Embedding a Quality Management Framework (QMF)
Organisational units across a university, from faculties to service centres and institutes to divisions, have differing functions and responsibilities. For this reason, organisational unit quality systems cannot be ‘one size fits all’ but have to be contextualised for each situation. Some differing approaches to embedding quality systems are outlined here.

1. Using OADRI
At UTAS quality management embodies continuous improvement in a cycle of planning, implementation, review and improvement. The underlying approach is the OADRI Cycle\(^1\). Most universities across Australia utilise similar cycles. The specific elements of the OADRI Cycle are outlined below.

<table>
<thead>
<tr>
<th>O: Objectives</th>
<th>Objectives are established and aligned at the organisation-wide, organisational unit and individual staff levels.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Approach</td>
<td>Approaches are developed and/or established to achieve the objectives, including action plans, strategies and processes; performance measures are selected to facilitate later assessment of whether the objectives have been met.</td>
</tr>
<tr>
<td>D: Deployment</td>
<td>The approaches to achieve the objectives are put into effect, supported by the required infrastructure, facilities and resources, as well as professional development programs to ensure staff understand the approaches and are properly prepared to carry them out.</td>
</tr>
<tr>
<td>R: Results</td>
<td>The outcomes are monitored and evaluated using the performance measures selected earlier and an assessment is made as to whether the objectives have been met appropriately.</td>
</tr>
<tr>
<td>I: Improvement</td>
<td>The loop is closed with the identification of any amendments in approach or deployment necessary to achieve the defined objectives or whether new objectives can to be set to generate a new round of improvements.</td>
</tr>
</tbody>
</table>

OADRI and similar cycles are utilised as vehicles to both embed a QMF and maintain quality management processes compliant with the principles and provisions of a QMF into the future. Each institutional unit develops its own quality processes structured around the quality cycle. The most time effective approach in most cases is to embed these processes into existing strategic or management planning documentation, thus adapting current practice rather than creating extra layers of planning and reporting.

This is both a top down and bottom up exercise, conducted usually on an annual basis:

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\(^1\) A paper by Associate Professor Alistair Broatch that gives further detail on OADRI can be viewed at: [http://www.dvc.utas.edu.au/quality/quality-tools](http://www.dvc.utas.edu.au/quality/quality-tools)
Objectives
The line manager of each organisational unit establishes the work goals or objectives, consulting with relevant staff as necessary. As relevant, the outcomes of audits conducted as well as risk registers are referenced.

Approach
In consultation with staff, the line manager agrees the action plans, strategies and processes that will be used to achieve the objectives, together with the performance measures that will be used to assess if the objectives have subsequently been met.

Deployment
The line manager ensures that the deployment of the approaches is supported by the required infrastructure, facilities and resources, as well as any required professional development programs to ensure staff understand the approaches and are properly prepared to carry them out.

Results
This refers to when and how the work outcomes are monitored and evaluated. Evaluations are to be evidence based and, as noted in the Quality Management Policy, can involve a range of methodologies, including:

- Strategic, functional or organisational unit plan review procedures.
- Course and unit review procedures (for academic organisational units).
- Organisational unit review procedures.
- Cyclical reviews of policies and procedures.
- Annual staff performance appraisals.
- Benchmarking.

Improvement
This refers to when and how the results will be used to improve processes and outcomes, thus enabling organisational units to ‘close the loop’ and begin the quality cycle again.

The organisational unit quality processes are also informed by responding to key questions framed around the principles and provisions of the QMF. At UTAS these are:

Are our objectives, processes and activities:
- Aligned with and responsive to national and state legislative and regulatory requirements.
- Aligned with University strategic objectives.
- Student and stakeholder focused.
- Based on a commitment to continuous improvement.
- Systematic and internally consistent.

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2 UTAS Audit and Risk Management processes can be viewed at: http://www.utas.edu.au/governance-legal/risk-management
3 The UTAS Quality Governance Level Principle and Policy can be viewed at http://www.dvc.utas.edu.au/quality/the-utas-quality-framework
• Applied across all activities and organisational units.
• Underpinned by sound leadership and constancy of purpose.
• Based on an ethos of subsidiarity, or devolved responsibility, with all staff expected to participate.
• Predicated on evidence-based decision making.
• Based on mutually beneficial relationships with partners.
• Aligned with UTAS environmental, social, cultural and economic goals.
• Resourced for success.
• Reliant on all staff having access to professional development in quality assurance processes.

Do our objectives, processes and activities:
• Ensure that we satisfy the needs and expectations of students and other stakeholders.
• Guarantee that we meet or exceed threshold or minimum requirements in all areas (regulatory, academic and administrative).
• Achieve our aspiration to excellence in all that we do.
• Embody our commitment to reflective practice and continuous improvement.

Addressing these questions can raise a number of issues for organisational units. For example, responding to the question – Do our objectives, processes and activities ensure that we satisfy the needs and expectations of students and other stakeholders - requires identification of the full range of those stakeholders, both internal and external, as well as the identification of what their needs and expectations are. To clarify the latter it may be necessary to canvass the stakeholders directly. This in turn could require the development of new survey tools or methodologies and this may have resourcing implications.

Subsequently evaluating the effectiveness of activities in meeting the needs and expectations of stakeholders may require the development of and/or the application of further methodologies.

Similarly, responding to the question, Do our objectives, processes and activities achieve our aspiration to excellence in all that we do, raises crucial issues with regard to what excellence may be considered in relation to any activity and how we might measure, and judge, our own levels of performance in those activities. Access to data, the analysis of that data, and the development of relevant benchmarking exercises, with regard to both academic and administrative activity, become significant to enable this question to be effectively answered.

Also specified are responsibilities, monitoring processes and timelines as well as, if relevant, KPIs and issues management and risk minimisation strategies. All staff are involved in populating the content of the quality management documentation as it relates to their area(s) of responsibility. As with all planning documentation, this is open to review and amendment in response to changing external or internal environments or new information or data.

Answering yes to the full range of the focus questions is the ideal outcome - indicating
that the local quality system is ensuring the requirements of the QMF are being met, including for evidence based decision making, continuous improvement and the attainment of excellence across the board. Answering no or I don’t know to any becomes the initial impetus for improving planning, processes, activities and outcomes. In all three scenarios it is asking the questions, answering them and responding to the outcomes that is important, whatever the initial results are. By doing so, the higher education provider has the evidence to demonstrate excellence where it occurs, has gained the information required to identify and address the areas in which it cannot yet demonstrate compliance with requirements, and is be able to ensure excellence will be achieved in areas where this is not the case.

2. Adopting ‘Off-the-shelf’ Systems
There are a range of quality systems available on the market that are being used by higher education providers. Each system offers a detailed set of processes for embedding a quality cycle. Although some of the fine detail varies, the principles involved remain similar - paralleling those in the UTAS Quality GLP and Policy, for example. The six most frequently utilised systems are included here. Each can be used by a whole organisation or by sections of it. Some organisations and organisational units, including sections of UTAS, have blended processes from a number of these systems, creating a hybrid to suit their needs.

(a) The Baldrige National Quality Program (BNQP)4
Howard Malcolm Baldrige was the United States Secretary of Commerce from 1981 to 1987. Baldridge was a proponent of quality management and was involved in drafting the Quality Improvement Act of 1987 in the USA. This legislation was developed as a direct response to the challenge to the supremacy of industry and commerce in the United States from abroad, and particularly from Japan. Following his death, Congress named the annual national award for product quality specified in the Act in his honour. This award is known as the Malcolm Baldrige National Quality Award (MBNQA) and is the only formal recognition for performance excellence of U.S. organisations given by the President of the United States.

One of the stated purposes of the Act is to establish, “…guidelines and criteria that can be used by business, industrial, governmental and other organizations in evaluating their own quality improvement efforts”. (Section 2, a, 8, C). These guidelines and criteria evolved into the BNQP. In 1999, the BNQP was specifically modified for education. The first education provider to win the MBNQA was the University of Wisconsin-Stout in 2001. Other higher education winners are the Kenneth W. Montford College of Business, 2004, and the Richmond College, 2005. The BNQP has become the most widely adopted quality strategy in higher education across the globe.

The Baldrige Education Criteria for Performance Excellence are embodied in seven categories and eighteen performance-orientated requirements:
1. Leadership

4 This information is taken from the Baldrige National Quality Program web pages:
http://www.baldrige.nist.gov/index.html
1.1 Senior Leadership: How do your senior leaders lead?
1.2 Governance and Societal responsibilities: How do you govern and fulfill your societal responsibilities?

2. Strategic Planning
   2.1 Strategy Development: How do you develop your strategy?
   2.2 Strategy Deployment: How do you deploy your strategy?

3. Customer Focus
   3.1 Customer Engagement: How do you engage students and stakeholders to serve their needs and build relationships?
   3.2 Voice of the Customer: How do you obtain and use information from your students and stakeholders?

4. Measurement, Analysis, and Knowledge Management
   4.1 Measurement, Analysis, and Improvement of Organisational Performance: How do you measure, analyze, and then improve organisational performance?
   4.2 Management Information, Knowledge, and Information Technology: How do you manage your information, organisational knowledge, and information technology?

5. Workforce Focus
   5.1 Workforce Engagement: How do you engage your workforce to achieve organisational and personal success?
   5.2 Workforce Environment: How do you build an effective and supportive workforce environment?

6. Process Management
   6.1 Work Systems: How do you design your work systems?
   6.2 Work Processes: How do you design, manage, and improve your key organisational work processes?

7. Results
   7.1 Student Learning Outcomes: What are your student learning results?
   7.2 Customer Focused Outcomes: What are your student and stakeholder-focused performance results?
   7.3 Budgetary, Financial, and Market Outcomes: What are your budgetary, financial, and market performance results?
   7.4 Workforce-Focused Outcomes: What are your workforce-focused performance results?
   7.5 Process Effectiveness Outcomes: What are your process effectiveness results?
   7.6 Leadership Outcomes: What are your leadership results?

The higher education provider completes a self-assessment against these criteria, guided and supported by detailed explanations and focus questions, an in-depth organisation profile which includes a focus on purpose, vision, mission, values and core competencies, and a SWOT analysis. Using the tools supplied, the outcomes from the self-assessment and the profile are used as a diagnostic, or assessment, of the higher education provider’s organisational performance. The assessment provides a profile of strengths and opportunities for improvement relative to the eighteen performance-orientated requirements and relative to process and performance maturity as determined by a set of guidelines.
The end product of the process is a set of actions that contribute to performance improvement in all areas. The BNQP also makes available a library of on-line resources to aid organisations carry through these actions. Once the overall quality strategy is in place, and as the organisation addresses the actions identified in the assessment, it becomes the on-going vehicle for the quality improvement cycle. Since its establishment in 1989, the BNQP quality strategy has been utilised by hundreds of thousands of organisations in the USA alone, and probably over a million worldwide.\(^5\)

*(b) The European Foundation for Quality Management (EFQM) \(^6\)*

The EFQM was founded in 1988 by leaders from fourteen European companies who believed that a new membership organisation was necessary to promote higher standards of management through shared knowledge and mutual recognition. Although initiated to support European companies, the EFQM has since broadened its mission and currently there are over 500 organisational members from all over the world, including over 80 education providers.

The EFQM Excellence Model was developed in 1991. This model is used as the basis of the European Quality award. Similar to the MBNQA, this award is presented for organisational performance excellence but is not restricted to European organisations. St. Mary’s College from Queen’s University, Belfast, Northern Ireland, won the award in 2001 and 2006, while John Moores University, Liverpool, UK, was a finalist in 2009 and Marmara University, Turkey, was a finalist in 2000.

The EFQM Excellence Model 2010 is made up of three parts.

1. Eight fundamental concepts of excellence:
   - Results Orientation.
   - Customer Focus.
   - Leadership and Constancy of Purpose.
   - Management by Processes and Facts.
   - People Development and Involvement.
   - Continuous Learning, Innovation and Improvement.
   - Partnership Development.
   - Corporate Social Responsibility.

2. The 9-box model is a conceptual framework structured around nine aspects of excellence under two categories. The ‘Enablers’ refer to what an organisation does - the strategies, policies and processes together with the people who are involved in doing them - and the ‘Results’ are the measures that show how an organisation is performing in relation to the strategies, targets and objectives that have been set.

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\(^5\) [http://www.baldrige.nist.gov/Publications.htm](http://www.baldrige.nist.gov/Publications.htm)

The EFQM 9-Box Model

Enablers

- Leadership
- People
- Strategy
- Partnerships and Resources

Results

- Procedures, Products and Services
- People Results
- Customer Results
- Society Results

Learning, Creativity and Innovation

3. The RADAR tool is used to assess and score during an organisation's assessment process. The assessment is conducted against a set of criteria.

The EFQM RADAR Criteria

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<table>
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<tbody>
<tr>
<td>1a</td>
<td>Leaders develop the mission, vision, values and ethics and act as role models</td>
</tr>
<tr>
<td>1b</td>
<td>Leaders define, monitor, review and drive the improvement of the organisation’s management system and performance</td>
</tr>
<tr>
<td>1c</td>
<td>Leaders engage with customers, partners and representatives of society</td>
</tr>
<tr>
<td>1d</td>
<td>Leaders reinforce a culture of excellence with the organisation’s people</td>
</tr>
<tr>
<td>1e</td>
<td>Leaders ensure that the organisation is flexible and manages change effectively</td>
</tr>
<tr>
<td>2a</td>
<td>Strategy is based on understanding the needs and expectations of both stakeholders and the external environment</td>
</tr>
<tr>
<td>2b</td>
<td>Strategy is based on understanding internal performance and capabilities</td>
</tr>
<tr>
<td>2c</td>
<td>Strategy and supporting policies are developed, reviewed and updated to ensure economic, societal and ecological sustainability</td>
</tr>
<tr>
<td>2d</td>
<td>Strategy and supporting policies are communicated and deployed through plans, processes and objectives</td>
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<tr>
<td>3a</td>
<td>People plans support the organisation's strategy</td>
</tr>
<tr>
<td>3b</td>
<td>People's knowledge and abilities are developed</td>
</tr>
<tr>
<td>3c</td>
<td>People are aligned, involved and empowered</td>
</tr>
<tr>
<td>3d</td>
<td>People communicate effectively throughout the organisation</td>
</tr>
<tr>
<td>3e</td>
<td>People are rewarded, recognised and cared for</td>
</tr>
<tr>
<td>4a</td>
<td>Partners and suppliers are managed for sustainable benefit</td>
</tr>
<tr>
<td>4b</td>
<td>Finances are managed to secure sustained success</td>
</tr>
<tr>
<td>4c</td>
<td>Buildings, equipment, materials and natural resources are managed in a sustainable way</td>
</tr>
<tr>
<td>4d</td>
<td>Technology is managed to support the delivery of strategy</td>
</tr>
<tr>
<td>4e</td>
<td>Information and knowledge are managed to support effective decision making and to build the organisational capability</td>
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<tr>
<td>a</td>
<td>Processes are designed, managed to optimise stakeholder value</td>
</tr>
<tr>
<td>b</td>
<td>Products and services are developed to create optimum value for customers</td>
</tr>
<tr>
<td>c</td>
<td>Products and services are effectively promoted and marketed</td>
</tr>
<tr>
<td>d</td>
<td>Products and services are produced, delivered and managed</td>
</tr>
<tr>
<td>e</td>
<td>Customer relationships are managed and enhanced</td>
</tr>
</tbody>
</table>

The self-assessment process has the ability to drill down in detail into an organisation’s activities and produce a high-level management summary. Key strengths and areas for improvement are identified with the latter being introduced into annual plans and objectives. Reviewing the self-assessment becomes an annual exercise, as part of the annual planning process.

The EFQM makes available to members over 400 articles on management practices, a comprehensive database of successful approaches as adopted by former EFQM Excellence Award Winners and Finalists and a range of tools and resources. Support and advice is provided to members by a dedicated Development Advisor.

The EFQM currently has over 500 member organisations worldwide, including 50 higher education providers. Membership is on a twelve-month subscription basis and is normally renewed annually by organisations while they are developing their Quality Systems. The membership list thus represent those organisations that are currently adopting, or are considering using, the EFQM as a quality strategy.

(c) ISO 9000

The ISO (International Organization for Standardization) is the world's largest developer and publisher of international standards with a network of the national standards institutes of 163 countries. A Central Secretariat in Geneva, Switzerland, that coordinates the system.

ISO has developed standards for organisations involved in 97 differing categories of manufacturing and service activity. ISO 9001:2008 is the standard that provides a set of standardised requirements for a quality management system.

The quality management standards are built around eight quality management principles:

- Principle 1: Customer focus.
- Principle 2: Leadership.
- Principle 3: Involvement of people.
- Principle 4: Process approach.
- Principle 5: System approach to management.
- Principle 6: Continual improvement.
- Principle 7: Factual approach to decision making.

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8 [http://www.iso.org/iso/home.html](http://www.iso.org/iso/home.html)
Principle 8: Mutually beneficial supplier relationships.

No standards have yet been developed specifically for educational activity but ISO has produced guideline IWA 2:2007 which introduces four new principles for the application of the quality management standards in education.\(^9\)

Additional Principle 1: *To create additional value for the student.* Satisfaction is measured to determine how far the needs and expectations of the students have been met. Results of measurements are used to review processes and services.

Additional Principle 2: *A focus on social values.* This principle is related to how the students and stakeholders feel about the organisation’s ethics, safety and environmental protection.

Additional Principle 3: *Organisational agility.* This is considered important to maintain growth and sustain success in the rapidly changing educational environment.

Additional Principle 4: *Organisational autonomy.* The organisation establishes its own values and processes.

An organisation uses the principles to build its quality management system, with an educational institution utilising the extra four principles as well. The effectiveness of that system can be assessed through a three-part process:

1. The standard requires the organisation itself to audit its ISO 9001:2008-based quality system to verify that it is managing its processes effectively.
2. The organisation may invite its clients to audit the quality system in order to give them confidence that the organisation is capable of delivering products or services that will meet their requirements.
3. The organisation may engage the services of an independent quality system certification body to obtain an ISO 9001:2008 certificate of conformity.

ISO accreditation was gained by some universities in the nineteen-eighties and early nineteen-nineties. ISO accreditation is now uncommon amongst higher education providers but the introduction of the education specific extra principles in the IWA 2:2007 guideline may lead to an increase.

**\(d\) The Balanced Scorecard**

The Balanced Scorecard\(^10\) is a strategic planning and management system that used in business and industry, government, and non-profit organisations worldwide. The system facilitates the development and ongoing review of an organisation’s vision and strategy, provides a method of aligning the organisation’s business activities with that strategy, improves the organisation’s internal and external communications, and allows the organisation to monitor its performance against its strategic goals.

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\(^10\) [http://www.balancedscorecardaustralia.com/home](http://www.balancedscorecardaustralia.com/home)
It is called a ‘balanced scorecard’ because a central component of the methodology is a management ‘scorecard’ that focuses on key aspects of an organisation’s performance as well as its short-term financial performance.

The Balanced Scorecard suggests that we should view organisations from four perspectives, and develop metrics and collect data and analyse it relative to each of these perspectives:

1. The Learning & Growth Perspective
   This perspective includes employee training and corporate cultural attitudes related to both individual and corporate self-improvement. Metrics can be put into place to guide managers in focusing training funds where they can help the most.

2. The Business Process Perspective
   This perspective refers to internal business processes. Metrics based on this perspective allow the managers to know how well their business is running, and whether its products and services conform to customer requirements.

3. The Customer Perspective
   It is argued that levels of customer satisfaction are leading indicators - if customers are not satisfied, they will eventually find other suppliers that will meet their needs. Poor performance from this perspective is considered a leading indicator of future decline, even though the current financial picture may look good.

4. The Financial Perspective
   It is argued that timely and accurate funding data will always be a priority, and managers will do whatever necessary to provide it. The implementation of a corporate database is recommended so that more of the processing of financial data can be centralised and automated. It is suggested that the current emphasis on financials leads to the "unbalanced" situation with regard to other perspectives and that there is a need to include additional financial-related data, such as risk assessment and cost-benefit data, in this category.

An organisation develops and deploys the Balanced Scorecard through nine steps:

1. An assessment of the organisation.
2. Confirmation or development of the organisation’s principal strategies.
3. Developing strategic objectives for the organisation.
4. Developing strategy maps for the organization.
5. Developing the organisation’s performance measures and targets.
6. Developing the organisation’s strategic initiatives.
7. Automation.
8. Cascading the BSC throughout the organization.

Descriptions of each step and how they relate to each other are supplied.
The Balanced Scorecard has been used by universities to develop all-of-institution and organisational unit quality strategies, notably in Europe and China.

**Six Sigma**
Six Sigma is built around a six key concepts\(^{11}\), with all six concepts centred on understanding customer perceptions and meeting customer needs.

The central idea behind Six Sigma is that if you can measure how many “defects” you have in a process, you can systematically work out how to eliminate them and get as close to “zero defects” as possible. In educational institutions, “defects” are usually considered to be student and other stakeholder complaints and rates of dissatisfaction.

**The Key Six Sigma Concepts**

<table>
<thead>
<tr>
<th>Critical to Quality:</th>
<th>Attributes most important to the customer.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defect:</td>
<td>Failing to deliver what the customer wants.</td>
</tr>
<tr>
<td>Process Capability:</td>
<td>What your process can deliver.</td>
</tr>
<tr>
<td>Variation:</td>
<td>What the customer sees and feels.</td>
</tr>
<tr>
<td>Stable Operations:</td>
<td>Ensuring consistent, predictable processes to improve what the customer sees and feels.</td>
</tr>
<tr>
<td>Design for Six Sigma:</td>
<td>Designing to meet customer needs and process capability.</td>
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</tbody>
</table>

Commonly, organisations that utilise the Six Sigma approach aim to develop the following\(^{12}\):

- A process of improving quality by gathering data, understanding and controlling variation, and improving predictability of an organisation’s business processes.
- A formalised Define, Measure, Analyse, Improve, Control (DMAIC) process that is the blueprint for Six Sigma improvements.
- A strong emphasis on value.
- Internal cultural change, beginning with support from administrators and ‘champions’ (or mentors within the organisation).

Six Sigma has been used by education providers mostly in the USA.

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\(^{12}\) [http://www.slideshare.net/Sixsigmacentral/lean-six-sigma-in-higher-education](http://www.slideshare.net/Sixsigmacentral/lean-six-sigma-in-higher-education)
The Australian Business Excellence Framework (ABEF) is, as the title suggests, a framework for business excellence in Australia and provides the criteria for the Australian Business Excellence Awards. The framework is administered by SAI Global.

The framework has seven key foci:
1. Leadership.
2. Customer and market focus.
4. People.
5. Information and knowledge.
6. Process management, improvement and innovation.
7. Success and sustainability.

And is built around eight business excellence principles:
1. Lead by example, provide clear direction, build organisational alignment and focus on sustainable achievement of goals.
2. Understand what markets and customers value, now and into the future, and use this to drive organisational design, strategy, products and services.
3. Continuously improve the system.
4. Develop and value people’s capability and release their skills, resourcefulness and creativity to change and improve the organisation.
5. Develop agility, adaptability and responsiveness based on a culture of continual improvement, innovation and learning.
6. Improve performance through the use of data, information and knowledge to understand variability and to improve strategic and operational decision-making.
7. Behave in an ethically, socially and environmentally responsible manner.
8. Focus on sustainable results, value and outcomes.

The framework is used by an organisation to:
- Provide the foundation with which to develop.
- Provide a structure for developing and improving different performance areas.
- Achieve organisational goals and identify the interdependencies and interrelationships between each component.
- Provide a performance benchmarking program which regularly assesses the business against the key categories of the Framework.

The following articles are available at [http://www.dvc.utas.edu.au/quality/utas-quality-management-framework](http://www.dvc.utas.edu.au/quality/utas-quality-management-framework) to give information on and explain key aspects of the development and implementation of the UTAS Quality Management Framework:

- Quality Management at UTAS
- Quality Management in Higher Education

• Quality Management in Higher Education in Australia – the Changing Landscape
• Prerequisites for the Successful Implementation of a Quality Management Framework

For further information on these articles or their contents contact the Manager, Quality Processes and Improvement: http://www.dvc.utas.edu.au/quality/manager,-quality-processes-and-improvement