



Australian Government

Department of Education, Employment and Workplace Relations

MSS015007A Develop a business case for sustainability improvements

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This unit of competency covers developing an appropriate business case for proposed changes which will deliver improvements to the sustainability of a process or organisation. It includes benefit/cost and return on investment (ROI) analyses.

Application of the Unit

This unit applies inside organisations and their value chains. The unit has been developed with manufacturing operations as a focus. However, because of the range of organisations in a typical manufacturing value chain it may also be applied to other types of organisations.

The unit applies to the development of a business case for sustainability related improvements to an organisation's products or processes. The business case may relate to the whole or part of an organisation, or to the whole or part of the value chain (e.g. suppliers of goods or services or customers). The business case may be required for sustainability related improvements in response to regulatory, Board, employee, shareholder or community requests or pressure. The business case may be completed by an individual or be prepared by a team. It would typically be undertaken by a manager or technical specialist who had a major responsibility for sustainability as part of a broader work role, or sustainability may be their primary work responsibility. The manager or technical specialist may undertake this alone or as part of a team.

The technical measurement of operational performance or measurement of emissions or other environmental impact is not covered by this unit. However, there is a requirement to present and organise data. The complexity of this requirement will vary according to the type and scale of the organisation's processes. Where required, appropriate mathematics and statistics units should be selected from the MEM05 Metal and Engineering Training Package or other appropriate Training Package.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills

Elements and Performance Criteria Pre-Content

Not applicable.

Elements and Performance Criteria

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| 1 Define the intended sustainability improvement project | 1.1 Define the purpose of the project |
| | 1.2 Determine the project goals |
| | 1.3 Determine regulatory requirements |
| | 1.4 Determine stakeholders for project |
| | 1.5 Clarify the critical success factors for the project |
| | 1.6 Quantify the current state |
| 2 Quantify expected benefits from the project | 2.1 Determine cost of any capital improvements from the project |
| | 2.2 Determine production improvements |
| | 2.3 Determine maintenance improvements |
| | 2.4 Determine product life cycle improvements |
| | 2.5 Determine regulatory health, safety and environment (HSE) improvements |
| | 2.6 Estimate total benefit of proposed project |
| 3 Determine costs required to implement project | 3.1 Estimate fixed capital costs required |
| | 3.2 Estimate personnel costs required |
| | 3.3 Estimate financial costs required |
| | 3.4 Estimate time required for project and time-related costs |
| | 3.5 Estimate total costs of project |

- 4 Prepare a proposal justifying project
 - 4.1 Determine ROI, sustainability and other project benefits
 - 4.2 Determine costs if any of not proceeding with the project
 - 4.3 Compare benefits to costs using appropriate methods
 - 4.4 Prepare proposal for project

Required Skills and Knowledge

Required knowledge includes:

- characteristics of good project purposes and goals
- regulatory environment and requirements for sustainability related project, including HSE aspects
- concept of capital versus operational improvements
- characteristics of good critical success factors and key performance indicators
- internal and external data sources
- project costing methods for capital, personnel, financial and time related costs
- methods of quantifying project benefits
- ROI calculations
- cost-benefit calculation
- relevant accounting conventions and requirements and the alternative lean view, where appropriate
- AS/NZS ISO 14000 Environmental Management Standards

Required skills include:

- analysing processes, logistics, material usages, costs and benefits
- analysing the regulatory environment as it applies to an organisation and determining implications for products and processes
- collating, interpreting, and presenting statistical data sets and other numeric information, including data series, means and averages

Evidence Guide

Overview of assessment	A person who demonstrates competency in this unit must be able to prepare a business case, including appropriate analyses, for sustainability related improvements.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Assessors must be satisfied that the candidate can competently and consistently apply the skills covered in this unit of competency in new and different situations and contexts. Critical aspects of assessment and evidence include: • identifying sustainability goals and relating these goals to current and future states • determining costs of sustainability related improvements across an organisation's operation or value chain • making RoI calculations • preparing project proposals that clearly define and quantify costs and benefits and presents a cogent and valid argument for proceeding with the project (or otherwise).
Context of and specific resources for assessment	• This unit of competency is to be assessed in the workplace or a simulated workplace environment. • Assessment should emphasise a workplace context and procedures found in the candidate's workplace. • This unit of competency may be assessed with other relevant units addressing sustainability at the enterprise level or other units requiring the exercise of the skills and knowledge covered by this unit. • The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team.
Method of assessment	• In all cases, practical assessment should be supported by questions to assess underpinning knowledge and those aspects of competency which are difficult to assess directly. • Where applicable, reasonable adjustment must be made to work environments and training situations to accommodate ethnicity, age, gender, demographics and disability. • The language, literacy and numeracy demands of assessment should not be greater than those required to undertake the unit of competency in a work-like environment.
Guidance information for assessment	

Range Statement

Expected benefit	Expected benefit may be a benefit against: • business • ecological • social • sustainability goals
Capital improvements	Capital improvements covers: • the purchase, installation, construction and commissioning of new equipment • alterations to existing equipment designed to improve the sustainability of the organisation's operations and which will be classed as capital in the organisation's balance sheet
Production improvements	Production improvements are improvements to processes such as: • work re-organisation • eliminating or changing operating steps • use of different materials, components or supplies • changing equipment and process conditions The improvements may or may not: • involve expenditure of a capital or operating nature
Maintenance related improvements	Maintenance related improvements are changes to maintenance procedures, such as increased: • condition monitoring • maintenance frequency designed to improve the efficiency and sustainability of operating equipment Maintenance improvements may require: • capital or non-capital expenditure
Product life cycle improvements	Product life cycle improvements are: • improvements to the entire life cycle of a product through design, manufacture, service and disposal
Regulatory HSE improvements	Regulatory HSE improvements are: • changes designed to improve the organisation's compliance to sustainability related Acts and regulations
Personnel costs	Personnel costs may include: • costs related to recruiting new staff, retrenchments, training and retraining and use of contract labour for sustainability related improvements

Time-related costs	Time-related costs include: the time value of money and may also include maintenance of new plant as part of the project
ROI	ROI means return on investment and relates in this unit to assessing the returns (positive and negative) on the investment required to make sustainability improvements. The actual formula used and the definitions of factors and hurdle rates adopted should be consistent with standard practice for the organisation

Unit Sector(s)

Sustainability

Custom Content Section

Not applicable.