



Australian Government

MSS017015 Design for sustainability

Release: 1

MSS017015 Design for sustainability

Modification History

Release 1. Updated unit code. Changes to elements and performance criteria. Range of conditions removed. Assessment requirements amended. Equivalent outcome.

Application

This unit describes the skills and knowledge for the designing or redesigning of a product or service for sustainability. This unit will lead to the design specification for a sustainable or more sustainable product or service.

This unit applies to a manager or senior technologist who has a significant sustainability responsibility work role. Skills covered by this unit may be applied individually or in a team context.

No licensing or certification requirements exist at the time of publication. Relevant legislation, industry standards and codes of practice within Australia must be applied.

Pre-requisite Unit

Nil

Competency Field

Sustainable operations

Unit Sector

Not applicable

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1	Define the benefit received by the customer	1.1	Identify an existing or potential new product or service to design or redesign for sustainability
		1.2	Identify customers and determine how they will use the product or service
		1.3	Analyse the benefits received by the customer
		1.4	Define and rank the benefits received
		1.5	Validate benefits according to organisation requirements

Elements describe the essential outcomes.		Performance criteria describe the performance needed to demonstrate achievement of the element.	
2	Develop alternative ways of delivering benefit	2.1	Brainstorm alternative methods of delivering required benefits
		2.2	Brainstorm related benefits which may also be delivered
		2.3	Analyse sustainability impacts of each alternative
		2.4	Consult with stakeholders
		2.5	Rank alternatives by sustainability
		2.6	Write an initial business case for top ranked alternatives
3	Develop product or service and process design	3.1	Develop product or service design specification for alternatives most likely to be implemented
		3.2	Determine likely process for alternatives most likely to be implemented
		3.3	Analyse life cycle sustainability for alternatives most likely to be implemented
		3.4	Select alternative to develop
		3.5	Consult with stakeholders
		3.6	Confirm selected alternative does deliver key customer benefits
4	Confirm design for selected alternative	4.1	Develop and document product or service specification
		4.2	Develop and document key process parameters
		4.3	Consult with stakeholders
		4.4	Write business case for implementing selected alternative
		4.5	Negotiate solutions to value chain issues caused by changed design

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

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| 5 Communicate required responses | 5.1 | Identify what communications are required and to whom |
| | 5.2 | Prepare reports and recommendations |
| | 5.3 | Pitch reports and recommendations |
| | 5.4 | Brief appropriate persons as required by determined responses |
| | 5.5 | Finalise recording according to organisation requirements |

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS017007 Design for sustainability.

Links

The MSS Sustainability Companion Volume implementation Guides are available from VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

Assessment Requirements for MSS017015 Design for sustainability

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Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and:

- designed or redesigned at least 1 new or existing product or service for sustainability.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- process and changes which occur at each step in selected value chain
- principles of sustainability
- sustainability impacts at different points in the value chain
- principles of sustainable design
- the sustainability hierarchy
- sources and transport of materials and components and alternatives
- processes for producing products, and alternatives
- life cycle analysis techniques
- risk assessment and hierarchy of hazard control and its application to sustainability
- sustainability legislation, regulation and protocols, government incentives and initiatives.

Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions, contingencies, facilities, equipment and resources.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

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