to also providing services.
<table>
<thead>
<tr>
<th>Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ensure better information and coordination across the supply chain and support initiatives</strong></td>
</tr>
<tr>
<td><strong>Task(s)</strong></td>
</tr>
<tr>
<td>Working group Create/potential host industry body</td>
</tr>
<tr>
<td><strong>Potential stakeholders</strong></td>
</tr>
<tr>
<td>SMEs Peak bodies</td>
</tr>
<tr>
<td><strong>Resources</strong></td>
</tr>
<tr>
<td>Project manager/partners and funding</td>
</tr>
<tr>
<td><strong>Potential industry leads</strong></td>
</tr>
<tr>
<td>Victorian Government, peak and industry bodies Knorr-Bremse South East Melbourne Manufacturers Alliance (SEMMA) Geelong Manufacturing Council (GMC) Transdev</td>
</tr>
<tr>
<td><strong>0–4 months</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ensure better information and coordination across the supply chain and support initiatives</strong></td>
</tr>
<tr>
<td><strong>Task(s)</strong></td>
</tr>
<tr>
<td>Identify key stakeholders</td>
</tr>
<tr>
<td><strong>Potential stakeholders</strong></td>
</tr>
<tr>
<td>SMEs Peak bodies (SEMMA, Northlink, GMC)</td>
</tr>
<tr>
<td><strong>Resources</strong></td>
</tr>
<tr>
<td>Project manager/partners and funding</td>
</tr>
<tr>
<td><strong>Potential industry leads</strong></td>
</tr>
<tr>
<td>Victorian Government, Industry Victoria University (VU) Rail Systems Association (RSD) Knorr-Bremse SEMMA GMC Transdev</td>
</tr>
<tr>
<td><strong>0–4 months</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Clarify understanding of “local content”</strong></td>
</tr>
<tr>
<td><strong>Task(s)</strong></td>
</tr>
<tr>
<td>Meeting between government and industry to understand and define government expectation</td>
</tr>
<tr>
<td><strong>Potential stakeholders</strong></td>
</tr>
<tr>
<td>DoT Original equipment manufacturers (OEMs) SMEs</td>
</tr>
<tr>
<td><strong>Resources</strong></td>
</tr>
<tr>
<td>Contract lawyers DoT SMEs OEMs</td>
</tr>
<tr>
<td><strong>Potential industry leads</strong></td>
</tr>
<tr>
<td>Industry bodies DoT OEMs SMEs Knorr-Bremse SEMMA GMC Transdev</td>
</tr>
<tr>
<td><strong>0–4 months</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Clarify understanding of “local content”</strong></td>
</tr>
<tr>
<td><strong>Task(s)</strong></td>
</tr>
<tr>
<td>Update social procurement guidance to SMEs and supply chain</td>
</tr>
<tr>
<td><strong>Potential stakeholders</strong></td>
</tr>
<tr>
<td>DoT Peak bodies</td>
</tr>
<tr>
<td><strong>Resources</strong></td>
</tr>
<tr>
<td>DoT Peak bodies</td>
</tr>
<tr>
<td><strong>Potential industry leads</strong></td>
</tr>
<tr>
<td>DoT Peak bodies Knorr-Bremse SEMMA GMC Transdev</td>
</tr>
<tr>
<td><strong>0–4 months</strong></td>
</tr>
<tr>
<td>Goal</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>To maximise local participation across the supply chain and maximise ROI for government, community and organisations</td>
</tr>
<tr>
<td>To maximise local participation across the supply chain and maximise ROI for government, community and organisations</td>
</tr>
</tbody>
</table>
Strategic action 3

Action
Develop a ten-year strategic plan for training to support workforce development and workforce profiles for Victoria.

Strategic outcomes
- Create greater understanding and focus as to how industry and government need to invest in skills and training, where they will get the best ROI, and who is best positioned to undertake this.
- Improve strategic planning.

Task goals
- Secure resources.
- Develop shared understanding, agreement and buy-in. To understand what industry will do in the next ten years, and the current and emerging skills needed to support this.
- Create a shared vision of what types of skills are needed (skills profiles) for the next 10 years, and develop a 10-year training strategy to support this.

Key considerations for program success
- The need for early engagement and buy-in of critical stakeholders and securing funding.
- There are a number of plans and activities (e.g., those outlined in NTCs National Rail Action Plan and ARA), that are complementary to this work. There is a need to work alongside these activities.
- To ensure that this considers the whole system to identify skills and training synergies across the sector.
- The need to secure project resources and funding to support this.
- Commitment and buy-in from key stakeholders.
- Coordination and communication.
- To proactively pursue funding available to support activities.
<table>
<thead>
<tr>
<th>Goal</th>
<th>Task(s)</th>
<th>Potential stakeholders</th>
<th>Resources</th>
<th>Potential industry leads</th>
<th>0–4 months</th>
<th>5–8 months</th>
<th>9–12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secure project</td>
<td>Scope project with project leads and engage with key stakeholders/</td>
<td>Industry, Community, Universities – transport, Government,</td>
<td>Person or body to run project,</td>
<td>National Transport Commission (NTC), Transport and Infrastructure Council (TIC), DoT,</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>champions to explore funding, resources and potential host body</td>
<td>TAFEs, VSC, Federal Government, Peak industry and educational</td>
<td>Budget</td>
<td>Transdev, ARA, GMC, Bus Association of Victoria (BAV), Geelong Textiles, NorthLink, LLEN</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>for the project</td>
<td>bodies</td>
<td>Advisory group</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Develop shared understanding,</td>
<td>Scope project, identify and engage with key stakeholders/potential</td>
<td>TAFEs, VSC, RAN, LCRP, Federal Government, Peak industry</td>
<td>Person or body to run project,</td>
<td>NTC, TIC, DoT, Transdev, ARA, BAV, Geelong Textiles, NorthLink, LLEN, GMC</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>agreement and buy-in</td>
<td>champions</td>
<td>and educational bodies</td>
<td>Budget</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Identify process for visioning (e.g., what type of forum/process is</td>
<td></td>
<td>Advisory group</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>best suited to industry needs)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Secure buy-in of key stakeholders</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Secure funding and resources to</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>support the project</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goal</td>
<td>Task(s)</td>
<td>Potential stakeholders</td>
<td>Resources</td>
<td>Potential industry leads</td>
<td>0–4 months</td>
<td>5–8 months</td>
<td>9–12 months</td>
</tr>
<tr>
<td>---------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------</td>
<td>-----------------------------------------------</td>
<td>-------------</td>
<td>-------------</td>
<td>-------------</td>
</tr>
</tbody>
</table>
| Understand industry requirements in the next ten years and the current and emerging skills needed to support this | Undertake research in collaboration with industry/researchers and key stakeholders to establish the future vision through the following:  
- What will the industry be doing in 10 years  
- What workforce they need  
- What current plans/visions/activities already exist across the sector  
- Future community needs and expectations  
- Emerging technologies  
- Best practice (e.g., Japan, Vienna)  
- Strategic risks  
- Skills to maintain and new skills needed (organisations to do own audits possibly through the industry and peak bodies) | Industry Researchers (VU Research Lead), Monash, RMIT, Deakin, UTS, TAFEs, Federal Government, Peak bodies and industry agencies, AIG, SEMMA, RISSB, National Centre for Vocational Education Research (NCVER), Victrack, Rail Track Association Australia (RTAA), Department of Education, VSC, IT/digital experts, Educators and trainers, Community groups, iMove | Person or body to run project, Data, Budget, Advisory group | TIC, NTC, DoT, Transdev, ARA, GMC, SEMMA, Geelong Textiles, BAV, NorthLink, LLEN | ✓           |             |             |
| Create a shared vision of what types of skills are needed (skills profiles) for the next 10 years and develop a training strategy to support this | Delivery of symposium – present the vision and undertake back-casting exercise to develop workforce strategy and profiles. This could possibly be over 2–3 days as per European models, but would be determined in the scoping phase. | As above                                                                                                                                 | Person or body to run project, Budget, Advisory group | NTC, TIC, DoT, Transdev, ARA, GMC, SEMMA, Geelong Textiles, BAV, NorthLink, LLEN | ✓           |             |             |
Appendix A: Process for selection of actions

The actions were selected from opportunities identified in the organisational and training, economics and community research areas. These were considered and additional opportunities were identified by the workshop participants (Figure 1). The total number of opportunities identified in the research was 29, which included 19 for organisational and training areas, five for economics of procurement, and five for community. Workshop participants identified an additional 46 opportunities, which included 26 for the organisational and training areas, 15 for economics of procurement, and five for community. (See Appendix B for more detail.)

Figure 1: Opportunities identified in research
Nomination of priority actions

The opportunities to be actioned were selected using an voting process where participants allocated two votes using different colored dots across each of the three research areas (economic, organisational and training and the community) using the following criteria:

- Which action was likely to have the highest impact
- Which action was likely to be the most ‘doable’.

For organisation and training, the biggest impact nominated was for peak body lobbying for collaboration, while the most doable was voted as future workforce profiles and strategic plan (Figure 2). A group discussion was undertaken and the workforce profiles and strategic plan was selected as the action for this area.

![Figure 2: Prioritisation organisational and training actions](image-url)
In the economics of procurement stream, ‘Optimise government requirement for local content for maximising social and economic benefits’ was nominated as the opportunity that had the biggest impact and was also the most doable. ‘Harmonisation of national tender standards’ was voted as the second highest impact opportunity (Figure 3), however it was also acknowledged by the group that this was the least likely action to have a successful outcome in 12 months, so it was eliminated.

![Figure 3: Prioritisation of economics of procurement actions](image)

The community stream nominated two opportunities for action, with ‘Branding how to promote industry to the next generation’ receiving the most nominations as likely to have the biggest impact and being the most doable (Figure 4).

![Figure 4: Prioritisation of community actions](image)
Appendix B: Opportunities for action

Opportunities identified from research

Organisational and training actions

1. The development of skills and strategic tools such as workforce profiles and strategic visions to support improved workforce planning and implementation
2. The development of specific fit-for-purpose programs to build capability in SMEs that are tailored to their context and needs
3. To develop mechanisms that support greater collaboration and knowledge sharing across and beyond the sector to address critical issues and support practice
4. To partner with and leverage local research institutes more widely to support locally developed R&D across the sector
5. To identify and leverage the strengths and programs that already exist in organisations and the sector
6. To identify successful overseas programs that are suitable for the rolling stock sector that could be used or adapted
7. To develop monitoring and evaluation in relation to the workforce so progress can be ascertained and for more effective planning
8. The development of materials and initiatives to support implementation of inclusion and uptake of new technologies in the workplace
9. For greater collaboration with local research institutes to support R&D and sustainable industry growth
10. To pilot a model for the broader educational system, built from the bottom-up, which is able to adapt to evolving sectoral needs
11. Upskilling and reskilling potential workforce entrants who may be the ‘right people for the job’ but may not have the full skill set to be productive
12. Expose potential employees to the rolling stock sector by embedding specific modules related to rolling stock in existing training, higher educational programs and VET courses in secondary education
13. Develop additional ways to transfer knowledge and experience, particularly between older and younger employees and between organisations
14. Consider setting up a sector-wide group training organisation that can be tailored to specific skill needs, offering flexibility for SMEs in particular
15. Assess training and skills needed for apprenticeships, management of change and to build SME capability
16. Consider redesigning apprenticeship training programs to embody what employees will be doing in 5–10 years
17. Adapt the generic training model for apprenticeships to evaluate economic outcomes of other forms of training – such as reskilling and upskilling
18. Develop monitoring programs to gather the data needed to determine the effectiveness and benefits of different training methods
19. To develop workforce profiles and a strategic plan for the sector for the next 10 years.

Economics of procurement

20. To develop a comprehensive approach to evaluating the social and environmental benefits generated by procurement and their impact on local economies
21. To improve social and environmental outcomes through the procurement process
22. To develop working partnerships that support the growth of local supply chains and economies
23. To gain economic efficiency through a more ordered procurement process
24. To provide better mechanisms to support provision and uptake of new technologies, particularly for SMEs.

Community

25. Develop a clearer image of the sector to leverage young people’s interests and motivations, and positive perceptions of areas of public transport
26. Develop a clearer understanding of the potential career paths this sector has to offer and their benefits
27. Promote the social and environmental benefits of public transport, and the potential for social and green innovation to make the sector more attractive to young people
28. Understand more fully what causes the ‘disconnect’ between interest in the sector and actual participation by developing specific strategies and initiatives to bridge this gap
29. Understand more fully how to utilise international students in engineering courses in Australia as a potential talent pool.
Opportunities identified during the workshop

Organisational and training opportunities

1. Need workforce profiles projections
2. Look at others who have done workforce profiles and learn how they have done this
3. Develop a compelling narrative that engages everyone in the sector
4. Industry – pilot programs, industry with ARA
5. Conduct workforce symposiums that would bring all the agendas together (e.g., City of Melbourne)
6. Priority training support programs (e.g., welding, tooling, etc)
7. ‘Whole of person’ assessment – what skills do we hold internally?
8. Future workforce profiles
9. Future of transport – multi-model transport approach/1st mile/last mile
10. Sustainability plan for sector or sub sector
11. Supply chain development programs
12. Communication/awareness from OEM and R&D. What new features could trains, buses take on board
13. Slow retirement and slow engagement of employees
14. How do other sectors engage new workforce?
15. Develop a case to present to those who can act on it (e.g., Skills Commissioner)
16. Gender culture imbalance – how to rebalance
17. Breakdown ‘incestuous’ nature of the sector (e.g., Melbourne Water)
18. Mechanism for communicating data and knowledge sharing so people understand
19. Peak body lobbying to collaborate
20. Opportunities for collaboration in cases where multiple industry organisations might solve local problems and export solutions
21. Develop the collective forward view (vision) of the sector. Can I do? Do we have agency?
22. Be much more willing to collaborate within and beyond the tiers. Can I do? Do we have the agency?
23. Bottom-up own innovation and the change
24. Fill the gap in the market, collaborate with others – fill in gap. Develop mechanism for this
25. Willingness to recognise overseas qualifications, especially in areas of critical shortage
26. Three opportunities how to advocate?

Economics of procurement

27. Optimise government requirement for local content for maximising social and economic benefits
28. Develop transparent processes so that questions can be answered
29. Local content – weight/transparency
30. Measure social benefit/ROI
31. More transparent future plans – tendering process
32. National tender standards
   a. Harmonisation of standards and regulations, state focus to Commonwealth – “national focus”
33. Industry forecasting for rolling stock
   a. Skills and occupations
   b. Supply chain capacity
34. Planning to manage supply chain risk
35. Community profiles (potential workforce) matched to workforce profiles, also needed for economic return on each job type
36. Mapping supply chain
37. Reactive – short-term project submission. Need commitment to 10+ years; 3 year+ vision
38. Reporting on local content is a nightmare as there is no compatible data within an ERP/MRP
39. Cost down pressures likened to auto industry
40. Assess the No-Cause termination clauses with no compensation for materials, etc
41. Assess the Risk Clauses being forced onto SMEs that would put their business liability through the roof.
Community

42. Need to develop clear pathways for younger people so they can be engaged by educators early
43. Branding how to promote industry to next generation
44. Brand railroad show ‘Why Rail?’
45. Community – disadvantaged community members
46. Consumer experience – understanding the public transport and people interface.