



Process Manufacturing, Recreational Vehicle and Laboratory Industry Reference Committee

MSL Laboratory Operations Training Package Case for Endorsement 15 December 2017

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*Prepared on behalf of the Process Manufacturing, Recreational Vehicle and Laboratory Industry Reference Committee
for the Australian Industry Skills Committee*

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MSL Laboratory Operations Training Package
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This Process Manufacturing, Recreational Vehicle and Laboratory Industry Reference Committee *Case for Endorsement* has been produced with the assistance of funding provided by the Commonwealth Government through the Department of Education and Training.



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A. Administrative details

This Case for Endorsement has been prepared by IBSA Manufacturing SSO for the Australian Industry and Skills Committee (AISC) to present the case for approving Release 2.0 of the MSL Laboratory Operations Training Package, on behalf of the Process Manufacturing, Recreational Vehicle and Laboratory Industry Reference Committee (IRC).

This work has been completed under Activity Order IBSA/TPD/2016-2017/003, and includes the following activities to be completed.

Undertake the necessary training package review and development work for the following:

- 2 qualifications:
 - MSL40116 Certificate IV in Laboratory Techniques
 - MSL50116 Diploma of Laboratory Technology
- 105 units of competency, including *MSL953001 Receive and prepare samples for testing*
- 2 new units of competency:
 - Anatomy and physiology for laboratories
 - Embedding and microtomy
- 1 new Histotechnology Skill Set.

The Case for Endorsement, outlines how the new/modified components will support implementation of the November 2015 COAG Industry and Skills Council training package reforms summarised at: www.education.gov.au/vocational-education-and-training-reform.

B. Description of work and request for approval

This section describes the work undertaken and the decision being sought from the AISC.

Decision being sought from the AISC

This submission presents the Case for Endorsement for the MSL Laboratory Operations Training Package Release 2.0.

The components submitted for endorsement include:

- MSL40118 Certificate IV in in Laboratory Techniques
- MSL50118 Diploma of Laboratory Technology
- 101 units of competency, including:
 - two new units of competency:
 - MSL954003 Relate anatomical and physiological features to laboratory samples (covering skills in anatomy and physiology for laboratories)
 - MSL975028 Apply advanced embedding and microtomy skills (covering skills in embedding and microtomy)
 - 99 revised units, including *MSL953001 Receive and prepare samples for testing*
- one new skill set, MSLSS00001 Histotechnology Skill Set.

This submission also includes the proposed deletion of seven (7) units of competency, to reduce duplication and remove obsolete units.

Appendix 1 includes a complete list of the components for endorsement.

Appendix 2 includes a letter of support for this submission from the Process Manufacturing, Recreational Vehicle and Laboratory IRC.

Appendix 3: Industry organisations notified of public consultation

Appendix 4: Organisation that were consulted/provided feedback

Appendix 5: Quality Assurance Report.

Summary of work undertaken and why

The work undertaken throughout this project has been in response to the Case for Change and subsequent Activity Order.

Work involved:

- addressing the need for histotechnology skills for diagnostic laboratories
- reviewing the units and qualifications for laboratory technicians to ensure they meet:
 - Standards for Training Packages 2012
 - Training Package Products Policy
 - Training Package Development and Endorsement Process Policy
 - industry needs
- creating industry defined and supported national training products
- creating improved career pathways and workforce development opportunities
- supporting the COAG Industry and Skills Council reforms to training packages.

The case for change also identified there should be further investigation to consider if the unit of competency, *MSL953001 Receive and prepare samples for testing*, should be a core unit in the qualifications. Hence it being singled out in the required activities. With the support of industry, the unit has been included in the core of the Certificate IV in Laboratory Techniques. Through the specification of an entry requirement for the Diploma of Laboratory Technology, learners will subsequently be required to hold this unit, or be able to demonstrate comparable skills and knowledge.

The work undertaken has also been in response to issues that have arisen throughout the consultation highlighting that some graduates of the current Certificate IV in Laboratory Techniques and the Diploma of Laboratory Technology do not have the depth of knowledge and skills required by industry to work in the roles targeted by those qualifications.

The existing qualifications also include many units with pre-requisites, sometimes conditional pre-requisites, which make the qualifications complex to deliver and allow for inconsistent outcomes (depending on which pre-requisite pathway is chosen). This body of work removed, or reduced, pre-requisite units. All conditional pre-requisites were removed to align with the Standards for Training Packages 2012.

C. Overview of work

Details about the project were made available on the IBSA website at <https://www.ibsa.org.au/consultation-project/laboratory-operations-2017-project> for the life of the project. Stakeholder engagement was achieved through a variety of methods, including:

- the IRC to ensure appropriate and adequate industry consultation occurred, monitoring project progress and validating outcomes and draft training package components
- formation of TACs to provide technical advice and sector expertise around the detail of the training package components developed and reviewed
- specific technical advice directly sought from highly skilled and experienced industry specialists as directed by the TAC (Appendix 4)
- an industry survey to capture broad stakeholder views on the existing training package components
- two (two week) rounds of broader public consultation where materials were uploaded to the IBSA website and all relevant stakeholders alerted, this included:
 - a distribution list of key industry organisations (Appendix 3)
 - State/Territory Training Authorities and Industry Training Advisory Bodies (ITABs)
 - all RTO's with qualifications on scope of delivery.

The IBSA website included an option for interested parties to sign up for project updates and 232 email addresses were subscribed by the end of the project.

All interested parties were emailed to alert them when drafts were available for public review. Key stakeholders were contacted by phone to alert them of the opportunity to provide input and discuss particular issues. Further evidence of consultation with all relevant stakeholders is detailed below.

Research

The project began with a research phase that included two stakeholder surveys, one for each qualification, to capture broad stakeholder views on how the qualifications, and associated units, can better meet the current and emerging needs of industry. The survey was available from 17 to 28 July. Each survey generated 35-50 responses, most from laboratories that employ graduates of the Certificate IV and Diploma qualifications.

The research stage also included desktop research into the jobs available in laboratories (to ascertain the qualification requirements), and many discussions with stakeholders about the current qualifications.

The following 38 organisations responded to the survey about MSL40116 Certificate IV in Laboratory Techniques:

Histopath – Diagnostic Specialist	Hunter Histo	University of Newcastle
AUT	AIMS	CSIRO
ALS Water	Forensic Foundations	Transurban
Boral Australia	Richmond Water Laboratories	Southern IML Pathology
Dorevitch Pathology	NSW Health Pathology	Evolve Scientific Recruitment
Australian Clinical Labs	Gordon Institute of TAFE	Manildra Harwood Sugars
RMIT University	CSL Behring (Australia)	TAFE Sydney Institute
Leica Biosystems	Dalton Training Services	Koppers
Intertek NTEL	Bendigo TAFE	Hanson
Dalton Training Services	BlueScope	South Regional TAFE
NSW Department of Primary Industries	The Children's Hospital at Westmead - Histopathology	Cranbourne East Secondary College
TAFE North Coast (Wollongbar)	PathWest Laboratory Medicine WA	Australian Red Cross Blood Service
South Regional TAFE	Monash Health	

The following 33 organisations responded to the survey about MSL50116 Diploma of Laboratory Technology:

ALS Water	Richmond Water Laboratories	Pathwest
NSW Department of Primary Industries	TAFE NSW Wollongbar North Coast	Swinburne University of Technology
Evolve Scientific Recruitment	AIMS	UNSW
Manildra Harwood Sugars	UTS	Hanson
Liverpool Hospital	Gordon Institute of TAFE	Dorevitch Pathology

RMIT University	Sydney TAFE	Australian Clinical Labs
Boral Asphalt Victoria	Douglass Hanly Moir	Lavery
The Skin Hospital	St Vincent's Hospital	Leica Biosystems
NSW Health Pathology	Dalton Training Services	Quickstep Technologies
Austin Heath	Boral	Intertek NTEL
Monash Health	Hunter TAFE	Dorevitch- Sunshine Lab

The following comments from the survey support the need to review the qualifications to ensure they are fit for purpose:

- *It has not been demonstrated to me that recent graduates actually know what they are doing or why they are doing it, they are just blindly following instructions without any understanding.*
- *[Graduates lack] ... understanding the principles behind the procedures*
- *There needs to be more emphasis on the practical side of the work and the theory should be based on what practical work they are learning.*
- *There are too many RTOs producing Cert IV students that are the result of tick and flick and not proper training, just to get the money. There is less emphasis on Student needs and more on collecting fees.*
- *Recent graduates seem to have ticked and flicked all the boxes without developing any understanding or knowledge of the processes they use on a daily basis*
- *[Training and assessment]... does not always translate into a highly skilled worker who can think on their feet and have drive and passion for the industry*
- *[Qualifications are] ...Assessed in a narrow band of current working requirements - not a general understanding of other techniques, graduates unable to transfer skills to adjacent areas eg aseptic techniques and chemical contamination. This qualification was once equivalent to a new graduate chemist with the advantage of hands on skills. This is no longer the case.*
- *Students need more practical hands on exercises in class. They are going out to industry with an abridged version of the previous courses.*
- *Does not develop a good understanding of basic biotechnological terminologies and procedures.*
- *I have not found one that specialises in Materials testing. This is a big field and is not catered for.*
- *[For regional and remote areas] ...diploma courses [should] cover a range of laboratory techniques/ principles including those not used in current workplace - eg histology, chemistry, construction.*
- *Businesses do not want to pay for Scientists if they can use competently trained Technicians for many tasks. [In the future...] more technicians will be employed and many labs will have a higher number of technicians than scientists. Understanding of high quality work practices and good hands on skills will be needed.*
- *Industry also appreciates the underpinning knowledge which students need to be 'informed' workers - they don't just want 'trained monkeys'.*
- *[There is an]... Oversupply of Diploma students from badly run RTOs.*

The results of this research were presented to the Training Advisory Committees (TACs) for discussion and to determine the direction for the project work. Detail of TAC meetings and activities is provided below.

Training and Advisory Committees (TAC)

Two TACs were established, under the direction of the IRC, to provide advice around the detail of the components developed and reviewed. The **Histotechnology TAC** provided advice for the components

focussed on histotechnology skills, and the **Laboratory Operations TAC** provided advice around the two qualifications and the review of associated units of competency. TAC members were selected based on one or more of the following criteria:

- technical experience working in the job role
- technical experience directly supervising those in the job role
- specific expertise in subject through experience with the sector or service provision.

The TACs work under the direction of the IRC, ensuring adequate industry consultation occurs, monitors its progress and validate outcomes and draft Training Package components.

The final membership of the TACs included industry representatives that provided significant breadth and depth of technical knowledge and expertise, covering the majority of sectors involved in laboratory operations work.

Broader industry engagement was achieved through regular contact with identified stakeholders across relevant industry sectors. They were regularly kept informed of project work and notified of opportunities to inform training package development and review. Organisations from the following sectors were identified:

- biotechnology
- biomedical research
- pathology testing
- calibration
- chemical analysis
- forensic analysis
- environmental analysis
- construction materials
- soil testing
- education
- environmental monitoring and technology
- food and beverage processing and testing
- mining, mineral assay
- process manufacturing
- glass blowing
- wine making.

Appendix 3 lists these organisations, many organisations circulated project information to their networks/members.

The **Histotechnology TAC** was made up of subject matter experts closely involved with histotechnology skills in industry. Members met face to face on 10 August, 2017. Members discussed the content of the current histotechnology unit and made recommendations for:

- updating MSL975003 Perform histological tests
- content of a new embedding and microtomy unit (advanced histotechnology)
- content of a new anatomy and physiology unit.

These units were subsequently developed and circulated with other draft 1 components.

The **Laboratory Operations TAC** comprised subject matter experts who work in sectors covering Pathology, Histotechnology, Construction, Chemistry, Food, Biochemistry, Environmental and education. Members met face to face on 11 August 2017 and discussed the content of the Certificate IV in Laboratory Techniques and the Diploma of Laboratory Technology. The TAC also considered how the new histotechnology components should fit within the qualifications. The TAC generally agreed with the findings from the initial research, adding criticism that the qualifications were often very 'thin', meaning that learners were often not developing the breadth of skills and knowledge required for the job at a particular qualification level. TAC members identified that this was mainly due to significant duplication of units across qualifications, a very long and varied list of electives, and packaging rules that allowed a lot of repetition between qualifications.

TAC members recommended that the qualifications be restructured to ensure a clearer distinction between the Certificate IV and the Diploma. They also recommended that specialisations be considered to cover different specialisations within the Diploma, to meet the requirements for laboratory technicians to work in the fields of Pathology, Chemistry and Construction. The current endorsed qualifications do not specify which electives should be completed for specialisations, resulting in little consistency in outcomes for employers.

Members agreed that units at Draft 1 stage should focus on ensuring an alignment with the Standards for Training Packages 2012 and removing any superfluous information that is currently included (such as definitions in the Range of Conditions and repetitive information in the Assessment Requirements).

Draft 1 components

Summary of changes made in Draft 1

Units

Summary of changes:

- the addition of a modification table to fulfil training.gov.au requirements
- minor changes to the **Application** and licensing statement
- the **Range of Conditions** removed (because the information included did not meet the intent of the Standards for Training Packages 2012 - some of this information was moved to the Knowledge Evidence field of the Assessment Requirements)
- very minor changes to the **Elements** and **Performance Criteria**
- information added to **Foundation Skills** field, not explicit in Performance Criteria
- updated **Unit Mapping Information**
- updated link to Training Package Companion Volumes
- **Performance Evidence** reduced to include key information usually about frequency and volume (some information previously in this field now sits in the Foundation Skills field)
- **Knowledge Evidence** updated to include some information that was previously included in the Range of Conditions
- **Assessment Conditions** reduced to include key conditions that must be in place for assessment.

Pre-requisites in units had not yet been addressed. Several units included conditional pre-requisite that needed to be removed. Repetition between units was also yet to be addressed.

Qualifications

In both the draft Certificate IV in Laboratory Techniques and the Diploma of Laboratory Technology, the core units changed to better suit the job roles (and the Australian Qualifications (AQF) descriptors), to reduce double ups between the qualifications and to ensure each qualification is unique, in line with feedback from industry.

The number of electives in both qualifications was reduced, again to better match the job roles and the AQF outcomes of the qualifications.

The draft Diploma of Laboratory Technology had options for specialisations in the following fields:

- Pathology (to feed biomedical, microbiology, environmental, biotechnology, molecular food sectors)
- Chemistry (to feed food testing, manufacturing, environmental testing, mineral assay, biochemistry)
- Construction.

The packaging rules for the Diploma of Laboratory Technology included a general qualification (allowing electives to be chosen from across specialist groups).

Public consultation

Draft 1 components were available for review and comment on the IBSA website for two (2) weeks from 28 August 2017. A consultation paper accompanied the draft training package products which provided a summary of key information about proposed changes to the MSL Laboratory Operations Training Package.

An email notification was sent to stakeholders one week prior to the draft being released on the IBSA website to inform them of the upcoming consultation. Another email was sent the day the drafts were released for review. Appendix 3 includes organisations that were notified of consultation opportunities during the project.

Industry Training Advisory Bodies (ITABs), State/Territory Training Authorities, RTOs with the Certificate IV in Laboratory Techniques and Diploma of Laboratory Technology on scope, and 134 stakeholders who had registered their interest in the project were also notified.

During the consultation period the Project page on the IBSA website received 605 views and IBSA received 45 feedback submissions. Feedback was received on behalf of organisations, collated submissions on behalf of a group of individuals, and individuals themselves. Appendix 4 includes stakeholders that provided feedback.

The issues register that was used to compile feedback throughout this period noted feedback in the following general areas:

- the additional information included in the knowledge evidence section of the assessment requirements (moved from the range of conditions) should be reduced to ensure all contexts could be covered
- feedback about the language used to describe job tasks (often accompanied by suggestions for more detailed language to accurately describe the job tasks)
- recommendations that the Diploma of Laboratory Technology should have an entry requirement to ensure learners have the base level of skill and knowledge ready to begin the qualification
- suggestions for additional units to be added to the listed electives in the qualifications
- a recommendation to delete five Scientific glassblowing units from the Scientific Glassblowers Society of Australia and New Zealand (SGSANZ)
- support for strengthening the AQF outcomes of the qualifications
- concern that pre-requisite units were not included in the unit lists within the qualification.

TAC meetings

The Histotechnology TAC met informally to review the feedback about the histotechnology components and made recommendations for change.

The Laboratory Operations TAC met face to face on 22 September 2017 to discuss the feedback and make recommendations about future development. Members also analysed the pre-requisite requirements of the existing units to determine if they were still required and gave directions about optional (or conditional) pre-requisites to be removed.

TAC members also discussed the configuration of the qualifications. They decided to include two additional specialisations in Food and Biotechnology to the Diploma of Laboratory Technology, with support that came from industry through the public consultation period. One extra Bio-environmental specialisation was suggested by an RTO during the consultation period, but there was no need recognised or supported by industry. It should also be noted that on further analysis inclusion of the specialisation would most likely duplicate the outcome of MSS50216 Diploma of Environmental Monitoring and Technology, included in the MSS Sustainability Training Package. The TAC also recommended:

- the addition of the Certificate IV Laboratory Techniques as an entry requirement for the Diploma of Laboratory Technology and

- the inclusion of pre-requisite units within qualifications. The number of pre-requisites was restricted so that the overall qualification is not skewed, this included units that cover less complex skills and knowledge (generally aligned to a qualification two AQF levels lower than the qualification itself).

Draft 2 (validation) components

Draft 2 (validation) components were developed with further advice from TAC members and from many highly skilled professionals and subject matter experts.

Draft 2 (validation) components were made available to the public via the IBSA website for two (2) weeks ending 13 October. A consultation paper accompanied the draft training package products which provided a summary of key information about proposed changes to the MSL Laboratory Operations Training Package. Emails were sent to the same stakeholders as outlined for Draft 1 components, plus any additional that registered their interest, one week prior to the draft being released on the IBSA website (to inform them of the upcoming consultation) and the day the drafts were released for review. A total of 232 emails were sent to individuals, Appendix 3 includes organisations that were notified of consultation opportunities during the project. Appendix 4 includes stakeholders that provided feedback.

Summary of changes made in Draft 2 (validation)

Certificate IV in Laboratory Techniques

The feedback around strengthening the Australian Qualification Framework (AQF) outcome of the Certificate IV in Laboratory Techniques was viewed by industry as a positive step, and different stakeholders suggested changes to the core and elective units. Pre-requisite units were listed as electives in qualifications.

Diploma of Laboratory Technology

The overall feedback around the proposed structure of specialisations in the Diploma was viewed positively. Stakeholders suggested alternative specialisations for inclusion, and with demonstrated support from industry, two extra specialisations with identified job outcomes, were added to Draft 2.

Options for specialisations in the Diploma of Laboratory Technology include:

- Pathology
- Chemistry
- Construction
- Food
- Biotechnology.

Stakeholders were supportive of the packaging rules to strengthen the AQF outcome of the Diploma with suggestions about changes to core and elective units (most related to the electives). Selected pre-requisite units were added to the qualification. Packaging rules were made more flexible to allow for relevant units, including any additional pre-requisites, to be chosen if deemed necessary.

The Certificate IV in Laboratory Techniques (or undergraduate degree or higher qualification in a science discipline) was added to the Diploma of Laboratory Technology as an entry requirement. This suggestion came through very strongly in the feedback to ensure that those enrolled in the Diploma of Laboratory Technology have a suitable level of knowledge to undertake training at AQF level 5.

Histotechnology skill set

A draft Histotechnology skill set was presented for comment.

Units of competency

All units were updated to reduce the amount of knowledge evidence that was transferred from the Range of Conditions in the previous version. The term 'such as' was generally not added to the lists in the knowledge evidence, as often suggested in the feedback, to avoid variation in outcomes. The information in the range was added to a glossary that forms part of a MSL User Guide Companion Volume, which is a non-endorsed training package component.

Pre-requisites were analysed and removed or reduced in some units. All conditional pre-requisites were removed to align with the Standards for Training Packages 2012.

Some units had elements and performance criteria amended to refine clear and current work outcomes, and repetition was removed where it was identified.

Some units had additional information added to the Foundations Skills field to highlight the skills not explicit in the elements and performance criteria.

Five units from the 'Scientific glass blowing' field were deleted on advice from the Scientific Glassblowers Society of Australia and New Zealand (SGSANZ).

Five units have been re-titled:

Draft 1 title		Draft 2 title	
MSL935004	Maintain instruments and equipment	MSL934004	Maintain and calibrate instruments and equipment
MSL925002	Analyse measurements and estimate uncertainties	MSL925002	Determine measurements of uncertainty
MSL974003	Perform chemical tests and procedures	MSL974003	Perform chemical tests
MSL977003	Contribute to validation of test methods	MSL977003	Validate test methods
MSL9XXXXX	Recognise and interpret biological samples	MSL954003	Relate anatomical and physiological features to laboratory samples

MSL934004 Maintain and calibrate instruments and equipment was recoded and retitled to better reflect the complexity of the work outcome.

During this second consultation period the IBSA website received 383 views, and 33 feedback submissions. Feedback was received on behalf of organisations, with collated submissions on behalf of a group of individuals, and individuals themselves.

The issues register for this stage of the project includes:

- many positive comments about the work completed on both units and qualifications, including a letter of support from the Histotechnology Society of NSW
- support for the entry requirement to the Diploma of Laboratory Technology
- concern from a small number of RTOs that the Certificate IV in Laboratory Techniques as an entry requirement to the Diploma of Laboratory Technology was restrictive
- suggestions for additional electives to be added to the qualifications
- suggestions for further refinements to some units of competency.

TAC meetings

Again, the Histotechnology TAC meet informally and communicated via email to consider feedback about Histotechnology specific components and to provide direction for changes to those components.

The Laboratory Operations TAC met via teleconference on 30 October, 2017.

TAC members considered feedback on the entry requirements to the Diploma of Laboratory Technology and recommended changes to include an alternative Certificate IV or higher level qualification in a relevant science discipline, and/or demonstrated equivalent skills and knowledge in a relevant science discipline, for example through work experience. With a number of the pre-requisite units being listed in the Diploma of Laboratory Technology, packaging rules were strengthened to specify that five electives must be coded 5000 or above to ensure that learners were gaining the depth of skill and knowledge industry require at this level. Amended qualifications were deemed equivalent to the versions they replaced. TAC members determined that the vocational outcome of the qualifications had not changed.

The TAC also determined that revised units were equivalent. Several units had duplication and superfluous information removed, and clarity improved for a better defined unit that captures the competency requirements, and strengthens the unit intent. Where there was more substantive changes to elements, performance criteria, and assessment requirements, the changes were to the language used to describe the detail of the work task more explicitly, the vocational outcome did not change. In addition, the TAC agreed that where the removal of pre-requisite units had been conditional (or optional), the outcome of the units remained equivalent. This was because the inclusion of the pre-requisite unit(s) were generally to specify a delivery plan, rather than pre-requisite knowledge or skills.

Mindful of the downstream impact of change for RTOs, the TAC agreed that codes of units should only change when a unit title had been changed. In line with this approach, the TAC decided not to change the title of 'MSL974003 Perform chemical tests and procedures'.

There were seven units, where pre-requisite units had changed, however this did was not due to the pre-requisites being conditional. In line with the Training Package Products Policy, the code of these seven units was changed, this includes (the new code is not used here):

- MSL935003 Authorise the issue of test results
- MSL975003 Perform histological tests
- MSL975006 Perform immunohaematological tests
- MSL975007 Supervise sampling, inspections and testing at construction sites
- MSL975012 Provide input to production trials
- MSL975013 Perform tissue and cell culture techniques
- MSL975014 Perform molecular biology tests and procedures.

Members approved the draft Companion Volume Implementation Guide, including suggested wording to be added about the processes RTOs should use to determine whether potential learners have the appropriate level of skills and knowledge to commence training for the Diploma of Laboratory Technology. They also confirmed that the wording used to describe the AQF outcome of the qualifications was accurate.

The final version of the units, qualifications and the skill set incorporate recommendations made by the TAC, again along with specific technical advice from highly skilled and well recognised laboratory specialists.

The TAC supported the components being put to the AISC for endorsement.

State/Territory engagement

IBSA Manufacturing has actively engaged with all State and Territory Training Authorities (STAs) throughout the project, providing an initial briefing, maintaining open dialogue and requesting comments or issues raised on Draft 1 and Draft 2 (validation) components. STAs also had two weeks at the end of the project to review and provide feedback on the final drafts of training package components, as required by the Training Package Development and Endorsement Products Policy.

Reports by exception

There are no reports by exception.

D. Industry expectations about training delivery

Training delivery

The Companion Volume Implementation Guide includes advice about industry's expectations of training delivery: duration of training, delivery modes and pathways, work-based learning strategies, assessment and learner characteristics is included in the Implementation Guide.

Stakeholders agree that the Certificate IV in Laboratory Techniques should be delivered over a period of 600 – 2400 hours, and the Diploma of Laboratory Technology should be delivered over a period of 1200 – 2400 hours. These expectations are in line with the AQF parameters.

Stakeholders also agree that it would be ideal if all learners had access to a real workplace environment to practise skill development and for assessment. But to mandate this requirement would be to place an unreasonable strain on commercial laboratories, and so they recommend that training and assessment of practical skills be in a simulated environment that accurately reflects workplace conditions.

Delivery as an apprenticeship/traineeship

The Process Manufacturing, Recreational Vehicle and Laboratory IRC and stakeholders agree that the Certificate IV in Laboratory Techniques and the Diploma of Laboratory Technology are not recommended for a traineeship or apprenticeship.

Entry requirement

There was strong support for the entry requirement in the Diploma of Laboratory Technology, as it was deemed essential that all learners have a base level of scientific skills and knowledge to begin training at this level. There was some feedback, from a small number of RTOs, that raised concern with its inclusion. This was very carefully considered by the TAC who confirmed learners need a strong knowledge grounding before enrolling in the Diploma of Laboratory Technology, especially considering workers at this level are undertaking work where people's lives may depend on the outcome of the results. It is industry's expectation that learners can demonstrate a certain level of skill and knowledge before entering the qualification, this was reinforced by the Process Manufacturing, Recreational Vehicle and Laboratory IRC.

The latest NCVER data (2015) for the Diploma of Laboratory Technology, shows that Total VET Activity (TVA) enrolments was 1,994. However, completions were only 637, less than one third of total enrolments. It is acknowledged that there may be a variety of reasons which could contribute to the low number of completions, however, it would be amiss not to accept that students who are underprepared are contributing to this large discrepancy. It was acknowledged by certain stakeholders that some students enrolled in the Diploma of Laboratory Technology have very little, or zero, science related skills and knowledge and therefore struggle with the expectations of this qualification. The inclusion of the entry requirement is to ensure the level of skill and knowledge for graduates of the Diploma of Laboratory Technology supports the AQF outcome. In the current training system these underpinning skills and knowledge were often being taught as part of the Diploma qualification, at the expense of more technical aspects which are expected from a Diploma level graduate. This is supported by comments received from the initial industry consultation at the start of the project, and comments by the TAC on 'thin' qualifications, meaning that learners were often not developing the breadth of skills and knowledge required for the job at a particular qualification level. The proposed work addresses this issue to ensure technical aspects are covered in the Diploma of Laboratory Technology.

There is considerable flexibility allowed for in the entry requirement to recognise the variety of ways learners enter the qualification. There are three different options available for individuals, they need to:

- hold a Certificate IV in Laboratory Techniques

or

- hold a relevant Certificate IV or higher level qualification in a relevant science discipline
- or
- can demonstrate equivalent skills and knowledge in a relevant science discipline to any of the above qualifications.

Further information is included in the Implementation Guide to clarify industry's expectations. RTOs must follow a documented process to ascertain if potential learners have the knowledge and skills in the appropriate field to be allowed entry. To recognise the variety of entry points into the qualification, expectations about entering from Year 12 (or its equivalent) is explained as follows:

RTOs must conduct a preliminary assessment of individuals to determine knowledge and skill to the equivalent level of the qualifications listed in the entry requirements. Due to the variability of programs at different schools, entry based purely on completion of Year 12 programs is not sufficient.

The entry qualification, and/or experience, should provide evidence that infers a strong likelihood of successful completion of studies at an AQF level 5. Applicants that do not have the requisites for successful completion may be disadvantaged in undertaking study of the Diploma of Laboratory Technology.

E. Implementation of the new training package components

Occupation and licensing requirements

No licensing or certification requirements apply to the units or qualifications included in this submission. There are regulations and/or external accreditation requirements that apply to laboratory operations, such as the National Association of Testing Authorities (NATA) accreditation. Because the requirements vary between jurisdictions, the following statement has been added to all units of competency.

No licensing or certification requirements exist at the time of publication. However, regulations and/or external accreditation requirements for laboratory operations exist, so local requirements should be checked. Relevant legislation, industry standards and codes of practice within Australia must also be applied.

The qualifications include the following statement.

No licensing or certification requirements exist at the time of publication.

Implementation issues and management strategy

The packaging rules for the proposed qualifications require learners to complete fewer units of competency than previous versions of the qualifications. The proposed Diploma of Laboratory Technology includes five specialisations that were not in the previous version, as well as an option to complete a general qualification. The specialisations have been incorporated in response to industry requirement that graduates have skills and knowledge in specialist areas, including Pathology (incorporating Histotechnology), Chemistry, Construction, Food and Biotechnology. These specialisations offer a pathway from the Certificate IV in Laboratory Techniques, and specialist skills for graduates to work in large specialist laboratories, as well as a more general pathway for graduates to work in smaller laboratories that cover several sectors.

All units of competency have been analysed, the range of conditions removed, and assessment requirements clarified and made more succinct. Some units have had foundations skills information added to the foundation skills field to ensure that those skills are addressed in training and assessment, and that students graduate with the foundation skills appropriate to job roles in laboratory work at Certificate IV and Diploma level.

These changes will not require RTOs to update their scope of delivery, however it will be essential for them to review and update training and assessment plans, and review and update training and assessment materials.

The transition period for MSL4016 Certificate IV in Laboratory Techniques and the MSL5016 Diploma of Laboratory Technology versions of the qualifications will be 12 months, in line with the Standards for RTOs (2015), and new learners must not commence training in a unit of competency that has been removed or deleted from the National Register.

Learners currently enrolled in units that are proposed to be deleted will have two years to finalise completion.

Funding arrangements will need to be reviewed by states and territories.

Several pre-requisites have also been removed from units to remove unnecessary barriers. Selected pre-requisite units have been added to the qualification. Packaging rules have been made more flexible to allow for relevant units, including any additional pre-requisites, to be chosen if deemed necessary.

F. Quality assurance reports

IBSA Manufacturing declares that the proposed components of the MSL Laboratory Operations Training Package Release 2.0 meet the requirements of the Standards for Training Packages 2012, Training Package Products Policy and Training Package Development and Endorsement Process Policy.

This declaration is confirmed by the independent Quality Assurance report, included at Appendix 5.

The Companion Volume Implementation Guide has been quality assured through the IBSA Manufacturing internal process, and through the independent quality assurance process. It is available with this submission and will be available on the VETNet website

<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa> at endorsement.

Statement of evidence against the Training Package Quality Principles

Training Package Quality Principles	Evidenced by:
1. Reflect identified workforce outcomes	Changes made demonstrate a clear link back to relevant AISC decisions commissioning the work, the IRC Skills Forecast and Proposed Schedule of Work, National Review Schedule and the Case for Change and include: <ul style="list-style-type: none"> development of two new units of competency to address the skill needs of workers in the area of histotechnology development of a new skill set to address the skill needs of workers in the area of histotechnology consequential revision of two qualifications to include the new components listed above and refine the work tasks to better align with real industry outcomes.
	<ul style="list-style-type: none"> Training package components are compliant with the <i>Standards for Training Packages 2012</i>, the <i>Training Package Products Policy</i> and the <i>Training Package Development and Endorsement Process Policy</i>, as evidenced by the Quality Assurance report included at Appendix 5 <p>Evidence that the training package components respond to Ministers' policy initiatives, in particular the 2015 training package reforms, including the removal of</p>

	<p>duplication and obsolete components where seven units have been deleted.</p> <ul style="list-style-type: none"> • Open and inclusive consultation and validation commensurate with scope and impact has been conducted, as described in the Case for Endorsement.
2. Support portability of skills and competencies including reflecting licensing and regulatory requirements	<ul style="list-style-type: none"> • Packaging rules, qualifications framework, and pathways support movement within and across sectors, as described in the MSL Companion Volume Implementation Guide, Release 2.0 • Identification of skill sets that respond to client needs, including the development of the MSLSS00001 Histotechnology Skill Set. • Other national and international standards for skills are considered. • No licensing or certification requirements exist at the time of publication.
3. Reflect national agreement about the core transferable skills and core job-specific skills required for job roles as identified by industry	<ul style="list-style-type: none"> • Active engagement across industry has sought to achieve a national consensus about the advice being provided to the AISC, as described in this Case for Endorsement.
4. Be flexible to meet the diversity of individual and employer needs, including the capacity to adapt to changing job roles and workplaces	<ul style="list-style-type: none"> • Provide flexible qualifications that enable application in different contexts, evident in the revised Certificate IV and Diploma. • Provide multiple entry and exit points, as described in the MSL Companion Volume Implementation Guide, Release 2.0 • Pre-requisite units of competency have been revised and reduced and are used only when required.
5. Facilitate recognition of an individual's skills and knowledge and support movement between the school, vocational education and higher education sectors	<ul style="list-style-type: none"> • Provide pathways from entry and preparatory level as appropriate to facilitate movement between schools and VET, from entry level into work, and between VET and higher education qualifications, as described in the MSL Companion Volume Implementation Guide, Release 2.0.
6. Support interpretation by training providers and others through the use of simple, concise language and clear articulation of assessment requirements	<ul style="list-style-type: none"> • Industry advice about delivery is provided via a Companion Volume Implementation Guide ready for publication at the same time as the Training Package. A Companion Volume User Guide will also be available. • Units of competency and their associated assessment requirements are clearly written and have consistent breadth and depth. • Components comply with the TGA/National Register requirements for publication • Implementation advice is provided in a Companion Volume Implementation Guide that is ready for publication at the same time as the Training Package.

G. Implementation of the COAG Industry Skills Council reforms to training packages

The decision being sought from the AISC will support the COAG Industry and Skills Council reforms to training packages. Completion of the training package development work outlined in the Case for Change, together with extensive consultation confirms that this work:

- has removed superfluous information from units of competency, does not duplicate qualifications and units from other training packages, and has removed units that are obsolete
- includes information about industry's expectations of training delivery (i.e. duration of training, mode of delivery and learner characteristics) in the MSL Companion Volume Implementation Guide, Release 2.0
- has improved qualification design to clarify the AQF outcomes and enable individuals to move easily from one related occupation to another
- improved the efficiency of the training system through the creation of units of competency that can be owned and used by multiple industry sectors. The MSL Laboratory Operations Training Package addresses the training and recognition needs of samplers, testers and laboratory personnel working in a wide range of enterprises and industry sectors, including:
 - biotechnology
 - biomedical research
 - pathology testing
 - calibration
 - chemical analysis
 - forensic analysis
 - environmental analysis
 - construction materials
 - soil testing
 - education
 - environmental monitoring and technology
 - food and beverage processing and testing
 - mining, mineral assay
 - process manufacturing
 - wine making.
- fostered the development of one skill set, MSLSS00001 Histotechnology Skill Set.

H. A copy of the full content of the proposed training package components

All proposed components for MSL Laboratory Operations Training Package Release 2.0 have been finalised in line with AISC Activity Order and accompany this submission.

All components have been developed to comply with the requirements of the National Register and include a modification history.

Appendix 1: Components for endorsement

MSL qualifications

Code	Title
MSL40118	Certificate IV in Laboratory Techniques
MSL50118	Diploma of Laboratory Technology

MSL skill sets

Code	Title
MSLSS00001	Histotechnology Skill Set

MSL units of competency (including pre-requisites)

Unit code	Unit title	Pre-requisites
MSL904001	Perform standard calibrations	
MSL905001	Perform non-standard calibrations	MSL904001 Perform standard calibrations
MSL905002	Create or modify calibration procedures	MSL905001 Perform non-standard calibrations
MSL905003	Create or modify automated calibration procedures	MSL905002 Create or modify calibration procedures
MSL913001	Communicate with other people	
MSL913002	Plan and conduct laboratory/field work	
MSL914001	Prepare practical science classes and demonstrations	
MSL915001	Provide information to customers	
MSL915002	Schedule laboratory work for a small team	
MSL916001	Develop and maintain laboratory documentation	
MSL916002	Manage and develop teams	
MSL916003	Supervise laboratory operations in work or functional area	
MSL916004	Maintain registration and statutory or legal compliance in work or functional area	
MSL916005	Manage complex projects	
MSL924001	Process and interpret data	
MSL924002	Use laboratory application software	

MSL925001	Analyse data and report results	MSL924001 Process and interpret data
MSL925003	Determine measurements of uncertainty	
MSL933001	Maintain the laboratory/field workplace fit for purpose	
MSL933002	Contribute to the achievement of quality objectives	
MSL933003	Apply critical control point requirements	
MSL933004	Perform calibration checks on equipment and assist with its maintenance	
MSL934001	Contribute to the ongoing development of HACCP plans	
MSL934002	Apply quality system and continuous improvement processes	
MSL934003	Maintain and control stocks	
MSL934004	Maintain and calibrate instruments and equipment	
MSL935001	Monitor the quality of test results and data	MSL924001 Process and interpret data
MSL935002	Assist in the maintenance of reference materials	
MSL935005	Authorise the issue of test results	MSL925001 Analyse data and report results
MSL936001	Maintain quality system and continuous improvement processes within work or functional area	
MSL936002	Conduct an internal audit of the quality system	
MSL943001	Work safely with instruments that emit ionising radiation	
MSL943002	Participate in laboratory or field workplace safety	
MSL944001	Maintain laboratory or field workplace safety	
MSL946001	Implement and monitor WHS and environmental management systems	
MSL953001	Receive and prepare samples for testing	
MSL953002	Operate a robotic sample preparation system	
MSL954003	Relate anatomical and physiological features to laboratory samples	

MSL954001	Obtain representative samples in accordance with sampling plan	
MSL954002	Prepare mineral samples for analysis	
MSL955001	Supervise a robotic sample preparation system	MSL953002 Operate a robotic sample preparation system
MSL973001	Perform basic tests	
MSL973002	Prepare working solutions	
MSL973003	Prepare culture media	
MSL973004	Perform aseptic techniques	
MSL973005	Assist with fieldwork	
MSL973006	Prepare trial batches for evaluation	
MSL973007	Perform microscopic examination	
MSL973008	Perform histological procedures	
MSL973009	Conduct field-based acceptance tests for construction materials	
MSL973010	Conduct laboratory-based acceptance tests for construction materials	
MSL973011	Perform fire pouring techniques	
MSL973012	Perform site investigation activities	
MSL974001	Prepare, standardise and use solutions	
MSL974002	Conduct geotechnical site investigations	
MSL974003	Perform chemical tests and procedures	
MSL974004	Perform food tests	
MSL974006	Perform biological procedures	
MSL974007	Undertake environmental field-based monitoring	
MSL974008	Capture and manage scientific images	
MSL974009	Undertake field-based, remote-sensing monitoring	
MSL974011	Prepare tissue and cell cultures	MSL973004 Perform aseptic techniques
MSL974012	Perform tests to determine the properties of construction materials	MSL973010 Conduct laboratory-based acceptance tests for construction materials
MSL974013	Monitor performance of structures	MSL973009 Conduct field-based acceptance tests for construction materials
MSL974014	Classify soils	MSL973009 Conduct field-based acceptance tests for construction materials

		MSL973010 Conduct laboratory-based acceptance tests for construction materials
MSL974015	Operated an automated mineral analysis system	
MSL974016	Perform physical and mechanical tests	
MSL975001	Perform microbiological tests	MSL973004 Perform aseptic techniques MSL973007 Perform microscopic examination
MSL975002	Perform haematological tests	MSL973007 Perform microscopic examination
MSL975004	Perform chemical pathology tests	MSL974006 Perform biological procedures
MSL975005	Conduct sensory analysis	
MSL975008	Apply electrophoretic techniques	MSL974003 Perform chemical tests and procedures
MSL975009	Apply routine chromatographic techniques	MSL974003 Perform chemical tests and procedures
MSL975010	Perform fire assay techniques	MSL973011 Perform fire pouring techniques
MSL975011	Design and supervise complex environmental field surveys	MSL974007 Undertake environmental field-based monitoring
MSL975015	Prepare animal and plant material for display	
MSL975016	Perform complex tests to measure engineering properties of materials	MSL973010 Conduct laboratory-based acceptance tests for construction materials MSL974012 Perform tests to determine the properties of construction materials
MSL975017	Perform laboratory-based ecological techniques	MSL974006 Perform biological procedures
MSL975018	Perform complex tests to measure chemical properties of materials	MSL974003 Perform chemical tests and procedures
MSL975019	Apply complex instrumental techniques	MSL974003 Perform chemical tests and procedures
MSL975020	Apply routine spectrometric techniques	MSL974003 Perform chemical tests and procedures
MSL975021	Apply routine electrometric techniques	MSL974003 Perform chemical tests and procedures

MSL975022	Perform food analyses	MSL974004 Perform food tests
MSL975023	Supervise geotechnical site investigations	MSL974002 Conduct geotechnical site investigations
MSL975024	Locate, record and collect forensic samples	
MSL975025	Perform complex laboratory testing of forensic samples	
MSL975026	Perform physical examination of forensic samples	
MSL975027	Classify building sites	MSL974014 Classify soils
MSL975028	Apply advanced embedding and microtomy skills	MSL975029 Perform histological tests
MSL975029	Perform histological tests	MSL973007 Perform microscopic examination MSL954003 Relate anatomical and physiological features to laboratory samples
MSL975030	Perform immunohaematological tests	
MSL975031	Supervise sampling, inspections and testing at construction sites	MSL954001 Obtain representative samples in accordance with sampling plan MSL973009 Conduct field-based acceptance tests for construction materials
MSL975032	Provide input to production trials	
MSL975033	Perform tissue and cell culture techniques	MSL973004 Perform aseptic techniques
MSL975034	Perform molecular biology tests and procedures	MSL973004 Perform aseptic techniques MSL974006 Perform biological procedures
MSL976002	Prepare plans and quality assurance procedures for environmental field activities	MSL975011 Design and supervise complex environmental field surveys
MSL976003	Evaluate and select appropriate test methods and/or procedures	
MSL977001	Contribute to the development of products and applications	MSL976003 Evaluate and select appropriate test methods and/or procedures
MSL977002	Troubleshoot equipment and/or production processes	

MSL977004	Develop or adapt analyses and procedures	MSL976003 Evaluate and select appropriate test methods and/or procedures
MSL977005	Validate test methods	MSL976003 Evaluate and select appropriate test methods and/or procedures

Imported units of competency

Unit code	Unit title	Notes
FDFST4004A	Perform microbiological procedures in the food industry	From FDF10 Food Processing Training Package
MSMENV472	Implement and monitor environmentally sustainable work practices	From MSM Manufacturing Training Package
TAEDEL301	Provide work skill instruction	From TAE Training and Education Training Package

Credit arrangements

Credit arrangements for MSL Laboratory Operations Training Package Release 2.0		
Qualification Code	Qualification Title	Credit Arrangement Details
MSL40118	Certificate IV in Laboratory Techniques	At the time of endorsement of this training package, no national credit arrangements exist.
MSL50118	Diploma of Laboratory Technology	At the time of endorsement of this training package, no national credit arrangements exist.

Appendix 2: Letter of support from IRC

24 November 2017

Dear Australian Industry and Skills Committee,

As the Chair of the Process Manufacturing, Recreational Vehicles and Laboratory IRC (IRC), I write on behalf of the IRC to support the endorsement of the reviewed MSL Laboratory Operations Training Package components, as completed under the Activity Order IBSA/TPD/2016-2017/003.

The training package components have been significantly strengthened and closely reflect current industry practice.

A fully constituted IRC was present to approve the draft components for submission to the Australian Industry and Skills Committee for endorsement.

Regards

A handwritten signature in dark ink, appearing to read 'Keith Monaghan', with a long, sweeping horizontal stroke extending to the right.

Keith Monaghan

Appendix 3: Industry organisations notified of public consultation

ORGANISATION	SECTOR
Adelaide Integrated Bioscience Laboratories	Biomedical Research
Agricultural Biotechnology Council of Australia	Biotechnology/Biomedical research
Association of Regulatory and Clinical Scientists to the Australian Pharmaceutical Industry	Pharmaceutical
AusBiotech	Biotechnology/Biomedical research
Austech Medical Laboratories	Biomedical Research/Pathology
Australasian Association of Clinical Biochemists	Biomedical Research/Pathology
Australasian Immunohistochemistry Society	Biomedical Research/Pathology
Australian Red Cross Blood Service	Pathology
Australasian Society for Immunology	Biomedical Research/Pathology
Australasian Society of Clinical and Experimental Pharmacologists and Toxicologists	Pharmaceutical
Australia New Zealand Industrial Gas Association	Construction
Australia's National Digital Health Initiative	Technology/Pathology
Australian and New Zealand Forensic Science Society	Forensics
Australian Clinical Laboratories	Biomedical Research/Pathology
Australian Federal Police	Forensic
Australian Institute of Food Science and Technology	Food
Australian Institute of Geoscientists	Mining/mineral
Australian Institute of Medical Scientists	Pathology/Biomedical Research
Australian Physiological Society	Several - Biological
Australian Science Teachers Association	Educational Support
Australian Society for Biochemistry and Molecular biology	Biomedical Research/Pathology
Australian Society for Microbiology	Biomedical Research/Pathology
Australian Society of Cosmetic Chemists	Pharmaceutical
Australian Society of Plant Scientists	Several - Biological
Australian Wine Research Institute	Wine
Boral	Construction
Capital Pathology	Biomedical Research/Pathology
ChemCentre	Chemistry
Chemistry Australia	Chemistry
Clean Air Society of Australia and New Zealand	Environmental

Commonwealth Scientific and Industrial Research Organisation (CSIRO)	All sectors
Concord Hospital	Biomedical Research/Pathology
CPC Pathology	Pathology
Department of Primary Industries	Agriculture/Pathology
Department of Primary Industries, Parks, Water and Environment	Agriculture/Pathology
Dorevitch Pathology	Pathology
Douglass Hanly Moir Pathology	Pathology
Elizabeth Macarthur Agricultural Institute	Agriculture/Pathology
Forensic Science Service SA	Forensic
Forensic Science Service Tasmania	Forensic
Garvin Institute	Biomedical Research
Gosford Hospital	Biomedical Research/Pathology
Griffith Hospital	Biomedical Research/Pathology
Hanson	Construction
Healthscope	Pathology
Hin Sci	Biomedical Research/Pathology
Histopath - Diagnostic Specialists	Pathology
Histotechnology Group of Queensland	Biomedical Research/Pathology
Histotechnology Group of South Australia	Biomedical Research/Pathology
Histotechnology Group of Victoria	Biomedical Research/Pathology
Histotechnology Society of NSW	Biomedical Research/Pathology
In vitro Diagnostics Australia	Biomedical Research/Pathology
Institute of Clinical Pathology & Medical Research (ICPMR)	Biomedical Research/Pathology
John Curtin School of Medical Research	Biomedical Research
John Hunter Hospital	Pathology
Laboratory Operations Australia	Biomedical Research/Pathology/ Pharmaceutical
Laverty Pathology	Pathology
Leica Biosystems	Biomedical Research/Pathology
Liverpool Hospital	Biomedical Research/Pathology
Medlab Pathology	Pathology
Melanoma Institute Australia	Biomedical Research/Pathology
Metrology Society of Australasia	Calibration
Metropath	Pathology

Microscopy and Microanalysis Society of Australia	Biomedical Research/Pathology/ Biotechnology
MiniFAB	Technology/Biochemistry
MTPConnect - MedTech and Pharma Growth centre	Biotechnology/Pharmaceutical
Murrumbidgee Pathology	Biomedical Research/Pathology
National Association of Testing Authorities	All Sectors
National Health and Medical Research Council	Biomedical Research
National Measurement Institute	Various
National Pathology Accreditation Advisory Council	Pathology
Neuroscience Research Australia	Biomedical Research
Newcastle Hospital	Biomedical Research/Pathology
North West Pathology	Biomedical Research/Pathology
Northern NSW Local Health District (NNSWLHD)	Biomedical Research/Pathology
Northern Territory Police	Forensic
NSW Food Authority	Food/beverage
NSW Health Pathology	Pathology
NSW Police	Forensic
Pathology Australia	Pathology
Pathology North	Biomedical Research/Pathology
PathWest Laboratory Medicine	Biomedical Research/Pathology
Prince of Wales Hospital	Pathology
Queensland Health - Forensic and Scientific Services	Forensic
Queensland Police	Forensic
Royal College of Pathologists Australia	Pathology
Royal Hobart Hospital	Biomedical Research/Pathology
Royal North Shore hospital	Biomedical Research/Pathology
Royal College of Pathologists of Australasia Quality Assurance Programs (RCPAQAP)	Pathology
Science & Technology Australia	All Sectors
Scientific Glassblowing Society of Australia and New Zealand	Glassblowing
SDS Pathology - Specialist Diagnostic Services	Pathology
Skin and Cancer Foundation of Australia	Biomedical Research/Pathology
Soil Science Australia	Environmental
Sonic Healthcare	Pathology
South Australia Police	Forensic
South Eastern Area Laboratory Services (SEALS)	Biomedical Research/Pathology

South Eastern Sydney and Illawarra Area Health Service (SESIAHS)	Biomedical Research/Pathology
Southern IML Pathology	Pathology
Southern Sun Pathology	Pathology
St Vincent's Hospital	Biomedical Research/Pathology
Sydney Adventist Hospital	Biomedical Research/Pathology
Sydney South West Area Health Service (SSWAHS)	Pathology
Symbio Laboratories	Food/Agriculture/Environmental
Taronga Zoo	Agriculture/Pathology
Tasmanian Medical Laboratories	Biomedical Research/Pathology
Tasmania Police	Forensic
The Australian Academy of Technology and Engineering	Construction
The Children's Hospital Westmead	Biomedical Research/Pathology
The Institution of Chemical Engineers	Chemical
Thermo Fisher Scientific	Biomedical Research/Pathology
Trajan Scientific and Medical	Biomedical Research/Pathology/Chemistry
Victorian Institute of Forensic Medicine	Forensic
Victoria Police	Forensic
WA Police	Forensics
Westmead Hospital	Biomedical Research/Pathology
Wine Australia	Wine

Appendix 4: Organisations who were consulted/provided feedback

Targeted industry experts/specialists who provided advice:

POSITION	ORGANISATION
Joint Managing Director – Laboratory Operations	Symbio Laboratories
Executive Director Scientific and Technical (Chief Medical Scientist)	NSW Health Pathology
Scientist	Laboratory Operations Australia
Laboratory Manager	Boral
Associate Professor	Australian National University and Canberra Institute of Technology (ACT)
National Research Program Leader, Product Safety	Australian Red Cross Blood Service (QLD)
Histology Laboratory Manager	Douglass Hanly Moir Pathology
Histopathology Scientist	Australian Clinical Labs
Senior Medical Scientist	Prince of Wales Hospital
Chief Scientist Haematology	Lavery Pathology
Director Haematology	Dorevitch Pathology (VIC)
Histology/Anatomical Pathology Quality Coordinator	Douglass Hanly Moir Pathology
Quality Manager	Histopath – Diagnostic Specialists
Business Manager	Histopath – Diagnostic Specialists
Haematologist	Lavery Pathology
Senior Hospital Scientist Haematology	John Hunter Hospital
Chairman and committee	Histotechnology Society of NSW Committee
Histology Laboratory Manager	Lavery Pathology
Training and Development Manager	PathWest Laboratory Medicine (WA)
Histopathology Department Manager	Douglass Hanly Moir Pathology
Supervisor Specimen Processing	Australian Clinical Laboratories VIC)
Technical Officer	Lavery Pathology
Histology/Pathology Department Manager	Douglass Hanly Moir Pathology
Technical Officer	Liverpool Hospital
Product Manager and Director	Hin Sci
Project Manager	Sonic Healthcare

Senior Scientist: Parasitology and Microbiology	Histopath – Diagnostic Specialists
Senior Technical Officer	Royal North Shore Hospital
Senior Technical Officer	Concord Hospital
Senior Technical Officer	Douglass Hanly Moir Pathology
Technical Officer	Laverty Pathology
Technical Officer	Concord Hospital
Technical Officer	Douglass Hanly Moir Pathology
Technical Assistant	Institute of Clinical Pathology & Medical Research (ICPMR)
Product specialist, Anatomical Pathology	Thermo Fisher Scientific

Organisations that provided feedback (NB multiple stakeholders from the same organisation may have contributed to a submission):

 Denotes RTOs that have either the Certificate IV in Laboratory Techniques and/or the Diploma of Laboratory Technology on scope of delivery.

AB Consulting
Analytical MicroLabs
Australian Animal Health Laboratories
Australian Institute of Food Science and Technology
Barwon Health
Boral
Canberra Institute of Technology
Charles Sturt University
Cranbourne East Secondary College
Dalton Training Services
Department of Training and Workforce Development
FS Alliance
Histotechnology Society of NSW
Holmesglen TAFE
Hunter Institute
John Curtin School of Medical Research
KASE Enterprises
Laboratory Operations Australia
LLT
Mackay Sugar

MSA ITAB (NSW)
North Metropolitan TAFE
NSW Health Pathology
NT Department of Trade, Business and Innovation
Queensland Curriculum and Assessment Authority
RMIT
Scientific Glassblowers Society of Australia and New Zealand
South Metropolitan TAFE
South Regional TAFE
South Western Sydney Institute
Swinburne
Sydney TAFE
Symbio Laboratories
TAFE QLD
TAFE SA
TaPS
The Gordon
University of Canberra
Victorian Department of Education and Training
WA Department of Training and Workforce Development
Wollongbar TAFE

Appendix 5: Quality Assurance report

Section 1 – Details of draft training package components

Information required	Detail
Training Package title and code	MSL Laboratory Operations Training Package (Release 2)
Number of new or revised qualifications	<ul style="list-style-type: none"> MSL40118 Certificate IV in in Laboratory Techniques MSL50118 Diploma of Laboratory Technology (one new skill set, MSLSS00001 Histotechnology Skill Set – non-endorsed component)
Number of new or revised units	<ul style="list-style-type: none"> 101 units of competency and associated assessment requirements, including <ul style="list-style-type: none"> two new units of competency: <ul style="list-style-type: none"> MSL954003 Relate anatomical and physiological features to laboratory samples (covering skills in anatomy and physiology for laboratories) MSL975028 Apply advanced embedding and microtomy skills (covering skills in embedding and microtomy) 99 revised units.
Confirmation that the draft endorsed components meet the <i>Standards for Training Packages 2012</i>	The draft components reviewed meet the requirements of the <i>Standards for Training Packages 2012</i> .
Name of panel member completing Quality Report	Sue Hamilton, Focus on Skills Pty Ltd.
Statement that the panel member <ul style="list-style-type: none"> is independent of development and/or validation activities associated with the <i>Case for Endorsement</i> has not undertaken the <i>Equity</i> and/or <i>Editorial Report</i> 	Sue Hamilton is an independent Quality Assurance Panel member and has not undertaken the equity or editorial reports or been involved in the development or validation activities associated with the components included in the review of the qualifications, Skill Sets and units of competency, Implementation Guide or Case for Endorsement for the MSL Laboratory Operations Training Package.

Information required	Detail
<ul style="list-style-type: none"> is independent of the Training Package or Training Package components being reviewed. 	
Date completed	20 November 2017

Section 2 – Compliance with the standards for training packages

Standards for Training Packages	Standard met – yes or no	Comments (including any relevant comments from the Equity and Editorial Reports)
<p>Standard 1 Training Packages consist of the following:</p> <ol style="list-style-type: none"> 1. AISC endorsed components: <ul style="list-style-type: none"> • units of competency • assessment requirements (associated with each unit of competency) • qualifications • credit arrangements. 2. One or more quality assured companion volumes. 	Yes	<ol style="list-style-type: none"> 1. The MSL Laboratory Operations Training Package Release 2.0. meets Standard 1. The components included in this submission include: <ul style="list-style-type: none"> • MSL40118 Certificate IV in in Laboratory Techniques • MSL50118 Diploma of Laboratory Technology • 101 units of competency and associated assessment requirements, including <ul style="list-style-type: none"> • two new units of competency: <ul style="list-style-type: none"> ▪ MSL954003 Relate anatomical and physiological features to laboratory samples ▪ MSL975028 Apply advanced embedding and microtomy skills • 99 revised units • one new skill set MSLSS00001 Histotechnology Skill Set • credit arrangements for the qualifications are specified in the Case for Endorsement (CfE). 2. The submission includes the MSL Laboratory Operations Companion Volume Implementation Guide (MSL CVIG) that has been quality assured. IBSA Manufacturing Skills Service Organisation (SSO) has advised that an additional MSL User Guide Companion Volume is under development to support the Training Package and will be ready for release at the time of endorsement.
<p>Standard 2 Training Package developers comply with the AISC <i>Training Package Products Policy</i>.</p>	Yes	<p>IBSA Manufacturing SSO has complied with the Training Package Products Policy.</p> <p>The Training Package is appropriately coded, addresses foundation skills within units of competency and provides flexibility within the two qualifications submitted for endorsement.</p> <p>The <i>Foundation Skills</i> included in the units of competency are based on two frameworks: the Australian Core Skills Framework</p>

Standards for Training Packages	Standard met – yes or no	Comments (including any relevant comments from the Equity and Editorial Reports)
		<p>(ACSF) and Employability Skills (refer p26 MSL CVIG)</p> <p><i>Access and equity</i> is addressed with the MSL CVIG, which provides advice on reasonable adjustment and links to Commonwealth Government Disability Standards and guidelines.</p> <p>Units of competency</p> <p>All units of competency have unique <i>codes</i> and appropriate titling that meets the AVETMIS standard. The equivalence status of release 2 units to the previous version (release 1) is mapped within each unit and a summary list is provided as Appendix III in the MSL CVIG.</p> <p>All revised units have been deemed 'equivalent' to previous units by the Technical Advisory Committee (TAC). The CfE (p12) and the TAC meeting minutes (30-Oct-17) outline the considerations in determining equivalence. The minutes explain that changes were made to units to remove duplication and/or superfluous information, improve clarity and strengthen the unit intent, and that the overall outcome of the revised units remains the same.</p> <p>Prerequisite units have been reviewed and minimised with conditional/optional prerequisites removed. The process for reviewing the prerequisites is outlined in the CfE (p9) and was supported by the provision of the TAC meeting minutes (22 Sept 2017). Changes to 17 units with prerequisites were made with the changes clearly identified in the unit mapping list provided as Appendix III in the MSL CVIG. New codes have been allocated to units where changes were made to the prerequisites. However, codes where a conditional/optional prerequisite was removed (leaving one prerequisite only) were not changed. The CfE (p12) provides a rationale for this decision and is supported by minutes of TAC meeting (30-Oct-17) supplied by the SSO.</p> <p>Qualifications</p> <p>The qualifications are coded appropriately with Training Package, AQF level, sequence and year of release identifiers.</p>

Standards for Training Packages	Standard met – yes or no	Comments (including any relevant comments from the Equity and Editorial Reports)
		<p>The qualifications are packaged clearly with industry stakeholder agreement on coverage of appropriate job roles and areas of specialisation. IBSA Manufacturing SSO provided minutes of the TAC meetings where job roles and skills were discussed (11 Aug 2017) and advice provided on the need to group units into specialisations to provide sector specific skills in the Diploma.</p> <p>Three <i>imported units</i> from three different Training Packages are listed in the CfE and CVIG. Both qualifications in this submission have <i>packaging rules</i> that allow units from any endorsed Training Package or accredited course to be selected as electives stipulating that the units must be relevant to the work outcome.</p> <p>The equivalence status of both the Certificate IV and Diploma, to earlier versions, is stated within the qualification documents and in the MSL CVIG. The CfE (p11) states that the TAC has determined that both qualifications are equivalent despite changes to the core and elective units and the addition of specialisations in the Diploma. The minutes of the TAC meeting (30 Oct 2017) confirm that issues around qualification equivalence were given due consideration in this determination. Qualifications <i>pathways advice</i> is provided in the MSL CVIG.</p> <p>Skill Sets (non-endorsed component)</p> <p>One new Skill Set is included in the submission. The units of competency within the Histotechnology Skill Set, developed to address the needs of workers in the histotechnology sector, are logically clustered based on technical advice provided by laboratory specialists and the Histotechnology TAC. The Skill Set's relationship to the MSL qualifications is included within the Skill Set and in the MSL CVIG.</p>
Standard 3 Training Package developers comply with the AISC <i>Training Package Development and Endorsement Process Policy</i> .	Yes	<p>IBSA Manufacturing SSO has complied with the AISC Training Package Development and Endorsement Process Policy.</p> <p>The CfE outlines the training package review and development work undertaken based on the Case for Change under Activity</p>

Standards for Training Packages	Standard met – yes or no	Comments (including any relevant comments from the Equity and Editorial Reports)
		<p>Order IBSA/TPD/2016-2017/003.</p> <p>The CfE describes the review and development methodology and the national consultation and validation process, which included:</p> <ul style="list-style-type: none"> • Research phase involving stakeholder surveys with the list of respondents included in the CfE. • Establishment of two TACs (Histotechnology TAC and Laboratory Operations TAC) comprising subject matter experts from various sectors to provide industry direction and advice to the IRC. • Establishment of a project specific webpage outlining project progress and updates, and inviting feedback. • Development of draft 1 units and qualifications for public consultation via the IBSA website over two weeks. Feedback was compiled in an issues register. Respondent details are provided in the CfE Appendix 3. • Development of draft 2 units of competency and qualifications incorporating feedback from the issues register and subsequent validation via the IBSA website for a period of two weeks. • State/Territory engagement – feedback period for State Training Authorities (STAs) meets policy requirements of two weeks. <p>The methodology used and the numbers of stakeholders involved in the consultation and validation stages (listed in the CfE p29-31) appears to be comprehensive and commensurate with the product developed and scope of the work. The Issues Register for both drafts 1 and 2 indicate that issues were addressed throughout each stage. There were no 'reports by exception' indicating dissatisfaction with the products or process.</p> <p>An independent consultant was used for the editorial and equity reports.</p>

Standards for Training Packages	Standard met – yes or no	Comments (including any relevant comments from the Equity and Editorial Reports)
Standard 4 Units of competency specify the standards of performance required in the workplace.	Yes	All of the units of competency specify standards of performance required in the workplace. The Editorial Report notes that issues raised during the editorial process were addressed by IBSA Manufacturing. Queries raised during the quality review were also addressed.
Standard 5 The structure of units of competency complies with the unit of competency template.	Yes	The 99 revised and two new units of competency comply with the unit of competency template. The review of the units of competency included: <ul style="list-style-type: none"> • the addition of foundation skills information to some fields in relevant units • the removal of the Range of Conditions as information included did not meet the intent of the 2012 Standards for Training Packages • the revision of prerequisites.
Standard 6 Assessment requirements specify the evidence and required conditions for assessment.	Yes	All 101 units of competency include assessment requirements specifying: <ul style="list-style-type: none"> • performance evidence, including references to volume and frequency • knowledge evidence, and • required conditions for assessment. The Editorial Report notes that issues raised during the editorial process were addressed by IBSA Manufacturing. Queries raised during the quality review were also addressed.
Standard 7 Every unit of competency has associated assessment requirements. The structure of assessment requirements complies with the assessment requirements template.	Yes	Both the Editorial Report and the quality review confirm that all 101 units of competency have assessment requirements that comply with the assessment requirements template.
Standard 8 Qualifications comply with the Australian Qualifications Framework specification for that qualification type.	Yes	IBSA Manufacturing SSO provided AQF alignment documentation, as requested, as evidence of compliance of both the Diploma and Certificate IV qualifications with the AQF

Standards for Training Packages	Standard met – yes or no	Comments (including any relevant comments from the Equity and Editorial Reports)
		<p>specification for each qualification type. The AQF alignment documentation linked the relative complexity and/or depth of achievement and the autonomy required to demonstrate the achievement at that qualification level. The MSL CVIG (p 10-18) provides detailed information linking the qualifications, job outcomes (and sample activities) and the AQF qualification type.</p> <p>The Editorial Report raised concerns over the AQF specification for both qualifications relating to the level of autonomy and supervision outlined in the qualification descriptions. The report notes that the issue was discussed with the SSO with the complexities of the job role including regulatory/accreditation responsibilities and requirements of the industry explained sufficiently.</p> <p>Prerequisite units are listed within the qualifications. Exceptions are units that cover less complex skills and knowledge (generally aligned to a qualification two AQF levels lower than the qualification itself) so as not to skew the overall AQF outcome of the qualification (p 9 CfE).</p>
<p>Standard 9 The structure of the information for the Australian Qualifications Framework qualification complies with the qualification template.</p>	<p>Yes</p>	<p>Both the Certificate IV in Laboratory Techniques and the Diploma of Laboratory Technology comply with the qualification template.</p> <p>The <i>codes and titles</i> comply with the qualification template and the <i>qualification description</i> covers the required information on who the qualification applies to and general outcomes. Advice regarding licensing is included in the qualification documentation, and in the CfE (p 14) and MSL CVIG (p 6).</p> <p>Both qualifications have been restructured to ensure a clearer distinction between the two. The Activity Order specified the inclusion of <i>MSL953001 Receive and prepare samples for testing</i>. It has been included as a core unit in the Certificate IV qualification and in the Diploma via the <i>entry requirement</i> of the Certificate IV.</p> <p>The qualification <i>packaging rules</i> for the Diploma allow for the selection of elective units to provide a qualification with a choice</p>

Standards for Training Packages	Standard met – yes or no	Comments (including any relevant comments from the Equity and Editorial Reports)
		<p>of five specialisations to meet the requirements for laboratory technicians to work in the fields of Pathology, Chemistry, Construction, Food and Biotechnology, to promote greater consistency in outcomes within these sectors for employers.</p> <p>Many of the units of competency within the qualification contain prerequisites potentially making the choice of electives complicated. Prerequisite units, except those generally aligned to a qualification two AQF levels lower than the qualification itself, are listed within qualifications. Detailed advice about choosing elective units is included in the MSL CVIG.</p>
Standard 10 Credit arrangements existing between Training Package qualifications and Higher Education qualifications are listed in a format that complies with the credit arrangements template.	Yes	The CfE and the MSL CVIG both reference credit arrangements in an appropriate format. The CVIG outlines credit arrangements between current MSL qualifications (p 9-10). The CfE (p 23) notes that there are currently no nationally applicable credit arrangements between the qualifications and higher education qualifications.
Standard 11 A quality assured Companion Volume Implementation Guide produced by the Training Package developer is available at the time of endorsement and complies with the Companion Volume Implementation Guide template.	Yes	The <i>MSL Laboratory Operations Training Package Companion Volume Implementation Guide, Release 2.0</i> was provided for the quality review. It has been quality assured in line with the IBSA Manufacturing SSO procedures and complies with the Companion Volume Implementation Guide template from the <i>Standards for Training Packages 2012</i> .
Standard 12 Training Package developers produce other quality assured companion volumes to meet the needs of their stakeholders as required.	Yes	IBSA Manufacturing SSO advises that an MSL User Guide Companion Volume is currently under development and will be available at the time of endorsement.

Section 3 – Comments on how the draft training package components meet the quality principles

I. 1. Reflect identified workforce outcomes

Key features	Examples of evidence	Met: Yes / No	Comments/ other evidence demonstrated Provide brief commentary on how the draft endorsed components meet the Quality Principles with specific reference to the evidence provided, including any evidence provided by the Equity and Editorial Reports
Driven by industry's needs	<ul style="list-style-type: none"> Changes demonstrate a clear link back to relevant AISC decisions commissioning the work, the IRC Skills Forecast and Proposed Schedule of Work, National Review Schedule and/or Case for Change, or demonstrate other evidence of industry needs 	Yes	<p>The CfE clearly outlines the requirements of the Activity Order, based on a Case for Change, and the final work completed and submitted for endorsement. These include:</p> <ul style="list-style-type: none"> development of two new units of competency to address the skill needs revision of all units of competency to ensure currency and feedback from stakeholders development of a new skill set to address the skill needs of workers in the area of histotechnology revision of two qualifications to include the new components listed above and refine the work tasks to better align with industry outcomes.
Compliant and respond to government broad policy initiatives	<ul style="list-style-type: none"> Training package components are compliant with the Standards for Training Packages 2012, the Training Package Products Policy and the Training Package Development and Endorsement Process Policy Evidence that the training package components respond to Ministers' policy initiatives, in particular the 2015 training package reforms 	Yes	<p>The CfE provides evidence that the MSL Training Package components are compliant with the Standards for Training Packages 2012, the Training Package Products Policy and the Training Package Development and Endorsement Process Policy. The CfE provides evidence that the changes to the MSL Training Package components within this submission were:</p> <ul style="list-style-type: none"> driven by industry needs supported by the nature and scope of stakeholder consultation supported by stakeholders as reflecting contemporary work organisation and job profiles.

Key features	Examples of evidence	Met: Yes / No	Comments/ other evidence demonstrated Provide brief commentary on how the draft endorsed components meet the Quality Principles with specific reference to the evidence provided, including any evidence provided by the Equity and Editorial Reports
			The development of the Histotechnology Skill Set addressed an emerging skills need. Both qualifications were reviewed to provide a streamlined, industry defined product. Evidence that the training package components respond to Ministers' policy initiatives, in particular the 2015 training package reforms, include the removal of duplication and obsolete components where seven units have been deleted.
Reflect contemporary work organisation and job profiles incorporating a future orientation	<ul style="list-style-type: none"> Open and inclusive consultation and validation commensurate with scope and impact has been conducted 	Yes	The CfE provides evidence that open and inclusive consultation and validation commensurate with scope and impact has been conducted (Section C, p5-13)

J. 2. Support portability of skills and competencies including reflecting licensing and regulatory requirements

Key features	Examples of evidence	Met: Yes / No	Comments/ other evidence demonstrated Provide brief commentary on how the draft endorsed components meet the Quality Principles with specific reference to the evidence provided, including any evidence provided by the Equity and Editorial Reports
Support movement of skills within and across organisations and sectors	Packaging rules, qualifications framework, and pathways support movement within and across sectors	Yes	The packaging rules, qualifications framework, and pathways support movement within and across sectors. A significant flexibility indicator is that over 2/3 of the required units in both the Certificate IV and the Diploma qualifications are

Key features	Examples of evidence	Met: Yes / No	Comments/ other evidence demonstrated Provide brief commentary on how the draft endorsed components meet the Quality Principles with specific reference to the evidence provided, including any evidence provided by the Equity and Editorial Reports
	Identification of skill sets that respond to client needs		elective units. The Diploma qualification allows for the selection of electives within five areas of specialisation. The prerequisite units, which can be seen to limit the movement of skills within and across organisations and sectors, have been minimised significantly and explained within the Case for Endorsement. The MSL CVIG provides detailed advice on qualification/career pathways and suggested selection of elective units. The Histotechnology Skill Set was developed in response to industry needs.
Promote national and international portability	Other national and international standards for skills are considered	Yes	National and international standards for skills were considered. An explanation about regulations and/or external accreditation requirements that apply to laboratory operations, such as the National Association of Testing Authorities (NATA) accreditation, varying between jurisdictions is provided in the Cfe (p14).
Reflect regulatory requirements and licensing	Solutions to incorporate licensing and regulatory requirements are brokered and there is clear evidence of support from licensing and industry regulatory bodies	NA	No licensing or certification requirements exist at the time of publication.

K. 3. Reflect national agreement about the core transferable skills and core job-specific skills required for job roles as identified by industry

Key features	Examples of evidence	Met: Yes / No	Comments/ other evidence demonstrated Provide brief commentary on how the draft endorsed components meet the Quality Principles with specific reference to the evidence provided, including any evidence provided by the Equity and Editorial Reports
Reflect national consensus	<ul style="list-style-type: none"> Active engagement across industry has sought to achieve a national consensus about the advice being provided to the AISC. 	Yes	The MSL CFe outlines the national consultation and validation processes and participants involved. The issues register for drafts 1 and 2 indicate the SSO has sought to achieve national consensus and there are no reports by exception. A letter of support from the IRC will be included to support the submission.
Recognise convergence and connectivity of skills	<ul style="list-style-type: none"> Best use is made of cross-industry and work and participation bank units 	Yes	The MSL CVIG provides a list of five units used within the MSL Laboratory Operations Training Package imported from the FDF, MSN and TAE Training Packages. Both the Certificate IV and Diploma packaging rules allow for the selection of elective units from other training packages or accredited courses. The Editorial Report noted concerns about the quality of the MSL generic (communication and teamwork) units and indicated that cross-industry units may be a better option. IBSA Manufacturing SSO responded by noting this advice for future consideration when a current project addressing revised generic units is endorsed.

L. 4. Be flexible to meet the diversity of individual and employer needs, including the capacity to adapt to changing job roles and workplaces

Key features	Examples of evidence	Met: Yes / No	Comments/ other evidence demonstrated Provide brief commentary on how the draft endorsed components meet the Quality Principles with specific reference to the evidence provided, including any evidence provided by the Equity and Editorial Reports
Meet the diversity of individual and employer needs	<ul style="list-style-type: none"> Provide flexible qualifications that enable application in different contexts 	Yes	<p>The qualification packaging rules for both the revised Certificate IV and the Diploma have a core and elective structure and allow a number of units from other Training Packages and accredited courses to be included. The Diploma has an entry requirement with considerable flexibility that acknowledges the various ways of entry into the qualification and the different ways the qualification is delivered. The Diploma also allows for the selection of elective units to provide a qualification with a choice of five specialisations enabling application in different contexts. The MSL CVIG provides detailed information on the application of the qualifications to specific job roles and advice on the selection of elective units for different applications.</p> <p>The CfE, TAC minutes and the issues registers provide evidence that the SSO explicitly sought feedback on prerequisite requirements in both qualifications seeking to enhance their flexibility by minimising them. The flexibility of the qualifications is also supported in the Equity Report.</p>

Key features	Examples of evidence	Met: Yes / No	Comments/ other evidence demonstrated Provide brief commentary on how the draft endorsed components meet the Quality Principles with specific reference to the evidence provided, including any evidence provided by the Equity and Editorial Reports
Support equitable access and progression of learners	<ul style="list-style-type: none"> • Provide multiple entry and exit points • Pre-requisite units of competency are used only when required 	Yes	<p>Multiple entry and exit points There are no entry requirements for the Certificate IV. The Diploma has an entry requirement that includes the Certificate IV in Laboratory Techniques or other relevant qualifications and/or experience. Detailed information on career pathways in the industry sector and entry and exit points for all MSL qualifications, including the new Histotechnology Skill Set, is included in the MSL CVIG (p 7-10).</p> <p>Prerequisites: The CfE, TAC minutes and the issues registers provide evidence that the IBSA Manufacturing explicitly sought feedback on prerequisite requirements in both qualifications seeking to enhance their flexibility by minimising them.</p>

M. 5. Facilitate recognition of an individual's skills and knowledge and support movement between the school, vocational education and higher education sectors

Key features	Examples of evidence	Met: Yes / No	Comments/ other evidence demonstrated Provide brief commentary on how the draft endorsed components meet the Quality Principles with specific reference to the evidence provided, including any evidence provided by the Equity and Editorial Reports
Support learner transition between education sectors	<ul style="list-style-type: none"> Provide pathways from entry and preparatory level as appropriate to facilitate movement between schools and VET, from entry level into work, and between VET and higher education qualifications 	Yes	Detailed information on career pathways in the industry sector and entry and exit points for all MSL qualifications, including the new Histotechnology Skill Set, is included in the MSL CVIG (p 7-10). This includes advice on appropriate qualifications for Vet in Schools programs, pathways from Certificate II to Advanced Diploma, and the potential pathway from Advanced Diploma to a degree program.

N. 6. Support interpretation by training providers and others through the use of simple, concise language and clear articulation of assessment requirements

Key features	Examples of evidence	Met: Yes / No	Comments/ other evidence demonstrated Provide brief commentary on how the draft endorsed components meet the Quality Principles with specific reference to the evidence provided, including any evidence provided by the Equity and Editorial Reports
Support implementation across a range of settings	<ul style="list-style-type: none"> Industry advice about delivery is provided via a Companion Volume Implementation Guide ready for publication at the same time as the Training Package 	Yes	Industry advice about delivery is provided in the MSL CVIG including advice to RTOs on relationship of electives to specialisations/industry sectors, sequencing skill development in different sectors and contextualising units (p 18-27). IBSA Manufacturing has advised that a Companion Volume User Guide is currently being drafted and that both

Key features	Examples of evidence	Met: Yes / No	Comments/ other evidence demonstrated Provide brief commentary on how the draft endorsed components meet the Quality Principles with specific reference to the evidence provided, including any evidence provided by the Equity and Editorial Reports
			Companion Volumes will ready for publication at the same time as the Training Package.
Support sound assessment practice	<ul style="list-style-type: none"> Units of competency and their associated assessment requirements are clearly written and have consistent breadth and depth 	Yes	<p>Units of competency and their associated assessment requirements are clearly written. Some units contain very detailed performance evidence reflecting the input of stakeholder feedback and subject matter experts on the TAC to ensure consistent, quality assessment.</p> <p>The Equity Report suggested strengthening information in the MSL CVIG about simulated assessment, which was addressed by the SSO (refer p28-29).</p>
Support implementation	<ul style="list-style-type: none"> Compliance with the TGA/National Register requirements for publication Implementation advice is provided in a Companion Volume Implementation Guide that is ready for publication at the same time as the Training Package 	Yes	Components within this submission will be ready for publication on TGA/National Register, including the MSL Companion Volume Implementation Guide Release 2.0