

## MTMPS5602B Analyse and develop enterprise systems for new opportunities

Unit descriptor	This unit covers the skills and knowledge required to evaluate and develop production systems which are suited to the company's products and goals, are cost efficient and to ensure that products meet enterprise and customer specifications. The design of the production system affects the quality of product processed. The analysis and development of enterprise production systems gives an enterprise the flexibility to become an innovative organisation, take on new opportunities and strengthen or expand its market.
Employability Skills	The required outcomes described in this unit of competency contain applicable facets of Employability Skills. The Employability Skills Summary of the qualification in which this unit of competency is packaged will assist in identifying Employability Skill requirements.
Application of the unit	<p>At this level individuals exercise considerable autonomy, responsibility and accountability within enterprise structures and are required to make primary contributions to the values, goals and operations of the enterprise. They will typically have responsibility for the establishment and review of systems for the site or department. They may work with the assistance of external experts to develop plans and strategies.</p> <p>This unit is suitable for senior managers, (Chief Executive Officers (CEOs), Chief Finance Officers (CFOs), Directors of meat processing and smallgoods enterprises, building a culture of innovation in a meat <i>industry context</i>.</p>

### ELEMENT

Elements describe the essential outcomes of a Unit of Competency.

### PERFORMANCE CRITERIA

Performance Criteria describe the required performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

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1 Analyse effectiveness of enterprise production system to meet enterprise goals	1.1	Enterprise mission, direction and objectives are analysed.
	1.2	Impact of current and future market trends and business environment on enterprise goals and operations is determined.
	1.3	Production system requirements to meet enterprise goals are determined.

	1.4	Capacity of the existing system to meet enterprise goals is assessed.
	1.5	Existing systems are analysed to identify system strengths, weaknesses and problem areas.
2 Identify and <i>evaluate alternatives</i>	2.1	New, reconfigured or redesigned systems and components are researched.
	2.2	New, reconfigured or redesigned systems and components are evaluated for suitability for enterprise product, feasibility and cost, and outcomes reported to stakeholders.
	2.3	Enterprise commitment to a new, reconfigured or redesigned system is obtained.
	2.4	Resource requirements are identified, agreed upon and included in enterprise planning.
	2.5	Sources of resource support are identified and evaluated.
3 Implement solutions	3.1	Specifications for new, reconfigured or redesigned system are developed.
	3.2	New, reconfigured or redesigned system is commissioned.
	3.3	Implementation strategy, including work redesign, is planned, communicated and negotiated with <i>stakeholders</i> .
	3.4	Impact on personnel is identified and strategies to facilitate change are prepared.
	3.5	Training plans are developed, resourced and implemented.
	3.6	Procedures and controls are developed, tested and refined.
4 Monitor production process	4.1	<i>Performance criteria</i> for the new, reconfigured or redesigned system are established.
	4.2	Performance data is collected, analysed and reported.
	4.3	Progress and performance are reported to stakeholders.
	4.4	Strategies for improvement are identified in consultation with the team and built into continuous improvement and planning processes.

## REQUIRED SKILLS AND KNOWLEDGE

This describes the essential skills and knowledge required for this unit. Where bold italicised text is used, further information is detailed in the Range Statement.

- Analyse performance information and prepare reports for stakeholders.
- Analyse the organisational environment to assess capacity for, and impact of changes to, systems and operations.
- Apply in-depth ***product knowledge*** in determining the processing requirements for species or products according to customer and enterprise requirements, including methods, technology, quality, speed of production.
- Apply relevant ***communication*** and ***mathematical skills***.
- Assess alternative configurations of technology, labour, processes, organisation and layouts for process flow effectiveness.
- Compare capability of existing production system with market potential and capability of alternative systems.
- Determine criteria for evaluating alternative ***production systems and system components***. This will include reference to product specifications, yield and quality, technical requirements and cost.
- Develop a communication strategy for involving the workforce, negotiating changes and reporting progress.
- Develop data collection and recording systems linked to systems performance criteria.
- Establish goals and performance criteria for operation of the production system.
- Estimate the impacts of enterprise forecasts and changes in the industry (including technology) and in the market on enterprise resource requirements, operation and sales.
- Evaluate the consequences and change implications of adopting new, reconfigured or redesigned systems on overall operation of the plant, including the impact on personnel.
- Flowchart the movement of products and resources along the chain or process line to identify strengths and weaknesses.
- Identify and apply relevant ***OH&S, workplace*** and ***regulatory requirements***.
- Identify and resolve industrial relations issues related to changes in systems.
- Identify enterprise goals and directions and the implications for enterprise operations.
- Prepare action plans for the implementation of new systems including commissioning of the new system, timelines, resources and training and change facilitation strategies to assist personnel implement new, reconfigured or redesigned systems.
- Prepare and justify budgets for the introduction of new systems or components. This covers calculating the costs of retaining the current system and the costs of setting up and operating new, reconfigured or redesigned systems, including initial costs, ongoing costs and payback periods.
- Prepare and present recommendations in formats, language and styles appropriate for the audience.
- Present reports according to legal and enterprise requirements.
- Quantify and cost the ***resources*** required for optimum operation of existing systems, including utilities and energy, personnel, equipment and stock.
- Research and analyse ***market intelligence***, trends and forecasts to identify possibilities for the enterprise.

- Research and evaluate available systems (eg technology and equipment, processing methods and techniques, work design) appropriate for enterprise product.
- Research and evaluate sources of support including government and private, financial and other support.
- Review existing procedures and controls or develop new ones to facilitate systems operations according to enterprise and regulatory requirements. This will include integration with enterprise quality and food safety systems.
- Seek external advice where appropriate, for example from technology and equipment manufacturers, architects, engineers and tradespeople.
- Use a range of quality and evaluative tools to analyse the capability of enterprise systems to meet future projections.
- Use available communication and information technology to complete forecasts, analyses and *modelling*, where required.

## RANGE STATEMENT

The Range Statement relates to the Unit of Competency as a whole. It allows for different work environments within the meat industry and situations that may affect performance. This includes any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts. Bold italics wording in the Elements and Performance Criteria, and Required Skills and Knowledge, is detailed below.

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<b><i>Industry context</i></b> includes:	<ul style="list-style-type: none"> <li>• cost centres or departments operating semi-autonomously within guidelines of the parent enterprise or company, eg retail meat departments, boning rooms, food service and meat retail</li> <li>• domestic and export establishments</li> <li>• medium and large enterprises.</li> </ul>
Criteria for <b><i>evaluating alternative</i></b> systems and configurations may include:	<ul style="list-style-type: none"> <li>• capacity, eg volume, speed, life span</li> <li>• compliance with relevant design and operating standards, codes, regulations</li> <li>• energy requirements</li> <li>• personnel requirements</li> <li>• safety</li> <li>• set up and operating costs</li> <li>• waste and environmental impact.</li> </ul>
<b><i>Stakeholders</i></b> may include:	<ul style="list-style-type: none"> <li>• company owners, directors, shareholders, financiers</li> <li>• competitors</li> <li>• management and employees</li> <li>• suppliers, customers, consumers</li> <li>• unions and employer associations.</li> </ul>
<b><i>Performance criteria</i></b> may include:	<ul style="list-style-type: none"> <li>• environment, eg reduction in energy consumption</li> <li>• financial, eg changes in cost of production per unit,</li> </ul>

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	<p>reduction in waste, reduction in maintenance costs, reduction in utility costs, increased rates of production</p> <ul style="list-style-type: none"> <li>• human resource requirements, eg staffing levels, salary savings, multi-skilling, safety</li> <li>• quality, eg reductions in returned product, non-conformances, recalls, on-time completion of contracts.</li> </ul>
<b>Product knowledge</b> may include:	<ul style="list-style-type: none"> <li>• impact on processing, handling, storage techniques on product quality, eg taste, texture, shelf life</li> <li>• requirements for handling particular species or raw materials eg, food safety, stunning procedures, equipment capacity and design, cooking, preservation techniques</li> <li>• suitability of species, meat and meat products for further processing.</li> </ul>
<b>Communication</b> may:	<ul style="list-style-type: none"> <li>• be inclusive of the cultural, ethnic and social diversity of individuals and groups</li> <li>• involve information and communications technology including data bases, internet search and e-commerce services etc</li> <li>• involve the use of negotiating, persuasion and assertiveness skills</li> <li>• occur in a variety of sensitive, conflictive, collaborative and supportive environments, may be formal or informal and involve face-to-face and technological and electronic methods</li> <li>• require analysis and presentation of complex concepts, technical information, mathematical information and other data in simple or complex formats</li> <li>• require preparation of reports which may be complex, contain information from a range of technical sources and include mathematical and graphic information and data.</li> </ul>
<p><b>Mathematical skills</b> may relate to complex actual and hypothetical technical and financial modelling, calculations, interpretation and analysis. Mathematical information may be complex and relate to product and product quality, financial operations, personnel, operations, sales and turnover, exports, etc.</p>	
<b>Production system and system components</b> may include alternative combinations and configurations of:	<ul style="list-style-type: none"> <li>• human resources including management practices, work practices</li> <li>• job or work design</li> <li>• operational sequencing and flows</li> <li>• plant layout and construction</li> <li>• technology and equipment.</li> </ul>
<b>OH&amp;S requirements</b> may include:	<ul style="list-style-type: none"> <li>• enterprise OH&amp;S policies, procedures and programs</li> <li>• OH&amp;S legal requirements</li> </ul>

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- Personal Protective Equipment (PPE) which may include:
    - coat and apron
    - ear plugs or muffs
    - eye and facial protection
    - head-wear
    - lifting assistance
    - mesh apron
    - protective boot covers
    - protective hand and arm covering
    - protective head and hair covering
    - uniforms
    - waterproof clothing
    - work, safety or waterproof footwear
  - requirements set out in standards, codes of practice etc.
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*Workplace requirements* may include:

- enterprise-specific requirements
  - OH&S requirements
  - Quality Assurance requirements
  - Standard Operating Procedures
  - the ability to perform the task to production requirements
  - work instructions.
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*Regulatory requirements* may include:

- animal welfare
  - commercial law including fair trading, trade practices
  - consumer law
  - corporate law, including registration, licensing, financial reporting
  - environmental and waste management
  - equal opportunity, anti-discrimination and sexual harassment
  - export
  - Export Control Act
  - food standards and food safety including licensing and registration, processing and transporting of meat for human consumption, food safety, labelling of ingredients etc
  - hygiene and sanitation requirements
  - industrial awards, agreements
  - OH&S
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- relevant regulations and Australian Standards
  - risk management
  - state regulations regarding meat processing
  - superannuation
  - taxation
  - traineeship requirements.
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**Resources** may include:

- energy and water
  - equipment and technology
  - operating finance and capital
  - personnel.
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**Market intelligence** may be from a range of local, national and international sources including:

- enterprises, including competitors
  - government departments and agencies
  - industry associations
  - professional associations
  - technical and research journals and publications.
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**Modelling** may be manual or computerised.

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## EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for this Training Package.

Overview of assessment

The meat industry has specific and clear requirements for evidence. A minimum of three forms of evidence is required to demonstrate competency in the meat industry. This is specifically designed to provide evidence that covers the demonstration in the workplace of all aspects of competency over time.

These requirements are in addition to the requirements for valid, current, authentic and sufficient evidence.

Three forms of evidence means three different kinds of evidence – not three pieces of the same kind. In practice it will mean that most of the unit is covered twice. This increases the legitimacy of the evidence.

All assessment must be conducted against Australian meat industry standards and regulations.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Competency must be demonstrated through sustained performance over time, at an appropriate level of responsibility and authority under typical operating and production conditions for the enterprise.

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Context of and specific resources for assessment	<p>Resources may include:</p> <ul style="list-style-type: none"> <li>• a workplace environment with typical operating and production conditions.</li> <li>• access to industry research in relevant areas</li> <li>• appropriate authority and responsibility</li> <li>• enterprise business plan</li> <li>• enterprise system information.</li> </ul>
Method of assessment	<p>Recommended methods of assessment are:</p> <ul style="list-style-type: none"> <li>• a third party referee report of sustained performance at appropriate level of authority and responsibility</li> <li>• assignment focusing on understanding and application of principles and theory to workplace operations</li> <li>• workplace projects with focus on company environment and conditions.</li> </ul> <p>Assessment practices should take into account any relevant language or cultural issues related to Aboriginality, gender, or language backgrounds other than English. Language and literacy demands of the assessment task should not be higher than those of the work role.</p>
Guidance information for assessment	<p>Resource materials available from MINTRAC, telephone 1800 817 462.</p> <p>Allen, J 2006, <i>Culture Change Planner</i>, Human Resources Institute, Vermont (<a href="http://www.healthyculture.com/Articles/Ccplanner.html">www.healthyculture.com/Articles/Ccplanner.html</a>).</p> <p>Association for Project Management 2006, <i>APM Body of Knowledge</i>, 5th edn, Association for Project Management (<a href="http://www.apm.org.uk">www.apm.org.uk</a>).</p> <p>Christensen, CM &amp; Raynor, ME 2002, <i>The Innovator's Solution</i>, Harvard Business School Publishing, Massachusetts.</p> <p>Heerkens, GR 2003, <i>Project management</i>, McGraw-Hill, New York.</p> <p>Heidman, K 2003, <i>Project Management JumpStart</i>, Sybex, California.</p> <p>Kaplan, RS &amp; Norton, DP 1992, <i>The Balanced Scorecard</i>.</p> <p>Meat and Livestock Australia (<a href="http://www.mla.com.au">www.mla.com.au</a>):</p> <p>DIY kits:</p> <ul style="list-style-type: none"> <li>• Beef landing cradle including (1998) – including design kit and video</li> <li>• Bovine jaw boning clamp (1998) – including construction kit and video</li> </ul> <p>Projects:</p>

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- *International Comparisons – in the beef processing industry* (1993) PPI 066
  - *Mechanically Assisted Boning System* (1995) Project M.284
  - *Productivity Improvement Model* (1995) Project M.390
  - *Slaughter Floor Systems Simulation* (1994) Project USQ.002

Publications:

- *Benchmarking – Sheep processing* (1994) PPI 076
- *Industrial Applications for Co-Products Workshop Proceedings* (2003) PPI 273
- *Marketing Australian red meat in Australia and around the globe* (2005)
- *Marketing Red Meat in Australia* (2002)
- *MLA Industry Programs Plan 2005-06 to 2007-08*
- *Partners in Innovation – Program Information Kit*
- *Performance of the Australian Meat Processing Industry* (1994) PPI 074
- *Speaking a common language* (2003) SCM 001.
- *Supply chain management case studies* (2005)

Project Management Institute 2000, *A Guide to the Project Management Body of Knowledge (PMBOK Guide)* 2000 edn, Project Management Institute, Pennsylvania.

Wycoff, J *Ten practical steps to keep your innovation system alive and well* (<http://www.thinksmart.com>).

Heidman, K (2003) *Project Management – Jump Start*

*Project communications Management. A guide to the Project Management body of knowledge (PMBOK guide)* 2000 edition, Project Management Institute, PA

<http://www.healthyculture.com/Articles/Ccplanner.html>, Judd Allen, Ph.D with editorial assistance from Michael O'Donnell, Ph.D., William Baun, M.A and Shari

*Diploma of Meat Processing* resources including customisation plans, trainers guides, learners guides, assessment tools and evidence maps available from MINTRAC, telephone 1800 817 462.

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