

Case for Endorsement

*BSB Business Services Training Package Release
6.0*

Big Data Cross-Sector Project

Cyber Security Cross-Sector Project

PwC's Skills for Australia

Big Data and Cyber Security Cross-Sector Projects

March, 2019

Executive summary

Introduction

This Case for Endorsement outlines the rationale, evidence, and industry support for the creation of seventeen new cross-sector units of competency (9 relating to big data skills and 8 relating to cyber security skills) to be housed in the BSB Business Services Training Package. It builds on the consultations undertaken by PwC's Skills for Australia (SFA), the lead Skills Service Organisation for the:

- *Big Data Cross-Sector* project; and
- *Cyber Security Cross-Sector* project.

In particular, this Case for Endorsement demonstrates how the proposed Training Package components align with the COAG Industry Skills Council reforms to Training Packages, and other principles for quality that inform our training product development work.

The draft endorsed training product described in this Case for Endorsement has been developed on behalf of, and directed by, the Information and Communications Technology (ICT) Industry Reference Committee (IRC) and the Business Services (BSB) IRC. See **Appendix A** Tables 8 & 9 for BSB IRC and ICT IRC membership.

It reflects significant input from the *Big Data* and *Cyber Security Cross-Sector* Project Working Groups (PWGs) respectively. In addition, given that these cross-sector units will be used across multiple industries, the involvement of other IRCs has been invited at key stages in the product development process. SFA also conducted additional consultations with reviewers from non-IT backgrounds to ensure that the units can be used widely across multiple sectors.

We are satisfied that there is strong industry support for these changes and that the proposed training product components will meet the big data and cyber security needs of learners and workers across multiple industries and workplaces.

Structure of the report

We have structured this report around the required elements of the Case for Endorsement template. These key elements are:

- 1 Administrative details of the Case for Endorsement
- 2 Description of the work and request for approval
- 3 Evidence of industry support
- 4 Industry expectations about training delivery
- 5 Implementation of the new Training Packages
- 6 Quality assurance reports
- 7 Implementation of the COAG Industry Skills Council reforms to Training Packages
- 8 A copy of the full content of the proposed Training Package components

Contents

1	Administrative details	4
2	Description of work and request for approval	6
	Description of work undertaken and why	6
	2.1 Request for approval	7
3	Evidence of industry support	8
	3.1 Evidence of IRC support	8
	3.2 Conduct of enquiry and evidence of consultation	8
4	Industry expectations about training delivery	15
	4.1 Industry advice on training delivery	15
	4.2 Industry advice on traineeships and apprenticeships	15
5	Implementation of the new Training Package	16
6	Quality assurance reports	18
	6.1 Independent Quality Reports	18
	6.2 Declaration of alignment with standards	18
	6.3 Declaration of having met the Training Package Quality Principles	18
7	Implementation of COAG Industry Skills Council reforms to Training Packages	20
	7.1 Alignment with the COAG ISC reforms to Training Packages	20
	7.2 Alignment of development work with AISC Case for Change	21
	7.3 Evidence that training package components are publication ready	21
	Appendix A Consultation	22
	Appendix B Non-endorsable components	30
	Appendix C Pre-existing training package components	31
	Appendix D Equity Report	40
	Appendix E Editorial report	45
	Appendix F Quality Assurance Report	49

1 Administrative details

Name of allocated IRCs

Information and Communications Technology Industry Reference Committee (ICT IRC)

Business Services Industry Reference Committee (BSB IRC)

Name of Skills Service Organisation

PwC's Skills for Australia

Training Package components submitted for approval

See Table 1.

Table 1 Training package components submitted for AISC approval

Unit code and title	New / existing / deleted
17 new units of competency:	
BSBXBD401 Capture and store big data	New
BSBXBD402 Test big data samples	New
BSBXBD403 Analyse big data	New
BSBXBD404 Use big data for operational decision making	New
BSBXBD405 Develop procedures for managing big data	New
BSBXBD406 Present big data insights	New
BSBXBD407 Protect big data integrity	New
BSBXBD408 Implement and review procedures for managing big data	New
BSBXBD501 Develop big data strategy	New
BSBXCS301 Protect own personal online profile from cyber security threats	New
BSBXCS302 Identify and report online security threats	New
BSBXCS303 Securely manage personally identifiable information and workplace information	New
BSBXCS401 Maintain security of digital devices	New
BSBXCS402 Promote workplace cyber security awareness and practices	New
BSBXCS403 Contribute to cyber security threat assessments	New
BSBXCS404 Contribute to cyber security risk management	New
BSBXCS405 Contribute to cyber security incident responses	New

The draft training products have been independently verified as meeting the requirements of the *Standards for Training Packages*, and reviewed and approved by the BSB IRC and ICT IRC.

Non-endorable changes in BSB Business Services Training Package Version 6

- Newly developed cross-sector big data and cyber security units listed as elective units in eight BSB qualifications:
 - BSB30315 Certificate III in Micro Business Operations
 - BSB41515 Certificate IV in Project Management Practice
 - BSB41618 Certificate IV in Business (Procurement)
 - BSB42015 Certificate IV in Leadership and Management
 - BSB50215 Diploma of Business
 - BSB51415 Diploma of Project Management
 - BSB51518 Diploma of Business (Procurement)
 - BSB51918 Diploma of Leadership and Management

Case for Endorsement – BSB Business Services Training Package Release 6.0

- Four new skill sets created:
 - BSBSS00090 Capture and Present Big Data Skill Set
 - BSBSS00091 Manage Big Data Skill Set for big data
 - BSBSS00092 Cyber Security Threat Assessment and Risk Management Skill Set
 - BSBSS00093 Cyber Security Awareness Skill Set for cyber security.

Appendix B Table 16 provides details of the non-endorsable components.

Table 2 Total number of proposed changes

Total proposed changes to training products	Number
Endorsable: New units of competency	17
Non-endorsable: New skill sets	4
Non-endorsable: Existing qualifications with elective units added	8

Case for Change details

A separate Case for Change for each project was established based on initial research and consultations, and was endorsed by the Australian Industry and Skills Committee (AISC) on behalf of the Big Data Project Reference Group (PRG) and Cyber Security PRG respectively in February 2018.

Activity order details

Big Data Cross-Sector project

Reference number: PwC/AA/2016-17-002

Date executed: 15 June 2017

Scope of activity order: Cross-Sectoral Project Big Data: The Case for training package components to be developed, owned and used by multiple industry sectors

Cyber Security Cross-Sector project

Reference number: PwC/TPD/2016-17-003

Date executed: 15 June 2017

Scope of activity order: Cross-Sectoral Project Cyber Security - The Case for training package components to be developed, owned and used by multiple industry sectors.

2 Description of work and request for approval

Description of work undertaken and why

Many of the skills most valued by industry cut across multiple sectors of Australia's economy. The AISC identified cross-sector skill areas that presented opportunities to strategically address common skill needs across multiple industries by creating flexible and transferable training package components that benefit industry and learners from across multiple sectors of the economy.

This Case for Endorsement provides the evidence base for training product development relating to the cross-sector skill areas of big data and cyber security. These projects have developed fit-for-purpose draft training products, guidance on implementation, and reviewed the benefits and risks that need to be considered with any potential changes to existing vocational education and training (VET) products. It is expected that these training products will result in a significant reduction in duplication across the national VET system as well as assist in the delivery of training that supports diverse organisations in becoming cyber secure and in using and managing big data effectively.

As part of this project, we consulted widely; key findings are detailed in **Appendix A** and provide the rationale for the training product recommendations presented in Section 2.1 of this Case for Endorsement.

Big Data Cross-Sector Project

Big data is often described as high-volume, high-velocity and/or high-variety information assets that demand cost-effective, innovative forms of information processing that enable enhanced insight, decision making, and process automation. It is becoming more abundant and impacting organisations large and small. Due to the broad reaching nature of big data in an increasingly digital world, there is a long list of industries that could potentially benefit from improved training products that address existing skill shortages in using and managing big data.

As set out in the Case for Change, demand for employees with data analysis skills continues to rise. While noting the essential requirement for trained professionals who can work with big data, the ability to understand and make decisions based on data is increasingly important at all levels.

On behalf of the BSB IRC and ICT IRC and working closely with the Big Data PWG established for this project (see **Appendix A** for PWG membership), SFA undertook an extensive literature review and nationwide stakeholder consultations with over 50 industry and training experts to understand the key industry drivers for changes, existing skills gaps as well as benefits/risks of developing generic units for big data. The ICT IRC also formally sought input from other IRCs outside of ICT in order to ensure that the cross-sector units were applicable across multiple sectors.

Cyber Security Cross-Sector Project

Cyber security is an increasingly important issue that affects all industries and organisations, large and small. Currently there are very limited training options available in VET for those not in specialist Information Technology (IT) roles to improve their skills in cyber security. This suite of draft units of competency has been developed to address that identified need.

As set out in the Case for Change, there is both a shortage of cyber security professionals as well as an increase in the frequency and severity of cyber attacks. While noting the essential requirement for trained IT professionals working in cyber security, this project aimed to increase the level of cyber security awareness of the wider workforce who are not in IT-specific roles.

On behalf of the BSB IRC and ICT IRC and working closely with the Cyber Security PWG established for this project (See **Appendix A** for PWG membership) SFA undertook an extensive literature review and nationwide stakeholder consultations with over 80 industry and training experts. This research and consultation assisted in identifying the key industry drivers for changes, existing skills gaps, as well as benefits and risks of developing generic units for cyber security. The ICT IRC also formally sought input from other IRCs to ensure that the cross-sector units were applicable across multiple sectors.

2.1 Request for approval

The decision being sought from the AISC is to approve the seventeen new cross-sector units of competency in Table 1, which will be housed in the BSB Business Services Training Package.

Four skill sets have also been created and eight existing qualifications have had changes to their elective list in this Version 5 release of the BSB Business Services Training Package as non-endorsable components. They are listed in **Appendix B**.

This Case for Endorsement is approved by both the BSB IRC and ICT IRC with the support of the two developing PWGs (Big Data PWG and Cyber Security PWG).

All components submitted for endorsement have been developed and reviewed in accordance with the *Standards for Training Packages 2012*, the *Training Package Products Policy 2012* and the *Training Package Development and Endorsement Policy 2016*.

Evidence of consultation with states and territories, and evidence that the views of key stakeholders have been considered in the development of this training product, is provided in Section 3 of this document. The training product development has been based on analysis of the feedback we received throughout consultation with industry, IRCs, other Skills Service Organisations (SSOs), the developing PWGs, State/Territory Training Authorities (S/TTAs) and other key stakeholders.

Training Package host for these cross-sector units

Following the AISC approval of the Cases for Change in February 2018, the ICT IRC was given formal responsibility to develop these cross-sector units. During the consultation process in November 2018, feedback was received that supported the importance of ensuring that the host Training Package for this cross-sector material maximised its accessibility. Industry experts supported the view that a more industry agnostic training package would be the best option. For this reason, the ICT IRC recommended that the BSB Business Services Training package host the units in BSB qualifications. At its March 2019 meeting, the BSB IRC accepted the ICT IRC's proposed approach. The BSB IRC selected host qualifications that were considered most appropriate given they have significant enrolments and would provide the units with visibility. Additionally, BSB IRC members selected qualifications in which stakeholders have indicated there is a need for cross sector skills of this nature.

3 Evidence of industry support

3.1 Evidence of IRC support

The BSB IRC and ICT IRC jointly support the submission of the training package components detailed in this Case for Endorsement.

Name of BSB Chair:

Name	_____
Organisation	_____

Signature of BSB Chair: _____

Date: _____

Name of ICT Chair: James Wyatt, Optimi Digital

Signature of ICT Chair:  _____

Date: 1st May 2019

3.2 Conduct of enquiry and evidence of consultation

Throughout consultation, we have sought to place industry at the heart of our work. Our approach has been guided by our principles for training product development, which determine that our work should:

- 1 Be industry-led;
- 2 Encourage broad and transparent stakeholder consultation;
- 3 Respond quickly to industry skills needs and priorities;
- 4 Be efficient and cost-effective; and
- 5 Produce high quality and independently validated training products.

A list of stakeholders consulted over the course of project work is found in **Appendix A**.

Throughout the project we have held consultations with key stakeholders, identified through ICT IRC members, PWG members, as well as through SFA's networks. The consultative approach was national, inclusive and invited responses from a range of stakeholders including industry employers and organisations, peakbodies, government, and registered training organisations (RTOs).

Both IRCs are satisfied that the level and scope of stakeholder consultation was commensurate with the changes to training product and the size and profile of the industry, to ensure the needs of learners, industry and workers in regard to big data and cyber security are met.

The table below shows a summary of types of stakeholders involved in the process. Note that the figures below include PWG and IRC members who were also targeted for one-on-one consultations.

Table 3 Breakdown of consultation attendees by type

Cross Sector Project	Industry	Education	Peak Bodies	Government
Big Data	30%	38%	24%	8%
Cyber Security	43%	29%	8%	18%

Further detail on the types of stakeholder engagement is provided below.

IRC consultation

The ICT IRC has been engaged throughout the entire project: initial consultation phase, ongoing consultations, review of the draft training products, and approval of the final draft. This engagement was both as a group during IRC meetings held since the start of the project in September 2018, as well as consultations with individual IRC members. IRC members were also involved in the developing PWGs, and reviewed the high-level summary of consultations and recommendations arising. In addition, IRC members provided feedback on draft training products published on the SFA’s webpage.

Due to the fact that the training product produced in cross-sector projects is intended for use in multiple industries, we also actively sought engagement from multiple IRCs and stakeholders in their network by working through their supporting SSOs. Following a formal request through the SSO network on behalf of the ICT IRC, we received interest from representatives from the following IRCs:

- Business Services
- Transport and Logistics
- Amenity Horticulture, Landscaping, Conservation and Land Management, Forest Management and Harvesting
- Arboriculture
- Racing and Breeding
- Electrotechnology
- Public Safety.

The involvement of the above cross-industry IRCs, primarily by email but also via targeted consultation, resulted in the units being subsequently updated to reflect their generalist input.

Project working group

Following approval of the Cases for Change, a PWG was established for each cross-sector project consisting of industry and RTO subject matter experts who provided specialist input into our training product development work and guided our engagement with potential users of these training products. Refer to **Appendix A** Tables 8 and 9 for a list of PWG members guiding the work of these projects.

Representative members from the ICT IRC were included in the PWGs to guide the project and ensure training product development work proceeded under the direction of the ICT IRC.

The groups met four times between October 2018 and February 2019 (see Table 4 below). These meetings allowed PWG members to offer specialised input, discuss key consultation feedback, and consider recommendations in response to that feedback. In addition to these scheduled meetings, we consulted PWG members on an ongoing basis to validate key issues and review key documents.

Table 4 Project Working Group meetings

Meeting number	Big Data PWG Meeting Dates	Cyber Security PWG Meeting Dates
1	15 October 2018	15 October 2018
2	21 November, 2018	21 November 2018
3	14 January, 2019	16 January 2019
4	28 February, 2019	27 February 2019

Focus groups

Big Data Cross-Sector project

During November 2018, 9 focus groups were held and attended by 48 industry and training experts from across Australia (see **Appendix A**, Table 12). These meetings were conducted via video conference. In addition, we conducted additional targeted interviews with big data experts (see **Appendix A**, Table 14).

Cyber Security Cross-Sector project

During November 2018, 12 focus groups were held and attended by 78 industry and training experts from across Australia (see **Appendix A**, Table 13). These meetings were conducted via video conference. In addition, we conducted additional targeted interviews with cyber security experts (see **Appendix A**, Table 15).

Engagement with State and Territory Training Authorities

S/TTAs have been engaged on several occasions throughout the development process, and many provided feedback on, the following stages of our training product development work:

- Case for Change consultations
- Voluntary participation during focus groups in November 2018
- The draft training products published on SFA’s website in January 2019 and S/TTAs were given the opportunity to provide feedback. Feedback from VicSTA was received during this time. Feedback consisted of proposed wording changes and unit clarification. SFA implemented these changes and discussed them with the PWG.
- The draft training package components, including this Case for Endorsement and accompanying materials, were provided to all S/TTAs in March 2019.
- Support for the submission of the Case for Endorsement was received from NT, NSW, VIC and WA. No response was received from ACT, TAS, SA, and QLD.

Draft training product review

Draft training products were published on the Skills for Australia website from 25 January 2019 to 22 February 2019 to ensure stakeholders could review and comment on the ways in which the feedback received during consultation had been reflected in the training products. During the consultation period, the Big Data webpage received 113 page views and the Cyber Security webpage received 209 page views.

We also sent emails alerting stakeholders that the draft training products were available for review on our website. These emails were distributed to and by IRC members, PWG members, S/TTA networks and our website subscribers. They successfully reached a minimum of 1302 unique stakeholders, leading to big data training materials being downloaded 225 times and cyber security training materials being downloaded 243 times.

Big Data Cross-Sector project

Although the majority of the consultations led to a consensus in opinion, some differences of opinion did arise. Given the technical nature underlying data analytics, there was some debate on how much pre-existing technical knowledge learners would need in order to complete the work tasks associated with the proposed units of competency. For example, expertise in predictive modelling and programming were highlighted by some experts as skills required to undertake big data-related job tasks. Given that the cross-sector units have been developed for users across multiple sectors who do not have an IT-background, these skills were not included in these units. Advanced skills such as predictive modelling and programming, highlighted during consultation and subsequently not included in these units, will be considered as part of the ICT training package review which is targeted for more specialist learners.

Cyber Security Cross-Sector project

Similarly, in the consultations on cyber security, some debate did occur. The main point of difference from the original Case for Change was that the units initially proposed for the advanced skill set *Cyber threat intrusion/detection and response* were not included in the final set of units.

The initially proposed set of units was reviewed by the ICT IRC when it formally took responsibility of the Cyber Security Cross-Sector project. It decided that an advanced skill set was not appropriate for cross-sector use as it required specialist IT/technical skills and knowledge. As a result, the unit structure was altered and subsequently approved by the IRC at its December 2018 meeting. Focus groups were held to discuss advanced topics, and the views from industry supported the revised approach.

3.3 Alignment to Cases for Change

The table below outlines the skills needs identified in the original Case for Change and how they are addressed by the newly developed cross-sector units.

Table 5 Proposed changes in Case for Change and resulting action or rationale

Project	CfC-identified need	Action/Rationale
Big Data	<p>Rapidly changing technologies are increasing the relevance of big data related skills</p> <p>This trend is driven by the acceleration of storage space; improvement of sensing technologies; increasing power of computers and data analysis tools; the rise of artificial intelligence (including machine learning); automation; the ‘Internet of Things’; continuing digitisation of plants and manufacturing; and increasing frequency of online transactions</p>	<ul style="list-style-type: none"> The creation of this set of big data cross-sector units is in direct response to the technological changes that have made big data so accessible to a wide range of industries. In particular, proposed unit BSBXBD404 <i>Use big data for operational decision making</i> highlights the importance that big data in business decisions across all industries. BSBXBD407 <i>Protect big data integrity</i> highlights the need to protect online data sources which are now commonplace in many industries.
	<p>The ability to understand and make decisions based on data is important at all levels</p> <p>Entry-level employees are being asked to use data in their decision making, and management are asked to make strategic business decisions based on data driven insights</p>	<ul style="list-style-type: none"> This theme was confirmed throughout consultation. Proposed unit BSBXBD404 <i>Use big data for operational decision making</i> is most directly related to operational decision making and BSBXBD501 <i>Develop big data strategy</i> is focused on strategic business decisions.
	<p>Units that could be removed because of duplication</p>	<ul style="list-style-type: none"> 18 existing units were identified that could potentially be replaced by the

Project	CfC-identified need	Action/Rationale
	Develop 3 new common units to replace existing units that are related to big data skills in order to reduce duplication	<p>new units. Only one existing unit, PSPREG016 <i>Conduct data analysis</i>, had potential to be superseded by the proposed new unit BSBXBD403 <i>Analyse big data</i>. It is proposed that this overlap is highlighted to the Public Sector IRC following the release of these units to allow them to review the content of the new units</p> <ul style="list-style-type: none"> • The remainder of the existing units were either no longer in use or considered not replaceable by the new big data focused units due to them being either: <ul style="list-style-type: none"> ◦ industry specific in their content ◦ focused in other areas of data collection/analysis • Additional information on the unit analysis underpinning the above findings is given in Appendix C, Table 17.
	Identify big data related units that already exist and could be imported into other training packages as electives	<ul style="list-style-type: none"> • 26 existing units were identified with potential to be imported into various training packages. • Of the 26 units identified for further analysis, 1 unit was no longer in use. Of the remaining 25 units, 13 were considered too technical for cross-sector use, and 12 were considered to be inappropriate either because they related to industry-specific content or were not focused on big data specifically. • Additional information on this unit analysis is given in Appendix C, Table 18.
	Develop one new basic unit to introduce learners to big data and data-driven decision making at a conceptual level across a broad range of training packages.	<ul style="list-style-type: none"> • The requirement for data-driven decision making was frequently raised during consultation. • The proposed unit BSBXBD404 <i>Use big data for operational decision making</i> was developed as a result.
	<p>Develop 5 new units at a nominal Diploma level to form a skill set in ‘Applied Data Analysis’</p> <p>Further consultation may be required, but these units could include:</p> <ol style="list-style-type: none"> 1. Visualise and present data 2. Use data for advanced operational decision making 3. Analyse data and report results 4. Manage data quality and governance 5. Manage and maintain datasets 	<ul style="list-style-type: none"> • As a result of discussions with industry experts through consultation and one-on-one discussions, two skill sets are proposed. The content of the units in these skill sets aligns to AQF specifications at level 4. • The two proposed skill sets cover the topics proposed in the initial Case for Change.

Project	CfC-identified need	Action/Rationale
Cyber Security	<p>A need for basic cyber security skills Employers and training providers indicated a high demand for better cyber security awareness skills among business and ICT users. Other skills recognised as vital included effective communication and critical problem solving skills.</p>	<ul style="list-style-type: none"> • BSBXCS301 <i>Protect own personal online profile from cyber security threats</i> provides this basic level of cyber awareness. • Non-technical skills such as communication, problem solving and presentation skills, mentioned regularly throughout consultation, are represented in the Foundation Skills section of all units.
	<p>Develop two new basic units for ‘cyber security awareness’, one at nominal AQF 2 level and another at nominal AQF 3 level</p>	<ul style="list-style-type: none"> • Following consultation, it was recommended that the performance outcomes associated with this skill need was better aligned to qualifications at AQF level 3 rather than 2. • BSBXCS301 <i>Protect own personal online profile from cyber security threats</i> is the basic cyber security awareness unit developed at nominal AQF level 3. • Consultation also revealed the need for a higher level unit to address this skill need. BSBXCS402 <i>Promote workplace cyber security awareness and practices</i> was a nominal AQF level 4 unit developed in this project. The BSBSS00093 <i>Cyber Security Awareness Skill Set</i> also targets this higher level skill need.
	<p>Develop four new units to form a skill set in ‘Cyber threat intrusion/detection and response’</p>	<ul style="list-style-type: none"> • As mentioned above, the advanced skill set initially proposed was deemed too advanced for non-technical learners and has therefore not been progressed. Although some of the topics initially identified as required in this skill set, such as cyber risk assessment and cyber security incident response skills, do feature in these cross-sector units. • The identified advanced topics (Network architecture review, Advanced analysis and network Forensics, Intrusion detection system fundamentals, and Advanced intrusion detection system concept) were explored as potential topics within the subsequent ICT Information and Communications Technology Training package consultation process.
	<p>Develop two new common units, to potentially replace 6 existing units of competency related to risk management and cloud computing</p>	<ul style="list-style-type: none"> • As part of the Case for Change, an initial analysis identified 77 pre-existing units with relevance to cyber security. • As outlined in the Case for Change, six units were highlighted containing potentially obsolete and/or duplicative content. While the proposed units

Project	CfC-identified need	Action/Rationale
		<p>‘contribute to cyber security risk management’ and ‘securely manage personally identifiable and workplace information’ cover some common elements, these existing units cover broader themes in risk management and therefore do not fully overlap with the new units and therefore no unit deletion is proposed. Further detail is provided in Appendix C, Table 19.</p>
	<p>Identify cyber security related units of competency that already exist so that they can be transferred into other training packages as electives.</p>	<ul style="list-style-type: none"> • As part of the Case for Change, 35 existing units relating to cyber security were identified in the ICT Information and Communications Technology Training Package at different nominal levels. • An analysis of those 35 units was undertaken. Only three (ICTICT418 <i>Contribute to copyright, ethics and privacy in an ICT environment</i>, ICTSAS418 <i>Monitor and administer security of an ICT system</i> and ICTICT423 <i>Select cloud storage strategies</i>) were considered suitable for inclusion in BSB40215 Certificate IV in Business. The remaining units were considered too technical for broader use outside of the ICT Information and Communications Technology Training Package due to the required level of technical knowledge. • It is noted that the inclusion of these units in a BSB qualification would need to be considered by the BSB IRC at the appropriate review point for this qualification. • Information on the above unit analysis is given in Appendix C, Table 20.
	<p>Identify existing accredited units to determine whether there are common units that could be brought into the national VET system.</p>	<ul style="list-style-type: none"> • There were 13 accredited units in the area of cyber security identified in the Case for Change. Analysis of the units against the eight newly developed cyber security units indicates that none were suitable for use within an industry Training Package at this stage. Eight were considered too advanced for cross-sector use but ongoing review of their content will be noted on the BSB Business Services Training Package Issues Register. The remaining five units are covered by the newly developed cross-sector units. • Further detail on this analysis is given in Appendix C, Table 21.

4 Industry expectations about training delivery

4.1 Industry advice on training delivery

Throughout the consultation period for the *Big Data Cross-Sector* project, industry experts acknowledged a skills gap relating to big data expertise across a broad range of industries. Given the cross-sector nature of the project, experts stressed the need for trainers to be upskilled in order to be able to deliver the content to an acceptable and consistent standard. Additionally, the importance of being able to contextualise the content across industries was emphasised.

During consultations for the *Cyber Security Cross-Sector* project, experts stressed that trainers delivering these newly developed units will need to be upskilled in order to be able to deliver the content to a consistent standard. Additionally, the importance of being able to contextualise the content across industries was emphasised.

Additional advice about training delivery appears in the BSB Business Services Companion Volume 6.0 Implementation Guide, and includes:

- industry expectations of training delivery around who can deliver and assess the new cross-sector training products;
- contextualisation of cross-sector units of competency;
- modes of delivery, including training and assessment in simulated environments; and
- learner characteristics, reasonable adjustments, duration/timing of training and assessment, and other access and equity considerations

4.2 Industry advice on traineeships and apprenticeships

Industry stakeholders and those on the developing PWGs have informed us that the training product development work proposed in this Case for Endorsement is not expected to have an impact on the use of traineeships and/or apprenticeships.

5 Implementation of the new Training Package

Timing of implementation

It is anticipated that this Case for Endorsement will be tabled at the June 2019 AISC meeting. It should be noted that the implementation of the training products may be impacted by possible long-term arrangements for housing cross-sector training products, depending on the anticipated timing for this to take place.

Implementation management strategy

The new training products will need to be brought to the attention of RTOs and industry participants to ensure learners are aware of the new cross-sector training product offerings. It will be particularly important to work with RTOs and IRCs to assist them to understand how the new materials can be imported into existing qualifications to enhance existing training products. We have developed a strategy for communicating updates in the event of AISC approval. This includes:

- Updates on the SFA website; including a news post on our ICT and BSB industry pages and pop-up notification for all users viewing the website.
- Email sent directly to all SFA Cross-Sector project subscribers to inform them of the changes.
- Email communications with all organisations and individuals previously engaged throughout this consultation process, including S/TTAs, employers, RTOs and peak bodies.
- SFA team to be present at relevant industry conferences and events to communicate the changes and encourage industry-wide awareness.
- Continued communications with IRCs where opportunities to update existing training products have been identified.

Licensing requirements

There are no licensing requirements or occupational requirements identified as being relevant to this draft endorsed material.

Funding implications

We are not aware of any particular State and Territory funding arrangements that will be affected by the introduction of the new cross-sector units of competency.

Additional implementation considerations

As mentioned previously, the benefits of developing these cross-sector units is to reduce duplication across various training packages by developing generic units that can be contextualised across multiple industries. These units also have the potential to upskill the general workforce in the areas of big data and cyber security.

A potential risk associated with the release of these cross-sector is that use by as wide a range of users as possible may at first be affected by the perception that the content is too technical. We have included explanatory information in the accompanying Implementation Guide in regard to this matter. In addition, in order to raise the profile of these units and increase their take-up, promotional and explanatory material has been circulated to all IRCs setting out the nature and intended application of these units.

Big Data Cross-Sector project

During consultation, it was stressed that the capacity of trainers and assessors will be critical to the success of the project. Trainers should be experienced in the unique challenges related to working with large and complex sets of big data, such as volume of data and related data quality issues. Additionally, trainers should also highlight that interpretation of big data is becoming more essential to support improved business decisions.

Cyber Security Cross-Sector project

As with big data training and assessment, the need to upskill those delivering and contextualising the cross-sector cyber security units was raised during consultation as critical to the success of unit uptake. Trainers will need to be experienced in the tools and resources required to deliver and assess the material, and have the expertise required to support their learners in responding to the fast moving nature of cyber threat.

- **Identification of additional existing units that are duplicated and could be removed as a result of these new units** – identified units were reviewed and no deletions are proposed.
- **Options for where these new potential cyber security units of competency could be located** – this issue was addressed by discussing the host training package was discussed by both the ICT IRC and BSB IRCs resulting in the units being hosted in the BSB Business Services Training Package and recommended for listing as elective units in four BSB qualifications.
- **Review existing cyber security units for importation into other training packages as electives** – three pre-existing units were identified as potential electives in BSB40215 *Certificate IV in Business* (subject to BSB IRC review).
- **Upskill trainers who will teach and contextualise common units** – it has been stressed that this will be critical to the success of the project. These matters will be raised with the department to ensure that capacity and professional training requirements are assessed in advance of the release of the units.

6 Quality assurance reports

6.1 Independent Quality Reports

Independent quality assurance reports, including an Editorial Report, an Equity Report, and a Quality Report have been included as part of this Case for Endorsement.

The reports attest to there being a quality-assured Companion Volume Implementation Guide prepared. SFA confirms that this Guide will be available on VETNet following publication of Version 6.0 of the BSB Business Services Training Package on the National Register.

6.1.1 Equity Report

The equity report was completed on 14 March 2019 by Quality Assurance Panellist Anna Henderson. The report can be found in **Appendix D**.

6.1.2 Editorial Report

The editorial report was completed on 14 March 2019 by Quality Assurance Panellist Anna Henderson. The report can be found in **Appendix E**.

6.1.3 Quality Report

The quality report was completed on 15 March 2019 by Quality Assurance panellist Bernadette Delaney. The report can be viewed in **Appendix F**.

6.2 Declaration of alignment with standards

Throughout consultation, we have sought to place the needs of industry at the heart of our review. We have also ensured that the proposed training package components we have developed as a result of our consultation with industry meet the requirements of:

- The Standards for Training Packages 2012
- Training Package Products Policy
- Training Package Development and Endorsement Process Policy.

6.3 Declaration of having met the Training Package Quality Principles

The table below provides a statement of evidence compiled by SFA that the draft training package components meet the Training Package Quality Principles.

Table 6 Evidence to support new training products meet Training Package Quality Principles

Principle	Evidence
1. Reflect identified workforce outcomes	<ul style="list-style-type: none"> • The conduct of our enquiry, as outlined in Section 3.2 of this report, has ensured that industry needs have been at the heart of our training product development work. • New training package components have been created to meet the needs of big data and cyber security related skills across various industries. • Training package components have been developed with reference to current and emerging trends identified through the consultations with multiple industries and stakeholders.

Principle	Evidence
2. Support portability of skills and competencies including reflecting licensing and regulatory requirements	<ul style="list-style-type: none"> • Training package components have been developed to be industry agnostic so that they can be used to promote the portability of workers and skills across a range of industries. • No licensing or regulatory requirements have been impacted by the proposed modifications to training package components listed in this Case for Endorsement.
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"> • These cross-sector projects were established as a result of common skills needs identified across multiple industries in Industry Skills Forecasts, and therefore reflect agreement about skills needs common across industry and transferrable across multiple industry sectors. • Our consultations have included stakeholders from national and multi-national employers, peak bodies, national RTOs and other subject matter experts, ensuring that the national and international transferability of skills is inherent in the proposed training products.
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"> • Units have been amended to ensure alignment with industry needs and workforce skill requirements. • In addition, these cross-sector units have been specifically designed to be industry agnostic and therefore support learners' capacity to adapt to changing job roles and workplaces.
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"> • Training products have been written in an industry-agnostic manner, which will continue to support an individual's transition between education sectors, industries and job roles.
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"> • The content of units of competency has been developed in consultation with industry and trainers and assessors, ensuring that language used is relevant to workplaces and is easily understood in a training context. • A Companion Volume Implementation Guide is available to accompany Version 6.0 of the BSB Business Services Training Package, helping to support implementation of training across a range of settings. • Assessment requirements in units of competency have been written to ensure consistency. Where industry requires assessment to occur in a particular way (e.g. in a simulated environment) this has been clearly articulated.

7 Implementation of COAG Industry Skills Council reforms to Training Packages

7.1 Alignment with the COAG ISC reforms to Training Packages

The table below demonstrates the alignment of the draft training package components with the COAG Industry Skills Council reforms to Training Packages.

Table 7 Alignment with COAG Industry Skills Council reforms

Principle	Evidence
1. Ensure obsolete and superfluous qualifications are removed from the system	<ul style="list-style-type: none"> No qualifications were identified as obsolete or superfluous in these projects As outlined in the Case for Change for cyber security, six units were highlighted as containing potentially obsolete and/or duplicative content. While the proposed units BSBXCS404 Contribute to cyber security risk management and BSBXCS303 Securely manage personally identifiable information and workplace information cover some common elements, these existing units cover broader themes in risk management and therefore do not fully overlap with the new units and therefore no unit deletion is proposed. For big data the Case for Change, 18 units were highlighted containing potentially obsolete and/or duplicative content. Of these units, 5 were no longer in use and of the remaining 13 units only one PSPREG016 Conduct data analysis had potential to be superseded by the proposed new unit BSBXBD403 Analyse big data. The remaining 12 units either had industry specific content or very focused on topics other than big data. Further detail on the analysis is provided in Appendix C.
2. Ensure that more information about industry's expectations of training delivery is available to training providers to improve their delivery and to consumers to enable more informed course choices	<ul style="list-style-type: none"> A Companion Volume Implementation Guide is available to accompany Version 6.0 of the BSB Business Services Training Package, helping to support implementation of training across a range of settings. Industry raised a number of implementation considerations particularly relating to trainer and assessor capacity for delivering the units. These are outlined in Section 5. Training products have been clearly titled, with titles linked to specific skills, enabling consumers without an in-depth understanding of the VET system to make more informed choices.
3. Ensure that the training system better supports individuals to move easily from one related occupation to another	<ul style="list-style-type: none"> By their design, these new cross-sector training products are intended to support portability for learners to move easily between occupations and industries.
4. Improve the efficiency of the training system by creating units that can be owned and used by multiple industry sectors	<ul style="list-style-type: none"> Training package components have been developed so they are applicable across industries and workplaces wherever possible. For example, units were amended to ensure wording could be applied across the multiple industries where applicable, to avoid creating duplicate units.

Principle	Evidence
5. Foster greater recognition of skill sets	<ul style="list-style-type: none">• Four skill sets are being proposed as part of this Case for Endorsement recognising the importance of an agile training response to the requirement for skills across the workforce in:<ul style="list-style-type: none">○ capturing, presenting and managing big data; and○ cyber security threat assessment and risk management, and cyber security awareness.

7.2 Alignment of development work with AISC Case for Change

Big Data Cross-Sector project

The Activity Order for this Case for Change to develop big data cross-sector training package components, owned and used by multiple industry sectors.

The final result of our training package development work was eight new big data cross-sector units. Our work also included non-endorsable changes to the training package: two new skill sets and elective list updates to seven BSB qualifications. A list of these changes are available in **Appendix B**.

Cyber Security Cross-Sector project

The Activity Order for this Case for Change to develop cyber security cross-sector training package components, owned and used by multiple industry sectors.

The final result of our training package development work were eight new cyber security cross-sector units. Our work also included non-endorsable additions to the training package: two new skill sets and elective list updates to three BSB qualifications. A list of these changes is available in **Appendix B**.

7.3 Evidence that training package components are publication ready

All draft training package components are included in this Case for Endorsement. Subject to AISC's endorsement, they are ready for publication on the National Register.

We expect Version 6.0 of the BSB Business Services Training Package to be published on the National Register in June 2019.

Key findings from consultation

Big Data Cross-Sector project

The following key trends were identified throughout consultation relating to the newly developed big data units:

Understanding the differences between data and big data, and how to handle and process each respectively within the context of the business problem that a worker is trying to solve

- Workers require introduction to the concept of big data and raising of data literacy generally across many training packages.
- They require clear guidance as to which analytics techniques are most appropriate.
- A unit is required to introduce learners to the different types of big data and analytics techniques (i.e. descriptive, diagnostic, predictive, and prescriptive analytics), and to how to read and interpret outputs and visualisations produced by big data sets.
- The proposed units within the skill set BSBSS00090 *Capture and Present Big Data Skill Set* address these issues.

Ability to contextualise and use big data within the context of a business problem/need

- A critical industry requirement is for those working with big data to be able to understand how their data analysis fits into the organisation more broadly.
- A key skill gap is being able to link big data to a specific business problem, and then using the subsequent analysis to inform the organisation accordingly.
- Those working in big data handling roles also require a more general understanding of business.

This theme was raised during consultation regularly and has led to the creation of the proposed unit BSBXBD404 *Use big data for operational decision making*.

Workers need a basic understanding of programming concepts and language

- It was highlighted that those working in big data-related roles require a basic ability to use programming in order to assist with tasks such as predictive modelling.
- Some basic levels of programming skills have been included into the Foundation Skills for the unit BSBXBD403 *Analyse big data*. Further advanced skills were considered beyond the scope of the cross-sector project.

Handling big data according to workplace and legal policies and procedures

- A focus on understanding privacy laws and workplace policies and procedures is required.
- The increase in the volume of big data has led to higher instances of data breaches and the need for training to underline the importance of handling big data appropriately.
- Understanding the legal requirements relating to big data is a common theme running through the units. In particular, the units BSBXBD405 *Develop procedures for managing big data* and BSBXBD407 *Protect big data integrity* highlight legal requirements.

Greater need for transferable/non-technical skills

- A recurring theme was the requirement for a number of transferable (i.e. 'soft' or 'generic') skills which allow big data-related workers to work more efficiently with the rest of their organisation
- A notable skill gap is the lack of basic knowledge of how to present big data, and having the right skills to balance quantitative and qualitative insights relevant to the business problem a worker is required to solve.
- These non-technical skills were embedded as appropriate in all units as foundation skills essential to performance, and were then referred to in the related performance evidence.

Working in a team environment across the life-cycle of dealing with big data (from gathering, managing, to presenting)

- Workers need to work both collaboratively with other big data-related roles and also work within cross-functional teams, and to modify their approaches accordingly.
- The four units comprising the skill set BSBSS00090 *Capture and Present Big Data Skill Set* is an acknowledgment that the process of capturing, analysing and presenting big data is a multi-factor process that can be undertaken by multi-disciplinary teams.

Cyber Security Cross-Sector project

The following key trends were identified throughout consultation relating to the newly developed cyber security units:

While technical cyber security skills are not required for workers outside cyber security specific work roles, there is a requirement for all workers regardless of their vocation to have a foundational understanding of cyber security best practice

- It was confirmed that it was not a requirement for there to be advanced technical cyber security skills outside of ICT specialist roles.
- However, there was a need expressed for higher-level personnel in non-ICT specific roles ('generalist personnel') to have a better appreciation of cyber security. Skill areas highlighted included risk management, cyber security accountability, and threat assessment.
- The proposed unit BSBXCS301 *Protect own personal online profile from cyber security threats* was developed in response.

Transferable ('soft' or 'non-technical') skills need greater emphasis in cyber security

- A recurring theme was the need for higher-level 'soft' or 'nontechnical' skills that are considered to be transferable skills for all workers. Examples include teamwork communication and presentation skills.
- These non-technical skills were embedded as appropriate in all units as foundation skills essential to performance, and were then referred to in the related performance evidence.

'Cyber hygiene' needs to be incorporated into all units, not taught as a standalone unit

- The views expressed by industry suggested that cyber hygiene is a fundamental requirement that should be incorporated into the units to ensure that workforce cyber security was significantly improved.
- It was mentioned on a number of occasions that 'generalist personnel' are often the first line of defence in cyber security and therefore need to be 'cyber aware'. (The term 'cyber hygiene' was used interchangeably with 'cyber awareness'.)

Workers should be able to identify fraudulent material including phishing attempts and scams

- Industry indicated the need for a dedicated unit on training workers to identify potential threats. Several examples were raised of workers being manipulated into unknowingly disclosing sensitive information.
- A key focus is to reduce the likelihood of these scams being successful and leading to security incidents.
- The proposed units BSBXCS301 *Protect own personal online profile from cyber security threats* and BSBXCS302 *Identify and report online security threats* were developed in response.

Workers need to know how to escalate identified problems (e.g. security breaches, threats, etc.)

Case for Endorsement – BSB Business Services Training Package Release 6.0

- Having identified issues, workers need to protect themselves by knowing how and where to escalate potential security issues, both internal and external to their organisation.
- Linked to this insight is the need to develop workers' ability to assess cyber risks to a business quickly and accurately and manage them in a similar way to other non-cyber risks.
- The proposed unit BSBXCS302 *Identify and report online security threats* was developed in response.

Raise awareness of what is appropriate to share and what is not

- Another theme emerging from industry consultation was related to the risks of sharing information, both personal and business-related, and the need to educate workers on the potential dangers of sharing and oversharing.
- Units need to include content on how to share confidential information securely.
- Linked to this is raising awareness of various privacy laws and regulations relating to appropriate sharing of materials.
- The proposed unit BSBXCS303 *Securely manage personally identifiable information and workplace information* was developed in response.

Appendix B Non-endorsable components

The BSB and ICT IRCs approved the non-endorsable update to be implemented when BSB Business Services Training Package Version 6.0 is added to the National Register.

Table 16: Non-endorsable training package components submitted

Training product code	Training product title	New / existing / deleted training product
BSBSS00090	<i>Capture and Present Big Data Skill Set</i>	New
BSBSS00091	<i>Manage Big Data Skill Set</i>	New
BSBSS00092	<i>Cyber Security Threat Assessment and Risk Management Skill Set</i>	New
BSBSS00093	<i>Cyber Security Awareness Skill Set</i>	New
BSB30315	<i>Certificate III in Micro Business Operation</i>	Existing
BSB41515	<i>Certificate IV in Project Management Practice</i>	Existing
BSB41618	<i>Certificate IV in Business (Procurement)</i>	Existing
BSB42015	<i>Certificate IV in Leadership and Management</i>	Existing
BSB50215	<i>Diploma of Business</i>	Existing
BSB51415	<i>Diploma of Project Management</i>	Existing
BSB51518	<i>Diploma of Business (Procurement)</i>	Existing
BSB51918	<i>Diploma of Leadership and Management</i>	Existing

Appendix C Pre-existing training package components

Big Data Cross-Sector project 18 units containing obsolete and/or duplicative content were highlighted in the Case for Change as potentially removable.

The ICT IRC sent out a communication to all other IRCs in January 2019 requesting input from other IRCs. Table 17 below outlines the analysis conducted in relation to that content as part of this project.

Table 17 Pre-existing units identified as potentially removable in Case for Change

Training Package title	Training product code	Training product title	Review Outcome
Agriculture, Horticulture and Conservation and Land Management	AHCAGB402	Analyse and interpret production data	Keep existing unit <ul style="list-style-type: none"> Original unit relates to production data collection Content not completely covered by new units
Agriculture, Horticulture and Conservation and Land Management	AHCWRK207	Collect and record production data	Keep existing unit <ul style="list-style-type: none"> Original unit relates to Industry specific content
Australian Meat Processing	AMPS212	Measure and calculate routine workplace data	Keep existing unit <ul style="list-style-type: none"> Original unit relates to simple data collection Content not completely covered by new units
Business Services	BSBCUE204	Collect data	Keep existing unit <ul style="list-style-type: none"> Original unit relates to survey data collection Content not completely covered by new units
Defence	DEFTST006	Analyse test data	Keep existing unit <ul style="list-style-type: none"> Original unit relates to simple data collection Content not completely covered by new units
Financial Services	FNSPIM410	Collect, assess and use information	Keep existing unit <ul style="list-style-type: none"> Original unit relates to simple data collection Content not completely covered by new units
Food Processing	FDFLAB2006A	Record laboratory data	Unit no longer in use
Food Processing	FDFLAB2008A	Analyse laboratory data	Unit no longer in use
Food Processing	FDFTEC4007	Describe and analyse data using	Keep existing unit <ul style="list-style-type: none"> Content not completely covered by new units

Training Package title	Training product code	Training product title	Review Outcome
		mathematical principles	
Forest and Wood Products	FWPFGM2206	Collect data or samples for assessment	Keep existing unit <ul style="list-style-type: none"> Original unit relates to physical sample collection Content not completely covered by new units
Public Sector	PSPGEN065	Interpret data and related statistics	Keep existing unit <ul style="list-style-type: none"> Original unit relates to statistical analysis Content not completely covered by new units
Public Sector	PSPREG016	Conduct data analysis	Review <ul style="list-style-type: none"> Potential for content to be superseded by BSBXBD403 <i>Analyse big data</i>
Resources and Infrastructure Industry	RIISTD302D	Process data and maintain accurate records	Keep existing unit <ul style="list-style-type: none"> Original unit relates to Industry specific content Content not completely covered by new units
Seafood	SFIOBSV302B	Collect reliable scientific data and samples	Keep existing unit <ul style="list-style-type: none"> Original unit relates to physical sample collection Content not completely covered by new units
Seafood	SFIOBSV303B	Collect routine fishery management data	Keep existing unit <ul style="list-style-type: none"> Original unit relates to Industry specific content Content not completely covered by new units
Sustainability	MSS024004	Process and present environmental data	Unit no longer in use
Transport and Logistics	TLIE4006	Collect, analyse and present workplace data and information	Keep existing unit <ul style="list-style-type: none"> Original unit relates to simple data collection Content not completely covered by new units
Tourism, Travel and Hospitality	SITTPPD007	Research and analyse tourism data	Keep existing unit <ul style="list-style-type: none"> Original unit relates to simple data collection Content not completely covered by new units

Case for Endorsement – BSB Business Services Training Package Release 6.0

A further 26 units were identified with potential to be imported into various training packages. A review was conducted to consider the potential for broader use of these units across the training system. The outcomes of that review are given in Table 18 below.

Table 18 Pre-existing units identified as transferable into other training packages as electives

Training Package title	Training product code	Training product title	Review outcome
Agriculture, Horticulture and Conservation and Land Management	AHCWRK502	Collect and manage data	Keep existing unit <ul style="list-style-type: none"> • Original unit relates to simple data collection • Content not completely covered by new units
Australian Meat Processing	AMPMGT809	Analyse data for business decision making	Keep existing unit <ul style="list-style-type: none"> • Original unit relates to simple data collection • Content not completely covered by new units
Business Services	BSBITU311	Use simple relational databases	Keep existing unit <ul style="list-style-type: none"> • Content not completely covered by new units
Business Services	BSBITA411	Design and develop relational databases	Keep existing unit <ul style="list-style-type: none"> • Content not completely covered by new units
Business Services	BSBMKG528	Mine data to identify industry directions	Keep existing unit <ul style="list-style-type: none"> • Original unit relates to simple data collection • Content not completely covered by new units
Business Services	BSBMKG511	Analyse data from international markets	Keep existing unit <ul style="list-style-type: none"> • Original unit relates to Industry specific content • Content not completely covered by new units
Defence	DEFGEN313	Establish technical data and information management systems	Keep existing unit <ul style="list-style-type: none"> • Original unit relates to Industry specific content • Content not completely covered by new units
Information and Communications Technology	ICTSAD501	Model data objects	Keep existing unit <ul style="list-style-type: none"> • Content too technical for cross-sector use
Information and Communications Technology	ICTWEB425	Apply structured query language to extract and manipulate data	Keep existing unit <ul style="list-style-type: none"> • Content too technical for cross-sector use
Information and Communications Technology	ICTDBS601	Build a data warehouse	Keep existing unit <ul style="list-style-type: none"> • Content too technical for cross-sector use
Information and Communications Technology	ICTDBS412	Build a database	Keep existing unit <ul style="list-style-type: none"> • Content too technical for cross-sector use
Information and Communications Technology	ICTDBS503	Create a data warehouse	Keep existing unit <ul style="list-style-type: none"> • Content too technical for cross-sector use

Training Package title	Training product code	Training product title	Review outcome
Information and Communications Technology	ICTDBS403	Create basic databases	Keep existing unit <ul style="list-style-type: none"> Content too technical for cross-sector use
Information and Communications Technology	ICADBS502A	Design a database	Keep existing unit <ul style="list-style-type: none"> Content too technical for cross-sector use
Information and Communications Technology	ICTICT509	Gather data to identify business requirements	Keep existing unit <ul style="list-style-type: none"> Content too technical for cross-sector use
Information and Communications Technology	ICTDBS413	Determine database requirements	Keep existing unit <ul style="list-style-type: none"> Content not completely covered by new units
Information and Communications Technology	ICTDBS409	Monitor and administer a database	Keep existing unit <ul style="list-style-type: none"> Content too technical for cross-sector use
Information and Communications Technology	ICTICT210	Operate database applications	Keep existing unit <ul style="list-style-type: none"> Original unit relates to simple data collection Content not completely covered by new units
Information and Communications Technology	ICTICT812	Develop a business intelligence framework	Keep existing unit <ul style="list-style-type: none"> Content too technical for cross-sector use
Information and Communications Technology	ICTPRG403	Develop data-driven applications	Keep existing unit <ul style="list-style-type: none"> Content too technical for cross-sector use
Information and Communications Technology	ICTNWK403	Manage network and data integrity	Keep existing unit <ul style="list-style-type: none"> Content too technical for cross-sector use
Furnishing	MSFGG4010	Use glass industry data systems	Keep existing unit <ul style="list-style-type: none"> Original unit relates to Industry specific content Content not completely covered by new units
Laboratory Operations	MSL924001	Process and interpret data	Unit no longer in use
Laboratory Operations	MSL925004	Analyse data and report results	Keep existing unit <ul style="list-style-type: none"> Content too technical for cross-sector use
Public Sector	PSPGEN061	Scope statistical data collection	Keep existing unit <ul style="list-style-type: none"> Original unit relates to simple data collection Content not completely covered by new units
Retail Services Training Package	SIRXECM001	Monitor and interpret online data analytics	Keep existing unit <ul style="list-style-type: none"> Original unit relates to simple data collection Content not completely covered by new units

Cyber Security Cross-Sector project

Six units containing obsolete and/or duplicative content related to risk management and cloud computing were initially highlighted in the Case for Change as potentially removable. While the proposed units 'BSBXCS404 Contribute to cyber security risk management' and 'BSBXCS303 Securely manage personally identifiable information and workplace information' cover some common elements, the pre-existing units covered broader themes and therefore are not considered obsolete.

As with Big Data, the ICT IRC sent out a communication to all other IRCs in January 2019 requesting input from other IRCS.

Table 19 below outlines the analysis conducted in relation to that content as part of this project.

Table 19 Pre-existing units identified as potentially removable in Case for Change

Training Package Name	Training Product Code	Training product title	Proposed change
Business Services	BSBITU422	Use digital technologies to collaborate in the workplace	Keep existing unit <ul style="list-style-type: none"> Content not completely covered by new units
Information and Communications Technology	ICTICT814	Develop cloud computing strategies for a business	Keep existing unit <ul style="list-style-type: none"> Content not completely covered by new units
Business Services	BSBRSK501	Manage Risk	Keep existing unit <ul style="list-style-type: none"> Existing unit refers to broader risk management
Business Services	BSBRSK401	Identify Risk and apply risk management processes	Keep existing unit <ul style="list-style-type: none"> Existing unit refers to broader risk management
Information and Communications Technology	ICTSAS409	Manage risks involving ICT systems and technology	Keep existing unit <ul style="list-style-type: none"> Existing unit refers to broader ICT risk management
Property Services	CPPSEC5005A	Implement security risk management plan	Keep existing unit <ul style="list-style-type: none"> Existing unit refers to broader risk management

Case for Endorsement – BSB Business Services Training Package Release 6.0

A further 35 potential units of competency were identified in the Case for Change that were housed within the ICT Information and Communications Technology Training Package at different nominal levels. A review was conducted to consider the potential for broader use of these units across the training system, the outcomes of which are represented in the table below.

Table 20 Pre-existing units identified as transferable into other training packages as electives

Training Package	Code	Title	Action
Information and Communication Technology	ICTICT418	Contribute to copyright, ethics and privacy in an ICT environment	Suitable for inclusion as elective for BSB40215 Certificate IV in Business Unit content aligns to BSBXCS303 <i>Securely manage personally identifiable information and workplace information</i>
Information and Communication Technology	ICTNWK509	Design and implement a security perimeter for ICT networks	No broader application outside of specialist ICT
Information and Communication Technology	ICTNWK511	Manage network security	No broader application outside of specialist ICT
Information and Communication Technology	ICTNWK603	Plan, configure and test advanced internetwork routing solutions	No broader application outside of specialist ICT
Information and Communication Technology	ICTTEN811	Evaluate and apply network security	No broader application outside of specialist ICT use
Information and Communication Technology	ICTNWK305	Install and manage network protocols	No broader application outside of specialist ICT use
Information and Communication Technology	ICTNWK403	Manage network and data integrity	No broader application outside of specialist ICT use
Information and Communication Technology	ICTNWK406	Install, configure and test network security	No broader application outside of specialist ICT use
Information and Communication Technology	ICTNWK409	Create scripts for networking	No broader application outside of specialist ICT use
Information and Communication Technology	ICTNWK401	Install and manage a server	No broader application outside of specialist ICT use
Information and Communication Technology	ICTSAS418	Monitor and administer security of an ICT system	Suitable for inclusion as elective for BSB40215 Certificate IV in Business Units aligns to BSBXCS303 <i>Securely manage personally identifiable information and workplace information</i> , BSBXCS404 <i>Maintain security of digital devices</i> , BSBXCS405 <i>Promote workplace cyber security awareness and</i>

Training Package	Code	Title	Action
			practices and BSBXCS406 Contribute to cyber security threat assessments
Information and Communication Technology	ICTSAS505	Review and update disaster recovery and contingency plans	No broader application outside of specialist ICT use
Information and Communication Technology	ICTNWK601	Design and implement a security system	No broader application outside of specialist ICT use
Information and Communication Technology	ICTPMG601	Establish ICT project governance	No broader application outside of specialist ICT use
Information and Communication Technology	ICTNWK519	Design an ICT security framework	No broader application outside of specialist ICT use
Information and Communication Technology	ICTNWK602	Plan, configure and test advanced server based security	No broader application outside of specialist ICT use
Information and Communication Technology	ICTPRG405	Automate processes	No broader application outside of specialist ICT use
Information and Communication Technology	ICTPRG407	Write script for software applications	No broader application outside of specialist ICT use
Information and Communication Technology	ICTSS00034	Basic Web Development Specialist Skill Set	No broader application outside of specialist ICT use
Information and Communication Technology	ICTNWK605	Design and configure secure integrated wireless systems	No broader application outside of specialist ICT use
Information and Communication Technology	ICTNWK607	Design and implement wireless network security	No broader application outside of specialist ICT use
Information and Communication Technology	ICTNWK616	Manage security, privacy and compliance of cloud service deployment	No broader application outside of specialist ICT use
Information and Communication Technology	ICTICT423	Select cloud storage strategies	Include as elective for BSB40215 Certificate IV in Business Unit aligns with BSBXCS303 Securely manage personally identifiable information and workplace information, BSBXCS404 Maintain security of digital devices, BSBXCS405 Promote workplace cyber security awareness and practices and BSBXCS406 Contribute to cyber security threat assessments
Information and Communication Technology	ICTPRG604	Create cloud computing services	No broader application outside of specialist ICT use

Training Package	Code	Title	Action
Information and Communication Technology	ICTNWK306	Evaluate characteristics of cloud computing solutions and services	No broader application outside of specialist ICT use
Information and Communication Technology	ICTGAM404	Apply artificial intelligence in game development	No broader application outside of specialist ICT use
Property Services	CPPSEC4014A	Commission and decommission networked security system	No broader application outside of specialist ICT use
Property Services	CPPSEC4015A	Maintain networked security system	No broader application outside of specialist ICT use
Property Services	CPPSEC4016A	Install networked security system	No broader application outside of specialist ICT use
Property Services	CPPSEC4018A	Configure security devices on IT networks	No broader application outside of specialist ICT use
Property Services	CPPSEC4019A	Identify and diagnose security system or network fault	No broader application outside of specialist ICT use
Property Services	CPPSEC4017A	Determine security system configurations	No broader application outside of specialist ICT use
Public Sector	PSPSEC006	Implement security risk treatments	No broader application outside of specialist ICT use
Property Services	CPPSEC5003A	Assess security risk management options	No broader application outside of specialist ICT use
Property Services	CPPSEC5004A	Prepare security risk management plan	No broader application outside of specialist ICT use

Thirteen existing accredited units relating to cyber security were identified within the Case for Change. The outcome of the review of those units for their potential import into the VET system is outlined in Table 21 below.

Table 21 Pre-existing accredited units

Training product code	Training product title	Outcome	Rationale
VU21643	Communicate cyber security incidents within the organisation	Not suitable	New unit BSBXCS302 <i>Identify and report online security threats</i> covers these topics
VU22240	Design and implement a virtualized cyber security infrastructure for an organisation	Not suitable	Content too advanced for cross-sector users
VU22258	Develop a cyber security industry project	Not suitable	Content too advanced for cross-sector users
VU21992	Develop software skills for the cyber security practitioner	Not suitable	Content too advanced for cross-sector users
VU22243	Evaluate an organisation's compliance with relevant cyber security standards and law	Not suitable	New unit BSBXCS405 <i>Promote workplace cyber security awareness and practices</i> covers these topics
VU22246	Evaluate and apply concepts and principles of cyber law	Not suitable	Content too advanced for cross-sector users
VU21643	Implement cyber security operations	Not suitable	Content too advanced for cross-sector users
VU22252	Perform basic cyber security data analysis	Not suitable	New unit BSBXCS301 <i>Protect own personal online profile from cyber security threats</i> covers these topics
VU22245	Plan and implement a cyber security project	Not suitable	Content too advanced for cross-sector users
VU21990	Recognise the need for cyber security in an organisation	Not suitable	New unit BSBXCS405 <i>Promote workplace cyber security awareness and practices</i> covers these topics
VU22250	Respond to cyber security incidents	Not suitable	New unit BSBXCS408 <i>Contribute to cyber security incident responses</i> covers these topics
VU21989	Test concepts and procedures for cyber security	Not suitable	Content too advanced for cross-sector users
VU21988	Utilise basic network concepts and protocols required in cyber security	Not suitable	Content too advanced for cross-sector users

Appendix D Equity Report

The following equity report was produced by Anna Henderson as part of the quality assurance process.

Section 1 – Cover page

Information required	Detail
Training Package title and code	Big Data and Cyber Security Cross-sector Projects
Number of new qualifications and their titles	-
Number of revised qualifications and their titles	-
Number of new units of competency and their titles	<p>17 new Cross-Sector Units</p> <p>Big Data</p> <ul style="list-style-type: none"> • BSBXBD401 Capture and store big data • BSBXBD402 Test big data samples • BSBXBD403 Analyse big data • BSBXBD404 Use big data for operational decision making • BSBXBD405 Develop procedures for managing big data • BSBXBD406 Present big data insights • BSBXBD407 Protect big data integrity • BSBXBD408 Implement and review procedures for managing big data • BSBXBD501 Develop big data strategy <p>Cyber Security</p> <ul style="list-style-type: none"> • BSBXCS301 Protect own personal online profile from cyber security threats • BSBXCS302 Identify and report online security threats • BSBXCS303 Securely manage personally identifiable information and workplace information • BSBXCS401 Maintain security of digital devices • BSBXCS402 Promote workplace cyber security awareness and practices • BSBXCS403 Contribute to cyber security threat assessments • BSBXCS404 Contribute to cyber security risk management • BSBXCS405 Contribute to cyber security incident responses
Number of revised units of competency and their titles	-

Case for Endorsement – BSB Business Services Training Package Release 6.0

Information required	Detail
Confirmation that the draft training package components meet the requirements in Section 2 <i>Equity checklist of draft training package components</i>	Yes - draft training package components meet the requirements in Section 2 <i>Equity checklist of draft training package components</i>
Is the Equity Report prepared by a member of the Quality Assurance Panel? If 'yes' please provide the name.	Yes – Anna Henderson
Date of completion of the report	14/03/2019

Section 2 – Equity checklist of draft training package components

Equity requirements	Equity reviewer comments
<p>The training package component(s) comply with Standard 2 of the <i>Standards for Training Packages 2012</i>. The standard requires compliance with the <i>Training Package Products Policy</i>, specifically with the access and equity requirements:</p> <ul style="list-style-type: none"> • Training Package developers must meet their obligations under Commonwealth anti-discrimination legislation and associated standards and regulations. • Training Package developers must ensure that Training Packages are flexible and that they provide guidance and recommendations to enable reasonable adjustments in implementation. 	<p>Provide brief commentary on whether the draft endorsed components meet each of the equity requirements</p> <p>The units of competency comply with Standard 2 of the <i>Standards for Training Packages</i>.</p> <p>BSB Business Services Training Package Companion Volume Implementation Guide (CVIG) Version 5.0 provides advice on access and equity considerations including reasonable adjustment for learners with disabilities (page 54).</p>

Section 3 - Training Package Quality Principles

Quality Principle 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

Do the units of competency meet the diversity of individual and employer needs and support equitable access and progression of learners?

What evidence demonstrates that the units of competency and their associated assessment requirements are clearly written and have consistent breadth and depth so that they support implementation across a range of settings?

Are there other examples that demonstrate how the key features of flexibility are being achieved?

Equity requirements	Equity reviewer comments
<p>1. What evidence demonstrates that the draft components provide flexible qualifications/units of competency that enable application in different contexts?’</p>	<p>Big Data and Cyber Security Cross-sector units may be utilised via training in many different qualifications.</p> <p>The Big Data/Cyber Security Case for Endorsement (CfE) discusses the fact that the training product produced in cross-sector projects is intended for use in multiple</p>

Equity requirements	Equity reviewer comments
	<p>industries. PwC Skills for Australia (SFA) sought engagement from multiple Industry Reference Committees (IRCs) and stakeholders in their network by working through their supporting Skills Service Organisations (SSOs). Following a formal request through the SSO network on behalf of the ICT IRC, PwC SFA received interest from representatives from the following IRCs:</p> <ul style="list-style-type: none"> Business Services Transport and Logistics Amenity Horticulture, Landscaping, Conservation and Land Management, Forest Management and Harvesting Arboriculture Racing and Breeding Electrotechnology AIS Public Safety. <p>The involvement of the above cross-industry IRCs, resulted in the units being subsequently updated to reflect their generalist input. <i>Page 9, CfE</i></p>
2. Is there evidence of multiple entry and exit points?	The draft units in this submission may be utilised in many qualifications. A statement of attainment may be issued upon completion of any of the Big Data and/or Cyber Security units.
3. Have prerequisite units of competency been minimised where possible?	There are no prerequisite requirements in the draft units of competency in this submission.
4. Are there other examples of evidence that demonstrate how the key features of the flexibility principle are being achieved?	<p>In direct response to the technological changes that have made big data so accessible and cyber-attack a threat to a wide range of industries, and the AISC identified the need for Big Data and Cyber Security units.</p> <p>This submission fully supports the flexibility principle because flexible and transferable training package components that benefit industry and learners from across multiple sectors of the economy have been developed.</p>

Quality Principle 5

Facilitate **recognition** of an individual’s skills and knowledge and support movement between the school, vocational education and higher education sectors.
Support learner transition between education sectors.

Equity requirements	Equity reviewer comments
1. What evidence demonstrates 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?	<p>VET information for secondary students and apprentices is provided in the BSB V5.0 CVIG (page 58). The very nature of the new units in this submission promotes the flexible acquisition of skills and knowledge in a variety of ICT contexts.</p> <p>There are currently no formal, national credit arrangements for BSB qualifications and higher education qualifications (page 53 CVIG).</p>

Quality Principle 6

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

Key features

Support implementation across a range of settings and support sound assessment practices.

Equity requirements	Equity reviewer comments
<p>1. Does the Companion Volume Implementation Guide include advice about:</p> <ul style="list-style-type: none"> • Pathways • Access and equity • Foundation skills? <p>(see Training Package Standard 11)</p>	<p>Yes - The Companion Volume Implementation Guide provides advice on:</p> <ul style="list-style-type: none"> • Pathways – BSB quals and skill sets and their relationships to jobs, pages 53 • Access and equity – are described and addressed with advice on reasonable adjustments for learners with disabilities (page 53) • Foundation skills – explanation about Australian Core Skills Framework (ACSF) and Employability Skills and language, literacy and numeracy (LLN) skill (page 56).
2. Are the foundation skills explicit and recognisable within the training package and do they reflect and not exceed the foundation skills required in the workplace?	Yes – Foundation skills which are not explicit in the unit of competency, are identified in a table and described against the ACSF and Employability Skills and language, LLN skill.

Appendix E Editorial report

The following editorial report was produced by Anna Henderson as part of the quality assurance process.

1. Cover page

Information required	Detail
Training Package title and code	<ul style="list-style-type: none"> Big Data and Cyber Security Cross-sector Projects
Number of new qualifications and their titles	-
Number of revised qualifications and their titles	-
Number of new units of competency and their titles	<p>17 new Cross-Sector Units</p> <p>Big Data</p> <ul style="list-style-type: none"> BSBXBD401 Capture and store big data BSBXBD402 Test big data samples BSBXBD403 Analyse big data BSBXBD404 Use big data for operational decision making BSBXBD405 Develop procedures for managing big data BSBXBD406 Present big data insights BSBXBD407 Protect big data integrity BSBXBD408 Implement and review procedures for managing big data BSBXBD501 Develop big data strategy <p>Cyber Security</p> <ul style="list-style-type: none"> BSBXCS301 Protect own personal online profile from cyber security threats BSBXCS302 Identify and report online security threats BSBXCS303 Securely manage personally identifiable information and workplace information BSBXCS401 Maintain security of digital devices BSBXCS402 Promote workplace cyber security awareness and practices BSBXCS403 Contribute to cyber security threat assessments BSBXCS404 Contribute to cyber security risk management BSBXCS405 Contribute to cyber security incident responses

Information required	Detail
Number of revised units of competency and their titles	-
Confirmation that the draft training package components are publication-ready	Yes - draft training package components are publication-ready.
Is the Editorial Report prepared by a member of the Quality Assurance Panel? If 'yes' please provide a name.	Yes – Anna Henderson
Date of completion of the report	14/03/2019

2. Content and structure

Units of competency

<p>Standard 5:</p> <ul style="list-style-type: none"> The structure of units of competency with the unit of competency template. 	<p>The units are well written and their structure complies with all aspects of the unit of competency template: application, elements, performance criteria, foundation skills and unit mapping information.</p> <p>With regard to the foundation skills – the skills that are not explicit in the unit of competency, are identified in a table and described against the Australian Core Skills Framework (ACSF) in each unit. Advice about Foundation Skills is provided in the BSB Business Services Training Package Companion Volume Implementation Guide (CVIG) Version 5.0 - page 56.</p> <p>Minor editorial suggestions were provided to and addressed by PwC Skills for Australia as part of the editorial review.</p>
<p>Standard 7:</p> <p>The structure of assessment requirements with the assessment requirements template.</p>	<p>All draft units of competency specify the performance evidence (including references to volume and frequency) and knowledge evidence to be demonstrated for assessment, along with required conditions for assessment as per the appropriate template. The Assessment requirements cross-reference well to the Performance Criteria requirements.</p>

Qualifications

<p>Standard 9:</p> <ul style="list-style-type: none"> The structure of the information for qualifications complies with the qualification template. 	N/A
<p>Standard 10:</p> <ul style="list-style-type: none"> Credit arrangements existing between Training Package qualifications and Higher Education qualifications are listed in a format that complies with the credit arrangements template. 	The BSB V5.0 CVIG provides information that no national credit arrangements exist at this time (page 53).

Companion Volumes

<p>Standard 11:</p> <ul style="list-style-type: none"> A quality assured companion volume implementation guide is available and complies with the companion volume implementation guide template. 	The Training Package components in this submission are accompanied by the BSB V5 CVIG which has been updated to include the units in this submission. The CVIG complies with the companion volume implementation guide template included in the 2012 Standards.

3. Proofreading

<ul style="list-style-type: none"> • Unit codes and titles and qualification codes and titles are accurately cross-referenced throughout the training package product(s) including mapping information and packaging rules, and in the companion volume implementation guide. 	<p>The unit codes and titles have been proofread and cross-referenced throughout all documentation provided – qualifications, Case for Endorsement, and CVIG.</p> <p>PwC Skills for Australia have addressed edits noted during the editorial review.</p>
<ul style="list-style-type: none"> • Units of competency and their content are presented in full. 	<p>Yes the units of competency in this submission are presented.</p> <p>All these draft units are packaged in the qualifications listed in this submission.</p>
<ul style="list-style-type: none"> • The author of the Editorial Report is satisfied with the quality of the training products, specifically with regard to: <ul style="list-style-type: none"> ○ absence of spelling, grammatical and typing mistakes ○ consistency of language and formatting ○ logical structure and presentation of the document. ○ compliance with the required templates 	<p>I am satisfied with the quality of the training products with regard to the points listed opposite.</p>

Appendix F Quality Assurance Report

The following report was produced by Bernadette Delaney as part of the quality assurance process

Section 1 – Cover page

Information required	Detail
Training Package title and code	BSB Business Services Training Package Release 5.0
Number of new qualifications and their titles ¹	Nil
Number of revised qualifications and their titles	Nil
Number of new units of competency and their titles	<p>17 new units</p> <p>Cyber Security</p> <ul style="list-style-type: none"> • BSBXCS301 Protect own personal online profile from cyber security threats • BSBXCS302 Identify and report online security threats • BSBXCS303 Securely manage personally identifiable information and workplace information • BSBXCS401 Maintain security of digital devices • BSBXCS402 Promote workplace cyber security awareness and practices • BSBXCS403 Contribute to cyber security threat assessments • BSBXCS404 Contribute to cyber security risk management • BSBXCS405 Contribute to cyber security incident responses <p>Big Data</p> <ul style="list-style-type: none"> • BSBXBD401 Capture and store big data • BSBXBD402 Test big data samples • BSBXBD403 Analyse big data • BSBXBD404 Use big data for operational decision making • BSBXBD405 Develop procedures for managing big data • BSBXBD406 Present big data insights • BSBXBD407 Protect big data integrity

¹ When the number of training products is high the titles can be presented as an attached list.

Information required	Detail
	<ul style="list-style-type: none"> • BSBXBD408 Implement and review procedures for managing big data • BSBXBD501 Develop big data strategy
Number of revised units of competency and their titles	nil
Confirmation that the panel member is independent of: <ul style="list-style-type: none"> • the Training Package or Training Package components review ('Yes' or 'No') • development and/or validation activities associated with the Case for Endorsement ('Yes' or 'No') • undertaking the Equity and/or Editorial Reports for the training package products that are the subject of this quality report ('Yes' or 'No') 	Yes
Confirmation of the Training Packages or components thereof being compliant with the <i>Standards for Training Packages 2012</i>	Yes
Confirmation of the Training Packages or components thereof being compliant with the <i>Training Package Products Policy</i>	Yes
Confirmation of the Training Packages or components thereof being compliant with the <i>Training Package Development and Endorsement Process Policy</i>	Yes
Panel member's view about whether: <ul style="list-style-type: none"> • the evidence of consultation and validation process being 	Yes Yes

Information required	Detail
fit for purpose and commensurate with the scope <ul style="list-style-type: none"> estimated impact of the proposed changes is sufficient and convincing 	
Name of panel member completing Quality Report	Bernadette Delaney
Date of completion of the Quality Report	20 th March, 2019

Section 2 – Compliance with the Standards for Training Packages 2012

Standards for Training Packages	Standard met 'yes' or 'no'	Evidence supporting the statement of compliance or noncompliance (including evidence from equity and editorial reports)
Standard 1 Training Packages consist of the following: 1. AISC endorsed components: <ul style="list-style-type: none"> qualifications units of competency assessment requirements (associated with each unit of competency) credit arrangements 2. One or more quality assured companion volumes	Yes	Standard 1 was met. Units and associated assessment requirements 17 new units Qualifications No qualifications No credit arrangements One Implementation Guide
Standard 2 Training Package developers comply with the <i>Training Package Products Policy</i>	Yes	Standard 2 was met. Evidence of compliance from <i>PwC's Skills for Australia</i> with the <i>Training Package Products Policy</i> included: Coding of the Training Package BSB Business Services Training Package Release 5.0 complies with coding and titling. Access and equity

		<p>The Equity Report (14/3/19) confirmed compliance with respect to access and equity. Advice on access and equity considerations is provided in the draft <i>Implementation Guide Version 5.0</i> p. 55. This includes an explanation of access and equity considerations and practical suggestions to address. There is also a section on disability and applying reasonable adjustment</p> <p>The draft training products produced are flexible enough to meet the diverse needs of both individuals and employers as well as applying to a range of industry sectors.</p> <p>Foundation skills Foundation skills are listed on each unit of competency. Other Foundation Skills were explicit in the performance criteria. The Foundation Skills were succinctly written without superfluous information.</p> <p>Some amendments were suggested during the Quality Assurance process to ensure a clear link between the Foundation Skills and the Performance Criteria. These suggestions were addressed by <i>PwC's Skills for Australia</i>.</p> <p>The approach to Foundation Skills in BSB units is also explained in the draft <i>Implementation Guide Version 5.0</i> p.58.</p> <p>Unit of competency coding & titling Unit codes comply with the policy and AVETMISS standards consisting of a training package identifier (BSB) of three alpha characters, with other alpha characters and numbers. All units are new with new codes and titles.</p> <p>Mapping All units are new and not related to the previous version of the training package. There are no equivalent units. This mapping is listed in the draft <i>Implementation Guide Version 5.0</i>.</p>
<p>Standard 3</p> <p>Training Package developers comply with the AISC <i>Training Package</i></p>	<p>Yes</p>	<p>Standard 3 was met.</p> <p>Evidence of compliance from <i>PwC's Skills for Australia</i> with the <i>Training Package Development and Endorsement Process Policy</i> Standard 3 included:</p>

<p><i>Development and Endorsement Process Policy</i></p>	<p>Development process These training products originated as part of the Australian Industry and Skills Committee (AISC) cross-sector projects, which were established to address common skills needs and minimise duplication of units. A separate <i>Case for Change</i> for each project was prepared based on initial research and was endorsed by the Australian Industry and Skills Committee (AISC) on behalf of the Big Data Project Reference Group (PRG) and Cyber Security PRG respectively in February 2018.</p> <p>Consultation Consultation reflected the project scope, with 150 individuals across Australia consulted. Consultations were national, inclusive and sought out a range of stakeholders from industry employers and organisations, peak bodies, government, and registered training organisations (RTOs).</p> <p>Various tools were used to ensure consistency of information in consultations and summaries of the findings were available to stakeholders throughout the consultation periods. All feedback was recorded on registers and considered in the development process.</p> <p>These were the mechanisms for consultation:</p> <ul style="list-style-type: none"> • Consultation approaches were supported by an initial literature review • Consultations were overseen by the ICT Industry Reference Group (IRC) with involvement from BSB IRC (N= 24) with all members contributing guidance and consultation contacts. This resulted in the BSB IRC and ICT IRC jointly supporting the submission of the training package products presented in the <i>Case for Endorsement</i>. • As these are cross sector products, other IRCs were consulted for formal input throughout the project. The following IRCs demonstrated interest in the project and provided email comments: <ul style="list-style-type: none"> ○ Business Services ○ Transport and Logistics
--	---

		<ul style="list-style-type: none"> ○ Amenity Horticulture, Landscaping, Conservation and Land Management, Forest Management and Harvesting ○ Arboriculture ○ Racing and Breeding ○ Electrotechnology ○ AIS Public Safety ● Two Project Working Groups (PWG) were set up with industry and RTO subject matter experts for Big Data (N=9) and Cyber Security (N=9) to provide expert opinions and guide the work. Each of these PWGs met on 4 occasions, over the period from October 2018 - February 2019, to discuss key consultation feedback and consider recommendations in response to feedback. PWG members were further consulted on an ongoing basis to validate key issues emerging from consultations and review documents used in the developing process. ● For Big Data 9 focus groups were conducted in Victoria, New South Wales, South Australia, Western Australia and Queensland with a total of 48 attendees. Similarly, for Cyber Security 12 focus groups were held and attended by 78 industry and training experts from seven states/territories. ● There were additional targeted consultations for Cyber Security (N= 12) and Big Data (N=12) to ensure comprehensive national coverage. ● There were targeted consultations (N=36) with representatives from industry, employer groups, union, RTO, TAFEs, peak bodies, industry organisations and government. ● State Training Authorities (STAs) were engaged throughout the development process. ● Draft training products were published on the PwC Skills for Australia website from 25 January 2019 to 22 February 2019 for feedback and received a large volume of interest (322 page views). Additional views were sought via email to IRC members, PWG members, S/TTA networks and website
--	--	--

		subscribers resulting in a reach of 1302 unique stakeholders.
<p>Standard 4</p> <p>Units of competency specify the standards of performance required in the workplace</p>	Yes	<p>Standard 4 was met.</p> <p>Units of competency specified the cross -sector standards of performance required in a range of workplaces. During the quality assurance process, there were discussions to ensure the units aptly described the work tasks, whilst also addressing the generic nature of the application of these units.</p> <p>These suggestions were considered thoroughly by <i>PwC's Skills for Australia</i> and changes were made to ensure units of competency clearly expressed the standards required.</p> <p>These cross-sector units considered future needs to ensure relevance to rapid changes occurring with developments in Big Data and Cyber Security sectors across a multitude of industries.</p>
<p>Standard 5</p> <p>The structure of units of competency complies with the unit of competency template</p>	Yes	<p>Standard 5 was met.</p> <p>The Editorial Report (14/3/19) confirmed compliance with Standard 5. The structure of the units complied with the template.</p> <p>During the Quality Assurance process all units of competency were reviewed and suggestions for clarity and accuracy were discussed and where appropriate, implemented by <i>PwC's Skills for Australia</i>.</p>
<p>Standard 6</p> <p>Assessment requirements specify the evidence and required conditions for assessment</p>	Yes	<p>Standard 6 was met.</p> <p>Assessment requirements specified the performance and knowledge evidence and outlined clearly the processes to be demonstrated. Assessment conditions and assessor requirements were clearly stated.</p>
<p>Standard 7</p> <p>Every unit of competency has associated assessment requirements. The structure of assessment requirements complies with the assessment requirements template</p>	Yes	<p>Standard 7 was met.</p> <p>Editorial Report (14/3/19) also confirms compliance.</p> <p>Every unit presented had associated assessment requirements with a consistent style. Assessment requirements followed the required template. Some recommendations were made and accepted for clarity of links between required evidence and the</p>

		unit of competency.
Standard 8 Qualifications comply with the Australian Qualifications Framework (AQF) specification for that qualification type	NA	Not applicable.
Standard 9 The structure of the information for the Australian Qualifications Framework qualification complies with the qualification template	NA	Not applicable
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	NA	None available.
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	Standard 11 was met. <i>A draft quality assured Implementation Guide Version 5.0 was available and complied with the template.</i> This Implementation Guide was reviewed. Editorial Report (14/3/19) also confirms compliance.
Standard 12	NA	Standard 12 was met.

Training Package developers produce other quality assured companion volumes to meet the needs of their stakeholders as required.		No other Companion Volume presented.
--	--	--------------------------------------

Section 3 – Compliance with the training package quality principles

Note: *not all training package quality principles might be applicable to every training package or its components. Please provide a supporting statement/evidence of compliance or non-compliance against each principle.*

Quality principle 1. Reflect identified workforce outcomes

Key features	Quality principle is met: Yes / No or N/A	Evidence demonstrating compliance/non-compliance with the quality principle Please see examples of evidence in the <i>Training Package Development and Endorsement Process Policy</i>
Driven by industry's needs	Yes	<p>This project is part of a suite of cross sector projects to address industry needs across a range of industries. The Australian Industry and Skills Committee (AISC) established eight cross-sector projects to address common skills needs, minimise duplication of units, consolidate existing units and remove units that are no longer being used. The aim of these projects was to be more responsive to industry by reducing complexity in the vocational education and training (VET) system and improving mobility between occupations.</p> <p>The two areas of focus in these training products- Cyber Security and Big Data have very important applications for government and industry enterprises currently and into the future. <i>Cases for Change</i> for each project based on initial research and consultations were endorsed by AISC in February 2018.</p> <p>The <i>Case for Endorsement (CfE)</i> identifies the issues raised in the <i>Cases for Change (CfC)</i> and the training products outcomes of this project.</p> <p>For Big Data the <i>Case for Change 2018</i> identified that these trends need to be addressed:</p> <ul style="list-style-type: none"> • changing technologies related to Industry 4.0 such as automation and artificial intelligence are increasing the necessity and relevance of big data • growth of data

		<ul style="list-style-type: none"> • increased changes in the workforce that requires evidence-based solutions using big data across the range of jobs in the workforce • demand for employees with data analysis skills. <p>For Cyber Security the <i>Case for Change 2018</i> demonstrated the need for capabilities for:</p> <ul style="list-style-type: none"> • basic cyber security skills across the range of workforce jobs in business and ICT industries in particular • better awareness and knowledge of the role of protection and security in the online world • cyber threats and risks and how to address them • shortages of cyber security professionals • lack of cyber security training. <p>The <i>Case for Endorsement</i> explains the need is not only for data analysis professionals but increasingly the ability to understand and work with big data is relevant across organisations. The focus of the cyber security skills was to increase the level of awareness and knowledge of the wider workforce who are not in IT-specific roles.</p>
<p>Compliant and responds to government policy initiatives Training package component responds to the COAG Industry and Skills Council’s (CISC) training package-related initiatives or directions, in particular the 2015 training package reforms. Please specify which of the following CISC reforms are relevant to the training product and identify supporting evidence:</p> <ul style="list-style-type: none"> • ensure obsolete and superfluous qualifications are removed from the system • ensure that more information about industry’s expectations of training delivery is available to training providers to 	<p>Yes</p>	<p>The <i>Case for Endorsement</i> outlined how these training products aligned with training package quality principles. This included:</p> <ul style="list-style-type: none"> • developing new products which represented industry current and future needs • providing through the <i>draft Implementation Guide Version 5.0</i> information for RTOs advice about the key features of the training products and the business services industry. There is a specific section on cross sector skills relevant to the training products in Cyber Security and Big Data • providing through the draft <i>Implementation Guide Version 5.0</i> to potential students (consumers) information about employment roles in the industry, licensing and regulation and pathways • providing cross sector units that are used across various industries and increasing the efficiency of the training system • Appendix C in the CfE outlines how these units impact on other training packages and demonstrates that they are not duplicating already existing units.

<p>improve their delivery and to consumers to enable more informed course choices</p> <ul style="list-style-type: none"> • ensure that the training system better supports individuals to move easily from one related occupation to another • improve the efficiency of the training system by creating units that can be owned and used by multiple industry sectors • foster greater recognition of skill sets 		
<p>Reflect contemporary work organisation and job profiles incorporating a future orientation</p>	<p>Yes</p>	<p>These training products were created to respond to the dual challenge of reflecting contemporary job roles but also being applicable across industries. The focus of both Big Data and Cyber Security is future orientated with some industries and enterprises more advanced in the uptake than others. The draft <i>Implementation Guide Version 5.0</i> outlines some implications across jobs and functions in business services industry in the section <i>Key Features</i> (p46-48). Cyber security is important in information technology and records management and data analytics is becoming integral to business processes.</p> <p>The applicability across industries is also outlined in the section <i>Cross-sector Skills</i> (p61). This section explains the importance of big data in the digital business environment and the impact of cyber security on industries large and small.</p> <p>The Big Data and Cyber Security units have been based on extensive consultation to ensure they address both immediate and future needs across industries. Consultation methodologies ensured both depth and breadth in the information gathered and demonstrated a thorough approach to the identification of current and future training needs for Big Data and Cyber Security across industries.</p>

Quality principle 2: Support portability of skills and competencies including reflecting licensing and regulatory requirements

Key features	Quality principle is met: Yes / No or N/A	Evidence demonstrating compliance with the quality principle Please see examples of evidence in the <i>Training Package Development and Endorsement Process Policy</i>
Support movement of skills within and across organisations and sectors	Yes	Cross sector units are designed to suit a range of employment contexts and provide transferable skills across industries. Large and medium size enterprises and the need for consistent skills in the areas of Cyber Security and Big Data have been considered in the unit and assessment design.
Promote national and international portability	Yes	These training products will address the need across multiple industries to ensure general upskilling in working with big data and the development of skills in supporting a cyber secure workforce. The research for the development of these units has been mindful of international developments in these fields in order to ensure the units and related assessment requirements are relevant to future developments in these fields.
Reflect regulatory requirements and licensing	NA	Not applicable

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

Key features	Quality principle is met: Yes / No or N/A	Evidence demonstrating compliance with the quality principle Please see examples of evidence in the <i>Training Package Development and Endorsement Process Policy</i>
Reflect national consensus	Yes	The consultations conducted at all stages involved focussing on a national consensus from industry and other stakeholders such as STAs and RTOs and industry associations.
Recognise convergence and connectivity of skills	Yes	The rationale for the development of cross sector units is the convergence of skills across industry sectors in the developing areas of Big Data and Cyber Security.

Quality principle 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	Quality principle is met: Yes / No or N/A	Evidence demonstrating compliance with the quality principle Please see examples of evidence in the <i>Training Package Development and Endorsement Process Policy</i>
Meet the diversity of individual and employer needs	Yes	The impetus for this project was to develop cross sector units in Cyber Security and Big Data that would suit a range of different industry contexts. An aim of this project was to lead to a significant reduction in duplication across the national VET system as well as provide skills for cyber security and data analytics workforces across multiple industries.
Support equitable access and progression of learners	Yes	The Equity Report 14/3/19 states that “draft units in this submission may be utilised in many qualifications.” This was the intent of their design as cross sector training products. There are no pre -requisites for any of these units and they are intended to be used widely and flexibly across a range of training packages.

Quality principle 5: Facilitate recognition of an individual’s skills and knowledge and support movement between the school, vocational education and higher education sectors

Key features	Quality principle is met: Yes / No or N/A	Evidence demonstrating compliance with the quality principle Please see examples of evidence in the <i>Training Package Development and Endorsement Process Policy</i>
Support learner transition between education sectors	NA	Not applicable.

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

Key features	Quality principle is met: Yes / No or N/A	Evidence demonstrating compliance with the quality principle Please see examples of evidence in the <i>Training Package Development and Endorsement Process Policy</i>
Support implementation across a range of settings	Yes	Industry advice about delivery is provided in the draft <i>Implementation Guide Version 5.0</i> . These cross-sector units have applicability across industries and other Service Skills Organisations (SSOs) had input into their development and potential use. These included: Business Services Transport and Logistics Amenity Horticulture, Landscaping, Conservation and Land Management, Forest Management and Harvesting Arboriculture Racing and Breeding Electrotechnology AIS Public Safety.
Support sound assessment practice	Yes	Assessment requirements are based on consultations, and the requirements in this industry. Assessment conditions are stated.
Support implementation	Yes	The draft <i>Implementation Guide Version 5.0</i> . is appropriately set out and provides advice about implementation.