Food Science & Technology project

Summary of Feedback, Responses and Actions

February 2018

This project includes the review of 4 qualifications and approximately 81 units of competency within the *FBP Food, Beverage and Pharmaceutical Training Package*. Draft materials were developed as a result of initial input from Subject Matter Experts and were made available for broader stakeholder consultation and feedback between 9 November and 19 December 2017. During this time feedback was received via email, through online surveys, as well as in person at workshops or site visits, and by telephone. Input was received from 60 stakeholders around Australia, including 19 from Registered Training Organisations, 8 from Government bodies such as State Health Departments and State Training Authorities, 2 from national apprenticeship services, and 26 industry representatives

As a direct result of feedback received, a number of changes were made to the documents under review. Mostly notably:

- The *Certificate IV in Food Manufacturing* qualification will no longer proceed as a replacement for the *Certificate IV in Food Processing* and *Certificate IV in Food Science and Technology.* Instead, both of the original qualifications will remain, with changes made to their content to bring them in line with current industry practices and the Standards for Training Packages 2012
- Many of the units proposed for deletion will no longer be removed, leaving only the following units proposed for deletion:
    - *FDFOHS4002A Maintain OHS processes*
    - *FDFTEC4002A Manage controlled atmosphere storage*
    - *FDFFST5007A Evaluate sampling plans in relation to food industry standards*
- A fourth skill set has been developed for operators who use both homogenisation and pasteurisation processes. This new skill set is called *Pasteuriser and Homogeniser Operator*
- A number of units have had code changes to reflect more suitable AQF alignment.

In addition to these changes, content suitable for inclusion in the Implementation Guide was identified, such as information about co-delivery. Visit the Skills Impact website to view a full list of the documents that were submitted for consultation during this phase.

Below is a summary of the issues raised and how these issues have been dealt with. This involves a consideration of the information provided, views of industry stakeholders where known and views provided by the people who are part of the Subject Matter Expert Working Group process. Resolutions are constructed to take into account the needs and views of stakeholders to the extent possible, and to comply with the *Standards for Training Package 2012*. The resolutions may represent a compromise on one or more stakeholder views with the aim of a workable outcome for industry, State and Territory Training Authorities (STAs) and training providers.

The documents are now available to view and validate on the Skills Impact website until 21 February 2018. Please note: additional feedback is being sought regarding the core units for *Diploma of Food Science and Technology* as part of the Validation process.

Summary of feedback on qualifications

Certificate IV in Food Manufacturing

Skills Impact initially proposed merging *FDF40110 Certificate IV in Food Processing* and *FDF40311 Certificate IV in Food Science and Technology* into one qualification – *Certificate IV in Food Manufacturing* - with specialisations that were identified as key job roles in the area (including Team Leadership, Food Safety Auditing, and Cheese Making). Whilst feedback regarding the proposal was positive, getting consensus on a bank of core units could not be reached, with each area having too many differences to allow for a combined core. As such, the proposal to merge the two qualifications will not proceed, and instead drafts of an updated *Certificate IV in Food Processing* and *Certificate IV in Food Science and* Technology incorporating the below feedback (where suitable) have been developed.

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
Certificate IV in Food Manufacturing		
• RTO, SA	*Feedback re: cheese specialisation* That looks pretty good. The only addition would be a unit related to the production of fermented dairy products – not cheese but associated dairy products like yoghurt, kefir, mascarpone etc. (Implement and review the processing of fermented dairy products and dairy desserts FDFFST5024A is a diploma subject in Food Tech) Regarding the bakery and butchery qualifications currently the training/ certificate levels feed into apprenticeship outcomes. This is not currently available in Australia for Cheese Makers. Changes in legislation relating to the production of raw milk cheeses require cheesemakers considering licensing for this category of cheese to demonstrate achievement of appropriate qualifications related to cheese making. Something like this would assist cheese makers to meet this requirement. • The theme of the qualifications appears to be orientated around the Gilbert Chandler curriculum. When talking testing at times too specific which calls for a lot of equipment otherwise the testing is theory based. • There appears to be a focus on Cheddar, this is the old way of teaching cheese, but we have moved on from that and not enough focus on acid coagulated cheese or developing new cheese types.	Not adopted. Skills Impact attempted to incorporate a cheese specialisation into this qualification but found it to be insufficient to meet industry needs. As such, the development and potential further review of cheese making units is proposed for inclusion in the 2018 Skills Forecast for the Food, Beverage and Pharmaceutical Industry Reference Committee.

Stakeholder Comments and Identified Issues	Consideration and Proposed Resolution
Certificate IV in Food Manufacturing	
• Inconsistency between modules, where there are common stages and activities they should be addressed the same. Looks like written by 2 different people. • Agree with theme/direction but concerned about ability of most TAFE/RTO's to have the appropriate skills or expertise and equipment to do activities related to raw milk assessment and standardisation and product testing and grading. The stand out is that it is an old curriculum that seems to be focused on large companies, large companies do a lot of in house training now. We are seeing many small producers starting up so even though they should have a well-rounded knowledge, by keeping some elements too specific makes it impossible to teach.	
• Industry, National	I personally prefer to have the Title as Certificate IV in Food Processing and Manufacturing Roles Covered include: Food technician is covered twice in the list so this needs to be deleted and indicated once only. Remove cheese maker and substitute with a generic name to cover all branches of food technology/ food processing such as food processing technologist Group A: Food Processing Remove Plan and coordinate maintenance and substitute with Calibration and Maintenance of Food Processing Equipment and Instrumentation Add other units such as Food Preservation and Packaging Add the topic called Novel Food Processing Technologies Group B: Team Leadership Add unit on Written and Verbal Communications Skills	Adopted. Reverting to two qualifications naturally addresses these issues.

Stakeholder Comments and Identified Issues	Consideration and Proposed Resolution
Certificate IV in Food Manufacturing	
Group C: Food Safety Auditing Add unit on Apply an Understanding of Legal Requirements of Food Production Add unit of Food Legislation and Labelling Group D: Food Manufacture and Processing I notice that there are too many Cheese related subject areas and this is not a course just specialising on Cheese Technology so we need to give a more diverse subject topics such as: Extrusion Technology Novel Processing Technologies High Pressure Processing Technology Ohmic Heating Bakery Technology Meat Science and Technology	
Core Units: Remove Perform chemical tests and procedures and substitute with Chemical tests and Instrumentation Remove Describe and analyse data using mathematical principles and substitute with Statistical methods used in the food industry	Not adopted. Skills Impact cannot change title of this unit because it belongs to the *MSL Training Package. MSL934004 Maintain and calibrate instruments and equipment* has been added to Certificate IV in Food Processing as an elective (imported unit).
• Industry, National	The new Cert IV format is fine in splitting the streams however the core units? We are not too keen on the new Certificate IV in Food Manufacturing, the 8 core units seem very technical and very big leap away from the current FDF40110 core units. There are none of the original FDF40110 core units. It seems to me more focused towards the Food Science qualification and you have pushed away from the food processing space with the core units.	Adopted. Reverting to two qualifications naturally addresses these issues. Unit suggestions have been kept in mind when developing the elective bank of revised *Certificate IV in Food Processing*.

Stakeholder Comments and Identified Issues	Consideration and Proposed Resolution
Certificate IV in Food Manufacturing	

	The range of units from Group A, B & C is also reduced from the broad selection currently with FDF40110. The current range of Technical and cross sector units in FDF40110, in total close to 100 units to select from compared to 40 in the new list.	
	The requirement to select 6 from Grp D may also be difficult. There are 7 dairy units out of the selection containing 12 units. What happens if the student doesn't work in a dairy process? How do you select up to 6 from the remining 5?	
	I can see you are asking for more units to select from -to be added.	
	In this format we don't see this as an easy qualification to deliver in the broader food processing environment. It is very limited to operators working it the technical and auditing space rather than the operator working in the production space.	
	The introduction of these core units are too focused to the sciences space. The smaller food production business will not have these facilities and most smaller business's tend to outsource these functions, even some of the larger ones:	
	FBPFST4003 FBPFST4004 FBPTEC4007 MSL974003	
	These will be a challenge for many potential Cert 4 operators who may be generalist in the production space. As mentioned these units are more focused in the Food Science space.	
	I have also noticed that FBPFST4003 Apply digital technology in food processing is a Core units but also features as a Grp A elective. This doesn't make sense.	

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
Certificate IV in Food Manufacturing		
• RTO, NSW	FBP4XX18 Certificate IV in Food Manufacturing 1. Core units appear to be a bit thin on fundamental food science 2. Electives appear to be all encompassing and include areas covered in the diploma of food safety auditing. 3. Appears to be less structured than other courses. Maybe this is intentional to allow students to be more directional with respect to moving from here into one of the above two courses.	Adopted. Reverting to two qualifications naturally addresses these issues.
• Industry, National	I am assuming "Food Technician" covers those actually working on a food processing line. With this in mind I find some things in the structure which I find a little "odd". Some comments: • Why is "Perform microbiological procedures in the food industry" a core unit? Those working on the production line would generally not be involved in microbiological testing. This should be an Elective for those to whom it is relevant • Similarly "Perform chemical tests and procedures" - why do operators generally need to know Periodic Table and symbols of elements? • On the other hand I would see "Apply food processing technologies" and even "Apply basic process engineering principles to food processing" are "core" - if taught at an appropriate general level. Even those involved in laboratories should have an understanding of the principles of food preservation etc which their testing is aimed at supporting. • I see there is a unit "Apply food preservation technologies" which does not appear to be listed at all in the document. This may be a more appropriate (or additional) core unit to those I have mentioned above.	Adopted. Reverting to two qualifications naturally addresses many of these issues. Skills Impact has updated the list of elective units in both proposed Certificate IV qualifications to incorporate this feedback. Regarding pasteurisation and sterilisation units, these exist at lower AQF levels and can be included in qualifications if relevant to the job role. Chilling/freezing is included in FBPFST4006.

Stakeholder Comments and Identified Issues	Consideration and Proposed Resolution
Certificate IV in Food Manufacturing	
• With regard to the proposed content of "Apply food processing technologies": o The summary, in referring to "....fermentation, concentration, cooking and steaming" looks a bit limiting, in that it does not refer to more critical (and common) operations such as pasteurisation, sterilisation, and chilling/freezing. o The actual content does not look too bad but I would suggest: ☐ Ensuring microbiologial aims (eg pasteurisation/sterilisation) of heating are adequately covered ☐ A major omission seems to be anything relating to chilling/freezing - major operations. • With regard to the proposed content of "Apply basic process engineering principles to food processing": o On a brief scan, content of this unit looks reasonable, except again and absence of direct reference to chilling/freezing operations (though I acknowledge this may be included in the "heat transfer" topics). • In the Group D units, I see there are some very specific ones (eg relating to Chocolate and Confectionary), but I feel there are a lot of important areas missing (important in that they are relatively common and are critical with regard to ensuring food safety). From my background, a particular area (not sure if this should be one or more units): o Pasteurisation and/or sterilisation (retorting/canning as well as aseptic) operations (including non-dairy products using these technologies)	

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Certificate IV in Food Manufacturing		
• Industry, Qld	Group C electives might need more options to recognise other areas of auditing	Adopted. Reverting to two qualifications naturally addresses this issue.
• RTO/Industry, Qld	Need more science in the units (rather than importing more laboratory units)	Adopted. Reverting to two qualifications should address this issue, as the *Certificate IV in Food Science and Technology* will have a stronger science focus. However, if additional science-based units are required, please advise Skills Impact so that we can address this.
• RTO, Industry, Vic	Food Safety Auditing as a specialisation name is misleading and needs to be changed to clarify the intended level of Food Safety Auditing that is being covered by the units. Title of qualification is not great	Adopted. Reverting to two qualifications naturally addresses these issues.
• Industry, National	Root cause analysis should be included in the units	Adopted. Skills Impact has taken measures to include "root cause analysis" to many units for the Certificate IV qualifications. An elective that incorporates Good Manufacturing Process has been imported as an elective in the qualifications to address this need.
• RTO & Industry, Vic & National	Queries about the specialisations, and why there was a cheese specialisation but no others. Add fermentation?	Adopted. Reverting to two qualifications naturally addresses these issues. Additional work around developed of cheese-related units and qualifications have been proposed for inclusion in the 2018 Skills Forecast for the Food, Beverage and Pharmaceutical Industry Reference Committee.
• RTO, NSW	Add FBPFST4006 Apply food preservation technologies to elective bank	Adopted. Skills Impact has added this unit to the elective bank of both Certificate IV qualifications.
• RTO, WA	Microbiology unit in core of Certificate IV is restrictive and would not be a core requirement for a team leader role	Adopted. Reverting to two qualifications naturally addresses these issues.

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Certificate IV in Food Manufacturing	
Needs to be better separation of the "streams" in the qualification. Science needs to be separate from the "supervisor/team leader" aspect of the qualification.	
• RTO, NSW (2 representatives from this organisation with same feedback) Remove repeated food technician. Add personnel or other word to Quality control to match syntax. Yes there should be Entry Requirements.	Adopted. Reverting to two qualifications naturally addresses these issues. Not adopted. Overall feedback from stakeholders indicate there should not be entry requirements in these qualifications, so this has not been added.
Don't we have legislative requirements for WHS, and food quality as well? eg suitability for purpose	Adopted. Description in qualifications has been updated to reflect this feedback.
Maybe some literacy/numeracy minima?	Adopted. Skills Impact advises this can be set by RTOs, as they ultimately decide who is suitable and appropriate for enrolment.
Maybe put perform food tests in instead of chemical tests and procedures as many technicians would be performing physical/empirical tests and not necessarily sophisticated instrumentation. Also there is some sampling if the food tests unit and it is quite likely that a technician might be taking samples from the line. Suggest legislation unit for auditing set eg FBPTEC4006 Manage legal compliance of food production as well? The unit (or new unit) for MSL974004 Perform food tests is a better fit than MSL974003 Perform chemical tests and procedures. Perform food tests covers chemical as well as physical tests. Someone in this job role will not just perform chemical and microbiological testing but there is probably more scope in their job role to perform physical tests on foods for quality control. Add *FDFFST4006A Apply food preservation technologies*.	Skills Impact has reviewed and actioned this feedback.

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
Certificate IV in Food Manufacturing		
	Is meat covered elsewhere?	Meat-related units of competency are found in the *AMP Australian Meat Processing Training Package*. The packaging rules of both Certificate IV qualifications are flexible enough to allow importing units from *AMP* if required.
• RTO, Vic	Confused why there is such a focus on cheese making when all other roles are quite general across all food processing sectors but cheese making is so specific. Also do we care about the person off the street who would like to study this qualification to gain employment in the industry as there is a shortage of food technologists and quality technicians??	Reverting to two qualifications naturally addresses these issues. Cheese making was added as a specialisation to attempt to meet an industry need. This has now been removed and is proposed for inclusion in the 2018 Skills Forecast for the Food, Beverage and Pharmaceutical Industry Reference Committee.
	Concerned that all the quality focused units have completely been removed and there is no such core units that address quality systems at all. Parts of FDFFS3001A did this but the problem with this unit was there was so much repetition with FDFFS2001A.	Adopted. All qualifications now have quality focussed units in them.
	May meet industry needs [but] ignores students who are trying to gain qualifications to gain employment in the industry.	Skills Impact advises that the focus on assessment in the workplace is consistent with training package units. These units allow for assessment in simulated environments.
	There should not be entry requirements.	Adopted. Entry requirements for the qualifications have not been included.
	If units in the core have prerequisites you might as well make those units core also as industry is confused thinking they have choice around more electives than they think. If it is a compulsory elective then might as well make it core??	Adopted. Skills Impact has reviewed and removed most prerequisite requirements, which will address this issue.
	We would like to see the following units still made available in the qualification as we have had many enrolments in these units and interest from industry: FDFFST4011A Apply principles of nutrition to food processing - nutrition, obesity and health are big focus points for food manufacturers! FDFFST4010A Apply sensory	Adopted. Skills Impact has included these units in the *Certificate IV in Food Processing*.

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Certificate IV in Food Manufacturing	
analysis in food processing - most manufacturers conduct sensory for R&D, production decisions, approved supplier programs ect. MSAPMSUP390A Use problem solving tools - excellent unit to support quality, OHS, environment to solve a huge array of problem solving skills.	
Just confused if you are going to have cheese makers why not bread, confectionary, cereals makers ect??	This has now been removed and is proposed for inclusion in the 2018 Skills Forecast for the Food, Beverage and Pharmaceutical Industry Reference Committee.
Would not like to see the total number of units for this qualification increasing as it is already an expensive course to study and adding subjects will just increase the cost of this qualification deterring enrolments.	Adopted. Both Certificate IV qualifications now require 20 units, which addresses this concern.
• RTO, Vic So I am assuming in this that the students achieving this qualification are already in the food manufacturing industry. Many of our students use the old qual as a stepping stone into the food industry, they want to get into it. There is no other qual, even at a Cert III level that they can use. I would like to see a broader term used that then drives the unit selection to cater for this type of student.	Skills Impact advises that the focus on assessment in the workplace is consistent with training package units. These units allow for assessment in simulated environments.
There should not be entry requirements.	Adopted. Entry requirements for the qualifications have not been included.
I think they need some quality unit/s in there. You have food safety covered somewhat in FBPFST4004, FBPFSY4001 and FBPTEC4003 but there is no reference to quality which is critical in the food industry.	Adopted. All qualifications now have quality focussed units in them.

Stakeholder Comments and Identified Issues	Consideration and Proposed Resolution
Certificate IV in Food Manufacturing	
In light of the above comments I would suggest bring in a quality unit such as FDFFS3001A but omitting the food safety sections in this unit. I also think the food safety unit FDFFS2001A is a required core units as it is the fundamental knowledge of which many of the other units need. I think it is a true prerequisite that is needed in the core group.	Adopted. These units have been removed as they are no longer prerequisite units, and the AQF level is too low for the qualification. They can be imported using the flexible packaging rules, but trainers are advised they would need to justify the AQF level to an auditor, other than saying they are pathway units.
We need to off the FDFFST4010A sensory unit back in to this qualification. It is a crucial unit in this industry and is utilised on a day to day basis. Many students need to know the background to this even if they are not directly involved, its part of quality. We also need add nutrition (FDFFST4011A) back into electives, this is a knowledge that students are interested in and can lead them in different directions inside a food company. The Structured problem solving tools unit also needs to added back in (MSAPMSUP390A). As you described in your qualification description the "Workers contribute technical skills and knowledge to solve food production problems", then this unit gives them those skills. If we gain students form a particular industry (apart from cheese) then there is only one unit to choose in Part D, this is quite limiting.

Could also add the unit on additives back into electives. It is really important that students will know what they are used for and their legal ramifications in the food industry. | Adopted. Skills Impact has included these units in the elective bank of the qualifications. |
| If there are prerequisites are needed then make them a core unit. It makes it seem like clients have more elective choices than they have. I think that 22 units is overboard, leave it at the 20 units needed to complete the qualification. As it is this qualification costs our students $3900 (government funded place), quite expensive really. Adding more units will increase the cost making it less marketable. | As many of the prerequisite requirements have been removed from the units in the proposed core, this situation will not occur. Both Certificate IV qualifications have 20 units in their core. |

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
Certificate IV in Food Manufacturing		
	I really didn't see a need for specialising in cheese making. Why is there not specialisation in beer making, chocolate, baking, milk etc. Surely these industries are just as big?	Skills Impact attempted to incorporate a cheese specialisation into this qualification but found it to be insufficient to meet industry needs. As such, the development and potential further review of cheese making units is proposed for inclusion in the 2018 Skills Forecast for the Food, Beverage and Pharmaceutical Industry Reference Committee.
	In regards to prerequisites. I believe the FBPTEC4003 that currently has 2 prerequisites would benefit from have just the one FDFFS2001A, not both. There is way too much overlap in FDFFS2001A and FDFFS3001A (perhaps these could be combined into one) and off that as the core?? There are currently 2 prerequisites for FBPTEC4007. I think the FDFOP2061A is too low for this course and could be omitted. The statistical unit FDFOP2015A is a better prerequisite for this unit. We also use the qualification as a stepping stone into a Bachelor of Food and Nutritional Science. These people are not wanting to get into the food industry just yet but need some basic skills before they hit higher Ed. These new changes will mean excluding this cohort of students. Finally if it could have less of a workplace feel and allow for simulated workplaces this would help us out with our classes on campus.	Most prerequisites have been removed because they were too low, or appeared to be a preferred delivery pathway rather than a prerequisite. FDFOP2015A has had a code change to reflect an AQF 4 level and is now FBPOPR4015 and can be chosen from electives for co-delivery.

Workplace assessment is appropriate for VET/Training package qualifications and can be simulated. |
| • Industry, Qld | No there should not be entry requirements. | Adopted. Entry requirements have not been included in the qualifications. |
| | Core units don't really suit a food safety auditor. For an auditor, it is not necessary to be able to 'perform chemical tests & procedures' they do however need to know how to interpret laboratory results. Nor do they need to 'implement & monitor environmentally sustainable work practices' but do need an understanding of food processes and the effect on food, basic food safety knowledge and common controls to maintain safe and suitable food. | Skills Impact takes the point about the focus on knowledge, rather than performance of skills. All units specify a requirement for knowledge around the science of food, though some more than others. Demonstrating performance of that knowledge in a work environment is common assessment practice, and many argue that learners need to demonstrate the procedures to engage with understand them. |

Stakeholder Comments and Identified Issues	Consideration and Proposed Resolution
Certificate IV in Food Manufacturing	
	"Implement and monitor sustainable work practices' could be moved to electives, and 'Perform chemical tests and procedures' has been replaced by 'Perform food tests' in the core.
[re: Food Safety Auditor specialisation] While the food safety electives cover the required national food safety audit competencies, it is only a requirement to complete the 1st four units with the remaining 5 units being for specialised areas. Therefore for people to attain this qualification they will be required to complete competencies above what is required by the national policy all jurisdictions have adopted and implemented. As it is mandatory for food safety auditors to be able to demonstrate a minimum of 40 hours in food microbiology, it would therefore be useful to include *Apply food microbiological techniques and analysis (FBPFST5006)* to the electives so that food safety auditors can meet this requirement.	A Food Safety Auditing specialisation has been included in the *Certificate IV in Food Science and Technology.* This specialisation is pushing the level above the bar of what's required of the national food safety audit competencies. This was the intent of the specialisation, as well as the draft Diploma of Food Safety Auditing. *FBPFST5006* has been added to the Food Safety Auditing specialisation.
In relation to food safety auditing, it would be good to see some basic science and food science competencies added.	Adopted. Three MSL units have been added to the Certificate IV in Food Science and Technology. These units include substantial knowledge evidence around chemistry, biology and microbiology. Are there other science units regulators would like to see included? The Implementation Guide will include some information on which electives would best support the auditing specialisation.
To be a food safety auditor, applicants must demonstrate a minimum of a Cert IV in food science or equivalent. This amended course does not really provide the science component regulators would like to see in an auditor. It would also be useful to have units relating to basic food safety and hygiene requirements such as 'handle food safely in a retail environment (SIRRFSA001) and 'apply & monitor food safety requirements (HLTFSE005).	Adopted. SIRRFSA001 has been added to the *Food Safety* Auditing specialisation in the *Certificate IV in Food Science and Technology. FBPFSY3001 Monitor the implementation of quality and food safety programs* has been added to specialisation as an alternative to the suggested HLT unit as it is more appropriate to use the unit from FBP as it has similar content.

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
Certificate IV in Food Manufacturing		
	Also, in relation to the cheese making units, as the Australia New Zealand Food Standards Code permits raw milk cheeses, there needs to be a unit that addresses the risk, requirements and science behind creating a raw milk cheese.	
• Gov, National	Maybe there should be something around the required LLN.	Skills Impact advises that RTOs can set LLN entry requirements/assessment. Ultimately it is up to RTOs to decide who is suitable and appropriate for enrolment. The units/qualification could be mapped to the ACSF.
• RTO/Industry, Vic	I am very pleased to hear that the Certificate IV in Food Science and Technology will remain.	No action required.

Diploma of Food Science and Technology

Stakeholder feedback for this qualification has been extremely divided around the units for inclusion in the core, particularly around unit *FBPFST5006 Apply food microbiological techniques and analysis*. Some stakeholders feel the unit provides essential skills for the job roles covered by the qualification, and so should be available as a core unit. Others feel the content covered in the unit is regularly outsourced in many organisations so is no longer a required skill and should be made an optional unit in the elective bank. As the feedback is so conflicted, Skills Impact will be requesting a final decision be made by the *Food, Beverage and Pharmaceutical Industry Reference Committee (IRC).*

To assist with providing information to the IRC for their consideration of this issue, we are requesting that stakeholders please advise whether *FBPFST5006 Apply food microbiological techniques and analysis* **should be included in the core, or in the elective bank.** Feedback may be received via survey (access here) or by email to dmcdonald@skillsimpact.com.au.

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
Diploma of Food Science and Technology		
• RTO, Vic (3 respondents) & feedback supported by 2 industry bodies	• FBPFST5006 Apply food microbiological techniques and analysis should not be in the core. • [*RE: inclusion of MSS407012 Lead a process to determine and solve root cause for a complex problem in the core of Diploma FST*] What is this subject? Before including as a core It needs to be evaluated against the content of 5030 and 5002 which include process monitoring and then problem solving and corrective action when problems arise	Skills Impact is seeking further input from the *Food, Beverage and Pharmaceutical Industry Reference Committee (IRC)* regarding feedback on the core units. In the revised proposed core units for this qualification, *FBPFST5006* is still included in the core to encourage feedback, and *MSS40712* has been removed from the core.
	Many other roles eg, predominately "food technologist", but also food testing/laboratory work/supervision/management, food safety auditor (combined with lead auditor course or skill set)	Adopted. These roles have been added to the qualification description.
	Happy with no entry requirements	No action required
	Packaging Rules 9 core 11 electives	Skills Impact has discussed this feedback further with this stakeholder, who have identified 10 units that they feel could be suitable for inclusion in the core of this qualification. This feedback will be forwarded to the *Food, Beverage and Pharmaceutical Industry Reference Committee (IRC)* for their

Stakeholder Comments and Identified Issues	Consideration and Proposed Resolution
Diploma of Food Science and Technology	
At our[meeting] which had a good industry representation, the general consensus was to reduce the core units to 9 to allow scope to either tailor the electives for an all rounded Food Technologist or specialise where there is a need eg, dairy industry. Ie. More core = less flexibility	input. Final number of core units for this qualification will be determined once the IRC decision has been received.
[*RE: inclusion of BSBWHS401 Implement and monitor WHS policies, procedures and programs to meet legislative requirements in core of Diploma FST*] We currently use OHS4002A although this may be equivalent?	*FDFOHS4002A Maintain OHS processes* is proposed for deletion, as it duplicates much of the unit *BSBWHS401 Implement and monitor WHS policies, procedures and programs*. Removal of this duplication is in response to COAG reforms. *BSBWHS401* has been included in the core of this qualification to replace the proposed deleted *FDFOHS4002A*. This is an equivalent change.
[*RE: Group A electives that could be added*] Conduct Food Safety Audits; Apply principles of food packaging	Adopted. Skills Impact has added the food preservation and packaging unit to the elective bank. The packaging rules of this qualification are flexible enough so that other units (such as *conduct food safety audits*) may be selected if required.
• Industry, National CORE UNITS Add the following topics: Chemical Tests and Instrumentation Statistical Methods Used in the Food Industry	Skills Impact is seeking further input from the *Food, Beverage and Pharmaceutical Industry Reference Committee (IRC)* regarding feedback on the core units. Note that *MSL934004 Maintain and calibrate instruments and equipment* has been added to *Certificate IV in Food Processing* as an elective (imported unit), and *FBPOPR4015 Apply principles of statistical process control* has also been included.
ELECTIVE UNITS Group A Technivcal Electives Add unit on Food preservation and Packaging Group B: INDUSTRY SPECIALISATION ELECTIVES	Adopted. Skills Impact has added the food preservation and packaging unit to the elective bank. The packaging rules of this qualification are flexible enough so that other units may be selected if required.

Stakeholder Comments and Identified Issues	Consideration and Proposed Resolution
Diploma of Food Science and Technology	
Add the following units : Extrusion Technology Novel Processing Technologies High Pressure Processing Technology Ohmic Heating Bakery Technology Meat Science and Technology Fermented Meat Products Food Biotechnology and new Applications	A note that fermentation units have been proposed for inclusion in the 2018 Skills Forecast for the Food, Beverage and Pharmaceutical Industry Reference Committee.
• RTO, NSW	1. Core units are suitable 2. Electives are applicable but we should ensure that we move away from teaching content that is in many cases outdated. For example with heat treatment we need to move well away from canning and towards pouches and trays and better still teach emerging technologies such as HPP (high pressure processing). 3. Not sure where the emphasis on cheese making has come from. 4. Overall suitable for its intended purpose	1. Skills Impact is seeking further input from the *Food, Beverage and Pharmaceutical Industry Reference Committee (IRC)* regarding feedback on the core units. 2. Adopted. High pressure processing has been included in *FBPFST4006*. Skills Impact welcomes further feedback on this. 3. Adopted. The "canning" unit has been updated to cover other packaging processes.
• RTO, SA	I am just back from the workshop held in Adelaide 28/11/17. As I mentioned in the workshop I would like to see Apply Principles of Food Packaging is added to the qual as a core unit because Food packaging is integral part of the food processing, skill required by the food industry.	Skills Impact is seeking further input from the *Food, Beverage and Pharmaceutical Industry Reference Committee (IRC)* regarding feedback on the core units. In the revised proposed core units for this qualification, this unit has been included in the elective bank.
• Industry, Qld	I acknowledge I haven't spent much time on this, but my concerns would be broadly similar to those expressed above: • I think there should be a "Food Preservation" and/or "Food Processing Operations" unit in the core • Perhaps also a "Food Packaging" unit in the core	Adopted. These units have been added to the elective bank of the qualification. Skills Impact is seeking further input from the *Food, Beverage and Pharmaceutical Industry Reference Committee (IRC)* regarding feedback on the core units.

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
Diploma of Food Science and Technology		
	• The Specialisation Electives need to be reviewed/expanded: • Again thermal processing (pasteurisation/sterilisation/retorting) is a very noticeable absence • Similarly chilling/freezing in areas other than dairy • Extrusion processing is another major technology area that does not appear to get a mention.	Chilling/freezing is covered in the unit *FBPFST4006*.
• RTO/Industry, Vic	Strongly suggested cheese units need to be in the Diploma Rapid testing doesn't cover requirements set by legislation, so there is an argument that full knowledge of microbiology testing knowledge is required	Adopted. Skills Impact has reviewed and actioned the change of AQF level of the cheese units. There are now included in the Diploma and have been recoded to reflect AQF 5. Skills Impact is seeking further input from the *Food, Beverage and Pharmaceutical Industry Reference Committee (IRC)* regarding feedback on the core units.
• Industry, National	Big organisations don't have their own laboratories- they outsource tests so workers don't need to know how to undertake the tests themselves	Skills Impact is seeking further input from the *Food, Beverage and Pharmaceutical Industry Reference Committee (IRC)* regarding feedback on the core units.
• Industry, Vic	Have heard complaints from students that there is not enough chemistry included in the qualification. Suggest to add more in.	Whilst Skills Impact is seeking further input from the *Food, Beverage and Pharmaceutical Industry Reference Committee (IRC)* regarding feedback on the core units, the unit *FBPFST5005 Examine the biochemical properties of food* is included in the revised proposed core. Additional units may be imported from other training packages if required.
• RTOs and Industry, Qld	More science needs to be included in the Diploma. Depth of knowledge and corrective action skills are also missing	Skills Impact is seeking further input from the *Food, Beverage and Pharmaceutical Industry Reference Committee (IRC)* regarding feedback on the core units.

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
Diploma of Food Science and Technology		
	Whilst the microbiology units are hard to deliver, they are important and should be included in the qualification	
• RTO, SA	Add packaging as an elective to the Diploma	Adopted. *FBPTEC4008 Apply principles of food packaging* has been added as elective.
	Microbiology unit is good to have and should definitely be in the core of the qualification.	Skills Impact is seeking further input from the *Food, Beverage and Pharmaceutical Industry Reference Committee (IRC)* regarding feedback on the core units. In the revised proposed core, the Engineering unit has been removed.
	Suggest inclusion of hygiene unit in core, and removing Engineering unit as it's less important in the core	
• RTO, Vic	The roles covered by this diploma are very misleading; a degree qualified person will almost always take preference over a diploma qualified person for these roles.	Understood, however many degree qualified people do take these roles, as well as Diploma-qualified people.
	A number of these level 5 units will need scaffolding in order for many students to be able to successfully complete them.	Skills Impact advises that it is up to RTOs to determine whether candidates are suitable and appropriate to commence training, or whether pathway learning is recommended. If learners do not have the skills and knowledge to commence a Diploma, then pathways should be offered/suggested. A qualification cannot include all the lower level required knowledge and skills.
	Putting a student into a level 5 chemistry subject without any previous chemistry is setting them up for failure; perhaps the perform food tests should be the core unit and evaluate the biochemical properties of food become an elective (and that's from a biochemistry trainer!).	A note that prerequisite units have been removed from many units that are in this qualification. Skills Impact is seeking further input from the *Food, Beverage and Pharmaceutical Industry Reference Committee (IRC)* regarding feedback on the core units.
	Describe and analyse data will probably have to have a prerequisite maths unit, probably FBPOPR2015, but without FBPOPR2061. MSS407012 as a complete units seems to me to be complete overkill.	Not adopted. *FBPOPR2061* has been recoded to a more appropriate AQF4 so it is able to be co-delivered.

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
Diploma of Food Science and Technology		
	[*Addition to elective bank*] MSS407012 comes to mind.	Adopted. This unit has been added to the elective bank.
• RTO, SA	need hygiene and sanitation as a core - basic underpinning skill that is required in all food establishments FBPTEC4004 Apply basic process engineering principles to food processing [*does not need to be an elective*].	Not adopted. Units focussed on hygiene and sanitation are at low AQF levels, and so not added to Diploma as this would cause a misalignment with the AQF level. Presumed prior knowledge. Skills Impact is seeking further input from the *Food, Beverage and Pharmaceutical Industry Reference Committee (IRC)* regarding feedback on the core units. In the revised proposed core, *FBPTEC4004* has been removed and moved to the elective bank.
	[*Addition to elective bank*] Packaging Need the beverage unit that is scheduled to be deleted	Adopted. Skills Impact has included both units in the elective bank of the qualification.
• RTOs & Industry, NSW	A unit around product recall should be in the core of the Diploma.	Adopted. Skills Impact has added the unit *FBPTEC4011 Participate in product recalls* to the elective bank of the qualification rather than the core. Including it as a core unit could present issues for delivery if the learner is not employed.
• RTO, NSW (2 representatives from this organisation with same feedback)	Food product commercial manager - what does this mean? Roles seem to be varied in levels of responsibility between product developer and operations manager.	Adopted. Job roles have been updated in the description of this qualification.
	Yes there should be Entry Requirements. Maybe cert 4 food manufacturing or lab techniques or equivalent experience or HSC? Either completion of the Certificate IV in food manufacturing,	Not adopted. Overall feedback from stakeholders indicate there should not be entry requirements in these qualifications, so this has not been added.

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
Diploma of Food Science and Technology		
	Certificate IV in Laboratory techniques or completion of HSC minimum.	
	Don't we have legislative requirements for WHS, and food quality as well? eg suitability for purpose	Adopted. Description in qualifications has been updated to reflect this feedback.
	It seems like a lot of core units Would like to see a chemistry unit in core. Or even put the MSL974004 perform food tests in as core unit?	Skills Impact is seeking further input from the *Food, Beverage and Pharmaceutical Industry Reference Committee (IRC)* regarding feedback on the core units. The revised proposed qualification has fewer core units than the first draft.
• Industry, National	This should have some knowledge or previous experience.	Skills Impact advises that RTOs should specify and determine who is a suitable and appropriate person to enrol in the qualification.

Diploma of Food Safety Auditing

As part of initial research for this project, it was revealed two Food Safety Auditing qualifications had dropped out of the *Food Processing Training Package* during the update to *FDF10*. During consultation Skills Impact queried stakeholders on whether they felt a qualification around Food Safety Auditing was required, with feedback indicating adding a qualification would be a good opportunity to develop higher level auditing skills for the industry. A proposed *Diploma of Food Safety Auditing* was developed to meet this need.

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
Diploma of Food Safety Auditing		
• Industry, ACT	While the description is an accurate reflection of the course as presented, it is not fit for purpose and fails to address critical requirements for industry. As an internal auditor and as an auditor for third party certification or accreditation it is essential that the food safety auditor is able to assess compliance with internationally recognised standards through ISO, GFSI schemes and relevant industry standards. Pitching the course to be focused on compliance with Australian regulatory requirements means that they are largely only usably by government regulators, and reinforces industries lack of trust and confidence in the ability of government auditors to meet industry needs. There is no reference to ISO standards with the exception of FBOOOL4XXX which references ISO 1011.

I propose that the wording be amended to use the following text: "Food safety in Australia is legislated under the Model Food Act and the Food Standards Code, which is consistent with the standards developed by Codex Alimentarius and the International Standards Organisation (ISO). This ensures trade access to trade in international markets by meeting international recognised sanitary and phytosanitary requirements and avoiding technical barriers to trade."

2. Also, reword and simply paragraphs explaining the context of Australian regulatory audits as follow: "For regulatory audits in Australia, the legislative frameworks are | Explanation— The aim of this qualification is not to replace the requirement for people to have degrees to audit businesses that need to comply with food safety international codes. This qualification is designed to provide an option for people to work in food safety auditing under state/territory legislation and regulations. This qualification could also potentially be pathway into degree programs.

Skills Impact has updated the licensing statement to reflect this feedback. |

Stakeholder Comments and Identified Issues	Consideration and Proposed Resolution
Diploma of Food Safety Auditing	
regulated by individual jurisdictions, while also having regard to the requirements of the National Food Safety Audit Policy 2009.*"	
It does provide reference to Australian legislative system but the statement as written is inaccurate in stating that enforcement is through state/territory legislation since enforcement is also undertaken through Commonwealth legislation under the Department of Agriculture Export Control orders.	Adopted. Skills Impact has reviewed and updated this statement to say "Food safety in Australia is legislated under the Model Food Act and the Food Standards Code. These legislative frameworks are regulated by both Commonwealth and state/territory jurisdictions. Users must check with the relevant regulatory authority before delivery."
A critical requirement for a food safety auditor is not only to evaluate HACCP and food safety risks, but also to evaluate the documented vulnerability risk assessment and the effectiveness of controls and management of the potential for food fraud. These are new developing standards under ISO and CODEX and are a critical responsibility for the food safety auditor as well as microbial, chemical and physical hazards.	Adopted. Skills Impact has reviewed and actioned this feedback by including additional information around risk assessment into units *FBPAUD4001* and *FBPAUD4004*.
FBPTEC4007 [not required in the core]. The skill levels for analysing data should be able to be incorporated into other units.	Not adopted. Skills Impact advises that units can be co-delivered and co-assessed to address this concern. Incorporating this unit's content into other units would create too much overlap and cause the units to be difficult to assess.
Additional specific audit requirements for ISO 9001, ISO 22000:2005, ISO 22003:2013 as these cover the requirements for quality management systems, food safety management systems and requirements for bodies providing audit and certification of food safety management systems. In addition there should be inclusion of ISO 10393:2013 which provides guidelines for businesses on consumer product recalls.	Adopted. Skills Impact has reviewed and incorporated these changes in the Knowledge Evidence of *FBPPPL5001* and *FBPFST6030*.

Stakeholder Comments and Identified Issues	Consideration and Proposed Resolution
Diploma of Food Safety Auditing	
It is not clear why BSBAUD501 Initiate a quality audit is an elective when BSBAUD503 Lead a Quality Audit is mandatory. Logic would suggest that BSBAUD501 is a prerequisite to BSBAUD503 which would mean that it is a core unit not an elective.	Explanation— There is some cross over between BSBAUD501 and FBPAUD4004, so both do not need to be completed. Completing both units would depend on the needs of the learners.
As mentioned earlier, it is essential that the food safety auditor is able to assess the Vulnerability risk assessment for food fraud. The should also be able to assess the threat risk assessment and the food defence plans to mitigate the risk of intentional contamination (be that blackmail and extortion or bioterrorism). This is consistent with the revised ISO22000, and the latest revisions to industry food safety schemes such as SQF, BRC and GlobalGAP. It would be useful to include these risk assessments and the identification of control points in the units FBPAUD4004, FBPAUD4001, and possibly also with FBOOOL4XXX.	Adopted. Skills Impact has added information about VACCP into units in the proposed Diploma to address this need.
New technologies have become available to the industry and should be considered as extensions to current elective units. For example, high pressure processing may be related to canning. Also there is an increasing demand for assessing chain of custody and traceability against ISO 22005:2007 which provides guidance on traceability of food and the food supply chain. This is relevant for food fraud, food recalls, and product integrity and authenticity.	Adopted. High pressure processing is covered in *FBPFST4006*, and Skills Impact has also added this to the Knowledge Evidence of *FBPAUD4001* and *FBPAUD4004.*
The unit FBPAUD4003 is for the conduct of a food safety audit, and references ISO 19011:2005. Under the units knowledge requirements in the section headed 'food safety management systems' the requirements of Codex Alimentarius in undertaking a risk-based approach are mentioned, but this fails to differentiate the need for CCPs with significant hazards and pre-requisite requirements. This should be reviewed to ensure it is consistency with Codex and international standards.	Adopted. Skills Impact has reviewed and incorporated these changes in the Knowledge Evidence of *FBPAUD4003*.

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
Diploma of Food Safety Auditing		
• Industry, Qld	The national food safety auditor framework does not require auditors to undertake a Diploma and this may therefore be misleading to students. The national food safety auditor framework only requires auditors to have a Cert IV. Auditors approved under this framework in reality, either have a Cert IV or are degree qualified, there is no or very little in between. From a regulators perspective, the Diploma is an unnecessary qualification which is unlikely to be utilised. There is a need for a Certificate IV in Food Safety Auditing. As the Framework only requires a Certificate IV level qualification, they feel a Diploma would be lost. Also pointed out this qualification needs to include science units. Whilst there are other auditing qualifications out there, none of them include the science knowledge required for food safety auditing.	Skills Impact recognises the National Regulatory Food Safety Auditor Guideline/Framework requires completion of a Certificate IV qualification to register to be an auditor. Feedback from stakeholders indicated a Food Safety Auditing qualification at a Diploma level would be an opportunity to "raise the bar" and encourage the higher skilled auditors that Industry is wanting. (Skills Impact also understand that regulations can take time to change). A *Food Safety Auditing* specialisation has been included in the proposed *Certificate IV in Food Science and Technology*, which also includes science-based units. This is designed to be a pathway to the proposed *Diploma of Food Safety Auditing*.
	As a food safety auditor, units relating to quality audits are not necessary. The relevant electives for food safety auditing are only for a small number of high risk sectors and it is unlikely many people will enrol in this course.	Explanation— Skills Impact has received feedback from RTOs saying they have lots of enquiries about Food Safety Auditing qualifications indicating a need, and also identifying potential enrolments. Feedback from other regulators also identified issues with current food safety auditing practices and felt the suite of national food safety auditing units in the National Regulatory Food Safety Auditor Guideline/Framework was not sufficient. The proposed qualification is a response to that feedback.
• RTO, SA x2	Auditors need to understand the fundamentals of the food standards code and this needs to be a core module FBPTEC4006 Apply an understanding of legal requirements of food production [Add] FBPFST4009 Label foods according to legislative requirements [to the list of electives.]	Adopted. Skills Impact has added *FBPTEC4006* to the core of this qualification and removed *FBPFST5005* from the core. *FBPFST4009* has been added to the elective bank.

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
Diploma of Food Safety Auditing		
• Industry, National	This should have some knowledge or previous experience.	Not adopted. Skills Impact advises that RTOs should specify and determine who is a suitable and appropriate person to enrol in the qualification.
• Industry, National	CORE UNITS They are all fine GROUP A ELECTIVES Add the following important units to the current list as they are all very important for current food safety auditing criteria Food Legislation and Labelling Allergen Awareness Apply an Understanding of Legal Requirements of Food Production	Adopted. Skills Impact has updated the list of electives to include: *Label foods according to legislative requirements* and *Apply an understanding of legal requirements of food production*. Allergen awareness is included in knowledge evidence of *FBPFSY5001, FBPAUD4004* and *FBPFST4009.*
• RTO, NSW	1. Finally.......the course that will really make our students highly employable 2. Core units are suitable 3. Electives are applicable but we should really have a unit that teaches the skills required to differentiate and audit high risk, high care, low risk environments. 4. It will be imperative that the teachers be very current with respect to industry and be actively involved in auditing and developing food safety plans	Adopted. Skills Impact will include advice in the Implementation Guide to address these queries.
• Industry, National	Audits just meeting the requirements of 'state and local government' jurisdictions are a very small part of a certification bodies business as we mainly work with international standards and schemes. A Diploma of Food Safety Auditing for NRFSA auditors would be good however for most auditors it would be better as a post grad	Skills Impact will include advice in the Implementation Guide to provide further information about the use of the proposed *Diploma of Food Safety Auditing*, to address these concerns. The intent of the proposed qualification is not to replace Degree-level qualifications, rather to address a need for higher skilled state/local government auditors, and to potentially provide a pathway to Degree qualifications in Food Safety Auditing.

Stakeholder Comments and Identified Issues	Consideration and Proposed Resolution
Diploma of Food Safety Auditing	
qualification. To have it as a standalone qualification would be very limiting for the auditor. They would only be able to work in the 'state and local Government' schemes as most international schemes require degree level food science or micro education with some private standards/schemes allowing diploma level. I am unaware of any international standard/scheme or retailer that would allow a Diploma of Food Safety Auditing as the core education requirement for their scheme.	
Most international standards/schemes require a minimum of three things; education, industry experience and audit experience.	
Education is mentioned above however the auditors also need to do a 2 day minimum accredited HACCP course and the course associated with the standard/scheme they are seeking to audit which usually goes for 3 days each. (SQF, BRC, IFS, FSSC, GlobalGAP, WQSE, ALDI, COSTCO, ISO 22000 etc etc) The NRFSA units in your Diploma would not be accepted.	
Industry experience is really important as this dictates the disciplines the auditor can audit in (bakery, UCFM's, eggs, prepared meals, retort etc). Most standards/schemes dictate the amount of industry experience an auditor needs generally in years before they can audit these disciplines and receive the industry codes.	
Lastly, audit experience is a combination of initial Lead Auditor training, generally accredited by someone (UKAS, Exemplar Global, RTO etc) and a dictated number of audits undertaken under supervision appertaining to that standard/scheme, some are 10, some 5 some are 2.	
Looking through your Diploma units, the core looks quite good, possibly a bit light on HACCP, doesn't seem to cover GMP and I would have thought that internal auditing should be a core unit as well as it is the precursor to lead auditor. Of the elective modules,	Adopted. The title of *FBPFSY5001* has been reverted to *Develop a HACCP-based food safety plan* to make HACCP more visible.

Skills Impact has added traceability and allergens to the Knowledge Evidence of several units. (Note that "traceability of product" is proposed for inclusion in |

Stakeholder Comments and Identified Issues	Consideration and Proposed Resolution
Diploma of Food Safety Auditing	
the ones like molluscs, ready-to-eat, retort are probably not that useful as auditors still need industry experience to achieve recognition, depending on the standard/scheme. I know some regulatory agencies are happy for auditors to take a course and achieve recognition but industry is less accommodating with this approach. Other electives you should consider would be labelling, traceability, allergens and maybe something for the immuno-compromised all relevant to the NRFSA.	the 2018 Skills Forecast for the Food, Beverage and Pharmaceutical Industry Reference Committee.) Good Manufacturing Practice (GMP) principles have also been added to Knowledge Evidence of *FBPFST5XXX* and *FBPPPL5001*. *FBPFST4009 Label foods according to legislative requirements* has been added as elective.
• RTO, NSW Agree with creation of new Food Safety Auditing qualification, and would like to see a pathway between the Certificate IV into the new Diploma of Food Safety Auditing.	Adopted. Skills Impact will include information about this pathway in the Implementation Guide.

General comments about qualifications

The following additional feedback has been received during the consultation phase of this project.

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
• RTO, Vic	1) Food ethics - recent news about the creation of 'fake food' such as fake eggs and others, and other shortcuts related to food manufacturing in the interest of higher profits have made consumers sceptical and a loss of faith in the ethics of the industry.	Adopted. Skills Impact has incorporated content around hygiene and allergens in to the Knowledge Evidence of many units within this project.
	2) Healthy choices - the increasing awareness of consumers over food choices and health - their pursuit of alternative diets, eg keto diets - the demand for Organic products	Food fraud, product traceability and product packaging have all been proposed for inclusion in the 2018 Skills Forecast for the Food, Beverage and Pharmaceutical Industry Reference Committee.
	3) Food borne illnesses - "Earlier this year, Australian ministers responsible for food regulation agreed that reducing foodborne illness is one of three priority areas for 2017–2021. Reducing illness requires effective food safety management, and a strong food safety culture (across all parts of a food business) is a key part of effective food safety management." (extract from FSANZ website) - diseases caused by poor hygiene - allergies caused by food	
	4) Food safety culture - again, much talked about by FSANZ	

Summary of feedback on units of competency

Auditing units

NOTE: the units being reviewed from this sector (sometimes referred to as NSFA units – National Food Safety Auditing units) are explicitly referred to in the National Regulatory Food Safety Auditor Guideline/framework[1]. The units generally fall under two categories:

Low-risk auditing units	High-risk/specialist auditing units
FBPAUD4001 Assess compliance with food safety programs	FBPAUD4005 Audit bivalve mollusc growing and harvesting processes
FBPAUD4002 Communicate and negotiate to conduct food safety audits	FBPAUD4006 Audit a cook chill process
FBPAUD4003 Conduct food safety audits	FBPAUD4007 Audit a heat treatment process
FBPAUD4004 Identify, evaluate and control food safety hazards	FBPAUD4008 Audit ready-to-eat meat products manufacturing

Skills Impact has taken this Framework into account when making changes or updates to these units. Skills Impact has been in contact with the writers of this Framework to inform them of any changes and will continue to liaise with them throughout the duration of this project. It is important to note that Skills Impact is not responsible for the contents of the Framework and are therefore unable to make any changes to the requirements listed within it.

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
Feedback applicable to all 4 low-risk auditing units		
• Industry, National	There are currently four food safety auditor units 1. Assess compliance with food safety programs [60 hours] 2. Communicate and negotiate to conduct food safety audits [40 hours] 3. Conduct food safety audits [80 hours] 4. Identify, evaluate and control food safety hazards [80 hours] There is a lot of doubling up in these units in order to make up those hours. For example, how to do corrective action is doubled up in both unit 1 and 3 above. We feel units 2 and 3 could be merged into one unit, as much of the information is the same.	Explanation— Please note that hours are set by State Training Authorities, not Skills Standards Organisations (SSOs), and as such Skills Impact cannot control the nominal hours allocated per unit. The four units listed are referred to in the National Regulatory Food Safety Auditor Guideline/framework, so they cannot be drastically changed or combined. However, overlap has been removed where possible between the units, with the suggestion that *Communicate and negotiate to conduct food safety audits* and *Conduct food safety audits* could be co-delivered. Further information has been added to *Assess compliance with food safety programs* and *Identify, evaluate and control food safety hazards* around Food Standards Code and other legislation. The requirement for 40 hours of microbiology studies is part of the National Regulatory Food Safety Auditor Guideline/framework. Discussion with Industry experts indicated an opportunity to develop higher level auditing

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[1]Implementation Sub-Committee (ISC) of the Food Regulation Standing Committee (FRSC), 'National Regulatory Food Safety Auditor Guideline', viewed January 2018, *<http://foodregulation.gov.au/internet/fr/publishing.nsf/Content/publication-National-Regulatory-Food-Safety-Auditor-Guideline-and-Policy>*.

Stakeholder Comments and Identified Issues	Consideration and Proposed Resolution
Units 1 and 4 are not well defined in regard to food regulation. Unit 1 is about assessing whether the organisation complies with what's written in their food safety program, but it doesn't really says that the program should also comply with all laws and regulation. It also does not really cover laws outside of the Food Standard Code food safety standards, so aspects such as labelling [section 1 of the Food Standards code] and product ingredients allowances [section 2] could be glossed over. In addition, other laws such as underweights, true and accurate descriptions, accuracy of claims [e.g. organic, free range] are not specifically mentioned. Industry specific laws, such as the meat standard, or import / export standards could also be missed in the current description of the unit. To become a food safety auditor, you need to do a 40 hour microbiology course. This should be built in to the 4th unit [identify, evaluate and control], so those doing the four units don't have to do another course before being able to become an auditor. Some jurisdictions require the 40 hour course in addition to the NFSA units.	skills with a Diploma level qualification. Skills Impact has developed a proposed Diploma of Food Safety Auditing, which includes units that could be used for the 40-hour microbiology requirement.
All of the above require witness audits to achieve a pass in that unit[s]. This is difficult for the 4 x NFSA units and virtually impossible for the cook chill and meat products units. To become an NFSA auditor, you must pass a witness audit. If you are rurally based, that is a significant expense. In addition, some of the audits are 2-3 days long. If that is the case, the trainee audit has to pay for some to sit next to them for the full 2 days, plus travel costs, etc. There is a significant time and expense cost to the person trying to achieve their auditor status.	Explanation— The requirement for witness audits is part of the National Regulatory Food Safety Auditor Guideline/framework and not the units themselves.

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
	It is worse for the cook chill unit which requires 2 different witnessed audits and the meat unit which requires 5 categories of food being witness audited over at least 2 audits. Another issue is that many facilities do not want two auditors onsite, even if one is not participating in the audit. It is difficult to find a site who will allow a witness audit to take place on their site. Many sites believe [accurately] that they get a harder, longer, more expensive audit when an audit is a witness audit. There needs to be a simpler method of showing that an auditor in competent without having to spend 2-3 onsite with them.	
Feedback applicable to all 4 high-risk/specialist auditing units		
• RTO, NSW • Government, QLD	These specialist auditing units should be at a Diploma level.	Adopted. The four specialist auditing units, including this unit, are now coded at AQF5.
FBPAUD4004 Identify, evaluate and control food safety hazards		
• RTO, NSW	Assessment requirements have duplication in them.	Adopted. Units have been reviewed to remove overlap where possible.
FBPAUD4006 Audit a cook chill process		
• Industry, National	The unit requires three audits, for short term cook chill, extended life and sous vide. In Victoria we found less than a dozen business in the state doing sous vide, none of whom were 3rd party audited. It is not possible to do a sous vide audit to pass this part of the unit. There is some terminology in this unit that has never been used in Australia. When I tell the trainees that they will not run across that term again. These should be removed. This unit is the unit that you must complete to audit hospitals, aged care (and child care in WA, VIC), but there is no mention in the unit of the "vulnerable populations" or what hazards are specific to this This is a major oversight.	Adopted. The Performance Evidence has been clarified, and information about 'vulnerable persons' has been added to this unit as per the Food Standards Code.

Stakeholder Comments and Identified Issues	Consideration and Proposed Resolution
I think this unit (cook chill) has been put up as there was nothing better to fit hospitals and the like. The unit needs some major additions to address this.	

Cheese units

During consultation for this project, Skills Impact received requests for additional units and possibly a qualification around cheese making. Whilst attempts were made to incorporate a cheese specialisation into a qualification, this was found to be insufficient to meet industry needs. As such, the development and potential further review of cheese making units is proposed for inclusion in the 2018 Skills Forecast for the Food, Beverage and Pharmaceutical Industry Reference Committee.

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
Feedback applicable to all units being reviewed in the Cheese sector		
• RTO, Vic	The cheese processing units are not suitable for a Certificate IV level. Better suited to a Diploma.	Adopted. Skills Impact has made these changes and recoded the four Cheese units being reviewed to reflect a Diploma level.
FBPCHE4001 Carry out sampling and interpret tests for cheese production		
• Government, QLD	Keep the prerequisite unit As the Australia New Zealand Food Standards Code permits raw milk cheeses, further information should be incorporated regarding these products and their associated processes. (eg. how to alter and measure pH)	Adopted. The prerequisite unit will be retained in this unit. Skills Impact has made minor changes to include measuring and altering pH. The Knowledge Evidence now includes reference to raw milk.
FBPCHE4002 Produce acid-coagulated soft cheese		
• RTO, SA	Elements & Performance Criteria 1.1 – Should be same as 4003 4.3 – there is no cooking in acid coagulated cheese	Adopted. Skills Impact has reviewed the redesigned unit and incorporated these changes in the Elements and Performance Criteria, and in the Knowledge Evidence.

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
	4.5 – no washing of curd required	
	6.3 – N/A	
	Knowledge and Evidence	
	Cheeses mentioned are cottage cheese and cream cheese, again along Gilbert Chandler and the old Cheddar curriculum, these are cheese made in large factories. Would expect to see Chevre, Quark, Persian Fetta etc.	
FBPCHE4003 Produce a range of rennet-coagulated cheeses		
• RTO, SA	Element	Adopted. Skills Impact has reviewed the redesigned unit and incorporated these changes in the Elements and Performance Criteria, and in the Knowledge and Performance Evidences.
	1.5 – Make records or review available info	
	4.6 – add according to recipe	
	5.2 – This is very Cheddar orientated so can add for salting e.g. brining, dry salting or by addition so that is can encompass other cheeses.	
	Performance evidence	
	Carry out cheese washing procedures, badly written, is this for a washed rind or washing the curd e.g. in a Gouda. Should also ready where applicable.	
	Knowledge Evidence	
	Cheeses mentioned are Mozzarella, Bocconcini, Swiss Gouda, should stage class of cheese instead, e.g. Pasta Filata, Eye cheese, Cheddar	
FBPCHE4004 Produce acid and heat coagulated cheese		
• RTO, SA	This unit seems ok	No changes required.

Food Science and Technology units

As a result of feedback received, many units in this sector have had their codes updated to reflect a more appropriate AQF level 5. In addition, titles of many units have been reverted to the titles used in *FDF10* so that they begin with the more appropriate action "*Implement and review…*".

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
Feedback applicable to multiple units being reviewed in the Food Science and Technology sector		
• RTO, Vic	I wonder why all of the Dairy specific units are pitched at level 5, which means they are higher level in comparison to the other general food sector units? Apart from one: *FBPFST4020 Monitor manufacturing of market milk and related products*, which is in the Cert IV, they are all level 5. Dairy units are all level 5: FBPFST5023 Milk fat products FBPFST5024 Fermented dairy products and dairy desserts FBPFST5025 Concentrated and dried dairy products FBPFST5026 Ice cream and frozen dairy products FBPFST5027 Milk and related products using the membrane system and the other Food Sector units are all level 4: FBPFST4035 High and low boil confectionery FBPFST4036 Confectionery products FBPFST4050 Fruit, vegetables and other produce FBPFST4052 Fats and oils FBPFST4054 Cereal products Does this mean that dairy operations are much more difficult/complex than other industry sectors? For example, operating a process which produces canola oil should be no less technical than operating an ice cream manufacturing line. I think they should be 5.	Adopted. Skills Impact has reviewed these units and updated their codes to reflect AQF 5.

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
• RTO and industry, VIC	Packaging units at level 4 and 5 are needed.	There are packaging (and labelling) units at AQF4. If there a need beyond this, this can be forwarded for consideration in the *Skills Forecast for the Food, Beverage and Pharmaceutical Industry Reference Committee*.
• RTO and Industry, NSW	The term "food safety plan" could be used to refer to HACCP in units, as well as other variations of this, such as VACCP and TACCP.	Adopted. Some titles were changed to reflect this but were reverted because of feedback that says 'HACCP' wasn't clearly visible in qualifications. However, the 'HA' aspect has been removed from some units to allow for all approaches.
• RTO, SA	Replacing HACCP with CCP is a good idea.	Adopted. Skills Impact has incorporated "CCP" in several units.
• RTO, Vic	"Review standards and procedures" is there another term that can be used in the titles of the industry specialisation electives?	Adopted. Titles of industry specialist units have been reverted to their original titles from *FDF10* so that they read they begin with the more appropriate action "*Implement and review...*".
FBPFST4004 Perform microbiological procedures in the food industry		
• RTO, Vic	Overall changes to the unit are fine. It has been suggested that if this unit remains core and the unit FDFFST5006A becomes an elective, there should possibly the inclusion of the performance criteria from 5006A around rapid test kits in this unit to reflect latest industry practice? Just a suggestion.	Adopted. Skills Impact has added "rapid test kits" to the Knowledge Evidence of this unit. Adding this to the Elements and Performance Criteria would result in an overlap.
• RTO, NSW	I was looking at the micro unit - FBPFST4004 - there doesn't seem to be any aseptic sampling I was thinking of a scenario where not only does the technician have to do isolation and identification but maybe they might have to do sampling as well? I know its in the higher level unit - I could imagine that a technician would be taking samples too? I was also wondering whether they need to specifically prepare agar plates broths and slopes or whether this could be expressed more generally? (eg prepare media)	Adopted. Skills Impact has undertaken further review of the unit. Aseptic techniques are referred to in Element 1 and 3. 'Aseptic sampling techniques' have been added to Knowledge Evidence and Performance Criteria has been adjusted so learners do not need to specifically prepare agar plates. Should other adjustments be made?
FBPFST4006 Apply food preservation technologies		
• RTO, NSW	Could we remove PC 3.2 and 3.3 as this is not doable in a TAFE learning environment. This requires specialist facilities due to cost and WHS. Perhaps could change to "observe" this process and/or	Adopted. Skills Impact has actioned this change.

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
	"develop a process chart or understand the process steps in irradiation and high pressure preservation".	
	Does 3.6 relate only to HPP and irradiation processes or low temperature and high temperature preservation?	Adopted. Skills Impact has reviewed and clarified this through the unit.
FBPFST4010 Apply sensory analysis in food processing		
• RTO, Vic	Overall changes to the unit are fine.	No action required
FBPFST4020 Monitor manufacturing of market milk and related products and FBPFST4022 Review standards and procedures for the preparation of milk for processing		
• Industry/RTO, Vic	I agree, they should both be at AQF Level 5. We do not deliver these units together, would the packaging rules allow for this to happen? Yes the two units can have the same Element 1	Adopted. Skills Impact has reviewed these units and updated their codes to reflect AQF 5. Advice on co-delivery of units will be provided in the Implementation Guide.
FBPFST4035 Review standards and procedures for the processing of high and low boil confectionery		
• RTO, SA	Needs the performance criteria 4.4 *Undertake food tests and generate data for the product label* to be removed. This skill involves the testing of protein, carbohydrates etc that is required on the nutritional panel of a label and is on its own a whole subject. This performance criteria is listed in all of the specialisation units and needs to be removed from them all.	Adopted. Skills Impact has reviewed and actioned these changes.
FBPFST4050 Review product safety and quality procedures for processing of fruit, vegetables & other produce		
• RTO, Vic	Some confusion and inconsistency in the unit language as the title is 'fruit, vegetables and other produce" however in the elements, nuts herbs and spices creep in, then in other sections those words as the definition of "other produce" come and go. Other produce is either defined as only these extra groups or left open ended as any other fresh food produce. Otherwise the title should reflect fruits, vegetables, nuts, herbs and spices in it, but this is restrictive.	Adopted. Skills Impact has updated the title of this unit to reflect these changes. New title is now *FBPFST5050 Implement and review processing of fruit, vegetables, nuts, herbs and spices.*
	In the Performance Evidence:	Adopted. Skills Impact has reviewed and actioned these changes.

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
	Statement re commercial processing techniques is missing the word "nuts". I don't believe "environmental impact" belongs here.	
FBPFST4052 Review production system for manufacturing and processing of edible fats and oils		
• RTO, Vic	Consider making a level 5 unit *Title*— Review is not a good word - "implement?" We want the learner to do the tasks not just review or look over the process documentation don't we? *Performance Criteria*— 2.1/2.2. Implement fats and oils processing techniques and follow the steps required? *Performance Criteria*— 2.3 Remove, there are no food additives added to fats & oils, not really, maybe a small amount of antioxidant in the margarine etc. *Performance Criteria*— 2.7 Develop Implement *Performance Criteria*—2.8 Move to Element 1 *Performance Criteria*—4.1 "a range of" repetitive statement. Is it needed here and in the following 2 points? *Performance Evidence*— "reviewed" Implemented? The repeated use of the term "animal and plant based" EVERYWHERE in this section could be reduced as the term "fats and oils" is sufficient - there are only the 2 types of fats and oils in existence	Adopted. Skills Impact has reviewed and actioned these changes.
FBPFST4053 Review processes for manufacturing, packaging and testing of beverage products		
• RTO, SA	Unit should not be deleted, however the unit covers too much. Suggest it should be specific to one beverage, as noone develops all beverages.	Adopted. This unit is no longer proposed for deletion and has been added as an elective in the Diploma of Food Science and Technology.
FBPFST4054 Identify and implement product safety for manufacturing of cereal products		
• RTO, Vic	As per the similar units and some of the elements I believe it should include the word quality in the title.	Not adopted. Quality is implied in the titles of all units. To add it to the title would make it unnecessarily long. Quality is included in the unit content.

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
	Otherwise unit is fine.	
FBPFST5004 Specify and monitor the nutritional value of processed food		
• RTO, Vic	Once again this statement about "deep knowledge of a complex problem" has appeared and it is not relevant in this case. Some nutritional panels and labelling details are neither "complex or deep"	Adopted. Skills Impact has reviewed the unit and removed this wording from the description.
	Under element 1 PC missing is the reference to the Food Standards Code (FSC) nutritional labelling requirements along side the NHMRC under 1.3. this is actually the key piece of legislation applicable to the unit. Missing is also "recognising key micronutrients required for a healthy diet" ie. vitamins and minerals	Adopted. This Performance Criteria has been added to, to reflect both suggestions, and the Knowledge Evidence has also been updated.
	Undecided [if the volume and frequency in the Performance Evidence is suitable] - There is a requirement to assess the nutritional properties of 3 processed food products, however currently it is applied to the one product development project. We could expand it to include two other products, depending on the definition of "nutritional properties". Easily done in terms of a nutrition information panel but more complex if it has to be done 3 times for all nutritional components such as the health claims and NPSC criteria, %daily intakes, healthy star rating etc. It could read "prepare Nutrition Information Panels for 3 products and then evaluate the total nutritional properties of one product"? Just some suggestions but either way can be managed.	Adopted. Skills Impact has reviewed this unit and updated the Performance Evidence to require analysing assessment of one processed food product (stated separately to other Performance Evidence requirements).
	[In Knowledge Evidence] In order to align with the performance criteria, please remove the knowledge of "storing and using water", and "digestion, absorption and metabolism in the human body".	Adopted. Skills Impact has reviewed and actioned these changes.
	[In Assessment Conditions] They should be modified to reflect the "methods and related software systems to calculate the nutritional properties of processed foods as appropriate" ie .remove the stock standard statement about "yields and efficiencies in the production environment" and replace with the above as it relates to the nutritional properties and claims declared on the packaging.	Adopted. Skills Impact has reviewed and actioned these changes.

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
FBPFST5005 Evaluate the biochemical properties of food		
• RTO, Vic	[Prerequisite unit requirements] I find this truly baffling; the level of chemistry knowledge required is considerable. This unit is regarded as the most difficult unit of the course and those who have completed it without sufficient background knowledge have either struggled or have had to do considerable background reading in order to cope. The "Perform Food Tests" unit would possibly be a better core unit, with this unit as an elective.	Not adopted. Skills Impact advises that this unit has not previously had a prerequisite. It is up to RTOs to determine whether candidates are suitable and appropriate to commence training, or whether pathway learning is recommended.
	[In Elements and Performance Criteria] The term "biochemical testing" is not correct when used in this context. "Biochemical testing" has two definitions: It is used in medical pathology testing to describe the testing of bodily fluids for proteins primarily, but for other biochemicals as well; and microbiological testing of bacteria to determine their species. Neither of which have any relationship to food testing. Even accounting of the incorrect use of the term "biochemical testing", Performance Criteria 4.4 is ambiguous; can this point be clarified as to exactly what you require to be covered? *Performance Criteria—* 2..1 I can see that you have combined two previous Performance Criteria (2.1 & 2.2) into this single point, but the word "define" is open to interpretation where the previous point were clearly defined.	Adopted. Skills Impact has reviewed the unit to clarify this terminology throughout. Performance Criteria has also been updated
	[In the Performance Evidence] "Predicting the effects ..." is overblown; the "effects" of processing etc. vary considerably depending on the circumstances. "Investigate the effects ..." would be more useful *bullet 1* This is a little vague. The effect of storage on a food product is its gradual deterioration over time: Is that a prediction? *bullet 5* I fail to see the purpose linking of linking these two ideas. The fat content of a food sample is determined by solvent extraction and found to be, for example, 18%. What are the implications for food processing?	Adopted. Skills Impact has reviewed this section of the unit and made changes to address this feedback.

Stakeholder Comments and Identified Issues	Consideration and Proposed Resolution
bullet 6 Even taking into consideration the misuse of the test biochemical testing, I do not understand this point at all. Some clarification is required here!	
[In Knowledge Evidence] Is the Sudan III test still used in industry?	Adopted. This has been removed from the Knowledge Evidence.
"Terminology relating to ..." statement is a bit ambiguous. There is a huge difference between the industry vernacular and the IUPAC terminology. This draft document does not seem to be as complete as the current FDFFST5005A document which has sections that cover things like biochemical reactions that relate to food processing operations. Are these going to be included in the final document?	Content has been updated to reflect both points.
[In Assessment Conditions] At diploma level as much emphasis should be placed on a student's ability to produce legible reports as it is on performing tests, etc.. Whether the student is moving on to further education or making presentations to management, the ability to write reports is essential. *Resources*— This is the first time yields are mentioned.	Not adopted. Skills Impact understands the importance of report writing, however this is not a requirement of this unit. It is suggested to import a relevant communication unit into the qualification to address this if required. Reference to yields has been removed.
The current version of the unit goes into more detail including a section on biochemical reactions. "Biochemical reactions These may include any reactions relevant to food processing operations including: Oxidation Hydrolysis Enzymic reactions Lipid isomerisation Lipid polymerisation Polysaccharide synthesis Glycolysis Protein denaturing" Is this level of detail no longer required or just not prescribed?	Adopted. This detail has been added to the Knowledge Evidence.

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
• Industry, National	Important for students to know how to do the tests in this unit. Despite these tests often being outsourced, it is important for people to understand how the tests are done to fully understand the results.	Adopted. "Performing three different tests" remains in the Performance Evidence of this unit to address this.
FBPFST5006 Apply food microbiological techniques and analysis		
• RTO, Vic	Make this an elective or combine the required components (reviewing lab results, comparing with specs and rapid tests) with *FBPTEC4004A.*	Not adopted. Units not combined. This unit has been moved to the elective bank of the Diploma of Food Science and Technology.
• Industry, Vic	This unit should also include toxins, and aflatoxins	Adopted. The Knowledge Evidence now includes both toxins and aflatoxins.
• RTO, SA	Remove the prerequisite of *Perform microbiological procedures in the food industry* from *Apply food microbiological techniques and analysis* as there are no skills within this modules that is required. *Apply food microbiological techniques* is a fundamental requirement of this qualification as it is the understanding of food poisoning microbes and how to stop them	Adopted. Skills Impact has reviewed the unit and removed the prerequisite requirement.
• RTO, SA	Does not need the prerequisite- it's not appropriate	Adopted. Skills Impact has reviewed the unit and removed the prerequisite requirement.
FBPFST5008 Develop a new food product		
• RTO, Vic	[Description] Suggest the word "innovative" could be replaced with "new". Innovation implies something that hasn't been done before, whereas NPD often involves a modification to an existing product/packaging/brand matching. Accordingly, the statement about deep knowledge and complex problems may or may not apply. Please also remove the reference to seafood and meat - it applies to all sectors of food production (full stop)	Adopted. Skills Impact has reviewed and actioned these changes.
FBPFST5026 Review standards and procedures for the production of ice creams and frozen dairy products		
•	[Title] Implement or manufacture or other word.	Adopted. Skills Impact has reverted the title of this unit to *Implement and review the production of ice creams and frozen dairy products*.

Stakeholder Comments and Identified Issues	Consideration and Proposed Resolution
I don't like this term "review standards and procedures" I think it sends the wrong message about the units (used in most of the industry electives). For example doesn't the learner have to make ice cream and use the production equipment, conducts tests like sensory analysis, take samples, adjust machinery, not just review the standards about ice cream - that implies sitting at a desk and doing paperwork to me? "Review standards and procedures" is not very kinaesthetic.	
[Performance Criteria] Remove Performance Criteria 1.1 2.7 Develop Implement 3.1 Ice cream? 3.2 Establish Implement? 3.3 Deleted "Implement a system to..." 3.4 Deleted "Develop and" with comment The development of a sampling plan in not within the scope of this unit 3.5 Deleted "and analyse" Remove Performance Criteria 3.6	Adopted. Skills Impact has reviewed the unit and updated and clarified content to reflect this feedback.
[Performance Evidence] "reviewed standards and procedures" - Implemented a process or similar? [volume and frequency] Would need to be more than once as there are so many different types of frozen desserts, but I agree with this statement	Adopted. Skills Impact has reviewed the unit and updated and clarified content to reflect this feedback.

Food Safety units

Initial feedback from Subject Matter Experts during our development phase indicated a need to review duplication across several units in this sector. Much of this overlap appeared to be due to prerequisite requirements. As such, considerable effort was spent reviewing these requirements and ensuring content was not duplicated across the units. In most cases the prerequisite unit requirements were removed.

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
Feedback applicable to multiple units being reviewed in the Food Safety sector		
• RTO, NSW	Felt that prerequisite units were too low in the qualification.	Adopted. Skills Impact has reviewed the prerequisite requirements for these units and removed many of them. This will help address units that are "too low" from being included in Certificate IV/Diploma level qualifications.
• RTO, WA	HACCP is the international standard and should be specifically referred to. Referring to a "Food safety plan" is not enough, that it is a watered down version of HACCP. Even if doing other version of HACCP (e.g. VACCP), still need to know HACCP	Adopted. Skills Impact has reviewed the units and retained references to HACCP in many units' content and some titles.
FBPFSY4001 Supervise and maintain a food safety plan		
• Industry, Vic	This should include understanding of legislation, Food Standards Code, food allergen information, good personal hygiene practices and food safety practices. A food safety supervisor needs to know how to recognise, prevent and alleviate food hazards associated with the handling of food. Also a food safety supervisor needs to have the ability to supervise other food handlers to ensure the correct food handling practices are implemented.	Adopted. Skills Impact has reviewed the redesigned unit and incorporated these changes in the Knowledge Evidence.
FBPFSY5001 Develop a HACCP-based food safety plan		
• RTO, Vic	This is fine but you cannot do this without *FBPFSY4001* which is the basics of food safety. *FBPFSY4001* is currently core and should stay so and be pre req for *FBPFSY5001*	Not adopted. Skills Impact's review of prerequisite requirements determined *FBPFSY4001* did not need to be completed prior to enrolling this unit, and as such the prerequisite is flagged for removal. It is agreed, though, that the food safety knowledge is important, so the Knowledge Evidence has been reviewed to ensure it is incorporated. In addition, both *FBPFSY4001* and *FBPFSY5001* have been included in core of Diploma of Food Science and Technology.

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
• Industry, Vic	This should cover the seven steps of the HACCP which includes; validation and review of a food safety plan. This unit should also cover traceability and allergens.	Adopted. Skills Impact has reviewed the redesigned unit and incorporated these changes in the Knowledge Evidence.

Operational units

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
FBPOPR2015 Apply principles of statistical process control		
• RTO/Industry, Vic	I would prefer this unit be coded at AQF Level 4. It is very useful for students in understanding sampling procedures (in Microbiology), sensory testing and analysis and the construction of process control charts. It would be a stand alone unit at AQF Level 4 which could be co-delivered with *FBPTEC4007 Describe and analyse data using mathematical principles.*	Skills Impact has reviewed the redesigned unit and recoded it to reflect AQF Adopted. 4.

Technical units

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
FBPTEC4003A Control food contamination and spoilage		
• Industry, Vic	This unit should also include how time and temperature impacts on the growth of micro-organisms.	Adopted. Skills Impact has reviewed the redesigned unit and incorporated these changes in the Knowledge Evidence.
• RTO, NSW	Remove the prerequisite	Adopted. Prerequisite has been removed.
	These units contain criteria and evidence covered in this unit FDFTEC4003A as well as the unit FDFFS4001A	Not adopted. They need to stand alone. One is focussed on the food safety plan, the other more on the science.

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
	Volume and frequency in the Performance Evidence is unclear- how many times does the learned need to demonstrate skill?	Adopted. Skills Impact has reviewed the Performance Evidence to clarify the volume and frequency to specify three different products.
FBPTEC4004A Apply basic process engineering principles to food processing		
• RTO, Vic	Not sure what it the pre-requisite here but at any rate this is hard to teach without a pilot plant or manufacturing line.	Explanation— Skills Impact understand there may be challenges with delivering this unit, however the pilot plant/manufacturing line process is the nature of the unit and reflects that tasks undertaken in industry. The unit is no longer proposed for inclusion in the core of the Diploma of Food Science and Technology, and will instead be an elective, making it an optional choice for delivery.
FBPTEC4007 Describe and analyse data using mathematical principles		
• RTO, Vic	What happened to the other maths pre-requisites? 2015A and 2061A	Explanation— Skills Impact reviewed the prerequisite requirements of this unit and determined the requirements appeared to be a delivery path rather than knowledge required prior to completion of *FBPTEC4007*.
• RTO, Vic	Remove the prerequisite unit *FDFOP2061* and keep *FBPOPR2015*. FBPOPR2015 dovetails very well into FBPTEC4004 and can easily be co-taught as they complement each other perfectly.	Skills Impact reviewed the prerequisite requirements of this unit and determined the requirements appeared to be a delivery path rather than knowledge required prior to completion of *FBPTEC4007*. Both have been removed. *FBPOPR2061* has been recoded to a more appropriate AQF4 so it is able to be co-delivered. It has also been included as an elective in the Diploma of Food Science and Technology if RTOs wish to deliver both units.
	Performance criteria 3.3 is ambiguous. There are a number of types of control charts (attribute & variable) and difference ways of making them (simple using just +/-3 SD, advanced using SD "zones" and variables chart using subgroups).	Adopted. Skills Impact has reviewed the Performance Criteria and clarified its intent.
	Again lots a ambiguity here: "applying relevant formulae to measure physical characteristics of food products and processes" are we talking about calculating the volume of a cylinder or calculating amount of energy required to pasteurise a given quantity of milk? "Calculating standard deviation for a given data set" and "identifying mean value." How? On paper using the	Adopted. Skills Impact has reviewed the content and detail has been clarified to include all contexts (where possible).

Stakeholder Comments and Identified Issues	Consideration and Proposed Resolution
correct formula? By calculator? In Excel? "Constructing a chart." What type? Control chart? Calibration graph? Pareto chart? "Identifying upper and lower control limits for a processing scenario." Just using +/- 3SD or using the A2, D3 & D4 chart? I am not trying to be offensive, but the lack of detail need to be addressed so there is consistency in the level at which this unit is delivered.	
Query regarding performance evidence - Is only needing to perform a task once enough	Explanation— The task is only required to be performed once for assessment purposes, however the Performance Evidence covers many different tasks.
Being a level 4 unit in a diploma level course I like to see heat transfer and pressure calculations investigated, but I suppose that is covered by the "other measures .." statement. Also, when talking about mass and weight, do you really want to talk about the differences between vector and scalar quantities?	Adopted. Skills Impact has reviewed the redesigned unit and incorporated these changes in the Knowledge Evidence.
Although I have mentioned it above, I still think that this unit cannot be taught in isolation; FBPOPR2015 and FBPTEC4004A are perfect together.	Adopted. Skills Impact advises that these units can be co-delivered.
Performance Evidence bullet 1 - Just for the food industry? *Performance Evidence bullet 3*— I cannot think of a better way to express this but it is very awkwardly expressed. *Performance Evidence bullet 4*— With pen and paper? Calculator? Excel? *Performance Evidence bullet 5*— This is very vague. A pie chart is a chart and so is an Ishikawa diagram. *Performance Evidence bullet 6*— Median? Mode? *Performance Evidence bullet 7*— Again, this is vague. Variables or attributes chart? Simple three standard deviation chart or full Xbar and R charts with subsets that require the use of Xbar & R tables?	Adopted. Skills Impact reviewed this additional feedback with Subject Matter Experts. Details has been incorporated where reasonable and applicable in different contexts.

Stakeholder Comments and Identified Issues	Consideration and Proposed Resolution
Knowledge Evidence bullet 3— This could be anything from calculating the volume of a cylinder to using the Plank's equation to determining freezing time to the calculation of Reynolds number for the determination of laminar/turbulent flow to using heat flow equations. All of which I mention in this unit. *Knowledge Evidence bullet 4*— Doesn't Excel make this obsolete? *Knowledge Evidence bullet 5*— Variance? Range? *Knowledge Evidence bullet 6*— Scalar verses vector quantities? *Knowledge Evidence general comment*— The current unit mentions process capability. Talking about control charts without talking about determining whether or not a process to capable of meeting a specification seems pointless to me. This must be taught somewhere. *Assessment Conditions, resources*— Other than calibration curves for chemistry, these are almost obsolete these days. I teach the mechanics of conversion but there are so many online conversion programs available it almost seems that it is a pointless exercise.	
• RTO, SA Prerequisites for Describe and analyse data using mathematical principles can be removed as there are no skills that are required to complete this module within the prerequisites.	Adopted. Skills Impact has removed the prerequisite requirements from this unit.

Summary of feedback on skill sets

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
General Skill Set feedback		
• Industry, National	The skill sets are useful and [our organisation] would be happy to support. I am sure there are more skill set possibilities!!	Appreciate the support, and are open to receiving suggestions for additional skill sets as part of this validation stage
Pasteuriser Operator Skill Set		
• RTO, Vic	The issue is that some processes do not use homogenisation (eg ice cream, unhomogenised milk) and if the process is not available to the learner, they are not able to be assessed. I would suggest another skill set with a slightly different title.	Adopted. An additional skill set that includes *FBPOPR2043 Operate an homogenising process* has been developed to address this need—*Pasteuriser and Homogeniser Operator Skill Set.*

Summary of feedback on components proposed for deletion

During the consultation process, a series of units were proposed for deletion. These units were flagged as they had few or no enrolments for the past 3 years. Other units were proposed for deletion as they duplicated other units. Feedback from stakeholders indicated that specialist Food Science and Technology units should not be deleted as the job tasks they address still exist, and there may be a need for them in the future. As such, only three units remain proposed for deletion:

- o *FDFOHS4002A Maintain OHS processes*
- o *FDFTEC4002A Manage controlled atmosphere storage*
- o *FDFFST5007A Evaluate sampling plans in relation to food industry standards*

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
General feedback about the units proposed for deletion		
• Industry, National	I have had a look at the units for deletion and have concerns around two units that are proposed for deletion. They are: FDFFST4030A Implement and review the processing of chocolate and sugarpanned products FDFFST4032A Implement and review the production of gums and jellies They tend to use Operate a starch moulding process to covet these processes. Working in the confectionary industry I like the option of these two units. These are technologies we use daily. I'm unsure if they are units we can use for Team leader development, but see there may be a potential purpose in the future.	Adopted. Skills Impact has removed these from the list of units proposed for deletion.
• RTO, Qld	Units are not used because they are hard to deliver and not funded	Adopted. Skills Impact has updated these units to meet the Standards for Training Package. These changes may help address some of these concerns. Skills Impact is not involved in determining which units received government funding.
• Industry, Qld	Poultry units should not be deleted	Adopted. Skills Impact has removed these from the list of units proposed for deletion.

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
• Industry, National	May still be a need for the canning unit.	Adopted. Skills Impact has removed this from the list of units proposed for deletion.
FDFFST4021A Carry out sampling and testing of milk at receival		
• Industry, Qld	The regulation of primary production in Queensland is undertaken by Safe Food Production Queensland. Further comment should be sought from them regarding the removal of this unit.	Adopted. Skills Impact has removed this from the list of units proposed for deletion.
FDFFST4022A Implement and review the preparation of milk for processing		
• Industry, Qld	The regulation of primary production in Queensland is undertaken by Safe Food Production Queensland. Further comment should be sought from them regarding the removal of this unit.	Adopted. Skills Impact has removed this from the list of units proposed for deletion.
FDFFST4040A Identify and implement product safety and quality		
• Industry, Qld	Campylobacter and Salmonella are the leading causes of foodborne illness in Australia. These two bacterium's are commonly associated with poultry and eggs. Health Ministers nationally in April 2017 signed off on 3 priorities for the food regulation system, the first being reduction of foodborne illnesses particularly related to Campylobacter and Salmonella. Work commenced in this space includes a co-ordinated, national through chain control strategy which influencing industry practices and behaviours. Removal of this unit will hamper these national efforts.	Adopted. Skills Impact has removed this from the list of units proposed for deletion. In addition, this information has been included in the Knowledge Evidence of the unit.
FDFFST4041A Identify and implement product safety and quality for cooked poultry product manufacturing		

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
• Industry, Qld	Campylobacter and Salmonella are the leading causes of foodborne illness in Australia. These two bacterium's are commonly associated with poultry and eggs. Health Ministers nationally in April 2017 signed off on 3 priorities for the food regulation system, the first being reduction of foodborne illnesses particularly related to Campylobacter and Salmonella. Work commenced in this space includes a co-ordinated, national through chain control strategy which influencing industry practices and behaviours. Removal of this unit will hamper these national efforts.	Adopted. Skills Impact has removed this from the list of units proposed for deletion. In addition, this information has been included in the Knowledge Evidence of the unit.
FDFFST4042A Identify and implement product safety and quality for egg based product manufacturing		
• Industry, Qld	Campylobacter and Salmonella are the leading causes of foodborne illness in Australia. These two bacterium's are commonly associated with poultry and eggs. Health Ministers nationally in April 2017 signed off on 3 priorities for the food regulation system, the first being reduction of foodborne illnesses particularly related to Campylobacter and Salmonella. Work commenced in this space includes a co-ordinated, national through chain control strategy which influencing industry practices and behaviours. Removal of this unit will hamper these national efforts.	Adopted. Skills Impact has removed this from the list of units proposed for deletion. In addition, this information has been included in the Knowledge Evidence of the unit.
FDFFST4051A Identify and implement product safety and quality processes for fish and seafood products		
• Industry, Qld	The regulation of primary production in Queensland is undertaken by Safe Food Production Queensland. Further comment should be sought from them regarding the removal of this unit.	Adopted. Skills Impact has removed this from the list of units proposed for deletion.

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
FDFOHS4002A Maintain OHS processes		
• RTO, Vic	This has been replaced in the core by BSBWHS401 from the Business Services Training Package, why? Performance criteria in FDFOHS4002A and BSBWHS401 are very similar, except BSB make no mention of PPE which is critical in food production environments. Food technologist doesn't implement OHS in an office environment. I agree with removal of all other suggested units.	Explanation— Skills Impact advises that *BSBWHS401* is almost the same unit. PPE is covered in organisation's procedures and must be addressed. BSB units cover contexts other than office environments. As such this unit remains proposed for deletion.
FDF50110 Diploma of Food Processing		
• RTO, Qld	Feel there are no real job outcomes at this level	Adopted. Skills Impact will continue to propose this qualification for removal.
• RTO, Industry, Vic	Role of a Food Process worker is low level- therefore no need for a Diploma	
• CMM, Vic	Concerns about deletion of this qualification as it may miss a pathway.	Explanation— Broad feedback from Industry and Training Organisations indicate that the qualification has no real outcomes and should be removed. Stakeholders suggest there are no job roles in this area at a Diploma level. Learners seeking higher level skills in this area are more suited to undertaking qualifications from the *BSB Business Services Training Package,* or the *Diploma in Food Science and Technology*. In addition to this feedback, enrolments in this qualification have been in decline over the past three years. Skills Impact takes the removal of a qualification seriously and will continue to seek advice from additional stakeholders as to whether this Diploma should be removed.