



Australian Government

**Assessment Requirements for MEM29011
Develop a business case for Industry 4.0
implementation in a workplace**

Release: 1

Assessment Requirements for MEM29011 Develop a business case for Industry 4.0 implementation in a workplace

Modification History

Release 1. New unit.

Performance Evidence

There must be evidence the candidate has demonstrated the ability to:

- review at least two real or simulated workplace operations and assess advantages, waste and risks for the current state of:
 - automation
 - local and cloud networking
 - data collection, storage and analysis
- gather relevant data to assess the benefits of and prioritise Industry 4.0 technologies for at least two workplaces
- prepare a business case for implementation of relevant Industry 4.0 technologies in a workplace covering relevant costs, parameters and benefits.

Note: Where a volume and/or frequency is not specified, demonstration must be provided at least once.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- classification of waste according to the definition used in lean systems i.e. activities or functions that do not create value for customers (muda)
- classes of waste:
 - waste that does not create value but is unavoidable
 - waste that does not add value and can be eliminated
- typical economic advantages and business case objectives for Industry 4.0 implementation including:
 - increased revenue through increased production
 - increased productivity, including:
 - less waste, rejects and rework
 - reduced costs
 - accelerated time to market
 - improved quality of products or processes
 - improved business agility
 - improved cyber security
 - improved workplace health and safety (WHS)

- cost factors for implementation of Industry 4.0 technologies including:
 - direct equipment, material and software costs
 - productivity loss costs including:
 - disruption cost
 - contingency costs
 - training costs
 - insurance, legal and other administrative costs
 - decommissioning and disposal costs for redundant systems
- key parameters for an Industry 4.0 business case including:
 - description of current and proposed technologies, networking and data collection, storage and processing strategies
 - proposed scope of implementation (e.g. products, processes, locations)
 - implementation objectives expressed in terms of customer benefit
 - relationship to overall organisation objectives
 - operating KPIs for each proposed technology
 - benefit/cost analysis for each proposed Industry 4.0 system
 - implementation strategy, KPIs and timeline
 - risk management strategy
 - continuous improvement strategy
 - legacy systems transition strategy
 - approval process.
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Assessment Conditions

- Assessors must:
 - have vocational competency in developing a business case for Industry 4.0 implementation in a workplace at least to the level being assessed with relevant industry knowledge and experience
 - satisfy the assessor requirements in the *Standards for Registered Training Organisations 2015* or its replacement and comply with the *National Vocational Education and Training Regulator Act 2011*, its replacement or equivalent legislation covering VET regulation in a non-referring state/territory as the case requires.
- Where possible, assessment must occur in operational workplace situations. Where this is not possible or where personal safety or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment that reflects realistic operational workplace conditions that cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- There must be access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

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Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>