

Supporting Future-Focused, Fit-for-Purpose Training Product

An overview of IBSA Manufacturing initiatives to meet ministerial priorities for training product reform

Introduction

At the inaugural 2014 meeting, the COAG Industry and Skills Council (CISC) decided that ongoing reform was necessary to ensure that Australia's training system effectively supports the current and future skills needs of businesses across all sectors of the Australian economy. They also agreed on six key objectives for reform of the Vocational Education and Training (VET) system.

Since Ministers agreed to implement these reform objectives¹, IBSA Manufacturing has worked with its Industry Reference Committees (IRCs) to coordinate a proactive response to these imperatives. IBSA Manufacturing has implemented a range of integrated initiatives to respond to both CISC reforms and ministerial priorities across manufacturing-related training packages.

This report sets out the progress of the Manufacturing sector IRCs in supporting VET system reform to date.

¹ Suite of training product reforms agreed at 20 November 2015 CISC meeting:
<https://www.education.gov.au/outcomes-review-training-packages-and-accredited-courses>

Australian Government reform framework for VET product

The six reforms identified by CISC to ensure training product best supports industry needs are to:

- 1 Remove obsolete and superfluous qualifications from the training product best supports industry needs
- 2 Make more information available about industry's expectations of training delivery to training providers to improve their delivery, and to consumers to enable more informed course choices
- 3 Ensure the training system better supports individuals to move easily between related occupations
- 4 Improve the efficiency of the training system by creating units that can be owned and used by multiple industry sectors and housing these units in a 'work and participation bank'
- 5 Foster greater recognition of skill sets
- 6 Ensure that accredited courses 'fill the gap' in training packages and provide for training courses to be developed as quickly as industry needs them and support niche skill needs.

These reforms are one of three policy areas which underpin training product development. The other two areas are the training package development policy² and the quality principles set out in that policy³.

² The Training Package development policy framework consists of three policy pieces: the Standards for Training Packages 2012; the Training Package Products Policy; and the Training Package Development and Endorsement Process Policy.

³ The quality principles are set out in the Training Package Development and Endorsement Process Policy: <https://docs.education.gov.au/system/files/doc/other/trainingpackagedevelopmentandendorsementpolicy.pdf> (accessed 13 July 2018).

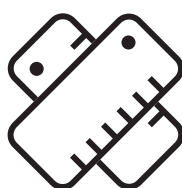
IBSA Manufacturing's implementation of ministerial reform priorities

Since being appointed as the Skills Service Organisation supporting manufacturing-related IRCs, IBSA Manufacturing's work over the past two years has focused on addressing all six ministerial reform priorities.

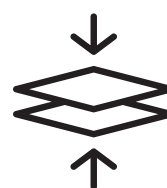
Priority 1: Removal of obsolete and superfluous qualifications from the training system



**1 training package
+ 6 qualifications**
recommended for removal
from the national register



80+ units
recommended for removal
from the national register



41 units
merged into 18

When IBSA Manufacturing undertakes training package development work with its IRCs, the identification of obsolete, and superfluous units and qualifications is a key focus. The training product review and development process seeks to delete existing obsolete training package components, import units from other training packages where they exist, and remove duplication within and between components. This process depends on wide-ranging industry consultation and engagement.

The methodology IBSA Manufacturing uses is:

Qualifications

Evaluate qualifications which are low use or on the scope of a small number of registered training organisations (RTOs). This includes:

- comprehensively reviewing the ongoing value and fitness for purpose of qualifications with less than 20 enrolments each year, or having less than 6 RTOs currently delivering them
- identifying and investigating qualifications for their potential to be broadened to incorporate the achievement of outcomes from low use qualifications within current training packages and suitability as cross-sector qualifications in other training packages.


Units of competency

Review suites of units within training package against current job tasks and determine:

- where tasks overlap and can be merged or replaced
- where the work function described in the unit is no longer used in current work practices and can be deleted.

Overview of achievements against this priority

Manufacturing IRCs responding to Priority 1

MSL Laboratory Operations Case for Endorsement Dec 17	 Complete	Five obsolete units of competency were deleted, two units were merged into one and superfluous information from units was removed. Qualifications and units from other training packages were reviewed to ensure that content from elsewhere was not duplicated in this package.
MSS Sustainability Case for Endorsement Jun 18	 Complete	Duplicated and ambiguous information in the performance evidence, knowledge evidence, and assessment conditions of MSS units were identified and removed.
PMC Manufactured Mineral Products Case for Endorsement Jun 18	 Complete	Five qualifications and 45 units were removed, and remaining components were merged into the MSM Manufacturing Training Package. This resulted in the removal of the training package, removal of superfluous information from units and ensuring components did not duplicate qualifications nor units from other training packages.
MSF Furnishing Case for Endorsement Sept 18	 Complete	Duplicated and obsolete content is recommended for removal, resulting in the proposed deletion of one unused qualification (MSF31313 Certificate III in Kitchens and Bathrooms Retail Services) and ten units of competency. A further 34 units were merged into 16, resulting in 28 fewer MSF units in this version upgrade. In addition, duplication of content within and across MSF units will be significantly reduced.
MEM Manufacturing and Engineering Case for Endorsement Nov 17	 In progress	All qualifications and units of competency were reviewed to eliminate obsolete, superfluous and duplicated components, resulting in five units at nominal AQF level 1 being rationalised into the one single revised unit.

Priority 2: Making more information available about industry's expectations of training delivery to training providers to improve their delivery, and to consumers to enable more informed course choices.



IBSA Manufacturing
templates, guidelines,
protocols developed



Companion volumes
revised with extra industry
information for
5 Training Packages



29 qualifications
updated and redeveloped
in line with
industry expectations

Understanding and documenting industry's expectations of training has long been considered critical to training package development. A primary driver of all training package work is that the product reflects contemporary work organisation and job profiles, while incorporating a future orientation.

To achieve this priority IBSA Manufacturing applies robust processes to support each IRC establish project Technical Advisory Committees (TACs). TACs provide the IRC with a direct and real time link to industry expertise as well as validating proposed training products. These processes are critical in manufacturing-related work given industry feedback that job roles and skills are changing at a rapid rate in response to new technologies and changing business operations.








IBSA Manufacturing processes include:

- working closely with industry to analyse current and emerging job roles in each sector. The focus is on the specific impacts of new technology and business processes on skill and knowledge requirements and how they are expressed in training packages
- bringing together the outcomes of work in individual sectors to achieve a holistic manufacturing industry snapshot and understand where key points of difference exist
- establishing an IRC agreed approach for integrating 'new' technologies and their associated foundation skills into training package content across manufacturing sectors.

IBSA Manufacturing and its IRCs also continue to progress opportunities to support quality outcomes by clearly articulating and validating industry expectations, including duration of training, mode of delivery and learner characteristics. All training product work undertaken is reviewed to ensure that training package components support consistent interpretation and implementation - factors crucial for quality training and assessment.

Overview of achievements against this priority

Manufacturing IRCs responding to Priority 2

IBSA Manufacturing template and guidelines documentation	 Complete	IBSA Manufacturing has implemented guidelines, templates, and protocols that: <ul style="list-style-type: none"> • guide policy compliance, consistency, and best practice in the development of all manufacturing training package content, including Companion Volume Implementation Guides • support quality outcomes for its IRCs. Technical writers, training package developers and quality assurance (QA) consultants complete editorial, equity, and holistic QA reports.
MSF Furnishing Case for Endorsement Sept 18	 Complete	The Certificate III in Flooring has been updated to include industry specialisations. The development of specialisations to allow for easy identification of graduate skills and support individuals to move easily from one related occupation to another by virtue of common core units. Core units in the Certificate III in Glass and Glazing have been reduced providing access to a broader range of workplaces and specialisations in glass processing, glazing and designed glazing have been created to reflect different work outcomes which will support individuals to move easily from one related occupation to another
MSL Laboratory Operations Case for Endorsement Dec 17	 Complete	The inclusion of expanded information about duration of training, mode of delivery, and learner characteristics in the MSL Laboratory Version 2 Companion Volume Implementation Guide has provided more information about industry's expectations of training delivery.
MSS Sustainability Case for Endorsement Jun 18	 Complete	Both the updated Companion Volume Implementation Guide reflecting Version 2 changes and, an additional Companion Volume – Range of Conditions was created to ensure that all 'Range of Conditions' information about the context of training and assessment in the original units is available to further convey industry expectations.
PMC Manufactured Mineral Products Case for Endorsement Jun 18	 Complete	Industry has provided information in the Companion Volume Implementation Guide about their expectations on delivery of training and conducting assessment to assist registered training organisations to provide training that aligns with industry's need.
MSF Furnishing Case for Change Nov 17	 In progress	The redevelopment of MSF30913 Certificate III in Blinds, Awnings, Security Screens and Grilles aims to better reflect changed job roles, skills and operational trends such as the shift to specialised manufacturers and retail-oriented installation and maintenance businesses offering tailored customer service solutions.
MST Textiles, Clothing and Footwear Buying Case for Change Nov 17	 In progress	The redevelopment of the Diploma and Advanced Diploma of Applied Fashion and Merchandising will ensure graduates are job-ready in the key area of buying. The training package will meet contemporary work organisations and job profiles.

Priority 3: Ensuring the training system better supports individuals to move easily between related occupations



Aerosskills

MEA units reduced, CASA B1 licence pathway facilitated



Manufacturing and Engineering

Easier transfer to higher AQF level, shared unit banks developed



Furnishing

More common core and imported units



Laboratory Operations

Diploma streamed into 5 specialisations



Plastics, Rubber and Cablemaking

redevelopment to ensure work ready graduates



Manufactured Mineral Products

Recoded units, suggested pathways in Companion Volume

Stakeholders in manufacturing-related industries are highlighting the need for broader skills and workers who can work across sectors. This feedback reinforces the importance of this CISC priority to improve qualification design to enable individuals to upskill and move easily from one related occupation to another.







IBSA Manufacturing also continues to review and maximise pathways for its qualifications. The development of pathways qualifications across the different manufacturing sectors has assisted in addressing the challenge of attracting new entrants into the industry. IBSA Manufacturing continues to undertake work that focuses on the role, and use of all pathway qualifications in manufacturing-related training packages to ensure that are fit for purpose, with specific reference to:

- content of qualifications in relation to the needs of a contemporary manufacturing industry
- cross-overs between qualifications, and ensuring that qualifications are needed by industry
- success of qualifications in attracting new entrants to the industry.



Notably, the collaboration between IRCs has resulted in MSF Furnishing and MSM Manufacturing qualifications being designed to better support individuals moving within and between industries.

Overview of achievements against this priority

Manufacturing IRCs responding to Priority 3

MEA Aeroskills Case for Endorsement Dec 17	 Complete	In response to stakeholder feedback that the extensive use of prerequisite units impeded occupational mobility, prerequisite requirements of the reviewed MEA units in this body of work were analysed and significantly reduced, from a combined total of 53 to 21.
MSF Furnishing Case for Endorsement Sept 18	 Complete	<p>MSF supports the movement of individuals between related occupations through the use of common core units and imported units in qualifications.</p> <ul style="list-style-type: none"> • Work on the proposed components will expand these opportunities for industry to move easily across job roles • MSF40318 Certificate IV in Kitchen and Bathroom Design includes a range of new elective units to reflect pathways from cabinetmaking, building and construction • MSF30518 Certificate III in Picture Framing includes new small business electives to reflect picture framing work in small retail outlets • The suite of interior decoration and design qualifications makes extensive use of units from Business Services and the creative industry training packages- the Certificate IV in Interior Decoration creates pathways in and out of the qualification • Elective soft furnishing and retail merchandising units will be added to MSF40118 creative industry training packages
MSL Laboratory Operations Case for Endorsement Dec 17	 Complete	This work has seen improved qualification design to clarify AQF outcomes and stream MSL50118 Diploma of Laboratory Operations into 5 specialisations. This enables individuals to move easily from one sector to another, resulting in greater mobility for students.
PMC Manufactured Mineral Products Case for Endorsement Jun 18	 Complete	The Certificate III in Manufactured Mineral Products, and associated units, were recoded to the broader MSM Manufacturing Training Package. Suggested pathways are identified in the Companion Volume Implementation Guide.
MEA Aeroskills Case for Change Nov 17	 In progress	<p>The MEA50215 <i>Diploma of Aeroskills (Mechanical)</i> will be updated to facilitate a pathway for participants seeking CASA Licence sub-categories B1.2 and B1.4. This update will assist in addressing the critical shortage of licensed aircraft maintenance engineers and ensure the qualification has outcomes for piston engine licences.</p>
MSL Laboratory Operations Bio-Fuels Case for Change Nov 17	 In progress	Development of new units to address the emerging skills needed by samplers and laboratory personnel who test bio-fuels and bio-processing of waste and agricultural products in the renewable and sustainable energy sector.

Manufacturing IRCs responding to Priority 3

MEM Manufacturing and Engineering Case for Endorsement Nov 17	 In progress	<p>All MEM Version 2 qualifications will articulate into higher AQF level qualifications and contain units from other MEM qualifications. As a result, individuals will be able to readily transfer between related occupations, cross-skill between related occupations, and upskill to higher AQF level qualifications.</p> <p>All MEM units are developed for use in industries beyond manufacturing and engineering. In addition, shared units are being built into elective banks across all qualification levels and common core units in the Certificate III, IV and Diploma trade qualifications to support individuals moving between related occupations.</p>
PMB Plastics, Rubber and Cablemaking Case for Change Nov 17	 In progress	<p>The redevelopment of qualifications will respond to stakeholder advice that since the last review in 2010, the current qualifications are not producing work-ready graduates. The work will ensure those working in operations and technical processes can adequately respond to changes in production process requirements, including those relating to new environmental regulations. They will have greater aptitude in automated practices and new technologies.</p>

Priority 4: Improving the efficiency of the training system by creating units that can be owned and used by multiple industry sectors and housing these units in a 'work and participation bank'.



Laboratory Operations units
created for multiple sectors



2 new Furnishing units
to be aligned to broader application



Sustainability components
redeveloped to ensure wide application



Cross-Sector content
to be aligned to emerging digital skill needs






IBSA Manufacturing and its IRCs have created, and progressively populated an organising framework for units across all manufacturing-related training packages. This addresses the CISC priority of creating units of competency that can be owned and used by multiple industry sectors. The framework identifies and develops common and shared units and includes determining where to 'host' units dealing with different types of skills. On commencing a training package review, specific opportunities for restructuring units of competency to reflect key industry messages about broad skills and transferable skills are analysed.

As current work on individual training packages is undertaken, IBSA Manufacturing also places a strong focus on the potential for broader qualifications with specialisations.

This is epitomised by the new Certificate III in Fenestration importing units from the Furnishing Training Package.

Overview of achievements against this priority

Manufacturing IRCs responding to Priority 4

MSF Furnishing Case for Endorsement Nov 17	 Complete	Two new compliance and embedded technologies units were developed for broad application. New units in glass and glazing assembly, fabrication and installation can now also be used in diverse industry contexts because they focus on generic skills. These units can be selected in flexible combinations to meet different job outcomes.
MSM Manufacturing (Fenestration) Case for Endorsement Sept 18	 Complete	Close work between this project and the Furnishing project allowed synergies to be leveraged for installation and fabrication of windows and enabled the Certificate III in Fenestration to import the glass and glazing units developed in the Furnishing project.
MSL Laboratory Operations Case for Endorsement Dec 17	 Complete	Units were created that can be owned and used in a range of enterprises and multiple industry sectors, including biomedical research, biotechnology, calibration, chemical analysis, construction materials, education, environmental analysis, environmental monitoring and technology, food and beverage processing and testing, forensic analysis, mining, mineral assay, pathology testing, process manufacturing, soil testing, and wine making.
MSS Sustainability Case for Endorsement Jun 18	 Complete	Given the multi sector nature of the Sustainability Training Package, components were reviewed to ensure that they apply across job roles and industries. The new MSS Sustainability unit and skill set developed in this version upgrade applies across multiple industry sectors and is relevant in a large range of professional settings.
Cross-Sector Digital Skills Case for Change Dec 17	 In progress	<p>The proposed redevelopment of training package components across manufacturing training packages seeks to align content to emerging Industry 4.0 skill needs. The cross-sector development approach will ensure that ensuing training product is relevant to diverse contexts and sectors. This will be achieved through:</p> <ul style="list-style-type: none"> • working with affected IRCs to better understand the impact of proposed changes • working in tandem with a number of IRCs to identify similarities in job roles and training requirements; work that allows IBSA Manufacturing to identify synergies across multiple training packages and recommend units to create, modify, or remove • adopting an agile approach, in response to the rapid pace of change, that translates to other industries.

Priority 5: Fostering greater recognition of skill sets



Aeroskills

has 102 skill sets with license outcomes



Furnishing

adds Furniture Products Compliance skill sets



Laboratory Operations

creates first skill set: Histotechnology



Textiles, Clothing and Footwear

introduces buying skill sets




Sustainability

identifies new skill sets - managing carbon audits/energy reduction processes

Each Case for Change submitted by IBSA Manufacturing and its IRCs includes consideration of both developing and updating the expanding range of manufacturing-related skill sets to meet identified niche industry or business needs. Skill building by way of skill sets provides formal skill recognition within the national training system while providing pathways to and from full qualifications through a training product that is both accessible to a range of VET learners and agile in responding to industry needs.

Overview of achievements

Manufacturing IRCs responding to Priority 5

MEA Aeroskills Case for Endorsement Dec 17	 Complete	Skill sets are an important feature of the MEA Aeroskills Training Package, which currently includes 102 skill sets with license outcomes. This version saw work undertaken to ensure that MEA skill sets continue to meet the regulatory requirements of the Australian Defence Force.
MSL Laboratory Operations Case for Endorsement Dec 17	 Complete	This version of the training package introduced skill sets by creating the first MSL skill set: MSLSS00001 Histotechnology Skill Set for laboratory technicians working in histotechnology.
MSS Sustainability Case for Endorsement Jun 18	 Complete	Industry stakeholder feedback identified the need for a new skill set in managing carbon audits and improving energy and greenhouse gas reduction processes (MSSSS00007 Lead energy and greenhouse gas improvements). The skill set will assist in upskilling a range of job roles to meet cross-industry requirements and multiple industry sectors regarding carbon emissions measurements and improvement.
MST Textiles, Clothing and Footwear Buying Case for Change Nov 17	 In progress	Introduction of skill sets in a textiles, clothing and footwear context is proposed for this training package. These will develop skills in ethical sourcing; managing production remotely; negotiating; replenishment; logistics; and developing buying plans.

Priority 6: Ensuring accredited courses 'fill the gap' in training packages and provide for training courses to be developed as quickly as industry needs them and support niche skill needs

IBSA Manufacturing continues to work with its IRCs and broader stakeholders to identify emerging priorities, skills gaps as well as skill requirements of niche sectors. These are reported in an annual Industry Skills Forecast which also proposes training package development work necessary to meet the needs of industry.

Where necessary, accredited courses will be encouraged in order to meet the immediate needs of industry. A recent example of the development of an accredited course is Swinburne's Associate Degree of Applied Technologies in partnership with Siemens and the Victorian Registration and Qualifications Authority (VRQA).

Conclusion

IBSA Manufacturing have taken a multi-faceted approach to meeting the ministerial priorities. The achievements it has made with each of its IRCs provide a strong forward focus to delivering training outcomes that meet the needs of industry and employees as the manufacturing sector continues to develop.

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