

# *Summary of Consultation Outcomes*

Automotive

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*PwC's Skills for  
Australia*

*Recommendations  
Report*

*January 2019*

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# *Executive summary*

The purpose of this document is to outline the insights from industry consultation and proposed recommendations for changes to the Automotive Retail, Service and Repair (AUR) and Automotive Manufacturing (AUM) training packages. This document is prepared on behalf of the Automotive Project Working Groups (PWGs), which were established by the [Automotive Industry Reference Committees](#) (IRCs) for the purpose of providing subject matter expertise to direct training product development work for the AUR and AUM training packages. These recommendations are based on extensive industry consultation with stakeholders across the nation and will inform the next phases of work: developing draft training products and preparing a Case for Endorsement (CfE) for submission to the Australian Industry and Skills Committee (AISC).

The following key trends have been identified throughout consultation, necessitating changes to the AUR and AUM training packages:

## **Technological developments within the automotive industry have resulted in a change in the skills needs of the future workforce.**

- A better understanding of the diagnostic thought process must be developed in all apprentices.
- Mechanical technicians across all sectors of the industry require greater electrical skills.
- Outdated technologies must be removed from the training package.
- Safety principles must be updated to reflect the increased dangers associated with modern vehicles.

## **Structural changes within the industry and workplaces has led to changing workforce demand.**

- The decline of the automotive passenger vehicle manufacturing industry has resulted in limited demand for AUM qualifications relating to passenger vehicle manufacturing.
- The decline of specialist automotive servicing businesses has resulted in limited demand for specialist Certificate II qualifications.
- There is demand for servicing personnel with the skills and knowledge to carry out general servicing and parts replacement activities.

## **Learner cohort changes is placing pressure on the VET workforce to meet an array of learner needs and ensure workers have the requisite foundational skills to meet industry needs.**

- Language, literacy and numeracy skills are key to succeed in the automotive industry, with most tasks requiring learners to read and interpret information from various sources.
- These skills should be developed in schools and embedded in technical training. These skills should not be developed instead of technical skills at trade school

## **Employers within the industry are unlikely to use the AUR training package for development beyond an apprenticeship.**

- There is an increased demand for learners with a higher skill level, but industry does not believe the national training system has the resource or capabilities to meet these demands. Given this, other institutions are best placed to meet this demand.
- Technicians who wish to upskill complete industry recognised courses (e.g. Bosch training, I-CAR) or manufacturer specific training.
- Advanced qualifications in their current form are not meeting industry needs.

**Qualifications associated with an occupation must be completed in the workplace.**

- Qualifications that do not require a learner to be in employment or demonstrate competency in the workplace have different outcomes to qualifications that do have these requirements.
- Learners who are unable to secure a significant work placement or employment must not complete qualifications that are aligned to a job role. These learners must complete a vocational preparation course.

This report outlines how the in-scope qualifications in the AUR and AUM training packages will be updated to meet the needs of the trends identified above as well as the specific needs of the sub-sector. Table 1 below provides an indicative view of training package impacts following from these recommendations. Note that this is an indicative view only, and summary numbers are subject to change following more a detailed review of existing units of competency.

**Table 1. Summary of training package implications**

**Important note:** it is the intention of the five Automotive IRCs to submit a single Case for Endorsement to the Australian Industry and Skills Committee, drawing together recommendations from all projects discussed within this document **and** projects that will be undertaken in 2019-20. It is anticipated that a new version of the AUR and AUM training packages, incorporating the changes outlined in this report and changes that are yet to be established from upcoming project will be released in mid to late 2020.

Proposed changes*	Number of training products affected by this report	
	AUR	AUM
<i>Qualifications in-scope to be updated</i>	28	0
<i>Qualifications to be deleted</i>	5	4
<i>Qualifications to be created</i>	0	0
<i>Units of Competency to be updated*</i>	177	0
<i>Units of Competency to be deleted</i>	0	32
<i>Units of Competency to be created</i>	7	0
<i>Skill sets to be created</i>	1	0

## Executive summary

*\*These figures include units that will be updated to ensure compliance with policy, for example, the removal of “range of conditions” and other issues that have been identified. Please refer to Attachment 2 for the list of qualifications to be deleted, updated and the rationale behind changes to each unit.*

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# ***Vocational Preparation***

## ***1.1 Project background***

High level consultation conducted in January – March 2018 identified the following issues with the qualifications:

- The structure and content of entry-level qualifications requires a review to better meet learner and industry needs. These qualifications should be used to encourage learners to enter the automotive industry.
- Knowledge and skills gaps were identified in entry-level qualifications, specifically the need to develop practical skills.
- Technological advancements within the industry are changing skill requirements, further emphasising the importance of developing practical skills in entry level learners.

### **Qualifications in scope:**

- AUR10116 Certificate I in Automotive Vocational Preparation
- AUR20716 Certificate II in Automotive Vocational Preparation

## ***1.2 Key consultation insights***

In total, 180 stakeholders from around Australia were consulted for this project.

- 27 Students enrolled in a qualification from the AUR training package
- 113 Industry and Industry Association representatives
- 40 RTO/School teachers who deliver Automotive Vocational Preparation qualifications
- Australasian Curriculum, Assessment and Certification Authorities representative from each state/territory

Table 1 below provides a summary of key insights from stakeholders who were consulted for feedback:

**Table 1. Key insights identified from industry consultation**

Ref	Consultation insights	Proposed recommendation
1	<p><b>The vocational preparation qualifications should be used to develop basic skills that would be beneficial to a learner if they chose to enter the automotive industry. Graduates of this qualification are not job-ready.</b></p> <ul style="list-style-type: none"> <li>• The majority of employers believe vocational preparation learners should develop basic practical skills. Specific skills that were desired included: safety awareness, environment awareness, identification of tools and basic servicing.</li> <li>• All vocational preparation students stated they preferred practical tasks, and indicated that exposure to practical activities would make them more likely to consider a career in the automotive industry.</li> <li>• The majority of employers stated they would be more likely to hire an apprentice who had completed a vocational preparation qualification as it indicated an interest in the industry and they would assume the learner had basic practical skills.</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure the purpose of the qualification is clear to the automotive industry.               <ul style="list-style-type: none"> <li>○ Update qualification description to ensure the outcome of the qualification is clear.</li> <li>○ Review elective bank to ensure skills and knowledge developed are appropriate for a preparatory qualification.</li> </ul> </li> </ul>
2	<p><b>The qualifications should be used to encourage learners to enter the automotive industry, highlighting the different career pathways that can be taken and technological</b></p>	<ul style="list-style-type: none"> <li>• It is not the role of the training package to explain pathways within the industry.               <ul style="list-style-type: none"> <li>○ The training package articulates the required</li> </ul> </li> </ul>

Ref	Consultation insights	Proposed recommendation
	<p><b>advancements within the industry.</b></p> <ul style="list-style-type: none"> <li>The majority of employers believed the Vocational Preparation qualifications are an important tool for encouraging learners to enter the industry.</li> <li>Employers were not concerned that very few learners who enrol onto a Vocational Preparation course, enter the automotive industry, as long it led to a more learners considering it as an option than if the qualification did not exist.</li> <li>Employers stated learners should be taught about career pathways within the automotive industry. E.g. running your own business, workshop manager, master technician etc.</li> </ul>	<p>standard to meet an occupational outcome. Pathways within the industry should be discussed with the learner during delivery and through the curriculum. It should not be defined in the training package.</p>

### 1.2.1 Dissenting views and outstanding issues expressed during consultation

**Table 2. Dissenting views**

Ref	Dissenting view	How it will be addressed
1	<p>A number of stakeholders suggested a minimum of 40 hours of work experience should be mandatory before a learner is able to complete</p>	<ul style="list-style-type: none"> <li>The majority of stakeholders agreed a work experience placement would be beneficial to learners as they would develop a greater understanding of an automotive workplace, as well as exposure to employers who may choose to offer the learner an apprenticeship. As such, most states already recommend a period</li> </ul>

Ref	Dissenting view	How it will be addressed
	<i>AUR20716 Certificate II in Automotive Vocational Preparation.</i>	<p>of work experience within this qualification.</p> <ul style="list-style-type: none"> <li>• There were concerns that mandating work experience would be to the detriment of vulnerable learners (e.g. young people in rehabilitation facilities or very remote areas) that are currently benefiting from the qualification. There were also concerns that many schools would simply be unable to arrange work experience placements for their students as there were not enough businesses in the local area to facilitate this.</li> <li>• A 40 hour work experience placement will be recommended as part of <i>AUR20716 Certificate II in Automotive Vocational Preparation</i> but will not be mandated.</li> </ul>
2	The practical skills and knowledge developed should not overlap with the skills that are developed within an automotive apprenticeship.	<ul style="list-style-type: none"> <li>• The majority of employers stated they were not comfortable with learners being deemed competent in practical tasks through the vocational preparation qualifications if it meant that they would not have to be reassessed on that task during their apprenticeship. The skills developed solely within a classroom were not seen as equivalent to the skills a learner would develop if they were practicing that skill, in the workplace, on a regular basis.</li> <li>• Competency is not determined based on the location the task has been undertaken, if an employer has concerns regarding the competency of a learner, this is a delivery and assessment issue and should be addressed to the regulator.</li> </ul>
3	<i>AURETRO03 Identify automotive electrical systems and components</i> is too difficult for a learner enrolled on <i>AUR10116 Certificate I in Automotive</i>	<ul style="list-style-type: none"> <li>• The skills and knowledge developed in <i>AURETRO03</i> are in line with the Australian Qualifications Framework Level 1, and are therefore appropriate for inclusion within this qualifications.</li> <li>• It was noted that issues raised with this unit by training providers are likely to be</li> </ul>

Ref	Dissenting view	How it will be addressed
	<i>Vocational Preparation.</i>	caused by over-delivery of the unit, rather than the content of the unit itself.
4	Preparatory qualifications that do not have an occupational outcome should not be part of the Vocational Education and Training (VET) system.	<ul style="list-style-type: none"> <li data-bbox="909 427 1917 491">• A minority of stakeholders expressed concerns that the qualifications do not have an occupational outcome.</li> <li data-bbox="909 531 1917 659">• There is also a lack of data showing the destinations of graduates who complete vocational preparation qualifications. This makes it difficult to provide empirical evidence that more learners are entering the automotive industry than would be if the qualifications did not exist.</li> <li data-bbox="909 699 1917 762">• The majority of stakeholders are supportive of a preparatory qualification and did not raise concerns that the qualifications do not have an occupational outcome.</li> </ul>

# *Automotive Certificate IIs*

## *2.1 Project background*

High level consultation conducted in January – March 2018 identified the following issues with the qualifications:

- Light vehicle specialisation at a Certificate II level in some areas is not appropriate due to changes in skill needs and job roles.
- The structure and content of entry-level qualifications requires a review to better meet learner and industry needs. These qualifications should be used to support learners working as “technician’s assistants” in all sectors of the automotive industry.
- Overlap between Certificate II and Certificate III qualifications must be minimised.
- Knowledge and skills gaps were identified in entry-level qualifications, specifically the need to develop basic diagnostic skills.
- Technological advancements within the industry are changing skill requirements, specifically the increasing prevalence of hybrid and battery electric vehicles.

### **Qualifications in scope:**

- AUR20516 Certificate II in Automotive Servicing Technology
- AUR21816 Certificate II in Automotive Steering and Suspension System Technology
- AUR21316 Certificate II in Automotive Braking System Technology
- AUR21716 Certificate II in Automotive Exhaust System Technology
- AUR21216 Certificate II in Automotive Underbody Technology

## *2.2 Key consultation insights*

In total, 95 stakeholders from around Australia were consulted for this project.

- 53 Industry and Industry Association representatives
- 42 RTO/School teachers who deliver the in-scope qualifications

Table 3 below provides a summary of key insights from stakeholder feedback:

**Table 3. Key insights identified from industry consultation**

Ref	Consultation insights	Proposed recommendation
1	<p data-bbox="333 660 1167 687"><b>There is appetite within the industry for servicing personnel.</b></p> <ul style="list-style-type: none"> <li data-bbox="383 727 1167 874">• The increasingly complex nature of the automotive industry means many learners struggle to complete a Certificate III qualification, which is training the learner to become a technician. The role of a technician in an automotive workplace is becoming increasingly complex.</li> <li data-bbox="383 914 1167 1043">• A lot of the work that is undertaken in the automotive workplace, particularly in dealerships, is servicing and parts replacement - these tasks do not require the worker to hold a Certificate III qualification.</li> <li data-bbox="383 1083 1167 1212">• The skills and knowledge required to work in the servicing industry can be developed through <i>AUR20516 Certificate II in Automotive Servicing Technology</i>. This qualification is more commonly used as a traineeship or a pre-apprenticeship.</li> <li data-bbox="383 1252 1167 1319">• Industry stakeholders from a dealership environment noted that although <i>AUR20516 Certificate II in Automotive Servicing</i></li> </ul>	<ul style="list-style-type: none"> <li data-bbox="1229 660 2063 719">• No action will be taken to develop qualifications aligned to the roles of servicing personnel.                             <ul style="list-style-type: none"> <li data-bbox="1317 751 2063 839">○ <i>AUR20516 Certificate II in Automotive Servicing Technology</i> already exists to develop the skills and knowledge required to operate in the servicing industry.</li> <li data-bbox="1317 871 2063 991">○ The IRCs recognise that the qualification is not being used in this capacity and is more commonly used as a traineeship – however, it is not the role of the training package to determine how a qualification is delivered.</li> </ul> </li> </ul>

Ref	Consultation insights	Proposed recommendation
	<p><i>Technology</i> does meet the needs of their industry, it is difficult to attract learners into a Certificate II qualification, given the majority of workers in the industry hold a Certificate III qualification.</p>	
2	<p><b><i>AUR20516 Certificate II in Automotive Servicing Technology is not flexible enough to be used by multiple sectors in the industry.</i></b></p> <ul style="list-style-type: none"> <li>• For example, there are no units that focus on the marine and motorcycle sectors.</li> </ul>	<ul style="list-style-type: none"> <li>• Restructure the elective bank of <i>AUR20516 Certificate II in Automotive Servicing Technology</i> to meet the needs of a technician’s assistant across the automotive industry:               <ul style="list-style-type: none"> <li>○ Add “inspect and service” units from the following qualifications into the elective bank:                   <ul style="list-style-type: none"> <li>■ <i>AUR21816 Certificate II in Automotive Steering and Suspension System Technology</i></li> <li>■ <i>AUR21316 Certificate II in Automotive Braking System Technology</i></li> <li>■ <i>AUR21716 Certificate II in Automotive Exhaust System Technology</i></li> <li>■ <i>AUR 20616 Certificate II in Marine Mechanical Technology</i></li> </ul> </li> </ul> </li> </ul>
3	<p><b>The job roles associated with some Certificate II qualifications</b></p>	<ul style="list-style-type: none"> <li>• Delete the following qualifications:</li> </ul>

Ref	Consultation insights	Proposed recommendation
	<p><b>are no longer relevant.</b></p> <ul style="list-style-type: none"> <li>● Very few specialist brakes, exhaust, steering and suspension businesses were identified for consultation.</li> <li>● <i>AUR21316 Certificate II in Automotive Braking System Technology, AUR21716 Certificate II in Automotive Exhaust System Technology</i> have extremely low enrolment uptake .The servicing roles that are developed through these qualifications can be developed through <i>AUR20516 Certificate II in Automotive Servicing Technology</i>.</li> <li>● There is limited demand for modifying exhaust systems due to environmental and legal restrictions. Improvement in exhaust system materials has also extended the life of the system and does not require replacement unless it has been damaged in an accident.</li> <li>● <i>AUR21816 in Automotive Steering and Suspension System Technology</i> has experienced a recent increase in enrolments as it used by businesses that carry out tyre servicing and wheel alignment activities, these businesses require workers to have a basic understanding of steering and suspension systems. However, the core unit <i>AURTTA004 Carry out servicing operations</i> has been identified as problematic and difficult to achieve in these workplaces.</li> <li>● <i>AUR21216 Certificate II in Automotive Underbody Technology</i></li> </ul>	<ul style="list-style-type: none"> <li>○ <i>AUR21316 Certificate II in Automotive Braking System Technology</i></li> <li>○ <i>AUR21716 Certificate II in Automotive Exhaust System Technology</i></li> <li>● Re-structure core and elective bank of <i>AUR21816 in Automotive Steering and Suspension System Technology</i> to meet the needs of the industry that are using the qualifications <ul style="list-style-type: none"> <li>○ Move <i>AURTTA004 Carry out servicing operations</i> from core to elective bank.</li> <li>○ Create the following specialist elective groups: <ul style="list-style-type: none"> <li>■ Group A: <i>Carry out light vehicle wheel alignment operations</i></li> <li>■ Group B: <i>Carry out heavy vehicle wheel alignment operations</i></li> </ul> </li> </ul> </li> </ul>

Ref	Consultation insights	Proposed recommendation
	is meeting the needs of businesses that require workers to undertake parts replacement activities and basic servicing.	

### 2.2.1 Dissenting views and outstanding issues expressed during consultation

**Table 4. Dissenting views**

Ref	Dissenting view	How it will be addressed
1	Basic diagnostic skills should be developed within Certificate II qualifications.	<ul style="list-style-type: none"> <li>The majority of stakeholders agreed diagnosing a fault requires a high level of understanding of automotive systems and an ability to evaluate various sources of information. Some stakeholders believed introducing the thought process involved in diagnosis should be introduced at a Certificate II level using the unit <i>AURTTA018 Carry out diagnostic procedures</i>.</li> <li><i>AURTTA018 Carry out diagnostic procedures</i> is a core unit in a number of Certificate III qualifications. Given industry stakeholders have already expressed concerns regarding the volume of overlap between <i>AUR20516 Certificate II in Automotive Servicing Technology</i> and <i>AUR30616 Certificate III in Light Vehicle Mechanical Technology</i> it would be contradictory to include this unit within <i>AUR20516 Certificate II in Automotive Servicing Technology</i>.</li> <li><i>AURATA001 Identify basic automotive faults</i> using troubleshooting processes can be used to develop the diagnostic thought process and is appropriate for use at a Certificate II level.</li> </ul>

Ref	Dissenting view	How it will be addressed
2	Employing people to work in purely servicing roles will result in the exploitation of workers and limit future job opportunities.	<ul style="list-style-type: none"> <li>The qualification associated with the role of a servicing person already exists, but is more commonly used as a pre-apprenticeship. The purpose of <i>AUR20516 Certificate II in Automotive Servicing Technology</i> is to train workers who can undertake basic inspect and servicing tasks in the workplace. Workers that show an interest in further development can then choose to enrol on to another Certificate III qualification equipped with a much greater understanding of the trade and their role. There is no barrier to further development and employers stated they would prefer to hire an apprentice with prior work experience and a demonstrated commitment to the trade.</li> </ul>

# *Automotive Air Conditioning*

## *3.1 Project background*

High level consultation conducted in January – March 2018 identified the following issues with the qualifications:

- The primary job role from *AUR21416 Certificate II in Automotive cooling systems technology* is obsolete.
- Retrofit of air conditioning and HVAC (heating, ventilation and air conditioning) systems should not be carried out due to safety considerations and risks that have been identified over the past 20 years.
- The retrofit training component of *AURETU005 Retrofit and modify air conditioning and HVAC systems* should be removed from the performance evidence.
- Improvement opportunities such as developing the skill to read wiring diagrams and identification of gases were identified.

### **Qualifications in scope:**

- AUR21416 Certificate II in Automotive Cooling System Technology
- AUR20218 Certificate II in Automotive Air Conditioning Technology

## *3.2 Key consultation insights*

In total, 64 stakeholders from around Australia were consulted for this project.

- 26 Industry and Industry Association representatives
- 38 RTO/School teachers who deliver the in-scope qualifications

Table 5 below provides a summary of key insights from stakeholder feedback:

**Table 5. Key insights identified from industry consultation**

Ref	Consultation insights	Proposed recommendation
1	<p><b>The qualification associated with the role of “radiator repairer” has become obsolete.</b></p> <ul style="list-style-type: none"> <li>The primary occupation and purpose of <i>AUR21416 Certificate II in Automotive Cooling System Technology</i> was to become an automotive radiator repairer. Radiators are now more likely to be replaced instead of repaired (due to higher costs of repair compared to replacement, particularly for light vehicles). The skills required to repair a radiator are still relevant within the heavy vehicles industry but do not warrant their own qualification.</li> <li>The qualification has become obsolete. There have been no enrolments in the qualification in 2015 and 2016.</li> <li>The units <i>AURETU004 Diagnose and repair air conditioning and HVAC systems</i>, <i>AURTTCo01 Inspect and service cooling systems</i> and <i>AURTTCo03 Diagnose and repair cooling systems</i> have been identified by industry as sufficiently encompassing the knowledge and training required for automotive cooling systems and are available in a range of other AUR qualifications.</li> </ul>	<ul style="list-style-type: none"> <li>Delete <i>AUR21416 Certificate II in Automotive Cooling System Technology</i> ensuring the skills required to repair radiators remain within the AUR training package. <ul style="list-style-type: none"> <li>Include the unit <i>AURTTCo02 Repair radiators</i> in the elective bank of <i>AUR31116 Certificate III in Heavy Commercial Vehicle Mechanical Technology</i>.</li> </ul> </li> </ul>

Ref	Consultation insights	Proposed recommendation
2	<p><b>Air Conditioning technicians do not have sufficient understanding of how to handle various refrigerants and the associated safety implications.</b></p> <ul style="list-style-type: none"> <li>● In order to obtain <i>AACo2 - Refrigerant handling licence – qualified persons (Automotive air conditioning licence: 2 &amp; 3 years)</i> a person must hold <i>AUR20218 Certificate II in Automotive Air Conditioning Technology</i>.</li> <li>● Many learners obtain the above license through or upon completion of their apprenticeship by completing the following units: <ul style="list-style-type: none"> <li>○ <i>AURETU003 Service air conditioning and HVAC systems</i></li> <li>○ <i>AURETU004 Diagnose and repair air conditioning and HVAC systems</i></li> </ul> </li> <li>● Many workers who hold the license have insufficient knowledge of refrigerants, safe handling of flammable refrigerants and legislative requirements.</li> <li>● These issues have been highlighted and raised by the Australian Refrigeration Council who have conducted an independent assessment of training for holders of <i>AACo2 - Refrigerant handling licence – qualified persons</i>.</li> </ul>	<ul style="list-style-type: none"> <li>● Update <i>AUR20218 Certificate II in Automotive Air Conditioning Technology</i> to ensure sufficient knowledge of vehicle refrigerants: <ul style="list-style-type: none"> <li>○ Ensure knowledge of refrigerants, safe handling of flammable refrigerants and legislative requirements are included in the following units: <ul style="list-style-type: none"> <li>■ <i>AURETU003 Service air conditioning and HVAC systems</i></li> <li>■ <i>AURETU004 Diagnose and repair air conditioning and HVAC systems</i></li> </ul> </li> </ul> </li> </ul>

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Ref	Consultation insights	Proposed recommendation
3	<p data-bbox="315 389 965 445"><b>Reading wiring diagrams is a useful skill for air conditioning technicians.</b></p> <ul data-bbox="360 491 1093 655" style="list-style-type: none"><li data-bbox="360 491 1093 655">• All HVAC systems are run and controlled by electrical and electronic circuits and body control modules. Therefore, a technician would benefit from reading and applying electrical and electronic schematics in order to trace system faults.</li></ul>	<ul data-bbox="1173 389 1984 655" style="list-style-type: none"><li data-bbox="1173 389 1984 483">• Update <i>AUR20218 Certificate II in Automotive Air Conditioning Technology</i> to enable learners to develop skills to read wiring diagrams:<ul data-bbox="1272 523 1984 655" style="list-style-type: none"><li data-bbox="1272 523 1984 547">○ Add the following unit to the elective bank:<ul data-bbox="1368 587 1984 655" style="list-style-type: none"><li data-bbox="1368 587 1984 655">■ <i>AURETRO16 - Read and apply vehicle wiring schematics and drawings</i></li></ul></li></ul></li></ul>

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# ***Tyre Fitting and Management***

## ***4.1 Project background***

High level consultation conducted in January – March 2018 identified the following issues with the qualifications:

- *AUR32616 Certificate III in Automotive Tyre Management* does not fulfil a clear need in industry.
- *AUR21916 Certificate II in Automotive Tyre Servicing Technology* can be improved so it is better aligned to the tasks a learner would complete in the workplace.

### **Qualifications in scope:**

- AUR21916 Certificate II in Automotive Tyre Servicing Technology
- AUR32616 Certificate III in Automotive Tyre Management

## ***4.2 Key consultation insights***

In total, 53 stakeholders from around Australia were consulted for this project.

- 25 Industry and Industry Association representatives
- 28 RTO/School teachers who deliver the in-scope qualifications

Table 6 below provides a summary of key insights from stakeholder feedback:

**Table 6. Key insights identified from industry consultation**

Ref	Consultation insights	Proposed recommendation
1	<p>There is appetite for a qualification that meets the needs of a “tyre fleet manager.”</p> <ul style="list-style-type: none"> <li>Specific skills that would be useful for the role of a tyre fleet manager include: Managing the storage of tyre rims, non-destructive testing of rims, troubleshooting tyres, inspection of tyres and determining the appropriate actions.</li> </ul>	<ul style="list-style-type: none"> <li>Re-structure the core and elective bank of <i>AUR32616 Certificate III in Automotive Tyre Management</i> to meet the needs of a tyre fleet manager.</li> </ul>

#### 4.2.1 Dissenting views and outstanding issues expressed during consultation

**Table 7. Dissenting views**

Ref	Dissenting view	How it will be addressed
1	<p>Training in certain areas is duplicative and does not reflect the task that would be completed in the workplace. The removal of a tyre and tube is part of removing and refitting a wheel and tyre. These skills should not be developed within separate units.</p>	<ul style="list-style-type: none"> <li>The Automotive IRCs recognised that the skills and knowledge developed in units requiring learners to remove, inspect and re-fit vehicle wheel and tyre assemblies, duplicates content that is delivered in the removal, inspection, repair and re-fit of vehicle tyres and tubes.</li> <li>The IRCs noted that although a learner will commonly be asked to remove a wheel and tyre assembly, they may not commonly be asked to repair a tyre tube. It is therefore important that the skill of repairing a tyre tube is taught separately</li> </ul>

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Ref	Dissenting view	How it will be addressed
		to the skill of removing a tyre.

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# *Light Vehicle Mechanical Technology*

## *5.1 Project background*

High level consultation conducted in January – March 2018 identified the following issues with the qualifications:

- Light vehicle mechanical technicians do not have the technical skills to operate on interconnected and interdependent systems that are becoming commonplace in the light vehicles market.
- The distinction between an automotive electrician and light vehicle mechanical technician has reduced and all technicians within the light vehicle industry are expected to have electrical skills and understanding of electronic systems.
- The importance of using manufacturer specifications and procedures must be emphasised within the training.
- Units of competency need updating for currency and inclusion of new technologies.
- “Diagnose and Repair” units need updating to reflect industry concerns that these units are delivered inconsistently across the AUR Training Package
- Units of competency with ambiguous Performance or Knowledge Evidence sections require updating.
- A gap in training on safety restraint systems (SRS) was identified.

### **Qualifications in scope:**

- AUR30616 Certificate III in Light Vehicle Mechanical Technology

## *5.2 Key consultation insights*

In total, 108 stakeholders from around Australia were consulted for this project.

- 55 Industry and Industry Association representatives
- 44 RTO/School teachers who deliver the in-scope qualifications
- 9 Students enrolled in a qualification from the AUR training package

Table 8 below provides a summary of key insights from stakeholder feedback:

**Table 8. Key insights identified from industry consultation**

Ref	Consultation insights	Proposed recommendation
1	<p><b>Diagnostic skills that are being developed through the <i>Certificate III in Light Vehicle Mechanical Technology</i> are insufficient.</b></p> <ul style="list-style-type: none"> <li>• The training package is not developing an understanding of the diagnostic process and how to logically flow through a problem.</li> <li>• The training package is not developing an understanding of how systems within a vehicle work, in order to be able to diagnose a fault effectively.</li> <li>• The training package is not developing an understanding of how to use the outputs of a diagnostic scan tool beyond identifying the fault code.</li> </ul>	<ul style="list-style-type: none"> <li>• Update <i>AURTTA018 Carry out diagnostic procedures</i> to ensure it is fulfilling its intended purpose of introducing the diagnostic thought process.</li> <li>• Update <i>AUR30616 Certificate III in Light Vehicle Mechanical Technology</i> to support development of diagnostic skills: <ul style="list-style-type: none"> <li>○ Update all “Diagnose and Repair” units within qualification to include: <ul style="list-style-type: none"> <li>■ Methods of gathering and assessing diagnostic information</li> <li>■ Accessing and interpreting manufacturer procedures or equivalent documentation including flow-charts and diagnosis charts</li> <li>■ Differentiating between fault symptoms and fault causes.</li> </ul> </li> </ul> </li> </ul>
2	<p><b>The electrical skills that are being developed through <i>AUR30616 Certificate III in Light Vehicle Mechanical Technology</i> are insufficient.</b></p> <ul style="list-style-type: none"> <li>• Apprentices need greater exposure to electrical systems that are becoming increasingly prevalent, e.g. CAN-BUS</li> </ul>	<ul style="list-style-type: none"> <li>• Update <i>AUR30616 Certificate III in Light Vehicle Mechanical Technology</i> to support development of electrical skills: <ul style="list-style-type: none"> <li>○ Update the following existing core electrical units of competency: <ul style="list-style-type: none"> <li>■ <i>AURETRO12 Test and repair basic electrical units</i></li> </ul> </li> </ul> </li> </ul>

Ref	Consultation insights	Proposed recommendation
3	<p>systems. These systems require learners to first develop an understanding of electrical principles and should be delivered towards the end of the learners Apprenticeship.</p> <ul style="list-style-type: none"> <li>Apprentices must be taught how to use an oscilloscope as electrical diagnostic skills become increasingly prevalent.</li> </ul> <p><b>Outdated technologies should be removed from the training package.</b></p> <ul style="list-style-type: none"> <li>Industry stakeholders agreed that the qualification should enable learners to successfully operate on light vehicles ranging from 2005 - 2030.</li> <li>Industry stakeholders recognised that there are still vehicles on the road from earlier than 2005, but these vehicles are in the minority and training should be provided within the workplace.</li> <li>Industry stakeholders acknowledged that in certain situations knowledge of outdated technologies is useful as it enables learners to see the mechanics of a vehicle component which are difficult to see in modern vehicles. However, the majority of stakeholders agreed that even if older technologies are useful learning resources, this did</li> </ul>	<ul style="list-style-type: none"> <li><i>AURETRO23 Diagnose and repair spark ignition engine management systems</i></li> <li><i>AURETRO25 Test, charge and replace batteries and jump-start vehicles</i></li> <li><i>AURETRO29 Diagnose and repair charging systems</i></li> <li><i>AURETRO30 Diagnose and repair starting systems</i></li> <li><i>AURETRO31 Diagnose and repair ignition systems</i></li> </ul> <ul style="list-style-type: none"> <li>Remove technologies that are not relevant to vehicles beyond 2005 from the AUR training package: <ul style="list-style-type: none"> <li>Specific outdated technologies that have already been identified for removal include: <ul style="list-style-type: none"> <li>Carburettors (within specific units)</li> <li>Kettering ignition systems</li> </ul> </li> </ul> </li> </ul>

Ref	Consultation insights	Proposed recommendation
	not warrant their inclusion within the training package.	

## 5.2.1 Dissenting views and outstanding issues expressed during consultation

**Table 9. Dissenting views**

Ref	Dissenting view	How it will be addressed
1	Depower hybrid and battery electric vehicles should be a core unit	<ul style="list-style-type: none"> <li>• The majority of stakeholders agreed the prevalence of hybrid vehicles on Australian roads is likely to increase, however some stakeholders did not believe the projected increase would be large enough to support mandatory training of apprentices on hybrid vehicles.</li> <li>• Regional stakeholders noted they would be less likely to come across a hybrid vehicle when compared to metropolitan stakeholders.</li> <li>• The key issue when operating on a hybrid or battery electric vehicle is the increased safety awareness, this information can be built into a safety unit.</li> <li>• Making a hybrid vehicle core in the qualification may cause issues for regional stakeholders and so will not be mandated in the training package.</li> <li>• Considering that it is important that learners can identify a hybrid vehicle and understand the dangers, this information will be embedded into <i>AURASA002 Follow safe working practices</i></li> </ul>

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Ref	Dissenting view	How it will be addressed
		<i>in an automotive workplace.</i>

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# *Automotive Electrical Technology*

## *6.1 Project background*

High level consultation conducted in January – March 2018 identified the following issues with the qualifications:

- The distinction between an automotive electrician and mechanical technician has reduced and all technicians within the automotive industry are expected to have electrical skills and understanding of electronic systems.
- As vehicles become more complex, the ability to diagnose complex electrical faults has become more important - this requires all technicians to develop fundamental electrical skills and continue upskilling throughout their careers.
- The projected growth of hybrid and electric vehicles within Australia means that all learners must also be equipped with the knowledge of how to safely handle high voltages.
- Overlap between Certificate II and Certificate III qualifications must be minimised.
- The importance of using manufacturer specifications and procedures must be emphasised within the training.
- Units of competency need updating for currency and inclusion of new technologies.
- “Diagnose and Repair” units need updating to reflect industry concerns that these units are delivered inconsistently across the AUR Training Package
- Units of competency with ambiguous Performance or Knowledge Evidence require updating.

### **Qualifications in scope:**

- AUR20416 Certificate II in Automotive Electrical Technology
- AUR30316 Certificate III in Automotive Electrical Technology

## *6.2 Key consultation insights*

In total, 168 stakeholders from around Australia were consulted for this project.

- 110 Industry and Industry Association representatives
- 55 RTO/School teachers who deliver the in-scope qualifications
- 3 Students of the in-scope qualifications

Table 10 below provides a summary of key insights from stakeholder feedback:

**Table 10. Key insights identified from industry consultation**

Ref	Consultation insights	Proposed recommendation
1	<p data-bbox="331 791 1048 887"><b>Diagnostic skills that are being developed through <i>AUR30316 Certificate III in Automotive Electrical Technology</i> are insufficient.</b></p> <ul style="list-style-type: none"> <li data-bbox="383 927 1048 1023">• The training package is not developing an understanding of the diagnostic process and how to logically flow through a problem.</li> <li data-bbox="383 1062 1048 1158">• The training package is not developing an understanding of how systems within a vehicle work, in order to be able to diagnose a fault effectively.</li> <li data-bbox="383 1198 1048 1294">• The training package is not developing an understanding of how to use the outputs of a diagnostic scan tool beyond identifying the fault</li> </ul>	<ul style="list-style-type: none"> <li data-bbox="1137 791 2078 855">• Update <i>AURTTA018 Carry out diagnostic procedures</i> to ensure it is fulfilling its intended purpose of introducing the diagnostic thought process.</li> <li data-bbox="1137 887 2078 1262">• Update <i>AUR30316 Certificate III in Automotive Electrical Technology</i> to support development of diagnostic skills: <ul style="list-style-type: none"> <li data-bbox="1234 991 2078 1054">○ Update all “Diagnose and Repair” units within qualification to include: <ul style="list-style-type: none"> <li data-bbox="1330 1094 2078 1126">■ Methods of gathering and assessing diagnostic information</li> <li data-bbox="1330 1166 2078 1262">■ Accessing and interpreting manufacturer procedures or equivalent documentation including flow-charts and diagnosis charts</li> </ul> </li> </ul> </li> </ul>

Ref	Consultation insights	Proposed recommendation
	code.	<ul style="list-style-type: none"> <li>■ Differentiating between fault symptoms and fault causes</li> </ul>
2	<p><b>Learners should be developing technical skills at trade school.</b></p> <ul style="list-style-type: none"> <li>● Employers agreed that non-technical skills such as communication, writing and reading were extremely important in order to succeed in the automotive industry.</li> <li>● Employers did not believe non-technical skills should be taught at the expense of technical skills.</li> <li>● Non-technical skills should be taught alongside technical skills as this makes the learning more relevant.</li> </ul>	<ul style="list-style-type: none"> <li>● Restructure the elective bank of <i>AUR30316 Certificate III in Automotive Electrical Technology</i> to support the development of technical skills:             <ul style="list-style-type: none"> <li>○ Remove the following units from the qualification:                 <ul style="list-style-type: none"> <li>■ <i>AURAKA002 Adapt work processes to new technologies in an automotive workplace</i></li> <li>■ <i>AURAMA001 Work effectively with others in an automotive workplace</i></li> <li>■ <i>AURAMA002 Communicate business information in an automotive workplace</i></li> <li>■ <i>AURAQA002 Inspect technical quality of work in an automotive workplace</i></li> <li>■ <i>AURAQA003 Maintain quality processes in an automotive workplace</i></li> </ul> </li> </ul> </li> </ul>
3	<p><b>Vehicle battery voltages are becoming larger and more dangerous.</b></p>	<ul style="list-style-type: none"> <li>● Update units involving batteries to ensure sufficient inclusion of safe working practices:</li> </ul>

Ref	Consultation insights	Proposed recommendation
4	<p data-bbox="331 775 1039 871"><b>Knowledge of engine operations developed through <i>AUR30316 Certificate III in Automotive Electrical Technology</i> is insufficient.</b></p> <ul data-bbox="383 911 1039 1249" style="list-style-type: none"> <li data-bbox="383 911 1039 1078">• In order to diagnose electrical faults, learners must first develop an understanding of how an engine works. Automotive electricians must develop this understanding, but are not expected to have the same mechanical knowledge as a mechanical technician.</li> <li data-bbox="383 1118 1039 1249">• Automotive electricians are currently expected to <i>Apply knowledge of petrol and diesel engine operation</i> without first understanding the basic principles of engine operation.</li> </ul>	<ul data-bbox="1137 355 2074 1007" style="list-style-type: none"> <li data-bbox="1137 355 2074 552">○ Update the following units: <ul data-bbox="1328 424 2074 552" style="list-style-type: none"> <li data-bbox="1328 424 2074 448">■ <i>AURETRO15 Inspect, test and service batteries</i></li> <li data-bbox="1328 488 2074 552">■ <i>AURETRO25 Test, charge and replace batteries and jump-start vehicles</i></li> </ul> </li> <li data-bbox="1137 775 2074 1007">• Restructure the core and elective bank of <i>AUR30316 Certificate III in Automotive Electrical Technology</i> to develop basic understanding of engine operations: <ul data-bbox="1234 911 2074 1007" style="list-style-type: none"> <li data-bbox="1234 911 2074 1007">○ Move the following units from the elective to the core bank: <ul data-bbox="1328 975 2074 1007" style="list-style-type: none"> <li data-bbox="1328 975 2074 1007">■ <i>AURTTE004 Inspect and service engines</i></li> </ul> </li> </ul> </li> </ul>

## 6.2.1 Dissenting views and outstanding issues expressed during consultation

**Table 11. Dissenting views**

Ref	Dissenting view	How it will be addressed
1	Depower hybrid and battery electric vehicles should be a core unit	<ul style="list-style-type: none"> <li>The majority of stakeholders agreed the prevalence of hybrid vehicles on Australian roads is likely to increase, however some stakeholders did not believe the projected increase would be large enough to support mandatory training of apprentices on hybrid vehicles.</li> <li>Regional stakeholders noted they would be less likely to come across a hybrid vehicle when compared to metropolitan stakeholders.</li> <li>The key issue when operating on a hybrid or battery electric vehicle is the increased safety awareness, this information can be built into a safety unit.</li> <li>Making a hybrid vehicle core in the qualification may cause issues for regional stakeholders and so will not be mandated in the training package.</li> <li>As it is important that learners can identify a hybrid vehicle and understand the dangers, this information will be embedded into <i>AURASA002 Follow safe working practices in an automotive workplace</i>.</li> </ul>
2	The underpinning knowledge required by an automotive electrical apprentice is far greater than that required by a	<ul style="list-style-type: none"> <li>The majority of stakeholders agreed that the automotive electrical field is becoming increasingly specialised and complex. A minority of stakeholders stated the qualification needed to be updated to reflect the increased level of complexity and new units should be created specifically for automotive electricians.</li> </ul>

Ref	Dissenting view	How it will be addressed
	mechanical apprentice.	<ul style="list-style-type: none"> <li>A Certificate IV in Automotive Electrical Technology is available within the AUR training package for workers who wish to increase their understanding of electrical faults. Increasing the scope of existing units within the qualification, would make the units unsuitable for a Certificate III qualification.</li> </ul>
3	<p>Automotive electrical apprentices in heavy vehicle workplaces are unlikely to be exposed to systems that use petrol - exposure to these systems are core in <i>AUR30316 Certificate III in Automotive Electrical Technology</i> making the qualification difficult to contextualise.</p>	<ul style="list-style-type: none"> <li>The qualification aligns to the role of an automotive electrician. This worker will be expected to have knowledge of both petrol and diesel systems. If the learner only has experience with one system, it will reduce their ability to work in different environments.</li> </ul>

# ***Heavy Commercial Vehicle - Road Transport***

## ***7.1 Project background***

High level consultation conducted in January to March 2018 identified the following issues with the qualifications:

- Technological advancements in the heavy vehicle sector are changing skill requirements. Specifically there is an increased need for electrical and diagnostic skills.
- Overhauling is a specialised area experiencing decreasing demand as newer engines are removed and replaced instead of overhauled.
- Industry requires workers with a broader set of skills, reducing the need for specialist qualifications.
- “Diagnose and Repair” units need updating to reflect industry concerns that these units are delivered inconsistently across the AUR Training Package.
- Units of competency with ambiguous Performance or Knowledge Evidence require updating.

### **Qualifications in scope:**

- AUR31116 Certificate III in Heavy Commercial Vehicle Mechanical Technology
- AUR31416 Certificate III in Automotive Diesel Fuel Technology
- AUR31516 Certificate III in Automotive Diesel Engine Technology
- AUR40816 Certificate IV in Automotive Mechanical Overhauling

## ***7.2 Key consultation insights***

In total, 123 stakeholders from around Australia were consulted for this project.

- 80 Industry and Industry Association representatives

- 41 RTO/School teachers who deliver the in-scope qualifications
- 2 Students of the in-scope qualifications

Table 12 below provides a summary of key insights from stakeholder feedback:

**Table 12. Key insights identified from industry consultation**

Ref	Consultation insights	Proposed recommendation
1	<p><b>Diagnostic skills that are being developed through the <i>Certificate III in Heavy Commercial Vehicle Mechanical Technology</i>, <i>Certificate III in Automotive Diesel Fuel Technology</i> and <i>Certificate III in Automotive Diesel Engine Technology</i> are insufficient.</b></p> <ul style="list-style-type: none"> <li>• The training package is not giving apprentices the skills to understand the diagnostic process and logically flow through a problem.</li> <li>• The training package is not developing knowledge of how systems within a vehicle work, in order to be able to diagnose a fault effectively.</li> <li>• The training package is not developing an understanding of how to use the outputs of a diagnostic scan tool beyond identifying the fault code.</li> </ul>	<ul style="list-style-type: none"> <li>• Update <i>AUR31116 Certificate III in Heavy Commercial Vehicle Mechanical Technology</i>, <i>AUR31416 Certificate III in Automotive Diesel Fuel Technology</i> and <i>AUR31516 Certificate III in Automotive Diesel Engine Technology</i> to support development of diagnostic skills:             <ul style="list-style-type: none"> <li>○ Update all “Diagnose and Repair” units to include diagnostic process within knowledge evidence including:                 <ul style="list-style-type: none"> <li>■ Methods of gathering and assessing diagnostic information</li> <li>■ Accessing and interpreting manufacturer procedures or equivalent documentation including flow-charts and diagnosis charts</li> <li>■ Differentiating between fault symptoms and fault causes</li> </ul> </li> </ul> </li> </ul>

Ref	Consultation insights	Proposed recommendation
2	<p><b>Knowledge of heavy vehicle diesel fuel systems is inconsistent across the industry.</b></p> <ul style="list-style-type: none"> <li>• Diesel fuel injection systems are the most commonly used system in the heavy vehicle industry.</li> <li>• All apprentices are expected to have the skills and knowledge to operate on these systems.</li> <li>• Industry stakeholders agreed technology within the heavy vehicle sector is changing, however diesel fuel injection technology will remain prevalent in heavy vehicles for the foreseeable future.</li> </ul>	<p>The Heavy Vehicle IRC believes <i>AUR31116 Certificate III in Heavy Commercial Vehicle Mechanical Technology</i> provides sufficient opportunity to develop the skills and knowledge to operate on diesel fuel systems through the elective bank.</p> <ul style="list-style-type: none"> <li>○ <i>AURETRO24 Diagnose and repair compression ignition engine management systems</i> is a core unit in the qualification and provides the underlying skills required to operate on diesel systems.</li> <li>○ <i>AURHTF002 Diagnose and repair heavy vehicle diesel fuel injection systems</i> can be chosen as an elective.</li> </ul>
3	<p><b>The electrical skills that are being developed through the <i>AUR31116 Certificate III in Heavy Commercial Vehicle Mechanical Technology</i> are insufficient.</b></p> <ul style="list-style-type: none"> <li>• The training package does not equip apprentices with the necessary electrical fundamentals to move on to more advanced electrical tasks later in their apprenticeship.</li> <li>• Key electrical skills, including electrical fundamentals, and CAN-bus need to be delivered in the core of the qualification.</li> </ul>	<p>The Heavy Vehicle IRC believes <i>AUR31116 Certificate III in Heavy Commercial Vehicle Mechanical Technology</i> provides sufficient opportunity to develop electrical skills and knowledge through the elective bank.</p> <ul style="list-style-type: none"> <li>○ There are seven electrical units within the core bank that should be used to develop fundamental electrical skills.</li> <li>○ Employers who require their workers to have a deeper understanding of electrical systems should work with their training provider to choose the relevant elective units.</li> </ul>
4	<p><b>Outdated technologies should be removed from the training package.</b></p>	<ul style="list-style-type: none"> <li>• Remove technologies that are not relevant to vehicles</li> </ul>

Ref	Consultation insights	Proposed recommendation
5	<p><b>AUR31416 Certificate III in Automotive Diesel Fuel Technology and AUR31516 Certificate III in Automotive Diesel Engine Technology reflect small markets, but still contain skills demanded by industry.</b></p> <ul style="list-style-type: none"> <li data-bbox="360 1042 1227 1177">• Many employers will choose to put their apprentices through the <i>Certificate III in Heavy Commercial Vehicle Mechanical Technology</i>, instead of either of these qualifications as it is more attractive to prospective apprentices and provides a broader suite of skills.</li> <li data-bbox="360 1217 1167 1281">• However, there is still some industry demand for this specialised qualification.</li> </ul>	<p>earlier than 2005 from the AUR training package.</p> <ul style="list-style-type: none"> <li data-bbox="1346 906 1794 930">• Qualifications will not be removed</li> </ul>

Ref	Consultation insights	Proposed recommendation
6	<p><b>Overhauling is a specialised area experiencing decreasing demand as newer engines are removed and replaced instead of overhauled.</b></p> <ul style="list-style-type: none"> <li>There has been low enrolment uptake of the qualification from between 2014-16, with only 33 learners completing the qualification in 2016.</li> </ul> <p>Industry stakeholders noted the skill may still be relevant but the associated occupation is very niche and does not warrant its own qualification.</p>	<ul style="list-style-type: none"> <li>Delete <i>AUR40816 Certificate IV in Automotive Mechanical Overhauling</i>. <ul style="list-style-type: none"> <li>Create an overhauling skill set.</li> </ul> </li> </ul>

## 7.2.1 Dissenting views and outstanding issues expressed during consultation

**Table 13. Dissenting views**

Ref	Dissenting view	How it will be addressed
1	<p>As many specialist employers in diesel fuel and engine technology use <i>AUR31116 Certificate III in Heavy Commercial Vehicle Mechanical Technology</i>, both diesel qualifications should be deleted.</p>	<p>The majority of industry feedback indicated that, while niche, there was still a need for specialist diesel engine and fuel system technicians. Accordingly, it would be unsuitable to delete the qualification.</p>

# Heavy Commercial Trailer Technology

## 8.1 Project background

High level consultation conducted in January – March 2018 identified the following issues with the qualifications:

- Although the qualification has been identified as meeting the needs of the trailer industry, its purpose and the industry need that it purports to meet are unclear. The purpose of the qualification and the industry need it was meeting was unclear – the qualification has low enrolments and appears to be narrowing the future job opportunities of learners.

### Qualifications in scope:

- AUR31816 Certificate III in Heavy Commercial Trailer Technology

## 8.2 Key consultation insights

In total, 82 stakeholders from around Australia were consulted for this project.

- 66 Industry and Industry Association representatives
- 16 RTO/School teachers who deliver the in-scope qualifications

Table 14 below provides a summary of key insights from stakeholder feedback:

**Table 14. Key insights identified from industry consultation**

Ref	Consultation insights	Proposed recommendation
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Ref	Consultation insights	Proposed recommendation
1	<p><b>The qualification is meeting the needs of the trailer industry</b></p> <ul style="list-style-type: none"> <li>The skills needs of trailer technicians are different to those of a heavy commercial vehicle technician. For example, welding is an important skill for all trailer technicians but is not relevant to all heavy commercial b</li> <li>There is an increasing need for learners who have the skills to service and repair trailers, particularly given the increased legislative requirements within the heavy vehicles industry.</li> </ul>	<ul style="list-style-type: none"> <li>The qualification will not be removed from the AUR training package.</li> </ul>
2	<p><b>Some units of competency cannot be adequately contextualised for learners in the trailer space.</b></p> <p>Some units in the core of the <i>Certificate III in Heavy Commercial Trailer Technology</i> contain content which is not relevant to trailer service and repair.</p>	<ul style="list-style-type: none"> <li>Re-structure core and elective bank of <i>AUR31816 Certificate III in Heavy Commercial Trailer Technology</i> to meet skills needs of the trailer industry:             <ul style="list-style-type: none"> <li>Move the following units from the core to the elective bank:                 <ul style="list-style-type: none"> <li><i>AURTTA006 - Inspect and service hydraulic systems</i></li> </ul> </li> </ul> </li> </ul>

## 8.2.1 Dissenting views and outstanding issues expressed during consultation

**Table 15. Dissenting views**

Ref	Dissenting view	How it will be addressed
1	A learner who develops the skills to service and repair only trailers, may find their future career prospects limited. Therefore, this qualification should be deleted in favour of <i>AUR31116 Certificate III in Heavy Commercial Vehicle Mechanical Technology</i> .	<ul style="list-style-type: none"> <li>• Whilst many employers may choose to use AUR31116 to equip their apprentices with a broader suite of service and repair skills for heavy commercial vehicles, a strong industry need has been identified for specialist trailer technicians.</li> <li>• Further, a number of businesses exist which manufacture, and/or service and repair trailers only, making many units within AUR31116 undeliverable for these employers.</li> </ul>

# *Mobile Plant*

## *9.1 Project background*

High level consultation conducted in January – March 2018 identified the following issues with the qualifications:

- Technological advancements in the mobile plant sector are changing skill requirements, specifically there is an increased need for electrical and diagnostic skills.
- *AUR31716 Certificate III in Forklift Technology* and *AUR31916 Certificate III in Elevating Work Platform Technology* narrow a learner's future job opportunities and develop a similar skill set to learners enrolled on to *AUR31216 Certificate III in Mobile Plant Technology*.
- “Diagnose and Repair” units need updating to reflect industry concerns that these units are delivered inconsistently across the AUR Training Package
- Units of competency with ambiguous Performance or Knowledge Evidence require updating.

### **Qualifications in scope:**

- AUR31216 Certificate III in Mobile Plant Technology
- AUR31716 Certificate III in Forklift Technology
- AUR31916 Certificate III in Elevating Work Platform Technology

## *9.2 Key consultation insights*

In total, 78 stakeholders from around Australia were consulted for this project.

- 40 Industry and Industry Association representatives

- 38 RTO/School teachers who deliver the in-scope qualifications

Table 16 below provides a summary of key insights from stakeholder feedback:

**Table 16. Key insights identified from industry consultation**

Ref	Consultation insights	Proposed recommendation
1	<p><b>Diagnostic skills that are being developed through <i>AUR31216 Certificate III in Mobile Plant Technology</i> are insufficient.</b></p> <ul style="list-style-type: none"> <li>• The training package is not giving apprentices the skills to understand the diagnostic process and logically flow through a problem.</li> <li>• The training package is not developing knowledge of how systems within a vehicle work, in order to be able to diagnose a fault effectively.</li> <li>• The training package is not developing an understanding of how to use the outputs of a diagnostic scan tool beyond identifying the fault code.</li> </ul>	<ul style="list-style-type: none"> <li>• Update <i>AUR31216 Certificate III in Mobile Plant Technology</i> to support development of diagnostic skills:             <ul style="list-style-type: none"> <li>○ Update all “Diagnose and Repair” units to include diagnostic process within knowledge evidence including:                 <ul style="list-style-type: none"> <li>■ Methods of gathering and assessing diagnostic information</li> <li>■ Accessing and interpreting manufacturer procedures or equivalent documentation including flow-charts and diagnosis charts</li> <li>■ Differentiating between fault symptoms and fault causes</li> </ul> </li> </ul> </li> </ul>

Ref	Consultation insights	Proposed recommendation
2	<p><b>The electrical skills that are being developed through <i>AUR31216 Certificate III in Mobile Plant Technology Mechanical Technology</i> are insufficient.</b></p> <ul style="list-style-type: none"> <li>The qualification does not equip apprentices with the necessary electrical fundamentals to move on to more advanced electrical tasks later in their apprenticeship</li> <li>Key electrical skills, including electrical fundamentals, and CAN-bus need to be delivered in the core of the qualification</li> </ul>	<ul style="list-style-type: none"> <li>The Heavy Vehicle IRC believes <i>AUR31216 Certificate III in Mobile Plant Technology</i> provides sufficient opportunity to develop electrical skills and knowledge through the elective bank. <ul style="list-style-type: none"> <li>There are five electrical units within the core bank that should be used to develop fundamental electrical skills.</li> <li>Employers who require their workers to have a deeper understanding of electrical systems should work with their training provider to choose the relevant elective units.</li> </ul> </li> </ul>
3	<p><b><i>AUR31716 Certificate III in Forklift Technology</i> and <i>AUR31916 Certificate III in Elevating Work Platform Technology</i> represent narrow markets.</b></p> <ul style="list-style-type: none"> <li>These qualifications have very limited uptake due to low industry demand for apprentices that service only forklifts or elevating work platforms.</li> <li>Many employers which service only forklifts or elevating work platforms will use <i>AUR31216 Certificate III in Mobile Plant Technology</i> for their apprentices, as it provides them with a broader suite of trade skills.</li> </ul>	<ul style="list-style-type: none"> <li>Delete <i>AUR31716 Certificate III in Forklift Technology</i> and <i>AUR31916 Certificate III in Elevating Work Platform Technology</i> from the AUR training package.</li> <li>Re-structure the elective bank of <i>AUR31216 Certificate III in Mobile Plant Technology</i> to ensure it can be used to develop the skills needed to operate on forklifts or elevating work platform : <ul style="list-style-type: none"> <li>Create specialist elective streams for forklift and elevating work platforms, as well as a generalist mobile plant stream</li> <li>Add the following units of competency to the elective bank: <ul style="list-style-type: none"> <li>■ <i>TLILIC0003 Licence to operate a forklift truck</i></li> </ul> </li> </ul> </li> </ul>

Ref	Consultation insights	Proposed recommendation
4	<p data-bbox="315 528 987 619"><b>Outdated technologies must be removed from the training package. Some units must be updated to contain relevant technologies.</b></p> <ul data-bbox="365 663 1077 1209" style="list-style-type: none"> <li data-bbox="365 663 1077 754">● Industry stakeholders agreed that the qualification should enable learners to successfully operate on plant vehicles ranging from 2005 - 2030.</li> <li data-bbox="365 799 1077 930">● Industry stakeholders recognised that there are still vehicles on the road from earlier than 2005, but these vehicles are in the minority and training should be provided within the workplace.</li> <li data-bbox="365 975 1077 1209">● Industry stakeholders acknowledged that in certain situations, knowledge of outdated technologies is useful as it enables learners to see the mechanics of a vehicle component which are difficult to see in modern vehicles. However the majority of stakeholders agreed that even if older technologies are useful to learn, this did not warrant their inclusion within the training package.</li> </ul>	<ul data-bbox="1155 352 2040 587" style="list-style-type: none"> <li data-bbox="1346 352 2040 448">■ <i>TLILIC0005 Licence to operate a boom-type elevating work platform (boom length 11 metres or more)</i></li> <li data-bbox="1155 528 2040 587">● Remove technologies that are not relevant to vehicles earlier than 2005 from the AUR training package.</li> </ul>

# Agriculture

## 10.1 Project background

High level consultation conducted in January – March 2018 identified the following issues with the qualifications:

- The agricultural mechanical trade makes heavy use of OEM-provided training, due to most businesses aligning to a franchise.
- Industry expressed a strong desire for the qualification to provide strong trade fundamentals, specifically electrical and mechanical principles and diagnostic skills, providing a foundation to be built upon with OEM training programs.
- There is a gap in training for guidance and telematics systems and precision agriculture.

### Qualifications in scope:

- AUR30416 Certificate III in Agricultural Mechanical Technology

## 10.2 Key consultation insights

In total, 49 stakeholders from around Australia were consulted for this project.

- 35 Industry and Industry Association representatives
- 14 RTO/School teachers who deliver the in-scope qualifications

Table 17 below provides a summary of key insights from stakeholder feedback:

**Table 17. Key insights identified from industry consultation**

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Ref	Consultation insights	Proposed recommendation
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Ref	Consultation insights	Proposed recommendation
1	<p><b>AUR30416 Certificate III in Agricultural Mechanical Technology needs to do a better job of delivering fundamental trade skills, as the agriculture industry makes heavy use of OEM training programs.</b></p> <ul style="list-style-type: none"> <li>Most agricultural mechanical employers are aligned with a particular OEM, and will make heavy use of that OEM’s internal training to upskill their workforce.</li> <li>Further, there are very significant technical differences in equipment between OEMs.</li> <li>Accordingly, <i>AUR30416 Certificate III in Agricultural Mechanical Technology</i> should have a stronger focus on developing fundamental trade skills, and allow for more flexibility in electives.</li> </ul>	<ul style="list-style-type: none"> <li>Restructure the core and elective bank of <i>AUR30416 Certificate III in Agricultural Mechanical Technology</i> to emphasise fundamental skills: <ul style="list-style-type: none"> <li>Remove the following units of competency from : <ul style="list-style-type: none"> <li><i>AURAF003 Communicate effectively in an automotive workplace</i></li> <li><i>AURTTA005 Select and use bearings, seals, gaskets, sealants and adhesives</i></li> <li><i>AURHTQ003 Diagnose and repair heavy vehicle drive shafts</i></li> </ul> </li> <li>Add the following units of competency to the core bank of <i>AUR30416 Certificate III in Agricultural Mechanical Technology</i>: <ul style="list-style-type: none"> <li><i>Diagnose and repair precision agriculture systems (new unit – see consultation insight #2)</i></li> </ul> </li> </ul> </li> </ul>
2	<p><b>AUR30416 Certificate III in Agricultural Mechanical Technology needs to teach fundamentals of guidance and telematics</b></p>	<ul style="list-style-type: none"> <li>Update training products within <i>AUR30416 Certificate III in Agricultural Mechanical Technology</i> to enable development of skills and knowledge of guidance and telematics systems:</li> </ul>

Ref	Consultation insights	Proposed recommendation
	<p><b>systems.</b></p> <ul style="list-style-type: none"> <li>Precision agriculture is heavily utilised throughout the agriculture industry, but currently not represented in the training package.</li> <li>Industry has expressed a desire for the qualification to develop basic skills and knowledge of GPS systems, providing the foundation for the employer to upskill through OEM equipment-specific training.</li> </ul>	<ul style="list-style-type: none"> <li>Modify the following unit to become a generic unit for guidance system fundamentals: <ul style="list-style-type: none"> <li><i>AURETRO21 Inspect, service and repair electronic management, monitoring and tracking systems</i></li> </ul> </li> <li>Develop a new unit of competency for addition to the core bank of AUR30416: <ul style="list-style-type: none"> <li><i>Diagnose and repair precision agriculture systems</i></li> </ul> </li> </ul>
<p><b>Existing training is not appropriately contextualised to meet the needs of the agriculture industry.</b></p>	<ul style="list-style-type: none"> <li>Some units of competency within <i>Certificate III in Agricultural Mechanical Technology</i>, are developed for the mobile plant and/or heavy road vehicle sectors, and contain content inappropriate for an agricultural mechanic</li> <li>Many units of competency are titled to include “mobile plant” or “heavy vehicle”</li> </ul>	<ul style="list-style-type: none"> <li>Clarify the intent and application of existing training products: <ul style="list-style-type: none"> <li>Adjust the application statement of the following units to affirm that contextualisation should occur based on the occupation of the learner: <ul style="list-style-type: none"> <li><i>AURHTE002 Diagnose and repair heavy vehicle compression ignition engines</i></li> <li><i>AURHTF002 Diagnose and repair heavy vehicle diesel fuel injection systems</i></li> <li><i>AURHTQ003 Diagnose and repair heavy vehicle drive shafts</i></li> </ul> </li> </ul> </li> </ul>

Ref	Consultation insights	Proposed recommendation
	<p>in the title, resulting in an industry perception that the skills being delivered are irrelevant to the agriculture sector.</p> <ul style="list-style-type: none"> <li>In some cases, the assessment requirements for these units of competency contain content that an agricultural mechanical apprentice is unlikely to encounter.</li> </ul>	<ul style="list-style-type: none"> <li>■ <i>AURKTA011 Diagnose and repair mobile plant hydraulic systems</i></li> <li>■ <i>AURKTBO01 Diagnose and repair mobile plant braking systems</i></li> <li>■ <i>AURKTD002 Diagnose and repair mobile plant steering systems</i></li> <li>■ <i>AURKTQ001 Diagnose and repair mobile plant final drive assemblies</i></li> </ul> <ul style="list-style-type: none"> <li>● Update the following units of competency to ensure the assessment requirements are adequately flexible to be contextualised to the agricultural mechanical trade, including adjusting the application statement to affirm that contextualisation should occur based on the occupation of the learner:               <ul style="list-style-type: none"> <li>○ <i>AURHTF002 - Diagnose and repair heavy vehicle diesel fuel injection systems</i></li> <li>○ <i>AURKTBO01 - Diagnose and repair mobile plant braking systems</i></li> <li>○ <i>AURKTD002 - Diagnose and repair mobile plant steering systems</i></li> <li>○ <i>AURKTX001 - Diagnose and repair powershift transmissions</i></li> <li>○ <i>AURTTA005 - Select and use bearings, seals, gaskets, sealants and adhesives</i></li> <li>○ <i>AURTTB001 - Inspect and service braking systems</i></li> </ul> </li> </ul>

## 10.2.1 Dissenting views and outstanding issues expressed during consultation

**Table 18. Dissenting views**

Ref	Dissenting view	How it will be addressed
1	Size of core and elective bank of AUR30416	<ul style="list-style-type: none"> <li>Some stakeholders felt that the overall size of the qualification should be reduced, and that a reduction in the size of the core bank should also take place, to reduce the amount of work required to complete the qualification and provide apprentices with more time to dedicate toward the completion of OEM-specific training.</li> <li>However, the majority of stakeholders felt that the current size and structure of the qualification suits the need of the agricultural mechanical trade, with the exceptions noted above. As such, no sizeable reduction of the qualification is proposed.</li> </ul>

# Marine

## **11.1 Project background**

High level consultation conducted in January – March 2018 identified the following issues with the qualifications:

- Technology within the marine sector is advancing at a rapid pace and the training of apprentices needs to be updated accordingly. Outdated technologies should therefore be removed from the training package and more emphasis needs to be made on the diagnostic process and fundamental electrical skills.
- The purpose of the Certificate II in Marine Mechanical Technology is unclear and it has significant overlap with the Certificate III. The needs of the industry could be met through a general servicing qualification.
- Units of competency need updating for currency and inclusion of new technologies.
- Units of competency with ambiguous Performance or Knowledge Evidence require updating.

### **Qualifications in scope:**

- AUR20616 Certificate II in Marine Mechanical Technology
- AUR30516 Certificate III in Marine Mechanical Technology

## **11.2 Key consultation insights**

In total, 36 stakeholders from around Australia were consulted for this project.

- 28 Industry and Industry Association representatives
- 8 RTO/School teachers who deliver the in-scope qualifications

Table 19 below provides a summary of key insights from stakeholder feedback:

**Table 19. Key insights identified from industry consultation**

Ref	Consultation insights	Proposed recommendation
1	<p><b>Diagnostic skills that are being developed through <i>AUR30516 Certificate III in Marine Mechanical Technology</i> are insufficient.</b></p> <ul style="list-style-type: none"> <li>• The training package is not developing an understanding of the diagnostic process and how to logically flow through a problem.</li> <li>• The training package is not developing an understanding of how systems within a vehicle work, in order to be able to diagnose a fault effectively.</li> <li>• The training package is not developing an understanding of how to use the outputs of a diagnostic scan tool beyond identifying the fault code.</li> </ul>	<ul style="list-style-type: none"> <li>• Update <i>AUR30516 Certificate III in Marine Mechanical Technology</i> to support development of diagnostic skills: <ul style="list-style-type: none"> <li>○ Update all “Diagnose and Repair” units within qualification to include: <ul style="list-style-type: none"> <li>■ Methods of gathering and assessing diagnostic information</li> <li>■ Accessing and interpreting manufacturer procedures or equivalent documentation including flow-charts and diagnosis charts</li> <li>■ Differentiating between fault symptoms and fault causes</li> </ul> </li> </ul> </li> </ul>
2	<p><b>The electrical skills that are being developed through the <i>Certificate III in Marine Mechanical Technology</i> are insufficient.</b></p> <ul style="list-style-type: none"> <li>• Apprentices need greater exposure to electrical systems that are becoming increasingly prevalent. There is currently no training within the qualification that is developing the required skills and knowledge to operate on CAN-BUS</li> </ul>	<ul style="list-style-type: none"> <li>• Restructure the elective bank of <i>AUR30516 Certificate III in Marine Mechanical Technology</i> to develop electrical skills: <ul style="list-style-type: none"> <li>○ Create a new unit to be added to the elective bank: <ul style="list-style-type: none"> <li>■ <i>Diagnose and repair marine network electronic control systems</i></li> </ul> </li> </ul> </li> </ul>

Ref	Consultation insights	Proposed recommendation
	systems.	
3	<p><b>Learners should be developing technical skills at trade school.</b></p> <ul style="list-style-type: none"> <li>Employers agreed that non-technical skills such as communication, writing and reading were extremely important in order to succeed in the automotive industry.</li> <li>Employers did not believe non-technical skills should be taught at the expense of technical skills.</li> <li>Non-technical skills should be taught alongside technical skills as this makes the learning more relevant.</li> </ul>	<ul style="list-style-type: none"> <li>Restructure the elective bank of <i>AUR30516 Certificate III in Marine Mechanical Technology</i> to support the development of technical skills: <ul style="list-style-type: none"> <li>Remove the following units from the qualification: <ul style="list-style-type: none"> <li><i>AURAF002 Read and respond to automotive workplace information</i></li> <li><i>AURAF003 Communicate effectively in an automotive workplace</i></li> <li><i>AURAF004 Resolve routine problems in an automotive workplace</i></li> <li><i>AURAF005 Write routine texts in an automotive workplace</i></li> <li><i>AURAMA001 Work effectively with others in an automotive workplace</i></li> <li><i>AURAMA002 Communicate business information in an automotive workplace</i></li> <li><i>AURAQA001 Contribute to quality work outcomes</i></li> </ul> </li> </ul> </li> </ul>

Ref	Consultation insights	Proposed recommendation
		<i>in an automotive workplace</i>
4	<p><b>The skills and knowledge required to operate on marine engines <i>Certificate III in Marine Mechanical Technology</i> are insufficient.</b></p> <ul style="list-style-type: none"> <li>All apprentices require exposure to marine engines and are expected to have the skills and knowledge to inspect, service, diagnose and repair an engine.</li> <li>Many workplaces will only operate on inboard engines and others will only operate on outboard engines. Mandating learners to have exposure to both engine types would not meet industry needs, but exposure to at least of one system is necessary to succeed in the role of marine servicing technician.</li> </ul>	<ul style="list-style-type: none"> <li>Restructure the elective bank of <i>AUR30516 Certificate III in Marine Mechanical Technology</i> to develop skills and knowledge to operate on engines: <ul style="list-style-type: none"> <li>Add the following units of competency to the bank: <ul style="list-style-type: none"> <li>AURRTE002 Inspect and service marine outboard engines</li> <li>AURRTE003 Inspect and service marine inboard engines</li> </ul> </li> </ul> </li> </ul>
5	<p><b><i>AUR20516 Certificate II in Marine Mechanical Technology</i> is not meeting industry needs.</b></p> <ul style="list-style-type: none"> <li>A significant proportion of the skills that are developed within <i>AUR20616 Certificate II in Marine Mechanical Technology</i> can be developed in <i>AUR30516 Certificate III in Marine Mechanical Technology</i>, which is delivered as an apprenticeship.</li> </ul>	<ul style="list-style-type: none"> <li>Delete <i>AUR20616 Certificate II in Marine Mechanical Technology</i> and ensure <i>AUR20516 Certificate II in Automotive Servicing Technology</i> can meet the needs of the marine industry: <ul style="list-style-type: none"> <li>Add the following units of competency to the elective bank of <i>AUR20516 Certificate II in Automotive Servicing Technology</i>: <ul style="list-style-type: none"> <li>■ <i>AURRTE002 Inspect and service marine outboard</i></li> </ul> </li> </ul> </li> </ul>

Ref	Consultation insights	Proposed recommendation
	<ul style="list-style-type: none"> <li>• Industry would prefer learners who have completed a Certificate II qualification as it would demonstrate a passion for the automotive industry.</li> <li>• The skills and knowledge developed within a Certificate II qualification do not need to be specific to the marine industry.</li> <li>• Desirable skills and knowledge that should be developed through a Certificate II qualification include: safety, environmental awareness, basic servicing and basic electrical skills.</li> </ul>	<p><i>engines</i></p> <ul style="list-style-type: none"> <li>■ <i>AURRTE003 Inspect and service marine inboard engines</i></li> <li>■ <i>AURRTQ001 Inspect and service marine inboard propeller drive systems</i></li> <li>■ <i>AURRTQ002 Inspect and service marine jet drive propulsion systems</i></li> <li>■ <i>AURRTX001 Inspect and service marine outboard and stern drive transmissions</i></li> <li>■ <i>AURRTX002 Inspect and service marine inboard transmissions</i></li> <li>■ <i>AURRTA001 Inspect and service deck, hull and cabin equipment</i></li> <li>■ <i>AURRTE001 Carry out wet run tests on vessel outboard engines</i></li> <li>■ <i>AURRTE010 Test marine engines in water tanks</i></li> <li>■ <i>AURRTR001 Inspect, service and maintain marine battery storage systems</i></li> </ul>

# *Motorcycles*

## *12.1 Project background*

High level consultation conducted in January – March 2018 identified the following issues with the qualifications:

- Technology within the motorcycle sector is advancing at a rapid pace and the training of apprentices needs to be updated accordingly - outdated technologies must be removed from the training package and more emphasis needs to be made on the diagnostic process and fundamental electrical skills.
- There are fundamental difference between certain systems on light vehicles and motorcycles, it is inappropriate for units to be used for apprentices in both sectors and training specific to motorcycle technicians must be developed.
- Entry level units can be added to a Certificate II qualification to provide a pathway into the industry.
- Units of competency need updating for currency and inclusion of new technologies.
- Units of competency with ambiguous Performance or Knowledge Evidence require updating.

### **Qualifications in scope:**

- AUR30816 Certificate III in Motorcycle Mechanical Technology

## *12.2 Key consultation insights*

In total, 33 stakeholders from around Australia were consulted for this project.

- 31 Industry and Industry Association representatives
- 2 RTO/School teachers who deliver the in-scope qualifications

Table 20 below provides a summary of key insights from stakeholder feedback:

**Table 20. Key insights identified from industry consultation**

Ref	Consultation insights	Proposed recommendation
1	<p><b>Diagnostic skills that are being developed through the <i>Certificate III in Motorcycle Mechanical Technology</i> are insufficient.</b></p> <ul style="list-style-type: none"> <li>● The training package is not developing an understanding of the diagnostic process and how to logically flow through a problem.</li> <li>● The training package is not developing an understanding of how systems within a vehicle work, in order to be able to diagnose a fault effectively.</li> <li>● The training package is not developing an understanding of how to use the outputs of a diagnostic scan tool beyond identifying the fault code.</li> </ul>	<ul style="list-style-type: none"> <li>● Update <i>AUR30816 Certificate III in Motorcycle Mechanical Technology</i> to support development of diagnostic skills: <ul style="list-style-type: none"> <li>○ Update all “Diagnose and Repair” units within qualification to include: <ul style="list-style-type: none"> <li>■ Methods of gathering and assessing diagnostic information</li> <li>■ Accessing and interpreting manufacturer procedures or equivalent documentation including flow-charts and diagnosis charts</li> <li>■ Differentiating between fault symptoms and fault causes.</li> </ul> </li> </ul> </li> </ul>
2	<p><b>The electrical skills that are being developed through the <i>Certificate III in Motorcycle Mechanical Technology</i> are insufficient.</b></p> <ul style="list-style-type: none"> <li>● Apprentices do not have the basic electrical skills required, or an understanding of electrical fundamentals.</li> </ul>	<ul style="list-style-type: none"> <li>● Restructure the elective bank of <i>AUR30816 Certificate III in Motorcycle Mechanical Technology</i> to develop skills and knowledge of electronic systems: <ul style="list-style-type: none"> <li>○ Create a new core unit covering electronic motorcycle systems: <ul style="list-style-type: none"> <li>■ <i>Diagnose and repair motorcycle dynamic control</i></li> </ul> </li> </ul> </li> </ul>

Ref	Consultation insights	Proposed recommendation
	<ul style="list-style-type: none"> <li>Apprentices need greater exposure to electrical systems that are becoming increasingly prevalent in motorcycles e.g. CAN-BUS systems, anti-locking braking systems, traction control systems and stability control systems.</li> </ul>	<p><i>systems</i></p> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>■ <i>Inspect and service motorcycle final drives</i></li> </ul> </li> <li>○ Add the following units to the core bank:           <ul style="list-style-type: none"> <li>■ <i>AURETR032 Diagnose and repair automotive electrical systems</i></li> </ul> </li> <li>○ Move the following units from the core to the elective bank:           <ul style="list-style-type: none"> <li>■ <i>AURTTQ001 Inspect and service final drive assemblies</i></li> <li>■ <i>AURTTQ003 Inspect and service drive shafts</i></li> </ul> </li> <li>○ Add the following units to the elective bank:           <ul style="list-style-type: none"> <li>■ <i>AURETR016 Read and apply vehicle wiring schematics and drawings</i></li> <li>■ <i>AURTTA004 Carry out servicing operations</i></li> </ul> </li> </ul>
3	<p><b>Existing training is not appropriately contextualised to meet the needs of the motorcycle industry.</b></p> <ul style="list-style-type: none"> <li>There are key differences between motorcycles and light vehicles that are not accurately reflected in units</li> </ul>	<ul style="list-style-type: none"> <li>Create motorcycle system specific units:           <ul style="list-style-type: none"> <li>○ <i>Inspect and service motorcycle engines</i></li> </ul> </li> </ul>

Ref	Consultation insights	Proposed recommendation
	<p>that have been imported from light vehicle qualifications. This has resulted in difficulties for motorcycle learners and they are unable to complete these units, or are completing them on light vehicles.</p> <ul style="list-style-type: none"> <li>Learners are entering the industry without key skills or exposure to certain motorcycle parts. Industry has outlined the need for motorcycle specific units.</li> </ul>	<ul style="list-style-type: none"> <li><i>Diagnose and repair motorcycle charging systems</i></li> <li><i>Diagnose and repair motorcycle starting systems</i></li> <li><i>Diagnose and repair motorcycle engine management systems</i></li> </ul>

# *Automotive re-finishing*

## *13.1 Project background*

High level consultation conducted in January – March 2018 identified the following issues with the current training:

- There is a shortage of capable automotive refinishing technicians. This qualification needs to focus more on newer and more trade-relevant paints and technologies in order to equip apprentices with the right skills to work effectively in industry.
- Students must demonstrate that they know how to access manufacturer specific information through online or other forms of research, how to read and interpret the information and common post-repair testing procedures.

### **Qualifications in scope:**

- AUR32416 Certificate III in Automotive Refinishing Technology

## *13.2 Key consultation insights*

In total, 41 stakeholders from around Australia were consulted for this project.

- 28 Industry and Industry Association representatives
- 6 RTO/School teachers who deliver the in-scope qualifications
- 7 Students of the in-scope qualifications

Table 21 below provides a summary of key insights from stakeholder feedback:

**Table 21. Key insights identified from industry consultation**

Ref	Consultation insights	Proposed recommendation
1	<p><b>The skills delivered in AUR32416 Certificate III in Automotive Refinishing Technology are, to some degree, misaligned to industry needs and job requirements.</b></p> <ul style="list-style-type: none"> <li>• Paint drying equipment is a key part of the trade and should become a core unit.</li> <li>• Training for colour-matching over-emphasises the importance of using a spectrometer, while lacking important procedural fundamentals.</li> <li>• The qualification must have a greater emphasis on setting up paint equipment to match the job and environmental requirements, rather than following a rote procedure.</li> </ul>	<ul style="list-style-type: none"> <li>• Restructure the core and elective bank of <i>AUR32416 Certificate III in Automotive Refinishing Technology</i> to ensure it meets industry needs: <ul style="list-style-type: none"> <li>○ Move the following units from the elective bank to the core bank: <ul style="list-style-type: none"> <li>■ <i>AURVTP010 Prepare and operate vehicle paint drying equipment</i></li> </ul> </li> </ul> </li> <li>• Modify <i>AURVTP010 Prepare and operate vehicle paint drying equipment</i> to include further knowledge of different drying processes, and add it to the core of the qualification.</li> <li>• Modify <i>AURVTP012 Apply air dry and polyurethane refinishing materials</i> to include greater emphasis on colour science and drying processes.</li> <li>• Modify the following units to further emphasise the importance of adjusting the tasks undertaken based on the unique requirements of the job: <ul style="list-style-type: none"> <li>○ <i>AURVTP003 Prepare vehicle spray painting equipment for use</i></li> <li>○ <i>AURVTP004 Apply basic colour matching techniques using vehicle paint codes</i></li> <li>○ <i>AURVTP012 Apply air dry and polyurethane refinishing materials</i></li> <li>○ <i>AURVTP014 Colour match multi-layer and clear over base two-pack paints on vehicles and components</i></li> <li>○ <i>AURVTP015 Match direct gloss solid paint colour on vehicles or components</i></li> </ul> </li> </ul>

# *Automotive glazing*

## *14.1 Project background*

High level consultation conducted in January – March 2018 identified the following issues with the current training:

- The automotive glazing industry has been significantly altered by new technologies, as well as new chemicals and bonding methods.
- It can be troublesome for industry to obtain correct OEM specifications, leading to potential safety issues. As such, the training products must emphasise the importance of adhering to safety procedures and confirming work instructions as required.
- Students must demonstrate that they know how to access manufacturer specific information through online or other forms of research, how to read and interpret the information and common post-repair testing procedures.

### **Qualifications in scope:**

- AUR32216 Certificate III in Automotive Glazing Technology

## *14.2 Key consultation insights*

In total, 20 stakeholders from around Australia were consulted for this project.

- 18 Industry and Industry Association representatives
- 2 RTO/School teachers who deliver the in-scope qualifications

Table 22 below provides a summary of key insights from stakeholder feedback:

**Table 22. Key insights identified from industry consultation**

Ref	Consultation insights	Proposed recommendation
1	<p><b><i>AUR32216 Certificate III in Automotive Glazing Technology</i> contains content which is not relevant to the automotive glazing profession, and lacks content for newer technologies.</b></p> <ul style="list-style-type: none"> <li>A number of units of competency within the core of <i>AUR32216 Certificate III in Automotive Glazing Technology</i> contain content which is not relevant to the automotive glazing occupation</li> <li>A number of key trade skills are currently elective units within the qualification.</li> </ul>	<ul style="list-style-type: none"> <li>Re-structure the core and elective bank of <i>AUR32216 Certificate III in Automotive Glazing Technology</i> to meet the skills needs of the industry: <ul style="list-style-type: none"> <li>Move the following units of competency from the core to the elective bank: <ul style="list-style-type: none"> <li><i>AURACA003 Build customer relations in an automotive workplace</i></li> <li><i>AURAMA001 Work effectively with others in an automotive workplace</i></li> <li><i>AURVTA001 Prepare vehicles for customer use</i></li> <li><i>AURVTG007 Clean vehicle glass surfaces</i></li> <li><i>MSFGG2005 Apply basic glass handling</i></li> </ul> </li> <li>Move the following units of competency from the elective to the core bank: <ul style="list-style-type: none"> <li><i>AUMGTG001 Install fixed and movable glass components on vehicles</i></li> <li><i>AURVTG008 Cut and process vehicle and machinery flat laminated glass</i></li> <li><i>AURVTG011 Install side vehicle windows</i></li> </ul> </li> </ul> </li> </ul>

Ref	Consultation insights	Proposed recommendation
2	<p data-bbox="331 389 891 517"><b>The <i>Certificate III in Automotive Glazing Technology</i> needs to be updated to provide clearer directions on important safety skills and knowledge.</b></p> <ul data-bbox="383 560 891 1145" style="list-style-type: none"> <li data-bbox="383 560 891 799">• Stakeholders identified a number of key safety aspects which are missing from the qualification, particularly safe manual handling procedures in confined spaces, working at height (for heavy vehicle glazing operations), and calibration of ADAS systems</li> <li data-bbox="383 842 891 1007">• Learners who remove an ADAS camera as part of a windscreen replacement must understand the correct course of action to ensure the windscreen is calibrated upon completion of the job.</li> <li data-bbox="383 1050 891 1145">• Learners must understand the risks of working at height, and in confined spaces</li> </ul>	<ul data-bbox="965 389 1980 683" style="list-style-type: none"> <li data-bbox="965 389 1980 448">• Update units of competency to ensure inclusion of key safety issues, including performance and knowledge: <ul data-bbox="1061 491 1980 683" style="list-style-type: none"> <li data-bbox="1061 491 1980 587">○ Update the following units: <ul data-bbox="1158 555 1980 683" style="list-style-type: none"> <li data-bbox="1158 555 1980 587">■ <i>AURVTG004 Remove and install direct glazed windscreens</i></li> <li data-bbox="1158 624 1980 683">■ <i>AURVTG012 Remove and install heavy vehicle rubber and direct glazed windscreens</i></li> </ul> </li> </ul> </li> </ul>

# Vehicle Body Repair Certificate II

## 15.1 Project background

High level consultation conducted in January – March 2018 identified the following issues with the current training:

- There is a strong need within industry for a trades” assistant role in the vehicle body repair industry. While learners of this qualification will typically align to paint or panel sectors, they need to have a basic understanding of both sides of the business.

### Qualifications in scope:

- AUR20916 Certificate II in Automotive Body Repair Technology

## 15.2 Key consultation insights

In total, 35 stakeholders from around Australia were consulted for this project.

- 24 Industry and Industry Association representatives
- 6 RTO/School teachers who deliver the in-scope qualifications
- 5 Students of the in-scope qualifications

Table 23 below provides a summary of key insights from stakeholder feedback:

**Table 23. Key insights identified from industry consultation**

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Ref	Consultation insights	Proposed recommendation
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Ref	Consultation insights	Proposed recommendation
1	<p><b>There is industry desire for a trade assistant worker in the vehicle body repair industry.</b></p> <ul style="list-style-type: none"> <li>• There is strong desire among industry for a trades” assistant in both the paint and panel sectors.</li> </ul>	<ul style="list-style-type: none"> <li>• Restructure the elective bank of <i>AUR20916 Certificate II in Automotive Body Repair Technology</i> into two large elective streams for paint and panel, while allowing several units to be chosen from a general elective bank.</li> </ul>
2	<p><b>The elective streams in Certificate II in Automotive Body Repair Technology are not coherently organised, resulting in confusion and poor industry uptake.</b></p> <ul style="list-style-type: none"> <li>• A large number of small, forced elective streams within <i>AUR20916 Certificate II in Automotive Body Repair Technology</i> make it difficult to select industry-relevant electives</li> <li>• The qualification needs to have the flexibility for a learner to begin with basic workshop tasks, such as automotive detailing, and then move into more advanced tasks aligned to either the paint or panel speciality.</li> </ul>	

# ***Advanced qualifications***

## ***16.1 Project background***

High level consultation conducted in January – March 2018 identified the following issues with the current training:

- *AUR40216 Certificate IV in Automotive Mechanical Diagnosis* and *AUR50216 Diploma of Automotive Technology* are currently underutilised. There is little incentive to complete Certificate IV and above qualifications within the automotive industry. Industry needs these skills to be delivered in a more accessible way.
- The elective bank of these qualifications can be re-structured to create the following advanced specialist elective groups: Mechanical Diagnosis, Automotive Electrical Systems, Heavy Commercial Vehicle Systems, Motorcycle Systems, Mobile Plant Systems, Light Vehicle Systems and Light Marine Systems. These groups can also be picked up as new skill sets.
- The above groupings can also be picked up as skill sets, they provide an accessible pathway for experienced technicians who are looking to upskill without having to complete a full qualification. This may assist in addressing the significant skills shortage of advanced/master technicians.

### **Qualifications in scope:**

- AUR40216 Certificate IV in Automotive Mechanical Diagnosis
- AUR50216 Diploma of Automotive Technology

## ***16.2 Key consultation insights***

In total, 169 stakeholders from around Australia were consulted for this project.

- 124 Industry and Industry Association representatives
- 45 RTO/School teachers who deliver the in-scope qualifications

Table 24 below provides a summary of key insights from stakeholder feedback:

**Table 24. Key insights identified from industry consultation**

Ref	Consultation insights	Proposed recommendation
1	<p><b>A greater choice of units is required in elective banks of AUR40216 Certificate IV in Automotive Mechanical Diagnosis and AUR50216 Diploma of Automotive Technology in order to create a coherent qualification.</b></p> <ul style="list-style-type: none"> <li>● Industry stakeholders were aware of the qualifications, many employers noted they would prefer to send their workers to manufacturer specific training or other specific short courses (e.g. Bosch or iCar courses) rather than using a qualification from the AUR training package.</li> <li>● Feedback provided indicated the current structure of the qualifications were not fit-for-purpose as the only coherent selection of units was based on hybrid or electric vehicles.</li> <li>● The elective bank of these qualifications can be re-structured to create the following advanced specialist elective groups:               <ul style="list-style-type: none"> <li>○ Mechanical Diagnosis</li> <li>○ Hybrid and electric vehicles</li> <li>○ Heavy Commercial Vehicle Systems</li> <li>○ Motorcycle Systems</li> <li>○ Precision Agriculture</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● Re-structure the elective banks of <i>AUR40216 Certificate IV in Automotive Mechanical Diagnosis</i> and <i>AUR50216 Diploma of Automotive Technology</i>, creating elective streams.</li> </ul>

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Ref	Consultation insights	Proposed recommendation
	<ul style="list-style-type: none"><li>○ Mobile Plant Systems</li><li>○ Light Vehicle Systems</li><li>○ Light Marine Systems</li><li>● This may assist in addressing the significant skills shortage of advanced/master technicians.</li></ul>	

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# *Automotive manufacturing*

## *17.1 Project background*

High level consultation conducted in January – March 2018 identified the following issues with the current training:

- There is a lack of clarity regarding the purpose of *AUM20213 Certificate II in Automotive Manufacturing Production - Bus, Truck and Trailer* and whether it is meeting industry needs.
- The automotive manufacturing industry makes heavy use of Certificate III qualifications while rarely utilising other levels. Hence, there are a large number of qualifications which may be removed from the training package as part of this project.

### **Qualifications in scope:**

- AUM10113 Certificate I in Automotive Manufacturing
- AUM20213 Certificate II in Automotive Manufacturing Production – Bus, Truck and Trailer
- AUM40113 Certificate IV in Automotive Manufacturing
- AUM50113 Diploma of Automotive Manufacturing

## *17.2 Key consultation insights*

In total, 12 stakeholders from around Australia were consulted for this project.

- 10 Industry and Industry Association representatives
- 2 RTO/School teachers who deliver the in-scope qualifications

Table 27 below provides a summary of key insights from stakeholder feedback:

**Table 25. Key insights identified from industry consultation**

Ref	Consultation insights	Proposed recommendation
1	<p><b>The automotive manufacturing industry does not make use of Certificate I-, IV- or Diploma-level qualifications.</b></p> <ul style="list-style-type: none"> <li>• These qualifications do not align to any job role within industry.</li> <li>• Stakeholders in the automotive manufacturing sector have expressed no desire for Certificate I, IV or Diploma qualification.</li> </ul>	<ul style="list-style-type: none"> <li>• Delete the following qualifications: <ul style="list-style-type: none"> <li>○ <i>AUM10113 Certificate I in Automotive Manufacturing</i></li> <li>○ <i>AUM40113 Certificate IV in Automotive Manufacturing</i></li> <li>○ <i>AUM50113 Diploma of Automotive Manufacturing</i></li> </ul> </li> </ul>
2	<p><b><i>AUM20213 Certificate II in Automotive Manufacturing Production - Bus, Truck and Trailer</i> does not adequately align with a job role within the automotive manufacturing industry.</b></p> <ul style="list-style-type: none"> <li>• AUM20213 lacks a number of basic manufacturing skills appropriate for an AQF 2 qualification.</li> <li>• Several other manufacturing qualifications within the MEM Training package are better suited to meet the needs of the automotive manufacturing industry.</li> </ul>	<ul style="list-style-type: none"> <li>• Delete <i>AUM20213 Certificate II in Automotive Manufacturing Production - Bus, Truck and Trailer</i></li> </ul>

## 17.2.1 Dissenting views and outstanding issues expressed during consultation

**Table 26. Dissenting views**

Ref	Dissenting view	How it will be addressed
1	Deleting <i>AUM20218 Certificate II in Automotive Manufacturing Production - Bus, Truck and Trailer</i> will deny learners of a pre-apprenticeship pathway	<ul style="list-style-type: none"> <li>Stakeholders identified a number of other Certificate II qualifications which are better suited to providing basic manufacturing skills.</li> </ul>

# Automotive management

## 18.1 Project background

High level consultation conducted in January – March 2018 identified the following issues with the current training:

- Demand for automotive managers with the customer service, marketing, and analytical skills to develop a strong repeat customer base and provide a competitive edge in understanding demand and purchasing decisions is growing.
- It is important that any type of management training includes these areas of focus.
- Management training is an important progression pathway within the industry - many technicians look to progress by moving into management positions or running their own businesses.
- It is unclear whether automotive workplace specific management training is required by the industry.

**Qualifications in scope:**

- AUR40116 Certificate IV in Automotive Management
- AUR50116 Diploma of Automotive Management

**18.2 Key consultation insights**

In total, 164 stakeholders from around Australia were consulted for this project.

- 137 Industry and Industry Association representatives
- 27 RTO/School teachers who deliver the in-scope qualifications

Table 25 below provides a summary of key insights from stakeholder feedback:

**Table 27. Key insights identified from industry consultation**

Ref	Consultation insights	Proposed recommendation
1	<p><b>Automotive specific management training is not desired by industry.</b></p> <ul style="list-style-type: none"> <li>• Individuals who wish to transition into management positions are more likely to undertake in-house management training or use management training from the business services (BSB) training package.</li> <li>• Small business owners who had undergone additional training to</li> </ul>	<ul style="list-style-type: none"> <li>○ The proposed recommendations for this project require further discussion by the Automotive IRCs.</li> </ul>

Ref	Consultation insights	Proposed recommendation
	<p>support the running of their own business had completed qualifications from within the business services (BSB) training package.</p> <ul style="list-style-type: none"> <li>• Specific skills that were desired for workers entering management positions in the automotive industry included: people management, coaching, conflict resolution and customer service. These skills are not specific to the automotive industry and can be developed through the business services training package.</li> <li>• It was assumed that a worker would already have experience working in an automotive workplace, therefore they would already be able to contextualise their learnings to an automotive workplace.</li> </ul>	

### 18.2.1 Dissenting views and outstanding issues expressed during consultation

**Table 28. Dissenting views**

Ref	Dissenting view	How it will be addressed
1	<p>Learners who enrol onto the business services training package are only doing so because the automotive</p>	<ul style="list-style-type: none"> <li>• The majority of employers consulted stated they did not believe workers needed to undertake automotive management specific training. Their experience within the</li> </ul>

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specific management training is not delivered by the training providers.

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automotive industry would be sufficient to enable contextualisation.

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# Delivery issues

## 19.1 Project background

PwC's Skills for Australia engaged with Registered Training Organisations (RTOs) to understand delivery issues they were facing that would ultimately result in negative outcomes for the industry. These issues have been captured in Table 28. Many industry stakeholders also expressed concerns with delivery and requested a training package solution, the IRCs do not believe the training package should be used to address issues with delivery, but believe it is important that these views are captured and shared.

## 19.2 Consultation insights

**Table 29: Delivery issues identified through consultation**

Ref	Consultation insights	Proposed recommendation
1	<p><b>Learners who complete Certificate II qualifications require re-training when they start a Certificate III despite being deemed competent.</b></p> <ul style="list-style-type: none"> <li>The majority of employers stated the skills developed solely within a classroom setting are not equivalent to the skills a learner would develop if they were practicing that skill, in the workplace, on a regular basis.</li> <li>Training providers requested that the volume of overlap between Certificate II and Certificate III qualifications be reduced. This would reduce the number of Certificate II qualified learners rapidly progressing into the second year</li> </ul>	<ul style="list-style-type: none"> <li>This issue cannot be resolved by the training package.                             <ul style="list-style-type: none"> <li>Competence is determined irrespective of the qualification a learner is enrolled in.</li> <li>If a learner requires re-training and the trainer believes the learner was inaccurately assessed to be competent, this is an issue that should be raised with the regulator.</li> <li>If there has been a period of time since the learner was deemed competent, it is to be expected that some</li> </ul> </li> </ul>

Ref	Consultation insights	Proposed recommendation
	<p>of an apprenticeship before they are ready.</p> <ul style="list-style-type: none"> <li>• Training providers requested that the core and elective banks of Certificate II qualifications be re-structured and the ability to import units from Certificate III qualifications is removed. Units that may also be completed in Certificate III qualifications should be replaced with units that are only available in Certificate II qualifications.</li> </ul>	<p>level of revision may be required.</p> <ul style="list-style-type: none"> <li>○ Industry should be engaging with RTOs and schools to discuss the units they would like Certificate II learners to undertake if they have concerns with the skills learners are developing before they begin their apprenticeship.</li> </ul>
2	<p><b>There is significant duplication of content between units, creating onerous assessment requirements and learner fatigue.</b></p> <ul style="list-style-type: none"> <li>• Specific examples of duplication between units provided were: <ul style="list-style-type: none"> <li>○ <i>AURETRO31 Diagnose and repair ignition systems and AURETRO23 Diagnose and repair spark ignition engine management systems</i></li> </ul> </li> <li>• Training providers suggested pre-requisites would be beneficial in order to reduce duplication, and ensuring learners had covered the basics before enrolling into more technical units.</li> <li>• Duplication becomes particularly obvious when learners complete blocks of units in a short time-frame and are</li> </ul>	<ul style="list-style-type: none"> <li>• The Automotive PWGs believes a certain extent of duplication between units is unavoidable. <ul style="list-style-type: none"> <li>○ A number of units in the AUR training package are used across multiple qualifications and meet the needs of multiple sub-sectors. It is therefore difficult to reduce the volume of content within units when there is no guarantee a user of the training package will need to complete both units.</li> <li>○ The PWG recognises that it is onerous on a student to complete the same knowledge assessments, but suggests training providers change their delivery approach so there is more time between units that may have similar assessment requirements. This means the duplicative components can be used as revision.</li> </ul> </li> </ul>

Ref	Consultation insights	Proposed recommendation
3	<p><b>The term “repair” is too ambiguous and does not reflect the work that would be undertaken in the workplace.</b></p> <ul style="list-style-type: none"> <li>• Within a manufacturer’s procedure, a repair procedure may constitute the replacement of a component. There are very few situations, particularly in the light vehicle sector where a component is physically opened up and repaired, it is often more cost effective to replace the component.</li> <li>• Industry stakeholders agreed that in certain situations, the repair of the component can be a useful skill as it enables learners to understand why a fault was created in the first place. However, in the majority of situations, this is not reflective of the task that would take place in the workplace.</li> <li>• Training providers stated they have faced issues with the regulator who do not understand that a repair procedure may constitute the replacement of a component, and have asked that the language within the training package is updated to say <i>repair or replace</i>.</li> </ul>	<ul style="list-style-type: none"> <li>○ A review of the knowledge evidence of the in-scope units will be undertaken to ensure the assessment requirements directly relate to the outcome of the unit of competency.</li> <li>• This issue cannot be resolved by the training package.</li> <li>○ It is the responsibility of the regulator to ensure they have sufficient industry knowledge to conduct a quality audit. Across the automotive industry, it is common knowledge that a repair procedure is likely to constitute the replacement of a component.</li> <li>○ The training package clearly states that repairs must be undertaken in accordance with manufacturer or workplace procedures. If these procedures state a component should be replaced, then this action meets the requirements of the unit.</li> </ul>

Ref	Consultation insights	Proposed recommendation
4	<p data-bbox="389 389 1178 485"><b>The majority of employers are unaware they should be choosing the elective units based on the needs of their workplace.</b></p> <ul data-bbox="439 523 1178 963" style="list-style-type: none"> <li data-bbox="439 523 1178 619">• Almost all of the skills gaps identified by industry stakeholders are covered by the AUR training package by units that can be found in the elective bank.</li> <li data-bbox="439 657 1178 753">• Many training providers do seek industry consultation to develop their training plans, but are limited by resources, staff availability and the need to fill classrooms.</li> <li data-bbox="439 791 1178 963">• Smaller RTO's where there is no competition may only offer 36 units meaning there is no choice for employers. No RTOs offer every unit from within the elective bank, highlighted by the fact a number of units have zero enrolments.</li> </ul>	<ul data-bbox="1267 389 2040 1066" style="list-style-type: none"> <li data-bbox="1267 389 2040 453">• Industry must engage with the student and RTOs to ensure the training is meeting the needs of local businesses.               <ul data-bbox="1361 491 2040 1066" style="list-style-type: none"> <li data-bbox="1361 491 2040 587">○ Increasing the number of core units will reduce the flexibility of the training package to meet the needs of stakeholders in different circumstances.</li> <li data-bbox="1361 625 2040 753">○ In some cases, changes to the core bank are appropriate as it is an issue that is affecting the entire industry, for example, the increasing need for learners with electrical skills.</li> <li data-bbox="1361 791 2040 887">○ In the majority of cases, the employer issues could be resolved through a discussion with the RTO regarding their training needs.</li> <li data-bbox="1361 925 2040 1066">○ The IRCs recognise the limitations faced by RTOs and encourage industry stakeholders to work in collaboration with their local RTO to build a training plan that will meet the needs of their local industry.</li> </ul> </li> </ul>
5	<p data-bbox="389 1145 1178 1209"><b>Assessment Requirements in certain units of competency do not contribute to industry-relevant outcomes.</b></p> <ul data-bbox="439 1248 1178 1305" style="list-style-type: none"> <li data-bbox="439 1248 1178 1305">• Units of competency relevant to the heavy road transport sector require a particular task to be completed on multiple</li> </ul>	<ul data-bbox="1267 1145 2040 1340" style="list-style-type: none"> <li data-bbox="1267 1145 2040 1273">• Review units of competency within <i>AUR31116 Certificate III in Heavy Commercial Vehicle Mechanical Technology</i> and rephrase statements within the Assessment Requirements as required:               <ul data-bbox="1361 1311 2040 1340" style="list-style-type: none"> <li data-bbox="1361 1311 2040 1340">○ Review units where tasks must be completed on</li> </ul> </li> </ul>

Ref	Consultation insights	Proposed recommendation
6	<p>vehicles. However, in many cases, this is not reflective of the profile of work that an apprentice will be likely to undertake in the workplace. Industry stakeholders noted that training providers were asking learners to complete tasks in the workplace in order to be able to complete a unit as the RTO did not have the resources to complete the task on different vehicles.</p> <ul style="list-style-type: none"> <li>● Many units list a large number of pieces of equipment upon which a task must be completed. However, this can reduce the flexibility of the unit to be contextualised.</li> <li>● RTOs provided examples of language within units of competency that is ambiguous or leads to onerous assessments. Specific examples provided included:               <ul style="list-style-type: none"> <li>○ “Different” vehicles – does this mean the vehicles can be exactly the same? If so, what is the benefit of using “different” vehicles?</li> <li>○ “Application, purpose and operation” – what do each of these terms mean?</li> </ul> </li> </ul>	<p>multiple vehicles and test with industry stakeholders if this is required on a case-by-case basis.</p> <ul style="list-style-type: none"> <li>○ Review units where a number of tasks must be completed in the <b>same</b> job to allow for the task(s) to be completed across multiple jobs on a case-by-case basis.</li> <li>○ Increase the list of equipment options and reword to “complete x of the following” on a case-by-case basis</li> <li>● Update units of competency to reduce ambiguity of language:               <ul style="list-style-type: none"> <li>○ Remove “application” from “application, purpose and operation” statements in knowledge evidence.</li> </ul> </li> </ul> <p>Update units of competency to ensure compliance with the standards for national training packages:</p> <ul style="list-style-type: none"> <li>○ Remove “Range of Conditions” statements where</li> </ul>

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Ref	Consultation insights	Proposed recommendation
	<ul style="list-style-type: none"><li>• Many units of competency use bold and italicised words which are then expanded upon within “Range of conditions.” This is not the intended purpose of the “Range of conditions” and this information must either be built into the unit of competency or the assessment requirements.</li><li>• To align with other training packages within the VET system and in line with best practice, units should be written in the active voice.</li></ul>	<p>they are being used incorrectly.</p> <ul style="list-style-type: none"><li>○ Update in-scope units of competency so they are written in an active voice.</li></ul>

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# ***Appendix A Stakeholder consultation approach***

## ***Stakeholders consulted***

Consultations were targeted and include views from industry, peak bodies, training organisations, employers and those currently employed within the profession. These experts were consulted via interviews, group teleconferences and facilitated industry workshops. It is important to note that the level of consultation is reflective of the size of the sub-sector, for example, the vehicle body repairs and light vehicle sectors make up a significant proportion of the automotive retail and repair industry, and subsequently the volume of automotive training package users.

The motorcycle and marine industries are significantly smaller, this is reflected in the smaller proportion of AUR training package users and number of consults. There are no users of the in-scope manufacturing qualifications so we have consulted with the bus, truck and trailer manufacturing industry to understand whether they would use these qualifications - many of them were unaware the qualification existed and did not feel they had the expertise to provide input. Further, the Automotive IRC and PWG members represent significant industry associations and there was significant correlation between the discussions with industry representatives and RTOs indicating unanimous ideas and similar viewpoints within the automotive industry.

PwC's Skills for Australia worked closely with IRC members, many of whom are representatives of Industry Associations to organise focus groups in every state and territory. Over ten weeks, PwC's Skills for Australia conducted consultations using the following formats:

### ***1. Industry led focus groups***

Given the volume of qualifications, the interdependencies and overlapping stakeholder base PwC's Skills for Australia grouped consultation as follows:

- Qualifications that are delivered in schools;
- Light Vehicle qualifications;
- Heavy Vehicle and Manufacturing qualifications;
- Marine qualifications;
- Motorcycle qualifications; and
- Vehicle Body Repair qualifications.

### ***2. RTO led focus groups***

PwC's Skills for Australia recognises the importance of engaging with RTOs and ensuring the IRC understands how the proposed changes to Training packages will affect training

providers. PwC's Skills for Australia have engaged with training providers in every state and territory.

### **3. *Teleconferences***

PwC's Skills for Australia ran teleconferences for both industry and RTO stakeholders to enable all stakeholders who did not have the opportunity to attend a focus group in person, to share their feedback. Teleconferences were used to test the final hypotheses and changes that will be made to training products.

### **4. *Online feedback***

PwC's Skills for Australia have invited all interested parties who have been unable to speak to the team, to submit feedback via email or survey.

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# Appendix B Detailed project approach

## Project approach

The following process and timelines were agreed by all five Automotive IRCs:



Stage	Key activities	Timelines
<b>1. Establish Project Working Groups (PWG) established</b>	<ul style="list-style-type: none"> <li>Automotive qualifications were divided into 6 work streams based on subject matter and overlapping stakeholder base.</li> <li>IRC members nominated themselves and technical experts for each PWG.</li> <li>6 PWGs were established and endorsed by all five Automotive IRCs.</li> </ul>	<p>July - August 2018</p> <p>4 weeks</p>
<b>2. Carry out national consultation</b>	<ul style="list-style-type: none"> <li>PwC's Skills for Australia's automotive team carried out extensive consultation around the country.</li> <li>Focus groups were held in every state/territory except ACT and TAS due to low stakeholder engagement.</li> <li>Stakeholders targeted included: <ul style="list-style-type: none"> <li>Employers of learners currently enrolled in training - ensuring regional, metropolitan, independent businesses and dealerships were consulted.</li> </ul> </li> </ul>	<p>August- October 2018</p> <p>10 weeks</p>

	<ul style="list-style-type: none"> <li>○ Original Equipment Manufacturers (OEMs)</li> <li>○ Representatives from Industry Associations.</li> <li>○ Training Providers - both public and private organisations.</li> <li>○ Learners who are currently enrolled in training.</li> </ul> <ul style="list-style-type: none"> <li>● Consultation took the form of:           <ul style="list-style-type: none"> <li>○ Focus groups</li> <li>○ Targeted 1-to-1 interviews</li> <li>○ Teleconferences</li> <li>○ Surveys</li> </ul> </li> </ul> <p>Please refer to Attachment 1 for the list of stakeholders that were consulted with.</p>	
<p><b>3. Develop recommendations report</b></p>	<ul style="list-style-type: none"> <li>● Findings from consultations are consolidated and recommendations as to how feedback should be used to develop the AUR and AUM training packages are made.</li> <li>● The recommendations report is shared with the PWGs for comment and feedback, before being shared with the IRC.</li> </ul>	<p>October - November 2018</p> <p>4 weeks</p>
<p><b>4. Draft training products</b></p>	<ul style="list-style-type: none"> <li>● SfA will produce the draft training products - this is an iterative process.</li> <li>● Version 1 will be developed and shared with the PWG for review and feedback.</li> <li>● Version 2 will be shared with the IRC for review and feedback. PwC's Skills for</li> </ul>	<p>November 2018 to February 2019</p> <p>12 weeks</p>

	Australia will update the draft training products.	
<b>5. Case for Change development of remaining projects</b>	<ul style="list-style-type: none"> <li>SfA will conduct high level consultation on remaining automotive projects</li> <li>Cases for Change will be developed for consideration by the AISC in June 2019.</li> </ul>	January – April 2019 12 weeks
<b>6. Consultation, recommendations report and training product drafting</b>	<ul style="list-style-type: none"> <li>Following AISC approval, PwC’s SfA will undertake stages 2,3 and 4 outlined above for the remaining projects</li> </ul>	June – September 2019 12 weeks
<b>7. Case for Endorsement development and iteration of training products</b>	<ul style="list-style-type: none"> <li>Version 3 of training products will go online for public consultation for 6 weeks (September 2019 - December 2020). During this period, SfA will develop the Case for Endorsement.</li> <li>SfA will discuss with the PWG how the public feedback should be incorporated, creating Version 4.</li> <li>Version 4 of the draft training products and the Case for Endorsement will go through the Quality Assurance process. PwC’s Skills for Australia will update the products, creating Version 5. This process will take 6 weeks.</li> <li>Version 5 of the draft training products will be shared with State/Territory Training Authorities (STAs) for a 4 week review period. Any feedback received will be discussed with the PWG and IRC. It will be implemented accordingly, creating Version 6.</li> </ul>	September 2019 - April 2020 25 weeks
<b>8. IRC</b>	<ul style="list-style-type: none"> <li>Final versions of training products and the Case for</li> </ul>	April - May 2020

<b>endorsement</b>	<p>Endorsement will be reviewed and endorsed by all 5 Automotive IRCs.</p> <ul style="list-style-type: none"> <li>All documentation must be submitted to the Department of Education and Training (DET) 6 weeks before the AISC meeting in June 2020.</li> </ul>	3 weeks
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### Guiding principles

The Council of Australian Governments (COAG) Industry Skills Council principles for reforms to Training package provide a framework to guide how training product development recommendations are to be created and proposed. They outline considerations for developing and altering units of competency, skill sets and other relevant training product components. We have also sought to align our recommendations to meet the COAG Industry Skills Council principles for reforms to Training packages. These are:

- Remove obsolete qualifications from the system;
- Ensure that more information about industry’s expectations of training delivery is available to training providers to improve their delivery and to consumers to enable more informed course choices;
- Ensure that the system better supports individuals to move easily from one related occupation to another;
- Improve the efficiency of the system by creating units that can be owned and used by multiple industry sectors; and
- Foster greater recognition of skill sets.



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