



Australian Government

MSS405002 Analyse and map a value stream stream

Release: 1

MSS405002 Analyse and map a value stream

Modification History

Release 1. Supersedes and is equivalent to MSS405002A Analyse and map a value stream

Application

This unit of competency covers the skills and knowledge required to analyse and map a value stream, including the clear identification of the place of an organisation in the value stream and its contribution to the value stream. The unit includes the relationships and the activities undertaken by value stream organisations. The identification skills include identification at the virtual or information level, the technical or process level, and at the physical or logistic level.

The unit includes the analysis of value-adding and non-value adding activities and the information needs for successful value stream mapping, including information technology (IT) needs.

This unit covers the analysis of the supply chain, the demand chain as well as the overall value stream.

This unit applies to an individual in a senior role in an organisation, such as an operations manager, purchasing manager, senior technical officer performing planning or scheduling or similar who needs to analyse and map a value stream, a supply chain, or a demand chain in order to understand the interactions between all members and determine the value added/potential value added by each member. The value stream is represented visually according to organisation format requirements.

The value stream may be being mapped for the first time, or it may be an analysis and mapping of a previously mapped value stream. The analysis and mapping may be for an entire value stream, or a defined part of one.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Competitive systems and practices

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 | Map the value stream | 1.1 | Select a product/product group for analysis. |
| | | 1.2 | Identify ultimate customer. |
| | | 1.3 | Identify ultimate supplier. |
| | | 1.4 | Identify all organisations between ultimate supplier and ultimate customer. |
| | | 1.5 | Identify all steps in own organisation. |
| | | 1.6 | Map value stream. |
| | | | |
| 2 | Define customer need | 2.1 | Determine the features/benefits obtained by customers from product. |
| | | 2.2 | Determine methods of measuring the contribution to each feature/benefit. |
| | | 2.3 | Identify possible data sources for required measures. |
| | | 2.4 | Implement measurement of contribution to features/benefits. |
| | | | |
| 3 | Assess the value added at each step | 3.1 | Identify value contributed by each external organisation. |
| | | 3.2 | Determine value added by each internal step. |
| | | 3.3 | Determine method of measuring value added. |
| | | | |
| 4 | Reduce muda (waste) | 4.1 | Compare value added to customer benefit/feature. |
| | | 4.2 | Identify activities on value stream map which do not add to customer benefit/features. |
| | | 4.3 | Liaise with external value stream members to determine methods to reduce overall waste. |
| | | 4.4 | Take required actions to reduce waste. |

Foundation Skills

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

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

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Competitive systems and practices include one or more of:

- lean operations
- agile operations
- preventative and predictive maintenance approaches
- statistical process control systems, including six sigma and three sigma
- Just in Time (JIT), kanban and other pull-related operations control systems
- supply, value, and demand chain monitoring and analysis
- 5S
- continuous improvement (kaizen)
- breakthrough improvement (kaizen blitz)
- cause/effect diagrams
- overall equipment effectiveness (OEE)
- takt time
- process mapping
- problem solving
- run charts
- standard procedures
- current reality tree.

Customer requirement stages where value stream actions may occur include one or more of:

- sales outlet/representative
- information gathering, data analysis and research
- product design
- raw material sourcing
- intermediate processing
- final assembler/collation/preparation
- support services (e.g. accounting, finance and legal)

	• storage and delivery to customer • after market support.
Value-added as perceived by the customer includes one or more of:	• technical benefits/features • location benefits/features • aesthetic benefits/features • information benefits/features.
Techniques for value stream mapping include one or more of:	• hard copy (e.g. paper or whiteboard) • appropriate software tools • expert group • participation by gemba representatives • participation by all impacted personnel.
Muda (waste) includes all of:	• excess production and early production • delays • movement and transport • poor process design • inventory • inefficient performance of a process • making defective items • activities which do not yield any benefit to the organisation or any benefit to the organisations customers.

Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS405002A Analyse and map a value stream

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

Assessment Requirements for MSS405002 Analyse and map a value stream

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability to analyse and map one (1) or more value streams (either for the first time or subsequently) and to:

- develop an initial map of the value stream
- define customer perceived need and from this assess the value added by each step
- identify and minimise muda.

Knowledge Evidence

Must provide evidence that demonstrates sufficient knowledge to interact with relevant personnel and be able to analyse and map a value stream, including knowledge of:

- value stream mapping and analysis techniques
- muda identification and causes
- details of the process being mapped in sufficient depth to allow analysis of the map
- meaningful interactions of this value stream with other value streams
- concepts of value added/non-value added and methods of determining/quantifying this.

Assessment Conditions

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence is best done from a report and/or folio of evidence drawn from:
 - a single project which provides sufficient evidence of the requirements of all the elements and performance criteria
 - multiple smaller projects which together provide sufficient evidence of the requirements of all the elements and performance criteria.
- A third-party report, or similar, may be needed to testify to the work done by the individual, particularly when the project has been done as part of a project team.
- Assessment should use a real value stream mapping exercise for an operational workplace.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).
- 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.

- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
 - relevant VET or other qualification/Statement of Attainment AND/OR
 - relevant workplace experience
- Currency can be demonstrated through:
 - performing the competency being assessed as part of current employment OR
 - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

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