



Skills for Sustainability



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Assessment Guide:

MSS015008A Develop strategic sustainability plans

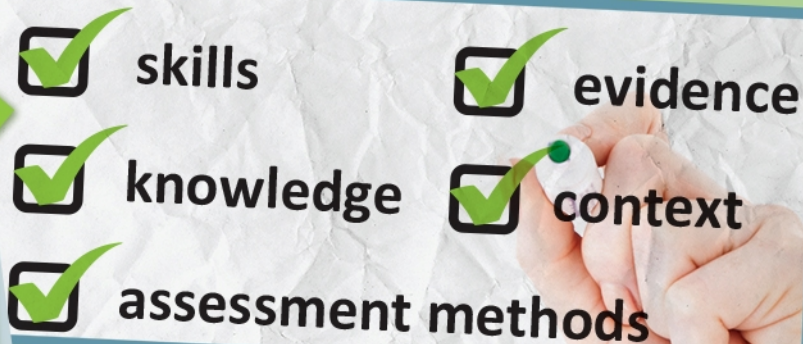


- ☒ skills
- ☒ knowledge
- ☒ assessment methods
- ☒ evidence
- ☒ context

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About the assessment guide

Aim of the guide

The Sustainability Skills assessment guide will assist Registered Training Organisations (RTOs) to design and contextualise their assessment activities and evidence requirements for the unit of competency

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In particular the guide demonstrates how:

- **Assessment methods can be chosen to suit the learner**, for example, if a learner has existing skills and experience in the unit of competency a portfolio of evidence is more useful than direct observation.
- **Assessment methods can be chosen to suit the industry context**, for example, where a work place has established sustainability policies and procedures direct observation and work place documentation / records could be used.
- Specific types of evidence can be identified that relate to the unit requirements and the industry context, for example, if the company has weekly production meetings minutes of these might provide evidence of making recommendations.

These decisions are used to design the assessment activities. For example a work place project might be developed around the aspects of the unit that can be applied and/or demonstrated in the workplace. Portfolio requirements might be designed around evidence that can be found, or generated, from typical day to day activities. An interview or test might be designed around aspects of the unit where knowledge needs to be tested because it is not clearly demonstrated in the practical activities or to test an individual's knowledge in a team environment.

The guide also provides examples that show how:

- **a contextualised workplace project can be developed** that demonstrates relevant aspects of the unit
- **questions can be identified** to assist in the authentication of evidence and show understanding of the application of the concepts of sustainability.

The assessment guide uses a fictional scenario as the basis for demonstrating one approach to developing an assessment tool for this unit of competency.

Note that the guide should be read in conjunction with the unit of competency (see training.gov.au).



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What the guide does not provide

The guide focuses on selecting assessment methods and evidence and does not provide a complete or validated assessment instrument. It is for guidance only; there are others ways that the unit could be assessed and many ways that an assessment can be contextualised. None of the processes or ideas in this guide is mandatory.

It does not cover everything that an RTO must address to deliver an assessment and meet compliance. For example the RTO will need to address:

- development of assessment instruments and documentation
- validation of assessment tools, processes and outcomes
- consulting with industry and developing a training and assessment strategy
- how the assessment will be 'delivered', for example, scheduling the activities, monitoring and providing support to the learner, and engaging input from enterprise managers
- full mapping of evidence to units of competency.

Each RTO will need to decide whether to follow any of the processes demonstrated here. If so, the RTO will need to amend the evidence and other details to reflect the characteristics of their learner/s and the context of their assessment. This should be based on their consultations with industry and clients, and the other information within their training and assessment strategy.

Focus of the guide

MSS11 Sustainability Training Package Assessment Guidelines

The Assessment Guidelines in MSS11 state that *"assessment should be conducted in the workplace or in a in a work-like environment. Many of the units also require the measurement of environmental and other indicators over a period of time and for this reason project based assessment is also preferred."*

This unit of competency states that *"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."*

In addition the Sustainable Operations qualifications are designed for workers experienced in their industry who require an 'overlay' of skills to improve the sustainability of the business.

Therefore the assessment guides focus on assessment methods for experienced workers and workplace assessment.



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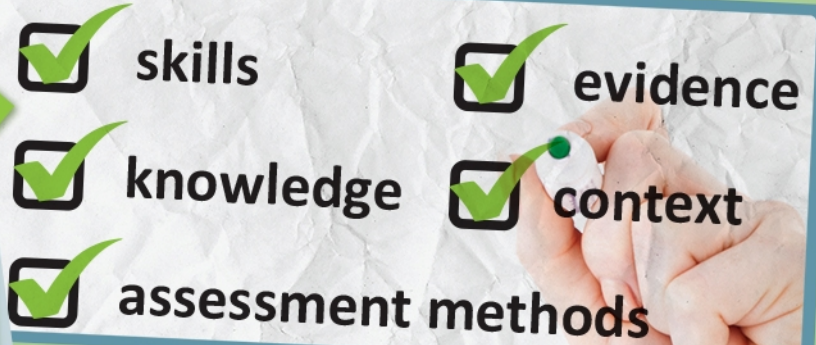
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Contextualising

The guide focuses on contextualising assessment to the participants / learners and the workplace context. It demonstrates how the context of the assessment can be analysed and used to select assessment methods and evidence to meet the requirements of the unit of competency.

Typically the context comprises information about:

- industry or enterprise systems, practices and documentation
- characteristics of the learner/s
- mode of delivery of any training.

The guide outlines one approach to planning and designing assessment activities and evidence that are contextualised.

There are many ways that an assessment can be designed to meet the context and the unit requirements. The approach outlined in this guide is just one way. If an RTO follows this approach they should amend the activities, evidence and other details to reflect the characteristics of their learner/s and the context of their assessment.

Contextualising for different sectors is critical. The sustainability issues that are significant to one industry sector or process might not be found in another. For example the casting and forging sectors use large amounts of energy and produce emissions such as dust and greenhouse gases (GHGs). However, one of the key sustainability issues in furniture manufacture may be sourcing plantation timber.

Additional information is available on the Skills for Sustainability website at <http://www.sustainabilityskills.net.au> including information about this unit of competency and information about sustainability issues in different sectors.

The website also has information about contextualization, understanding sustainability issues within different sectors, designing an assessment, developing workplace projects and using simulated workplace environments.



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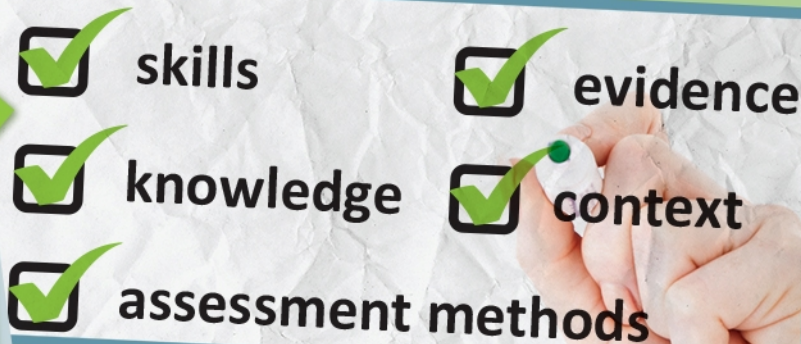
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What's in the assessment guide

This guide provides:

- a scenario outlining the RTO, learner and enterprise context
- key points drawn out from the scenario
- checklists to help link the context to the assessment methods and evidence:
 - checklists relating to the context for the assessment
 - checklists relating to assessment methods, and methods of collecting and submitting evidence
- an evidence planning table, linking the scenario context with evidence and the unit of competency
- a work based project based on the scenario and unit of competency and contextualised using the identified evidence
- questions based on the scenario and unit of competency and contextualised using the identified evidence.



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Assessment planning and design

Planning every aspect of an assessment is a broad process that requires many steps and sources of information. Arguably it can start with industry consultation and developing the training and assessment strategy; and conclude with the assessment decision and feedback to the learner.

This guide focuses on a small section of the process. It targets the steps of analysing the unit of competency and the context of the assessment in order to select appropriate assessment activities and evidence collection. These steps are represented in the flow chart at Figure 1.

Typically the context comprises the industry or enterprise systems, practices and documentation and characteristics of the learner/s and mode of delivery of any training. As an RTO you will collect much of this information from your industry consultation and discussion with clients, and capture it in your training and assessment strategy.

In this guide the context is described in a scenario which includes a fictional RTO, learner profile and an industry sector or enterprise context. It uses this information to identify suitable assessment methods and available evidence that are aligned to the unit of competency. These are used to design the assessment activities linked to the unit requirements.

Information inputs

Context

Assessment guide uses a scenario for the context
RTO uses its training and assessment strategy for the context (including consultation and review of the unit of competency)

Competency requirements

Unit of competency

Steps in designing assessment activities

Identify key aspects of the context
(learner, enterprise, sector,
sustainability issues, other?)

Select assessment methods and evidence
collection aligned to context

Identify specific evidence (valid, sufficient, current,
authentic and aligned to the unit and context)

Design the activities to generate/capture and
authenticate the evidence

Figure 1 Designing assessment activities



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Context: The scenario

The RTO

Systems Improvements is a private RTO specialising in competitive systems and processes. The trainers and assessors deliver training and assessment via four different delivery models; workshop (groups in a classroom), implementation support (workshop plus hands on implementation support in the workplace), mentorships (one-on-one on the job) and recognition of prior learning (RPL).

Yogita, the owner of the RTO and chief trainer and assessor, has a group of ten learners in the implementation support model. They come from a range of manufacturing businesses within a regional area and will be able to practice their new skills and knowledge in their work.

The learners are enrolled in MSS50112 Diploma of Sustainable Operations and will start with this unit of competency, MSS015008A Develop strategic sustainability plans.

The learners

The learners come from different manufacturing sectors, such as confectionary, pharmaceuticals, metal fabrication, treated pine and concrete pipes. For the purposes of this scenario we are going to focus on one learner from the metals fabrication industry sector.

Sonia has been appointed as ABC Sheetmetal's first manager of sustainability. She is responsible for all sustainability strategies and reports to the Chief Executive Officer (CEO). As part of her responsibilities Sonia has decided to:

- audit the current use of water, energy and materials to establish the organisation's current state
- consult with suppliers, customers, employees and the community on how to improve sustainability performance
- establish data collection arrangements to meet the requirements of customers, the Global Reporting Initiative and the *Clean Energy Act 2011*
- prepare a report for the directors and senior management on the results of consultations, including recommendations.

The enterprise context

ABC Sheetmetal has just won a large export order for widgets to an overseas country. The country importing the widgets has a carbon reduction scheme in place and requires all suppliers to provide reports under the Global Reporting Initiative guidelines. The directors have also decided to monitor and report on the company's use of energy and materials to meet the requirements of the domestic *Clean Energy Act*



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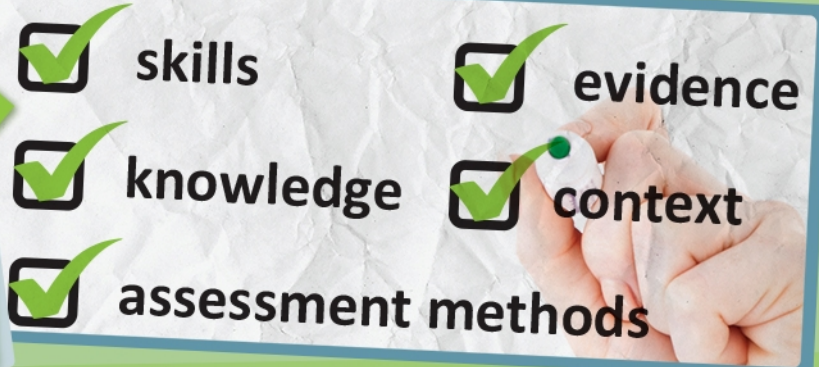
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2011. They are considering implementing the ISO 14001 Environmental management systems. The CEO is very hands on and is taking a personal interest in sustainability.

ABC Sheetmetal focuses on high quality, specialised metal fabrications and offers clients a one stop shop that covers everything from the scoping and design stages through to installation and on site repairs. It specialises in product development and technical innovation.

They have been working on efficiency initiatives as part of their implementation of lean manufacturing. As part of their lean implementation they have some established systems and procedures. For example, they typically use SWOT and balanced scorecard techniques for planning and evaluating, Fishbone diagrams and 5 whys (5Y) for root cause analysis (RCA). They have an effective continuous improvement system in place.

This has been paying off and the company has been doing well and is increasing exports of fabricated products. It has patents on the widgets it has developed and there is a demand for them from overseas, despite the high Australian dollar.

The main sustainability issues for ABC Sheetmetal are in the areas of energy consumption (electricity and LPG), waste minimisation, minimising the carbon footprint and reducing facility costs. They are one of the big businesses in the regional area and have a reputation as a good employer and a stable company.

Key points from the scenario

- The industry sector is metals fabrication.
- Sonia is taking part in a course delivered by workshop and on-the-job implementation, so a workplace project is feasible as a key assessment method.
- Sonia does not have detailed technical knowledge of all of the processes so she will need to consult with other people and source information/data.
- Part of Sonia's job role is to produce a plan that meets the requirements of the Global Reporting Initiative and the company's obligations under the carbon tax.
- ABC Sheetmetal has procedures for continuous improvement and uses techniques such as SWOT, balanced scorecard and RCA.
- They will have some data about energy consumption from audits done in their lean activities.
- The sustainability focus is likely to be on environmental sustainability, particularly energy efficiency, carbon/GHG emissions and waste minimisation.



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What does the scenario tell us about the context for the assessment?

- ☒ Classroom based
- ☒ Existing worker in this field
- ☐ Not currently employed in this field
- ☒ Off the job learning
- ☒ On the job implementation
- ☐ RPL
- ☐ Simulated workplace environment
- ☒ Single unit of competency
- ☐ Skill cluster
- ☐ Whole qualification
- ☒ Workplace based

Which assessment methods are suitable?

Direct observation, for example;

- ☐ Practical demonstration in the workplace
- ☒ Real work/real time activities in the workplace
- ☐ Work activities in a simulated workplace environment

Structured activities, for example;

- ☐ Activity sheets
- ☐ Presentation to colleagues
- ☐ Scenario based project
- ☐ Simulation exercises such as hypotheticals and role plays
- ☐ Work based case study
- ☒ Work based project (and documentation)

Questioning, for example;

- ☐ Oral or written examinations (may be applicable at higher AQF levels)
- ☐ Questionnaires
- ☐ Self assessment
- ☒ Verbal questioning / discussion / interview
- ☐ Written questions



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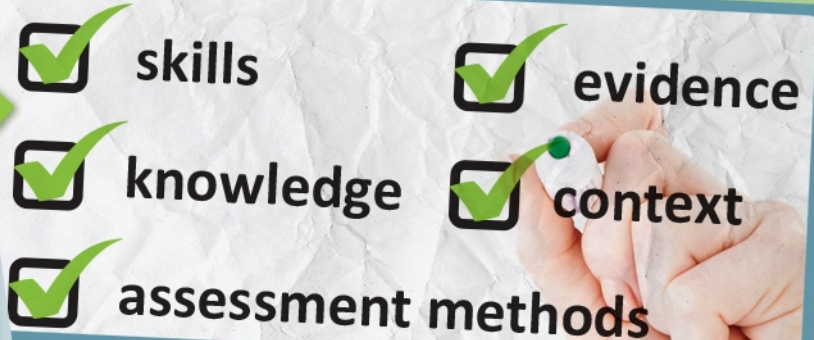
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Portfolios of evidence, for example;

- ☐ Authenticated prior achievements
- ☐ Collection of work samples compiled by the learner
- ☐ Evidence of training courses attended
- ☐ Historical evidence
- ☐ Information about life experience
- ☐ Journal or log book
- ☒ Photographs or video
- ☐ Product with supporting documentation
- ☐ Verified workplace history/CV
- ☒ Workplace documentation / records

Third party feedback, for example;

- ☐ Interview with employer, supervisor, or peer
- ☐ Letter of support from a work place
- ☐ Testimonials and reports from employers and supervisors
- ☐ Third party report from supervisor or technical expert

How will evidence be collected or submitted?

- ☒ Documents - electronically / in person / mail
- ☐ Data capture - video / audio / notes / smart pen by assessor / 3rd party / candidate
- ☐ Data submission - web upload / mail (USB drive / SD card / disc etc)
- ☐ Online real time - Skype, web conference
- ☐ Online self paced – online tests, interactive simulation

Evidence: What will be available and suitable?

The evidence planning table shows one way of linking the context of the scenario with the unit of competency. It examines the unit of competency, the context and the selected assessment method in order to identify appropriate assessment evidence.

Based on the scenario, the learner and the context identified above, the following evidence could be expected to be available as part of the assessment. Keep in mind that some evidence might apply to several aspects of the unit or even several units.

Evidence planning table

This table provides an example of identifying evidence that is available in the workplace. The evidence listed here has been selected so that it covers the required skills, required knowledge and critical aspects of assessment for this unit, however, this has not been shown in the table.

The table is not intended as a format for mapping to meet compliance requirements and each RTO needs to determine the type of mapping that may be required by its registering body.



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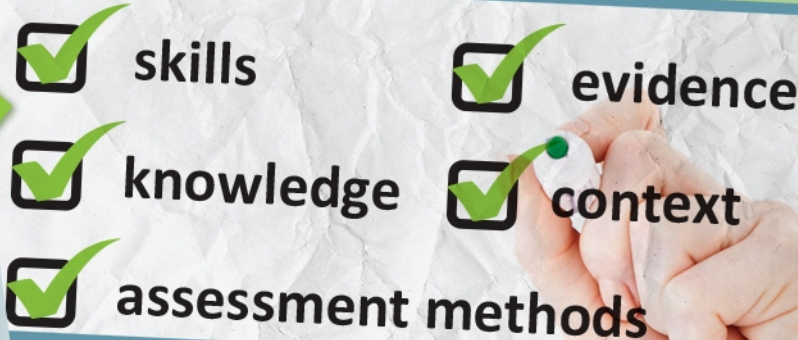
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Element	Performance Criteria	Evidence
1 Determine current sustainability status of the organisation	1.1 Determine main organisational motivations and drivers for improved sustainability 1.2 Determine current regulatory environment 1.3 Determine current availability of data required for sustainability indicators 1.4 Arrange for sustainability-related audits if required	<p><input checked="" type="checkbox"/> Work-based project (and documentation)</p> <ul style="list-style-type: none"> Work plan for a work-based project to develop a strategic sustainability plan Evidence of communicating and negotiating with stakeholders and regulators to identify key sustainability drivers, issues and options, for example, notes of meetings and emails <p><input checked="" type="checkbox"/> Workplace documentation/records</p> <ul style="list-style-type: none"> Examples of sustainability indicators and data, such as sustainability audits, environmental monitoring records, Environment Protection Authority (EPA) compliance issues, production records and staff record Evidence of keeping up to date with the current regulatory environment for example, email newsletters and trade journals <p><input checked="" type="checkbox"/> Verbal questioning/discussion/ interview</p> <ul style="list-style-type: none"> Discussion with the assessor about the drivers for sustainability in the business
2 Identify priority areas for improvement	2.1 Identify strategic goals of the organisation and how these are impacted by sustainability 2.2 Determine suggestions for major improvement 2.3 Rank suggestions 2.4 Short list improvements to be progressed	<p><input checked="" type="checkbox"/> Work-based project (and documentation)</p> <ul style="list-style-type: none"> SWOT analysis of sustainability performance of the organisation Evidence of collecting suggestions for major improvements, for example, analysis of data, such as sustainability audits, butcher's paper notes of toolbox meetings brainstorming ideas, review of items in the continuous improvement system and suggestion box List of the short listed major sustainability improvement options evaluated using an balanced score card approach <p><input checked="" type="checkbox"/> Workplace documentation/records</p> <ul style="list-style-type: none"> Electronic copy of the company's strategic business plan with comments added to explain items relevant to sustainability <p><input checked="" type="checkbox"/> Verbal questioning/discussion/ interview</p> <ul style="list-style-type: none"> Explanation of how the SWOT was used to evaluate sustainability issues Explanation of how the balanced scorecard criteria were chosen to relate to sustainability



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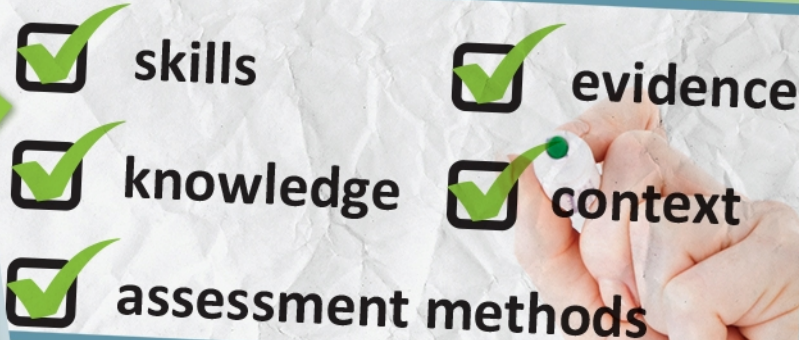
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Element	Performance Criteria	Evidence
3 Establish an appropriate project team	<p>3.1 Arrange for a team leader to be allocated for each short listed suggestion</p> <p>3.2 Ensure an appropriate project team is established for each suggestion</p> <p>3.3 Define expected outcomes and performance indicators for each suggestion</p> <p>3.4 Ensure appropriate project plans are developed</p>	<p><input checked="" type="checkbox"/> Work-based project (and documentation)</p> <ul style="list-style-type: none"> Sustainability project plans, including team members, timelines, outcomes and key performance indicators (KPIs), such as efficiency targets to indicate if the project is on track and if it delivers the suggested benefits Notes (or photographs of the whiteboard notes) from the meeting setting the expected outcomes and performance indicators for each suggestion <p><input checked="" type="checkbox"/> Verbal questioning/discussion/ interview</p> <ul style="list-style-type: none"> Interview with the assessor to discuss the outcomes and performance measures for the projects
4 Design potential improvement	<p>4.1 Arrange for project designs to be developed</p> <p>4.2 Ensure appropriate evaluation is undertaken of each project</p> <p>4.3 Select suggestions to be implemented</p>	<p><input checked="" type="checkbox"/> Work-based project (and documentation)</p> <ul style="list-style-type: none"> Project designs, such as sustainability project plans, tender documentation, specifications and costings Evaluation for the sustainability projects, such as balanced scorecard, benefit/cost analysis, and evaluations by qualified individuals (e.g. engineers) to examine the project for weaknesses and suggest improvements, ensuring that the projects are integrated with other organisational strategic requirements <p><input checked="" type="checkbox"/> Real work/real time activities in the workplace (within project)</p> <ul style="list-style-type: none"> Observation of meeting where the learner briefs the CEO and senior managers about the proposed projects and seeks their input <p><input checked="" type="checkbox"/> Verbal questioning/discussion/ interview</p> <ul style="list-style-type: none"> Discussion about the criteria used to evaluate the project plans

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Element	Performance Criteria	Evidence
5 Develop strategic plan	5.1 Identify implications of strategic sustainability plan for organisation 5.2 Estimate implementation timelines 5.3 Identify strategic approvals for implementation 5.4 Identify required documentation 5.5 Draft plan to guide proposal to sanction	<p><input checked="" type="checkbox"/> Work-based project (and documentation)</p> <ul style="list-style-type: none"> Strategic sustainability plan for the business outlining the selected projects and how they will be implemented <p><input checked="" type="checkbox"/> Verbal questioning/discussion/ interview</p> <ul style="list-style-type: none"> Explanation of how the strategic sustainability plan fits with the business goals Discussion with the assessor about the strategic projects to be implemented, why they are priorities and what needs to happen to have them approved Discussion with the assessor about stakeholder selection and input

Assessment activity: Work based project

The work based project defines a project that the learner can do in the work place. This might be part of their normal activities or it could be an additional activity. In this example there is a clear relationship between the unit of competency and a work place activity to 'develop strategic sustainability plans'.

So, for this unit, the outline of the project can come from the unit itself. The details of the project can be designed by bringing together the context with the evidence that is available in the work place (or that can be generated by the project). The evidence that has been identified in the evidence planning table helps to define the project.

A work based project for Sonia at ABC Sheetmetal

The project is to develop a strategic sustainability plan for ABC Sheetmetal.

The purpose of the plan is to improve the sustainability performance by; identifying priority areas for improvement that strategically align to business goals, establishing project teams, evaluating potential projects and developing a strategic plan so that the chosen projects can be implemented.

Sonia will need to complete the following:

1. Prepare a work plan outlining:
 - o a description of the overall business and boundaries of the supply chain for the strategic sustainability plan



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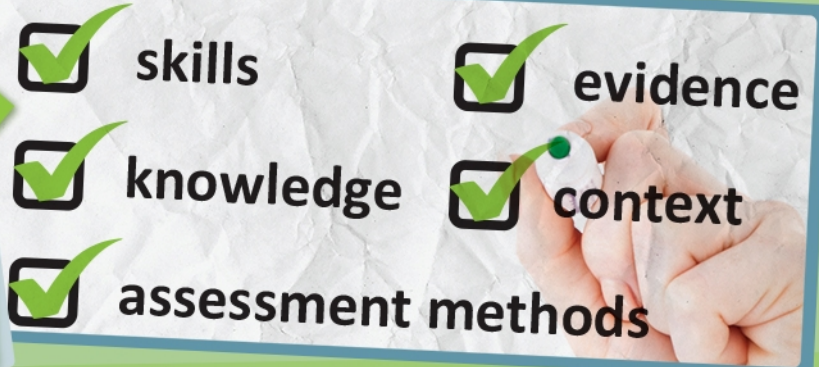
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- who the key stakeholders are (e.g. regulators, suppliers, customers, employees and the community and how she will consult with them)
 - the sustainability drivers for the company and its value chain and how they can be integrated with the strategic direction and goals of the company (e.g. ISO 14001 Environmental management systems, meeting customer requirements, the *Clean Energy Act 2011* and the Global Reporting Initiative)
 - what data she will require, what she has access to, and what she needs to collect
 - timeline
 - deliverables
 - evaluation criteria for the success of the project – what a successful project will look like.
2. Undertake a SWOT analysis of the current economic, environmental and social sustainability status of the company.
 3. Identify baseline data for current use of energy, water and materials through existing audits and/or organise sustainability audits to fill any gaps.
 4. Identify options for major improvements from existing suggestions and evaluate and prioritise the options using a balanced scorecard approach.
 5. Establish project team/s and facilitate development of project plans for the priority suggestions, including performance indicators, timelines, expected outcomes and any government incentives/programs that could assist.
 6. Select project plans which will be implemented, based on a benefit/cost analysis and input from the CEO, finance manager and operations manager.
 7. Document a strategic sustainability plan, including;
 - details of the selected projects
 - implications for the company, such as processes, logistics, material use and links to other projects
 - benefit/cost analysis for each project
 - required documentation
 - regulatory, financial and management processes needed to gain the approvals to implement the projects.



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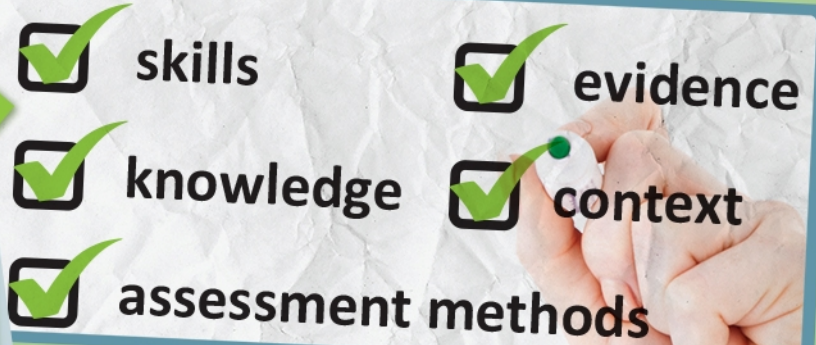
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Assessment activity: Questions

In this guide, questioning is used to assess required knowledge and aspects of competency which are difficult to assess in other ways, for example, testing the application of the concepts to the project activities. The questions also help to authenticate the evidence.

Based on the scenario, Yogita will discuss these questions with Sonia at pre-determined points during the project, as part of her monitoring and mentoring responsibilities.

Questions for Sonia at ABC Sheetmetal

What are the main drivers for improved sustainability at ABC Sheetmetal?

Who were the people that you consulted with? Why was it important to consult with them?

How did you incorporate sustainability into the SWOT analysis of ABC's sustainability performance?

Explain the criteria you used in the balanced scorecard to prioritise the suggestions for major improvement? Why did you choose them? How do they relate to sustainability?

How is the strategic sustainability plan integrated with other goals and strategic directions of the organisation?

What processes are required to guide the strategic sustainability plan projects to sanction?



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